The background of the slide is a photograph of several high-voltage electrical transmission towers and power lines stretching across a blue sky with scattered white clouds. The towers are made of metal lattice and are positioned at various points across the frame, creating a sense of depth and perspective.

# Transmission Expansion Advisory Committee Market Efficiency Update

January 7, 2015



# Market Efficiency Long Term Proposal Window Update



# 2014 RTEP Long Term Proposal Window: Market Efficiency

- PROMOD case files, Market Efficiency Training, Input assumptions, and necessary documents provided at following link:  
<http://pjm.com/planning/rtep-development/market-efficiency.aspx>
- PJM identified recommended facilities for which proposals may be submitted.
  - Recommended facilities provided in 2014 Market Efficiency Congestion Results file at following link:  
<http://www.pjm.com/~media/planning/rtep-dev/market-efficiency/2014-market-efficiency-analysis-base-congestion-results.ashx>
- PJM has posted a test case with results, B/C user spreadsheet, and ARR mapping files on secure site.
  - Participants can verify their own results using test case.
  - Benefit/Cost Spreadsheet can be used to evaluate projects.



# 2014 RTEP Long Term Proposal Window: Market Efficiency

## Market Efficiency Economic Planning Models

PJM performs Market Efficiency Economic Planning Studies to identify transmission upgrades within the PJM footprint that will impact market congestion. The Market Efficiency Economic Planning Study Process consists of developing base case and sensitivity study models to evaluate the economic benefits of a transmission project. This process will determine which reliability upgrades, if any, have an economic benefit if accelerated or modified. In addition, PJM and its members may identify new transmission upgrades that may results in economic benefits.

Test case and results  
to verify user results

B/C spreadsheet  
to evaluate projects

ARR mapping files

- ▼ Market Efficiency Test Case, Results, and Benefit/Cost Spreadsheet
  - ▶ Market Efficiency Test Case and Results (144MB ZIP)
  - ▶ Market Efficiency Benefit/Cost Evaluation Tool (XLS)
- ▶ 2014 Market Efficiency Base Case Models
- ▶ 2013 Market Efficiency Base Case Models
- ▼ 2014 Additional Documents
  - PJM 2014 Market Efficiency Analysis - Case Descriptions (PDF)
  - PJM Market Efficiency - Procedure for Executing Cases (PDF)
  - PJM ME Base - 12.8.2014 ARR (XML)
  - ARR Market Pnode to Promod Mapping (XLS)

# 2014 Market Efficiency Acceleration Candidate

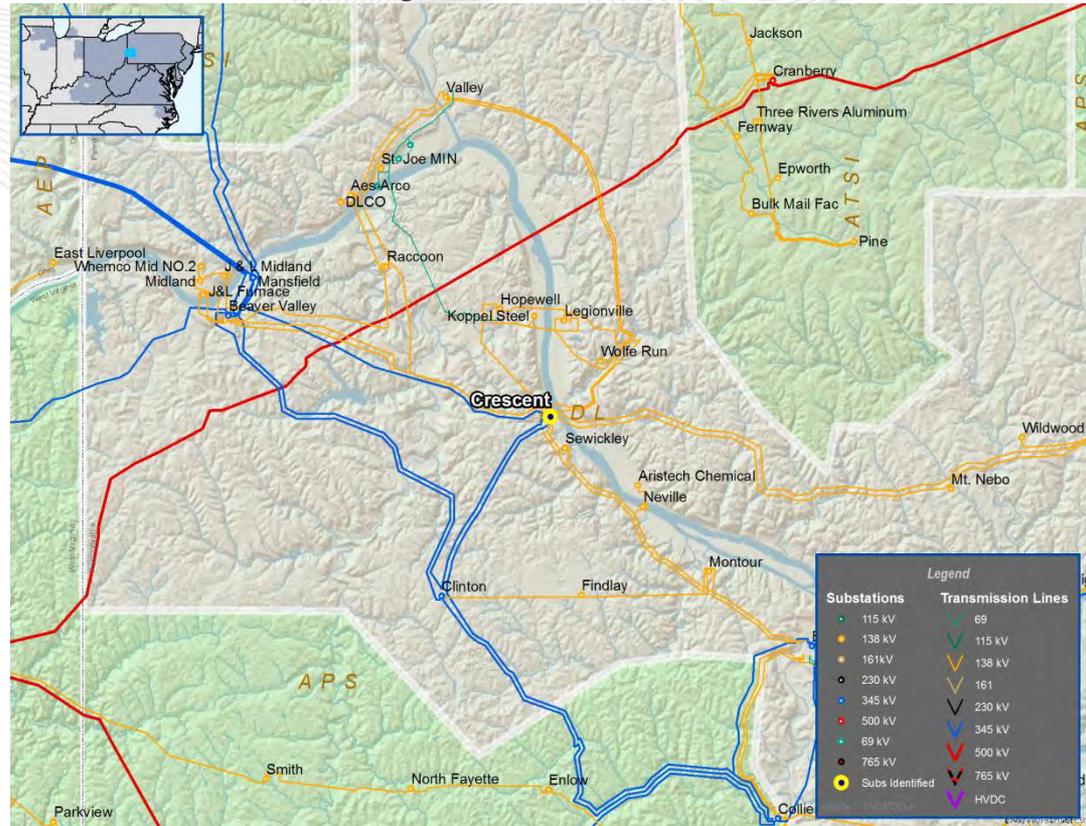
Constraint:

## Crescent 345 kV Transformer

- Area: DUQ
- Congestion:

2019 Input Assumptions with 2015  
Topology: \$29 million

- Approved Reliability Project (B2563)
  - Operate with the Crescent 345/138 kV #3 autotransformer in-service by replacing 8 over dutied 138 kV breakers at Crescent, 3 138 kV breakers at Beaver Valley, install #1 section 345 kV breaker for 331 circuit at Crescent
  - Original ISD: 6/1/2019
- Recommended Solution: Project Acceleration
  - No Cost to accelerate to 1/1/2018



Questions?

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