Request to Develop or Modify Reliability Rules and Requirements (NYSRC Policy No. 1-11)
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Item	Information
1. PRR No. & Title of Reliability Rule or Requirement change	PRR 146 - B.1: Transmission System Planning Performance Requirements
2. Rule Change Requester Information	
Name	RRS
Organization	
3. New rule or revision to existing rule?	**Revision to B.1**
4. Need for rule change, including advantages and disadvantages	Studies associated with the interconnection of dynamically active transmission devices have been included in the NYISO's interconnection process and periodic transmission planning/operating studies on an ad-hoc basis. Based on the proliferation of inverter based resources, as well as applications of active series/shunt compensation and HVDC connections to the NYCA system, it is proposed to include a requirement for special studies in the NYSRC Reliability Rules.
5. Related NYSRC rules	**1. B.2: Transmission System Planning Assessments** **2. NYSRC Procedure for New York Control Area Transmission Reviews** **3. I.4: Transmission Data**
6. Section A – Reliability Rule Elements	
1. Reliability Rule	Transmission facilities in the NYS Bulk Power System shall be planned to operate reliably over a broad spectrum of system conditions and following a wide range of contingencies.
2. Associated NERC & NPCC Standards, Criteria & Guidelines	NPCC: Directory 1 NPCC: NPCC Guidance Document – Approaches to Preserve System Resilience & Reliability for a High DER Penetration Future. August 2019 NERC: Reliability Guidelines: Improvements to Interconnection Requirements for BPS-Connected Inverter Based Resources. September 2019
3. Applicability	NYISO
7. Section B – Requirements	
Requirements	B. Requirements R1. Transmission facilities in the NYS Bulk Power System shall be planned to meet the respective performance requirements in Table B-1 and supplemental performance requirements in Table B-2 for the contingency events as specified in Table B-1. R1.1. Credible combinations of system conditions which stress the system shall be modeled, including load forecast, internal NYCA and inter-Area and transfers, transmission configuration, active and reactive resources, generation availability, and other dispatch scenarios. All reclosing facilities shall be assumed in service unless it is known that such facilities will be rendered inoperative. R2. The impact of the extreme contingency events listed in Table B-3 shall be assessed. R3. Extreme System Conditions, events that have a low probability of occurrence, shall be assessed, one condition at a time, to determine the impact of these conditions on expected

	steady-state and dynamic system performance. These assessments shall provide an indication of system robustness or the extent of a widespread adverse system response. The conditions to be assessed are listed in the "Extreme System Conditions" category in Table B-3. R4. Fault duty levels shall be planned to be within appropriate equipment ratings. Fault duty levels shall be determined with all generation and all transmission facilities in service. R4.1 Determination of fault duty levels shall be with due regard to fault current limiting series reactor protocols. R5. *Special Studies shall be performed for the interconnection of dynamically active technologies to the NYS Bulk Power System. Dynamically active technologies include: inverter based resources (IBR), as well as applications of series and shunt compensation, and HVDC interconnections. These special studies shall include:* • *Voltage and frequency performance studies of IBR interconnections to ensure compliance with IEEE 1547, IEEE-P2800 & NERC PRC-024-2 standards.* • *Electro-Magnetic Transients (EMT) studies to validate manufacturer's Inverter based equipment models for use in planning studies.* • *Electro-Magnetic Transients (EMT) studies to determine potential harmonic control interactions with other equipment.* • *Sub-Synchronous Resonance (SSR) study to determine potential torsional interaction and shaft stresses in nearby generators caused by series compensation.*
8. Section C – Compliance Elements	
1. Measures	
2. Levels of Non-Compliance	
3. Compliance Monitoring Process (See Policy 4):	
3.1 Compliance Monitoring Responsibility	
3.2 Reporting Frequency	
3.3 Compliance Reporting Requirements	
9. Comments	
10. Date Rule Adopted	
11. PRR Revision Dates	8/27/19, 10/24/19