Transmission Expansion Advisory Committee
Market Efficiency Update

October 6, 2016
### Market Efficiency Timeline

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- **Develop Assumptions (Y1, Y5)**
- **Market Efficiency Analysis (Y1, Y5)**
  - (Accelarations and Modifications)

**12-month cycle**

- **Identify and evaluate Solution Options (Accelarations and Modifications)**

- **Final Review with TEAC and approval by Board**

- **Develop Assumptions (Y1, Y5), Y6, Y11, Y15**
- **Market Efficiency Criteria Analysis (Y1, Y5, Y8, Y11, Y15)**

**24-month cycle**

- **Identify proposed solutions**
- **Update significant assumptions (Y0, Y4, Y7, Y10, Y14)**
- **Independent Consultant reviews of buildability**
- **Adjustments to solution options by PJM on analysis**

- **Develop Assumptions (Y1, Y5)**
- **Market Efficiency Analysis (Y1, Y5)**
  - (Accelarations and Modifications)

- **Identify and evaluate Solution Options (Accelarations and Modifications)**

- **Final Review with TEAC and approval by Board**
## 2016-2017 24-Month Market Efficiency Cycle Timeline

<table>
<thead>
<tr>
<th>Item</th>
<th>Schedule</th>
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<tbody>
<tr>
<td>Long Term proposal window</td>
<td>November 2016 - February 2017</td>
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<tr>
<td>Analysis of proposed solutions</td>
<td>March 2017 - November 2017</td>
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<tr>
<td>Determination of Final projects</td>
<td>December 2017</td>
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Market Efficiency Update

- Market Efficiency cases (first draft) were posted on 09/14/2016
  - PROMOD cases, and supporting documentation were posted on Market Efficiency Web page

- Proposal window to open on November 1, 2016
  - PJM welcomes stakeholder feedback on PROMOD model by October 15, 2016
  - Base Congestion Results to be posted and discussed via WebEx TEAC session
  - Final Base Case to be posted before November 1

- Market Efficiency Questions
  - Send to the RTEP e-mail distribution (rtep@pjm.com) with “Market Efficiency” in the subject line header
Base Case Modeling – Stakeholders Feedback

- PJM Generation Expansion model
- PJM Fuel Assignments
- MISO Flowgates
Base Case Modeling Status – Work in-progress

- Reactive Limits
- Updated ARR Model
- PS North Wheel Reform
- External Model Review
- Stakeholder Feedback
- Base Congestion Results
Base Case Additional Documentation – Work in Progress

• Market Efficiency Test Case and Test Results

• Market Efficiency Benefit/Cost Evaluation Spreadsheet

• ARR Allocation MW Spreadsheet
### Milestone Schedule 2016

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<th>Milestone</th>
<th>Schedule 2016</th>
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<tr>
<td>Finalize Stakeholder Feedback (on the Model)</td>
<td>Mid-October</td>
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<tr>
<td>Post Problem Statement and Congestion Drivers</td>
<td>End of October</td>
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<tr>
<td>Post Final Market Efficiency 2016/17 Base Cases</td>
<td>End of October</td>
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<td>Post Required Documentation</td>
<td>End of October</td>
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<tr>
<td>Proposal Window opens</td>
<td>November</td>
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<tr>
<td>PJM Review for Acceleration Candidates</td>
<td>October-December</td>
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Questions?

Email: RTEP@pjm.com
Appendix - Market Efficiency Data Posting

• Market Efficiency Web Page located at

• Market Efficiency Case Files (first draft posted on 09/14/2016)
  – Access requires CEII access approval (execute PJM CEII NDA and fill out PJM CEII Request Form)
    • Note: the access request must indicate “2016/17 RTEP Proposal Window”
  – Access requires Vendor (ABB) approval that the requester is a licensee of PROMOD confirmation
  – Access requires MISO CEII approval with access confirmed by PJM
  – No confidential data provided or used in analysis (i.e. actual bid data)
  – XML Format

• Posted Reference Files
  – Steps to run Model Document
  – Input Assumptions Summary

• Market Efficiency Questions
  – Please send to the RTEP e-mail distribution (rtep@pjm.com) with “Market Efficiency” in the subject line header