UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Voltus, Inc., and Mission:data	)	
	)	**Docket No. EL26-4-000**
Complainants,	)	
v.	)	
PJM Interconnection, L.L.C.	)	
Respondent.	)	

MOTION FOR LEAVE TO ANSWER AND ANSWER OF PJM INTERCONNECTION, L.L.C.

Pursuant to Rules 212 and 213 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission ("Commission"),[1] PJM Interconnection, L.L.C. ("PJM") submits this motion for leave to answer and answer to the October 14, 2026 Reply Briefs of the Independent Market Monitor for PJM ("IMM"),[2] Voltus Inc. and Mission:data (collectively, "Complainants"),[3] and Advanced Energy United ("AEU").[4]

Section II.A of this answer clarifies issues raised in the Reply Briefs regarding PJM's Initial Brief as it pertained to (1) PJM's proposed economic test; (2) Direct Load Control with two-way switch communication requirement; (3) PJM's proposed 40-day test; and (4) unanswered Curtailment Service Provider ("CSP") requests for information.

Section II.B of this answer reaffirms PJM's recommendations regarding the impact

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[1] 18 C.F.R. §§ 385.212 and 385.213.

[2] *Voltus, Inc. and Mission:data v. PJM*, Reply Brief of the Independent Market Monitor for PJM, Docket No. EL26-4-000 (Oct. 16, 2026) ("IMM Reply Brief").

[3] *Voltus, Inc. and Mission:data v. PJM, L.L.C.*, Comments of Voltus, Inc. and Mission:Data in Response to Initial Brief of PJM, Docket No. EL26-4-000 (Oct. 16, 2026) ("Complainants' Reply Brief").

[4] *Voltus, Inc. and Mission:data v. PJM*, Reply Brief of Advanced Energy United, Docket No. EL26-4-000 (Oct. 16, 2026) ("AEU Reply Brief").

of automated data exchanges[5] and the use of the enhanced 95/5 sampling standard.[6] Specifically, this answer, as well as the attached Affidavit of Scott Baker, provides clarity regarding assumptions used in Complainants' testimony estimating the impact of the 95/5 standard[7] and provides context for CSP registration of interval-metered residential demand response customers in regions without automated data exchanges.

Section II.C of this answer provides additional clarity or context for the Commission's consideration regarding salient arguments raised in the Reply Briefs and subsequent answers, including (1) the impact of retrieval-based fees on the economic test,[8] (2) timing concerns regarding registration and the impact of Winter Peak Loads,[9] and (3) the potential imposition of requirements for annual interval meter data submissions and reporting.[10]

Altogether, this answer reaffirms PJM's position in its Initial Brief and provides clarity and justification as to why PJM's proposed conditions and requirements would be appropriate given the proposed expansion of statistical sampling within the PJM Region.[11]

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[5] *See* AEU Reply Brief at 4-5; Complainants' Reply Brief at 5-10.

[6] *See* Complainants' Reply Brief, Attachment A – Affidavit of Lidia Estreed at P 15 ("Estreed Affidavit").

[7] *Voltus, Inc. and Mission:data v. PJM*, Affidavit of Scott Baker, Docket No. EL26-4-000, at PP 7-10 (Nov. 25, 2026) ("Baker Affidavit").

[8] Complainants' Reply Brief at 16.

[9] *Id.* at 14-15.

[10] IMM Reply Brief at 14.

[11] *Voltus, Inc. and Mission:data v. PJM*, Initial Brief of PJM, Docket No. EL26-4-000 (Sept. 14, 2026) ("PJM Initial Brief").

I. MOTION FOR LEAVE TO ANSWER

While an answer to Reply Briefs is not a matter of right under the Commission's regulations,[12] the Commission routinely permits answers when the answer provides useful and relevant information that will assist the Commission in its decision-making process,[13] assures a complete record in the proceeding,[14] and provides information helpful to the disposition of an issue.[15] This answer satisfies each of these criteria, and PJM therefore respectfully requests that the Commission grant leave and accept this pleading.

II. ANSWER

A. Clarifications.

1. PJM's Proposed Economic Test Would Compare Revenues *After Costs* to Fees.

The AEU Reply Brief expresses the mistaken concern that PJM's proposed economic test would ignore the CSP's "own costs" in provisioning the load reduction.[16] The Complainants' Reply Brief similarly alleges that the economic test wouldn't consider "other obligations that the same revenue must satisfy" such as making the customer "compensated for participating and the device and platform providers that enable the

[12] 18 C.F.R. § 385.213(a)(2).

[13] *See, e.g.*, *Pioneer Transmission, LLC v. N. Ind. Pub. Serv. Co.*, 140 FERC ¶ 61,057, at P 94 (2012) (accepting answers that "provided information that assisted us in our decision-making process"); *Tallgrass Transmission, LLC*, 125 FERC ¶ 61,248, at P 26 (2008) (same); *Midwest Indep. Transmission Sys. Operator, Inc.*, 120 FERC ¶ 61,083, at P 23 (2007) (permitting answer to protests when it provided information that assisted the Commission in its decision-making process).

[14] *See, e.g.*, *Pac. Interstate Transmission Co.*, 85 FERC ¶ 61,378, at 62,443 (1998), *order on reh'g*, 89 FERC ¶ 61,246 (1999); *see also Morgan Stanley Cap. Grp., Inc. v. N.Y. Indep. Sys. Operator, Inc.*, 93 FERC ¶ 61,017, at 61,036 (2000) (accepting an answer that was "helpful in the development of the record").

[15] *See, e.g.*, *PJM Interconnection, L.L.C.*, 190 FERC ¶ 61,088, at P 19 (2025); *CNG Transmission Corp.*, 89 FERC ¶ 61,100, at 61,287 n.11 (1999).

[16] AEU Reply Brief at 16.

response."[17] However, these concerns are misplaced because PJM's proposed economic test would not ignore such costs.

As PJM explained in the Initial Brief, "[u]nless such a fee results in a resource's costs being greater than its revenues, it should not constitute a lack of reasonable access."[18] In other words, the proposed economic test would account for costs required to pay the customer as well as the necessary costs incurred by the CSP in providing the service and enabling the response.[19] Under PJM's proposal, a CSP would compare its expected net revenue per registration, after deducting all of its costs, with the estimated cost of the fees necessary to access the interval meter data for that same registration. It would therefore be appropriate for CSPs to include all their costs in such a consideration, including the CSP's own costs such as paying the customer and any device and platform providers. PJM does not anticipate requiring a full cost sheet for each registrant be provided by default as documentation—rather PJM would expect documentation of the calculation be maintained by the CSP and would reserve the right for further review by PJM or the IMM where necessary.

The more granular specifics of which costs a CSP may consider when calculating its net revenue are implementation details appropriate for inclusion in PJM's Manuals where they can be periodically evaluated and amended as PJM gains experience in administering this expanded program. It is therefore just and reasonable, and non-discriminatory to set the core requirement in the Tariff while detailing the specific implementation details in PJM's Manuals. That will allow PJM the necessary flexibility

[17] Complainants Reply Brief at 16.

[18] PJM Initial Brief at 9.

[19] *See* AEU Reply Brief at 16; Complainants Reply Brief at 16.

to learn from future administration of this program and modify requirements quickly, without having to rely on Commission approval, which could delay implementation of such improvements by months. PJM's proposed economic test provides sufficient detail to meet the rule of reason, "while leaving PJM and stakeholders with sufficient discretion to improve various implementation details over time as they gain experience with" this expansion of statistical sampling.[20]

Complainants propose a different economic test wherein fees be deemed prohibitive where the EDC's fee for a single retrieval of the interval meter data required to register one account exceeds one percent of the account's expected gross capacity revenue for the Delivery Year.[21] Although PJM appreciates the clarity provided by this calculation, PJM remains concerned that the proposed 'one percent' ratio is arbitrary, and that the true prohibitive fee may differ among CSPs. There is additional concern that PJM's incorporation of this 'one percent' figure into wholesale rate structure could have cascading impacts on fees charged by utilities and therefore state utility rates. Moreover, PJM's estimate for the hypothetical impact of utilizing this calculation for this existing Delivery Year would make the prohibitive fee approximately $5 to $6.[22] As the Complainants' references to existing fee structures suggest,[23] this would likely make all residential demand response customers in all EDCs with existing fee structures in the PJM Region eligible for statistical sampling.

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[20] *PJM Interconnection, L.L.C.*, 175 FERC ¶ 61,084, at P 65 (2021).

[21] Complainants' Reply Brief at 16 (proposing a calculation based on the applicable Base Residual Auction clearing price, the account's nominated load reduction, and the applicable ELCC Class Rating for Load Management).

[22] Baker Affidavit at P 12.

[23] Complaint at 13, 16-17 (alleging $50 data retrieval fees in AEP Appalachian Power ("APCo") and AEP Ohio EDCs).

For these reasons, PJM continues to recommend the use of the economic test proposed in the Initial Brief which would require an attestation by the CSP that the fee is economically prohibitive because the addition of the fee makes the total costs to register a residential demand response customer higher than the expected revenue from that customer during a specific Delivery Year.

2. PJM's Proposed Direct Load Control with Two-Way Switch Communication ("Two-Way DLC") Requirement is Intended to Apply for Any Load Response Devices Capable of Two-Way Switch Communication.

The Reply Briefs seek clarification regarding PJM's proposed requirement that statistical sampling for interval-metered residential demand response customers be limited to those devices that have Direct Load Control with two-way switch communication.[24] To be clear, PJM does not intend to limit those devices to only "air conditioning and/or electric water heaters."[25] PJM proposes that any devices with Direct Load Control with two-way switch communication, as defined in PJM Manual 19,[26] be treated the same for purposes of statistical sampling eligibility.

Although at this time PJM only has experience with air conditioning and/or electric water heaters utilizing this technology within the PJM Region, there could be other devices that have Direct Load Control with two-way switch communication. Such additional devices would also be eligible for statistical sampling under this criterion as long as the

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[24] *See* AEU Reply Brief at 8 ("PJM should confirm that the Tariff text controls and that no appliance-specific limitation will apply."); Complainants' Reply Brief at 20 ("PJM's proposed tariff text, however, says only 'Direct Load Control with two-way switch communication,' with no device list.").

[25] PJM Initial Brief at 11.

[26] PJM, *Manual 19: Load Forecasting and Analysis*, Attachment C (rev. 39, June 30, 2026), https://www.pjm.com/-/media/DotCom/documents/manuals/m19.pdf ("PJM Manual 19") (describing two-way switch communication as "when the CSP receives verification from the switch that it successfully cycled base[d] on CSP instruction").

CSP is able to receive verification from the switch that it successfully responded based on CSP instruction.[27]

3. PJM's Proposed 40-Day Test is Intended to Permit Utilization of the Statistical Sampling Methodology When Attested To *During* Registration.

AEU's Reply Brief expresses concern that PJM's proposed 40-day test is a "post-event, settlement-side test" and argues that "[i]t says nothing about the customer-specific historical interval data that a CSP needs before it can register a residential customer at all."[28] Similarly, Complainants' Reply Brief alleges that "nothing in PJM's proposed language addresses the data a CSP must obtain to register a residential customer in the first place."[29]

Although these Reply Briefs have correctly identified that the rationale behind PJM's proposed language is based on the administration of settlements associated with load reductions, the 40-day boundary for attestations is intended to be attestable during the registration timeframe and can be attested to at the time of registration using evidence from registration-based activities. As PJM explained in the Initial Brief, "[a] 40-day standard on the timeliness of being able to access hourly load data is appropriate because load management performance data must be submitted within 45 days after the end of the month in which an event took place."[30] While PJM's test is based on the ability of a CSP to actually provide the data within the time necessary for PJM to assess the performance

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[27] *Id.*

[28] AEU Reply Brief at 5.

[29] Complainants' Reply Brief at 12.

[30] PJM Initial Brief at 10 (citing PJM, *Manual 18: PJM Capacity Market*, § 4.3.1 (rev. 63, Sept. 24, 2026) ("PJM Manual 18"), https://www.pjm.com/-/media/DotCom/documents/manuals/m18.pdf).

obligation of load management resources associated with an event, the attestation that the CSP cannot acquire the necessary information must necessarily occur during registration.

As explained in Complainants' Reply Brief, "[r]egistration comes before settlement, and it requires customer-specific interval data before the annual registration deadline."[31] As a result, CSPs should know during the registration process, if not well before based on existing operational experience, whether they are able to obtain customer-specific interval meter data for this registration. If a CSP is unable to access this data through reasonable efforts within 40 days for any reason, including but not limited to "impractically small batch sizes," "restrictions on the use of electronic interfaces," "inability to access larger numbers of accounts," "impractically slow turnaround time," or "irreversible two-factor authentication,"[32] then the CSP may utilize the statistical sampling methodology for such registrations, following such attestation, to approximate any "customer-specific historical interval data that a CSP needs before it can register a residential customer."[33]

The proposed 40-day threshold provides a reasonable and objective benchmark criterion based on PJM's existing settlement processes to uniformly assess relatively subjective data inaccessibility issues. As PJM explained in its Initial Brief, the "40-day data procurement threshold" "provides an objective criterion" that can take into consideration issues arising from the Commission's concerns regarding "impractically small batches," "restrictions on the use of electronic interfaces," "inability to access larger numbers of accounts" due to security mechanisms, and "impractically slow turnaround

[31] Complainants' Reply Brief at 13.

[32] *Voltus, Inc. v. PJM Interconnection, L.L.C.*, 196 FERC ¶ 61,074, at P 67 (2026) ("ELRP Order").

[33] AEU Reply Brief at 5.

time."[34] Accordingly, while PJM recommends that those issues which are difficult to objectively evaluate not constitute a lack of reasonable access on their own, the proposed 40-day criterion provides CSPs with a clear, objective criterion that PJM can evaluate based on clear evidence.

4. CSPs May Provide Documentary Evidence that their Requests for Information to EDCs Have Gone Unanswered as Evidence of Undue Delay and an Inability to Reasonably Access Information in Under 40-Days.

The Complainants' Reply Brief expresses a concern that PJM's example of acceptable documentation included "written communication from the applicable electric distribution company . . . clearly demonstrating that the interval meter data was specifically requested and that the request was denied in whole or in part by the EDC or that the EDC was otherwise unable to provide the data in a timely or economically feasible manner[,]"[35] arguing that this example therefore "depend[ed] on a written communication from the EDC."[36] The AEU Reply Brief similarly express a concern that PJM's proposal would not consider "requests that went unanswered" as examples of documentary evidence.[37]

PJM therefore clarifies that, as intended by the proposed terms in the Initial Brief, written communication demonstrating "that the EDC was otherwise unable to provide the data in a timely or economically feasible manner"[38] would include evidence that the CSP had made reasonable efforts to get in touch with the EDC and that the requests had gone unanswered. Accordingly, no EDC would be able to "stonewall a CSP's ability to

[34] ELRP Order at P 67, Order Para. (2), (3), (4), and (6).

[35] Complainants' Reply Brief at 19 (quoting PJM's Initial Brief at 7).

[36] *Id.*

[37] AEU Reply Brief at 7.

[38] PJM Initial Brief at 7.

demonstrate that it lacks reasonable access to data."[39]

B. Reaffirmations.

1. The Lack of an Automated Data Exchange, Electronic Data Interface, or Programmatic Access Should Not Constitute a Lack of Reasonably Accessible Data.

The Complainants' Reply Brief incorrectly claims that only commercial and industrial customers have participated as interval-metered demand response customers in areas where there is no automated data exchange or electronic data interface, i.e., no programmatic access.[40] However, as explained in PJM's Initial Brief,[41] CSPs in the PJM Region have successfully registered interval metered *residential* demand response customers in areas where EDCs do not permit programmatic access, such as in the ComEd EDC, despite allegations that ComEd's automated data exchange is "de-identified and lacks the customer information PJM requires."[42]

Accordingly, while the ELRP Order included a finding that such an issue was a compelling description of a barrier,[43] PJM continues to aver that this alone does not create a barrier to market participation that cannot be overcome through reasonable efforts. As Complainants aver that programmatic data access is generally not available across the entirety of PJM's footprint,[44] allowing such a criterion would amount to a *de facto*

[39] AEU Reply Brief at 7.

[40] *Id.* at 4-5; Complainants' Reply Brief at 5-10.

[41] PJM Initial Brief at 9.

[42] AEU Reply Brief at 5-6; *see also* Complainants' Reply Brief at 14 ("ComEd's de-identified Green Button output lacks the customer-identifying information required by PJM for the ELRP registration.").

[43] ELRP Order at P 67.

[44] *See* Complainants' Reply Brief, Affidavit of Michael Murray on Behalf of Mission:Data Coalition at P 5 (alleging that there are only 3 out of 30 DCs within PJM that have automated, electronic data-sharing systems, each of which are unverified, covering only 2.4% of all electric customers within the PJM footprint); *id.* at

justification for sampling that would open up sampling for nearly all residential customers in PJM.

Permitting the lack of programmatic access to an automated data exchange or electronic data interface to qualify as rendering interval metered data as not reasonably accessible would expand the exception in a way that would potentially result in the switching of all existing registered interval metered residential demand response customers to less accurate statistical sampling. As emphasized in the IMM Reply Brief, "[a] just and reasonable replacement rate must preserve actual interval meter data as the preferred measurement method."[45]

Accordingly, PJM recommends against a finding that a lack of 'programmatic access,' whatever that may mean in any given circumstance, on its own, should merit a finding that interval meter data is not reasonably accessible to "preserve[] actual interval meter data as the preferred means of measuring performance."[46] Finding otherwise would render nearly all existing interval-metered residential demand response customers throughout the PJM Region eligible for enrollment under statistical sampling—likely resulting in the loss of these residential demand response customers as interval metered registrations. Interval metered residential demand response customers who want to participate in PJM's markets but for whom CSPs are unable to timely or cost-effectively obtain interval meter data due to a lack of programmatic access will nevertheless have the

P 6 (noting that "[e]ven when an EDC offers an automated data-sharing system, that does not mean the EDC satisfies all of the necessary conditions so that the data is reasonably accessible.").

[45] IMM Reply Brief at 3.

[46] *Id.* at 2.

opportunity to participate in PJM's markets by way of attestation under PJM's 40-day criterion.[47]

2. PJM's Proposed Enhanced 95/5 Sampling Standard Will Increase Required Sample Sizes to a Lesser Degree than Stated in Complainants' Reply Brief.

The Complainants' Reply Brief does not provide a full picture of the impact of tightening the confidence interval from 90/10 to 95/5. The Reply Brief alleges that PJM's sample size calculation methodology is infeasible for small populations because it yields a sample number of homes that can exceed the size of the population.[48] As explained in the Affidavit of Scott Baker, this is not the full picture.[49] While the sample size does not depend on the overall size of the population, the sample size is instead a function of the variation of hourly load data between different customers. Higher variation of load data across customers will necessitate a higher sample to ensure the accuracy and precision metrics are achieved. Conversely, low variation of hourly load data between different customers will result in a lower sample size.[50]

The Reply Brief's supporting Affidavit of Lidia Estreed claims that 850 of 400 homes would need to be sampled in order to get a group of 400 residential customers enrolled—which would be a physical impossibility and is not how statistical sampling is implemented today. As a threshold issue, any sample size requirement greater than the population would simply result in the interval metering of the sample population—i.e., in the above example, only 400 residential customers would need to be metered which would

[47] Initial Brief at 10.

[48] Estreed Affidavit at P 15.

[49] Baker Affidavit at PP 7-10.

[50] *See Id.* at PP 8-9.

provide interval metered data for all customers, and there would be no need to try to "sample" 850 customers.[51] Additionally, this figure is based on an assumed coefficient of variation that may not reflect typical sample characteristics and which would have a significant impact on the required number of sample points even for such a small population, as demonstrated by the Affidavit of Scott Baker.[52]

While the sample size under a 95/5 standard will be larger than the sample size under the 90/10 standard, such an increase is appropriate given the potential large expansion of residential demand response customers and aggregate MWs that may be participating under the statistical sampling methodology which is less accurate than using the actual load data. For example, as explained in the Affidavit of Scott Baker, under a very simple sample scenario where the population of residential customers that will participate is 100,000 and the coefficient of variation is 0.75 this would result in a sample of size of 857 customer under the 95/5 standard or a sample size of 152 customers under the less accurate 90/10 standard.[53] Therefore, under the 95/5 standard a sample of only 857 or 0.857% of the population is required.

Under this hypothetical sample population, less than 1% of the population will need hourly interval data to achieve the necessary confidence and accuracy result. It should be further highlighted that this is under a simple sampling scenario and that the sample number can be further reduced through a stratified sample.[54] Additionally, it is appropriate that the number of samples needed will proportionally scale given the larger numbers of registered

[51] Baker Affidavit at P 7.

[52] *Id.* at P 8.

[53] *Id.* at P 11, Table 1.

[54] *Id*.

customers expected as part of the proposed expansion, as CSPs are requesting this expansion specifically to access data "with the efficiency and scale needed to effectively participate in the ELRP"[55] as they are potentially seeking to register "millions of customers."[56]

Moreover, PJM's statistical sampling framework allows CSPs to propose alternative statistical sampling design methodology which can be supported by standard statistical principles.[57] So while the Complainants' Affidavit correctly identifies that a 95/5 standard may ostensibly require a larger sample size than the sampled population if an unlimited population is assumed, there is no PJM rule disallowing other methods.[58] For example, for such smaller populations, a finite population correction factor could be applied to the sample size equation to arrive at a more feasible requirement.[59]

Accordingly, PJM continues to recommend that the potentially significant increase in the utilization of statistical sampling throughout the PJM Region should require the more robust 95/5 statistical sampling confidence interval instead of the weaker 90/10 confidence interval in order to increase the accuracy of the actual achieved load reduction so that the PJM Region can reasonably rely on these resources to manage the grid.

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[55] Complainants' Reply Brief at 8, 12, 14 (quoting ELRP Order at P 66).

[56] *See* Complaint at 7 (Table 1, demonstrating millions of customers that CSPs seek to register); *id.* at 23 (describing Table 1 as "list[ing] the millions of residential meters for each PJM utility to which Voltus inquired about data access").

[57] Baker Affidavit at P 8.

[58] Manual 19, Attachment C.

[59] *See* Baker Affidavit at P 10 ("Applying both the finite population correction factor and a more realistic coefficient of variation of .5 for a population of 400 would yield a resultant sample size of only 196..").

C. Additional Considerations

1. PJM Proposes to Permit CSPs to Estimate the Fees Per Registration Based on the Anticipated Number of Non-PAI Events and Performance Assessment Intervals for Which Fees May Be Triggered

The AEU Reply Brief and Complainants Reply Brief raised a valid concern regarding the application of PJM's economic test when fees for data requests may be per event or per retrieval, given that CSPs have no way to know for certain how many events there will be in any given Delivery Year.[60] To address this concern, PJM proposes a historic three-year rolling look back period be used such that the highest number of events (in any Zone and for any load management product or lead time, i.e., "any event") within one Delivery Year over the three-year period prior to the Delivery Year in question can be used as the appropriate estimate to use in the formula comparing expected revenue per registrant to expected fees per registrant.[61] This solution strikes a reasonable balance between creating objective criteria which can be evaluated and protecting CSPs from fee structures that would create barriers to market participation for interval metered residential demand response customers.

2. PJM Adopts CSPs Proposal Regarding Registration Concerns and Winter Peak Loads

The Complainants' Reply Brief raises a concern regarding the PJM Manual 18 requirement to use Winter Peak Load, which is based on historical interval meter load data which may be difficult to access for the same reasons described in the initial Complaint.[62]

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[60] Complainants' Reply Brief at 16; AEU Reply Brief at 6.

[61] For example, to determine the number of events to use to estimate fees for the 2026/2027 Delivery Year, the previous three Delivery Years (events) - 2025/2026 (9), 2024/2025 (0), 2023/2024 (0) would be used, resulting in 9 events as the eligible number of events to use in the fee estimate.

[62] Complainants' Reply Brief at 13.

The Complainants' Reply Brief also suggests a workable solution to this concern via the existing Manual 19 provision allowing CSPs to "provide alternative data to support a Winter Peak Load subject to PJM's review and approval."[63] Specifically, the use of a sample's hourly loads on the winter coincident peak days, extrapolated to the population, provides a workable alternative for a sampled population to be used where statistical sampling would be permitted.[64]

3. The IMM's Recommendation that the Tariff Require Submission of Annual Interval Meter by the CSP May Be Infeasible Given the Attested Data Access Barriers and Provide Limited Value

The IMM recommends that periodic validation against actual interval meter data for all customers be required.[65] However, the IMM does not explain how these CSPs will acquire said interval meter data given the barriers that the CSPs have attested to and that the Commission recognized in the ELRP Order.[66] As a result, the practicalities of how CSPs would be able to acquire this data remains unclear.

PJM remains concerned that this information is too voluminous to efficiently review holistically on an annual basis given the small per-customer MW value. Therefore, it would be sufficient to require the CSPs to maintain that data, if they are able to obtain it, so that PJM and the IMM can retain the ability to request individual customer data on an as-needed basis.

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[63] Complainants' Reply Brief at 14 (citing Manual 19, Attachment C).

[64] *Id.* at 14.

[65] IMM Reply Brief at 14.

[66] *See* ELRP Order at P 67.

III. CONCLUSION

For the foregoing reasons, the Commission should accept as just and reasonable PJM's proposed conditions and requirements addressing the proposed expansion of statistical sampling, as proposed in PJM's Initial Brief and as further clarified herein.

Respectfully submitted,

/s/ Daniel Vinnik

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November 25, 2026

CERTIFICATE OF SERVICE

I hereby certify that on this 25th day of November, 2026, I have served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

/s/ Daniel Vinnik
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UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, LLC	**)**	**Docket No. EL26-4-000**
	)	

AFFIDAVIT OF SCOTT BAKER ON BEHALF OF PJM INTERCONNECTION, L.L.C.

I. INTRODUCTION

1. My name is Scott Baker. I am employed by PJM Interconnection, L.L.C. ("PJM") as Manager, Demand Side Markets. My business address is PJM Interconnection, L.L.C., 2750 Monroe Blvd., Audubon, Pennsylvania, 19403.

II. QUALIFICATIONS AND EXPERIENCE

2. The Demand Side Markets team manages the day-to-day operational activities and backend systems associated with all demand response (emergency load management and economic load response resources), price responsive demand, and peak shaving adjustment resources. My primary responsibility is to manage demand side market operations, ensure the PJM governing document requirements are being followed with respect to demand side resources, and develop and evolve PJM market requirements in these areas.

3. In a previous role at PJM, I was responsible for coordinating and evaluating opportunities for PJM to leverage emerging technologies, innovation partnerships and market policy initiatives to advance PJM's mission of reliable, least-cost power system operations.

4. Prior to joining PJM, I was a research associate at the Center for Carbon-free Power Integration at the University of Delaware advancing both offshore wind and electric vehicle-to-grid (V2G) technology and policy, as well as evaluating their application in wholesale power markets.

5. I hold a B.S. in Biology from Ithaca College and a Master's of Marine Policy from the University of Delaware.

6. The purpose of my Affidavit is to clarify the correct application of PJM's Manual 19, Attachment C statistical sampling rules in support of the proposed 95/5 confidence interval, and to provide context for the application of Complainants' proposed economic test.

III. DISCUSSION

A. PJM Clarifies the Number of Samples that Would Be Needed for a Small Sample Population Under the Proposed 95/5 Confidence Interval.

7. Complainants' Affidavit states that 850 of 400 homes would need to be sampled in order to get a group of 400 residential customers enrolled under PJM's existing sample design formula.[1] While this may be the mathematical outcome of the existing formula in PJM's Manual 19, Attachment C under the assumptions provided in Complainants' Affidavit, it is not a realistic outcome. Specifically, it does not consider the impact of alternate coefficients of variation or the fact that PJM's manual provisions allow consideration of alternative methods that incorporate standard statistical principles, such as a finite population correction factor. Moreover, it ignores the clear fact that if a sampled population was so small that the sample size necessary to achieve the confidence interval necessary for accurate results was larger than the sampled population, then the resource would simply use interval metering for that small population. In other words, even given the assumptions, such a mathematical result would not be the number required for actual implementation.

8. The quantity of required sample points depends on the coefficient of variation.[2] Complainants' Affidavit bases its calculation off *the assumption* that the coefficient of variation will be .75. The coefficient of variation varies depending on the load usage patterns of the population being sampled, as it is the variance of load usage divided by the mean load usage squared.[3] Complainant's Affidavit presumes a larger than average coefficient of variation of .75.[4] Using what is, in PJM's experience, a more realistic coefficient of variation of .5, that same sample size and set of assumptions would require roughly 384 sample points.

9. Additionally, the oversimplified example in Complainant's Affidavit overlooks other mechanisms that would impact this calculation in PJM's sample design, such as the stratification of customers and customer devices which could result in smaller sample needs.[5] Stratification of customers[6] creates subgroups based on shared load characteristics that lowers the coefficient of variation and may further reduce the total

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[1] *Voltus, Inc. and Mission:data v. PJM*, Complainants' Reply Brief, Estreed Affidavit, Docket No. EL26-4-000, at P 15 (Oct. 14, 2026) ("Complainants' Reply Brief").

[2] PJM, *Manual 19: Load Forecasting and Analysis*, Attachment C (rev. 39, June 30, 2026), https://www.pjm.com/-/media/DotCom/documents/manuals/m19.pdf ("Manual 19, Att. C").

[3] *Id.* ("$M_t = (Z_{\alpha/2} / e)^2 \times (s_t^2 / X_t^2)$").

[4] Complainants' Reply Brief, Estreed Affidavit, at P 15.

[5] Manual 19, Att. C ("The sample must be stratified by control device size (minimum of 2 strata) and geographic location, unless otherwise approved by PJM.").

[6] Manual 19, Att. C ("A variance study is used to determine the initial sample size. Interval data must be collected from at least 75 randomly selected and stratified customers during the season the end use device is in use in order to determine the variance of the load data for the sample.").

number of sampled customers necessary for a population.

10. Furthermore, PJM's Manual allows for the use of alternate calculations subject to PJM's review and approval.[7] One such alternate calculation could be the use of a finite population correction factor. Using the same hypothetical assumptions provided by Complainants' Affidavit, i.e., 400 residential customers under a 95/5 confidence interval and .75 coefficient of variation - and applying a finite population correction factor - would yield a sample size of roughly 273 customers. As explained above, using a more typical coefficient of variation of .5 along with the 95/5 confidence interval would yield a sample size of 384 *without* applying the finite population correction factor. Applying both the finite population correction factor and a more realistic coefficient of variation of .5 for a population of 400 would yield a resultant sample size of only 196.

B. Given Large Sample Populations, the 95/5 Confidence Interval Would Result in a Relatively Small Increase in Sample Needs.

11. Utilizing large sample populations would result in relatively small sampling needs. For example, with a simple sample scenario where the population of residential customers that will participate is 100,000 and the coefficient of variation is 0.75 and a finite population correction factor is applied, this would result in a sample size of 857 customers under the 95/5 standard or a sample size of 152 customers under the much less accurate 90/10 standard. Therefore, under the 95/5 standard, a sample of only 857 or 0.857% of the population is required. Using a smaller total population would not change the sample size needed measurably. For example, using a population size of 25,000 residential customers and the same variables would require 836 customers to be sampled, while a population size of 10,000 residential customers and the same variables would require 796 customers to be sampled, as demonstrated in Table 1 below. Table 2 demonstrates that, even without the utilization of a finite population correct factor, the existing calculation would yield reasonable results assuming sampled populations of significant size, as may result from expanding customer eligibility for statistical sampling.

Table 1 – Sample Point Requirements for Large Populations Assuming a Coefficient of Variation of 0.75 Under the 95/5 Confidence Interval Standard with a Finite Population Correction Factor.

Population	PJM 95/5 Sample Size (CV = 0.75)	% of Population
100,000	**857**	**0.857%**
25,000	**836**	**3.34%**
10,000	**796**	**7.96%**

[7] Manual 19, Att. C ("Alternate calculations may be used subject to PJM approval.").

Table 2 – Sample Point Requirements for Large Populations Assuming a Coefficient of Variation of 0.75 Under the 95/5 Confidence Interval Standard *without* a Finite Population Correction Factor.

Population	PJM 95/5 Sample Size (CV = 0.75)	% of Population
100,000	**864**	**0.864%**
25,000	**864**	**3.46%**
10,000	**864**	**8.64%**

C. Complainants' Proposed Economic 'One Percent' Test Could Render All Residential Demand Response Customers in an EDC with a Fee Above $6 in the PJM Region to be Eligible for Statistical Sampling.

12. Complainants propose an economic test that would permit registrations to utilize the statistical sampling methodology whenever an EDC fee for data retrieval was greater than or equal to one percent of the account's expected gross capacity revenue for the Delivery Year.[8] Under this proposal, assuming a capacity market clearing price of $325/MW-day,[9] or $118,625/MW-year, and assuming a typical residential customer provides 5 kW of capacity per day, or ~$593.125 ($325 x 365 x .005) per year, then 1% of the account's gross capacity revenue would equal approximately $5.93. Under these conditions, any fees over $5.93 per single retrieval for one account would be deemed economically prohibitive and would permit the use of statistical sampling. As the Complaint provides exemplary evidence that EDC fees where they exist are generally much higher than $6.00,[10] the proposed one percent test would likely render most existing interval metered residential demand response customers located in EDCs with data retrieval fees to be eligible to switch from interval metering to statistical sampling.

IV. SUMMARY AND CONCLUSION

13. Accordingly, utilizing the tightened confidence interval would result in larger samples but would be a necessary and appropriate safeguard to help ensure that PJM is being provided with sufficiently accurate data regarding load reductions in response to this potential expansion of statistical sampling throughout the PJM Region. Applying the 90/10 confidence interval to hundreds of thousands or potentially millions of customers would represent a substantial increase in potential uncertainty regarding the amount of statistically sampled load response customers and should be met with appropriate

[8] Complainants' Reply Brief at 16 (proposing a calculation based on the applicable Base Residual Auction clearing price, the account's nominated load reduction, and the applicable ELCC Class Rating for Load Management).

[9] This figure represents capacity prices at the cap for the 2026/2027 Delivery Year.

[10] *Voltus, Inc. and Mission:data v. PJM*, Complaint, Docket No. EL26-4-000, at 13, 16-17 (Oct. 8, 2025) (alleging $50 data retrieval fees in AEP Appalachian Power ("APCo") and AEP Ohio EDCs).

mitigation measures to provide PJM with proportionally increased confidence that ratepayers are compensating resources for actual load reductions.

14. This concludes my affidavit.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, L.L.C.	**)**	**Docket Nos. EL26-4-000**
	)	

AFFIDAVIT

Scott Baker, being duly sworn deposes and states that I prepared the testimony to which this affidavit is attached with the assistance of the staff of PJM Interconnection, L.L.C., and that the statements contained therein are true and correct to the best of my knowledge and belief.

/s/ Scott Baker
Scott Baker
Manager, Demand Side Markets
PJM Interconnection, L.L.C.

Dated: November 25, 2026