2013 RTEP Assumptions

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Overview

- Update of standard assumptions
- Scenario & Sensitivity analysis
- TEAC input & feedback

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2013 RTEP Assumptions

- Load Flow Modeling
  - Power flow models for world load, capacity and topology will be based on the 2018 summer case from the 2012 ERAG MMWG series power flow base case
  - Update of adjacent areas with latest topology
  - PJM topology will be based on the 2017 RTEP case that was used in the 2012 RTEP
    - Include all PJM Board approved upgrades through the December 5, 2012 PJM Board of Manager approvals as well as all anticipated February 2013 PJM Board approvals
  - East Kentucky Power Cooperative (EKPC) included

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Locational Deliverability Areas (LDAs)

- Includes the existing 25 LDAs.
- East Kentucky Power Cooperative (EKPC) included
  - Was also part of the 2012 RTEP
- Recently implemented Cleveland LDA
- Total of 27 LDAs
  - All 27 to be evaluated for 2016/2017 delivery year RPM base residual auction

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2013 RTEP Assumptions

- Firm Commitments
  - Long term firm transmission service will be consistent with operations
- Outage Rates
  - Generation outage rates will be based on the most recent Reserve Requirement Study (RRS) performed by PJM
  - Generation outage rates for future PJM units will be estimated based on class average rates

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2013 RTEP Load Modeling

- Peak Load
  - Load will be modeled consistent with the 2013 PJM Load Forecast Report
  - The final load forecast data is expected to be available late December 2012
  - Include Demand Response (DR) and Energy Efficiency (EE) that cleared in the 2015/16 BRA

- Light Load
  - Modeled at 50% of the Peak Load forecast per M14B
  - The Light Load Reliability Criteria case will be modeled consistent with the procedure defined in M14B

- Load Management, where applicable, will be modeled consistent with the 2013 Load Forecast Report
  - Used in LDA under study in load deliverability analysis

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2013 RTEP Generation Assumptions

- All existing generation expected to be in service for the year being studied will be modeled.
- Future generation with a signed Interconnection Service Agreement will be modeled along with any associated upgrades.
  - Generation with a signed ISA will contribute to and be allowed to back-off problems.
- Generation with an executed Facility Study Agreement (FSA) will be modeled along with any associated network upgrades.

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2013 RTEP Generation Assumptions

- Generation with an FSA will be modeled consistent with the procedures noted in manual 14B
- Generation with an executed FSA will be modeled off-line but will be allowed to contribute to problems in the generation deliverability testing.
  - Generation with an executed FSA will not be allowed to back-off problems.
- If the PJM load exceeds the sum of the available generation and generation with an executed ISA then queued generation that has an executed FSA will be turned on to meet firm interchange.
- Additional generation information (i.e. machine lists) will be posted to the TEAC page.

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Deactivation Notification Generation

- Generation that has officially notified PJM of deactivation will be modeled offline in RTEP base cases for all study years after the intended deactivation date

- RTEP baseline upgrades associated with generation deactivations will be modeled

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2013 RTEP Assumptions

- All PJM bulk electric system facilities, all tie lines to neighboring systems and all lower voltage facilities operated by PJM will be monitored.

- Contingency analysis will include all bulk electric system facilities, all tie lines to neighboring systems and all lower voltage facilities operated by PJM.
  - Contingencies in neighboring systems

- Thermal and voltage limits will be consistent with those used in operations.

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24 Month RTEP

- As part of the 24-month RTEP cycle, a year 7 (2020) base case will be developed and evaluated as part of the 2013 RTEP

- The year 7 case will be based on the 2020 case that was developed as part of this year's RTEP
  - The case will be updated to be consistent with the 2013 RTEP assumptions.

- Purpose: To identify and develop longer lead time transmission upgrades

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Stakeholder Input and Review of Assumptions and Scenarios

- Assumptions review
- Scenarios review
- Email RTEP@pjm.com

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