

DRAFT ERO Enterprise Process for TPL-008-1 Benchmark Weather Event Development and Maintenance

Standards Development and Engineering Process Document
July 2024

Background

This Electric Reliability Organization (ERO) Enterprise Process for TPL-008-1¹ Benchmark Weather Event Development and Maintenance addresses how ERO Enterprise staff will develop and maintain a library of benchmark weather events (herein as the Weather Event Library) to be used by Planning Coordinators and Transmission Planners for TPL-008-1 studies. Per Requirement R3 of TPL-008-1 and consistent with directives outlined in FERC Order No. 896², Planning Coordinators and Transmission Planners will select and use events from the Weather Event Library to develop their benchmark planning cases.

Purpose

The purpose of this process document is to formalize a repeatable approach to develop and maintain the Weather Event Library. While both the TPL-008-1 study requirements and this process are in the initial stages of development, it is essential that industry is informed of this process and how it will be designed and implemented following the completion of NERC Project 2023-07. This process document outlines an initial set of process objectives and approach but is not considered to be complete at this time. This document will be revised as needed throughout the development of NERC Project 2023-07.

Document Maintenance

NERC will maintain this document to assure it is consistent with acceptable practices and publicly available. This document will be reviewed as it is implemented. Updates will be made by NERC Standards Development and Engineering, as needed, to reflect lessons learned as the process matures. Any substantive changes to this process, supplemental/attached criteria, or other guidance to be used by NERC in developing additional benchmark events, archiving/removing benchmark events, or other modifications to the Weather Event Library, will be reviewed in consultation with NERC Legal, NERC Compliance Assurance, Regional Entity staff, and FERC. Approved substantive revisions to this document will be detailed in the Appendix, broadly communicated to industry, and included as part of informational filings to FERC.

¹ Link pending final approval of TPL-008-1

² FERC Docket No. RM22-10-000; Order No. 896; <https://www.ferc.gov/media/e-1-rm22-10-000>; June 15, 2023

Definitions

Refer to the NERC Glossary of Terms³ for the below capitalized terms used in this process.

- Affected Regional Entity (ARE)
- Compliance Enforcement Authority (CEA)
- Coordinated Oversight
- Extreme Temperature Assessment (ETA)
- Lead Regional Entity (LRE)
- Multi-Region Registered Entity (MRRE)

Process Overview

The following is a five-year iterative process coinciding with Planning Coordinator and Transmission Planner implementation of TPL-008-1. As TPL-008-1 and associated benchmark event(s) will be submitted to FERC in December 2024, the first iteration of this process will cover five years (2025—2029).

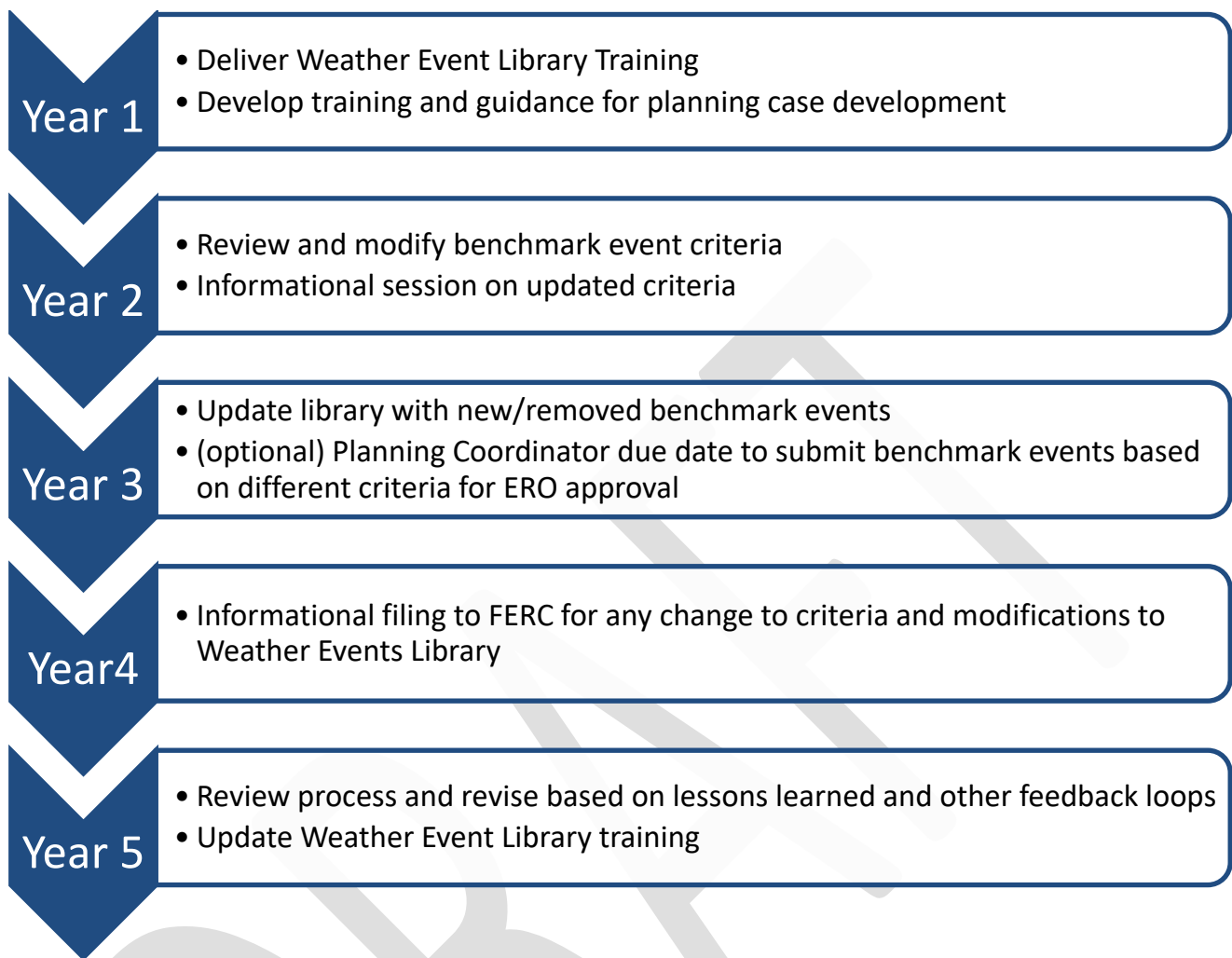
- December 2024
 - Weather Event Library developed and ready to go live for industry.
 - Benchmark Events, for the first five-years required per the TPL-008-1 Reliability Standard, completed and uploaded to the Weather Event Library.
- Year One (2025):
 - ERO to provide Weather Event Library training and how to request approval for entity-created benchmark events.
 - ERO to engage with industry subject matter experts (SMEs), Planning Coordinators, research labs, and trade organizations, and NERC technical committees on additional and updated criteria for developing benchmark events.
- Year Two (2026):
 - ERO to initiate review of benchmark event criteria, identify any changes needed, and incorporate feedback from year one.
 - ERO to deliver a webinar on updated criteria for developing benchmark events.
- Year Three (2027):
 - ERO to develop new benchmark events⁴ based on updated criteria in year two.
 - ERO to update the Weather Event Library with updated benchmark events.
 - ERO to review any PC submitted benchmark events and determine approval.

³ NERC Glossary of Terms: [Glossary of Terms.pdf \(nerc.com\)](#)

⁴ Note: This is for the second iteration of benchmark events being developed.

- If approved, will be added to the Weather Event Library.
- If not approved, a response will be submitted to the entity explaining how the submittal did not follow the process or sufficiently meet criteria as outlined in the process below.
- Year Four (2028):
 - ERO to review any PC submitted benchmark events and determine approval.
 - If approved, will be added to the Weather Event Library.
 - If not approved, a response will be submitted to the entity.
- Year Five (2029):
 - ERO to File informational filing with FERC.
 - ERO to conduct review of this process and make necessary revisions based on lessons-learned and feedback (e.g., CMEP feedback loops, FERC, SMEs)
 - ERO to provide training on benchmark event process and changes to the Weather Event Library.

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Criteria in Attachment B

Criteria for benchmark events to be drafted.

Submittal Process for Entity-Created Benchmark Events

Step 1 – Registered Entity Submittal

If a Planning Coordinator or group of Planning Coordinators determine that a benchmark event, other than one provided in the Weather Event Library, would be a more accurate representation of extreme hot or extreme cold events, then the entity will contact the ERO to submit the necessary information.

The entity shall submit the data requested in Attachment A: Benchmark Event Entity Submittal Form to a secure site that will be established by the ERO. The ERO will acknowledge receipt of the submission in writing within 15 days and review that all information requested in the Entity Submittal Template is provided in the entity's submittal. If the submittal is incomplete, the ERO will inform the entity to resubmit, and the process will restart. The ERO will notify NERC Compliance Assurance when acknowledging receipt of the submission.

The entity submitting the request may withdraw the request any time prior to the ERO communicating the final determination.

Step 2 – ERO Enterprise Review

NERC will form an ERO Enterprise Review Panel (review panel) comprised of not less than four (4) total individuals from the applicable Regional Entity(s) and NERC. The review panel will perform a review of the submitted information and develop a preliminary determination of whether the submitted information is complete and that the usage of different, or differently applied, criteria does not conflict with the technical rationale provided. This review panel will complete the review within 90 days of its acknowledgement of the receipt of submission. During its review, the review panel may work through the ERO to request additional information from the entity submitting the request.

If the review panel determines it will be unable to complete its review within the established timeframe, the review panel, based on consultation with the managers of NERC Compliance Assurance and NERC Power System Analysis, will establish a revised timeline for completing its review. The revised timeline for review and determination will be provided to the entity by the ERO.

Step 3 – ERO Determination

The review panel will present to the NERC Vice President of Engineering and Standards for approval of the preliminary determination as the ERO determination. The review panel will communicate the ERO determination and rationale to NERC Compliance Assurance and the applicable Regional Entities.

The ERO will then communicate the ERO determination in writing to the PC(s) along with the rationale for the determination within 30 days of NERC's Vice President Engineering and Standards receiving the review panel's preliminary determination.

Step 1. (15-day process)

Entity submit Attachment A: Benchmark Event Entity Submittal Form To ERO via secure site.

ERO has 15 days to acknowledge receipt of submission .

Entity may withdraw request at anytime prior to ERO communicating final determination.

Step 2. (90-day process)

ERO review panel will perform a review of the submitted information and develop a preliminary determination of whether the submitted information is complete and that the usage of different, or differently applied, criteria does not conflict with the technical rationale provided

Step 3. (30-day process)

review panel will present to the NERC Vice President of Engineering and Standards for approval of the preliminary determination as the ERO determination.

communicate the ERO determination in writing to the entity along with the rationale for the determination.

Attachment A: Benchmark Event Entity Submittal Form

Per the process above, a registered Planning Coordinator, or group of Planning Coordinators, seeking to include additional extreme temperature weather events to the NERC Weather Event Library must provide the following information to NERC. Answers to questions should be narratives with summarized technical rationales that are supported through documentation. Submittal of this form does not guarantee approval of the weather event(s) to the Weather Event Library. Per the process above, NERC will review the submittal form and provide a response either approving the event(s), rejecting the event(s), or requesting additional information to be provided.

Entity Information	
Entity name(s):	
NCR#:	
Primary entity contact name and information:	
Request submittal date:	
Other Planning Coordinators impacted by the proposed extreme temperature weather event(s)	

Benchmark Event Information	
Development Criteria: <ol style="list-style-type: none"> 1. What criteria was applied 2. What was different than posted NERC criteria, if any. 3. Technically substantive rationale/study for why the event(s) are more appropriate 	

<p>Coordination</p> <ul style="list-style-type: none">▪ If this event is submitted on behalf of more than one PC, please provide details on the coordination conducted. Otherwise, respond “N/A”.	
<p>Additional information an entity wishes to provide regarding benchmark event being submitted.</p>	

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Attachment B: Criteria used to develop the benchmark events

Criteria

Criteria for benchmark events to be drafted.

TPL-008-1 ERO Enterprise Benchmark Weather Event Development and Maintenance Process Document Version History

Version	Date	Owner	Change tracking
1	TBD	Standards Staff	Initial Version

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