

Re-evaluation of Financial Parameters used in Cost of New Entry (CONE) for 2027/28 BRA

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Markets and Reliability Committee July 24, 2024



- Most recent Quadrennial Review of the capacity market was filed September 30, 2022, and later accepted by FERC on February 14, 2023, to be effective with the 2026/27 BRA
- A key parameter reviewed in the Quadrennial Review process is the estimated Cost of New Entry (CONE) for the Reference Resource, which is used in setting prices on the demand curve
- Since the last review, there has been significant movement in economic indicators, particularly interest rates, that can impact the financial parameters used in the calculation of CONE
- PJM retained the Brattle Group to review the financial parameters and assumed cost components and escalation rates used in the prior study for calculating CONE of the Reference Resource



Scope of Review

In Scope

Review capital cost escalation rates against BLS indices

Review results from The Brattle Group for updated financial parameters

Review Quadrennial Review financial parameters used to calculate Gross CONE starting with the 26/27 BRA

Present updated financial parameters calculated by a consultant

Determine if an additional financial adjustment is necessary to account for changing financial parameters

Determine if there is a need to update Gross CONE starting with the 27/28 Delivery Year

Out of Scope

Changes to E&AS Calculation

Changes to the VRR Curve

Scope is limited in order to maintain the current auction schedule



Brattle Review of Financial Parameters

- Brattle reviewed Generation Company public data to calculate updated ATWACC values, similar to the approach used in the FERC accepted 2022 Quadrennial Review.
 - Review compared cost of debt, cost of equity, beta values, revenue by business segment, generation mix by fuel type, capacity mix by geography, etc.
- Calculated ATWACC uses the same 55/45 Debt/Equity split as used in the FERC accepted 2022 Quadrennial Review.

Brattle recommends an ATWACC value is 10% for the 27/28 Delivery Year.



- Brattle with Sargent & Lundy reviewed escalation rates compared to the projections in the 2022 CONE filing
- Sargent & Lundy also compared OEM quotes to turbine costs that showed reasonable tracking
- These results concluded that the capital costs used for the construction of the Reference Resource and BLS indices for escalation for subsequent Delivery Years do not indicate a need to adjust the use of indices

No proposed changes to escalation for subsequent Delivery Years



Summary of proposed updates

| CONE Component | 2022 Quad Review Value | Proposed Updated Value |
|------------------------|------------------------|-----------------------------------|
| ATWACC | 8.85% | 10.0% |
| ATWACC adjustment | NA | NA |
| Bonus Depreciation | 20% for 26/27 | 0% for 27/28 and subsequent years |
| CONE Escalation | CONE×BLS Escalation | $CONE \times BLS$ Escalation |



Updated CONE Values

| | CONE Area 1 | CONE Area 2 | CONE Area 3 | CONE Area 4 | CONE Area 5 |
|----------------------------|--------------|--------------|--------------|--------------|--------------|
| Current Values (26/27) | | \$529/MW-day | \$542/MW-day | \$547/MW-day | \$553/MW-day |
| Proposed Values (27/28) | \$630/MW-day | \$605/MW-day | \$619/MW-day | \$612/MW-day | \$643/MW-day |

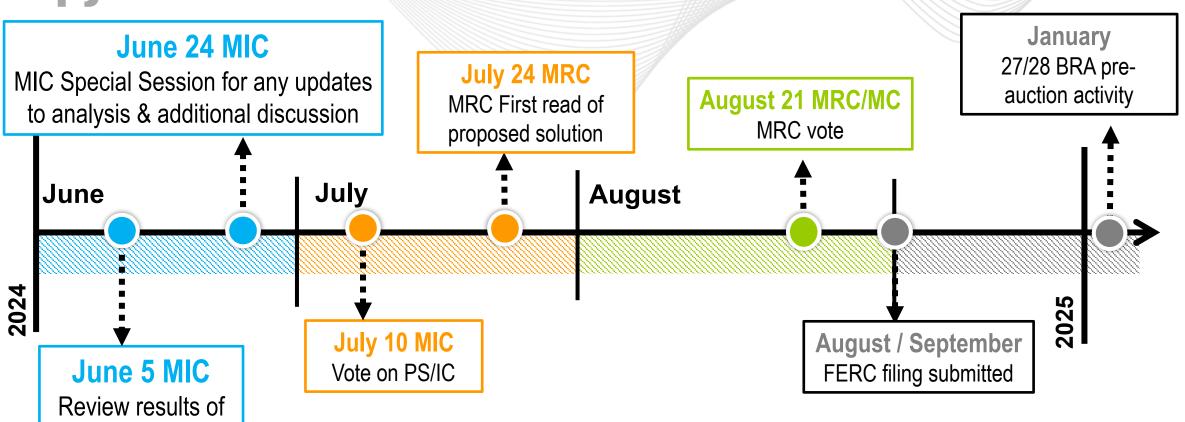
- All proposed changes are in the OATT § 5.10 and conforming M18 changes
- CONE value will be escalated for subsequent Delivery Years based on the current language for BLS escalation



consultant

analysis

Updated Schedule







| 1 | 2 | 3 |
|---|---|---|
| Proposed updated CONE values will become effective with the 27/28 BRA | No proposed changes to escalation methodology for subsequent delivery years | Updates will not delay current RPM auction schedule |



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Appendix



Additional Posted Material

- https://www.pjm.com/-/media/committees-groups/committees/mic/2024/20240624special/item-02-1--brattle-atwacc-and-annual-automatic-update-methodology.ashx
- https://www.pjm.com/-/media/committees-groups/committees/mic/2024/20240624special/item-02-2---brattle-pjm-cone-updates.ashx