
Subject: ISO and Transmission Owner Target Voltage Level Program

This Technical Bulletin identifies ISO and New York Transmission Owner (TO) efforts to maintain certain station voltages (see table below) to specified target levels to minimize NYS transmission system losses.

Background:

The ISO has historically maintained operating voltages only to meet reliability based limits. It has been determined that ISO and Transmission Owner operating procedures for controlling NYS transmission system capacitors, transformers, and generating unit reactive resources could be modified to aid in transmission system loss reductions

Accordingly, as part of these operating procedures, the ISO and Transmission Owners have established a set of target voltage levels that will result in a higher operating voltage profile of the NYS transmission system. Operation of the NYS transmission system to the target voltage levels complements existing ISO and Transmission Owner reliability practices. The target voltage levels include a desirable range between the target voltage and the pre-contingency high limit in order to minimize the need for frequent and inefficient transmission system capacitor and transformer tap switching.

The ISO and Transmission Owners responsibilities for operating the system to the target voltages, as well as maintaining the set of target voltages, will be incorporated into the appropriate NYISO Operating Manuals.

This Technical Bulletin documents and formalizes existing practices associated with NYS Transmission System voltage monitoring and control. The intent is to raise awareness of Appendix A2 bus voltages for the purpose of improving the NYS Transmission System voltage profile for loss minimization. Opportunities to operate within target voltage range, and control actions necessary to achieve or maintain voltages within the target voltage range are to be evaluated and coordinated by NYISO and TO. [This TB is not intended to compromise the voltage profile of the underlying transmission and distribution systems to support the NYS Transmission System voltage profile.

- The ISO, in agreement with the Transmission Owners, will develop, review and maintain a set of agreed-upon target voltages for the NYS transmission system stations listed in Appendix A2 of the Transmission and Dispatch Manual.
 - These target voltages represent the expected voltage level that the ISO and Transmission Owners will reasonably attempt to maintain in order to reduce system losses.
 - These target voltage levels do not replace the existing reliability based limits defined in Appendix A2 of the Transmission and Dispatching Manual which address secure operation of the NYS Transmission System.
- Communication between the ISO and the Transmission Owners to determine control actions will occur as necessary to maintain actual NYS transmission system station voltages within an expected range of the target voltage levels.
 - It is recognized that target voltages may not be achievable at all times; however the ISO and Transmission Owners will work to maintain actual station voltages as close to the target levels as possible.

The purpose of this "Technical Bulletin" is to facilitate participation in the NYISO by communicating various NYISO concepts, techniques, and processes to Market Participants before they can be formally documented in a NYISO manual. The information contained in this bulletin is subject to change as a result of a revision to the ISO Tariffs or a subsequent filed tariff with the FERC.

Voltage Operating Limits and Target Voltage Values

Bus Name	Bus Voltage	Target Voltage	Pre Low	Pre High	Post Low	Post High	Set By
Bowline	345	358	345	362	328	362	OR
Buchanan	345	358	346	362	328	380	CE
Clay	345	353	345	362	328	362	NM
Coopers Corners	345	356	338	362	328	380	NY
Dunwoodie	345	358	346	362	328	380	CE
Edic	345	354	347	362	328	362	NM
Farragut	345	356	338	362	328	380	CE
Fraser	345	356	338	362	328	380	NY
Gardenville	230	236	217	242	207	242	NY
Gilboa	345	356	348	362	328	362	PA
Goethals	345	357	338	362	328	380	CE
Gowanus	345	356	338	362	328	380	CE
Ladentown	345	358	346	362	328	380	CE
Leeds	345	355	345	362	328	372	NM
Marcy	345	355	348	362	328	380	PA
Millwood	345	356	338	362	328	380	CE
New Scotland	345	355	348	362	328	362	NM
Niagara	230	238	225	242	219	242	PA
Niagara	345	356	338	362	328	362	PA
Northport	138	142	135	145	131	145	LI
Oakdale	345	353	336	362	320	380	NY
Pannell Road	345	355	Table A.3	359	328	362	RG
Pleasant Valley	345	357	343	362	328	380	CE
Rainey	345	357	338	362	328	380	CE
Ramapo	345	357	346	362	328	380	CE
Ramapo	500	532	500	550	500	575	CE
Rock Tavern	345	357	348	362	328	362	CH
Roseton	345	359	345	362	328	362	CH
Somerset	345	356	338	362	328	380	NY
Sprainbrook	345	358	346	362	328	380	CE
Station 80	345	355	Table A.3	359	328	362	RG
St. Lawrence	230	235	225	242	219	242	PA
Watercure	230	230	215	242	207	242	NY

The NYISO anticipates that this Technical Bulletin will be incorporated into the Transmission & Dispatching Operations Manual during its next available recertification period.