

### NYSRC RELIABILITY RULE/NERC STANDARD CROSS-REFERENCE

NYSRC Reliability Rule Section	NYSRC Reliability Rule (Number & Description)	Corresponding NERC Standard(s) (Number & Name)	Stringency/Specificity Issues
<b>A. RESOURCE ADEQUACY</b>	A-R1. Statewide Installed Reserve Margin Requirements	None	At the present time there are no NERC Resource Adequacy Standards, but NERC is presently developing such a standard. NYSRC Rule is consistent with corresponding NPCC A-2, Section 3.
	A-R2. Load Serving Entity ICAP Requirements	None	Neither NERC nor NPCC have corresponding standards. The NYSRC Rule is required to ensure NYISO & LSEs compliance with Rule A-R1.
	A-R3. External ICAP	None	Neither NERC nor NPCC have corresponding standards. The NYSRC Rule is required to ensure NYISO & LSEs compliance with Rule A-R1.
<b>B. TRANSMISSION CAPACITY - PLANNING</b>	B-R1. Thermal Assessment	TPL-001-0. System Performance Under Normal (No Contingency) Conditions TPL-002-0. System Performance Following Loss of a Single Bulk Electric System Element TPL-003-0. System Performance Following Loss of Two or More Bulk System Elements.	This NYSRC Rule is more stringent <i>and</i> specific than corresponding NERC Standards. An example of NYSRC requirements that are more <i>stringent</i> is the additional types of design criteria contingencies that must be considered, such as failure of a circuit breaker to operate when initiated by an SPS following an SLG fault. Examples of more <i>specific</i> NYSRC requirements include provisions for cable system loadings and contingency transfers. The NYSRC Rule is consistent with and more <i>specific</i> than corresponding NPCC Standard A-2, Section 5.
	B-R2. Voltage Assessment	TPL-001-0 (see B-R1 above) TPL-002-0 (see B-R1 above) TPL-003-0 (see B-R1 above)	Same as B-R1.
	B-R3. Stability Assessment	TPL-001-0 (see B-R1 above) TPL-002-0 (see B-R1 above) TPL-003-0 (see B-R1 above)	Same as B-R1.
	B-R4. Extreme Contingency Assessment	TPL-004-0. System Performance Following Extreme Events Resulting in the Loss of Two or More Bulk Electric	This NYSRC Rule is more stringent <i>and</i> specific than corresponding NERC Standards. An example of NYSRC Requirements that are

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		System Events.	more <i>stringent</i> is the additional types of extreme contingencies than must be considered, such as loss of the fuel delivery system to multiple plants. An example of more <i>specific</i> NYSRC requirements is more detailed requirements for reporting of extreme contingency mitigation measures. The NYSRC Rule is consistent with NPCC Standard A-2, Section 5.
	B-R5. Restoration	None.	NYSRC requirement to consider ease of system restoration in expansion plans. NERC and NPCC do not have corresponding standards.
	B-R6. List of Bulk Power System Facilities	None.	NYSRC requirement for maintaining a list of NYS Bulk Power System facilities. NERC and NPCC do not have corresponding standards.
	B-R7. Fault Current Assessment	None.	NYSRC requirement for fault duty levels of planned system to be within equipment ratings. NERC does not have corresponding standards. The NYSRC Rule is consistent with NPCC Standard A-2, Section 5.
<b>C. RESOURCE, SYSTEM &amp; DEMAND DATA REQUIREMENTS</b>	C-R1. Verification Testing of Resource Capacity	None.	NERC is currently developing corresponding standards.
	C-R2. Resource Availability Requirements	None.	
	C-R3. Load Forecasting	MOD-016-0. Actual and Forecast Demands, Net Energy for Load, Controllable DSM MOD-017-0. Aggregated Actual and Forecast Demands and Net Energy for Load	This NYSRC Rule is more specific than corresponding NERC standards. For example, load data is required for NYCA transmission districts and zones, and requires forecasts over a specific time period.
	C-R4. System Data Requirements	FAC-005-0. Electrical Facility Ratings for System Modeling MOD-010-0. Steady State Data for Transmission System Modeling and	The NYSRC Rule is more specific than the corresponding NERC Standards in that it specifies the requirement for load flow, short-circuit, and stability data bases; and that they be

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		Simulation MOD-012-0. Dynamics Data for Transmission System Modeling and Simulation	updated on an annual basis or whenever system changes warrant.
<b>D. OPERATING RESERVES</b>	D-R1. Operating Resource Adequacy	BAL-002-0. Disturbance Control Performance	This NYSRC rule is more specific than the NERC standard in that it specifies scheduled outage requirements and requires procedures for maintaining minimum operating reserve levels. The NYSRC Rule is more specific than corresponding NPCC A-2 & A-6.
	D-R2. Minimum Operating Reserve Requirement	BAL-002-0. (See D-R1 above)	This NYSRC rule is more specific than the NERC standard in that it specifies minimum 10 minute and 30-minute reserve requirements. The NYSRC Rule is more specific than corresponding NPCC A-6.
	D-R3. Availability and Category	BAL-002-0. (See D-R1 above)	This NYSRC rule is more specific than the NERC standard in that it specifies the permissible mix between synchronized and non-synchronized reserves. The NYSRC Rule is more specific than corresponding NPCC A-6.
	D-R4. Restoration of Ten (10) Minute Reserves	BAL-002-0. (See D-R1 above)	This NYSRC standard is more stringent than the NERC standard because it requires the restoration of 10-minute reserve within 30 minutes. The NYSRC Rule is more specific than corresponding NPCC A-6.
<b>E. TRANSMISSION CAPABILITY - OPERATING</b>	E-R1. Thermal Assessment	TOP-004-0. Transmission Operations	This NYSRC Rule is more stringent than the NERC standards because the NYSRC Rules provide requirements for establishing operating transmission limits based on thermal, voltage, and stability assessments for ensuring that specified contingencies, including multiple contingencies, will be withstood. Present NERC standards only require assessment of the most severe single contingency and only those multiple contingencies specified by the Regions. NERC is presently developing new

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			standards that are more specific than existing NERC standards, but remain less stringent than NYSRC Rules. The NYSRC Rule is more specific than corresponding NPCC A-2.
	E-R2. Voltage Assessment	TOP-004-0	See E-R1.
	E-R3. Stability Assessment	TOP-004-0.	See E-R1.
	E-R4. Post-Contingency Operation	IRO-004-0. Reliability Coordination – Operations Planning TOP-004-0.	The NYSRC Rule is more specific than the corresponding NERC Standards. The NYSRC Rule is more specific than corresponding NPCC A-2.
	E-R5. Outage Coordination	TOP-003-0. Planned Outage Coordination	The NYSRC Rule is more specific than the NERC standard in that it provides adjustments that shall be made to accommodate the impact of protection group outages. The NYSRC Rule is more specific than corresponding NPCC A-2.
	E-R6. Operation During Impending Severe Weather	None.	The NYSRC Rule is more specific than corresponding NPCC A-2.
	E-R7. Operation During a Severe Solar Magnetic Disturbance	None.	
	E-R8. Fault Current Assessment	None.	
<b>F. OPERATION DURING MAJOR EMERGENCIES</b>	F-R1. Transmission Thermal Overloads	EOP-001-0. Emergency Operations Planning EOP-002-0. Capacity and Energy Emergencies	The NYSRC Rule is more specific than the NERC standards in that the rule provides specific relief measures that must be applied in the event of a particular type of major emergency. The NYSRC Rule is more specific than corresponding NPCC A-3.
	F-R2. Post-Contingency STE Rating Violations	EOP-001-0. EOP-002-0.	See F-R1.
	F-R3. High or Low Voltage	EOP-001-0. EOP-002-0.	See F-R1.
	F-R4. Post-Contingency Voltage	EOP-001-0. EOP-002-0.	See F-R1.
	F-R5. Operating Reserve Deficiency	EOP-001-0 EOP-002-0.	See F-R1.
	F-R6. Stability Limit Violation	EOP-001-0. EOP-002-1.	See F-R1.

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	F-R7. Low Frequency	EOP-001-0. EOP-002-0.	See F-R1.
	F-R8. Load Shedding Allocation	EOP-003-0. Load Shedding Plans	The NYSRC Rule is more specific than the NERC Standard because it provides specific load shedding requirements. The NYSRC Rule is more specific than corresponding NPCC A-3.
<b>G. SYSTEM RESTORATION</b>	G-R1. Emergency Restoration Procedures	EOP-005-0. System Restoration Plans EOP-006-0. Reliability Coordination – System Restoration	Depends on the specifics to be included in the PRR #76, which provides major modifications of this NYSRC rule.
	G-R2. Blackstart Resources	EOP-007-0. Establish, Maintain, and Document a Regional Blackstart Capability Plan EOP-009-0. Documentation of Blackstart Generating Unit Test Results	See G-R1
	G-R3. Restoration Training and Simulation Programs	EOP-005-0. System Restoration Plans PER-002-0. Operating Personnel Training	See G-R1
<b>H. SYSTEM PROTECTION</b>	H-R1. Bulk Power System Protection	PRC-001-0. System Protection Coordination PRC-003-0. Procedure for Transmission Protection System Misoperations PRC-004-0. Analysis and Reporting of Transmission System Misoperations PRC-006-0. Development and Documentation of Regional UFLS Programs PRC-007-0. Assuring Consistency with Regional IFLS Programs PRC-009-0. UFLS Performance Following an Underfrequency Event PRC-010-0. Assessment of the Design and Effectiveness of UVLS Program	The NYSRC rule meets the requirements of, and is consistent with, NPCC A-5, <i>Bulk Power System Protection Criteria</i> . The requirements of A-5 are more specific and stringent than the requirements of the corresponding NERC Standards.
	H-R2. Bulk Power System Protection Maintenance	PRC-005-0. Transmission Protection System Maintenance and Testing PRC-008-0. Underfrequency Load Shedding Equipment Maintenance Programs	The NYSRC rule meets the requirements of, and is consistent with, NPCC A-4, <i>Maintenance Criteria for Bulk Power System Protection</i> . The requirements of A-4 are more specific and stringent than the requirements of the

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		PRC-011-0. UVLS System Maintenance and Testing	corresponding NERC Standards.
<b>I. LOCAL RELIABILITY RULES</b>	I-R1. Operating Reserves/Unit Commitment (New York City)	None.	
	I-R2. Locational Reserves (New York City)	None.	
	I-R3. Loss of Generator Gas Supply (New York City & Long Island)	None.	
	I-R4. Thunderstorm Watch (New York City)	None.	
<b>J. NYISO CONTROL CENTER COMMUNICATIONS</b>	J-R1. NYISO/Market Participant Communications	COM-001-0. Telecommunications COM-002-0. Communications and Coordination	This NYSRC rule is more stringent in that it requires communications procedures, and recognizes the requirement for emergency hot lines and red phones during off-normal conditions.
	J-R2. NYISO Communications Under Emergency Conditions	COM-001-0. Telecommunications COM-002-0. Communications and Coordination	This NYSRC rule is more stringent in that it requires performance reports and reporting of losses of communication systems to the NYSRC.
<b>K. RELIABILITY ASSESSMENT</b>	K-R1. NYISO Manuals	None.	
	K-R2. Reliability Assessments	None.	