Standard Development Timeline

This section is maintained by the drafting team during the development of the standard and will be removed when the standard is adopted by the NERC Board of Trustees (Board).

Description of Current Draft

This is the fourth draft of the proposed standard posted for a 15-day formal comment period with additional ballot.

Completed Actions	Date
Standards Committee approved Standard Authorization Request (SAR) for posting	July 19, 2023
SAR posted for comment	August 8–September 27, 2023
45-day formal comment period with initial ballot	March 20–May 3, 2024
38-day formal comment period with additional ballot	July 16-August 22, 2024
15-day formal comment period with additional ballot	October 7–21, 2024

Anticipated Actions	Date
15-day formal comment period with additional ballot	November 7–21, 2024
5-day final ballot	December 2–6, 2024
Board adoption	December 11, 2024

New or Modified Term(s) Used in NERC Reliability Standards

This section includes all new or modified terms used in the proposed standard that will be included in the *Glossary of Terms Used in NERC Reliability Standards* upon applicable regulatory approval. Terms used in the proposed standard that are already defined and are not being modified can be found in the *Glossary of Terms Used in NERC Reliability Standards*. The new or revised terms listed below will be presented for approval with the proposed standard. Upon Board adoption, this section will be removed.

Term(s):

Extreme Temperature Assessment – Documented evaluation of future Bulk Electric System performance for extreme heat and extreme cold benchmark temperature events.

A. Introduction

1. Title: Transmission System Planning Performance Requirements for Extreme

Temperature Events

2. Number: TPL-008-1

3. Purpose: Establish Transmission system planning performance requirements to

develop a Bulk Power System (BPS) that will operate reliably during

extreme heat and extreme cold temperature events.

- 4. Applicability:
 - 4.1. Functional Entities:
 - 4.1.1. Transmission Planner
 - 4.1.2. Planning Coordinator
- **5. Effective Date:** See Implementation Plan for Project 2023-07.

B. Requirements and Measures

- R1. Each Planning Coordinator shall identify, in conjunction with its Transmission Planner(s), each entity's individual and joint responsibilities for completing the Extreme Temperature Assessment, which shall include each of the responsibilities described in Requirements R2 through R11. Each responsible entity shall complete its responsibilities such that the Extreme Temperature Assessment is completed at least once every five calendar years. [Violation Risk Factor: Lower] [Time Horizon: Long-term Planning]
- M1. Each Planning Coordinator, in conjunction with its Transmission Planner(s), shall provide dated documentation of each entity's individual and joint responsibilities, such as meeting minutes, agreements, copies of procedures, or protocols, in effect between entities or between departments of a vertically integrated system, or email correspondence that identifies an agreement has been reached on individual and joint responsibilities for completing the Extreme Temperature Assessment, and that these responsibilities were completed such that the Extreme Temperature Assessment was completed once every five calendar years.
- R2. Each Planning Coordinator shall identify the zone(s) to which the Planning Coordinator belongs to under Attachment 1, and shall coordinate with all Planning Coordinators within each of its identified zone(s), to selectidentify one common extreme heat benchmark temperature event and one common extreme cold benchmark temperature event for each of its identified zone(s) when completing the Extreme Temperature Assessment. Selected The benchmark temperature events shall be obtained from the benchmark library maintained by the ERO or developed by the Planning Coordinators. Each benchmark temperature event shall: [Violation Risk Factor: High] [Time Horizon: Long-term Planning]
 - **2.1.** Consider no less than a 40-year period of temperature data ending no more than five years prior to the time the benchmark temperature events are selected; and
 - **2.2.** Represent one of the 20 most extreme temperature conditions based on the three-day rolling average of daily maximum (heat) or daily minimum (cold) temperature across the zone.
- M2. Each Planning Coordinator shall have evidence in either electronic or hard copy format that it identified the zone(s) to which it belongs to, under Attachment 1, and that it coordinated with all other Planning Coordinators within each of its identified zone(s) to select one common extreme heat benchmark temperature event and one common extreme cold benchmark temperature event meeting the criteria of Requirement R2 for each of their identified zone(s) when completing the Extreme Temperature Assessment.

¹-The Electric Reliability Organization (ERO) will maintain a library of benchmark temperature events that meet the criteria of Requirement R2.

- R3. Each Planning Coordinator shall coordinate with all Planning Coordinators within each of its zone(s) identified in Requirement R2, to implement a process for developing benchmark planning cases for the Extreme Temperature Assessment that represent the benchmark temperature events selected in Requirement R2 and sensitivity cases to demonstrate the impact of changes to the basic assumptions used in the benchmark planning cases. This process shall include the following: [Violation Risk Factor: Medium] [Time Horizon: Long-term Planning]
 - **3.1.** Selection of System models within the Long-Term Transmission Planning Horizon to form the basis for the benchmark planning cases.
 - **3.2.** Forecasted seasonal and temperature dependent adjustments for Load, generation, Transmission, and transfers within the zone.
 - **3.3.** Assumed seasonal and temperature dependent adjustments for Load, generation, Transmission, and transfers in areas outside the zone, as needed.
 - **3.4.** Identification of changes to at least one of the following conditions for sensitivity cases: generation, real and reactive forecasted Load, or transfers.
- **M3.** Each Planning Coordinator shall have dated evidence that it implemented a process for coordinating the development of benchmark planning cases and sensitivity cases for the Extreme Temperature Assessment as specified in Requirement R3.
- **R4.** Each responsible entity, as identified in Requirement R1, shall use the coordination process developed in Requirement R3 and data consistent with that provided in accordance with the MOD-032 standard, supplemented by other sources as needed, to develop the following and establish category P0 as the normal System condition in Table 1: [Violation Risk Factor: High] [Time Horizon: Long-term Planning]
 - **4.1.** One common extreme heat and one common extreme cold benchmark planning case.
 - **4.2.** One common extreme heat and one common extreme cold sensitivity case.
- **M4.** Each responsible entity, as identified in Requirement R1, shall have dated evidence in either electronic or hard copy format that it developed benchmark planning cases and sensitivity cases in accordance with Requirement R4.
- **R5.** Each responsible entity, as identified in Requirement R1, shall have criteria for acceptable System steady state voltage limits and post-Contingency voltage deviations for completing the Extreme Temperature Assessment. [Violation Risk Factor: Medium] [Time Horizon: Long-term Planning]
- **M5.** Each responsible entity, as identified in Requirement R1, shall provide dated evidence, such as electronic or hard copies of the documentation, specifying the criteria for acceptable System steady state voltage limits and post-Contingency voltage deviations for completing the Extreme Temperature Assessment.

- **R6.** Each responsible entity, as identified in Requirement R1, shall define and document the criteria or methodology to be used in the Extreme Temperature Assessment to identify instability, uncontrolled separation, or Cascading within an Interconnection. [Violation Risk Factor: High] [Time Horizon: Long-term Planning]
- **M6.** Each responsible entity, as identified in Requirement R1, shall provide dated evidence, such as electronic or hard copies of documentation, specifying the criteria or methodology to be used in the Extreme Temperature Assessment to identify instability, uncontrolled separation, or Cascading within an Interconnection in accordance with Requirement R6.
- R7. Each responsible entity, as identified in Requirement R1, shall identify the Contingencies for each category in Table 1 that are expected to produce more severe System impacts on its portion of the Bulk Electric System. The rationale for those Contingencies selected for evaluation shall be available as supporting information. [Violation Risk Factor: Medium] [Time Horizon: Long-term Planning]
- **M7.** Each responsible entity, as identified in Requirement R1, shall provide dated evidence, such as electronic or hard copies of documentation, of the Contingencies for each category in Table 1 that are expected to produce more severe System impacts on its portion of the Bulk Electric System along with supporting rationale.
- **R8.** Each responsible entity, as identified in Requirement R1, shall complete steady state and transient stability analyses in the Extreme Temperature Assessment using the Contingencies identified in Requirement R7, and shall document the assumptions and results. Steady state and transient stability analyses shall be performed for the following: [Violation Risk Factor: High] [Time Horizon: Long-term Planning]
 - **8.1.** Benchmark planning cases developed in accordance with Requirement R4 Part 4.1.
 - **8.2.** Sensitivity cases developed in accordance with Requirement R4 Part 4.2.
- **M8.** Each responsible entity, as identified in Requirement R1, shall provide dated evidence, such as electronic or hard copies of documentation, of the assumptions and results of the steady state and transient stability analyses completed in the Extreme Temperature Assessment.
- **R9.** Each responsible entity, as identified in Requirement R1, shall develop a Corrective Action Plan(s) when the analysis of a benchmark planning case, in accordance with Requirement R8 Part 8.1, indicates its portion of the Bulk Electric System is unable to meet performance requirements for category P0 or P1 in Table 1. For each Corrective Action Plan, the responsible entity shall: [Violation Risk Factor: High] [Time Horizon: Long-term Planning]

- 9.1. Make its Corrective Action Plan available to, and solicit feedback from, applicable regulatory authorities or governing bodies responsible for retail electric service issues.
- **9.2.9.1.** Document alternative(s) considered, and notify the applicable regulatory authorities or governing bodies responsible for retail electric service issues when Non-Consequential Load Loss is utilized as an element of a Corrective Action Plan for a Table 1 P1 Contingency.
- 9.3.9.2. Be permitted to utilize Non-Consequential Load Loss as an interim solution, which normally is not permitted for category PO in Table 1, in for situations that are beyond the control of the Planning Coordinator or Transmission Planner that prevent the implementation of a Corrective Action Plan in the required timeframe, provided that the responsible entity documents the situation causing the problem, alternatives evaluated, and takes actions to resolve the situation.
- 9.3. Make its Corrective Action Plan available to, and solicit feedback from, applicable regulatory authorities or governing bodies responsible for retail electric service issues.
- **9.4.** Be allowed permitted to have revisions to the Corrective Action Plan in subsequent Extreme Temperature Assessments, provided that the planned Bulk Electric System shall continue to meet the performance requirements of Table 1.
- M9. Each responsible entity, as identified in Requirement R1, shall provide dated evidence, such as electronic or hard copies of documentation, of each Corrective Action Plan developed in accordance with Requirement R9, including dated documentation of correspondence with applicable regulatory authorities or governing bodies responsible for retail electric service issues and any revision history, when the analysis of a benchmark planning case indicates its portion of the Bulk Electric System is unable to meet performance requirements for category P0 or P1 in Table 1. Evidence shall include documentation of correspondence with applicable regulatory authorities or governing bodies responsible for retail electric service issues and any revision history.
- **R10.** Each responsible entity, as identified in Requirement R1, shall evaluate and document possible actions designed to reduce the likelihood or mitigate the consequences and adverse impacts of the event(s) if analyses conclude there could be instability, uncontrolled separation, or Cascading within an Interconnection, for the following: [Violation Risk Factor: Lower] [Time Horizon: Long-term Planning]
 - **10.1.** Table 1 P7 Contingencies in benchmark planning cases analyzed in accordance with Requirement R8 Part 8.1.
 - **10.2.** Categories P0, P1, and P7 in Table 1 in sensitivity cases analyzed in accordance with Requirement R8 Part 8.2.
- **M10.** Each responsible entity, as identified in Requirement R1, shall provide dated evidence, such as electronic or hard copies of documentation that it evaluated and documented possible actions designed to reduce the likelihood or mitigate the consequences and

- adverse impacts when the analyses conclude there could be instability, uncontrolled separation, or Cascading within an Interconnection for Table 1 P7 Contingencies in benchmark planning cases or categories P0, P1, or P7 in Table 1 in sensitivity cases.
- **R11.** Each responsible entity, as identified in Requirement R1, shall provide its Extreme Temperature Assessment results within 60 calendar days of a request to any functional entity that has a reliability related need and submits a written request for the information. [Violation Risk Factor: Medium] [Time Horizon: Long-term Planning]
- **M11.** Each responsible entity, as identified in Requirement R1, shall provide dated evidence, such as email notices, documentation of updated web pages, <u>or</u> postal receipts showing recipient, <u>or a demonstration of a public posting</u>, that it provided its Extreme Temperature Assessment to any functional entity who has a reliability need within 60 calendar days of a written request.

C. Compliance

- 1. Compliance Monitoring Process
 - 1.1. Compliance Enforcement Authority: "Compliance Enforcement Authority" means NERC or the Regional Entity, or any entity as otherwise designated by an Applicable Governmental Authority, in their respective roles of monitoring and/or enforcing compliance with mandatory and enforceable the NERC Reliability Standards in their respective jurisdictions.
 - **1.2. Evidence Retention:** The following evidence retention period(s) identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the Compliance Enforcement Authority may ask an entity to provide other evidence to show that it was compliant for the full-time period since the last audit.

The applicable entity shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.

- Each responsible entity shall retain evidence of compliance with each requirement in this standard for five calendar years or one complete Extreme Temperature Assessment cycle, whichever is longer.
- 1.3. Compliance Monitoring and Enforcement Program: As defined in the NERC Rules of Procedure, "Compliance Monitoring Enforcement Program" or "CMEP" means, depending on the context (1) the NERC Compliance Monitoring and Enforcement Program" refers (Appendix 4C to the identification NERC Rules of Procedure) or the Commission-approved program of the processes Regional Entity, as applicable, or (2) the program, department or organization within NERC or a Regional Entity that will be used to evaluate data or information responsible for the purpose of assessing performance or outcomes performing compliance monitoring and enforcement activities with the associated respect to Registered Entities' compliance with Reliability Standard Standards.

Table 1 – Steady State & Stability Performance Events

Steady State & Stability:

- a. Instability, uncontrolled separation, or Cascading within an Interconnection, defined in accordance with Requirement R6, shall not occur.
- b. Consequential Load Loss as well as generation loss is acceptable as a consequence of any event excluding PO.
- c. Simulate the removal of all elements that Protection Systems and other controls are expected to automatically disconnect for each event.
- d. Simulate Normal Clearing unless otherwise specified.
- e. Planned System adjustments such as Transmission configuration changes and re-dispatch of generation are allowed if such adjustments are executable within the time duration applicable to the Facility Ratings.

Steady State Only:

- f. Applicable Facility Ratings shall not be exceeded.
- g. System steady state voltages and post-Contingency voltage deviations shall meet the criteria identified in Requirement R5.

Table 1 - Steady State & Stability Performance Events							
Category	Initial	Event ¹		Contingency	Interruption of Firm Transmission	Non-Consequential Load Loss Allowed	
	Condition		Type ² Type ³	BES Level	Service Allowed	Benchmark Planning Cases	Sensitivity Cases
P0 No Contingency	Normal System	None	N/A	≥ 200 kV <u>N/A</u>	Yes	No ⁶	Yes
P1 Single Contingency	Normal System	Loss of one of the following: 1. Generator 2. Transmission Circuit 3. Transformer ³ 3. Transformer ² 4. Shunt Device ⁴	3Ø	≥ 200 kV	Yes	Yes ⁶	Yes
		5. Single Pole of a DC line	SLG				
P7 Multiple Contingency (Common Structure)	The loss of: 1. Any two adjacent (vertically or horizontally) circuits on common structure ⁵		SLG	≥ 200 kV	Yes	Yes	Yes

Table 1 – Steady State & Stability Performance Events

- 1. If the event analyzed involves BES elements at multiple System voltage levels, the lowest System voltage level of the element(s) removed for the analyzed event determines the BES level of the event. For P7 events, the BES level of the event is the highest System voltage level of the element(s) removed for the analyzed event.
- 2.1_Unless specified otherwise, simulate Normal Clearing of faults. Single line to ground (SLG) or three-phase (3Ø) are the fault types that must be evaluated in Stability simulations for the event described. A 3Ø or a double line to ground fault study indicating the criteria are being met is sufficient evidence that a SLG condition would also meet the criteria.
- 3.2. For non-generator step up transformer outage events, the reference voltage, as used in footnote 1, applies to the low-side winding (excluding tertiary windings). For generator and Generator Step Up transformer outage events, the reference voltage applies to the BES connected voltage (high-side of the Generator Step Up transformer). Requirements which are applicable to transformers also apply to variable frequency transformers and phase shifting transformers.
- 3. Unless specified otherwise, simulate Normal Clearing of faults. Single line to ground (SLG) or three-phase (3Ø) are the fault types that must be evaluated in Stability simulations for the event described. A 3Ø or a double line to ground fault study indicating the criteria are being met is sufficient evidence that a SLG condition would also meet the criteria.
- 4. Requirements which are applicable to shunt devices also apply to FACTS devices that are connected to ground.
- 5. Excludes circuits that share a common structure for 1 mile or less.
- 6. Benchmark planning cases require the development of a Corrective Action Plan when the responsible entity's portion of the BES is unable to meet the performance requirements for categories PO or P1. Additionally, in benchmark planning cases, Non-Consequential Load Loss is not permitted for category PO and requires notification of applicable regulatory authorities or governing bodies responsible for retail electric service issues when utilized except where permitted as an element of interim solution in a Corrective Action Plan for P1 Contingencies. See in accordance with Requirement R9 for the relevant requirements Part 9.2.

Violation Severity Levels

Violati	Violation Severity Levels						
R #	Lower VSL	Moderate VSL	High VSL	Severe VSL			
R1.	The responsible entity completed its individual and joint responsibilities such that the Extreme Temperature Assessment was completed, but it was completed less than or equal to six months late.	The responsible entity completed its individual and joint responsibilities such that the Extreme Temperature Assessment was completed, but it was completed more than six months but less than or equal to 12 months late.	The responsible entity completed its individual and joint responsibilities such that the Extreme Temperature Assessment was completed, but it was completed more than 12 months but less than or equal to 18 months late.	The Planning Coordinator, in conjunction with its Transmission Planner(s), failed to identify individual and joint responsibilities for completing the Extreme Temperature Assessment. OR The responsible entity completed its individual and joint responsibilities such that the Extreme Temperature Assessment was completed, but it was completed more than 18 months late.			
R2.	N/A	N/A	The Planning Coordinator coordinated with all Planning Coordinators within each identified zone to selectidentify one common extreme heat and one common extreme cold benchmark temperature event for completing the Extreme Temperature Assessment, but one of the selectedidentified	The Planning Coordinator coordinated with all Planning Coordinators within each identified zone to selectidentify one common extreme heat and one common extreme cold benchmark temperature event for completing the Extreme Temperature Assessment, but both of the selectedidentified			

			events failed to meet all the criteria of Requirement R2.	events failed to meet all of the criteria of Requirement R2. OR The Planning Coordinator failed to coordinate with all Planning Coordinators within each identified zone to selectidentify one common extreme heat and one common extreme cold benchmark temperature event for completing the Extreme Temperature Assessment.
R3.	N/A	N/A	N/A	The Planning Coordinator did not coordinate with all Planning Coordinators within each of its identified zone(s) to implement a process for developing benchmark planning cases. OR The Planning Coordinator coordinated with all Planning Coordinators within each of its identified zone(s) to implement a process for developing benchmark planning cases, but the process did not include all of the required elements.

R4.	N/A	N/A	N/A	The responsible entity, as identified in Requirement R1, did not use the coordination process to develop benchmark planning cases or sensitivity cases.
				OR
				The responsible entity, as identified in Requirement R1, used the coordination process to develop benchmark planning cases and sensitivity cases, but did not use data consistent with that provided in accordance with the MOD-032 standard, supplemented by other sources as needed, for one or more of the required cases.
				OR
				The responsible entity, as identified in Requirement R1, used the coordination process and data consistent with that provided in accordance with the MOD-032 standard, supplemented as needed, but failed to develop one or more of the required planning or sensitivity cases.

R5.	N/A	N/A	N/A	The responsible entity, as identified in Requirement R1, did not have criteria for acceptable System steady state voltage limits and post-Contingency voltage deviations for completing the Extreme Temperature Assessment.
R6.	N/A	N/A	N/A	The responsible entity, as identified in Requirement R1, failed to define or document the criteria or methodology to be used in the Extreme Temperature Assessment to identify instability, uncontrolled separation, or Cascading within an Interconnection.
R7.	N/A	N/A	The responsible entity, as identified in Requirement R1, identified Contingencies for each category in Table 1 that are expected to produce more severe System impacts on its portion of the Bulk Electric System, but did not include the rationale for those Contingencies selected for evaluation as supporting information.	The responsible entity, as identified in Requirement R1, did not identify Contingencies for each category in Table 1 that are expected to produce more severe System impacts on its portion of the Bulk Electric System.

R8.	The responsible entity, as identified in Requirement R1, completed steady state and transient stability analyses in the Extreme Temperature Assessment using the Contingencies identified in Requirement R7, but failed to document the assumptions for one or more sensitivity cases in accordance with Requirement R8.	The responsible entity, as identified in Requirement R1, completed steady state and transient stability analyses in the Extreme Temperature Assessment using the Contingencies identified in Requirement R7, but failed to document the assumptions for one or more benchmark planning cases in accordance with Requirement R8.	The responsible entity, as identified in Requirement R1, completed steady state and transient stability analyses in the Extreme Temperature Assessment using the Contingencies identified in Requirement R7, but failed to evaluate and document results for one or more of the sensitivity cases in accordance with Requirement R8.	The responsible entity, as identified in Requirement R1, completed steady state and transient stability analyses in the Extreme Temperature Assessment using the Contingencies identified in Requirement R7, but failed to evaluate and document results for one or more of the benchmark planning cases in accordance with Requirement R8. OR The responsible entity, as identified in Requirement R1, failed to complete steady state or transient stability analyses and document results in the Extreme Temperature Assessment using the Contingencies identified in Requirement R7, in accordance with Requirement R8.
R9.	N/A	N/A	The responsible entity, as identified in Requirement R1, developed a Corrective Action Plan in accordance with Requirement R9, but failed to make its Corrective Action Plan available to, or solicit	The responsible entity, as identified in Requirement R1, failed to develop a Corrective Action Plan when the benchmark planning case study results indicate the System is unable to meet

			feedback from, applicable regulatory authorities or governing bodies responsible for retail electric service issues.	performance requirements for the Table 1 P0 or P1 Contingencies. OR The responsible entity, as identified in Requirement R1, developed a Corrective Action Plan, but it was missing one or more of the elements of Requirement R9 Part 9.2-1, 9.3 and 9.4 (as applicable).
R10.	N/A	N/A	The responsible entity, as identified in Requirement R1, evaluated and documented possible actions to reduce the likelihood or mitigate the consequences and adverse impacts of the event(s) when analyses conclude there could be instability, uncontrolled separation, or Cascading within an Interconnection where required under Requirement R10 Part 10.1, but failed to evaluate and document possible actions where required under Requirement R10 Part 10.2.	The responsible entity, as identified in Requirement R1, evaluated and documented possible actions to reduce the likelihood or mitigate the consequences and adverse impacts of the event(s) when analyses conclude there could be instability, uncontrolled separation, or Cascading within an Interconnection where required under Requirement R10 Part 10.2, but failed to evaluate and document possible actions where required under Requirement R10 Part 10.1. OR The responsible entity, as identified in Requirement R1, failed to evaluate and

				document possible actions to reduce the likelihood or mitigate the consequences and adverse impacts of the event(s) when analyses conclude there could be instability, uncontrolled separation, or Cascading within an Interconnection where required under Requirement R10 Parts 10.1 and 10.2.
R11.	The responsible entity, as identified in Requirement R1, provided its Extreme Temperature Assessment results to functional entities having a reliability related need who requested the information in writing, but it was more than 60 days but less than or equal to 80 days following the request.	The responsible entity, as identified in Requirement R1, provided its Extreme Temperature Assessment results to functional entities having a reliability related need who requested the information in writing, but it was more than 80 days but less than or equal to 100 days following the request.	The responsible entity, as identified in Requirement R1, provided its Extreme Temperature Assessment results to functional entities having a reliability related need who requested the information in writing, but it was more than 100 days but less than or equal to 120 days following the request.	The responsible entity, as identified in Requirement R1, provided its Extreme Temperature Assessment results to functional entities having a reliability related need who requested the information in writing, but it was more than 120 days following the request. OR
				The responsible entity, as identified in Requirement R1, did not provide its Extreme Temperature Assessment results to functional entities having a reliability related need who submitted a written request for the information.

D. Regional Variances

None.

E. Associated Documents

- Implementation Plan for Project 2023-07
- Technical Rationale Document
- Consideration of Issues and Directives for FERC Order 896.
- ERO Benchmark Event Library

Version History

Version	Date	Action	Change Tracking
1	TBD	Addressing FERC Order 896	New Standard

Attachment 1: Extreme Temperature Assessment Zones

The table below lists the zones to be used in the Extreme Temperature Assessment and identifies the Planning Coordinators that belong to each zone. In accordance with Requirement R2, each Planning Coordinator is required to identify the zone(s) to which it belongs.

Zone	Planning Coordinators
	erconnection
MISO North	MISOPlanning Coordinator(s) in MISO that serve
WISO NOTH	portions of MISO in Montana, North Dakota,
	South Dakota, Minnesota, Iowa, Wisconsin,
	Michigan, Indiana, Illinois, Missouri, and
	Kentucky
MISO South	Planning Coordinator(s) in MISO that serve
Wiso south	portions of Arkansas, Mississippi, Louisiana, and
	Texas
SPP North	SPPPlanning Coordinator(s) in portions of SPP
	that serve Iowa, Montana, Nebraska, North
	Dakota, and South Dakota.
SPP South	Planning Coordinator(s) in portions of SPP that
	serve Arkansas, Kansas, Louisiana, Missouri, New
	Mexico, Oklahoma, and Texas.
PJM	PJMPlanning Coordinator(s) that serves PJM
NPCC (New England)	Planning Coordinators Coordinator(s) in NPCC
	that primarily serve the six New England States
NPCC (New York)	Planning Coordinators Coordinator(s) in NPCC
	that primarily serve New York
SERC	Planning Coordinators Coordinator(s) in SERC,
	excluding those that primarily serve Florida and
	those in MISO, SPP, or and PJM
SERC (Florida)	Planning Coordinators Coordinator(s) in SERC that
	primarily serve Florida
Central Canada	Planning Coordinators Coordinator(s) that
	primarily serve Saskatchewan and for Manitoba
	region of MRO
<u>Ontario</u>	Planning Coordinator(s) in NPCC that serve
	<u>Ontario</u>
Eastern Canada Maritimes	Planning Coordinators Coordinator(s) in NPCC
	that primarily serve Ontario, New Brunswick, and
	Nova Scotia, Prince Edward Island, and Northern
	<u>Maine</u>
Western Int	erconnection
WECC Southwest	Planning Coordinators Coordinator(s) in the
	Southwest region of WECC, including El Paso in
	West Texas
Pacific Northwest	Planning Coordinators Coordinator(s) in the
	Pacific Northwest region of WECC

Zone	Planning Coordinators
Great Basin	Planning Coordinators Coordinator(s) in the Great
	Basin region of WECC
Rocky Mountain	Planning Coordinators Coordinator(s) in the Rocky
	Mountain region of WECC
California/Mexico	Planning Coordinators Coordinator(s) in the
	California/Mexico region of WECC
Western Canada	Planning Coordinators Coordinator(s) that
	primarily serve British Columbia and /or Alberta
	region of WECC
ERCOT Interconnection	
ERCOT	Areas Planning Coordinator(s) in Texas subject to
	ERCOTs jurisdiction.that are part of the ERCOT
	<u>Interconnection</u>
Quebec Interconnection	
Quebec	Planning Coordinators Coordinator(s) that
	primarily serve Quebec in the NPCC Region.

The map below depicts an approximation of the zones to be used in the Extreme Temperature Assessment and is provided as a visual aid; to the extent that there is a conflict between the map and the table, the table controls. This map is not to be used for compliance purposes.

