NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Implementation Plan

Project 2023-07 Transmission System Planning Performance Requirements for Extreme Weather Reliability Standard TPL-008-1

Applicable Standard

- TPL-008-1 – Transmission System Planning Performance Requirements for Extreme Temperature Events

Requested Retirement

- Not applicable

Prerequisite Standard

- Not applicable

Applicable Entities

- Planning Coordinators
- Transmission Planners

New Term in the NERC Glossary of Terms

This section includes all newly defined, revised, or retired terms used or eliminated in the NERC Reliability Standard. New or revised definitions listed below become approved when the proposed standard is approved. When the standard becomes effective, these defined terms will be removed from the individual standard and added to the Glossary.

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

Background

On June 15, 2023, the U.S. Federal Energy Regulatory Commission ("FERC") issued Order No. 896, a final rule directing NERC to develop a new or modified Reliability Standard to address the lack of a long-term planning requirement(s) for extreme heat and cold weather events.[1] Specifically, FERC directed NERC to develop modifications to Reliability Standard TPL-001-5.1 or develop a new Reliability Standard that requires the following: (1) development of benchmark planning cases based on major prior extreme heat and cold weather events and/or meteorological projections; (2) planning for extreme heat and cold weather

[1] *Transmission System Planning Requirements for Extreme* Weather, Order No. 896, 183 FERC ¶ 61,191 (2023).

events using steady state and transient stability analyses expanded to cover a range of extreme weather scenarios including the expected resource mix's availability during extreme heat and cold weather conditions, and including the wide-area impacts of extreme heat and cold weather; and (3) development of Corrective Action Plans that mitigate any instances where performance requirements for extreme heat and cold weather events are not met. FERC further directed NERC to ensure that the proposed new or modified Reliability Standard becomes mandatory and enforceable beginning no later than 12 months from the effective date of FERC approval.

General Considerations

Proposed Reliability Standard TPL-008-1 would require the performance of an Extreme Temperature Assessment at least once every five calendar years (Requirement R1). This implementation plan provides a staggered approach for the performance of the first Extreme Temperature Assessment, with phased-in compliance dates beginning 12 months from the effective date of regulatory approval consistent with Order No. 896. For subsequent Extreme Temperature Assessments, entities may establish timeframes appropriate to their facts and circumstances for carrying out their responsibilities under the standard, provided that the Extreme Temperature Assessment is completed no later than five calendar years following the previous Extreme Temperature Assessment.

Effective Date

The effective date for the proposed Reliability Standard is provided below. Where the standard drafting team identified the need for a longer implementation period for compliance with a particular section of the proposed Reliability Standard (e.g., an entire Requirement or a portion thereof), the additional time for compliance with that section is specified below. These phased-in compliance dates represent the dates that entities must begin to comply with that particular section of the Reliability Standard, even where the Reliability Standard goes into effect at an earlier date.

TPL-008-1 and Definition

Where approval by an applicable governmental authority is required, the standard and definition of Extreme Temperature Assessment shall become effective on the first day of the first calendar quarter that is twelve (12) months after the effective date of the applicable governmental authority's order approving the standard, or as otherwise provided for by the applicable governmental authority.

Where approval by an applicable governmental authority is not required, the standard shall become effective on the first day of the first calendar quarter that is twelve (12) months after the date the standard and definition of Extreme Temperature Assessment is adopted by the NERC Board of Trustees, or as otherwise provided for in that jurisdiction.

Phased-In Compliance Dates

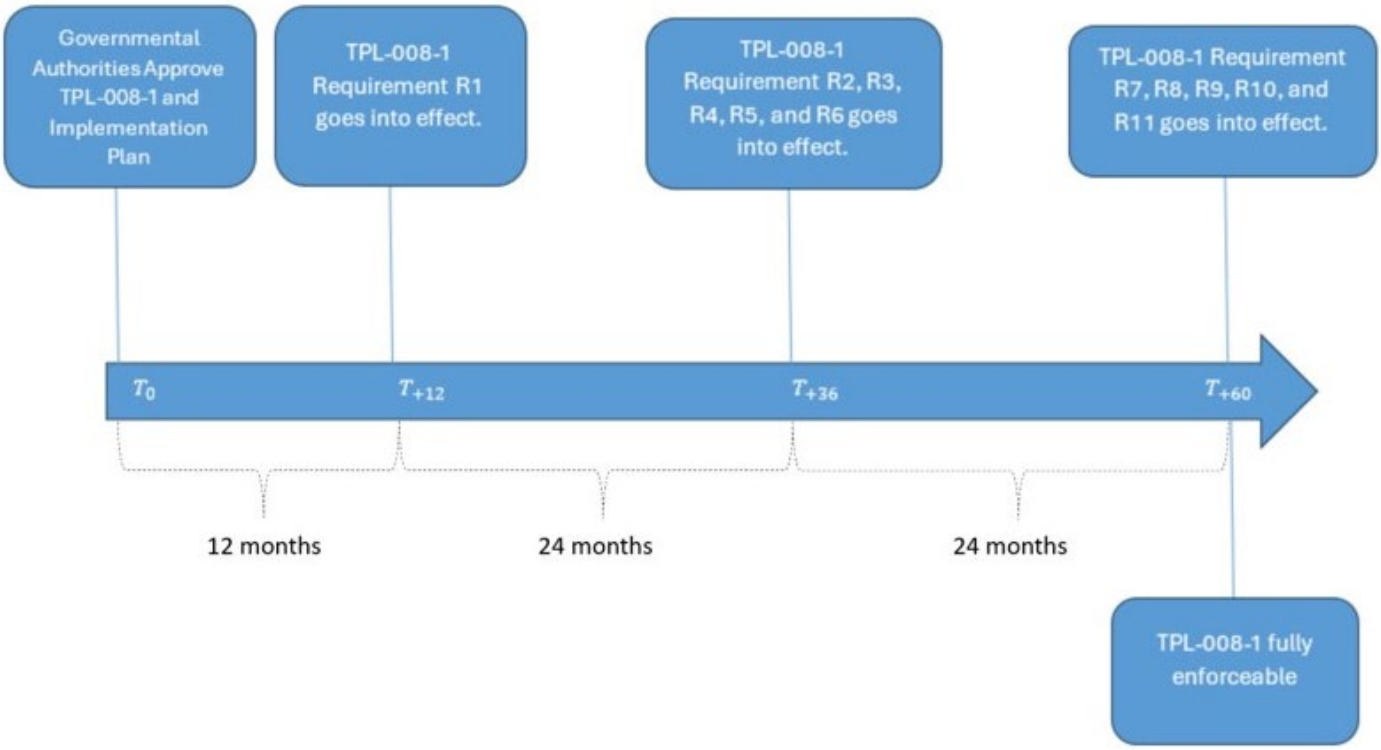
Compliance Date for TPL-008-1 Requirement R1

Entities shall be required to comply with Requirement R1, pertaining to the identification of individual and joint responsibilities for completing the Extreme Temperature Assessment, upon the effective date of Reliability Standard TPL-008-1.

Compliance Date for TPL-008-1 Requirements R2, R3, R4, R5, R6
Entities shall not be required to comply with Requirements R2, R3, R4, R5, and R6 until twenty-four (24) months after the effective date of Reliability Standard TPL-008-1.

Compliance Date for TPL-008-1 Requirements R7, R8, R9, R10, R11
Entities shall not be required to comply with Requirements R7, R8, R9, R10, and R11 until forty-eight (48) months after the effective date of Reliability Standard TPL-008-1.

Figure 1: Implementation Plan, Demonstrating Effective Date and Phased-in Compliance Dates from the effective date of the governmental authority's order approving this standard



Initial Performance of Periodic Requirements

Entities shall complete the Extreme Temperature Assessment no later than forty-eight (48) months after the effective date of Reliability Standard TPL-008-1. Subsequent Extreme Temperature Assessments shall be completed by no later than five calendar years following the completion of the previous Extreme Temperature Assessment.