Consultation with Members:

Capacity Market Must Offer and Market Seller Offer Cap Changes

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Purpose and Timing

The purpose of this meeting is to get feedback on the path forward including the scope and substance of a 205 filing.

This session will focus on:

1. Extension of the capacity market must offer requirement.
2. Enhancements to the Market Seller Offer Cap (MSOC)

- Following this meeting, PJM will consult with the Board.
- Any filing resulting from this process would be expected to be made on or about December 20, 2024 with the intent of implementing the filed changes for the 2026/27 Base Residual Auction (BRA).
- A deficiency notice on this filing could delay implementation to a later auction.

Topics Raised Since 2025/26 BRA

Various capacity market design elements have been discussed since the clearing of the 2025/2026 BRA.

Design Elements	
Reference technology of CC	Targeted for Dec. 2024 filing #1.
$0/MWd Net CONE in some areas	
Contribution of RMR resources	
Lack of must-offer for intermittent resources	
Winter deliverability for thermal resources	
Other ELCC enhancements	
DR availability window	
Sub-annual capacity market	

Beyond the filing proposed for December 2024, below are additional filing deadlines to implement enhancements in auctions.

Note: Additional time may be required for software development and testing. Dates below assume no additional time is needed.

Auction Year	Tentative Auction Date*	Estimated Filing Deadline*
2027/28	Dec. 2025	~March 2025
2028/29	June 2026	~Sept. 2025
2029/30	Dec. 2026	~March 2026
2030/31**	June 2027	~Sept. 2026

** Dates subject to change pending final auction schedule determination.*
*** The 2030/31 auction will be on the planned three year forward schedule.*

Rationale for this Item Now

- As part of the stakeholder discussions on Nov. 7 and 21, there were multiple stakeholders that expressed concern over the lack of must-offer requirement for all resources.
- The IMM raised this issue in their analysis of the 2025/26 BRA.
- There have been several Board letters including this as a topic of concern.
- PJM’s internal discussions following stakeholder meetings and further analysis we have done have made us question the appropriateness of continuing this exemption.

Status Quo vs. Proposal #1: Must-Offer Exemption

Current Rule

Categorical exemption exists for Intermittent Resources, Storage Resources, Hybrid Resources, Demand Resources and Energy Efficiency Resources.

Proposed Rule

Beginning with the 2026/27 BRA, categorical exemption exists for Demand Resources.

Status Quo vs. Proposal #2: Market Seller Offer Cap

Current Rule

Capacity Performance Quantifiable Risk (CPQR) is considered the same as any other going forward costs against which Net EAS Revenues are subtracted.

This can result in Capacity Market Sellers being capped at a level ($0/MW-day), less than their incremental risk of taking on a commitment.

Proposed Rule

Set a floor on the MSOC at the level of the CPQR.

This ensures that Capacity Market Sellers can always submit an offer that reflects the incremental risk of taking on a capacity commitment.

This change is to the MSOC and therefore available for all Capacity Market Sellers to use to the extent they can justify their request.

Status Quo vs. Proposal #3: Segmented Offer Caps

Current Rule

Currently the MSOC is calculated at the resource level but offers can be submitted in segments.

Proposed Rule

Allow the MSOC to be determined by segment.

The most intuitive benefit of this change would be to allow resource types like wind, solar, hydro, etc., where weather conditions may meaningfully and consistently affect their capability, to be able to reflect how their risk increases with higher committed levels of capacity.

This change is to the MSOC and therefore available for all Capacity Market Sellers to use to the extent they can justify their request.

Background on the Categorical Exemption

- Prior to the implementation of Capacity Performance (CP) in 2015 (ER15-623), all Existing Generation Capacity Resources had a must-offer requirement.
- In the CP proceeding, Section 6.6A of Attachment DD was introduced.
  - Required all Existing Generation Capacity Resources that qualify or “reasonably can become capable” to offer as a CP Resource. (6.6A(a))
  - Carved out exceptions for resources that demonstrate they are incapable of performing and the categorical exemptions for Intermittent Resources, Capacity Storage Resources, Demand Resources and Energy Efficiency Resources. (6.6A(c))

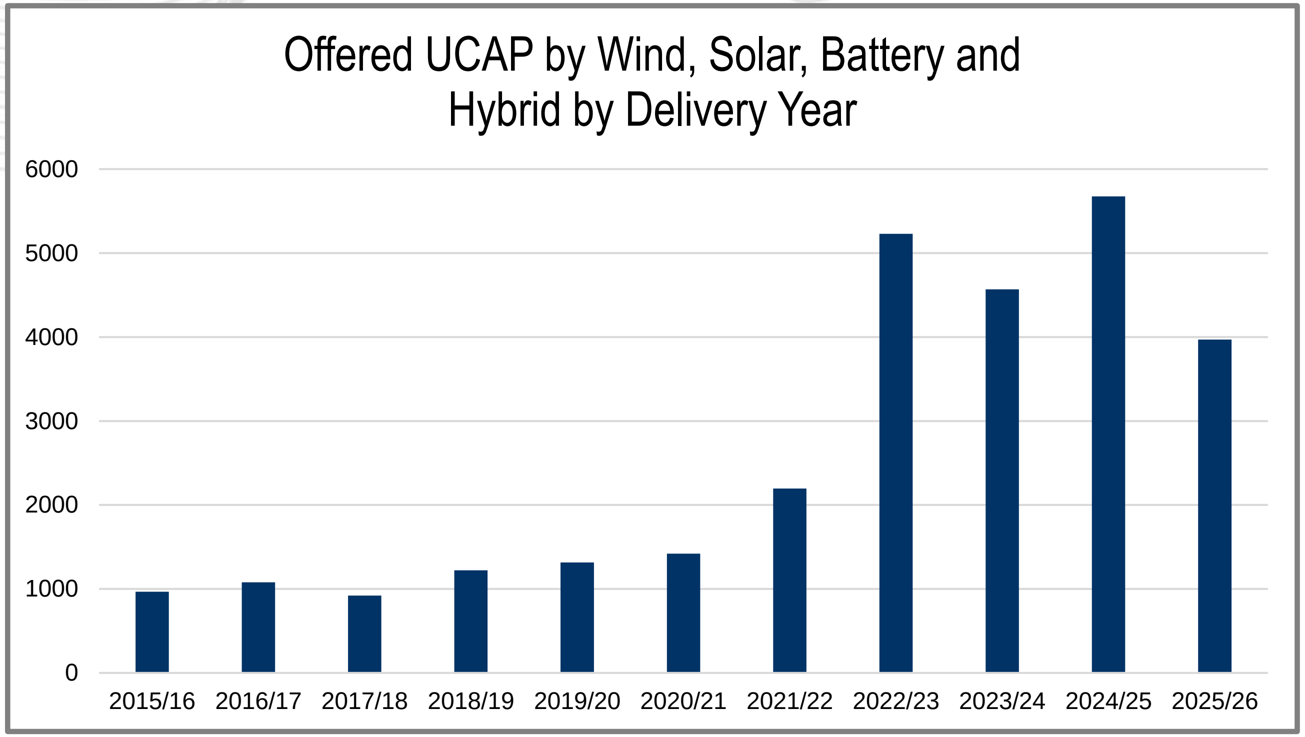
Original Justification for the Categorical Exemption

Pages 60 and 61 of PJM's Capacity Performance Filing - December 12, 2014.

However, PJM's proposed "must-offer" provision clarifies that ***"Intermittent Resources, Capacity Storage Resources, Demand Resources, and Energy Efficiency Resources shall not be required by this provision to submit an offer as a Capacity Performance Resource."*** But while they are not required to offer as Capacity Performance Resources, these types of resources can choose to offer as Capacity Performance Resources if the Capacity Market Seller wishes to do so, and can demonstrate that its resource (at the MW quantity it is offering) can meet the requirements of a Capacity Performance Resource. This rule tracks the current must-offer rule, which applies only to generation resources. ***As a practical matter, these types of resources do not raise the same physical withholding concerns as do existing generation resources (ownership of which is relatively concentrated). Moreover, a must-offer requirement would be difficult to enforce against these types of resources. It is not clear, for example, how PJM could compel a party to offer load reductions into RPM, or demand that an intermittent resource assume its resource will operate when solar or wind conditions do not allow operation, or require the operator of a storage resource to take an unreasonable risk on the amount of charging time it will have for its resource before an Emergency Action occurs.***

Physical Withholding Argument: Growing Penetration

- In the 2025/26 BRA, there were approximately 1,600 MW of categorically exempt resources that were not offered into the 2025/26 BRA ([Slide 38]).
- 1,100 MW of the 1,600 MW are from Wind, Solar, Battery and Hybrid. This is about the same amount of total UCAP offered by these resource types when this exemption went into place.
- While this does not specifically speak to concentration (we will look into that), it is clear that conditions have changed since 2015.
- Further, the generation queue is dominated by these resource types. Failure to have them provide capacity presents resource adequacy concerns as well.

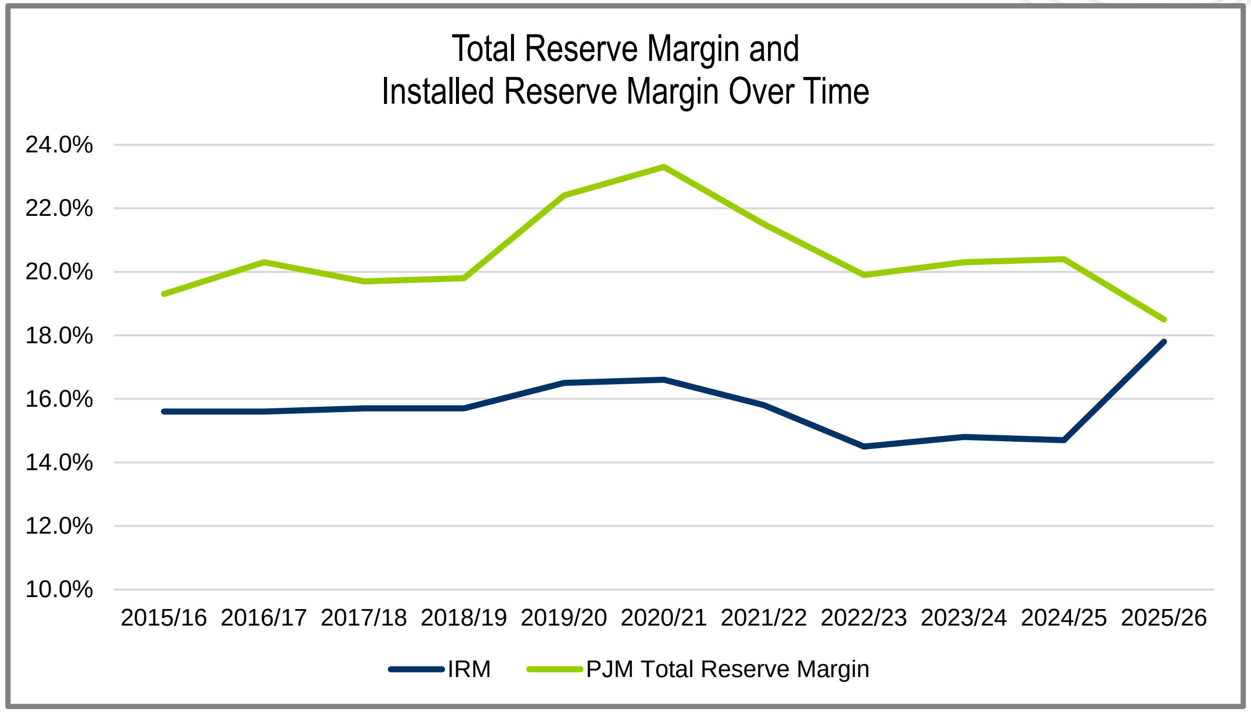


https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/rpm-commitment-by-fuel-type-by-dy.ashx

* Hydro offered UCAP has decline from almost 8,500 MW in the 2018/19 BRA to about 5,400 MW in the 2025/26 BRA.

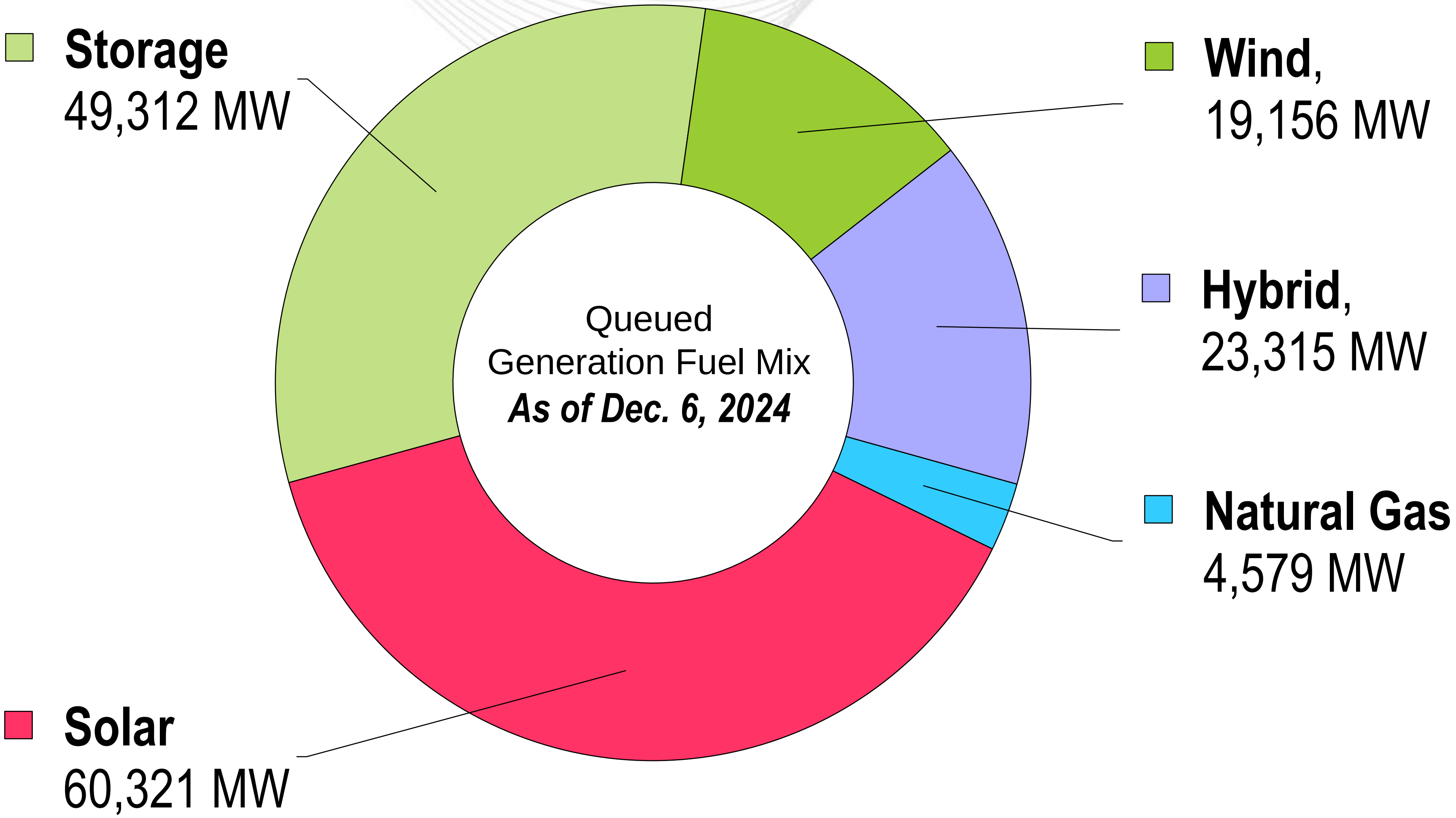
** Note that in 2025/26 accreditation changed to marginal ELCC which may skew that statistic.

Physical Withholding Argument : Impact of Unoffered MW



- As the system gets tighter (supply decreases and/or demand increases), the need for all available MW to offer is heightened. Unoffered capability can:
  - result in shortfalls relative to the reliability requirement.
  - significantly increase prices unnecessarily when decisions not to offer are not supported.

Physical Withholding Argument : Looking Forward



Physical Withholding Argument:
Value of Capacity Interconnection Rights (CIR)

- As the level of resources with a categorical exemption in PJM grows, we are at risk of a larger and larger quantity of Generation Capacity Resources, for which load is continuing to pay to maintain deliverability, on not offering capacity into the market.

- Currently, and especially under higher levels of penetration, it is not clear that loads paying to upgrade the system to maintain deliverability are getting the full value of those investments.

Unreasonable Risk Argument: Demand Resources (DR)

PJM is not proposing to extend the must-offer to DR.

- It remains unclear to PJM how to effectively implement a must-offer for DR.
- While mechanically this could likely be done, the consumer always has the option to consume if they choose.
- Its not clear to PJM how we could remove that option and compel specific consumers to offer load curtailment capability if they do not want to curtail and would rather pay the clearing price.

Unreasonable Risk Argument:
Changes Since CP Implementation – Performance Assessments

- In mid-2023, following Winter Storm Elliott, PJM filed and FERC accepted a proposal targeted at reducing the risk of non-performance for Capacity Market Sellers.
  - Performance Assessment Interval (PAI) triggers were altered to focus on more extreme conditions. The current rules at the time of Winter Storm Elliott resulted in about 23 hours worth of PAIs, these new rules result in about 6 hours for the same event.
  - The stop-loss was changed to be based on the clearing price for the Delivery Year rather than Net CONE. This limits the maximum exposure to 150% of the total capacity revenues for the year rather than the prior model which could greatly exceed that level.

Unreasonable Risk Argument:
Changes Since CP Implementation – Marginal Accreditation

- Beginning with the 2025/26 BRA and continuing forward, PJM now uses marginal ELCC to accredit resources as opposed to average approaches used in prior Delivery Years. This change is risk reducing.
- Marginal ELCC accredits resources based on their expected performance during load shed events based on previous history or output profiles.
- Accreditation in this manner better aligns accredited capacity with expected performance rather than average. This reduces the risk of taking on a commitment.

Unreasonable Risk Argument: Changes Proposed to MSOC

- PJM is proposing two changes to the MSOC intended to expand the capability to include risk in capacity market offers
  - Setting a floor on the MSOC at CPQR
  - Allowing segmented offer caps to enable sellers to reflect varying levels of CP penalty risk across different segments of their units
- These are being proposed as companion changes to the must-offer to make sure that resources required to offer capacity can reasonably include their going forward costs and risks in their offer.
- Given the aforementioned reductions in risk, PJM does not anticipate these changes to have a material impact on auction outcomes; however, it will be challenging to defend extending the must-offer to more resources with the MSOC in its current form.

Timeline

- **December 4:** Initial Notification at December MIC.
- **December 6:** Formal notice of consultation sent to stakeholders.
- **December 13:** Consultation meeting with members.
- **December 16-19:** Further consultation with Board and proposal refinement.
- **December 20:** Anticipated Filing Date
- **Mid-February:** Order

Relevance of the Filing Date

- The date to submit a Notice of Intent to offer into the 2026/27 BRA was December 1, 2024.
- The earliest critical date in the pre-auction schedule relative to these changes is the February 24, 2025 deadline for capacity resources to request removal of capacity status.
- A filing on Dec. 20 allows FERC 60 days to issue an order and have it before that deadline.
- We plan to communicate to FERC that an order is needed in 60 days to allow for implementation in the 2026/27 BRA.