

# NERC

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

## Request for Data or Information

### CIP-002 Critical Asset Methodology Data Request

to ensure  
the reliability of the  
bulk power system

August 6, 2010

116-390 Village Blvd., Princeton, NJ 08540  
609.452.8060 | 609.452.9550 fax  
[www.nerc.com](http://www.nerc.com)

## Introduction and Data Request Scope

In accordance with Section 1600 of the NERC Rules of Procedure,<sup>1</sup> NERC may request data or information that is deemed necessary to meet its obligations under Section 215 of the Federal Power Act, as authorized by Section 39.2(d) of the Federal Energy Regulatory Commission's ("FERC") regulations. This is such a request. Section 1606 of the NERC Rules of Procedure allows for a shortened time period for posting a request for data or information if the data or information must be obtained in order to evaluate a threat to the reliability or security of the bulk power system or in order to comply with a directive in an order issued by FERC or another governmental authority.

NERC's Cyber Security Order 706 (CSO706) standard drafting team is tasked with improving the current versions of CIP-002 through CIP-009 reliability standards by addressing numerous issues identified in Order No. 706. The team is continuing to develop revised standards to accomplish this objective that are expected to be completed in 2011. In the interim and in the interest of adding more structure to the critical asset identification process, the team is proposing to revise the existing CIP-002-3 standard by adding specific criteria to be used for identifying critical assets. The team is uncertain of the impact the application of the proposed criteria will have regarding the identification of critical assets. Therefore, NERC is issuing this data request to gather empirical data that will be used to guide the determination of the final criteria to be used in CIP-002. NERC is expecting to obtain a reasonable estimate of the impact of applying the proposed CIP-002-4 criteria and not an exhaustive detailed analysis in response.

The team target for completion of a revised CIP-002-4 is by year-end 2010, thus creating the need to complete the data request process expeditiously. Accordingly, NERC is issuing this request for data or information in accordance with the timing requirements of Section 1606 of the NERC Rules of Procedure. NERC provided this data request to FERC for information on July 2, 2010. On July 6, 2010, the NERC Board of Trustees authorized the shortened comment period. NERC posted this data request for public comment for a nineteen (19) day comment period from July 7—July 26, 2010. The NERC Board of Trustees approved the formal issuance of this data request on August 5, 2010. Accordingly, in accordance with Section 1600 of the NERC Rules of Procedure, this data request is mandatory for U.S. entities and for Canadian entities that are members of NERC.

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<sup>1</sup> NERC's Rules of Procedure are available at:  
[http://www.nerc.com/files/NERC\\_Rules\\_of\\_Procedure\\_EFFECTIVE\\_20100121.pdf](http://www.nerc.com/files/NERC_Rules_of_Procedure_EFFECTIVE_20100121.pdf)

## Due Date and NERC Contact Information

The completion of this data request and submission to NERC is due within thirty days after receipt of the data request.

Please complete the data request using the following website:

<https://www.nerc.net/nercsurvey/Survey.aspx?s=13b2fab74ab34943add9ff0885a56884>

Any other questions may be directed to Howard Gugel at: [howard.gugel@nerc.net](mailto:howard.gugel@nerc.net) or by telephone at 609.651.2269.

## Authority

Under Section 215 of the Federal Power Act (16 U.S.C. § 824o), Congress entrusted FERC with the duties of approving and enforcing rules to ensure the reliability of the Nation's bulk power system, and with the duties of certifying an Electric Reliability Organization ("ERO") that would be charged with developing and enforcing mandatory Reliability Standards, subject to FERC approval. NERC was certified as the ERO on July 20, 2006. NERC's authority for issuing this data request is derived from Section 215 of the Federal Power Act, and from the following sources:

**NERC is requesting this information in accordance with its authority provided in 18 C.F.R. §39.2(d), which provides:**

*Each user, owner or operator of the Bulk-Power System within the United States (other than Alaska and Hawaii) shall provide the Commission, the Electric Reliability Organization and the applicable Regional Entity such information as is necessary to implement section 215 of the Federal Power Act as determined by the Commission and set out in the Rules of the Electric Reliability Organization and each applicable Regional Entity. The Electric Reliability Organization and each Regional Entity shall provide the Commission such information as is necessary to implement section 215 of the Federal Power Act.*

**Additionally, NERC Rules of Procedure Section 1600 provides:**

***1601. Scope of a NERC or Regional Entity Request for Data or Information***

*Within the United States, NERC and regional entities may request data or information that is necessary to meet their obligations under Section 215 of the Federal Power Act, as authorized by Section 39.2(d) of the Commission's regulations, 18 C.F.R. § 39.2(d). In other jurisdictions NERC and regional entities may request comparable data or information, using such authority as may exist pursuant to these rules and as may be granted by ERO governmental authorities in those other jurisdictions. The provisions of Section 1600 shall not apply to requirements contained in any Reliability Standard to provide data or information; the requirements in the Reliability Standards govern. The provisions of Section 1600 shall also not apply to data or information requested in connection with a compliance or enforcement action under Section 215 of the Federal Power Act, Section 400 of these Rules of Procedure, or any procedures adopted pursuant to those authorities, in which case the Rules of Procedure applicable to the production of data or information for compliance and enforcement actions shall apply.*

***1606. Expedited Procedures for Requesting Time-Sensitive Data or Information***

*1. In the event NERC or a regional entity must obtain data or information by a date or within a time period that does not permit adherence to the time periods specified in Section 1602, the procedures specified in Section 1606 may be used to obtain the data or information. Without limiting the circumstances in which the procedures in Section 1606 may be used, such circumstances include situations in which it is necessary to obtain the data or information (in order to evaluate a threat to the reliability or security of the bulk-power system, or to comply with a directive in an order issued by the Commission or by*

*another ERO governmental authority) within a shorter time period than possible under Section 1602. The procedures specified in Section 1606 may only be used if authorized by the NERC Board of Trustees prior to activation of such procedures.*

*2. Prior to posting a proposed request for data or information, or a modification to a previously-authorized request, for public comment under Section 1606, NERC shall provide the proposed request or modification, including the information specified in paragraph 1602.2.1 or 1602.2.2 as applicable, to the Commission's Office of Electric Reliability. The submission to the Commission's Office of Electric Reliability shall also include an explanation of why it is necessary to use the expedited procedures of Section 1606 to obtain the data or information. The submission shall be made to the Commission's Office of Electric Reliability as far in advance, up to twenty-one (21) days, of the posting of the proposed request or modification for public comments as is reasonably possible under the circumstances, but in no event less than two (2) days in advance of the public posting of the proposed request or modification.*

*3. NERC shall post the proposed request for data or information or proposed modification to a previously-authorized request for data or information for a public comment period that is reasonable in duration given the circumstances, but in no event shorter than five (5) days. The proposed request for data or information or proposed modification to a previously-authorized request for data or information shall include the information specified in paragraph 1602.2.1 or 1602.2.2, as applicable, and shall also include an explanation of why it is necessary to use the expedited procedures of Section 1606 to obtain the data or information.*

*4. The provisions of paragraphs 1602.3, 1602.4, 1602.5 and 1602.6 shall be applicable to a request for data or information or modification to a previously-authorized request for data or information developed and issued pursuant to Section 1606, except that (a) if NERC makes minor changes to an authorized request for data or information without board approval, such changes shall require board approval if a reporting entity objects to NERC in writing to such changes within five (5) days of issuance of the modified request; and (b) authorization of the request for data or information shall be final unless an affected party appeals the authorization of the request by the Board of Trustees to the ERO governmental authority within five (5) days following the decision of the Board of Trustees authorizing the request, which decision shall be promptly posted on NERC's web site.*

### **How the Data Will Be Used**

The data will be used by the CSO706 standard drafting team to validate and/or refine the criteria developed to identify critical assets as required in CIP-002. The team is attempting to gain a reasonable estimate of the impact of implementing the criteria as presented.

**This data will not be used as a basis for determining compliance with the currently enforceable CIP-002 through CIP-009 reliability standards.**

NERC will publish a summary assessment of results of this data request. Individual registered entity responses will not be published.

### **How the availability of the data or information is necessary for NERC to meet its obligations under applicable laws and agreements;**

The Energy Policy Act of 2005 mandates the development of reliability standards that provide for the reliable operation of the bulk power system, including cyber security protection. FERC approved a suite of Critical Infrastructure Protection standards in Order 706 but directed that NERC improve and strengthen them. NERC through its Standards Committee assigned this responsibility to the CSO706 drafting team. This data request is being developed to support the standards drafting effort, and therefore, directly supports the statutory responsibility from the Energy Policy Act to ensure the reliable operation of the bulk power system, including cyber security protection.

### **How the Data Will Be Collected and Validated**

NERC will identify the registered entities held to comply with the current CIP-002-3 reliability standard. NERC will use its Checkbox survey tool to prepare the survey and provide instruction to the registered entities to submit the data. NERC will compare the list of registered entities with the data request respondents to ensure that responses are received as requested.

### **Reporting Entities**

Reliability Coordinators  
Balancing Authorities  
Interchange Authorities  
Transmission Service Providers  
Transmission Owners  
Transmission Operators  
Generator Owners  
Generator Operators  
Load Serving Entities  
NERC  
Regional Entity

### **Due Date for the Information**

Reporting entities are expected to respond to the data request within 30 days of its issuance.

### **Restrictions on Disseminating Data (Confidential/CEII)**

NERC is not requesting specific information relative to critical assets that would create the need to invoke critical energy infrastructure confidentiality provisions. Additionally, NERC does not

intend to publish entity specific information collected through this data request. Only data in summary fashion will be made publicly available.

**Estimate on Burden Imposed to Collect Data**

This is a one-time data request using in part the results of an assessment required under current CIP-002. The incremental burden for this one-time data collection will be the effort required to categorize the aforementioned assets using the proposed criteria, and an estimate of the additional assets not currently included in the current required assessment. For small entities, the burden would expected to be minimal whereas for larger entities, the estimated time to complete the data request is estimated at less than 100 hours total per entity.

# CIP-002 Critical Asset Methodology Data Request

(Note: this information will be converted to the electronic survey tool to be implemented upon approval of this Data Request)

## **Instructions:**

In an effort to ensure that Critical Assets are not counted multiple times, the following should be used in completing this Data Request. NERC registered entities should coordinate reporting this data on an enterprise-wide basis. Entities that have jointly-owned facilities should coordinate their responses for such facilities. For jointly-owned facilities, NERC recommends that the operator of the facility be designated as the responder for such facility.

In order for an entity to be compliant with CIP-002-2, they are required in R2 to “develop a list of its identified Critical Assets determined through an annual application of the risk-based assessment methodology required in R1. The Responsible Entity shall review this list at least annually, and update it as necessary.” This list is referred to in this request as the “Existing Critical Asset List.”

For question 1, the Existing Critical Asset List that was most recently used for determination of compliance with CIP-002-2 R2 should be used. The answer for question 1 is the number of elements in the Existing Critical Asset List.

For question 2, the same Existing Critical Asset List that was used for question 1 should be used. For each element in the list, use the criteria in the enclosed Attachment 1 to determine how it would be categorized. Each element on the list must be counted only one time. If a particular element could be qualified as multiple criteria, please choose the one that applies most to the element. The sum of the elements included in the answers to question 2 should equal the number of elements provided in the answer in question 1.

For question 3, use the criteria in Attachment 1 to estimate the Critical Assets and each Critical Assets’ impact level that your Registered Entity would report for its share of the Bulk Electric System. Please count each Critical Asset only once. If a particular Critical Asset could be qualified as multiple criteria, please choose the one that applies most to the Critical Asset. It is understood that, given the time frame, this is a rough estimate and is not necessarily the exact number that you would report given enough time to perform a detailed analysis of your system.

For question 4, enter all of the NERC Compliance Registry (NCR) numbers that you are reporting on an enterprise-wide basis for.

**Data Request:**

- 1. What is the number of Critical Assets currently identified for your entity in compliance with CIP-002-2 R2 (Existing Critical Asset List)? \_\_\_\_\_.**
- 2. Using your Existing Critical Asset List, determine the number of assets identified for each entry in Attachment 1:**
  - a. Number of high impact assets that were previously identified as Critical Assets**

Impact Categorization of Critical Assets (See Attachment 1)	Number of Assets	Impact Categorization of Critical Assets (See Attachment 1)	Number of Assets
1.1		1.11	
1.2		1.12	
1.3		1.13	
1.4		1.14	
1.5		1.15	
1.6		1.16	
1.7		1.17	
1.8		1.18	
1.9		1.19	
1.10		1.20	

**b. Number of medium impact assets that were previously identified as Critical**

**Assets**

Impact Categorization of Critical Assets (See Attachment 1)	Number of Assets	Impact Categorization of Critical Assets (See Attachment 1)	Number of Assets
2.1		2.5	
2.2		2.6	
2.3		2.7	
2.4		2.8	

**c. Number of low impact assets that were previously identified as Critical Assets**

\_\_\_\_\_.

**3. Estimated total number of assets identified using Attachment 1 in place of your risk-based methodology:**

**a. Number of high impact Critical Assets**

Impact Categorization of Critical Assets (See Attachment 1)	Number of Assets	Impact Categorization of Critical Assets (See Attachment 1)	Number of Assets
1.1		1.11	
1.2		1.12	
1.3		1.13	
1.4		1.14	
1.5		1.15	
1.6		1.16	
1.7		1.17	

1.8		1.18	
1.9		1.19	
1.10		1.20	

**b. Number of medium impact Critical Assets**

Impact Categorization of Critical Assets (See Attachment 1)	Number of Assets	Impact Categorization of Critical Assets (See Attachment 1)	Number of Assets
2.1		2.5	
2.2		2.6	
2.3		2.7	
2.4		2.8	

- 4. What are the NERC Compliance Registry (NCR) numbers that you are reporting this Data Request for?**

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# Attachment 1

## Impact Categorization of Critical Assets

### 1. High Impact Rating (H)

The following is proposed as bright line criteria for determining high impact Critical Assets:

- 1.1. Nuclear generation Facilities.
- 1.2. A generating unit or a group of generating units at a single plant location with an aggregate highest rated net Real Power capability in the preceding 12 months exceeding:
  - a. the Contingency Reserve requirement of the Reserve Sharing Group or of the Balancing Authority if it is not a member of a Reserve Sharing Group, at the time the CIP-002 is reviewed. or
  - b. the lowest value of the Contingency Reserve requirement of the associated Balancing Authority, for the 12 months preceding the identification or reassessment of the group of generating units, or
  - c. 2000 MW.
- 1.3. Any reactive resource, including synchronous condensers and static VAR compensators not associated with Generation Facilities, sharing a common Cyber Asset or common Cyber Assets, excluding control centers, that would have an impact on the reliable operation of the group of Facilities within 15 minutes, singularly or in combination, with aggregate rated net Reactive Power capability of 1,000 MVAR or more.
- 1.4. Any generation Facility that the Planning Coordinator identifies as Reliability “must run” assigned units.
- 1.5. Any Blackstart Resource contained in the Transmission Operator’s restoration plan.
- 1.6. Transmission Facilities operated at 500kV or higher.
- 1.7. Transmission Facilities with four or more Transmission lines operated at 300 kV or higher in the Eastern Interconnection or the Western Interconnection.
- 1.8. Transmission Facilities with four or more Transmission lines operated at 200 kV or higher in the Texas Interconnection or the Quebec Interconnection.
- 1.9. The Facilities comprising Cranking Paths contained in a Transmission Operator’s restoration plan.
- 1.10. Transmission Facilities that, if destroyed, degraded, misused or otherwise rendered unavailable, violate one or more Interconnection Reliability Operating Limits (IROLs).
- 1.11. Flexible AC Transmission Systems (FACTS), that, if destroyed, degraded, misused or otherwise rendered unavailable, would violate one or more Interconnection Reliability Operating Limits (IROLs).

- 1.12. Transmission Facilities providing the generation interconnection that if destroyed, degraded, misused, or otherwise rendered unavailable, would result in the loss of the assets identified in Attachment 1, criterion 1.1.
- 1.13. Transmission Facilities identified as essential to meeting Nuclear Plant Interface Requirements established in accordance with reliability standard NUC-001 for Nuclear facilities
- 1.14. Special Protection Systems (SPS), Remedial Action Schemes (RAS) or automated switching systems that operate BES Elements and that have impact beyond the local area.
- 1.15. Common control system(s) critical to automatic load shedding that are capable of shedding 300 MW or more.
- 1.16. Any primary control center or any backup control center used to perform Reliability Coordinator functions.
- 1.17. Any primary or backup control center performing Balancing Authority functions performed by primary or backup control centers , of Transmission Facilities or generation Facilities, singularly or in combination, of 4,000 MW or more in the Eastern Interconnection or the Western Interconnections or 2,000 MW or more in the Texas Interconnection or the Quebec Interconnection.
- 1.18. Any primary or backup control center performing Transmission Operator functions performed by primary or backup control centers that remotely control two or more Transmission substations or switching stations operated at 300 kV or above in the Eastern Interconnection or the Western Interconnection or 200kV or above in the Texas Interconnection or the Quebec Interconnection, or functionality that remotely controls a Critical Cyber Asset with a High Impact Rating..
- 1.19. Any control center or systems or any backup control center or systems used to perform Generator Operator functions for generation that has an aggregate highest rated net Real Power capability in the preceding 12 months exceeding:
  - a. the lowest value of the Contingency Reserve requirement of the associated Balancing Authority, for the 12 months preceding the identification or reassessment of the generating unit, or
  - b. 2000 MW, if no Contingency Reserve or total of reserve sharing obligations for the Reserve Sharing Group is established.
- 1.20. Any additional assets that support the reliable operation of the Bulk Electric System that the Responsible Entity deems appropriate to include.

## **2. Medium Impact Rating (M)**

The following is proposed as bright line criteria for determining medium impact Critical Assets:

- 2.1. A generating unit or a group of generating units at a single plan location that would have an impact on the reliable operation of the group of units within 15 minutes,,

with aggregate higher of the most current and prior to most current rated net Real Power capability of 1000 MW or more, not included in Section 1.

- 2.2. Any reactive resource, including synchronous condensers and static VAR compensators not associated with Generation Facilities, sharing a common Cyber Asset or common Cyber Assets, excluding control centers, that would have an impact on the reliable operation of the group of Facilities within 15 minutes, singularly or in combination ), with aggregate rated net Reactive Power capability of 500 MVAR or more, not included in Section 1.
- 2.3. Transmission Facilities with four or more transmission lines operated at 200 kV or above in the Eastern Interconnection or the Western Interconnection not included in Section 1.
- 2.4. Transmission Facilities with four or more transmission lines operated at 100 kV or above in the Texas Interconnection or the Quebec Interconnection not included in Section 1.
- 2.5. Transmission Facilities that if destroyed, degraded, misused or otherwise rendered unavailable, would result in the loss of generation Facilities, singularly or in combination, with aggregate rated capabilities described in Part 2.1 above, not included in Section 1.
- 2.6. Transmission Facilities operated at 300 kV or higher in the Eastern Interconnection or the Western Interconnection or operated at 200 kV or higher in Texas Interconnection or the Quebec Interconnection, not included in Section 1.
- 2.7. Any primary or backup control center performing Transmission Operator functions that remotely control two or more Transmission substations or switching stations operated at 200 kV or above in the Eastern Interconnection or the Western Interconnection or 100kV or above in the Texas Interconnection or the Quebec Interconnection, or functionality that remotely controls a Critical Asset with a Medium Impact Rating, not included in Section 1.
- 2.8. Any primary or backup control center performing Balancing Authority functions of Transmission Facilities or generation Facilities, singularly or in combination, of 2,000 MW or more in the Eastern Interconnection or the Western Interconnection or 1,000 MW or more in the Texas Interconnection or the Quebec Interconnection, not included in Section 1.

### **3. Low Impact Rating (L)**

All other BES Elements that can affect operations and are not categorized in Section 1 as having a High Impact Rating or in Section 2 as having a Medium Impact Rating.