

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

**Version 4 Critical Infrastructure Protection)
Reliability Standards)**

Docket No. RM11-11-000

**COMMENTS OF THE
MIDWEST INDEPENDENT TRANSMISSION
SYSTEM OPERATOR, INC.**

In accordance with the Federal Energy Regulatory Commission’s (the “Commission” or “FERC”) request for comments pursuant to its September 15, 2011 Notice of Proposed Rulemaking (the “NOPR”) in the above-captioned proceeding,¹ the Midwest Independent Transmission System Operator, Inc. (“MISO”) respectfully submits the following initial comments concerning the Commission’s proposed approval of eight modified Critical Infrastructure Protection (“CIP”) Reliability Standards, which were submitted to the Commission for approval by the North American Electric Reliability Corporation (“NERC”) on February 10, 2011.

I. INTRODUCTION

The Commission seeks comments regarding its proposed approval of Version 4 of the CIP Reliability Standards, as well as the Violation Risk Factors and Violation Severity Levels with modifications, the implementation plan, and the effective date proposed by NERC. The most significant change, and the focus of MISO’s comments, is NERC’s proposal, in CIP-002-4, to include “‘bright line’ criteria for the identification of Critical Assets, in lieu of the currently-required risk-based assessment methodology that is developed and applied by Responsible

¹ *Version 4 Critical Infrastructure Protection Reliability Standards*, 136 FERC ¶ 61,184 (2011).

Entities.”² The seventeen “bright line” criteria are contained in Attachment 1 of proposed CIP-002-4, and Responsible Entities are tasked, pursuant to CIP-002-4, R1, with identifying Critical Assets through an application of the criteria.

II. COMMENTS

MISO appreciates the opportunity to comment on the issues raised in the NOPR. It supports the Commission’s goals in approving Version 4 of the CIP Reliability Standards, especially the clarification and simplification of the Critical Asset identification process and a more consistent identification of Critical Assets across the spectrum of Responsible Entities. However, MISO is concerned that application of the “bright line” criteria proposed in the NOPR, some of which require identification of Critical Assets based on determinations made by Reliability Coordinators, Planning Authorities/Coordinators, and Transmission Planners, will create significant new burdens on Reliability Coordinators, Planning Authorities/Coordinators, and Transmission Planners – without the benefit of promoting the additional consistency and clarity that the Commission and NERC are seeking in approval of the NOPR. This concern is furthered by certain ambiguities in the “bright line” criteria that MISO has identified, particularly with regard to the treatment of data centers that support control centers. Finally, MISO is concerned that the requirement that Reliability Coordinators identify must-run units as Critical Assets may cause certain Generator Owners to preemptively take their units offline prior to identification of them as must-run.

A. Regional Entities and Registered Entities With Primary Control Over Facilities Are In The Best Position to Make the Determinations Set Forth in Attachment 1

² NOPR at P 1.

Three of the “bright line” criteria in Attachment 1 of proposed CIP-002-4 – Criteria 1.3, 1.8, and 1.9 – require identification of Critical Assets based on determinations made by Reliability Coordinators, Planning Authorities/Coordinators, and Transmission Planners. Specifically, Criterion 1.3 requires that each “generation Facility that the Planning Coordinator or Transmission Planner designates and informs the Generator Owner or Generator Operator as necessary to avoid BES Adverse Reliability Impacts in the long-term planning horizon” must be designated as a Critical Asset.

Criterion 1.8 requires that “Transmission Facilities at a single station or substation location that are identified by the Reliability Coordinator, Planning Authority or Transmission Planner as critical to the derivation of Interconnection Reliability Operating Limits (IROLs) and their associated contingencies” also be identified as Critical Assets. Finally, Criterion 1.9 requires that “Flexible AC Transmission Systems (FACTS), at a single station or substation location, that are identified by the Reliability Coordinator, Planning Authority or Transmission Planner as critical to the derivation of [IROLs] and their associated contingencies” be identified as a Critical Asset.

NERC’s petition submitting Version 4 supports Criterion 1.3 by providing that “the focus on preventing an Adverse Reliability Impact dictates that these units are designated as must run for reliability purposes beyond the local area” and that the long-term planning horizon means “a planning horizon of one year or longer.” It further indicates that, relative to Criteria 1.8 and 1.9, the standard drafting team for Version 4 intended for the identification of Critical Assets to be consistent with the requirements of FAC-014-2. Specifically, the Standards Drafting Committee noted that Transmission Facilities identified as being critical to the derivation of Interconnection

Reliability Operating Limits (IROLs) and their associated contingencies pursuant to FAC-014-2, R 5.1.1 and 5.1.3 should be identified as Critical Assets.³

While the NOPR supports Criteria 1.3, 1.8 and 1.9 as noted above, in the NOPR, the Commission also reiterated the point – first made in Order No. 706 – that there should be “a process of external review and approval of Critical Asset lists based on a regional perspective,” and that such lists should be “considered from a wide-area view.” Given that the application of Criteria 1.3, 1.8 and 1.9 requires the exercise of significant discretion by Reliability Coordinators, Planning Authorities and Transmission Planners in the identification of Critical Assets, MISO strongly supports the Commission’s desire to have a review of Critical Asset determinations by Regional Entities and NERC and, further, respectfully submits that the Registered Entities with primary control over such generation units, Transmission Facilities, and FACTS are the appropriate entities to be performing Critical Asset identifications and determinations.

In particular, MISO notes that the guidance provided by the Commission and NERC as to how Criteria 1.3, 1.8, and 1.9 are to be applied is relatively sparse, leaving room for substantial discretion on the part of Reliability Coordinators, Planning Authorities/Coordinators, and Transmission Planners in making these determinations.⁴ This lack of clarity alone is likely to undermine the effort by the Commission and NERC to ensure consistency in the identification of Critical Assets. Further uncertainty and ambiguity would be introduced into these

³ *North American Electric Reliability Corporation*, Petition of the North American Electric Reliability Corporation for Approval of Critical Infrastructure Protection (CIP) Reliability Standards Version 4, Docket No. RM06-22-000 at 21-22 (Feb. 10, 2011) (“NERC Petition”).

⁴ In particular, Criterion 1.3 provides no guidance as to how a Planning Coordinator or Transmission Planner should designate a Generator Owner or Generator Operator as necessary to avoid BES Adverse Reliability Impacts in the long-term planning horizon. Similarly, although NERC has indicated that the designation of “critical to the derivation of [IROLs] and their associated contingencies” in Criteria 1.8 and 1.9 should be based on determinations made under FAC-014-2, R5.1.1 and R5.1.3, this connection is not explicit and results in ambiguity.

determinations as Reliability Coordinators, Planning Authorities/Coordinators, and Transmission Planners do not possess the foundational data necessary to ensure that determinations made are the most accurate, appropriate determinations possible. The Registered Entities with primary control over these facilities are truly in the best position relative to operational characteristics and data to make the determinations required by Criteria 1.3, 1.8, and 1.9. Hence, MISO respectfully submits that, at most, Reliability Coordinators, Planning Authorities/Coordinators, and Transmission Planners are appropriate entities to coordinate and support the identification and determination of such assets as Critical Assets, but should not be solely responsible for such identification and determination. MISO further submits that a provision for review of such coordinated determinations by Regional Entities and/or NERC would further ensure that these determinations are accurate and appropriate.

Additionally, MISO notes to the Commission that approval of Criteria 1.3, 1.8, and 1.9 as proposed in the NOPR would not only place an undue burden on Reliability Coordinators, Planning Authorities/Coordinators, and Transmission Planners, but may result in the introduction of conflicts and results that would, in fact, have an adverse impact on reliability. More specifically, MISO currently coordinates with its Generation Owners and Operators and Transmission Owners and Operators to designate certain generating units as must-run and to identify certain Transmission Facilities and FACTS as critical to the derivation of IROLs and their associated contingencies based on operational considerations. The approval of Version 4 of the CIP Reliability Standards would necessitate substantial, costly modifications to the current processes through which this coordination occurs. Specifically, MISO submits that compliance with Version 4 of the CIP Reliability Standards will necessitate the development and implementation of significantly more formalized and labor intensive processes to designate a

generating unit as must-run or a Transmission Facility or FACT as critical to the derivation of IROLs and their associated contingencies. Further, MISO submits that such processes would require formal dispute resolution processes for MISO and Generation Owners and Operators and Transmission Owners and Operators within the MISO region to utilize in the event that Generation Owners and Operators and Transmission Owners and Operators within the MISO region disagree with the identification and/or designation of facilities as Critical Assets by MISO. MISO submits that approval of Criteria 1.3, 1.8, and 1.9 of Version 4 of the CIP Reliability Standards would result in frequent unnecessary conflicts, delays, and obstacles in making must-run and IROL designations for reliability purposes, which would, in turn, unnecessarily impact the reliability of the Bulk Electric System.

MISO respectfully submits that coordination between Generation Owners/Operators, Transmission Owners/Operators, Reliability Coordinators, Planning Authorities/Coordinators, and Transmission Planners to identify and determine whether the facilities addressed in Criteria 1.3, 1.8, and 1.9 are, in fact, Critical Assets with review of such determinations by Regional Entities would facilitate the accurate, appropriate identification of Critical Assets and further enhance the reliability of the Bulk Electric System by ensuring that all affected Registered Entities agree with and are aware of the status of such facilities. Accordingly, MISO respectfully requests that the Commission remand this portion of Version 4 of the CIP Reliability Standards for modifications consistent with a coordinated identification and determination process for facilities addressed under Criteria 1.3, 1.8, and 1.9.

If, however, the Commission determines that it is appropriate for the identification of certain Critical Assets to be based solely on designations made by Reliability Coordinators, Planning Authorities/Coordinators, and Transmission Planners, the Commission should require

NERC to provide these entities with the same level of indemnification and limitation of liability afforded to NERC and the Regional Entities. Specifically, in Order No. 706-A, the Commission stated:

[W]e agree that entities designated by the ERO to perform reviews of a responsible entity's Critical Asset list should receive the same liability protection for performing this review that the ERO or Regional Entity would have if it performs this review itself.⁵

Under Criteria 1.3, 1.8, and 1.9, Reliability Coordinators, Planning Authorities/Coordinators, and Transmission Planners are, in essence, performing reviews of other Registered Entities' facilities and Critical Asset lists. For these activities and in accordance with the Commission's determinations regarding liability associated with such activities set forth above, Reliability Coordinators, Planning Authorities/Coordinators, and Transmission Planners should receive full indemnification and liability protection if their determinations are to be used to identify Critical Assets.

In addition, the Commission determined, in Order No. 706-A, that the fact that a third-party is involved in the review of Critical Asset lists does not shift the responsibility for compliance. Similarly, the Commission should clarify in this proceeding that the role of Reliability Coordinators, Planning Authorities/Coordinators, and Transmission Planners in the implementation of Criteria 1.3, 1.8 and 1.9 does not shift the ultimate compliance responsibility for facilities identified as Critical Assets from the Generator Owner/Operator or Transmission Owner/Operator in question, and that Reliability Coordinators, Planning Authorities/Coordinators, and Transmission Planners are indemnified and their liability is limited to the same extent as NERC and the Regional Entities. This indemnification and limitation of

⁵ Order No. 706-A, 123 FERC ¶ 61,174 at P 53 (2008).

liability should apply both to a decision by a Reliability Coordinator, Planning Authority/Coordinator, or Transmission Planner not to designate a generation unit as must-run or a Transmission Facility or FACT as critical to the derivation of IROLs and their associated contingencies, as well as a decision to do so.

Finally, if the Commission determines that it is appropriate for the identification of certain Critical Assets to be based solely on designations made by Reliability Coordinators, Planning Authorities/Coordinators, and Transmission Planners, the Commission should require NERC to put in place a process for Generator Owners/Operators and Transmission Owners/Operators to challenge such designations. Requiring NERC to do so would be consistent with the Commission's determination in Order No. 733 with regard to PRC-023-1, in which FERC agreed with commenters that argued that there should be a mechanism for entities to challenge criticality determinations under PRC-023-1, Requirement R3 and directed "the ERO to develop an appeals process (or point to a process in its existing procedures) and submit it to the Commission."⁶

B. The Commission Should Ensure That the "Bright Line" Criteria in Attachment 1 are Applied in Ways That Provide Proper Incentives for Infrastructure Owners to Maintain Their Facilities in Service

MISO is also concerned that Criterion 1.3, in particular, could potentially have an adverse effect on reliability by creating a disincentive for Generator Owners with units that may reasonably be anticipated to be designated as must-run in the future to keep these units online. For instance, a Generator Owner not currently subject to the CIP Reliability Standards with an aging and increasingly uneconomical generating unit on the other side of a constraint and in an

⁶ Order No. 733, 130 FERC ¶ 61,221 at P 97 (2010).

area where load is increasing but capacity remains constant can reasonably anticipate having the unit designated as must-run in the future. Because Criterion 1.3 requires that certain must-run units be protected as Critical Assets, such a Generator Owner might choose to take the generating unit offline prior to designation as must-run to avoid having to comply with the CIP Reliability Standards. In this scenario, reliability could be adversely affected because there would be less generating capacity available in an already generation-constrained area.

In light of the incentive for Generator Owners to take generating units that are likely to be designated as must-run offline to avoid having to comply with the CIP Reliability Standards, MISO agrees with the Commission that “any criteria for the purposes of identifying a Critical Cyber Asset under CIP-002 should be based on a Cyber Asset’s connectivity and its potential to compromise the reliable operation of the Bulk-Power System, rather than focusing on the operation of any specific Critical Asset(s).”⁷ Similarly, MISO agrees that NERC should consider applicable features of the National Institute of Standards and Technology (“NIST”) Risk Management Framework and that, specifically, the NIST Tiered Approach would better protect the Bulk-Power System.

The Commission stated in the NOPR that the “NIST Framework recognizes that all connected assets require a baseline level of protection;” however only “cyber assets whose compromise or loss of operability could result in a greater risk to Bulk-Power System reliability would be subject to more rigorous cyber security protections.”⁸ MISO believes that, similar to the NIST Framework, the CIP Reliability Standards should also recognize different degrees of protection. Such a framework would ameliorate the disincentive noted above by appropriately distributing the significant costs associated with CIP compliance, of which MISO respectfully

⁷ NOPR at P 43.

⁸ NOPR at P 51.

suggests that NERC and the Commission should remain mindful when approving this NOPR. This is because, although the cost of compliance is, of course, a concern for RTOs such as MISO, the burden and impact on smaller Registered Entities that are often Generator Owners/Operators and Transmission Owners/Operators often are significant enough to create disincentives such as the example provided above, which then adversely impact the reliability of the Bulk Electric System because facilities and resources currently available for use in maintaining the reliability of the Bulk Electric System become unavailable. This is particularly important to the maintenance of an adequate supply of generation in resource constrained regions. Hence, MISO respectfully requests that FERC send the right signals to Registered Entities by appropriately distributing the compliance burden associated with CIP compliance amongst owners of Critical Assets and Cyber Assets based on the actual risk associated with a particular Critical Asset. MISO further suggests that application of the NIST Tiered Approach would be a suitable method of ensuring that compliance burdens are appropriately distributed while ameliorating the potential for disincentives and their associated adverse impacts on the reliability of the Bulk Electric System.

C. The Commission Should Clarify Whether Data Centers Are Critical Assets

MISO seeks clarification from the Commission as to the treatment under CIP-002-4 of data centers associated with control centers. Criteria 1.14 through 1.17 of Attachment 1 all recognize control centers and backup control centers that meet various requirements as Critical Assets. However, in MISO's experience, control centers often work in tandem with an associated data center, which may be housed in a separate room or building than the control center itself. Such data centers are housed within both a Physical Security Perimeter and

Electronic Security Perimeter and contain numerous Critical and non-Critical Cyber Assets. MISO seeks clarification from the Commission as to whether the omission of data centers from Attachment 1 implies that data centers should not be designated as Critical Assets, or whether Registered Entities such as MISO maintain discretion to place such data centers on their Critical Asset lists.

MISO is concerned that if data centers are not Critical Assets, there will be an unnecessary disconnect between its Critical Cyber Assets and its Critical Assets. For instance, if a data center is not a Critical Asset, MISO would have to designate it as a Critical Cyber Asset. In turn, a server that is essential to the operation of a critical application such as MISO's Energy Management System that resides in a data center would be unnecessarily disconnected from the Critical Asset for which the server is essential to operation. A server essential to the aforementioned server would likewise be even farther removed from the Critical Asset. MISO respectfully suggests that this extra degree of separation is unnecessary and would complicate the process of identifying Critical Cyber Assets. As a result, MISO believes that Registered Entities should be able to designate data centers as Critical Assets.

In the NOPR, the Commission invited comment on "whether, under CIP Version 4, a responsible entity retains the flexibility to identify assets that, although outside of the bright line criteria, are essential to Bulk-Power System reliability."⁹ MISO believes that Registered Entities should retain this flexibility. More specifically, the "bright line" criteria appear intended to subject Registered Entities to a regulatory "floor." Accordingly, Registered Entities that wish to identify more Critical Assets than the minimum amount required by NERC should be allowed to do so.

⁹ NOPR at P 31.

CONCLUSION

MISO respectfully submits these comments on the subject NOPR to assist the Commission with its review of Version 4 of the CIP Reliability Standards and to request clarification on certain portions of proposed CIP-002-4.

Respectfully submitted,

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