June 16th, 2026

Via E-Filing

Matthew L. Homsher, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, Pennsylvania 17120

Re: Distributed Energy Resources Participation in Wholesale Markets Docket No. L-2023-3044115

Dear Secretary Homsher:

Enclosed for filing please find the corrected comments of Mission:data Coalition to the Notice of Proposed Rulemaking Order. Please replace the previously submitted filing from Mission:data, confirmation number 3070370, with the attached. The only modifications made are the addition of page numbers for ease of reference and minor proofreading revisions to improve clarity. The substance of the comments has not been modified. Please contact me with any questions.

Respectfully submitted,

Katherine Wyszkowski
Mission:data Coalition
7511 Greenwood Ave North #1809
Seattle, WA 98103
(847) 707-8596
katherine@missiondata.io

BEFORE THE
PENNSYLVANIA PUBLIC SERVICE COMMISSION

Distributed Energy Resources Participation in Wholesale Markets	:	Docket No. L-2023-3044115

COMMENTS OF MISSION:DATA COALITION

TO THE NOTICE OF PROPOSED RULEMAKING ORDER

I. INTRODUCTION

Pursuant to the Pennsylvania Public Utility Commission's (Commission) December 18th, 2025 Notice of Proposed Rulemaking on Distributed Energy Resources Participation in Wholesale Markets, Mission:data Coalition (Mission:data) hereby submits these comments.

Mission:data applauds the Commission for initiating this rulemaking in order to address unprecedented load growth and reliability challenges. Unfortunately, however, the proposed rule makes a critical error by leaving Pennsylvania's outdated, inadequate and idiosyncratic data access rules untouched. The efficient exchange of customer data is critical to enabling aggregations of distributed energy resources (DER) to reduce power costs. However, instead of modernizing the Commonwealth's practices so that aggregators can enroll customers in demand management offerings, the proposed rule errs by reaffirming a 2009 decision that ensures data communications from electric distribution companies (EDCs) is technologically outdated, tied exclusively to licensed electric generation suppliers (EGS), and therefore unable to serve aggregators in

today's world. Mission:data explains why reliance on technology developed solely for the restructuring period 1997-2009 is fatally flawed for today's information exchanges enabling aggregator participation in wholesale markets operated by PJM Interconnection, LLC (PJM). We propose tailored modifications so that Pennsylvania can finally join numerous other states in giving customers full control over their energy data held by utilities as well as meet the statutory requirements of 66 Pa. C.S. § 2807(f)(3), created by Act 129 of 2008 (Act 129).

As background, Mission:data is a not-for-profit organization focused on advancing policies that improve electric customers' access to, and utilization of, their own energy-related data held by regulated monopolies. The coalition is supported by approximately 25 technology companies delivering consumer-focused energy services, representing over $1 billion/year in energy management business across North America. Mission:data has been deeply involved in the development of "data portability" proceedings at other state commissions across the country, participating in regulatory dockets in 14 states and the District of Columbia. Mission:data has participated in numerous dockets before the Commission since 2015, including Docket Nos. R-2016-2537349 (First Energy General Base Rate Case Compliance Filings), M-2009-2092655 (Smart Meter Procurement and Installation), A-2019-3009271 (Application of Enerwise Global Technologies LLC d/b/a CPower for approval to supply electricity or electric generation services as a demand-side energy management company), M-2021-3029018 (Investigation into Conservation Service Provider and Other Third-Party Access to Electric Distribution Company Customer Data) and L-2023-3044115 (Distributed Energy Resources Participation In Wholesale Markets).

II. PROCEDURAL HISTORY OF DATA ACCESS IN PENNSYLVANIA

In November 1997, the Commission established the Electronic Data Exchange Working Group (EDEWG) to develop a standard set of data transaction guidelines for the implementation of electric competition on January 1, 1999.[1] EDEWG was designed to coordinate data exchange efforts among Electric Distribution Companies (EDCs), Electric Generation Suppliers (EGSs), marketers and brokers at the dawn of restructuring.[2] From the beginning, EDEWG was devoted to Electronic Data Interchange (EDI), a set of standards for gas and electric information to be transferred from EDCs to licensed entities.

In 2008, Act 129 was signed into law, modifying 66 Pa.C.S. § 2807(f)(3) to require EDCs to "make available direct meter access and electronic access to customer meter data to third parties, including electric generation suppliers **and providers of conservation and load management services**" (emphasis added).

On June 18, 2009, the Pennsylvania Public Utilities Commission (Commission) adopted *Smart Meter Procurement and Installation Implementation Order* (Docket No. M-2009-2092655, hereafter, "Smart Meter Implementation Order") in which the Commission established standards for smart meter procurement pursuant to Act 129. Requirement #3 obligates EDCs to support advanced meters with this functionality:

> Ability to provide 15 minute or shorter interval data to customers, EGSs, **third parties** and the regional transmission organization ("RTO") on a

[1] Cited in *Revised Order* adopted June 10, 1999. Docket No. M-00960890 F0015 at 1.
[2] Cited in *Tentative Order* adopted December 4, 2008. Docket No. M-00960890 F0015 at 1.

daily basis, **consistent with the data availability, transfer and security standards adopted by the RTO**.[3]

The Smart Meter Implementation Order further established broad parameters for customer control over their meter information, stating:

> In order for customers to be empowered they, or their designated representatives, must have direct access to their consumption data and price data. Therefore, the Commission directs that all covered EDCs must provide at least the following access to their smart meters and data:
>
> 1. Non-discriminatory access for retail electric suppliers **and third parties**, such as EGSs, **and conservation and load management service providers**;
>
> 2. Open, non proprietary two way access for electric suppliers **and third parties**, such as EGSs, **and conservation and load management service providers**; and
>
> 3. Full electronic access to customers **and their representatives to meter data upon customer consent**.[4]

Notably, the Smart Meter Implementation Order also charged EDEWG with developing Electronic Data Interchange (EDI) transactions to satisfy the requirements of 66 Pa.C.S. § 2807(f)(3):

> In order to achieve the capabilities of smart meter technology, however, EDCs are required to implement an EDI transaction relating to enrollment of customers who elect service on a real time price or time of use rate program, and a new historical interval usage transaction in order to provide customers and their designated agents with 12 months of interval usage data pursuant to Commission orders at Docket No. M-00960890F0015. Also, the historical usage data transaction must facilitate third party exchange of historical interval usage data recorded at

[3] *Smart Meter Procurement and Installation Implementation Order* (Docket No. M-2009-2092655), entered June 24, 2009 at 7. Emphasis added.
[4] *Id.* at 24. Emphasis added.

> the meter level. An EDI transaction will also need to be developed and implemented for the exchange of monthly, billing quality, interval usage data recorded at the meter level versus the current practice of providing usage data at the account level. These and other developments necessary for the implementation of smart meter technology plans require EDC and third-party participation in the Commission's Electronic Data Exchange Working Group ("EDEWG"). Therefore, EDCs are directed to propose EDI capabilities for this purpose through the EDEWG for Commission review no later than January 1, 2010.[5]

In 2012, the Commission further reiterated its intent to "facilitate the establishment of a standard electronic format for providing customers and their designated third-party representatives with direct electronic access to the customer's electric usage and price data, with the customer's consent."[6]

In 2015, the Commission again interpreted 66 Pa. C.S. § 2807(f)(3) broadly, clarifying its prior orders directing EDEWG to develop standardized solutions for third-party acquisition of customer historical interval usage data. The Commission defined "third parties" to mean "electric generation suppliers **and** customer-authorized third party entities."[7]

However, 2015 marks the beginning of the Commission's fickle interpretations of 66 Pa.C.S. § 2807(f)(3). In 2015 the Commission reverses itself, narrowing its interpretation of Act 129 to ***exclude*** non-licensed entities from receiving customer data, such as energy efficiency firms, virtual power plant providers, and others who do not take title to wholesale electricity for resale or are otherwise involved in marketing or brokering competitive electric supply. The decision eliminates precisely the entities that aggregate DERs and sell services to PJM pursuant to Federal Energy Regulatory

[5] *Id.* at 25.
[6] *Final Order* (Docket No. M-2009-2092655), entered December 6, 2012 at 3.
[7] *Final Order* (M-2009-2092655), adopted September 3, 2015 at 2, fn 3 (emphasis added).

Commission (FERC) Order No. 2222. In a September 3, 2015 Final Order in Docket No. M-2009-2092655, the Commission stated,

> [W]e agree that unlicensed third parties, as well as other consumers, should not be granted access to the web portals, except as an agent of a licensed EGS or as an Act 129 Energy Efficiency and Conservation Program CSP contracted with the EDC and as specified in Section 2.1 of the Framework.[8]

In the same Final Order, the Commission also stated:

> We acknowledge that there may be concerns regarding data access for CSPs and similarly situated third parties. However, third parties can still access customer data through the customer portals and/or their own equipment, so long as they have obtained customer permission.[9]

In 2016, the Commission reversed its position once again, returning to a broader definition of "third parties" consistent with 66 Pa.C.S. § 2807(f)(3). The Commission stated that EDCs are required to provide customer-authorized third parties with customer historic interval usage data. "Third parties" was defined as "electric generation suppliers **and customer-authorized third party entities**."[10]

However, in 2016, the Commission approved an EDEWG plan with this limitation:

> The web portal is intended for the following customer-authorized third parties: Licensed Electric Generation Suppliers (EGSs), Act 129 Conservation Service Providers (CSPs) contracted with EDCs, and their contracted agents. CSPs (either Curtailment or Conservation) desiring to access the web portals addressed by this framework can either be provided access as agents of an existing EGS OR be licensed as EGSs themselves as a prerequisite to receiving access.[11]

---

[8] *Id.* at 13-14.
[9] *Id.* at 14.
[10] *Final Order* (M-2009-2092655), entered June 30, 2016 at 2, fn 3 (emphasis added).
[11] Electronic Data Exchange Working Group (M-2009-2092655), *Technical Implementation Standard – System to System – Historical Interval Usage proposal to the Pennsylvania Public Utilities Commission*, dated April 7, 2016 at 5.

From the beginning, the Commission has not addressed the inherent conflict between electronic data interchange (EDI), overseen by EDEWG, and 66 Pa.C.S. § 2807(f)(3), which unambiguously mandates customer data transfer to ***any*** third party authorized by the customer. EDI is a technologically-constrained method for licensed suppliers, developed in Pennsylvania during the period 1997-2009. As further explained below, EDI does not support customer consent features, severely limiting its application to uses now under consideration, such as DER aggregations in support of FERC Order 2222. But since 2009, EDI has been the exclusive technology choice of the Commission.

From 2016 to the present, EDCs continued to operate EDI only for licensed suppliers, their agents or entities contracted to EDCs, with occasional technological updates coordinated by EDEWG.

In 2021, the Commission denied an application from Enerwise Global Technologies LLC d/b/a CPower, Inc. for an EGS license.[12] CPower stated that it seeks an EGS license not because it intends to generate, broker, aggregate or take title to electricity, but because it wants to verify its customers' performance in demand response programs and assist customers in analyzing and managing their energy usage.[13]

In 2024, the Commission denied a petition from Mission:data, Conifer, Green Button Alliance, Keystone Energy Efficiency Alliance and National Energy Improvement

[12] *Final Order* (Docket No. A-2019-3009271), adopted October 7, 2021.
[13] See, e.g., *Enerwise Global Technologies LLC d/b/a CPower License Application* (Docket No. A-2019-3009271) dated April 16, 2019 at 4f.

Fund to correct the Commission's narrow interpretation of "customer-authorized third parties" and return to the statutory language given by 66 Pa.C.S. § 2807(f)(3).[14]

In 2025, Mission:data and Voltus filed a complaint against PJM at FERC to modify PJM's Open Access Transmission Tariff (OATT) because curtailment service providers (CSPs) have little to no meaningful access to the required meter data while EDCs have full access to their own advanced metering infrastructure (AMI) data, creating an unfair and unduly discriminatory condition in violation of the Federal Power Act.[15]

Finally, the NOPR in this proceeding states, "Regarding data exchange between EDCs and DERAs…we will refer this matter and related subtopics to the Electronic Data Exchange Working Group (EDEWG)."[16]

III. ELECTRONIC DATA INTERCHANGE (EDI) IS INAPPROPRIATE FOR DATA EXCHANGES INVOLVING DISTRIBUTED ENERGY RESOURCES (DERs)

Put simply, EDI is outdated and ill-suited to serve DER aggregations. At its core, EDI is a file format; as a standard, it is silent on ***how*** customers grant their consent. EDI assumes that the data recipient – a licensed entity – already has a valid customer consent because the entity is licensed by the Commission. Instead of using modern Internet technologies to ensure the authenticity of customer consent, EDI establishes "business trust" by relying on Commission regulations, auditing of licensed entities' records, and the threat of punishment for violations. This is akin to preventing intruders

[14] Opinion and Order (Docket No. M-2021-3029018), adopted August 22, 2024.
[15] *Voltus, Inc. and Mission:data v. PJM Interconnection, LLC*. Docket No. EL26-4-000, Federal Energy Regulatory Commission, filed October 8, 2025.
[16] NOPR at 49-50.

into your home not by installing a lock and giving keys to authorized guests, but instead leaving the front door open while relying on a policeman to identify all persons entering. In other words, security is ensured with enforcement rather than physical restrictions.

The obvious problem created by EDI's technical limitations is that the NOPR gives DER aggregators no options to receive customer data in order to participate in wholesale markets at PJM. The NOPR delegates information exchanges to EDEWG, but from its inception in the 1990s, EDEWG has focused exclusively on EDI. Mere tweaks or modifications to EDI will not resolve EDI's fundamental limitations.

All of this is not to denigrate EDI; EDI may have been a practical and successful tool for many years as it relates to licensed entities, given Commission oversight. But EDI, developed in the 1990s, is patently unsuited to the task at hand in this docket: facilitating DER aggregations in wholesale markets. The reason why is that DER aggregators must ask for and receive customer consent. For DER aggregators to comply with privacy rules, laws and expectations, they would need to be licensed and overseen by the Commission in order to use EDI. Yet, in prior cases, the Commission has denied DER aggregators' EGS license applications. The Commission rejected CPower's license application in 2021 in part on the basis that voluntary EGS licensing is not permitted under 66 Pa.C.S. § 2809(b). Entities cannot be licensed "when the applicant does not perform the definitional services of the type of license they are seeking,"[17] i.e. "purchasing electric energy and taking title to electric energy as an intermediary for sale to retail customers."[18]

[17] *Final Order* (Docket No. A-2019-3009271), adopted October 7, 2021 at 7.
[18] 66 Pa.C.S. § 2803.

As written, the NOPR creates a catch-22 for DER aggregators: EDI, overseen by EDEWG, is the exclusive method for DER aggregators to receive customer data at scale (such as interval usage data, account number, peak load contribution, etc.), and yet the Commission denies DER aggregators the licenses they need to receive EDI data. The only solution to this conflict is to eliminate references to EDEWG altogether and establish rules that support open, modern, non-proprietary standards that use consent-based Application Programming Interfaces (API), as we recommend below. In short, a clean break from EDEWG and EDI is required.

IV. § 57.265(a) IS FATALLY FLAWED BECAUSE IT OVERLOOKS DATA HELD BY EDCs THAT IS REQUIRED BY PJM

Turning to another section of the proposed rules, § 57.265(a) concerning Component DER Operations should be corrected. § 57.265(a) is fatally flawed because it misunderstands the fundamental data exchange that must take place for DER aggregations (DERA) to function both in today's energy day-ahead market or in PJM's DER Aggregator Participation Model (APM) in the future. § 57.265(a) reads, "EDCs shall provide DERA access to Component DER data upon consent of the DER operator in a format approved by the Commission." There is a critical error made in this sentence: an assumption that "Component DER data" is sufficient for wholesale market participation. This assumption is false. Nowhere in the NOPR is "Component DER data" defined. The NOPR appears to be narrowly concerned with merely the *registration* component of aggregations in PJM's APM rather than the totality of registration *and*

settlement with PJM's existing markets. The NOPR also overlooks the customer data that is required under today's wholesale markets operated by PJM.

Today's energy day-ahead market at PJM requires aggregators to provide the following information to register and settle aggregations of distributed energy resources:

- 60-minute usage data "on an electric distribution company account basis"[19]
- Customer account number[20]
- Customer peak load contribution (PLC)[21]
- Customer transmission zone[22]
- Customer line losses[23]
- Customer name[24]
- Customer premise address[25]

The items above cover a broader of range of information than is mentioned in Section 1.4B of PJM's DER Aggregator Participation Model.[26] While Mission:data appreciates the Commission referencing Section 1.4B in the NOPR, the fact is that relying on Section 1.4B to the exclusion of other longstanding operational requirements

[19] "The Curtailment Service Provider is responsible to ensure that the Emergency Load Response Program and Pre-Emergency Load Response Program Participants have metering equipment that provides integrated hourly kWh values on an electric distribution company account basis." PJM, *Open Access Transmission Tariff* at Section 8.3, Attachment K.
[20] PJM, *Manual 11: Energy & Ancillary Services Market Operations*, Section 10.2.4 at 173.
[21] *Id.*
[22] *Id.,* Section 2.3.7 at 54.
[23] *Id.*, Section 10.2.4 at 174.
[24] PJM Manual 18, Attachment C, Section B(3) describing Demand Response Sell Offer Plans. https://www.pjm.com/-/media/documents/manuals/m18.ashx
[25] *Id.*
[26] "the DER Aggregator shall provide: i. Identifying information, including the physical address and Electric Distribution Company account number; ii. Metering information, including meter type (e.g., Electric Distribution Company meter, other meter); iii. Capability information, including load reduction and injection capability." *Compliance Filing to Re-Date Order No. 2222 Participation Model eTariff Records.* FERC Docket No. ER22-962-008. PJM Interconnection, LLC dated May 29, 2025, Section 1.4B at 48.

imposed by PJM results in critical omissions. For example, PJM's *Manual 11* is not a tariff approved by FERC and yet it requires DER aggregators to provide customer transmission zone and line losses. *Manual 18*, also not approved by FERC, requires aggregators to provide customer name and premise address. These requirements are not going away, as though FERC Order 2222 had wiped the slate clean of prior operational requirements. Instead, it is fair to say that PJM's APM represents a "folding" of its existing registration and settlement requirements of demand response resources into a newer form in order to Support FERC Order 2222, not a document that was derived from *tabula rasa*. Indeed, PJM's own informational materials reiterate that, even under its DER Aggregator Participation Model, DER aggregators must provide information such as customer account numbers, and manuals will be updated during the period Jan 2026 to Dec 2027.[27] None of these requirements are reflected in § 57.265(a) of the NOPR.

In Appendix A, Mission:data recommends modifications to § 57.265 in order to capture a holistic set of customer information that is exclusively held by EDCs and which is necessary for a wide range of activities, including energy efficiency, demand management, and participation at PJM. In addition to the specific list reflecting today's PJM requirements, we have included a catch-all to ensure that future modifications to such requirements are automatically covered under § 57.265, avoiding the need for rule revisions as the market develops over time. Appendix A defines customer shareable information to include "any other data necessary for customers to participate in various

[27] See, *e.g.*, *DER Aggregator Participation Model: Full Model Design*. Presentation by PJM DISRS Subcommittee dated March 9, 2026 ("A Component DER is associated with one EDC account number…" at 17; "Jan 2026 - Dec 2027: Energy & Ancillary Services Market implementation details & manual revisions" at 4). Available at https://www.pjm.com/-/media/DotCom/committees-groups/subcommittees/disrs/2026/20260309/20260309-item-05---updated-der-aggregator-participation-model---full-model-design---informational-only.pdf

demand management programs, including in wholesale markets." This is intended to harmonize EDCs' data sharing practices with PJM on an ongoing basis so that EDCs are required to remain current without triggering new Commission proceedings or rulemakings every time PJM makes modifications.

Finally, let us clarify that EDCs exclusively possess the definitive set of records in the bulleted list above. While aggregators can obtain the customer name, account number and premise address from the customer, the fact remains that EDCs insist that registrations of aggregations at PJM must ***match*** the records EDCs have on file. PJM's Manual 11 states, "EDCs have ten (10) business days to review all registrations and verify the EDC account number, Zone, Pricing point, Line losses, existence of EDC interval meter if applicable, accuracy of Peak Load Contribution (PLC)..."[28] EDCs are thus given the ability to contest and exclude customers simply on the basis of minor typos or discrepancies in records. For example, an EDC could reject a customer located at "123 Main Street" in its records simply because the aggregator provided "123 Main St.," with the "Street" abbreviation causing a mismatch. Similarly, customers who tell aggregators their name when their spouse's name is on the utility bill may be similarly rejected. Each case triggers a costly and unnecessary administrative appeal process which artificially and unfairly raises the costs to aggregators.[29] What matters is not whether aggregator-sourced information about the customer is generally or directionally correct, but rather whether it ***exactly*** matches the EDCs' records. The only way to ensure exact matches – and avoid unfair and exclusionary practices that harm

[28]PJM, *Manual 11*, Section 10.2.4 at 184.

[29] Mission:data notes that EDCs generally recover the administrative costs of such appeals through rates – a privilege which competitive virtual power plants do not share – therefore making utilities indifferent to administrative appeals that are tedious, arbitrary or untimely.

customers and aggregators – is for the Commission to order the EDC to provide the above information to aggregators with the consent of the customer. Appendix A contains recommendations addressing the full scope of customer data necessary for wholesale market registration and settlement in order to avoid these significant and foreseeable obstacles.

V. ONLY THE COMMISSION – NEITHER A WORKING GROUP, FERC NOR PJM – CAN RESOLVE QUESTIONS OF ACCESS TO DATA HELD BY EDCs

Certain types of customer data, generated and held exclusively by EDCs, are required by PJM's tariffs and manuals.[30] But the Pennsylvania Commission has exclusive authority over EDCs and the policies and practices by which the EDCs release such data in their possession. Simply put, DER aggregators' access to necessary information for wholesale market participation is not self-executing; the Commission, and only the Commission, has the responsibility and the authority to oversee the secure sharing of customer data from EDCs to non-utility energy management firms. Monopoly utilities have exclusive custody of such information, in part due to their state-granted monopoly over the distribution of electricity. Delegating data exchanges entirely to a working group, as proposed in the draft rules, would be an inappropriate lapse of the Commission's responsibility to exercise oversight over monopoly utilities in the public interest. Moreover, it would jeopardize the Commonwealth's efforts to reduce energy costs and residents' monthly bills. Utilities frequently see DER aggregators as their competitors because, in part, reducing peak

[30] See, *e.g.*, PJM, Open Access Transmission Tariff at Section 8.3, Attachment K.

system demand reduces the EDCs' capital investments and profits. EDCs will be rationally disinterested in establishing data exchange protocols and standards.

Moreover, neither FERC nor PJM have the legal authority to compel Pennsylvania EDCs to share customer data with other entities. Recently, both PJM and FERC have expressly ***rejected*** the notion that they have such authority over the metering and data-sharing practices of EDCs. For example, in October, 2025, PJM argued that FERC was not permitted to approve any PJM tariff that would infringe upon the states' authority in the area of metering data, data exchanges and customer consent rules. "Restrictions on the use of…interval metering equipment is a question for the Relevant Electric Retail Regulatory Authority ("RERRA"), as that is the entity statutorily permitted to exercise jurisdiction over retail companies, retail equipment, and state-specific practices and policies."[31] In interpreting the Federal Power Act, FERC itself has ruled similarly that states, not FERC or FERC-jurisdictional regional transmission organizations, oversee EDC policies around customer data. FERC "respects the role of states with respect to issues such as electric distribution companies' policies around residential customer meter data"[32] and recognized

> that some questions governing the availability to third parties of data held by electric distribution companies, including interval data, along with larger questions involving deployment of advanced metering infrastructure, are questions under the jurisdiction of state regulatory authorities.[33]

Regarding smart meters specifically, PJM's requirement that DER aggregators provide interval usage data is triggered by the presence of advanced metering infrastructure (AMI). Once a residential customer has an interval meter or "smart meter,"

[31] PJM, *Answer of PJM Interconnection, L.L.C.* Federal Energy Regulatory Commission, Docket No. EL26-4-000, October 28, 2025 at 2.
[32] *Enerwise Glob. Techs., LLC v. PJM Interconnection, L.L.C.*, 188 FERC 61, 191, at 35 (2024).
[33] *Id.*

the OATT requires that a curtailment service provider (CSP) must meet rigorous measurement and verification accuracy requirements that, for residential and small business customers, can only be provided by the EDCs' revenue-grade meters. 98% of Pennsylvania electric customers have a smart meter, according to the Energy Information Administration.[34]

In this proceeding, the central challenge for Pennsylvania in enabling DER aggregators to participate in PJM markets is that PJM ***requires*** DER aggregators to provide it with interval usage data from smart meters and other customer information, and yet DER aggregators do not generate nor possess such information. The Commission, and only the Commission, has the responsibility and the authority to address this mismatch.

VI. CURRENT PENNSYLVANIA WORKING GROUPS ARE NOT A SOLUTION TO DATA ACCESS POLICIES, WHICH REQUIRE COMMISSION ACTION

As stated previously, delegating data exchange standards and protocols to the EDEWG would be both inappropriate and inadequate. While the Commission has nearly thirty years of experience with EDEWG, the structure, focus and history of EDEWG is ill-suited to the task at hand. Even a remarkably efficient and effective EDEWG would still return a set of standards based on EDI that lack a customer consent process. Rather than a working group, the Commission should adopt the rules in Appendix A, which are based upon best practices from over 14 states nationwide. Today, over 35 million electric customers across North America have access to consent-based data

[34] Energy Information Administration, Annual Electric Power Industry Report, Form 861 detailed data files (2024). https://www.eia.gov/electricity/data/eia861/

exchanges in which a customer can direct their usage, billing and account information to a third party. This is done securely following modern Internet standards such as Transport Layer Security and OAuth,[35] which are incorporated into the standard known as Green Button Connect (GBC).

Mission:data notes that FirstEnergy has a Third Party Data Access Tariff.[36] However tempted the Commission may be to use such tariff as the basis for a working group, the Commission should decline to do so because the FirstEnergy tariff uses EDI[37]; it does not provide sufficient information for PJM as described above[38]; and it includes numerous problematic terms that would undermine DER aggregations such as a warranty disclaimer stating "no warranties with respect to accuracy, completeness, or fitness for any purpose."[39] Once again, a clean break with strictures of EDI is necessary, and FirstEnergy's tariff does little to address concerns about its lack of fitness for serving DER aggregations.

Furthermore, other working groups have a track record of acting arbitrarily and excluding various participants without basis. There is an Act 129 Data Sharing Working Group which could have significant overlap with DER aggregation topics, but participation has been limited by Staff to state agencies, EDCs, the Energy Association of Pennsylvania, and a low-income advocacy organization. Currently, data access specialists and subject matter experts, such as Mission:data, are being excluded from contributing valuable insights and practical perspectives regarding modern data access

[35] See, *e.g.*, Internet Engineering Task Force (IETF) Request for Comment (RFC) 6749, https://datatracker.ietf.org/doc/html/rfc6749.
[36] FirstEnergy Pennsylvania Electric Company, Third Party Data Access Tariff. Effective January 1, 2024.
[37] *Id.* at 5.1.1.
[38] *Id.*, definition of "Customer Data" at original page 006.
[39] *Id.* at 4.1(d).

solutions that comply with Act 129.

Working groups are not the solution to this rulemaking. The limitations of EDI render EDEWG inappropriate; the Act 129 Data Sharing Working Group demonstrates that due process can be easily discarded. Rather than working groups, the Commission needs to address the specifics of data exchanges between EDCs and DER aggregators in its rules so that EDCs are accountable for their performance and the policy objectives of the Commission and FERC can be effected. Green Button Connect is a mature, widely-used and secure standard with the experience of tens of millions of meters nationwide. Numerous other states have developed rules or tariffs governing Green Button Connect systems, which are used by DER aggregators today in other jurisdictions. The Commission should adopt our recommendations in Appendix A rather than delegate its authority on this matter to a working group

VI. SPECIFIC DER DATA ACCESS POLICIES MUST NOW BE RESOLVED BY THE COMMISSION TO AVOID A *DE FACTO* BAN ON WHOLESALE MARKET PARTICIPATION

Mission:data, along with other stakeholders, provided specific concepts that need to be overseen and decided on by the Commission.[40] Mission:data is providing policy language that can be directly adopted by the Commission based on best practices from around the United States in Appendix A.[41] [42] Below we have included a description and

[40] Pennsylvania Public Utility Commission, Docket No. L-2023-3044115, Distributed Energy Resources Participation In Wholesale Markets. Comments of Mission:data Coalition. May 29th, 2024.
[41] New Jersey Board of Public Utilities, Docket EX24090717, Advanced Metering Infrastructure (AMI) Data Access Standards Proposed New Rules: N.J.A.C. 14:5-10. September 2nd, 2025.
[42] New York Department of Public Service, Case 20-M-0082, Order Adopting A Data Access Framework And Establishing Further Process. April 15, 2021.

purpose for each section we included in our recommended policies for the Commission:

AMI data collection and availability

To facilitate effective participation by third parties in wholesale energy markets, utilities must adhere to clearly defined requirements governing the availability of validated and non-validated AMI data. Significant delays can render the data unusable for certain markets and other applications. The Commission should establish clear standards for data availability to ensure customers and their authorized third parties receive data within reasonable timeframes.

Ownership and sharing of AMI data

For the benefit of customers, there must be recognition that customers own their meter data, account data and billing data, and may use their own data in any manner they choose. In comparable sectors, such as healthcare and banking, customers can access and share their data with simple and secure processes.

The Commission should adopt clear requirements governing customer authorization for data sharing, including the procedures for sharing and revoking access, the categories of data that may be shared, and a prohibition on charges associated with customer data transfers. Regulatory oversight in these areas is necessary to ensure transparency, consistency, and customer control over personal data.

Third-party authorization and data security

Commission oversight of third party authorization processes is required to ensure that customers and authorized third parties can access data through reasonable, transparent, and functional procedures. In the absence of clear standards, utilities have implemented practices that have limited usability, including difficult to locate or even broken authorization pathways. A clear outline of expectations and requirements will ensure a usable system capable of supporting meaningful participation for customers.

Notably, Mission:data is not aware of any privacy or cybersecurity breaches that occurred as a result of making customer energy data accessible to other entities on a permissioned basis. The Green Button Connect standard requires customer permission prior to release and mandates that customer data be encrypted while in transit to the recipient.appears to be a strong technical measure to prevent misuse of customer information. So far, that appears to be a strong technical measure to prevent misuse of customer information.

Between the technical precautions embedded in the Green Button Connect standard as well as requiring DataGuard, we believe this represents a reasonable, “no regrets” approach to protecting consumers.

Limited utility liability

Third parties are not utility vendors, and it would be unreasonable for EDCs to review data recipients in the same way as vendors. While EDCs should be responsible for securely transferring customer-authorized data to approved recipients, they cannot reasonably be held liable for the actions and security practices of independent third

parties once the transfer has been completed in accordance with Commission-approved procedures.

If a third party experiences a data breach or other security incident after receiving customer authorized data, liability should rest with the responsible third party rather than the EDC, provided that the EDCcomplied with all applicable Commission requirements governing data transfer and security.

Ensuring fair access and competition

As customer data access platforms serve both a customer service function and a critical role in compliance with FERC Order 2222, the Commission should ensure that such platforms operate in a fair and competitively neutral manner.

EDCs should provide authorized data recipients with advanced notice of platform modifications, system updates, or operational changes that may impact data access and allow adequate time for adaptation. Furthermore, since the EDCs are the sole providers of access to customer data, they should be prohibited from replicating or directly competing with third party software providers.

We recommend the Commission require EDCs to maintain transparent processes through which third parties can report technical issues, monitor issue resolution, and receive updates regarding system improvements.

Service level agreement and data warranty

Data sharing platforms should be subject to reasonable service level agreements regarding system availability, reliability, and usability. Utilities are responsible for

operating critical infrastructure platforms funded by ratepayers and should therefore be held to standards comparable to those applied to commercial providers of software services.

Additionally, since utilities serve as the source source of data required for wholesale market participation and reporting for PJM, appropriate warranties regarding data accuracy should be established. Third parties depend upon utility provided data and may face financial consequences if inaccurate information is submitted to PJM.

Furthermore, Texas and California initially implemented data sharing systems without outlining performance requirements. In both these states, the public utility commissioners had to review the data sharing systems that were created, create a tariff or other binding mechanism with quantitative targets to force the utilities to fix the software issues, and invest additional capital into correcting the initial versions.[43] [44] Both states now have much improved Green Button Connect systems, but the additional years and unnecessary capital spent to fix broken systems could have been avoided with comprehensive service level agreements and data warranties at the outset.

Terms of service

The rules governing data access platforms should be clear, standardized, and include terms of service approved by the Commission. Mission:data recently evaluated and scored five utilities on their Green Button Connect implementation. One key finding was that every utility scored has additional requirements that were not approved by the

[43] Docket 47472, Commission Staff's Petition to Determine Requirements for Smart Meter Texas, Texas Public Utility Commission. September 7, 2018.
[44] Southern California Edison. "Rule 24 Direct Participation Demand Response." California Public Utility Commission January 26, 2018.

utility's Commission and may be problematic for many users. Regulators should exercise oversight to prevent utilities from unilaterally imposing requirements that could be unfair or anticompetitive. Unfortunately, all of the utilities we scored sought additional, unsanctioned authority over third parties.[45]

End-to-end testing

We recommend the Commission require comprehensive end-to-end testing of customer data access platforms at least twice annually. Regular testing is reasonable and a standard expectation for any commercial software platform. It is a basic expectation to verify operational functionality, but without explicit requirements, utilities have disregarded this process and irresponsibly invested in platforms that do not function.

The effectiveness of a data sharing platform cannot be assumed without real world testing involving actual customers with documented performance results. Routine testing will help identify issues before they adversely affect customers and market participants.

Access to real-time data

Customers have invested in advanced metering infrastructure that is capable of providing real-time energy usage information. Customers should therefore be entitled to access their real-time data and to utilize any device, technology, or service provider of their choosing to gain value from the information. Access to real-time data from AMI meters is not limited by technology, but it is deactivated by utility providers. Without

[45] Mission:data, Green Button Scorecard. March 31st, 2026.

affirmative Commission rules that require utilities to provide customers access to their real-time data, there will continue to be a lack of return on investment of AMI meters.[46]

Reporting metrics

States like New York require utilities to report performance metrics related to customer data sharing platforms, including measures of system usability, customer participation, authorization activity, and operational performance.[47] These reporting requirements provide regulators with the information necessary to evaluate performance effectiveness and identify if there are access or operational issues that need to be addressed. Additionally, public reporting requirements will allow for third parties to confirm that the reports are accurate and resemble their experience with data access portability.

VII. CONCLUSION

The Commission is the sole entity with the authority to regulate and oversee the data exchange processes required for wholesale market participation. While the proposed rule is well intentioned, it could constitute a *de facto* prohibition on DERAs participation in the wholesale market because it fails to account for EDCs' exclusive control over customer data necessary for participation.

By adopting the best practice policies outlined in Appendix A, the Commission would address the current limitations that prevent DER aggregators accessing the data

[46] Mission:data, DEACTIVATED: How Electric Utilities Turned Off the Data-Sharing Features of 14 Million Smart Meters. September, 2022.
[47] New York Department of Public Service, Case 20-M-0082, Order Adopting A Data Access Framework And Establishing Further Process. April 15, 2021.

they are obligated to report to PJM, thereby enabling their participation in the wholesale market.

Mission:data sincerely appreciates the opportunity to provide comments and recommendations and looks forward to continued participation in this proceeding.

Respectfully submitted,

/s/_____**Katherine Wyszkowski**

Mission:data Coalition
7511 Greenwood Ave North #1809
Seattle, WA 98103
(847) 707-8596
katherine@missiondata.io

Appendix A

§ 57.265

~~(a) EDCs shall provide DERA access to Component DER data upon consent of the DER operator in a format approved by the Commission.~~

AMI data collection and availability

(a) EDCs must make validated AMI data accessible to customers and their authorized agents no later than 48 hours after the meter readings are captured.

1. Each EDC must collect interval usage AMI data, at watt-level precision, for all customers in intervals of no greater than 15 minutes.
2. Each EDC must be capable of offering five-minute data collection, if specifically requested by a customer, by no later than PJM's planned implementation date for Order 2222 of the Federal Energy Regulatory Commission.

(b) The customer and their data recipient must have access to non-validated data as it is made available to the EDC.

(c) Data files must be labeled either validated or non-validated

Ownership and sharing of AMI data

(a) AMI data measured, stored, or transmitted by an AMI meter belongs to the customer.

(b) Customers may share their AMI data with authorized third parties through a standardized authorization form.

1. Third parties will be authorized for a set time decided by the customer or indefinitely until revoked by the customer.
2. Customers may revoke access to their AMI data from third parties at any time without penalty in a process that is as simple as authorization. If a customer revokes access to their data the third party shall be immediately prevented from accessing data. Termination of electric utility service also terminates consent to disclose customer data granted by the customer for the meter(s) or premise(s) where electric utility service has been terminated.
3. EDC(s) shall also permit an authorized third party to terminate its authorization, in which case the EDC(s) shall subsequently notify a customer of the termination via the customer’s preferred contact method and confirm to the authorized third party that the termination is accepted.

(c) Each EDC must make a customer's AMI data accessible and shareable using the latest version of the Green Button Connect My Data standard. Clear documentation of

registration for third parties, authorization from customers and contacts for assistance must be made available on the EDC's website.
(d) Each EDC must enable Green Button Connect as a means for customers or their authorized agents to access AMI data. Each EDC shall provide proof of independent certification of adherence to the latest Green Button Connect standard once per calendar year.
(e) AMI data sets must include a minimum rolling 2 years' worth of AMI data delivered through supplier portals daily and accessible through an automated Application Programming Interface (API) solution.
(f) EDCs must ensure AMI data is transmitted to the authorized third parties no later than 60 seconds after customer authorization.
(g) Each EDC must make the following data types available to be shared with authorized third parties, in addition to AMI data:

1. All customer billing information
2. Account information,
3. Meter information,
4. Rate information,
5. Peak load contribution,
6. Line losses,
7. Transmission zone,;
8. Precise addresses for all customers;
9. Customer account number(s).
10. any other data necessary for customers to participate in various demand management programs, including in wholesale markets
11. Any data points not in this list that may be required in the future by PJM, EDCs, and the state to participate in demand response programs.

(h) Each EDC must not charge a fee for access to AMI data to the customer or to any third party with whom the customer wishes to share their AMI data, including, but not limited to, authorized third-party suppliers, distributed energy resource aggregators, and other energy services companies.

Third-party authorization and data security
(a) All EDCs must coordinate with each other to create and maintain a common "one-click" web-based authorization form, for the purpose of authorizing access to customer data.
(b) The web based form will include optimization for mobile devices.
(c) The common release form must be web-based. All EDCs shall validate customer identity for purposes of the common release form in a manner equal to, and no more onerous than, the EDC's existing methods for validating identity on the EDC's website. The common release form shall include the following information:

1. be in plain language;
2. be headlined or titled by language telling the customer what it is;
3. include the name, address, phone number, email address, and website for the third party seeking authorization;
4. clearly state the categories of covered data being requested;
5. clearly state the purpose(s) for which the covered data will be used;
6. clearly state the period of time in which the agreement authorizes access to covered data;
7. Include a one-click consent/decline
8. include steps that need to be taken to revoke the authorization.

(d) Following authorization, each EDC shall send a confirmation to the customer by email or other communication choice by the customer.

(e) A third party's authorization to access customer information may be revoked

1. by the customer or
2. by the Commission for failure to comply with any of the requirements of this rule.

Limit Utility Liability

Provided that a utility is not grossly negligent and transmits data securely in accordance with adopted standards and regulations, the utility should not be held liable for the handling or use of data once it is no longer within the utility's possession or control.

Ensuring fair access and competition

(a) Each EDC must ensure nondiscriminatory access to validated and non-validated AMI data as between any authorized third parties and unregulated EDC affiliates.

(b) Each EDC must notify Green Button Connect data recipients 90 days prior to making changes to AMI data formatting, frequency, or other technical changes that may adversely affect application functionality, unless the change is necessary to address an immediate, articulable cybersecurity concern or system vulnerability.

(c) EDCs are prohibited from surveilling or reverse engineering third-party software applications, or engaging in any effort to gain competitive advantage or insight into a third party's business or product offering.

(d) Each EDC must provide a publicly-accessible web-based issue tracking system for authorized third-party software application developers to log technical requests and bugs. This tracking system will also have a pathway for third-parties to privately share sensitive information that they would not want publicly to be tracked.

Service Level Agreement and Data Warranty

(a) Utilities must provide commercially reasonable performance of data access platforms and require a service level agreement for any platform. To be commercially reasonable, a data exchange platform must meet at least the following requirements:

1. Uptime rates for the data access platform must be equal to or greater than 99.5% in each calendar month, excluding reasonable scheduled downtime;
2. The data access platform properly responds to all requests, either by fulfilling them or by explaining why they were not fulfilled;
3. The data access platform must not unreasonably or discriminatorily restrict the frequency with which it receives or responds to requests for covered data.

(b) The data provider shall ensure that covered data that is made available to utility account holders and/or third parties has been confirmed and warrantied as accurate through the data provider's validation process. The utility will provide best-available data within the portal as it is made available to ensure data access parity between the EDC and third parties. Covered data that has not been validated is marked as such within the file.

Terms and Conditions

EDCs shall provide the data platform as described in this Section on terms and conditions with a DERA or any third party that is approved by the Commission. EDCs may not adopt any additional terms and conditions that have not been reviewed and approved by the Commission.

Access to Real-Time Data

These rules guarantee free, open, non-discriminatory access to real-time electric usage information to any device authorized by an account holder.

End-to-End Testing

(a) End-to-end testing GBC platform. The utility will complete independent, end-to-end testing using real customers to ensure their data access platform functions properly and is still compliant with the Green Button Alliance standard at least twice a year.

Reporting metrics

(a) Each EDC must report the following metrics publicly to the Commission on a quarterly basis:

1. The number of completed data-sharing authorizations, including the number of customers with one-time and ongoing data-sharing authorizations; ;
2. Time elapsed for a random sample of customers to complete a data-sharing authorization with a third-party;
3. Number of customers who withdrew ongoing access permission;
4. The time it takes for each anonymized third party to complete technical and administrative onboarding with EDCs' Green Button Connect systems;
5. Total number and percentage of customers with AMI meters who logged into the data portal;

6. The percentage of data-sharing attempts that are successful
7. Average and maximum data delivery time (seconds) following customer authorization;
8. Number and type of errors generated, if any;
9. System availability (uptime), GBC applicable
10. Unplanned Outages (downtime), not related to scheduled system maintenance, date, reason, length of outage, and whether notification of outage and/or restoral was provided
11. Number and type of data issues raised by third parties and customers, including severity, mean and max acknowledgment time, and mean and max resolution time
12. Number and type of data issues raised by third parties and customers, including severity, mean and max acknowledgment time, and mean and max resolution time
13. Time to complete third-party technical and administrative onboarding
14. Number of third parties in various stages of onboarding

Implementation timeline and accountability

(a) The Commission adopts a firm schedule requiring each EDC to:

1. deploy production-grade Green Button Connect My Data (GBC) for all AMI customers no later than six (6) months after the effective date of the final rule;
2. achieve Green Button Alliance certification of the production environment within the same timeframe, with annual re-certification thereafter;
3. file monthly progress reports during implementation detailing environment status (dev/test/prod), uptime, API error rates, and third-party onboarding metrics; and 4. meet interim milestones (e.g., sandbox within 60 days; external developer docs and click-through OAuth flow within 90 days).

(b) If the utility is found not in compliance and able to meet the above milestones, the Commission may use enforcement mechanisms such as financial penalties and require remediation plans.