Comment Report

Project Name:	2023-07 Transmission Planning Performance Requirements for Extreme Weather | Draft 1
Comment Period Start Date:	3/20/2024
Comment Period End Date:	5/3/2024
Associated Ballots:	2023-07 Transmission Planning Performance Requirements for Extreme Weather Implementation Plan IN 1 OT 2023-07 Transmission Planning Performance Requirements for Extreme Weather TPL-008-1 IN 1 ST

There were 78 sets of responses, including comments from approximately 179 different people from approximately 99 companies representing 10 of the Industry Segments as shown in the table on the following pages.

Questions

1. Do you agree with the proposed definition of Extreme Temperature Assessment? If you do not agree, please provide your recommendation and, if appropriate, technical justification.

2. Do you agree with the proposed TPL-008-1 Reliability Standard Requirement R1? If you do not agree, please provide your recommendation and, if appropriate, technical justification.

3. Do you agree with the proposed TPL-008-1 Reliability Standard Requirement R2 (Benchmark events)? If you do not agree, please provide your recommendation and, if appropriate, technical or procedural justification.

4. Do you agree with the proposed TPL-008-1 Reliability Standard Requirements R3 – R8 (benchmark planning cases and analyses)? If you do not agree, please provide your recommendation and, if appropriate, technical or procedural justification.

5. Do you agree with the proposed TPL-008-1 Reliability Standard Requirements R9 – R10 (CAPs and possible actions)? If you do not agree, please provide your recommendation and, if appropriate, technical or procedural justification.

6. Do you agree with the proposed TPL-008-1 Reliability Standard Requirement R11 (Sharing Extreme Temperature Assessment results)? If you do not agree, please provide your recommendation and, if appropriate, technical or procedural justification.

7. Do you agree with the proposed TPL-008-1 Table 1? If you do not agree, please provide your recommendation and technical justification.

8. The Standard Drafting Team (SDT) is proposing a phased-in implementation plan approach. Do you agree with the proposed phased-in timeframes? If you do not agree, please provide your recommendation and technical justification.

9. Provide any additional comments for the SDT to consider, including the provided technical rationale document, if desired.

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
BC Hydro and Power Authority	Adrian Andreoiu	1	WECC	BC Hydro	Hootan Jarollahi	BC Hydro and Power Authority	3	WECC
					Helen Hamilton Harding	BC Hydro and Power Authority	5	WECC
					Adrian Andreoiu	BC Hydro and Power Authority	1	WECC
Adrian Harris	Adrian Harris			RTO/ISO Council Standard Review Committee Project 2023-07 TPL-008	Elizabeth Davis	PJM	2	RF
					Gregory Campoli	New York Independent System Operator	2	NPCC
					Adrian Harris	MISO	2	RF
					Helen Lainis	Independent Electricity System Operator	2	NPCC
					Charles Yeung	SPP	2	MRO
Santee Cooper	Chris Wagner	1		Santee Cooper	Chris Wagner	Santee Cooper	1,3,5,6	SERC
					Weijian Cong	Santee Cooper	1,3,5,6	SERC
					Rene' Free	Santee Cooper	1,3,5,6	SERC
Southern Company - Southern Company Services, Inc.	Colby Galloway	1,3,5,6	MRO,RF,SERC,Texas RE,WECC	Southern Company	Matt Carden	Southern Company - Southern Company Services, Inc.	1	SERC
					Joel Dembowski	Southern Company - Alabama Power Company	3	SERC
					Ron Carlsen	Southern Company - Southern Company Generation	6	SERC

					Leslie Burke	Southern Company - Southern Company Generation	5	SERC
Eversource Energy	Joshua London	1		Eversource	Joshua London	Eversource Energy	1	NPCC
					Vicki O'Leary	Eversource Energy	3	NPCC
Public Utility District No. 1 of Chelan County	Joyce Gundry	3		CHPD	Rebecca Zahler	Public Utility District No. 1 of Chelan County	5	WECC
					Tamarra Hardie	Public Utility District No. 1 of Chelan County	6	WECC
					Joyce Gundry	Public Utility District No. 1 of Chelan County	3	WECC
					Diane Landry	Public Utility District No. 1 of Chelan County	1	WECC
FirstEnergy - FirstEnergy Corporation	Mark Garza	4		FE Voter	Julie Severino	FirstEnergy - FirstEnergy Corporation	1	RF
					Aaron Ghodooshim	FirstEnergy - FirstEnergy Corporation	3	RF
					Robert Loy	FirstEnergy - FirstEnergy Solutions	5	RF
					Mark Garza	FirstEnergy- FirstEnergy	1,3,4,5,6	RF
					Stacey Sheehan	FirstEnergy - FirstEnergy Corporation	6	RF
Northern California Power Agency	Michael Whitney	3		NCPA	Scott Tomashefsky	Northern California Power Agency	4	WECC
					Marty Hostler	Northern California Power Agency	5,6	WECC

					Marty Hostler	Northern California Power Agency	5,6	WECC
Black Hills Corporation	Rachel Schuldt	6		Black Hills Corporation - All Segments	Micah Runner	Black Hills Corporation	1	WECC
					Josh Combs	Black Hills Corporation	3	WECC
					Rachel Schuldt	Black Hills Corporation	6	WECC
					Carly Miller	Black Hills Corporation	5	WECC
					Sheila Suurmeier	Black Hills Corporation	5	WECC
Northeast Power Coordinating Council	Ruida Shu	1,2,3,4,5,6,7,8,9,10	NPCC	NPCC RSC	Gerry Dunbar	Northeast Power Coordinating Council	10	NPCC
					Deidre Altobell	Con Edison	1	NPCC
					Michele Tondalo	United Illuminating Co.	1	NPCC
					Stephanie Ullah-Mazzuca	Orange and Rockland	1	NPCC
					Michael Ridolfino	Central Hudson Gas & Electric Corp.	1	NPCC
					Randy Buswell	Vermont Electric Power Company	1	NPCC
					James Grant	NYISO	2	NPCC
					Dermot Smyth	Con Ed - Consolidated Edison Co. of New York	1	NPCC
					David Burke	Orange and Rockland	3	NPCC
					Peter Yost	Con Ed - Consolidated Edison Co. of New York	3	NPCC
					Salvatore Spagnolo	New York Power Authority	1	NPCC

Sean Bodkin	Dominion - Dominion Resources, Inc.	6	NPCC
David Kwan	Ontario Power Generation	4	NPCC
Silvia Mitchell	NextEra Energy - Florida Power and Light Co.	1	NPCC
Sean Cavote	PSEG	4	NPCC
Jason Chandler	Con Edison	5	NPCC
Tracy MacNicoll	Utility Services	5	NPCC
Shivaz Chopra	New York Power Authority	6	NPCC
Vijay Puran	New York State Department of Public Service	6	NPCC
David Kiguel	Independent	7	NPCC
Joel Charlebois	AESI	7	NPCC
Joshua London	Eversource Energy	1	NPCC
Emma Halilovic	Hydro One Networks, Inc.	1,2	NPCC
Emma Halilovic	Hydro One Networks, Inc.	1,2	NPCC
Chantal Mazza	Hydro Quebec	1,2	NPCC
Emma Halilovic	Hydro One Networks, Inc.	1,2	NPCC
Chantal Mazza	Hydro Quebec	1,2	NPCC
Nicolas Turcotte	Hydro-Quebec (HQ)	1	NPCC
Jeffrey Streifling	NB Power Corporation	1,4,10	NPCC
Jeffrey Streifling	NB Power Corporation	1,4,10	NPCC
Jeffrey Streifling	NB Power Corporation	1,4,10	NPCC
Joel Charlebois	AESI	7	NPCC

Dominion - Dominion Resources, Inc.	Sean Bodkin	6		Dominion	Connie Lowe	Dominion - Dominion Resources, Inc.	3	NA - Not Applicable
					Lou Oberski	Dominion - Dominion Resources, Inc.	5	NA - Not Applicable
					Larry Nash	Dominion - Dominion Virginia Power	1	NA - Not Applicable
					Rachel Snead	Dominion - Dominion Resources, Inc.	5	NA - Not Applicable
Southwest Power Pool, Inc. (RTO)	Shannon Mickens	2	MRO,SPP RE,WECC	SPP RTO	Shannon Mickens	Southwest Power Pool Inc.	2	MRO
					Mia Wilson	Southwest Power Pool Inc.	2	MRO
					Josh Phillips	Southwest Power Pool Inc.	2	MRO
					Eddie Watson	Southwest Power Pool Inc.	2	MRO
					Jim William	Southwest Power Pool Inc.	2	MRO
					Jeff McDiarmid	Southwest Power Pool Inc.	2	MRO
					Mason Favazza	Southwest Power Pool Inc.	2	MRO
					Jonathan Hayes	Southwest Power Pool Inc.	2	MRO
					Scott Jordan	Southwest Power Pool Inc.	2	MRO
					Dee Edmondson	Southwest Power Pool Inc.	2	MRO

					Sherri Maxey	Southwest Power Pool Inc.	2	MRO
					Lottie Jones	Southwest Power Pool Inc.	2	MRO
					Nathan Bean	Southwest Power Pool Inc	2	MRO
Stephen Whaite	Stephen Whaite		RF	ReliabilityFirst Ballot Body Member and Proxies	Lindsey Mannion	ReliabilityFirst	10	RF
					Stephen Whaite	ReliabilityFirst	10	RF
					Tyler Schwendiman	ReliabilityFirst	10	RF
					Greg Sorenson	ReliabilityFirst	10	RF
Western Electricity Coordinating Council	Steven Rueckert	10		WECC	Steve Rueckert	WECC	10	WECC
					Curtis Crews	WECC	10	WECC
Tim Kelley	Tim Kelley		WECC	SMUD and BANC	Nicole Looney	Sacramento Municipal Utility District	3	WECC
					Charles Norton	Sacramento Municipal Utility District	6	WECC
					Wei Shao	Sacramento Municipal Utility District	1	WECC
					Foung Mua	Sacramento Municipal Utility District	4	WECC
					Nicole Goi	Sacramento Municipal Utility District	5	WECC
					Kevin Smith	Balancing Authority of Northern California	1	WECC
Associated Electric Cooperative, Inc.	Todd Bennett	3		AECI	Michael Bax	Central Electric Power Cooperative (Missouri)	1	SERC
					Adam Weber	Central Electric Power Cooperative (Missouri)	3	SERC

Gary Dollins	M and A Electric Power Cooperative	3	SERC
William Price	M and A Electric Power Cooperative	1	SERC
Olivia Olson	Sho-Me Power Electric Cooperative	1	SERC
Mark Ramsey	N.W. Electric Power Cooperative, Inc.	1	SERC
Heath Henry	NW Electric Power Cooperative, Inc.	3	SERC
Tony Gott	KAMO Electric Cooperative	3	SERC
Micah Breedlove	KAMO Electric Cooperative	1	SERC
Brett Douglas	Northeast Missouri Electric Power Cooperative	1	SERC
Skyler Wiegmann	Northeast Missouri Electric Power Cooperative	3	SERC
Mark Riley	Associated Electric Cooperative, Inc.	1	SERC
Brian Ackermann	Associated Electric Cooperative, Inc.	6	SERC
Chuck Booth	Associated Electric Cooperative, Inc.	5	SERC
Jarrod Murdaugh	Sho-Me Power Electric Cooperative	3	SERC

1. Do you agree with the proposed definition of Extreme Temperature Assessment? If you do not agree, please provide your recommendation and, if appropriate, technical justification.

Joyce Gundry - Public Utility District No. 1 of Chelan County - 3, Group Name CHPD	
Answer	No
Document Name	
Comment	

The definition appears to be in the same line as Extreme Cold Weather Temperature (ECWT) which is assessing extreme temperatures based on historic data. Extreme Temperature Assessment sounds like it similarly assesses extreme temperature, but it is an assessment of transmission system performance during extreme temperatures. Perhaps Extreme Temperature Transmission Assessment (ETTA) would be a better title?

Another point of possible clarification is what is the expected de-minimis scope of this assessment? For example, TPL-008 requires voltage and stability criteria be documented, but it's not clear if this is required to be part of the assessment or may 'live outside' the assessment. Similar for CAPs, are CAPS required to be in the assessment, or may they "live outside" the assessment?

Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	
Response	

Robert Follini - Avista - Avista Corporation - 3	
Answer	No
Document Name	
Comment	

Extreme temperature needs to be defined.

Likes 0	
Dislikes 0	
Response	

Ben Hammer - Western Area Power Administration - 1	
Answer	No
Document Name	
Comment	

More information regarding “benchmark events” is requested prior to approving the definition.

Likes 0	
Dislikes 0	

Response

Eric Sutlief - CMS Energy - Consumers Energy Company - 3,4,5 - RF

Answer	No
Document Name	

Comment

Consumers Energy agrees with CHPD comment:

The definition appears to be in the same line as Extreme Cold Weather Temperature (ECWT) which is assessing extreme temperatures based on historic data. Extreme Temperature Assessment sounds like it similarly assesses extreme temperature, but it is an assessment of transmission system performance during extreme temperatures. Perhaps Extreme Temperature Transmission Assessment (ETTA) would be a better title?

Likes 0	
Dislikes 0	

Response

Diana Aguas - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE

Answer	No
Document Name	

Comment

CEHE has identified a few issues related to the ERO library. First, there is little clarity in the standard that details exactly what the library will contain, how it will get populated, or which forms of data will be kept. Second, there is no requirement that authorizes the upkeep and ongoing maintenance of said library. Third, using one extreme heat benchmark, and one extreme cold benchmark, as approved by the ERO, ignores local extreme temperature events, and may exclude entities who may experience micro weather events. Extreme Temperature Assessments should include regional and significant local events. It is not clear who in the ERO approves and maintains a library of benchmarked events, or how this process is done for transparency. It is difficult to support or offer suggested edits to the proposed language if the ERO has not provided the library and defined “Extreme Temperature Assessment” criteria or defined benchmark event criteria. CEHE would like clarification on the benchmark events, and further clarification on criteria to determine this responsibility. The approved library of benchmark events is currently not available to the Transmission Planners (TPs), therefore, CEHE cannot support any of the proposed requirements as written.

Likes 0	
Dislikes 0	

Response

Leslie Hamby - Southern Indiana Gas and Electric Co. - 3,5,6 - RF	
Answer	No
Document Name	
Comment	
Southern Indiana Gas & Electric Company d/b/a CenterPoint Energy Indiana South (SIGE) does not support the current definition for Extreme Temperature Assessment without a better understanding of the 'benchmark events' and 'benchmark library'. SIGE is unable to fully evaluate the definition at this time. During the recent Project 2023-07 Industry Webinar, the Drafting Team stated examples should be available by the July posting (Draft 2). After reviewing the examples, SIGE will provide more definitive feedback.	
Likes 0	
Dislikes 0	
Response	
Apollonia Gonzales - PNM Resources - 1,3 - WECC,Texas RE	
Answer	No
Document Name	
Comment	
PNMR agrees with EEI's comments in not supporting the proposed definition.	
Likes 0	
Dislikes 0	
Response	
Tim Kelley - Tim Kelley On Behalf of: Charles Norton, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Foung Mua, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Ryder Couch, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Wei Shao, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; - Tim Kelley, Group Name SMUD and BANC	
Answer	No
Document Name	
Comment	
For this initial ballot, it is difficult to fully agree with the proposed definition without knowing what "benchmark events" are.	
Likes 0	
Dislikes 0	

Response	
Alyssia Rhoads - Public Utility District No. 1 of Snohomish County - 1	
Answer	No
Document Name	
Comment	
Too general. What is included in the assessment? Steady State? Transient Stability?	
Likes 0	
Dislikes 0	
Response	
Hillary Creurer - Allete - Minnesota Power, Inc. - 1	
Answer	No
Document Name	
Comment	
Minnesota Power supports MRO's NERC Standards Review Forum's (NSRF) comments.	
Likes 0	
Dislikes 0	
Response	
Andy Fuhrman - Andy Fuhrman On Behalf of: Theresa Allard, Minnkota Power Cooperative Inc., 1; - Andy Fuhrman	
Answer	No
Document Name	
Comment	
MPC supports comments submitted by the MRO NERC Standards Review Forum (NSRF).	
Likes 0	
Dislikes 0	
Response	

Stephen Whaite - Stephen Whaite On Behalf of: Tyler Schwendiman, ReliabilityFirst , 10; - Stephen Whaite, Group Name ReliabilityFirst Ballot Body Member and Proxies	
Answer	No
Document Name	
Comment	
RF is concerned that “extreme heat and extreme cold temperature” is left undefined. RF recommends the definition include defined thresholds that can be easily measured.	
Likes 0	
Dislikes 0	
Response	
Michele Tondalo - United Illuminating Co. - 1	
Answer	No
Document Name	
Comment	
There is an inconsistency between the proposed definition of an “Extreme Temperature Assessment” and the existing definition of a “Planning Assessment”; specifically, the Planning Assessment definition includes indication of Corrective Action Plans to remedy identified deficiencies.	
Likes 0	
Dislikes 0	
Response	
Michele Shafer - New York State Electric & Gas (NYSEG) - 6	
Answer	No
Document Name	
Comment	
There is an inconsistency between the proposed definition of an “Extreme Temperature Assessment” and the existing definition of a “Planning Assessment”; specifically, the Planning Assessment definition includes indication of Corrective Action Plans to remedy identified deficiencies.	
Likes 0	
Dislikes 0	
Response	

Stephen Stafford - Stephen Stafford On Behalf of: Greg Davis, Georgia Transmission Corporation, 1; - Stephen Stafford	
Answer	No
Document Name	
Comment	
The following recommended wording addition attempts to incorporate references to the approximation that is typically part of an assessment and type of analysis the assessment is based on. “Documented evaluation or estimation of future Transmission System performance for specified contingencies and electric scenarios applicable to extreme heat and extreme cold temperature benchmark events.”	
Likes 0	
Dislikes 0	
Response	

Brittany Millard - Lincoln Electric System - 5	
Answer	No
Document Name	
Comment	
LES supports comments submitted by the MRO NERC Standards Review Forum (NSRF).	
Likes 0	
Dislikes 0	
Response	

Katrina Lyons - Georgia System Operations Corporation - 4	
Answer	No
Document Name	
Comment	
GSOC supports Georgia Transmission Corporation's comments: The following recommended wording addition attempts to incorporate references to the approximation that is typically part of an assessment and type of analysis the assessment is based on. “Documented evaluation or estimation of future Transmission System performance for specified contingencies and electric scenarios applicable to extreme heat and extreme cold temperature benchmark events.”	

Likes 0	
Dislikes 0	
Response	
Carver Powers - Utility Services, Inc. - 4	
Answer	No
Document Name	
Comment	
Do not agree that you can evaluate future performance. Suggested edit is “documentation of expected performance during future Transmission System extreme heat and extreme cold temperature benchmark events.”	
Likes 0	
Dislikes 0	
Response	
Todd Bennett - Associated Electric Cooperative, Inc. - 3, Group Name AECI	
Answer	No
Document Name	
Comment	
AECI supports comment provided by Georgia Transmission Corporation	
Likes 0	
Dislikes 0	
Response	
Keith Jonassen - Keith Jonassen On Behalf of: John Pearson, ISO New England, Inc., 2; - Keith Jonassen	
Answer	No
Document Name	
Comment	
While the definition seems appropriate, ISO-NE reserves its determination until a complete list of the “benchmark events” is made available.	
Likes 0	

Dislikes 0	
Response	
David Jendras Sr - Ameren - Ameren Services - 3	
Answer	No
Document Name	
Comment	
Ameren suggests removing the word "documented" from the definition.	
Likes 0	
Dislikes 0	
Response	
Colby Galloway - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company	
Answer	No
Document Name	
Comment	
Southern Company seeks clarification to benchmark events.	
Likes 0	
Dislikes 0	
Response	
Bob Cardle - Bob Cardle On Behalf of: Marco Rios, Pacific Gas and Electric Company, 3, 1, 5; Sandra Ellis, Pacific Gas and Electric Company, 3, 1, 5; Tyler Brun, Pacific Gas and Electric Company, 3, 1, 5; - Bob Cardle	
Answer	No
Document Name	
Comment	
Although the wording is fine, the definition is inconsistent with “extreme weather,” there is no definition of extreme weather – rather, the proposed standard alludes to benchmark events. Since such extreme weather events could vary geographically, it is recommended that the drafting team add in language ensuring that regional variances be recognized. Adding this would resolve the discrepancy in using the term “extreme weather”. Except if there is a possibility of extending TPL-008 to other weather/natural emergencies, NERC TPL-008 documents should clarify that the standard is to only address temperature extremes.	

Likes 0	
Dislikes 0	
Response	
Steven Taddeucci - NiSource - Northern Indiana Public Service Co. - 3	
Answer	No
Document Name	
Comment	
NIPSCO is unable to support the current definition without more information that provides a better understanding of “benchmark events” and “benchmark library”. NIPSCO further agrees that clarity would be brought to the current definition if it included defined and measurable thresholds for “extreme heat and extreme cold temperature”, and that adding transmission to the title would also bring clarity since it is an assessment of transmission system performance during extreme temperatures.	
Likes 0	
Dislikes 0	
Response	
Amy Wilke - American Transmission Company, LLC - 1	
Answer	No
Document Name	
Comment	
ATC generally supports the MRO NSRF comments.	
Likes 0	
Dislikes 0	
Response	
Wayne Guttormson - SaskPower - 1	
Answer	No
Document Name	
Comment	
Support the MRO NSRF comments.	

Likes 0	
Dislikes 0	

Response

Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - MRO,WECC, Group Name SPP RTO

Answer	No
Document Name	

Comment

SPP has concerns that the term “extreme” does not truly define the expectations of the assessment. For example, there could be a 100-degree day with no major events. However, there could be a week where the temperature was 90 degrees, and you have an extreme event happen during that timeframe. The initial assumption would be that the term “extreme” aligns better with the 100-dgree scenario; however, the actual event took place in the 90-degree temperature range.

Furthermore, there is a concern that a forced generator outage could be impacted by other factors besides temperature. At this point, the question would be are those other factors considered criteria that support the expectation of the term “extreme event”?

SPP recommends that the drafting team provide clarity on the expectation on the term “extreme event”. Also, we recommend the drafting team consider developing some type of checklist to help them structure criteria to define an “extreme event. “

Likes 0	
Dislikes 0	

Response

Adrian Harris - Adrian Harris On Behalf of: Bobbi Welch, Midcontinent ISO, Inc., 2; - Adrian Harris, Group Name RTO/ISO Council Standard Review Committee Project 2023-07 TPL-008

Answer	No
Document Name	

Comment

Q1. Conceptually, the proposed definition for Extreme Temperature Assessment does not presently appear to present any issues; however, the ISO/RTO Council Standards Review Committee (SRC) is unable to fully evaluate the definition without more information regarding the “benchmark events” that will be key to performing Extreme Temperature Assessments.

Our understanding is that NERC intends to post sample benchmark event(s) on or around July 9, 2024. The SRC will be able to provide more definitive feedback once this information is available.

_____

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

Planning Assessment - Documented evaluation of future Transmission System performance and Corrective Action Plans to remedy identified deficiencies.	
Likes 0	
Dislikes 0	
Response	
Catrina Martin - Archer Energy Solutions, LLC - 5	
Answer	No
Document Name	
Comment	
The current definition focuses on temperature, but in other NERC documents the focus is on “extreme weather.” Since extreme weather events could be a broader topic (e.g., hurricanes, ice storms, blizzards, wind storms, wildfires), it would be helpful for all NERC documents to be clear that we are only addressing extreme temperature with TPL-008, unless we want to expand the scope of TPL-008 to include other weather disasters. More severe weather events would typically be addressed in the planning horizon by extreme events studied under TPL-001 or in real time with emergency operating plans and restoration plans. As a result, extreme weather events are already addressed by other standards. The definition also relies on the phrase “extreme heat and extreme cold temperature benchmark events,” which are not defined. TPL-007, which is similar to TPL-008, includes Attachment 1 which defines the benchmark GMD event. We recommend that a similar Attachment that describes benchmark events or definition for Extreme Heat Benchmark Event and Extreme Cold Temperature Benchmark Event be developed. A lack of clarity on this issue will make it very difficult to get any consistency on a regional or nationwide basis. Some utilities already study 1-in-10 year load forecasts which include temperature-adjusted loads. In some ways that is a 1-in-10 year heat storm for summer peaking areas or 1-in-10 year cold snap for winter peaking areas. Of course, that is backward looking, so we might need to include some sort of adjustment for climate change going forward. All of these issues could be addressed in a benchmark event attachment for TPL-008.	
Likes 0	
Dislikes 0	
Response	
Srikanth Chennupati - Entergy - Entergy Services, Inc. - 1,3,5,6 - SERC	
Answer	Yes
Document Name	
Comment	
Entergy questions whether this definition is necessary.	
Likes 0	
Dislikes 0	

Response	
Rachel Schuldt - Black Hills Corporation - 6, Group Name Black Hills Corporation - All Segments	
Answer	Yes
Document Name	
Comment	
Black Hills Corporation agrees with EEI and supports the proposed definition for Extreme Temperature Assessment.	
Likes 0	
Dislikes 0	

Response	
Mark Garza - FirstEnergy - FirstEnergy Corporation - 4, Group Name FE Voter	
Answer	Yes
Document Name	
Comment	
FirstEnergy has no concerns with the proposed term.	
Likes 0	
Dislikes 0	

Response	
Lenise Kimes - City and County of San Francisco - 1,5 - WECC	
Answer	Yes
Document Name	
Comment	
While the definition itself is acceptable, there is some conflict with the term “extreme weather” which is in the name of the program itself. Since extreme weather could be a broader topic (e.g., hurricanes, ice storms, blizzards), it would be helpful for all NERC documents to be clear that we are only addressing extreme temperature with TPL-008, unless we want to expand the scope of TPL-008 to include other weather disasters. More severe events would typically be addressed with emergency operating plans.	
Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	

Response	
Kristine Martz - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable	
Answer	Yes
Document Name	
Comment	
EEI supports the proposed definition for Extreme Temperature Assessment.	
Likes 0	
Dislikes 0	
Response	
Andy Thomas - Duke Energy - 1,3,5,6 - SERC,RF	
Answer	Yes
Document Name	
Comment	
None.	
Likes 0	
Dislikes 0	
Response	
Rebika Yitna - Rebika Yitna On Behalf of: David Weekley, MEAG Power, 3, 1; Roger Brand, MEAG Power, 3, 1; - Rebika Yitna	
Answer	Yes
Document Name	
Comment	
Further clarity needed on the NERC developed benchmark events and library.	
Likes 0	
Dislikes 0	
Response	

Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin	
Answer	Yes
Document Name	
Comment	
ITC supports the definition of Extreme Temperature Assessment. Did the team consider an Extreme Weather Assessment rather than ETA? ITC also is looking for additional information on the benchmark events.	
Likes 0	
Dislikes 0	
Response	
Robert Jones - Seattle City Light - 1,3,4,6	
Answer	Yes
Document Name	
Comment	
The definition of Extreme Temperature Assessment is vague. Each utility's understanding of the extreme temperature can be different and guidance to define extreme temperature criteria and what to study should be provided in the standard. Perhaps, TPL-001 should cover extreme temperature assessment.	
Likes 0	
Dislikes 0	
Response	
Selene Willis - Edison International - Southern California Edison Company - 5	
Answer	Yes
Document Name	
Comment	
"See comments submitted by the Edison Electric Institute"	
Likes 0	
Dislikes 0	
Response	

Daniel Gacek - Exelon - 1	
Answer	Yes
Document Name	
Comment	
Exelon supports the proposed definition for Extreme Temperature Assessment.	
Likes 0	
Dislikes 0	
Response	
Kinte Whitehead - Exelon - 3	
Answer	Yes
Document Name	
Comment	
Exelon supports the proposed definition for Extreme Temperature Assessment.	
Likes 0	
Dislikes 0	
Response	
Dwanique Spiller - Berkshire Hathaway - NV Energy - 5	
Answer	Yes
Document Name	
Comment	
NV Energy supports the proposed definition for Extreme Temperature Assessment.	
Likes 0	
Dislikes 0	
Response	
Kevin Conway - Western Power Pool - 4	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Donna Wood - Tri-State G and T Association, Inc. - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Jeffrey Streifling - NB Power Corporation - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Thomas Foltz - AEP - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	

Response	
Jennifer Weber - Tennessee Valley Authority - 1,3,5,6 - SERC	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Jessica Cordero - Unisource - Tucson Electric Power Co. - 1 - WECC	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Lauren Giordano - Lauren Giordano On Behalf of: Dennis Sismaet, Northern California Power Agency, 4, 6, 3, 5; Marty Hostler, Northern California Power Agency, 4, 6, 3, 5; Michael Whitney, Northern California Power Agency, 4, 6, 3, 5; - Lauren Giordano	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Michael Whitney - Northern California Power Agency - 3, Group Name NCPA	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Duane Franke - Manitoba Hydro - 1,3,5,6 - MRO	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Isidoro Behar - Long Island Power Authority - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Mark Flanary - Midwest Reliability Organization - 10	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	

Response	
Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Israel Perez - Israel Perez On Behalf of: Mathew Weber, Salt River Project, 3, 1, 6, 5; Matthew Jaramilla, Salt River Project, 3, 1, 6, 5; Thomas Johnson, Salt River Project, 3, 1, 6, 5; Timothy Singh, Salt River Project, 3, 1, 6, 5; - Israel Perez	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Broc Bruton - Broc Bruton On Behalf of: Byron Booker, Oncor Electric Delivery, 1; - Broc Bruton	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Hayden Maples - Hayden Maples On Behalf of: Jeremy Harris, Evergy, 3, 5, 1, 6; Kevin Frick, Evergy, 3, 5, 1, 6; Marcus Moor, Evergy, 3, 5, 1, 6; Tiffany Lake, Evergy, 3, 5, 1, 6; - Hayden Maples	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Chris Wagner - Santee Cooper - 1, Group Name Santee Cooper	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Devin Shines - PPL - Louisville Gas and Electric Co. - 1,3,5,6 - SERC,RF	
Answer	Yes
Document Name	
Comment	
Likes 0	

Dislikes 0	
Response	
Richard Vendetti - NextEra Energy - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Chantal Mazza - Chantal Mazza On Behalf of: Nicolas Turcotte, Hydro-Quebec (HQ), 1, 5; - Chantal Mazza	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Glen Farmer - Avista - Avista Corporation - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Daniela Atanasovski - APS - Arizona Public Service Co. - 1	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Mike Magruder - Avista - Avista Corporation - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Lidija Efremova - Lidija Efremova On Behalf of: Emma Halilovic, Hydro One Networks, Inc., 1; - Lidija Efremova	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Junji Yamaguchi - Hydro-Quebec (HQ) - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	

Response	
Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC RSC	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Kennedy Meier - Electric Reliability Council of Texas, Inc. - 2	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Constantin Chitescu - Ontario Power Generation Inc. - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Kimberly Turco - Constellation - 6	
Answer	
Document Name	

Comment
Constellation has no comments Kimberly Turco on behalf of Constellation Segments 5 and 6

Likes 0	
Dislikes 0	

Response

Alison MacKellar - Constellation - 5	
Answer	
Document Name	

Comment
Constellation has no comments Alison Mackellar on behalf of Constellation Segments 5 and 6

Likes 0	
Dislikes 0	

Response

Rachel Coyne - Texas Reliability Entity, Inc. - 10	
Answer	
Document Name	

Comment
Given the range of temperatures across the United States, Texas RE recommends the following revisions to the definition of Extreme Temperature Assessment (in bold): Documented evaluation of future Transmission System performance for extreme heat and extreme cold temperature benchmark events **based on the geographical location**.

Likes 0	
Dislikes 0	

Response

2. Do you agree with the proposed TPL-008-1 Reliability Standard Requirement R1? If you do not agree, please provide your recommendation and, if appropriate, technical justification.

Steven Taddeucci - NiSource - Northern Indiana Public Service Co. - 3

Answer	No
Document Name	

Comment

NIPSCO supports the comments provided by BPA, CMS Energy, CHPD, and TVA.

Likes 0	
Dislikes 0	

Response

David Jendras Sr - Ameren - Ameren Services - 3

Answer	No
Document Name	

Comment

Ameren believes it should be clearer who is responsible for performing the Extreme Temperature Assessment. R1 should determine specific roles for both the PC and TP.

Likes 0	
Dislikes 0	

Response

Todd Bennett - Associated Electric Cooperative, Inc. - 3, Group Name AECI

Answer	No
Document Name	

Comment

AECI supports comment provided by Georgia Transmission Corporation

Likes 0	
Dislikes 0	

Response

Katrina Lyons - Georgia System Operations Corporation - 4	
Answer	No
Document Name	
Comment	
GSOC supports Georgia Transmission Corporation's comments:: The following wording suggestion adds modeling responsibilities to the requirement. “Each Planning Coordinator, in conjunction with its Transmission Planner(s), shall determine and identify each entity’s individual and joint responsibilities for maintaining models and performing the studies needed to complete the Extreme Temperature Assessment.”	
Likes 0	
Dislikes 0	
Response	
Brittany Millard - Lincoln Electric System - 5	
Answer	No
Document Name	
Comment	
LES supports comments submitted by the MRO NERC Standards Review Forum (NSRF).	
Likes 0	
Dislikes 0	
Response	
Stephen Stafford - Stephen Stafford On Behalf of: Greg Davis, Georgia Transmission Corporation, 1; - Stephen Stafford	
Answer	No
Document Name	
Comment	
The following wording suggestion adds modeling responsibilities to the requirement. “Each Planning Coordinator, in conjunction with its Transmission Planner(s), shall determine and identify each entity’s individual and joint responsibilities for maintaining models and performing the studies needed to complete the Extreme Temperature Assessment.”	
Likes 0	

Dislikes 0	

Response

Michele Shafer - New York State Electric & Gas (NYSEG) - 6	
Answer	No
Document Name	

Comment
The wording used in TPL-008-1 R1 calls out defining responsibilities for "…performing studies…" which is similar to TPL-007; but it is not clear if TPL-008 assumes that each of the subsequent Requirements that state "Each responsible entity, as identified in Requirement R1…" are considered part of study performance, developing the assessment, or a separate preparation activity. Suggest wording in R1 be changed to "…shall determine and identify each entity's individual and joint responsibilities for performing the necessary studies and development of the Extreme Temperature Assessment(s)…"

Likes 0	
Dislikes 0	

Response

Michele Tondalo - United Illuminating Co. - 1	
Answer	No
Document Name	

Comment
The wording used in TPL-008-1 R1 calls out defining responsibilities for "…performing studies…" which is similar to TPL-007; but it is not clear if TPL-008 assumes that each of the subsequent Requirements that state "Each responsible entity, as identified in Requirement R1…" are considered part of study performance, developing the assessment, or a separate preparation activity. Suggest wording in R1 be changed to "…shall determine and identify each entity's individual and joint responsibilities for performing the necessary studies and development of the Extreme Temperature Assessment(s)…"

Likes 0	
Dislikes 0	

Response

Alyssia Rhoads - Public Utility District No. 1 of Snohomish County - 1	
Answer	No
Document Name	

Comment
Need more clarity on definition of Benchmark event (Last 5 years? Last 30 years?

Likes 0	
Dislikes 0	
Response	
Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC	
Answer	No
Document Name	
Comment	
BPA recommends extreme benchmark events be evaluated for their impact in a larger region than just the TP/PC area. As such, utilities in the region need to assess the impact on the region. BPA recommends the Regional Entities perform these assessments in collaboration with the utilities in the region, this would help ensure utilities are better suited to consider mitigation actions in their system. Footprints of the benchmark events should be defined by the Regional Entity and consider the electrical boundaries. Coordination should be done with the responsible entities (adjacent PCs and TPs) within that footprint, as well as the Regional Entity.	
Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	
Response	
Diana Aguas - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE	
Answer	No
Document Name	
Comment	
Please refer to Question 1 comments.	
Likes 0	
Dislikes 0	
Response	
Eric Sutlief - CMS Energy - Consumers Energy Company - 3,4,5 - RF	
Answer	No
Document Name	
Comment	
Consumers Energy Agrees with the comments by WPP:	

R1 reads as if the Planning Coordinator is solely responsible for compliance to this Requirement. "...in conjunction with its Transmission Planners(s)...implies that the transmission planners are passive participants and are not responsible for compliance. If this was not the intent of the drafting team, then this should more clearly state that the "Planning Coordinators and associated Transmission Planner(s) shall coordinate each entity's individual and joint responsibilities..."	
Likes 0	
Dislikes 0	
Response	
Michael Whitney - Northern California Power Agency - 3, Group Name NCPA	
Answer	No
Document Name	
Comment	
NO, These assessment should be performed by the Regional Entities. There appears to be too much room for coordination issues having one Transmission Planner (TP) or Planning Coordinator (PC) having to rely on other TPs or PCs to meet their requirement deadlines.	
Likes 0	
Dislikes 0	
Response	
Lauren Giordano - Lauren Giordano On Behalf of: Dennis Sismaet, Northern California Power Agency, 4, 6, 3, 5; Marty Hostler, Northern California Power Agency, 4, 6, 3, 5; Michael Whitney, Northern California Power Agency, 4, 6, 3, 5; - Lauren Giordano	
Answer	No
Document Name	
Comment	
NO, These assessment should be performed by the Regional Entities. There appears to be too much room for coordination issues having one Transmission Planner (TP) or Planning Coordinator (PC) having to rely on other TPs or PCs to meet their requirement deadlines.	
Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	
Response	
Jessica Cordero - Unisource - Tucson Electric Power Co. - 1 - WECC	
Answer	No
Document Name	

Comment
Leads to double jeopardy since this language is included in TPL-001-5.1 and TPL-007-4. No problem if the requirement was only in a single standard.

Likes 0	
Dislikes 0	

Response

Jennifer Weber - Tennessee Valley Authority - 1,3,5,6 - SERC	
Answer	No
Document Name	

Comment
It does not seem appropriate to agree to a requirement that has yet to be fully developed. Based on the technical rationale, there is an expectation that the ERO will determine suitability and make available benchmark events representative of probable futures. Once the initial library of events have been developed, we would be in a better position to consider support for this requirement.

Likes 0	
Dislikes 0	

Response

Joyce Gundry - Public Utility District No. 1 of Chelan County - 3, Group Name CHPD	
Answer	No
Document Name	

Comment
The term ‘the studies’ is somewhat vague. The studies themselves are expected to be steady state and stability (FERC Order 896 uses ‘transient stability’, as the preferred descriptor to clarify from other types of stability), but the compliance reader does not discover this until R8. The effort may also include the building of cases (R3) based on the R2 benchmark events, but these are not themselves study activities, but rather case-build activities. R1 likely should address performing the study (R8) and case build activities (R2, R3). In conclusion, the term ‘the studies’ is vague, and it turns out possibly misleading. Assigned duties are much greater in scope. An alternate approach could be “Each Planning Coordinator, in conjunction with its Transmission Planner(s), shall determine and identify each entity’s individual and joint responsibilities for performing the steady state and stability studies and activities needed to complete the Extreme Temperature Assessment”. The existing language at the end of the R1, “needed to complete the Extreme Temperature Assessment” finishes the thought adequately (although as noted in the comment #1, the scope of ETA should be clarified).

Likes 1	Lakeland Electric, 1, Watt Larry

Dislikes 0	

Response

Kevin Conway - Western Power Pool - 4	
Answer	No
Document Name	

Comment
R1 reads as if the Planning Coordinator is solely responsible for compliance to this Requirement. "...in conjunction with its Transmission Planners(s)...implies that the transmission planners are passive participants and are not responsible for compliance. If this was not the intent of the drafting team, then this should more clearly state that the "Planning Coordinators and associated Transmission Planner(s) shall coordinate each entity's individual and joint responsibilities..." Alternatively, the Planning Coordinator can simply assign the responsibilities, and a new requirement for Transmission Planners would require them to perform studies as specified by the Planning Coordinator.

Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	

Response

Apollonia Gonzales - PNM Resources - 1,3 - WECC,Texas RE	
Answer	No
Document Name	

Comment

Likes 0	
Dislikes 0	

Response

Catrina Martin - Archer Energy Solutions, LLC - 5	
Answer	Yes
Document Name	

Comment
While the wording on R1 is consistent with TPL-001, there are some concerns about negotiating the workload impacts of additional studies between the PC and TP entities. As additional responsibilities are added for PC and TP entities, this negotiation becomes increasingly difficult. The level of detail

and periodicity of TPL-008 studies will further increase the workload on already overstressed entities. The human resources requirements for TPL-008 should be considered when setting the requirements.	
Likes 0	
Dislikes 0	
Response	
Adrian Harris - Adrian Harris On Behalf of: Bobbi Welch, Midcontinent ISO, Inc., 2; - Adrian Harris, Group Name RTO/ISO Council Standard Review Committee Project 2023-07 TPL-008	
Answer	Yes
Document Name	
Comment	
The SRC supports modeling proposed TPL-008, requirement R1 after TPL-001-5.1, requirement R7 and TPL-007, requirement R1.	
Likes 0	
Dislikes 0	
Response	
Dwanique Spiller - Berkshire Hathaway - NV Energy - 5	
Answer	Yes
Document Name	
Comment	
NV Energy does not have any objections to the proposed language for Requirement R1.	
Likes 0	
Dislikes 0	
Response	
Wayne Guttormson - SaskPower - 1	
Answer	Yes
Document Name	
Comment	
Support the MRO NSRF comments.	

Likes 0	
Dislikes 0	
Response	
Kinte Whitehead - Exelon - 3	
Answer	Yes
Document Name	
Comment	
Exelon does not have any objections to the proposed language for Requirement R1.	
Likes 0	
Dislikes 0	
Response	
Daniel Gacek - Exelon - 1	
Answer	Yes
Document Name	
Comment	
Exelon does not have any objections to the proposed language for Requirement R1.	
Likes 0	
Dislikes 0	
Response	
Selene Willis - Edison International - Southern California Edison Company - 5	
Answer	Yes
Document Name	
Comment	
“See comments submitted by the Edison Electric Institute”	
Likes 0	
Dislikes 0	

Response	
Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin	
Answer	Yes
Document Name	
Comment	
ITC supports modeling proposed TPL-008, requirement R1 after TPL-001-5.1, requirement R7 and TPL-007, requirement R1.	
Likes 0	
Dislikes 0	
Response	
Bob Cardle - Bob Cardle On Behalf of: Marco Rios, Pacific Gas and Electric Company, 3, 1, 5; Sandra Ellis, Pacific Gas and Electric Company, 3, 1, 5; Tyler Brun, Pacific Gas and Electric Company, 3, 1, 5; - Bob Cardle	
Answer	Yes
Document Name	
Comment	
The proposed TPL-008-1 Reliability Standard Requirement R1 seems to be an extension of TPL-001-5, however, it will require for each responsible entities to ramp up the workforce to conduct these studies, analyze the events and develop CAPs. Hence, human resources need is a crucial element to consider while creating requirements for TPL-008.	
Likes 0	
Dislikes 0	
Response	
Keith Jonassen - Keith Jonassen On Behalf of: John Pearson, ISO New England, Inc., 2; - Keith Jonassen	
Answer	Yes
Document Name	
Comment	
No Additional Comments	
Likes 0	
Dislikes 0	

Response	
Andy Thomas - Duke Energy - 1,3,5,6 - SERC,RF	
Answer	Yes
Document Name	
Comment	
None.	
Likes 0	
Dislikes 0	
Response	
Kristine Martz - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable	
Answer	Yes
Document Name	
Comment	
EEI does not have any objections to the proposed language for Requirement R1.	
Likes 0	
Dislikes 0	
Response	
Andy Fuhrman - Andy Fuhrman On Behalf of: Theresa Allard, Minnkota Power Cooperative Inc., 1; - Andy Fuhrman	
Answer	Yes
Document Name	
Comment	
MPC supports comments submitted by the MRO NERC Standards Review Forum (NSRF).	
Likes 0	
Dislikes 0	
Response	

Lenise Kimes - City and County of San Francisco - 1,5 - WECC	
Answer	Yes
Document Name	
Comment	
While the wording on R1 is consistent with TPL-001, there are some concerns about negotiating the workload impacts of additional studies between the PC and TP entities. As additional responsibilities are added for PC and TP entities, this negotiation becomes increasingly difficult. The level of detail and periodicity of TPL-008 studies will further increase the workload on already overstressed entities. The human resources requirements for TPL-008 should be considered when setting the requirements.	
Likes 0	
Dislikes 0	
Response	

Mark Garza - FirstEnergy - FirstEnergy Corporation - 4, Group Name FE Voter	
Answer	Yes
Document Name	
Comment	
No additional comment.	
Likes 0	
Dislikes 0	
Response	

Rachel Schuldt - Black Hills Corporation - 6, Group Name Black Hills Corporation - All Segments	
Answer	Yes
Document Name	
Comment	
Black Hills Corporation agrees with EEI and does not have any objections to the proposed language for Requirement R1.	
Likes 0	
Dislikes 0	
Response	

Constantin Chitescu - Ontario Power Generation Inc. - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Kennedy Meier - Electric Reliability Council of Texas, Inc. - 2	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - MRO,WECC, Group Name SPP RTO	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC RSC	
Answer	Yes
Document Name	
Comment	

Likes 0	
Dislikes 0	
Response	
Amy Wilke - American Transmission Company, LLC - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Robert Jones - Seattle City Light - 1,3,4,6	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Rebika Yitna - Rebika Yitna On Behalf of: David Weekley, MEAG Power, 3, 1; Roger Brand, MEAG Power, 3, 1; - Rebika Yitna	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Colby Galloway - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company	

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Junji Yamaguchi - Hydro-Quebec (HQ) - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Lidija Efremova - Lidija Efremova On Behalf of: Emma Halilovic, Hydro One Networks, Inc., 1; - Lidija Efremova	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Mike Magruder - Avista - Avista Corporation - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	

Dislikes 0	
Response	
Carver Powers - Utility Services, Inc. - 4	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Daniela Atanasovski - APS - Arizona Public Service Co. - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Glen Farmer - Avista - Avista Corporation - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Chantal Mazza - Chantal Mazza On Behalf of: Nicolas Turcotte, Hydro-Quebec (HQ), 1, 5; - Chantal Mazza	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Richard Vendetti - NextEra Energy - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Devin Shines - PPL - Louisville Gas and Electric Co. - 1,3,5,6 - SERC,RF	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Chris Wagner - Santee Cooper - 1, Group Name Santee Cooper	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	

Response	
Hayden Maples - Hayden Maples On Behalf of: Jeremy Harris, Evergy, 3, 5, 1, 6; Kevin Frick, Evergy, 3, 5, 1, 6; Marcus Moor, Evergy, 3, 5, 1, 6; Tiffany Lake, Evergy, 3, 5, 1, 6; - Hayden Maples	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Stephen Whaite - Stephen Whaite On Behalf of: Tyler Schwendiman, ReliabilityFirst , 10; - Stephen Whaite, Group Name ReliabilityFirst Ballot Body Member and Proxies	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Joshua London - Eversource Energy - 1, Group Name Eversource	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Broc Bruton - Broc Bruton On Behalf of: Byron Booker, Oncor Electric Delivery, 1; - Broc Bruton	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Hillary Creurer - Allete - Minnesota Power, Inc. - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Israel Perez - Israel Perez On Behalf of: Mathew Weber, Salt River Project, 3, 1, 6, 5; Matthew Jaramilla, Salt River Project, 3, 1, 6, 5; Thomas Johnson, Salt River Project, 3, 1, 6, 5; Timothy Singh, Salt River Project, 3, 1, 6, 5; - Israel Perez	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC	
Answer	Yes
Document Name	
Comment	
Likes 0	

Dislikes 0	
Response	
Tim Kelley - Tim Kelley On Behalf of: Charles Norton, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Foung Mua, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Ryder Couch, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Wei Shao, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; - Tim Kelley, Group Name SMUD and BANC	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Leslie Hamby - Southern Indiana Gas and Electric Co. - 3,5,6 - RF	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Mark Flanary - Midwest Reliability Organization - 10	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Isidoro Behar - Long Island Power Authority - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Ben Hammer - Western Area Power Administration - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Robert Follini - Avista - Avista Corporation - 3	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Duane Franke - Manitoba Hydro - 1,3,5,6 - MRO	
Answer	Yes
Document Name	
Comment	

Likes 0	
Dislikes 0	
Response	
Thomas Foltz - AEP - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Jeffrey Streifling - NB Power Corporation - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Donna Wood - Tri-State G and T Association, Inc. - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Srikanth Chennupati - Entergy - Entergy Services, Inc. - 1,3,5,6 - SERC	

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Rachel Coyne - Texas Reliability Entity, Inc. - 10	
Answer	
Document Name	
Comment	
Texas RE recommends the PC and TP have a formal agreement defining each individual and joint responsibilities for their respective areas. Texas RE suggests the following additional language (in bold): R1. Each Planning Coordinator, in conjunction with its Transmission Planner(s), shall determine and identify each entity's individual and joint responsibilities for performing the studies needed to complete the Extreme Temperature Assessment **within its respective area**. Regarding Measure M1, Texas RE posits that while meeting minutes may help support compliance for Requirement R1, meeting minutes alone would not constitute proper evidence of compliance with Requirement R1. Texas RE recommends removing meeting minutes from Measure M1.	
Likes 0	
Dislikes 0	
Response	
Alison MacKellar - Constellation - 5	
Answer	
Document Name	
Comment	
Constellation has no comments Alison Mackellar on behalf of Constellation Segments 5 and 6	
Likes 0	

Dislikes 0	
Response	
Kimberly Turco - Constellation - 6	
Answer	
Document Name	
Comment	
Constellation has no comments Kimberly Turco on behalf of Constellation Segments 5 and 6	
Likes 0	
Dislikes 0	
Response	

3. Do you agree with the proposed TPL-008-1 Reliability Standard Requirement R2 (Benchmark events)? If you do not agree, please provide your recommendation and, if appropriate, technical or procedural justification.

Kevin Conway - Western Power Pool - 4	
Answer	No
Document Name	

Comment

As R1 currently reads, only the Planning Coordinator is responsible for compliance.

Assuming that the Drafting Team would like to hold the Transmission Planner(s) accountable, this should be specifically called out.

The ERO library creates consternation for utilities. There is little clarity in the standard that details exactly what the library will contain, how it will get populated, or which forms of data will be kept. There is no requirement that authorizes the upkeep and ongoing maintenance of said library.

Using one extreme heat benchmark, and one extreme cold benchmark, as approved by the ERO, ignores local extreme temperature events and may exclude entities who are geographic regions who may experience micro weather climates. Extreme Temperature Assessments should include regional and significant local events. It is not clear who in the ERO approves and maintains a library of benchmarked events, or how this process is done for transparency.

Likes 0	
Dislikes 0	

Response

Srikanth Chennupati - Entergy - Entergy Services, Inc. - 1,3,5,6 - SERC	
Answer	No
Document Name	

Comment

Entergy believes R2 seems to bypass the idea that standards requirements go through the usual process of development and approval. It lets NERC arbitrarily change the benchmark events library. With the scale of the work required in this standard, it seems similar to having TPL-001-5 Table 1 be a document on NERC's website that they can change at will. I would far prefer to see the standard require that the event library be developed/maintained by (at least) the PCs and regions in collaboration with NERC rather than have it something entirely under NERC's control.

Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	

Response

Donna Wood - Tri-State G and T Association, Inc. - 1	
Answer	No

Document Name	
Comment	
It is not clear what data the ERO will be using and who will be approving/maintaining the library. Is there a process in place for how this will be accomplished?	
Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	
Response	
Jeffrey Streifling - NB Power Corporation - 1	
Answer	No
Document Name	
Comment	
Should there be any requirements for developing and maintaining benchmark libraries (in co-operation with EROs), or if that is mandated through another means?	
Likes 0	
Dislikes 0	
Response	
Joyce Gundry - Public Utility District No. 1 of Chelan County - 3, Group Name CHPD	
Answer	No
Document Name	
Comment	
There is a possible gap as it doesn't appear the ERO is required to maintain a benchmark library, or requirements to determine what this process should look like. We do not see a mechanism to compel the ERO to sufficiently develop and maintain this benchmark library in an ongoing manner. This may be a better activity suited for regional entities (RE) with input from Reliability Coordinators (RCs), and regional stakeholders to ensure useful and meaningful scenarios at a more local level. An alternate approach could be to allow the PC to either select an ERO event or select one of their own choosing, with a provided technical rationale. Our concern is the ERO process is very high level, and to get the required level of attention for appropriate events will likely not produce meaningful events for each region.	
Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	
Response	

Thomas Foltz - AEP - 5	
Answer	No
Document Name	
Comment	
While AEP agrees with the substance of R2, we would like to recommend that the phrase “or more” be added to the requirement so that it instead states “shall select one *or more* extreme heat benchmark event(s) and one *or more* extreme cold benchmark event(s).” Regarding the phrase “each responsible entity”, our understanding is that only one entity will be responsible for selecting the benchmark. The SDT may wish to consider instead using the phrase “the responsible entity established in R1.”	
Likes 0	
Dislikes 0	
Response	

Jennifer Weber - Tennessee Valley Authority - 1,3,5,6 - SERC	
Answer	No
Document Name	
Comment	
While we might agree with the overall intent to develop a process to coordinate development of a benchmark planning case, implementation is not clear how individual entities (i.e., “smaller individual planning areas” per the Technical Rationale document) will be able to and responsible for coordinating scenarios with other impacted parties, such as those outside planning boundaries and when including items such as interchange / transfers. Additionally, it is not clear what the expectation might be for, and therefore the capability of, modifying cases to include temperature adjustments (if excessively extreme).	
Likes 0	
Dislikes 0	
Response	

Lauren Giordano - Lauren Giordano On Behalf of: Dennis Sismaet, Northern California Power Agency, 4, 6, 3, 5; Marty Hostler, Northern California Power Agency, 4, 6, 3, 5; Michael Whitney, Northern California Power Agency, 4, 6, 3, 5; - Lauren Giordano	
Answer	No
Document Name	
Comment	
NO, These assessment should be performed by the Regional Entities. There appears to be too much room for coordination issues having one Transmission Planner (TP) or Planning Coordinator (PC) having to rely on other TPs or PCs to meet their requirement deadlines.	

Likes 0	
Dislikes 0	
Response	
Michael Whitney - Northern California Power Agency - 3, Group Name NCPA	
Answer	No
Document Name	
Comment	
NO, These assessment should be performed by the Regional Entities. There appears to be too much room for coordination issues having one Transmission Planner (TP) or Planning Coordinator (PC) having to rely on other TPs or PCs to meet their requirement deadlines.	
Likes 0	
Dislikes 0	
Response	
Rachel Schuldt - Black Hills Corporation - 6, Group Name Black Hills Corporation - All Segments	
Answer	No
Document Name	
Comment	
Black Hills Corporation agrees with EEI's proposed changes for Requirement R2; requiring the extreme weather events as an attachment to the standard gives entities visibility into a key part of the new standard and allows for industry review and input. EEI is concerned that proposed Reliability Standard, TPL-008-1, is being moved forward for industry approval without any insights into a key element of this Reliability Standard which is the extreme temperature benchmark event library. EEI additionally does not support making this library a separate document outside of this Reliability Standard. It should be included in the Reliability Standard for industry review or input. This library should be an attachment within this Reliability Standard, and we offer the following proposed changes to Requirement R2 to address this concern in boldface below: **R2.** Each responsible entity, as identified in Requirement R1, shall select one extreme heat benchmark event and one extreme cold benchmark event, from the **Attachment X (*remove:* approved ERO)** (Extreme Temperature Benchmark Library) for performing the Extreme Temperature Assessment. *[Violation Risk Factor: High] [Time Horizon: Long-term Planning]*	
Likes 0	
Dislikes 0	
Response	

Duane Franke - Manitoba Hydro - 1,3,5,6 - MRO	
Answer	No
Document Name	
Comment	
Even though Manitoba Hydro supports R2, we are withholding formal support until we can see and evaluate some examples of what the ERO intends to include as benchmark events in the library.	
Likes 0	
Dislikes 0	
Response	
Robert Follini - Avista - Avista Corporation - 3	
Answer	No
Document Name	
Comment	
Define extreme temperature probability rather than using a historical benchmark.	
Likes 0	
Dislikes 0	
Response	
Mark Garza - FirstEnergy - FirstEnergy Corporation - 4, Group Name FE Voter	
Answer	No
Document Name	
Comment	
With lack of intent of what will encompass the benchmark library, FirstEnergy cannot support R2. For R2, FirstEnergy asks the Drafting Team to determine if the TP would replace “Each responsible entity” for the TB to have sole responsibility for selecting the benchmark events.	
Likes 0	
Dislikes 0	
Response	

Ben Hammer - Western Area Power Administration - 1	
Answer	No
Document Name	
Comment	
More information on what the ERO intends to include as “benchmark events” is requested prior to approving R2.	
Likes 0	
Dislikes 0	
Response	
Mark Flanary - Midwest Reliability Organization - 10	
Answer	No
Document Name	
Comment	
The draft TPL-008-1 R2 implies an expectation that the ERO will maintain a library of extreme heat and extreme cold events from which responsible entities will select events. MRO is concerned about potential conflicts if the responsible entities are dependent on ERO in order to be compliant. Consider modifying R2 by providing an alternative means for entities to comply in a way that is not dependent on the ERO’s maintenance of a library of events.	
Likes 0	
Dislikes 0	
Response	
Eric Sutlief - CMS Energy - Consumers Energy Company - 3,4,5 - RF	
Answer	No
Document Name	
Comment	
Consumers Energy agrees with the comments by WPP: The ERO library creates consternation for utilities. There is little clarity in the standard that details exactly what the library will contain, how it will get populated, or which forms of data will be kept. There is no requirement that authorizes the upkeep and ongoing maintenance of said library. Using one extreme heat benchmark, and one extreme cold benchmark, as approved by the ERO, ignores local extreme temperature events and may exclude entities who are geographic regions who may experience micro weather climates. Extreme Temperature Assessments should include regional	

and significant local events. It is not clear who in the ERO approves and maintains a library of benchmarked events, or how this process is done for transparency	
Likes 0	
Dislikes 0	
Response	
Adrian Andreoiu - BC Hydro and Power Authority - 1, Group Name BC Hydro	
Answer	No
Document Name	
Comment	
BC Hydro appreciates the drafting team efforts and the opportunity to comment. Requirement R2 indicates that the ERO maintains the “benchmark library” and that this library will need to be approved. The TPL-008-1 Technical Rationale clarifies that the drafting team is not in a position to provide a statistical basis or determine appropriateness of any specific event and assigns this responsibility to the ERO. BC Hydro suggests that it would be appropriate that the ERO develop a process to assess events suitability, which should include criteria for benchmark event selection. It is also suggested that industry input in the maintenance of the benchmark event library will be beneficial and recommend that the ERO process accommodate this. It also seems unclear which information the ERO intends to include for the benchmark events in the library in order to assess the usability in developing adequate study basecases. Geographical area information should be included and additional Standard provisions for regional variances that allow flexibility based on regional weather conditions.	
Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	
Response	
Diana Aguas - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE	
Answer	No
Document Name	
Comment	
Please refer to Question 1 comments.	
Likes 0	
Dislikes 0	
Response	

Leslie Hamby - Southern Indiana Gas and Electric Co. - 3,5,6 - RF	
Answer	No
Document Name	
Comment	

Southern Indiana Gas & Electric Company d/b/a CenterPoint Energy Indiana South (SIGE) is unable to fully evaluate Requirement R2 without additional information about the benchmark event library.

SIGE supports CenterPoint Energy Houston Electric, LLC (CEHE) comment that there is little clarity in the standard that details exactly what the library will contain, how it will get populated, or which forms of data will be kept. There is no requirement that authorizes the upkeep and ongoing maintenance of said library. Additionally, it is not clear who in the ERO approves and maintains a library of benchmarked events, or how this process is done for transparency.

For consideration in developing the benchmark library, SIGE recommends that Planning Coordinators be allowed to submit, extreme heat and cold events that are impactful to the reliability of the system based on their historical weather events and statistical analysis for inclusion in the library.

Likes 0	
Dislikes 0	
Response	

Apollonia Gonzales - PNM Resources - 1,3 - WECC,Texas RE	
Answer	No
Document Name	
Comment	

Each responsible entity, as identified in Requirement R1, shall select one extreme heat benchmark event and one extreme cold benchmark event, from the approved benchmark library that most closely aligns with temperature extremes from past historical events within their region maintained, for performing the Extreme Temperature Assessment. *[Violation Risk Factor: High] [Time Horizon: Long-term Planning]*

Likes 0	
Dislikes 0	
Response	

Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC	
Answer	No
Document Name	
Comment	

BPA recommends that the benchmark events be developed and maintained by the Regional Entities (MRO, NPCC, RF, SECR, Texas RE, and WECC) as opposed to NERC so that there are applicable events for the region.

Likes 0	
Dislikes 0	

Response

Tim Kelley - Tim Kelley On Behalf of: Charles Norton, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Foung Mua, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Ryder Couch, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Wei Shao, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; - Tim Kelley, Group Name SMUD and BANC

Answer	No
Document Name	

Comment

Aligning with our comment in Question 1 on the definition of Extreme Temperature Assessment, it is difficult to fully agree with Requirement R2 without knowing what a “benchmark event” is. The benchmark library needs a methodology that the ERO Enterprise will use as a consistent foundation for creating the benchmark events.

Likes 0	
Dislikes 0	

Response

Alyssia Rhoads - Public Utility District No. 1 of Snohomish County - 1

Answer	No
Document Name	

Comment

Put emphasis on Regional, not ERO. Not required for ERO to maintain this library. Such libraries are better maintained at a Regional level. For smaller utilities, not sure how they are using the same criteria for Extrement Temperature Assessment.

Likes 0	
Dislikes 0	

Response

Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC

Answer	No

Document Name	

Comment

There is not a clear mechanism for the ERO (or the regional entities if delegated) to maintain a library with such information. Also, the size of the library could be significant as there are 70+ PCs and 200+TPs across the ERO Enterprise. It may be best if NERC undertook the library, but it may be the PC owning the library for its TPs would be betteer?? Security of such a system would need to be considered as well.

Likes 0	
Dislikes 0	

Response

Lenise Kimes - City and County of San Francisco - 1,5 - WECC

Answer	No
Document Name	

Comment

Without specifically stating it, the current wording of this requirement puts the responsibility for determining the library of events in the hands of the ERO and does not explicitly provide the ability for the PC or TP entities to be involved at any point in the development of this library.

If the ERO develops a library of events that are too extreme, this could significantly impact cost of the transmission investment of the PC and TP entities and ultimately the customers within the PC and TP footprints. If the events are not extreme enough or turn out to be overly severe in one local area or region and not severe enough in another due to a lack of engagement from regional and local experts, this could also cause distortions in appropriate planning.

Because the PC and TP entities know their systems (and likely the local climate and weather patterns) better than the ERO, shouldn't those entities be at least involved in determining the library of events from which they must select? We suggest that the requirement be reworded to provide the ability for PCs and TPs to have some control and input for the conditions that are studied for their systems, or even to require the ERO to collaborate with the PCs and TPs in developing these scenarios, with the ERO having the final decision after considering feedback and comments. There should also be some guidance provided as to how severe the benchmark cases should be. For example, California's history of severe weather is very limited and infrequent due to the tempering effects of the Pacific Ocean, whereas the Midwest (and Texas) is more prone to severe swings in weather and extreme conditions. Some climate change forecasts predict that this situation may change, but which forecast, if any, should be considered when preparing the benchmark cases should be at least up for discussion.

Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	

Response

Israel Perez - Israel Perez On Behalf of: Mathew Weber, Salt River Project, 3, 1, 6, 5; Matthew Jaramilla, Salt River Project, 3, 1, 6, 5; Thomas Johnson, Salt River Project, 3, 1, 6, 5; Timothy Singh, Salt River Project, 3, 1, 6, 5; - Israel Perez

Answer	No
Document Name	

Comment
SRP agrees and supports JEA's comment that the "approved benchmark library maintained by the Electric Reliability Organization" creates consternation for utilities due to its ambiguity. We support the idea of The ERO maintaining a library, but there needs to be clarity or some kind of vetting process with the participation from the industry on the approval process. In addition, SRP strongly recommends separating the extreme heat and extreme cold scenarios in Requirement R2 to allow entities to perform them separately, but still both to be done every 5 years.

Likes 0	
Dislikes 0	

Response

Hillary Creurer - Allete - Minnesota Power, Inc. - 1	
Answer	No
Document Name	

Comment
Minnesota Power supports MRO’s NERC Standards Review Forum’s (NSRF) comments.

Likes 0	
Dislikes 0	

Response

Broc Bruton - Broc Bruton On Behalf of: Byron Booker, Oncor Electric Delivery, 1; - Broc Bruton	
Answer	No
Document Name	

Comment
Oncor would like to ensure transparency in how the benchmark events are developed, chosen, calculated, and maintained. We agree with Entergy’s comments in that we would like to see the PCs maintain the benchmark event data for the applicable region rather than the data and library being entirely at one location under NERC control. This approach would likely make the data more transparent and accessible to the affected utilities than having a sole central repository at NERC for all regions of the country.

Likes 0	
Dislikes 0	

Response

Sean Bodkin - Dominion - Dominion Resources, Inc. - 6, Group Name Dominion	
Answer	No

Document Name	
Comment	
Dominion Energy supports EEI comments. In addition, the benchmark cases are not well defined, still being developed, and unclear how they apply to our Planning Region. This proposed standard is premature and should be delayed until the repository is developed and criteria more clearly established.	
Likes 0	
Dislikes 0	
Response	
Andy Fuhrman - Andy Fuhrman On Behalf of: Theresa Allard, Minnkota Power Cooperative Inc., 1; - Andy Fuhrman	
Answer	No
Document Name	
Comment	
MPC supports comments submitted by the MRO NERC Standards Review Forum (NSRF).	
Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	
Response	
Stephen Whaite - Stephen Whaite On Behalf of: Tyler Schwendiman, ReliabilityFirst , 10; - Stephen Whaite, Group Name ReliabilityFirst Ballot Body Member and Proxies	
Answer	No
Document Name	
Comment	
RF is concerned that the proposed requirement does not provide any specifications for quantifiable metrics to be used by the PC in identifying appropriate benchmark events for its region. As written, this requirement may not ensure selected benchmark events for each region will be comparable in severity and may open the possibility that a PC could select an event that it believes will cause less of an issue in its footprint for ease of study. PCs in the northern US should choose events to study and establish requirements for Transmission system planning performance for extreme heat and extreme cold temperature events based upon their geographic location. PC in the southern US should do the same.	
Likes 0	
Dislikes 0	
Response	

Hayden Maples - Hayden Maples On Behalf of: Jeremy Harris, Evergy, 3, 5, 1, 6; Kevin Frick, Evergy, 3, 5, 1, 6; Marcus Moor, Evergy, 3, 5, 1, 6; Tiffany Lake, Evergy, 3, 5, 1, 6; - Hayden Maples	
Answer	No
Document Name	
Comment	
Evergy supports and incorporates by reference the comments of the Edison Electric Institute (EEI) and Midwest Reliability Organization's NERC Standards Review Forum (MRO NSRF) on question 3	
Likes 0	
Dislikes 0	
Response	
Kristine Martz - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable	
Answer	No
Document Name	
Comment	
EEI is concerned that proposed Reliability Standard, TPL-008-1, is being moved forward for industry approval without any insights into a key element of this Reliability Standard which is the extreme temperature benchmark event library. EEI additionally does not support making this library a separate document outside of this Reliability Standard. It should be included in the Reliability Standard for industry review or input. This library should be an attachment within this Reliability Standard and we offer the following proposed changes to Requirement R2 to address this concern in boldface below: **R2.** Each responsible entity, as identified in Requirement R1, shall select one extreme heat benchmark event and one extreme cold benchmark event, from the **Attachment X** (Extreme Temperature Benchmark Library) for performing the Extreme Temperature Assessment. *[Violation Risk Factor: High] [Time Horizon: Long-term Planning]*	
Likes 0	
Dislikes 0	
Response	
Chris Wagner - Santee Cooper - 1, Group Name Santee Cooper	
Answer	No
Document Name	
Comment	
The standard is not clear on the criteria in which the responsible entity can use to select the extreme benchmark events from the benchmark library maintained by the ERO. There is little information on the events library at this point or how these events are defined and approved.	

Likes 0	
Dislikes 0	
Response	
Devin Shines - PPL - Louisville Gas and Electric Co. - 1,3,5,6 - SERC,RF	
Answer	No
Document Name	
Comment	
LG&E and KU agrees with EEI's comments.	
Likes 0	
Dislikes 0	
Response	
Chantal Mazza - Chantal Mazza On Behalf of: Nicolas Turcotte, Hydro-Quebec (HQ), 1, 5; - Chantal Mazza	
Answer	No
Document Name	
Comment	
• Should there be any requirements for developing and maintaining benchmark libraries (in co-operation with EROs), or if that is mandated through another means? • “Responsible entity” should be defined in the Applicability section or should replaced with “Each Planning Coordinator, in conjunction with its Transmission Planner(s)...”Suggest to replace 4.1 to “Responsible Entity” instead of “Functional Entity”.	
Likes 0	
Dislikes 0	
Response	
Glen Farmer - Avista - Avista Corporation - 5	
Answer	No
Document Name	
Comment	
EEI is concerned that proposed Reliability Standard, TPL-008-1, is being moved forward for industry approval without any insights into a key element of this Reliability Standard which is the extreme temperature benchmark event library. EEI additionally does not support making this library a separate	

document outside of this Reliability Standard. It should be included in the Reliability Standard for industry review or input. This library should be an attachment within this Reliability Standard and we offer the following proposed changes to Requirement R2 to address this concern

in boldface below:

R2. Each responsible entity, as identified in Requirement R1, shall select one extreme heat benchmark event and one extreme cold benchmark event, from the **Attachment** (Extreme Temperature Benchmark Library) for performing the Extreme Temperature Assessment. *[Violation Risk Factor: High] [Time Horizon: Long-term Planning]*

Likes 0	
Dislikes 0	

Response

Stephen Stafford - Stephen Stafford On Behalf of: Greg Davis, Georgia Transmission Corporation, 1; - Stephen Stafford

Answer	No
Document Name	

Comment

It is understood the ERO is tasked with developing and maintaining a benchmark events library for use by the responsible entity in the required assessment. It is not clear what the events will ultimately be and how the benchmark events library is to be maintained and updated. The SDT should define and clarify the process for maintaining the benchmark library. GTC also recommends that the PC & TP be involved in the development and/or approval of the benchmark events.

Likes 0	
Dislikes 0	

Response

Brittany Millard - Lincoln Electric System - 5

Answer	No
Document Name	

Comment

LES supports comments submitted by the MRO NERC Standards Review Forum (NSRF).

Likes 0	
Dislikes 0	

Response

Katrina Lyons - Georgia System Operations Corporation - 4	
Answer	No
Document Name	
Comment	
GSOC supports Georgia Transmission Corporation's comments: It is understood the ERO is tasked with developing and maintaining a benchmark events library for use by the responsible entity in the required assessment. It is not clear what the events will ultimately be and how the benchmark events library is to be maintained and updated.	
Likes 0	
Dislikes 0	
Response	

Carver Powers - Utility Services, Inc. - 4	
Answer	No
Document Name	
Comment	
It is challenging to agree with the proposal due to the vagueness of the requirement. Request an example of the approved benchmark library in order to assess how requirements R3-R8 will be completed.	
Likes 0	
Dislikes 0	
Response	

Mike Magruder - Avista - Avista Corporation - 1	
Answer	No
Document Name	
Comment	
We support EEI's comments.	
Likes 0	
Dislikes 0	
Response	

Todd Bennett - Associated Electric Cooperative, Inc. - 3, Group Name AECI	
Answer	No
Document Name	
Comment	
AECI supports comment provided by Georgia Transmission Corporation	
Likes 0	
Dislikes 0	
Response	
Andy Thomas - Duke Energy - 1,3,5,6 - SERC,RF	
Answer	No
Document Name	
Comment	
Duke Energy does not support suggested R2 language. This requirement requires additional information such as the source of weather data, who will create cases, how industry input will be incorporated, etc.	
Likes 0	
Dislikes 0	
Response	
Keith Jonassen - Keith Jonassen On Behalf of: John Pearson, ISO New England, Inc., 2; - Keith Jonassen	
Answer	No
Document Name	
Comment	
ISO will need to see the list of Benchmark Events provided by NERC before making a full determination on the R2 Requirement. Initial view is that R2 is appropriate with the inclusion of responsible entity as this allows flexibility for coordination amongst planning entities.	
Likes 0	
Dislikes 0	
Response	
David Jendras Sr - Ameren - Ameren Services - 3	

Answer	No
Document Name	
Comment	
Ameren has concerns about the ERO's Library. What if it is unavailable when we need to perform the study?	
Likes 0	
Dislikes 0	
Response	
Colby Galloway - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company	
Answer	No
Document Name	
Comment	
Southern Company has concerns about not being involved in the development of the benchmark events. NERC should set boundaries and guidelines for the development of extreme weather conditions for analysis, but should not be unilaterally defining the events. It is recommended that “benchmark event” be defined and the approval process be clarified. The SDT should define and clarify the process for maintaining the benchmark library. In the spirit of collaboration and mutual interest in benchmark events, it is recommended that entities be involved in the approval of benchmark events. If NERC is defining benchmark events, then language should also be included to outline how benchmark events are determined and defined, while allowing for entities to adjust benchmark events for their system, similar to R3.2.	
Likes 0	
Dislikes 0	
Response	
Rebika Yitna - Rebika Yitna On Behalf of: David Weekley, MEAG Power, 3, 1; Roger Brand, MEAG Power, 3, 1; - Rebika Yitna	
Answer	No
Document Name	
Comment	
It is recommended that entities be involved in the development of the benchmark events library. It is not clear how NERC defines and determines the benchmark events.	
Likes 0	
Dislikes 0	
Response	

Bob Cardle - Bob Cardle On Behalf of: Marco Rios, Pacific Gas and Electric Company, 3, 1, 5; Sandra Ellis, Pacific Gas and Electric Company, 3, 1, 5; Tyler Brun, Pacific Gas and Electric Company, 3, 1, 5; - Bob Cardle	
Answer	No
Document Name	
Comment	

Without specifically stating it, the current wording of this requirement puts the responsibility for determining the library of events in the hands of the ERO and does not explicitly provide the ability for the PC or TP entities to be involved at any point in the development of this library.

If the ERO develops a library of events that are too extreme, this could significantly impact cost of the transmission investment of the PC and TP entities and ultimately the customers within the PC and TP footprints. If the events are not extreme enough or turn out to be overly severe in one local area or region and not severe enough in another due to a lack of engagement from regional and local experts, this could also cause distortions in appropriate planning.

Because the PC and TP entities know their systems (and likely the local climate and weather patterns) better than the ERO, shouldn't those entities be at least involved in determining the library of events from which they must select? We suggest that the requirement be reworded to provide the ability for PCs and TPs to have some control and input for the conditions that are studied for their systems, or even to require the ERO to collaborate with the PCs and TPs in developing these scenarios, with the ERO having the final decision after considering feedback and comments. There should also be some guidance provided as to how severe the benchmark cases should be. For example, California's history of severe weather is very limited and infrequent due to the tempering effects of the Pacific Ocean, whereas the East coast, Midwest, southwest (and Texas) is more prone to severe swings in weather and extreme conditions. Some climate change forecasts predict that this situation may change, but which forecast, if any, should be considered when preparing the benchmark cases should be at least up for discussion.

Likes 0	
Dislikes 0	
Response	

Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin	
Answer	No
Document Name	
Comment	

Although ITC conceptually supports requirement R2, we are withholding formal support until we can see and evaluate some examples of what the ERO intends to include as benchmark events in the library.

In addition, we support the "responsible entity as identified in requirement R1" language in R2 as it allows flexibility among planning entities to collectively determine who (e.g., the PC and/or TP) will perform R2.

Likes 0	
Dislikes 0	
Response	

Robert Jones - Seattle City Light - 1,3,4,6	
Answer	No
Document Name	
Comment	
Needs more clarity on the definition of the Extreme Temperature Event. It is unclear how the benchmark events will be chosen. There is no guarantee that there will be an event relevant for every entity. The selection of benchmark events should either be 1) defined as part of the standard and done by more local entities or 2) allow TPs/PCs to define their own benchmark event if they feel none of the ones offered by the ERO are relevant/appropriate.	
Likes 0	
Dislikes 0	
Response	
Steven Taddeucci - NiSource - Northern Indiana Public Service Co. - 3	
Answer	No
Document Name	
Comment	
NIPSCO supports the comments provided by Entergy, ReliabilityFirst, TVA, CHPD, CMS Energy, and MRO.	
Likes 0	
Dislikes 0	
Response	
Selene Willis - Edison International - Southern California Edison Company - 5	
Answer	No
Document Name	
Comment	
“See comments submitted by the Edison Electric Institute”	
Likes 0	
Dislikes 0	
Response	

Daniel Gacek - Exelon - 1	
Answer	No
Document Name	
Comment	

Exelon believes it is not appropriate to assign the Electric Reliability Organization (ERO) responsibility that directly impacts the compliance to a standard requirement. Interested in seeing more detail about how the benchmark library will be managed. There will need to be outlined guidance on where this data will be stored and who will have access to it. How will the responsible entity work with the Transmission Planner and Planning Coordinator to determine what goes into these cases and what are the expectations for providing feedback into them? Would it be better for Planning Coordinators to collaborate to create these instead?

Likes 0	
Dislikes 0	
Response	

Amy Wilke - American Transmission Company, LLC - 1	
Answer	No
Document Name	
Comment	

ATC generally supports the MRO NSRF comments, and is supplementing them as described below.

More information (and examples) is needed to agree with R2 (including who will develop/ maintain the database and what happens if it is not maintained, or if data is inaccurate, etc). We appreciate the potential value in having a benchmark event library that acts as a consistent database where experts have helped to translate the weather data into useable planning information (if done well). There could be considerable work for responsible entities if the data is not useable or properly maintained, and the responsible entities do not have control over the benchmark event library.

More clarification on criteria and how alternative cases could be submitted for use in the Assessment is needed.

It should be clear that TPL-008 will only be required to use temperature information from the selected benchmark events.

Likes 0	
Dislikes 0	
Response	

Kinte Whitehead - Exelon - 3	
Answer	No
Document Name	
Comment	

Exelon believes it is not appropriate to assign the Electric Reliability Organization (ERO) responsibility that directly impacts the compliance to a standard requirement. Interested in seeing more detail about how the benchmark library will be managed. There will need to be outlined guidance on where this data will be stored and who will have access to it. How will the responsible entity work with the Transmission Planner and Planning Coordinator to determine what goes into these cases and what are the expectations for providing feedback into them? Would it be better for Planning Coordinators to collaborate to create these instead?

Likes 0	
Dislikes 0	

Response

Wayne Guttormson - SaskPower - 1

Answer	No
Document Name	

Comment

Support the MRO NSRF and EEI comments.

Likes 0	
Dislikes 0	

Response

Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - MRO,WECC, Group Name SPP RTO

Answer	No
Document Name	

Comment

SPP has concerns about Requirement R2 as its expectations for the responsible entities to conduct an assessment from a library that does not currently exist. We understand that EPRI is working with NERC to construct the library to support the requirement's effort. However, we will find it difficult for the responsible entities to support this requirement while there is no data to review.

Additionally, we have a concern about the assessment results and how they should align with an area that was closer to the extreme event versus greater distance from the impacted area.

As we stated before, there is no official library data available for the responsible entities to conduct an assessment as well as compare those results with other entities to ensure quality results have been produced. Again, it will be difficult for the responsible entities to support this requirement while there is no data to review and compare results.

SPP recommends that the drafting team coordinate with NERC staff and ensure that the library has been finalized before moving forward with this requirement. It will be difficult to convince industry to support this effort when there are still too many unresolved issues at this point.

Also, SPP recommends that the drafting team provide more clarity on the expectation of what type of results these assessments are to produce.

Likes 0	
Dislikes 0	

Response

Dwanique Spiller - Berkshire Hathaway - NV Energy - 5

Answer	No
Document Name	

Comment

NV Energy believes that it is too vague. NV Energy is concerned that proposed Reliability Standard, TPL-008-1, is being moved forward for industry approval without any insights into a key element of this Reliability Standard which is the extreme temperature benchmark event library. EEI additionally does not support making this library a separate document outside of this Reliability Standard. It should be included in the Reliability Standard for industry review or input. This library should be an attachment within this Reliability Standard and we offer the following proposed changes to Requirement R2 to address this concern

in boldface below:

R2. Each responsible entity, as identified in Requirement R1, shall select one extreme heat benchmark event and one extreme cold benchmark event, from the **Attachment Xapproved ERO** (Extreme Temperature Benchmark Library) for performing the Extreme Temperature Assessment. *[Violation Risk Factor: High] [Time Horizon: Long-term Planning]*

Likes 0	
Dislikes 0	

Response

Kennedy Meier - Electric Reliability Council of Texas, Inc. - 2

Answer	No
Document Name	

Comment

ERCOT is unable to formulate a position on this question without additional information on how the approved benchmark library managed by ERO will be established and populated, including the underlying criteria, approach, and assumptions. An open and transparent process is crucial, and ERCOT recommends that Planning Coordinators be allowed to submit extreme heat and cold events based on their historical weather events and statistical analysis for inclusion in the library.

Likes 0	
Dislikes 0	

Response

Adrian Harris - Adrian Harris On Behalf of: Bobbi Welch, Midcontinent ISO, Inc., 2; - Adrian Harris, Group Name RTO/ISO Council Standard Review Committee Project 2023-07 TPL-008

Answer	No
Document Name	

Comment

As with the Extreme Temperature Assessment definition, the SRC is unable to fully evaluate Requirement R2 without being able to see and evaluate some example(s) of what the ERO intends to include as benchmark events in the library. Full evaluation of this requirement also requires additional information on how the approved benchmark library managed by the ERO will be established, populated and maintained over time, including the underlying criteria, approach and assumptions. An open and transparent process is crucial, and the SRC recommends that Planning Coordinators be allowed to submit, extreme heat and cold events that are impactful to the reliability of the system based on their historical weather events and statistical analysis for inclusion in the library.

Additionally, the SRC notes that historical weather events may not fully reflect the potential risks posed by future weather events as the severity, duration, and complexity of such weather events may increase through time resulting in extreme temperatures, wind lulls and persistent cloud coverage negatively impacting generation availability and exacerbating electric demands. It is important that the library events, whether synthetic or historical, present the full time-series of key weather concepts over multiple days to provide entities with sufficient data to build out a full set of system impacts.

Current language does not offer guidance on whether responsible entities should seek to choose more likely or more severe benchmark events from the approved library in the event these goals conflict. Could lead to under- or overidentification of needs. See for contrast the language around choosing contingencies: "expected to have more severe System impacts" Will there be an expectation that we justify the events that are chosen?

In addition, the SRC supports the “responsible entity as identified in requirement R1” language in R2 as it allows flexibility among planning entities to collectively determine who (e.g., the PC and/or TP) will perform R2.

From an improvement perspective, the SRC recommends several edits to the text of **R2**:

- The word “temperature” be added to benchmark events to align with the **Extreme Temperature Assessment** definition and to clarify the scope of the benchmarks being developed.
- The word “industry” be added to indicate industry needs to be part of the vetting and approval process to ensure that temperature benchmarks do not result in infeasible construction requirements.

R2. Each responsible entity, as identified in Requirement R1, shall select one extreme heat **temperature** benchmark event and one extreme cold **temperature** benchmark event, from the **industry** approved benchmark library maintained by the Electric Reliability Organization (ERO)

Likes 0	
Dislikes 0	

Response

Catrina Martin - Archer Energy Solutions, LLC - 5

Answer	No
Document Name	

Comment
Without specifically stating it, the current wording of this requirement puts the responsibility for determining the library of events in the hands of the ERO and does not explicitly provide the ability for the PC or TP entities to be involved at any point in the development of this library. If the ERO develops a library of events that are too extreme, this could significantly impact cost of the transmission investment of the PC and TP entities and ultimately the customers within the PC and TP footprints. If the events are not extreme enough or turn out to be overly severe in one local area or region and not severe enough in another due to a lack of engagement from regional and local experts, this could also cause distortions in appropriate planning. Because the PC and TP entities know their systems (and likely the local climate and weather patterns) better than the ERO, shouldn't those entities be at least involved in determining the library of events from which they must select? We suggest that the requirement be reworded to provide the ability for PCs and TPs to have some control and input for the conditions that are studied for their systems, or even to require the ERO to collaborate with the PCs and TPs in developing these scenarios, with the ERO having the final decision after considering feedback and comments. There should also be some guidance provided as to how severe the benchmark cases should be. For example, California's history of severe weather is very limited and infrequent due to the tempering effects of the Pacific Ocean, whereas the Midwest (and Texas) is more prone to severe swings in weather and extreme conditions. Some climate change forecasts predict that this situation may change, but which forecast, if any, should be considered when preparing the benchmark cases should be at least up for discussion.

Likes 0	
Dislikes 0	

Response

Joseph McClung - JEA - 1	
Answer	No
Document Name	

Comment
The requirement R2 states "approved benchmark library maintained by the Electric Reliability Organization", which creates consternation for utilities due to its ambiguity. Who is approving the benchmark event – the ERO, the Commission, NOAA (or similar agency), Planning Coordinator, Transmission Planner? The SDT has clearly stated they are not in the position to provide the basis or determine the appropriateness of any specific event. The ERO may maintain the library, but there needs to be clarity or some kind of vetting process with the participation from the industry on the approval process to benchmark any extreme heat or cold weather event that gets added to the library of events. Due consideration needs to be given to the geographic regions and variances in the weather patterns.

Likes 0	
Dislikes 0	

Response

Jessica Cordero - Unisource - Tucson Electric Power Co. - 1 - WECC	
Answer	Yes
Document Name	

Comment	
Events in the ERO library should have industry review and approval prior to inclusion in the ERO library.	
Likes 0	
Dislikes 0	
Response	
Isidoro Behar - Long Island Power Authority - 1	
Answer	Yes
Document Name	
Comment	
Section 4 (Applicability) should be expanded to indicate and clarify that the ERO is responsible for developing the extreme heat benchmark event(s) and extreme cold benchmark event(s), and maintaining the benchmark library.	
Likes 0	
Dislikes 0	
Response	
Michele Tondalo - United Illuminating Co. - 1	
Answer	Yes
Document Name	
Comment	
I agree with this Requirement though I believe that affected Transmission Planners are eager to see what these benchmark events look like; and if the event data will include all of the necessary information for development of the study cases. Furthermore, will these Benchmark events be inclusive of the impacts from climate change; particularly on the extreme heat events?	
Likes 0	
Dislikes 0	
Response	
Michele Shafer - New York State Electric & Gas (NYSEG) - 6	
Answer	Yes
Document Name	

Comment	
Our SME agrees with this Requirement though he believes that affected Transmission Planners are eager to see what these benchmark events look like; and if the event data will include all of the necessary information for development of the study cases. Furthermore, will these Benchmark events be inclusive of the impacts from climate change; particularly on the extreme heat events?	
Likes 0	
Dislikes 0	
Response	
Richard Vendetti - NextEra Energy - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Daniela Atanasovski - APS - Arizona Public Service Co. - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Lidija Efremova - Lidija Efremova On Behalf of: Emma Halilovic, Hydro One Networks, Inc., 1; - Lidija Efremova	
Answer	Yes
Document Name	
Comment	
Likes 0	

Dislikes 0	
Response	
Kimberly Turco - Constellation - 6	
Answer	
Document Name	
Comment	
Constellation has no comments Kimberly Turco on behalf of Constellation Segments 5 and 6	
Likes 0	
Dislikes 0	
Response	
Alison MacKellar - Constellation - 5	
Answer	
Document Name	
Comment	
Constellation has no comments Alison Mackellar on behalf of Constellation Segments 5 and 6	
Likes 0	
Dislikes 0	
Response	
Junji Yamaguchi - Hydro-Quebec (HQ) - 5	
Answer	
Document Name	
Comment	
Should there be any requirements for developing and maintaining benchmark libraries (in co-operation with EROs), or if that is mandated through another means?	

“Responsible entity” should be defined in the Applicability section or should replaced with “Each Planning Coordinator, in conjunction with its Transmission Planner(s)...”Suggest to replace 4.1 to “Responsible Entity” instead of “Functional Entity”.

Likes 0	
Dislikes 0	

Response

Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC RSC

Answer	
Document Name	

Comment

Should there be any requirements for developing and maintaining benchmark libraries (in co-operation with EROs), or if that is mandated through another means?

“Responsible entity” should be defined in the Applicability section or should replace with “Each Planning Coordinator, in conjunction with its Transmission Planner(s)...” Suggest replacing 4.1 to “Responsible Entity” instead of “Functional Entity”.

Likes 0	
Dislikes 0	

Response

Rachel Coyne - Texas Reliability Entity, Inc. - 10

Answer	
Document Name	

Comment

Texas RE noticed Requirement R2 requires the Electric Reliability Organization (ERO) to maintain a benchmark library so each responsible entity can select one extreme heat benchmark event and one extreme cold benchmark event. Texas RE requests the SDT’s reasoning for choosing the ERO as the responsible entity to maintain the benchmark library, rather than the RC or PC. Texas RE notes that, as currently drafted, it appears entities could select any available benchmark case. Is the SDT’s intent that as part of the ERO’s maintenance activities, the ERO select appropriate cold and heat benchmark cases for responsible entities?

Texas RE notes that there is a significant amount of variation in extreme heat and cold benchmark events depending upon the climatological zone in which an applicable transmission planning entity is located. As an alternative, the SDT may wish to consider establishing more objective criteria for responsible entities to select benchmark events based on their particular circumstances. By way of example, benchmark events could be established

based on the 95th percentile maximum or minimum temperature events experienced over a 72-hour period, which has been adopted for transmission and generation weatherization activities in the ERCOT Interconnection.	
Likes 0	
Dislikes 0	
Response	
Constantin Chitescu - Ontario Power Generation Inc. - 5	
Answer	
Document Name	
Comment	
OPG supports NPCC Regional Standards Committee’s comments.	
Likes 0	
Dislikes 0	
Response	

4. Do you agree with the proposed TPL-008-1 Reliability Standard Requirements R3 – R8 (benchmark planning cases and analyses)? If you do not agree, please provide your recommendation and, if appropriate, technical or procedural justification.

Michael Goggin - Grid Strategies LLC - 5	
Answer	No
Document Name	
Comment	

First, to comply with FERC Order 896, the standard should specify that benchmark events and Extreme Temperature Assessments will account for concurrent/correlated outages of generators during extreme heat and cold events. In Order 896 paragraph 88, FERC directs "NERC to require under the new or revised Reliability Standard the study of concurrent/correlated generator and transmission outages due to extreme heat and cold events in benchmark events," explaining in paragraph 89 that "it is necessary that responsible entities evaluate the risk of correlated or concurrent outages and derates of all types of generation resources and transmission facilities as a result of extreme heat and cold events."

The drafts of TPL-008 and the associated "Consideration of FERC Order 896 Directives" document appear to put the burden on responsible entities and not NERC for accounting for correlated outages: "This directive is addressed in proposed TPL-008-1 through Requirement R3 Part 3.2. The responsible entity is obligated to modify the benchmark planning cases to include seasonal and temperature dependent adjustment for Load, generation, Transmission, and transfers which represent the selected benchmark events."[1]

Having responsible entities and not NERC conduct this adjustment increases the risk that different regions will use inconsistent methods for doing so, and at worst responsible entities that want to avoid addressing reliability concerns through a Corrective Action Plan will use unrealistically low assumptions for the rate of correlated generator outages or other input assumptions like load and transfers. This assumption can have such a large impact on results it cannot be left to responsible entities, and should be made by NERC. The drafting team's Technical Rationale used similar logic in deciding that NERC (the Electric Reliability Organization or ERO) should assemble the benchmark planning cases: "to ensure consistency across regions, it is necessary for the ERO to have the responsibility for determining the suitability of benchmark events to represent probable future conditions."

Given the significant variation in the rates at which different fuel types experience correlated outages,[2] and rapid changes in the generation mix that may cause the future power system to have greater or lesser exposure to correlated outage risk, it is particularly important for the benchmark events and Extreme Temperature Assessments to account for the concurrent/correlated outage risk of each fuel type in the future generation mix. In recent cold snap events, gas generator outages due to equipment failures and fuel supply interruptions have accounted for the majority of outages. NERC GADS data can be used to assess the rate of correlated outages and derates of generators by fuel type.{C}[3]

Second, the benchmark cases and Extreme Temperature Assessments should account for changes to generation, demand, and transmission resulting from climate change, electrification of heating, and other factors that are affecting the risk posed by extreme heat and cold. Accounting for how climate change is increasing the frequency and magnitude of extreme heat and cold events is consistent with FERC's Order 896 directive in paragraph 40: "We also direct NERC to ensure the reliability standard contains appropriate mechanisms for ensuring the benchmark event reflects up-to-date meteorological data. The increasing intensity, frequency, and unpredictability of extreme weather conditions requires that key aspects of the benchmark events be reviewed, and if necessary, updated periodically to ensure the corresponding benchmark planning cases reflect updated meteorological data." Electrification of heating is also increasing the sensitivity of electricity demand to extreme cold conditions, which should be accounted for in the benchmark cases and Extreme Temperature Assessments.

Third, due to the impact of climate change, electrification, and rapid changes in the generation mix, requirement R8 should require responsible entities to complete an Extreme Temperature Assessment more frequently than at least once every five calendar years. As noted above, FERC Order 896 specifies that the meteorology underlying benchmark cases should be updated at least every five years, but the generation mix and other grid conditions can change more rapidly than that. TPL-001 requirement R2 requires Planning Assessments to be conducted annually, and a similar annual requirement for Extreme Temperature Assessments is appropriate given that extreme heat and cold events are the largest threat to electric reliability.

Finally, the requirement in Section 8.1 under R8 is unclear and may be inadequate. That section states that the Extreme Temperature Assessment shall include “Assessment of the benchmark planning cases developed under Requirement R4, for one of the years in the Long-Term Transmission Planning Horizon. The rationale for the year selected for evaluation shall be available as supporting information.” At minimum, that section of R8 should be modified to provide responsible entities with greater direction on which year or years to assess the planning cases developed under R4. Because extreme heat and cold risks can evolve over time due to changes in the generation mix, load, and the impact of climate change, R8 should require the responsible entity to document that the year selected is likely to pose the greatest reliability risk. If it cannot be determined which year is likely to pose the greatest risk, then the responsible entity should be required to conduct the assessment for all years that may pose the greatest risk. This is important because of the long and ambiguous timeframe covered by the Long-Term Transmission Planning Horizon, which the NERC Glossary indicates is the “Transmission planning period that covers years six through ten or beyond when required to accommodate any known longer lead time projects that may take longer than ten years to complete.” Planning for multiple years is consistent with the requirement in Section 2.1.1. of requirement R2 for TPL-001, which requires Planning Assessments to examine multiple years by incorporating “System peak Load for either Year One or year two, and for year five.”[4]

{C}[1]{C} NERC, *Consideration of FERC Order 896 Directives* (March 2024), https://www.nerc.com/pa/Stand/Project202307ModtoTPL00151TransSystPlanPerfReqExWe/2023-07_Consideration%20of%20FERC%20Order%20896%20Directives%20Final_032024.pdf, at 5

{C}[2]{C} *See, e.g.*, FERC and NERC, *Winter Storm Elliott Report: Inquiry into Bulk-Power System Operations During December 2022* (October 2023), https://www.ferc.gov/media/winter-storm-elliott-report-inquiry-bulk-power-system-operations-during-december-2022, at 17; FERC and NERC, *The February 2021 Cold Weather Outages in Texas and the South Central United States* (November 2021), https://www.ferc.gov/media/february-2021-cold-weather-outages-texas-and-south-central-united-states-ferc-nerc-and, at 16; FERC and NERC, *2019 FERC and NERC Staff Report: The South Central United States Cold Weather Bulk Electric System Event of January 17, 2018* (July 2019), https://www.ferc.gov/legal/staff-reports/2019/07-18-19-ferc-nerc-report.pdf; PJM, *Analysis of Operational Events and Market Impacts During the January 2014 Cold Weather Events* (May 2014), https://www.pjm.com/~/media/library/reports-notices/weather-related/20140509-analysis-of-operational-events-and-market-impacts-during-the-jan-2014-cold-weather-events.ashx.

{C}[3]{C} For example, see the analysis of GADS data provided in S. Murphy et al., *Resource adequacy risks to the bulk power system in North America* (February 2018), https://www.sciencedirect.com/science/article/pii/S0306261917318202, with Supplementary Material including outage data available at https://ars.els-cdn.com/content/image/1-s2.0-S0306261917318202-mmc1.zip

{C}[4]{C} https://www.nerc.com/pa/Stand/Reliability%20Standards/TPL-001-4.pdf

Likes 0	
Dislikes 0	

Response

Catrina Martin - Archer Energy Solutions, LLC - 5

Answer	No
Document Name	

Comment

R3 - The responsibility is assigned to “each PC,” but the weather events selected from the ERO library will certainly cross multiple PC footprints in almost every case. This argues for the development of regional processes and the development of base cases that could be used by multiple PC entities. Regional planning groups or the regional entities (such as WECC) may be better groups for developing these processes and base cases than the PC.

o As currently written, R3 does not appear to preclude PCs from working together on this requirement. Does the drafting team envision this as an acceptable way to meet R3?

o If so, an alternative wording might be: *Each Planning Coordinator shall coordinate with other impacted Planning Coordinator(s), Transmission Planner(s), and other designated study entities to develop and implement joint and/or individual processes for coordinating the development of benchmark planning cases based on the selected benchmark events as identified in Requirement R2.*

R4 - It would be helpful if this requirement (or other NERC guidance for this requirement) would provide additional details on what additional system models (e.g., steady state and stability) are required and how the required modeling data differs from the current MOD-032 and TPL-001 requirements. There may also be some data requirements for the Extreme Temperature Assessment that are not addressed by the current version of MOD-032, such as special high/cold temperature Facility Ratings, generation de-rating and dispatch patterns, or climate change forecasts that could impact the temperature assumptions for load models. Since MOD-032 does not currently address these data requirements, they need to be addressed in TPL-008 as an appendix, in a Guidelines and Technical Basis section, or in a future modification to MOD-032 itself.

R5 - As with TPL-007 and TPL-001, it appears that the study criteria are set by the “responsible entity” which is negotiated under R1. While the responsible entity is charged with maintaining system reliability, the criteria will also determine the number of CAPs and amount of transmission investment that are required to meet TPL-008. TPL-001-5.1 is already triggering the need for additional transmission investment over the coming years, so TO/GO entities that will actually pay for the upgrades will be further taxed by TPL-008. The implementation plan needs to be long enough so that the investments for TPL-008 do not coincide closely with the TPL-001-5.1 implementation period.

R5 – This requirement states that the responsible entity “shall have criteria” while R6 states that the responsible entity “shall define and document criteria?” The wording in R6 appears to be better, since both sets of criteria should be “defined and documented” in each Extreme Temperature Assessment report. It is suggested that the wording from R6 be used for R5.

R6 - Instability criteria are generally not “adjustable” limits. That is, the system is either unstable or it is not. If the events in the ERO library are too severe and lead to a significant increase in the events that trigger instability, these could be expensive problems to fix. See comments for R2.

R7 - It would be helpful to see this requirement address the differences between the set of contingencies for TPL-001 rather than an absolute set - this provides more value for all entities rather than showing a largely duplicative full set of outages.

R7 - P5 events are already very unlikely since they require a fault event plus an equipment failure, which is essentially a multiple outage on par with the likelihood of a P6 event (which is excluded from this standard). The Extreme Temperature event benchmark cases are very unlikely extreme events to begin with (and an extreme sensitivity to the TPL-001 studies), which further reduces the likelihood of having a P5 event during an Extreme Temperature event. In addition, the severity of significant P5 events strongly suggests upgrades will already be identified by the annual Assessment required by TPL-001.

o Given the amount of work already added by this standard, the low likelihood of the P5 events on par with other excluded events from TPL-001 (such as P6), and the strong likelihood that impacts from these events are already adequately captured by the TPL-001 Assessment studies, we strongly recommend removing P5 events from Table 1 of TPL-008.

R8 - While it is a helpful limitation to only require one assessment year from the Long-Term Planning Horizon, this may not be practicable for the development of CAPs that involve capital investment as these projects require multiple years to permit and construct. The CAPs that involve capital investment will need to be reviewed and refined as the potential violations move into the Near-Term Planning Horizon and prior to the operating horizon. TPL-001 studies will not include the conditions and criteria required to address these studies, so separate Extreme Temperature event benchmark cases will need to be developed for the Near-Term Transmission Planning Horizon to address these cases.

R8 - Especially for the very first Extreme Temperature Assessment, it is possible that a large number of CAPs may be identified for criteria violations that already exist in the Near-Term Planning Horizon. This will create a backlog of projects which will need to be started immediately to meet the implementation plan period. These projects will be on top of the P5 projects that are already backlogged for implementation of TPL-001-5.1.

o It is recommended that the implementation plan allow a ten-year period for implementation of CAPs that require capital investment to construct new facilities. This would also match up well with performing these studies for the Long-Term Transmission Planning Horizon since the studied case could be a ten year case.

R8.2 - Sensitivity to generation, load and transfers are already studied as part of TPL-001-5.1. The sensitivity additional studies proposed for R8.2 are unlikely to yield any new information and will be duplicative work for Transmission Planners. The Extreme Temperature Assessment is already a very extreme sensitivity study itself that should already capture modified load, generation, transmission, and transfers befitting this analysis per R3, so it is not needed nor appropriate to study sensitivities for sensitivity cases.

R8.2 should be removed entirely to reduce unnecessary workload which will provide information that is duplicative and provide no additional value since the studies under this standard are already in effect sensitivities in comparison to the Assessment studies under TPL-001.

Likes 0	
Dislikes 0	

Response

Adrian Harris - Adrian Harris On Behalf of: Bobbi Welch, Midcontinent ISO, Inc., 2; - Adrian Harris, Group Name RTO/ISO Council Standard Review Committee Project 2023-07 TPL-008

Answer	No
Document Name	

Comment

The SRC requests the SDT address the following in requirements R3-R8:

R3: The SRC requests the SDT clarify obligations when coordinating with neighboring PCs to perform an Extreme Temperature Assessment. If a PC performs a planning area study for a “selected benchmark event” that only includes a portion of the PC’s footprint (Part 3.1), the SDT should confirm that the PC and its associated Transmission Planners have satisfied the obligation under R2 for completing an Extreme Temperature Assessment for either “one extreme heat benchmark event or one extreme cold benchmark event” for that five-calendar year period (R8).

Does R3.2 imply that inter-Area transfers should be different that those coordinated through the ERAG MMWG process which considers “all transactions that have confirmed annual firm transmission service along the entire path from source to sink and have a firm energy contract for the resource”? While operationally during extreme heatwaves and cold snaps each Area should plan their system so as to not rely on neighbors beyond what is contractually obligated and coordained through the ERAG MMWG process.

In addition, the SRC requests the SDT clarify the “process for coordinating the development of benchmark planning cases among impacted Planning Coordinator(s),” and specifically:

- How far must an entity go, i.e. are Tier 1 neighbors sufficient or must an entity go further?
- Can coordinating on the model build for a given event satisfy this requirement?

Similarly, Requirement R3 should also be revised to clarify how conflicts will be resolved if different Planning Coordinators within the same Interconnection have incompatible processes for selecting benchmark events, defining the planning study boundary area, and coordinating with other impacted entities. This clarification should address scenarios in which three or more impacted, geographically contiguous Planning Coordinators within

the same Interconnection all select different, incompatible benchmark events (as allowed by Requirement R1) to study. The SRC requests that this clarification address the following topics, along with any other topics that may need to be addressed:

- Does the standard require all PCs to support all alternate PC studies including data exchange for the various temperature dependent information as well as the study schedule?
- What happens if an entity is unwilling to cooperate?

Finally, to maintain consistency with existing practice under TPL-001-5.1 and avoid introducing unnecessary complexity to the TPL-008 coordination process, Requirement R3 should be revised to indicate that Planning Coordinators and Transmission Planners are not required to coordinate with entities in different Interconnections. TPL-001-5.1 Requirement R8 requires Planning Coordinators to distribute Planning Assessment results to adjacent Planning Coordinators. However, Revising Requirement R3 in TPL-008 to indicate that coordination with entities in other Interconnections is not required would help optimize the overall efficiency and effectiveness of TPL-008.

R4. The SRC supports the use of MOD-032 to obtain the necessary data and asks the SDT to consider whether MOD-032 needs to be modified to acquire information unique to TPL-008. The SRC is concerned that MOD-032 does not currently include requirements addressing the necessary temperature-dependent information for load, generation, transmission, and transfers. If this is not specifically addressed in MOD-032 it will be very difficult to require the provision of this information.

R5. The SRC has concerns with R5 as it may be duplicative of work that is already occurring under TPL-001-5.1. Specifically, it is unclear how the criteria for “steady state voltage limits and post-Contingency voltage deviations” under TPL-008, R5 differs from what entities have defined under TPL-001-5.1, and consequently, it is unclear why Requirement R5 is needed. **The SRC requests that the drafting team provide an explanation of the need for R5.**

R6. The SRC has concerns with R6 as R6 may duplicate work that is already occurring under TPL-001-5.1, PRC-006, and other Reliability Standards. Therefore, the SRC asks the SDT to describe the need drivers for R6 by identifying where extreme temperature events have resulted in system instability, uncontrolled separation, or Cascading.

R6. *Does “instability” need to be further defined under this standard? R6 already qualifies instability as the prior IROL definition: “identify System instability for conditions such as Cascading, voltage instability, or uncontrolled islanding.”*

The SRC recommends leaving this flexible as many entities have already defined this for their footprint in accordance with FAC-014.

R7. To clarify that the Extreme Temperature Assessment is limited to the planning study area boundary defined in Part 3.1, the SRC requests the SDT modify requirement R7 as follows:

R7. Each responsible entity, as identified in Requirement R1, shall identify Contingencies used in performing the Extreme Temperature Assessment for each of the event categories in Table 1 that are expected to produce more severe System impacts within the planning study area **boundary defined in Part 3.1**. The rationale for those Contingencies selected for evaluation shall be available as supporting information.

R8. The SRC recommends that Requirement R8 be revised to clarify whether the case used needs to be a Long-Term case at the time the study is completed or it just when the case building is completed, as two to three years typically elapse between the completion of the case build and the completion of the studies that use the case

The technical rationale for R8 quotes the FERC order that sensitivity cases, “should consider including conditions that vary with temperature such as load, generation, and system transfers.” If the temperature is changed, does that imply that a different storm is selected from R2 which would then also change the study boundary conditions? Also this would increase the complexity of the temperature dependence of generation and transmission resources.

Likes 0	
Dislikes 0	

Response

Constantin Chitescu - Ontario Power Generation Inc. - 5	
Answer	No
Document Name	
Comment	
OPG supports NPCC Regional Standards Committee's comments.	
Likes 0	
Dislikes 0	
Response	
Kennedy Meier - Electric Reliability Council of Texas, Inc. - 2	
Answer	No
Document Name	
Comment	
Requirement R3: To maintain consistency with existing practice under TPL-001-5.1 and avoid introducing unnecessary complexity to the TPL-008 coordination process, Requirement R3 should be revised to indicate that Planning Coordinators and Transmission Planners are not required to coordinate with entities in different Interconnections. TPL-001-5.1 Requirement R8 requires Planning Coordinators to distribute Planning Assessment results to adjacent Planning Coordinators. However, ERCOT and its neighboring Planning Coordinators in the Eastern and Western Interconnections have not historically construed Requirement R8 to require distribution of Planning Assessment results between them. Requiring such communication would be unnecessary because Interconnections connect to each other only through direct current (DC) ties, and DC ties cannot be used to solve planning criteria violations on an alternating current (AC) system because the operation of DC ties is solely determined by manual actions requiring approval by multiple entities. Because the various Interconnections are not synchronized with each other, the only purpose that could be served by requiring Planning Coordinators in different Interconnections to coordinate extreme weather planning would be to address a forecasted generation insufficiency in one Interconnection. However, as the Technical Rationale notes, resource adequacy issues are beyond the scope of this proceeding under Order No. 896. Revising Requirement R3 in TPL-008 to indicate that coordination with entities in other Interconnections is not required would help optimize the overall efficiency and effectiveness of TPL-008. Requirement R3 should also be revised to clarify how conflicts will be resolved if different Planning Coordinators within the same Interconnection have incompatible processes for selecting benchmark events, defining the planning study boundary area, and coordinating with other impacted entities. This clarification should address scenarios in which three or more impacted, geographically contiguous Planning Coordinators within the same Interconnection all select different, incompatible benchmark events (as allowed by Requirement R1) to study. Requirement R8: ERCOT recommends that Requirement R8 be revised to clarify whether the case used needs to be a Long-Term case at the time the study is completed or just when the case building is completed, as two to three years typically elapse between the completion of the case build and the completion of the studies that use the case.	
Likes 0	

Dislikes 0	

Response

Dwanique Spiller - Berkshire Hathaway - NV Energy - 5	
Answer	No
Document Name	

Comment

EEI does not agree with the language contained in requirements R3, R4, R7, and R8 for the reasons expressed below. (See the proposed changes in boldface to Requirement R3 below)

Proposed changes to Requirement R3:

{C}1. {C}EEI suggests it would be clearer to replace “impacted” with adjoining or neighboring Planning Coordinators since they would be the only impacted PCs.

{C}2. {C}EEI also suggests some changes to the subparts of Requirement R3 to better clarify the required tasks under the PC process.

R3. Each Planning Coordinator shall develop and implement a process for coordinating the development of benchmark planning cases among **adjoining** Planning Coordinator(s), Transmission Planner(s), and other designated study entities **under their purviewbased on the selected to ensure** benchmark events as identified in Requirement R2 **are coordinated.** This process shall **include**: *[Violation Risk Factor: Medium] [Time Horizon: Long-term Planning]*

{C}**3.1. Define theReview of the** planning study area **boundary boundaries under each Transmission Planner, based to ensure study completeness**.

{C}**3.2. Verification that Modify** the benchmark planning cases **to** include seasonal and temperature dependent adjustment for Load, generation, Transmission, and transfers which represents the selected benchmark events.

Proposed revisions to Requirement R4

EEI suggests the subparts of Requirement R8 are better placed under Requirement R4 with the edits suggested below:

R4. Each responsible entity, as identified in Requirement R1, shall develop and maintain System models within its planning area for performing the Extreme Temperature Assessment. The System models shall use data consistent with that provided in accordance with the MOD-032 standard, supplemented by other sources as needed, **and shall represent projected System conditions based on the selected benchmark events as identified in Requirement R2. System models shall be developed for the following conditions:** [Violation Risk Factor: High] [Time Horizon: Long-term Planning]

4.1 System conditions based on each benchmark event selected in Requirement R2 for one of the years in the Long-Term Transmission Planning Horizon.

4.2 For each of the models developed for Requirement R4 Part 4.1, a sensitivity model shall be developed to demonstrate the impact of changes to the basic assumptions used in the model. To accomplish this, the sensitivity model shall include, at a minimum, changes to one of the following conditions:

{C}· **Generation,**

{C}· **Real and reactive forecasted Load, or**

{C}· **Transfers.**

Proposed change to Requirement R7:

EEI disagrees with including a requirement to have a documented rationale for the Contingencies selected because it represents an unnecessary administrative burden.

R7. Each responsible entity, as identified in Requirement R1, shall identify the Contingencies used in performing the Extreme Temperature Assessment for each of the event categories in Table 1 that are expected to produce more severe System impacts within its planning area. **The rationale for those Contingencies selected for evaluation shall be available as supporting information.** *[Violation Risk Factor: High] [Time Horizon: Long-term Planning]*

Proposed changes to Requirement R8

EEI suggests that subparts 8.1 and 8.2 should be placed under Requirement R4. In addition to this change the last sentence in R8 referencing those subparts should be removed. See EEI comments to Requirement R4 below.

R8 Each responsible entity, as identified in Requirement R1, shall complete an Extreme Temperature Assessment of the Long-Term Transmission Planning Horizon at least once every five calendar years, using the benchmark planning cases and the System models identified in Requirement R3 and R4, and the Contingencies identified in Requirement R7 for each of the event categories in Table 1, and document assumptions and results of the steady state and stability analyses. **The Extreme Temperature Assessment shall include the following.** [Violation Risk Factor: High] [Time Horizon: Long-term Planning]

Likes 0	
Dislikes 0	

Response

Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - MRO,WECC, Group Name SPP RTO

Answer	No
Document Name	

Comment

SPP raises concerns regarding the coordination among all entities impacted by Requirement R3. We understand that this coordination extends to all Planning Coordinators, including those outside the event area, potentially leading to unnecessary administrative burdens.

Additionally, there's apprehension about planning models not adequately reflecting real-time operational needs. It's challenging to envision a process ensuring proper alignment between planning and operational models, especially given unresolved issues like data collection discrepancies between different models.

Regarding Requirement R4 and the use of the MOD-032 Standard for data collection, SPP questions its suitability for assessing Inverter-Based, Distributed Energy, and Energy Storage Resources, given unresolved project directives.

Concerning Requirement R7, ambiguity exists regarding whether specific studies or all studies implied by Table 1 are required. SPP suggests the drafting team clarify expectations and align efforts with Project 2022-02 regarding MOD-032.

Lastly, SPP seeks clarification on the purpose of sensitivity analyses in sub-part 8.2 and its association with MOD-032 data collection. They recommend clarity on the necessity of sensitivity analyses and its relation to data collection from the MOD-032 model build.

Likes 0	
Dislikes 0	

Response

Wayne Guttormson - SaskPower - 1

Answer	No
Document Name	

Comment

Support the MRO NSRF and EEI comments.

Likes 0	
Dislikes 0	

Response

Kinte Whitehead - Exelon - 3

Answer	No
Document Name	

Comment

R3 - Would like more information about how the boundary is determined/defined. Perhaps specify factors in more detail that would need to be considered when building base case (N-0).

R4- It is not clear how the ratings set will be identified. Additionally, there is language that states, “develop and maintain System models within its planning area for performing the Extreme Temperature Assessment.” While the assessment is performed at least once every five years, is there an expectation that these models are built and maintained more frequently? These models could be ad-hoc, which would not be maintained.

Additional suggestion: Add two terms to the NERC Glossary defining System Models and Planning Cases.

R7 – Need clarification on what projects to include in model year selected.

Likes 0	
Dislikes 0	

Response

Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC RSC

Answer	No
Document Name	

Comment

Regarding R3 and R4—it is not clear what the difference is between “planning cases” (R3) and “system models” (R4). These are not defined in the NERC glossary, and their use here should be clarified.

Regarding R5, FAC-014-3 R6 requires Planning Coordinators and Transmission Planners to use facility ratings, voltage and stability limits that are equal or more limiting than its respective Reliability Coordinators. Presumably this is intended to give PCs/TPs more leeway in criteria for extreme events, but unless some exception is made for FAC-014-3 R6, there may be no further room possible (particularly if the ordinary planning limits are equal to the operational limits, which is probably typical).

R7 should clearly indicate which contingency categories are required.

R4, R5, R6, R7 and R8: “Responsible entity” should be defined in the Applicability section or should replace with “Each Planning Coordinator, in conjunction with its Transmission Planner(s)...”). Suggest replacing 4.1 to “Responsible Entity” instead of “Functional Entity”.

R6: “….to identify instability, uncontrolled separation, or Cascading” of what? The System? Outages? If that is the case, suggest specifying “to identify instability, uncontrolled separation, or Cascading of the System” or “to identify instability, uncontrolled separation, or Cascading outages”.

Likes 0	
Dislikes 0	

Response

Amy Wilke - American Transmission Company, LLC - 1	
Answer	No
Document Name	
Comment	

ATC generally supports the MRO NSRF comments, and is supplementing them as described below.

R4: During the 4/12/24 workshop, SDT mentioned that one purpose of including R4 and the reference to MOD-032 is to allow the collection of generation and transmission data related to the extreme heat and cold benchmark events. How will MOD-032 allow for the collection of additional information related to the extreme heat and cold events? We recognize that MOD-032-1 Attachment 1 includes a provision for "other information requested by the PC or TP necessary for modeling purposes" but believe that this has not been successful/ adequate in the past and may not be appropriate in TPL-008. Given this, would updates or modifications be needed to MOD-032 or related documents to get extreme weather load data? Does the extreme temperature data collection need to involve changes to MOD-031 for extreme weather load forecast data?

R4: Besides establishing the ability for responsible entities to collect data related to extreme heat/ cold, how is R4 different from R3? If a reference to MOD-032 will not adequately allow for the collection of extreme temperature data, then R4 should a) be updated with an existing method for data collection, b) the team may need to propose additional changes to exiting processes, or c) remove R4.

R5: Why does R5 only reference voltage and not thermal constraints? If the Extreme Weather Assessment voltage criteria could be different than regular criteria, then could thermal criteria be different as well?

R6: Is the identification of "instability, uncontrolled separation, or Cascading" expected to be different for the Extreme Temperature Assessment? And not the same as IROL?

R5, R6, R7: Because there are no longer Planning Horizon SOLs with the new FAC-014-3 and the PC and TP need to follow the RC SOL Methodology, R5, R6, and R7 should not contradict that.

R8: Should R8 refer to "modified benchmark planning cases" per R3.2?

R8.2: It is not clear how many sensitivities may be needed (believe only one for heat and cold each). We do not want this analysis to become onerous.

Likes 0	
Dislikes 0	
Response	

Daniel Gacek - Exelon - 1	
Answer	No
Document Name	
Comment	

R3 - Would like more information about how the boundary is determined/defined. Perhaps specify factors in more detail that would need to be considered when building base case (N-0).

R4- It is not clear how the ratings set will be identified. Additionally, there is language that states, “develop and maintain System models within its planning area for performing the Extreme Temperature Assessment.” While the assessment is performed at least once every five years, is there an expectation that these models are built and maintained more frequently? These models could be ad-hoc, which would not be maintained.

Additional suggestion: Add two terms to the NERC Glossary defining System Models and Planning Cases.

R7 – Need clarification on what projects to include in model year selected.

Likes 0	
Dislikes 0	

Response

Selene Willis - Edison International - Southern California Edison Company - 5

Answer	No
Document Name	

Comment

“See comments submitted by the Edison Electric Institute”

Likes 0	
Dislikes 0	

Response

Steven Taddeucci - NiSource - Northern Indiana Public Service Co. - 3

Answer	No
Document Name	

Comment

NIPSCO supports the comments provided by Entergy, ReliabilityFirst, AEP, BPA, WPP, and CMS Energy.

Likes 0	
Dislikes 0	

Response

Robert Jones - Seattle City Light - 1,3,4,6

Answer	No
Document Name	

Comment
R3: Need more clarification on the requirements of the process among impacted utilities (who is impacted? And why?). The benchmark base cases may not be covered by R3 depending on how utilities may define their process or methodology. The boundary or the area may not match the benchmark event. Will PCs/TPs have to participate in development of multiple benchmark cases from various adjacent/impacted utilities? What requirements exist to enforce TPs participating in case building for a benchmark case they have not selected? Or will there only be one benchmark event per area (in which case why is each separate PC defining their own coordination process). R4: No comments. R5: Wouldn't this overlap with TPL-001? Are they expected to be different criteria? R6: Same comment as R5. This appears to overlap TPL-001… is there any reason the criteria/methodology would be different than for TPL-001? Need more guidance. A benchmark event may not fall under entity's (utilities) criteria or methodology depending on interpretation and definition of Extreme Temperature by each entity. Need more regional guidance. R7: The table should be reformatted. It appears to be two tables in one. R8: The language in this requirement is very vague. Does this apply to steady state or transient stability? According to Table 1 contingency definitions seem to include all. What about existing generation outages? Do we run P3 and P6 contingencies on top of the existing outages?

Likes 0	
Dislikes 0	

Response

Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin	
Answer	No
Document Name	

Comment
ITC requests clarification on the following: R3. Please clarify the drafting team's intent for the coordinate with others. Is this just the adjacent PCs. Additionally, for events that only cover a limited portion of the PCs footprint, is the intent that they would need to complete a second set of hot and cold events for the remaining portion of their footprint? R4. Does the drafting team feel it would be necessary to add any additional data to the table in MOD-032 to complete this work?

R5 and R6. If a TP or PC believes that the work performed for a different standard will cover work required under TPL-008, can a provision for this be added to the standard?

R7 and R8. No comment.

Likes 0	
Dislikes 0	

Response

Bob Cardle - Bob Cardle On Behalf of: Marco Rios, Pacific Gas and Electric Company, 3, 1, 5; Sandra Ellis, Pacific Gas and Electric Company, 3, 1, 5; Tyler Brun, Pacific Gas and Electric Company, 3, 1, 5; - Bob Cardle

Answer	No
Document Name	

Comment

R3 - The responsibility is assigned to “each PC,” but the weather events selected from the ERO library will certainly cross multiple PC footprints in almost every case. This argues for the development of regional processes and the development of base cases that could be used by multiple PC entities.

As currently written, R3 does not appear to preclude PCs from working together on this requirement. Does the drafting team envision this as an acceptable way to meet R3?

If so, an alternative wording might be: *Each Planning Coordinator shall coordinate with other impacted Planning Coordinator(s), Transmission Planner(s), and other designated study entities to develop and implement joint and/or individual processes for coordinating the development of benchmark planning cases based on the selected benchmark events as identified in Requirement R2.*

R4 - It would be helpful if this requirement (or other NERC guidance for this requirement) would provide additional details on what additional system models (e.g., steady state and stability) are required and how the required modeling data differs from the current MOD-032 and TPL-001 requirements. There may also be some data requirements for the Extreme Temperature Assessment that are not addressed by the current version of MOD-032, such as special high/cold temperature Facility Ratings, generation de-rating and dispatch patterns, or climate change forecasts that could impact the temperature assumptions for load models. Since MOD-032 does not currently address these data requirements, they need to be addressed in TPL-008 as an appendix, in a Guidelines and Technical Basis section, or in a future modification to MOD-032 itself.

R5 – This requirement states that the responsible entity “shall have criteria” while R6 states that the responsible entity “shall define and document criteria?” The wording in R6 appears to be better, since both sets of criteria should be “defined and documented” in each Extreme Temperature Assessment report. It is suggested that the wording from R6 be used for R5.

R6 - Instability criteria are generally not “adjustable” limits. That is, the system is either unstable or it is not. If the events in the ERO library are too severe and lead to a significant increase in the events that trigger instability, these could require extensive CAPs. See comments for R2.

R7 - It would be helpful to see this requirement address the differences between the set of contingencies for TPL-001 rather than an absolute set - this provides more value for all entities rather than showing a largely duplicative full set of outages.

R7 - P5 events are already very unlikely since they require a fault event plus an equipment failure, which is essentially a multiple outage on par with the likelihood of a P6 event (which is already excluded from this standard). Furthermore, the severity of significant P5 events strongly suggests upgrades will already be identified by the annual Assessment required by TPL-001. Provided the strong likelihood that impacts from these events are already adequately captured by the TPL-001 Assessment studies, we strongly recommend removing P5 events from Table 1 of TPL-008.

R8 – In order to avoid backlog of projects which will need to be started immediately to meet the implementation plan period, it is recommended that the implementation plan allow a ten-year period for implementation of CAPs that require capital investment to construct new facilities. This would also match up well with performing these studies for the Long-Term Transmission Planning Horizon.

R8.2 - The Extreme Temperature Assessment is already a very extreme sensitivity study itself that should already capture modified load, generation, transmission, and transfers befitting this analysis per R3, so it is not needed nor appropriate to study sensitivities for sensitivity cases. As a result, we strongly recommend R8.2 to be removed. Instead, PG&E recommends requiring in the benchmark cases that load, generation, system configurations, facility ratings, etc. should match the assumptions for extreme weather conditions.

Likes 0	
Dislikes 0	

Response

Rebika Yitna - Rebika Yitna On Behalf of: David Weekley, MEAG Power, 3, 1; Roger Brand, MEAG Power, 3, 1; - Rebika Yitna

Answer	No
Document Name	

Comment

SDT should consider combining R3 and R4.

Likes 0	
Dislikes 0	

Response

Colby Galloway - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company

Answer	No
Document Name	

Comment

Southern Company recommends that the standard drafting team clarify R3.1 and the broader process for R3. As written, an unintended consequence will likely be an extreme amount of workload for the Planning Coordinator(s) to develop cases. The requirement of impacted Planning Coordinator(s) to provide support in a timely manner should also be defined.

Likes 0	
Dislikes 0	

Response

David Jendras Sr - Ameren - Ameren Services - 3	
Answer	No
Document Name	

Comment
R3.1: Ameren suggests making a definition of wide area because it is currently unclear. R3.2: The requirement includes "Transmission", do Transmission line ratings need to be modified to reflect the extreme temperature assessment? R4: Currently, MOD-032 does not specifically require extreme temperature data for load and generation. Does MOD-032 need to be updated to consider the extreme temperature data requirement as part of this standard? R5: Is the expectation of the standard drafting team to have two different acceptable voltage limits for TPL-001-5 and TPL-008, or is it up to the Responsible Entity to determine if they can both align? R7: In Table 1, the criteria are not clear as to whether the steady state performance criteria apply to all of the BES or just BES elements 200kv and above.

Likes 0	
Dislikes 0	

Response

Junji Yamaguchi - Hydro-Quebec (HQ) - 5	
Answer	No
Document Name	

Comment
Regarding R3 and R4—it is not clear what the difference is between “planning cases” (R3) and “system models” (R4). These are not defined in the NERC glossary, and their use here should be clarified. Regarding R5, FAC-014-3 R6 requires Planning Coordinators and Transmission Planners to use facility ratings, voltage and stability limits that are equal or more limiting than its respective Reliability Coordinators. Presumably this is intended to give PCs/TPs more leeway in criteria for extreme events, but unless some exception is made for FAC-014-3 R6, there may be no further room possible (particularly if the ordinary planning limits are equal to the operational limits, which is probably typical).

R7 should clearly indicate which contingency categories are required.

R4, R5, R6, R7 and R8: “Responsible entity” should be defined in the Applicability section or should replaced with “Each Planning Coordinator, in conjunction with its Transmission Planner(s)...”). Suggest to replace 4.1 to “Responsible Entity” instead of “Functional Entity”.

R6: please complete the phrase“….to identify instability, uncontrolled separation, or Cascading”. For example, are we identifying instability, uncontrolled separation, or Cascading of the System? The Interconnection? If that is the case, we suggest to specify “to identify instability, uncontrolled separation, or Cascading of the System” or “to identify instability, uncontrolled separation, or Cascading Interconnection”.

Likes 0	
Dislikes 0	

Response

Keith Jonassen - Keith Jonassen On Behalf of: John Pearson, ISO New England, Inc., 2; - Keith Jonassen

Answer	No
Document Name	

Comment

For R3: Coordination between RCs needs to be clarified. If each RC were to choose a different Benchmark Event to study, does each neighboring RC need to provide data to others? What If two or more PCs choose different benchmark events to study. Will this create an additional work load for those neighboring entities?

For R3.1. This calls for a defined “planning study area”. Is this meant to be different than a PC’s “Planning Area”. Clarification is needed to show that the planning study area remains within the PC’s planning area, so that for example a Benchmark Event affecting Ohio does not need to be studied by New England.

R4: Should be changed so that the System Model only needs to be updated for the year in which studies will be performed versus annual model updates as required by MOD-032.

R5: Is this duplicative to TPL-001? Could this create a Double Jeopardy situation where two requirements would be violated for a single issue?

R6: Is this duplicative to TPL-001 or other standards (PRC?)? Will this create a Double Jeopardy situation where two requirements would be violated for a single issue?

R7: Suggest changing “Planning area” to “Planning Study Area”. Same reasoning as R3.1 comment above.

R8: No Additional Comments

Likes 0	
Dislikes 0	

Response

Andy Thomas - Duke Energy - 1,3,5,6 - SERC,RF

Answer	No
Document Name	
Comment	
R3.2 includes “Transmission” which is omitted from the Rationale Document (R3) – please define intent of using Transmission in R3.2. Additionally, R3 uses the phrase “and other designated study entities” – please define who the other entities are and why they are needed relative to this standard.	
Likes 0	
Dislikes 0	
Response	
Todd Bennett - Associated Electric Cooperative, Inc. - 3, Group Name AECI	
Answer	No
Document Name	
Comment	
AECI supports comment provided by Georgia Transmission Corporation	
Likes 0	
Dislikes 0	
Response	
Mike Magruder - Avista - Avista Corporation - 1	
Answer	No
Document Name	
Comment	
We support EEI's comments.	
Likes 0	
Dislikes 0	
Response	
Katrina Lyons - Georgia System Operations Corporation - 4	
Answer	No
Document Name	

Comment

GSOC supports Georgia Transmission Corporation's comments:

R3:

- Replace “Each Planning Coordinator shall” with “Each responsible entity, as identified in Requirement R1, shall”. This may require supplemental wording edits in the requirement.
- The inclusion of “other designated study entities” is not clear.
- The SDT should consider combining this requirement with R4.

R4:

- The SDT should consider combining this requirement with R3.

R5:

- The SDT should consider utilizing the recently adopted NERC Glossary term, System Voltage Limits, in this requirement. “…shall have a criteria for acceptable System Voltage Limits for performing the Extreme Temperature Assessment…”
- Since this requirement appears to refer to steady-state voltage, the post contingency voltage deviation portion of the existing requirement should be removed. The resultant steady-state voltage level being outside of acceptable high and low limits is the point of concern. For example, if a low voltage criterion is 0.92 p.u., then voltages below this limit would violate this particular criteria regardless of whether the beginning voltage was 0.95 p.u., 0.98 p.u., or any other voltage level.

R6:

- The following bullet contains a wording addition to clarify the applicability of this requirement to System-wide impacts. This is also consistent with wording in other Reliability Standards when referencing these types of impacts.
- “Each responsible entity, as identified in Requirement R1, shall define and document the criteria or methodology used in the Extreme Temperature Assessment analysis to identify instability, uncontrolled separation, or Cascading of the Bulk Electric System.”

R7 & R8:

- It does not appear likely that P0 events would be “expected to produce more severe System impacts”. Therefore, those events would likely not be part of a benchmark assessment as R7 & R8 are currently written. This is true to a lesser extent to P1 events. Additional clarity to this requirement is needed to determine when and if P0 and P1 events are required.
- The standard does not clearly and specifically state whether steady-state and/or stability analysis is to be performed for the identified events as TPL-001 does for instance. The SDT should consider modifying R7 to allow the responsible entity to develop a methodology or rationale in the performance of a benchmark event to appropriately assess it for that entity’s planning area, otherwise, additional clarity in the analysis expectations is needed. Different weather events would require a different consideration of applicable contingencies and analysis approaches.
- Some of the lack of clarity may be related to the lack of clarity around the composition of the benchmark events to be determined. If these benchmark events are limited to temperature profiles versus temperature profiles and potential resultant generation unavailability (for example), the responsible entity’s analysis approach will potentially vary.

Likes 0	
Dislikes 0	

Response

Brittany Millard - Lincoln Electric System - 5	
Answer	No

Document Name	
Comment	
LES supports comments submitted by the MRO NERC Standards Review Forum (NSRF).	
Likes 0	
Dislikes 0	
Response	
Stephen Stafford - Stephen Stafford On Behalf of: Greg Davis, Georgia Transmission Corporation, 1; - Stephen Stafford	
Answer	No
Document Name	
Comment	

R3:

- Replace “Each Planning Coordinator shall” with “Each responsible entity, as identified in Requirement R1, shall”. This may require supplemental wording edits in the requirement.
- The inclusion of “other designated study entities” is not clear.
- The SDT should consider combining this requirement with R4.

R4:

- The SDT should consider combining this requirement with R3.

R5:

- The SDT should consider utilizing the recently adopted NERC Glossary term, System Voltage Limits, in this requirement. “…shall have a criteria for acceptable System Voltage Limits for performing the Extreme Temperature Assessment…”
- {Since this requirement appears to refer to steady-state voltage, the post contingency voltage deviation portion of the existing requirement should be removed. The resultant steady-state voltage level being outside of acceptable high and low limits is the point of concern. For example, if a low voltage criterion is 0.92 p.u., then voltages below this limit would violate this particular criteria regardless of whether the beginning voltage was 0.95 p.u., 0.98 p.u., or any other voltage level.

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- The following bullet contains a wording addition to clarify the applicability of this requirement to System-wide impacts. This is also consistent with wording in other Reliability Standards when referencing these types of impacts.
- “Each responsible entity, as identified in Requirement R1, shall define and document the criteria or methodology used in the Extreme Temperature Assessment analysis to identify instability, uncontrolled separation, or Cascading of the Bulk Electric System.”

R7 & R8:

- It does not appear likely that P0 events would be “expected to produce more severe System impacts”. Therefore, those events would likely not be part of a benchmark assessment as R7 & R8 are currently written. This is true to a lesser extent to P1 events. Additional clarity to this requirement is needed to determine when and if P0 and P1 events are required.

- The standard does not clearly and specifically state whether steady-state and/or stability analysis is to be performed for the identified events as TPL-001 does for instance. The SDT should consider modifying R7 to allow the responsible entity to develop a methodology or rationale in the performance of a benchmark event to appropriately assess it for that entity's planning area, otherwise, additional clarity in the analysis expectations is needed. Different weather events would require a different consideration of applicable contingencies and analysis approaches.
- Some of the lack of clarity may be related to the lack of clarity around the composition of the benchmark events to be determined. If these benchmark events are limited to temperature profiles versus temperature profiles and potential resultant generation unavailability (for example), the responsible entity's analysis approach will potentially vary.

Likes 0	
Dislikes 0	

Response

Daniela Atanasovski - APS - Arizona Public Service Co. - 1

Answer	No
Document Name	

Comment

For R3, AZPS suggests it would be clearer to replace "impacted" with adjoining or neighboring Planning Coordinators since they would be the only impacted PCs.

For R4, AZPS is in agreement with developing system models as described, however, AZPS does not agree that it is necessary to maintain or update the model between studies. AZPS suggests the words "and maintain" be struck.

Likes 0	
Dislikes 0	

Response

Glen Farmer - Avista - Avista Corporation - 5

Answer	No
Document Name	

Comment

EEI does not agree with the language contained in requirements R3, R4, R7, and R8 for the reasons expressed below. (See the proposed changes in boldface to Requirement R3 below)

Proposed changes to Requirement R3:

1. EEI suggests it would be clearer to replace "impacted" with adjoining or neighboring Planning Coordinators since they would be the only impacted PCs.

2. EEI also suggests some changes to the subparts of Requirement R3 to better clarify the required tasks under the PC process.

R3. Each Planning Coordinator shall develop and implement a process for coordinating the development of benchmark planning cases among adjoining Planning Coordinator(s), Transmission Planner(s), and other designated study entities under their purview to ensure benchmark events as identified in Requirement R2 are coordinated. This process shall include: [Violation Risk Factor: Medium] [Time Horizon: Long-term Planning]

3.1. Review of the planning study area boundaries under each Transmission Planner, to ensure study completeness.

3.2. Verification that the benchmark planning cases include seasonal and temperature dependent adjustment for Load, generation, Transmission, and transfers which represents the selected benchmark events.

Proposed revisions to Requirement R4

EEI suggests the subparts of Requirement R8 are better placed under Requirement R4 with the edits suggested below:

R4. Each responsible entity, as identified in Requirement R1, shall develop and maintain System models within its planning area for performing the Extreme Temperature Assessment. The System models shall use data consistent with that provided in accordance with the MOD-032 standard, supplemented by other sources as needed. System models shall be developed for the following conditions: [Violation Risk Factor: High] [Time Horizon: Long-term Planning]

4.1 System conditions based on each benchmark event selected in Requirement R2 for one of the years in the Long-Term Transmission Planning Horizon.

4.2 For each of the models developed for Requirement R4 Part 4.1, a sensitivity analysis shall be performed to demonstrate the impact of changes to the basic assumptions used in the model. To accomplish this, the sensitivity analysis shall include, at a minimum, changes to one of the following conditions:

• Generation,

• Real and reactive forecasted Load, or

• Transfers.

Proposed change to Requirement R7:

EEI disagrees with including a requirement to have a documented rationale for the Contingencies selected because it represents an unnecessary administrative burden.

R7. Each responsible entity, as identified in Requirement R1, shall identify the Contingencies used in performing the Extreme Temperature Assessment for each of the event categories in Table 1 that are expected to produce more severe System impacts within its planning area. [Violation Risk Factor: High] [Time Horizon: Long-term Planning]

Proposed changes to Requirement R8

EEI suggests that subparts 8.1 and 8.2 should be placed under Requirement R4. In addition to this change the last sentence in R8 referencing those subparts should be removed. See EEI comments to Requirement R4 below.

R8 Each responsible entity, as identified in Requirement R1, shall complete an Extreme Temperature Assessment of the Long-Term Transmission Planning Horizon at least once every five calendar years, using the benchmark planning cases and the System models identified in Requirement R3 and R4, and the Contingencies identified in Requirement R7 for each of the event categories in Table 1, and document assumptions and results of the steady state and stability analyses. [Violation Risk Factor: High] [Time Horizon: Long-term Planning]

Likes 0	
Dislikes 0	

Response

Michele Shafer - New York State Electric & Gas (NYSEG) - 6

Answer	No
Document Name	

Comment

Our SMEs only over-arching concern with R's 3-8 are regarding potential discrepancy between TPL-008 and TPL-001 results. As far as I'm aware TPL-001 requires the evaluation of "peak load" and does not require a determination of how "extreme" this condition is. If the ERO's TPL-008 Benchmark event results in the derived TPL-008 case(s) being less stressful than an entity's TPL-001 assessment are TPL-001 Corrective Action Plans generated from non P0/P1 events invalidated?

Likes 0	
Dislikes 0	

Response

Michele Tondalo - United Illuminating Co. - 1

Answer	No
Document Name	

Comment

My only over-arching concern with R's 3-8 are regarding potential discrepancy between TPL-008 and TPL-001 results. As far as I'm aware TPL-001 requires the evaluation of "peak load" and does not require a determination of how "extreme" this condition is. If the ERO's TPL-008 Benchmark event results in the derived TPL-008 case(s) being less stressful than an entity's TPL-001 assessment are TPL-001 Corrective Action Plans generated from non P0/P1 events invalidated?

Likes 0	
Dislikes 0	
Response	
Chantal Mazza - Chantal Mazza On Behalf of: Nicolas Turcotte, Hydro-Quebec (HQ), 1, 5; - Chantal Mazza	
Answer	No
Document Name	
Comment	

- Regarding R3 and R4—it is not clear what the difference is between “planning cases” (R3) and “system models” (R4). These are not defined in the NERC glossary, and their use here should be clarified.
- Regarding R5, FAC-014-3 R6 requires Planning Coordinators and Transmission Planners to use facility ratings, voltage and stability limits that are equal or more limiting than its respective Reliability Coordinators. Presumably this is intended to give PCs/TPs more leeway in criteria for extreme events, but unless some exception is made for FAC-014-3 R6, there may be no further room possible (particularly if the ordinary planning limits are equal to the operational limits, which is probably typical).
- R7 should clearly indicate which contingency categories are required.
- R4, R5, R6, R7 and R8: “Responsible entity” should be defined in the Applicability section or should replaced with “Each Planning Coordinator, in conjunction with its Transmission Planner(s)...”). Suggest to replace 4.1 to “Responsible Entity” instead of “Functional Entity”.
- R6: please complete the phrase“….to identify instability, uncontrolled separation, or Cascading”. For example, are we identifying instability, uncontrolled separation, or Cascading of the System? The Interconnection? If that is the case, we suggest to specify “to identify instability, uncontrolled separation, or Cascading of the System” or “to identify instability, uncontrolled separation, or Cascading Interconnection”.

Likes 0	
Dislikes 0	
Response	
Richard Vendetti - NextEra Energy - 5	
Answer	No
Document Name	
Comment	

R3-Yes,

R4-Yes,

R5- Yes,

R6- “Due to the potential impact of thermal overloads that could require load drops but do not result in instability or cascading, entities should be required to establish acceptable load drop limit thresholds for addressing thermal overloads identified before utilizing non-consequential load drops as a corrective action plan.

R7- “Due to the prevalence of stuck breaker conditions and their impacts during extreme **cold** conditions, corrective action plans should be required for stuck breaker conditions resulting in voltage violations, thermal violations (beyond load drop limit), or cascading.

R8 – Yes, but comments for R6 & R7 should be addressed.

Likes 0	
Dislikes 0	

Response

Devin Shines - PPL - Louisville Gas and Electric Co. - 1,3,5,6 - SERC,RF

Answer	No
Document Name	

Comment

LG&E and KU agrees with EEI's comments.

Likes 0	
Dislikes 0	

Response

Chris Wagner - Santee Cooper - 1, Group Name Santee Cooper

Answer	No
Document Name	

Comment

R3 requires Planning Coordinator (PC) to develop and implement a process to coordinate the development of benchmark planning cases but the benchmark event likely impacts the transmission system beyond the PC’s planning area. The planning cases would not be modeled correctly if it only includes the system conditions within the PC’s area alone. The responsibility of coordinating and developing the models is well beyond the entity’s alone. At a minimum, the Reliability Coordinator (RC) area should be included in the coordination and development process and the event can reach well beyond the RC area.

R4 requires the maintenance of the system models for performing the assessment. If the models have to be developed and coordinated on a regional basis and other entities need to perform the assessment at a different time or year (minimum once every 5 years), the requirement is not clear on the

responsibility of the entity in developing and providing the extreme weather models to other entities for the year(s) that the assessment is required to be performed for the entity itself.

Likes 0	
Dislikes 0	

Response

Kristine Martz - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable

Answer	No
Document Name	

Comment

EEI does not agree with the language contained in requirements R3, R4, R7, and R8 for the reasons expressed below. (See the proposed changes in boldface to Requirement R3 below)

Proposed changes to Requirement R3:

1. EEI suggests it would be clearer to replace “impacted” with adjoining or neighboring Planning Coordinators since they would be the only impacted PCs.

2. EEI also suggests some changes to the subparts of Requirement R3 to better clarify the required tasks under the PC process.

R3. Each Planning Coordinator shall develop and implement a process for coordinating the development of benchmark planning cases among **adjoining** Planning Coordinator(s), Transmission Planner(s), and other designated study entities **under their purview to ensure** benchmark events as identified in Requirement R2 **are coordinated.** This process shall **include**: *[Violation Risk Factor: Medium] [Time Horizon: Long-term Planning]*

3.1. **Review of the** planning study area **boundaries under each Transmission Planner to ensure study completeness**.

3.2. **Verification that** the benchmark planning cases include seasonal and temperature dependent adjustment for Load, generation, Transmission, and transfers which represents the selected benchmark events.

Proposed revisions to Requirement R4

EEI suggests the subparts of Requirement R8 are better placed under Requirement R4 with the edits suggested below:

R4. Each responsible entity, as identified in Requirement R1, shall develop and maintain System models within its planning area for performing the Extreme Temperature Assessment. The System models shall use data consistent with that provided in accordance with the MOD-032 standard, supplemented by other sources as needed**. System models shall be developed for the following conditions:** [Violation Risk Factor: High] [Time Horizon: Long-term Planning]

4.1 System conditions based on each benchmark event selected in Requirement R2 for one of the years in the Long-Term Transmission Planning Horizon.

4.2 For each of the models developed for Requirement R4 Part 4.1, a sensitivity analysis shall be performed to demonstrate the impact of changes to the basic assumptions used in the model. To accomplish this, the sensitivity analysis shall include, at a minimum, changes to one of the following conditions:

- **Generation,**
- **Real and reactive forecasted Load, or**
- **Transfers.**

Proposed change to Requirement R7:

EEI disagrees with including a requirement to have a documented rationale for the Contingencies selected because it represents an unnecessary administrative burden.

R7. Each responsible entity, as identified in Requirement R1, shall identify the Contingencies used in performing the Extreme Temperature Assessment for each of the event categories in Table 1 that are expected to produce more severe System impacts within its planning area. *[Violation Risk Factor: High] [Time Horizon: Long-term Planning]*

Proposed changes to Requirement R8

EEI suggests that subparts 8.1 and 8.2 should be placed under Requirement R4. In addition to this change the last sentence in R8 referencing those subparts should be removed. See EEI comments to Requirement R4 below.

R8. Each responsible entity, as identified in Requirement R1, shall complete an Extreme Temperature Assessment of the Long-Term Transmission Planning Horizon at least once every five calendar years, using the benchmark planning cases and the System models identified in Requirement R3 and R4, and the Contingencies identified in Requirement R7 for each of the event categories in Table 1, and document assumptions and results of the steady state and stability analyses. [Violation Risk Factor: High] [Time Horizon: Long-term Planning]

Likes 0	
Dislikes 0	

Response

Hayden Maples - Hayden Maples On Behalf of: Jeremy Harris, Evergy, 3, 5, 1, 6; Kevin Frick, Evergy, 3, 5, 1, 6; Marcus Moor, Evergy, 3, 5, 1, 6; Tiffany Lake, Evergy, 3, 5, 1, 6; - Hayden Maples

Answer	No
Document Name	

Comment

Evergy supports and incorporates by reference the comments of the Edison Electric Institute (EEI) and Midwest Reliability Organization's NERC Standards Review Forum (MRO NSRF) on question 4

Likes 0	
Dislikes 0	

Response

Stephen Whaite - Stephen Whaite On Behalf of: Tyler Schwendiman, ReliabilityFirst , 10; - Stephen Whaite, Group Name ReliabilityFirst Ballot Body Member and Proxies	
Answer	No
Document Name	
Comment	

Under R6 and the Table 1 Stability Performance Criteria, does the SDT intend for dynamic stability simulation to be required to identify instability, uncontrolled separation, or Cascading consistent with the April 14, 2023 NERC report developed for Project 2023-06 CIP-014? Does the SDT intend for responsible entities to be required to run dynamics for all contingencies, or would for entities be permitted to develop criteria to identify a subset of contingencies for dynamic analysis? RF recommends the drafting team coordinate with the Project 2023-06 CIP-014 Risk Assessment Refinement drafting team to ensure that any best practices being developed by that team in support of drafting a standard to effectively require consistent and effective approaches for evaluating instability, uncontrolled separation, or Cascading are applied in drafting TPL-008.

Additionally, RF is concerned that R8 may not provide enough specificity regarding the time frame to be assessed from the Long-Term Transmission Planning Horizon. Does the SDT intend every year in the horizon to be studied at least once every five calendar years or one year in the horizon to be selected for study (e.g., TPL-001-5.2 R2 Part 2.2.1)?

Lastly, R8 Part 8.2 states that the Extreme Temperature Assessment shall include, at a minimum, changes to one of the following conditions: Generation; Real and reactive forecasted Load; or Transfers. RF is concerned that the assessment should not just consider one of the listed conditions but all of the listed conditions.

Likes 0	
Dislikes 0	
Response	
Andy Fuhrman - Andy Fuhrman On Behalf of: Theresa Allard, Minnkota Power Cooperative Inc., 1; - Andy Fuhrman	
Answer	No
Document Name	
Comment	

MPC supports comments submitted by the MRO NERC Standards Review Forum (NSRF).

Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	
Response	
Sean Bodkin - Dominion - Dominion Resources, Inc. - 6, Group Name Dominion	
Answer	No
Document Name	
Comment	

Dominion Energy supports EEI comments. In addition, the expectations of what these cases will look like and just how they must be developed is not well-defined in R4.

Likes 0	
Dislikes 0	

Response

Joshua London - Eversource Energy - 1, Group Name Eversource

Answer	No
Document Name	

Comment

R3: Eversource disagrees with the use of the word “impacted” in the following phrase “impacted Planning Coordinator(s), Transmission Planner(s), and other designated study entities…” Eversource suggests using the term “adjacent” as found in other planning standards. If other impacted entities want this information, they can request the entire assessment via R11.

Likes 0	
Dislikes 0	

Response

Broc Bruton - Broc Bruton On Behalf of: Byron Booker, Oncor Electric Delivery, 1; - Broc Bruton

Answer	No
Document Name	

Comment

For R3, Oncor agrees with the idea that the PC should have the responsibility for coordinating and developing benchmark planning cases.

For R4, “Each responsible entity…” could be replaced with language that is similar to R3, and it would instead read “Each Planning Coordinator….”

For R5, Oncor urges its comment from R4, particularly because the PC would develop and maintain the criteria for acceptable System steady state voltage limits and post-Contingency voltage deviations.

For R6, Oncor urges its comment from R5. The PC would need to ensure that all entities use the same methodology and criteria for instability, uncontrolled separation, or Cascading.

For R8, Oncor asks whether language can be added to ensure that entities can take credit for studies that are run as part of the Extreme Temperature Assessment rather than running those studies again as part of the assessment to be conducted under TPL-001? For example, the Extreme Temperature Assessment could take the place of the sensitivity analysis required within the TPL-001 assessment.

Likes 0	

Dislikes 0	

Response

Hillary Creurer - Allete - Minnesota Power, Inc. - 1	
Answer	No
Document Name	

Comment
Minnesota Power supports MRO’s NERC Standards Review Forum’s (NSRF) comments.

Likes 0	
Dislikes 0	

Response

Lenise Kimes - City and County of San Francisco - 1,5 - WECC	
Answer	No
Document Name	

Comment
. • R3 - The responsibility is assigned to “each PC,” but the weather events selected from the ERO library will certainly cross multiple PC footprints in almost every case. This argues for the development of regional processes and the development of base cases that could be used by multiple PC entities. Regional planning groups or the regional entities (such as WECC) may be better groups for developing these processes and base cases than the PC. o As currently written, R3 does not appear to preclude PCs from working together on this requirement. Does the drafting team envision this as an acceptable way to meet R3? o If so, an alternative wording might be: Each Planning Coordinator shall coordinate with other impacted Planning Coordinator(s), Transmission Planner(s), and other designated study entities to develop and implement joint and/or individual processes for coordinating the development of benchmark planning cases based on the selected benchmark events as identified in Requirement R2.   • R4 - It would be helpful if this requirement (or other NERC guidance for this requirement) would provide additional details on what additional system models (e.g., steady state and stability) are required and how the required modeling data differs from the current MOD-032 and TPL-001 requirements. There may also be some data requirements for the Extreme Temperature Assessment that are not addressed by the current version of MOD-032, such as special high/cold temperature Facility Ratings, generation de-rating and dispatch patterns, or climate change forecasts that could impact the temperature assumptions for load models. Since MOD-032 does not currently address these data requirements, they need to be addressed in TPL-008 as an appendix, in a Guidelines and Technical Basis section, or in a future modification to MOD-032 itself.

• R5 - As with TPL-007 and TPL-001, it appears that the study criteria are set by the “responsible entity” which is negotiated under R1. While the responsible entity is charged with maintaining system reliability, the criteria will also determine the number of CAPs and amount of transmission investment that are required to meet TPL-008. TPL-001-5.1 is already triggering the need for additional transmission investment over the coming years, so TO/GO entities that will actually pay for the upgrades will be further taxed by TPL-008. The implementation plan needs to be long enough so that the investments for TPL-008 do not coincide closely with the TPL-001-5.1 implementation period.

• R5 – This requirement states that the responsible entity “shall have criteria” while R6 states that the responsible entity “shall define and document criteria?” The wording in R6 appears to be better, since both sets of criteria should be “defined and documented” in each Extreme Temperature Assessment report. It is suggested that the wording from R6 be used for R5.

• R6 - Instability criteria are generally not “adjustable” limits. That is, the system is either unstable or it is not. If the events in the ERO library are too severe and lead to a significant increase in the events that trigger instability, these could be expensive problems to fix. See comments for R2.

• R7 - It would be helpful to see this requirement address the differences between the set of contingencies for TPL-001 rather than an absolute set - this provides more value for all entities rather than showing a largely duplicative full set of outages.

• R7 - P5 events are already very unlikely since they require a fault event plus an equipment failure, which is essentially a multiple outage on par with the likelihood of a P6 event (which is excluded from this standard). The Extreme Temperature event benchmark cases are very unlikely extreme events to begin with (and an extreme sensitivity to the TPL-001 studies), which further reduces the likelihood of having a P5 event during an Extreme Temperature event. In addition, the severity of significant P5 events strongly suggests upgrades will already be identified by the annual Assessment required by TPL-001.

o Given the amount of work already added by this standard, the low likelihood of the P5 events on par with other excluded events from TPL-001 (such as P6), and the strong likelihood that impacts from these events are already adequately captured by the TPL-001 Assessment studies, we strongly recommend removing P5 events from Table 1 of TPL-008.

• R8 - While it is a helpful limitation to only require one assessment year from the Long-Term Planning Horizon, this may not be practicable for the development of CAPs that involve capital investment as these projects require multiple years to permit and construct. The CAPs that involve capital investment will need to be reviewed and refined as the potential violations move into the Near-Term Planning Horizon and prior to the operating horizon. TPL-001 studies will not include the conditions and criteria required to address these studies, so separate Extreme Temperature event benchmark cases will need to be developed for the Near-Term Transmission Planning Horizon to address these cases.

• R8 - Especially for the very first Extreme Temperature Assessment, it is possible that a large number of CAPs may be identified for criteria violations that already exist in the Near-Term Planning Horizon. This will create a backlog of projects which will need to be started immediately to meet the implementation plan period. These projects will be on top of the P5 projects that are already backlogged for implementation of TPL-001-5.1.

o It is recommended that the implementation plan allow a ten-year period for implementation of CAPs that require capital investment to construct new facilities. This would also match up well with performing these studies for the Long-Term Transmission Planning Horizon since the studied case could be a ten year case.

• R8.2 - Sensitivity to generation, load and transfers are already studied as part of TPL-001-5.1. The sensitivity additional studies proposed for R8.2 are unlikely to yield any new information and will be duplicative work for Transmission Planners. The Extreme Temperature Assessment is

already a very extreme sensitivity study itself that should already capture modified load, generation, transmission, and transfers befitting this analysis per R3, so it is not needed nor appropriate to study sensitivities for sensitivity cases.

o R8.2 should be removed entirely to reduce unnecessary workload which will provide information that is duplicative and provide no additional value since the studies under this standard are already in effect sensitivities in comparison to the Assessment studies under TPL-001.

Likes 0	
Dislikes 0	

Response

Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC

Answer	No
Document Name	

Comment

The approval process for benchmark assessments is not clearly defined or mentioned so clarity would be needed there. “Extreme” weather will differ across the geographical footprints and in some cases across an individual TP/PCs footprint. There may be a need to consider impacts within areas of a TP/PCs footprint which may complicate issues but would reflect risks. While Requirement 3.1 appears to capture the thought, are mechanisms in place in planning study tools to accommodate the approach?

The phrase “other designated study entities” is unclear in Requirement R3. How will the parameters be limited (in terms of bandwidth) to allow planning to occur that “represents” the benchmark case? There are no limits as to how many benchmark cases will be developed and could be as simple as 2 (one cold and one hot weather). Is it clear that the benchmark cases will not exactly match the conditions that may need studied but if the flexibility in use is so broad, the benchmark event quality of the assessment could be lost. Requirement 4 – Is that already covered in TPL-001 (develop and maintain)? Requirement 5, Requirements 5, 6, and 7 appears to be very similar to Requirements R5 and R6 in TPL-001-5. In essence the language in R5/R6/R7 may be partially if not wholly duplicative of language in TPL-001-5 and the SDT should consider removal of the requirements and explain what is expected in the Technical Rationale. Requirement 8 sensitivity seems to be limited and may not reveal cases where the extreme weather conditions impose critical reliability issues. Are the sensitivities limited to the “boundary” as called out in Requirement R3.1?

Likes 0	
Dislikes 0	

Response

Alyssia Rhoads - Public Utility District No. 1 of Snohomish County - 1

Answer	No
Document Name	

Comment

Stability expectations unclear and needs clarification for which sorts of analyses are expected (angular, voltage, freq). Language is similar to TPL-007 but should be more bases on TPL-001.Since this is for wide events,PC should be responsible, not TP.

Likes 0	
Dislikes 0	

Response

Tim Kelley - Tim Kelley On Behalf of: Charles Norton, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Foung Mua, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Ryder Couch, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Wei Shao, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; - Tim Kelley, Group Name SMUD and BANC

Answer	No
Document Name	

Comment

The Standard Drafting Team should clarify how much coordination is required among neighboring PCs. Does “coordination” mean that neighboring PCs must choose the same benchmark event? If the planned study area boundary bisects a PC’s planning area, does that PC have to do two benchmark planning cases?

Extreme weather events involve a large geographical area that extends beyond most PCs’ footprints, so coordination among “impacted PCs” will be complicated and difficult. It will also be challenging to identify “impacted PCs” without the planning cases and Extreme Temperature Assessment. Using “adjacent PCs” is more practical.

For Requirement R8.2, requiring sensitivity studies on top of the new extreme weather events is extensive and unnecessary.

Likes 0	
Dislikes 0	

Response

Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC

Answer	No
Document Name	

Comment

BPA recommends extreme benchmark events be evaluated for their impact in a larger region than just the TP/PC area. Regional Entities are better situated to select base cases and perform assessments in collaboration with the utilities in the region. Thus, utilities will be better suited to consider mitigation plans in their system based on existing criteria, TPL-001-5.

BPA recommends the P0 base case include all transmission lines in service. While there could be transmission outages, particularly during extreme cold storms, these are addressed in the Operating Horizon by developing and implementing operating plans. Additionally, BPA seeks clarity on how the PC can justify why it selected one set of outages versus another, thereby setting the PC up for a potential compliance failure.

Likes 0	
Dislikes 0	

Response

Leslie Hamby - Southern Indiana Gas and Electric Co. - 3,5,6 - RF	
Answer	No
Document Name	

Comment

R3: For R3, Southern Indiana Gas & Electric Company d/b/a CenterPoint Energy Indiana South (SIGE) recommends adding “adjacent” before “impacted” as illustrated below:

R3. Each Planning Coordinator shall develop and implement a process for coordinating the development of benchmark planning cases among ***adjacent*** impacted Planning Coordinator(s), Transmission Planner(s), and other designated study entities based on the selected benchmark events as identified in Requirement R2…

R5: For R5, SIGE requests clarification as to how the criteria for “steady state voltage limits and post-Contingency voltage deviations” under TPL-008, R5 differs from what entities have defined under TPL-001-5.1. SIGE has concerns that R5 may duplicate work already occurring under TPL-001-5.1.

R7: For R7, SIGE recommends revisions to align with R3.1 as well as strike the last sentence of R7. Recommend revisions are illustrated below:

R7**.** Each responsible entity, as identified in Requirement R1, shall identify Contingencies used in performing the Extreme Temperature Assessment for each of the event categories in Table 1 that are expected to produce more severe System impacts within ***its*** planning ***study*** area ***boundary defined in Part 3.1***.

Likes 0	
Dislikes 0	

Response

Diana Aguas - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE	
Answer	No
Document Name	

Comment

Please refer to Question 1 comments.

Likes 0	
Dislikes 0	

Response

Adrian Andreoiu - BC Hydro and Power Authority - 1, Group Name BC Hydro	
Answer	No
Document Name	
Comment	

BC Hydro appreciates the drafting team's efforts and the opportunity to comment.

1. Requirements R3 & R4: Individual PCs and TPs having to conduct Extreme Temperature Assessments may find these requirements burdensome. As extreme weather events may encompass multiple PC Areas, and depending on the information available in conjunction with benchmark events, the entity identification, benchmark planning cases and system models development and study assumptions can pose significant challenges.

At this stage of development it does not seem clear which entity(ies) will select most appropriate Events for study and how appropriate study basecases are to be created and eventually coordinate the study.

BC Hydro requests that the drafting team clarify obligations among the required entities, and BC Hydro suggests that a Regional Coordinator, such as Regional Reliability Organizations may be more suitable to take an active role in identifying the Events for study, and developing planning study cases that involve multiple PCs within their area. This approach is similar to TPL-007, where WECC collects data from PCs and creates planning cases for use in the PC's studies.

2. Requirement R4 references MOD-032. Given the expanded scope of data models for the Extreme Temperature Assessments, the current MOD-032 data model specifications may not be adequate.

3. Requirement R8 mandates that entities conduct Extreme Temperature Assessments for both benchmark planning cases (Part 8.1) and sensitivity cases (Part 8.2). Given that extreme weather benchmark planning cases already encompass system conditions during extreme heat or extreme cold events, the benchmark extreme weather planning study may inherently serve as a sensitivity study in addition to the standard TPL-001-5 transmission planning assessment.

4. While recognizing the direction in FERC Order 896 to require sensitivity analyses, there does not seem to be an evaluation statistical/probabilistic or otherwise to inform the selection of adequate contingency and sensitivity scenarios that would lead to a measurable and improved outcome.

BC Hydro appreciates the Technical Rationale discussion and considerations vis-à-vis the FERC Order 896 directive, and suggests that additional analysis or other supporting documentation will be beneficial to further substantiate the required assessment methodology.

Likes 0	
Dislikes 0	
Response	

Eric Sutlief - CMS Energy - Consumers Energy Company - 3,4,5 - RF	
Answer	No
Document Name	
Comment	

Consumers Energy agrees with the comments and suggestions from EEI:

EEI does not agree with the language contained in requirements R3, R4, R7, and R8 for the reasons expressed below. (See the proposed changes in boldface to Requirement R3 below)

Proposed changes to Requirement R3:

1. EEI suggests it would be clearer to replace “impacted” with adjoining or neighboring Planning Coordinators since they would be the only impacted PCs.

2. EEI also suggests some changes to the subparts of Requirement R3 to better clarify the required tasks under the PC process.

R3. Each Planning Coordinator shall develop and implement a process for coordinating the development of benchmark planning cases among adjoining Planning Coordinator(s), Transmission Planner(s), and other designated study entities under their purview (remove: based on the selected) to ensure benchmark events as identified in Requirement R2 are coordinated. This process shall include: [Violation Risk Factor: Medium] [Time Horizon: Long-term Planning]

3.1. (Remove: Define the) Review of the planning study area (remove: boundary) boundaries under each Transmission Planner, (remove: based) to ensure study completeness.

3.2. Verification that (remove: Modify) the benchmark planning cases (remove: to) include seasonal and temperature dependent adjustment for Load, generation, Transmission, and transfers which represents the selected benchmark events.

Proposed revisions to Requirement R4

EEI suggests the subparts of Requirement R8 are better placed under Requirement R4 with the edits suggested below:

R4. Each responsible entity, as identified in Requirement R1, shall develop and maintain System models within its planning area for performing the Extreme Temperature Assessment. The System models shall use data consistent with that provided in accordance with the MOD-032 standard, supplemented by other sources as needed (remove:, and shall represent projected System conditions based on the selected benchmark events as identified in Requirement R2). System models shall be developed for the following conditions: [Violation Risk Factor: High] [Time Horizon: Long-term Planning]

4.1 System conditions based on each benchmark event selected in Requirement R2 for one of the years in the Long-Term Transmission Planning Horizon.

4.2 For each of the models developed for Requirement R4 Part 4.1, a sensitivity model shall be developed to demonstrate the impact of changes to the basic assumptions used in the model. To accomplish this, the sensitivity model shall include, at a minimum, changes to one of the following conditions:

Generation, Real and reactive forecasted Load, or Transfers.

Proposed change to Requirement R7:

EEI disagrees with including a requirement to have a documented rationale for the Contingencies selected because it represents an unnecessary administrative burden.

R7. Each responsible entity, as identified in Requirement R1, shall identify the Contingencies used in performing the Extreme Temperature Assessment for each of the event categories in Table 1 that are expected to produce more severe System impacts within its planning area. (Remove: The rationale for those Contingencies selected for evaluation shall be available as supporting information.) [Violation Risk Factor: High] [Time Horizon: Long-term Planning]

Proposed changes to Requirement R8

EEI suggests that subparts 8.1 and 8.2 should be placed under Requirement R4. In addition to this change the last sentence in R8 referencing those subparts should be removed. See EEI comments to Requirement R4 below.

R8 Each responsible entity, as identified in Requirement R1, shall complete an Extreme Temperature Assessment of the Long-Term Transmission Planning Horizon at least once every five calendar years, using the benchmark planning cases and the System models identified in Requirement R3 and R4, and the Contingencies identified in Requirement R7 for each of the event categories in Table 1, and document assumptions and results of the steady state and stability analyses. (Remove: The Extreme Temperature Assessment shall include the following.) [Violation Risk Factor: High] [Time Horizon: Long-term Planning]

Likes 0	
Dislikes 0	

Response

Isidoro Behar - Long Island Power Authority - 1

Answer	No
Document Name	

Comment

Regarding R3:

R3 requires the development of benchmark planning cases based on the selected benchmark events as identified in Requirement R2.

R3.2 states:

“The process shall… Modify the benchmark planning cases to include seasonal and temperature dependent adjustment for Load, generation, Transmission, and transfers which represents the selected benchmark events.”

The intent of the phrase “modify the benchmark planning cases” and the overall intent of R3.2 is not entirely clear.

We recommend to clarify the wording of “modify the benchmark planning cases”, and R3.2 as a whole - such as:

“3.2 The process shall require that the benchmark planning cases reflect seasonal and temperature dependent adjustment(s) for Load, generation, Transmission, and transfers that are representative of the selected benchmark events.”

In other words, the benchmark planning cases to be developed should reflect the adjustments specified in R3.2.

Regarding R4:

R4 mentions “shall represent projected System conditions based on the selected benchmark events as identified in Requirement R2”.

Question for SDT: is this phrasing consistent with (or redundant to) the wording in R3.2?

Regarding R3 and R4—it is not clear what the difference is between “planning cases” (R3) and “system models” (R4). These are not defined in the NERC glossary, and their use here should be clarified.

Regarding R5, which states:

”Each responsible entity, as identified in Requirement R1, shall have criteria for acceptable System steady state voltage limits and post-Contingency voltage deviations for performing the Extreme Temperature Assessment in accordance with Requirement R3.”

We believe the reference to Requirement 3 is misplaced. Recommend to either remove the reference to R3, or change to reference to R8 (which specifies the completion of an Extreme Temperature Assessment).

Question for SDT: was thermal criteria intentionally omitted from R5?

Regarding Measure 5: We believe the reference to Requirement 5 is misplaced. Recommend to either remove the reference to R5, or change to reference to R8 (which specifies the completion of an Extreme Temperature Assessment).

Regarding R5, FAC-014-3 R6 requires Planning Coordinators and Transmission Planners to use facility ratings, voltage and stability limits that are equal or more limiting than its respective Reliability Coordinators.

Question for SDT: Does FAC-014-3 R6 still apply for the Extreme Temperature Assessment, or can the PC / TP choose less stringent criteria than the criteria specified in the RC’s SOL methodology?

Regarding R7:

“Each responsible entity, as identified in Requirement R1, shall identify Contingencies used in performing the Extreme Temperature Assessment for each of the event categories in Table 1 that are expected to produce more severe System impacts within its planning area. The rationale for those Contingencies selected for evaluation shall be available as supporting information.”

Recommend to replace the term “event categories” with the term “planning events, to be more consistent with TPL-001-5.1 R3.4.

Regarding R8:

It is recommended to expand this requirement to clearly indicate that steady state and stability analyses are both required for the Extreme Temperature assessment (for example, consider using the phrase “shall consist of steady state and stability analyses” ….).

Likes 0	
Dislikes 0	

Response

Ben Hammer - Western Area Power Administration - 1

Answer	No
Document Name	

Comment

Please address the following in R3-R8:

R3 – Please clarify obligations on coordination with neighboring PCs to perform an Extreme Temperature Assessment. If the particular extreme heat or extreme cold benchmark event is only applicable to a limited portion of a PC's footprint (Part 3.1), verify that the PC has satisfied it obligation under R2 for completing an Extreme Temperature Assessment for either "one extreme heat benchmark event or one extreme cold benchmark event" for that five-calendar year period (R8).

R4 – Revisit after benchmark event cases are available.

R5 – R5 may be duplicative of work being performed under TPL-005.1. How is the criteria for steady state voltage limits and post-Contingency voltage deviations under TPL-008, R5 different than what entities have defined under TPL-001-5.1?

R6 - R6 may duplicate work that is already occurring under TPL-001-5.1, PRC-006, etc. or be excessive as found to be the case with Recommendation #11 in the FERC-NERC Winter Storm Elliott Report. In that case, inertia and frequency data indicated Winter Storm Elliott was not a low inertia event; but rather a shortage of generation event. As a shortage of generation event, Winter Storm Elliott no longer warrants the level of effort required to conduct an inertia study. In lieu of a study, a report will be written to describe the analysis completed in support of the recommendation. Similarly, Winter Storm Uri was tied to under-frequency load shed (UFLS) and UFLS design assessments performed pursuant to PRC-006.

Please justify the need for R6 by:

Describing where there have been extreme temperature events which have resulted in system instability, uncontrolled separation, or Cascading and

To consider providing planning entities with an "off-ramp" (e.g. written report) when analysis indicates an Extreme Temperature Assessment is not warranted.

R7 – To clarify that the Extreme Temperature Assessment is limited to the planning study area boundary defined in Part 3.1., it is requested that the SDT modify requirement R7 as follows:

R7. Each responsible entity, as identified in Requirement R1, shall identify Contingencies used in performing the Extreme Temperature Assessment for each of the event categories in Table 1 that are expected to produce more severe System impacts within the planning study area boundary defined in Part 3.1. The rationale for those Contingencies selected for evaluation shall be available as supporting information.

Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	

Response

Mark Garza - FirstEnergy - FirstEnergy Corporation - 4, Group Name FE Voter

Answer	No
Document Name	

Comment

FirstEnergy requests additional clarity on coordination when more than one PC/TP are impacted – basically the management of different processes across PC/TP footprints.

In addition, FirstEnergy requests the Drafting Team look at the possibility of a responsible entity to have multiple benchmark cases for those footprints that include differing extreme heat or extreme cold weather conditions in its single footprint of responsibility.

Likes 0	
Dislikes 0	

Response

Robert Follini - Avista - Avista Corporation - 3

Answer	No
Document Name	

Comment

The area of impact is vague and should be clearly defined.

Likes 0	
Dislikes 0	

Response

Duane Franke - Manitoba Hydro - 1,3,5,6 - MRO

Answer	No
Document Name	

Comment

Requirement 3.2 states that adjustments must be made for load, generation, transmission, and transfers. This will be a significant undertaking for industry load forecasting entities, generator owners, and transmission owners to respond to information requests from the entities responsible for the development of the benchmark planning cases (Planning Coordinators and Transmission Planners). It is recommended that NERC work with industry to develop a guideline and best practices document to determine where reasonable approximations can be made without submitting information requests to Distribution Providers, Generator Owners, and Transmission Owners.

It would be preferred if the ERO's review of past events could be used to develop relatively simple recommendations for the PC/TP to use in their extreme heat and extreme cold benchmarks. For example, the extreme cold event could consider a temperature 5C below historic maximum cold weather events. The PC/TP should document their assumptions on expected generator availability and imports.

The PC/TP are in the best position to develop their own planning cases that reflect seasonal and temperature dependent adjustments to load, generation and transfers. The planning study area boundary should be limited to the PC area in order to develop corrective action plans that have a chance on being implemented. Neighbouring PCs should have an opportunity to review cases (optional) and study plans and assumptions so that the availability of imports and generation can be modeled more accurately.

Likes 0	
Dislikes 0	

Response

Rachel Schuldt - Black Hills Corporation - 6, Group Name Black Hills Corporation - All Segments

Answer	No
Document Name	

Comment

Black Hills Corporation agrees with the proposed changes from EEI. 4.1 and 4.2 are better suited to be part of Requirement R4. Black Hills Corporation agrees with EEI's proposed changes to Requirements R7 and R8. This commentary from EEI is included below:

EEI does not agree with the language contained in requirements R3, R4, R7, and R8 for the reasons expressed below. (See the proposed changes in boldface to Requirement R3 below)

Proposed changes to Requirement R3:

1. EEI suggests it would be clearer to replace "impacted" with adjoining or neighboring Planning Coordinators since they would be the only impacted PCs.

2. EEI also suggests some changes to the subparts of Requirement R3 to better clarify the required tasks under the PC process.

R3. Each Planning Coordinator shall develop and implement a process for coordinating the development of benchmark planning cases among **adjoining** Planning Coordinator(s), Transmission Planner(s), and other designated study entities **under their purview (*remove:* based on the selected) to ensure** benchmark events as identified in Requirement R2 **are coordinated.** This process shall **include**: *[Violation Risk Factor: Medium] [Time Horizon: Long-term Planning]*

3.1. (*Remove:* Define the) Review of the planning study area (*remove:* **boundary) boundaries under each Transmission Planner, (*remove*: based) to ensure study completeness**.

3.2. Verification that (*remove:* Modify) the benchmark planning cases (*remove:* **to)** include seasonal and temperature dependent adjustment for Load, generation, Transmission, and transfers which represents the selected benchmark events.

Proposed revisions to Requirement R4

EEI suggests the subparts of Requirement R8 are better placed under Requirement R4 with the edits suggested below:

R4. Each responsible entity, as identified in Requirement R1, shall develop and maintain System models within its planning area for performing the Extreme Temperature Assessment. The System models shall use data consistent with that provided in accordance with the MOD-032 standard, supplemented by other sources as needed (*remove:*, **and shall represent projected System conditions based on the selected benchmark events as identified in Requirement R2). System models shall be developed for the following conditions:** [Violation Risk Factor: High] [Time Horizon: Long-term Planning]

4.1 System conditions based on each benchmark event selected in Requirement R2 for one of the years in the Long-Term Transmission Planning Horizon.

4.2 For each of the models developed for Requirement R4 Part 4.1, a sensitivity model shall be developed to demonstrate the impact of changes to the basic assumptions used in the model. To accomplish this, the sensitivity model shall include, at a minimum, changes to one of the following conditions:

- **Generation,**
- **Real and reactive forecasted Load, or**
- **Transfers.**

Proposed change to Requirement R7:

EEI disagrees with including a requirement to have a documented rationale for the Contingencies selected because it represents an unnecessary administrative burden.

R7. Each responsible entity, as identified in Requirement R1, shall identify the Contingencies used in performing the Extreme Temperature Assessment for each of the event categories in Table 1 that are expected to produce more severe System impacts within its planning area. (*Remove:* **The rationale for those Contingencies selected for evaluation shall be available as supporting information.)** *[Violation Risk Factor: High] [Time Horizon: Long-term Planning]*

Proposed changes to Requirement R8

EEI suggests that subparts 8.1 and 8.2 should be placed under Requirement R4. In addition to this change the last sentence in R8 referencing those subparts should be removed. See EEI comments to Requirement R4 below.

R8 Each responsible entity, as identified in Requirement R1, shall complete an Extreme Temperature Assessment of the Long-Term Transmission Planning Horizon at least once every five calendar years, using the benchmark planning cases and the System models identified in Requirement R3 and R4, and the Contingencies identified in Requirement R7 for each of the event categories in Table 1, and document assumptions and results of the steady state and stability analyses. (*Remove:* **The Extreme Temperature Assessment shall include the following.)** [Violation Risk Factor: High] [Time Horizon: Long-term Planning]

Likes 0	
Dislikes 0	

Response

Michael Whitney - Northern California Power Agency - 3, Group Name NCPA

Answer	No
Document Name	

Comment

NO, These assessment should be performed by the Regional Entities. There appears to be too much room for coordination issues having one Transmission Planner (TP) or Planning Coordinator (PC) having to rely on other TPs or PCs to meet their requirement deadlines.

Likes 0	
Dislikes 0	

Response

Lauren Giordano - Lauren Giordano On Behalf of: Dennis Sismaet, Northern California Power Agency, 4, 6, 3, 5; Marty Hostler, Northern California Power Agency, 4, 6, 3, 5; Michael Whitney, Northern California Power Agency, 4, 6, 3, 5; - Lauren Giordano

Answer	No
Document Name	

Comment

NO, These assessment should be performed by the Regional Entities. There appears to be too much room for coordination issues having one Transmission Planner (TP) or Planning Coordinator (PC) having to rely on other TPs or PCs to meet their requirement deadlines.

Likes 0	
Dislikes 0	

Response

Jessica Cordero - Unisource - Tucson Electric Power Co. - 1 - WECC

Answer	No
Document Name	

Comment

R3: No. This requirement doesn't put boundaries on adjacent entities for requesting unlimited cases. Proposed language: **"Each PC shall develop and implement a process for development of benchmark planning cases among entities within its PC Area based on the benchmark events selected in Requirement R2. This process shall:**

3.1 (no change)

3.2 (no change)

R4-R6: No. The issue is with double jeopardy with TPL-001-5.1 not the language since it is already included as a similar requirement in TPL-001-5. No problem if this is in a single standard.

R7: Yes but should specify P0, P1, P2, P4, P5, P7 not refer to events in Table 1 of this standard. Table 1 is used to commonly refer to Table 1 of TPL-001-5 and the incomplete list of Planning Events can be confusing.

R8: No. Eliminate subrequirement 8.2. Sensitivity analysis is overly burdensome for an extreme weather scenario. We are already looking at unusual circumstances and now adding more on top of it with generation, load, or transfer changes.

Documenting assumptions and results is separate from performing analysis and should be in different requirements.	
Likes 0	
Dislikes 0	
Response	
Jennifer Weber - Tennessee Valley Authority - 1,3,5,6 - SERC	
Answer	No
Document Name	
Comment	
We can agree with the majority of the requirements. However, we are unable to agree with the concept of a sensitivity analysis for an extreme scenario as likely contemplated by the benchmark scenarios required. As noted previously, we are unable to agree with R2 due to lack of clarity. Accordingly, we are not able to agree with R8.2, suggesting that a sensitivity analysis may be required to be performed in addition to what is likely to be an excessively extreme scenario, as determined by the extreme temperature assessment. This requirement seems to suggest we assess an extreme scenario in addition to the extreme scenario. In summary, there is a current lack of detail about how the extreme weather event base cases will be constructed. The information is not present in either the standard or guidance document. Due to this lack of detail there are several possible objections to how the cases might be put together. For example, since the study is already required to consider the contingencies listed in the Table 1, the extreme weather event base cases should only consider total system load and generation dispatch but not any additional transmission outages that were occurring at the time of the event.	
Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	
Response	
Thomas Foltz - AEP - 5	
Answer	No
Document Name	
Comment	
While it is reasonable to allow five years for both preparing-for and conducting a “first time study”, as well as for the frequency of updating benchmark data, we believe three years would be reasonable for conducting the subsequent studies. Refining those studies to properly reflect changes in system topology and connected generation equipment would not likely require five years, so the team may wish to consider a three-year frequency instead. AEP disagrees with the proposed inclusion of load shed in the obligations of TPL-008. AEP believes that the Transmission system should be designed to securely operate at N-1 conditions and avoid preemptive load shed that would occur for secure operations. If load shed remains in the standard, it should be allowed only for conditions more stringent than N-1 conditions. We believe this opinion is supported by the observations made in FERC Order 896.	

Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	

Response

Joyce Gundry - Public Utility District No. 1 of Chelan County - 3, Group Name CHPD

Answer	No
Document Name	

Comment

TPL-008-1 R3 uses the term “impacted”, while TPL-001-5.1 uses “adjacent” under R3.4.1 and R4.4.1. TPL-008-1 R3 also includes “other designated study entities”, which is vague on the intent of this statement. “Impacted” is not a clear term for this requirement because one will not know who is impacted until a study is performed. Similarly, but on the opposite spectrum of the risk, one may have adjacent entities that one determines are not “impacted” and thus are not involved. It is better to have adjacent entities able to speak in to a process, whether or not a certain process determines they are impacted.

We recommend the statement “other designated study entities” be removed from R3. For example, “Each Planning Coordinator shall develop and implement a process for coordinating the development of benchmark planning cases among adjacent Planning Coordinator(s), and Transmission Planner(s) based on the selected benchmark events as identified in Requirement R2”.

R8 is not clear using the term “sensitivity”. TPL-001-5 more clearly calls out which cases and types of analysis are required for the sensitivity. From the existing language, it is unclear if applying the sensitivity to extreme heat OR extreme cold is sufficient, or if this should be extreme heat AND extreme cold. Similarly, is it steady state OR stability, or steady state AND stability? For example, “The sensitivity analysis should be run for each of the extreme heat and extreme cold event assessments, both for the steady state and transient stability portions of the assessment”. In this manner, the expectation is clear as to the scope of the sensitivity work.

In Order 881, the topic of ratings has become of interest for operations. A potentially beneficial sensitivity option not currently included would be a sensitivity of ratings. For example, assuming a higher temperature as input to the planning ratings. Such an additional sensitivity could be beneficial in helping entities better understand such relationships.

Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	

Response

Jeffrey Streifling - NB Power Corporation - 1

Answer	No
Document Name	

Comment

Regarding R3 and R4—it is not clear what the difference is between “planning cases” (R3) and “system models” (R4). These are not defined in the NERC glossary, and their use here should be clarified.

Regarding R5, FAC-014-3 R6 requires Planning Co-ordinators and Transmission Planners to use facility ratings, voltage and stability limits that are equal or more limiting than its respective Reliability Co-ordinators. Presumably this is intended to give PCs/TPs more leeway in criteria for extreme events, but unless some exception is made for FAC-014-3 R6, there may be no further room possible (particularly if the ordinary planning limits are equal to the operational limits, which is probably typical).

R7 should clearly indicate which contingency categories are required.

Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	

Response

Srikanth Chennupati - Entergy - Entergy Services, Inc. - 1,3,5,6 - SERC

Answer	No
Document Name	

Comment

Please Provide clarity in the difference between benchmark planning cases mentioned in R3 and system models mentioned in R4. R8 seems to use these interchangeably.

Likes 0	
Dislikes 0	

Response

Kevin Conway - Western Power Pool - 4

Answer	No
Document Name	

Comment

As R1 currently reads, only the Planning Coordinator is responsible for compliance.

The study boundary definition needs clarity. How is it defined? Is it fixed? Does it vary by Extreme Event?

For the setup of the base cases, is this a Mod 032 approach in that the gens/loads/transfers would be modeled in to match the conditions of the historical event and then outages be taken on that case? It is unclear if a generator that went out due to the extreme weather event in real-time would be modeled as in or out of service in the reference/benchmark case.

What if you and your neighbors disagree on the Event? The boundary? Etc.

Under R3 There's some debate about what a "Benchmark" case represents, since it's not very well defined. Transmission Planners are unsure what R3 requires them to do: Does this include modeling all generation outages, or not? Our interpretation is to adjust things based on temperature; if a

generator cannot operate at “x” temperature, because it’s too hot or too cold, then it should be off. If the pipeline freezes up and can’t provide fuel at “x” temperature, you have plan for generator outages and should model it as such.

In reference to R4, citing MOD-032 is not a good practice in standards writing. It is possible that MOD-032 could be rewritten, superseded, or retired and that would negatively affect this proposed standard. Perhaps the wording should be modified to state that "The System models shall use data consistent with that provided in accordance with accepted Power System Modeling standards, supplemented by other sources as needed..."

In R5, shouldn't the Planning Coordinator ensure all entities are using the same criteria for acceptable System steady state voltage limits? If each entity uses something different then these studies are not fully coordinated, and it is the functional responsibility to coordinate these types of studies.

R6 has the same flaw that R5 has. The responsible entities need to meet criterion that the Planning Coordinator sets, not what is in its own best interest.

R7 must still be coordinated with the Planning Coordinator and should include both internal and external contingencies. Some entities may try and limit contingencies to what gives them the most manageable performance. Again, the Planning Coordinator must make sure there is consistency across all of the Transmission Planners in its area.

In R8 the need for each entity to complete an Extreme Temperature Assessment seems to duplicate work, when the Transmission Planners should be providing data to the Planning Coordinator and having them do it for the entire footprint. This also does not allow smaller entities to collaborate and combine resources to address a larger footprint. R8 does not address changes to assumptions once an assessment is done, nor does it address changes in the extreme heat benchmark events and extreme cold benchmark events, from the approved benchmark library maintained by the Electric Reliability Organization (ERO).

Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	

Response

Lidija Efremova - Lidija Efremova On Behalf of: Emma Halilovic, Hydro One Networks, Inc., 1; - Lidija Efremova

Answer	Yes
Document Name	

Comment

Likes 0	
Dislikes 0	

Response

Carver Powers - Utility Services, Inc. - 4

Answer	Yes
Document Name	

Comment

Likes 0	
Dislikes 0	
Response	
Israel Perez - Israel Perez On Behalf of: Mathew Weber, Salt River Project, 3, 1, 6, 5; Matthew Jaramilla, Salt River Project, 3, 1, 6, 5; Thomas Johnson, Salt River Project, 3, 1, 6, 5; Timothy Singh, Salt River Project, 3, 1, 6, 5; - Israel Perez	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Apollonia Gonzales - PNM Resources - 1,3 - WECC,Texas RE	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Mark Flanary - Midwest Reliability Organization - 10	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Donna Wood - Tri-State G and T Association, Inc. - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Rachel Coyne - Texas Reliability Entity, Inc. - 10	
Answer	
Document Name	
Comment	

Texas RE has the following comments:

- Requirement R3 includes “other designated study entities” in the requirement language, but is not clear who these “other designated study entities” are. Please clarify.
- In Requirement R5, Texas RE recommends stating an acceptable deviation range or by including ‘acceptable based on common industry practice or technical basis as it is currently open-ended as to what criteria is “acceptable” for System steady state voltage limits and post-Contingency voltage deviations. Having a criteria would lead to more consistent application and oversight.

The provided Technical Rationale notes that, “The establishment of these criteria allows auditors to compare the results of the assessment with the established criteria.” Texas RE is concerned, however, this could lead to an entity setting its criteria too broadly (allow for too much deviation) and circumvent the intent Requirement R5.

- In Requirement Part 8.2, Texas RE recommends adding the following language: “Justification for the particular condition changes to the Sensitivity analysis should be included.”

Likes 0	
Dislikes 0	
Response	

Alison MacKellar - Constellation - 5	
Answer	
Document Name	
Comment	

Constellation has no comments

Alison Mackellar on behalf of Constellation Segments 5 and 6	
Likes 0	
Dislikes 0	
Response	
Kimberly Turco - Constellation - 6	
Answer	
Document Name	
Comment	
Constellation has no comments Kimberly Turco on behalf of Constellation Segments 5 and 6	
Likes 0	
Dislikes 0	
Response	

5. Do you agree with the proposed TPL-008-1 Reliability Standard Requirements R9 – R10 (CAPs and possible actions)? If you do not agree, please provide your recommendation and, if appropriate, technical or procedural justification.

Kevin Conway - Western Power Pool - 4	
Answer	No
Document Name	
Comment	
The requirements for Corrective Action Plans, as discussed in R9 and R10, fail to have any associated detail regarding expectations, plan approvals and validation of completion. Maybe the Drafting Team should consider Mitigations rather than Corrective Action Plans, since the entity is trying to mitigate future problems through operation actions, construction or technology.	
Likes 0	
Dislikes 0	
Response	

Srikanth Chennupati - Entergy - Entergy Services, Inc. - 1,3,5,6 - SERC	
Answer	No
Document Name	
Comment	
Transmission projects developed and constructed to meet R9 will quickly be invalidated. GIA and TSR studies will not include these extreme temperature assessments, resulting in the additional capacity that was built (at retail ratepayers' expense) to improve reliability in extreme circumstances being reallocated to allow generators to deliver power across the transmission system.	
Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	
Response	

Donna Wood - Tri-State G and T Association, Inc. - 1	
Answer	No
Document Name	
Comment	
R10 - We can write-up recommendations but as as a Transmission Planner we don't have the authority,	
Likes 0	

Dislikes 0	

Response

Jeffrey Streifling - NB Power Corporation - 1

Answer	No
Document Name	

Comment

R9 indicates that CAPs should be developed "…when the benchmark planning case study results indicate the System is unable to meet performance requirements…" but it is not clear whether the sensitivity analysis is included in "benchmark planning case study results". For comparison, TPL-001-5.1 states that "Corrective Action Plan(s) do not need to be developed solely to meet the performance requirements for a single sensitivity case…." Should something similar be stated in TPL-008, or is the intent that any case or sensitivity performance violation should trigger a CAP?

Additionally, R9 requires that "The responsible entities shall share their CAPs with, and solicit feedback from, applicable regulatory authorities or governing bodies responsible for retail electric service issues." This is unique to this standard and should be removed.

Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	

Response

Joyce Gundry - Public Utility District No. 1 of Chelan County - 3, Group Name CHPD

Answer	No
Document Name	

Comment

It is unclear if CAPs are required for sensitivity deficiencies. TPL-001-5.1 addresses such things in R2.7.2, however TPL-008-1 does not. In addition, it is unclear if the sensitivity needs to be run on each R2/R4 case, or only one case. Again, TPL-001-5.1 uses clearer language in R2.1.3.

During the 04/12/2024 Industry Webinar, the SDT indicated CAPs in R9 and the additional evaluation under R10 are not intended to be applicable to the sensitivity portion of the analysis. However, there is no language currently in the standard for this. An auditor, reading the existing language and TPL-001-5.1 precedence, could possibly expect additional analysis, which was not intended.

Furthermore, the language regarding applicable regulatory authorities or governing bodies review of CAPs seems like it was originally from the TPL-001-5.1 language regarding the use of load shedding for certain P1, P2, and P3 events. As it is currently written, TPL-008 is not consistent with the risk based approach utilized by TPL-001-5.1 as the TPL-008-1 review by applicable regulatory authorities or governing bodies would be universally required for all CAPs, not just those that use load shedding as the solution for performance deficiencies (a more limited case under TPL-001-5.1). It is recommended this language/approach be modified to be consistent with TPL-001-5.1. CAPs themselves do not require such a level of regulatory review, but if an entity chooses to use load shedding as a solution under R9, then that choice would warrant the additional level of regulatory review.

Likes 0	

Dislikes 0	
Response	
Thomas Foltz - AEP - 5	
Answer	No
Document Name	
Comment	
Please see our response to Question #4 regarding load shed considerations.	
Likes 0	
Dislikes 0	
Response	
Jessica Cordero - Unisource - Tucson Electric Power Co. - 1 - WECC	
Answer	No
Document Name	
Comment	
R9: No CAPs are overkill for extreme weather events and will add an undue burden on the ratepayers for capital projects. Development of operating procedures up to and including non-consequential load loss and curtailment of firm transfers should be sufficient for mitigating extreme weather events. R10: Acceptable	
Likes 0	
Dislikes 0	
Response	
Lauren Giordano - Lauren Giordano On Behalf of: Dennis Sismaet, Northern California Power Agency, 4, 6, 3, 5; Marty Hostler, Northern California Power Agency, 4, 6, 3, 5; Michael Whitney, Northern California Power Agency, 4, 6, 3, 5; - Lauren Giordano	
Answer	No
Document Name	
Comment	
NO, These assessment should be performed by the Regional Entities. There appears to be too much room for coordination issues having one Transmission Planner (TP) or Planning Coordinator (PC) having to rely on other TPs or PCs to meet their requirement deadlines.	

Likes 0	
Dislikes 0	

Response

Michael Whitney - Northern California Power Agency - 3, Group Name NCPA

Answer	No
Document Name	

Comment

NO, These assessment should be performed by the Regional Entities. There appears to be too much room for coordination issues having one Transmission Planner (TP) or Planning Coordinator (PC) having to rely on other TPs or PCs to meet their requirement deadlines.

Likes 0	
Dislikes 0	

Response

Rachel Schuldt - Black Hills Corporation - 6, Group Name Black Hills Corporation - All Segments

Answer	No
Document Name	

Comment

Black Hills Corporation agrees with EEI's comments on Requirement R9. Modifying the language to match what is in TPL-001-5.1 would better suit this new standard.

EEI suggests the following modifications to Requirement R9 to better clarify entity obligations under a TPL-008 CAP:

1. The language in TPL-001 relative to Corrective Action Plans is clearer and we suggest closer alignment to that language (see the suggested language below).

2. While PCs and TPs have obligations to notify regulatory authorities and other governing bodies responsible for retail electric service where load shedding is incorporated into planning contingencies, this should not be included in a NERC Reliability Standard.

3. Add language similar to that used in Requirement 2, subpart 2.7.3 for situations where TPs and PCs are unable to meeting CAP timeframes.

Proposed Changes to Requirement R9

R9. For Extreme Weather Assessments, which fail to meet the performance requirements for Table 1 P0 or P1 Contingencies, the assessment shall include Corrective Action Plan(s) (CAPs) addressing how the performance requirements will be met. Revisions to the Corrective Action Plan(s) are allowed in subsequent Planning Assessments, but the planned System shall continue to meet the performance requirements in Table 1 P0 and P1.

9.1 If situations arise that are beyond the control of the Transmission Planner or Planning Coordinator that prevent the implementation of a Corrective Action Plan in the required timeframe, then the Transmission Planner or Planning Coordinator is permitted to utilize Non-Consequential Load Loss and curtailment of Firm Transmission Service to correct the situation that would normally not be permitted in Table 1, provided that the Transmission Planner or Planning Coordinator documents that they are taking actions to resolve the situation. The Transmission Planner or Planning Coordinator shall document the situation causing the problem, alternatives evaluated, and the use of Non-Consequential Load Loss or curtailment of Firm Transmission Service.

Likes 0	
Dislikes 0	

Response

Duane Franke - Manitoba Hydro - 1,3,5,6 - MRO

Answer	No
Document Name	

Comment

How are the criteria for steady-state voltage limits and post-contingency voltage deviations under TPL-008, R5 different from the criteria established for TPL-001-5.1?

Refer to question 7 comments regarding the requirement to develop Corrective Action Plans for P1 events where system steady state voltages are outside limits and applicable facility ratings are exceeded.

Likes 0	
Dislikes 0	

Response

Robert Follini - Avista - Avista Corporation - 3

Answer	No
Document Name	

Comment

The function of NERC is to ensure bulk electric system delivery of power, not ensure communication with regulatory authorities or governing bodies external to NERC.

Likes 0	
Dislikes 0	

Response

Mark Garza - FirstEnergy - FirstEnergy Corporation - 4, Group Name FE Voter	
Answer	No
Document Name	
Comment	
FirstEnergy request clarification of who is the intended audience of the Drafting Team for “applicable regulatory authorities or governing bodies responsible for retail electric service issues” and request clarification and/or focus on NERC Registered Entity assigned in the standard who have responsibility for R9’s sharing of CAPs.	
Likes 0	
Dislikes 0	
Response	

Ben Hammer - Western Area Power Administration - 1	
Answer	No
Document Name	
Comment	
WAPA understands that the draft TPL-008-1 Requirement R9 attempts to strike a compromise between obligations to notify and solicit feedback (“low bar”) from applicable regulatory authorities or governing bodies responsible for retail electric service, versus the precedent obligations (“high bar”) established by TPL-001-5.1 Attachment 1 where the “Transmission Planner or Planning Coordinator must ensure that the applicable regulatory authorities or governing bodies responsible for retail electric service issues do not object to the use of Non- Consequential Load Loss under footnote 12.” WAPA agrees with the compromise that the Project 2023-07 SDT has drafted, but recommends a slight simplification to Requirement R9: R9. Each responsible entity, as identified in Requirement R1, shall develop a Corrective Action Plan(s) (CAPs) when the benchmark planning case study results indicate the System is unable to meet performance requirements for Table 1 P0 or P1 Contingencies. The responsible entities *shall* make their CAP(s), *including alternative(s) considered where Load shed is an allowed element of a CAP, available to* applicable regulatory authorities or governing bodies responsible for retail electric service issues. Revisions to the CAP(s) are allowed in subsequent Extreme Temperature Assessments, but the planned System shall continue to meet the performance requirements. As background, WAPA as a federal agency is not subject to state regulatory authorities that are responsible for retail electric service. As a result, WAPA would does not have an "applicable regulatory authority or governing body" for retail electric service issues.	
Likes 0	
Dislikes 0	
Response	

Isidoro Behar - Long Island Power Authority - 1	
Answer	No
Document Name	

Comment
Regarding R9: The use of the term “Load shed” should be replaced with “Non-Consequential Load Loss”, to be consistent with Table 1: Contingencies and Performance Criteria. Regarding R9: In terms of developing a CAP for the “benchmark planning case study results”, it is not clear if the development of a CAP is required for the sensitivity analysis. Consistency of language with TPL-001-5.1 R2.7 should be considered.

Likes 0	
Dislikes 0	

Response

Eric Sutlief - CMS Energy - Consumers Energy Company - 3,4,5 - RF	
Answer	No
Document Name	

Comment
Consumers Energy agrees with the ocmment by CHPD: It is unclear if CAPs are required for sensitivity deficiencies. TPL-001-5.1 addresses such things in R2.7.2, however TPL-008-1 does not. In addition, it is unclear if the sensitivity needs to be run on each R2/R4 case, or only one case. Again, TPL-001-5.1 uses clearer language in R2.1.3. During the 04/12/2024 Industry Webinar, the SDT indicated CAPs in R9 and the additional evaluation under R10 are not intended to be applicable to the sensitivity portion of the analysis. However, there is no language currently in the standard for this. An auditor, reading the existing language and TPL-001-5.1 precedence, could possibly expect additional analysis, which was not intended. Furthermore, the language regarding applicable regulatory authorities or governing bodies review of CAPs seems like it was originally from the TPL-001-5.1 language regarding the use of load shedding for certain P1, P2, and P3 events. As it is currently written, TPL-008 is not consistent with the risk based approach utilized by TPL-001-5.1 as the TPL-008-1 review by applicable regulatory authorities or governing bodies would be universally required for all CAPs, not just those that use load shedding as the solution for performance deficiencies (a more limited case under TPL-001-5.1). It is recommended this language/approach be modified to be consistent with TPL-001-5.1. CAPs themselves do not require such a level of regulatory review, but if an entity chooses to use load shedding as a solution under R9, then that choice would warrant the additional level of regulatory review.

Likes 0	
Dislikes 0	

Response

Diana Aguas - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE	
Answer	No

Document Name	
Comment	
Please refer to Question 1 comments.	
Likes 0	
Dislikes 0	
Response	
Leslie Hamby - Southern Indiana Gas and Electric Co. - 3,5,6 - RF	
Answer	No
Document Name	
Comment	
R9: Similarly to other commenters, Southern Indiana Gas & Electric Company d/b/a CenterPoint Energy Indiana South (SIGE) is requesting clarification as to whether CAPS are required for sensitivity deficiencies and if the sensitivity needs to be run on each R2/R4 case or only one case. Additionally, SIGE is recommending removing “The responsible entities shall share their CAPs with, and solicit feedback from, applicable regulatory authorities or governing bodies responsible for retail electric service issues” and “but the planned System shall continue to meet the performance requirements.” Changes are illustrated below: R9. Each responsible entity, as identified in Requirement R1, shall develop a Corrective Action Plan(s) (CAPs) when the benchmark planning case study results indicate the System is unable to meet performance requirements for Table 1 P0 or P1 Contingencies. In addition, where Load shed is allowed as an element of a CAP for the Table 1 P1 Contingency, the responsible entity shall document the alternative(s) considered, as mentioned in Requirement R10, and notify the applicable regulatory authorities or governing bodies responsible for retail electric service issues. Revisions to the CAP(s) are allowed in subsequent Extreme Temperature Assessments.	
Likes 0	
Dislikes 0	
Response	
Apollonia Gonzales - PNM Resources - 1,3 - WECC,Texas RE	
Answer	No
Document Name	
Comment	
PNMR requests the SDT provide more justification for including the regulatory authorities or governing bodies responsible for retail electric service issues.	

Likes 0	
Dislikes 0	
Response	
Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC	
Answer	No
Document Name	
Comment	
Since the Standard covers the Planning Horizon, BPA recommends the P0 base case include all transmission lines in service. If P0 case already includes multiple transmission outages, it is very likely Corrective Action Plans will be cost-prohibitive and cause undue burden on transmission providers. P0 case transmission outages could be treated as sensitivities in R8 with no CAP requirement. BPA highly recommends that P5 not be included as part of the required studies because extreme weather conditions expose outdoor EHV elements and do not affect protective relaying.	
Likes 0	
Dislikes 0	
Response	
Alyssia Rhoads - Public Utility District No. 1 of Snohomish County - 1	
Answer	No
Document Name	
Comment	
Proposed TPL-008 has sensitivities, unclear if CAPs are needed. Requirement R9 does not capture how TPL-001 approach.	
Likes 0	
Dislikes 0	
Response	
Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC	
Answer	No
Document Name	
Comment	

R9 language is similar to a footnote in TPL-001 that requires a process (now captured in the ERO Enterprise Periodic Data Schedule.) As such clarity and consistency with the language should be sought out. Additionally, does the language meet the requirements within TPL-001? "Sharing" of the CAPs is not defined and more clarity on timing, method, and expectations needs to be provided. R10--It is not clear what the responsible entity will do with the "possible actions". If anything they should be provided to the operators (BA/RC/TOPs) to prepare Plans/Processes as needed. In one respect if the Assessment is only done once per 5 calendar years, how valuable are the corrective actions for the assessment without updates as the system changes are/are not implemented?

Likes 0	
Dislikes 0	

Response

Lenise Kimes - City and County of San Francisco - 1,5 - WECC

Answer	No
Document Name	

Comment

• R9 – As written, this requirement states that the responsible entity “shall develop” CAPs for P0 and P1, but does not state if these CAPs must be “implemented” prior to the operating horizon. TPL-001-5.1, R2.7.3 allows use of NCLL under circumstances where CAPs cannot be implemented in the required timeframe (i.e., prior to the operating horizon). TPL-008, Table 1 allows for use of NCLL for P1, P2, P4, P5 and P7 events, but not for P0.

o Are entities required to implement CAPs prior to the operating horizon, including construction of capital projects?

o If an entity is unable to complete a capital project or implement an Operating Plan prior to the operating horizon, would NCLL be allowed for P0?

o We recommend that this situation be addressed in a similar fashion to TPL-001.

• R9 uses the term “Load shed”, but Table 1 in TPL-008 and TPL-001 both use the term NCLL.

o We recommend that R9 be revised to use the term “NCLL” instead of “Load shed” for consistency and clarity.

• R10 – As discussed in the comments for R7, we strongly recommend that P5 be removed from R7, R10, and Table 1 due to the low probability of such events during Extreme Temperature events.

Likes 0	
Dislikes 0	

Response

Israel Perez - Israel Perez On Behalf of: Mathew Weber, Salt River Project, 3, 1, 6, 5; Matthew Jaramilla, Salt River Project, 3, 1, 6, 5; Thomas Johnson, Salt River Project, 3, 1, 6, 5; Timothy Singh, Salt River Project, 3, 1, 6, 5; - Israel Perez	
Answer	No
Document Name	
Comment	
SRP feels that this is far too much in a single requirement. Develop a CAP and communicate the CAP should be broken out. Additionally, what is meant by "solicit feedback". Finally, the load shed stipulation should be criteria, not part of the requirement.	
Likes 0	
Dislikes 0	
Response	
Hillary Creurer - Allete - Minnesota Power, Inc. - 1	
Answer	No
Document Name	
Comment	
Minnesota Power supports MRO's NERC Standards Review Forum's (NSRF) comments.	
Likes 0	
Dislikes 0	
Response	
Broc Bruton - Broc Bruton On Behalf of: Byron Booker, Oncor Electric Delivery, 1; - Broc Bruton	
Answer	No
Document Name	
Comment	
Oncor strongly disagrees with the following statement in R9: "The responsible entities shall share their CAPs with, and solicit feedback from, applicable regulatory authorities or governing bodies responsible for retail electric service issues." We propose that "applicable regulatory authorities or governing bodies" be defined and limited. For example, a TP should only need to provide their PC with CAP information. In addition, we disagree with the following phrase "…and notify the applicable regulatory authorities or governing bodies responsible for retail electric service issues" as it relates to Load Shed. The intended regulatory audience needs to be clearly defined. Oncor disagrees with R10 as well. The requirement does not give TPs the ability to create CAPs for the listed contingencies.	

Likes 0	
Dislikes 0	
Response	
Joshua London - Eversource Energy - 1, Group Name Eversource	
Answer	No
Document Name	
Comment	
R9: Eversource suggests language be added similar to TPL-001 stating that CAPs are not required for sensitivity analysis. Eversource also questions the statement “solicit feedback from applicable regulatory authorities or governing bodies responsible for retail electric service issues.” If an applicable governing body disagrees with the result or says no to the CAP, is it no longer required to perform it?	
Likes 0	
Dislikes 0	
Response	
Sean Bodkin - Dominion - Dominion Resources, Inc. - 6, Group Name Dominion	
Answer	No
Document Name	
Comment	
Dominion Energy supports EEI comments. In addition, Developing CAPs for extreme events that are selected from a library of “approved cases” will not necessarily protect the BES from future extreme events. Providing the results of these analyses to other regulatory bodies is of concern as to how that information will be used and understood.	
Likes 0	
Dislikes 0	
Response	
Andy Fuhrman - Andy Fuhrman On Behalf of: Theresa Allard, Minnkota Power Cooperative Inc., 1; - Andy Fuhrman	
Answer	No
Document Name	
Comment	

MPC supports comments submitted by the MRO NERC Standards Review Forum (NSRF).

Likes 0	
Dislikes 0	

Response

Hayden Maples - Hayden Maples On Behalf of: Jeremy Harris, Evergy, 3, 5, 1, 6; Kevin Frick, Evergy, 3, 5, 1, 6; Marcus Moor, Evergy, 3, 5, 1, 6; Tiffany Lake, Evergy, 3, 5, 1, 6; - Hayden Maples

Answer	No
Document Name	

Comment

Evergy supports and incorporates by reference the comments of the Edison Electric Institute (EEI) and Midwest Reliability Organization's NERC Standards Review Forum (MRO NSRF) on question 5

Likes 0	
Dislikes 0	

Response

Kristine Martz - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable

Answer	No
Document Name	

Comment

EEI suggests the following modifications to Requirement R9 to better clarify entity obligations under a TPL-008 CAP:

1. The language in TPL-001 relative to Corrective Action Plans is clearer and we suggest closer alignment to that language (see the suggested language below).

2. While PCs and TPs may have obligations to notify regulatory authorities and other governing bodies responsible for retail electric service where load shedding is incorporated into planning contingencies, this should not be included in a NERC Reliability Standard.

3. Add language similar to that used in TPL-001 Requirement 2, subpart 2.7.3 for situations where TPs and PCs are unable to meet CAP timeframes.

Proposed Changes to Requirement R9

R9. For Extreme Weather Assessments, which fail to meet the performance requirements for Table 1 P0 or P1 Contingencies, the assessment shall include Corrective Action Plan(s) (CAPs) addressing how the performance requirements will be met. Revisions to the Corrective Action Plan(s) are allowed in subsequent Planning Assessments, but the planned System shall continue to meet the performance requirements in Table 1 P0 and P1.

9.1 If situations arise that are beyond the control of the Transmission Planner or Planning Coordinator that prevent the implementation of a Corrective Action Plan in the required timeframe, then the Transmission Planner or Planning Coordinator is permitted to utilize Non-Consequential Load Loss and curtailment of Firm Transmission Service to correct the situation that would normally not be permitted in Table 1, provided that the Transmission Planner or Planning Coordinator documents that they are taking actions to resolve the situation. The Transmission Planner or Planning Coordinator shall document the situation causing the problem, alternatives evaluated, and the use of Non-Consequential Load Loss or curtailment of Firm Transmission Service.

Likes 0	
Dislikes 0	

Response

Devin Shines - PPL - Louisville Gas and Electric Co. - 1,3,5,6 - SERC,RF

Answer	No
Document Name	

Comment

LG&E and KU agrees with EEI's comments.

Likes 0	
Dislikes 0	

Response

Richard Vendetti - NextEra Energy - 5

Answer	No
Document Name	

Comment

R9 – Disclosure of acceptable thresholds mentioned in question #4 comments should also be provided to relevant regulatory authorities.

R10 – As noted, thermal overloads or cascades mitigated by load drops should not exceed an established threshold documented by PC and TP.

Likes 0	
Dislikes 0	

Response

Chantal Mazza - Chantal Mazza On Behalf of: Nicolas Turcotte, Hydro-Quebec (HQ), 1, 5; - Chantal Mazza

Answer	No
Document Name	
Comment	

- R9 indicates that CAPs should be developed "…when the benchmark planning case study results indicate the System is unable to meet performance requirements…" but it is not clear whether the sensitivity analysis is included in "benchmark planning case study results". For comparison, TPL-001-5.1 states that "Corrective Action Plan(s) do not need to be developed solely to meet the performance requirements for a single sensitivity case…." Should something similar be stated in TPL-008, or is the intent that any case or sensitivity performance violation should trigger a CAP?
- Additionally, R9 requires that "The responsible entities shall share their CAPs with, and solicit feedback from, applicable regulatory authorities or governing bodies responsible for retail electric service issues." This is unique to this standard and should be removed.
- R9, R10: "Responsible entity" should be defined in the Applicability section or should replaced with "Each Planning Coordinator, in conjunction with its Transmission Planner(s)..."). Suggest to replace 4.1 to "Responsible Entity" instead of "Functional Entity".

Likes 0	
Dislikes 0	
Response	
Michele Tondalo - United Illuminating Co. - 1	
Answer	No
Document Name	
Comment	

R9 requires soliciting feedback from external, non-registered entities ("…applicable regulatory authorities…") but it is not clear what to do with this feedback and if there is the potential for an auditor and Registered Entity disagree with how feedback is used. I recommend considering updates to this wording to include similar steps as CIP-014 R2.3 which could allow for modification or documentation of technical rationale for not making modification, if requested by the applicable regulatory authorities.

Likes 0	
Dislikes 0	
Response	
Michele Shafer - New York State Electric & Gas (NYSEG) - 6	
Answer	No
Document Name	
Comment	

R9 requires soliciting feedback from external, non-registered entities ("…applicable regulatory authorities…") but it is not clear what to do with this feedback and if there is the potential for an auditor and Registered Entity disagree with how feedback is used. I recommend considering updates to this wording to include similar steps as CIP-014 R2.3 which could allow for modification or documentation of technical rationale for not making modification, if requested by the applicable regulatory authorities.

Likes 0	
Dislikes 0	

Response

Glen Farmer - Avista - Avista Corporation - 5

Answer	No
Document Name	

Comment

EEI suggests the following modifications to Requirement R9 to better clarify entity obligations under a TPL-008 CAP:

1. The language in TPL-001 relative to Corrective Action Plans is clearer and we suggest closer alignment to that language (see the suggested language below).

2. While PCs and TPs may have obligations to notify regulatory authorities and other governing bodies responsible for retail electric service where load shedding is incorporated into planning contingencies, this should not be included in a NERC Reliability Standard.

3. Add language similar to that used in TPL-001 Requirement 2, subpart 2.7.3 for situations where TPs and PCs are unable to meet CAP timeframes.

Proposed Changes to Requirement R9

R9. For Extreme Weather Assessments, which fail to meet the performance requirements for Table 1 P0 or P1 Contingencies, the assessment shall include Corrective Action Plan(s) (CAPs) addressing how the performance requirements will be met. Revisions to the Corrective Action Plan(s) are allowed in subsequent Planning Assessments, but the planned System shall continue to meet the performance requirements in Table 1 P0 and P1.

9.1 If situations arise that are beyond the control of the Transmission Planner or Planning Coordinator that prevent the implementation of a Corrective Action Plan in the required timeframe, then the Transmission Planner or Planning Coordinator is permitted to utilize Non-Consequential Load Loss and curtailment of Firm Transmission Service to correct the situation that would normally not be permitted in Table 1, provided that the Transmission Planner or Planning Coordinator documents that they are taking actions to resolve the situation. The Transmission Planner or Planning Coordinator shall document the situation causing the problem, alternatives evaluated, and the use of Non-Consequential Load Loss or curtailment of Firm Transmission Service.

Likes 0	
Dislikes 0	

Response

Stephen Stafford - Stephen Stafford On Behalf of: Greg Davis, Georgia Transmission Corporation, 1; - Stephen Stafford	
Answer	No
Document Name	
Comment	

- The purpose and required response actions related to the sharing of CAPs and solicitation of feedback is not clear.
- The role of the TO and/or GO in implementing or otherwise responding to CAPs that may require additions or modifications to their systems/facilities is not captured in these requirements.
- There appears to be a significant amount of outside review required but no clear actions the responsible entity is required to take, particularly if there is a dispute.
- The purpose and reliability benefit of R10 is ambiguous. It is understood that P2, P4, P5, & P7 events tend to be lower probability but documenting possible mitigations every 5 years for these low-probability events in an extreme weather condition appears more administrative than reliability-based as the requirement is currently written.
- The exclusion of the P3 & P6 events from these requirements is appropriate. The SDT should consider if specific P2, P4, P5, & P7 events should likewise be excluded so the standard only addresses those events that must be evaluated and mitigated.

Likes 0	
Dislikes 0	
Response	

Brittany Millard - Lincoln Electric System - 5	
Answer	No
Document Name	
Comment	

LES supports comments submitted by the MRO NERC Standards Review Forum (NSRF).

Likes 0	
Dislikes 0	
Response	

Katrina Lyons - Georgia System Operations Corporation - 4	
Answer	No
Document Name	
Comment	

GSOC supports Georgia Transmission Corporation's comments:

- The purpose and required response actions related to the sharing of CAPs and solicitation of feedback is not clear.
- The role of the TO and/or GO in implementing or otherwise responding to CAPs that may require additions or modifications to their systems/facilities is not captured in these requirements.

- There appears to be a significant amount of outside review required but no clear actions the responsible entity is required to take, particularly if there is a dispute.
- The purpose and reliability benefit of R10 is ambiguous. It is understood that P2, P4, P5, & P7 events tend to be lower probability but documenting possible mitigations every 5 years for these low-probability events in an extreme weather condition appears more administrative than reliability-based as the requirement is currently written.
- The exclusion of the P3 & P6 events from these requirements is appropriate. The SDT should consider if specific P2, P4, P5, & P7 events should likewise be excluded so the standard only addresses those events that must be evaluated and mitigated.

Likes 0	
Dislikes 0	

Response

Mike Magruder - Avista - Avista Corporation - 1

Answer	No
Document Name	

Comment

We support EEI's comments.

Likes 0	
Dislikes 0	

Response

Todd Bennett - Associated Electric Cooperative, Inc. - 3, Group Name AECI

Answer	No
Document Name	

Comment

AECI supports comment provided by Georgia Transmission Corporation

Likes 0	
Dislikes 0	

Response

Andy Thomas - Duke Energy - 1,3,5,6 - SERC,RF

Answer	No
Document Name	

Comment
Duke Energy agrees with and endorses EEI comments.

Likes 0	
Dislikes 0	

Response

Keith Jonassen - Keith Jonassen On Behalf of: John Pearson, ISO New England, Inc., 2; - Keith Jonassen

Answer	No
Document Name	

Comment
In R9, a CAP must to be provided to a regulatory authority for a Long-term planning assessment. ISO agrees a CAP should be documented with possible actions, however this is a planning assessment. Providing a CAP to regulatory authorities may only cause more confusion and work for the industry. Additionally, a CAP developed through the planning process may require implementation of tariff processes before the CAP may proceed. Providing a CAP to a regulator would be premature if the tariff required processes have not been completed.

Likes 0	
Dislikes 0	

Response

Junji Yamaguchi - Hydro-Quebec (HQ) - 5

Answer	No
Document Name	

Comment
R9 indicates that CAPs should be developed "…when the benchmark planning case study results indicate the System is unable to meet performance requirements…" but it is not clear whether the sensitivity analysis is included in "benchmark planning case study results". For comparison, TPL-001-5.1 states that "Corrective Action Plan(s) do not need to be developed solely to meet the performance requirements for a single sensitivity case…." Should something similar be stated in TPL-008, or is the intent that any case or sensitivity performance violation should trigger a CAP? Additionally, R9 requires that "The responsible entities shall share their CAPs with, and solicit feedback from, applicable regulatory authorities or governing bodies responsible for retail electric service issues." This is unique to this standard and should be removed. R9, R10: "Responsible entity" should be defined in the Applicability section or should replaced with "Each Planning Coordinator, in conjunction with its Transmission Planner(s)..."). Suggest to replace 4.1 to "Responsible Entity" instead of "Functional Entity".

Likes 0	
Dislikes 0	
Response	
David Jendras Sr - Ameren - Ameren Services - 3	
Answer	No
Document Name	
Comment	
R9: Ameren does not support reporting benchmark planning case study results to applicable entities. TPL-001 does not have a similar requirement for reporting retail electric service issues. R10: Ameren suggests removing the phrase "reduce the likelihood or" from the requirement.	
Likes 0	
Dislikes 0	
Response	
Colby Galloway - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company	
Answer	No
Document Name	
Comment	
Southern Company disagrees with the statement that it should solicit CAP feedback from applicable regulatory bodies or governing bodies. The action of regulatory feedback/approval does not comport with a risk-based action and only serves as an administrative burden that could further delay reliability to the BES. This is a compliance risk without a Reliability benefit. The NERC standard should solely focus on identifying the problem and identifying the projects, not mandating a regulatory strategy for the implementation of projects. This is beyond the purview of a reliability standard. It is Southern Company's recommendation that requirements to share CAPs and solicit feedback from regulatory bodies in R9 should be removed from the standard. It has been a well document practice to create/implment CAPs, giving greater assurity of corrective measures that impact the BES and these are auditable for Reginal Entity assurance. What is now becoming more administrative is the requirement to report and "wait" for approval, which could unduly delay a Registered Entity from implementing and thus cause undue harm to the BES.	
Likes 0	
Dislikes 0	
Response	
Rebika Yitna - Rebika Yitna On Behalf of: David Weekley, MEAG Power, 3, 1; Roger Brand, MEAG Power, 3, 1; - Rebika Yitna	
Answer	No

Document Name	
Comment	
It is not clear why R9 is requiring soliciting CAP feedback from regulatory authorities for retail electric service issues.	
Likes 0	
Dislikes 0	
Response	
Bob Cardle - Bob Cardle On Behalf of: Marco Rios, Pacific Gas and Electric Company, 3, 1, 5; Sandra Ellis, Pacific Gas and Electric Company, 3, 1, 5; Tyler Brun, Pacific Gas and Electric Company, 3, 1, 5; - Bob Cardle	
Answer	No
Document Name	
Comment	
R9 – As written, this requirement states that the responsible entity “shall develop” CAPs for P0 and P1, but does not state if these CAPs must be “implemented” prior to the operating horizon. TPL-001-5.1, R2.7.3 allows use of NCLL under circumstances where CAPs cannot be implemented in the required timeframe (i.e., prior to the operating horizon). If an entity is unable to complete a capital project or implement an Operating Plan prior to the operating horizon, we recommend that NCLL be allowed for P0 under the extreme weather condition R9 uses the term “Load shed”, but Table 1 in TPL-008 and TPL-001 both use the term NCLL. We recommend that R9 be revised to use the term “NCLL” instead of “Load shed” for consistency and clarity. R10 – As discussed in the comments for R7, we strongly recommend that P5 be removed from R7, R10, and Table 1 due to the low probability of such events during Extreme Temperature events.	
Likes 0	
Dislikes 0	
Response	
Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin	
Answer	No
Document Name	
Comment	

Should GOs have applicability in the standard if a concern is identified that too much generation is unavailable due to the parameters for the hot and cold events?

Proposed wording change for part of R9:

“Revisions to the CAP(s) are allowed in subsequent Extreme Temperature Assessments, so long as but the planned System shall continues to meet the performance requirements.”

Likes 0	
Dislikes 0	

Response

Robert Jones - Seattle City Light - 1,3,4,6

Answer	No
Document Name	

Comment

The language is not very specific as compared to TPL-001. Does it pertain to Steady state, sensitivities, and/or transient stability studies? Depending on how the criteria or methodology is defined by each entity, an entity may exclude sensitivities from a CAP if there is a violation. The point is the language in this standard is vague.

Likes 0	
Dislikes 0	

Response

Steven Taddeucci - NiSource - Northern Indiana Public Service Co. - 3

Answer	No
Document Name	

Comment

NIPSCO supports the comments provided by AEP, FE, WAPA, CHPD, CMS Energy, and WPP.

Likes 0	
Dislikes 0	

Response

Selene Willis - Edison International - Southern California Edison Company - 5	
Answer	No
Document Name	
Comment	
“See comments submitted by the Edison Electric Institute”	
Likes 0	
Dislikes 0	
Response	
Daniel Gacek - Exelon - 1	
Answer	No
Document Name	
Comment	
R10 - Perhaps more clarity on how that might differ from stability studies on P0 and P1 contingencies can be added to this requirement. Additionally, Exelon supports the comments provided by the EEI for this question.	
Likes 0	
Dislikes 0	
Response	
Amy Wilke - American Transmission Company, LLC - 1	
Answer	No
Document Name	
Comment	
ATC generally supports the MRO NSRF comments, and is supplementing them as described below. R9, R10: Please verify that the sensitivities do not require CAPs or documentation of possible mitigating actions and are for information only. R10: It might be helpful to document why R10’s requirement to come up with potential CAPs for non-P0 and P1s is needed. What actually happens with the possible actions required under R10? Is this similar to how extreme events are currently treated?	
Likes 0	

Dislikes 0	

Response

Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC RSC

Answer	No
Document Name	

Comment

R9 indicates that CAPs should be developed "…when the benchmark planning case study results indicate the System is unable to meet performance requirements…" but it is not clear whether the sensitivity analysis is included in "benchmark planning case study results". For comparison, TPL-001-5.1 states that "Corrective Action Plan(s) do not need to be developed solely to meet the performance requirements for a single sensitivity case…." Should something similar be stated in TPL-008, or is the intent that any case or sensitivity performance violation should trigger a CAP?

Additionally, R9 requires that "The responsible entities shall share their CAPs with, and solicit feedback from, applicable regulatory authorities or governing bodies responsible for retail electric service issues." This is unique to this standard and should be removed.

R9, R10: "Responsible entity" should be defined in the Applicability section or should replace with "Each Planning Coordinator, in conjunction with its Transmission Planner(s)..."). Suggest replacing

4.1 to "Responsible Entity" instead of "Functional Entity".

Likes 0	
Dislikes 0	

Response

Kinte Whitehead - Exelon - 3

Answer	No
Document Name	

Comment

R10 - Perhaps more clarity on how that might differ from stability studies on P0 and P1 contingencies can be added to this requirement.

Additionally, Exelon supports the comments provided by the EEI for this question.

Likes 0	
Dislikes 0	

Response

Wayne Guttormson - SaskPower - 1	
Answer	No
Document Name	
Comment	
Support the MRO NSRF and EEI comments.	
Likes 0	
Dislikes 0	
Response	
Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - MRO,WECC, Group Name SPP RTO	
Answer	No
Document Name	
Comment	
SPP has a concern about language in Requirement R9 as it talks about “governing bodies”. It is unclear who identifies and aligns with that role and responsibility. SPP recommends that the drafting team provide clarity on which entities qualify for the role and responsibility.	
Likes 0	
Dislikes 0	
Response	
Dwanique Spiller - Berkshire Hathaway - NV Energy - 5	
Answer	No
Document Name	
Comment	
NV Energy suggests the following modifications to Requirement R9 to better clarify entity obligations under a TPL-008 CAP:	

{C}1. {C}The language in TPL-001 relative to Corrective Action Plans is clearer and we suggest closer alignment to that language (see the suggested language below).

{C}2. {C}While PCs and TPs have obligations to notify regulatory authorities and other governing bodies responsible for retail electric service where load shedding is incorporated into planning contingencies, this should not be included in a NERC Reliability Standard.

{C}3. {C}Add language similar to that used in Requirement 2, subpart 2.7.3 for situations where TPs and PCs are unable to meeting CAP timeframes.

Proposed Changes to Requirement R9

R9. For Extreme Weather Assessments, which fail to meet the performance requirements for Table 1 P0 or P1 Contingencies, the assessment shall include Corrective Action Plan(s) (CAPs) addressing how the performance requirements will be met. Revisions to the Corrective Action Plan(s) are allowed in subsequent Planning Assessments, but the planned System shall continue to meet the performance requirements in Table 1 P0 and P1.

9.1 If situations arise that are beyond the control of the Transmission Planner or Planning Coordinator that prevent the implementation of a Corrective Action Plan in the required timeframe, then the Transmission Planner or Planning Coordinator is permitted to utilize Non-Consequential Load Loss and curtailment of Firm Transmission Service to correct the situation that would normally not be permitted in Table 1, provided that the Transmission Planner or Planning Coordinator documents that they are taking actions to resolve the situation. The Transmission Planner or Planning Coordinator shall document the situation causing the problem, alternatives evaluated, and the use of Non-Consequential Load Loss or curtailment of Firm Transmission Service.

Likes 0	
Dislikes 0	

Response

Kennedy Meier - Electric Reliability Council of Texas, Inc. - 2

Answer	No
Document Name	

Comment

ERCOT recommends that the drafting team resolve an apparent inconsistency regarding the P0 analysis. Specifically, the Technical Rationale appears to suggest that Load shedding is permitted to establish a solvable P0 system condition. However, Requirement R9 and Table 1 do not seem to allow Load shedding for solvable P0 system condition. ERCOT recommends that the drafting team address this by revising Requirement R9 to explicitly indicate that Load shed is allowed to establish a solvable P0 system condition. This is necessary to ensure that the study can assume sufficient resources are available in a P0 state. This, in turn, is necessary to prevent the standard from straying into the realm of resource adequacy. As noted in the Technical Rationale, resource adequacy is not in scope for this project under paragraph 94 of FERC Order No. 896.

It is also unclear why Requirement R9 requires entities to submit CAPs to regulatory authorities or governing bodies responsible for “retail electric service issues.” These types of regulatory authorities are not subject to NERC requirements, but do generally have authority over generation planning. Consequently, the mandate to submit CAPs to these regulatory authorities or governing bodies appears to address a resource adequacy

issue. However, as noted in the Technical Rationale, paragraph 94 of FERC Order No. 896 provides that resource adequacy is not in scope for this project. ERCOT therefore recommends that the requirement to submit CAPs to regulatory authorities or governing bodies be removed from the standard.	
Likes 0	
Dislikes 0	
Response	
Constantin Chitescu - Ontario Power Generation Inc. - 5	
Answer	No
Document Name	
Comment	
OPG supports NPCC Regional Standards Committee's comments.	
Likes 0	
Dislikes 0	
Response	
Catrina Martin - Archer Energy Solutions, LLC - 5	
Answer	No
Document Name	
Comment	
R9 – As written, this requirement states that the responsible entity "shall develop" CAPs for P0 and P1, but does not state if these CAPs must be "implemented" prior to the operating horizon. TPL-001-5.1, R2.7.3 allows use of NCLL under circumstances where CAPs cannot be implemented in the required timeframe (i.e., prior to the operating horizon). TPL-008, Table 1 allows for use of NCLL for P1, P2, P4, P5 and P7 events, but not for P0. o Are entities required to implement CAPs prior to the operating horizon, including construction of capital projects? o If an entity is unable to complete a capital project or implement an Operating Plan prior to the operating horizon, would NCLL be allowed for P0? o We recommend that this situation be addressed in a similar fashion to TPL-001. R9 uses the term "Load shed", but Table 1 in TPL-008 and TPL-001 both use the term NCLL. o We recommend that R9 be revised to use the term "NCLL" instead of "Load shed" for consistency and clarity.	

R10 – As discussed in the comments for R7, we strongly recommend that P5 be removed from R7, R10, and Table 1 due to the low probability of such events during Extreme Temperature events.

Likes 0	
Dislikes 0	

Response

Michael Goggin - Grid Strategies LLC - 5

Answer	No
Document Name	

Comment

a. Requirement R9 should be modified to specify that the expected impact of extreme heat and cold should be accounted for when designing and measuring the impact of the solutions proposed in a Corrective Action Plan (CAP). Many potential solutions in a CAP can have greater or lesser impact under extreme heat or cold conditions. For example, a CAP that relies on adding gas generation can be less effective under extreme heat due to output reductions due to ambient temperature derates, and under extreme cold due to correlated gas generator outages. Gas generator outages due to equipment failures and fuel supply interruptions have accounted for the majority of outages during recent cold snap events.{C}[1] As noted above in response to question 4, FERC's directive in paragraph 89 of Order 896 states that "it is necessary that responsible entities evaluate the risk of correlated or concurrent outages and derates of all types of generation resources and transmission facilities as a result of extreme heat and cold events." On the other hand, CAPs that include demand response and energy efficiency programs related to building HVAC systems can offer contributions that are larger than expected during extreme heat or cold because load associated with cooling or heating is higher during such events.

During extreme cold events, expanded transmission ties with neighboring grid operators can also exceed the benefits they offer under normal conditions because transmission line thermal limits are higher during extreme cold and wind chill conditions. Transmission ties also tend to offer large benefits during extreme heat and cold, as severe weather events tend to be at their most extreme in geographically confined areas, ensuring at least some nearby grid operators are not experiencing shortfalls in generation.[2] The benefits of interregional transmission are even greater at higher renewable penetrations.[3] The value of transmission ties during extreme heat and cold events should be accounted for when assessing baseline performance during benchmark events as well as quantifying the value of expanding these ties as part of a CAP.

The higher transfer capacity of advanced conductors under extreme heat and cold conditions should also be accounted for, as carbon and composite core conductors sag roughly half as much as comparable ACSR conductors. Finally, Grid-Enhancing Technologies like dynamic line ratings, topology optimization, and power flow control devices offer significant benefits when the grid may be congested due to extreme temperatures. Dynamic line ratings are particularly valuable for enabling operators to safely use transmission lines' higher thermal limits during extreme cold and wind chill conditions.

Accounting for how a CAP will fare under the extreme heat or cold conditions it is designed to solve is essential for ensuring reliability. Without accounting for the reduced effectiveness of some CAP elements under extreme heat or cold, planners will be blind to potential reliability risks. In other cases, failing to account for the effectiveness of specific CAP measures under extreme heat or cold will result in a suboptimal selection of solutions. Extreme heat and cold must not only be accounted for in identifying reliability risks, but also designing solutions to those risks.

b. The draft of R9 also includes two potential loopholes that a responsible entity could use to avoid implementing a CAP that is needed to address reliability concerns. The Technical Rationale document explains that "under an extreme heat or extreme cold temperature condition, there may instances where the benchmark planning cases and/or sensitivity cases may not have sufficient available generation to supply the load. In these scenarios, it may be acceptable for the responsible entity to either curtail load, or model most likely future resources in the interconnection queue, to achieve a solution for the benchmark planning case." That document also notes that "the SDT has determined that load curtailment may be considered

for a P1 Contingency as a CAP where load shed is allowed to prevent system-wide failures and ensuring the continued operation of essential services under a critical P1 Contingency in the extreme heat and cold events."

First, allowing load curtailment for a P1 contingency under TPL-008 is a major departure from the requirements of TPL-001, which do not allow load shedding for a P1 contingency.{C}[4] Allowing responsible entities plans' to include load shed when they experience a single P1 contingency under extreme heat or cold conditions is contrary to FERC's intent in Order 896 that NERC enact a standard that will ensure reliable operations under extreme heat and cold conditions.

Second, for the option to "model most likely future resources in the interconnection queue, to achieve a solution for the benchmark planning case" to be an effective solution to reliability concerns, it must be accompanied by requirements for those resources to have signed procurement contracts or at least be included in a load-serving entity's plan, and/or a requirement to later confirm that those resources have actually been built. Without such a requirement, a responsible entity could comply with TPL-008 by simply speculating that some share of the large backlog of proposed resources currently in the interconnection queue in nearly all regions will be built.

More generally, a major concern with the draft standard is that there is no compliance mechanism to ensure CAPs are implemented. As drafted, R9 and the other requirements only require that "The responsible entities shall share their CAPs with, and solicit feedback from, applicable regulatory authorities or governing bodies responsible for retail electric service issues.... Revisions to the CAP(s) are allowed in subsequent Extreme Temperature Assessments, but the planned System shall continue to meet the performance requirements." If implementing some CAP solutions requires action by an entity other than the transmission planner or planning coordinator responsible entities, the draft standard should be revised to include such a requirement on those entities. Other draft NERC standards include requirements to implement CAPs, and similar language could be adopted for TPL-008. For example, requirement R9 of the PRC-028 draft requires a generator or transmission owner to "develop, maintain, and implement a Corrective Action Plan to provide the required capability,"{C}[5] and requirement R6 of the PRC-030 draft requires "Each applicable Generator Owner shall, for each of its CAPs developed pursuant to Requirement R5:

6.1. Implement the CAP;

6.2. Update the CAP if actions or timetables change; and

6.3. Notify each applicable Reliability Coordinator if CAP actions or timetables change and when the CAP is completed."[6]{C}

{C}[1]{C} *See, e.g.*, FERC and NERC, *Winter Storm Elliott Report: Inquiry into Bulk-Power System Operations During December 2022* (October 2023), https://www.ferc.gov/media/winter-storm-elliott-report-inquiry-bulk-power-system-operations-during-december-2022, at 17; FERC and NERC, *The February 2021 Cold Weather Outages in Texas and the South Central United States* (November 2021), https://www.ferc.gov/media/february-2021-cold-weather-outages-texas-and-south-central-united-states-ferc-nerc-and, at 16; FERC and NERC, *2019 FERC and NERC Staff Report: The South Central United States Cold Weather Bulk Electric System Event of January 17, 2018* (July 2019), https://www.ferc.gov/legal/staff-reports/2019/07-18-19-ferc-nerc-report.pdf; PJM, *Analysis of Operational Events and Market Impacts During the January 2014 Cold Weather Events* (May 2014), https://www.pjm.com/~/media/library/reports-notices/weather-related/20140509-analysis-of-operational-events-and-market-impacts-during-the-jan-2014-cold-weather-events.ashx.

{C}[2]{C} https://acore.org/wp-content/uploads/2021/07/GS_Resilient-Transmission_proof.pdf

{C}[3]{C} https://www.nrel.gov/docs/fy22osti/78394.pdf

{C}[4]{C} https://www.nerc.com/pa/Stand/Reliability%20Standards/TPL-001-5.pdf, at 21

{C}[5]{C} https://www.nerc.com/pa/Stand/Project202104ModificationstoPRC0022DL/2021-04_AB_PRC-028-1_Clean_03182024.pdf

{C}[6]{C} https://www.nerc.com/pa/Stand/Project202302PerformanceofIBRsDL/2023-02%20PRC-030-1_032524.pdf

Likes 0	
Dislikes 0	

Response

Adrian Harris - Adrian Harris On Behalf of: Bobbi Welch, Midcontinent ISO, Inc., 2; - Adrian Harris, Group Name RTO/ISO Council Standard Review Committee Project 2023-07 TPL-008

Answer	Yes
Document Name	

Comment

R9. The SRC observes that R9 requires responsible entities to share their CAPs with, and solicit feedback from, applicable regulatory authorities or governing bodies responsible for retail electric service issues in all cases. This may extend the amount of time needed for CAP approval.

The SRC recommends that the drafting team resolve an apparent inconsistency regarding the P0 analysis. Specifically, the technical rationale appears to suggest that Load shedding is permitted to establish a solvable P0 system condition. However, Requirement R9 and Table 1 do not seem to allow load shedding for solvable P0 system condition. The SRC recommends that the drafting team address this by revising Requirement R9 to explicitly indicate that Load shed is allowed to establish a solvable P0 system condition. This is necessary to ensure that the study can assume sufficient resources are available in a P0 state. This, in turn, is necessary to prevent the standard from straying into the realm of resource adequacy. As noted in the Technical Rationale, resource adequacy is not in scope for this project under paragraph 94 of FERC Order No. 896.

It is also unclear why Requirement R9 requires entities to submit CAPs to regulatory authorities or governing bodies responsible for "retail electric service issues." These types of regulatory authorities are not subject to NERC requirements, but do generally have authority over generation planning. Consequently, the mandate to submit CAPs to these regulatory authorities or governing bodies appears to address a resource adequacy issue. However, as noted in the Technical Rationale, paragraph 94 of FERC Order No. 896 provides that resource adequacy is not in scope for this project. The SRC therefore recommends that the requirement to submit CAPs to regulatory authorities or governing bodies be removed from the standard.If this requirement is not removed, the SRC notes that the requirement to solicit feedback from applicable regulatory authorities responsible for retail electric service issues imposes a higher burden beyond what is required in TPL-001, and requests that the drafting team provide an explanation or justification regarding the need for this higher burden.

IESO Abstains from Question 5

Likes 0	
Dislikes 0	

Response

Jennifer Weber - Tennessee Valley Authority - 1,3,5,6 - SERC

Answer	Yes
Document Name	

Comment

Likes 0	
Dislikes 0	
Response	
Mark Flanary - Midwest Reliability Organization - 10	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Tim Kelley - Tim Kelley On Behalf of: Charles Norton, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Foung Mua, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Ryder Couch, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Wei Shao, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; - Tim Kelley, Group Name SMUD and BANC	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Stephen Whaite - Stephen Whaite On Behalf of: Tyler Schwendiman, ReliabilityFirst , 10; - Stephen Whaite, Group Name ReliabilityFirst Ballot Body Member and Proxies	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Chris Wagner - Santee Cooper - 1, Group Name Santee Cooper	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Daniela Atanasovski - APS - Arizona Public Service Co. - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Carver Powers - Utility Services, Inc. - 4	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Lidija Efremova - Lidija Efremova On Behalf of: Emma Halilovic, Hydro One Networks, Inc., 1; - Lidija Efremova	
Answer	Yes
Document Name	
Comment	

Likes 0	
Dislikes 0	
Response	
Kimberly Turco - Constellation - 6	
Answer	
Document Name	
Comment	
Constellation has no comments Kimberly Turco on behalf of Constellation Segments 5 and 6	
Likes 0	
Dislikes 0	
Response	
Alison MacKellar - Constellation - 5	
Answer	
Document Name	
Comment	
Constellation has no comments Alison Mackellar on behalf of Constellation Segments 5 and 6	
Likes 0	
Dislikes 0	
Response	
Rachel Coyne - Texas Reliability Entity, Inc. - 10	
Answer	
Document Name	
Comment	

Texas RE has the following comments:

- Texas RE recommends including a timeframe for which the CAPs need to be developed once the benchmark planning case study results indicate the System is unable to meet performance requirements.
- Requirement R9 is essentially three requirements. It would be easier to read if each Requirement R9 contained subparts or bullets:

R9. Each responsible entity, as identified in Requirement R1, shall develop a Corrective Action Plan(s) (CAPs) when the benchmark planning case study results indicate the System is unable to meet performance requirements for Table 1 P0 or P1 Contingencies.

9.1 The responsible entities shall share their CAPs with, and solicit feedback from, applicable regulatory authorities or governing bodies responsible for retail electric service issues.

9.2 In addition, where Load shed is allowed as an element of a CAP for the Table 1 P1 Contingency, the responsible entity shall document the alternative(s) considered, as mentioned in Requirement R10, and notify the applicable regulatory authorities or governing bodies responsible for retail electric service issues

9.3 Revisions to the CAP(s) are allowed in subsequent Extreme Temperature Assessments, but the planned System shall continue to meet the performance requirements.

- Texas RE noticed the Performance Criteria states that non-consequential Load loss is allowed for P1 contingencies for Requirement R9, but a limit for the maximum amount of non-consequential load loss is not specified. This seems to indicate that any level of firm-load shed is allowed for any of the P1 contingencies. SDT should consider providing additional clarifications on the firm-load shed levels, how to manage model uncertainties, etc. when developing Corrective Action Plans and the implementation schedule.

Likes 0	
Dislikes 0	

Response

6. Do you agree with the proposed TPL-008-1 Reliability Standard Requirement R11 (Sharing Extreme Temperature Assessment results)? If you do not agree, please provide your recommendation and, if appropriate, technical or procedural justification.

Adrian Harris - Adrian Harris On Behalf of: Bobbi Welch, Midcontinent ISO, Inc., 2; - Adrian Harris, Group Name RTO/ISO Council Standard Review Committee Project 2023-07 TPL-008

Answer	No
Document Name	

Comment

The SRC supports the “upon request” nature of R11 and sharing Extreme Temperature Assessment results with those having a “reliability need.”

That said, the wording of Requirement R11 is unclear. In light of NERC’s retirement of the functional model, referring to a “NERC-registered entity” instead of a “functional entity” would be clearer. Alternatively, if Requirement R11 is only intended to require provision of the assessment results to Transmission Planners and Planning Coordinators, Requirement R11 should be revised to explicitly reference these two types of entities.

R11. Each responsible entity, as identified in Requirement R1, shall provide its Extreme Temperature Assessment results within 90 calendar days of a request to any NERC-registered entity that has a reliability related need and submits a written request for the information.

Q7. The SRC recommends the following clarifications to Table 1:

- in the Facility Voltage Level of Contingency row, change the commas to colons,
- in the Facility Voltage Level of Contingency row, clarify what is meant by “reference voltage,” and
- in the Stability Performance Criteria row, clarify what is meant by “initialization.”

Additionally, the SRC recommends that the drafting team either include the full set of footnotes from TPL-001-5.1 Table 1 or clarify why TPL-008 contains only a limited subset of the footnotes to Table 1.The SRC also requests that the drafting team confirm that Table 1 will be limited to 200 kV and above facilities and not include contingencies below 200 kV, as this could miss contingency events below 200 kV that could be limiting to the 200 kV and up system.

Finally, consistent with the SRC’s comments on the need for Requirement R9 to clarify that Load shed is allowed to establish a solvable P0 system condition, the SRC recommends that Table 1 be revised to contain the same clarification as Requirement R9. This is necessary to ensure that the standard complies with paragraph 94 of FERC Order No. 896, which (as noted in the Technical Rationale) states that resource adequacy is not in scope for this project.

Likes 0	
Dislikes 0	

Response

Kennedy Meier - Electric Reliability Council of Texas, Inc. - 2

Answer	No
Document Name	

Comment

The wording of Requirement R11 is unclear. In light of NERC's retirement of the functional model, referring to a "registered entity" instead of a "functional entity" would be clearer. Alternatively, if Requirement R11 is only intended to require provision of the assessment results to Transmission Planners and Planning Coordinators, Requirement R11 should be revised to explicitly reference these two types of entities.

Likes 0	
Dislikes 0	

Response

Dwanique Spiller - Berkshire Hathaway - NV Energy - 5

Answer	No
Document Name	

Comment

NV Energy supports the intent of Requirement R11 but suggest replacing "functional entity" with registered entity because functional entity is not a defined term, while registered entity makes it clear Extreme Temperature Assessment results are to be shared on a need to know basis with registered entities that they have enacted a non-disclosure agreement.

Likes 0	
Dislikes 0	

Response

Wayne Guttormson - SaskPower - 1

Answer	No
Document Name	

Comment

Support the MRO NSRF and EEI comments.

Likes 0	
Dislikes 0	

Response

Amy Wilke - American Transmission Company, LLC - 1

Answer	No
Document Name	

Comment

We would prefer language similar to TPL-001-5.1 R8 requiring distribution of the Extreme Temperature Assessment results to adjacent PCs and TPs:

“Each responsible entity, as identified in Requirement R1, shall distribute its Extreme Temperature Assessment results to adjacent Planning Coordinators and adjacent Transmission Planners within 90 calendar days of completing its Extreme Temperature Assessment, and to any functional entity that has a reliability related need and submits a written request for the information within 30 days of such a request.”

Likes 0	
Dislikes 0	

Response

Selene Willis - Edison International - Southern California Edison Company - 5

Answer	No
Document Name	

Comment

“See comments submitted by the Edison Electric Institute”

Likes 0	
Dislikes 0	

Response

Steven Taddeucci - NiSource - Northern Indiana Public Service Co. - 3

Answer	No
Document Name	

Comment

NIPSCO supports the comments provided by ReliabilityFirst, CHPD, and WPP.

Likes 0	
Dislikes 0	

Response

Colby Galloway - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company

Answer	No
Document Name	

Comment

Southern Company supports the intent of Requirement R11 but suggests replacing “functional entity” with Registered Entity because functional entity is not a defined term, while registered entity makes it clear Extreme Temperature Assessment results are to be shared on a need-to-know basis with Registered Entities that have executed a non-disclosure agreement.	
Likes 0	
Dislikes 0	
Response	
Andy Thomas - Duke Energy - 1,3,5,6 - SERC,RF	
Answer	No
Document Name	
Comment	
Duke Energy agrees with and endorses EEI comments.	
Likes 0	
Dislikes 0	
Response	
Todd Bennett - Associated Electric Cooperative, Inc. - 3, Group Name AECI	
Answer	No
Document Name	
Comment	
AECI supports comment provided by Georgia Transmission Corporation	
Likes 0	
Dislikes 0	
Response	
Mike Magruder - Avista - Avista Corporation - 1	
Answer	No
Document Name	
Comment	

We support EEI's comments.

Likes 0	
Dislikes 0	

Response

Katrina Lyons - Georgia System Operations Corporation - 4

Answer	No
Document Name	

Comment

GSOC supports Georgia Transmission Corporation's comments:

- With the nature of this evaluation, it appears appropriate to distribute the assessment and CAP to specific entities such as operators, owners, and impacted planning entities.
- More specifics on metrics that constitute a valid reliability-related need is needed.

Likes 0	
Dislikes 0	

Response

Brittany Millard - Lincoln Electric System - 5

Answer	No
Document Name	

Comment

LES supports comments submitted by the MRO NERC Standards Review Forum (NSRF).

Likes 0	
Dislikes 0	

Response

Stephen Stafford - Stephen Stafford On Behalf of: Greg Davis, Georgia Transmission Corporation, 1; - Stephen Stafford

Answer	No
Document Name	

Comment

- With the nature of this evaluation, it appears appropriate to distribute the assessment and CAP to specific entities such as operators, owners, and impacted planning entities.
- More specifics on metrics that constitute a valid reliability-related need is needed.

Likes 0	
Dislikes 0	

Response

Glen Farmer - Avista - Avista Corporation - 5

Answer	No
Document Name	

Comment

EEI supports the intent of Requirement R11 but suggest replacing “functional entity” with registered entity because functional entity is not a defined term, while registered entity makes it clear Extreme Temperature Assessment results are to be shared on a need-to-know basis between registered entities that have executed a non-disclosure agreement.

Likes 0	
Dislikes 0	

Response

Devin Shines - PPL - Louisville Gas and Electric Co. - 1,3,5,6 - SERC,RF

Answer	No
Document Name	

Comment

LG&E and KU agrees with EEI's comments.

Likes 0	
Dislikes 0	

Response

Kristine Martz - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable

Answer	No
Document Name	

Comment

EEI supports the intent of Requirement R11 but suggest replacing “functional entity” with registered entity because functional entity is not a defined term, while registered entity makes it clear Extreme Temperature Assessment results are to be shared on a need-to-know basis between registered entities that have executed a non-disclosure agreement.

Likes 0	
Dislikes 0	

Response

Hayden Maples - Hayden Maples On Behalf of: Jeremy Harris, Evergy, 3, 5, 1, 6; Kevin Frick, Evergy, 3, 5, 1, 6; Marcus Moor, Evergy, 3, 5, 1, 6; Tiffany Lake, Evergy, 3, 5, 1, 6; - Hayden Maples

Answer	No
Document Name	

Comment

Evergy supports and incorporates by reference the comments of the Edison Electric Institute (EEI) and Midwest Reliability Organization's NERC Standards Review Forum (MRO NSRF) on question 6

Likes 0	
Dislikes 0	

Response

Stephen Whaite - Stephen Whaite On Behalf of: Tyler Schwendiman, ReliabilityFirst , 10; - Stephen Whaite, Group Name ReliabilityFirst Ballot Body Member and Proxies

Answer	No
Document Name	

Comment

RF believes a timeframe of 30 calendar days would be more appropriate.

Likes 0	
Dislikes 0	

Response

Andy Fuhrman - Andy Fuhrman On Behalf of: Theresa Allard, Minnkota Power Cooperative Inc., 1; - Andy Fuhrman

Answer	No
Document Name	

Comment	
MPC supports comments submitted by the MRO NERC Standards Review Forum (NSRF).	
Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	
Response	
Broc Bruton - Broc Bruton On Behalf of: Byron Booker, Oncor Electric Delivery, 1; - Broc Bruton	
Answer	No
Document Name	
Comment	
Oncor would like for “functional entity” to be defined and limited to PCs only. We share the concerns of the Western Power Pool. It may be burdensome for a responsible entity to reply to requests from “any functional entity" that claims it has a reliability related need to receive our Extreme Temperature Assessment results.	
Likes 0	
Dislikes 0	
Response	
Leslie Hamby - Southern Indiana Gas and Electric Co. - 3,5,6 - RF	
Answer	No
Document Name	
Comment	
Southern Indiana Gas & Electric Company d/b/a CenterPoint Energy Indiana South (SIGE) recommends the following changes: • Modify “60” to “90” calendar days to align with TPL-001-5.1, R8, Part 8.1 • Add “NERC” to functional entity for clarity • Add “documented” for clarity SIGE’s recommended changes are illustrated below: **R11.** Each responsible entity, as identified in Requirement R1, shall provide its Extreme Temperature Assessment results within ***90*** calendar days of a request to any ***NERC registered*** functional entity that has a ***documented*** reliability related need and submits a written request for the information.	
Likes 0	
Dislikes 0	
Response	

Diana Aguas - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE	
Answer	No
Document Name	
Comment	
Please refer to Question 1 comments.	
Likes 0	
Dislikes 0	
Response	
Mark Garza - FirstEnergy - FirstEnergy Corporation - 4, Group Name FE Voter	
Answer	No
Document Name	
Comment	
TPL-001-5 requires sharing the results of its Planning Assessment results to adjacent PCs and adjacent TPs within 90 calendars of completing the Assessment. Therefore, FirstEnergy requests the Drafting Team view the 60-day timeframe under R11 to update to 90 calendar days to be consistent with TPL-005.	
Likes 0	
Dislikes 0	
Response	
Rachel Schuldt - Black Hills Corporation - 6, Group Name Black Hills Corporation - All Segments	
Answer	No
Document Name	
Comment	
Black Hills Corporation is aligned with EEI's comments. EEI supports the intent of Requirement R11 but suggest replacing "functional entity" with registered entity because functional entity is not a defined term, while registered entity makes it clear Extreme Temperature Assessment results are to be shared on a need to know basis with registered entities that they have enacted a non-disclosure agreement.	
Likes 0	
Dislikes 0	
Response	

Michael Whitney - Northern California Power Agency - 3, Group Name NCPA	
Answer	No
Document Name	
Comment	
NO, These assessment should be performed by the Regional Entities. There appears to be too much room for coordination issues having one Transmission Planner (TP) or Planning Coordinator (PC) having to rely on other TPs or PCs to meet their requirement deadlines.	
Likes 0	
Dislikes 0	
Response	
Lauren Giordano - Lauren Giordano On Behalf of: Dennis Sismaet, Northern California Power Agency, 4, 6, 3, 5; Marty Hostler, Northern California Power Agency, 4, 6, 3, 5; Michael Whitney, Northern California Power Agency, 4, 6, 3, 5; - Lauren Giordano	
Answer	No
Document Name	
Comment	
NO, These assessment should be performed by the Regional Entities. There appears to be too much room for coordination issues having one Transmission Planner (TP) or Planning Coordinator (PC) having to rely on other TPs or PCs to meet their requirement deadlines.	
Likes 0	
Dislikes 0	
Response	
Joyce Gundry - Public Utility District No. 1 of Chelan County - 3, Group Name CHPD	
Answer	No
Document Name	
Comment	
Given the timeframe of this study, it will be difficult to know when a new study is available for an entity to submit a written request. At minimum, a notification the study has been completed could be warranted. Such language exists currently for TPL-001-5.1 and may be similarly leveraged for the less frequent TPL-008 assessment. For example: “Each responsible entity, as identified in R1, shall distribute its Extreme Temperature Assessment results to adjacent Planning Coordinators and adjacent Transmission Planners within 90 calendar days of completing its Extreme Temperature Assessment and 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”.	

Likes 0	
Dislikes 0	
Response	
Srikanth Chennupati - Entergy - Entergy Services, Inc. - 1,3,5,6 - SERC	
Answer	No
Document Name	
Comment	
Entergy recommends changing wording of “has a reliability related need” with “has a *documented* reliability related need”.	
Likes 0	
Dislikes 0	
Response	
Kevin Conway - Western Power Pool - 4	
Answer	No
Document Name	
Comment	
What is the technical justification for R11? The Transmission Planners should provide their assessments to it's TOP(s), BA(s), RP(s), RC, and PC since they are all directly affected by the assessment results. The results of the assessment may be considered confidential and shouldn't be distributed an further than what is necessary. R11, as currently worded, there will be a need for the entity to monitor, track, and potentially address comments resulting from entities requesting a copy of the assessment results. This administratively complicates the need for an assessment and introduces administrative compliance risk.	
Likes 0	
Dislikes 0	
Response	
Constantin Chitescu - Ontario Power Generation Inc. - 5	
Answer	Yes
Document Name	
Comment	
OPG supports NPCC Regional Standards Committee’s comments.	

Likes 0	
Dislikes 0	
Response	
Rachel Coyne - Texas Reliability Entity, Inc. - 10	
Answer	Yes
Document Name	
Comment	
Texas RE requests clarification of the phrase “reliability related need”.	
Likes 0	
Dislikes 0	
Response	
Kinte Whitehead - Exelon - 3	
Answer	Yes
Document Name	
Comment	
Exelon does not have any objections to the proposed language for Requirement R11.	
Likes 0	
Dislikes 0	
Response	
Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC RSC	
Answer	Yes
Document Name	
Comment	
R11: “Responsible entity” should be defined in the Applicability section or should replace with “Each Planning Coordinator, in conjunction with its Transmission Planner(s)...”). Suggest replacing 4.1 to “Responsible Entity” instead of “Functional Entity”.	
Likes 0	
Dislikes 0	

Response	
Daniel Gacek - Exelon - 1	
Answer	Yes
Document Name	
Comment	
Exelon does not have any objections to the proposed language for Requirement R11.	
Likes 0	
Dislikes 0	
Response	
Bob Cardle - Bob Cardle On Behalf of: Marco Rios, Pacific Gas and Electric Company, 3, 1, 5; Sandra Ellis, Pacific Gas and Electric Company, 3, 1, 5; Tyler Brun, Pacific Gas and Electric Company, 3, 1, 5; - Bob Cardle	
Answer	Yes
Document Name	
Comment	
We agree it is vital to have close coordination amongst all responsible entities during the assessment study period.	
Likes 0	
Dislikes 0	
Response	
David Jendras Sr - Ameren - Ameren Services - 3	
Answer	Yes
Document Name	
Comment	
None.	
Likes 0	
Dislikes 0	
Response	

Junji Yamaguchi - Hydro-Quebec (HQ) - 5	
Answer	Yes
Document Name	
Comment	
R11: “Responsible entity” should be defined in the Applicability section or should replaced with “Each Planning Coordinator, in conjunction with its Transmission Planner(s)...”). Suggest to replace 4.1 to “Responsible Entity” instead of “Functional Entity”.	
Likes 0	
Dislikes 0	
Response	
Keith Jonassen - Keith Jonassen On Behalf of: John Pearson, ISO New England, Inc., 2; - Keith Jonassen	
Answer	Yes
Document Name	
Comment	
ISO supports the “upon request” aspect of the requirement.	
Likes 0	
Dislikes 0	
Response	
Chantal Mazza - Chantal Mazza On Behalf of: Nicolas Turcotte, Hydro-Quebec (HQ), 1, 5; - Chantal Mazza	
Answer	Yes
Document Name	
Comment	
R11: “Responsible entity” should be defined in the Applicability section or should replaced with “Each Planning Coordinator, in conjunction with its Transmission Planner(s)...”). Suggest to replace 4.1 to “Responsible Entity” instead of “Functional Entity”.	
Likes 0	
Dislikes 0	
Response	
Lenise Kimes - City and County of San Francisco - 1,5 - WECC	

Answer	Yes
Document Name	
Comment	
No comments.	
Likes 0	
Dislikes 0	
Response	
Duane Franke - Manitoba Hydro - 1,3,5,6 - MRO	
Answer	Yes
Document Name	
Comment	
MH is OK with sharing the results upon request if there is a reliability related need.	
Likes 0	
Dislikes 0	
Response	
Catrina Martin - Archer Energy Solutions, LLC - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - MRO,WECC, Group Name SPP RTO	
Answer	Yes
Document Name	
Comment	

Likes 0	
Dislikes 0	
Response	
Robert Jones - Seattle City Light - 1,3,4,6	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Rebika Yitna - Rebika Yitna On Behalf of: David Weekley, MEAG Power, 3, 1; Roger Brand, MEAG Power, 3, 1; - Rebika Yitna	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Lidija Efremova - Lidija Efremova On Behalf of: Emma Halilovic, Hydro One Networks, Inc., 1; - Lidija Efremova	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Carver Powers - Utility Services, Inc. - 4	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Daniela Atanasovski - APS - Arizona Public Service Co. - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Michele Shafer - New York State Electric & Gas (NYSEG) - 6	
Answer	Yes
Document Name	
Comment	

Likes 0	
Dislikes 0	
Response	
Michele Tondalo - United Illuminating Co. - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Richard Vendetti - NextEra Energy - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Chris Wagner - Santee Cooper - 1, Group Name Santee Cooper	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Joshua London - Eversource Energy - 1, Group Name Eversource	

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Hillary Creurer - Allete - Minnesota Power, Inc. - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Israel Perez - Israel Perez On Behalf of: Mathew Weber, Salt River Project, 3, 1, 6, 5; Matthew Jaramilla, Salt River Project, 3, 1, 6, 5; Thomas Johnson, Salt River Project, 3, 1, 6, 5; Timothy Singh, Salt River Project, 3, 1, 6, 5; - Israel Perez	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Alyssia Rhoads - Public Utility District No. 1 of Snohomish County - 1	
Answer	Yes
Document Name	
Comment	

Likes 0	
Dislikes 0	
Response	
Tim Kelley - Tim Kelley On Behalf of: Charles Norton, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Foung Mua, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Ryder Couch, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Wei Shao, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; - Tim Kelley, Group Name SMUD and BANC	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Apollonia Gonzales - PNM Resources - 1,3 - WECC,Texas RE	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Mark Flanary - Midwest Reliability Organization - 10	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Isidoro Behar - Long Island Power Authority - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Ben Hammer - Western Area Power Administration - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Robert Follini - Avista - Avista Corporation - 3	
Answer	Yes
Document Name	
Comment	

Likes 0	
Dislikes 0	
Response	
Jessica Cordero - Unisource - Tucson Electric Power Co. - 1 - WECC	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Jennifer Weber - Tennessee Valley Authority - 1,3,5,6 - SERC	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Thomas Foltz - AEP - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Jeffrey Streifling - NB Power Corporation - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Donna Wood - Tri-State G and T Association, Inc. - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Alison MacKellar - Constellation - 5	
Answer	
Document Name	
Comment	
Constellation has no comments Alison Mackellar on behalf of Constellation Segments 5 and 6	
Likes 0	
Dislikes 0	
Response	
Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC	
Answer	
Document Name	

Comment
How does a responsible entity determine “reliability related need”? Without and parameters an applicable entity could say there is no "reliability related need" and not have to rspond to any written requests.

Likes 0	
Dislikes 0	

Response

Kimberly Turco - Constellation - 6	
Answer	
Document Name	

Comment
Constellation has no comments Kimberly Turco on behalf of Constellation Segments 5 and 6

Likes 0	
Dislikes 0	

Response

7. Do you agree with the proposed TPL-008-1 Table 1? If you do not agree, please provide your recommendation and technical justification.

Srikanth Chennupati - Entergy - Entergy Services, Inc. - 1,3,5,6 - SERC	
Answer	No
Document Name	
Comment	
Entergy recommends that the table should be split into three tables: "Table 1: Performance Criteria", "Table 2: Contingencies", and "Table 3: Steady State & Stability Footnotes".	
Likes 0	
Dislikes 0	
Response	

Jeffrey Streifling - NB Power Corporation - 1	
Answer	No
Document Name	
Comment	
On the first page of Table 1, “Corrective Action Plan Required” might be better phrased as “Corrective Action Plan Required for Performance Violations” or similar. A fault type (3φ or SLG) should be given for P5 contingencies. To be consistent with TPL-001-5.1, this should be SLG.	
Likes 0	
Dislikes 0	
Response	

Thomas Foltz - AEP - 5	
Answer	No
Document Name	
Comment	
The SDT may wish to consider decreasing the 200kv voltage threshold in Table 1 to instead be 100kv. Industry has grown more reliant on generation which is connected at lower voltages, and contingencies on those lower voltages may be as impactful and even more frequent than at the higher voltages. AEP sees the potential reliability benefit of including facilities at a lower voltage threshold in Table 1.	

Likes 0	
Dislikes 0	
Response	
Jessica Cordero - Unisource - Tucson Electric Power Co. - 1 - WECC	
Answer	No
Document Name	
Comment	
Table should include all planning events to avoid confusion with TPL-001-5 Table 1. Information under P3 and P6 could be listed as N/A but it would avoid confusion.	
Likes 0	
Dislikes 0	
Response	
Lauren Giordano - Lauren Giordano On Behalf of: Dennis Sismaet, Northern California Power Agency, 4, 6, 3, 5; Marty Hostler, Northern California Power Agency, 4, 6, 3, 5; Michael Whitney, Northern California Power Agency, 4, 6, 3, 5; - Lauren Giordano	
Answer	No
Document Name	
Comment	
NO, These assessment should be performed by the Regional Entities. There appears to be too much room for coordination issues having one Transmission Planner (TP) or Planning Coordinator (PC) having to rely on other TPs or PCs to meet their requirement deadlines.	
Likes 0	
Dislikes 0	
Response	
Michael Whitney - Northern California Power Agency - 3, Group Name NCPA	
Answer	No
Document Name	
Comment	

NO, These assessment should be performed by the Regional Entities. There appears to be too much room for coordination issues having one Transmission Planner (TP) or Planning Coordinator (PC) having to rely on other TPs or PCs to meet their requirement deadlines.

Likes 0	
Dislikes 0	

Response

Rachel Schuldt - Black Hills Corporation - 6, Group Name Black Hills Corporation - All Segments

Answer	No
Document Name	

Comment

Black Hills Corporation agrees with EEI's comments and has no specific recommendations at this time.

While EEI does not yet have specific recommendations for Table 1 at this time, more work is needed to better address the Contingencies and Performance Criteria for Extreme Temperature Assessments.

Likes 0	
Dislikes 0	

Response

Duane Franke - Manitoba Hydro - 1,3,5,6 - MRO

Answer	No
Document Name	

Comment

We strongly support the applicability to 200 kV and above facilities. FERC Order 896 is concerned with the wide-area impacts of extreme temperature events and the impact of issues with facilities below 200 kV are typically localized. R9 and Table 1 requires the development of Corrective Action Plans for P1 events where applicable facility ratings are exceeded and steady state voltages are not within limits. This requirement goes beyond the directives in FERC Order 896. The FERC Order is concerned with cascading, instability, and uncontrolled islanding but not with facility overloads. It would be prudent for entities to consider Corrective Action Plans for P1 events but the requirement to develop Corrective Action Plans for all P1 issues will lead to increased costs for extremely low probability and in many cases low consequence events. For example, if an extreme temperature event occurs (low frequency and low duration), and a P1 event occurs in that time (low probability), then there may be a risk of an element overload. If it can be demonstrated that the overload does not lead to cascading, instability, or uncontrolled islanding, then the consequence may be reasonable such as a small degree of loss-of-life in a transformer. The standard, as written, will require the development of expensive Corrective Action Plans for many low probability, low consequence events and goes beyond FERC Order 896. It is recommended that the text Table 1 be changed under the 'P1' column from "Applicable facility ratings shall not be exceeded. System steady state voltages shall be within acceptable limits as defined in Requirement R5" to "uncontrolled separation or Cascading, as defined in Requirement R6, shall not occur".

Likes 0	

Dislikes 0	

Response

Isidoro Behar - Long Island Power Authority - 1	
Answer	No
Document Name	

Comment
The first event row in Table 1 specifies “Facility Voltage Level of Contingency”. Question: is the intent to limit the selection of planning events to events that comprise facilities 200 kV and above? Is so, this should be clarified and/or mentioned within R7. The required fault type (3φ or SLG) to be assessed should be specified for P5 contingencies (i.e., SLG – to be consistent with TPL-001-5.1).

Likes 0	
Dislikes 0	

Response

Diana Aguas - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE	
Answer	No
Document Name	

Comment
Please refer to Question 1 comments.

Likes 0	
Dislikes 0	

Response

Leslie Hamby - Southern Indiana Gas and Electric Co. - 3,5,6 - RF	
Answer	No
Document Name	

Comment
Southern Indiana Gas & Electric Company d/b/a CenterPoint Energy Indiana South (SIGE) supports the recommend Table 1 changes provided by MRO NERC Standards Review Forum (NSRF) which include:

- in the Facility Voltage Level of Contingency row, change the commas to colons,
- in the Facility Voltage Level of Contingency row, clarify what is meant by “reference voltage,”
- in the Stability Performance Criteria row, clarify what is meant by “initialization.”

Additionally, SIGE request clarification as to why TPL-008’s Table 1 footnotes differ from TPL-001-5.1.

Likes 0	
Dislikes 0	

Response

Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC

Answer	No
Document Name	

Comment

BPA believes Table 1 would be appropriate ***if*** the P0 benchmark planning base case has all transmission elements in service. However, if P0 case already includes multiple transmission elements out of service, it is likely CAPs for P0 or any P1 contingency would be cost-prohibitive. Reliability of system operations under outage conditions is addressed in the Operating Horizon, where loss of load is allowed. Lessons learned from the previous extreme weather events inform us that it is inevitable to lose a lot of load due to the impact of the event itself. Additionally, BPA highly recommends that P5 not be included in Table 1 as part of the required studies because extreme weather conditions expose outdoor EHV elements and do not affect protective relaying.

Likes 0	
Dislikes 0	

Response

Tim Kelley - Tim Kelley On Behalf of: Charles Norton, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Foung Mua, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Ryder Couch, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Wei Shao, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; - Tim Kelley, Group Name SMUD and BANC

Answer	No
Document Name	

Comment

To avoid confusion with TPL-001-5 Table 1, we recommend that new categories (not P0-P7) should be used in the new TPL-008-1 Standard. Also, TPL-008-1 Table 1, Category P4 has a footnote #10 in the Category column that is not included or defined in the footnotes.

Likes 0	
Dislikes 0	

Response

Lenise Kimes - City and County of San Francisco - 1,5 - WECC	
Answer	No
Document Name	
Comment	

• Table 1 – The performance requirements in Table 1 allow for the use of NCLL, but there does not appear to be any limit placed the amount of NCLL that can be used. Some entities have a maximum amount of NCLL included in their Cascading criteria and/or other planning criteria, but some entities do not.

o For entities that do not have a maximum amount of NCLL specified, does this mean that they can mitigate any issues with unlimited use of NCLL?

o If so, studying P1, P2, P4, P5 and P7 events would merely tell us how much load would be shed. Capital projects would never be required for P1, unless some other part of the defined Cascading criteria is violated.

o Should there be some type of maximum NCLL limit for these events or do we just want to rely on the individual Cascading criteria of each PC and TP entity?

• Table 1 - Table 1 appears to have a cut and paste issue. The title bar includes “(Planning Events and Extreme Events)”, but extreme events are not defined or otherwise referenced in TPL-008. We recommend removing “and Extreme Events” from the title bar of Table 1.

• We strongly suggest removing P5 from Table 1 for multiple reasons. See R7 and R10 comments.

Likes 0	
Dislikes 0	
Response	

Israel Perez - Israel Perez On Behalf of: Mathew Weber, Salt River Project, 3, 1, 6, 5; Matthew Jaramilla, Salt River Project, 3, 1, 6, 5; Thomas Johnson, Salt River Project, 3, 1, 6, 5; Timothy Singh, Salt River Project, 3, 1, 6, 5; - Israel Perez	
Answer	No
Document Name	
Comment	

SRP disagrees with the proposed TPL-008- Table 1. Would it be possible to simply reference TPL-001 table 1 instead? If not, every time we adjust or make modifications to TPL-001 Standard, we are going to need to open both Standards with a SAR.

Likes 0	
Dislikes 0	
Response	

Joshua London - Eversource Energy - 1, Group Name Eversource

Answer	No
Document Name	
Comment	
A fault type for P5 contingencies is needed.	
Likes 0	
Dislikes 0	
Response	
Andy Fuhrman - Andy Fuhrman On Behalf of: Theresa Allard, Minnkota Power Cooperative Inc., 1; - Andy Fuhrman	
Answer	No
Document Name	
Comment	
MPC supports comments submitted by the MRO NERC Standards Review Forum (NSRF).	
Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	
Response	
Hayden Maples - Hayden Maples On Behalf of: Jeremy Harris, Evergy, 3, 5, 1, 6; Kevin Frick, Evergy, 3, 5, 1, 6; Marcus Moor, Evergy, 3, 5, 1, 6; Tiffany Lake, Evergy, 3, 5, 1, 6; - Hayden Maples	
Answer	No
Document Name	
Comment	
No, Evergy supports and incorporates by reference the comments of the Midwest Reliability Organization's NERC Standards Review Forum (MRO NSRF) on question 7	
Likes 0	
Dislikes 0	
Response	
Kristine Martz - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable	
Answer	No

Document Name	

Comment

While EEI does not yet have specific recommendations for Table 1 at this time, more work is needed to better address the Contingencies and Performance Criteria for Extreme Temperature Assessments.

Likes 0	
Dislikes 0	

Response

Devin Shines - PPL - Louisville Gas and Electric Co. - 1,3,5,6 - SERC,RF

Answer	No
Document Name	

Comment

LG&E and KU does not support the proposed Table 1 Contingencies and Performance Requirements and recommend the following changes:

1) The voltage level of applicability should be Facilities at 300 kV or higher, which are designated as extra-high voltage (EHV) Facilities in TPL-001 Table 1. As the proposed TPL-008 mirrors TPL-001 events, it should use the same line of distinction as is used in TPL-001. Many entities will have existing processes and automation developed to distinguish between high voltage (HV) and EHV events. While the Technical Rationale does not provide an explanation as to why the analysis is limited to a subset of the BES, a 300 kV threshold appropriately identifies events with possible widespread impacts.

2) Interruption of Firm Transmission Service should be explicitly permitted in Table 1 where Non-consequential Load Loss is allowed.

3) Planning Events P4, P5, and P7 should be removed from Table 1. The Drafting Team correctly notes in the Technical Rationale that these events are “less likely to occur compared to P0 and P1 Contingencies” and that “the Extreme Temperature Assessment already addresses low-probability system conditions.”

The requirement to evaluate these events when no corrective action is required is unreasonable since the likelihood of the events occurring during extreme system conditions is extremely low, the evaluation of possible mitigation actions is unlikely to result in corrective actions, and because the evaluation requirements for more likely scenarios (known outages, loss of an element with a long lead spare) is limited to no more than category P0, P1 and P2 events. Furthermore, while some event categories are relatively straightforward to simulate, category P5 events can be exceedingly tedious to perform. These events also often represent highly unlikely events that are significantly less probable than category P3 or P6 events.

The evaluation of events in categories P0, P1, and P2 represent a reasonable level of analysis for the unlikely extreme conditions represented in the cases. These events also appropriately consider events that are likely to be monitored for in operational scenarios.

Likes 0	
Dislikes 0	

Response

Richard Vendetti - NextEra Energy - 5

Answer	No
Document Name	
Comment	
See comments in #4 and #5	
Likes 0	
Dislikes 0	
Response	
Chantal Mazza - Chantal Mazza On Behalf of: Nicolas Turcotte, Hydro-Quebec (HQ), 1, 5; - Chantal Mazza	
Answer	No
Document Name	
Comment	
• On the first page of Table 1, “Corrective Action Plan Required” might be better phrased as “Corrective Action Plan Required for Performance Violations” or similar. • A fault type (3φ or SLG) should be given for P5 contingencies. To be consistent with TPL-001-5.1, this should be SLG. • Category P3 seems to be missing from the table.	
Likes 0	
Dislikes 0	
Response	
Glen Farmer - Avista - Avista Corporation - 5	
Answer	No
Document Name	
Comment	
While EEI does not yet have specific recommendations for Table 1 at this time, more work is needed to better address the Contingencies and Performance Criteria for Extreme Temperature Assessments.	
Likes 0	
Dislikes 0	
Response	
Stephen Stafford - Stephen Stafford On Behalf of: Greg Davis, Georgia Transmission Corporation, 1; - Stephen Stafford	

Answer	No
Document Name	
Comment	
• Consider separating the current Table 1 into separate, appropriately labeled tables. • For the “Facility Voltage Level of Contingency” row, this does not fit within the table under the P event designations. Consider moving to a footnote section. • “Any common structure that includes a Facility 200kV and above” should be defined within a specific P-event definition (such as P7). As currently worded, it appears to apply to all P events. Additionally, it is appropriate for the responsible entity to determine the specific common structure to assess as opposed to “any” common structure.	
Likes 0	
Dislikes 0	
Response	
Brittany Millard - Lincoln Electric System - 5	
Answer	No
Document Name	
Comment	
LES supports comments submitted by the MRO NERC Standards Review Forum (NSRF).	
Likes 0	
Dislikes 0	
Response	
Katrina Lyons - Georgia System Operations Corporation - 4	
Answer	No
Document Name	
Comment	
GSOC supports Georgia Transmission Corporation's comments: • Consider separating the current Table 1 into separate, appropriately labeled tables. • For the “Facility Voltage Level of Contingency” row, this does not fit within the table under the P event designations. Consider moving to a footnote section. • “Any common structure that includes a Facility 200kV and above” should be defined within a specific P-event definition (such as P7). As currently worded, it appears to apply to all P events. Additionally, it is appropriate for the responsible entity to determine the specific common structure to assess as opposed to “any” common structure.	
Likes 0	

Dislikes 0	
Response	
Mike Magruder - Avista - Avista Corporation - 1	
Answer	No
Document Name	
Comment	
We support EEI's comments.	
Likes 0	
Dislikes 0	
Response	
Todd Bennett - Associated Electric Cooperative, Inc. - 3, Group Name AECI	
Answer	No
Document Name	
Comment	
AECI supports comment provided by Georgia Transmission Corporation	
Likes 0	
Dislikes 0	
Response	
Keith Jonassen - Keith Jonassen On Behalf of: John Pearson, ISO New England, Inc., 2; - Keith Jonassen	
Answer	No
Document Name	
Comment	
In Table 1 there is no fault type for P5. This should probably be SLG Additionally, the SRC recommends that the drafting team either include the full set of footnotes from TPL-001-5.1 Table 1 or clarify why TPL-008 contains only a limited subset of the footnotes to Table 1.	
Likes 0	

Dislikes 0	
Response	
Junji Yamaguchi - Hydro-Quebec (HQ) - 5	
Answer	No
Document Name	
Comment	
On the first page of Table 1, “Corrective Action Plan Required” might be better phrased as “Corrective Action Plan Required for Performance Violations” or similar. A fault type (3φ or SLG) should be given for P5 contingencies. To be consistent with TPL-001-5.1, this should be SLG. Category P3 seems to be missing from the table.	
Likes 0	
Dislikes 0	
Response	
David Jendras Sr - Ameren - Ameren Services - 3	
Answer	No
Document Name	
Comment	
Ameren believes Table 1 performance criteria does not clearly identify applicability. In the Steady State Performance Criteria, it is not clear whether it applies to all of the BES or just BES elements 200kv and above.	
Likes 0	
Dislikes 0	
Response	
Colby Galloway - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company	
Answer	No
Document Name	

Comment
The Corrective Action Plan Requirement for P1 events on already extreme conditions and benchmark events is excessive and operating guides should be an appropriate solution. P1 events should be covered under R10 instead of R9. Southern Company believes that P2, P4, P5 and P7 events are not appropriate for such a high forecasted load period. P2, P4, P5, and P7 events are unnecessarily extreme conditions to assess on already extreme cases and load forecasts and should not be included in the scope of analysis. This is especially true for P5 which, under certain circumstances, can look like total loss of the station events.

Likes 0	
Dislikes 0	

Response

Rebika Yitna - Rebika Yitna On Behalf of: David Weekley, MEAG Power, 3, 1; Roger Brand, MEAG Power, 3, 1; - Rebika Yitna	
Answer	No
Document Name	

Comment
Take into consideration labeling Table 1 separately. In addition, for all P events, the phrase "Any Common structure that includes a Facility 200kV and above" needs to be clarified because the word "any" could be interpreted differently.

Likes 0	
Dislikes 0	

Response

Bob Cardle - Bob Cardle On Behalf of: Marco Rios, Pacific Gas and Electric Company, 3, 1, 5; Sandra Ellis, Pacific Gas and Electric Company, 3, 1, 5; Tyler Brun, Pacific Gas and Electric Company, 3, 1, 5; - Bob Cardle	
Answer	No
Document Name	

Comment
Table 1 – The performance requirements in Table 1 allow for the use of NCLL, but there does not appear to be any limit placed the amount of NCLL that can be used. Some entities have a maximum amount of NCLL included in their Cascading criteria and/or other planning criteria, but some entities do not. For entities that do not have a maximum amount of NCLL specified, does this mean that they can mitigate any issues with unlimited use of NCLL? If so, studying P1, P2, P4, P5 and P7 events would merely tell us how much load would be shed. Capital projects would never be required for P1, unless some other part of the defined Cascading criteria is violated. Should there be some type of maximum NCLL limit for these events or do we just want to rely on the individual Cascading criteria of each PC and TP entity?

Table 1 - Table 1 appears to be mislabeled. The title bar includes “(Planning Events and Extreme Events)”, but extreme events are not defined or otherwise referenced in TPL-008. We recommend removing “and Extreme Events” from the title bar of Table 1.

We strongly suggest removing P5 from Table 1 for multiple reasons. See R7 and R10 comments.

Likes 0	
Dislikes 0	

Response

Robert Jones - Seattle City Light - 1,3,4,6

Answer	No
Document Name	

Comment

The table should be reformatted and split into two tables. In the top half, titling the first column “event” doesn’t make sense. The second half appears to be just a recreation of the TPL-001-5 table 1 and should be separate.

Likes 0	
Dislikes 0	

Response

Steven Taddeucci - NiSource - Northern Indiana Public Service Co. - 3

Answer	No
Document Name	

Comment

NIPSCO supports the comments provided by Entergy, AEP, and BPA.

Likes 0	
Dislikes 0	

Response

Selene Willis - Edison International - Southern California Edison Company - 5

Answer	No
Document Name	

Comment

“See comments submitted by the Edison Electric Institute”	
Likes 0	
Dislikes 0	
Response	
Daniel Gacek - Exelon - 1	
Answer	No
Document Name	
Comment	
Exelon agrees with EEI that more work is needed to better address the Contingencies and Performance Criteria for the Extreme Temperature Assessments. We offer the following suggestions: Need clarification in Table 1 (page 9) regarding “any common structure that includes a Facility 200kV and above” The way this is written it includes common structure contingencies that include Facilities that are below 200kV. This seems odd since only singles greater than 200kV are included. Suggest “200kV and above Facilities on any common structure” and apply it to only P7 contingencies. Additionally, the first page of Table 1 is formatted differently than the second page. Perhaps Table 1 should be split into a Table 1.1 (Performance Criteria) and Table 1.2 (Contingency Category) Furthermore, the first row starting with “Facility Voltage Level…” doesn’t fit the table format. “Facility Voltage Level…” isn’t an Event. These notes would be better applied as footnotes. Table 1 (page 10) “Initial Condition” is labeled as “Normal System,” which is confusing because this isn’t the system as it normally is but the system as it is modeled under an extreme temperature event. Suggest “System per benchmark planning case identified in R4.”	
Likes 0	
Dislikes 0	
Response	
Amy Wilke - American Transmission Company, LLC - 1	
Answer	No
Document Name	
Comment	
ATC generally supports the MRO NSRF comments, and wants to emphasize that it would be helpful to have the standard document that monitored facilities should still generally include all BES facilities, but contingencies should be those 200 kV and above.	
Likes 0	
Dislikes 0	

Response	
Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC RSC	
Answer	No
Document Name	
Comment	
On the first page of Table 1, “Corrective Action Plan Required” might be better phrased as “Corrective Action Plan Required for Performance Violations” or similar. A fault type (3φ or SLG) should be given for P5 contingencies. To be consistent with TPL-001-5.1, this should be SLG. Category P3 seems to be missing from the table.	
Likes 0	
Dislikes 0	
Response	
Kinte Whitehead - Exelon - 3	
Answer	No
Document Name	
Comment	
Exelon agrees with EEI that more work is needed to better address the Contingencies and Performance Criteria for the Extreme Temperature Assessments. We offer the following suggestions: Need clarification in Table 1 (page 9) regarding “any common structure that includes a Facility 200kV and above” The way this is written it includes common structure contingencies that include Facilities that are below 200kV. This seems odd since only singles greater than 200kV are included. Suggest “200kV and above Facilities on any common structure” and apply it to only P7 contingencies. Additionally, the first page of Table 1 is formatted differently than the second page. Perhaps Table 1 should be split into a Table 1.1 (Performance Criteria) and Table 1.2 (Contingency Category) Furthermore, the first row starting with “Facility Voltage Level…” doesn’t fit the table format. “Facility Voltage Level…” isn’t an Event. These notes would be better applied as footnotes. Table 1 (page 10) “Initial Condition” is labeled as “Normal System,” which is confusing because this isn’t the system as it normally is but the system as it is modeled under an extreme temperature event. Suggest “System per benchmark planning case identified in R4.”	
Likes 0	

Dislikes 0	
Response	
Wayne Guttormson - SaskPower - 1	
Answer	No
Document Name	
Comment	
Support the MRO NSRF and EEI comments.	
Likes 0	
Dislikes 0	
Response	
Dwanique Spiller - Berkshire Hathaway - NV Energy - 5	
Answer	No
Document Name	
Comment	
While NV Energy does not yet have specific recommendations for Table 1 at this time, more work is needed to better address the Contingencies and Performance Criteria for Extreme Temperature Assessments.	
Likes 0	
Dislikes 0	
Response	
Kennedy Meier - Electric Reliability Council of Texas, Inc. - 2	
Answer	No
Document Name	
Comment	
ERCOT recommends the following clarifications to Table 1: - in the Facility Voltage Level of Contingency row, change the commas to colons, - in the Facility Voltage Level of Contingency row, clarify what is meant by “reference voltage,” and	

- in the Stability Performance Criteria row, clarify what is meant by “initialization.”

Additionally, ERCOT recommends that the drafting team either include the full set of footnotes from TPL-001-5.1 Table 1 or clarify why TPL-008 contains only a limited subset of the footnotes to Table 1.

Finally, consistent with ERCOT’s comments on the need for Requirement R9 to clarify that Load shed is allowed to establish a solvable P0 system condition, ERCOT recommends that Table 1 be revised to contain the same clarification as Requirement R9. This is necessary to ensure that the standard complies with paragraph 94 of FERC Order No. 896, which (as noted in the Technical Rationale) states that resource adequacy is not in scope for this project.

Likes 0	
Dislikes 0	

Response

Constantin Chitescu - Ontario Power Generation Inc. - 5

Answer	No
Document Name	

Comment

OPG supports NPCC Regional Standards Committee’s comments.

Likes 0	
Dislikes 0	

Response

Adrian Harris - Adrian Harris On Behalf of: Bobbi Welch, Midcontinent ISO, Inc., 2; - Adrian Harris, Group Name RTO/ISO Council Standard Review Committee Project 2023-07 TPL-008

Answer	No
Document Name	

Comment

The SRC recommends the following clarifications to Table 1:

- in the Facility Voltage Level of Contingency row, change the commas to colons,
- in the Facility Voltage Level of Contingency row, clarify what is meant by “reference voltage,” and
- in the Stability Performance Criteria row, clarify what is meant by “initialization.”

Additionally, the SRC recommends that the drafting team either include the full set of footnotes from TPL-001-5.1 Table 1 or clarify why TPL-008 contains only a limited subset of the footnotes to Table 1.The SRC also requests that the drafting team confirm that Table 1 will be limited to 200 kV and

above facilities and not include contingencies below 200 kV, as this could miss contingency events below 200 kV that could be limiting to the 200 kV and up system.

Finally, consistent with the SRC's comments on the need for Requirement R9 to clarify that Load shed is allowed to establish a solvable P0 system condition, the SRC recommends that Table 1 be revised to contain the same clarification as Requirement R9. This is necessary to ensure that the standard complies with paragraph 94 of FERC Order No. 896, which (as noted in the Technical Rationale) states that resource adequacy is not in scope for this project.

IESO Abstains from Question 7

Likes 0	
Dislikes 0	

Response

Catrina Martin - Archer Energy Solutions, LLC - 5

Answer	No
Document Name	

Comment

Table 1 – The performance requirements in Table 1 allow for the use of NCLL, but there does not appear to be any limit placed the amount of NCLL that can be used. Some entities have a maximum amount of NCLL included in their Cascading criteria and/or other planning criteria, but some entities do not.

o For entities that do not have a maximum amount of NCLL specified, does this mean that they can mitigate any issues with unlimited use of NCLL?

o If so, studying P1, P2, P4, P5 and P7 events would merely tell us how much load would be shed. Capital projects would never be required for P1, unless some other part of the defined Cascading criteria is violated.

o Should there be some type of maximum NCLL limit for these events or do we just want to rely on the individual Cascading criteria of each PC and TP entity?

Table 1 - Table 1 appears to have a cut and paste issue. The title bar includes "(Planning Events and Extreme Events)", but extreme events are not defined or otherwise referenced in TPL-008. We recommend removing "and Extreme Events" from the title bar of Table 1.

We strongly suggest removing P5 from Table 1 for multiple reasons. See R7 and R10 comments.

Likes 0	
Dislikes 0	

Response

Adrian Andreoiu - BC Hydro and Power Authority - 1, Group Name BC Hydro

Answer	No

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Joyce Gundry - Public Utility District No. 1 of Chelan County - 3, Group Name CHPD	
Answer	Yes
Document Name	
Comment	
TPL-001-5.1 Table 1 includes 'BES Level' in-line with the P1-P7 events, as well as Interruption of Firm Transmission Service and whether Non-Consequential Load Loss is allowed. The information is generally captured in TPL-008 but having it in a similar table to TPL-001-5.1 could help for consistency between planning standards and allow for less searching for this information elsewhere in TPL-008. Similarly, the "notes" at the beginning of TPL-008's Table 1 are generally footnotes in the TPL-001-5.1 Table 1. While TPL-008's Table 1 works, functional alignment to how the information is laid out in TPL-001-5.1 would be appreciated as well. FERC ultimately did not indicate a required set of contingencies to be considered, leaving this to the SDT. However, in its commentary, FERC Order 896 seemed to highlight those contingencies that could be more related to extreme weather. It is not clear how or if the SDT assessed the weather relation to contingencies in its Technical Rationale discussion. Does the SDT have specific thoughts or considerations, or is the intent to pass this on to the applicable entities to make such determinations? In consideration of future Table 1 event selections, thoughts from the SDT on the relation between extreme weather and contingency selection would be appreciated.	
Likes 0	
Dislikes 0	
Response	
Mark Garza - FirstEnergy - FirstEnergy Corporation - 4, Group Name FE Voter	
Answer	Yes
Document Name	
Comment	
No Additional Comments.	
Likes 0	
Dislikes 0	
Response	

Broc Bruton - Broc Bruton On Behalf of: Byron Booker, Oncor Electric Delivery, 1; - Broc Bruton	
Answer	Yes
Document Name	
Comment	
Oncor would like to know the technical justification for only calling out BES 200kV and above instead of using BES 100kV and above.	
Likes 0	
Dislikes 0	
Response	
Carver Powers - Utility Services, Inc. - 4	
Answer	Yes
Document Name	
Comment	
Suggest the DT ensures footnotes and numbering in Table 1 are consistent. I.e., Table 1 category P4 contains a footnote #10, however footnote #10 is missing from the table on page 12.	
Likes 0	
Dislikes 0	
Response	
Andy Thomas - Duke Energy - 1,3,5,6 - SERC,RF	
Answer	Yes
Document Name	
Comment	
None.	
Likes 0	
Dislikes 0	
Response	
Kevin Conway - Western Power Pool - 4	

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Donna Wood - Tri-State G and T Association, Inc. - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Jennifer Weber - Tennessee Valley Authority - 1,3,5,6 - SERC	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Robert Follini - Avista - Avista Corporation - 3	
Answer	Yes
Document Name	
Comment	
Likes 0	

Dislikes 0	
Response	
Ben Hammer - Western Area Power Administration - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Mark Flanary - Midwest Reliability Organization - 10	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Apollonia Gonzales - PNM Resources - 1,3 - WECC,Texas RE	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Alyssia Rhoads - Public Utility District No. 1 of Snohomish County - 1	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Hillary Creurer - Allete - Minnesota Power, Inc. - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Stephen Whaite - Stephen Whaite On Behalf of: Tyler Schwendiman, ReliabilityFirst , 10; - Stephen Whaite, Group Name ReliabilityFirst Ballot Body Member and Proxies	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Chris Wagner - Santee Cooper - 1, Group Name Santee Cooper	
Answer	Yes
Document Name	
Comment	
Likes 0	

Dislikes 0	
Response	
Michele Tondalo - United Illuminating Co. - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Michele Shafer - New York State Electric & Gas (NYSEG) - 6	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Daniela Atanasovski - APS - Arizona Public Service Co. - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Lidija Efremova - Lidija Efremova On Behalf of: Emma Halilovic, Hydro One Networks, Inc., 1; - Lidija Efremova	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - MRO,WECC, Group Name SPP RTO	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Kimberly Turco - Constellation - 6	
Answer	
Document Name	
Comment	
Constellation has no comments Kimberly Turco on behalf of Constellation Segments 5 and 6	

Likes 0	
Dislikes 0	

Response

Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC

Answer	
Document Name	

Comment

In general, yes but there may be some confusion as there are two parts to the Table. Again, this may be an opportunity to leverage what is done in TPL-001 and accent it accordingly for an Extreme Temperature Assessment.

Likes 0	
Dislikes 0	

Response

Alison MacKellar - Constellation - 5

Answer	
Document Name	

Comment

Constellation has no comments

Alison Mackellar on behalf of Constellation Segments 5 and 6

Likes 0	
Dislikes 0	

Response

Rachel Coyne - Texas Reliability Entity, Inc. - 10

Answer	
Document Name	

Comment

Texas RE noticed that Table 1 is applicable to BES level 200 kV and above. The webinar recording, however, mentioned that the TP and PC should be monitoring the entire BES, not just 200 kV and above. Texas RE requests the Table 1 language clarify that the entire BES be monitored.

Likes 0	
Dislikes 0	
Response	

8. The Standard Drafting Team (SDT) is proposing a phased-in implementation plan approach. Do you agree with the proposed phased-in timeframes? If you do not agree, please provide your recommendation and technical justification.

Catrina Martin - Archer Energy Solutions, LLC - 5

Answer	No
Document Name	

Comment

If R9 is intended to include the construction of capital projects, there should be additional time allowed for construction of those projects after the completion of the first Extreme Temperature Assessment study. An additional 5 years is suggested for CAP's for R9 that involves capital investment.

Likes 0	
Dislikes 0	

Response

Adrian Harris - Adrian Harris On Behalf of: Bobbi Welch, Midcontinent ISO, Inc., 2; - Adrian Harris, Group Name RTO/ISO Council Standard Review Committee Project 2023-07 TPL-008

Answer	No
Document Name	

Comment

In general, the SRC supports the phased-in approach of the proposed implementation plan. That said, the SRC requests the SDT establish a "date certain" by which the ERO must publish its "approved benchmark library" envisioned under R2. The SRC suggests this be completed within 12 months of the effective date of TPL-008-1. This will allow planning entities at least **48** months ***after*** the ERO benchmark library is published to come into compliance with proposed requirements R2-R6. As the ERO may not be subject to the Implementation Plan, the SRC defers to NERC and the SDT to structure the required completion date for the benchmark library in an appropriate manner.

- The SRC asks the SDT to share how the ERO plans to maintain ongoing updates to the benchmark event library, including the planned update schedule as well as the underlying criteria, approach and assumptions.

Likes 0	
Dislikes 0	

Response

Michael Goggin - Grid Strategies LLC - 5

Answer	No
Document Name	

Comment

The draft Implementation Plan proposes that requirements R7-R11, which require the Extreme Temperature Assessment and any resulting Corrective Action Plan, do not take effect until more than 6 years after the Standard is approved by FERC. This unnecessary delay is contrary to FERC's directive in Order 896 and the urgent importance of planning for extreme heat and cold events.

NERC's 2023 State of Reliability Overview concluded that "extreme weather events continue to pose the greatest risk to reliability due to the increase in frequency, footprint, duration, and severity." FERC Order 896 was also clear that the increasing frequency and magnitude of extreme weather events "have created an urgency to address the negative impact of extreme weather on the reliability of the Bulk-Power System" (at paragraphs 21-22). Waiting until after 2030 to address the largest threat to grid reliability does not make sense. Such a delay is also unnecessary, as entities responsible for TPL-008 already conduct nearly all of the elements of TPL-008 today to comply with TPL-001. TPL-008 effectively requires running similar analyses as TPL-001, but for extreme heat and cold scenarios. As a result, it should be straightforward for responsible entities to modify their existing planning practices to incorporate the two additional scenarios.

This unnecessary delay is also at odds with FERC's directive in Order 896. At paragraph 188, FERC directed "NERC to propose an implementation timeline for the new or modified Reliability Standard, with implementation beginning no later than 12 months after the effective date of a Commission order approving the proposed Reliability Standard." Under the draft Implementation Plan, the only requirement of TPL-008 that comes close to falling within the 12-month timeline FERC directed is compliance with R1, which begins "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."

More importantly, R1 is only the requirement that "Each Planning Coordinator, in conjunction with its Transmission Planner(s), shall determine and identify each entity's individual and joint responsibilities for performing the studies needed to complete the Extreme Temperature Assessment," and as such is a minor procedural step towards implementing the actual Extreme Temperature Assessment and any resulting Corrective Action Plan in R7-R11. As noted above, those meaningful requirements do not begin until more than 6 years after the standard is approved by FERC. To comply with FERC's directive, the drafting team should require compliance with R7-R11 to begin within 12 months of FERC approval of the standard, and the interim steps in R2-R6 should also be moved up from the Implementation Plan's proposed deadline of 36 months after the effective date of the standard.

Likes 0	
Dislikes 0	

Response

Dwanique Spiller - Berkshire Hathaway - NV Energy - 5

Answer	No
Document Name	

Comment

NV Energy does not agree with making Requirement R1 effective on the effective date of TPL-008 because this requirement includes the development of processes that currently do not exist. Beyond this change, we have no other objections to the proposed Implementation Plan.

Likes 0	
Dislikes 0	

Response

Wayne Guttormson - SaskPower - 1

Answer	No

Document Name	
Comment	
Support the MRO NSRF and EEI comments.	
Likes 0	
Dislikes 0	
Response	
Rachel Coyne - Texas Reliability Entity, Inc. - 10	
Answer	No
Document Name	
Comment	

Texas RE noticed that the phased-In Compliance Dates descriptions do not match the implementation diagram. The verbiage in the implementation plan says the following:

Phased In Compliance Dates

Effective Date = 12 months after the FERC Order

R1 = Effective Date of TPL-008-1

R2, R3, R4, R5, R6 = Effective Date + 36 months

R7, R8, R9, R10, R11 = Effective Date + 60 months

The diagram in the implementation plan shows the following:

R1 = Effective Date of TPL-008-1 (12 months after the FERC Order)

R2, R3, R4, R5, R6 = Effective Date for TPL-008-1 + 24 months

R7, R8, R9, R10, R11 = Effective Date for TPL-008-1 + 48 months

Texas RE requests the implementation plan descriptions and diagram be aligned. In particular, subsequent compliance activities should be consistently linked to the Standard Effective Date, which is 12 months following the first calendar quarter after the FERC Order approving the standard. As such, the chart should be adjusted or the narrative description shortened to reference the implementation period from the effective date.

Additionally, Requirement R8 states that the Extreme Temperature Assessment shall be done once every five calendar years. In the past, there has been confusion as to whether the first time a periodic activity is done by the effective date/compliance date or within the timeframe specified in the requirement of the compliance date. In this case, should the first Extreme Temperature Assessment be done by the compliance date or within five

years of the compliance date? In the past, the term “initial performance” has been used in the implementation plan to indicate the first time an activity in a periodic requirement is to be done. Texas RE requests the implementation plan clarify when the first assessment shall be completed, and generally recommends establishing an explicit initial performance date upon the effective date of the requirement to avoid delaying compliance obligations an additional five years.	
Likes 0	
Dislikes 0	
Response	
Kinte Whitehead - Exelon - 3	
Answer	No
Document Name	
Comment	
Exelon supports EEI’s suggestion regarding Requirement 11.	
Likes 0	
Dislikes 0	
Response	
Daniel Gacek - Exelon - 1	
Answer	No
Document Name	
Comment	
Exelon supports EEI’s suggestion regarding Requirement 11.	
Likes 0	
Dislikes 0	
Response	
Selene Willis - Edison International - Southern California Edison Company - 5	
Answer	No
Document Name	
Comment	

“See comments submitted by the Edison Electric Institute”	
Likes 0	
Dislikes 0	
Response	
Steven Taddeucci - NiSource - Northern Indiana Public Service Co. - 3	
Answer	No
Document Name	
Comment	
NIPSCO supports the comments provided by Entergy, WPP, FE, WAPA, CMS Energy, and WECC.	
Likes 0	
Dislikes 0	
Response	
Robert Jones - Seattle City Light - 1,3,4,6	
Answer	No
Document Name	
Comment	
It is unknown when the standard will be approved and go into effect. For R1, utilities should be given more time. Maybe 6 months after the standard goes into effect. The implementation timeline for other requirements is fair.	
Likes 0	
Dislikes 0	
Response	
Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin	
Answer	No
Document Name	
Comment	
In general, ITC supports the phased-in approach of the proposed implementation plan. That said, the ITC requests the SDT establish a “date certain” by which the ERO must publish its “approved benchmark library” envisioned under R2. ITC suggests this be completed within 12 months of the effective	

date of TPL-008-1 as detailed below. This will allow planning entities at least 24 months ***after*** the ERO benchmark library is published to come into compliance with proposed requirements R2-R6.

Alternative is to make the Implementation Plan effective dates for R2-R6 due no sooner than 24 months or 36 months after the benchmark cases are available and R7-11 due no sooner than 48 months or 60 months after the benchmark cases are available.

Likes 0	
Dislikes 0	

Response

Bob Cardle - Bob Cardle On Behalf of: Marco Rios, Pacific Gas and Electric Company, 3, 1, 5; Sandra Ellis, Pacific Gas and Electric Company, 3, 1, 5; Tyler Brun, Pacific Gas and Electric Company, 3, 1, 5; - Bob Cardle

Answer	No
Document Name	

Comment

If R9 is intended to include the construction of capital projects, there should be additional time allowed for construction of those projects after the completion of the first Extreme Temperature Assessment study. An additional 5-10 years is suggested for CAP's for R9 that involves capital investment.

Likes 0	
Dislikes 0	

Response

Keith Jonassen - Keith Jonassen On Behalf of: John Pearson, ISO New England, Inc., 2; - Keith Jonassen

Answer	No
Document Name	

Comment

ISO-NE will reserve its decision on the phased in implementation until after a "benchmark event" list is posted.

Typically ISO will support a phased in implementation.

Likes 0	
Dislikes 0	

Response

Mike Magruder - Avista - Avista Corporation - 1	
Answer	No
Document Name	
Comment	
We support EEI's comments.	
Likes 0	
Dislikes 0	
Response	
Brittany Millard - Lincoln Electric System - 5	
Answer	No
Document Name	
Comment	
LES supports comments submitted by the MRO NERC Standards Review Forum (NSRF).	
Likes 0	
Dislikes 0	
Response	
Glen Farmer - Avista - Avista Corporation - 5	
Answer	No
Document Name	
Comment	
EEI does not agree with making Requirement R1 effective on the effective date of TPL-008 because this requirement includes the development of processes that currently do not exist. If the benchmark event library is maintained outside of the Standard, the implementation plan should not be initiated until the library is fully established and populated.	
Likes 0	
Dislikes 0	
Response	
Devin Shines - PPL - Louisville Gas and Electric Co. - 1,3,5,6 - SERC,RF	

Answer	No
Document Name	
Comment	
LG&E and KU agrees with EEI's comments.	
Likes 0	
Dislikes 0	
Response	
Alison MacKellar - Constellation - 5	
Answer	No
Document Name	
Comment	
It appears ability to comply is completely dependent on having an "approved benchmark library maintained by the Electric Reliability Organization " However, implementation plan is strictly calendar based and divorced from the establishment of the approved benchmark library. Details of the benchmark library are not found in either the Std or the Technical Rationale , and the ERO apparently has no obligation to create a library. Suggest Mitigation Plan, other than R1, be keyed to the library creation. Also suggest putting in Tech Rationale links or references where details of the library may be found, the process used to select the events, how the library will be maintained and controlled, etc Alison Mackellar on behalf of Constellation Segments 5 and 6	
Likes 0	
Dislikes 0	
Response	
Kristine Martz - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable	
Answer	No
Document Name	
Comment	
EEI does not agree with making Requirement R1 effective on the effective date of TPL-008 because this requirement includes the development of processes that currently do not exist. If the benchmark event library is maintained outside of the Standard, the implementation plan should not be initiated until the library is fully established and populated.	
Likes 0	
Dislikes 0	

Response	
Hayden Maples - Hayden Maples On Behalf of: Jeremy Harris, Evergy, 3, 5, 1, 6; Kevin Frick, Evergy, 3, 5, 1, 6; Marcus Moor, Evergy, 3, 5, 1, 6; Tiffany Lake, Evergy, 3, 5, 1, 6; - Hayden Maples	
Answer	No
Document Name	
Comment	
Evergy supports and incorporates by reference the comments of the Edison Electric Institute (EEI) and Midwest Reliability Organization's NERC Standards Review Forum (MRO NSRF) on question 8	
Likes 0	
Dislikes 0	
Response	
Andy Fuhrman - Andy Fuhrman On Behalf of: Theresa Allard, Minnkota Power Cooperative Inc., 1; - Andy Fuhrman	
Answer	No
Document Name	
Comment	
MPC supports comments submitted by the MRO NERC Standards Review Forum (NSRF).	
Likes 0	
Dislikes 0	
Response	
Sean Bodkin - Dominion - Dominion Resources, Inc. - 6, Group Name Dominion	
Answer	No
Document Name	
Comment	
If the standard gets approved, we will need more implementation time due to other new studies that have to be implemented soon as the results of other NERC projects.	
Likes 0	
Dislikes 0	

Response	
Broc Bruton - Broc Bruton On Behalf of: Byron Booker, Oncor Electric Delivery, 1; - Broc Bruton	
Answer	No
Document Name	
Comment	
Oncor agrees with statement from Entergy that the timeline should not start until the ERO has developed the benchmark event library. Because of the complexity of the required study, the proposed standard is written to employ a five-year process. Final implementation of the proposed standard should be five years after the ERO has developed the benchmark event library.	
Likes 0	
Dislikes 0	
Response	
Hillary Creurer - Allete - Minnesota Power, Inc. - 1	
Answer	No
Document Name	
Comment	
Minnesota Power supports MRO's NERC Standards Review Forum's (NSRF) comments.	
Likes 0	
Dislikes 0	
Response	
Lenise Kimes - City and County of San Francisco - 1,5 - WECC	
Answer	No
Document Name	
Comment	
If R9 is intended to include the construction of capital projects, there should be additional time allowed for construction of those projects after the completion of the first Extreme Temperature Assessment study. An additional 5 years is suggested for CAP's for R9 that involved capital investment.	
Likes 0	
Dislikes 0	

Response

Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC

Answer	No
Document Name	

Comment

The timing is extensive and based on the TPL-001 requirements already in place and does not appear necessary with a few caveats—selection of the benchmark cases and applying the cases. In general some things are already in place (extreme heat in most places increases load---may impact Facility Ratings). How the process is done for an Extreme Temperature Assessment may not vary much from today's efforts. Not sure why R7 would be delayed as Contingencies are "ordinary" efforts for planning engineers. In essence, with the extended timeframe, and Extreme Weather Assessment may not occur for SDT timing, FERC approval, plus the implementation period which would be beyond 2030. To be clear, the Assessment in R8 should not take an additional 5 calendar years on top on the implementation plan. This Standard, while new, is not a completely new Standrad as a lot of the actions are already being done through TPL-001 processes today.

Likes 0	
Dislikes 0	

Response

Leslie Hamby - Southern Indiana Gas and Electric Co. - 3,5,6 - RF

Answer	No
Document Name	

Comment

Southern Indiana Gas & Electric Company d/b/a CenterPoint Energy Indiana South (SIGE) agrees with a phased-in approach for TPL-008; however, SIGE supports MRO NERC Standards Review Forum's (NSRF) request for the drafting team to establish a "date certain" by which the ERO must publish its "approved benchmark library" envisioned under R2. Additionally, SIGE agrees with MRO NSRF recommendation that this be completed within 12 months of the effective date of TPL-008-1. This will allow planning entities at least 24 months after the ERO benchmark library is published to come into compliance with proposed requirements R2-R6.

Likes 0	
Dislikes 0	

Response

Diana Aguas - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE

Answer	No
Document Name	

Comment

Please refer to Question 1 comments.	
Likes 0	
Dislikes 0	
Response	
Kimberly Turco - Constellation - 6	
Answer	No
Document Name	
Comment	
It appears ability to comply is completely dependent on having an "approved benchmark library maintained by the Electric Reliability Organization " However, implementation plan is strictly calendar based and divorced from the establishment of the approved benchmark library. Details of the benchmark library are not found in either the Std or the Technical Rationale , and the ERO apparently has no obligation to create a library. Suggest Mitigation Plan, other than R1, be keyed to the library creation. Also suggest putting in Tech Rationale links or references where details of the library may be found, the process used to select the events, how the library will be maintained and controlled, etc. Kimberly Turco on behalf of Constellation Segments 5 and 6	
Likes 0	
Dislikes 0	
Response	
Adrian Andreoiu - BC Hydro and Power Authority - 1, Group Name BC Hydro	
Answer	No
Document Name	
Comment	
Given the uncertainties detailed above, BC Hydro is unable to support the proposed implementation plan at this time.	
Likes 0	
Dislikes 0	
Response	
Eric Sutlief - CMS Energy - Consumers Energy Company - 3,4,5 - RF	
Answer	No
Document Name	

Comment
Consumers Energy agrees with the comments by WAPA: WAPA supports the phased-in approach of the proposed implementation plan. However, we request the SDT establish a “date certain” by which the ERO must publish its “approved benchmark library” envisioned under R2. We suggest this be completed within 12 months of the effective date of TPL-008-1 as detailed below. This will allow planning entities at least 24 months after the ERO benchmark library is published to come into compliance with proposed requirements R2-R6. Such as: Compliance Date for ERO Benchmark Library under TPL-008-1 Requirement R2:The Electric Reliability Organization (ERO) shall be required (commit in its filing to FERC) to publish the approved benchmark library for performing the Extreme Temperature Assessments within twelve (12) months after the effective date of Reliability Standard TPL-008-1. Also, we request the SDT to share how the ERO plans to maintain ongoing updates to the benchmark event library. Will this be on a continuous basis?

Likes 0	
Dislikes 0	

Response

Ben Hammer - Western Area Power Administration - 1	
Answer	No
Document Name	

Comment
WAPA supports the phased-in approach of the proposed implementation plan. However, we request the SDT establish a “date certain” by which the ERO must publish its “approved benchmark library” envisioned under R2. We suggest this be completed within 12 months of the effective date of TPL-008-1 as detailed below. This will allow planning entities at least 24 months **after** the ERO benchmark library is published to come into compliance with proposed requirements R2-R6. Such as: **Compliance Date for ERO Benchmark Library under TPL-008-1 Requirement R2:**The Electric Reliability Organization (ERO) shall be required (commit in its filing to FERC) to publish the approved benchmark library for performing the Extreme Temperature Assessments within twelve (12) months after the effective date of Reliability Standard TPL-008-1. Also, we request the SDT to share how the ERO plans to maintain ongoing updates to the benchmark event library. Will this be on a continuous basis?

Likes 0	
Dislikes 0	

Response

Mark Garza - FirstEnergy - FirstEnergy Corporation - 4, Group Name FE Voter	
Answer	No
Document Name	

Comment	
Until scope and direction of TPL-008's intent is clear, FirstEnergy cannot support the Implementation Plan.	
Likes 0	
Dislikes 0	
Response	
Duane Franke - Manitoba Hydro - 1,3,5,6 - MRO	
Answer	No
Document Name	
Comment	
This study is the first of its kind where multiple Planning Coordinators must coordinate the selection of the benchmark events and the development of the benchmark planning cases. Sufficient time is required to ensure thorough coordination between responsible entities in the initial Extreme Temperature Assessment. This may be possible in allotted time but will be difficult. An additional 24 months is required for R7, R8, R9 and R10 to allow time for planning, design, construction, and regulatory approvals of Corrective Action Plans. It is unclear when NERC plans to release the benchmarked planning cases. We recommend that the SDT revise the implementation plan with information on the benchmark library development plan (for example, within 12 months after FERC approval of the standard).	
Likes 0	
Dislikes 0	
Response	
Rachel Schuldt - Black Hills Corporation - 6, Group Name Black Hills Corporation - All Segments	
Answer	No
Document Name	
Comment	
Black Hills Corporation is in agreement with EEI. EEI does not agree with making Requirement R1 effective on the effective date of TPL-008 because this requirement includes the development of processes that currently do not exist. Beyond this change, we have no other objections to the proposed Implementation Plan.	
Likes 0	
Dislikes 0	
Response	

Michael Whitney - Northern California Power Agency - 3, Group Name NCPA	
Answer	No
Document Name	
Comment	
NO, These assessment should be performed by the Regional Entities. There appears to be too much room for coordination issues having one Transmission Planner (TP) or Planning Coordinator (PC) having to rely on other TPs or PCs to meet their requirement deadlines.	
Likes 0	
Dislikes 0	
Response	
Lauren Giordano - Lauren Giordano On Behalf of: Dennis Sismaet, Northern California Power Agency, 4, 6, 3, 5; Marty Hostler, Northern California Power Agency, 4, 6, 3, 5; Michael Whitney, Northern California Power Agency, 4, 6, 3, 5; - Lauren Giordano	
Answer	No
Document Name	
Comment	
NO, These assessment should be performed by the Regional Entities. There appears to be too much room for coordination issues having one Transmission Planner (TP) or Planning Coordinator (PC) having to rely on other TPs or PCs to meet their requirement deadlines.	
Likes 0	
Dislikes 0	
Response	
Jessica Cordero - Unisource - Tucson Electric Power Co. - 1 - WECC	
Answer	No
Document Name	
Comment	
Acceptable but should have development of operating procedures instead of CAPs.	
Likes 0	
Dislikes 0	
Response	

Srikanth Chennupati - Entergy - Entergy Services, Inc. - 1,3,5,6 - SERC	
Answer	No
Document Name	
Comment	
Entergy believes the timeline should not start until ERO has developed benchmark event library. Because of the complexity of the study, standard is written as five-year process. Final implementation should be 5 years after the ERO has developed benchmark event library.	
Likes 0	
Dislikes 0	
Response	
Kevin Conway - Western Power Pool - 4	
Answer	No
Document Name	
Comment	
The phased-in timeframes seem excessive. 12 months should be sufficient since this type of assessment would be done coincident with TPL-001 assessments.	
Likes 0	
Dislikes 0	
Response	
Constantin Chitescu - Ontario Power Generation Inc. - 5	
Answer	Yes
Document Name	
Comment	
OPG supports NPCC Regional Standards Committee’s comments.	
Likes 0	
Dislikes 0	
Response	
Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC RSC	

Answer	Yes
Document Name	
Comment	
If the comments above reading “Responsible Entity” are retained, corresponding changes should be made to the VSL table. If the comment above for R6 regarding “to identify instability, uncontrolled separation, or Cascading” is retained, corresponding changes should be made to the VSL table.	
Likes 0	
Dislikes 0	
Response	
David Jendras Sr - Ameren - Ameren Services - 3	
Answer	Yes
Document Name	
Comment	
None.	
Likes 0	
Dislikes 0	
Response	
Junji Yamaguchi - Hydro-Quebec (HQ) - 5	
Answer	Yes
Document Name	
Comment	
If the comments above reading “Responsible Entity” are retained, corresponding changes should be made to the VSL table. If the comment above for R6 regarding “to identify instability, uncontrolled separation, or Cascading” is retained, corresponding changes should be made to the VSL table.	
Likes 0	

Dislikes 0	
Response	
Andy Thomas - Duke Energy - 1,3,5,6 - SERC,RF	
Answer	Yes
Document Name	
Comment	
None.	
Likes 0	
Dislikes 0	
Response	
Todd Bennett - Associated Electric Cooperative, Inc. - 3, Group Name AECI	
Answer	Yes
Document Name	
Comment	
AECI supports comment provided by Georgia Transmission Corporation	
Likes 0	
Dislikes 0	
Response	
Chantal Mazza - Chantal Mazza On Behalf of: Nicolas Turcotte, Hydro-Quebec (HQ), 1, 5; - Chantal Mazza	
Answer	Yes
Document Name	
Comment	
• If the comments above reading “Responsible Entity” are retained, corresponding changes should be made to the VSL table. • If the comment above for R6 regarding “to identify instability, uncontrolled separation, or Cascading” is retained, corresponding changes should be made to the VSL table	
Likes 0	
Dislikes 0	
Response	

Isidoro Behar - Long Island Power Authority - 1	
Answer	Yes
Document Name	
Comment	
Assuming that “development” of a CAP, “sharing” of a CAP and “soliciting feedback” on a CAP as part of R9 does not mean “implementing” a CAP, then we concur with the phased-in implementation plan approach.	
Likes 0	
Dislikes 0	
Response	
Kennedy Meier - Electric Reliability Council of Texas, Inc. - 2	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - MRO,WECC, Group Name SPP RTO	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Amy Wilke - American Transmission Company, LLC - 1	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Rebika Yitna - Rebika Yitna On Behalf of: David Weekley, MEAG Power, 3, 1; Roger Brand, MEAG Power, 3, 1; - Rebika Yitna	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Colby Galloway - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Lidija Efremova - Lidija Efremova On Behalf of: Emma Halilovic, Hydro One Networks, Inc., 1; - Lidija Efremova	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	

Response	
Carver Powers - Utility Services, Inc. - 4	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Katrina Lyons - Georgia System Operations Corporation - 4	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Stephen Stafford - Stephen Stafford On Behalf of: Greg Davis, Georgia Transmission Corporation, 1; - Stephen Stafford	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Daniela Atanasovski - APS - Arizona Public Service Co. - 1	
Answer	Yes
Document Name	

Comment	
Likes 0	
Dislikes 0	
Response	
Michele Shafer - New York State Electric & Gas (NYSEG) - 6	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Michele Tondalo - United Illuminating Co. - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Richard Vendetti - NextEra Energy - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	

Chris Wagner - Santee Cooper - 1, Group Name Santee Cooper	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Stephen Whaite - Stephen Whaite On Behalf of: Tyler Schwendiman, ReliabilityFirst , 10; - Stephen Whaite, Group Name ReliabilityFirst Ballot Body Member and Proxies	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Israel Perez - Israel Perez On Behalf of: Mathew Weber, Salt River Project, 3, 1, 6, 5; Matthew Jaramilla, Salt River Project, 3, 1, 6, 5; Thomas Johnson, Salt River Project, 3, 1, 6, 5; Timothy Singh, Salt River Project, 3, 1, 6, 5; - Israel Perez	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Alyssia Rhoads - Public Utility District No. 1 of Snohomish County - 1	
Answer	Yes
Document Name	

Comment	
Likes 0	
Dislikes 0	
Response	
Tim Kelley - Tim Kelley On Behalf of: Charles Norton, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Foung Mua, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Ryder Couch, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Wei Shao, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; - Tim Kelley, Group Name SMUD and BANC	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Apollonia Gonzales - PNM Resources - 1,3 - WECC,Texas RE	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Mark Flanary - Midwest Reliability Organization - 10	
Answer	Yes
Document Name	
Comment	
Likes 0	

Dislikes 0	
Response	
Robert Follini - Avista - Avista Corporation - 3	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Jennifer Weber - Tennessee Valley Authority - 1,3,5,6 - SERC	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Thomas Foltz - AEP - 5	
Answer	Yes
Document Name	
Comment	
Likes 1	Lakeland Electric, 1, Watt Larry
Dislikes 0	
Response	
Joyce Gundry - Public Utility District No. 1 of Chelan County - 3, Group Name CHPD	
Answer	Yes

Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Jeffrey Streifling - NB Power Corporation - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Donna Wood - Tri-State G and T Association, Inc. - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC	
Answer	
Document Name	
Comment	
BPA believes a minimum of five years would be the least amount of time to feasibly implement this standard.	
Likes 0	

Dislikes 0	
Response	

9. Provide any additional comments for the SDT to consider, including the provided technical rationale document, if desired.

Kevin Conway - Western Power Pool - 4	
Answer	
Document Name	
Comment	

Extreme temperature events seem to be more frequent and longer in duration than in the past. Entities need to ensure that that they properly plan for events such as these. The proposed TPL-008 tries to address the need for extreme temperature performance, but doesn't seem to address the duration, as well as the extreme temperature. The proposed standard also appears to hold Transmission Planners to a level of accountability that the Planning Coordinator is more appropriately set up to do.

Likes 0	
Dislikes 0	
Response	

Srikanth Chennupati - Entergy - Entergy Services, Inc. - 1,3,5,6 - SERC	
Answer	
Document Name	
Comment	

Entergy recommends that the time frame for the assessment be stated earlier. It could be written as follows:

“R2: Each responsible entity, as identified in Requirement R1, shall complete an Extreme Temperature Assessment of the Long-Term Planning Horizon once every five calendar years, using the models and contingencies developed in the following requirements."

Likes 0	
Dislikes 0	
Response	

Donna Wood - Tri-State G and T Association, Inc. - 1	
Answer	
Document Name	
Comment	

NA

Likes 0	
Dislikes 0	
Response	
Jeffrey Streifling - NB Power Corporation - 1	
Answer	
Document Name	
Comment	
--	
Likes 0	
Dislikes 0	
Response	
Joyce Gundry - Public Utility District No. 1 of Chelan County - 3, Group Name CHPD	
Answer	
Document Name	
Comment	

If the SDT is open to further aligning things with TPL-001-5.1, the TPL-001-5.1 standard addresses outages, spare equipment and associated criteria for its system assessments, TPL-008-1 does not. This is a potential for a reliability gap. Bad system events typically include pre-existing outages as part of the contributors to the larger event. Including such things in study work, is a reliability principle. During the 4/12/2024 Industry Webinar, it sounded like the SDT's expectation was outages (granted, this is 5-10 years out and typically not a lot of outages are planned out that far) were included either in the extreme weather case or effected by the use of the Table 1 contingencies. However, in actual operations, the outage is typically a long-duration event, and the need is to be secure for the next credible contingency event. Therefore, it is recommended the SDT re-consider how outages and potentially unavailable long lead-time equipment may be considered for the purposes of TPL-008.

Furthermore, while it's not likely this information is known for such timeframes, it is possible that multiple items could be expected to be out of service or unavailable. This is a scenario FERC seems to hint at in Order 896, Paragraph 88: "*Pursuant to section 215(d)(5) of the FPA, we adopt the NOPR proposal and direct NERC to require under the new or revised Reliability Standard the study of concurrent/correlated generator and transmission outages due to extreme heat and cold events in benchmark events as described in more detail below*".

It is thought outages should be included in the benchmark planning case per Order 896, Paragraph 91, in part "…*Thus, while generation and transmission availability and concurrent outages must be included in the benchmark planning case, we defer to NERC to develop the framework and criteria that responsible entities shall use to represent potential weather-related contingencies*". There is no language currently in TPL-008 that includes pre-existing outages in the base state, only addressing the contingencies. Instead, the analysis, as currently contemplated, is performed, per Table 1, from "Normal System", without outages mentioned elsewhere in TPL-008.

FERC goes on further in Order 896, Paragraph 89 to note "*We disagree with comments suggesting that the modeling of concurrent/correlated generator and transmission outages is unnecessary. As discussed in the NOPR, and reinforced by commenters, the failures of individual generators during extreme weather events are not independent. Previous extreme weather events have demonstrated that there is a high correlation between generator*

outages and cold temperatures, indicating that as temperatures decrease, unplanned generator outages and derates increase. Because of this correlation, it is necessary that responsible entities evaluate the risk of correlated or concurrent outages and derates of all types of generation resources and transmission facilities as a result of extreme heat and cold events, as commenters suggest." This seems to indicate FERC is expecting an analysis that includes an assessment where there are broader outages than possibly what is contemplated under the current TPL-008 approach.

Another risk not discussed in this document and perhaps is more of a "Benchmark Event" topic, is the dispatch of certain types of resources in the case. In particular, the Pacific Northwest recently performed an assessment of cold weather conditions and found at load seasonal peaks, wind was typically around 15% of Pmax, solar at 10% of Pmax, and battery resources may become depleted during multi-day events. Similarly, as observed in the recent ERCOT events, cold weather may also render certain plants un-usable due to freezing conditions. Here in the Northwest, this may be realized in the form of a summer case where there is extreme water scarcity (drought) for the hydro system, during the extreme weather event. The risk in studies is these sorts of resources may be dispatched in an overly optimistic manner if attention is not called to their set up for these sorts of extreme weather analyses. We would recommend some sort of language in the ERO Benchmark Event process (or RE or PC process if this is changed) to include consideration of such details to ensure resulting studies are not performed with overly optimistic resource supply. We do not believe (and FERC acknowledges there is a balance of prescriptiveness vs reliability needs, Order 896, Paragraph 91) these are brought to light in the current support and discussion of the NERC guidance and material surrounding the proposed TPL-008. These constraints are very real and since the purpose of TPL-008 is to help entities understand potential future needs to provide resiliency for such events, activities such as considering the unavailability, de-rate, or decreased output of such resources is warranted.

Likes 0	
Dislikes 0	

Response

Jessica Cordero - Unisource - Tucson Electric Power Co. - 1 - WECC

Answer	
Document Name	

Comment

The new requirements of this standard should be added to a new version of TPL-001. There are too many instances of double jeopardy. The extreme winter and summer events could be a new P8 Planning Event in Table 1 of TPL-001 where the performance requirements outlined in this standard are included.

Provide event templates in next posting.

Likes 0	
Dislikes 0	

Response

Michael Whitney - Northern California Power Agency - 3, Group Name NCPA

Answer	
Document Name	

Comment

No comment.

Likes 0	
Dislikes 0	

Response

Rachel Schuldt - Black Hills Corporation - 6, Group Name Black Hills Corporation - All Segments

Answer	
Document Name	

Comment

Black Hills Corporation recommends the SDT consider adding language in the proposed TPL-008-1 standard similar to section 2.6 of Requirement R2 of TPL-001-5.1 (see language in quotations below).

Adding this language to the standard will allow for entities to better phase out the new study work required of them over the five year period. Entities could examine an extreme weather event as a sensitivity for one of the long term planning cases and use that analysis as part of their compliance work for TPL-008-1.

"2.6. Past studies may be used to support the Planning Assessment if they meet the following requirements:

2.6.1. For steady state, short circuit, or Stability analysis: the study shall be five calendar years old or less, unless a technical rationale can be provided to demonstrate that the results of an older study are still valid.

2.6.2. For steady state, short circuit, or Stability analysis: no material changes have occurred to the System represented in the study. Documentation to support the technical rationale for determining material changes shall be included."

Likes 0	
Dislikes 0	

Response

Duane Franke - Manitoba Hydro - 1,3,5,6 - MRO

Answer	
Document Name	

Comment

The success of this standard depends heavily on the quality, relevance, severity, and probability of the events in the "approved benchmark library maintained by the [ERO]". For example, if the events maintained in the approved benchmark library are severe low probability events, then more Corrective Action Plans will be required to comply with the standard. This approach, when taken to an extreme, introduces a risk of either over-building or under-building the Bulk Power System. We recommend that the process to develop benchmark events include a thorough consultation with industry stakeholders including Canadian entities to ensure that the severity and probability of the events are reasonable.

Once established, it is important to know how ERO plans to maintain the benchmark event library.

Likes 0	
Dislikes 0	

Response

Mark Garza - FirstEnergy - FirstEnergy Corporation - 4, Group Name FE Voter

Answer	
Document Name	

Comment

FirstEnergy requests the Drafting Team to be consistent with the obligations presented in TPL-008 with the obligations from TPL-001.

Likes 0	
Dislikes 0	

Response

Ben Hammer - Western Area Power Administration - 1

Answer	
Document Name	

Comment

WAPA would also like the SDT address:

Transparency – how will the process ensure ongoing impacted stakeholder participation in the ERO's development of future benchmark event cases?

Cost – how will the process limit the potential for infinite costs associated with CAPs (as currently written)?

Likes 0	
Dislikes 0	

Response

Kimberly Turco - Constellation - 6

Answer	
Document Name	

Comment

Constellation has no comments

Kimberly Turco on behalf of Constellation Segments 5 and 6

Likes 0	
Dislikes 0	

Response

Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC

Answer	
Document Name	

Comment

BPA appreciates the efforts of the Standard Drafting Team in developing the FERC mandated standard.

Likes 0	
Dislikes 0	

Response

Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC

Answer	
Document Name	

Comment

The construct of the Standard and thought process behind it is sound and WECC appreciates the efforts. Additional clarity to avoid confusion and consideration of possibly duplicative work in TPL-001 may need addressed.

Likes 0	
Dislikes 0	

Response

Lenise Kimes - City and County of San Francisco - 1,5 - WECC

Answer	
Document Name	

Comment

a) The proposed standard is quite lengthy and is duplicative of much of the TPL-001-5.1 standard. While it is good to have consistency in the methodology, it does increase the need to update both standards if one of them is updated or it could increase the chances of discrepancies between TPL-001 and TPL-008. There are at least two possible solutions:

o Consider referencing the relevant parts of the TPL-001-5.1 standard in TPL-008, or

o Modify TPL-001-5.1 to include mandatory sensitivity studies for extreme temperature events that meet the requirements of the proposed TPL-008 with a frequency of every 5 years. These extreme temperature sensitivities would need to have the modified performance requirements that are currently included in TPL-008, however.

b) Most (not all) of the VSLs are very drastic/severe (0 to 100 in one step) leaving no room for possible explanations or maybe time delays. For instance, maybe 36 or 60 months noted in the Implementation Plan are not long enough for some entities, but they meet it at 38 or 62 months. The VSL table should be reworked to better reflect a more realistic severity of many of these items.

Likes 0	
Dislikes 0	

Response

Israel Perez - Israel Perez On Behalf of: Mathew Weber, Salt River Project, 3, 1, 6, 5; Matthew Jaramilla, Salt River Project, 3, 1, 6, 5; Thomas Johnson, Salt River Project, 3, 1, 6, 5; Timothy Singh, Salt River Project, 3, 1, 6, 5; - Israel Perez

Answer	
Document Name	

Comment

In addition to the comment in Question 3, SRP strongly recommends that if industry is not going to be part of the benchmarking approval process, that the SDT then provide regional examples of both ends of extreme weather events. This way, industry can at least understand the range of the different benchmarking events that the ERO will be selecting.

Likes 0	
Dislikes 0	

Response

Hillary Creurer - Allete - Minnesota Power, Inc. - 1

Answer	
Document Name	

Comment

Minnesota Power supports MRO’s NERC Standards Review Forum’s (NSRF) comments.

Likes 0	
Dislikes 0	
Response	
Andy Fuhrman - Andy Fuhrman On Behalf of: Theresa Allard, Minnkota Power Cooperative Inc., 1; - Andy Fuhrman	
Answer	
Document Name	
Comment	
MPC supports comments submitted by the MRO NERC Standards Review Forum (NSRF).	
Likes 0	
Dislikes 0	
Response	
Stephen Whaite - Stephen Whaite On Behalf of: Tyler Schwendiman, ReliabilityFirst , 10; - Stephen Whaite, Group Name ReliabilityFirst Ballot Body Member and Proxies	
Answer	
Document Name	
Comment	
RF appreciates the efforts of the standards drafting team on this project. While RF has submitted an affirmative vote in the associated ballot event, it encourages the drafting team to consider the concerns and suggestions outlined in this comment submission.	
Likes 0	
Dislikes 0	
Response	
Hayden Maples - Hayden Maples On Behalf of: Jeremy Harris, Evergy, 3, 5, 1, 6; Kevin Frick, Evergy, 3, 5, 1, 6; Marcus Moor, Evergy, 3, 5, 1, 6; Tiffany Lake, Evergy, 3, 5, 1, 6; - Hayden Maples	
Answer	
Document Name	
Comment	
Evergy supports and incorporates by reference the comments of the Midwest Reliability Organization's NERC Standards Review Forum (MRO NSRF) on question 9	

Likes 0	
Dislikes 0	
Response	
Alison MacKellar - Constellation - 5	
Answer	
Document Name	
Comment	
Constellation has no additional comments Alison Mackellar on behalf of Constellation Segments 5 and 6	
Likes 0	
Dislikes 0	
Response	
Richard Vendetti - NextEra Energy - 5	
Answer	
Document Name	
Comment	
NextEra suggests that the NERC standards drafting committee, currently focused on extreme weather analysis, include requirements for each PC & TP to establish and report acceptable load drop thresholds as part of the standard. It's also crucial to mandate the reporting of these thresholds to relevant regulatory organizations before a PC & TP incorporates load drops into its corrective action plans. Moreover, while the likelihood of extreme weather events, particularly cold weather occurrences, combined with a line fault and stuck breaker failure to operate event may appear low, stuck breakers are significantly more prone to occur during extreme cold events. Considering this heightened risk during cold weather events, along with the potential for load drop resulting in loss of human life, it's imperative to take into account. Thus, NextEra recommends that the NERC standards drafting committee, focusing on extreme weather events, strongly consider incorporating breaker failure events, particularly during PC and TP extreme cold analysis, and mandate the inclusion of mitigations in any corrective action plan	
Likes 0	
Dislikes 0	
Response	

Daniela Atanasovski - APS - Arizona Public Service Co. - 1	
Answer	
Document Name	
Comment	
AZPS recommends that the requirement should be renumbered to reflect the order in which the work is performed (i.e. R5 moves to R2, R6 moves to R3, R2, moves to R4, R3 moves to R5 and R4 moves to R6)	
Likes 0	
Dislikes 0	
Response	

Stephen Stafford - Stephen Stafford On Behalf of: Greg Davis, Georgia Transmission Corporation, 1; - Stephen Stafford	
Answer	
Document Name	
Comment	
• In general, the development of an extreme weather benchmark event is reasonable. The difficulty in properly assessing this draft Reliability Standard is the unknowns around the benchmark events. Whether these events are solely temperature-based or if there is a related electrical system or resource availability embedded needs to be clarified in the standard language.	
Likes 0	
Dislikes 0	
Response	

Katrina Lyons - Georgia System Operations Corporation - 4	
Answer	
Document Name	
Comment	
GSOC supports Georgia Transmission Corporation's comments: • In general, the development of an extreme weather benchmark event is reasonable. The difficulty in properly assessing this draft Reliability Standard is the unknowns around the benchmark events. Whether these events are solely temperature-based or if there is a related electrical system or resource availability embedded needs to be clarified in the standard language.	
Likes 0	
Dislikes 0	
Response	

Todd Bennett - Associated Electric Cooperative, Inc. - 3, Group Name AECI	
Answer	
Document Name	
Comment	
AECI supports comment provided by Georgia Transmission Corporation	
Likes 0	
Dislikes 0	
Response	
Andy Thomas - Duke Energy - 1,3,5,6 - SERC,RF	
Answer	
Document Name	
Comment	
Remove “Extreme Events” from Table 1 – Steady State & Stability Performance Footnotes (Planning Events and Extreme Events; Page 12 of 20) since there isn’t an “Extreme Events” category in the TPL-008-1 standard.	
Likes 0	
Dislikes 0	
Response	
Keith Jonassen - Keith Jonassen On Behalf of: John Pearson, ISO New England, Inc., 2; - Keith Jonassen	
Answer	
Document Name	
Comment	
While ISO-NE supports the efforts of the SDT and the work that they have done to complete this initial draft quickly, ISO-NE reserves its determination on the Standard until a complete list of the “benchmark events” is made available.	
Likes 0	
Dislikes 0	
Response	

David Jendras Sr - Ameren - Ameren Services - 3	
Answer	
Document Name	
Comment	
Ameren suggests adding these requirements to TPL-001-5 instead of making a new standard to reduce the administrative burden of having to deal with multiple standards.	
Likes 0	
Dislikes 0	
Response	
Colby Galloway - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company	
Answer	
Document Name	
Comment	
For these low probability, high load forecast extreme events, Southern Company recommends use of operating guides as an allowable solution. Investment should not be mandated. Further clarification on the definition and approval of benchmark events is needed within the standard.	
Likes 0	
Dislikes 0	
Response	
Rebika Yitna - Rebika Yitna On Behalf of: David Weekley, MEAG Power, 3, 1; Roger Brand, MEAG Power, 3, 1; - Rebika Yitna	
Answer	
Document Name	
Comment	
No additional comments.	
Likes 0	
Dislikes 0	
Response	

Bob Cardle - Bob Cardle On Behalf of: Marco Rios, Pacific Gas and Electric Company, 3, 1, 5; Sandra Ellis, Pacific Gas and Electric Company, 3, 1, 5; Tyler Brun, Pacific Gas and Electric Company, 3, 1, 5; - Bob Cardle	
Answer	
Document Name	
Comment	
The proposed standard is quite lengthy and is duplicative of much of the TPL-001-5.1 standard. While it is good to have consistency in the methodology, it does increase the need to update both standards if one of them is updated or it could increase the chances of discrepancies between TPL-001 and TPL-008. There are at least two possible solutions: Consider referencing the relevant parts of the TPL-001-5.1 standard in TPL-008, or Modify TPL-001-5.1 to include mandatory sensitivity studies for extreme temperature events that meet the requirements of the proposed TPL-008 with a frequency of every 5 years. These extreme temperature sensitivities would need to have the modified performance requirements that are currently included in TPL-008, however.	
Likes 0	
Dislikes 0	
Response	
Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin	
Answer	
Document Name	
Comment	
Suggested R2 modifications. R2 – ITC recommends that temperature be added to benchmarks to clarify the scope of the benchmarks being developed. Should industry be a part of the vetting and approval process for the temperature benchmarks events?	
Likes 0	
Dislikes 0	
Response	
Steven Taddeucci - NiSource - Northern Indiana Public Service Co. - 3	
Answer	
Document Name	
Comment	

A completely new standard is unnecessary to address extreme weather events. This requirement could simply be incorporated into the existing TPL-001-5 standard. This incorporation could be accomplished by adding a new P8 category addressing extreme weather events, or an additional requirement could be added to the existing TPL-001-5 standard requiring review of extreme weather events every five years. Incorporation into one TPL standard would minimize and streamline the TPL system performance assessment process, while preventing any confusion and duplication that would be created between the existing TPL-001-5 standard and the proposed TPL-008-1 standard.

Likes 0	
Dislikes 0	

Response

Selene Willis - Edison International - Southern California Edison Company - 5

Answer	
Document Name	

Comment

“See comments submitted by the Edison Electric Institute”

Likes 0	
Dislikes 0	

Response

Daniel Gacek - Exelon - 1

Answer	
Document Name	

Comment

Overall, there are too many unknowns at this time, so Exelon is not able to fully support the current proposed standard. We suggest developing an additional formal guidance that specifies the creation and selection of the benchmark events.

Likes 0	
Dislikes 0	

Response

Amy Wilke - American Transmission Company, LLC - 1

Answer	
Document Name	

Comment
ATC generally supports the MRO NSRF comments, and wants to emphasize the question: For "1.2 Evidence Retention" under section "C. Compliance", what is meant by "or one complete Extreme Temperature Assessment cycle, whichever is longer"?

Likes 0	
Dislikes 0	

Response

Kinte Whitehead - Exelon - 3

Answer	
Document Name	

Comment
Overall, there are too many unknowns at this time, so Exelon is not able to fully support the current proposed standard. We suggest developing an additional formal guidance that specifies the creation and selection of the benchmark events.

Likes 0	
Dislikes 0	

Response

Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - MRO,WECC, Group Name SPP RTO

Answer	
Document Name	

Comment
N/A

Likes 0	
Dislikes 0	

Response

Adrian Harris - Adrian Harris On Behalf of: Bobbi Welch, Midcontinent ISO, Inc., 2; - Adrian Harris, Group Name RTO/ISO Council Standard Review Committee Project 2023-07 TPL-008

Answer	
Document Name	

Comment
Other concerns the SRC would like the SDT to address include: Transparency – As noted in the SRC's comments regarding Requirement R2, an open and transparent process for establishing and maintaining the benchmark library is crucial, and the SRC recommends that Planning Coordinators be allowed to submit extreme heat and cold events based on their historical weather events and statistical analysis for inclusion in the library.

Likes 0	
Dislikes 0	

Response

Catrina Martin - Archer Energy Solutions, LLC - 5	
Answer	
Document Name	

Comment
The proposed standard is quite lengthy and is duplicative of much of the TPL-001-5.1 standard. While it is good to have consistency in the methodology, it does increase the need to update both standards if one of them is updated or it could increase the chances of discrepancies between TPL-001 and TPL-008. There are at least two possible solutions: o Consider referencing the relevant parts of the TPL-001-5.1 standard in TPL-008, or o Modify TPL-001-5.1 to include mandatory sensitivity studies for extreme temperature events that meet the requirements of the proposed TPL-008 with a frequency of every 5 years. These extreme temperature sensitivities would need to have the modified performance requirements that are currently included in TPL-008, however. Most (not all) of the VSLs are very drastic/severe (0 to 100 in one step) leaving no room for possible explanations or maybe time delays. For instance, maybe 36 or 60 months noted in the Implementation Plan are not long enough for some entities, but they meet it at 38 or 62 months. The VSL table should be reworked to better reflect a more realistic severity of many of these items.

Likes 0	
Dislikes 0	

Response

Comments submitted by MRO NSRF:

Questions

1. Do you agree with the proposed definition of Extreme Temperature Assessment? If you do not agree, please provide your recommendation and, if appropriate, technical justification.

☐ Yes
☒ No

Comments:

Conceptually, the proposed definition for Extreme Temperature Assessment does not presently appear to present any issues; however, the MRO NERC Standards Review Forum (NSRF) is unable to fully evaluate the definition without more information regarding the "benchmark events" that will be key to performing Extreme Temperature Assessments.

Our understanding is that NERC intends to post sample benchmark event(s) on or around July 9, 2024. The MRO NSRF will be able to provide more definitive feedback once this information is available.

2. Do you agree with the proposed TPL-008-1 Reliability Standard Requirement R1? If you do not agree, please provide your recommendation and, if appropriate, technical justification.

☒ Yes
☐ No

Comments:

The MRO NSRF supports modeling proposed TPL-008, requirement R1 after TPL-001-5.1, requirement R7 and TPL-007, requirement R1.

3. Do you agree with the proposed TPL-008-1 Reliability Standard Requirement R2 (Benchmark events)? If you do not agree, please provide your recommendation and, if appropriate, technical or procedural justification.

☐ Yes
☒ No

Comments:

As with the Extreme Temperature Assessment definition, the MRO NSRF is unable to fully evaluate Requirement R2 without being able to see and evaluate some example(s) of what the ERO intends to include as benchmark events in the library. Full evaluation of this requirement also requires additional information on how the approved benchmark library managed by the ERO will be established, populated and maintained over time, including the underlying criteria, approach and assumptions. An open and transparent process is crucial, and the MRO NSRF recommends that Planning Coordinators be allowed to submit, extreme heat and cold events that are impactful to the reliability of the system based on their historical weather events and statistical analysis for inclusion in the library.

In addition, the MRO NSRF supports the "responsible entity as identified in requirement R1" language in R2 as it allows flexibility among planning entities to collectively determine who (e.g., the PC and/or TP) will perform R2.

From an improvement perspective, the MRO NSRF recommends several edits to the text of **R2**:

- The word "temperature" be added to benchmark events to align with the **Extreme Temperature Assessment** definition and to clarify the scope of the benchmarks being developed.
- The word "industry" be added to indicate industry needs to be part of the vetting and approval process to ensure that temperature benchmarks do not result in infeasible construction requirements.

R2. Each responsible entity, as identified in Requirement R1, shall select one extreme heat temperature benchmark event and one extreme cold temperature benchmark event, from the industry approved benchmark library maintained by the Electric Reliability Organization (ERO)

4. Do you agree with the proposed TPL-008-1 Reliability Standard Requirements R3 – R8 (benchmark planning cases and analyses)? If you do not agree, please provide your recommendation and, if appropriate, technical or procedural justification.

☐ Yes
☒ No

Comments:

The MRO NSRF requests the SDT address the following in requirements R3-R8:

R3: The MRO NSRF requests the SDT clarify obligations when coordinating with neighboring PCs to perform an Extreme Temperature Assessment. If a PC performs a planning area study for a "selected benchmark event" that only includes a portion of the PC's footprint (Part 3.1), the SDT should confirm that the PC and its associated Transmission Planners have satisfied the obligation under R2 for completing an Extreme Temperature Assessment for either "one extreme heat benchmark event or one extreme cold benchmark event" for that five-calendar year period (R8).

In addition, the MRO NSRF requests the SDT clarify the "process for coordinating the development of benchmark planning cases among impacted Planning Coordinator(s)"

- How far must an entity go, i.e. are Tier 1 neighbors sufficient or must an entity go further?
- Can coordinating on the model build for a given event satisfy this requirement?

Similarly, Requirement R3 should also be revised to clarify how conflicts will be resolved if different Planning Coordinators within the same Interconnection have incompatible processes for selecting benchmark events, defining the planning study boundary area, and coordinating with other impacted entities. This clarification should address scenarios in which three or more impacted, geographically contiguous Planning Coordinators within the same Interconnection all select different, incompatible benchmark events (as allowed by Requirement R1) to study.

- Does the standard require all PCs to support all alternate PC studies?
- What happens if an entity is unwilling to cooperate?

Finally, since stability issues do not propagate over DC ties, Requirement R3 should be revised to indicate that Planning Coordinators and Transmission Planners are not required to coordinate with entities in different Interconnections.

R4: The System models shall use data consistent with that provided in accordance with the MOD-032 standard, supplemented by other sources as needed,…"

The MRO NSRF supports the use of MOD-032 to obtain the necessary data and asks the SDT to consider, does MOD-032 need to be modified to acquire information unique to TPL-008?

R5: The MRO NSRF has concerns with R5 as it may be duplicative of work that is already occurring under TPL-001-5.1. Specifically, it is unclear how the criteria for "steady state voltage limits and post-Contingency voltage deviations" under TPL-008, R5 differs from what entities have defined under TPL-001-5.1, and consequently, it is unclear why Requirement R5 is needed. **Please explain.**

In addition, it is unclear why Requirement R5 only addresses voltage issues without also addressing thermal issues, as Table 1's reference to "facility ratings" would seem to include thermal issues. The absence of any reference to thermal issues in Requirement R5 would seem to imply that thermal issues (at least those that don't result in instability, uncontrolled separation, or Cascading) aren't to be considered. The MRO NSRF recommends that the drafting team clarify whether this is its intent. A possible method of addressing this ambiguity may be to revise Requirement R5 to use language along the lines of "operate within the criteria specified in Table 1."

R6. The MRO NSRF has concerns with R6 as R6 may duplicate work that is already occurring under TPL-001-5.1, PRC-006, and other Reliability Standards. Therefore, the MRO NSRF asks the SDT to describe the need drivers for R6 by identifying where extreme temperature events have resulted in system instability, uncontrolled separation, or Cascading.

R7. To clarify that the Extreme Temperature Assessment is limited to the planning study area boundary defined in Part 3.1, the MRO NSRF requests the SDT modify requirement R7 as follows:

R7. Each responsible entity, as identified in Requirement R1, shall identify Contingencies used in performing the Extreme Temperature Assessment for each of the event categories in Table 1 that are expected to produce more severe System impacts within the ~~its~~ planning study area boundary defined in Part 3.1. The rationale for those Contingencies selected for evaluation shall be available as supporting information.

R8. The MRO NSRF recommends that Requirement R8 be revised to clarify whether the case used needs to be a Long-Term case at the time the study is completed or it just when the case building is completed, as two to three years typically elapse between the completion of the case build and the completion of the studies that use the case.

5. Do you agree with the proposed TPL-008-1 Reliability Standard Requirements R9 – R10 (CAPs and possible actions)? If you do not agree, please provide your recommendation and, if appropriate, technical or procedural justification.

☐ Yes
☒ No

Comments:

R9. The MRO NSRF observes that R9 requires responsible entities to share their CAPs with, and solicit feedback from, applicable regulatory authorities or governing bodies responsible for retail electric service issues in all cases. This may extend the amount of time needed for CAP approval.

In addition, for entities that are not subject to an "applicable regulatory authority or governing body" for retail electric service issues, e.g., WAPA, does R9 apply to them? If that's the SDT's intent, the MRO NSRF recommends R9 clarify that non-jurisdictional entities are merely submitting their CAPs to the regulatory authority solely for the purpose of receiving comments and are not bound by the local regulatory or governing body. See proposed text to be added to R9 below:

"In the event a non-jurisdictional entity submits a CAP to a regulatory authority or governing body, the submission of the CAP is for informational purposes, feedback, and comment only. The submission of a CAP by a non-jurisdictional entity to a regulatory authority does not waive jurisdiction, immunity, or otherwise place the non-jurisdictional entity under the regulatory authority or the governing body."

The MRO NSRF recommends that the drafting team resolve an apparent inconsistency regarding the P0 analysis. Specifically, the technical rationale appears to suggest that Load shedding is permitted to establish a solvable P0 system condition. However, Requirement R9 and Table 1 do not seem to allow load shedding for solvable P0 system condition. The MRO NSRF recommends that the drafting team address this by revising Requirement R9 to explicitly indicate that Load shed is allowed to establish a solvable P0 system condition. This is necessary to ensure that the study can assume sufficient resources are available in a P0 state. This, in turn, is necessary to prevent the standard from straying into the realm of resource adequacy. As noted in the Technical Rationale, resource adequacy is not in scope for this project under paragraph 94 of FERC Order No. 896.

Finally, the MRO NSRF recommends the phrase "but the planned System shall continue to meet the performance requirements" be stricken from the standard, as it is phrased as an operation mandate, which is inappropriate for a standard focused on long-term planning objectives.

R9. "…Revisions to the CAP(s) are allowed in subsequent Extreme Temperature Assessments, ~~but the planned System shall continue to meet the performance requirements~~."

6. Do you agree with the proposed TPL-008-1 Reliability Standard Requirement R11 (Sharing Extreme Temperature Assessment results)? If you do not agree, please provide your recommendation and, if appropriate, technical or procedural justification.
   ☐ Yes
   ☒ No

   Comments:

   The MRO NSRF supports the "upon request" nature of R11 and sharing Extreme Temperature Assessment results with those having a "reliability need."

   That said, the MRO NSRF recommends the following edits for enhanced clarity and alignment as detailed below:
   - Modify "60" to "90" calendar days to align with TPL-001-5.1, R8, Part 8.1
   - Add "NERC" to functional entity for clarity.

   R11. Each responsible entity, as identified in Requirement R1, shall provide its Extreme Temperature Assessment results within 90 ~~60~~ calendar days of a request to any NERC registered functional entity that has a reliability related need and submits a written request for the information.

7. Do you agree with the proposed TPL-008-1 Table 1? If you do not agree, please provide your recommendation and technical justification.
   ☐ Yes
   ☒ No

   Comments:

   The MRO NSRF recommends the following clarifications to Table 1:
   - in the Facility Voltage Level of Contingency row, change the commas to colons,
   - in the Facility Voltage Level of Contingency row, clarify what is meant by "reference voltage," and in the Stability Performance Criteria row, clarify what is meant by "initialization."

   The MRO NSRF recommends that the drafting team include the full set of footnotes from TPL-001-5.1 Table 1 or clarify why TPL-008 contains only a limited subset of the footnotes to Table 1.

   Finally, consistent with the MRO NSRF's comments on the need for Requirement R9 to clarify that Load shed is allowed to establish a solvable P0 system condition, the MRO NSRF recommends that Table 1 be revised to contain the same clarification as Requirement R9. This is necessary to ensure that the standard complies with paragraph 94 of FERC Order No. 896, which (as noted in the Technical Rationale) states that resource adequacy is not in scope for this project.

8. The Standard Drafting Team (SDT) is proposing a phased-in implementation plan approach. Do you agree with the proposed phased-in timeframes? If you do not agree, please provide your recommendation and technical justification.
   ☐ Yes
   ☒ No

   Comments:

   In general, the MRO NSRF supports the phased-in approach of the proposed implementation plan. That said, the MRO NSRF requests the SDT establish a "date certain" by which the ERO must publish its "approved benchmark library" envisioned under R2. The MRO NSRF suggests this be completed within 12 months of the effective date of TPL-008-1. This will allow planning entities at least 24 months ***after*** the ERO benchmark library is published to come into compliance with proposed requirements R2-R6. As the ERO may not be subject to the Implementation Plan, we leave it to NERC and the SDT to structure the required completion date for the benchmark library in an appropriate manner.

- The MRO NSRF asks the SDT to share how the ERO plans to maintain ongoing updates to the benchmark event library, including the planned update schedule as well as the underlying criteria, approach and assumptions.

Compliance Date for TPL-008-1 Requirements R2, R3, R4, R5, R6
Entities shall not be required to comply with Requirement R2, R3, R4, R5, and R6 until thirty-six (36) months after the effective date of Reliability Standard TPL-008-1

9. Provide any additional comments for the SDT to consider, including the provided technical rationale document, if desired.

Comments:

Other concerns the MRO NSRF would like the SDT to address include:

- Transparency – As noted in the MRO NSRF's comments regarding Requirement R2, an open and transparent process for establishing and maintaining the benchmark library is crucial, and the MRO NSRF recommends that Planning Coordinators be allowed to submit extreme heat and cold events based on their historical weather events and statistical analysis for inclusion in the library.
- Cost – how will the process limit the potential for infinite costs associated with CAPs (as currently written)?
- For "1.2 Evidence Retention" under section "C. Compliance", what is meant by "or one complete Extreme Temperature Assessment cycle, whichever is longer"?
    - for example, should this be defined to a specific period of time, 5 year, 10 years, etc…