



**Manual 20**

# **System Restoration Manual**

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## **2.2 Transmission Owner System Restoration Procedures**

Transmission Owners within the NYISO's Reliability Coordinator Area shall maintain local system restoration plans (SRPs) for their transmission districts consistent with NYSRC, NPCC, and NERC standards. These restoration procedures shall be coordinated with the restoration procedures of neighboring TOs. The TOs must maintain current copies of these procedures at the NYISO.

Procedures and protocols for off-site power requirements of nuclear power plants, including priority of restoration, are described in Nuclear Plant Interface Requirement (NPIR) documents maintained by the local transmission owners and the interconnected nuclear power plant.

### **3.1.2 Transmission Owner Black Start Service Resources**

Transmission Owners within the NYISO's Reliability Coordinator Area are responsible for determining the need and adequacy of Black Start Facilities to meet the requirements of their local restoration procedure. The TO restoration procedure shall include identification of any Black Start Facilities and the characteristics of such units, including but not limited to the following: the name of the Black Start Facility, location, megawatt and megavar capacity, and type of unit. The identity of TO Black Start Facilities shall be made available to the NYISO and to affected TOs. Transmission Owners are responsible for procuring any required local Black Start Resources.

## **5.2 Transmission Owner Procedure Review, Verification, Update, and Distribution**

### **5.2.1 Transmission Owner Procedure Review**

The TOs shall review their local restoration procedures annually and prior to implementing any planned system modification that could affect the coordination of the NYISO and TO restoration procedures. These reviews shall evaluate the impact of procedure changes, system expansion, or system reconfiguration.

### **5.2.2 Transmission Owner Procedure Verification**

Each TO shall verify through analysis of actual events, steady state and dynamic simulations, or testing that its restoration procedure accomplishes its intended function. This shall be completed every five years at a minimum. Such analysis, simulations, or testing shall verify:

- The capability of Black Start Facilities or ties from neighboring systems to meet the Real and Reactive Power requirements of the Cranking Paths and the dynamic capability to supply initial Loads,
- The location and magnitude of Loads required to control voltages and frequency within acceptable operating limits, and
- The capability of generating resources required to control voltages and frequency within acceptable operating limits.

Following an event where the system restoration procedure was invoked, TOs shall analyze and report on the performance of their restoration procedures.

### **5.2.3 Transmission Owner Procedure Update**

The TOs shall update their restoration procedures within 90 calendar days after identifying any unplanned permanent System modifications. The TOs shall update their restoration procedures prior to

implementing a planned BES modification that would change the implementation of their restoration procedures. In the event of any proposed changes to TO facilities or procedures that could affect the coordination of the NYISO and TO restoration procedures, the TOs shall provide notification at least two months prior to implementation.

#### **5.2.4 Transmission Owner Procedure Distribution**

Each TO shall distribute its most recent restoration procedure to the NYISO within 30 calendar days of creation or revision. The TO shall provide the entities identified in its approved restoration procedure with a description of any changes to their roles and specific tasks prior to the implementation date of the procedure.

## **6.2 Transmission Owner Restoration Training**

Each TO shall provide for training of operating personnel for the effective implementation of the NYCA SRP in the following areas:

- Annual restoration training for its operating personnel on the local system restoration procedure
- A minimum of two hours of System restoration training every two calendar years to its field switching personnel identified as performing unique tasks associated with the TO's restoration procedure that are outside of their normal tasks.

Each TO shall participate in NYISO restoration drills, exercises, or simulations as requested by the NYISO.

The TOs shall maintain training program records showing that operating personnel have been trained in the implementation of the local system restoration procedure. These records shall be made available to the NYISO upon request.