

Regional Transmission Planning

Allegheny Energy

- Investor-owned Electric Utility
- Total annual revenues of over \$3 billion
- Headquartered in Greensburg, PA
- Allegheny owns and operates generating facilities and delivers low cost reliable electric service to approximately 1.6 million customers in Pennsylvania, West Virginia, Maryland and Virginia

Allegheny Transmission Systems

Allegheny Statistics:

Peaks:

Summer – 8,734 MW
on 8/2/06

Winter - 8,664 MW
on 2/5/07

Interconnections:

345 & 500 kV – 12;
138, & 230 kV - 36

Transmission Line Mileage:

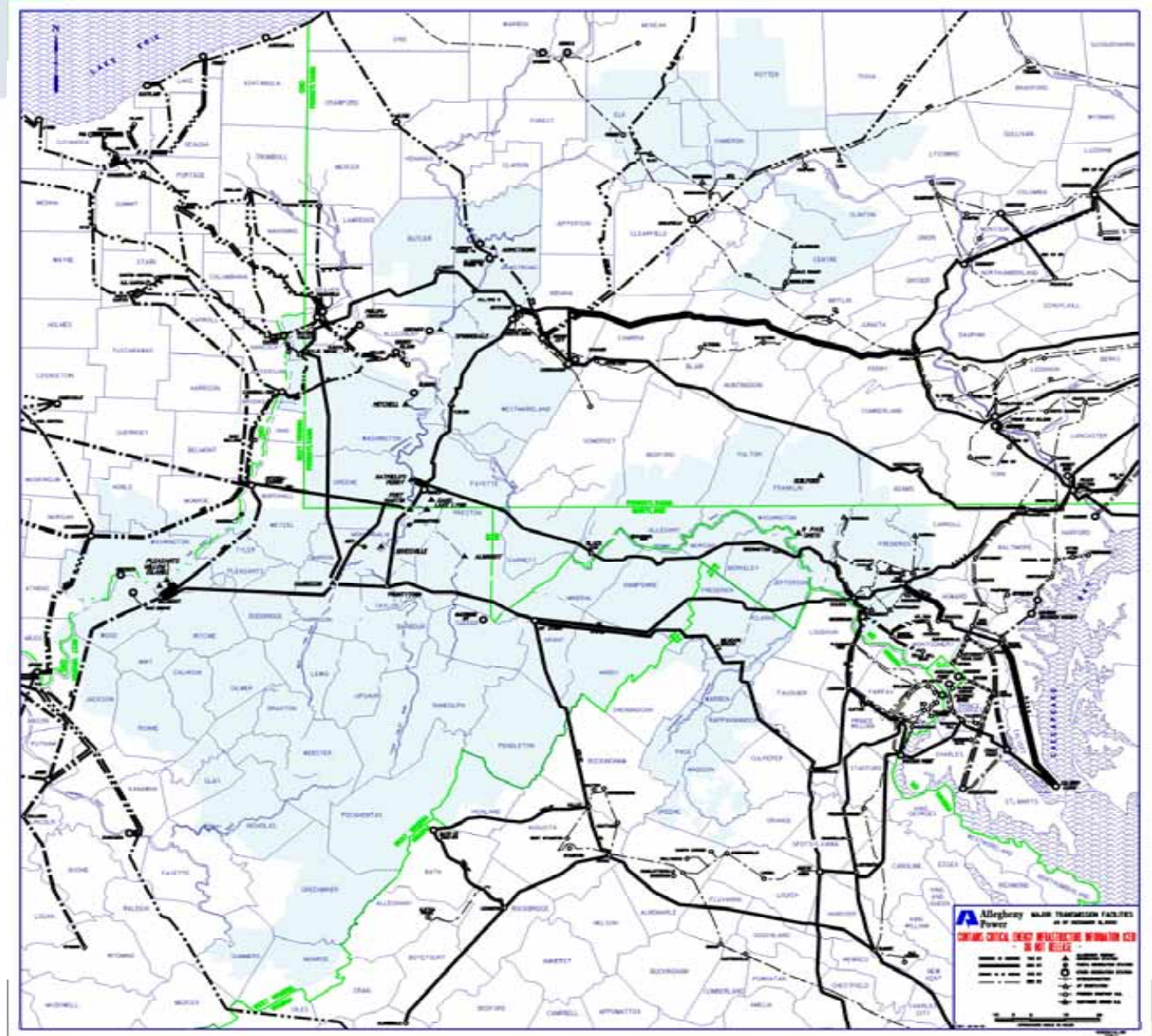
500 kV – 702 Miles

345 kV – 17 Miles

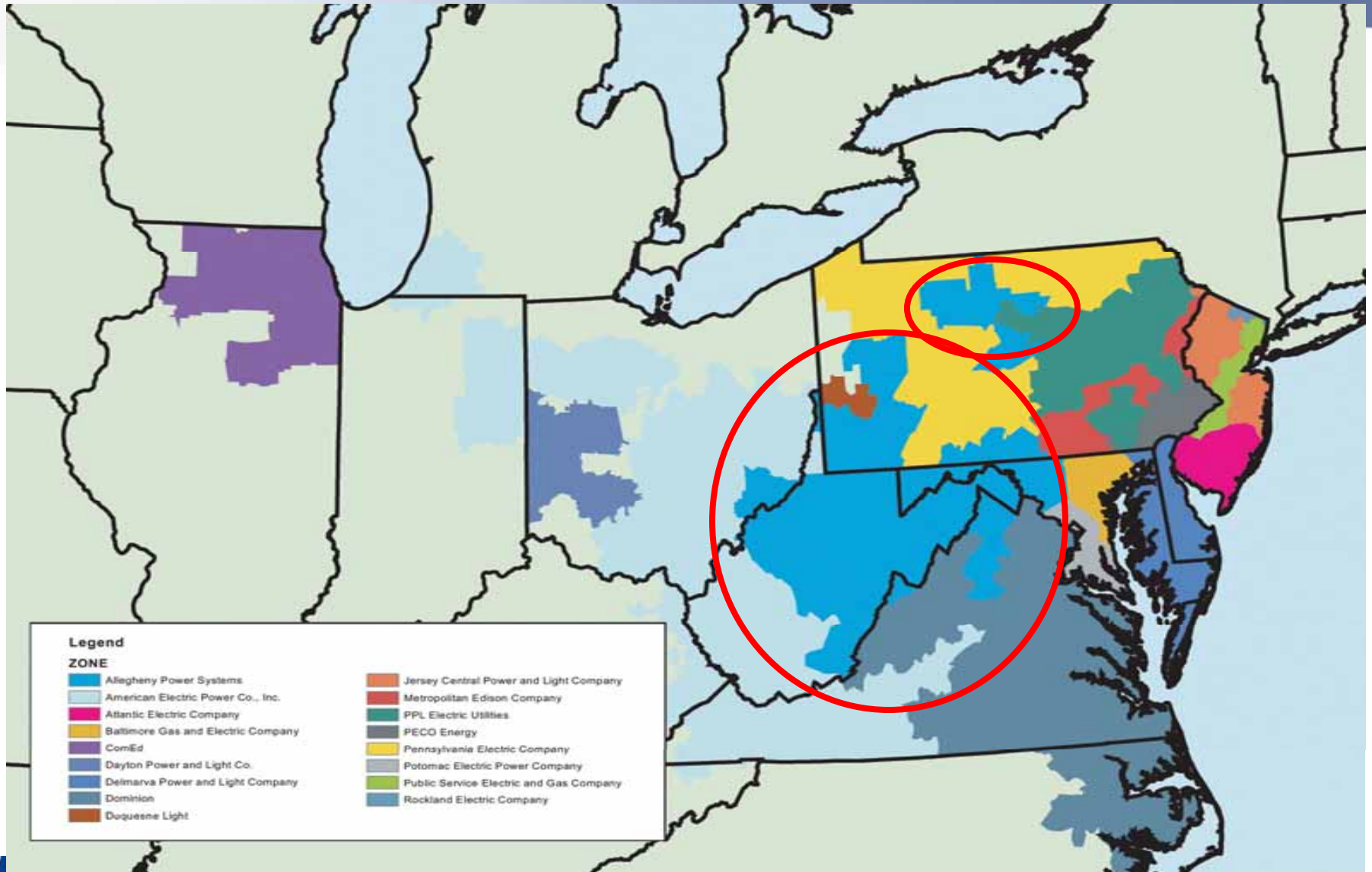
230 kV – 266 Miles

138 kV - 3,629 Miles

500 kV EHV Substations - 16



PJM RTO Service Territory



REGIONAL PLANNING PROCESS

- Prior to joining PJM, Allegheny studied its own system and only worked with neighboring utilities on projects near the border
- Now Allegheny assists PJM in modeling Allegheny's system used for PJM analysis and works with PJM to analyze the results
- PJM performs regional planning analyses to evaluate the impact of proposed transmission upgrades on neighboring transmission owners and regional transmission network

BENEFITS OF REGIONAL PLANNING PROCESS

- Benefits of regional planning to Allegheny and customers are increased reliability and operational efficiency
- PJM benefits from Transmission Owners participation in the process due to the Transmission Owner's intimate knowledge of their system
- Transmission Owner benefits from PJM's regional expertise
- Regional planning benefits both PJM and Transmission Owners by facilitating improved communications and coordination of planning between PJM and Transmission Owners.

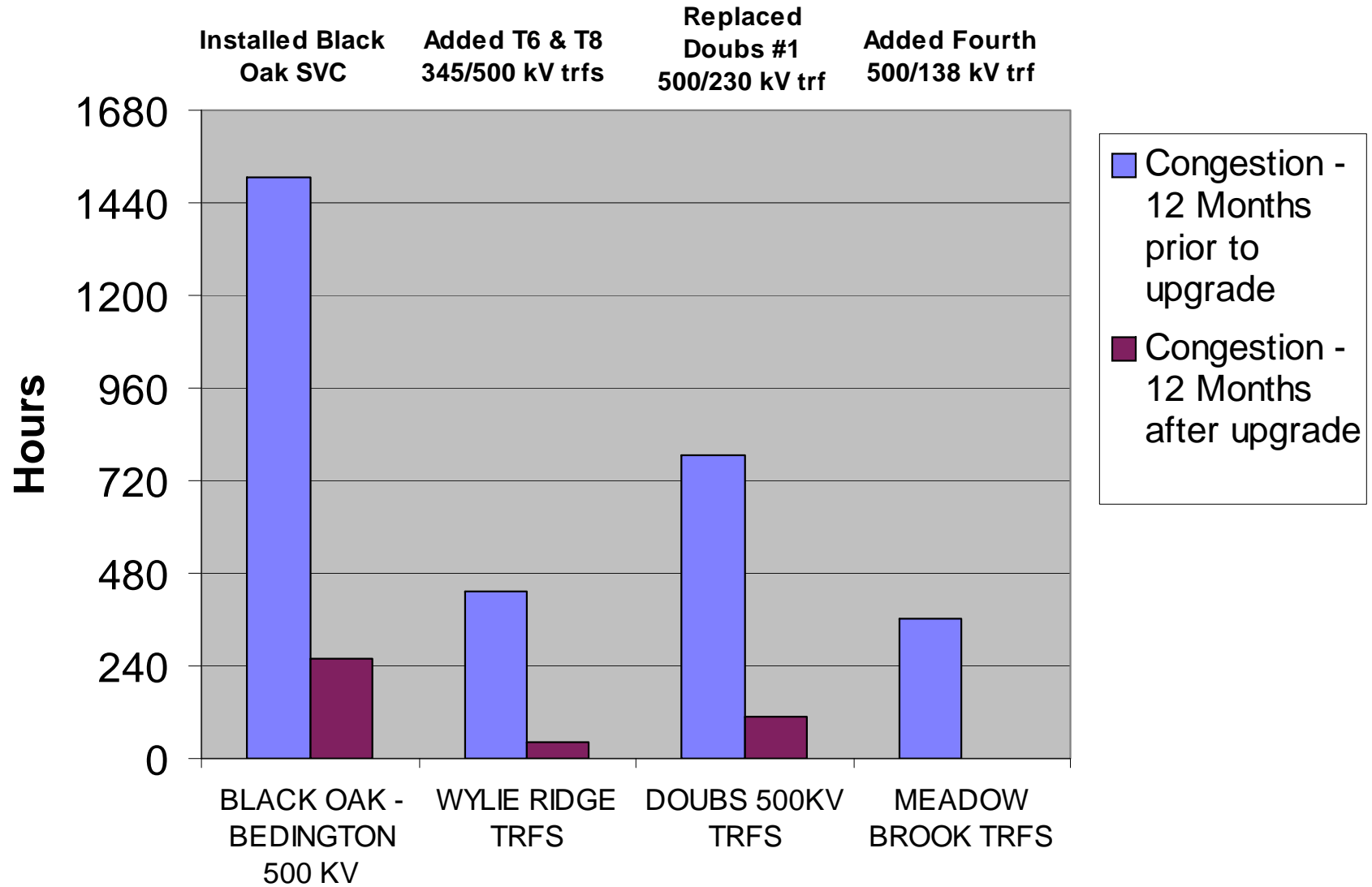
OPERATIONAL EFFICIENCY

- PJM dispatches the least cost generation to serve RTO load
- This regional approach identifies areas of congestion
- Congestion is not only a measure of dollars for the customers but it measures the operational constraints on the bulk electric system

OPERATIONAL EFFICIENCY

- Allegheny has reduced congestion and operational constraints at several facilities through the PJM Regional Planning Process
 - Black Oak SVC
 - Wylie Ridge Transformers
 - Doubs Transformers
 - Meadow Brook Transformers

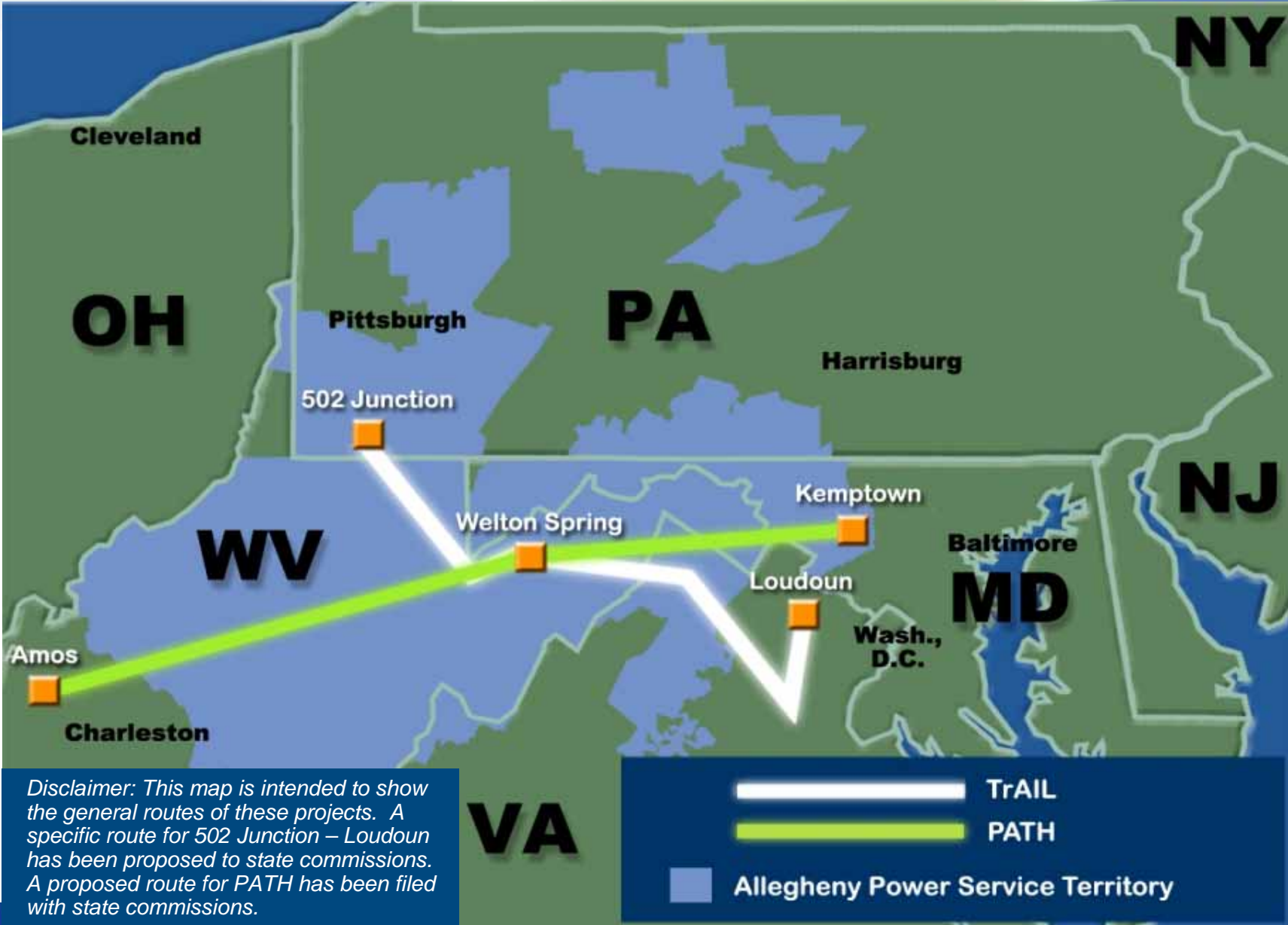
Congestion Before & After Upgrades



RELIABILITY ISSUES

- The PJM Regional Planning process identifies numerous constraints on the backbone Bulk Electric System
- These constraints were not limited to one Transmission Owner's zone. Transmission Owners & other stakeholders subsequently submitted their proposals to mitigate these constraints
- PJM analyzed each proposal through the RTEP process and came up with the best regional solutions. Two such solutions are: The TrAIL (2006 RTEP) and PATH (2007 RTEP) projects

Transmission Projects



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