

Package “D” Proposal For Unit-Specific, Below-MOPR Calculation Based on Out-of-Market Payment Amounts

Kenneth Carretta
PSEG Energy Resources & Trade LLC

The Payment Stream Needed for a Construction Commitment As Revealed through a Competitive Procurement or an Administrative Regulatory Process Will Provide Reliable Data for the Unit Specific MOPR Determination

- Two categories of cases for the unit specific exemption:
 - Units that do not qualify for the Competitive Exemption because they receive out-of-market payments from a governmental entity awarded through a discriminatory (new only) procurement
 - Cost of service units that do not qualify for the Self-Supply Exemption because the developer falls outside of the “safe harbor” parameters for lacking incentives to exercise market power
- Competitive (but discriminatory) procurements should reveal the minimum acceptable level of payments for the developer’s commitment to construction
- The findings of the regulatory agency with oversight of the cost-of-service developer should also provide a reliable indication of the developer’s costs and risks

***Post Hoc* Data Supplied by the Developer or Industry Proxy Data Will Be Less Reliable as Evidence of the Developer's Real Costs**

- Data supplied by a developer solely for the purpose of seeking a unit-specific MOPR determination will be less reliable:
 - The developer is not obligated to make any financial commitment based on its submissions to PJM/IMM and has financial incentives to “low-ball” the cost components
 - The MOPR review oversight process will not be as rigorous as a rate case proceeding with testimony, cross-examination, etc.
- Industry proxy data, while objective, does not necessarily represent a particular developer's actual costs or risk profile

The Calculation Process

- Identify the full payment stream that supports the development of the project
- Determine a “cost of funds advantage” associated with the OOM support
- Scale up the full payment stream based on the impact of using the lower cost of funds associated with the OOM arrangement as compared with the reference unit calculation
- Determine the nominal-levelized scaled payment stream
- Subtract the nominal-levelized energy and ancillary payments that the project can expect to receive as determined by the IMM/PJM
- The final result will be an amount in \$/MW-Day that reflects the developer’s perception of costs and risks presented in a comparable manner to the reference unit calculation

Comparison With Proposal A

- Proposal D uses the best available evidence of the developer's costs; Proposal A allows the use of less reliable data compiled by a developer with incentives to understate costs
- Proposal D uses industry proxy data for a limited set of components, *i.e.* the cost of funds advantage calculation and the energy/ancillary service revenues; Proposal A uses industry proxy data for many components
- Proposal D is very transparent – the main cost element is publicly available; under Proposal A, key cost items are confidential and cannot be challenged by other stakeholders
- Proposal D inherently recognizes cost savings derived from the special circumstances of public power entities; Proposal A also may recognize such cost savings but requires the developer to make an affirmative demonstration of their levels

Additional Information

- Additional information:
 - Dr. Shanker Presentation: <http://www.pjm.com/~media/committees-groups/task-forces/cstf/20140411/20140411-item-03-package-d-mopr-presentation.ashx>.
 - White Paper: <http://www.pjm.com/~media/committees-groups/task-forces/cstf/20140411/20140411-item-03-package-d-mopr-whitepaper.ashx>.
 - Illustrative example: <http://www.pjm.com/~media/committees-groups/task-forces/cstf/20140425/20140425-item-04-pseg-proposal-for-unit-specific-below-mopr-calculation.ashx>.
 - Short description: <http://www.pjm.com/~media/committees-groups/task-forces/cstf/20140425/20140425-item-04-package-d-summary.ashx>.

Appendix

Illustrative Example of PSEG Companies Proposal For Unit Specific Below MOPR Calculation
Revised April 30, 2014

| A | B | C | D | E |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| IMM/PJM Cost of Funds For Reference Unit (Assumed) | Average "BBB" Credit Spread to 30Y U.S. Treasuries - based on Bloomberg Indices 20 year history (3/31/93 - 11/13/13) | Average "B" Credit Spread to 30Y U.S. Treasuries - based on Bloomberg Indices 20 year history (3/31/93 - 11/13/13) | C minus B BBB to B Credit Spread - Difference between Investment Grade and Typical Merchant Generator Credit Rating | A minus D (Assumed Rate for Below MOPR Scaling Adjustment) |
| 8.00% | 1.61% | 4.59% | 2.98% | 5.02% |

SCALING FACTOR: The Ratio of CONE value using 8.0% cost of funds vs. CONE value using 5% cost of funds: **1.3**

| A | B | C | D | E | F | G | H |
|-------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Delivery Year (starting in fourth year after auction) | Contract/OOM Capacity Payment (Seller keeps energy revenues)(\$/MWD) | PJM/IMM Calculated E&AS Payments Expected (\$/MWD) | B+C --Imputed Total Nominal Expected Payments (\$/MWD)(A proxy for annual gross capacity cost) | (D*1.3)-- Imputed Total Nominal Payments (Adjusted by scaling factor of 1.3) (\$/MWD) | (Levelize Sum of E) --Nominal Levelized Total Future Payments To Achieve Same Present Value (assumed 8.0% DR) (\$/MWD) | (Estimate Proxy Portion of Capital From E&AS)-- Nominal-Levelized E&AS Payments (assumed 8.0% DR) (\$/MWD) | (F-G)--Nominal Levelized Future Capacity Payments (Column F Minus Column G) (Unit Specific Below MOPR Value) (\$/MWD) |
| 1 | \$ 140 | \$ 200 | \$ 340 | \$ 442 | \$ 477 | \$ 208 | \$ 269 |
| 2 | \$ 145 | \$ 202 | \$ 347 | \$ 451 | \$ 477 | \$ 208 | \$ 269 |
| 3 | \$ 150 | \$ 204 | \$ 354 | \$ 460 | \$ 477 | \$ 208 | \$ 269 |
| 4 | \$ 155 | \$ 206 | \$ 361 | \$ 469 | \$ 477 | \$ 208 | \$ 269 |
| 5 | \$ 160 | \$ 208 | \$ 368 | \$ 478 | \$ 477 | \$ 208 | \$ 269 |
| 6 | \$ 165 | \$ 210 | \$ 375 | \$ 488 | \$ 477 | \$ 208 | \$ 269 |
| 7 | \$ 170 | \$ 212 | \$ 382 | \$ 497 | \$ 477 | \$ 208 | \$ 269 |
| 8 | \$ 175 | \$ 214 | \$ 389 | \$ 506 | \$ 477 | \$ 208 | \$ 269 |
| 9 | \$ 180 | \$ 216 | \$ 396 | \$ 515 | \$ 477 | \$ 208 | \$ 269 |
| 10 | \$ 185 | \$ 218 | \$ 403 | \$ 524 | \$ 477 | \$ 208 | \$ 269 |
| Present value at time of auction using 8.0% | \$ 849 | \$ 1,107 | \$ 1,955 | \$ 2,542 | \$ 2,542 | \$ 1,107 | \$ 1,435 |

The intent is to estimate gross cone. Here we infer that gross cone equals the sum of the party's offer price plus the estimated E&AS. Thus column D reflects a 100% gross capital number. We then wish to decompose that back to a levelized offer by removing the portion of capital expected to be recovered from energy (Column G)