# AMPT Transmission 2023 Local Planning Assumptions for PJM RTEP Projects

PJM Sub-Regional RTEP Western Meeting December 16, 2022



## **AMP Transmission (AMPT) Overview**

- AMPT owns and operates PJM network transmission facilities in Ohio:
- AMPT has transmission facilities in the ATSI, AEP, and the DAY Zones
  - One (1) 138 kV station
  - Two (2) 138/69 kV stations
  - Eleven (11) 69 kV stations
  - Total of 32 miles of 69 and 138 kV transmission line



### **AMPT Planning Assumptions**

- AMP Transmission (AMPT) plans all facilities in accordance with North American
   Electric Reliability Council (NERC), ReliabilityFirst (RF), and PJM planning
   requirements
  - AMPT follows PJM Reliability Planning Criteria as stated in Manual 14B
    - https://www.pjm.com/library/manuals.aspx
- AMP Transmission will conduct a yearly planning assessment in accordance with
  - AMPT FERC 715 planning criteria
    - https://www.pjm.com/planning/planning-criteria/to-planning-criteria.aspx



### **AMPT Planning Models**

- AMPT participates in the development of PJM's RTEP base cases for power flow, short circuit, and stability models
  - Additional information on PJM's Process is described in Manual 14B
- AMP Transmission uses RTEP power flow models and:
  - Performs near-term & long-term annual assessments
  - Studies utilize the latest available PJM RTEP base cases
    - 5-year assessment 2028 PJM RTEP Case
    - Contingencies are updated as per NERC TPL 001 Standards
  - Works with PJM to develop RTEP base case ensuring accurate topology
- All deviations from the above stated assumptions and models will be otherwise noted



### **AMPT PJM Planning Criteria**

- AMPT develops three different categories of PJM projects :
  - Baseline projects are developed to address planning criteria violations which originate from internal and/or PJM RTEP Planning analysis
  - Supplemental projects are not covered by baseline PJM Planning analysis and address internal AMPT drivers that will be covered in more detail
  - Network upgrade projects are developed in conjunction with PJM to provide facilities for connection of new generation facilities and/or upgrades in output of existing generation facilities



### **Baseline Project Planning Process**

- AMPT will:
  - Evaluate projected future system conditions identifying all potential reliability criteria violations
  - Develop associated system improvements to resolve any identified violations to ensure adherence with all related planning criteria
  - Coordinate with PJM to verify accuracy of modeling information and violations identified through PJM's and AMPT's planning analysis
  - Submit any Baseline violations to PJM in accordance with PJM's annual RTEP process
- PJM will review all validated violations at TEAC and/or Sub-regional RTEP Committees
- All Baseline violations and Baseline solutions will be presented and vetted through the PJM TEAC or Sub-regional RTEP Committees
  - All cases, analysis files and available results will be made accessible through PJM's CEII process  $A\Lambda$

### **Supplemental Project Criteria**

AMPT will develop supplemental projects (Attachment M-3) that are identified based on the following drivers:

- Customer Service
- Operational Flexibility & Efficiency
- Equipment Material Condition, Performance and Risk
- Infrastructure Resilience
- Other
- All needs and solutions will be reviewed at the sub-regional TEAC meeting for stakeholder input as part of the PJM M-3 Process.



### **Supplemental Project Planning Categories**

#### Customer Service

- Service to new and existing customers, interconnect new customer load, address load growth, customer outage exposure, and equipment loading
- Customer Service interconnections that follow the M3 process are based on:
  - AMPT's Transmission Facilities Interconnection Requirements Document (amppartners.org)

### Operational Flexibility & Efficiency

- Optimize system reliability through improved system configuration and restoration capabilities
  - Improve system reliability and safety by reducing operator interventions and actions
  - Address safety hazards and reliability risks to system operations



### **Supplemental Project Planning Categories**

### Equipment Material Condition, Performance and Risk

- Degraded equipment performance, material condition, obsolescence, including at the end
  of the useful life of equipment or a facility, equipment failure, employee and public safety
  and environment impact
- Enhance legacy facilities to modern engineering design standards

#### Infrastructure Resilience

Improve the system's ability to anticipate, absorb, adapt to, and/or rapidly recover from a
potentially disruptive event, including severe weather, geo-magnetic disturbances or
physical and cyber security challenges, critical infrastructure reduction, optimize inventory
of replacement facilities

#### Other

Meet objectives not included in other definitions such as, but not limited to, technological pilots, good utility practice/industry recommendations, environmental and safety impacts, governmental/utility commission regulations, etc.  $\Delta \Lambda \Lambda T$ 

# **Questions?**

