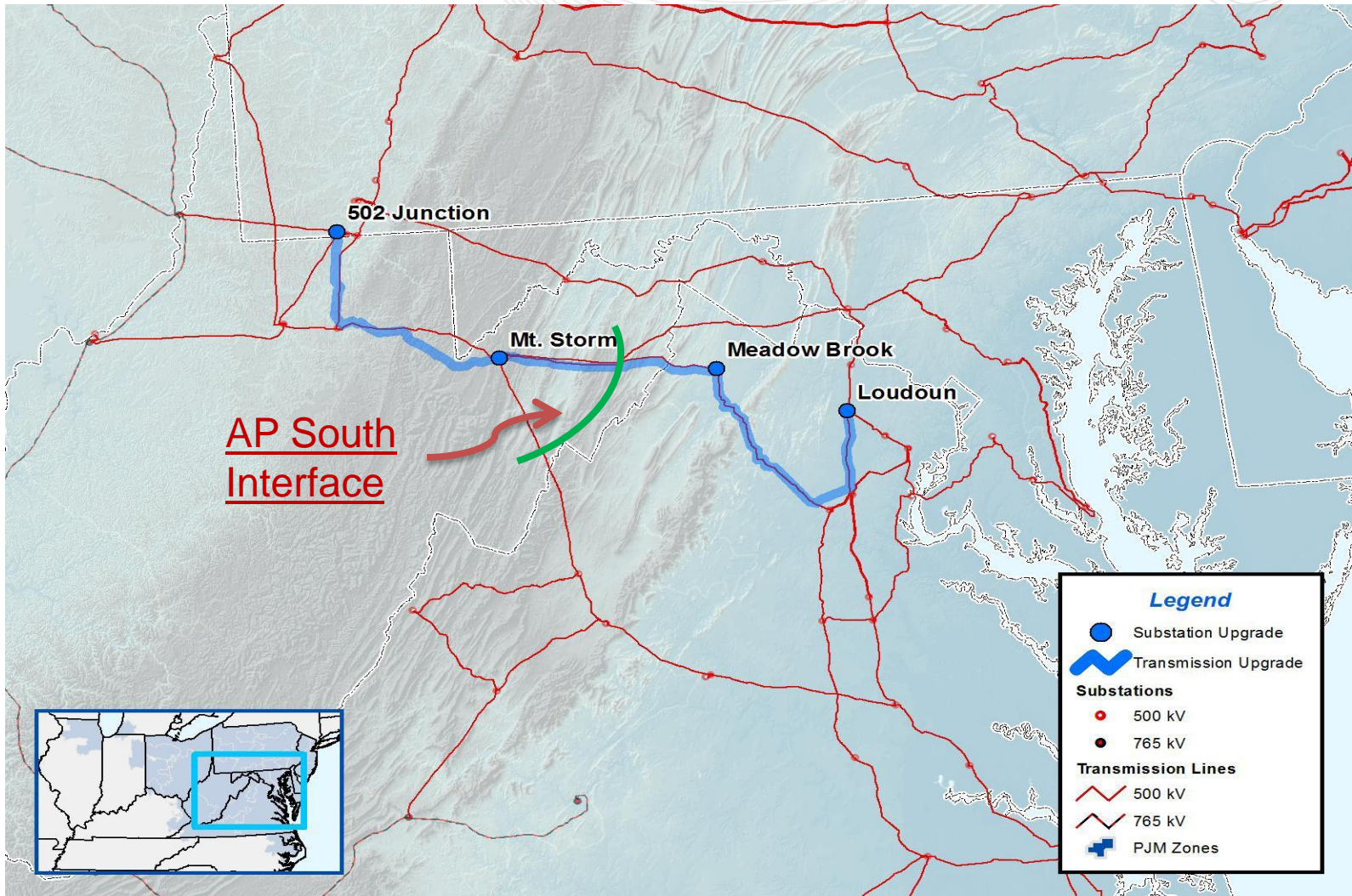


TrAIL Operational Impacts

October 2011

- Operational Impacts of TRAIL outages
 - Benefits of TRAIL to the APSouth IROL Interface
 - Benefits of TRAIL during maintenance conditions



- APSouth IROL Interface is comprised of the following lines:
 - 1.) Mt. Storm - Doubs 500kV line
 - 2.) Greenland Gap - Meadow Brook 500kV line
 - 3.) Mt Storm – Valley 500kV line
 - 4.) Mt Storm – Meadow Brook (TrAIL) 500kV line
- The APSouth IROL Interface limit is a PV calculation based upon real time data and simulating increased transfers from Allegheny Power into Dominion.

- Improved Operating Margin - The TRAIL line gives us over 500MWs of additional operating margin on the APSouth Inter Regional Operating Limit (IROL).
 - The equates to over 1000MWs of additional import capability to the load centers along the I-95 corridor.
 - TRAIL also improves the operating margin for PJM's other IROLs, but to a lesser extent as they are more geographically remote.
- Reviewing the June 1st - October 1st time period in 2010 vs. 2011, we have seen a significant reduction in the hours of generation redispatch for the APSouth interface:
 - 520 hours in 2010 versus 351 hours in 2011. (32.5% reduction in hours of congestion)

- Transmission redundancy – adding another 500kV line into the area improved redundancy under N-1 and beyond conditions
 - Off-line analysis indicates N-1 contingency flows on underlying 138kV facilities reduced by 10/15% in the APS and Dominion territories. A significant help in both the peak and shoulder months when transmission outages are scheduled for maintenance.