UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, L.L.C., et al.	)	Docket No. EL25-49-000
Large Loads Co-Located at Generating Facilities	)	Docket No. AD24-11-000
Constellation Energy Generation, LLC	)	Docket No. EL25-20-000
v	)	
PJM Interconnection, L.L.C.	)	(Consolidated)

REPLY BRIEF OF THE INDEPENDENT MARKET MONITOR FOR PJM

Pursuant to order issued in this proceeding on December 18, 2025 ("December 18th Order"),[1] Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM[2] ("Market Monitor"), submits this reply brief responding to the Initial Brief of PJM Interconnection, L.L.C. ("PJM") filed on February 23, 2026.

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1 *PJM Interconnection, L.L.C.*, 193 FERC ¶ 61,217 (2025).

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

I. REPLY BRIEF

A. PJM Transmission Service

PJM's brief includes key statements that should inform thinking about the proposed types of transmission service that the Commission identified in the December 18th Order.

PJM states (at 48): "Since at least its establishment as an Independent System Operator in 1997, PJM's processes have been built around the long-held practice and expectation that load internal to PJM will receive [Network Integration Transmission Service ("NITS")]. This has significant implications for PJM's planning, markets, and operations functions, which are focused on serving Network Load."

PJM states (at 14): "A demonstrated and proven ability to limit withdrawals from the system is crucial to the reliability of the PJM system and to prevent Contract Demand Transmission Services from having an adverse impact on the electric system's reliability and, per the [December 18th] Order, a fundamental characteristic of Contract Demand Transmission Service."

The Market Monitor appreciates and supports the Commission's goals in the December 18th Order. However, it is the Market Monitor's position that some of the Commission's defined transmission services cannot work given the potentially very large load additions that could request service, given the critical importance of maintaining a reliable transmission grid, and given the importance of all customers paying their appropriate share of the all the costs of the grid, including all ancillary services. While recognizing and supporting the Commission's goals and the difficult issues facing the PJM wholesale power market, the December 18th Order represents a set of dramatic changes in the nature of transmission service in PJM, not all of which are workable consistent with maintaining the reliable operation of the PJM system. In particular, non-firm CDS and Interim NITS create significant reliability risks for the transmission system. The December 18th Order addresses transmission service but does not directly address the generation reliability issues.

B. Contract Demand Service (CDS)

As PJM states its understanding of CDS: "Contract Demand Transmission Services are intended to provide options beyond full NITS to Eligible Customers taking service on behalf of Co-Located Loads that are 'willing and able to control their withdrawals from the transmission system.'"[3]

The December 18th Order assumes that a customer can make a meaningful long term commitment to use transmission service only up to a defined level. That commitment is significant because it means that a customer would pay for a lower level of transmission service than under NITS because less cost is incurred to serve that load than under NITS. The implication of that commitment is that PJM will build the transmission system in a different and less costly way than it would without that commitment. There is no evidence to support this assumption. In fact, this strong assumption appears to be implausible and not consistent with the way in which the transmission system is actually planned. For the assumption to be correct, it would need to be demonstrated that the sizing of elements of the transmission system would change with the characteristics of individual customers years in advance of the customers coming on line. Given the lumpiness of transmission investment, given the uncertainties inherent in transmission planning, given the uncertainty in actual customer demand, given the fact that customers can and will change and given the fundamentally interactive nature of the transmission system, it appears impossible to actually calculate a cost savings associated with a specific customer limiting their demand to a specific level, defined years in advance of taking service. In the absence of a cost saving, there is no basis for charging less for contract demand service than for NITS. If the billing determinants for NITS are correct and the customer actually limits its demand, the charges for NITS will reflect the customer's actual use of the transmission system. There is a logical reason that average cost ratemaking has been the general practice in setting transmission rates. It is not possible

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[3] PJM at 8, citing the order to the December 18th Order.

to do accurate cost allocation or cost assignment to individual customers given the fundamental network nature of transmission service. The grid works as an integrated whole. All transmission customers use the grid. It is not possible to meaningfully parse out exactly which grid services are used by a specific customer or exactly what parts of the grid are used by a specific customer. These issues are exacerbated by the option to convert firm CDS service to NITS. Given the long time lines in transmission planning and the extreme lumpiness of transmission investments, if PJM is required to permit conversion to full NITS at a future date, it would be rational for PJM to plan the transmission system as if the customer is a NITS customer.

The firm CDS is a logical transmission service that could work to maintain a reliable grid if implemented as defined by the Commission. However, the firm CDS service provides no assurance that transmission costs associated with providing firm CDS service will not be paid by NITS transmission customers.

CDS is intended for co-located load. In the December 18th Order, the Commission adopted (at P 3) PJM's definition of co-located load: "PJM defined co-located load as a configuration through which end-use customer load is physically connected to the facilities of an existing or planned generation unit on the interconnection customer's side of the point of interconnection to the PJM transmission system."[4] This definition does not address any of the basic reliability issues raised by co-located loads.

The Commission separates two types of CDS: firm and non-firm CDS.[5] The portion of the Co-Located Load for which the Co-Located Generating Facility will dedicate its output (in whole or in part) may be covered by non-firm contract demand transmission service, but

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[4] This does not address PJM's proposal to change the distinction between the point of interconnection and the point of ownership change. *See* Answer and Motion for Leave to Answer of the Independent Market Monitor for PJM, Docket No. ER26-1088-000 (February 25, 2026).

[5] *See* December 18th Order at P 160.

any portion of the gross demand of the Co-Located Load not served by the Co-Located Generating Facility must be covered by firm contract demand transmission service.

The assumption underlying non-firm CDS is that the load has to pay for transmission service only when the load needs transmission service. That assumption is untenable. As PJM points out in its Brief and in the Dr. Abdulsalam Affidavit, such non-firm service can be only a standby service and can only be provided "under limited circumstances." The Affidavit should be reviewed carefully as it includes a range of carefully stated concerns about the nature of this non-firm CDS option. The conditions for taking non-firm CDS identified by PJM are well defined and well supported but are not consistent with the Commission's definition of non-firm CDS. According to the Commission, non-firm CDS is for customers that want a "transmission reservation for a Co-Located Load in advance for the duration of an expected outage of the associated generator."

As PJM states (at 32). "Per the requirements of the [December 18th] Order, Eligible Customers seeking Non-Firm Contract Demand Transmission Service 'will be charged for transmission and ancillary services on an as-reserved contract demand [i.e., usage only] basis' and will be charged 'regulation and black start services based on a gross demand basis.'"

As PJM states (at 54). "That is, because PJM will plan the Transmission System to ensure the Firm Contract Demand Transmission Service MW quantity and PJM will consider such amount in resource adequacy planning, the system will be *designed* to serve the Firm Contract Demand Transmission Service, minimizing much of the system reliability risks presented by Non-Firm Contract Demand Transmission Service."

Per PJM, the transmission reservation cannot be made in advance and cannot be guaranteed for the duration of the expected outage. The non-firm CDS cannot be reserved in advance of an unplanned outage, whether forced or maintenance. The equivalent availability data (EAF is the equivalent availability factor) for all types of generators in PJM demonstrate

that the non-firm service would have to be used on a regular basis.[6] Generators providing co-located service will not be available for 8,760 hours per year. The available factor (EAF) for PJM resources was 83.2 percent (1 – EAF is 16.8 percent) in 2025. Given the scale of potential data center users of non-firm CDS, the system would become unmanageable if all or a significant part of the data center users wanted to use non-firm CDS, and the service would not be available on a consistent basis and would therefore be meaningless.

This illustrates that there can be no such service as non-firm CDS that is fully consistent with maintaining a reliable PJM transmission system. Non-firm CDS would effectively provide co-located generators a subsidized low cost option to use the system whenever they need backup. That is precisely the point of the grid. The grid is available when needed by all transmission customers. That is why all transmission customers should pay for full NITS service. All customers should share the costs of the transmission system. There is no free or low cost part of the system. It is all paid for by other NITS customers.

C. Interim NITS

Interim NITS was created by the Commission in response to requests by large data center loads to interconnect more quickly than could occur for full NITS. Interim NITS is a non-firm, interruptible network transmission service energy to serve co-located load that would be provided because the transmission system cannot support full NITS for those customers. Once the necessary transmission system investments are final, Interim NITS customers would automatically convert to NITS customers.

It is clear from PJM's filing that Interim NITS is not a preferred path forward because it is not consistent with PJM's normal transmission planning process and imposes potentially significant risks on the PJM system. PJM states (at 50) that "permitting Eligible Customers to take non-NITS transmission services on behalf of Co-Located Load may pose additional

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[6] *See* Monitoring Analytics, LLC, *2025 Annual State of the Market Report for PJM*, Volume 2: Section 5 Capacity Market, Table 5-39, page 366.

reliability and operational risks to the PJM Region." PJM states (at 60) that "the complexity introduced by the necessary control technology and protection systems (e.g. RAS) introduces significant risks."

Given the risks, there is not an unlimited amount of Interim NITS that can be provided. PJM and the affected TOs would have to perform required studies to define the amount of Interim NITS that can be reliably provided. This raises questions about which customers would be allowed to take Interim NITS if demand exceeds supply, which seems likely given the level of forecast large data center load.

To attempt to address the risks that result from Interim NITS, PJM will require the co-located load customers to work with PJM and affected Transmission Owners to "establish necessary control technologies and protection systems, which may include a Remedial Action Scheme, for each Service Agreement for Interim [NITS]."[7] Remedial Action Schemes (RAS) are also referred to as Special Protection Schemes (SPS) by PJM and NERC. Per the Wharton Affidavit (at para. 15), a RAS "is designed to detect abnormal system conditions and to automatically take appropriate corrective action to maintain system stability, acceptable system voltages, and acceptable facility loading." The Wharton Affidavit makes a critical point, when Mr. Wharton states (at para. 16) that RAS "should not be installed as a substitute for good system design or operating practices." Mr. Wharton states (*id*.) that the implementation of RAS "is generally limited to temporary conditions involving the outage of critical equipment."

Addressing the risks of RAS, the Wharton Affidavit states (*id*.), "the consequences of an RAS misoperation are often more severe than those of fault protection schemes. While an RAS may be a temporary solution until the transmission system is reinforced, PJM Manuals indicate that PJM's systems and operating procedures were designed to be served by NITS eliminating the need for RAS while ensuring generation can be dispatched to serve load."

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[7] *See* PJM at 72.

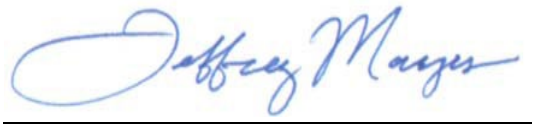
D. Implementation Date

The Market Monitor supports PJM's proposed implementation date. Mr. Horger's Affidavit states that PJM believes an effective date of June 1, 2029, is necessary for the three new transmission services, interim NITS, non-firm contract demand transmission service, and firm contract demand transmission service. As PJM points out (at 66) The PJM system does not differentiate between different types of transmission service being used to serve load within PJM, because all load within PJM is currently served by NITS. The Horger Affidavit explains that PJM will be required to significantly modify core systems, including software changes, to address, among other things, curtailing the load of a customer's co-located Load being served by two different levels of transmission service. The Horger Affidavit covers the level, significance and pervasiveness of the design changes that would be required. For example, PJM points out (at 66) that "Eligible Customers taking transmission service on behalf of Co-Located Load, would need to take these different forms of transmission service on different feeders, or cables leaving substations, to ultimately serve the Co-Located Load."

II. CONCLUSION

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

Respectfully submitted,



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Dated: March 25, 2026

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Eagleville, Pennsylvania,
this 25th day of March, 2026.

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