



**Allegheny Power**  
*an Allegheny Energy company*

**2010 Sub-regional RTEP  
Assumptions  
Western Sub-Region**

**March 2010**

# Power Flow Cases

- AP utilizes the RTEP case for transmission analysis and validation of its internal five-year model in conjunction with PJM analysis
- In addition, AP uses an internally developed Power Flow model for internal assessments
  - MMWG series power flow cases used to develop a five-year and a ten-year model
  - Transmission topology same as submitted for RTEP case
  - Subtransmission system included in model
- The use of two models provide for case comparisons and additional sensitivity analysis

# Loads for AP Model

- Load is modeled consistent with the 2010 AP Load Forecast (80/20 peak)
- AP 80/20 Peak for summer 2015: 9,083 MW
  - From 2009 4<sup>th</sup> quarter forecast
  - Load is allocated to operating companies (MP, PE, WPP) and scaled to match the AP forecast
- Load Management used in power flow model based on 2010 AP Load Forecast
- This forecast provides opportunity for additional sensitivity analysis

# 2010 RTEP Baseline Assessments

- PJM performs analysis on AP Transmission Zone using RTEP power flow model
  - Must perform all analysis to satisfy NERC TPL standards
  - PJM focus is to apply PJM criteria –Manual 14B: Attachment D
- AP validates analysis and tests reinforcement in RTEP model
  - Assures violation is real
  - Ensures baseline upgrade resolves violation
- After validation of violations and proposed reinforcement
  - Presented to TEAC
  - Presented to Sub-regional RTEP Committee
- RTEP Power flow model is available through PJM

# Supplemental Projects

- AP criteria based upgrades
  - To provide support to subtransmission or distribution system
  - To interconnect new customer delivery points
  - To address aged infrastructure
- Not approved by PJM Board
- Any transmission interconnection must meet AP Facilities Connection Requirements
- Reviewed at Sub-regional meetings
  - Provides opportunity for stakeholder input
  - Review other assumptions or analysis
  - Discuss other reinforcement options