



PJM Comments on The Brattle Group Report on the Reliability Pricing Model

Markets and Reliability Committee
August 18, 2011

- PJM agrees with Brattle's assessment that current Energy and Ancillary Services (E&AS) offset method needs improvement because it over-estimates actual margins
- PJM does not believe that a normalized forward-looking or equilibrium E&AS offset method is a viable solution given past stakeholder/FERC positions
- PJM recommends that the following changes be implemented for the 2015/2016 Base Residual Auction:
 - Revise the peak-hour dispatch method used to determine the E&AS offset for a reference combustion turbine (CT) to better reflect actual generation dispatch operations
 - For example, dispatch CT first against day-ahead LMPs and then against real-time LMPs if day-ahead LMPs do not support CT commitment

- PJM agrees with Brattle's assessment that Gross Cost of New Entry (CONE) estimates should be updated based on the Brattle analysis, and the reference technology should remain a CT
- Given the lack of acceptance of forward looking E&AS offset methods and past FERC orders on levelization method, PJM recommends retaining nominal levelized approach
- PJM recommends the following change for the 2015/2016 Base Residual Auction:
 - Update the Gross CONE value of the reference resource CT to the Brattle estimated level-nominal values highlighted on slide 5

- PJM agrees with Brattle's recommendations regarding revisions to VRR curve
- PJM recommends the following change for the 2015/2016 Base Residual Auction:
 - Raise Point "a" of the VRR curve to $(1.0 \times \text{CONE})$ above point "b"

- PJM recommends an update to the Gross CONE value of the reference resource CT to the Brattle estimated level-nominal values highlighted below

Simple Cycle Gross CONE Updates			
CONE Area	Brattle Estimate		2014/15 CT CONE
	Level Real (2015 \$/kW-year)	Level Nominal (2015 \$/kW-year)	Escalated at CPI for 1 Year (2015 \$/kW-year)
1. Eastern MAAC	\$111.90	\$133.90	\$142.10
2. Southwest MAAC	\$103.30	\$123.60	\$131.40
3. Rest of RTO	\$103.10	\$123.40	\$135.00
4. Western MAAC	\$108.60	\$130.00	\$131.40
5. Dominion	\$92.80	\$111.00	\$131.50

- PJM recommends stakeholders consider adopting the following Brattle report recommendations for the 2015/2016 Base Residual Auction:
 - Maintaining the 2.5% deferred supply total resource requirement but revising the minimum annual and minimum extended summer resource requirement to eliminate deferred supply and therefore procure 100% of these requirements in the Base Residual Auction
 - **Resource Verification** - Audit Demand Resources for contractual and physical ability to respond as often and seasonally as claimed, especially for new products; and conduct random testing initiated by PJM
 - Re-classify some seasonal resources based on period when they can actually perform (e.g. energy efficient air conditioning programs)

- Brattle made numerous recommendations aimed at increasing the transparency and stability of administrative parameters and increasing the coordination between RTEP and RPM
 - PJM agrees with and sees the value in many of these recommendations but believes that further stakeholder technical review is first required before determining which of these can practically be considered for implementation for the 2015/2016 Base Residual Auction

- Recommend following considerations to reduce volatility and unpredictability associated with CETL determination
 - Provide CETL Forecasts within 5 and 10 year RTEP outlook
 - Provide uncertainty ranges around CETL values
 - Provide CETL model
 - Identify successive limiting elements
 - Facilitate cost-effective upgrades to limiting elements
 - Develop deadband for adding or removing transmission projects in RTEP

- Recommend measures to increase transparency of load forecasting process and forecast uncertainty
 - Improve documentation/explanation of drivers behind updated load forecasts
 - Provide estimates of forecasting uncertainty
 - Continue existing efforts to refine load forecasting model
 - Consider semi-annual preliminary updates to load forecast
 - Collect utility load forecasts as additional reference points
 - Retain academic advisors to PJM load forecast team

- Recommend measures to better model transmission-related impacts on RPM
 - Proactively model LDAs recognizing units at risk of retirement
 - Model LDAs in future BRAs and IAs based on clearing results
 - Define LDAs based on transmission capability (not service territory)
 - Model export-constrained and meshed LDAs
- Recommendations related to the setting of LDA and RTO-wide reliability requirements
 - Examine and refine the 1 day-in-25 year criteria used in determining LDA reliability requirements
 - develop a better understanding of the tradeoffs between reliability targets and cost of new capacity as part of a broader re-evaluation of the level and application of current reliability criteria

- Recommend following considerations to reduce reliance on Reliability- Must-Run (RMR) contracts
 - Set LDA reliability requirements consistent with certain transmission security criteria used in retirement studies
 - Perform CETL calculation consistent with auction results
 - Model LDAs with potential for high CETO
- Add economic criteria to the evaluation of transmission projects planned to meet locational resource adequacy requirements

- PJM recommends not upsetting current stakeholder deliberations on the following subjects, but instead use the report to inform current stakeholder efforts:
- MOPR Exceptions
 - Better support competitive entry through bilateral and self-supply arrangements by establishing clear exemptions to MOPR for offers that are based on a non-discriminatory procurement or that do not serve net-short buyers
- NEPA
 - Do not expand NEPA as a generally-available multi-year pricing option but keep in it's current form for meeting original purpose of mitigating price impacts of adding large resources in small LDAs
- Facilitate long-term contracting through centralized voluntary auctions for multi-year products (e.g. 3, 5, 7, 9 years)

- Brattle recommends increasing minimum offer cap to account for cost and risk of taking on capacity obligation including potential risk of performance penalties
 - PJM does not recommend going forward with this recommendation at this time
 - Issue was debated and voted against by stakeholders in last CMEC effort

- Further stakeholder discussion of Brattle results/recommendations:
 - August 30, 2011 - 10:00 am to 12:00 pm - Teleconference/WebEx Only
 - September 9, 2011 - 10:00 am to 12:00 pm - Teleconference/WebEx Only
- Placeholder to discuss Brattle Study and other MRC/RPM Items
 - September 12, 2011 - 9:30 am to 4:00 pm - Chase/WebEx
 - September 14, 2011 - 9:30 am to 4:00 pm - Chase/WebEx
- Further work plan to be developed