UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Transmission System Planning Performance Requirements for Extreme Weather	))	Docket No. RM22-10-000

COMMENTS OF THE MIDCONTINENT INDEPENDENT SYSTEM OPERATOR, INC.

I. EXECUTIVE SUMMARY

The Midcontinent Independent System Operator, Inc. ("MISO") submits these comments in reply to the Notice of Proposed Rulemaking ("NOPR") that the Federal Energy Regulatory Commission ("FERC" or "Commission") issued in Docket No. RM22-10-000 on June 16, 2022.[1] In the NOPR, the Commission proposes to incorporate specific provisions regarding the impact from extreme weather events in TPL-001-5.1 and proposes a one-year timeframe for the North American Electric Reliability Corporation ("NERC") to submit modified Reliability Standards consistent with the final rule.

MISO supports the Commission's efforts to address the gap in the Reliability Standards with respect to impacts from extreme heat and cold weather events. MISO provides four recommendations for the Commission's consideration on how these impacts from extreme heat and cold weather events may be included in the Reliability Standards:

1) MISO recommends that the Commission clarify that a new Reliability Standard applies only to extreme temperature events, rather than to other severe weather such as hurricanes, tornadoes, or ice storms.

2) Rather than directing NERC to modify Reliability Standard TPL-001-5.1 to encompass extreme temperature events, FERC should direct NERC to create a new Reliability Standard in the Transmission System Planning suite of Reliability Standards that is

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[1] *Transmission System Planning Performance Requirements for Extreme Weather.* Notice of Proposed Rulemaking, 179 FERC ¶ 61,195 (2022).

dedicated to study requirements, performance requirements and development of corrective action plans in response to extreme temperature events.

3) Corrective Action Plans implemented under the new Reliability Standard should require meaningful mitigation, such as investment in transmission or generation resources to address issues identified in an extreme temperature event study.

4) NERC should not incorporate probabilistic methods used to study Resource Adequacy into the new Reliability Standard. Rather, these aspects should instead be addressed via NERC's Probabilistic Assessment Working Group that contributes probabilistic analysis into NERC's Long-Term Reliability Assessment.

Additional detail is provided below.

II. THE NEW RELIABILITY STANDARD SHOULD BE LIMITED TO EXTREME TEMPERATURE EVENTS.

Different types of extreme weather have different levels of impact on the transmission system, with extreme heat and cold having a much greater impact than other types of severe weather. As a result, the proposed Reliability Standard for planning should be limited to conditions when there is the possibility of the load increasing and continuing to stay online, such as extreme hot/cold weather conditions, rather than conditions when there is the possibility that a sizable amount of load may be lost, such as hurricanes, tornadoes or ice storms. The operations horizon will continue to prepare for situations including hurricanes, tornadoes or ice storms. Extreme weather conditions such as storms do not stress the transmission system to the same degree as extreme temperature events; rather in most cases the transmission lines are intentionally tripped to avoid high voltages following load loss that occurs as a result of the severe weather conditions.

III. A NEW NERC RELIABILITY STANDARD SHOULD BE CREATED TO STUDY EXTREME WEATHER EVENTS EVERY 5 YEARS.

MISO recommends that rather than directing NERC to modify Reliability Standard TPL-001-5.1 to encompass extreme weather events, a new Reliability Standard should be created in the Transmission System Planning suite of Reliability Standards that is dedicated to study

requirements, performance requirements and development of corrective action plans in response to extreme weather events. The future-effective Reliability Standard TPL-001-5.1 establishes Transmission System Planning performance requirements within the planning horizon to develop a Bulk Electric System ("BES") that will operate reliably over a broad spectrum of system conditions and following a wide range of probable contingencies. The addition of study requirements, performance requirements and development of corrective action plans in response to extreme weather events to the future-effective TPL-001-5.1 is not a "best fit" for the existing TPL-001-5.1 standard for the following reasons: 1) TPL-001 requires an annual Planning Assessment, however, as further explained below, a 5-year frequency is appropriate for an extreme weather event study; and 2) there is potential overlap and/or conflicting assumptions in the TPL-001 base case and extreme weather event type studies. Moreover, there are other existing NERC standards that consider historical events in performing system studies for specific purposes, including Reliability Standard TPL-007-4, Transmission System Planned Performance for Geomagnetic Disturbance Events (required at least once every 60 calendar months) and PRC-006-5: Automatic Underfrequency Load Shedding (required at least once every five years). Similarly, a dedicated Transmission Planning Reliability Standard for extreme weather events (once every 60 calendar months or once every five years) would be an appropriate timeframe over which to identify the types of extreme events to be studied and included in benchmarking the planning models.

Under Reliability Standard TPL-001-5.1, Requirement R2, each Transmission Planner and Planning Coordinator must prepare an annual Planning Assessment of its portion of the BES. However, MISO recommends that a new Transmission Planning Reliability Standard dedicated to extreme weather events should contain study requirements for every 5 years, rather than annually,

since the effort appears to be analogous to the effort and time it takes to perform the benchmark Geomagnetic Disturbance Vulnerability Assessment of the Near-Term Transmission Planning Horizon and Automatic Underfrequency Load Shedding assessment, which are also required at a 5-year frequency.

IV. WHEN STUDIES INDICATE A NEED FOR MITIGATION, ACTIONS MUST BE MEANINGFUL AND REQUIRE ACTIONS BEYOND LOAD SHED AND REDISPATCH

When a Planning Coordinator's study and defined performance requirements identify a reliability risk, the standard must warrant a Corrective Action Plan be developed to address the extreme weather event. To realize real system improvements, mitigating actions must require actions beyond load shed, transmission system reconfiguration and redispatch of generation as these operational actions are already taken in response to real-time extreme weather events in accordance with NERC Reliability Standard EOP-011-1 Emergency Operations[2]. Rather, Corrective Action Plans should require meaningful mitigation, such as investment in transmission solutions, to address issues identified in an extreme weather event study. Otherwise, the cost of performing the studies will outweigh the benefits achieved.

Finally, as the results of these studies will be questioned, particularly those in the long-term planning horizon, demonstrating the need and cost-effectiveness of mitigating actions could be challenging. Therefore, MISO recommends the development of performance metrics to drive

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[2] See Reliability Standard **EOP-011-1, R1, Part 1.2**:

1.2 Processes to prepare for and mitigate Emergencies including:

- **1.2.1.** Notification to its Reliability Coordinator, to include current and projected conditions, when experiencing an operating Emergency;
- **1.2.2.** Cancellation or recall of Transmission and generation outages;
- **1.2.3.** Transmission system reconfiguration;
- **1.2.4.** Redispatch of generation request;
- **1.2.5.** Provisions for operator-controlled manual Load shedding that minimizes the overlap with automatic Load shedding and are capable of being implemented in a timeframe adequate for mitigating the Emergency; and
- **1.2.6.** Reliability impacts of extreme weather conditions.

and justify investment when and where needed. Metrics must consider and accommodate regional variations and needs to be effective.

V. RESOURCE ADEQUACY SHOULD NOT BE ADDRESSED IN A TRANSMISSION PLANNING STANDARD

MISO proposes that NERC should consider the treatment of probabilistic methods used to study Resource Adequacy via NERC's Probabilistic Assessment Working Group ("PAWG") that contributes probabilistic analysis into NERC's Long-Term Reliability Assessment. MISO is an active participant in the Reliability Assessment Subcommittee ("RAS") to which the PAWG reports. MISO notes that it has begun to study the impact of extreme temperature events on resource adequacy. MISO further notes the existing regional Reliability Standard, BAL-502-RF-03, deals with Loss of Load Expectation studies and resource assessment.

VI. CONCLUSION

MISO respectfully requests that the Commission accept and consider these Comments.

Respectfully submitted,

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Dated: August 26, 2022

CERTIFICATE OF SERVICE

I hereby certify that I have this day e-served a copy of this document upon all parties listed on the official service list compiled by the Secretary in the above-captioned proceeding, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated this 26th day of August, 2022 in Carmel, Indiana.

/s/ Dawn Kaminski
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