NEW YORK INDEPENDENT SYSTEM OPERATOR

MANUAL 15

Emergency Operations Manual

November 2016

If, after the above action a shortage of 10-Minute Reserve still exists, the NYISO shall declare a Major Emergency and shall direct that Load Relief procedures be implemented as follows:

a. Direct the TOs to implement Quick Response Voltage Reduction up to 5%.
b. If NYISO resources are still less than NYCA Load, request other Reliability Coordinators to go into Voltage Reduction and obtain Emergency Energy from them to avoid Load Shedding
c. If further load curtailment is required, refer to section 4 of this Manual.
d. If NYISO resources still do not match NYCA load, refer to section 4 of this Manual.

3. The NYISO will reduce voltage to the extent transmission limitations permit, for neighboring Reliability Coordinators already in Voltage Reduction, to assist in preventing the neighboring Reliability Coordinator from interrupting firm customer load.
4. When implementation of Load Relief measures is indicated the NYISO shall have the authority to order 5% Quick Response Voltage Reduction in those areas where such action will reduce transmission overloads or transient stability transfer limit exceedances.

Authority

The NYISO has the responsibility for administering the Voltage Reduction policy and the NYISO has the authority to direct the actions required as set forth above.

Internal loads may be curtailed under the NYISO Major Emergency State to solve a transmission security exceedance.

7.3 Load Shedding

It is the responsibility of all TOs to shed load as ordered by the NYISO to assist other TOs. A TO is responsible for Load Shedding within the geographic area of its Transmission District in the following ratio:

Load Shedding Ratio $\dfrac{\text{Estimated Peak Load in Transmission District for Capability Period}}{\text{Sum of Transmission Owners Estimated Peak Loads for Capability Period}}$

See Attachment C for Load Shedding allocation by a TO for the following situations:

- Load reduction by the entire NYCA (Table C.2)
- Load reduction to relieve specific transmission interfaces (Table C.3)

Each Area must be capable of carrying out the following Load Shedding capabilities:

- Based on UFLS Implementation Plan for the Eastern Interconnection Portion of NPCC as defined in Attachment A.
- Load Shedding of at least 50 percent of its load in 10 minutes or less. Insofar as practical, the first half of the Load shed manually should not include any load that is part of any automatic Load Shedding plan

The New York Power Authority (NYPA) loads are largely wholesale deliveries to other TOs and reduction of such deliverables is not appropriate. Other NYPA loads are supplied by wheeling power over the transmission facilities of other TOs. The NYPA agrees that these wheeled loads may be included in the Load Shedding plans of the wheeling TO on the same basis that the TO applies to its own loads. The NYPA has ad hoc arrangements with its directly served principal industrial customers to reduce load under certain conditions. Such reduction, to the extent that it alleviates an Emergency condition, probably is implemented before widespread reduction of other loads.

NYISO Actions

The NYISO shall perform the following:

1. Order the appropriate TO(s) to shed load, using the Emergency Hot Line System.
2. Order the appropriate TO(s) to shed load and specify the amount of load to be shed.
3. Activate the Load Shed Alarm System for the corresponding TO(s).

7.4 Load Shedding During System Restoration

For all system conditions except system restoration, the existing protocol is to shed load as a percentage of TO peak load to NYCA load, as defined in this Manual, section 7.3, "Load Shedding." During system restoration, the distribution of system load may not be as defined by peak load conditions.

During system restoration, the NYISO shall determine the existing load in each TO area. This load distribution should be used to determine the appropriate Load Shedding allocation to each TO based on their current load. The preferred method is to use the Load Shed Ratio listed below.

Load Shed Ratio during Restoration:

$$= \frac{\text{Existing Load in The Transmission District}}{\text{Sum of Transmission Owners Existing Load}}$$

7.5 Load Shed Alarm System

This section describes the NYISO Load Shed Alarm System and the procedures for testing it. The Load Shed Alarm System reinforces any verbal order to shed load and alerts operating personnel at the TO Energy Control Centers that an order to shed load has been given to the TO. The Load Shed Alarm System is designed to meet the recommendations of the NYS PSC and the Task Force Report on the System Disturbance of July 13, 1977.

7.5.1 Operating the Load Shed Alarm System

The Load Shed Alarm System operates a flashing strobe light in each TO Energy Control Center. The NYISO activates the Load Shed Alarm System for a TO by executing on the poke point associated with the TO’s display. When the NYISO activates the Load Shed Alarm System for a TO, the following events occur: