Market Efficiency Update

Transmission Expansion Advisory Committee
May 4, 2017
2016-2017 24-Month Market Efficiency Cycle

• Long term proposal window: Nov 2016 - Feb 2017 (completed)

• Mid-cycle update of major assumptions: Jan 2017 – Apr 2017 (completed)
  • Load forecast, Fuel and Emissions forecasts, Generation expansion, Network topology
  • Only updating the most significant changes, not full update.
  • Updated ME Base Scenarios to be posted in the following weeks

• Analysis of proposed solutions: May 2017 - Oct 2017 (in-progress)
  • Independent consultant review of cost and ability to build
  • Review of analysis with TEAC: Jun 2017 - Nov 2017

• Determination of final projects: Dec 2017
  • Final review with TEAC and Board approval
  • Projects may be approved earlier if analysis and review complete
Market Efficiency Long Term Proposal Window
Proposed Projects
2016-2017 Long Term Window – Projects Received

- **96 Market Efficiency Proposals**
  - 52 Greenfield
    - $15.8M - $371.3M
  - 44 Upgrades
    - $0 - $192.07M

- **20 proposing entities** (including 6 combinations of joint proposals)

- **8 Interregional proposals**
• **46 Projects:**

• **Cost:**
  - From $5.97 M to $371.30 M

• **ME Constraints:**
  - CONASTONE - GRACETON - BAGLEY 230 kV
  - CONASTONE - PEACH BOTTOM 500 kV
• **6 Projects:**

• **Cost:**
  – From $13.01 M to $33.80 M

• **ME Constraint:**
  – SUSQUEHANNA - HARWOOD 230 kV
Group 03 - ComEd/AEP/NIPSCO Interregional

- **7 Projects:**
  - 1-1A, 1-9A, 1-9B, 1-10B, 1-12D, 1-17B, 1-18S

- **Cost:**
  - From $1.00 M to $197.97 M

- **ME Constraints:**
  - PAXTON - GIFFORD 138 kV
  - BOSSERMAN - OLIVE 138 kV
- **3 Projects:**
  - 1-3A, 1-3B, 1-17A
- **Cost:**
  - From $0.84 M to $66.90 M
- **RPM Constraints:**
  - E. FRANKFORT - UNIVERSITY PARK 345 kV
  - PONTIAC - BROKAW 345 kV
• **3 Projects:**
  - 1-18M, 1-18N, 1-18P

• **Cost:**
  - From $19.70 M to $117.30 M

• **RPM Constraints:**
  - Dayton LDA RPM
• 1 Project:
  – 1-13H

• Cost:
  – $71.88 M

• ME Constraint:
  – TANNERS CREEK - MIAMI FORT 345 kV
• **14 Projects:**

• **Cost:**
  – From $1.82 M to $49.25 M

• **ME Constraints:**
  – I:AP SOUTH
  – I:AEP-DOM
  – I:5004/5005
  – I:BC_PEP
  – I:CENTRAL
9 Projects:

Cost:
- From $5.18 M to $40.20 M

ME Constraints:
- I:AP SOUTH
- I:AEP-DOM
- I:5004/5005
- I:BC_PEP
- I:CENTRAL
• 2 Projects:
  – 1-4A, 1-4B

• Cost:
  – From $0.48 M to $2.79 M

• ME Constraints:
  – BELMONT TR 500/138 kV
  – HOYTDALE - MAPLE 138 kV
- **2 Projects:**
  - 1-11B, 1-11C

- **Cost:**
  - Zero

- **ME Constraints:**
  - EUGENE - DEQUIN 345 kV
  - DEQUIN - MEADOW 345 kV

- **Note:**
  - These proposals are accelerations the previously approved baseline projects b2776 and b2777
Group 10 AEP (VA)

• 1 Project:
  – 1-11A

• Cost:
  – $3.35 M

• ME Constraint:
  – CHRIS - CLAYTOR 138 kV
✓ Step 1: Review submitted project data (completed)
  ✓ PJM contacted project proposer if clarification of modeling needed.
  ✓ Approved base line reliability and supplemental projects may eliminate congestion drivers.

➢ Step 2: First pass of project evaluations assuming proposer supplied data.
  – Using updated ME Base scenarios

• Step 3: Determine if there are any obvious optimal projects in focused areas.
  – Areas with quick fixes or lower cost reinforcements

• Step 4: Detailed Analysis in areas with many project submissions
  – Sensitivity analysis
## Next Steps

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Questions?

Email: RTEP@pjm.com
• Revision History
  – V1 – 5/2/2017 – Original Version Posted to PJM.com