**UNITED STATES OF AMERICA**
**BEFORE THE**
**FEDERAL ENERGY REGULATORY COMMISSION**

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| Interconnection of Large Loads to the Interstate Transmission System | ) | Docket No. RM26-4-000 |

# REPLY COMMENTS OF THE INDEPENDENT MARKET MONITOR FOR PJM

Pursuant to Rule 211 of the Commission's Rules and Regulations,[1] and the Notice of Inviting Comments issued in the proceeding on October 27, 2025 ("Notice"), Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor ("Market Monitor") for PJM Interconnection, L.L.C. ("PJM"),[2] submits these Reply Comments. The Reply Comments respond to selected comments submitted on or around November 14, 2025, that respond to the Notice and the attached Advanced Notice of Proposed Rulemaking ("ANOPR").[3] Commenters with specific proposals generally seek to avoid the only just, reasonable and not unduly discriminatory action available to the Commission that will protect reliability and affordability for existing customers which is to provide clear incentives to large new data center loads to get to market quickly and reliably and to refuse to permit reliability to be undermined by adding large new data center loads without corresponding

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1 18 CFR § 385.211 (2025).

2 Capitalized terms used herein and not otherwise defined have the meaning used in the PJM Open Access Transmission Tariff ("OATT"), the PJM Operating Agreement ("OA") or the PJM Reliability Assurance Agreement ("RAA").

3 The Notice issued in response to a proposed advanced notice of proposed rulemaking ("ANOPR") released by the Secretary of Energy on October 23, 2025, pursuant to section 403 of the Department of Energy Organization Act, for consideration and final action by the Commission.

new generation. Advocates for half measures based on pretending that future service can be managed with blackouts and price spikes are at best misguided. Clear and immediate action is needed to protect the public interest while proceeding with the efficient and orderly interconnection of new data center loads.

The Market Monitor's comments are specifically about the issues in PJM markets.

## I. REPLY COMMENTS

### A. What Is the Issue?

The Secretary of Energy's cover letter to the ANOPR states:[4]

> To usher in a new era of American prosperity, we must ensure all Americans and domestic industries have access to affordable, reliable, and secure electricity. To do this, large loads, including AI data centers, served by public utilities must be able to connect to the transmission system in a timely, orderly, and non-discriminatory manner. This is an urgent issue that requires prompt attention.

The Market Monitor supports the stated goals of the Secretary of Energy.

More specifically, the purpose of the ANOPR is:[5]

> to initiate rulemaking procedures and consider this Advance Notice of Proposed Rulemaking (ANOPR) presenting potential reforms to ensure the timely and orderly interconnection of large loads [fn omitted] to the transmission system. [fn omitted]

The Market Monitor supports the stated purpose of the ANOPR which, in the case of PJM, is the timely and orderly interconnection of large loads to the PJM system. The ANOPR makes clear (at P 2) that the issue is the interconnection of large new data center loads.

The Market Monitor's related Complaint seeks an order finding that PJM has the authority to add large new data center loads only when they can be served reliably as defined

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4 *See* Chris Wright, Secretary of Energy, Cover Letter for ANOPR (October 23, 2025) at 1.

5 ANOPR at P 1.

both by transmission and capacity adequacy, and directing PJM to file tariff language stating this explicitly.[6] The Complaint does not propose any specific complete solution that could be implemented if the Commission grants the Complaint, e.g. "bring your own new generation." The Complaint is intended to provide more optionality to the PJM Board as it decides how to address these difficult and complex issues. The Complaint is consistent with the objectives of the ANOPR but recognizes that PJM markets face an urgent need for immediate clarification of PJM's authority over the interconnection of large new data center loads.

**B. Load Queue**

The ANOPR reviews the history of open access for generators with an appropriate emphasis on the fact that open and nondiscriminatory access is essential for competitive markets.

The key sentence in the ANOPR (at P 12) states:

> In light of the unprecedented current and expected growth of large loads seeking to interconnect to the transmission system, and to provide open access and nondiscriminatory access to the transmission system, it has become necessary to standardize interconnection procedures and agreements for such loads, including those seeking to share a point of interconnection with new or existing generation facilities (hybrid facilities).

The ANOPR appropriately recognizes that there is a need for a load queue that would include standardized rules and criteria to ensure nondiscriminatory access to reliable service. An efficient means for creating a load queue would be to extend the general structure of the generator interconnection process to large new data center loads, with a goal of efficient and timely processing. The Market Monitor agrees that large load additions should be subject to standard rules and deposit requirements to provide disincentives to speculative projects. The best incentive to bring only real projects is to provide an expedited option to bring your own

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[6] *See Independent Market Monitor for PJM v. PJM Interconnection, L.L.C.*, Docket No. EL26-30-000 (November 25, 2025) ("Complaint").

new generation. This incentive would be much stronger and more effective and more focused on a real solution than requiring deposits. Open access for both generation and load is essential to competitive markets. The ANOPR is not explicit on whether this means a load queue. The ANOPR is not explicit on whether interconnection to the transmission system means the provision of reliable service. Any definition of a load queue should include the opportunity for faster interconnection if generation and load are added together to ensure reliability.

The ANOPR appears to largely ignore the central issue facing PJM which is that there is not enough generating capacity to reliably serve the large loads that want to be online quickly. The logical links between the principles stated in the ANOPR and the stated problem are attenuated. The ANOPR does not propose to include a requirement in the interconnection procedures for large loads, that interconnection of large loads to the grid must be predicated on the ability to provide reliable service which in turn requires generation capacity which in turn means that there should be a load queue. The NOPR should include such a requirement. When NERC defines reliability, the definition is about the ability to serve load under a wide range of conditions. NERC's definition of reliability includes both generation and transmission.

Some comments (e.g. Exelon) recognize that adequate generating capacity is the core issue.[7] Exelon's position is that a return to cost of service regulation that would allow Exelon to build generation under that outdated regulatory paradigm would solve the problem, although they do not explain whether that is an efficient or competitive approach. Exelon's proposed return to an archaic approach would impose the costs and risks on existing electricity customers. This is not the time to abandon competition policy. The ANOPR should

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[7] *See, e.g.*, Comments of Exelon Corporation, Docket No. RM26-4-000 (November 21, 2025) ("Exelon Comments").

support PJM's competitive markets and avoid a return to cost of service regulation because it is inefficient and high cost.

**1. Point of Interconnection.**

The actual point of interconnection is only an issue if the Commission wants to address jurisdictional issues that are not central to the identified issue of how to efficiently interconnect large new data center loads. The actual point of interconnection only matters in an impossible to resolve discussion about what is truly transmission and what is not. PJM's comments raise related issues (at 4).[8] The actual point of interconnection is not relevant to the impact of adding large new data center loads on PJM wholesale power market costs. Regardless of whether a large new data center load is connected to the distribution, subtransmission, or transmission system, there must be enough generating capacity in the PJM wholesale markets to serve them reliably.

**2. Relevant Size**

The ANOPR states that reforms should apply only to new loads greater than 20 MW. The apparent reason for selecting 20 MW is that 20 MW is the threshold for the generator interconnection rules. There is no reason to simply extend the generator threshold to loads. Generators have generally been very large compared to individual loads. While there is no completely objective threshold for large new data center loads, the threshold should be no higher than five MW. Five MW is a very significant level of load at a single point in the PJM markets. In addition, if the threshold is set at the relatively high level of 20 MW, it would create an incentive to break up data center points of interconnection to smaller MW levels in order to avoid rules governing interconnection. If the point is to ensure reliable service to large new data center loads while maintaining reliable service to existing customers, the level

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8 *See* Initial Comments of PJM Interconnection, L.L.C., Docket No. RM26-4-000 (November 21, 2025) ("PJM Comments").

of load at a single point of interconnection is less significant than the total load being added to the PJM grid. The suggestion that the cutoff for the load queue should be 200 MW is an attempt to avoid the issue, would miss many data centers and would permit gaming of the rules to avoid the queue.[9]

The load queue should be limited to large new data center loads. It is not unduly discriminatory to limit the queue to data centers. It is clear in PJM that large data center loads are the source of the current issues in PJM and need to be addressed directly. Another benefit of limiting the queue to data centers is that the MW cutoff for load size becomes less of an issue. It is essential to distinguish between organic load growth in PJM, including residential, commercial and industrial loads, which would have been handled by normal market development and the unique and unprecedented addition of large new data centers.

#### 3. Load and Generation

A load queue would provide incentives for load to locate where it can be served efficiently. The point of the load queue is to recognize that load cannot be served without generation and that load should have the option of an expedited interconnection process if the load brings new generation. The Market Monitor agrees that load should be studied together with generating facilities in order to facilitate efficient siting and minimize system upgrade costs.

### C. Jurisdiction

The Market Monitor supports what the Market Monitor believes to be the broad intent of the ANOPR, to establish rules for a load queue that would include standardized rules and criteria to ensure nondiscriminatory access to reliable service. However, the ANOPR somewhat surprisingly concludes that these standardized rules require changes to the

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[9] *See* Comments of the Indicated PJM Transmission Owners ("TOs"), Docket No. RM26-4-000 (November 21, 2025) at 2 ("PJM TOs' Comments").

Commission's approach to jurisdictional issues. There are significant comments in response to this discussion that dispute the statements about jurisdictional authority.[10] The issue about the interconnection of large loads does not need to be a jurisdictional issue and it would be a mistake to let the discussion devolve into a jurisdictional debate while PJM faces significant and immediate reliability and market issues. The Market Monitor's view is that there is a market based path forward to reliably serving large new data center loads that does not require a change in jurisdictional authorities or a lengthy and contentious debate about jurisdiction.

In order to provide reliable service to customers in PJM, customers must be interconnected to the distribution, subtransmission, or transmission lines at the customers' locations which are in turn interconnected to, or part of, the transmission system which in turn is connected to generation resources. The system only works if these pieces work together. It is not possible or meaningful for an EDC to sign up large new data center loads pursuant to a vaguely defined obligation to serve if there is not enough generation in the PJM market to serve those loads reliably. The actual direct interconnection processes are currently managed by EDCs and TOs. State regulators have the authority over the local terms and conditions of service, including modifying or creating tariffs to protect other customers from bearing the local costs of interconnecting large new data center loads. However, regardless of the efforts of state regulators in crafting such tariffs, state regulators cannot protect retail customers from the impact of adding large new data center loads on PJM wholesale market prices for capacity, energy and reserves and on system reliability.[11]

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[10] *See, e.g.*, PJM Comments; Initial Comments of the National Association of Regulatory Utility Commissioners, ("NARUC Comments") RM26-4-000, (November 21, 2025); Motion to Intervene and Initial Comments of the National Association of State Utility Consumer Advocates, RM26-4-000 (November 21, 2025).

[11] *See* Comments of the Independent Market Monitor for PJM Docket No. ER25-3492-000 (October 14, 2025).

The PJM queue for large data center loads does not need to impinge on state/retail jurisdictional authority. The criteria for the PJM queue could be focused on the very specific question of whether the load when interconnected can be served reliably. Reliable service means that there is adequate capacity to meet the load including a reserve margin. The current failure to impose a reliability requirement has led to large increases in capacity market prices, but also in energy market prices and in transmission costs. The combination of limiting the queue to large data centers and to the requirement for reliable wholesale service also minimizes both the jurisdictional issues and some of the other complexities raised in the PJM comments.[12]

Access to the transmission system is not the central issue in the PJM markets. The issue is reliable service. Reliable service requires transmission and generation. The problem is that there is not enough generation capacity in PJM to serve all the large new data center loads that want reliable service. PJM has not previously had to face the question of whether PJM's commitment to reliability means that PJM has the authority to create a load queue when there is not enough generation capacity because PJM has always had more than enough generation capacity. The solutions need to address the problem directly.

To the extent that the ANOPR's jurisdictional arguments are a mechanism to allow co-located load in the narrow sense, that is another reason to avoid the jurisdictional issues. Co-located load is simply a way to wish away the reliability issue and more importantly to undermine the PJM markets and impose unacceptably large reliability and monetary costs on all other PJM customers. Constellation's comments here and in the co-location docket are perfect illustrations of the irredeemable flaws in the co-location approach.[13] The Commission should reject the co-location option as inconsistent with PJM's competitive markets,

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12 PJM Comments.

13 *See* Supporting Comments of Constellation Energy Generation, LLC (November 21, 2025) ("Constellation Comments").

inconsistent with just and reasonable rates, and inconsistent with the goal of the ANOPR to ensure the timely and orderly interconnection of large loads. It would not be orderly to ignore the reliability and cost shifting issues that the co-located option would create. Simply shifting the reliability shortfalls to all other customers while creating reliability for large new data center loads is not consistent with the stated purpose of the ANOPR.

To the extent that the Commission believes that there are discriminatory practices by EDCs and TOs that impinge on competitive markets, those issues can and should be addressed promptly. Complaints by Constellation and others about such alleged practices arose in the co-location discussions and were primarily about those underlying disputes rather than about discriminatory behavior by TOs. Those issues do not require a load queue and do not need to be included in a resolution of how to manage the interconnection of large new data center loads. Nonetheless, it is not acceptable for TOs to discriminate against any load or generation that wants to interconnect.

**D. Other ANOPR Issues**

**1. Curtailable Loads**

The ANOPR states that the interconnection of large new curtailable loads that agree to be curtailable should be expedited.

Market participants have made it clear that curtailable means very different things, depending on the interests represented. The Constellation proposal in the CIFP process proposed extremely limited curtailments, consistent only with the capability of already existing backup diesel generator capacity at the data centers.[14] In general, it seems clear that data centers do not want to be curtailable in any significant way. Flexibility should be encouraged but it is clear that such flexibility represents a relatively small share of the load

[14] *See* the Amazon, Calpine, Constellation, Google, Microsoft, Talen "Joint Stakeholder Package," presented to the PJM Committee Critical Issue Fast Pass ("CIFP") –Large Load Additions. (November 19, 2025).

of a data center. The only meaningful curtailment provisions would require curtailment prior to current DR customers and prior to shortage pricing and prior to PJM emergency declarations. That is not likely to work for data center loads.

PJM is currently proposing to allow the interconnection of large new data center loads that it cannot serve reliably and that will require load curtailments (black outs) of the data centers or of other customers at times.[15] That result is not consistent with the basic responsibility of PJM to maintain a reliable grid and is therefore not just and reasonable.

PJM and market participants clearly recognize that the high level of new data center loads cannot now be served reliably. PJM's Non Capacity Backed Load ("NCBL") proposal made it clear that such loads would be subject to mandatory curtailments because there is not enough capacity to serve them.[16] Most of the other CIFP proposals include provisions for curtailments of the new loads for the same reasons. None of the proposals have addressed the fact that PJM does not have the authority or the capability to order or enforce curtailments. Under all these proposals, PJM will be in the position of recommending the allocation of load curtailments rather than ensuring reliable service for all customers.

In general, demand side options, including DR and PRD, are not equivalent to new generation. If there were to be a demand side option, the new large data centers would have to agree to be interrupted whenever capacity is needed to serve the other loads that paid for capacity, at a reasonable energy price and not limit interruptions to emergencies or to the limited run hours of backup generation. Those non-limited interruptions could be frequent given that current forecasts for additional new large data center load are approximately

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[15] *See* PJM, Large Load Additions: PJM CIFP initial proposal and Alternatives considered (September 15, 2025) at 7 ("In the event of expected supply shortages given forecasted large loads that do not elect BYOG or DR, PJM would require sufficient load to be Non-Capacity-Backed Load (NCBL) to maintain the RTO Reliability Requirement. ").

[16] *See also* Complaint.

30,000 MW.[17] Demand side resources are not subject to market power mitigation and thus large new data center loads if defined as demand resources could exercise market power in the capacity and energy markets.

The $1,849 per MWh PRD strike price cap is well above typical energy market clearing prices. This enables economic withholding of the PRD MW and means that the PRD are only illusory demand resources. Any demand side solution must be premised on performance based compensation tied to actual, verifiable load reductions coupled with a strike price cap and availability that meaningfully affects real time demand. While demand resources dispatched during a PAI continue to be subject to Non-Performance Assessment charges, demand resources dispatched outside of a PAI are not subject to any event specific penalties.[18] CSPs may elect to use performance data from a Load Management event that was not subject to a Non-Performance Assessment (a non-PAI LM event) as performance data for a PJM zonal test event.[19] The ability for test performance to be a substitute for event performance, coupled with the absence of nonperformance penalties, weakens the incentive to perform during non-PAI events. In their current and proposed forms, demand side solutions offer no viable substitution for generation capacity resources.

Finally, the load curtailment option is a way to shift the costs of interconnecting data centers to other customers.[20] If 20,000 MW of new data center load were added and all 20,000 MW of this load were offered in the capacity market as emergency demand side resources, the Market Monitor estimates that the increased cost of capacity would be around $396 million per year to existing customers. If 20,000 MW of new data center load were added and

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17 *See* PJM, 2025 PJM Long-Term Load Forecast Report <*https://www.pjm.com/-/media/DotCom/library/reports-notices/load-forecast/2025-load-report.pdf*> (January 24, 2025).

18 "PJM Manual 18: PJM Capacity Market," § 8.6, Rev. 61 (July 23, 2025).

19 "PJM Manual 18: PJM Capacity Market," § 8.7, Rev. 61 (July 23, 2025).

20 *See* Monitoring Analytics, L.L.C., *2025 Quarterly State of the Market Report for PJM: January through September*, Section 1: Introduction (March 13, 2025).

90 percent or less of this load were offered in the capacity market as emergency demand side resources, the Market Monitor estimates that the increased cost of capacity would be around $5.48 billion per year to existing customers. There would be comparable impacts on the cost of capacity for any proposal that results in an equivalent or smaller level of emergency demand resources in UCAP terms, e.g. from lower ELCC derating factors. It is expected that any curtailable load option would be at less than 90 percent between ELCC impacts and choices about curtailment levels. The impact on energy market prices of adding data center load without new generation would also be in the billions of dollars annually. The additional load without new generation affects energy prices directly by requiring generation from more expensive resources on the supply curve and by increasing the probability of shortage pricing. Emergency demand resources also directly affect clearing prices based on the offered strike prices which can be as high as $1,849 per MWh.

**2. Hybrid Facilities**

The concept of hybrid facilities is pervasive in the ANOPR. As defined in the ANOPR (at P 12), a hybrid facility is a load that shares a point of interconnection with new or existing generation facilities. This basic definition of a hybrid facility does not necessarily mean that the load is co-located in the sense that the load is behind the generator meter and fully isolated from the grid. While the ANOPR is not completely clear on that point, the ANOPR does appear to accept the co-location option as allowable in the narrow sense defined by PJM and accepted by the Commission in its Show Cause Order in Docket No. EL25-49-000.[21] The Market Monitor continues to oppose the co-location option in this narrow sense for the reasons provided in Docket No. EL25-49-000, and in Docket No. EL25-20-000, which was Constellation's attempt to have the narrow version of co-located load enshrined in the market rules.

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[21] *See PJM Interconnection, L.L.C., et al.*, 190 FERC ¶ 61,115 (2025).

The broader definition of co-located load means the efficient siting of loads and generation either near existing or new generation. The Market Monitor supports this efficient approach to siting generation and load. The bring your own new generation approach would provide a strong incentive for such efficient siting.

The precise definition of co-located load is an essential issue in the discussions about reliably interconnecting large new loads. One of the side effects of not including generation adequacy explicitly in the ANOPR proposed rules for interconnecting large new loads is that the discussion of hybrid facilities does not address the impact on reliability. If the system is tight or short, as PJM is, removing existing generation, based on the co-location model, to serve large new data center loads as part of a hybrid facility simply shifts the costs and risks associated with that load to all other customers of PJM. That is not a solution to the problem of how to interconnect large new data center loads in a timely, orderly, and nondiscriminatory manner.

The ANOPR references (at P 27) the possibility of using existing generation to meet large new data center loads. The ANOPR states (*id*.) this as the possibility of "an existing generating facility that seeks to enter a partial suspension to serve a new load at the same location must go through a system support resource (SSR)/reliability must run (RMR) type study." The ANOPR requests comments on whether and how resource adequacy should be considered in such an RMR type study.

The narrowly defined co-location model that is the subject of Constellation's Complaint and Constellation's ongoing comments in the PJM CIFP process would allow existing generation to sell to a large new data center load and withdraw from the PJM capacity market.[22] If allowed, this option could lead to the end of PJM markets. The

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[22] *See* Complaint Requesting Fast Track Processing of Constellation Energy Generation, LLC Docket No. EL25-20-000 (November 22, 2024) ("Constellation Complaint"); *and also* the Amazon, Calpine, Constellation, Google, Microsoft, Talen "Joint Stakeholder Package," PJM Committee Critical Issue Fast Pass ("CIFP") –Large Load Additions. (November 19, 2025).

consequences would be catastrophic if, for example, 20,000 MW of nuclear plants sell their capacity to data centers and withdraw from the PJM Capacity Market and potentially from PJM markets entirely. The result would be reliability for the data center and unreliability, higher capacity, energy and reserves prices for other PJM customers. Although it is not clear what the ANOPR means by an RMR type study, one possibility is that if there is a reliability issue created by the potential withdrawal of a PJM capacity resource to serve data center load, that the unit would be paid an extremely high cost of service rate in order to keep it in service to PJM loads.[23] That would another form of imposing the costs and risks associated with the entry of data centers on all other customers. That is another reason to reject the narrow co-location approach as inconsistent with the stated intent of the ANOPR.

The ANOPR states (at P 23) that hybrid facilities should be required to install system protection facilities to protect the grid. It is clear from both experience in PJM and from NERC analyses that it is not possible to protect the grid from the impact of unexpected changes in co-located load.[24] [25] In addition, the co-located model has to date explicitly leaned on the grid, and other customers, for backup power when there is an outage at the co-located generator. There is simply no legitimate reason for the co-located model in the PJM wholesale power market.

PJM's comments also raise a potential implication of the ANOPR, the connect and manage paradigm under which new generators do not have to pay for the transmission upgrades required for deliverability, the study process is incomplete and the ultimate costs of interconnection are imposed on load in PJM. If correct, this extends the implications of the ANOPR well beyond its stated purpose.

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[23] *See* Monitoring Analytics, L.L.C., *2024 Annual State of the Market Report for PJM*, Volume 2: Section 10 Ancillary Service Markets (March 13, 2025).

[24] *See* PJM Comments at 11.

[25] *See* Comments of the North American Electric Reliability Corporation in Response to Notice Inviting Comments Docket No. RM26-4 (November 21, 2025) ("NERC Comments").

PJM states in its comments (at 9–10):

> There are also longer-term considerations that must be factored into the calculations. The "connect-and-manage" framework could lead to future grid build out that is not as robust and reliable as the planning standard PJM (and other RTOs/ISOs) have adhered to for decades if voluntarily curtailable load (Principle 7) is not planned for as firm load in regional transmission planning processes. The ANOPR's intent, in this regard, should be further clarified. Any longer- term costs of a pivot to this type of "connect-and-manage" planning to achieve a shorter term runway for generator and load interconnections should be assessed and accounted for in any cost benefit analysis performed as to the ANOPR's proposed reforms.

The Market Monitor agrees with PJM's points and thinks that PJM understates the negative outcomes of connect and manage. Ignoring the issues at the time of interconnection and imposing the actual costs as they are realized on other customers is not consistent with the stated purpose of the ANOPR.

### 3. Transmission Service

As part of ensuring that large new data center loads do not impose costs on other customers, all customers should be full NITS customers and pay their full share of transmission costs without calculations of asserted gross impacts, net impacts or other attempts to avoid paying for transmission service.[26] Transmission cost allocation is difficult at best and attempts to modify the allocation to solve short term issues generally have unintended consequences for all.

Consistent with the ANOPR, customers should always have the option to build required interconnection facilities. This is a form of competition to build transmission.

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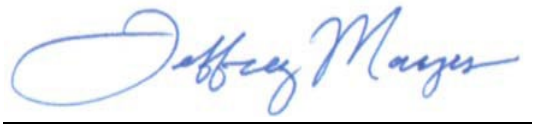
[26] *See* PJM TOs' Comments.

## II. CONCLUSION

The Market Monitor respectfully requests that the Commission afford due consideration to these comments as the Commission resolves the issues raised in this proceeding.

Respectfully submitted,

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