

Minimum Offer Price Rule for Hybrid and Co-Located Resources consisting of Solar and Battery

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- New Capacity Resources without State Subsidy (Attachment DD § 5.14(h))
 - PJM calculates default MOPR for CT, CC, and Other Resources (Batteries, etc.) in four CONE areas
 - Nuclear, Coal, integrated gasification combined cycle, hydro, wind, or PV are \$0/MW-year
- Capacity Resources with State Subsidy (Attachment DD § 5.14(h-1))
 - PJM calculates default MOPR for single resource types:
 Nuclear, Coal, CC, CT, PV, Wind, Battery Energy Storage,
 Diesel Backed DR, EE, and Load Backed DR



MOPR for Hybrid Resources (Solar + Battery)

- If either resource is eligible for a State Subsidy, then the resource must follow the rules for Capacity Resources with State Subsidy
 - Hybrids do not have a default price and must request unit specific exception by auction specific deadline
 - Competitive exemption is an option
- If both resources are not eligible for a State Subsidy, then the resource must follow the rules for New Capacity without State Subsidy
 - 70% of Net CONE for a CT, within the CONE area, or
 - Eligible for a resource specific offer

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Co-Located Resources (Solar + Battery)

- If there are two resources without any significant interactions occurring between the resources, this is a Co-Located Resource
- Any significant interactions between Co-Located resources results in the resource being a hybrid resource

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Renewable or Storage Exemption Eligibility

Prior to December 19, 2019, at least one of the following must apply for limited exemption Attachment DD § 5.14(h)(6) and (8)

- has successfully cleared an RPM Auction
- is the subject of an interconnection construction service agreement, interim interconnection service agreement, interconnection service agreement or wholesale market participation agreement executed by the interconnection customer
- is the subject of an unexecuted interconnection construction service agreement, interim interconnection service agreement, interconnection service agreement or wholesale market participation agreement filed by PJM with the Commission



Co-Located Description	Solar	Battery
Existing/Exempt Solar + New Battery	Exempt	MOPR
New Solar + Existing/Exempt Battery	MOPR	Exempt
Existing/Exempt Solar + Existing/Exempt Battery	Exempt	Exempt
New Solar + New Battery	MOPR	MOPR

Existing refers to resources that have cleared and are not eligible for a State Subsidy Exempt refers to resources eligible for a State Subsidy



Hybrid Description	Hybrid
Existing/Exempt Solar + New Battery	MOPR
New Solar + Existing/Exempt Battery	MOPR
Existing/Exempt Solar + Existing/Exempt Battery	Exempt
New Solar + New Battery	MOPR

Existing refers to resources that have cleared and are not eligible for a State Subsidy Exempt refers to resources eligible for a State Subsidy



MOPR Decision Tree (Solar + Battery)

Unit Specific MOPR Eligible for State Subsidy Competitive Exemption Hybrid or Co-Located Resource 70% of Net CONE Not Eligible for a State Subsidy **Unit Specific MOPR**

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- Non-Binding MOPR Subsidy Opinions
 - https://www.pjm.com/-/media/markets-ops/rpm/rpm-auctioninfo/non-binding-mopr-subsidy-opinions.ashx
 - Submit requests through MIRA
- Competitive exemption is available if refuse a state subsidy



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Solar-Battery Hybrids



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