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June 10, 2026

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

RE: Comments of the Philadelphia Energy Authority in Response to the Notice for Proposed Rulemaking on Distributed Energy Resources Participation in Wholesale Markets, 52 Pa. Code §57.261, *et seq.*
Docket No.: L-2023-3044115

Dear Secretary Homsher:

Attached for electronic filing are comments from the Philadelphia Energy Authority regarding the issues raised in the above-referenced proceeding. Copies have been served per the attached Certificate of Service.

Respectfully Submitted,



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**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

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

CERTIFICATE OF SERVICE

I hereby certify that I have on this 10th day of June, 2026 served a true copy of the foregoing Comments of the Philadelphia Energy Authority on the parties, listed below in accordance with the requirements of 52 Pa. Code §1.54 (relating to service by a party).

Served via Electronic Mail Only

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the Commission's ANOPR² that the time has come to reconsider this perspective in the light of rapidly changing technology and improving understanding of effective ways to meet customer needs in collaboration with customer action. Pennsylvania was a leader in expanding the view of customer service from a model of utility generation to a model of collaboration with private generation suppliers. PEA suggests that that the time has come for the Commission to further expand its view to a broader understanding of the utility mission as a collaborative effort with its customers as well. This NOPR provides an opportunity to help develop a safer, more secure, and more cost-effective grid, that is both more reliant on its customers and more attuned to their needs and capabilities.

The fundamental premise of FERC in promulgating Order 2222 was that wholesale market participation by DERs sited on the utility distribution system, and to a great extent behind customer meters, would reduce electricity prices for all customers. The utility comments in this proceeding gave grudging acknowledgement to this proposition but did not exhibit much enthusiasm. This proposition has now been extensively demonstrated in United States pilots³ and in full scale operation elsewhere in the world.⁴ Within PJM, as the Commission understands, it will take collaborative action at both the state and federal regulatory levels, and among PJM, Pennsylvania utilities (“Utilities”), DER aggregators (“Aggregators”), customers, and other owners of DERs.

FERC and PJM have already set the terms of Aggregator and DER participation in the wholesale markets. The PUC in this NOPR is setting the rules for EDC operation. The Aggregators

² Advanced Notice of Proposed Rulemaking on Distributed Energy Resources Participation in Wholesale Markets, Pa. PUC Docket No. L-2023-3044115 (Feb. 22, 2024).

³ See e.g., *Real-time pricing, new rates and enabling technologies target demand flexibility to ease California outages*, Utility Dive (September 13, 2022), <https://www.utilitydive.com/news/real-time-pricing-new-rates-and-enabling-technologies-target-demand-flexib/631002/>.

⁴ See, e.g. Jemma Green, *Why No One Saw The Success of Demand Response Coming*, Forbes, January 27, 2023, <https://www.forbes.com/sites/jemmagreen/2023/01/27/why-no-one-saw-the-success-of-demand-response-coming/?sh=498a8b8e3700>.

are subject to PJM regulation as PJM Members and as participants in the wholesale markets.⁵ As to the effects of the Aggregators operation on the distribution system, they are subject to utility and in turn Commission regulation. As to their relationship with DER owners including customers, the only body with meaningful oversight is the Commission. For DERs interconnected directly to the distribution system, and even behind-the-meter DERs whose function is primarily to export power to the grid, treating them like any small generator under current rules is probably fine. As explained below, however, for customers who operate behind-the-meter DERs (“Customer Operators”), who are both managing and supplying their own customer demand, PEA submits that this is inadequate.

Customer Operators

Customer operators are primarily trying to manage their own cost of power. For their own purposes they may seek to manage their own usage as well as operate generators and storage resources. This is not speculative. In California, around 13 percent of all power generated is generated by small scale solar.⁶ In Philadelphia, PEA’s Solarize Philly program has led to the installation of over 25.32 MW of solar capacity serving 4,395 customers. According to one of the major installers in the program, their average cost to customers with solar leases is approximately \$0.16 per kWh as compared to utility rates of approximately \$0.21 per kWh. If customers can also manage their demand and resources in ways that reduce costs for all customers that is a major benefit for the grid.⁷ Over 50 percent of the Solarize Philly projects have been installed for low-income customers.

⁵ Their prices for services to the grid are controlled by the mechanism of the PJM auction.

⁶ U.S. Energy Information, California Analysis, <https://www.eia.gov/states/CA/analysis>

⁷ PEA recognizes that solar by itself does not make a large contribution to peak load, but even a home without battery storage or sophisticated controls can heat water and run air conditioning during peak solar production and conserve during the afternoon/evening ramp.

In this context, the commission's obligation to ensure just and reasonable rates⁸ must encompass both halves of the Customer's interaction with the grid – both its cost to purchase and the prices it is paid for its services. In its proposed rule the Commission appears to ignore both of these aspects of its mission. PEA strongly agrees with CAUSE-PA that the Commission can and must impose requirements on Aggregators with respect to their marketing and the features of their offerings to customers to ensure adequate initial disclosure and transparent program operation.

Beyond narrowly conceived customer protection, the Commission has a strong interest in assuring competitive pricing to customer participants. The Commission should care as a part of its basic mandate that customers be charged a fair rate. It should also care as a matter of market efficiency that customers have an incentive to participate in an aggregation that fully reflects the value of services to the market.

While the wholesale prices are fully transparent, incentives to Customer Operators are necessarily diluted by Aggregators' costs to administer the aggregation. This is not directly subject to regulation, but, as with the pricing by energy generation suppliers, the Commission can and should insist on full transparency. It will need to require break down of customer prices more clearly for the full range of services, especially capacity. For Customer Operator exports, the net exports in a given hour can be measured directly from the meter. PEA recognizes that demand reduction, in contrast, raises complex questions around establishing a baseline. However, from the point of view of the balancing authority, reductions are exactly as valuable as exports (and generally less likely to stress the system further), so PEA strongly encourages pursuing this approach. We believe the Commission should take the initiative to provide uniform guidance rather than leaving it to Utility evaluation of individual Aggregator proposals.

⁸ 66 Pa.C.S. § 1301.

Double Counting

The NOPR discussion of customer DER owner rates mostly takes place in the context of avoiding double counting. It completely ignores the distinction between day-ahead and day-of-wholesale rates, and tariff rates paid to customers. Tariff rates are averaged to be levelized over what is typically at least a year. Daily rates may vary dramatically over time and can reach \$1000 per MWh on peak load days. Generators and aggregators that bid customer services into the market will be paid those rates. Aggregators must cover their costs and expect to make a profit, but to the extent that the incentive to customer DER owners is less than the market rate it misses the opportunity to reduce rates for all customers.

The NOPR's discussion of double counting assumes that being paid the tariff price for energy or capacity is "compensation" but it is often neither just compensation nor economically effective compensation. Reducing load and saving the tariff price is an inadequate incentive when the wholesale price is \$200 per MWh. The question of capacity compensation is even more lopsided. The value of reducing load on the five days a year when load is measured for purposes of the customer's capacity tag is orders of magnitude greater than the capacity charge under the tariff for such days.⁹

The PEA strongly believes that double compensation for the same service should be prevented but suggests that the Commission can (i) take a more sophisticated view, and (ii) take a simple practical approach: when a customer/operator is registered by an aggregator the customer must elect (and the aggregator must show proof of the election) to receive the Aggregator's payment in lieu of the tariff payment for hours and services it is called or dispatched by the

⁹ PEA is aware that some Pennsylvania Utilities assign residential customers individual capacity tags, while some other assign all residential customers an average residential value. The latter practice eliminates any natural incentive to reduce incentives on peak load days.

Aggregator. The Aggregator would be required to provide dispatch information to the Utility, and the Utility would pay the customer operator nothing for the relevant service for those periods, while the Aggregator would pay the customer its agreed compensation. To the extent that the Aggregator can receive customer meter information promptly, the Aggregator can also verify customer response. Of course, there could be other simple, effective mechanisms.

Overrides

PEA agrees with the great majority of commenters on the ANOPR that EDCs need the ability to override DERs just as they would any resource with the capability of disrupting the operation of the distribution system. PEA, however, offers several observations. The needs of a Customer Operator to override RTO dispatch instructions as transmitted by an aggregator can be just as urgent to a household or small business. Customer initiative to install demand response capability, generation or storage and joining an aggregation should, on net, reduce burdens on the grid. It should not act as a complete waiver of the customer's benefit of the equipment the customer has purchased or leased or its right to universal service. For a medical needs customer, it may mean life or death. Major private virtual power plant operators in conversations with PEA representatives have indicated that they do not generally feel it is necessary for their business model to impose a requirement to respond in every circumstance. The requirement to meet its bid to PJM falls to the aggregator, not its customers, and its ability to meet its bids should be reviewed by PJM (potentially in collaboration with the Utility's review) in connection with registration of the aggregation. As PEA indicated in response to the ANOPR, aggregators may feel (or be) required to oversupply or otherwise hedge their bids.

The Aggregator is in the middle – potentially at risk for utility overrides and Customer Operator emergencies. PEA strongly suggests that if Utilities make overrides after day ahead bids

have been submitted, that the EDC should be required to pay any fine due to the RTO from an affected Aggregator. If the override resulted from a genuine emergency, the Utility should be entitled to recover those costs from its ratepayers. If the override was called without good cause, the utility should have no right of recovery from ratepayers. If the aggregator caused the emergency, it should pay its own fines. The Commission might find it preferable to establish a statewide contingency fund to cover some or all of such costs, with experience-rated funding from all Utilities.

With respect to damage payments charged by the Aggregator to its customers, the PEA suggest that they be prohibited outright (and Aggregators hedge in other ways) or that, in any event, the Commission should establish both limits and disclosure requirements for Aggregators dealing with their Customers that clearly spell out the penalty policy.

As a general matter, utilities should be able to assess the ability of DER to safely export in connection with the initial interconnection of generating or storage assets, and the process of registration of a DER in an Aggregation can and should be kept simple.¹⁰ It is important, however, for Utilities to carefully evaluate the proposed collective operating plans of Aggregators being formed or materially increasing their operations. The good news is that there is considerable work being done on the safe dispatch operations of aggregations. Broadly speaking, and contrary to at least one ANOPR commenter, larger aggregations with a *heterogeneous* composition of exporting resources and localized implementation of grid limits are the least likely to cause collective problems for the grid.¹¹ In any event the Commission must be vigilant that Utilities do not impose overly stringent disqualifications based on preconceptions.

¹⁰ Unless the method of operation or quantity of export will substantially change.

¹¹ See e.g. Almassalkhi, M., Duffaut Espinosa, L., Hines, P. D., Frolik, J., Paudyal, S., & Amini, M. (2018). Asynchronous coordination of distributed energy resources with packetized energy management. In S. Meyn, T.

Conclusion

In conclusion, PEA respectfully suggests that the Commission should:

- Reconsider the service obligations of Utilities to Customer Operators who participate in aggregations and ensure that Customer Operators are treated transparently and fairly by Aggregators.
- Find ways to prevent double compensation for the same service that avoid diluting incentives for market participation by Customer Operators.
- Directly address measurement issues for demand response.
- Acknowledge the need of Customer Operators to override dispatch requests or commands from Aggregators in household emergencies.

Respectfully submitted,

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Samad, I. Hiskens, & J. Stoustrup (Eds.), *Energy Markets and Responsive Grids: Modeling, Control, and Optimization* (IMA Volumes in Mathematics and its Applications, Vol. 162, pp. 333–361). Springer.