PJM MSOC Package Summary

The objective of PJM's MSOC package is to address the shortcomings identified in the current unit-specific offer cap calculation and allow market sellers to submit a competitive offer that reflects their economic costs of taking on a capacity commitment, as well as provide clarity and improvements to the review process.

The current Net ACR calculation accurately captures the competitive offer level, or economic costs, for units that may otherwise mothball or retire if not cleared in the capacity market. The ACR component considers the costs avoidable by not operating the unit for the year, consistent with a mothball or retirement decision, and nets those costs with expected profits from the energy and ancillary services (E&AS) markets to determine the minimum capacity price needed to economically support continued operation of the unit and accepting a capacity obligation.

> *Example: Unit has an ACR of $200 and E&AS offset of $120 for a Net ACR of $80. The competitive offer level and profit-maximizing offer is equal to the Net ACR of $80. If the clearing price falls below this value, the costs incurred by operating the unit and taking on a capacity obligation ($200) exceed the capacity revenues (< $80) and E&AS net revenues ($120), such that a competitive market seller would prefer not to clear and in turn, mothball or retire the unit, and the opposite is true for any clearing price above the $80.*

However, the current Net ACR calculation does not correctly capture the competitive offer level, or economic costs, for units that would otherwise continue operating and participate in the E&AS markets if not cleared in the capacity market. In this instance, a competitive market seller would not consider the costs avoided by not operating the plant, nor the loss of E&AS net revenues by not operating, as the unit is profitable and will be operating regardless of clearing in the capacity market. Instead, the economic costs are solely those incremental costs of taking on the capacity obligation. This includes cost components of ACR that are avoidable when operating the unit but not taking on a capacity obligation, particularly CPQR. It also includes CP opportunity cost[1], which is an economic cost missing in the MSOC calculation today. A resource that does not clear and has no capacity commitment can expect to earn more in bonus revenues during CP performance assessments than if it had cleared. The bonus revenue that is lost by accepting a capacity commitment is the CP opportunity cost, and is an economic cost appropriately included in capacity offers for competitive market participants.

The argument that a must offer requirement for certain capacity resources prevents the use of these costs as avoidable going-forward costs to determine the MSOC is not correct. The must offer requirement is intended to prevent physical withholding of capacity. It is not a must clear requirement, and sellers should be able to reflect all the relevant economic costs a competitive market seller would consider in its offer to be committed as a capacity resource. A resource that does not clear in the market can remain a capacity resource, and a rationale, competitive seller intending to maximize profits would not accept any arbitrarily low clearing price in the capacity market that would fail to cover the economic costs of taking on the capacity commitment. Competitive market outcomes result from clearing a market where offers reflect economic costs of competitive participants—excluding these costs can result in prices that do not reflect competitive outcomes.

[1] Similar to CPQR, the assumptions and calculation of CP opportunity costs would need to be reasonably supported by the market seller in the unit-specific submission – it is not a return to Net CONE * B, where the Commission specifically found the calibration and assumption of 30 hours in deriving the default offer cap to be unjust and unreasonable, not the concept or inclusion of CP opportunity cost.

Example: A profitable unit has an expected E&AS offset that significantly exceeds avoidable going-forward costs (negative Net ACR under the formula today) and expects to continue operating regardless of clearing in the capacity market. The unit has a CPQR of $10 and CP opportunity cost of $15 that reflect the unit's incremental costs of taking on a capacity commitment. The competitive offer level is the sum of those incremental costs, equal to $25. If the clearing price falls below this value, the costs incurred by taking on a capacity obligation ($25: cost of CP risk + loss of expected bonus revenues) exceed the capacity revenues (< $25), such that a competitive market seller would prefer not to clear and in turn, remain a capacity resource without a commitment, and the opposite is true for any clearing price above the $25.

The PJM package proposes to address this issue in the formula today by allowing the MSOC be set at the competitive level and reflect all the relevant economics costs relative to the unit's operating state if not cleared in the market, whether that be mothball or retirement, or continued operation as a non-committed capacity resource for the year. It also allows sellers to voluntarily choose segmented offer caps to reflect incremental costs when able to provide reasonable justification and support for the segmented cap.

The PJM packages includes updates to CPQR as well. This includes clarifying the "costs of mitigating the risks" Tariff language to "mitigating, retaining, or otherwise managing the risks" to be clear that sellers may opt to retain the risk, or "self-insure", and may generally reflect costs tied to managing CP risk. It also includes an update in that language to make clear that market sellers may reflect costs of CP risk beyond net expected outcomes. Beyond the rule changes, PJM supports the development of a default methodology for calculating the CPQR value that sellers can opt in to use and that is consistent with actuarial practices in the industry to model and value risk. We generally view the model and methodology the IMM has presented on as one reasonable approach for this, keeping in mind that it's important market sellers are able to reflect their own assessment of costs or risks in the MSOC to the extent the seller has adequately supported them[2].

There are also a number of proposed changes to the MSOC review process in the PJM package, including updates to some of the pre-auction MSOC activity deadlines and providing information to improve transparency of calculations and determinations. The proposal also allows PJM to approve an alternative MSOC value in its determination based on its review and discussions with the market seller, as opposed to the simple accept or reject allowed today.

[2] The roles of PJM and the IMM are not to calculate CPQR for a market seller or to tell them how they have to calculate it. Our roles are to review the calculations submitted by market sellers to ensure they are reasonable. The FERC made several statements in its rehearing order on the MSOC clarifying this (https://www.pjm.com/directory/etariff/FercOrders/6068/20220218-er21-2877-001.pdf). In restating its finding in the original CP proceeding, the FERC states "*[t]he risk that market sellers face from offering capacity resources under the new capacity market construct requires a complex calculation that depends on the company-specific nature of valuing performance risk…",* and in commenting on the roles of PJM and the IMM, "*Further, any cost or risk that can be adequately supported by a seller as arising from its need to meet a capacity supply obligation, and is allowable under the Tariff, is acceptable in unit-specific review. In other words, under the Tariff rules, the Market Monitor and PJM may not substitute their assessment of costs or risks permitted in the ACR formula for the seller's unless PJM and the Market Monitor determine the seller has failed to support and justify them. …*"