

189 FERC ¶ 61,078
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Willie L. Phillips, Chairman;
Mark C. Christie and Lindsay S. See

PJM Interconnection, L.L.C.

Docket Nos. ER24-2172-000
ER24-2172-001

ORDER REJECTING AMENDMENTS TO INTERCONNECTION SERVICE
AGREEMENT

(Issued November 1, 2024)

1. On June 3, 2024, as amended on September 3, 2024, pursuant to section 205 of the Federal Power Act (FPA),¹ PJM Interconnection, L.L.C. (PJM) filed an amended Interconnection Service Agreement (ISA) among PJM, Susquehanna Nuclear, LLC (Susquehanna or Interconnection Customer), and PPL Electric Utilities Corporation (PPL or Interconnected Transmission Owner) (Amended ISA).² The Amended ISA modifies Service Agreement No. 1442 (Existing ISA) to increase the amount of Co-Located Load from 300 megawatts (MW) to 480 MW and to make revisions related to the treatment of this Co-Located Load.³ In this order, we reject the Amended ISA.

¹ 18 U.S.C. § 824d.

² PJM Interconnection, L.L.C., PJM Service Agreements Tariff, PJM SA No. 1442, (PJM SA No. 1442 among PJM, Susquehanna Nuclear, and PPL EU) (6.1.0) (Amended ISA). Because the filing submitted in Docket No. ER24-2172-000 was overtaken by the filing submitted in Docket No. ER24-2172-001, the filing in Docket No. ER24-2172-000 is rejected as moot.

³ PJM Transmittal at 5. PJM states that when capitalized in the transmittal and in the Amended ISA, the term Co-Located Load has the meaning set forth in the Amended ISA, Specifications section 1.0(d). *Id.* at 2 n.3. PJM states that, when not capitalized, the term co-located load generally refers to end-use customer load that is physically connected to the facilities of an existing or planned customer facility on the Interconnection Customer's side of the Point of Interconnection to the PJM transmission system. *Id.* at 5 n.11. We will use the same naming convention here. Other capitalized terms that are not defined in this order have the meaning specified in the PJM tariff.

I. Background

A. Order No. 2003

2. In Order No. 2003, the Commission required all public utilities that own, control, or operate facilities used for transmitting electric energy in interstate commerce to have on file standard procedures and a standard agreement for interconnecting generating facilities larger than 20 MW.⁴ The Commission stated that standard interconnection procedures and a standard agreement would limit opportunities for transmission providers to favor their own generation, facilitate market entry for generation competitors by reducing interconnection cost and time, and encourage needed investment in generator and transmission infrastructure.⁵ Order No. 2003 requires interconnection agreements that do not conform to the transmission provider's *pro forma* interconnection agreement to be filed with the Commission, and the transmission provider is required to explain its justification for each non-conforming provision.⁶ The Commission has recognized that there would be a small number of extraordinary interconnections that would call for the filing of a non-conforming interconnection agreement.⁷ The Commission has explained that non-conforming agreements may be permissible for interconnections with specific

⁴ *Standardization of Generator Interconnection Agreements & Procs.*, Order No. 2003, 68 FR 49846 (Aug. 19, 2003), 104 FERC ¶ 61,103, at P 1 (2003), *order on reh'g*, Order No. 2003-A, 106 FERC ¶ 61,220, *order on reh'g*, Order No. 2003-B, 109 FERC ¶ 61,287 (2004), *order on reh'g*, Order No. 2003-C, 111 FERC ¶ 61,401 (2005), *aff'd sub nom. Nat'l Ass'n of Regul. Util. Comm'rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007); *see also PJM Interconnection, L.L.C.*, 111 FERC ¶ 61,163, at P 9 (2005) ("use of *pro forma* documents ensures that Interconnection Customers ... are receiving non-discriminatory service and that all Interconnection Customers are treated on a consistent and fair basis").

⁵ *Id.* P 12.

⁶ Order No. 2003-B, 109 FERC ¶ 61,287 at P 140 ("each Transmission Provider submitting a non-conforming agreement for Commission approval must explain its justification for each nonconforming provision"); *see also PJM Interconnection, L.L.C.*, 186 FERC ¶ 61,160, at P 85 (2024).

⁷ *Midcontinent Indep. Sys. Operator, Inc.*, 177 FERC ¶ 61,233, at P 26 (2021); *PJM Interconnection, L.L.C.*, 111 FERC ¶ 61,163 at P 10 (citing Order No. 2003, 104 FERC ¶ 61,103 at PP 913-15; Order No. 2003-B, 109 FERC ¶ 61,287 at P 140).

reliability concerns, novel legal issues, or other unique factors.⁸ A “transmission provider seeking a case-specific deviation from its *pro forma* interconnection agreement bears a high burden to justify and explain that its changes are not merely ‘consistent with or superior to’ the *pro forma* agreement, but are necessary changes.”⁹

B. PJM Rules for Transmission Service

3. PJM’s tariff, like the *pro forma* Open Access Transmission Tariff (OATT), provides for two types of transmission service: (1) Point-to-Point Transmission Service, and (2) Network Integration Transmission Service.¹⁰ Network Integration Transmission Service (NITS) is a “transmission service that allows Network Customers to efficiently and economically utilize their Network Resources (as well as other non-designated generation resources) to serve their Network Load located in the PJM Region.”¹¹ The Network Customer designates both the Network Resources and the Network Loads for NITS.¹² PJM is required to include the Network Customer’s Network Load in transmission system planning, and transmission owners shall “endeavor to construct and place into service sufficient transfer capability to deliver the Network Customer’s

⁸ See, e.g., *Midcontinent Indep. Sys. Operator, Inc.*, 182 FERC ¶ 61,179, at P 15 (2023); *Sw. Power Pool, Inc.*, 133 FERC ¶ 61,084, at P 6 (2010); *Sw. Power Pool, Inc.*, 132 FERC ¶ 61,062, at P 3 (2010); *Midwest Indep. Transmission Sys. Operator, Inc.*, 131 FERC ¶ 61,199, at P 5 (2010).

⁹ See, e.g., *Midwest Indep. Transmission Sys. Operator, Inc.*, 187 FERC ¶ 61,182, at P 9 (2024); *Renewable World Energies, LLC*, 176 FERC ¶ 61,140, at P 20 (2021); *Sw. Power Pool, Inc.*, 133 FERC ¶ 61,084 at P 6; *Sw. Power Pool, Inc.*, 132 FERC ¶ 61,062 at P 3; *PJM Interconnection, L.L.C.*, 111 FERC ¶ 61,163 at P 18.

¹⁰ See PJM, Intra-PJM Tariffs, OATT, § II (Point-to-Point Transmission Service) (2.0.0); *id.* § III (Network Integration Transmission Service) (3.1.0). The definitions concerning PJM’s rules for Network Integration Transmission Service and Point-to-Point Transmission Service are incorporated into PJM’s *pro forma* interconnection service agreement in Appendix 1. *Id.*, § III, attach. O, app. 1 (Definitions) (0.0.0).

¹¹ *Id.* § 28.1 (Scope of Service) (1.0.0).

¹² *Id.* § 30.1 (Designation of Network Resources) (0.0.0); *id.* § 31.1 (Network Load) (0.0.0); *id.* Definitions (L – M – N) (46.0.0) (definitions of “Network Load” and “Network Resource”). Section 31.1 of the PJM tariff requires that a Network Customer “designate the individual Network Loads on whose behalf [PJM] will provide Network Integration Transmission Service.” A Network Resource is any generating resource owned, purchased, or leased by a Network Customer, or subject to a firm power sales agreement with a Network Customer, and designated to serve Network Load.

Network Resources to serve its Network Load.”¹³ Network Load includes all load, retail and wholesale, served by the output of any Network Resource designated by the Network Customer.¹⁴ The Network Customer’s NITS charge is based on the sum of the Network Customer’s individual wholesale and retail customer Network Loads at the time of the annual peak of the zone in which the load is located.¹⁵

4. As an alternative to NITS, load may take Point-to-Point Transmission Service.¹⁶ Point-to-Point Transmission Service is “the reservation and transmission of capacity and energy on either a firm or non-firm basis from the Point(s) of Receipt to the Point(s) of Delivery.”¹⁷

C. Previous Filings

5. The Amended ISA concerns Susquehanna’s 2,520 MW nuclear generating facility located in Luzerne County, Pennsylvania, which consists of two 1,260 MW units interconnected to the PJM transmission system (Customer Facility). PJM filed, and the Commission accepted, the first ISA for Susquehanna and PPL in 2015.¹⁸

¹³ *Id.* § 28.2 (Transmission Provider Responsibilities) (1.0.0).

¹⁴ *Id.* Definitions (L - M - N) (46.0.0); *see id.* § 31.1 (Network Load) (0.0.0).

¹⁵ *Id.* § 34.1 (Monthly Demand Charge) (1.0.0); *see, e.g., id.* § 31.1 (Network Load) (0.0.0).

¹⁶ *See id.* § II (Point-to-Point Transmission Service) (2.0.0). *See also Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Servs. by Pub. Utils.; Recovery of Stranded Costs by Pub. Utils. & Transmitting Utils.*, Order No. 888, FERC Stats. & Regs. ¶ 31,036 (1996) (cross-referenced at 75 FERC ¶ 61,080), *order on reh’g*, Order No. 888-A, FERC Stats. & Regs. ¶ 31,048, at 30,260 (cross-referenced at 78 FERC ¶ 61,220), *order on reh’g*, Order No. 888-B, 81 FERC ¶ 61,248 (1997), *order on reh’g*, Order No. 888-C, 82 FERC ¶ 61,046 (1998), *aff’d in relevant part sub nom. Transmission Access Pol’y Study Grp. v. FERC*, 225 F.3d 667 (D.C. Cir. 2000), *aff’d sub nom. N.Y. v. FERC*, 535 U.S. 1 (2002) (“The bottom line is that all potential transmission customers . . . must choose between network integration transmission service or point-to-point transmission service. Each of these services has its own advantages and risks.”).

¹⁷ PJM, Intra-PJM Tariffs, OATT, Definitions (O - P - Q) (32.0.0).

¹⁸ *PJM Interconnection, L.L.C.*, Docket Nos. ER15-1562-000 and ER15-1562-001 (June 16, 2015) (delegated order); *PJM Interconnection, L.L.C.*, Docket No. ER15-2100-000 (Aug. 11, 2015) (delegated order).

6. On April 22, 2021, PJM filed a Necessary Studies Agreement by and between PJM and Susquehanna (Susquehanna NSA) in order to allow PJM to undertake and charge Susquehanna for the studies necessary to evaluate the impact to the transmission system of potential modifications to the Customer Facility.¹⁹ The Susquehanna NSA indicated that Susquehanna was planning to connect the nuclear generating units at the Customer Facility to large data center loads “Behind the Generator Meter” and behind the Customer Facility’s Point of Interconnection.²⁰

7. On February 3, 2023, PJM submitted an executed, uncontested amended ISA (2023 ISA) between PJM, Susquehanna, and PPL to reflect modifications to Schedule F, Schedule of Non-Standard Terms and Conditions, including changes to Susquehanna’s Capacity Interconnection Rights (CIR), to accommodate Susquehanna’s request to connect the Customer Facility to large data center loads “Behind the Generator Meter” and behind the Point of Interconnection.²¹ The 2023 ISA permitted Susquehanna to add up to 150 MW of co-located load behind each of Susquehanna’s two generating units and accordingly reduce its CIRs if it met certain requirements.²² The 2023 ISA required Susquehanna to install and operate the appropriate protections to ensure that no power flows from PPL’s transmission system to the Co-Located Load, and that the Co-Located Load separates in the event of a loss of on-site generation.²³ On March 17, 2023, the 2023 ISA was accepted via delegated letter order, to be effective on January 19, 2023.²⁴

8. On February 8, 2024, PJM submitted a further executed, uncontested amended ISA, the Existing ISA, to reflect a further reduction in the Customer Facility’s CIRs, specifically, a reduction of 148 MW at one generating unit as well as a performance-based reduction of CIRs of 13 MW for each generating unit.²⁵ On May 10, 2024, the Existing ISA was accepted via delegated letter order, to be effective April 9, 2024.²⁶

¹⁹ PJM, Transmittal, Docket No. ER21-1728-000, at 1-2 (filed Apr. 22, 2021).

²⁰ PJM, Filing, Susquehanna NSA, Docket No. ER21-1728-000, at attach. #1.

²¹ PJM, Transmittal, Docket No. ER23-1043-000, at 1 (filed Feb. 3, 2023).

²² PJM, Filing, Docket No. ER23-1043-000, attach. A, Schedule F.

²³ *Id.*

²⁴ *PJM Interconnection, L.L.C.*, Docket No. ER23-1043-000 (Mar. 17, 2023) (delegated order).

²⁵ PJM, Transmittal, Docket No. ER24-1215-000, at 5 (filed Feb. 8, 2024).

²⁶ *PJM Interconnection, L.L.C.*, Docket No. ER24-1215-001 (May 10, 2024) (delegated order).

II. Filing

9. PJM states that the Amended ISA reflects substantial revisions to address issues related to the treatment of the Co-Located Load, including additional markets, operational, planning, and other terms and conditions.²⁷ PJM states that the proposed non-conforming provisions are necessary to support reliable system operations and clarify expectations for conduct, as well as clarify rights and obligations.²⁸

10. PJM states that it has determined that the Interconnection Customer may transfer up to 480 MW of power to the transmission facilities of the Co-Located Load without a material impact on the transmission system.²⁹ PJM explains that this amount of power includes the previously authorized 300 MW. PJM states that it has determined that any load addition in excess of 480 MW would result in generation deliverability violations and require installation of system upgrades. PJM also notes that the Amended ISA explains that Susquehanna has proposed modifications to allow it to physically transfer 960 MW³⁰ of power to the Co-Located Load's transmission facility, but it can only do so after the generation deliverability violations are eliminated or otherwise resolved.³¹

11. PJM states that the Amended ISA includes provisions regarding Susquehanna's obligations as a Generation Capacity Resource³² and contains a new section addressing use of a back-up unit at the Customer Facility to transfer power to the transmission facilities of the Co-Located Load. PJM explains that the back-up unit is a Generation Capacity Resource and there are conditions where Susquehanna must obtain replacement

²⁷ PJM Transmittal at 5.

²⁸ *Id.* at 13-14.

²⁹ *Id.* at 4.

³⁰ Specifications, Section 2.0 (Rights) under the Amended ISA specifies that "For Unit # 1: Pursuant to and subject to the applicable terms of the Tariff, the Interconnection Customer shall have Capacity Interconnection Rights at the Point(s) of Interconnection specified in this Interconnection Service Agreement in the amount of 1099.0 MW (which reflects a 13 MW performance derate and a 148 MW addition of the Co-Located Load). For Unit # 2: Pursuant to and subject to the applicable terms of the Tariff, the Interconnection Customer shall have Capacity Interconnection Rights at the Point(s) of Interconnection specified in this Interconnection Service Agreement in the amount of 1247.0 MW (which reflects a 13 MW performance derate)."

³¹ PJM Transmittal at 5-6.

³² *Id.* at 6-8.

capacity before transferring power from the back-up unit to the transmission facilities of the Co-Located Load.

12. PJM states that the Amended ISA explains that it is not permissible to install special protections systems or remedial action schemes, relaying, automated systems, or any other equipment that could activate upon the loss of a primary generating unit at the Customer Facility such that the back-up unit could automatically begin to physically transfer power to the transmission facilities of the Co-Located Load.³³ PJM explains that the Amended ISA specifies that coordination with PJM and PPL, and advanced authorization from PJM, is required for both unplanned and planned outages before a back-up unit can physically transfer power to the transmission facilities of the Co-Located Load. PJM elaborates that the Amended ISA includes steps that need to be taken before Susquehanna can use a back-up generating unit, as well as limitations on the use of such back-up generating units.

13. PJM notes that the Amended ISA contains revisions addressing system protection facilities with respect to the separation of the Co-Located Load in the event of a loss of generation output.³⁴ Specifically, PJM explains that the Amended ISA states that Susquehanna has installed a protection scheme to ensure the Co-Located Load separates if there is a loss of generation output from the Customer Facility to ensure no power flows from the Interconnection Transmission Owner's facilities to the Co-Located Load.³⁵ PJM states that this provision "reflects an important effort to minimize" the potential for an unauthorized taking of power from the PJM transmission system.³⁶ PJM explains that the Amended ISA contains other provisions to support reliable operations, including that Susquehanna will provide generator shutdown and automatic tripping data to PPL and PJM upon request.

14. PJM states that the Amended ISA also includes other terms and conditions, including language specifying that Co-Located Load is not Station Power Load or Network Load.³⁷ PJM explains that the Amended ISA states that the Co-Located Load is not intended to consume capacity and/or energy from the PJM transmission system.³⁸

³³ *Id.* at 9.

³⁴ *Id.*

³⁵ *Id.* at 9-10.

³⁶ *Id.* at 10.

³⁷ *Id.* at 10-11.

³⁸ *Id.* at 11.

But, PJM states that the Amended ISA also identifies potential steps if power flows from the PJM transmission system and PPL facilities to the transmission facilities of the Co-Located Load. PJM states that the Amended ISA is subject to revision, including PJM's right to assess in a non-discriminatory manner additional rates, terms, or conditions, which may include transmission or ancillary service charges.³⁹

15. PJM also states that it makes additional changes, including to (1) Schedule B to reflect the current configuration and the placement of necessary real-time and revenue metering specific to the Co-Located Load to facilitate operational and settlement needs and (2) Schedule C to reflect the metering requirements applicable to the Co-Located Load for these same purposes.⁴⁰

16. PJM contends that there are many case-specific considerations regarding co-located load configurations—including the “type of generator, the capacity factor of the generation, the nature of the load, the potential for back-up supply, the location of the load and related facilities, etc.”⁴¹ PJM stresses that what is necessary in one ISA may not be necessary in another.⁴² PJM requests an effective date of August 3, 2024.

III. Notice and Responsive Pleadings

17. Notice of the filing was published in the *Federal Register*, 89 Fed. Reg. 48,606 (June 7, 2024), with interventions and protests due on or before June 24, 2024. Talen Energy Corporation and Susquehanna, PPL, American Electric Power Service Corporation (AEP), on behalf of its affiliates Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company, Wheeling Power Company, AEP Appalachian Transmission Company, Inc., AEP Indiana Michigan Transmission Company, Inc., AEP Kentucky Transmission Company, Inc., AEP Ohio Transmission Company, Inc., and AEP West Virginia Transmission Company, Inc., and AEP Energy Partners, Inc.; Exelon Corporation (Exelon), Dominion Energy Services, Inc., Vistra Corp. (Vistra), and

³⁹ *Id.* at 12 (referencing Amended ISA, Schedule F, Part F.8 (“The provisions in this Interconnection Service Agreement are subject to change in accordance with Section 22.3 of Appendix 2 to this Agreement pursuant to Section 205 and Section 206 of the Federal Power Act and/or FERC’s rules and regulations thereunder, including but not limited to PJM’s right to assess in a non-discriminatory manner additional rates, terms or conditions which may include transmission or ancillary services charges.”)).

⁴⁰ *Id.* at 14.

⁴¹ *Id.* at 15-16.

⁴² *Id.* at 16.

New Jersey Division of Rate Counsel each submitted a timely motion to intervene. New Jersey Board of Public Utilities and Pennsylvania Public Utility Commission (Pennsylvania Commission) each filed a notice of intervention.

18. Public Service Electric and Gas Company, PSEG Power LLC and PSEG Energy Resources & Trade LLC, Constellation Energy Generation, LLC (Constellation), Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM (Market Monitor), LS Power Development, LLC, Calpine Corporation (Calpine), Cordelio Services LLC, Southern Maryland Electric Cooperative, Inc. (SMECO), Electric Power Supply Association, Illinois Commerce Commission, Buckeye Power, Inc., AES Clean Energy Development, LLC, The Dayton Power and Light Company, Solar Energy Industries Association, Maryland Office of People's Counsel, American Municipal Power, Inc., American Clean Power Association, Enchanted Rock, LLC, Lincoln Generating Facility, LLC and Crete Energy Venture, LLC, Fairless Energy, L.L.C., Organization of PJM States, Inc. (OPSI), NextEra Energy Resources, LLC, Amazon Energy LLC, Old Dominion Electric Cooperative (ODEC), Maryland Public Service Commission (Maryland Commission), Duquesne Light Company, The People of the State of Illinois, Allegheny Electric Cooperative, Inc., Xcel Energy Services, Inc., WIRES, Duke Energy Corporation. on behalf of its affiliates, Duke Energy Ohio, Inc., Duke Energy Kentucky, Inc., Duke Energy Indiana, LLC, Duke Energy Carolinas, LLC, and Duke Energy Progress, LLC, the West Virginia Public Service Commission, Advanced Energy Management Alliance, PacifiCorp, Rockland Electric Company, DC Energy, LLC, and Klondike Digital Infrastructure LLC (Klondike) each submitted a motion to intervene out-of-time. International Transmission Company d/b/a *ITCTransmission*, Michigan Electric Transmission Company, LLC, ITC Midwest LLC and ITC Great Plains, LLC (ITC Companies) submitted a motion to intervene out-of-time and comments.

19. Exelon and AEP filed a timely protest. On July 5, 2024, Susquehanna filed a motion for leave to answer and answer. On July 8, 2024, PJM filed a motion for leave to answer and answer. On July 10, 2024, Constellation and Vistra (together) and the Market Monitor each filed a motion for leave to answer and answer, and the Pennsylvania Commission filed an answer to the protest. On July 11, 2024, Calpine filed a motion for leave to answer and an answer. On July 12, 2024, ODEC and SMECO each filed a motion for leave to answer and answer. On July 15, 2024, PPL filed a motion for leave to answer and answer. On July 17, 2024, Exelon and AEP filed a motion for leave to answer and answer. On July 18, 2024, OPSI filed an answer to the protest. On July 22, 2024, Susquehanna filed a motion for leave to answer and answer. On July 23, 2024, Constellation filed a motion for leave to answer and answer. On July 24, 2024, Exelon and AEP filed a motion for leave to answer and answer. On July 26, 2024, PacifiCorp filed an answer. On July 29, 2024, Vistra filed a motion for leave to answer and answer.

A. Protest

20. Exelon and AEP argue that the Amended ISA must be set for hearing because it raises many factual questions.⁴³ In the alternative, Exelon and AEP state that if the Commission declines to set this matter for hearing, it should reject the Amended ISA.⁴⁴

21. Exelon and AEP assert that the Amended ISA has not been adequately supported.⁴⁵ Exelon and AEP state that the transmittal includes virtually no support for why the non-conforming provisions are both “consistent with or superior to” the *pro forma* and “necessary.”⁴⁶ Exelon and AEP also argue that the Amended ISA is the first of many similar non-conforming ISAs, but that if large quantities of load adopt similar agreements with co-located loads, load may be harmed.⁴⁷ Exelon and AEP posit that the PJM capacity markets will suffer as capacity resources exit to serve load that uses and benefits from, but does not pay for, the system and that replacement capacity will take years to develop.⁴⁸

22. Exelon and AEP raise a number of concerns with the instant filing.⁴⁹ Exelon and AEP note that the Amended ISA states that it is “intended” that the Co-Located Load will not draw power from PJM’s transmission system, but it is possible that it will. Thus, Exelon and AEP raise questions about what happens if the Co-Located Load does draw power from PJM’s transmission system.⁵⁰ Exelon and AEP state that it is unclear what steps have been taken to ensure that any such withdrawal of power will be properly metered and accurately billed when it does occur, what the terms of that arrangement will be, who the parties to it are, and if costs are incurred as a result of the Co-Located Load continuing to operate, who is financially responsible.⁵¹ Exelon and AEP also ask, in the

⁴³ Exelon and AEP June 24, 2024 Protest at 1.

⁴⁴ *Id.* at 2.

⁴⁵ *Id.* at 13.

⁴⁶ *Id.* at 14.

⁴⁷ *Id.* at 3.

⁴⁸ *Id.*

⁴⁹ *Id.* at 5-12.

⁵⁰ *Id.* at 6 (quoting PJM Transmittal at 11).

⁵¹ *Id.* at 8.

event of a fault, how exactly the Co-Located Load will “separate” from the configuration, including what facilities will be involved and whether the action will be performed automatically. Exelon and AEP note that a unit at the Customer Facility had an unplanned outage in November 2023, but apparently no load was dropped, suggesting reliance on the grid.⁵² Exelon and AEP argue that rates and terms for the withdrawal of power from the transmission system should be established before such an incident occurs again.⁵³

23. Exelon and AEP also note that the Amended ISA appears to contemplate that back-up generation will be provided by the other Susquehanna unit and argue that any replacement capacity transaction would not be instantaneous and may or may not be practical.⁵⁴ Further, Exelon and AEP contend that using a PJM capacity resource as a back-up resource is “by any fair assessment” relying on PJM resources.⁵⁵ Exelon and AEP also state that the Amended ISA references the Co-Located Load’s “transmission facilities” and ask for more information regarding those transmission facilities, including whether these “transmission facilities” are truly transmission facilities at all and whether they are required to have an OATT on file.⁵⁶

24. Additionally, Exelon and AEP question why a Co-Located Load that they assert is receiving benefits from the transmission system would not pay transmission rates.⁵⁷ Exelon and AEP state that the Commission has long resisted customers’ attempts to allocate only portions of their load to the transmission system or to evade transmission fees based on unique or intermittent usage of the transmission system.⁵⁸ Exelon and AEP claim that the Co-Located Load will receive two types of benefits from the transmission system. First, Exelon and AEP argue that because the Co-Located Load receives power from Susquehanna, and Susquehanna receives power from the transmission system, the

⁵² *Id.* at 7 (citing Weaver Aff. ¶ 25).

⁵³ *Id.* at 8.

⁵⁴ *Id.* at 7.

⁵⁵ *Id.* at 7-8.

⁵⁶ *Id.* at 11.

⁵⁷ *Id.* at 9.

⁵⁸ *Id.* at 9 (citing *Nat’l Railroad Passenger Corp. v. PPL Elec. Utils. Corp.*, 171 FERC ¶ 61,237, at PP 13-14 (2020) (*Amtrak*)).

Co-Located Load benefits from the transmission system.⁵⁹ Exelon and AEP note that the nuclear power plants cannot operate without electricity and cannot be islanded from the system.⁶⁰ Based on analysis by affiants Mr. Reed and Ms. Powers, Exelon and AEP contend that the cost shift arising from this arrangement could be as much as \$140 million per year. Affiants stated that they calculated this figure based on a high-level analysis of the costs to serve up to Co-Located Load of 480 MW at a 98% load factor, using the PPL Electric Utilities LP-5 tariff rate and including the cost of transmission, distribution, PPL specific riders, certain services provided by PJM for which PPL incurs costs, and taxes.⁶¹

25. Second, Exelon and AEP argue that, even if the Co-Located Load does not consume power from the transmission system to meet its baseline needs, it still receives ancillary services and capacity from the PJM transmission system.⁶² Specifically, Exelon and AEP's affiant, Mr. Weaver, asserts that the data center load will vary over time to some degree and, thus, require load following services.⁶³ Mr. Weaver notes that nuclear generators typically do not provide load following services; thus, other generating units on the PJM transmission system must do so. Mr. Weaver also argues that the Amended ISA does not explain how the configuration will provide operating reserves (e.g., spinning and supplemental reserves) from the Susquehanna units.⁶⁴ Additionally, Mr. Weaver states that PJM's transmission system requires reactive support and black start resources. However, Mr. Weaver asserts the Susquehanna Customer Facility cannot provide black start services and cannot provide sufficient reactive support, thereby raising issues of (1) whether the Co-Located Load is relying on other generating units on the transmission system for black start, and (2) how adequate reactive support could be provided.⁶⁵ Further, Exelon and AEP contend that, while the Amended ISA states that Susquehanna is going to reduce its CIRs by the total quantity of capacity consumed by the Co-Located Load, it says nothing about the capacity that will invariably be on

⁵⁹ *Id.* at 10.

⁶⁰ *Id.* at 9.

⁶¹ *Id.* at 3 (citing Reed/Powers Aff. ¶ 16).

⁶² *Id.* at 10.

⁶³ Weaver Aff. ¶ 16.

⁶⁴ *Id.* ¶ 17.

⁶⁵ *Id.* ¶¶ 18-19.

standby in the event that backup power is required.⁶⁶ Exelon and AEP question whether that standby capacity is being offered into the market and whether “the [Amended ISA] allow[s] [Susquehanna] to recover twice, once for its capacity supply obligation, and again for the backup service it provides to the [C]o-[L]ocated [L]oad in the event of an outage.”⁶⁷

26. Exelon and AEP contend that the Amended ISA introduces new terms and conditions, some of which alter the fundamental structure of the PJM tariff.⁶⁸ Exelon and AEP aver that this is the first time that Co-Located Load has been declared “not Network Load.” Exelon and AEP state that under PJM’s tariff there are only two types of recognized load: (1) Network Load; and (2) load that must make its own arrangements for Point-To-Point Transmission Service.⁶⁹ Additionally, Exelon and AEP assert that the Co-Located Load will be synchronized to PJM’s transmission system, and as such should be designated Network Load. Furthermore, Exelon and AEP assert that the Amended ISA violates PJM’s tariff as the tariff does not provide for a type of transmission service that is not Point-to-Point Transmission Service or NITS.⁷⁰ Exelon and AEP assert that in *Amtrak* the Commission rejected the ad hoc creation of a third, alternative category of service for an individual customer as inconsistent with the PJM tariff.⁷¹ Similarly, Exelon and AEP contend that the structure of the PJM tariff envisions that all end-use load is associated with a responsible Load Serving Entity, but the Amended ISA does not identify such party.⁷²

27. Further, Exelon and AEP state that the previously accepted ISAs for this arrangement do not justify accepting this filing.⁷³ Exelon and AEP note that the Amended ISA contains a number of significant new provisions and designations. Exelon and AEP state that the 2023 ISA and Existing ISA do not mention the Co-Located Load being “not Network Load” nor do they mention the “transmission facilities” owned by

⁶⁶ Exelon and AEP June 24, 2024 Protest at 10-11.

⁶⁷ *Id.* at 11.

⁶⁸ *Id.* at 4.

⁶⁹ *Id.* at 5.

⁷⁰ *Id.* at 22.

⁷¹ *Id.* at 22-23 (citing *Amtrak*, 171 FERC ¶ 61,237 at PP 6–9).

⁷² *Id.* at 12.

⁷³ *Id.* at 15.

the Co-Located Load.⁷⁴ Exelon and AEP further state that these earlier ISAs do not contain any reference to the back-up generation, nor to the restriction on installing facilities that would automatically provide back-up generation if the primary source of power fails.⁷⁵ Additionally, Exelon and AEP argue that the fact that the earlier ISAs were accepted by delegated letter order, without considering the questions raised here, does not support accepting this filing.

28. Exelon and AEP argue that, if the Commission does not find the preceding arguments persuasive, it should reject the filing as an end-run around the PJM stakeholder process and also a violation of section 205 of the FPA.⁷⁶ Exelon and AEP state that after the stakeholder process failed to yield rules surrounding co-located load configurations, PJM issued a document providing guidance on co-located load.⁷⁷ Exelon and AEP argue that PJM cannot establish new rules for co-location via a guidance document or a non-conforming ISA; such fundamental market changes require a tariff revision.⁷⁸ Exelon and AEP contend that the instant filing appears to rely heavily on the PJM Guidance Document.⁷⁹

B. Answers Supporting Filing

29. PJM, PPL, Susquehanna, Calpine, and Constellation and Vistra filed answers urging the Commission to accept the filing.

⁷⁴ *Id.* at 15-16.

⁷⁵ *Id.* at 16.

⁷⁶ *Id.*

⁷⁷ *Id.* at 19-20 (citing PJM, Guidance on Co-Located Load, *available at* [pjm-guidance-on-co-located-load.ashx](https://pjm.com/-/media/committees-groups/committees/mic/20240403-item-07---co-located-load-guidance.ashx) (PJM Guidance Document); PJM, Co-Located Load Guidance, *available at* <https://pjm.com/-/media/committees-groups/committees/mic/20240403-item-07---co-located-load-guidance.ashx> (pjm.com)).

⁷⁸ *Id.* at 20, 21.

⁷⁹ *Id.* at 21.

30. These parties argue that the scope of this proceeding is limited,⁸⁰ that the protest raises a number of issues that are outside the scope and/or provide no basis for a hearing or deficiency letter,⁸¹ and that the proposed revisions in the Amended ISA are necessary.⁸² Susquehanna notes that any changes to PJM's processes should occur in a FPA section 206 proceeding or be undertaken by PJM, not by Exelon and AEP or through this limited FPA section 205 proceeding.⁸³ Several parties express concerns that, if the Commission does not accept the Amended ISA, it will frustrate commercial arrangements involving data center load growth.⁸⁴ PPL stresses that rejecting the Amended ISA would leave PJM and PPL in an untenable position from a reliability standpoint.⁸⁵ PPL explains that the Existing ISA has become unjust and unreasonable in PPL's view.

31. Several parties emphasize several arguments in support of finding the proposed revisions to be necessary. PPL avers that a number of the provisions are necessary and reasonable to ensure an appropriate response if a nuclear unit at the station is offline and the load continues to operate.⁸⁶ PPL elaborates that under the Existing ISA, should a generating unit trip offline, load previously invisible to PPL and the PJM transmission system, would appear with no notice and power could then flow from PPL's transmission facilities to the behind-the-meter load through the offline plant's facilities, putting

⁸⁰ Susquehanna July 5, 2024 Answer at 2; Constellation and Vistra Answer at 6-7; Calpine Answer at 2. PacifiCorp states that it does not take a position on the Amended ISA but requests that the Commission limit its decision solely to the Amended ISA to avoid unintentionally impacting other efforts to resolve emerging issues relating to data centers. PacifiCorp Answer at 2-3.

⁸¹ Calpine Answer at 3; Susquehanna July 5, 2024 Answer at 8, 11; Constellation and Vistra Answer at 8-9; PPL July 15, 2024 Answer at 6. Though emphasizing that issues related to cost allocation and impact and/or reliance on the transmission system are generic issues not driven by the Amended ISA, PPL states that answering the questions raised by the protesters may require reconsideration of certain aspects of PJM's behind-the-meter generation policy. PPL July 15, 2024 Answer at 6 & n.14.

⁸² Constellation and Vistra Answer at 7.

⁸³ Susquehanna July 5, 2024 Answer at 12.

⁸⁴ *Id.* at 11; Constellation and Vistra Answer at 17; Calpine Answer at 1.

⁸⁵ PPL July 15, 2024 Answer at 5-6.

⁸⁶ *Id.* at 4-5.

reliability at risk.⁸⁷ Several parties argue that the filing offers important clarity about roles, responsibilities, and expectations of conduct around the Co-Located Load.⁸⁸ Constellation and Vistra argue that, because the parties to the Amended ISA agree the *pro forma* agreement is not adequate for Susquehanna, a non-conforming ISA is necessary.⁸⁹

32. Susquehanna contends that behind-the-meter simply means not on the network.⁹⁰ PJM also notes that the Co-Located Load in this proceeding has not been designated Network Load by any Network Customer.⁹¹ Susquehanna further contends that the rate treatment of the Co-Located Load has been the same since the first day of its operation and is not changed with this Amended ISA.⁹² Constellation and Vistra argue that the grid is not supplying service to the Co-Located Load and the Amended ISA has numerous provisions to ensure that the Co-Located Load does not take service from the grid.⁹³ Susquehanna claims that back-up power supply does not include taking power from the network. Susquehanna argues that the Co-Located Load, being behind-the-meter, is not a Network Customer and has no right to be served by the grid, nor is the retail service the behind-the-meter load takes subject to Commission jurisdiction.⁹⁴ Susquehanna contends that as long as the load is not using the grid for back-up power, which is spelled out in the Amended ISA, there is no speculation as to whether the network will be implicated. Susquehanna explains that an inadvertent draw on the network would constitute a breach of the Amended ISA.

33. Constellation and Vistra contend that because the Co-Located Load receives no services from the grid, there is no cost shift. Constellation and Vistra further argue that PPL is not building any additional transmission to accommodate this arrangement, and

⁸⁷ *Id.* at 4.

⁸⁸ PJM Answer at 3; Calpine Answer at 2; Susquehanna July 22, 2024 Answer at 4.

⁸⁹ Constellation and Vistra Answer at 8.

⁹⁰ Susquehanna July 5, 2024 Answer at 9.

⁹¹ PJM Answer at 4.

⁹² Susquehanna July 22, 2024 Answer at 5.

⁹³ Constellation and Vistra Answer at 9-10 (citing Amended ISA, Schedule F, pt. E).

⁹⁴ Susquehanna July 5, 2024 Answer at 9.

thus PPL's customers' costs are not changing.⁹⁵ Constellation and Vistra next assert that no nuclear unit has been assessed ancillary services charges because of its interconnection, and issues of generator payments and ancillary services are outside the scope of this proceeding.⁹⁶ PPL contends that the calculations of cost shifting overstate the likely impact on customers and are moreover outside of the scope of this proceeding.⁹⁷

34. Constellation and Vistra contend that Exelon and AEP raise issues outside of the Commission's jurisdiction.⁹⁸ Constellation and Vistra contend that Susquehanna's sale of electricity to the Co-Located Load is a matter of state law and is not under the purview of the Commission because it neither comes from, nor enters, the interstate transmission system.⁹⁹ Constellation and Vistra also argue that the Commission cannot find jurisdiction over the power sale arrangement simply due to the fact that Commission-jurisdictional interconnection facilities may be used in serving the Co-Located Load because the scope of the Commission's jurisdiction over the interconnection facilities is limited to the service being provided to the generator and the design and operational measures necessary to assure the Commission that no Commission-jurisdictional service is being provided to the Co-Located Load.¹⁰⁰ Constellation and Vistra state that PJM has not created a new type of transmission service as a generator's behind-the-meter delivery of electricity to the Co-Located Load does not require transmission service under the PJM tariff.¹⁰¹ Constellation and Vistra contend that such delivery is entirely intrastate, and thus, beyond the Commission's jurisdiction. Susquehanna also argues that the Co-Located Load's behind-the-meter delivery facilities and service are not Commission-jurisdictional.¹⁰² Constellation and Vistra claim that the transmission facilities associated with the Co-Located Load are not Commission-jurisdictional facilities because the "facilities [are] used only for the transmission of electric energy in intrastate

⁹⁵ Constellation and Vistra Answer at 10.

⁹⁶ *Id.* at 11.

⁹⁷ PPL July 15, 2024 Answer at 8.

⁹⁸ Constellation and Vistra Answer at 11.

⁹⁹ *Id.* at 12-13.

¹⁰⁰ *Id.* at 13-14.

¹⁰¹ *Id.* at 15.

¹⁰² Susquehanna July 5, 2024 Answer at 10.

commerce.”¹⁰³ Constellation and Vistra thus argue that Exelon and AEP’s concerns about the Commission’s open access requirements are not relevant.¹⁰⁴

35. Constellation further argues that third parties oppose the Amended ISA because of their interest in adding transmission facilities to their rate base.¹⁰⁵ Constellation asserts that most of the costs of connecting data centers to the transmission system are system upgrades that are borne by other ratepayers.¹⁰⁶ Constellation also argues that the stakeholder process is the appropriate forum to consider the implications of large new front-of-meter loads.¹⁰⁷

36. Vistra further argues that the Amended ISA followed the tariff-defined approach for non-conforming interconnection agreements. Vistra states that PJM’s necessary studies process resulted in non-conforming provisions that all parties agree are necessary for reliability.¹⁰⁸ Vistra argues that rejecting the Amended ISA would create uncertainty for parties in how to serve the growing demand for co-located load.¹⁰⁹ Susquehanna maintains that Susquehanna and its Co-Located Load have agreed to a solution that does not impose costs on unwilling customers.¹¹⁰ Susquehanna contends that load has a right to seek the most expedited and least cost alternative, and to do so without a regional benefits analysis that imposes “massive” network upgrade costs on other customers, including potentially in other states.¹¹¹ Susquehanna underscores that the proposed non-conforming provisions are straightforward, justified, and limited to two issues, specifically, an increase in MW to the behind-the-meter, previously approved configuration and related reliability provisions.¹¹²

¹⁰³ Constellation and Vistra Answer at 16 (quoting 16 U.S.C. § 824(b)(1)).

¹⁰⁴ *Id.* at 15-16.

¹⁰⁵ Constellation July 23, 2024 Answer at 2.

¹⁰⁶ *Id.* at 2-4.

¹⁰⁷ *Id.* at 5.

¹⁰⁸ Vistra Answer at 3-4.

¹⁰⁹ *Id.* at 4-5.

¹¹⁰ Susquehanna July 5, 2024 Answer at 11.

¹¹¹ *Id.* at 12.

¹¹² *Id.* at 3.

37. PJM notes that the Amended ISA expressly preserves the parties' rights to seek changes, such as whether there is an appropriate, non-discriminatory charge that PJM should assess for co-located facilities synchronized to the grid.¹¹³ PJM states that issues around co-located load are of interest to PJM stakeholders but, after almost two years, stakeholders did not reach a resolution on tariff changes.¹¹⁴

C. Answers Opposing Filing

38. SMECO, ODEC, OPSI, and the Pennsylvania Commission ask the Commission to set this matter for hearing. The Market Monitor requests that the Commission reject the filing or set it for hearing.

39. The Market Monitor asserts that the Amended ISA would provide unique and special treatment for a specific type of load and a specific type of power plant and would set a precedent for significant changes to the PJM markets that will impose costs on other market participants.¹¹⁵ SMECO and ODEC echo concerns about the precedential effect of Commission action in this case.¹¹⁶ ODEC contends that this case raises significant questions about fundamental structures of the PJM tariff and expresses concern that stakeholders have not reviewed this filing.¹¹⁷ In support of its hearing request, SMECO argues that Commission scrutiny of the Amended ISA would reduce uncertainty, not prolong it.¹¹⁸

40. The Market Monitor contends that Susquehanna fails to show that the Amended ISA is consistent with or superior to the *pro forma* ISA and that it is necessary in order to effectuate a bilateral sales agreement.¹¹⁹ ODEC argues that the instant filing lacks

¹¹³ PJM Answer at 4 (citing Amended ISA, Schedule F, pt. F.8, pt. F.9).

¹¹⁴ *Id.* at 4-5.

¹¹⁵ Market Monitor Answer at 3.

¹¹⁶ SMECO Answer at 2; ODEC Answer at 2. While not taking an explicit position on the Amended ISA, the ITC Companies echo the view that action on the Amended ISA will be precedential. ITC Companies Comments at 2.

¹¹⁷ ODEC Answer at 3, 4.

¹¹⁸ SMECO Answer at 4.

¹¹⁹ Market Monitor Answer at 3.

important details for ODEC and other PJM customers to properly evaluate it.¹²⁰ SMECO asserts that Exelon and AEP raise genuine issues of fact about the Co-Located Load drawing power from the transmission system.¹²¹

41. The Market Monitor asserts that PJM has made policy decisions that were incorporated in the Amended ISA that have not been reviewed in the stakeholder process or by the Commission.¹²² The Market Monitor contends that the core benefit to the Co-Located Load is avoiding state and federal regulation and the associated costs, such as paying distribution charges and transmission charges.¹²³ The Market Monitor states that Susquehanna is correct that the Amended ISA addresses reliability issues that are present but unaddressed in the Existing ISA. However, the Market Monitor argues that, by addressing these reliability issues more explicitly, the Amended ISA makes it clear that the Co-Located Load cannot and will not actually be isolated from the grid. The Market Monitor asserts that the filing rests on the “illusion” that the Co-Located Load at a nuclear plant can be fully isolated from the grid. The Market Monitor contends that the Co-Located Load will continue to rely on the grid for a range of ancillary services including frequency control, reactive support, spinning reserves, reserves in general, black start, and PJM administrative functions.¹²⁴ SMECO emphasizes that this case is an opportunity for the Commission to clarify what type of services must be in place for co-located load configurations.¹²⁵

42. ODEC states that it shares concerns raised by Exelon and AEP about reliability, planning, and cost shifting.¹²⁶ The Market Monitor asserts that any benefits to the Co-Located Load come at the expense of other customers in the PJM markets, and, if extended to all nuclear plants in PJM, would cause extreme impacts.¹²⁷ Specifically, the Market Monitor argues that: (1) power flows on the grid would change significantly because the grid was built based on the use of nuclear energy; (2) energy prices would

¹²⁰ ODEC Answer at 3.

¹²¹ SMECO Answer at 3.

¹²² Market Monitor Answer at 2.

¹²³ *Id.* at 5.

¹²⁴ *Id.* at 6.

¹²⁵ SMECO Answer at 3.

¹²⁶ ODEC Answer at 3.

¹²⁷ Market Monitor Answer at 6-7.

increase significantly as low-cost nuclear energy is displaced; (3) capacity prices would increase as the supply of capacity to the capacity market is reduced; and (4) emissions would increase as thermal resources are dispatched to replace nuclear energy to meet load.¹²⁸ Additionally, the Market Monitor expresses concern about the proposed provision to serve the Co-Located Load with a back-up unit that is a Generation Capacity Resource.¹²⁹ Specifically, the Market Monitor argues that the filing does not address the impact on PJM's overall Effective Load Carrying Capability (ELCC) analysis of removing significant levels of baseload power from the market or on the ELCC value of the nuclear facility if back-up power is needed when PJM load is high.¹³⁰ Exelon and AEP argue that the parties supporting the filing do not identify errors in their \$140 million annual cost-shift calculation or present an alternative calculation.¹³¹

43. As to PJM's rules for transmission service, Exelon and AEP argue that, under the definition of Network Load, the election not to be served as Network Load requires making separate arrangements for Point-to-Point Transmission Service.¹³² Exelon and AEP argue no such arrangements have been made here. Exelon and AEP assert that the Commission held in Order No. 888-A that customers cannot "split" their load at a delivery point and that, therefore, because the Co-Located Load relies on the PJM grid and network services, the load at the delivery point of the Amended ISA must be entirely designated as Network Load and charged an appropriate rate based on the grid services utilized.¹³³ Exelon and AEP also argue that the PJM tariff provisions relating to behind-the-meter generation do not apply here because the transmission system will be relied on to serve the Co-Located Load under the Amended ISA.¹³⁴

44. Exelon and AEP also claim that the proposed configuration presents significant reliability concerns that have not been fully addressed and should be explored in hearing procedures, including the proposed use of a remedial action scheme on a permanent basis, when they are generally employed as temporary mitigation measures to allow time

¹²⁸ *Id.* at 7.

¹²⁹ *Id.* at 5-6.

¹³⁰ *Id.* at 6.

¹³¹ Exelon and AEP July 17, 2024 Answer at 17.

¹³² *Id.* at 7-8.

¹³³ *Id.* at 21-22 (citing Order No. 888-A, FERC Stats. & Regs. ¶ 31,048 at 30,259).

¹³⁴ *Id.* at 13-14.

to implement permanent and robust solutions, such as additional infrastructure or improved system design.¹³⁵

45. Exelon and AEP further state that they support co-located load and work with data centers to meet their needs, but assert that such load still relies on network infrastructure and should pay for it.¹³⁶ Exelon and AEP argue that the issue in this proceeding is not the location of load or whether upgrades are needed to support the requested service but whether all customers, co-located and not, are paying their fair share of system costs, which includes the necessary ancillary services to support the grid.¹³⁷ Exelon and AEP further contend that the fundamental mechanics of all rate design is requiring all load customers to share the costs of the system, even when that fraction of costs that are individually assigned to an individual customer are small, and to do so otherwise would raise the costs for network service paid by other customers.¹³⁸

IV. Deficiency Letter, Response, and Responsive Pleadings

A. Deficiency Letter

46. On August 2, 2024, Commission staff issued a deficiency letter asking PJM to explain why the new proposed non-conforming provisions related to the Co-Located Load configuration are necessary deviations from PJM's *pro forma* ISA.¹³⁹ In particular, the deficiency letter asked PJM to elaborate on whether there are any specific reliability concerns, novel legal issues, or other unique factors that make the non-conforming language necessary.¹⁴⁰

¹³⁵ Exelon and AEP state that, at the very least, adoption of this type of load-shedding as a key component of operating the interconnection, rather than as a last resort to avoid a cascading outage, deserves further consideration via the hearing process. *Id.* at 15 (citing *City of Alameda, Ca. v. Pac. Gas & Elec.*, 176 FERC ¶ 61,013, at P 45 (2021) (“The Commission has recognized that loss of load is permitted to prevent cascading outages as a last resort.”)).

¹³⁶ Exelon and AEP July, 24, 2024 Answer at 1-2.

¹³⁷ *Id.* at 2-3.

¹³⁸ *Id.* at 4.

¹³⁹ On the same day, the Commission announced a Commissioner-led Technical Conference on Large Co-Located Load in Docket No. AD24-11-000.

¹⁴⁰ *PJM Interconnection, L.L.C.*, Docket No. ER24-2172-000 (Aug. 2, 2024) (Deficiency Letter).

B. Deficiency Response

47. In its deficiency response, PJM states that since its submission of its initial filing and answer, the Commission and the North American Electric Reliability Corporation (NERC) have commenced regulatory proceedings that appear to corroborate the need to address reliability concerns, novel legal issues, and/or other unique factors associated with co-located loads – which are the factors that gave rise to the development of the non-conforming terms and conditions submitted in the Amended ISA.¹⁴¹ PJM argues that, given these regulatory developments, Susquehanna’s first-of-its-kind Co-Located Load configuration between an existing nuclear power plant and a large data center load fits within the Commission-envisioned category of the “small number of extraordinary interconnections where reliability concerns, novel legal issues, or other unique factors would call for the filing of a non-conforming interconnection agreement.”¹⁴²

48. PJM states that the proposed amendments here were developed to address the needs of the parties based on the circumstances of this particular interconnection and that approval of the provisions should be limited to these circumstances.¹⁴³ PJM states that

¹⁴¹ Deficiency Response at 3. Specifically, PJM notes that the Commission has issued a supplemental notice of a Commissioner-led technical conference in Docket No. AD24-11-000 to discuss “[b]roadly” issues including “whether co-located loads require the provision of wholesale transmission or ancillary services, related cost allocation issues, and potential resource adequacy, reliability, affordability, market and customer impacts.” *Id.* at 4 (quoting *Large Loads Co-Located at Generating Facilities*, Supplemental Notice of Commissioner-Led Technical Conference, Docket No. AD24-11-000 (Aug. 16, 2024)). PJM also notes that NERC’s Reliability and Security Technical Committee recently published requests for participation in its Large Loads Task Force “to better understand the reliability impact(s) of emerging large loads such as Data Centers (including crypto and AI), Hydrogen Fuel Plants, etc., and their impact on the bulk power system (BPS).” *Id.* at 5 (quoting NERC, Large Load Task Force, *available at* <https://www.nerc.com/comm/RSTC/Pages/LLTF.aspx>).

¹⁴² *Id.* at 5 (citing Deficiency Letter at 1-2).

¹⁴³ *Id.* at 6. However, PJM encourages the Commission to consider opportunities in other proceedings to provide PJM and stakeholders with: (1) generic guidance concerning how co-located load should be considered in light of issues concerning resource adequacy impacts, and appropriate compensation for ancillary services and transmission services; (2) opportunities to hear from states about any role they see themselves playing in reviewing requests to serve retail co-located load (if and where applicable under law); and (3) any guidance regarding case-specific details to be embodied in any implementing ISA, including such things as the type of generator, the

the proposed non-conforming revisions in Schedule F of the Amended ISA are necessary and relate to the novel and unique operational and other characteristics of this specific ISA.¹⁴⁴ PJM first addresses Schedule F, Part B (Provisions Related to Co-Located Load Configuration), which provides that the interconnection customer has proposed modifications to the facility to physically transfer 960 MW of power to the transmission facilities of the Co-Located Load and explains the results of the necessary studies of those proposed modifications, in particular, that the customer may transfer no more than 480 MW at this time. PJM states that these provisions provide clarity, background information, and facts specific to the novel Susquehanna interconnection.¹⁴⁵

49. Regarding Schedule F, Part C.1 (Provisions Relating to Generation Capacity Resource Status and Capacity Modifications), PJM states that this section provides clarity by affirming and clearly defining Susquehanna's obligations regarding its status as a Generation Capacity Resource in PJM, its Co-Located Load, markets obligations, and communication requirements.¹⁴⁶ PJM states that the Amended ISA does not change the PJM tariff or the market rules with respect to a unit surrendering its CIRs; instead, it eliminates uncertainties about how the generator subject to the novel interconnection is to follow those existing market rules and communication requirements to provide clarity to the marketplace and the parties about who is expected to do what and when. PJM states that this provision sets forth the procedural mechanism by which capacity values are to be reduced (both in terms of the timing of such reductions and the method of such submittal). PJM also states that this provision sets forth other critical prerequisites—principally the procurement of replacement capacity—that must be satisfied before service to any incremental load additions can take effect during a Delivery Year and only if replacement capacity is available for procurement. PJM states that while one could argue that these terms are inherent in the PJM tariff today, PJM's discussions with market participants (not necessarily Susquehanna) have led it to conclude that such clarifying statements will promote compliance by generators with PJM's market rules. In addition, PJM states that this provision provides guidance about how capacity value reductions are to be implemented and communicated to PJM when a Capacity Market Seller invokes the PJM tariff, Attachment DD, section 6.6 process to seek removal of capacity resource status for all or part of the resource, which will result in the reduction of a commensurate

capacity factor of the generation, the nature of the load, the potential for back-up supply, the location of the load and related facilities, and other similar matters. *Id.* at 6-7.

¹⁴⁴ *Id.* at 8.

¹⁴⁵ *Id.* at 9.

¹⁴⁶ *Id.* at 10.

amount of CIRs.¹⁴⁷ PJM notes that this is a tariff process that requires engagement with the Market Monitor.¹⁴⁸

50. Regarding Schedule F, Part C.2 (Provisions Relating to Generation Capacity Resource Status and Capacity Modifications) (Use of Generation Unit as a Back-Up Unit), PJM states that this section provides clarity by affirming and clearly defining Susquehanna's obligations regarding its status as a Generation Capacity Resource in the scenario where a second unit (which is a Generation Capacity Resource and retained its CIRs) physically transfers power to the transmission facilities of the Co-Located Load as a back-up to the unit that is primarily dedicated (in whole or in part) to supplying the Co-Located Load.¹⁴⁹ PJM states that, on the one hand, a Generation Capacity Resource has certain obligations to PJM to supply power to the grid; on the other, a Generation Capacity Resource has certain rights to declare its availability to the grid and there are prescribed Capacity Resource Deficiency Charges and/or Non-Performance Charges, as well as potential future impacts to unit accreditation based on actual unit performance.¹⁵⁰

51. PJM also states that Schedule F, Part C.2 sets forth the procedural mechanism by which unit capacity values are reduced (both in terms of the timing of such reductions and the method of such submittal) and other critical market prerequisites that must be met before the back-up unit can transfer power to the facilities of the Co-Located Load, including if an outage request for a unit to provide back-up power is withheld or withdrawn due to conditions that may threaten the integrity or reliability of the PJM region or the regional power system.¹⁵¹ PJM also states that this provision clarifies that system reliability needs to be sustained through the maintenance of sufficient capacity for the system notwithstanding a business desire to use a back-up unit. PJM states that the Amended ISA makes clear that its terms are subject to modification pursuant to sections 205 and 206 of the FPA based on the outcome of future Commission proceedings, including the market rules for capacity resources.

52. Regarding Schedule F, Part C.3 (Provisions Relating to Generation Capacity Resource Status and Capacity Modifications) (Reductions in Capacity Interconnection Rights), PJM states that this provision existed in substantially the same form in the prior

¹⁴⁷ *Id.* at 10-11 (citing PJM, Intra-PJM Tariffs, 230.3, OATT 230.3 (Loss of Capacity Interconnection Rights) (7.0.0), §230.3.3 (Replacement of Generation)).

¹⁴⁸ *Id.* at 11.

¹⁴⁹ *Id.* at 11-12.

¹⁵⁰ *Id.* at 12.

¹⁵¹ *Id.*

ISAs and that it clarifies that any reductions in capacity require a reduction in the CIRs for each unit.¹⁵²

53. Regarding Schedule F, Part D (Provisions Relating to Operations), PJM states that this provision has been added to clarify roles and responsibilities regarding coordination, authorization, and communication by and among PJM, PPL, and Susquehanna in support of reliable system operations.¹⁵³ PJM states that this provision is intended to delineate restrictions on Susquehanna's ability to physically transfer power to the transmission facilities of the Co-Located Load from one of the two units at the Customer Facility in the event the unit responsible for transferring that power is not available.¹⁵⁴ PJM states that this provision supports reliable system operations because it requires PJM to first assess the needs of the PJM region and regional power system before any power from the back-up generating unit will be permitted to be transferred to the transmission facilities of the Co-Located Load.¹⁵⁵ PJM also states that the provision promotes reliable system operations because it provides that Susquehanna cannot unilaterally and automatically take a Generation Capacity Resource out of the service of the PJM region to transfer power to the Co-Located Load absent PJM authorization. Finally, PJM states that this provision clarifies that the outage coordination and approval process set forth in the PJM Manuals will apply in a non-discriminatory fashion.¹⁵⁶

54. Regarding Schedule F, Part E (Provisions Relating to System Protection Facilities), PJM states that these provisions, collectively, build upon existing language in the Existing ISA, Schedule F, section 3 to advance reliable system operations interests and information sharing among the parties.¹⁵⁷ PJM states they reflect an effort to minimize the potential for an unauthorized taking of wholesale or retail power from the PJM transmission system to ultimately provide service to the Co-Located Load. PJM states that a failure to abide by these terms and conditions, and any others in the agreement, give rise to the potential for a breach of the Amended ISA and the process and consequences arising thereunder, which may give rise to referrals to the Market Monitor or other appropriate authorities including the Commission. PJM states that the Amended ISA does not change in any respect the *pro forma* ISA's breach mechanism,

¹⁵² *Id.* at 13.

¹⁵³ *Id.* at 14.

¹⁵⁴ *Id.* at 14-15.

¹⁵⁵ *Id.* at 15.

¹⁵⁶ *Id.*

¹⁵⁷ *Id.* at 16.

which has historically proceeded among the three parties to the ISA (with compliance referrals—whether self-reported or otherwise—where deemed necessary).¹⁵⁸

55. Regarding Schedule F (Other Terms and Conditions), Part F.1, which states Co-Located Load is not equivalent to Station Power Load, PJM explains that this section clarifies an obvious but necessary point to avoid any confusion with existing law and practice relating to station power.¹⁵⁹ PJM states that although Susquehanna has not been confused by this concept, other market participants have claimed to be.

56. Regarding Schedule F, Part F.2, PJM states that this section reaffirms Susquehanna’s obligation to abide by PJM’s Governing Agreements, including rules related to the Customer Facility’s Accredited Unforced Capacity (UCAP) values, which is important because the Customer Facility’s Accredited UCAP values will be impacted by the amount of power physically transferred to the Co-Located Load’s transmission facilities.¹⁶⁰

57. Regarding Schedule F, Part F.3, which provides that the capacity value of the Customer Facility that is a Generation Capacity Resource cannot exceed the CIRs listed in Specifications section 2.1, PJM states that this provision is important because absent commencing additional process, the CIRs will be relinquished and will not be increased once the Co-Located Load materializes, even if the Co-Located Load is not consuming all of the delisted capacity.¹⁶¹

58. Regarding Schedule F, Part F.4, PJM states that this provision provides that Co-Located Load is not Network Load as defined in the tariff and delineates the parties’ rights and obligations in the event the Co-Located Load’s facilities draw power from the Transmission System or the Interconnected Transmission Owner’s system.¹⁶² PJM states that the PJM tariff, Part I, definition of “Network Load” states that Network Load is “the load that a Network Customer designates for Network Integration Transmission Service under Tariff, Part III.” PJM states that, in this case, no part of the Co-Located Load has been designated Network Load by any Network Customer.¹⁶³ PJM states that if there is a

¹⁵⁸ *Id.* at 16-17.

¹⁵⁹ *Id.* at 17.

¹⁶⁰ *Id.*

¹⁶¹ *Id.* at 18.

¹⁶² *Id.* at 19.

¹⁶³ *Id.* Further, PJM states that precedent establishes that “the Commission will allow a network customer to either designate all of a discrete load as network load under

desire that the retail supplier of the Co-Located Load become Network Load, or, assuming the Co-Located Load is an Eligible Customer under the PJM tariff for transmission service, either could elect to pursue Network Load status, which PJM states it has recommended in non-binding guidance.¹⁶⁴ In such situations, PJM states that the necessary study process would be followed so that the appropriate studies were conducted and the ISA would be further revised.

59. PJM states that, in stating that the Co-Located Load is “not Network Load,” the Amended ISA is making a statement of fact. PJM states that this statement clarifies that no capacity or energy may be drawn from the transmission system to supply any of the Co-Located Load at any given moment, without Susquehanna being in breach of the Amended ISA, and potentially other regulatory requirements.¹⁶⁵ PJM states that the factual statement does not pre-judge the issue of whether the Co-Located Load or its retail service provider must purchase any retail or wholesale service; the latter issue is governed by the PJM tariff, which is subject to change.¹⁶⁶

60. PJM also states that the Amended ISA is not resolving the question of whether the Co-Located Load arrangement is taking transmission service or otherwise benefitting from attributes of the transmission system.¹⁶⁷ According to PJM, the Amended ISA is also not resolving the question of whether ancillary services are actually being utilized by the Co-Located Load, nor whether or not the utilization of a Generation Capacity Resource as a “back-up unit” means the Co-Located Load is a retail customer of the system of a load serving entity that has procured that capacity. Those issues, in PJM’s view, are under consideration and may require generic policy guidance from the Commission. PJM states that for these reasons, the Amended ISA makes clear that its terms are subject to modification pursuant to sections 205 and 206 of the FPA based upon

the network integration transmission service or to exclude the entirety of a discrete load from the network service and serve such load with the customer’s ‘behind-the-meter’ generation and/or through any point-to-point transmission service[.]”. *Id.* at 19 n.18 (quoting Order No. 888-A, FERC Stats. & Regs. ¶ 31,048 at 30,260). Deficiency Response at 19 n. 18.

¹⁶⁴ PJM states that whether the Co-Located Load itself is an Eligible Customer under the PJM tariff is an issue that may be controlled, in part, by state law/regulation on unbundled retail transmission. *Id.* at 19 n.19.

¹⁶⁵ *Id.* at 19-20.

¹⁶⁶ *Id.* at 20.

¹⁶⁷ *Id.*

the outcome of future Commission proceedings. Accordingly, PJM states that this provision should not serve as a bar to Commission acceptance of the Amended ISA.

61. Regarding Schedule F, Part F.5, PJM states that this provision provides clarity as to Susquehanna's obligation to adhere to the Modification of Facilities provisions of the Amended ISA (which is already included in the *pro forma* ISA) in the event it intends to pursue any additional planned modifications beyond the total co-located load addition of 960 MW.¹⁶⁸ PJM states that this provision is necessary because some entities interconnected under PJM's interconnection procedures (not Susquehanna) have taken the position that they are free to add Co-Located Load without notification to PJM and an Interconnected Transmission Owner, and without the requisite study process being followed.¹⁶⁹

62. Regarding Schedule F, Part F.6 and Schedule F, Part F.7, PJM states that these provisions clarify Susquehanna's obligations to provide advanced notice of any proposed modifications to the specifically defined Operating Procedure the Customer Facility has provided to PJM and PPL, and clarify PJM and PPL's right to review and approve any proposed changes to the Co-Located Load configuration PJM studied, or the Co-Located Load.¹⁷⁰

63. Regarding Schedule F, Part F.8, PJM states that this provision is necessary because it clarifies that, consistent with Commission precedent interpreting the *pro forma* ISA, the Amended ISA (like the prior ISAs) is subject to the ordinary just and reasonable standard of review for changes pursuant to section 205 of the FPA, and not the "public interest" application of the just and reasonable standard of review commonly referred to as the "*Mobile Sierra*" standard of review.¹⁷¹

64. Regarding Schedule F, Part G (Provisions Relating to the Co-Located Load's Transmission Facilities), PJM states that in the potential absence of contractual privity with the entity responsible for operational activities of the transmission facilities of the

¹⁶⁸ *Id.*

¹⁶⁹ *Id.* at 20-21.

¹⁷⁰ *Id.* at 21-22.

¹⁷¹ *Id.* at 22-23 (citing *NRG Power Mktg., LLC v. Me. Pub. Utils. Comm'n*, 558 U.S. 165 (2010); *Morgan Stanley Cap. Grp. Inc. v. Pub. Util. Dist. No. 1*, 554 U.S. 527 (2008); *United Gas Pipe Line Co. v. Mobile Gas Serv. Corp.*, 350 U.S. 332 (1956); *FPC v. Sierra Pacific Power Co.*, 350 U.S. 348 (1956)).

Co-Located Load, Part G.1 requires PJM to be given access to accurate and potentially important legal and operational contact information.¹⁷²

65. Finally, regarding Schedule F, Part G.2, PJM states that this provision clarifies that regardless of what entity may be responsible for operational activities of the transmission facilities of the Co-Located Load and regardless of the entity that may own or control the Co-Located Load itself, any breaches or noncompliance under this agreement attributed to the activities of such entities or that remain Susquehanna's obligations are the duty and responsibility of Susquehanna to cure.¹⁷³

66. PJM requests that whatever action the Commission ultimately takes in this proceeding will not affect the August 3, 2024 effective date originally requested for the Amended ISA.¹⁷⁴

C. Notice of Deficiency Response

67. Notice of PJM's Deficiency Response was published in the *Federal Register*, 89 Fed. Reg. 73,402 (Sept. 10, 2024) with interventions and protests due on or before September 24, 2024. Public Citizen, Inc., Klondike, and Rutgers, The State University of New Jersey each filed a timely motion to intervene. Exelon and AEP filed a joint protest. Susquehanna filed supporting comments. On October 4, 2024, Pennsylvania Governor Josh Shapiro filed comments out-of-time. On October 9, 2024, PPL and Constellation each filed a motion for leave to answer and answer. On October 16, 2024, Exelon and AEP filed a motion for leave to answer and answer. On October 22, 2024, Susquehanna filed a motion for leave to answer and answer. On October 24, 2024, Cole Muller, Executive Vice President of Strategic Ventures at Talen Energy Corporation, filed comments out-of-time. On October 31, 2024, Maryland State Senator Katie Fry Hester filed comments out-of-time.

D. Responsive Pleadings

68. Exelon and AEP argue that PJM's Deficiency Response does not demonstrate that all the non-conforming terms are "consistent with or superior to" the terms of the *pro forma* ISA and that they are "necessary" for the safe and reliable interconnection of the Co-Located Load and generation configuration.¹⁷⁵ Specifically, Exelon and AEP

¹⁷² *Id.* at 24.

¹⁷³ *Id.*

¹⁷⁴ *Id.* at 25.

¹⁷⁵ Exelon and AEP September 24, 2024 Protest at 2.

claim that PJM fails to explain why it is necessary to declare that the Co-Located Load is “not Network Load,” thereby creating a new, undefined category of customers that rely upon the transmission system but avoid all transmission charges.¹⁷⁶ First, Exelon and AEP contend that the applicants have inherently acknowledged that the effect of calling the Co-Located Load “not Network Load” is that the Co-Located Load will not pay for NITS.¹⁷⁷ Exelon and AEP state that no party has explained why it is necessary for this load to escape responsibility for paying transmission charges.¹⁷⁸ Exelon and AEP argue that PJM’s “statement of fact” is not related to any reliability concerns or technical interconnection considerations, nor does it memorialize current or future obligations of the parties to one another.¹⁷⁹ Second, Exelon and AEP reiterate their claim that this designation is in conflict with the tariff, which provides that any load not designated Network Load must take Point-to-Point Transmission Service. Third, Exelon and AEP assert that, despite PJM’s claim that it is not prejudging whether the Co-Located Load must purchase any wholesale service, by asking the Commission to accept the Amended ISA as filed, PJM is prejudging that issue—at least for purposes of this Amended ISA.¹⁸⁰ Exelon and AEP claim that accepting the Amended ISA and allowing it to go into effect permits the Co-Located Load to avoid contributing to the cost of the existing transmission system, to the detriment of other customers.¹⁸¹ Further, Exelon and AEP argue that PJM’s assertion is unsupported and contrary to the unrebutted evidence submitted by Exelon and AEP that demonstrates that the Co-Located Load does, in fact, continuously rely on the transmission system.¹⁸²

69. Exelon and AEP state that the fact that the Commission is convening a technical conference to discuss the subject of co-location and that NERC is engaging in a similar inquiry does not excuse the applicants from having to justify the specific arrangements in

¹⁷⁶ *Id.* at 2-3.

¹⁷⁷ *Id.* at 4.

¹⁷⁸ *Id.* at 4-5. Sen. Hester’s comments also identify the issue of cost shifting in this proceeding. Maryland State Senator Katie Fry Hester Comments at 11.

¹⁷⁹ Exelon and AEP September 24, 2024 Protest at 5.

¹⁸⁰ *Id.* at 6.

¹⁸¹ *Id.*

¹⁸² *Id.* at 3.

the Amended ISA.¹⁸³ Exelon and AEP state that consequently, the Commission should reject the Amended ISA or, at a minimum, set this matter for hearing.

70. Exelon and AEP also argue that, although the Deficiency Response provides descriptions for each of the non-conforming provisions of the Amended ISA, it fails to provide answers to the fundamental questions Exelon and AEP raised in the pleadings.¹⁸⁴ Exelon and AEP also argue that based on the record in this proceeding, it appears that Susquehanna and PJM disagree regarding whether, and the extent to which, the load uses grid services.¹⁸⁵ Exelon and AEP argue that the Commission has been clear that “any modification of a written contract must satisfy all the fundamental elements of a valid contract, including a meeting of the minds between the parties with regard to all essential terms of the agreement and consideration” and that there is no “meeting of the minds” here.¹⁸⁶ Exelon and AEP argue that there is no way, under the Amended ISA, to stop real power withdrawals from PJM in the case of a unit outage and, in fact, the Amended ISA recognizes this possibility.¹⁸⁷ Exelon and AEP state that if this arrangement is not using the transmission grid, it should island itself, thereby resolving all issues in this proceeding, but it cannot do so.¹⁸⁸ Exelon and AEP contend that the Co-Located Load has contracted for energy and capacity from one unit, but if that unit fails, relies on the flexibility of the grid to obtain access to other resources while also ensuring that other loads are not hurt.¹⁸⁹ Exelon and AEP argue that there is nothing novel about this arrangement, which is simply network service under the PJM tariff.

¹⁸³ *Id.* at 6.

¹⁸⁴ *Id.* at 7.

¹⁸⁵ Exelon and AEP note that Susquehanna, without sworn support, states that the load “has no right to be served by the grid” and “will not draw power from the network.” *Id.* (quoting Susquehanna July 5, 2024 Answer at 9). In contrast, in the Deficiency Response, PJM suggests the question remains open whether “ancillary services are actually being utilized by the Co-Located Load” or whether the arrangement is “taking transmission service or otherwise benefitting from attributes of the transmission system.” *Id.* (quoting Deficiency Response at 20).

¹⁸⁶ *Id.* at 8-9 (citing *S.C Elec. & Gas Co.*, 158 FERC ¶ 61,027 (2017), *reh’g denied*, 162 FERC ¶ 61,024, at P 8 (2018) (rejecting amended services agreement)).

¹⁸⁷ *Id.* at 11.

¹⁸⁸ *Id.* at 2.

¹⁸⁹ Susquehanna September 24, 2024 Comments at 11.

71. Susquehanna states that PJM’s Deficiency Response provides ample justification for each deviation in the Amended ISA.¹⁹⁰ Susquehanna reiterates that the Commission’s jurisdiction in the instant proceeding is limited to determining whether the Amended ISA is just and reasonable.¹⁹¹ Susquehanna states that the Commission’s standard for approval of *pro forma* variations are intended to protect against transmission provider discrimination or favoritism towards affiliated generation.¹⁹² Susquehanna asserts that such a risk of discrimination is not present here as the Amended ISA is between unaffiliated parties who all support the agreement. Susquehanna states that the non-conforming provisions are necessary due to reliability considerations and unique circumstances not addressed by the *pro forma* language.¹⁹³

72. Susquehanna contends that the ISAs do not provide for transmission service or a transmission rate or contain market participant requirements.¹⁹⁴ Susquehanna states that it would be unreasonable and contrary to the FPA for the Commission to issue a decision with respect to the Amended ISA based on alleged retail rate impacts or in a manner that would force (even indirectly) Susquehanna to participate in federally regulated energy or capacity markets.¹⁹⁵ Susquehanna asserts that the actual and limited scope of this proceeding has been buried by “headline-grabbing” assertions of alleged cost shifting that have no basis in fact or law and that are outside the scope of this proceeding.¹⁹⁶ Susquehanna states that the Commission can take the reliability of the Commission-jurisdictional transmission grid into account, but that authority does not extend to changes in electricity demand and load growth presented by co-located load arrangements.¹⁹⁷ Susquehanna explains that PJM has undertaken necessary studies for

¹⁹⁰ *Id.* at 1, 3.

¹⁹¹ *Id.* at 4.

¹⁹² *Id.* at 11.

¹⁹³ *Id.* at 12-14.

¹⁹⁴ *Id.* at 4.

¹⁹⁵ *Id.* Susquehanna states that this is because the Commission is a “creature of statute.” *Id.* (citing *Atl. City Elec. Co. v. FERC*, 295 F.3d 1, 8 (D.C. Cir. 2002) (citing *Mich. v. EPA*, 268 F.3d 1075, 1081 (D.C. Cir. 2001))).

¹⁹⁶ *Id.* at 5.

¹⁹⁷ *Id.* at 8.

the proposed modifications and determined that the Amended ISA does not present any reliability concerns.¹⁹⁸

73. Susquehanna asserts that Exelon and AEP's claim of \$140 million in consumer harm is not accurate.¹⁹⁹ Susquehanna explains that \$140 million is the cost to service a 480 MW load at 98% capacity factor under PPL's LP-5 *retail* tariff rate.²⁰⁰ Susquehanna argues, in other words, that this is how much the utility would get paid for providing distribution electric service to the Co-Located Load if it was directly connected to the distribution system.²⁰¹ Susquehanna states that this cost will not be shifted to retail customers, and at most, this amount represents lost opportunity costs for PPL.²⁰² Susquehanna states that PPL has not constructed any facilities in preparation to deliver power to the Co-Located Load and thus there are no such costs in PPL's rate base that will be potentially shifted to retail customers.²⁰³ Susquehanna states that the retail customer (here the Co-Located Load) and the merchant generator bear the capital costs themselves, making co-location more retail customer friendly, not less.²⁰⁴ Susquehanna argues that co-located load arrangements can actually result in cost savings.²⁰⁵

74. Susquehanna contends that the Amended ISA does not present any direct market concerns and that such matters are outside of the scope of this proceeding.²⁰⁶ Susquehanna states that affiants Mr. Schatzki and Mr. Cavicchi explain that impacts to energy markets should not depend on whether load is co-located at a new or existing generation facility or it receives its supply directly from the grid.²⁰⁷ Susquehanna states

¹⁹⁸ *Id.* at 14.

¹⁹⁹ *Id.*

²⁰⁰ *Id.* at 6 (citing app. A, Schatzki and Cavicchi Aff. ¶¶ 20, 28) (emphasis in original).

²⁰¹ *Id.* at 6.

²⁰² *Id.* See also Constellation October 9, 2024 Answer at 7.

²⁰³ Susquehanna September 24, 2024 Comments at 6.

²⁰⁴ *Id.* at 7.

²⁰⁵ *Id.* (citing app. A, Schatzki and Cavicchi Aff. ¶¶ 14-15).

²⁰⁶ *Id.* at 9.

²⁰⁷ *Id.*

that if the load is going to be constructed and operated regardless of whether it will be co-located and supplied behind-the-meter or connected to and supplied from the distribution grid, then the impact of the load demand and supply on the market clearing price will be the same in either scenario.

75. Susquehanna affiants Mr. Schatzki and Mr. Cavicchi state that while transmission services allow market participants to buy and sell power over a utility-owned transmission system, the availability of transmission service under the PJM tariff is not intended to require that market participants use the services offered by the network, but instead to provide the option to use the services.²⁰⁸ Mr. Schatzki and Mr. Cavicchi state that Exelon and AEP affiants Mr. Reed and Ms. Powers assume that the Co-Located Load under the Amended ISA takes the same level of transmission service when co-located as compared to when it locates on the system, and that this is inaccurate and they provide no other rationale for their claim other than the assertion that the Co-Located Load must take either NITS or Point-to-Point Transmission Service.²⁰⁹ Mr. Schatzki and Mr. Cavicchi state that protestors ignore that the Co-Located Load served under the Amended ISA does not receive energy and capacity from the PJM network.²¹⁰

76. Constellation argues that it is indeed possible to incorporate a special purpose relay scheme that switches the load off if the co-located generator trips, prohibiting the co-located load from receiving power (other than its own independent back-up) if the supplying generation fails.²¹¹ Constellation claims that while neither Exelon and AEP affiant Mr. Weaver nor Constellation affiant Mr. Herling have reviewed the details of Susquehanna's protective schemes, PJM and PPL have, and the language of the Amended ISA is clear and unambiguous with respect to the protection schemes. Constellation contends that protective relays provide a straightforward explanation for how nuclear generators can maintain their mandatory synchronization to the grid (in the event of a sudden loss of the generating facility) and still serve separate dependent loads.²¹² Constellation also argues that as its affiants Mr. Herling and Dr. Shanker fully discuss from both an engineering and rate design perspective, fully isolated co-located load does

²⁰⁸ *Id.* App. A, Schatzki and Cavicchi Aff. ¶ 25 (citing PJM, Intra-PJM Tariffs, OATT, Definitions (L – M – N) (46.0.0) (Network Load)).

²⁰⁹ *Id.* pp. A, Schatzki and Cavicchi Aff. ¶ 27.

²¹⁰ *Id.* app. A, Schatzki and Cavicchi Aff. ¶ 27 (citing Amended ISA, sched. F, pt. F.4).

²¹¹ Constellation October 9, 2024 Answer at 4 (citing Herling Aff. ¶¶ 9, 13).

²¹² *Id.* at 5.

not rely on the grid's ancillary services. Constellation contends that if there is any arguable "use" of any services, it is by the generator, not the co-located load, for ancillary services.²¹³ Constellation states that even then, there is still no incremental usage caused by the co-located load. Constellation contends that the Commission, however, has looked at this issue before and determined not to charge generators for any ancillary services for legitimate policy reasons.²¹⁴

77. Regarding Exelon and AEP's cost shift argument, Constellation argues that, if load is fully isolated, there are simply no costs to shift.²¹⁵ PPL also disagrees with Exelon and AEP's assertion and calculation of a cost shift to PPL's customers.²¹⁶ PPL further states that that a hypothetical charge to a hypothetical PPL customer is not relevant to the ISA and whether it is just and reasonable but rather the only relevant issue is whether the ISA improves the reliability of the Susquehanna-PPL interconnection.²¹⁷ PPL reiterates that its position on the ISA is that it believes that the amendments to the ISA improve the reliability of the transmission grid and protects PPL's customers from potential negative effects of the Co-Located Load.²¹⁸

78. Pennsylvania Governor Josh Shapiro states that while the rapid pace of development of data centers and other large sources of electric demand presents challenges to the grid, he does not believe that the solution should be a "complicated patchwork of different rules for different utilities in Pennsylvania, or a significant departure from traditional rules that allocate costs based on the extent to which an off-taker is served by the grid."²¹⁹ Governor Shapiro requests that any action the Commission takes allows Pennsylvania to retain its ability through state policy decisions to continue serving as a leader for these issues.

²¹³ *Id.* at 5-6.

²¹⁴ *Id.* at 6 (citing *Integration of Variable Energy Res.*, Order No. 764, 139 FERC ¶ 61,246, *order on reh'g*, 141 FERC ¶ 61,232 (2012), *order on reh'g*, 144 FERC ¶ 61,222 (2013)).

²¹⁵ *Id.* at 7.

²¹⁶ PPL October 9, 2024 Answer at 1.

²¹⁷ *Id.* at 1-2.

²¹⁸ *Id.* at 2-3.

²¹⁹ Pennsylvania Governor Josh Shapiro Comments at 1.

79. Exelon and AEP contend that, during a September 24, 2024 hearing on co-located load held by the Maryland Commission, PJM acknowledged that the co-located load arrangement here does use and rely on PJM transmission facilities and the services the PJM grid delivers.²²⁰ Specifically, PJM stated at the hearing that “[u]nder any configuration, co-located load is electrically connected and synchronized to the PJM transmission system when consuming power, and therefore, benefits from the use of the transmission system and ancillary services, such as black start and regulation services.”²²¹ Exelon and AEP argue that there is nothing unique about this arrangement such that PJM has met its high burden for the Commission to approve this filing.²²² Exelon and AEP argue that while Susquehanna argues that Exelon and AEP have not quantified the associated ancillary services charges, Susquehanna never challenges the fact that co-located load does consume ancillary services.²²³ Exelon and AEP also argue that Susquehanna’s affiants ignore the back-up unit issue in their analysis, which renders the rest of their analysis invalid. Exelon and AEP argue that the back-up generating unit will “obviously” violate its commitments assumed with its capacity supply obligation and that Susquehanna will obtain replacement capacity by relying on the grid.²²⁴ Exelon and AEP contend that the only difference between the configuration at issue here and any other, ordinary load is the location of the meter, and meters only change accounting, not the physics of the interconnection.²²⁵ Exelon and AEP argue that the configuration raises profound questions about maintaining reliability, and it is unclear whether PJM will have visibility into the Co-Located Load. Exelon and AEP contend that the Amended ISA does not prevent the Co-Located Load from leaning on the grid in the event of an outage.²²⁶

80. Susquehanna responds that, taken to its logical conclusion, Exelon and AEP’s answer would result in every piece of electric equipment in the United States becoming part of a federalized grid, subject to the jurisdiction of the Commission, and having the

²²⁰ Exelon and AEP October 16, 2024 Answer at 3.

²²¹ *Id.* (quoting Senate Bill 1 Co-location Study, PC 61, Hearing at 16-17 (Sept. 24, 2024)).

²²² *Id.* at 9.

²²³ *Id.* at 12.

²²⁴ *Id.* at 13.

²²⁵ *Id.* at 15.

²²⁶ *Id.* at 19-20.

Commission regulate all the rates, terms, and conditions charged by transmission and distribution utilities.²²⁷

81. Susquehanna states that Exelon and AEP are correct that in November 2023, one of the Susquehanna units experienced an outage that inadvertently “caused the co-located facility to draw grid power for several hours rather than drawing power from the other Susquehanna unit as intended.”²²⁸ However, Susquehanna states that it paid the local Transmission Owner the applicable charges for the services used as a result of this event and, due to this experience, Susquehanna modified its configuration and installed additional equipment and developed other protective measures with the local Transmission Owner to ensure that the Co-Located Load cannot inadvertently draw power from the grid again.²²⁹ Regarding how the Co-Located Load will separate in the event of a loss of generation output at the plant, Susquehanna explains that, in such an event, redundant signals will be sent to an isolation breaker, which will then open and prevent the Co-Located Load from receiving any power or services from the grid.²³⁰

V. Discussion

A. Procedural Matters

82. Pursuant to Rule 214 of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2024), the notices of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

83. Pursuant to Rule 214(d) of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.214(d), we grant the late-filed motions to intervene given these entities’ interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay. We also accept the out-of-time comments.

84. Rule 213(a)(2) of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2024), prohibits an answer to a protest or answer unless otherwise ordered by the decisional authority. We accept the answers because they have provided information that assisted us in our decision-making process.

²²⁷ Susquehanna October 22, 2024 Answer at 1.

²²⁸ *Id.* at 3-4.

²²⁹ *Id.* at 4. Mr. Muller provided similar statements about this outage in his comments. Cole Muller Comments at 5-6.

²³⁰ Susquehanna October 22, 2024 Answer at 3.

B. Substantive Matters

85. As discussed below, we find that PJM has not demonstrated that the proposed non-conforming provisions in the Amended ISA are necessary deviations from the *pro forma* ISA due to specific reliability concerns, novel legal issues, or other unique factors. Accordingly, we reject the Amended ISA

86. In accordance with Order No. 2003, the Commission requires interconnection agreements that do not conform to the transmission provider's *pro forma* interconnection agreement to be filed with the Commission.²³¹ The Commission analyzes such non-conforming filings to ensure that operational or other reasons make a non-conforming agreement necessary.²³² The Commission has recognized that non-conforming interconnection agreements may be necessary in a small number of extraordinary circumstances.²³³ The Commission recognizes that non-conforming agreements may be necessary for interconnections with specific reliability concerns, novel legal issues, or other unique factors.²³⁴ Thus, a transmission provider seeking a case-specific deviation from its *pro forma* interconnection agreement bears a high burden to justify and explain that its changes are not merely "consistent with or superior to" the *pro forma* agreement, but are necessary changes.²³⁵

87. We find PJM has failed to meet the high burden to demonstrate the non-conforming provisions are necessary. For example, PJM insists that the proposed amendments were developed to address the circumstances of this particular interconnection and that approval could thus be limited to these circumstances. However, significant aspects of the proposed non-conforming provisions rely heavily on a generally applicable document, the PJM Guidance Document.²³⁶ This raises questions regarding whether PJM intends

²³¹ Order No. 2003, 104 FERC ¶ 61,103 at P 914; *see also El Paso Elec. Co.*, 177 FERC ¶ 61,212, at P 24 (2021) (*El Paso*).

²³² *El Paso*, 177 FERC ¶ 61,212 at P 24; *Renewable World Energies, LLC*, 176 FERC ¶ 61,140, at P 20 (2021).

²³³ *Midcontinent Indep. Sys. Operator, Inc.*, 177 FERC ¶ 61,233, at P 26 (2021); *PJM Interconnection, L.L.C.*, 111 FERC ¶ 61,163 at P 10 (citing Order No. 2003, 104 FERC ¶ 61,103 at PP 913-15; Order No. 2003-B, 109 FERC ¶ 61,287 at P 140).

²³⁴ *El Paso*, 177 FERC ¶ 61,212 at P 24; *Renewable World Energies, LLC*, 176 FERC ¶ 61,140 at P 20.

²³⁵ *El Paso*, 177 FERC ¶ 61,212 at P 24; *Renewable World Energies, LLC*, 176 FERC ¶ 61,140 at P 20.

²³⁶ We note that the PJM Guidance Document is not part of the PJM tariff, has not

to offer these terms to all similarly situated interconnection customers.²³⁷ We conclude that these provisions demonstrate that PJM has not met its burden to show that these provisions are necessary for any interest unique to the interconnection of the Susquehanna Customer Facility.²³⁸ Indeed, the record indicates that other parties are interested in

been approved by the Commission, and is not before the Commission in the instant filing. Therefore, the Commission has made and continues to make no determination regarding the justness and reasonableness of the PJM Guidance Document.

²³⁷ See, e.g., *El Paso Electric Co.*, 180 FERC ¶ 61,127, at 20 (2022) (“The reliability concerns that El Paso asserts justify its non-conforming revisions broadly apply to its system and interconnecting non-synchronous resources and are not specific to the project’s interconnection.”); *Sw. Power Pool, Inc.*, 128 FERC ¶ 61,191, at P 21 (2009) (finding that SPP had not fully explained what made an interconnection unique or identified the operational concerns or other reasons that necessitated the inclusion of non-conforming provisions in a GIA to allow for interim interconnection service, but finding that if SPP chose to provide such service, it should be made available through a pro forma agreement); *MidAmerican Energy Co.*, 116 FERC ¶ 61,018, at P 12 (2006) (rejecting non-conforming provision involving an insurance requirement and explaining that “these benefits [associated with the proposed provision] should be made available to all interconnection customers in a transparent, non-discriminatory manner so that MidAmerican cannot favor Pomeroy Wind over the rest of MidAmerican’s customers”); see also *PJM Interconnection, L.L.C.*, 188 FERC ¶ 61,206, at P 41 (2024) (“However, we find that PJM has failed to meet the necessary standard because PJM has failed to show that MAIT and Mon Power are unique in signing both the Consolidated Transmission Owners Agreement and Designated Entity Agreements.”).

²³⁸ See PJM Guidance Document at 2 (“If the co-located load is **not** PJM Network Load”) (emphasis in original); *id.* at 3 (“If the protection schemes were to fail (which they should not), PJM will assess the settlements and compliance implications for any such unexpected withdrawal in coordination with the Transmission Owner and local Electric Distribution Company.”); *id.* (“If the co-located load configuration allows for a back-up Generation Capacity Resource(s) to serve the co-located load, then that back-up Generation Capacity Resource(s) must fulfill its obligations as a PJM Generation Capacity Resource, for which CIRs/capacity value exist, including providing energy to the PJM system when needed and meeting the capacity and energy must-offer requirement. To the extent this obligation cannot be met, the back-up Generation Capacity Resource may be subject to Capacity Resource Deficiency Charges and/or Non-Performance Charges based on its obligation.”); *id.* at 3-4 (“Coordination with PJM Operations and the local Transmission Owner for both unplanned and planned outages of the co-located Customer Facility is required before the back-up Generation Capacity Resource or Energy Resource can serve the co-located load. To request the utilization of a back-up Generation Capacity Resource or Energy Resource to serve the co-located

pursuing similar arrangements wherein a large load co-locates with an existing generator.²³⁹ Therefore, we find that the proposed non-conforming provisions²⁴⁰ that mirror provisions that PJM has included in the PJM Guidance Document, do not meet the requisite standard.²⁴¹

88. This filing leaves multiple important questions unresolved. Nevertheless, given that we have already found that PJM has failed to meet its burden, as described above, we need not further opine on whether PJM has met that burden with regard to the proposed non-conforming provisions herein, or otherwise address the Amended ISA. Therefore, we decline to do so here.

89. The dissent disagrees with our finding, arguing that because the Amended ISA is the “first of its kind” it presents the sort of “specific reliability concerns, novel legal issues, and other unique factors” that justify accepting a non-conforming interconnection agreement.²⁴² But the former is not necessarily evidence of the latter, and the dissent does not explain why it believes the Commission erred in its application of the legal standard that governs the issue before us. Additionally, the dissent’s statement that provisions of the PJM Guidance Document may not apply to every co-location

load, the owner of the Generation Capacity Resource or Energy Resource must submit an outage in eDART with proper cause code of “co-located load” for the period of service to the co-located Customer Facility. If the request is authorized by PJM, the outage of the co-located Customer Facility will be approved. If the request is not authorized, the outage will be denied and it is not acceptable to claim an outage or divert the MWs from the back-up Generation Capacity Resource or Energy Resource to the co-located load.”); *id.* at 4 (“Co-located load is not equivalent to Station Power load.”); *id.* at 5 (addressing procedures for planned modifications to the co-located Customer Facility).

²³⁹ Deficiency Response at 20-21.

²⁴⁰ Amended ISA, Schedule F, Part C.2 (back-up unit that is a Generation Capacity Resource), Part D.2 (coordination in the event of outages), Part D.3 (procedures to use back-up unit), Part F.1 (station power), Part F.4 (“Co-Located Load is not Network Load” and assessing of settlements if power flows from Interconnected Transmission Owner’s facilities to the facilities of the Co-Located Load), Part F.5 (requiring compliance with Appendix 2, section 3 of the ISA to pursue additional planned modifications).

²⁴¹ *See supra* P 86.

²⁴² *See PJM Interconnection, L.L.C.*, [XXX] FERC ¶ 61,[XXX], at P 1 (2024) (Phillips, Chairman, dissenting).

agreement²⁴³ does not mean that the provisions are not generally applicable. The dissent makes generalized claims about alleged adverse impacts that the order will have on reliability and national security,²⁴⁴ but offers no details about how the order will impinge on either. Reliability and national security are, of course, central to the Commission's mission, but the generalized concerns highlighted by the dissent do not undermine our finding on the specific question before us that PJM has not demonstrated that the proposed non-conforming provisions in the Amended ISA are necessary deviations from the *pro forma* ISA. So we remain mindful of the "forest,"²⁴⁵ but in this context and on this record, we cannot conclude that the non-conforming provisions are necessary and otherwise meet the high standard for Commission approval.

The Commission orders:

The Amended ISA is hereby rejected, as discussed in the body of this order.

By the Commission. Chairman Phillips is dissenting with a separate statement attached.
Commissioner Christie is concurring with a separate statement attached.
Commissioner Rosner is not participating.
Commissioner Chang is not participating.

(S E A L)

Carlos D. Clay,
Acting Deputy Secretary.

²⁴³ *See id.* n.1.

²⁴⁴ *See generally id.* PP 1-6.

²⁴⁵ *See id.* P 6.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, L.L.C.

Docket Nos. ER24-2172-000

ER24-2172-001

(Issued November 1, 2024)

PHILLIPS, Chairman, *dissenting*:

1. I respectfully dissent from today's order because it is a step backward for both electric reliability and national security. The amended Interconnection Service Agreement among PJM, Susquehanna Nuclear, LLC and PPL (Amended ISA), represents a "first of its kind" co-located load configuration that presents precisely the sort of specific reliability concerns, novel legal issues, and other unique factors that should have justified the filing of a non-conforming interconnection agreement.¹ I would have accepted the Amended ISA and also required PJM to submit regular informational filings to provide transparency into the arrangement's operations over time, including certain of the issues in dispute, such as back-up service. That approach would also have allowed PJM to go through a further stakeholder process for tariff revisions and decide on generic next steps regarding these important issues in the months ahead.² In failing to accept the agreement, we are rejecting protections that the interconnected transmission owner says

¹ Although the Commission generally requires transmission providers to offer their customers interconnection service consistent with the *pro forma* LGIP and LGIA, the Commission has recognized that there would be a small number of extraordinary interconnections that present unique factors, such as reliability concerns or novel legal issues, which justify non-conforming provisions. *Midcontinent Indep. Sys. Operator, Inc.*, 177 FERC ¶ 61,233, at P 26 (2021); *PJM Interconnection, L.L.C.*, 111 FERC ¶ 61,163, at P 10 (2005). Contrary to the assertions in today's order, the existence of an informational Guidance Document related to co-located loads does not change the fact that non-conforming provisions of the Amended ISA are necessary to reflect the specific characteristics of this particular interconnection. There is no indication that the provisions of the Guidance Document the majority highlights will, or even should, apply to all co-located arrangements.

² Amended ISA, Schedule F, Part F, § 8 ("The provisions in this [ISA] are subject to change in accordance with Section 22.3 of Appendix 2 to this Agreement pursuant to Section 205 and Section 206 of the [FPA] and/or FERC's rules and regulations thereunder, including but not limited to PJM's right to assess in a non-discriminatory manner additional rates, terms or conditions which may include transmission or ancillary services charges.").

will enhance reliability while also creating unnecessary roadblocks to an industry that is necessary for our national security.

2. Electric reliability is the Commission's job number one. And I believe that PJM addressed those issues comprehensively in its filing. PJM supports its application with a detailed analysis of the reliability implications of adding an incremental 180 MWs on top of the already-allowed-for 300 MWs, and concludes that up to 480 MWs, no transmission upgrades are required.³ In addition, the application adds several important, reliability-based belts and suspenders. Those include installing a protection scheme to ensure that the Co-Located Load separates in the event of loss of generation output to ensure no power flows from transmission facilities to the Co-Located Load, providing certain generator shutdown and automatic tripping data to PPL, and notifying PJM and PPL in the event of any equipment malfunction. In short, I believe that these measures would have improved the reliability picture while also not prejudging future filings or foreclosing Commission flexibility in the future.

3. Today's order also creates a national security risk.⁴ There is a clear, bipartisan consensus that maintaining U.S. leadership in Artificial Intelligence (AI) is necessary to maintaining our national security. Maintaining our nation's leadership in this "era-defining" technology will require a massive and unprecedented investment in the data centers necessary to develop and operate those AI models.⁵ And make no mistake:

³ PJM's necessary study concludes that no transfer above 480 MW would be allowed until Susquehanna makes upgrades to mitigate generation deliverability violations. *See* PJM Transmittal at 5-6.

⁴ Constellation and Vistra Answer at 3 ("The corresponding technological advancement [driving data center growth] is critical to America's competitiveness and our national security and thus building out our digital infrastructure has been a focus at both the federal and state levels."); *id.* at 4 ("National security experts warn 'as global powers vie for technological supremacy, the United States faces a critical challenge: to lead in AI or risk falling behind in a domain crucial to future conflicts and international competition.'").

⁵ Memorandum on Advancing the United States' Leadership in Artificial Intelligence; Harnessing Artificial Intelligence to Fulfill National Security Objectives; and Fostering the Safety, Security, and Trustworthiness of Artificial Intelligence, THE WHITE HOUSE (Oct. 24, 2024), *available at* <https://www.whitehouse.gov/briefing-room/presidential-actions/2024/10/24/memorandum-on-advancing-the-united-states-leadership-in-artificial-intelligence-harnessing-artificial-intelligence-to-fulfill-national-security-objectives-and-fostering-the-safety-security/#:~:text=Leadership%20in%20responsible%20AI%20development,growth%2C>

access to reliable electricity is the lifeblood of those data centers. I am deeply concerned that in failing to demonstrate regulatory leadership and flexibility we are putting at risk our country's pole position on this critically important issue. *That* is simply unacceptable.

4. I do not mean to suggest that these issues are easy. To the contrary, they are complex and require us to wrestle with a host of challenging, multifaceted issues. That is why we held a technical conference today, to build a record on how the Commission should address similar issues going forward. But the technical conference casts a far wider net than the matter that is before us today and was never intended to defer judgment on this application, which I believe has thoughtfully and creatively addressed the factors that justify approval of these non-conforming provisions.

5. As always, I am particularly concerned about issues of affordability, particularly ensuring that data centers, like every other customer, pay their fair share of the costs of maintaining a reliable electric grid. To that end, I believe it is important to continue considering these issues, including co-location's implications for the transmission system and the provision of ancillary services, both before this Commission and in the PJM stakeholder process. In addition, as a former state regulator, I will be similarly focused on working with our state partners to address the issues that lie at the confluence of federal and state jurisdiction. But I do not believe that any of those issues, as important as they are for further consideration, justify the Commission's rejection of the Amended ISA.

6. At the end of the day, I am concerned that the arguments the Commission relies on to reject the Amended ISA lead it to miss the forest for the trees. We are on the cusp of a new phase in the energy transition, one that is characterized as much by soaring energy demand, due in large part to AI, as it is by rapid changes in the resource mix. Ensuring reliable and affordable supplies of electricity throughout the coming period of increasing demand and changing supply will require pragmatic leadership that facilitates that transition. If we instead throw up roadblocks to that transition, as I am concerned today's order does, we will only deprive our country of the resources needed to ensure our continued economic prosperity and national security.

%20and%20avoiding%20strategic%20surprise (last visited Oct. 30, 2024); Readout of White House Roundtable on U.S. Leadership in AI Infrastructure, THE WHITE HOUSE (Sept. 12, 2024), *available at* <https://www.whitehouse.gov/briefing-room/statements-releases/2024/09/12/readout-of-white-house-roundtable-on-u-s-leadership-in-ai-infrastructure/> (last visited Oct. 30, 2024).

For these reasons, I respectfully dissent.

Willie Phillips

Chairman

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, L.L.C.

Docket Nos. ER24-2172-000
ER24-2172-001

(Issued November 1, 2024)

CHRISTIE, Commissioner, *concurring*:

1. I join this order because PJM has failed to meet its burden of proof on this record. I emphasize that PJM's filing is rejected without prejudice. Speaking for myself, I have an open mind about the many serious issues pertinent not just to this particular proposal, but also to the issues that may be relevant to other co-location proposals. The specific co-location arrangement proposed here may make sense and be acceptable under the Federal Power Act, but on this record that claim simply has not been proven. I concur to make the following points.
2. Co-location arrangements of the type presented here present an array of complicated, nuanced and multifaceted issues, which collectively could have huge

ramifications for both grid reliability¹ and consumer costs.² Indeed, this Commission has already acknowledged the importance and complexities of these issues, which is why we

¹ See, e.g., Independent Market Monitor for PJM’s (Market Monitor) Answer at 7 (“The Commission’s decision in this matter, while framed as a narrow issue by Talen, *has extremely large significance for the future of PJM markets. PJM has not explained how it plans to meet expected increases in the demand for power, given ongoing generator retirements, even without removing multiple large base load units from the system. PJM’s latest reliability report and PJM’s RTEP do not address the potential significant changes that would result from reliance on the proposed ISA as a precedent.* While it is understandable that the recent reports do not address these issues, the nonconforming ISA should not be approved without such analysis and a stakeholder review process and a consideration of the facts by the Commission.” (emphasis added)); *id.* at 2 (“PJM has made a series of critical policy decisions that are embedded in this ISA involving, among other things, how backup power is handled, that are very different from positions that PJM has previously taken on related matters in the stakeholder process. These issues require stakeholder discussion and tariff changes. *How will load be met if multiple base load generators are effectively removed from the market? What will the impact be on power flows given that the grid is built in significant part to deliver nuclear energy to load? What will be the impact on energy prices and capacity prices?*” (emphasis added)); *id.* at 6-7 (while explaining the impact of accepting the ISA and applying it to all nuclear facilities in PJM, the Market Monitor states: “[e]stablishing this precedent would undermine PJM reliability and PJM competitive markets.” (emphasis added) (footnote omitted)).

² See, e.g., *id.* at 6-7 (“While the proposed amendment to the ISA is creative, its benefits to the co-located load come at the expense of other customers in the PJM markets. *If this approach were extended to all the nuclear plants in PJM, the impact on the PJM grid and markets would be extreme.* Power flows on the grid that was built in significant part to deliver low cost nuclear energy to load would change significantly. *Energy prices would increase significantly as low cost nuclear energy is displaced by higher cost energy on the overall supply curve. Capacity prices would increase as the supply of capacity to the market is reduced. Emissions would also be expected to increase as thermal resources that are next in the supply curve are dispatched to meet load to replace the nuclear energy. Establishing this precedent would undermine PJM reliability and PJM competitive markets.*” (emphasis added) (footnote omitted)). The various filings by Exelon and AEP in this docket also allege that up to \$140 million dollars per year will be cost-shifted to customers as a result of the ISA arrangement and that assets ratepayers have already paid for will be used to benefit the arrangement in the form of back-up service. See, e.g., Order at P 24; Exelon and AEP July 17, 2024 Answer at 23 (“We know that a unit at this facility had an unplanned outage in November 2023, and it appears no load was dropped—suggesting that the load just relied on PJM for its supply. The same would, in effect, happen again if the other Susquehanna unit simply

held a technical conference to explore them.³ That technical conference was timely and necessary, as these co-location arrangements are a fairly new phenomenon that entails huge ramifications for grid reliability and consumer costs.⁴ Given these ramifications, the Commission truly needs to “get it right” when it comes to evaluating co-location issues.

3. And make no mistake. Were we to approve this proposal at this time, as the dissent advocates, we would be setting a precedent that would be used to justify identical or similar arrangements in future cases. Further, to claim, as the dissent does, that failure to approve this specific proposal at this specific time endangers “reliability,” and even “national security,”⁵ is simply unproven on this record.

For these reasons, I respectfully concur.

Mark C. Christie
Commissioner

‘stepped in’—the rest of the system would lose that resource, one that the ratepayers have already paid for.” (footnote omitted)).

³ *Large Loads Co-Located at Generating Facilities*, Fourth Supplemental Notice of Commissioner-Led Technical Conference, Docket No. AD24-11-000 (Oct. 24, 2024).

⁴ To be clear, the fact this Commission convened a technical conference generally on the many issues implicated in co-location arrangements does not change the record in this proceeding, nor is it a reason to approve or disapprove this specific proposal, which must be decided on the record herein.

⁵ Dissent at PP 1-4 and *passim*.