ORDC Simulations

Anthony Giacomoni
EPFSTF
August 22, 2018
• The simulations will look at the effect the consolidation of the Synchronized Reserve Market and the proposed ORDCs will have on real-time prices
  – No distinction between Tier 1 and Tier 2 MWs will be made
  – Tier 2 reserve offers will be used for all units to determine the SR market clearing
  – No Tier 1 biasing is included

• The Real-Time Market for June 1, 2017 thru May 31, 2018 will be simulated using the PROBE Perfect Dispatch tool currently used by Operations for benchmarking real-time system operations
  – Two simulation cases will be simulated:
    • Current ORDCs
    • PJM Proposed ORDCs

• The simulations will allow additional CT & Diesel units to be committed in the optimization
Model Assumptions

- As discussed in the PJM proposal, the ORDCs:
  - Are based on a 30 min. uncertainty
  - Vary seasonally
  - Shape of the curves vary in four hour time blocks

- Curves are included for both PJM RTO and MAD reserve zones
Proposed Results

• Daily Average:
  – Spinning and Primary Reserve Clearing Prices
  – Generation weighted zonal LMPs

• Daily Total:
  – Spinning and Primary Reserve MWs Dispatched
  – Spinning and Primary Reserve Revenue
  – Generator Revenue
  – Uplift % Reduction (uplift calculations in PROBE PD are a simplification of actual PJM settlement calculations)