

Transmission Adequacy Study

Scope of Work Northeast Coordinated System Plan

IPSAC06

June 27, 2008

Background: IPSAC05

- Transmission security and adequacy studies have been well coordinated
 - NPCC Area Reviews
 - Other NPCC and NERC studies
 - JIPC studies
- Further work is necessary to confirm future transmission limits for resource adequacy studies and production analysis studies
- Proactive interregional transmission studies are necessary to more economically expand the transmission system to the benefit of multiple regions

Drivers for Northern NY and Vermont

- Transmission limitations in New York
 - Central East
 - Hudson Valley area
- Loss of source contingencies in New England are limited by Central East
- A long-range plan is under development for Vermont to meet load growth
- Plans for wind generation interconnections in New York's North Country

Proposed Scope of Work

- Assumptions to be consistent with NY and NE regional system plans
 - Study 2012 and 2018 timeframes
- Complete transmission assessment analysis
- Identify need for improvements based on transmission adequacy performance
- Consider upgrade of PV-20 in conjunction with Burlington and Northwest Vermont
 - Expected to increase Central East limit by
 - Pushing more power across the interface towards New England
 - Offloading the limiting Utica-Albany portion of Central-East

Initial Results

- Additional 300 MW of transfer is achieved thanks to inclusion of PV-20

Drivers for Southern NY and Connecticut

- Major load center in Southeast New York and Southwest Connecticut
- Transmission limitations from Westchester to NYC
- Hudson Valley transmission limitations
- New York – PJM transfer limitations
- N-1-1 limits in Connecticut
 - Combination of 345 kV transmission circuits into Connecticut and Millstone generating unit
- North – South Transmission limitations in New England
- Loss of source contingencies are limited in New England

Proposed Scope of Work

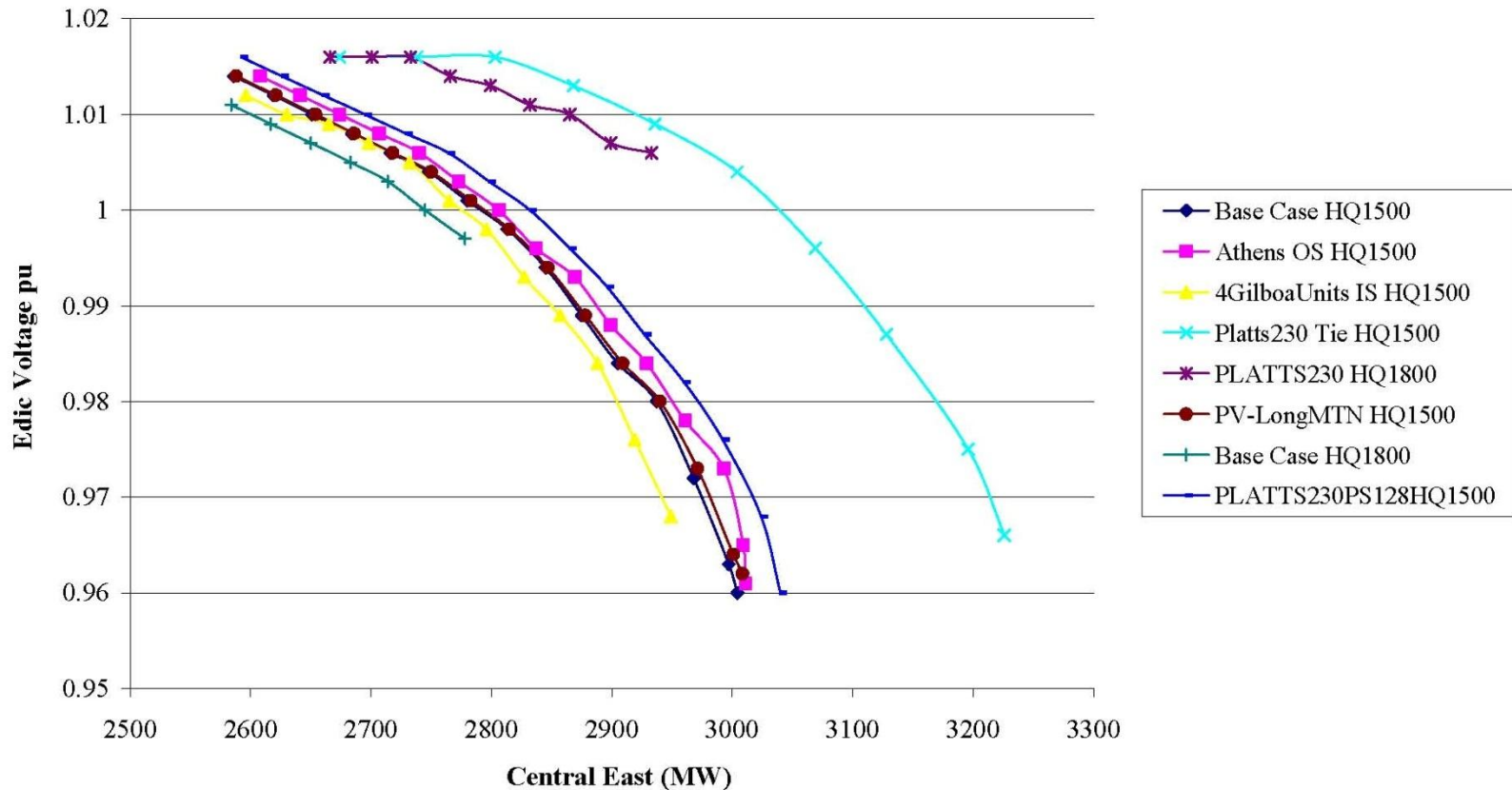
- Assumptions to be consistent with NY and NE regional system plans
 - Study 2012 and 2018 timeframes
- Consider additional interconnections between NY and PJM
 - Third Ramapo transformer
 - Cross Hudson merchant transmission projects
- Extend 345 kV tie from Ramapo to Pleasant Valley
- Interconnect Pleasant Valley with a new 345 kV tie to Long Mountain, Southington, Frost Bridge, or Norwalk
- As next step, consider HVDC interconnection between Ramapo or NY with either Norwalk or East Shore

Initial Results

- Long Mountain Tie does not add significant gains
 - May need to be considered in conjunction with installed PV-20 line

Results

Appendix A-3 Edic Voltage Performance For the HQ-Sandy Pond Contingency And Generation Dispatch/Transmission Reinforcement Alternatives



Your thoughts?