

FEDERAL ENERGY REGULATORY COMMISSION  
Washington, D.C. 20426

In Reply Refer To:  
North American Electric  
Reliability Corporation  
Docket No. RM11-11-000

April 12, 2011

Ms. Holly A. Hawkins  
Attorney  
North American Electric Reliability Corporation  
1120 G Street, N.W.  
Suite 990  
Washington, D.C. 20005-3801

Reference: Proposed Critical Infrastructure Protection Reliability Standards, Version 4

Dear Ms. Hawkins:

On February 10, 2011, you filed on behalf of the North American Electric Reliability Corporation (NERC) a petition seeking approval of the following proposed Critical Infrastructure Protection (CIP) Reliability Standards:

- CIP-002-4—Cyber Security—Critical Cyber Asset Identification
- CIP-003-4—Cyber Security—Security Management Controls
- CIP-004-4—Cyber Security—Personnel & Training
- CIP-005-4—Cyber Security—Electronic Security Perimeter(s)
- CIP-006-4—Cyber Security—Physical Security of Critical Cyber Assets
- CIP-007-4—Cyber Security—Systems Security Management
- CIP-008-4—Cyber Security—Incident Reporting and Response Planning
- CIP-009-4—Cyber Security—Recovery Plans for Critical Cyber Assets

The NERC petition states that CIP-002-4 establishes uniform criteria for the identification of Critical Assets.<sup>1</sup> In particular, Attachment 1 of proposed Reliability Standard CIP-002-4 provides seventeen criteria to identify Critical Assets. NERC also provides a narrative description of the seventeen criteria in its Transmittal Letter. This

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<sup>1</sup> NERC defines “Critical Assets” as “[f]acilities, systems, and equipment which, if destroyed, degraded, or otherwise rendered unavailable, would affect the reliability or operability of the Bulk Electric System.”

narrative includes, for each criterion, an impact assessment based on a review of 2010 survey data.

In order to better understand the NERC petition and, in particular, the criteria set forth in Attachment 1 of proposed CIP-002-4, the Commission's Office of Electric Reliability seeks NERC's response to the data requests set forth below. NERC must respond within 30 days of the date of this request with all pertinent information and records.

**A. Background Questions:**

1. NERC's Transmittal Letter at 6 describes the Version 4 standards as an "interim step" to address immediate concerns and that the SDT continues to address remaining directives set forth in Order No. 706. Please describe and discuss NERC's plans for future revisions to the CIP standards to achieve full compliance with Order No. 706. Since this Version 4 "interim step" was not anticipated in the timetable NERC submitted in its December 29, 2009 compliance filing, please provide an updated timetable to reflect NERC's current schedule for completely addressing the remaining Commission directives from Order No. 706.
2. Please provide a detailed explanation of the 2010 survey data relied on by NERC to support the February 10, 2011 filing, *e.g.*, what facilities or elements were counted and were facilities or elements grouped and counted as entire substations or not. Your response should explain why the survey data is still relevant given the fact that it is based on assumptions not reflected in the proposed CIP Reliability Standards. In this regard, please explain why the 2010 survey was not updated to reflect the criteria proposed in the February 10, 2011 filing.
3. Please provide, by Regional Entity, the following information concerning U.S. System Control Centers controlling facilities of 100kV or more under the proposed Version 4 CIP Reliability Standards:
  - a. How many U.S. System Control Centers will be identified as Critical Assets (CAs) with Critical Cyber Assets (CCAs)?
  - b. How many U.S. System Control Centers will be identified as Critical Assets without CCAs?
  - c. How many U.S. System Control Centers will not be classified as a Critical Asset under the proposed Version 4 CIP Reliability Standards?

4. Please provide, by Regional Entity, the following information concerning U.S. Blackstart Resources under the proposed Version 4 CIP Reliability Standards:
  - a. How many U.S. Blackstart Resources will be identified as Critical Assets with CCAs?
  - b. How many U.S. Blackstart Resources will be identified as Critical Assets without CCAs?
  - c. How many U.S. Blackstart Resources will not be classified as a Critical Asset under the proposed Version 4 CIP Reliability Standards?
5. For transmission facilities 100kV or above, please provide, by Regional Entity, the following information concerning U.S. Transmission Substations under the proposed Version 4 CIP Reliability Standards:
  - a. How many U.S. Transmission Substations include elements that operate at 100-299kV? Of these, how many will be identified as Critical Assets or include elements identified as Critical Assets? How many of these Critical Assets have associated CCAs?
  - b. How many U.S. Transmission Substations include elements that operate at 300-499kV? Of these, how many will be identified as Critical Assets or include elements identified as Critical Assets? How many of these Critical Assets have associated CCAs?
  - c. How many U.S. Transmission Substations include elements that operate at 500kV or above? How many of these Critical Assets have associated CCAs?
6. Excluding Blackstart Resources and nuclear generation units, please provide, by Regional Entity and by size (0-299MVA, 300-499MVA, 500-999MVA, 1000+ MVA), the following information concerning U.S. generation units under the proposed Version 4 CIP Reliability Standards:
  - a. How many U.S. generation units will be identified as Critical Assets with CCAs?
  - b. How many U.S. generation units will be identified as Critical Assets without CCAs?
  - c. How many U.S. generation units will not be classified as a Critical Asset under the proposed Version 4 CIP Reliability Standards?

**B. Questions Regarding “Bright Line Criteria” in Attachment 1 of Proposed Reliability Standard CIP-002-4:**

7. Criterion 1.1 provides that “each group of generating units . . . at a single plant location with an aggregate highest rated net Real Power capability of the preceding 12 months equal to or exceeding 1500 MW in a single Interconnection” shall be considered a Critical Asset. The Transmittal Letter states at page 15 that, “The standard drafting team used 1500 MW as a number derived from the most significant Contingency Reserves operated in various Balancing Authorities in all regions. Using this number and data reported by the U.S Energy Information Administration . . . the team determined that approximately 146 generators in the United States would be classified as Critical Assets using this criterion. This accounts for 29% of the installed generator capacity in the United States.”
  - a. Please fully explain the basis for the SDT’s 1500 MW threshold. Provide references to any supporting documentation, including applicable SDT discussions in the SDT minutes.
  - b. Please clarify whether “146 generators” refers to generator units or locations housing multiple generator units.
  - c. Please provide a breakdown by Regional Entity of the number of generators and percentage of generation capacity captured by Criterion 1.1.
  - d. Please provide the percentage of generator locations captured by Criterion 1.1.
8. Most of the proposed criteria are significantly revised from the criteria on which the 2010 survey was based. For a number of these criteria, the February 10, 2011 filing provides statements as to NERC’s belief concerning the effect of the proposed criterion on Critical Asset identification without providing an objective rationale for its conclusions. For the following criteria, please explain the basis for NERC’s conclusions, including any underlying assumptions, and identify by Exhibit and page number any supporting data in the record.
  - a. Criterion 1.3
  - b. Criterion 1.7
  - c. Criterion 1.8
  - d. Criterion 1.10
  - e. Criterion 1.12

- f. Criterion 1.13
  - g. Criterion 1.14
  - h. Criterion 1.15
  - i. Criterion 1.16
  - j. Criterion 1.17
9. Criterion 1.7 provides that “Transmission Facilities operated at 300 kV or higher at stations or substations interconnected at 300 kV or higher with three or more other transmission stations or substations” shall be considered Critical Assets. Please identify the number of substations that will be captured by Criterion 1.7, explain NERC’s basis for this conclusion, and identify by Exhibit and page number any supporting data in the record.
10. With regard to Criterion 1.12, the Transmittal Letter states at page 24 that the 2010 NERC survey asked entities to identify Special Protection Systems (SPS), Remedial Action Schemes (RAS), or automated switching systems installed to ensure the reliability of Bulk Electric System operation elements that have an impact beyond the “local area.” Criterion 1.12 provides that SPS, RAS and automated switching systems that, if rendered inoperable, would cause one or more “IROL Violations” are considered Critical Assets. Please explain (a) the basis for adopting the “IROL violations” language and (b) the resulting change to the survey estimates. Identify by Exhibit and page number any relevant discussion in the record.
11. With regard to Criterion 1.15, which pertains to control centers and backup control centers, please clarify and discuss whether Criterion 1.15 requires each “plant location” (of the “multiple plant locations”) to be a Facility or group of generation Facilities identified in Criteria 1.1, 1.3, or 1.4 in order to qualify. Please clarify and discuss whether a control center or backup control center must satisfy both sentences of Criterion 1.15 to qualify or whether a control center or backup center satisfying the first or second sentence qualifies.
12. Requirement R2 of CIP-002-4 provides in relevant part that, “For each group of generating units (including nuclear generation) at a single plant location identified in Attachment 1, criterion 1.1, the only Cyber Assets that must be considered are those shared Cyber Assets that could, within 15 minutes, adversely impact the reliable operation of any combination of units that in aggregate equal or exceed Attachment 1, criterion 1.1.” Please explain the basis for the “15 minute” qualification and identify by Exhibit and page number,

including in any materials submitted in response to this data request, discussions in the record regarding its development.

This letter is issued pursuant to the authority delegated to the Director of the Office of Electric Reliability under 18 C.F.R. § 375.303 (2010) and is interlocutory. This order is not subject to rehearing pursuant to 18 C.F.R. § 385.713. A response to this order must be filed within 45 days of the date of this letter. You are encouraged to e-file your responses with the Commission. Instructions for e-filing are provided on the Commission's website at [www.ferc.gov/docs-filing/efiling.asp](http://www.ferc.gov/docs-filing/efiling.asp). Otherwise, if you choose to file hard copies, please address your response to:

Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, D.C. 20426

Irrespective of your filing method, please also provide a copy of your response to:

Edward Franks  
Office of Electric Reliability  
888 First Street, N.E.  
Washington, D.C. 20426

Any questions regarding this letter should be directed to Edward Franks at (202) 502-6311.

Sincerely,

Joseph H. McClelland, Director  
Office of Electric Reliability