

Subject: Target Voltage Levels

This Technical Bulletin addresses the Transmission Owners and NYISO response to the New York State Department of Public Service Case 08-E-0751- *Proceeding on Motion of the Commission to Identify the Sources of Electric System Losses and the Means of Reducing Them*

BACKGROUND:

On June 23, 2008 the New York State Department of Public Service as part of its Order *Establishing Energy Efficiency Portfolio Standard and Approving Programs* Case 07-M-0548 charged the Transmission Owners to investigate methods to reduce system losses and/or optimize system operations. The Order also directs Staff to “work with the New York Independent System Operator (ISO) and the transmission owners to examine the potential loss reduction that could result from utilizing Optimal Power Flow technology in dispatching the bulk electric system in New York.” To clarify this Order the Commission directs Staff, the ISO, and the transmission owners to explain the pros and cons of OPF technology and identify and describe, in detail, existing technology other than OPF that might aid in loss reductions on the bulk electric system. In response to this Order analysis was done to identify the optimal voltage profile of the A2 Appendix bus voltages. These voltages represent the profile that will minimize system losses while maintaining reliability standards.

DETAILS:

- The New York ISO developed and the Transmission Owners approved target voltages for all of the bus voltages listed on the A2 Appendix of the Transmission and Dispatch Manual.
- These target voltages represent the voltage level that the NYISO and Transmission Owner operators will attempt to keep the A2 voltages above in order to reduce system losses.
- Communication between the NYISO and the Transmission Owners to devise control actions to maximize the voltage profile will occur. These control actions will be implemented in order to provide the

highest possible voltage profile over the NYISO transmission system as well as the underlying distribution system.

- These target voltages do not supersede the existing voltage limits which represent a voltage profile which secures the NYS Transmission System.
- The NYISO will not change system state based upon these target voltage levels.
- It is possible that all target voltages will not be met all the time, however the NYISO and Transmission Owner operators will work together to optimize as many of the A2 Appendix voltages as possible, striving for the highest voltage profile on both the transmission system as well as the distribution system.
- These target voltages and the language providing operating guidance will be incorporated into the appropriate NYISO Operating Manuals in cooperation with the Transmission Owners.