

Modeling Assumptions in PJM CETO Studies

Planning Committee

February 3, 2011

- Summer ambient derating of generation
 - IRM Study models 2,500 MW of ambient derating
 - CETO cases currently model zero MW of ambient derating
- Generator peak period performance
 - CETO cases currently assume 5 year average EFORd applies year-round
- Wind Generation
 - Both IRM and CETO studies currently model wind at a constant MW amount based on average peak hour output
- Energy-only and behind-the-meter generation
 - IRM Study does not model EO and BtM generators
 - CETO cases currently model EO and BtM generators

- DR and EE are currently subtracted from peak load
 - Assumes load reduction is realized year-round
 - Assumes load reduction is greater under extreme weather conditions
- Is there a better way to more accurately model the reliability value of DR and EE?
- Should modeling treatment be different for different types of DR?
 - Guaranteed Load Drop, Firm Service Level
 - “10x6” DR, Extended Summer DR

- IRM Study procedure was modified in 2009 to select a load model that is consistent with the PJM load forecast model
- Should PRISM load model be replaced with daily load distributions from the PJM load forecast model?
 - This change would require significant coding changes to PRISM and would increase PRISM run-time
 - PJM load model does not recognize economic forecast uncertainty or the increased uncertainty associated with longer planning horizons (Forecast Error Factor)

- PJM recommendation: The PC should ask the RAAS to investigate these CETO modeling issues and report back to the PC with status reports and recommendations by October, 2011.
- Any changes will be documented in Manual 20 and be reviewed by the MRC.
- Target date is to implement any approved changes for the RPM and RTEP CETO studies to be performed in the December 2011 – February 2012 timeframe.