



HQTE-NYISO Cedars – Dennison Interface Transfer Limit

A Report by the
New York Independent System Operator

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Introduction

The expansion of Cedar Rapids Transmission (CRT) Intertie into the Dennison substation (“the CRT-Dennison Interface”) project involving the reconducting of a three-mile-long Niagara Mohawk Power Corp and National Grid (“NM-NG” or “National Grid”) 115 kV Alcoa – Dennison #12 line and installation of 25MVAR capacitor bank at the Dennison substation (project Q430 in the NYISO’s interconnection queue). Post energization of this project, at the request of H.Q. Energy Services (U.S.) Inc., NYISO studied the CRT-Dennison interface export limit, which is the transfer capability of the CRT–Dennison interface towards Canada. The CD-1 and CD-2 lines between the international border and the Dennison substation are owned by Alcoa Power Generation Inc. (“APGI”).

Background

The CRT-Dennison Interface export limit is subject to Presidential Permit 24 (PP24) granted to APGI-owned facilities. U.S. Department of Energy export permits that address exports to Canada over the PP24 facilities currently limit exports to 100 MW.

System Representation

The representation for the Summer 2024 Operating Study case was developed from the NYISO Data Bank and assumes the forecast summer coincident peak load of 31,541 MW. The other NPCC Balancing Areas and adjacent Regional representations were obtained from the RFC-NPCC Summer 2024 Reliability Assessment power flow base case and have been updated to reflect the Summer 2024 capability period. The base case model includes:

- The NYISO Transmission Operator area
- All Transmission Operator areas contiguous with NYISO
- All system elements modeled as in-service
- All generation represented
- Phase shifters in the regulating mode in accordance with the NYISO Available Transfer Capability Implementation Document (ATCID)
- The NYISO Load Forecast
- Transmission Facility additions and retirements
- Generation Facility additions and retirements
- Remedial Action Scheme (RAS) models where currently existing or projected for implementation within the studied time horizon.

- Series compensation for each line at the expected operating level unless specified otherwise in the ATCID.
- Facility Ratings as provided by the Transmission Owner and Generator Owner

Study Methodology

“Methodology for Establishing System Operating Limits for the Operations Horizon”, provide the documented methodology for use in developing System Operating Limits (SOLs) within the NYISO Reliability Coordinator Area. This methodology follows applicable NYSRC Reliability Rules, North American Electric Reliability Corporation (NERC) Standards and Northeast Power Coordinating Council (NPCC) Criteria. NYSRC Rule C.1, Tables C-1 and C-2 address the contingencies to be evaluated and the performance requirements to be applied.

Generation in the source and sink zones was increased uniformly for a select few generation resources and will be scaled to determine the thermal transfer limit over the CRT – Dennison interface. Nuclear, wind, and run-of-river hydro units are excluded from generation shifts.

Recommendations

Post CRT project and necessary upgrades to the Special Protection Scheme and Cedars Generation Scheme, NYISO recommends the export limit on CRT – Dennison interface to be increased to 200 MW for the summer operating period and 225 MW for the winter operating period.