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May 29, 2024

VIA eFILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor
Harrisburg, PA 17120

Re: **Comments of PECO Energy Company to the Advance Notice of Proposed
Rulemaking Order on Distributed Energy Resource Participation in Wholesale
Markets**
Docket No.: L-2023-3044115

Dear Secretary Chiavetta:

Enclosed for filing in the above-captioned proceeding are the Comments of PECO Energy Company in response to the Commission's Advance Notice of Proposed Rulemaking Order on Distributed Energy Resource Participation in Wholesale Markets.

If you have any questions or concerns, please feel free to contact me directly at 215-841-4608.

Very truly yours,

A handwritten signature in black ink, appearing to read "Jack R. Garfinkle". The signature is written in a cursive, slightly slanted style.

Jack R. Garfinkle

Enclosure

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**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

DISTRIBUTED ENERGY RESOURCES :
PARTICIPATION IN WHOLESALE : **DOCKET NO. L-2023-3044115**
MARKETS :

COMMENTS OF PECO ENERGY COMPANY

On February 22, 2024, the Pennsylvania Public Utility Commission (the “Commission” or the “PUC”) entered an Advance Notice of Proposed Rulemaking Order (“ANOPR”) in the above-captioned docket¹ to investigate its role in implementing Order No. 2222 of the Federal Energy Regulatory Commission (“FERC”)² and to determine whether any amendments or additions are needed to align existing Commission regulations or policy statements with FERC’s Order. PECO Energy Company (“PECO”) submits these comments in accordance with the ANOPR.

PECO is a combined electric and gas distribution utility company committed to delivering energy safely, reliably, and affordably to the communities it serves. PECO and its parent company, Exelon Corporation (“Exelon”), recognize the need for the Commission to review its regulations in light of FERC Order No. 2222. In these comments, PECO provides responses to certain Commission questions presented in the ANOPR regarding changes to interconnection rules, changes to metering requirements, cost allocation issues, adjudication of Distributed Energy Resource (“DER”) registration disputes, electric distribution company (“EDC”) overrides of DER dispatch, consumer protection for DER owners, preventing double compensation and double

¹ Distributed Energy Resources Participation in Wholesale Markets, Advance Notice of Proposed Rulemaking Order, PA PUC Docket No. L-2023-3044115 (Feb. 22, 2024) (“ANOPR”).

² Participation of Distributed Energy Res. Aggregations in Mkts. Operated by Reg’l Transmission Orgs. & Indep. Sys. Operators, Order No. 2222, 172 FERC ¶ 61,247 (2020) (“FERC Order No. 2222”), order on reh’g, Order No. 2222-A, 174 FERC ¶ 61,197 (2021) (“FERC Order No. 2222-A”), order on reh’g, Order No. 2222-B, 175 FERC ¶ 61,227 (2021) (“FERC Order No. 2222-B”).

counting of services, electronic data exchange, PUC oversight of DER aggregators (“DERAs”), cybersecurity considerations, distribution level benefits, EDCs acting as DERAs, billing issues, and equity concerns. PECO also generally supports the comments of the Energy Association of Pennsylvania (“EAP”), which are being submitted concurrently in this proceeding.

I. EXECUTIVE SUMMARY

PECO appreciates the efforts of the Commission to evaluate the various issues with accommodating DERs interconnected to the distribution system and DERAs that register DERs for participation in PJM Interconnection, L.L.C.’s (“PJM”) capacity, energy, and/or ancillary service markets. The potential for rapid expansion of DERs and DERAs poses unique challenges for an EDC to maintain reliable and efficient electric service while accommodating customer exports of electric power to the distribution system. Such challenges, in conjunction with the Commission’s “vital role [] with respect to retail services and matters related to the distribution system,”³ warrant careful consideration by the Commission to ensure that the Commission’s regulations facilitate DER access that is consistent with an EDC’s obligation to maintain the integrity of the distribution system. PECO recommends that the Commission consider the following key principles as it begins its review of the comments submitted in response to the ANOPR.

Grant EDCs the Flexibility They Need to Facilitate DERA Activities and Fully Recover Associated Costs. EDCs will need significant flexibility in adapting existing processes and operational requirements in response to FERC Order No. 2222. As an example, EDCs will be responsible for conducting potentially complex and resource-intensive interconnection evaluations for DER aggregations, which may require incremental technology investments. Accordingly,

³ FERC Order No. 2222 at P 44.

PECO recommends that the Commission grant EDCs the flexibility to establish recovery mechanisms consistent with cost-of-service principles and historic practices that appropriately and efficiently allocate costs related to the evaluation, interconnection, and operation of DERs and DER aggregations. Other topics, such as double counting rules and data exchange requirements, also warrant EDC flexibility.

Ensure That EDCs Have the Tools They Need to Maintain Safety and Reliability. Safety and reliability of the distribution grid are of paramount importance for an EDC. The implementation of FERC Order No. 2222 and the potential growth of DERs and DERA activities may present unique challenges for EDCs, particularly as related to operational concerns such as DER registration, monitoring, and dispatch overrides. Due to differences among EDCs and the evolution of DER integration in their service territories, the Commission should ensure that EDCs have the ability to customize review procedures, exercise dispatch overrides when needed, and otherwise maintain broad operational discretion for their systems.

Leverage Existing Authority to Oversee Aggregations. The Commission should leverage its existing authority to consider rules and regulations aimed at ensuring that retail customer participation in an aggregation is consistent with the Commission's statutory objective of maintaining the safe and reliable operation of the distribution grid. In particular, the Commission should maintain oversight of the interconnection process and consider conditioning a retail customer's participation in an aggregation on its being able to maintain compliance with relevant operational requirements.

Carefully Consider Whether New Regulations Are Needed or Warranted. PECO urges the Commission to carefully consider the need for new regulations that impose incremental costs and obligations on EDCs and their customers. As discussed herein, PECO believes that some of the Commission's existing mechanisms, such as those governing dispute resolution or safeguards

for EDC affiliates, are well suited to address immediate needs in response to FERC Order No. 2222. In other cases, the Commission should not act before efforts by PJM or other initiatives at the federal level have concluded. Preemptively implementing regulatory changes could become unduly burdensome for EDCs, and those changes may also be duplicative of or conflict with PJM's changes to its Open Access Transmission Tariff ("OATT" or "PJM OATT") or other ongoing efforts. To the extent the Commission includes new regulations or obligations on EDCs to accommodate DERA activities within their service territories, the Commission should ensure that EDCs are able to recover all costs needed to comply with such requirements.

Appropriately Tailor New Requirements to Prevent Impermissible Double Counting.

PECO generally recommends that the Commission consider regulations to ensure that there is no duplicative compensation for the same service. In particular, the Commission should exercise its authority over the retail net-metering program to prohibit customers participating in wholesale aggregation from simultaneous enrollment in retail net metering. However, PECO cautions that double counting that results in impermissible duplicative compensation for the same services may not always be readily apparent, especially when demand-side management programs are involved. Identifying such services requires a nuanced evaluation of specific retail programs that should be carried out by the EDC.

In the remainder of these comments, PECO provides detailed responses to topics presented in the ANOPR. PECO looks forward to working with the Commission and all stakeholders to prepare for the implementation of FERC Order No. 2222 within the Commonwealth, and to address the important topics detailed in the ANOPR.

II. RESPONSES TO THE QUESTIONS PRESENTED IN THE ANOPR

Topic A: Changes to Distribution DER Interconnection Rules

Question: The PUC seeks comment on whether its existing interconnection regulations for customer-generators, 52 Pa. Code §§ 75.31—40, can be adapted to address interconnection of a Component DER participating in a DER Aggregation Resource with EDC distribution facilities, consistent with Order 2222 and PJM's DAPM, and, if so, the specific changes to the PUC's interconnection regulations that would facilitate this adaptation.

Existing net-metering interconnection rules are not sufficiently broad to apply to the variety of DERs that could participate in a DER aggregation, such as electric storage resources. As such, PECO supports the expansion of existing net-metering interconnection requirements to be inclusive of wholesale aggregation interconnection participants, rather than the creation of a new set of requirements. Conforming to a single standard is more administratively efficient. It also eliminates opportunities for gaming that exist when multiple standards are maintained. Multiple standards create opportunities for a customer to request interconnection under whichever set of rules it deems more favorable, regardless of its actual intended end use of the DER. Also, as FERC has been clear that it will not exercise jurisdiction over the interconnection of a DER to a distribution facility for the purpose of participating in wholesale markets,⁴ the Commission should explicitly state in Chapter 75 of its regulations that an EDC's state-regulated interconnection procedure will apply in those circumstances.

In addition, PECO believes it is warranted for the Commission to revisit its interconnection fee structure and to avoid prescriptive fees that may become outdated or fail to recognize the complexities of Component DER interconnections. Currently, Section 75.33 requires the Commission to determine the appropriate interconnection fees for customer-generators.⁵ Those

⁴ FERC Order No. 2222 at P 90.

⁵ 52 Pa. Code § 75.33.

fees, codified in Section 69.2104, have been in place since 2009 and no longer reflect actual costs.⁶ It is also important to consider the potential impact of FERC Order No. 2222 implementation, including the volume and the types of DERA participation in each EDC's service territory, and to establish a consistent interconnection fee structure for both net metering and Component DERs. Implementation of FERC Order No. 2222 may vary greatly among EDCs, and any fee established today may not reflect the cost tomorrow. Thus, PECO believes it is best to not codify the interconnection fee in Chapter 75. Instead, EDCs need flexibility in developing interconnection fee structures for Component DERs and net-metering DERs that appropriately reflect the complexities associated with the various types of DER interconnections. Therefore, the Commission should modify Section 75.33 to grant EDCs the flexibility to establish interconnection application fees, subject to Commission review, that reflect the actual cost of reviewing interconnection applications.

Question: How will Component DERs previously not subjected to interconnection (energy efficiency and demand response resources) be integrated into an aggregation?

PECO has not yet identified a specific need for a contractual relationship between an EDC and a Component DER customer not previously subjected to an interconnection, although that could change as PJM finalizes changes to its OATT and business practice manuals to implement FERC Order No. 2222 and as PECO gains more experience with DERA activities. All Component DERs that could potentially export electric power to the grid (i.e., DERs other than energy efficiency and demand-side management technologies) should still be required to execute an

⁶ See Interconnection Application Fees, Policy Statement, Pa. PUC Docket No. M-00051865 (Feb. 26, 2009) (amending the Commission's regulations in 52 Pa. Code §§ 69.1, *et seq.* to implement an interconnection-application fee structure); 52 Pa. Code § 69.2104 ("The following fee structures and fees will be deemed appropriate for use by electric distribution companies when processing interconnection applications filed under § § 75.21, 75.22, 75.31—75.40 and 75.51.").

interconnection agreement before being able to export power to the grid or participate in a DER aggregation.

Question: In consideration of future technology advancement through distributed energy resource management systems (DERMS) and other technologies that may allow for utility direct control and overrides, should approval of interconnection requests extend to consideration of an option for firm and non-firm approval categories to reduce the need for system upgrades?

PECO supports an option to consider firm and non-firm approval categories when approving interconnection requests, although PECO is still examining how it would implement and manage such flexible interconnection options. PECO recommends that the Commission permit, but not require, EDCs to offer flexible interconnection options.

Question: Under what conditions will direct control vs. monitoring be required?

EDCs remain responsible for maintaining a safe and reliable grid, and, accordingly, whether to require direct control should depend on whether EDCs can safely and reliably operate while only having monitoring capability with respect to DER aggregations. At present, PECO does not suggest specifying the conditions where direct control or monitoring will be required because prescriptive conditions will limit an EDC's ability to respond to evolutions in DERs and DER aggregations. EDCs will determine whether to exercise direct control or monitoring based on impact to system safety and reliability.⁷

Question: How should the DER aggregation review process differ for different use cases, market services, DER compositions, or grid conditions?

Due to differences among EDCs and the likely evolution of DER integration into the distribution system, PECO recommends that EDCs be afforded the ability to customize review procedures. The Commission should not specify different DER aggregation review processes by

⁷ PJM DAPM, Att. K-Appendix, Section 1.4B(f).

regulation but should instead exercise oversight through its review of EDC tariff changes addressing DER aggregation review.

Question: How should load assumptions be adjusted to accommodate the use of load-modifying resources?

The effect of load-modifying resources on aggregate load curves will change over time as the penetration of such resources increases. The effect of DERAs on the penetration is unknown at this time, and other future policy changes may further affect DER penetration. Therefore, the Commission should not require EDCs to make any specific adjustments to load forecasts and assumptions due to integration of any load-modifying DER resources.

Question: What data will DERAs need to provide to EDCs and to what extent can this leverage existing PJM registration data requirements? How should these data be documented?

At this time, PECO does not recommend any regulatory changes to address data that DERAs must provide to EDCs. PECO expects that the data requirements for Component DERs will be governed by the PJM OATT, PJM procedures for DERA applications, and EDC procedures for reviewing DERA applications. Regulations that impose or foreclose specific data requirements could become unduly burdensome or even conflict with future PJM OATT changes as PJM adjusts to the evolution of DER aggregations participating in the wholesale market.

Question: Where should automation versus[] manual coordination and communication between EDCs, the DERA and PJM be required? How should the PUC ensure that the EDC DER registration approval process is efficient to consistently meet PJM's 60-day timeline and avoid potential "over-registration"?

PECO expects that automatic or manual coordination between EDCs, the DERA, and PJM would be specified in the PJM OATT and in the interconnection agreements. Additionally, the PJM OATT prescribes a review period and process for EDCs. Accordingly, PECO does not see a need for the Commission to prescribe regulations for communication or registration review. However, PECO reiterates that the Commission should confirm that Component DERs that could

potentially export energy onto the distribution grid must coordinate and enter into appropriate interconnection agreements with the applicable EDC, as discussed herein.

Question: How should the PUC clarify and harmonize the relationship between DER interconnection under PUC regulations with DER interconnection under [] PJM's small generator interconnection rules, if needed?

In FERC Order No. 2222, FERC declined to exercise jurisdiction over the interconnections of DERs to distribution facilities for the purpose of participating in PJM markets exclusively as part of a DER aggregation.⁸ FERC opined that state and local authorities are better positioned to oversee distribution-level interconnections of DERs.⁹ Thus, PECO recommends that interconnection of Component DERs to the distribution system should remain separate from PJM's process. Instead, as PECO recommends above, the Commission should expand existing net-metering interconnection requirements in Chapter 75 to be inclusive of wholesale aggregation interconnection participants.

Topic B: Changes to Metering Requirements

Question: The PUC seeks comment on whether its existing metering regulations for customer-generators, 52 Pa. Code § 75.14 (relating to meters and metering), can be adapted to facilitate provision of metering and telemetry data by DERAs to public utilities, consistent with Order 2222 and PJM's DAPM, and if so, whether and what specific changes to the PUC's interconnection regulations [would] facilitate this adaption.

FERC Order No. 2222 avoided prescribing the specific metering and telemetry requirements that PJM must adopt and gave PJM the flexibility to establish necessary metering and telemetry requirements,¹⁰ which PJM is addressing in its ongoing Order No. 2222 compliance proceeding before FERC. Accordingly, PECO recommends maintaining the existing language of

⁸ FERC Order No. 2222 at PP 90, 96; FERC Order No. 2222-A at P 43.

⁹ FERC Order No. 2222 at P 96.

¹⁰ *Id.* at P 263 (“[W]e provide the RTOs/ISOs with flexibility to establish the necessary metering and telemetry requirements for distributed energy resource aggregations.”).

Section 75.14 of the Commission's regulations and believes that there is no present need to adapt it to DERAs. Further, EDCs should not be required to adhere to metering and telemetry requirements for DERAs in excess of what is required for other customers. At the same time, EDCs should also not be enjoined from providing additional metering services to DERAs, provided that an EDC can appropriately recover the costs of any such optional services from the DERA or participating customers.

If, however, the Commission adds any metering and telemetry requirements for DERAs, EDCs should be able to recover all costs associated with compliance. In addition, sub-metering should remain the responsibility of the interconnection customer or DERA, and not be imposed upon EDCs.

Question: How should interconnection regulations evolve to ensure alignment between EDC and PJM telemetry and metering to facilitate consistency and avoid extensive telemetry differences between DERA requirements and retail DERs?

PJM will make DERAs responsible for satisfying metering and telemetry requirements. EDCs can continue to follow the current process of daily settlement of data sharing for DERAs. DERAs should be responsible for obtaining any sub-metering data. Accordingly, PECO does not see a need to change the Commission's interconnection procedures to address PJM's metering and telemetry requirements for DERAs. If, however, the Commission adds any metering, telemetry, or data sharing requirements for DERAs, EDCs should be able to recover all costs associated with compliance.

Question: Should the PUC facilitate device-level metering and if so, how?

PECO does not believe the Commission should address device-level monitoring at this time. FERC declined to direct PJM to permit the use of device-level metering, which may be

burdensome for EDCs, and, as noted in the ANOPR, some DERs are not suitable for device-level metering.¹¹

Topic C: Cost Allocation Issues for Facilities Allowing the Interconnection of DERs

Question: The PUC seeks comment on whether its existing interconnection cost allocation regulations for customer-generators, 52 Pa. Code § 75.36(8), 75.38I and 75.39(e)(4) (relating to additional general requirements, level 2 interconnection review, level 3 interconnection review), can be adapted to address interconnection cost allocation among Component DERs, DERAs and EDCs, consistent with Order 2222 and PJM's DAPM, and, if so, the specific changes to the PUC's interconnection regulations that would facilitate this adaptation.

Preliminarily, because EDCs are entitled to full recovery of reasonable and prudently incurred costs, including implementation costs, EDCs should have the flexibility to propose cost recovery mechanisms that appropriately recover and allocate costs and capital investments. Cost recovery principles necessitate EDCs being able to recover costs associated with complying with FERC Order No. 2222 or any PJM OATT requirements pursuant to that order, and the Commission should permit any reasonable cost recovery mechanisms to recover incremental compliance costs, consistent with historic practices and cost-of-service principles. The Commission should also permit appropriate socialization of costs while balancing recovery among DERAs and participating customers. The Commission may wish to consider permitting a cost recovery mechanism for compliance through a fee, rate rider, or classification as a regulatory asset with full cost of capital recovery where otherwise appropriate. Because Component DERs use the distribution grid like other customers, the EDC should also be permitted to propose assessing Component DERs a share of the fixed costs of constructing, operating, and maintaining the distribution grid.

¹¹ ANOPR at 24.

Question: How will DERA market participation impact retail rates?

EDCs will incur costs to comply with FERC Order No. 2222, and, to the extent that the Order stimulates growth in interconnection requests, EDCs will also experience increases in interconnection costs. If EDCs are unable to recover fully those costs from DERAs and Component DER aggregation participants, whether due to regulatory constraints or economic feasibility, greater market participation by Component DERs will put upward pressure on distribution rates due to the socialization of those compliance costs. It is unknown whether greater DER market participation may eventually create a downward pressure on wholesale market prices that partially or fully mitigates any upward pressure on distribution rates.

Question: What cost recovery guidance, if any, is needed by EDCs for investments that may support both transmission and distribution?

PECO does not presently recommend additional Commission guidance on recovery of costs that may support both transmission and distribution. PECO believes FERC's regulations implementing the Uniform System of Accounts¹² are sufficient because they indicate how costs that support both transmission and distribution should be recorded and are relied upon in Commission filings for cost recovery.

Question: What cost recovery mechanisms should be used (upfront charges, usage charges, rates)?

PECO recommends that the Commission permit flexibility for EDCs to develop appropriate cost recovery mechanisms and not unduly limit or prescribe mechanisms. The Commission should ensure that EDCs can fully recover operations, maintenance, and capital expenditures. PECO also recommends that the Commission not require administratively complex customer-specific charges.

¹² See generally 18 C.F.R. Part 101 (Uniform System of Accounts Prescribed for Public Utilities and Licensees Subject to the Provisions of the Federal Power Act).

Instead, the Commission should encourage EDCs to develop mechanisms that enable appropriate recovery from net-exporting customer-generators for their use of the electric distribution system. This change would ensure that customer generators who utilize the distribution system to access wholesale markets pay an equitable share of distribution system costs. Otherwise, net-energy exporters will be able to utilize the distribution system without making any contribution to its construction and maintenance.

Finally, it may not be economically feasible or appropriate for EDCs to recover certain compliance costs and/or investments solely from DERAs and/or Component DER customers. Therefore, the Commission should permit EDCs to propose equitable cost recovery mechanisms that balance cost causation with beneficiary principles and administrative efficiency for such investments.

Question: What is the interplay between the direct procurements aspects of EDCs' default service plans and an EDC's costs to administer DERA participation in wholesale markets, if any?

PECO sees costs of administering its default service plan and of administering DERA participation as being independent, even if a DERA or Component DER happens to play a role in both.

PECO recommends that the Commission clarify that non-residential customer-generators whose rate of export exceeds 100 kW at any time during the procurement year should be assigned to procurement class 3 / 4 for the purpose of default service rates, even if the customer-generator's measured demand does not exceed 100 kW. Likewise, a customer should be assigned to procurement class 3 / 4 at the time of interconnection if the nameplate capacity of its DERs exceeds the customer's maximum expected demand by more than 100 kW. Having large customer-generators enrolled in net metering and assigned to procurement class 2 could potentially result in

material impacts on default service provider rates for that class, which is intended to serve small commercial and industrial customers.

Topic D: Adjudication of Disputes Regarding Registration of DERs

Question: The PUC seeks comment on whether its existing application process for net metering customer-generators, 52 Pa. Code § 75.17, or its existing dispute resolution regulations, 52 Pa. Code Chapters 1 (relating to rules of administrative practice and procedure), 3 (relating to special provisions) and 5 (relating to formal proceedings), or both, can or should be adapted to facilitate adjudication of disputes about DERA registration of its Component DERs with PJM, consistent with Order 2222 and PJM's DAPM, and if so, the specific changes to the PUC's regulations that would facilitate this adaptation.

PECO appreciates that the PUC is proactively considering ways to ensure efficient and fair resolution of disputes related to DER registration. However, PECO believes that the PUC does not need to modify its processes to facilitate adjudications related specifically to DERA registration or Component DERs. The PUC has adequate processes under Title 52 of the Pennsylvania Code that can be used. For example, Chapters 3 and 5 provide avenues for instituting informal and formal proceedings, respectively. Chapter 5 also addresses petitions for reconsideration and formal adjudications. Therefore, the Commission's existing rules are sufficient to satisfy PJM's DERA Participation Model ("DAPM") dispute resolution provision that leaves to the jurisdiction of the EDC and/or the relevant electric retail regulatory authority ("RERRA") the resolution of disputes that deal exclusively with the rules and regulations of these entities.

The Commission's regulations also provide dispute resolution procedures for customer-generators dealing with, for example, interconnection and net metering that PECO believes could be utilized to adjudicate DERA-registration disputes. Under 52 Pa. Code § 75.51, eligible customer-generators may seek to address interconnection disputes immediately through the Commission's complaint procedures or an alternative dispute resolution process approved by the

Commission by providing written notice to the Commission and the other party stating the issues in dispute. Similarly, the Commission's net-metering regulations under 52 Pa. Code § 75.17 include a robust evaluation process under which an EDC can seek approval from the Bureau of Technical Utility Services to net meter certain energy systems. Determinations by the Bureau of Technical Utility Services can be petitioned for reconsideration, as needed, under 52 Pa. Code Chapter 5.

Additionally, PECO urges the Commission not to expand its existing dispute resolution procedures to create a role for EDCs in administering the relationships between DERAs and their subscribers/customers. Utilities and their customers should not be responsible for facilitating disputes between DERAs and their Component DER customers.

Topic E: Management of Distribution Utility Overrides of DERs to Maintain Reliability, and Disputes Arising Therefrom

Question: The PUC seeks comment on whether its regulations can or should be augmented to address EDC overrides of DER Aggregation Resource or Component DER operation, consistent with Order 2222 and PJM's DAPM, and, if so, the specific changes to the PUC's regulations that would address overrides.

PECO strongly believes that EDCs should have an unencumbered right to override dispatch instructions for Component DERs on their systems to resolve or avoid distribution reliability issues. As required by FERC Order No. 2222, PJM's DAPM provides generally that an EDC can initiate the dispatch override for a DERA or individual Component DER within an aggregation. The decision to override a PJM dispatch may then be communicated by the EDC directly to the DERA, and PJM will not interrupt or interfere with that decision.¹³ PJM will then re-dispatch the aggregation in a manner consistent with the updated bidding parameters.

¹³ PJM DAPM, Att. K-Appendix, Section 1.4B(f).

As the Commission observed, its regulations do not provide for specific override rules for net metering.¹⁴ And although the Commission’s interconnection requirements under 52 Pa. Code Chapter 75 require that small generator facilities be capable of being isolated from the EDC’s system through the operation of an accessible device, those rules do not specify the parameters or conditions under which an EDC may isolate the resource. Thus, it may be beneficial for the Commission to consider elaborating on an EDC’s override authority in its rules and regulations. However, PECO cautions that any such revisions to the Commission’s rules should be flexible and sufficiently broad to respect the EDC’s operational discretion. The EDC should be allowed to exercise final authority over DER and DERA dispatch override decisions to maintain safe and reliable operation of distribution facilities.

Question: How should the distribution override process align with market bidding windows?

PECO recommends that the Commission avoid introducing any parameters into the distribution override process based on non-operational factors such as market bidding windows. The EDC should have the ability to override dispatch instructions to DERs and DERAs at any time to maintain safe and reliable operation of distribution facilities.

Question: What EDC “real-time” update and override requirements should be addressed in DERA agreements to ensure the reliability and safety of the grid?

Consistent with the recommendations above, PECO urges the Commission to avoid prescriptive override requirements that may limit the ability of the EDC to fully maintain safe and reliable operation of the grid.

Topic F: Protection of DER Owners from Unfair Trade Practices or Excessive Risk in the Wholesale Markets

Question: The PUC seeks comment on whether the UTPCPL [Pennsylvania Unfair Trade Practices and Consumer Protection Law] applies to the DERA-Component DER

¹⁴ ANOPR at 29.

relationship and whether and how the PUC's EGS regulations can or should be adapted to address consumer protection in the DERA-Component DER relationship, consistent with Order 2222 and PJM's DAPM, and if so, what specific changes to the PUC's regulations would address these matters.

PECO recommends that the Commission take steps, perhaps including licensing or registration requirements for DERAs, to shield Pennsylvania customers seeking to participate in energy markets and aggregation programs from fraud and abusive marketing practices. This is imperative to ensure that customers understand the costs and benefits of their participation, there is no confusion over which entity is performing the aggregation activity (i.e., the DERA vs. the EDC), and there are sufficient protections in place to prevent deceptive marketing practices that target customers who may be less familiar with aggregation and market activities more generally, such as retail and small commercial customers.

PECO notes that, under PJM's DAPM review process, EDCs will be able to review certain Component DER information and evaluate potential reliability impacts. But EDCs have no authority to review the DERA-Component DER relationship. PECO therefore recommends that the Commission use its authority to implement rules or provide reinforcement to customers participating in a DER aggregation so that those customers understand their rights and responsibilities, including complaint and dispute resolution procedures.

Topic G: Prevention of Double Compensation or Double Counting Between Retail and Wholesale Market Participation, Including Rules Governing DER Owners' Ability to Switch Between Retail and Wholesale Market Participation

Question: The PUC seeks comment on whether its existing regulations on compensation for net metering customer-generators, 52 Pa. Code § 75.13, could or should be adapted to incorporate appropriate restrictions on double counting of services provided by a Component DER in wholesale and retail markets, on duplicative compensation for the

same service, consistent with Order 2222 and PJM's DAPM, or on both, and, if so, what specific changes to the PUC's regulations would or should facilitate this adaptation.

PECO generally recommends that the Commission consider regulations to ensure there is no duplicative compensation for the same service. However, as discussed below, PECO recommends that such regulations be appropriately tailored. Double counting that results in impermissible duplicative compensation for the same services may not always be readily apparent, especially when demand-side management or energy efficiency programs are involved.

PECO recommends that individual customers should be prohibited from concurrent participation in wholesale aggregations and retail net metering programs. FERC recognized the value of tailoring restrictions on DERs' participation in wholesale markets "to avoid counting more than once the services provided by [those DERs]."¹⁵ Because net-metering programs in Pennsylvania compensate customers for energy, capacity, and ancillary services, participants in wholesale markets should be prohibited from concurrent participation in retail net metering. PJM's DAPM does not ensure this outcome, as it proposes to allow an EDC to recommend that PJM deny the participation of a Component DER in PJM's energy, capacity, and/or ancillary services only if the Component DER provides the same service in an EDC's retail program at the time of registration. While today's net-metering programs compensate customers for capacity and ancillary service, they do not necessarily require that the customer actually provide those services.

Should the Commission choose to allow individual customers to concurrently participate in net metering and DER aggregations, it would likely prove necessary for EDCs to implement device-level sub-metering in conjunction with potentially large investments in backend meter data and billing information systems to develop automated processes to ensure that no kilowatt hour is compensated through both wholesale and retail programs. EDCs may also find it necessary to

¹⁵ FERC Order No. 2222 at P 160; *see generally id.* PP 160-161.

expand their field workforces to add new job classifications focused on installing indoor device-level meters and diagnosing and correcting functional and communications issues with those devices. The cost of such investments would most likely exceed the economic capacity of DERAs and Component DER owners to fund recovery and would therefore need to be socialized to non-participating customers.

To avoid duplicative compensation for capacity and ancillary services and the costly administrative complexities that would arise with concurrent enrollment in a wholesale aggregation and retail net metering program, the Commission should exercise its authority over the retail net-metering program to prohibit customers participating in wholesale aggregation from simultaneous enrollment in retail net metering. In practice, this would result in an outcome in which, rather than deny a net metering customer's enrollment in a DERA, the EDC would inform the customer that participation in the DERA would result in its removal from net metering. Should Pennsylvania make future revisions to net metering full retail rate requirements, the Commission would be able to reevaluate potential wholesale-retail double compensation at that time.

PECO cautions, however, that with respect to retail demand-side management and energy efficiency programs, the question of whether double counting is occurring requires a nuanced evaluation and may be specific to each retail program. Accordingly, participation in wholesale markets should not inherently preclude participation in retail demand-side management or energy efficiency programs and vice versa. Rather, the Commission should provide EDCs with the regulatory flexibility to develop double counting rules for the demand-side management and energy efficiency programs they administer. Resources participating in such programs may respond to events triggered by distribution needs as well as separate events for wholesale-market needs. Even when those events have temporal overlap, the services provided may be discrete. For example, mitigation of generation capacity constraints and mitigation of distribution capacity

constraints may, in some instances, be deemed to be separate services. Thus, the EDC should have the flexibility to develop program-specific rules to prevent impermissible double compensation between wholesale aggregation and retail demand-side management and energy efficiency programs. FERC recognized that such restrictions are squarely within the state regulator's jurisdiction and an appropriate exercise of its authority over retail programs.¹⁶

Question: Does the PUC have authority to decide whether to permit net metering customers to participate in DERAs, noting FERC's statement that "under a [RERRA]'s jurisdiction over its retail programs, such a [RERRA] is able to condition a distributed energy resource's participation in a retail distributed energy resource program on that resource not also participating in the RTO/ISO markets"?

As the PUC notes, FERC Order No. 2222 recognizes that a state regulatory authority can condition a DER's participation in a state retail program on not participating in the wholesale markets.¹⁷ Thus, the PUC can prohibit or impose conditions on a DER's participation in retail programs such as net metering if that DER is participating in the wholesale markets.

Question: Assuming the PUC does have requisite authority, should the PUC permit net metering customers to also participate in DERAs at the same time?

As discussed in PECO's responses above regarding double compensation, the Commission (a) has authority to impose conditions on retail participation for DERs participating in the wholesale markets and (b) should exercise that authority to prohibit participation in a retail program when such participation will result in double counting. PECO recommends a *per se* prohibition on participation in retail net-metering programs for Component DERs participating in the wholesale market, but notes that identification of duplicative compensation between wholesale and retail demand-side management programs is a more nuanced determination. EDCs therefore

¹⁶ FERC Order No. 2222 at P 61.

¹⁷ *Id.*

need regulatory flexibility in evaluation of whether retail participation would contravene the double counting prohibition.

Question: Assuming the PUC does have requisite authority, should the PUC develop rules for when and how often a retail customer may switch between [n]et metering and DERA participation?

To prevent potential “gaming” that can occur when a net-metered resource switches back and forth between wholesale and retail programs, and the administrative burden of evaluating and processing such switches, PECO recommends that any customer that switches from a wholesale program back to a retail net-metering program be required to wait twelve (12) months before switching back to wholesale market participation. Such a restriction would forestall the ability of customer-generators to arbitrage markets by joining an aggregation during summer months, when wholesale prices are high, and then switching to net metering for the remainder of the year to take advantage of retail default service prices that are smoothed by default service plan procurement tranches to reflect full year averages.

Topic H: Any Necessary Electronic Data Exchange Revisions

Question: The PUC seeks comment on whether it should encourage or impose EDI and/or other data exchange protocols between and among EDCs, EGSs, DERAs and Component DERs to facilitate implementation of Order 2222, and, if so, what, if any, specific changes to the PUC’s policies and regulations would or should facilitate this adaptation.

EDCs should be allowed flexibility on how to provide meter data to DERAs and should not be required to adhere to protocols for DERAs in excess of what is required for other customers. PECO does not recommend any modifications to the Commission’s data exchange protocols at present, except as necessary to ensure that EDCs have flexibility and to permit EDCs to require that DERAs maintain the confidentiality of data shared with them. PECO notes that, for affiliated EDCs in different PJM jurisdictions, such as the Exelon companies, establishment of a common data exchange protocol across all such EDCs is likely to be more administratively efficient than

would separate protocols for each jurisdiction. Any state-specific requirements for data exchange protocols could render a consistent PJM-wide approach impossible.

The Commission should ensure that EDCs can fully recover costs associated with complying with any Commission, FERC, or PJM data exchange protocols.

Question: What DERA cybersecurity items require further evaluation?

As discussed in more detail in response to Topic K, cybersecurity controls are needed for sharing metering and telemetry data among Component DERs, DERAs, EDCs and PJM. At this time, however, PECO recommends that the Commission refrain from issuing cybersecurity requirements and allow ongoing cybersecurity efforts by the federal government to proceed. PECO notes, as discussed below in response to Topic K, that its parent company implements a single security approach across all of its operating companies, which includes certain national-based controls, that PECO intends to follow until a uniform standard is adopted. PECO would require contractually established cyber security terms and conditions with DERAs and DER vendors and conduct cybersecurity due diligence with DERAs and DERs.

Question: What role will advanced metering infrastructure (AMI) data play in operational coordination?

EDCs may utilize AMI data in their distribution management systems. The data provided by AMI platforms is unique to each EDC. Where common AMI data elements are available, the timing of their availability and their application to operational coordination of Component DERs will be unique to each EDC depending on the architecture of their AMI, smart grid (distribution SCADA, etc.), and distribution management systems. Consistent with our response above in Topic B regarding the Commission's existing metering requirements, the Commission should not require EDCs to generate AMI data for Component DERs in excess of what is required for other customers.

Question: How should the PUC ensure that processes are in place for efficient data exchange among and between Component DERs, DERAs and EDCs for customer authorizations?

Efficient data exchange requires Component DERs, DERAs, and EDCs to be aligned on the method and process to facilitate the data necessary to implement aggregations. A data exchange mandate, however, could require EDCs to make an investment that would increase the cost of compliance, especially if such a mandate were to effectively prevent establishment of consistent data exchange protocols across multiple jurisdictions within PJM. Accordingly, PECO recommends that any Commission data exchange process consider the implementation costs. Further, the Commission should provide EDCs with flexibility to obtain the data necessary to assess participation eligibility and reliability impacts under PJM's DAPM review process.

Topic J: Potential PUC Oversight of DERAs

Question: The PUC seeks comment on whether the PUC may assert jurisdiction to regulate DERAs, and, if so, what requirements should the PUC impose on DERAs, consistent with Order 2222 and PJM's DAPM, and what specific changes to the PUC's policies and regulations would facilitate the PUC's exercise of authority over DERAs.

The Commission should leverage its existing authorities to ensure that EDCs are able to accommodate DERA activity while also maintaining the safe and reliable operation of the distribution system. Doing so is within the Commission's statutory obligation to ensure a safe and reliable distribution grid. As FERC also recognized, states retain the "right to regulate the safety and reliability of the distribution system."¹⁸ FERC acknowledged in Order No. 2222 the role of state commissions in facilitating activities in the wholesale markets, explaining that organized

¹⁸ Elec. Storage Participation in Markets Operated by Regional Transmission Organizations & Indep. Sys. Operators, Order No. 841-A, 167 FERC ¶ 61,154, at P 46 (2018) ("Order 841-A"), *reh'g & clarifying*, Order No. 841, 162 FERC ¶ 61,127 (2018) ("Order 841"); *see also* Order 841 at P 36; Order No. 2222 at PP 44 (reiterating that "nothing in this final rule preempts the right of states and local authorities to regulate the safety and reliability of the distribution system and that all distributed energy resources must comply with any applicable interconnection and operating requirement"), 61 (repeating that "the reforms adopted . . . do not preclude or limit state or local regulation of [among other things] distribution system reliability"), 297 ("RTOs/ISOs must include potential impacts on distribution system reliability as a criterion in the distribution utility review process").

markets like PJM “must include potential impacts on distribution system reliability as a criterion in the distribution utility review process.”¹⁹

Thus, the Commission would be within its authority to consider rules and regulations aimed at ensuring that retail customer participation in an aggregation is consistent with the Commission’s statutory objective of maintaining the safe and reliable operation of the distribution grid. To that end, the Commission should maintain oversight of the interconnection process in conjunction with the reviewing EDC and consider conditioning a retail customer’s participation in an aggregation on being able to maintain compliance with relevant operational requirements.

Topic K: Cybersecurity Considerations

Question: The PUC seeks comment on whether it should impose cybersecurity standards or requirements on Component DERs, DERAs or EDCs, consistent with Order 2222 and PJM’s DAPM, and any specific changes to the PUC’s policies and regulations that would facilitate appropriate levels of cybersecurity in the implementation of Order 2222.

PECO appreciates the importance of ensuring appropriate cybersecurity controls with respect to protocols for Component DERs, DERAs, EDCs and PJM sharing metering and telemetry data. Implementation of appropriate cybersecurity controls will be critical to manage an increasingly complex grid and the electronic devices on which it relies to function. However, PECO recommends that the Commission refrain from establishing state-administered cybersecurity standards in response to FERC Order No. 2222 at this time. As a general matter, changes to the regulations related to cybersecurity should leverage advances already made by utilities and avoid conflicts with, or duplication of, existing federal standards and requirements. PECO also urges the Commission to consider additional forthcoming standards. As discussed below, PECO and other industry stakeholders are working closely with the federal government to establish baseline cybersecurity standards tailored to DERs and DERAs. PECO respectfully

¹⁹ Order No. 2222 at P 297.

submits that the issuance of PUC-administered cybersecurity requirements before the federal process is complete could result in duplicative or conflicting requirements.

To optimize security and customer value, PECO's parent company, Exelon, relies on a single security approach across its operating companies and jurisdictions. PECO believes that national security and grid resilience would be advanced by the application of a common set of cybersecurity baselines to electric distribution systems and the DERs and DERAs that attach to them. The U.S. Department of Energy and the National Association of Regulatory Utility Commissioners ("NARUC") are actively working to address the absence of a consistent set of cybersecurity standards that govern DERs and DERAs. As a result of this joint state-federal work, NARUC has published the first phase of cybersecurity baselines for EDCs and DERs. However, the process to develop implementation guidance is underway with a likely release in the later part of 2024.

Until a uniform standard is adopted, PECO intends to follow Exelon's security policies and standards, which include implementation of National Institute of Standards and Technology-based controls covering the distribution system. PECO will seek to contractually establish cybersecurity terms and conditions with DERAs and DER vendors and conduct cybersecurity due diligence through a set of questionnaires designed to assess the security posture and risk of interconnecting with the proposed DERs and/or DERAs or their systems.

In the interim, PECO recommends that the Commission refrain from evaluating state-administered cybersecurity requirements for Component DERs and DERAs at least until the NARUC process has concluded.

Topic L: Distribution Level Benefits

Question: The PUC seeks comment on whether and how it should account for the distribution level benefits of DERAs.

While DERs may confer some grid benefits, those benefits are more likely to be locationally dependent and not dispersed across the distribution system. In some cases, the DER may coincidentally alleviate a capacity constraint, while in other cases the DER may have a net-neutral impact on the grid or even place an additional strain on the grid by reversing energy flows or creating low-load conditions. Similarly, in terms of voltage regulation benefits, a DER located close to a substation may have little or no impact on voltage because downstream loads would not be affected, while the same DER installed further along a feeder would have a larger impact.²⁰ Thus, the value of the grid benefits will depend on the locational circumstances, making it difficult to quantify benefits derived from an aggregation that could be dispersed across the entire distribution system. Moreover, EDCs may already have pre-existing grid benefit programs tailored to Component DERs.

PECO therefore recommends that the Commission not undertake the task of accounting for grid-level benefits of DERAs and to assume that, to the extent there are grid benefits from DERAs, those benefits are locational and not dispersed across the distribution system.

Topic M: EDCs Acting as DERAs

Question: The PUC seeks comment on whether and how it should mitigate conflicts of interest that may arise from an EDCs participating in wholesale markets as a DERA,

²⁰ See Mims Frick, et al., *Locational Value of Distributed Energy Resources*, LAWRENCE BERKELEY NAT'L LAB'Y at 8-9 (Feb. 2021), https://eta-publications.lbl.gov/sites/default/files/lbnl_locational_value_der_2021_02_08.pdf (“Losses have the opposite relationship with distance from substation. Reducing load at the end of the feeder can reduce losses along the entire length of the feeder, and the impact will therefore be larger than loss reduction associated with a DER installed closer to the substation.”).

consistent with Order 2222 and PJM's DAPM, and whether and what specific changes to the PUC's policies and regulations could facilitate such mitigation.

EDCs should be permitted, but not required, to act as DERAs, both directly as the Commission-regulated distribution utility or through an unregulated affiliate. PECO does not believe additional changes to the Commission's policies and regulations are needed because the rules that are in place today will mitigate the risk of conflicts of interest. Existing Commission regulations, such as those for interconnection, would apply equally to affiliated and unaffiliated DERAs, serving to mitigate any concerns over affiliate preference. FERC regulations providing DERs and DERAs with access to wholesale markets mitigate against any concerns with allowing EDCs to participate as DERAs or to be affiliated with one. To the extent the Commission opts to implement additional safeguards applicable to DERA participation by EDCs or EDC affiliates, those rules should be consistent with existing rules for EDC affiliates acting as Electric Generation Suppliers.²¹

Topic N: Billing Issues

Question: The PUC seeks comment on whether and how it could make the billing relationships between EDC customers, DERAs and EDCs transparent to the customer, consistent with Order 2222 and PJM's DAPM, and whether and what specific changes to the PUC's policies and regulations could facilitate such transparency.

PECO recommends that the Commission refrain from making changes to its policies and regulations regarding the billing relationships between EDCs, their customers, and DERAs. PECO is concerned that additional rules, while aimed at improving transparency, would impose unnecessary burdens and costs on EDCs, which are not responsible for managing the relationships between their customers and third-party DERAs. In particular, EDCs should not be required to provide consolidated billing or to play any other role in the financial relationship between the

²¹ 52 Pa. Code §§ 54.1 – 54.10.

DERA and the Component DER owner. Instead, DERAs should be responsible for providing their customers with an accounting of wholesale market activities concerning those customers' Component DERs, and the Commission should be responsible for any applicable oversight of DERAs' jurisdictional activities. EDCs will not have access to such information and should not be required to gather it from DERAs, and their relationship with DERAs in this regard should be limited to billing DERAs for any energy or utility services the DERAs ultimately use.

Notwithstanding the foregoing, PECO does not believe that EDCs should be prohibited from voluntarily offering billing services to DERAs in the future, where applicable. In those instances, EDCs should be compensated under a fee structure that, at minimum, recovers the EDC's costs of delivering such a service.

Topic O: Equity Concerns

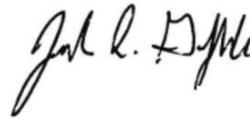
Question: The PUC seeks comment on how to identify and address potential equity concerns associated with the expected proliferations of DERAs in Pennsylvania in the coming years.

PECO is committed to an equitable energy transition. However, at this juncture, it is too early to anticipate participation levels and specific equity impacts of FERC Order No. 2222. Developing prescriptive equity-driven rules and regulations prematurely may have unintended consequences. As the DERA market continues to develop, this is an issue that the Commission should continue to monitor and evaluate.

III. CONCLUSION

PECO appreciates the opportunity the Commission has provided to offer these Comments regarding Pennsylvania DER regulations and looks forward to working with the Commission and interested stakeholders as this matter moves forward.

Respectfully submitted,



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