

PAC: Generator Interconnection Queue Improvements Proposal (PAC-2023-1)

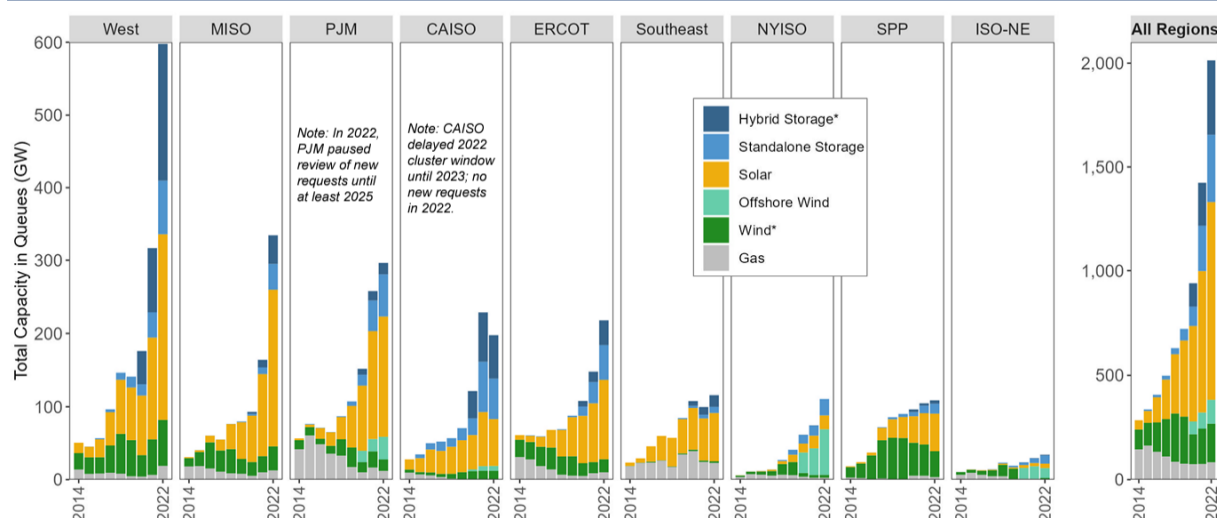
The Southern Renewable Energy Association (SREA) appreciates the opportunity to provide feedback on MISO's 'strawman proposal' for Generator Interconnection Process Improvements. SREA also appreciates the scheduling of a workshop to address stakeholder concerns about the proposal that were not addressed in the PAC meeting. Overall, we are concerned that the stakeholder process dedicated to this topic, which significantly impacts our members, is not optimal and is rushed considering the scope of changes in the proposal. While a workshop was held on 8/7, similar to the solicitation of stakeholder feedback on the 5/31 PAC presentation introducing the initial GIP reforms, it was only scheduled due to stakeholder outcry that more time was needed to vet stakeholder concerns. Also, the workshop was not accompanied by *any* presentation materials. The public stakeholder process on this issue has been reactive at best to stakeholder concerns, and the claim in the 7/19 presentation on GIP reforms that 'a high majority of stakeholders agree with MISO's direction' and that 'MISO had dozens of individual meetings with stakeholders from multiple sectors' without any public record of who or what was discussed, does not resemble a robust or transparent stakeholder process.

FERC's release of Order 2023 also complicates MISO's proposal. In its current form, SREA is concerned about the effectiveness of a filing at FERC that is not well vetted by stakeholders over the suggested four month timeline consisting of only one meeting and a workshop that discusses MISO's strawman proposal, in addition to a forthcoming compliance filing on Order 2023. Considering the tone of the discussion at the PAC, a filing at FERC is most likely to experience opposition, which would ultimately delay implementation of reforms further. The time spent on a probable delay would likely be better spent in the stakeholder process developing an interconnection process reform that stakeholders feel confident will address the issues leading to current challenges to processing requests in a timely, transparent and efficient manner.

The correct approach to interconnection queue reforms should not be default to the status quo or to apply an administrative cap to the amount of MW's entering into the queue. The interconnection queue process is intended to provide generators with a clear expectation of transmission upgrade costs associated with a generation resource sited at a specific location. MISO's analysis of needed interconnection upgrades should instill confidence and be transparent. Withdrawals from the queue happen when there is neither transparency in process nor a clear expectation of costs, and that causes re-studies. It is not enough to just raise the barrier to entry for interconnection customers to address the study needs for the amount of projects in the queue. This does not directly address the need for the efficient processing of requests. Investing costs in measures that increase efficiency could directly address this challenge, but just raising costs alone will likely just result in more submissions from fewer developers. The current proposal runs the risk of creating a chilling effect which decreases competitive development of projects in the queue, and potentially to under-procurement of resources throughout the footprint. MISO should provide transparency into how funds collected from milestone deposits as well as penalties will be dedicated to queue process improvements, if at all.

While adopting more restrictive requirements than other regions may seem like a way to reduce the queue size, there appears to be little evidence to support such a move. Queue growth in MISO has exceeded both SPP and PJM this past year; however, PJM's growth far exceeded MISO's last year, and SPP's queue has historically been larger than MISO's. [All queues are increasing in size](#). As new technologies become cost effective, those new technologies are added to the queue on top of older technologies, expanding queue sizes. That trend is clear for solar, batteries, hybrid resources, and in some regions, offshore wind. As the industry expands generator technologies, the queue will also change, and likely grow.

Active queue capacity highest in the non-ISO West (598 GW), followed by MISO (339 GW) and PJM (298 GW). Solar and storage requests are booming in most regions.



Notes: (1) *Hybrid storage capacity is estimated for some projects using storage:generator ratios from projects that provide separate capacity data, and that value is only included starting in 2020. Storage duration is not provided in interconnection queue data. (2) Wind capacity includes onshore and offshore for all years, but offshore is only broken out starting in 2020. (3) Hybrid generation capacity is included in all applicable generator categories. (4) Not all of this capacity will be built.

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Position Summary

Moving forward MISO should take care to preserve a competitive environment for developers submitting projects to the queue. Preserving a competitive environment has downstream impacts on the competitiveness of the wholesale market. Increasing milestone payments for interconnection customers and applying financial penalties more broadly are likely to favor larger, more well resourced developers, and these reforms will have downstream impacts on the wholesale market making it less competitive as well. For developers who may have to increase costs to cover the investment in submitting to the interconnection process, there should be a clear line for developers to understand how funds collected by MISO in milestone payments and financial penalties are invested in ways that enhance the interconnection process. Ultimately, the end goal should not be just to cap submissions to the queue, but to run an efficient queue process that properly staggers study phases such that results are predictable and representative of expected system conditions. To increase efficiency and timely processing of interconnection requests, MISO should consider conducting multiple interconnection cycles per year. Doing so would allow for more manageable queue cycles and the timely processing of interconnection requests that are only increasing in recent years.

In summation, SREA strongly believes that reform is needed for the MISO interconnection process, but the correct approach should be thoughtful and lead to a durable GIP tariff. In a post-IRA, post-Order 2023 MISO footprint, priority should be given to the enhancement of the interconnection process and to necessary staffing to meet the influx of requests and the integration of grid enhancing technologies into studies, and not just to focus on limiting queue requests and getting a reform approved as quickly as possible.

Dedicate Funds to Queue Support

Interconnection cycles have challenged MISO's current process due to a significant increase in requests. This increase can be attributed to increased interest in renewable energy resources from MISO members, state public policy goals, as well as the passage of the Inflation Reduction Act, which provides a number of incentives for renewable energy and energy storage over the next decade. The queue, while much larger this year than previous cycles, is an indication of a new normal in developer interest in generation projects in MISO, and should be recognized as such. Not all projects will be built that enter the queue, but when MISO considers all the requests that are reasonable to process, they should not ignore the fact that major policy drivers for the next decade forecast a much larger queue than the historical trend. MISO is currently expecting customers to pay more, but not receive better service. MISO needs a plan to adjust to this new normal by dedicating a significant portion of any increased fees to hiring additional staff and/or consultants, as well as investing in additional computing power.

Replace a Cap with a Sliding Scale for M2 Deposits

SREA does not support an approach to limiting the queue by a percentage of peak load, or by a limit per developer. This still needlessly inhibits competition, and appears to be an arbitrary threshold that does not recognize more relevant issues regarding POI headroom, or land use restrictions. Further, setting a cap and a developer limit adds additional administrative burdens, as well as creating a difficult first-come, first-serve queue-rush at the beginning of a cycle. Setting a cap inherently creates inequalities that MISO would likely rather not have to arbitrate.

SREA discourages MISO from setting one single application price point at an exceptionally high level. The currently proposed \$12,000/MW cost will indeed dissuade some project developers from entering projects in the queue; however, the developers most influenced by this move will undoubtedly be smaller companies with fewer projects. [MISO has already noted](#) that the top three companies submitted 30 percent of the 2017-2020 queue project megawatts. The next twenty-two (22) companies submitted the next 19 percent of megawatts, thus the top twenty-five (25) companies submitted half of the projects. Over two-thirds of the megawatts proposed by these top twenty-five companies were withdrawn, whereas only about half of projects from all companies were withdrawn; the smaller companies are not causing queued projects to be withdrawn at a higher rate than the larger companies. As such, MISO's high proposed single price point for entry penalizes the companies that are least responsible for queue entries and withdrawals.

Instead we propose a solution that encompasses the MISO proposal's increase in milestone payments, but introducing a sliding scale based on the number of megawatts a developer submits to an interconnection cycle. Providing a sliding payment scale allows for queue customers to choose their own level of involvement in a planning cycle, while attributing higher costs to customers requesting more service. A sliding scale will ensure that developers across a spectrum from small to large will be able to enter the queue in a competitive environment that reflects correlating costs per MW of queue impact and correlating facility and network upgrades necessary for the delivery of their product to market.

Increases in Later Phase Deposits

SREA has another concern that was voiced by a stakeholder during the 8/8 GIP Workshop related to large increases in M3 and M4 payments. If the purpose of higher deposits is to limit the queue size at entry to a cycle, these increases are counter to that goal. The other issue is that currently, milestones payments accrue cumulatively to reflect an increasing proportion of expected Network Upgrade costs. Under the current strawman proposal, an IC is paying more than double than what accrues in the current process. Given this arrangement, actual upgrade costs may be far exceeded by funds collected at this point. SREA proposes that MISO retain the current M3 and M4 deposit structure to eliminate this possibility, which could face credible complaints about overpayments in a final filing at FERC, and delay implementation of reforms.

Energy Storage

It should be acknowledged that any cap to MW's in the queue may inherently limit interconnection requests for standalone storage as well. While this may not be the intention, standalone storage charging from the grid has an inherent synergy with other resources in the queue, and this needs to be captured. To do this, MISO should first revise dispatch for interconnection requests so that contribution to load is not just nameplate value, but the energy contribution to the system. Capturing a more realistic dispatch of resources is crucial for interconnection studies; but as FERC has noted in Order 2023,¹ energy storage is much more dynamic as a resource that is both load and generation and has technical capabilities that are underrepresented in MISO's current interconnection processes.

Improve Site Control Requirements

MISO's proposed site control requirements mostly appear to be [based on SPP's current site control requirements](#). Such an updated requirement may be helpful; however, within the current MISO queue process, a POI may be changed at a later time by a transmission owner or MISO. A project developer where a POI is changed should be allowed to withdraw their request without penalty, or be provided an amount of time to cure their proposal. Also, a project developer should be allowed to withdraw projects without penalty, if a local or state policy change occurs that inhibits project development, such as stringent siting requirements, or even bans. Similarly, if requirements for POI site control are applied retroactively for projects in late queue stages, those projects should not be subject to withdrawal penalties.

¹ FERC Order No. 2023, pg. 50, Par. 52

	SPP	PJM	MISO
Site Control For Generating Facility Tie Line	Upon submission, reasonable evidence of Site Control for at least fifty percent (50%) of the mileage of the Generating Facility's high voltage tie line to the Point of Interconnection, or in lieu of Site Control for the Generating Facility's high voltage tie line, additional financial security in the amount of \$80,000 per entire line mileage right-of-way.	Application Review Phase - 100% site control for generating site. Prior to Phase 1: Decision Pt 1 - 100% Site Control for Gen Facility; 50% site control for gen-tie to the POI & 50% IC switchyard (if necessary) Decision Pt 3 (end of Phase 3): 100% site control within 6 months of agreement execution for generation site, IC switchyard, IC facilities to POI.	Prior to conclusion of the Interconnection Customer's GIA execution period, 50% Site Control for all Interconnection Customer's Interconnection Facilities
Site Control Acreage Requirements	Wind – 30 acres per MW; Solar – 6 acres per MW; Storage/Battery – 1 acre per MW or manufacturer specifications; Conventional Generation – 40 acres (fixed) or manufacturer specifications	Site plan submitted with the Attachment N application must show the arrangement of the proposed facilities for the amount of MW Requested	Wind-50 acres per MW; Solar-5 acres per MW; Storage/Battery-0.1 acres per MW; Conventional-10 acres for the proposed facility; Hybrid-Sumination of the various fuel types represented in the Hybrid facility based on each fuel type's acres per MW show above

Automatic Penalties

MISO is proposing applying automatic penalties to projects withdrawn at various stages, including 10% of M2 deposits before the kickoff of DPP1. This is highly problematic, and is essentially a penalty applied before harm to a cluster of interconnection customers is even possible. The harm calculation to determine liability for automatic penalties should be improved, but not zealously applied. Automatic withdrawal of funds should only be after communication with an interconnection customer that a threshold of expected costs for upgrades does not qualify the project for penalty free withdrawal.

Overall, SREA is opposed to MISO's proposal for applying automatic penalties. For applying penalties as a result of harm calculation, we strongly suggest that rather than just proposing a historical threshold of 10-25% of outlying costs in a cycle to identify projects that are able to withdraw from the queue penalty-free, there should also be a backstop of a percentage of projected capital costs per project as well. For example, no developer would proceed with a project that entails upgrades that amount to a third or more of the capital cost of a project. MISO's current proposal with an absolute percentage threshold based on historical cycles for outlying costs does not provide certainty for interconnection customers in the event that costs are outside the norm, but still falling below a pre-defined, backwards looking 10-25% threshold. A penalty free withdrawal backstop provides developers with greater transparency and confidence in the process, knowing that they will not be on the hook for upgrade costs that would make their project financially unfeasible. Furthermore, the number of backstop qualified penalty free withdrawals occurring at sites near POI's could provide an important datapoint for future interconnection customers and transmission planning efforts.

SREA suggests the following option for Automatic Penalty Threshold:

- *Interconnection requests that are assigned upgrades that fall into the highest 25% of historical costs per MW assigned to individual projects within a study cycle will not be subjected to an automatic penalty for withdrawal.*

SREA suggests the following option for a penalty free withdrawal backstop:

- *If an interconnection request does not fall into the highest 25% of costs per MW assigned to a cycle for upgrades; a backstop percentage of capital cost amount will qualify a project for penalty free withdrawal based on the following criteria:*
 - *To account for higher average initial costs between Decision Points 1-2 that are assigned upgrades amounting to \$100,000/MW² or above, the request should be granted penalty free withdrawal.*
 - *From Decision Point 2 or beyond, upgrades assigned to a project amounting to 30% or greater than the projected capital costs of a project seeking interconnection, which initially received estimates 30% or below the projected capital costs for the project seeking interconnection between DP1-2, will qualify a project for penalty free withdrawal.*

Communication With IC's Regarding Withdrawal Penalties

MISO proposed re-allocating funds collected from automatic penalties to pay for studies or network upgrades associated with projects that remain in the queue; however, MISO did not propose a process to inform remaining interconnection customers of potential payments. Given the likelihood that withdrawing projects will seek exemptions, and potentially litigate the withdrawal penalties, it seems unlikely that MISO will have a firm known quantity of penalties to supply to a cycle of successful queue projects, potentially even after GIA's are signed. To provide clarity, MISO could set a cap on withdrawal penalties, where excess penalties received would be refunded to withdrawn projects. For example, MISO could set the withdrawal penalties cap at \$5 million for a queue cycle (for all projects, combined), so remaining projects could better anticipate that approximately \$5 million may be available to help offset costs for studies or upgrades at the end of a cycle.

There is also a possibility that MISO over-collects funds due to a high level of withdrawal, to an extent that the penalties may exceed the local costs of remaining projects seeking a GIA. MISO should establish protocols for this scenario, including possibly refunding excessive withdrawal penalties.

² Referencing the values on Slide 15 of the Charles Rivers Associates whitepaper posted in the July 19th 2023 PAC meeting materials, \$100k/MW or above seems to be a reasonable outlier for DP1 costs assessed given a median value of ~\$80k/MW for years 2017-20