

NYISO Self-Certification

Description:

NYSRC Reliability Rule Reference (No. and Name)

F.1: NYCA System Restoration Plan

NYSRC Requirement(s) for which compliance is being self-certified

- R1.** The *NYISO* shall develop and maintain a NYCA SRP that provides assurance that the NYCA system will be restored in a safe and orderly manner and as promptly as reasonable possible following a major or total blackout.

The NYCA SRP shall include system restoration at two integrated levels: restoration of the NYCA backbone system in accordance with a *NYISO* System Restoration Plan (*NYISO* SRP) and restoration of local areas in accordance with *Transmission Owner* system restoration plans (TO SRPs).

The *NYISO* shall develop and maintain an SRP that meets NERC and NPCC requirements. In addition, the NYCA SRP shall include the following more stringent and more specific requirements:

- R1.1.** Procedures for coordinating the *NYISO* SRP and the *Transmission Owner* SRPs.
- R1.2.** Required actions to be included in each *Transmission Owner's* restoration plan, consistent with *NYISO* procedures and *NYSRC*, NPCC, and NERC criteria.
- R1.3.** Procedures for coordinating the SRPs of the *NYISO* and neighboring Reliability Coordinators, including restoration of interconnections.
- R1.4.** Identification of *black start facilities* required for implementing the *NYISO* SRP, including the names, location, megawatt capabilities, megavar capabilities, and unit type.
- R1.5.** Procedures for *black start facility* test requirements to verify that each *black start* unit in the *NYISO* and *Transmission Owner* SRP's is capable of meeting the requirements of these SRP's. These *black start* testing requirements shall include:
- R1.5.1.** Each *black start facility* shall be tested annually. The *NYISO* shall determine the time within the *Capability Year* that testing shall be

completed. The NYISO shall determine the number of units within a *black start facility* that shall be tested annually.

R1.5.2. The NYISO procedures shall indicate that with due regard for reliability considerations and subject to approval by the *Transmission Owner* and the *NYISO*, a test performed by *black start facilities* in the *Transmission Owner's* SRP within one month beyond the *Capability Year* test period, or longer in force majeure cases, shall be considered a valid test for the *Capability Year*. On request by the *NYSRC*, the *NYISO* shall certify that *reliability* was considered when the *NYISO* and the *Transmission Owner* approved *black start facility* testing beyond the *Capability Year*.

R1.5.3. Each *black start* unit shall test the ability to start with no support from the transmission system or when designed to remain energized without connection to the remainder of the System.

R1.5.4. Each *black start* unit shall test the ability to energize its transmission bus. If it is not possible to energize its transmission bus during the test, the testing facility must affirm that the unit has the capability to energize its transmission bus such as verifying that the breaker close coil relay can be energized with the voltage and frequency monitor controls disconnected from synchronizing circuits.

R1.5.5. Each *black start* unit shall be tested such that once the unit has been started, it shall continue to demonstrate its capability to operate in a stable condition while isolated from the power system for a minimum of ten minutes.

R1.6. Procedures requiring that each *Transmission Owner* identify *black start resources* that are necessary for implementing its SRP. These procedures shall also require *Transmission Owners* to identify the name, location, megawatt *capacity*, megavar *capacity*, and type of *black start resource(s)*. The identity of transmission SRP *black start facilities* shall be made available to the *NYISO* and to affected *Transmission Owners*. In addition, *NYISO* procedures shall include a requirement that each *Black Start Provider* annually provide a letter to the *NYISO* confirming that it identifies and maintains a list of critical components in its facilities (i.e., batteries, diesel back-up generators, inverters etc.) to verify the condition of these critical components in accordance with good industry practice.

R1.7. Identification of the necessary operating instructions and procedures to

cover loss of telecommunications channels during a system *disturbance*.

- R1.8.** Identification of protocols for disseminating information to operating entities identified in the plan during a system *disturbance*.
- R1.9.** Procedures for ensuring that the coordination of *NYISO* and *Transmission Owner* SRPs be demonstrated by drill or by simulation.
- R1.10.** Procedures requiring *Transmission Owners* to notify the *NYISO* of any proposed changes to *Transmission Owner* SRP facilities or procedures that could affect the coordination of the *NYISO* and *TO* restoration plans at least two months prior to their implementation.
- R1.11.** Procedures requiring that the *NYISO* and *Transmission Owner* SRPs be reviewed and updated annually and whenever changes are made in the *NYS Power System*. This review shall evaluate the impact of planned system expansion or reconfiguration on these SRPs, prior to implementation.
- R1.12.** Identification of guidelines which provide the basis for alternative restoration actions if normal restoration procedures cannot be executed due to system conditions.
- R1.13.** Procedures for coordinating annual updates to the *NYISO* SRP and restoration plans of neighboring Reliability Coordinators.
- R1.14.** Procedures for training *NYISO* and *Market Participants* operating personnel for the effective implementation of the NYCA SRP. The *NYISO* shall maintain program records showing that operating personnel have been trained in the implementation of the NYCA SRP and participated in restoration exercises. These records shall be provided to the *NYSRC* upon request.

Compliance Monitoring Process

Compliance Monitoring Responsibility:

- M1: RCMS

Compliance Documentation Reporting Frequency:

- M1: In accordance with NYSRC Compliance Monitoring Program schedules.

Compliance Reporting Requirements:

- M1: NYISO Self-Certification

Measure No.

<p><input checked="" type="checkbox"/> Full Compliance</p>	<p>M1. The <i>NYISO</i> has developed a NYCA SRP in accordance with R1 that includes documented procedures specified by the sub-requirements R1.1 through R1.14. The <i>NYISO</i> also certified that it identified <i>NYISO</i> SRP black start facilities in accordance with R1.4, and completed certain actions, when required, in accordance with R1.5.2, R1.11 and R1.14.</p>
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Levels of Non-Compliance

<p>___ Level 1</p>	<p>M1. The <i>NYISO</i> has an NYCA SRP, but the SRP failed to include procedures – or the <i>NYISO</i> failed to complete actions -- needed to fully comply with one of the sub-requirements within R1.</p>
<p>___ Level 2</p>	<p>M1. The <i>NYISO</i> has an NYCA SRP, but the SRP failed to include procedures – or the <i>NYISO</i> failed to complete actions -- needed to fully comply with two of the sub-requirements within R1. OR The <i>NYISO</i> failed to identify <i>NYISO</i> black start facilities in accordance with R1.4.</p>
<p>___ Level 3</p>	<p>M1. The <i>NYISO</i> has an NYCA SRP, but the SRP failed to include procedures– or the <i>NYISO</i> failed to complete actions – needed to fully comply with three of the sub-requirements within R1.</p>
<p>___ Level 4</p>	<p>M1. The <i>NYISO</i> has an NYCA SRP, but the SRP failed to include procedures – or the <i>NYISO</i> failed to complete actions – needed to fully comply with four or more of the sub-requirements within R1.</p>

R1.1-The *NYISO* System Restoration Manual, Section 2, Restoration Procedures defines the two levels of procedure, *NYISO* and *TO*, which are included in the NYCA SRP.

R1.2-The *NYISO* requirement for the *TO* restorations plan actions to be consistent with NYSRC, NPCC, and NERC criteria can be found in the *NYISO* System Restoration Manual, Section 2.2 Transmission Owner System Restoration Procedures

R1.3-The *NYISO* Emergency Operations Manual Sections 6.3 and 6.4 addresses the elements of coordination between the SRPs of the *NYISO* and neighboring Reliability Coordinators.

R1.4-The requirement for identification of the NYISO Black Start facilities and their characteristics are identified in the NYISO System Restoration Manual Section 3.1.1 NYISO Black Start Service Resources.

R1.5.1-The requirement for the annual testing of the Black Start facilities in the NYISO Reliability Coordinator Area are identified in the NYISO System Restoration Manual Section 3.1.5 Black Start Testing Frequency.

R1.5.2-The requirement for the due regard for reliability considerations and subject to approval by the Transmission Owner and the NYISO, a test performed by black start facilities in the TO SRP within one month beyond the Capability Year test period, or longer in force majeure cases, shall be considered a valid test for the Capability Year for the Black Start facility is identified in the NYISO Ancillary Services Manual Section 7.1 Description.

R1.5.3-The requirement for a Black Start unit to test the ability to start with no support from the transmission system is identified in the NYISO System Restoration Manual Section 3.1.4 Black Start Resource Testing Requirements.

R1.5.4-The requirement for a Black Start unit to test the ability to energize its transmission bus is identified in the NYISO System Restoration Manual Section 3.1.4 Black Start Resource Testing Requirements.

R1.5.5-The requirement for a Black Start unit to test the ability to operate in a stable condition while isolated from the power system for a minimum of ten minutes is identified in the NYISO System Restoration Manual Section 3.1.4 Black Start Resource Testing Requirements.

R1.6-The requirement that each Transmission Owner identify black start resources that are necessary for implementing its SRP are identified in the NYISO System Restoration Manual Section 3.1.2 Transmission Owner Black Start Service Resources.

R1.7-The communication procedures associated with restoration are found in the NYISO System Restoration Manual Section 4 Communications During Restoration.

R1.8-The communication protocols associated with disseminating restoration information are found in the NYISO System Restoration Manual Section 1.4 Communications and Section 4 Communications During Restoration.

R1.9-Procedures ensuring coordination of NYISO and TO system restoration procedures is addressed in the NYISO restoration procedure review found in the NYISO System Restoration Manual Section 5.1 NYISO Procedure Review, Verification, Update and Distribution.

R1.10-Procedures requiring the TOs to notify the NYISO at least two months prior to implementation of any TO restoration procedures that could effect coordination of the NYISO and TO Restoration procedures are addressed through the NYISO System Restoration Manual Section 5.2.3 Transmission Owner Procedure Update.

R1.11-Restoration plan review and updates of the NYISO procedure is addressed through the NYISO System Restoration Manual Section 5 Reviewing and Updating the

System Restoration Procedure.

R1.12-The strategy identified in NYISO System Restoration Manual, Section 1.2, Strategy provide the guidelines for alternative restoration actions.

R1.13-The procedure for coordinating the NYISO restoration procedures with neighboring control areas is identified in NYISO System Restoration Manual section 5.1.1.

R1.14-The procedure for training the NYISO and Market Participants operating personnel for the effective implementation of the NYCA SRP is identified in NYISO System Restoration Manual Section 6 Restoration Training.

Certified by: R. Golen

Title: Manager, Operations Engineering

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