Transmission Expansion Advisory Committee
Market Efficiency

January 10, 2013
• 2013 Market Efficiency Analysis represents transition year to reflect second part of 24 month RTEP cycle.

  ➢ 24 month cycle began in January of 2012
  ➢ Includes update of significant assumptions
Market Efficiency study years include:

- 2014 and 2018 to study approved RTEP projects for accelerations and modifications.
- 2017, 2020, 2023, and 2027 to study new enhancements.
• Study Assumption Updates:

- Load and Energy
- Demand Response
- Fuels and Emission Prices
- Generation additions/deactivations
- Updated Carrying Charge and Discount Rate
• Power flow models
  ➢ 2014 PJM and external world topology based on the 2012 summer case from the 2011 ERAG MMWG series power flow base case
    • Additional significant upgrades will be added which will be in service by end of 2013.
  ➢ 2017 and later PJM topology will be based on the 2017 RTEP case that was used in the 2012 RTEP
    • Includes all PJM Board approved upgrades as well as all anticipated February 2013 PJM Board approvals
  ➢ 2017 and later external world model based on 2017 summer case from 2011 ERAG MMWG series power flow base case
  ➢ East Kentucky Power Cooperative (EKPC) included
## Appendix A – Market Efficiency 24 month and 12 month cycles

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### 24-month cycle
- Develop Assumptions (Y1, Y5)
- Market Efficiency Analysis (Y1, Y5) *(Accelerations and Modifications)*
- Identify and evaluate Solution Options (Acclerations and Modifications)
- Final Review with TEAC and approval by Board
- Develop Assumptions (Y5, Y8, Y11, Y15)
- Market Efficiency Criteria Analysis (Y5, Y8, Y11, Y15)
- Market Efficiency Analysis (Y5, Y8, Y11, Y15)
- Identify proposed solutions
- Update significant assumptions (Y4, Y7, Y10, Y14)
  - Analysis of market solutions and support of benefits of reliability solutions (Y4, Y7, Y10, Y14)
  - Independent Consultant reviews of buildability
  - Adjustments to solution options by PJM on analysis

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