

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

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

**INITIAL COMMENTS OF
PJM INTERCONNECTION, L.L.C.**

PJM Interconnection, L.L.C. (PJM) appreciates this opportunity to comment on the above-captioned advance notice of proposed rulemaking (“ANOPR”)¹ initiated by the Federal Energy Regulatory Commission (the “Commission” or “FERC”) at the Department of Energy’s direction.

PJM shares the Commission’s and the Department of Energy’s interests in exploring nationwide opportunities to ensure the timely, orderly, and reliable interconnection of large loads to the transmission system in light of tightening supply and resource adequacy concerns. By creating a level playing field across the country, FERC and the Department of Energy can promote large load infrastructure decisions that are made based on physical principles as opposed to uneven regulatory frameworks.

PJM is committed to continued engagement with its stakeholders in industry, the states, and at the federal level to collaboratively tackle resource adequacy challenges and related large load interconnections in the PJM Region. PJM looks forward to continuing to inform FERC of significant developments emerging from its ongoing, high priority, expedited stakeholder efforts, and regards respect for the outcome of these collaborative processes as consistent with the

¹ *Ensuring the Timely and Orderly Interconnection of Large Loads, Advance Notice of Proposed Rulemaking*, Docket No. RM26-4-000 (“ANOPR”).

ANOPR's clear statement that it was "not intended in any way to discourage public utilities from making filings to address these and similar issues under FPA section 205."²

While the prospect of a federally-regulated large load interconnection process warrants further exploration, PJM encourages FERC to seize available opportunities to issue nearer-term regulatory guidance on matters squarely within its wholesale and transmission jurisdiction about: resource adequacy, the provision of ancillary services, mandatory operational regimes, potential wholesale rate classes for different types of load customers, interconnection and transmission planning, cost allocation, and NERC and Tariff reliability obligations and requirements.

In parallel to these ongoing stakeholder efforts, PJM offers the following considerations and questions to facilitate the Commission's development of the record and any proposed or final rule on the ANOPR's reforms.

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Consideration 1: The Commission should continue to gather information and assess the pros and cons of directing Regional Transmission Organizations (RTOs) / Independent System Operators (ISOs) to create large load interconnection queues.

Many commenters will debate the jurisdictional issues in this docket. It would be a significant development if FERC would not continue to allow local Electric Distribution Companies (EDCs) and Transmission Owners (TOs) to administer load interconnection processes subject to retail regimes and the traditional federal/wholesale-state/retail division of labor that has long characterized this space. Given the protracted litigation and regulatory uncertainty that is likely to persist on critical threshold issues like the jurisdictional divide, there

² ANOPR at P 32.

remains a question as to whether any rule developed on the existing record targeted at this specific topic would entangle the Commission and stakeholders in a potentially contentious dispute that would distract from the need to provide a durable pathway to the ANOPR's desired outcome: timely and orderly large load interconnections.

To the extent the ANOPR is considering whether to mandate a load interconnection queue, questions would need to be answered about whether such a new process will necessarily lead to different or enhanced large load interconnection results, and whether the theoretical benefits of a federally-regulated large load interconnection process outweigh the challenges of creating and administering a load queue at the RTO/ISO level. If a load interconnection queue is not now mandated, is there additional data FERC could or should collect to help with future cost-benefit analyses of this type of paradigm pivot if the ANOPR's objectives are not promptly realized under existing processes?

Consideration 2: If directed to do so, PJM would take all necessary steps to implement a large load interconnection process. However, significant foreseeable challenges and implementation details will need to be designed and implemented.

If required, PJM would take all necessary steps to implement a federally-regulated large load interconnection process. Such a construct would have potential benefits including centralization and the promotion of uniform policies and practices. But, as with the existing generator interconnection process, there will undoubtedly also be costs, claimed delays (many of which will be outside the control of the RTO/ISO), and other complexities that will have to be addressed and that are likely to frustrate the ANOPR's "speed to market" objective – especially given potential impacts to the existing generator interconnection process. Furthermore, any centralized and uniform process must not exclude EDCs and TOs from the study and agreement

processes because those entities are essential parties given their ownership of and knowledge of the critical facilities involved in these large load interconnections. PJM looks forward to continued engagement with its stakeholders, the states, FERC, and the Department of Energy on any implementation particulars in subsequent filings and regulatory phases, including any notice of proposed rulemaking that may issue in this proceeding.

a. Line Drawing Challenges

The ANOPR will present challenges driven by the complex line drawing exercises that FERC will have to engage in at uncertain jurisdictional margins should it seek to impose a large load interconnection queue. By way of example, is the Commission's seven-factor test sufficiently workable to apply on a case-by-case basis, with regulatory certainty, to inform the dividing line between federal and retail jurisdiction over transmission versus distribution facilities? Are there ways that have not yet been explored for large load interconnections to be creatively structured to avoid the potential for federal jurisdiction, thus frustrating the ANOPR's intended reforms? Will the courts agree that FERC has the jurisdiction to engage in the regulation of large load interconnections as set forth in the ANOPR? These are not insignificant questions.

b. Scope and Practical Implications of a 20 MW Threshold

Even assuming record evidence could support the ANOPR's proposed 20 MW load threshold for the ANOPR's conceptual reforms to apply, is that clear line set at the appropriate level given that large loads, most especially data centers, tend to be substantially larger than 20 MW? Will such a threshold over capture load subject to the proposed reforms, clog interconnection processes, and stymie the intended proposed reforms? Is some other proxy or gating criterion a suitable alternative? Would a different megawatt threshold change the scope of

the ANOPR's reforms to more efficiently and cost effectively realize the goal of timely and orderly large load interconnections? What complexities will emerge if some large loads interconnect through a federally regulated process while other loads interconnect through more locally-administered processes? Would the resulting patchwork of large load interconnections result in operational and other complexities that have not been fully explored given the disparate frameworks? Have different load classes been created on defensible criteria that are not unduly discriminatory? These are all questions the Commission would need to address should any proposed rule in this area embrace the development of a large load interconnection queue.

c. Implementation Details Relating to Study Deposits, Readiness Requirements, and Withdrawal Penalties

Other complexities presented by the ANOPR reforms include questions that PJM is, in many instances, asking itself as it continues to engage with its own stakeholders and the PJM states on related topics. For example, what are just and reasonable rates for any standardized study deposits, readiness requirements, and withdrawal penalties? Would the federal load interconnection process and rate levels look to state law analogues where such constructs have already been developed? Will such rates be postage stamp rates or connected to the scope and scale of the proposed load interconnection? Is it assumed that the RTOs/ISOs collect such deposits and assess such penalties, or should the states or other entities assume the proposed obligation? Who would receive withdrawal penalties, and pursuant to what allocation methodology would they be distributed?

Implicit in the collection of these costs, of course, would also be the development of appropriate agreements for large load study and interconnection. Are new *pro forma* agreements necessary? Are we accounting for the increased administrative burdens of managing and

participating in this additional process? What are the regulatory implications, particularly for FERC and NERC compliance, for large loads that may not have been historically regulated or deemed registered entities in the energy space? As noted later in this pleading, PJM is engaged in NERC's ongoing effort to explore the potential registration of large users of the bulk power system, and to consider whether Load Serving Entities are accountable for large load performance (or, in the case of certain hybrid configurations, whether that accountability is on another entity).

d. Timing Challenges

And then there are questions about timing. Can any large load interconnection studies – expedited or otherwise – be completed in 60 days? Based on PJM's experience in managing, coordinating, and performing interconnection studies under the best of circumstances, such a timeline is not likely to be feasible in reality at least in the shorter-term horizon though PJM is certainly committed to acting with as much speed and accuracy as possible consistent with Good Utility Practice.

Data must be exchanged, and deficiency cure periods exhausted. Siting and environmental reviews performed. Studies performed. Business decisions made about whether to proceed. Agreements negotiated. Agreements filed. Agreements accepted or rejected by FERC. Where load and generation are jointly proposed, the need for data, reviews, and studies multiplies and system impacts can be more profound and potential upgrades more significant. Today, it takes approximately 6 months to complete stability studies due to the complexity of the data, modeling, and analytical processes. And any additional expedited processes – serial in nature or otherwise – may exacerbate or reintroduce queue backlogs for generator

interconnection projects subject to cluster studies. This could, in turn, undermine the ability for the PJM Region to procure and construct generation on the necessary timeline.

On the topic of a realistic time period for such processes, a pending proposal of an advertised 90-day study-and-approval timeline for large load integrations is informative. The transmittal letter accompanying that filing notes that the best-of-circumstances 90-day study-and-approval timeline (for load only interconnection) and the 150-day study-and-approval timeline (for load and generation) is surrounded by commercially necessary decision points and potential sources of delay (including the need for potential restudies), and some sources of delay may be entirely outside the control of the developer and study participants on account of siting reviews or agreed-upon windows to extend contract negotiations.³ That window runs only up through an agreement stage. No shovel is in the ground. No new infrastructure built. Some analyses even suggest time periods spanning greater than one year to complete the process if certain delays manifest.

Any proposed rule would also need to answer questions about when the proposed ANOPR reforms begin, and how much time RTOs/ISOs would need to recruit necessary staff, implement new tariff and study processes, and the like. At a minimum, following the issuance of any final rule and the acceptance of any compliance filings, PJM anticipates needing at least 12 or more additional months to implement any new large load interconnection process (although this estimate is admittedly speculative since the full details of the proposed reforms are not yet clearly known).

³ See *Southwest Power Pool, Inc.*, Revisions to Add the High Impact Large Load Processes and Generation Assessment, *Transmittal Letter*, at 15-16 & n.35, 30-31, Docket No. ER26-247 (Oct. 24, 2025) (noting that if the study report cannot be provided within 90 Calendar days, SPP will provide notice).

In addition, when would “new” large loads be subject to the ANOPR’s reforms, and what will be the definition of a “new” large load when retail-regulated interconnection processes are in mid-stream for certain interconnection requests? These timing considerations are significant.

Consideration 3: To the extent the ANOPR focuses on hybrid facilities (co-located load), PJM recommends FERC consideration of the robust record in Docket No. EL25-49, including PJM’s previously-filed response in that show cause proceeding.

Several of the ANOPR’s guiding principles raise questions that are squarely presented and pending for resolution in Docket No. EL25-49. Many of these principles could be addressed through the existing PJM necessary study process that PJM previously utilized to study, develop, and modify existing generator interconnections and agreements seeking to co-locate large loads. This effectively means no FERC action may be needed to accomplish some of the proposed reforms in certain instances.

For example, Principles 3, 4, 5, 6, 7, 8, 9, and 10 were all – in one form or another – touched upon in Docket Nos. EL25-49 and ER24-2172. In ER24-2172 particularly, the necessary study process was used to simultaneously study load and existing generation modifications⁴ and the parties leveraged existing agreements and developed non-conforming language with the goal of providing clarity about concepts like system protection facilities, outage recall abilities in challenging operational conditions, back-up supply provisions, and other operational, markets, and planning terms and conditions. The companion construction responsibility agreement docket, ER24-3049, similarly demonstrates how necessary network upgrades triggered by hybrid configurations can be assessed directly to the cost causer, which

⁴ New generation requests would come through the existing generator interconnection queue.

would seem to address ANOPR Principle 8 without requiring any additional FERC action. In this sense, at least some of the reliability impacts of load integrations (in particular, the transmission impacts) can be accounted for where hybrid facilities are studied and implemented subject to necessary study and local EDC load integration processes today.

To the extent FERC seeks to continue to allow hybrid configurations in light of the records developed elsewhere, FERC could assess whether hybrid configurations are resource adequacy positive (thus closing the supply-demand gap) or, at a minimum, resource adequacy neutral when determining whether such configurations are just and reasonable. PJM's show cause response provides a summary chart that identifies resource adequacy implications of various hybrid configurations. FERC could use that as a lens for determining how resource adequacy could be considered in hybrid studies. These resource adequacy issues are not presently addressed in PJM's current necessary studies analyses (or in PJM's resource retirement analyses, for that matter).

PJM also reiterates, as it has in other proceedings, that several of the ANOPR's principles (see, for example, Principles 11 and 12), presuppose answers to questions that touch upon issues of transmission system usage and compensation that fall within the authority of PJM Transmission Owners. Existing precedent and allocation of rights and responsibilities warrants engagement with the PJM Transmission Owners – and all other impacted stakeholders, including the states and other regulators – on these important issues.

Further, if PJM understands the ANOPR correctly, the proposed reforms appear to signal an openness to a less-reliable planning paradigm for new generation facilities (*see, e.g.*, Principles 3 and 5) where hybrid facilities involving “new generation facilities” are studied based solely on injection and/or withdrawal rights requested, and large loads and hybrid facilities that

agree to be curtailable will have their studies expedited so that such facilities can be put into operation with greater speed.

These aspects of the ANOPR could be regarded as some species of a “connect and manage” approach for generator interconnections to support large load interconnections in the case of hybrid facilities. Such a study methodology involves streamlined, less-fulsome longer term reliability planning and generator deliverability studies in exchange for shorter term interconnection processes, heavier reliance on operational management studies, and more real-time operational decision making about the ability to deliver generation and serve load.⁵ There is considerable debate and discussion in the industry today about this construct. Has this tradeoff between reliability and speed to market been sufficiently vetted, and are the potential costs documented and understood? Will such an approach satisfy what appears to be some data centers’ identified interest in “five nines reliability”?

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-

⁵ FERC should examine the potential shift and burden to real-time system operations to manage generation that has not been studied for deliverability, and potentially certain hybrid configurations. PJM’s interconnection process ensures that new generation is deliverable throughout the region. This enhances reliability for the entire region, supports the reliability needs of individual customers such as large loads and appropriately assigns both the costs of ensuring that deliverability on the interconnecting generator while placing cost responsibility on load to ensure the continued deliverability of that generation through the regional transmission expansion planning process.

A shift to a pure “connect and manage” approach, in addition to addressing the burden to real time operations, also increases the potential for real-time interruption of large loads as the deliverability of generation in the area to serve them has not been studied let alone provided for through a grant of capacity interconnection rights. The Commission should recognize the pros and cons of these different approaches and consider them further through development of a more thorough record on this issue.

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.

If the ANOPR reforms were to pursue a federally-regulated “connect-and-manage” construct at the wholesale level, the rates, terms, and conditions for such service would need to be carefully designed. It would be helpful for the Commission to offer guidance to the industry in any subsequent regulatory issuances about what characteristics of large load customers would make them eligible for participation in “connect and manage” programs, whether participation can and should be mandatory, the circumstances under which the Commission would view such criteria and requirements as not unduly discriminatory, and the scenarios where – even in jurisdictions where there are obligations to serve under applicable state law – any flexible products are likely to be found just and reasonable and not unduly discriminatory under the Federal Power Act. Would a voluntary “connect and manage” construct be sufficient to reliably interconnect generation and large loads at a greater speed? Is a mandatory construct necessary? What reliability safety valves does FERC believe necessary to reliably connect and operate generation and large loads under a “connect and manage” construct? What lessons can be learned from ongoing efforts on this topic in ERCOT? These and many other questions should be explored in further rounds of regulatory process on this important topic.

Consideration 4: PJM supports the continued efforts of the NERC Large Load Task Force to develop applicable standards and protocols relating to large load planning and operation.

The recent FERC Reliability Technical conference highlighted the significant accomplishments of the NERC Large Load Task Force to date, reflecting considerable industry-

wide collaboration and learning. The industry continues to explore the impacts of enhanced large load saturation on grid stability, especially given observations about large load-caused grid disturbances including voltage and frequency fluctuations especially during periods of up and down ramping. A significant disturbance caused by such large loads in isolation or in a collective has the potential to cause very serious consequences if mitigating operational steps and other protection schemas are not developed and implemented, or if they are improperly installed.

The NERC Large Load Task Force is well-equipped to continue its work in exploring cutting-edge issues relating to the planning for and operational complexities of a grid with growing large load saturation. That industry wide forum drawing together deep subject matter expertise is the best forum to develop new standards and issue other necessary guidance to inform reliable system operations and planning involving large loads.

As PJM is telling the Department of Energy in another matter today, the Department of Energy could utilize its authority under Section 403(a) of the Department of Energy Organization Act⁶ to request that FERC utilize its authority under FPA section 215(f)⁷ and 215(d)(5)⁸ to direct NERC to ensure a proper system of registration of large loads, and potentially to submit reliability standards necessary to address certain concerns identified in the Department of Energy's

⁶ 42 U.S.C. § 7173(a) ("The Secretary ... [is] authorized to propose rules, regulations, and statements of policy of general applicability with respect to any function within the jurisdiction of the Commission under section 402 of this Act.").

⁷ 16 U.S.C. § 824(f) ("The Commission, upon its own motion or complaint, may propose a change to the rules of the ERO. A proposed rule or proposed rule change shall take effect upon a finding by the Commission, after notice and opportunity for comment, that the change is just, reasonable, not unduly discriminatory or preferential, is in the public interest, and satisfies the requirements of subsection (c).").

⁸ 16 U.S.C. § 824(d)(5) ("The Commission, upon its own motion or upon complaint, may order the Electric Reliability Organization to submit to the Commission a proposed reliability standard or a modification to a reliability standard that addresses a specific matter if the Commission considers such a new or modified reliability standard appropriate to carry out this section.").

September 18, 2025 Request for Information (“RFI”). The opportunity for the Department of Energy’s leadership in identifying the parameters of the concerns posed by large loads from a national strategic standpoint would be critical, as it would inform the Commission’s order(s) eventually issued under FPA sections 215(f) and 215(d)(5), and in turn, establish the parameters of the rules and standard development process at NERC. Moreover, registration of these large loads as users of the BES would enable NERC and grid operators to better plan for and set standards to manage fluctuations in demand and other attributes of large data centers that could, unless appropriately managed, degrade reliability.

Using this approach would permit the Department of Energy to identify the reliability concerns that the future reliability standard must address, while permitting extensive industry and stakeholder input in developing any appropriate registration requirements and reliability standards to meet those concerns via the NERC rules and standard development process.

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PJM requests FERC’s consideration of these initial comments, appreciates the opportunity to comment on this important topic, and awaits continued engagement with FERC, the Department of Energy, the PJM states, and all other stakeholders on large load impacts.

Respectfully submitted,

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Dated: November 21, 2025