Transmission Expansion Advisory Committee
Market Efficiency Update

September 15, 2016
Market Efficiency 2016/17 Long Term Proposal Window Update
## Market Efficiency Timeline

### Year 0
- **Develop Assumptions (Y1, Y5)**
- **Market Efficiency Analysis (Y1, Y5)**
  - (Accelerations and Modifications)
- **Identify and evaluate Solution Options (Accelerations and Modifications)**
- **Final Review with TEAC and approval by Board**

### Year 1
- **Develop Assumptions (Y1, Y5, Y6, Y11, Y15)**
- **Market Efficiency Criteria Analysis (Y1, Y5, Y6, Y11, Y15)**
- **Market Efficiency Analysis (Y1, Y6, Y8, Y11, Y15)**
- **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)**
  - (Accelerations and Modifications)
- **Identify and evaluate Solution Options (Accelerations and Modifications)**
- **Final Review with TEAC and approval by Board**

**12-month cycle**

**24-month cycle**
2016-2017 24-Month Market Efficiency Cycle Timeline

- Long Term proposal window: November 2016 - February 2017
- Analysis of proposed solutions: March 2017 - November 2017
- Determination of Final projects: December 2017
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 requests stakeholder feedback on PROMOD model by October 15, 2016
  - Final PROMOD to be posted cases posted before November 1.

- Market Efficiency Questions
  - Send to the RTEP e-mail distribution ([rtep@pjm.com](mailto:rtep@pjm.com)) with “Market Efficiency” in the subject line header
Base Case Modeling Status – Completed First Draft

- PJM Generation Expansion model ✓
- PJM Load Forecast model ✓
- PJM Fuel & Emissions ✓
- PJM Events ✓
- Merging of MISO events ✓
- ConEd wheel modeling ✓
- MISO Region Generation Expansion and Load Forecast ✓
- Wind model ✓
Base Case Modeling Status – Work in-progress

- PV Analysis for Base Case reactive limits
- Apply feedback from stakeholders
- Base Congestion Results
New Wheel Modeling

- PJM and NYISO are considering a combination of two concepts for modeling after the PSEG/ConEd Wheel retires on May 1, 2017.
- Market Efficiency modeling will closely represent the agreed upon PJM/NYISO Operations and planning model
  - Account for an Operational Base Flow as a starting point
    - Natural system flows determined using EMS & PSS/e study applications
    - Applied to the JK and ABC interfaces as a starting point for determination of Interface Target Flow
    - Apply Interchange Percentage values on top of Operational Base Flow to determine Interchange Target Flow value.
  - Apply an Interchange percentage distribution:
    - 5018: 32%
    - JK: 15%
    - ABC: 21%
## Milestone Schedule 2016

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Schedule</th>
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<tbody>
<tr>
<td>Market Efficiency Preliminary Results</td>
<td>October</td>
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<tr>
<td>Stakeholder feedback on model</td>
<td>September-October</td>
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<tr>
<td>Update Market Efficiency 2016/17 Base Cases</td>
<td>September-October</td>
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<tr>
<td>Post Market Efficiency 2016/17 Base Cases (final)</td>
<td>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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Market Efficiency Data Posting

- Market Efficiency Web Page located at

- Market Efficiency Case Files posted on 09/14/2016
  - Access requires CEII access approval (execute PJM CEII NDA and fill out PJM CEII Request Form)
  - 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](mailto:rtep@pjm.com)) with “Market Efficiency” in the subject line header
Questions?

Email: RTEP@pjm.com