NEW YORK STATE RELIABILITY COUNCIL

EXECUTIVE COMMITTEE REPORT

1999 - 2002

Maintaining Electric System Reliability
In New York State

March 2003

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1. Formation of the NYSRC

The formation of the New York State Reliability Council, L.L.C. (NYSRC) was approved by the Federal Energy Regulatory Commission (FERC) in 1999 as part of the comprehensive restructuring of the electricity market in New York State. Under the restructuring, a competitive wholesale electricity market was established and retail consumers were provided access to competitive electricity suppliers. The New York Power Pool (NYPP), an association of all of the transmission owning utilities in New York State, was replaced by the New York Independent System Operator (NYISO). The NYISO assumed the primary responsibility for the operation of the State's bulk power system and administration of the newly established competitive electricity market.

The NYSRC was assigned the responsibility to oversee the special and New York-specific Reliability Rules that had been developed and evolved by the NYPP and the New York State Public Service Commission (PSC) over several decades to ensure the reliability of the New York Control Area (NYCA). These special Reliability Rules were designed to address the need to protect the reliable delivery of electricity for specific electric system characteristics and demographics relative to certain areas of New York State, such as New York City. These conditions include unique circumstances and complexities related to the maintenance of reliable transmission service, and the severe consequences that would result from a power interruption in these areas.

2. NYSRC Mission

The basic mission of the NYSRC is to assist in the maintenance of system reliability in New York State. The NYSRC's mission is accomplished through the promulgation of reliability standards and the monitoring of compliance with those standards. The NYISO has the primary operational control of the New York State (NYS) Bulk Power System and is responsible for the reliable day-to-day operation of the system. Operations must, by agreement, be consistent with the reliability standards adopted by the NYSRC. The NYISO and the parties who participate in the NYISO's competitive markets (Market Participants) are also obligated to comply with the NYSRC's reliability standards. During an era of uncertainty brought about by the

major structural changes and increased competition in the electricity industry, the NYSRC plays an important role in maintaining electric system reliability in New York State**.** A reliable electric supply is crucial to the functioning of the New York State economy and the welfare of its citizens. To help support electric system reliability, the NYSRC:

- Establishes planning and operating rules (Reliability Rules) for ensuring reliable operation of the New York State Power System.
- Monitors NYISO compliance with the Reliability Rules.
- Establishes statewide installed capacity requirements.
- Maintains communication with the NYISO, other electric reliability organizations, and the PSC.

3. NYSRC Organizational Structure

The NYSRC is a not-for-profit limited liability company. It is an independent organization, which acts in accordance with the NYSRC Agreement and the NYISO/NYSRC Agreement, which were approved by FERC. The NYSRC carries out its mission in accordance with these agreements, which define its responsibilities, duties, and obligations.

The NYSRC Executive Committee manages the activities of the NYSRC. The NYSRC Executive Committee is comprised of thirteen (13) members, currently consisting of one representative from each of the six transmission owners, one representative of the wholesale sellers, one representative of the industrial and large commercial consumers, one representative of the municipal electric systems and cooperatives, and four independent members with no affiliation with any sector of the electricity industry.

Three subcommittees report to the NYSRC Executive Committee:

The **Reliability Rules Subcommittee** (RRS) manages the review, development, and modification of the NYSRC Reliability Rules to maintain or enhance the reliability of the NYS Bulk Power System, in accordance with the NYSRC and NYISO/NYSRC Agreements and the processes and procedures established by the NYSRC Executive Committee.

The **Reliability Compliance Monitoring Subcommittee** (RCMS) manages the NYSRC compliance monitoring process and procedures for measuring and documenting compliance by the NYISO and Market Participants with the Reliability Rules in accordance with the NYSRC and NYISO/NYSRC Agreements and the processes and procedures established by the NYSRC Executive Committee.

The **Installed Capacity Subcommittee** (ICS) establishes NYCA annual installed capacity requirements consistent with NYSRC Reliability Rules and Northeast Power Coordinating Council (NPCC) Standards. Such analyses are conducted in accordance with NYSRC and NYISO/NYSRC Agreements and procedures established by the NYSRC Executive Committee. The ICS performs other technical studies as specified by the NYSRC Executive Committee.

4. NYSRC Functional Responsibilities

Since its formation in 1999 the NYSRC has moved ahead with development and implementation of programs for establishing Reliability Rules, monitoring compliance with the Reliability Rules, and establishing the annual statewide installed capacity requirement.

The NYSRC documents and other information pertaining to these programs are posted on the NYSRC web site www.nysrc.org. The NYSRC welcomes comments on these programs from all interested parties. Interested parties are also invited to attend Executive Committee and subcommittee meetings.

Establishing NYSRC Reliability Rules

The NYSRC initially adopted the existing NYPP reliability rules in 1999 and has the authority to modify these rules and adopt new Reliability Rules pursuant to an open process overseen by the RRS. Since 1999 these initial Reliability Rules have been supplemented by additional Reliability Rules to address the current needs of the NYCA. The NYSRC has an open process mechanism through which comments from the NYISO, Market Participants and other interested parties on proposed new Reliability Rules or modifications of current Reliability Rules are encouraged and carefully considered. Any party may propose a new or modified Reliability Rule.

The NYSRC has in place the following documentation on its web site related to establishing Reliability Rules:

- *NYSRC Reliability Rules Manual.* This manual contains the Reliability Rules and the required actions or system performance necessary to comply with the Reliability Rules (measurements). The manual also includes the NYSRC Glossary and a cross-reference of corresponding NPCC and North American Electric Reliability Council (NERC) standards. Reliability Rules are generally more specific or stringent than corresponding NERC and NPCC Standards. The manual is updated as new and modified Reliability Rules are adopted by the NYSRC Executive Committee following an open review process.

- *Procedure for Reviewing, Developing, Modifying, and Disseminating NYSRC Reliability Rules (NYSRC Policy 1).* This document explains the NYSRC open

process for establishing the Reliability Rules. Participation in the process is open to the NYISO and all Market Participants.

- *NYSRC Web Site Draft Reliability Rule Page.* Drafts of proposed rules, along with comments on the proposed rules submitted to the NYSRC, are posted on this NYSRC web page.

Monitoring Compliance with the NYSRC Reliability Rules

A NYSRC Reliability Compliance Program has been established to monitor and measure NYISO compliance with the Reliability Rules. When noncompliance is identified by the RCMS, corrective actions and mitigation plans are developed by the NYISO to achieve compliance. In addition, the NYISO has the responsibility of monitoring Market Participant compliance with the Reliability Rules. The NYSRC Reliability Compliance Program includes reports from the NYISO on the status of Market Participant compliance/noncompliance. NYISO compliance with NERC and NPCC Standards is separately monitored by NPCC, with oversight review by the RCMS.

The NYSRC has in place the following documentation on its web site for implementing its Reliability Compliance Program:

- *Procedure for Monitoring Compliance with the NYSRC Reliability Rules (NYSRC Policy 4).* This policy describes the NYSRC procedure for monitoring compliance with the Reliability Rules. NYSRC Policy 4 includes NYSRC and NYISO responsibilities for meeting the requirements of the policy and the types of compliance reviews it covers.

- *Compliance Templates for the NYSRC Reliability Rules.* This manual contains compliance templates that are used by the NYSRC in its compliance monitoring process to review and evaluate compliance with the Reliability Rules. The compliance templates provide the requirements for achieving full compliance with the rules, in addition to factors that may contribute to noncompliance. The manual describes types of letters used to communicate with the NYISO and other entities concerning any noncompliance with the rules. The type of letter issued depends on the level of noncompliance.

- *NYSRC Reliability Compliance Program.* This is an annual program that is implemented to monitor compliance with the Reliability Rules. The NYSRC web site shows the annual compliance program, which rules are covered by the program, the review schedule, and the level of compliance/noncompliance with each rule as determined from the compliance review.

Establishing Statewide Installed Capacity Requirements

The NYSRC has the responsibility to establish an annual statewide installed capacity requirement, which determines the amount of resource capacity that must be available in the NYCA to ensure reliability. The NYSRC studies for determining the statewide capacity requirement utilize state-of-the-art computer modeling. The statewide capacity requirement is implemented by the NYISO, which determines the amount of capacity that each load serving entity (LSE) must purchase, and establishes locational installed capacity requirements to ensure that the capacity purchased can be delivered to the loads it is intended to serve.

The NYSRC has in place the following documents and computer model related to its establishment of statewide installed capacity requirements:

- *NYSRC Reliability Rules on Resource Adequacy Requirements.* The Reliability Rules specify the criteria used for establishing annual statewide installed capacity requirements, including the factors to be considered in its calculation. The Reliability Rules also specify annual reporting requirements and what the report must cover.

- *Computer Model Used for Establishing Capacity Requirements.* This reliability model is called the Multi-Area Reliability Simulation (MARS) program. This General Electric model uses a Monte Carlo simulation technique to perform probabilistic reliability studies. This model includes detailed load, generation, and transmission capacity representations of the NYCA, as well as for the four external control areas interconnected to New York.

- *Annual NYCA Installed Capacity Requirement Report.* In accordance with NYSRC requirements, the NYSRC issues this annual report that describes the results of studies for determining NYCA installed reserve margin and installed capacity requirement for the following capability year (May through April). From the information in this report, the NYISO determines the necessary installed capacity requirement for each LSE, as well as locational installed capacity requirements for New York City and Long Island, so as to meet the statewide installed capacity requirement established by the NYSRC.

5. NYSRC Initiatives

Since its formation, the NYSRC has taken numerous initiatives to further its mission of maintaining reliability of the New York Power System.

- **Developed and Implemented NYSRC Open Process For Developing NYSRC Reliability Rules**
  It was recognized soon after the formation of the NYSRC that the process by which Reliability Rules are developed needed to accommodate the new electric

market structure in New York. As a result, the NYSRC Reliability Rules development process was designed to be open and inclusive. This process is described above.

- **Developed New NYSRC Reliability Rules**
  NYSRC adopted its Initial Reliability Rules in September 1999. Those Reliability Rules were originally developed by the NYPP and PSC over many years. Following issuance of the NYSRC Initial Reliability Rules, the RRS was assigned by the NYSRC Executive Committee to review the need for additional rules recognizing the role of the newly formed NYISO and other structural changes. Following its review RRS identified the need to supplement the 39 initial rules with four new rules. In addition, it was determined that 11 of the Initial Reliability Rules needed modification. Also, 42 measurements related to the Reliability Rules (specific actions or system performance that must be met to ensure compliance with the Reliability Rules) were developed. Following open process review, these new and modified rules and measurements were approved, and together with the initial rules, were included in a completely redesigned NYSRC Reliability Rules Manual that was published in February 2002. The manual is designed to more easily accommodate new rules as they are developed.

- **Developed and Implemented NYSRC Compliance Review Process**
  In 2000 the NYSRC developed a process to monitor and measure compliance with the NYSRC Reliability Rules. This process is consistent with similar compliance review processes used by NPCC and NERC. Prior to final approval, the NYSRC compliance review process was first tested using draft rules, measurements, and compliance templates. The NYSRC Compliance Review Program was formally initiated in September 2002.

- **Developed Templates for NYSRC Compliance Review Process**
  Following testing in 2001 and open process review in early 2002, compliance templates for the Reliability Rules were issued in July 2002. As a part of the compliance review process, compliance templates are used to assist RCMS in determining whether the NYISO is in full compliance or in noncompliance with the Reliability Rules.

- **Conducted Yearly Statewide Installed Capacity Requirement Studies**
  Since its formation in 1999, the NYSRC has conducted studies annually to determine the statewide installed capacity requirement for the following year. These studies used the MARS computer model, which is described above. This model is licensed by the NYISO, which assists the NYSRC in conducting the studies. The MARS model is the most sophisticated computer program in North America for performing multi-area reliability simulation studies.

- **Reviewed Reliability Issues Associated With the Millennium Gas Pipeline Project**
  The NYSRC reviewed the potential impacts of a possible explosion of the proposed Millennium natural gas pipeline on electric system reliability in the New York City Metropolitan Area. This proposed pipeline was originally planned to be located on 28 miles of transmission line right-of-way (ROW) in Westchester County. This ROW contains four to six 345 kV transmission lines that supply much of the New York City Metropolitan Area. The NYSRC commissioned the NYISO to conduct a transmission study, results of which demonstrated that there could be significant adverse impacts on the NYS Bulk Power System and loss of load if such an event occurred. The NYSRC included the results of this study in a filing to FERC. As a result of the issues raised by the NYSRC and other parties in the FERC proceeding, the planned location of Millennium pipeline has been moved so as to reduce the risk to the NYS Bulk Power System.

- **Participated in New York State Reliability Study**
  The NYSRC participated on the steering committee coordinating the New York State Reliability Study completed by the New York State Energy Research and Development Authority (NYSERDA) in 2000, which was required by State legislation.

- **Developed and Implemented NYSRC Openness Policy**
  The NYSRC implemented an NYSRC Openness Policy (Policy 2) which allows interested parties to attend Executive Committee and Subcommittee (RRS, RCMS and ICS) meetings. Suggestions and comments from parties who have attended NYSRC meetings have been extremely helpful.

- **Urged NOx Emission Cap Waiver During Emergencies**
  The NYSRC worked with the NYISO to urge the New York Department of Environmental Conservation (DEC) to waive its NOx emissions cap requirements for limiting generation after all actions have been taken by the NYISO to relieve a system emergency, in order to avoid load shedding. As a result, the DEC agreed to waive its emissions cap requirements under such conditions.

- **Participated in NYSERDA/NYISO Gas Study**
  Because adequate gas supplies to generators is key to maintaining reliability, the NYSRC provided input to this NYSERDA-sponsored gas study, completed in 2002.

- **Participated in New York State Energy Plan Process**
  NYSRC was requested by NYSERDA to participate in the process of developing the 2002 New York State Energy Plan. During the study process NYSRC provided assistance to NYSERDA and made a number of suggestions that were adopted in the final report.

- **Reviewed Proposed NPCC/NERC Standards**
  The Reliability Rules for planning and operating the New York State Power System incorporate NPCC and NERC Standards, as well as New York-specific and local reliability rules. Accordingly, the NYSRC reviews proposed changes to these standards for the purpose of providing appropriate comments to NPCC and NERC, and modifying NYSRC Reliability Rules as necessary.

- **Participated in or Monitored Various FERC Proceedings**
  The NYSRC has participated in or monitored a number of FERC proceedings, including the following:
  - Regional Transmission Organizations (RTO) Proceeding
  - Northeast RTO Proceeding
  - Standard Market Design (SMD) Proceeding
  - Proposed Generator Information Collection Proceeding
  - Standard Generation Interconnection Requirement Proceeding

- **Participated in the Department of Energy (DOE) Notice of Inquiry on Reliability Standards**
  The NYSRC responded to the DOE's request for comments on whether to initiate a rulemaking to impose mandatory reliability standards.

6. Continuing NYSRC Efforts

Since its formation, the NYSRC has taken many steps as described above to support the maintenance of electric system reliability in New York State. However, there is much to be done.

Several developments are anticipated in 2003 that have the potential to impact reliability in New York State. These include the FERC SMD proceeding, pending federal energy legislation, and the development of new NERC reliability standards. The NYSRC will work with regulators, lawmakers, NPCC, NERC, and the NYISO to ensure that electric system reliability in New York State will continue to be maintained under these initiatives.

Also in 2003, the NYSRC will continue to review the need to establish new Reliability Rules in response to the changing competitive market, and will continue its efforts to improve the NYSRC Reliability Compliance Program to ensure compliance with the Reliability Rules.