

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

PJM Interconnection, L.L.C., <i>et al.</i>)	Docket Nos. EL25-49-000
)	EL25-49-001
)	
Large Loads Co-Located at Generating Facilities)	AD24-11-000
)	
Constellation Energy, LLC)	EL25-20-000
v.)	(Consolidated)
PJM Interconnection, L.L.C.)	

**REPLY BRIEF OF
INDUSTRIAL CUSTOMER ORGANIZATIONS AND AMTRAK**

Pursuant to the Order on Show Cause Proceeding, Directing Compliance Filings, Establishing Paper Hearing, and Granting In Part and Denying In Part Complaint (“Co-Located Load Order”) in the above-captioned dockets,¹ and the January 23, 2026, Notice of Extension of Time,² the PJM Industrial Customer Coalition (“PJMICC”), the Industrial Energy Consumers of America (“IECA”), the American Forest and Paper Association (“AF&PA”) (collectively, “Industrials”), and the National Railroad Passenger Corporation (“Amtrak”) hereby file this Reply Brief in response to the responsive briefs filed at the Federal Energy Regulatory Commission (“FERC” or “Commission”) on or around March 25, 2026, in the above-captioned dockets.

I. EXECUTIVE SUMMARY

The Industrials/Amtrak are part of a subset of retail customers (*i.e.*, traditional large users) with high energy consumption needs who have long contributed to the development and resiliency

¹ *PJM Interconnection, L.L.C., et al.*, Order on Show Cause Proceeding, Directing Compliance Filings, Establishing Paper Hearing, and Granting In Part and Denying In Part Complaint, Docket Nos. EL25-49-000, EL25-49-001, AD24-11-000, EL25-20-000 (“Consolidated Dockets”) (Dec. 18, 2025).

² Notice of Extension of Time, Docket Nos. EL25-49-000, EL25-49-001, AD24-11-000, EL25-20-000 (Jan. 23, 2026).

of the PJM Interconnection, L.L.C. (“PJM”), grid, including by operating retail Behind-the-Meter Generation (“BTMG”), while remaining longstanding pillars of the regional and national economy as major employers and by providing critical goods and services to the public.

These traditional large manufacturing and transportation users did not trigger the current resource adequacy challenges on the grid. Nor do they present the reliability risks posed by super-sized computational loads rapidly entering the landscape. Like residential and small commercial retail customers, traditional large users are facing a crisis of costs and adequacy not of their own making. Unlike their smaller retail customer counterparts, however, many traditional large users have invested substantial capital into retail BTMG that is deeply integrated with their industrial processes and operations, such that the economics of the entire facility can be jeopardized by the Commission’s determinations on retail BTMG in this proceeding and in the BTMG Compliance Docket at ER26-1479-000.

The decisions made in these proceedings will determine the future of much on-site generation in PJM. Even more significantly, it may mean the difference between certain energy-intensive businesses (*e.g.*, manufacturers, industrials) operating or closing their operations in PJM. Stated plainly, there are broad public policy and economic consequences to the Commission’s decisions regarding retail BTMG. Consistent with burgeoning efforts by policymakers to protect existing retail customers, the Commission must also protect traditional large users in accordance with FERC’s statutory mandate under the Federal Power Act (“FPA”), which requires that rates and terms of jurisdictional service be just, reasonable, and not unduly discriminatory or preferential.³

³ 16 U.S.C. § 824e(a).

To provide relevant and accurate information to the Commission as it establishes new rates and terms, the Industrials/Amtrak offer replies to several comments in the Paper Hearing, as summarized as follows:

- 1) **A just and reasonable back-up service is missing from the new transmission services structure.** Back-up service provided *without* a default assumption that it will be used during system peaks is guaranteed to Qualifying Facilities (“QF”) under the Public Utility Regulatory Policies Act of 1978 (“PURPA”) and should be extended to other retail customers with on-site generation on a cost-causation basis, either through retail netting or through a firm, back-up service charged on a cost-causation basis.
- 2) **The penalty regime should be developed cautiously.** While the Industrials/Amtrak agree that the new Contract Demand Transmission Services (“CDS”), Firm CDS and Non-Firm CDS, must have enforcement mechanisms, harsh operational penalties are premature at this juncture, at least for existing customers who have long been accustomed to receiving NITS based on actual use.
- 3) **The FERC can avoid stressing the PJM queue and study process and support innovative state-based solutions by establishing appropriate grandfathering and BTMG materiality threshold (“Retail Threshold”) standards.** The FERC has an opportunity in Docket No. ER26-1479 (“BTMG Compliance Docket”) to focus its Co-Located Load reforms on the areas of highest risk, thereby avoiding extended PJM queues and allowing state-based retail solutions for traditional load with on-site generation to thrive as it has for decades.
- 4) **Any Grid Reliance Charge for Non-Firm CDS must comport with actual use.** Rather than a fixed fee, any Grid Reliance Charge should be based on actual use of the service.
- 5) **The Retail Threshold, set appropriately, can avoid significant customer confusion and economic harm as the FERC introduces the new suite of transmission services.** The outcome of PJM’s pending compliance proposal in the BTMG Compliance Docket, including a yet-to-be-determined Retail Threshold, directly impacts the ability to achieve just and reasonable terms and conditions in the Paper Hearing, as well as the economic viability of traditional industrial, institutional, and transportation retail customers who have been successfully operating on-site generation for decades.

The Industrials/Amtrak recognize the New Transmission Services structure as a seismic shift in the industry. It bears repeating that, unlike grid operators, transmission owners, distribution companies, generators, and many developers, traditional industrial and institutional users are *retail customers*, focused on their core businesses. Industrial, transportation, and institutional customers

do not primarily operate in the wholesale energy industry. Any new requirements that FERC implements should be narrowly tailored to address the critical issues facing the wholesale grid while avoiding unnecessarily capturing retail customers into a regulatory regime with which they are unfamiliar, with substantially more red tape, and adding to their costs of doing business.

II. ARGUMENTS

The Industrials/Amtrak offer the perspective of large, established retail customers whose day-to-day operations are deeply interwoven with on-site energy production. Many retail customers represented in this pleading rely heavily on energy investments they have made over the course of years and decades; these customers, whose retail BTMG may not survive a move to Co-Location Arrangement,⁴ arguably have the most to lose in this docket, despite being stable, cooperative, and constructive parts of the grid for decades. The Industrials/Amtrak offer the following comments to address significant concerns prompted by the Order and other briefs submitted in this Paper Hearing.

A. A Just and Reasonable Back-up Service Is Missing from the Suite of New Transmission Services.

The initial briefs and responsive briefs in this Paper Hearing do not address the importance of back-up service for retail customers with on-site generation, a concern that may not be widely understood by other interested parties. The New Services' design lacks a key component: access to back-up power on a cost-causation basis—that is, a firm back-up service that is taken and paid for based on use (“cost-based”). Back-up service is a critical component of operations for industrial and institutional retail customers; yet, as explained below, the New Services do not currently address this need.

⁴ See *PJM Interconnection, L.L.C.*, 60-Day Compliance Filing for Co-Located Load Related Revisions to Open Access Transmission Tariff to Comply with Commission Order in Docket No. EL25-49, et al., (“PJM Compliance Filing”) Docket No. ER26-1479-000, at 12-13 (Feb. 23, 2026).

For many retail customers, access to back-up power is essential. Back-up power enables a retail customer to maintain an uninterrupted power supply in the event of a disruption to its on-site generation. In the context of PURPA,⁵ back-up power is defined as “electric energy or capacity supplied by an electric utility to replace energy ordinarily generated by a facility’s own generation equipment during an *unscheduled outage* of the facility.”⁶ Back-up power is guaranteed to QFs under PURPA with certain cost-based assumptions—namely, that sales of back-up cannot operate with the assumption (unless grounded in factual data) that the need for back-up power will occur during the system peak.⁷ However, as explained below, the need for back-up power is not limited to QFs, and the cost-causation basis for back-up power is not limited to QFs, either.

In contrast to NITS, which measures cost responsibility based on the actual use of the grid during times of congestion (putting aside the aspect of recent changes to the retail behind-the-

⁵ Congress passed PURPA in 1978 to encourage cogeneration, small power production, and geothermal energy production. 16 U.S. Code § 824a-3(a). PURPA has played an important role for manufacturers and the electric grid for nearly five decades, providing market access where none previously existed, taking strain off the grid, and supporting American industry by enabling economic means to reduce energy costs. Under PURPA, QFs fall into two broad categories: “qualifying small power production facilities,” which can be sized up to 80 MW, and “qualifying cogeneration facilities” (“Cogeneration QFs”), which have no size limit. 16 U.S.C. § 824a-3. Cogeneration QFs must achieve certain efficiency standards and are highly efficient in their use of input fuels. Cogeneration QFs, which produce both electricity and heat from the same fuel source, make use of the “waste heat” in their manufacturing, heating, or cooling process. Cogeneration facilities can achieve efficiencies in excess of 80% by using waste heat and avoiding electrical losses, compared to the efficiency of approximately 50% for conventional electricity generation with a steam boiler. *PJM Interconnection, L.L.C., et al.*, Responsive Brief of Industrial Customer Organizations and Amtrak (“Industrials/Amtrak Responsive Brief”), Docket Nos. EL25-49-000, EL25-49-001, AD24-11-000, EL25-20-000, Attachment 1: Affidavit of James Dauphinais (“Dauphinais Affidavit”) at P 11 (Mar. 25, 2026).

⁶ 18 C.F.R. § 292.101(b)(9) (emphasis added). Under long-established FERC regulations (enacted at Congress’ direction), QFs are entitled to access supplementary power, back-up power, maintenance power, and interruptible power. 18 C.F.R. § 292.305(b).

⁷ 18 C.F.R. § 292.305(c) states:

Rates for sales of back-up and maintenance power. The rate for sales of back-up power or maintenance power:

- (1) Shall not be based upon an assumption (unless supported by factual data) that forced outages or other reductions in electric output by all qualifying facilities on an electric utility’s system will occur simultaneously, or during the system peak, or both; and
- (2) Shall take into account the extent to which scheduled outages of the qualifying facilities can be usefully coordinated with scheduled outages of the utility’s facilities.

meter netting rules), the design of the Firm and Non-Firm CDS focuses on pre-defining in advance an amount of transmission capacity, then enforcing load limits and/or curtailment through a variety of mechanisms. These mechanisms include contract-based services, pre-scheduling of Non-Firm CDS use, curtailment prioritization, enforcement penalties, and protective schemes to physically prevent excessive draw from the grid.

Unfortunately, as currently envisioned, the New Services structure is a poor fit for many traditional large users that operate critical industrial and institutional processes. Many of these retail customers cannot shut off immediately if their on-site generation trips suddenly. Reasons for this can be operational, environmental, or health and safety issues. For example, a steel mill in the middle of a melt must handle molten metal or risk damaging the furnace if it cools too rapidly. For refineries, depressurizing and cooling must occur in controlled sequences to prevent equipment failures or explosions. In some manufacturing contexts that utilize gases, if shutdowns occur too quickly, gases must be flared, which can result in environmental compliance violations. Hospitals, naturally, must constantly maintain power. Chemical plants must properly manage ongoing chemical reactions to avoid runaway reactions.⁸

These are just a few examples of the operational, environmental, compliance, and safety implications that prevent retail customers with on-site generation from immediately curtailing their load when their on-site generation trips offline due to a forced outage. These traditional large loads are quite different from computational load driving today's load growth (and transmission challenges). As noted by the North American Electric Reliability Corporation ("NERC"), "a data

⁸ See, e.g., Devin Partida, *What happens when manufacturing facilities lose power?*, available at <https://www.ishn.com/articles/113257-what-happens-when-manufacturing-facilities-lose-power> (last visited Apr. 24, 2026); Hydropower Carbon Publishing Company, *Refinery Power Outage Mitigations*, available at <https://www.hydrocarbonpublishing.com/ReportP/power.pdf> (last visited Apr. 24, 2026); Global Risk Consultants, *It's Electric: Business Interruption & Property Damage Hazards*, [tuvsud-electric-business-interruption-and-property-damage-hazards-wp-final.pdf](https://www.tuvsud-electric-business-interruption-and-property-damage-hazards-wp-final.pdf) (last visited Apr. 24, 2026).

center has a very different load consumption pattern as compared to older large industrial facilities like a paper or steel mill.”⁹

Back-up service closes the service gap for customers that cannot immediately curtail during a forced outage, by seamlessly and immediately providing replacement electric power to the customer until the retail BTMG can return to service. Currently, such customers can obtain cost-based back-up service via NITS, which nets out on-site generation output. However, under the structure proposed by PJM in the BTMG Compliance Docket, if the nameplate rating of a retail customer’s BTMG does not fit under the Retail Threshold, and the BTMG does not qualify for any grandfathering, the retail customer will not be permitted to net any of its on-site generation output.¹⁰ If such a customer stays on NITS, it will be forced to pay for transmission service that does not recognize *any contribution of the on-site generation from a transmission cost perspective*. Not only does this violate cost-causation principles, but it will make some retail customers’ on-site generation uneconomic.¹¹

As designed, neither Firm nor Non-Firm CDS provides back-up power at just and reasonable rates. In theory, a retail customer that no longer qualifies for BTMG netting treatment could choose to pursue approval as a Co-Location Arrangement, assuming the retail customer deemed it worthwhile to go through all necessary queues, study processes, applications,

⁹ North American Electric Reliability Corporation, Assessment of Gaps in Existing Practices, Requirements, and Reliability Standards for Emerging Large Loads (NERC Large Loads Working Group White Paper) (“NERC Large Load Gap Assessment”), at 10, n. 36 (Mar. 2026), available at <https://www.nerc.com/globalassets/our-work/guidelines/reliability/white-paper---assessment-of-gaps.pdf>.

¹⁰ Under PJM’s proposal in the BTMG Compliance Docket, qualification for BTMG treatment would depend on the nameplate rating of the on-site generation. If the nameplate exceeds the Retail Threshold, no portion of the generation output would qualify for netting. PJM Compliance Filing, Docket No. ER26-1479-000, at 6-7. The Industrials/Amtrak have protested this proposed treatment. *PJM Interconnection, L.L.C.*, Joint Protest and Comments of Industrial Customer Organizations and Amtrak (“Industrials/Amtrak Protest”), Docket No. ER26-1479-000, at 34-37 (Mar. 16, 2026).

¹¹ See Dauphinais Affidavit at PP 42-44. See also PJM Compliance Filing, Docket No. ER26-1479-000, at 12-14.

inspections, and installations of protective equipment. If PJM’s approach in its Initial Brief is adopted by the FERC, the retail customer would (after obtaining approval) be responsible for subscribing to Non-Firm CDS in the amount of the co-located generation output that is reserved for the Co-Located Load, and to subscribe to Firm CDS in the amount needed from the grid.¹²

Problematically, even after all of this is set up, the retail customer will have no means of obtaining back-up power from the grid in the event of forced outages. As proposed, Non-Firm CDS cannot provide back-up power because it cannot be accessed during a BTMG generation facility outage until a request for it is submitted to and approved by PJM. The retail customer would be required to automatically curtail its load until it submits a Non-Firm CDS request to PJM and PJM approves that request.¹³

Firm CDS, unlike Non-Firm CDS, *can* provide back-up power—but at the *full Firm CDS price*. Because Firm CDS implicitly assumes BTMG forced outages occur at the time of the system peak and all such BTMG forced outages occur simultaneously, Firm CDS, as proposed, cannot provide back-up service at a cost lower than taking NITS based on gross load.¹⁴ In essence, relying on Firm CDS for back-up service would be reserving that transmission capacity at a price designed

¹² *PJM Interconnection, L.L.C.*, Initial Brief of PJM Interconnection, L.L.C. (“PJM Initial Brief”), Docket Nos. EL25-49-000, EL25-49-001, AD24-11-000, EL25-20-000, at 16 (Feb. 20, 2026).

¹³ Non-Firm CDS would not meet PURPA’s requirements for back-up service. Dauphinais Affidavit at P 45 (“Non-Firm [CDS] would fall short in two respects. First, it is incapable of providing backup power for forced outages of Qualifying Cogeneration Facilities because the actual usage Non-Firm [CDS] would have to be pre-scheduled with and approved by PJM in advance of its use, and forced outages cannot be known in advance. Second, the service is not reliable and risky to use as it is only available on an as-available basis, subject to interruption during emergencies, and subject to automated interruption. It is not a product that could be used to provide safe and environmentally compliant maintenance power to traditional commercial, industrial, and institutional retail customers with Qualifying Cogeneration Facilities, never mind backup power to them.”).

¹⁴ Dauphinais Affidavit at P 44 (“[Firm CDS] would inherently assume, in violation of FERC’s rules for backup and maintenance power for Qualifying Facilities, that forced outages or other reductions in electric output by all qualifying facilities on an electric utility’s system will occur simultaneously, or during the system peak, or both, without any factual data to support such an assumption.”).

for 100% use when it might be needed once a year.¹⁵ This is completely at odds with sound economics and does not respect basic cost-causation principles, particularly where the history and risk of the individual unit are well established or have met external standards (such as qualifying as a QF).¹⁶

Cost-Causation Principles and PURPA Regulations require a back-up power option for retail customers with on-site generation. As recognized by the D.C. Circuit Court of Appeals, the “cost-causation principle” has been recognized “for decades” by “the Commission and the courts.”¹⁷ Under the cost-causation principle, “costs are to be allocated to those who cause the costs to be incurred and reap the resulting benefits.”¹⁸ Additionally, PURPA regulations expressly recognize the need for cost-based back-up power and maintenance power for QFs to be able to draw from the grid, including during occasional unscheduled outages. However, this need is not limited to QFs. To function according to cost-causation principles and under just and

¹⁵ As explained in the Industrials/Amtrak Responsive Brief, if ten 100 MW industrial loads, each with offsetting BTMG, individually experience unplanned outages 1% of the time, the New Services structure would require them to collectively purchase 1,000 MW (1 GW) of Firm CDS, even though they would statistically never use more than a fraction of that amount at one time. In such a scenario, it would be unjust and unreasonable for a Transmission Owner to build 1 GW of transmission capacity, when only a fraction of that would ever be needed. In like fashion, it would be unjust and unreasonable to *charge* a customer *as if* that transmission capacity would be needed.

¹⁶ The New Services structure also does not reasonably accommodate maintenance power. While Non-Firm CDS is capable of providing maintenance power, it is only capable of doing so on a non-firm basis, which is problematic for those loads, that, due to safety, environmental compliance and/or high cost implications, are unable to immediately curtail their load when PJM operationally curtails the use of Non-Firm CDS. Firm CDS, in contrast, is capable of providing maintenance power on a firm basis; however, like with back-up power, it cannot do so at a cost any lower than taking NITS based on gross load, which is not consistent with cost of service principles given this would implicitly assume BTMG maintenance outages cannot be scheduled to avoid periods when resource adequacy and transmission service availability is challenged.

¹⁷ *Old Dominion Elec. Coop. v. FERC*, 898 F.3d 1254, 1255 (D.C. Cir. 2018). (“For decades, the Commission and the courts have understood [the ‘just and reasonable’ rate requirement] to incorporate a ‘cost-causation principle’—the rates charged for electricity should reflect the costs of providing it.”).

¹⁸ *Nat’l Ass’n of Reg. Util. Comm’rs v. FERC*, 475 F.3d 1277, 1285 (D.C. Cir. 2007). (*See also* *K N Energy, Inc. v. FERC*, 968 F.2d 1295, 1300 (D.C. Cir. 1992); *City of Lincoln v. FERC*, 89 F. 4th 926, 930 (D.C. Cir. 2024); *see also* *Midwest ISO Transmission Owners v. FERC*, 373 F.3d 1361, 1368 (D.C. Cir. 2004) (“we evaluate compliance with this unremarkable [cost causation] principle by comparing the costs assessed against a party to the burdens imposed or benefits drawn by that party”).

reasonable rates, other retail loads with on-site generation also require back-up service based on cost causation.

Despite the above principles, the New Services structure puts industrial retail customers with BTMG and other similarly situated customers in a bind. If the FERC's final orders in this proceeding and the BTMG Compliance Docket do not allow these customers to qualify for netting as retail BTMG, they will have zero options for cost-based back-up power. Even if they go through the (likely extensive) process of PJM studies, entering the queue, qualifying as a Co-Location Arrangement, installing protective equipment, etc., they will still not have access to cost-based back-up service. Consequently, for the Commission to meet: (1) PURPA regulatory requirements (applicable to QFs) and (2) cost-causation principles in transmission service design (applicable to all customers), transmission services must be developed that apply cost-causation standards to occasional, yet unplanned use of the transmission system that does not occur during peak hours.

To that end, in the BTMG Compliance Docket, the Industrials/Amtrak proposed that: (1) QFs be able to continue to net output and operate under longstanding/historical retail BTMG rules and (2) the Retail Threshold be set at a realistic level (*i.e.*, at least 200 MW) to permit these kinds of retail customers (ranging from hospitals to steel mills to pharmaceutical manufacturers to transportation providers) that are not presenting resource adequacy concerns or risks to continue to operate under existing BTMG rules.¹⁹ As described in the Responsive Brief, the BTMG netting construct meets the requirements of PURPA's implementing regulations that QFs be guaranteed access to back-up and maintenance power with the cost-based assumptions required by the Regulations. (If a retail customer with BTMG is in the netting construct and it requires back-up

¹⁹ Industrials/Amtrak Protest at 17-23. While allowing QFs to remain eligible for longstanding BTMG netting rules addresses the essential concern for QFs, many facilities operate on principles similar to those of QFs but do not have QF status. *See* Industrials/Amtrak Responsive Brief at 20-21; Dauphinis Affidavit at P 48.

service during peak hours, it will then be charged accordingly in the following year; if, however, as is usually the case, back-up power is only needed on occasion and not during peak hours, the NITS netting structure accounts for that in its pricing by adjusting the customer's transmission obligation the subsequent year.)

The Commission has two valid options before it to address the need for back-up power. First, it could grant the grandfathering, Retail Threshold, and QF requests of the Industrials/Amtrak in the BTMG Docket, as restated above. Alternatively, the Commission could also develop a back-up power service option for Co-Location Arrangements. Ideally, the Commission would do both, ensuring an essential, cost-based service continues in the future.

B. The Grid Reliance Charge Must Comport with Actual Use.

In their Initial Brief, the Transmission Owners proposed a “Grid Reliance Charge” for Non-Firm CDS.²⁰ The Transmission Owners proposed an initial allocator of 25.8% to each zone's transmission revenue requirement, with periodic updates.²¹ This allocator is based on the portion of transmission operations and maintenance (“O&M”) and depreciation that is associated with “grid reliance” functions.

In the responsive briefing stage, several parties addressed the proposed Grid Reliance Charge. The Industrials/Amtrak support the comments of Vistra Corp. (“Vistra”), arguing that the

²⁰ *PJM Interconnection, L.L.C.*, Initial Brief and Joint Responses of the Indicated PJM Transmission Owners to Paper Hearing Questions (“Transmission Owners Initial Brief”), Docket Nos. EL25-49-000, EL25-49-001, AD24-11-000, EL25-20-000, at 14-15.

²¹ The “PJM Transmission Owners initially propose to calculate this charge for each zone based on an average fixed percentage of the portion of transmission depreciation and operations and maintenance (‘O&M’) expense associated with providing grid reliance services, and then applying that percentage to each PJM Transmission Owner’s Attachment H annual transmission revenue requirement.” *Id.* The fixed percentage “allocator” is “based on costs included in transmission plant and transmission O&M FERC accounts, derived from FERC Form No. 1 Reports of the Transmission Owners....” The Transmission Owners propose that the allocator “be multiplied by each PJM Transmission Owner’s rate for NITS and Firm Contract Demand Service to arrive at an ‘unadjusted’ Grid Reliance Charge rate,” which will then be multiplied by a zone-based ratio “that accounts for the difference between the demand used to account for the NITS and Firm Contract Demand Service . . . and Co-Located Load customers’ gross load.” *Id.* at 17.

Grid Reliance Charge fails to reflect how differently customers rely on the transmission system. Under the Transmission Owners’ proposal, customers that take little or no energy from the grid would subsidize traditional network customers, violating cost-causation principles. Vistra states in its Responsive Brief:

The Commission’s questions illustrate that customers could use Non-Firm Contract Demand Transmission Service in different ways. A customer might (a) never reserve service (in fact, it might actually *commit* to never reserving service),²² or (b) occasionally reserve a de minimis amount of service, or (c) frequently reserve significant amounts of service. The first customer in that example clearly does not rely on the grid to the same extent as the second or third, and the second customer clearly does not rely on the grid to the same extent as the third. A customer that never reserves transmission service relies on the PJM grid only to transport black start and regulation services, while other customers may rely on the PJM grid for energy withdrawals, either for primary or back-up service, in significantly varying amounts. Yet the PJM Transmission Owners’ proposal would impose the same grid reliance charge on these very different customers.²³

As Vistra noted, Non-Firm CDS may have a range of uses, both in type and amount. Yet, the Grid Reliance Charge, as proposed by the Transmission Owners, does not reflect this distinction at all. As stated by Vistra, the “Transmission Owners’ proposal stands in stark contrast to this long-standing policy [of offering and pricing individual ancillary services separately] by creating a new service charge for what appears to be an undefined ancillary service (*i.e.*, grid reliance), which they assert covers a ‘suite of synchronization support services.’”²⁴ Vistra states that the Transmission Owners do not explain how customers benefit from that “suite” of purported services, proposing instead to bundle the services together instead of “pric[ing] the individual

²² *PJM Interconnection, L.L.C.*, Response Brief of Vistra Corp. (“Vistra Responsive Brief”), Docket Nos. EL25-49-000, EL25-49-001, AD24-11-000, EL25-20-000 at 19 (citing Co-Located Load Order, 193 FERC ¶ 61,217 at P 178 n. 380).

²³ *Id.* (citing *Old Dominion Elec. Coop. v. FERC*, 898 F.3d 1254, 1263 (D.C. Cir. 2018) (“FERC must make some reasonable effort to match costs to benefits.”); *BNP Paribas Energy Trading GP v. FERC*, 743 F.3d 264, 268 (D.C. Cir. 2014) (holding that the cost-causation principle is a “matter of making sure that burden is matched with benefit”).

²⁴ *Id.* at 20.

[services] separately.” Yet, as Vistra aptly notes, “the Transmission Owners then propose to impose that cost on customers without regard to the extent to which customers actually rely on the grid. The Transmission Owners do not justify how it is consistent with cost-causation principles to impose the same grid reliance charge for those very different types of grid reliance.”²⁵

To reinforce this concern, consider the following hypothetical retail customer:

An industrial retail customer – a steel mill – has operated a cogeneration facility for the past 50 years. The mill employs 500 workers and produces over a million tons of steel per year. The cogeneration configuration uses blast furnace gas and other sources to produce both electricity and useful steam for processing. The electric generation reaches approximately 80 MW – that’s two-thirds of the total electrical supply needed to operate the plant, which is 120 MW. For decades, this mill has been operating under NITS for transmission cost determination. Its NITS tag tends to be around 40 MW, because its on-site generation operates reliably and is deeply integrated into the mill’s production process.

Depending on the outcome of the BTMG Compliance Docket, this hypothetical customer may be forced off of its existing service with retail BTMG netting (due to having 80 MW of transmission charges added to the mill’s transmission tag; assuming a relatively average NITS rate of \$50,000 per MW-year, that is a \$4 million annual cost increase). To avoid spending an additional \$4 million annually, the mill may need to seek status as a Co-Location Arrangement. However, even if (and when) the mill accomplishes that, it would (under the Transmission Owners’ Grid Reliance Charge proposal.²⁶) have approximately 25% charge for the Non-Firm CDS—in this illustration, approximately \$1 million per year. However, it is not clear what value the steel mill would receive from this \$1 million, because Non-Firm CDS access is only as-available and cannot function as a back-up service.

²⁵ *Id.*

²⁶ See Transmission Owners Initial Brief at 14-15 (proposing an initial 25.8%). See also PJM Initial Brief at 16 (proposing that “[a]n Eligible Customer taking service on behalf of a Co-Located Load must request Non-Firm Contract Demand Transmission Service equivalent to the MW level of the Co-Located Generating Facility dedicated to serving the Co-Located Load”).

Consequently, as an as-available service, Non-Firm CDS should not be charged a “standby fee” such as the Grid Reliance Charge, as Non-Firm CDS does not provide any guaranteed availability. Regardless of the merits of an access or standby fee in the context of a firm service offering, it is unreasonable to charge for “access” with no guarantee of when such access will be available. Rather, an actual use calculation on an hourly basis would be an appropriate way to charge for Non-Firm CDS. Such an approach guarantees that retail customers pay for what they use; such revenues collected by transmission owners would go toward the revenue requirement for that transmission owner, ultimately lowering rates for Firm CDS and NITS customers.

C. The FERC Can Avoid Stressing the PJM Queue and Study Process and Support Innovative State-Based Solutions by Establishing Appropriate Grandfathering and Retail Threshold Standards.

While the FERC is pursuing major industry reforms in the Co-Located Load proceeding, the Industrials/Amtrak respectfully request that the Commission take care to accomplish the desired reforms without creating undue hardship for those impacted by the rule changes—namely, retail customers who have already made major investments in on-site generation or who (in the case of cogeneration) require on-site generation as part of their operational process. The truism of “unintended consequences” remains applicable here. Striking the right balance between risk and regulatory burden means avoiding overly broad regulations that overregulate beyond the core issues intended to be remedied.

In this proceeding, the FERC itself implicitly acknowledged this balance in the Order when addressing BTMG rule changes, stating that “[a] materiality threshold for all BTMG should *reduce* the reliability and resource adequacy risks that large or increasing BTMG may pose to PJM, while *also* allowing for Network Customers to reduce their transmission charges in a transparent, not

unduly discriminatory fashion.”²⁷ This acknowledgment by the FERC of the risk balance is on point. Here, requirements should be narrowly tailored to reduce significant grid risk without burdening traditional retail customers with terms, conditions, or rates that are unduly discriminatory, unjust, unreasonable, or difficult to understand and follow. Rather, to the extent the FERC implements sweeping regulatory change, it should focus on the challenges that are changing how the grid functions—namely, the entry of super-sized computational loads that dwarf most industrial, institutional, and transportation facilities. The Commission is appropriately concerned with “grid-busting” growth, but this growth is driven by often massive computational loads, not traditional large loads that have been in place for decades.

The FERC’s regulations should also be narrowly tailored to avoid jurisdictional conflicts with the states, which are accustomed to working with retail customers and have a variety of tools to ensure fair interconnection and cost-allocation policies. Finally, to make its intended changes successful, the FERC should not “gum up” the PJM queue and study process by avoiding putting large amounts of existing load into the queue.

The key to accomplishing the FERC’s goals while reducing unintended consequences resides in the BTMG Compliance Docket. There, the FERC should take the following actions:

1. Set a realistic Retail Threshold to focus new Co-Located Load rules on “grid-busting” growth above 200-300 MW, not on existing industrial customers (*e.g.*, consumer goods manufacturers, steel mills, chemical manufacturers, paper mills, and pharmaceutical factories).
2. Qualify all QFs for retail BTMG treatment without a date limit, consistent with PURPA regulations.
3. Set clear grandfathering rules to enable existing, established users to avoid intensive PJM study queues, study deposits, processes, for operations that continue to function properly.

²⁷ Co-Located Load Order at P 179 (emphasis added).

The above steps will relieve considerable pressure on the industry, PJM, utilities, and customers as all stakeholders work to implement the Commission’s final order in this proceeding. These interrelated issues directly bear on the Commission’s resolution of the issues raised in this paper hearing.

One final comment on this topic: as noted by PJM in the BTMG Compliance Docket, existing retail BTMG arrangements—including QFs and other BTMG arrangements with existing contracts—“have been in place and netted against Network Loads within PJM without operational issues to date.”²⁸ Large loads with large retail BTMG units have existed in PJM since the BTMG rules were established in 2004.²⁹ That phrase bears repeating—*without operational issues to date*. The FERC should act with extreme caution when upsetting something that has functioned so well for over two decades, as a team effort between retail customers, state regulators, and local utilities.

D. The Penalty Regime Should be Developed Cautiously.

In the Order, the Commission asked for comment on “[w]hat interconnection requirements and operational practices are necessary for special protection schemes to maintain system reliability . . . in the event that a Co-Located Load itself or its associated generator trips offline.”³⁰

²⁸ PJM Compliance Filing, Docket No. ER26-1479-000, at 10.

²⁹ From the beginning, large manufacturers have operated generating facilities behind-the-meter that offset their load. When BTMG rules were established in PJM over 20 years ago, large on-site generation units already existed and participated in the proceeding that approved these rules. For example, a refining company intervenor at the time described its on-site generation as a “60 megawatt combined cycle cogeneration facility,” and an agricultural company described its operational location as having “a combined load, net of the capabilities of [the company’s] onsite cogeneration, of between 200 and 300 MW,” implying a substantial presence of on-site generation. *PJM Interconnection, L.L.C.*, Motion to Intervene of Valero Refining Company – New Jersey, Docket No. ER04-608-000 (Mar. 23, 2004); *PJM Interconnection, L.L.C.*, Motion to Intervene of Archer-Daniels-Midland Company, Docket No. ER04-608-000 (Mar. 22, 2004).

³⁰ Co-Located Load Order at P 219(6).

In its initial brief, PJM proposed strong operational penalties for Non-Firm CDS. In response, several parties oppose PJM’s “draconian” penalty regime, including the “one-strike” provision.³¹

The Industrials/Amtrak urge the Commission to exercise caution regarding operational penalties. *Specifically, the FERC should initially avoid operational penalties or limit them based on load size and type (i.e., in accordance with grid risk).* Non-Firm CDS should be designed to prevent cost shifts to other customers, in accordance with cost-causation principles; yet, as the industry adapts, the Commission should exercise caution in overly harsh operational penalties—especially for existing retail customers who may be forced to move from retail BTMG arrangements to Co-Location Arrangements. Transitioning to the New Transmission Services will not be a simple process for traditional retail customers, who have long taken service from their retail service provider under a NITS construct. Of particular concern is the severe consequences of suspending a retail customer’s access to CDS services after a single violation.

Taking the hypothetical steel mill from Section II(B), *supra*, assume the mill obtains Co-Location Arrangement status. If the Transmission Owners’ proposal is accepted, the mill owes a \$1+ million annual charge for Non-Firm CDS (approximately 25% of the NITS cost) for its 80 MW on-site generation—but at least the mill avoids an increase of \$4 million per year, which would occur under a regime that the customer must pay for NITS on a gross basis. However, the mill—which, for decades, has occasionally drawn its full 120 MW during planned maintenance and rare forced outages—will now be at risk of *losing access to Non-Firm CDS* (a \$3 million annual net cost, the difference between gross NITS and Non-Firm CDS) if it does the same thing once more. However, as explained in Section II(A), *supra*, it may not be possible in some scenarios

³¹ *PJM Interconnection, L.L.C.*, Reply Brief of Constellation Energy Generation, L.L.C., Docket Nos. EL25-49-000, EL25-49-001, AD24-11-000, EL25-20-000 (Mar. 25, 2026).

for the mill to curtail. If the mill is in the middle of a melt and the on-site generation trips, it must be able to draw the additional 80 MW from the grid to avoid safety violations or catastrophic damage to its equipment. In such a case, the mill would reasonably pay financial penalties, but it should not be banned from Non-Firm CDS for that lone violation.³²

Perhaps such flexibility cannot be afforded for a 1,000 MW computational load, as 1,000 MW of flow may have exponentially greater implications for a transmission zone than an extra 80 MW. Large computational loads have a different risk profile than existing industrial and institutional loads with a known operating history. As stated in a recent White Paper by NERC, “recent years have witnessed significant growth in large load facilities that differ markedly from traditional industrial load.”³³ NERC explains that these “new types of loads are not only substantial in size but also predominantly consist of numerous rectifiers that supply power to the end process, contrasting sharply with traditional industrial loads dominated by large induction or synchronous motors.”³⁴ As NERC’s analysis clearly demonstrates, computational load may pose substantial reliability challenges for the grid, challenges the industry is just beginning to broadly understand.

In contrast, industrial and institutional retail customers have existed with on-site generation for many decades without issue.³⁵ Consequently, while the Industrials/Amtrak believe penalties should be strong enough to create economic incentives that align with the design of the New Transmission Services, the initial penalty regime should account for the possibility that existing retail customers who are not primarily in the energy industry may shift to this new construct. Retail customers like the hypothetical steel mill, who could be forced into a position where there are no

³² As the contract-based services reflect the natural gas construct to some degree, it is important to note that natural gas generally operates under financial, not operational, penalties.

³³ NERC Large Load Gap Assessment at 29.

³⁴ *Id.*

³⁵ PJM Compliance Filing, Docket No. ER26-1479-000, at 10.

good back-up power options, and yet, for health or safety reasons, could not curtail, should not be suspended from Firm and Non-Firm CDS, and forced back to gross NITS after one error.

E. The Retail Threshold, Set Appropriately, Can Avoid Significant Customer Confusion and Economic Harm as the FERC Introduces the New Suite of Transmission Services.

The Industrials/Amtrak fully support grid reliability and resource adequacy. However, the Industrials/Amtrak respectfully urge the Commission to prevent the impact of the Commission's reforms from falling most heavily on existing large retail customers, such as industrial, institutional, and transportation customers. Many of these retail customers developed and built on-site generation facilities based on certain critical cost assumptions, and they have operated under those assumptions for many years.

In the view of the Industrials/Amtrak, the Co-Located Load Order may be implemented in one of two approaches. The first approach—failing to provide a cost-based back-up power option for current BTMG retail customers, yet forcing them off the retail netting approach—would cause significant damage to the traditional large users that have helped build, innovate, and strengthen the grid over decades.

However, there is an alternative approach that respects the reforms the FERC is pursuing, while ensuring American industry, institutions, and transportation providers have access to reliable, cost-based back-up power. By providing a pragmatic and reasonable Retail Threshold in the BTMG Compliance Docket (*i.e.*, at least 200 MW), the FERC may pursue the primary goals of the Co-Located Load Order while avoiding significant and direct damage to existing manufacturers, universities, hospitals, and transportation systems.

The potential economic impacts of the FERC's decisions in this docket and in the BTMG Compliance Docket are profound, during a time when retail customers are already grappling with cost increases, resource adequacy concerns, and other economic pressures. Despite investing

substantial sums over the course of years to develop and maintain on-site generation (thus minimizing the load placed on the transmission system and reducing the need for more system upgrades) and, in many cases, to support thermal needs at their facilities, retail customers with BTMG are facing the potential of being forced to a “gross load” measurement for NITS or moving to Firm and Non-Firm CDS. However, neither structure accurately accounts for the true benefits and costs of a reliable on-site generating unit that occasionally needs back-up power, and both structures treat that on-site generating unit as if it is nonexistent for purposes of transmission charges.

In addition to violating cost-causation principles, failing to provide for a cost-based back-up service could seriously damage existing users’ economic viability by requiring customers to be charged for transmission (and capacity, subject to clarification) as if their BTMG were not operating. The result will render some of those units uneconomic, forcing them to operate at a loss, close and seek power from the grid, or shutter the plant entirely.³⁶ As stated previously, in the Protest and Comments of Eastman Chemical Company (“Eastman”) in the BTMG Compliance Docket, Eastman explained that an arbitrarily low and unrealistic Retail Threshold (resulting in removal of BTMG netting) “renders Eastman’s BTMG uneconomic after almost 28 years of operations.”³⁷ These are the kinds of unintended consequences the Commission should carefully consider as it weighs the significant issues before it.

³⁶ Addressing cogeneration units in particular, Mr. Dauphinais explained that if the ability to operate “in a safe and environmentally compliant manner within the bounds of what can be supported by the remaining thermal capability of the Cogeneration Facility at just and reasonable electric power rates” cannot be assured, “cogeneration may fail to be a practical and/or economic solution to the retail customer’s needs, causing the efficiency benefits of cogeneration to be forgone and/or the retail customer to become economically unviable.” Dauphinais Affidavit at P 43.

³⁷ *PJM Interconnection, L.L.C.*, Protest and Comments of Eastman Chemical Company, Docket No. ER26-1479-000 (Mar. 16, 2026). For some industrial and institutional customers, transmission and capacity cost savings are a critical factor that makes it worth the investment to build and operate generation on their premises—investments these customers have already made (sometimes over decades). *See* Dauphinais Affidavit at P 17.

In summary, if the FERC sets a reasonable Retail Threshold that reflects current retail BTMG installations, as discussed in the Industrials/Amtrak's BTMG Protest (and in the attached Dauphinis Affidavit), and appropriately exempts QFs without a date limit, these actions go a long way toward allowing FERC to address the real drivers of change on the grid through, among other things, the proposed New Services without damaging the existing load that has helped build and sustain the grid for decades and without discouraging continued American manufacturing growth.

III. CONCLUSION & REQUEST FOR RELIEF

The Industrials/Amtrak respectfully request that the Commission consider this Reply Brief in adjudicating the issues raised in this Paper Hearing. Specifically, the Industrials/Amtrak ask the Commission to implement the Co-Located Load Order in a measured and careful fashion that does not result in adverse cost consequences to traditional large users, including manufacturers and transportation customers.

Respectfully submitted,

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Dated: April 24, 2026

CERTIFICATE OF SERVICE

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

Dated this 24th day of April, 2026.

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