



[Registered Entity Name]

NERC ID: [NCRXXXXX]

EOP-005-2 System Restoration from Blackstart Resources
- Transmission Operators for R1 and R9
- Generator Operators for R14

3rd Quarter 2019 Self-Certification



Instructions

1. Populate the cover page by adding your entity's name and NERC identification number.
2. Complete the tasks listed under **Assessment Guidance**.
3. Log into **webCDMS** and complete your self-certification response.
4. Submit via the MRO EFT Encrypted [FTP2](#) Site:
 - a. This completed Worksheet; and
 - b. Specific evidence requested within this document. Please make sure to use unique file names for each evidence file submitted, and identify within your narratives which specific evidence files support each conclusion made. These references and the use of unique file names helps facilitate and expedite MRO's review of the Self-Certification work that has been performed.



Scope

EOP-005-2 System Restoration from Blackstart Resources, R1, R9, and R14

R1. *Each Transmission Operator shall have a restoration plan approved by its Reliability Coordinator. The restoration plan shall allow for restoring the Transmission Operator's System following a Disturbance in which one or more areas of the Bulk Electric System (BES) shuts down and the use of Blackstart Resources is required to restore the shut down area to service, to a state whereby the choice of the next Load to be restored is not driven by the need to control frequency or voltage regardless of whether the Blackstart Resource is located within the Transmission Operator's System. The restoration plan shall include: [Violation Risk Factor = High] [Time Horizon = Operations Planning]*

- 1.1. Strategies for system restoration that are coordinated with the Reliability Coordinator's high level strategy for restoring the Interconnection.*
- 1.2. A description of how all Agreements or mutually agreed upon procedures or protocols for off-site power requirements of nuclear power plants, including priority of restoration, will be fulfilled during System restoration.*
- 1.3. Procedures for restoring interconnections with other Transmission Operators under the direction of the Reliability Coordinator.*
- 1.4. Identification of each Blackstart Resource and its characteristics including but not limited to the following: the name of the Blackstart Resource, location, megawatt and megavar capacity, and type of unit.*
- 1.5. Identification of Cranking Paths and initial switching requirements between each Blackstart Resource and the unit(s) to be started.*
- 1.6. Identification of acceptable operating voltage and frequency limits during restoration.*
- 1.7. Operating Processes to reestablish connections within the Transmission Operator's System for areas that have been restored and are prepared for reconnection.*
- 1.8. Operating Processes to restore Loads required to restore the System, such as station service for substations, units to be restarted or stabilized, the Load needed to stabilize generation and frequency, and provide voltage control.*
- 1.9. Operating Processes for transferring authority back to the Balancing Authority in accordance with the Reliability Coordinator's criteria.*

R9. *Each Transmission Operator shall have Blackstart Resource testing requirements to verify that each Blackstart Resource is capable of meeting the requirements of its restoration plan. These Blackstart Resource testing requirements shall include: [Violation Risk Factor = Medium] [Time Horizon = Operations Planning]*

- 9.1. The frequency of testing such that each Blackstart Resource is tested at least once every three calendar years.*
- 9.2. A list of required tests including:*
 - 9.2.1. The ability to start the unit when isolated with no support from the*



BES or when designed to remain energized without connection to the remainder of the System.

9.2.2. The ability to energize a bus. If it is not possible to energize a bus during the test, the testing entity must affirm that the unit has the capability to energize a bus such as verifying that the breaker close coil relay can be energized with the voltage and frequency monitor controls disconnected from the synchronizing circuits.

9.3. The minimum duration of each of the required tests.

R14. Each Generator Operator with a Blackstart Resource shall have documented procedures for starting each Blackstart Resource and energizing a bus. [Violation Risk Factor = Medium] [Time Horizon = Operations Planning]

Measure

M1. Each Transmission Operator shall have a dated, documented System restoration plan developed in accordance with Requirement R1 that has been approved by its Reliability Coordinator as shown with the documented approval from its Reliability Coordinator.

M9. Each Transmission Operator shall have documented Blackstart Resource testing requirements in accordance with Requirement R9.

M14. Each Generator Operator with a Blackstart Resource shall have dated documented procedures on file for starting each unit and energizing a bus in accordance with Requirement R14.

Purpose:

Ensure plans, Facilities, and personnel are prepared to enable System restoration from Blackstart Resources to assure reliability is maintained during restoration and priority is placed on restoring the Interconnection.

Applicability:

- 4.1. Transmission Operators.
- 4.2. Generator Operators.
- 4.3. Transmission Owners identified in the Transmission Operators restoration plan.
- 4.4. Distribution Providers identified in the Transmission Operators restoration plan.



Assessment Guidance

1. Provide your current system restoration plan approved by your Reliability Coordinator.

Document(s) Requested	
Filename(s)	
Comments	

2. Please fill the table below and point out the location within the system restoration plan that associates with the following requirements.

Requirement	Location within document / Page number	Comments/Explanation
R1		
R1.1		
R1.2		
R1.3		
R1.4		
R1.5		
R1.6		
R1.7		
R1.8		
R1.9		

From the table above, does the evidence provided meet the requirement?

- Yes, respond “Compliant” for R1 to the Self-Certification in webCDMS. Include a comment summary and upload supporting documentation to the [FTP2](#) server.
- No, respond “Not Compliant” for R1 to the Self-Certification in webCDMS. Include a comment summary based on potential issues and upload supporting documentation to the [FTP2](#) server.
- Do not meet the functional applicability of the requirement, respond “Not Applicable” for R1 to the Self-Certification in webCDMS. Include comments supporting the “Not Applicable” response and upload supporting documentation to the [FTP2](#) server. This response should not be used if the circumstance within the standard or requirement language did not happen. This response should only



be used if the requirement or standard is not applicable at all to the entity (such as not registered for the function).

3. Provide the document(s) for the entity's Blackstart Resource(s) testing requirements to verify that each Blackstart Resource is capable of meeting the requirements of its system restoration plan.

Document(s) Requested	
Filename(s)	
Comments	

4. Please fill in the table below and point out the location(s) within the highlighting/showing the testing of the Blackstart Resource(s) listed above that associates sub-parts with the following requirements.

Requirement	Location within document / Page number	Comments/Explanation
R9		
R9.1		
R9.2		
R9.2.1		
R9.2.2		
R9.3		

Does the evidence provided meet the requirement?

- Yes, respond "Compliant" for R9 to the Self-Certification in webCDMS. Include a comment summary and upload supporting documentation to the [FTP2](#) server.
- No, respond "Not Compliant" for R9 to the Self-Certification in webCDMS. Include a comment summary based on potential issues and upload supporting documentation to the [FTP2](#) server.
- Do not meet the functional applicability of the requirement, respond "Not Applicable" for R9 to the Self-Certification in webCDMS. Include comments supporting the "Not Applicable" response and upload supporting documentation to the [FTP2](#) server. This response should not be used if the circumstance within the standard or requirement language did not happen. This response should only be used if the requirement or standard is not applicable at all to the entity (such as not registered for the function).



5. Provide the dated documented procedure(s) for starting each Blackstart Resource and energizing a bus in accordance with Requirement 14.

Document(s) Requested	
Filename(s)	
Comments	

- Yes, respond “Compliant” for R14 to the Self-Certification in webCDMS. Include a comment summary and upload supporting documentation to the [FTP2](#) server.
- No, respond “Not Compliant” for R14 to the Self-Certification in webCDMS. Include a comment summary based on potential issues and upload supporting documentation to the [FTP2](#) server.
- Do not meet the functional applicability of the requirement, respond “Not Applicable” for R14 to the Self-Certification in webCDMS. Include comments supporting the “Not Applicable” response and upload supporting documentation to the [FTP2](#) server. This response should not be used if the circumstance within the standard or requirement language did not happen. This response should only be used if the requirement or standard is not applicable at all to the entity (such as not registered for the function).

Document Submittals

MRO requires copies of the following be submitted with the self-certification response:

- a. This worksheet and
- b. Supporting documentation referenced in the Assessment Guidance.

Please make sure to use unique file names for each evidence file submitted, and identify within your responses to the steps above which specific evidence files support each conclusion made. These references and the use of unique file names helps facilitate and expedite MRO’s review of the Self-Certification work that has been performed.

All other data related to the registered entity’s analysis and self-certification response are to be retained for at least 180 days after the submission date. MRO staff may request submission of additional information at a later date to verify accuracy of self-certification submittals.