NEW YORK STATE RELIABILITY COUNCIL

2021 Reliability Compliance Program Highlights

Prepared by the Reliability Compliance Monitoring Subcommittee

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DRAFT



NYSRC 2021 Reliability Compliance Program Highlights

Introduction

This report presents the highlights of the 2021 New York State Reliability Council (NYSRC) Reliability Compliance Program, the major process used by the NYSRC to monitor the New York Independent System Operator (NYISO) compliance with the Reliability Rules¹ and related Requirements.²

The NYSRC Reliability Compliance Program is designed to measure and ensure compliance with NYSRC Reliability Rules in order to provide for a reliable bulk electric supply and delivery system in New York State. The NYSRC Reliability Compliance Monitoring Subcommittee (RCMS) manages the compliance program, which includes conducting reviews to ensure that the NYISO is in compliance with all NYSRC Reliability Rules, including those identified in the Rules as requiring actions by market participants. The NYISO has the responsibility of ensuring market participant compliance through its procedures and Tariffs`. The objective of the compliance program is to encourage compliance with the NYSRC Reliability Rules necessary to preserve the reliability of the New York Control Area.

The NYISO and market participants are responsible for complying with the reliability requirements related to the Reliability Rules. Full compliance with a reliability requirement, as defined by an associated measure, is demonstrated by evidence provided by the NYISO or a market participant. The Reliability Rules also include levels of non-compliance and a description of the compliance process associated with each measure. These compliance elements are described in detail in the Introduction to the RR&C Manual.

Compliance with the NYSRC Reliability Rules is reviewed and evaluated in accordance with NYSRC Policy 4-8, *Procedure for Monitoring Compliance with the NYSRC Reliability Rules*, at: <u>http://www.nysrc.org/policies.asp.</u>

In 2020 a three-year NYSRC compliance review plan covering the 2021-23 period, prepared by RCMS, was approved by the Executive Committee. The 2021 NYSRC Reliability Compliance Program represented the first year of this three-year compliance program.

 $^{^1}$ The reliability objective that is expected to be achieved through compliance with a set of related Requirements.

² The actions that shall be performed or outcomes that shall be achieved by the NYISO or Market Participants in order to comply with the reliability objective of an associated Reliability Rule. Requirements are material to reliability and are measurable

2021 NYSRC Reliability Compliance Program

In 2021 the NYSRC maintained a total of 92 Requirements associated with 27 Reliability Rules. The 2021 Reliability Compliance Program included 28 assessments which reviewed NYISO and market participant compliance with a total of 55 Requirements or 60% of NYSRC's Requirements.

As shown in Table 1 below, the 2021 NYSRC Reliability Compliance Program incorporated a total of 28 reliability assessments which included compliance reviews of 50 Requirements having NYISO reporting responsibility and five Requirements having market participant reporting responsibility. Table 1 also shows that the NYISO and market participants were in full compliance with all Requirements for which compliance was reviewed in the 2021 NYSRC Reliability Compliance Program.

| | Number of Compliance Assessments | Reliability Requirements Found in Full Compliance | Reliability Requirements Found in Non-Compliance |
|---------------------|--|---|--|
| NYISO | 23 ³ | 50 | 0 |
| Market Participants | 5 | 5 | 0 |
| Totals | 28 | 55 | 0 |

Table 12021 NYSRC Compliance Program Summary

In addition to compliance certification submissions, compliance with seven assessments required the NYISO to submit reports to RCMS, not including 12 monthly operations reports. The Appendix is a summary of the 2021 Reliability Compliance Program that depicts the Requirements that were assessed, related compliance milestone dates, and compliance findings.

New York Control Area Resource Adequacy Assessments

A reliability rule change was implemented in 2020 in which NYSRC Reliability Rule A.3, which previously required the NYISO to annually prepare 3-year resource adequacy assessments, was replaced by two new requirements: one requiring the NYISO to prepare an annual "Next Capability Year" resource adequacy assessment, and a second rule requiring NYISO submission of a ten-year resource adequacy assessment every two years.

³ Twelve NYISO monthly real time operating report submissions in 2021 are counted as a single assessment.

Accordingly, a ten-year 2021-30 resource adequacy assessment was conducted by the NYISO in 2020 and submitted to the NYSRC in 2021 in accordance with the NYSRC Reliability Compliance Program requirements. This assessment included information from the NYISO's 2020 Resource Needs Assessment (RNA) for study years 2024 through 2030 (year 4 through year 10) and from the NYISO's 2020 Short-Term Assessment of Reliability (STAR) Quarter 3 for the 2021 through 2025 period (with a focus on years 1 through 3). Highlights from the RNA included an analysis that showed that the "Peaker Rule"⁴ will result in annual LOLE increases starting in 2027, requiring the addition of compensatory resources. A separate "70 X 30 Scenario" examined the reliability impacts of the Climate Leadership and Community Protection Act's mandated renewable energy implementation plan for the year 2030. One of the more important findings of this analysis showed the need for a significant amount of dispatchable generating capacity in order to meet the NYSRC's IRM requirements.

To demonstrate compliance with the "Next Capability Year" resource adequacy assessment requirement, the NYISO prepared the report, *Annual Assessment of Resource Adequacy for the Capability Year 2021-22*. This assessment concluded that for existing and planned NYCA resources and a baseline forecast of peak load, NYCA IRM requirements would be met during the 2021-22 capability year period, even under an extreme high load case.

New York Control Area Transmission Planning Assessments

NYSRC Reliability Rules require that the NYISO conduct yearly NYCA area transmission reviews (ATRs). The timing of the NYISO's transmission review submissions to the NYSRC are coordinated with that of similar transmission review submissions required by NPCC. In addition to NPCC reporting requirements, the NYSRC requires the NYISO to provide supplemental information as described in the "NYSRC Procedure for NYCA Transmission Reviews."

Two transmission reviews were submitted to the NYSRC in 2021, a 2020 ATR and a 2021 ATR. The 2020 ATR, which was a comprehensive transmission review, assessed the year 2025. The 2020 ATR concluded the planned NYCA bulk power transmission facilities, as planned through year 2025, conform to the applicable NPCC and NYSRC Reliability Rules. The 2020 ATR also included extreme weather event and loss of gas supply assessments. These two assessments are particularly of interest because of NYSRC's 2022 goal to develop new reliability rules covering extreme system conditions.

⁴ In 2019, the New York State Department of Environmental Conservation adopted a regulation to limit nitrogen oxides (NOx) emissions from simple-cycle combustion turbines. This regulation is known as the "Peaker Rule."

The second transmission review submitted in 2021 was a 2021 ATR. This assessment concluded the NYCA bulk power system meets NPCC and NYSRC reliability criteria through 2026.

NYISO Compliance Documentation Submissions

The success of the NYSRC Compliance Program depends on timely and complete submissions of compliance documentation prepared by the NYISO. In 2021 all required compliance certifications and related compliance documents were submitted to RCMS by the NYISO in accordance with compliance documentation due dates, and all submissions were found to be complete.

NERC and NPCC 2021 Reliability Compliance Programs

In addition to complying with the NYSRC Rules, the NYISO must also comply with all applicable NERC standards and NPCC criteria. Compliance with NERC standards is mandatory. RCMS has oversight responsibility concerning the NYISO's compliance with these standards and criteria. NPCC has direct responsibility and authority to implement a Compliance Monitoring and Enforcement Program (CMEP) for NERC and regional standards, as well as a Compliance Criteria Enforcement Program (CCEP) for NPCC-specific reliability criteria. During 2021, as a part of the CCEP, NPCC reviewed and found the NYISO in full compliance with two NPCC directories. In addition, in December 2021, NPCC performed an on-site comprehensive Audit of the NYISO's compliance with 43 Requirements contained in 16 NERC Operations & CIP Standards

Conclusions

The following conclusions were reached by RCMS with regard to the NYSRC 2021 Reliability Compliance Program:

- 1. The NYISO staff continued to provide valued assistance during the NYSRC reliability compliance review process.
- The NYISO and market participants were in full compliance with all 55 NYSRC Requirements that were assessed by RCMS in the 2021 NYSRC Reliability Compliance Program. In addition, NPCC found the NYISO in full compliance with all NPCC criteria and NERC standards that were assessed during 2021.

3. All required NYISO compliance documentation associated with the 2021 Reliability Compliance Program was submitted to RCMS during the scheduled time period and found to be complete.

NEW YORK STATE RELIABILITY COUNCIL 2021 RELIABILITY COMPLIANCE PROGRAM

| REQUIREMENT(S) | REQUIREMENT DESCRIPTION | MEASUR E | COMPLIANCE DOCUMENTATI ON DUE 1 | DATE RECEIVED | DATE OF RCMS REVIEW | NYISO COMPLIANCE Level 2 | |
|--------------------------|--|-------------|---------------------------------------|------------------|---------------------------|--------------------------------|--|
| Resource Adequacy | Resource Adequacy | | | | | | |
| A.2: R1 | 2021 Locational Capacity Requirements | M1 | 3/25/21 | 3/25/21 | 4/1/21 | FC | |
| A.2: R2 | LSE ICAP obligations | M2* | 11/23/21 | 11/23/21 | 11/30/21 | FC | |
| A.3: R1 | 2021-22 resource adequacy assessment | M1 | 5/27/21 | 5/27/21 | 6/3/21 | FC | |
| A.3: R2 | Long term resource adequacy assessment | M2 | 1/28/21 | 1/27/21 | 2/4/21 | FC | |
| Transmission Planning | | | | | | | |
| B.1: R1 to R4 | Transmission planning criteria | M1 | 2/25/21 | 2/25/21 | 3/4/21 | FC | |
| B.2: R1 | 2020 NYCA transmission review | M1 | 2/25/21 | 2/25/21 | 3/4/21 | FC | |
| B.2: R1 | 2021 NYCA transmission review | M1 | 2/3/22 | 8/26/21 | 9/2/21 | FC | |
| B.3: R1, R2 | List of NYS BPS Facilities | M1 | 2/25/21 | 2/25/21 | 3/4/21 | FC | |
| B.4: R1 | Transmission interconnection special studies | M1 | 5/27/21 | 5/27/21 | 6/3/21 | FC | |
| Transmission Operation | | | | | | | |
| C.1 : R1, R2 | Establishing operating transfer capabilities | M1 | 3/25/21 | 3/25/21 | 4/1/21 | FC | |
| C.2: R1, R2 | Post contingency operation | M1 | 3/25/21 | 3/25/21 | 4/1/21 | FC | |
| C.3 : R1 to R.5 | Transmission outage coordination | M1 | 5/27/21 | 5/27/21 | 6/3/21 | FC | |
| C.3: R6 | TO procedures for transmission outage coordination | M2 | 5/27/21 | 5/27/21 | 6/3/21 | FC | |
| C.4 : R1 to R3 | Extreme weather and severe solar magnetic disturbance operations | M1 | 6/24/21 | 6/24/21 | 7/1/21 | FC | |
| C.5: R1, R3 | 2021 fault current assessment | M1 | 6/24/21 | 6/23/21 | 7/21/21 | FC | |
| C.5: R2 | Equipment Owner fault current assessment actions | M2* | 6/24/21 | 6/23/21 | 6/23/21 | FC | |
| C.6 : R1, R2 | Applications of the NYSRC Rules | M1 | 8/26/21 | 8/26/21 | 9/2/21 | FC | |
| C.7 : R1 | Exceptions to the NYSRC Rules | M1 | 8/26/21 | 8/26/21 | 9/2/21 | FC | |
| C.8 : R1 | Real-time operations monthly reports | M1 | Monthly | | | FC 3 | |
| Emergency Operations | | | | | | | |
| D.1: R1 to R8 | Mitigation of Major Emergencies | M1 | 8/26/21 | 8/26/21 | 9/2/21 | FC | |
| D.1 : R10 | Annual statewide voltage reduction tests | M3 | 9/30/21 | 9/30/21 | 10/7/21 | FC | |

| Appendix | | | | | | |
|---------------------------|---|-----|----------|----------|----------|----|
| Operating Reserves | | | | | | |
| E.1: R1-7 | Minimum operating reserve requirements | M1 | 9/30/21 | 9/30/21 | 10/7/21 | FC |
| System Restoration | | | | | | |
| F.1: R3 | Black Start Provider requirements | M3* | 9/30/21 | 9/30/21 | 10/7/21 | FC |
| Local Area Operation | | | | | | |
| G.2 : R6 | GO duel fuel capability testing of combined cycle units | M5* | 10/28/21 | 10/28/21 | 11/4/21 | FC |
| Modeling and Data | | | | | | |
| I.2: R3 | Generation outage statistics report | M3 | 10/28/21 | 10/28/21 | 11/4/21 | FC |
| I.2: R4.4 | SCR performance report | M4 | 10/28/21 | 10/28/21 | 11/4/21 | FC |
| I.3: R2 | Annual actual and forecast load data | M2 | 11/23/21 | 11/23/21 | 11/30/21 | FC |
| I.4: R3 | MP transmission data reporting | M3* | 11/23/21 | 11/23/21 | 11/30/21 | FC |

*Applicable to Market Participants; NYISO compliance certification is required (see Appendix 1).

Footnotes:

1. Compliance documentation due dates are generally scheduled seven days prior to RCMS meetings. Compliance documentation requirements are shown

in Appendix 1.

2. NYISO Compliance Levels

FC – Full Compliance

NC1 – Non-Compliance Level 1

NC2 – Non-Compliance Level 2

NC3 – Non-Compliance Level 3

NC4 – Non-Compliance Level 4

3. All 2021 monthly operations reports were found in Full Compliance.

Appendix

2021 "As Required" NYISO Compliance Review Reports

| Rule Requirement | Major Emergency Report Summary | Date NYISO Report Was Received | RCMS Review Date | RCMS Comments | NYISO Compliance Level |
|---------------------|---|--------------------------------------|------------------------|---------------|------------------------------|
| D.1 :R9 | On 2/10/21, a Major Emergency was | | | | |
| "The NYISO shall | declared when the power flow on Central | 2/10/21 | 3/4/21 | None | FC |
| report to the | East exceeded its voltage transfer limit by | | | | |
| NYSRC on every | 5%. This was caused by the trip of the New | | | | |
| instance of a | Scotland 345KV bus. To correct this, the | | | | |
| Major | NYISO shift supervisor started and re- | | | | |
| Emergency." | dispatched generation, placed capacitors in | | | | |
| | service, and moved PARs. | | | | |