



Rules Enhancement Plan

Reliability Rules Subcommittee

April 4, 2013

INTRODUCTION

This report describes a plan to: (1) restructure the NYSRC Reliability Rules and supporting elements¹, and (2) revise the present rules² to ensure they are consistent with current and pending NERC and NPCC standards and criteria and the new NERC Bulk Electric System (BES) definition, while continuing to maintain NYSRC's more stringent and specific requirements. The Rules Enhancement Plan (REP) will be implemented through completion of several tasks.

BACKGROUND

The initial NYSRC rules, adopted in 1999, were based on former New York Power Pool criteria. Since then, these rules have been revised numerous times to reflect the need for new and modified rules and NERC and NPCC standards and criteria changes. During that time, the organization of the rules have generally followed the same format.

Two recent actions have prompted the need for the NYSRC to evaluate certain NYSRC Reliability Rules. First, in 2012 FERC issued a rule establishing a Bulk Electric System (BES) definition. This definition establishes a “bright line” threshold that includes all facilities operated at or above 100 kV.

Second, NERC has recently adopted a revised transmission planning standard (TPL-001-2) which is more stringent in some respects than the present NYSRC transmission planning rules. TPL-001-2 may represent a significant change of NERC transmission planning criteria. NPCC is currently modifying Directory 1, “Design and Operation of the Bulk Power System,” to ensure consistency with the recently adopted NERC TPL Standard. The Directory 1 revision will also include resource adequacy, special system protection, and transmission operations criteria changes. NYSRC Reliability Rules must be consistent with NERC and NPCC standards and criteria, but may be more stringent or specific than NERC and NPCC requirements depending on special NYS Power System conditions. The NERC and NPCC changes may impact several NYSRC rules, including resource adequacy and transmission planning and operating capability rules.

¹ “Elements” are components of a Reliability Rule that include requirements and other components necessary to demonstrate and monitor compliance with the Reliability Rule.

² The term “rules” as used in this report refers to the entire body of a Reliability Rule and its related elements.

Rules Enhancement Plan – Task Summary

Task 1:

Reorganize the format of the NYSRC Reliability Rules and supporting elements.

Task 2:

Modify NYSRC rules so as to be consistent with NERC TPL-001-2 and NPCC Directory 1 changes and any other pending changes. Examine other NYSRC rules to ensure consistency with other NERC and NPCC standards and criteria, and modify as required.

Task 3:

Revise the Introduction of the Reliability Rules Manual to recognize Task 1 and 2 changes, and other sections of the Manual as appropriate.

Task 4:

Upon completion of Tasks 1-3, adopt the revised rules in Tasks 1-2 and incorporate into a new version of the Reliability Rules Manual.

Tasks 1 and 2 can be completed in parallel.

Task 1

Reorganization of NYSRC Reliability Rules and their Elements

The NYSRC has always worked towards improving its Reliability Rule development process. Likewise, RRS recognizes that how reliability rules are organized is important for a clear understanding of rule and compliance requirements by those entities affected by the NYSRC rules. Accordingly, RRS reviewed the present rule organization and considered how it can be improved.

Presently, NYSRC rules and compliance requirements are organized into two separate manuals: the *Reliability Rules Manual* and the *Compliance Template Manual*. The *Reliability Rules Manual* includes Reliability Rules and associated measurements; the *Compliance Template Manual* contains compliance information associated with the Reliability Rules' measurements, including compliance monitoring procedures, full compliance statements, and levels of non-compliance. RRS is responsible for maintaining the *Reliability Rules Manual*, while RCMS maintains the *Compliance Template Manual*.

RRS' review of NYSRC's rule organization examined the NERC standard format or template. The NERC template, unlike the present NYSRC format, consolidates all standard requirement and compliance elements into a single document. NPCC now follows the NERC standard template for its standards and directories. RRS concluded that converting to a common rules format, i.e., the NERC template, will provide a more uniform presentation of the NYSRC rules which will provide a benefit to the NYISO and NY market participants who are familiar with working with the NERC and NPCC templates. The primary rules changes required for reorganizing the NYSRC rules to follow a similar format as the NERC standard template are as follows:

1. The present NYSRC rule requirements (Reliability Rules and measurements) will be merged with related compliance components (Compliance Templates) into a single document, which RRS believes will provide a clearer understanding of a rule's compliance requirements.
2. Although the present "Measurement" and "Full Compliance" elements will become "Requirements" and "Measures," respectively, no textual changes will be required.³ Therefore, PRRs and postings for comment will not be required. "Levels of non-compliance" statements will not change.
3. A modification of certain Reliability Rules will be required that may require PRRs and postings for comment.
4. Each Reliability Rules section now includes an "Introduction" – these will be retained.

Table 1 shows the new organization of the Reliability Rules and associated elements. Appendices A and B provide examples of reorganized rules for RR Manual Section C and F Reliability Rules, respectively, using the Table 1 template.

³ Certain present Reliability Rules will also become Requirements.

Table 1

New Organization of Reliability Rule and Associated Elements

| Section | Element | Element Description |
|--|---|--|
| A Reliability Rule Elements | Title | A brief descriptive phrase identifying the topic of the Reliability Standard. |
| | Reliability Rule | The reliability outcome that is required to be achieved through compliance with the Reliability Rule. |
| | Associated NERC and NPCC Standards and Criteria | A list of NERC and NPCC standards and criteria documents that correspond to the Reliability Rule. |
| | Applicability | Entity or entities, i.e., the NYISO and/or market participants, responsible for complying with the Reliability Rule. |
| | | |
| B Requirements | Requirement ⁴ | The actions that shall be performed or outcomes achieved in order to comply with the Reliability Rule. Identifies which entity – NYISO or market participant – is responsible for complying with the Requirement. There may be one or more Requirements associated with each Reliability Rule. |
| | | |
| C Compliance Elements | Measure ⁵ | The evidence needed to demonstrate compliance with one or more associated Requirements. |
| | Levels of Non-Compliance | Levels of non-compliance assigned if responsible entity does not adequately demonstrate the compliance evidence as stated in a Measure. |
| | Compliance Monitoring Process | The compliance process used to monitor compliance for each Requirement, as described in Policy 4. |
| | | |
| D Guidelines | Guidelines | Guidelines that support the implementation of the Reliability Rule. |

⁴ Same as “Measurement” in present rule structure. The term “Requirement” is consistent with NERC terminology.

⁵ Same as “Full Compliance Statement” in present rule structure. The term “Measure” is consistent with NERC terminology.

Task 2

Modifying the NYSRC Rules to Ensure Consistency with NERC and NPCC Standards and Criteria

This task is to modify the Reliability Rules to ensure consistency with NERC and NPCC standards and criteria, while retaining the more stringent and specific requirements in the present reliability rules. One issue that will be considered is whether to include only elements in the revised rules that are more stringent and more specific than NERC and NPCC requirements, or to make the rules more complete by also including certain existing NYSRC requirements that may be common to both NERC and NPCC requirements. Another issue to be considered will be whether the new BES definition should be adopted for NYSRC rules or whether NYSRC's current BPS definition be retained.

As noted under "Background," the newly modified NERC Transmission Planning Standard TPL-001 will impact NYSRC's transmission planning rules in Rule Section B (Reliability Rules B-R1-R4 and B-R7). NPCC is currently modifying Directory 1 to recognize this NERC Standard. RRS will prepare an example of a transmission planning rule change starting with a Directory 1 draft when it becomes available. It is expected that this draft will not be available until at least the fall of 2013. Review of the other potential rule changes will take place in the meantime (see Table 2).

Table 2

Reliability Rules to be Reviewed for Consistency with NERC and NPCC Standards and Criteria

| NYSRC Rule Section | Corresponding NERC Standards | Corresponding NPCC Directories |
|---|---|---------------------------------------|
| A - Resource Adequacy | | 1 |
| B – Transmission Capability – Planning | TPL-001 | 1 |
| C – Resource, System & Demand Requirements | MOD-010, 011, 012, 016, 017, 025, TOP-002, PRC-002, 018 | 9, 10 |
| D – Operating Reserves | BAL-002 | 5 |
| E – Transmission Capability – Operating | TOP-004, FAC-011, IRO-004, EOP-001 | 1, 2 |
| F – Operation During Major Emergencies | EOP-001, 002 | 2 |
| G – System Restoration | EOP-005 | 8 |

NYSRC Rule Sections H-K are not effected by NERC and NPCC requirements.

Task 3

Reliability Rule Manual Revisions

The reliability rule changes in Tasks 1 and 2 will require that the Introduction of the Reliability Rule Manual be revised. Other sections of the Manual will also be reviewed for possible changes and reorganization. With the merger of compliance templates with the Reliability Rules, the Compliance Template Manual will be retired.

Task 4

Adoption of Modified Rules and Issuance of the New Reliability Rules Manual

Upon completion of Task 3, the Executive Committee will adopt all rule changes and approve issuance of the new version of the Reliability Rules manual. If the NPCC Directory 1 revision is delayed (see Task 2), a decision will be made whether to wait for Directory 1 to be revised and complete NYSRC rule revisions before issuing the Manual, or issue the Manual and revise related NYSRC rules at a later time when a revised Directory 1 becomes available.

Following adoption of the new Reliability Rules Manual, Policies 1 and 4 will need to be revised to be consistent with the new rule element organization.

APPENDIX A

Example – NYSRC Reliability Rules Re-Formatting Plan

Reliability Rules Section C Resource, System and Demand Data Requirements

INTRODUCTION [Same as present Introduction.]

System modeling is the first step toward planning and operating a reliable NYS Bulk Power System. The development of system modeling data to realistically simulate the operation of resource and transmission facilities is essential for planning and operating studies used to assess electric system reliability. To achieve this purpose, the Reliability Rules establish requirements for the development and submission of complete, accurate, and timely data necessary for NYSRC studies for establishing statewide IRM requirements and various NYISO resource and transmission analyses and assessments required by the Reliability Rules and NYISO procedures.

System modeling data required under this section includes resource capacity verification testing and availability, system data, and load forecasting, and data from disturbance recording devices.

A. Verification Testing of Resource Capacity

1. Reliability Rule C-RR1

Equipment used for providing resource capacity shall be tested to verify capacity data.

[No change from present Reliability Rule C-R1. "Reliability Rule"]

2. Associated NERC Standards & NPCC Criteria

- NERC MOD-024-1 – Verification of Generator Gross and Net Real Power Capability
- NERC MOD-025-1 – Verification of Generator Gross and Net Reactive Power Capability
- NERC TOP-002-3 – Operations Planning
- NPCC Directory #9 – Verification of Generator Gross and Net Real Power Capability
- NPCC Directory #10 - Verification of Generator Gross and Net Reactive Power Capability

3. Applicability

3.1 NYISO

3.2 Generation Owners

B. Requirements

C-RR1/R1: [Same as C-M1]

The NYISO shall establish and maintain procedures for *resource capacity* data verification testing or demonstration for all equipment utilized for providing installed capacity and reactive power capacity to the NYCA.

The data to be provided to the NYISO shall include resource net dependable capacity for all resources that are participating in the NYISO installed capacity market, and reactive power capacity for all resources that are voltage support ancillary service providers. The procedures shall include requirements for resource providers to provide to the NYISO the net MW at the time of the DMNC test, and the net MW and gross MVAR quantities taken simultaneously at the time of the reactive power capability test. These reactive power tests shall be undertaken for both leading and lagging reactive power operation.

NYISO procedures shall further require that generation equipment owners perform leading reactive power tests once every three calendar years and lagging reactive power tests once every calendar year for all generators that are voltage support ancillary service providers. These tests shall verify the maximum reactive power capacity offered into the voltage support service program. The AVR shall be in service at all times during the test. The resource capacity test results reported to the NYISO shall include the actual test date(s) for each generator and the MW output at the time of the test.

In addition, NYISO procedures shall include a requirement that, following leading reactive power testing, each generation equipment owner shall provide a certification to the NYISO that the data submitted for the leading reactive power test accurately demonstrates the maximum leading reactive power of the generator at the time of the test.

The NYISO shall provide dependable net capacity and gross reactive power capacity data to the operating function of the Transmission Owner that the resource connects to, within 60 calendar days following the close of the seasonal capability period or annual test period, respectively. Documentation of the NYISO procedures and verification results shall be provided to the NYSRC upon request.

C-RR1/R2: [Same as C-M2]

Owners of resources responsible for providing *ICAP* shall seasonally verify the net dependable capacity of their equipment and report these results to the NYISO in accordance with NYISO procedures and schedules as required in Measurement C-M1.

C-RR1/R3: [Same as C-M3]

Generation equipment owners shall annually perform lagging reactive power tests for all

generators that are voltage support ancillary service providers. Generation equipment owners shall perform leading reactive power tests once every three calendar years for all generators that are voltage support ancillary service providers. These tests shall verify the maximum reactive power capacity offered into the voltage support service program. Test results shall be reported to the NYISO, in accordance with NYISO procedures and schedules as required in Measurement C-M1.

C. Compliance

1. Measures

C-RR1/M1: [Same as Full Compliance statement for C-M1]

The NYISO established and maintained resource capacity verification procedures in accordance with Requirement C-RR1/R1. The schedule for the testing of generation equipment and the schedule for submission of the verification or tests to the NYISO was included in these NYISO procedures. The dependable net capacity and gross reactive capacity data was forwarded to the operating function of the Transmission Owner in accordance with time requirements specified in C-RR1/R1.

C-RR1/M2: [Same as Full Compliance statement for C-M2]

The NYISO certified that all applicable generation owners responsible for providing ICAP verified the net dependable capacity of their equipment and reported these results to the NYISO as specified by NYISO procedures and schedules under Requirement C-RR1/R1, in accordance with Requirement C-RR1/R2.

C-RR1/M3: [Same as Full Compliance statement for C-M3]

The NYISO certified that all applicable generation owners performed tests to verify the reactive power capacity for their generators, and reported these test results to the NYISO as specified by NYISO procedures and schedules under Requirement C-RR1/R1 in accordance with Requirement C-RR1/R3.

2. Levels of Non-Compliance [Same as present non-compliance statements.]

2.1 For the NYISO:

Measure C-RR1/M1

| | |
|------------------------|---|
| Non-Compliance Level 1 | Not applicable. |
| Non-Compliance Level 2 | Documentation of NYISO procedures for resource capacity equipment testing did not meet Measure C-RR1/M1 requirements in one or more areas. |
| Non-Compliance Level 3 | The NYISO did not provide capacity data to the Transmission Owners within the time requirements specified in Measure C-RR/M1. |
| Non-Compliance Level 4 | Documentation of NYISO procedures for resource capacity equipment testing in accordance with Measure C-RR1/M1 requirements were not provided. |

2.2 For Generation Owners:

Measure C-RR1/M2

| | |
|------------------------|--|
| Non-Compliance Level 1 | The NYISO certified that one generation owner did not submit complete verified dependable net capacity test results to the NYISO as required by NYISO procedures and Measure C-RR1/M2. |
| Non-Compliance Level 2 | The NYISO certified that two generation owners did not submit complete verified dependable net capacity test results to the NYISO as required by NYISO procedures and Measure C-RR1/M2. |
| Non-Compliance Level 3 | The NYISO certified that three generation owners did not submit complete verified dependable net test results to the NYISO as required by NYISO procedures and Measure C-RR1/M2. |
| Non-Compliance Level 4 | The NYISO certified that four or more generation owners did not submit complete verified dependable net capacity test results to the NYISO as required by NYISO procedures and Measure C-RR1/M2. |

Measure C-RR1/M3

| | |
|------------------------|---|
| Non-Compliance Level 1 | The NYISO certified that one or more generation owners failed to submit test results to the NYISO on schedule. |
| Non-Compliance Level 2 | The NYISO certified that generator reactive power capacity verification testing reports were incomplete in one or more areas for one or more generator owners, as specified by NYISO procedures. |
| Non-Compliance Level 3 | Not applicable. |
| Non-Compliance Level 4 | The NYISO certified that generator reactive power capacity verification tests was either not completed, or testing results not provided to the NYISO, as specified by NYISO procedures and schedules, for one or more generator owners. |

3.0 Compliance Monitoring Process [Based on NERC format.]

3.1 Compliance Monitoring Responsibility

- Review of NYISO Compliance Documentation (C-RR1/M1): RCMS
- Review of Generation Owner Compliance Documentation (C-RR1/M2 & M3): NYISO
- Review of NYISO Certification for Generation Owner Compliance (C-RR1/M2 & M3): RCMS

3.2 Compliance Documentation Reporting Frequency

- C-RR1/M1: In accordance with NYSRC Compliance Monitoring Program schedules.
- C-RR1/M2: Annually
- C-RR1/M3: Annually

3.3 Compliance Reporting Requirements

- C-RR1/M1: NYISO Self Certification. This may be supplemented, if determined by the NYSRC, by audits or other information specified by the NYSRC Compliance Monitoring Program or other requirements determined by the NYSRC.
- C-RR1/M2: NYISO Certification.
- C-RR1/M3: NYISO Certification.

D. Guidelines None

APPENDIX B

Example – NYSRC Reliability Rules Re-Formatting Plan

Reliability Rules Section F: Operation During Major Emergencies

INTRODUCTION

The NYISO develops, maintains, and implements plans to mitigate major emergencies. This section of the NYSRC Reliability Rules sets forth Reliability Rules to be used by the NYISO in the event of various types of major emergencies.

After declaration of a major emergency, any request made by the NYISO to a Market Participant dispatcher for remedial action including, but not limited to, load shedding, shall be considered an order to effect such remedial action. Normally, those orders shall be made over the hot line to the transmission owners.

A. MITIGATION OF MAJOR EMERGENCIES

1. Reliability Rule F-RR1

The NYISO shall develop, maintain, and implement plans to mitigate operating emergencies. *[New – Based on NERC EOP-001-2 Purpose Statement]*

2. Associated NERC Standards & NPCC Criteria

- NERC EOP-001-2 – Emergency Operations Planning
- NPCC Directory 2 – Emergency Operations

3. Applicability

- a. NYISO

B. Requirements *[F-R1 to F-R7 reclassified to F-RR1/R1 to F-RR1/R7]*

F-RR1/R1:

Transmission Thermal Overloads

If a transmission facility, which constitutes a part of the NYS Bulk Power System, becomes overloaded, relief measures shall be applied immediately to bring the loading within established *ratings*.

- a. When a facility becomes loaded above its *LTE rating*, but below its *STE rating*, corrective action must be taken to return the loading on the facility to its *LTE rating* or lower within fifteen (15) minutes; provided, however, that after taking corrective action, loadings on the facility are not below its *LTE rating* within five (5)

- minutes, a *major emergency* shall be declared and corrective measures taken – which may include *voltage reduction* and/or *load relief* – to return the loading on the facility to its *LTE rating* or lower within fifteen (15) minutes from the initial overload. At the NYISO’S discretion a major emergency may be declared at any time a facility becomes loaded above its *LTE rating*.
- b. When a facility becomes loaded at or above its *STE rating*, immediate corrective action which may include *voltage reduction* and/or *load shedding*, must be initiated to reduce the loading on the facility to below its *STE rating* within five (5) minutes and furthermore, to continue to reduce the loading on the facility to below its *LTE rating* within ten (10) minutes from the initial overload. If the loading is substantially above the *STE rating*, *load relief* should be considered as the initial action to be taken.
- c. After the loading on a facility has been reduced below its *LTE rating* additional corrective action, excluding further *voltage reduction* and/or *load shedding*, should be taken to reduce the loading on the facility to below its *normal rating* within thirty (30) minutes of the initial overload. In the event this cannot be accomplished, *emergency transfer criteria* shall be invoked.
- d. When a facility has been loaded for four (4) continuous hours (or such longer period as may be established by the *Rating Authority*) above its *normal rating*, but at or below its *LTE rating*, corrective action, which may include *voltage reduction* and/or *load shedding*, must be taken to return the facility to its *normal rating* within thirty (30) minutes.

Procedures shall be developed by the *NYISO* consistent with the *NYISO* tariffs that resolve transmission overloads caused by both internal and external events to the *NYS Bulk Power System*.

**F-RR1/R2:
Post-Contingency STE Rating Violations**

If a transmission facility which constitutes a part of the *NYS Bulk Power System* is being operated under *emergency transfer criteria* and becomes loaded to a level which would cause its post-contingency loading to exceed its *STE rating* and corrective action could not be taken rapidly enough to meet the requirements of this policy once the *contingency* occurs, immediate corrective action which may include *voltage reduction* and *load shedding*, must be taken to reduce the loading such that sufficient time will be available to apply corrective action following the *contingency*.

F-RR1/R3:

High or Low Voltage

Voltage control of the *NYS Bulk Power System* shall be coordinated to provide adequate voltage at all times to maintain power *transfer capability*.

When in a *major emergency* due to voltage problems, all *transmission owners* shall be notified of the condition and direct the necessary corrective actions short of *load shedding*.

If, having taken the actions above, the actual voltage at any *NYS Bulk Power System* bus remains below its pre-contingency low limit for thirty (30) minutes or declines to a level below the midpoint between the pre- and post-contingency low limits and remains there for fifteen (15) minutes, the *NYISO* shall discuss the situation with the *transmission owner(s)* to determine if corrective action could be taken following a *contingency* to prevent a system voltage collapse. If it is anticipated that adequate time will not exist to prevent a voltage collapse following a *contingency*, the *transmission owners* shall be directed to take the necessary corrective action, including *load shedding*, to maintain a minimum voltage equal to the pre-contingency low limit. If the actual voltage at any *NYS Bulk Power System* bus declines below the post-contingency low limit and is indicative of a system voltage collapse, the *NYISO* shall immediately order *load shedding* in the amount and at the locations deemed necessary to maintain a minimum voltage equal to the pre-contingency low limit.

F-RR1/R4:

Post-Contingency Voltage

Less than 5%

If the post-contingency loading of an internal New York transfer *interface* or the post-contingency flow towards New York on an inter-*control area interface* exceeds the limits associated with a voltage collapse by less than 5%, measures shall be applied immediately to bring the loading to established limits within fifteen (15) minutes. If, after taking corrective action, loadings are not below the limit within fifteen (15) minutes, a *major emergency* shall be declared and corrective measures, which may include *load relief*, shall be initiated to bring the loading to established limits within fifteen (15) minutes. If loadings are not below the limit within thirty (30) minutes from the initial overload, *load relief* measures must be instituted.

More than 5%

If the post-contingency loading of an internal New York transfer interface or the post-contingency flow towards New York of an inter-*control area interface* exceeds the limits associated with a voltage collapse by 5% or more, a major emergency shall be declared immediately and corrective measures, which may include *load relief*, shall be initiated to

bring the loading to established limits. If loadings are not below 105% of the limit within fifteen (15) minutes from the initial overload, or below the limit within thirty (30) minutes from the initial overload, *load relief* measures must be instituted.

**F-RR1/R5:
Operating Reserve Deficiency**

Emergency transfer criteria shall be invoked if necessary to provide transmission capability to deliver *operating reserve* to an area deficient in *operating reserve*. The NYISO shall notify all *transmission owners* that *emergency transfer criteria* have been invoked and *transmission owners* in the deficient area shall be prepared to return facilities to appropriate *ratings* within the prescribed time should such *ratings* be exceeded. If, after the above action, a shortage of *ten (10) minute operating reserve* or *operating reserve* still exists, the NYISO shall declare a *major emergency* and shall direct that *load relief* procedures be implemented.

**F-RR1/R6:
Stability Limit Violation**

a. Less than 5%

If the loading of an internal New York transfer *interface* or the power flow towards New York on an *inter-control area interface* exceeds the system *stability limit* by less than 5%, measures shall be applied immediately to bring the loading to established limits within fifteen (15) minutes. If, after taking corrective action, loadings are not below the stability limit within fifteen (15) minutes, a *major emergency* shall be declared and corrective measures, which may include *load relief*, shall be initiated to bring the loading to established limits within fifteen (15) minutes. If loadings are not below the *stability limit* within thirty (30) minutes from the initial overload, the *transmission owners* shall be ordered by the NYISO to institute *load relief* measures.

b. More than 5%

If the loading of an internal New York transfer *interface* or the power flow towards New York on an *inter-control area interface* exceeds the system *stability limit* by 5% or more, a *major emergency* shall be declared immediately and corrective measures, which may include *load relief*, shall be initiated to bring the loading to established limits. If loadings are not below 105% of the *stability limit* within fifteen (15) minutes from the initial overload, or below the *stability limit* within thirty (30) minutes from the initial overload, *load relief* measures must be instituted.

**F-RR1/R7:
Low Frequency**

A sustained low frequency of 59.9 Hz is an indication of major *load-generation* imbalance in which case a *major emergency* shall be declared. During a *major emergency* resulting

from a low frequency condition caused by *load-generation* imbalance within the NYCA, *load* shall be shed in accordance with a schedule previously determined.

F-RR1/R8: *[was F-M1]*

For the requirements defined in Measurements F-M1 to F-M7, the NYISO shall maintain procedures and systems that ensure that appropriate actions are taken when frequency, reserves, thermal, voltage, and/or stability limits are violated. The NYISO shall notify the NYSRC of any changes to these procedures and systems.

F-RR1/R9: *[was F-M2]*

The NYISO shall report to the NYSRC on every instance of a major emergency, as specified by F-M1 through F-M7. Included in this report shall be a description of the incident, a summary of conditions that warranted the change to a major emergency state, a summary of actions taken, and the effectiveness of those actions. A preliminary report shall be provided to the NYSRC within one week of the incident; and a final report, if requested by the NYSRC, shall be provided within one month following the incident.

F-RR1/R10: *[was F-M6]*

The NYISO shall institute a statewide *voltage reduction* test during the summer capability period of each year if statewide *voltage reduction* has not been called for during the early portion of the summer. The results of the test or actual *voltage reduction* shall be recorded and provided to the NYSRC every year.

C. Compliance

1. Measures *[Same as present Full Compliance Statements for F-M1, F-M2, and F-M6]*

F-RR1/M1

F-RR1/M2

F-RR1/M3

2. Non-Compliance Statements *[Same as present non-compliance statements for F-M1, F-M2, and F-M6]*

F-RR1/M1

F-RR1/M2

F-RR1/M3

3. Compliance Monitoring Process

a. Compliance Monitoring Responsibility

- F-RR1/M1, M2, and M3: Review of NYISO Compliance Documentation – RCMS

b. Compliance Documentation Reporting Frequency

- F-RR1/M1: In accordance with NYSRC Compliance Monitoring Program schedules.
- F-RR1/M2: As required.
- F-RR1/M3: Annually.

c. NYISO Compliance Reporting Requirements

- F-RR1/M1 NYISO Self Certification. This may be supplemented, if determined by the NYSRC, by audits or other information specified by the NYSRC Compliance Monitoring Program or other requirements determined by the NYSRC.
- F-RR1/M2: A report in accordance with F-RR1/M2 requirements.
- F-RR1/M3: Voltage reduction data

E. Guidelines – None

A. LOAD SHEDDING

1. Reliability Rule F-RR2

Following a major emergency the NYISO shall have the capability to shed load rather than risk an uncontrolled system failure. *[New]*

2. Associated NERC Standards & NPCC Criteria

- NERC EOP-003-2 – Load Shedding Plans
- NPCC Directory 2 – Emergency Operations

3. Applicability

3.1 NYISO

3.2 Transmission Owners

B. Requirements

F-RR2/R1: *[Was F-R8]*

In the event that the frequency decline is so rapid as to prevent operator action, automatic facilities shall achieve *load shedding* without regard for transmission loadings. *Load shedding* allocation procedures shall be developed which meet the requirements of the NPCC Underfrequency Load Shedding Guides.

The NYCA must be capable of shedding at least 50 percent of its *load* in ten (10) minutes or less. Insofar as practical, the first half of the *load* shed manually should not include that *load* which is part of any automatic load shedding plan.

If frequency is still declining below 58.5 Hz, all transmission systems shall take such steps as are necessary, including separating units to preserve generation, minimize damage and service interruption.

F-RR2/R2: *[Was F-M3]*

The NYISO shall maintain procedures and systems that ensure that sufficient load shedding capability exists for both manual and automatic response as required by F-RR2/R1. The NYISO must notify the NYSRC of any changes to these procedures and systems.

F-RR2/R3: *[Was F-M4]*

Each transmission owner shall report to the NYISO the amount of *load* that is expected to be shed through automatic and manual load shedding, coincident with the *peak load* of its transmission district in accordance with NYISO procedures. The NYISO shall annually report compliance of this requirement to the NYSRC.

C. Compliance

1. Full Compliance Statements *[Same as present Compliance Templates for F-M3 & F-M4]*

F-RR2/M1

F-RR2/M2

2. Non-Compliance Statements *[Same as present Compliance Templates for F-M3 & F-M4]*

F-RR2/M1

F-RR2/M2

3. Compliance Monitoring Process

3.1 Compliance Monitoring Responsibility

- F-RR2/M1: Review of NYISO Compliance Documentation – RCMS
- F-RR2/M2: Review of Market Participant Compliance Documentation – NYISO
- F-RR2/M2: Review of NYISO Certification of Generation Owner Compliance – RCMS

3.2 Compliance Documentation Reporting Frequency

- F-RR2/M1: In accordance with NYSRC Compliance Monitoring Program schedules.
- F-RR2/M2: Annually

3.3 NYISO Compliance Reporting Requirements

- F-RR1/M1: NYISO Self Certification. This may be supplemented, if determined by the NYSRC, by audits or other information specified by the NYSRC Compliance Monitoring Program or other requirements determined by the NYSRC.
- F-RR2/M2: NYISO Certification.

D. Guidelines - None