Cynthia L. M. Holland
Assistant General Counsel

atlantic city electric℠
AN EXELON COMPANY

150 W State Street, Suite 5
Trenton, NJ 08608-1105

Mailing Address:
92DC42
500 N. Wakefield Drive
P.O. Box 6066
Newark, DE 19714-6066

267-533-1671 – MS Teams
609-909-7033 – Trenton Office
609-393-0243 – Facsimile
cynthia.holland@exeloncorp.com

atlanticcityelectric.com

April 22, 2024

VIA ELECTRONIC MAIL
sherri.golden@bpu.nj.gov
board.secretary@bpu.nj.gov

Sherri L. Golden, RMC
Secretary of the Board
Board of Public Utilities
44 South Clinton Avenue, 1st Floor
P.O. Box 350
Trenton, New Jersey 08625-0350

RE: In the Matter of New Jersey's Distributed Energy Resource Participation in Regional Wholesale Electricity Markets
BPU Docket No. EO24020116

Dear Secretary Golden:

Atlantic City Electric Company respectfully submits the attached Comments to the Board of Public Utilities ("Board" or "BPU") in response to the Request for Information in this Docket, issued March 7, 2024.

Consistent with the Order issued by the BPU on March 19, 2020 in connection with *In the Matter of the New Jersey Board of Public Utilities' Response to the COVID-19 Pandemic for a Temporary Waiver of Requirements for Certain Non-Essential Obligations,* BPU Docket No. EO20030254, ACE files these Comments electronically with the Secretary of the Board and the New Jersey Division of Rate Counsel. No paper copies will follow.

Respectfully submitted,

Cynthia L.M. Holland

Enclosure

Before the New Jersey Board of Public Utilities

Atlantic City Electric Company Responses to the DER Participation in Wholesale Electricity Markets Request for Information

Docket Number EO24020116

April 22, 2024

Atlantic City Electric Company ("ACE" or the "Company") is pleased to submit the follow responses to the above referenced Request for information.

Questions for New Jersey Electric Distribution Companies

1. How is your EDC preparing for the operation of DERAs within the distribution grid? Please explain any processes already under development and which departments (e.g., Operations, Finance, System Planning) are doing this preparation work.

ACE Response:

ACE is in the process of evaluating and preparing for the operation of DERAs within the distribution grid. Broadly, ACE is hosting regular interdepartmental meetings between Regulatory, Engineering, Operations, New Business, and Customer to discuss the impacts and prepare for the operation of DERA's. More specifically, the Company is participating in EPRI's DSO Capabilities to Enable DER Services project to prepare Operating Control Center ("OCC") processes and systems. The needs for implementation of FERC Order 2222 will continue to evolve and ACE will continue to evolve its preparations as necessary to successfully implement FERC Order 2222.

2. Are there any concerns about DERAs' impacts on grid reliability that your EDC believes have not been adequately addressed by PJM or the NJBPU, to this date? Has your company quantified these impacts through risk assessments such as the System Average Interruption Duration Index ("SAIDI") or the System Average Interruption Frequency Index ("SAIFI")?

a. Are there any suggested solutions to these concerns that your EDC recommends? Have cost and benefit calculations been run on these proposed solutions?

b. Have probabilities of occurrence been considered and factored into the risk assessments?

ACE Response:

ACE is in the ongoing process of evaluating the impact of DERAs to the reliability of the distribution system. The potential impacts have not yet been quantified. Some of the potential impacts include, but are not limited to, the following:

- Smart Inverter Ride Through Settings - PJM has published guidelines around smart inverter ride through setting requirements to maintain bulk system stability which ACE has adopted to comply with its smart inverter setting requirements. Usage of these settings are necessary to support grid reliability, power quality, and safety needs.

- Power Quality and Harmonics - High voltage and voltage fluctuations caused by component DERs providing market ancillary services for FERC 2222 can cause degradation and damage of utility and customer owned equipment and tripping of inverters or other DERs. This leads to loss of DER resources and premature failure and consequential outages on the electrical distribution system.

Currently, there are no suggested solutions. However, the Company is continuing to evaluate solutions. At this time cost benefit calculations have not been run. ACE is continuing to evaluate the impact of DERAs on the distribution grid and the needs for implementation of FERC Order 2222 will continue to evolve and ACE will continue to evolve its preparations as necessary to successfully implement FERC Order 2222.

Currently ACE has not evaluated probabilities of occurrence. The needs for implementation of FERC Order 2222 will continue to evolve and ACE will continue to evolve its preparations as necessary to successfully implement FERC Order 2222.

3. **Does your EDC have procedures in place to account for and support the addition of new DER technologies into DERAs that may develop between Order No. 2222's implementation and the earliest market participation by DERAs?**

    a. **Are there any technological, cyber security, or software updates that are needed prior to implementation?**
    b. **Are there any retroactive impacts requiring modification to existing interconnection agreements?**

ACE Response:

ACE currently requires any new inverter-based DER to meet IEEE 1547 2018 standards. ACE is evaluating DER data registry platforms for changes as well as DER data repository systems that are being evaluated for additional functionality to support the requirements, as best understood today, for DERs participating in DERAs. ACE will continue to evolve its procedures as requirements for implementation become clearer and "new" technologies are known and understood.

There are technological, software, and cyber security updates that will likely be needed to support implementation. This includes evolutions to existing DER data registry platforms. Additionally, ACE will need to implement new systems to protect digital interconnections with DERAs for secure data exchange, or depending on the circumstances, digitally interconnect with DERs for monitoring and control or to facilitate maintenance activities. New cyber security solutions would need to be implemented to protect our sensitive networks and the customers that depend on our services from risks associated with external connections. As ACE continues to prepare for and implement FERC Order 2222, it will continue to identify technological, software, and cyber security updates that will be needed prior to implementation.

If participation in a DERA changes the component DERs operating profile such that it conflicts with the existing operating profile agreed upon in the existing interconnection agreement, the interconnection agreement would need to be modified to reflect the new operating profile. Also, the Company is currently evaluating other interconnection agreement terms and conditions that might have to change to allow the company to provide safe and reliable service. As ACE continues to work towards implementation, it will continue to assess necessary operational changes and modifications to the interconnection agreement as well as new agreements and tariffs required to accommodate the DERA structure.

4. Are there any costs for facilitating the DER aggregation process that your EDC expects it needs to pay as part of Order No. 2222 implementation work such as software updates and administrative support? Would these costs be for operational process technologies or additional business functions? Do you have an estimated level of costs available at this time? If not, what is your company's schedule for developing these cost estimates?

a. What is your envisioned mechanism for cost recovery?

<u>ACE Response</u>:

Yes, there will be costs for facilitating the DER aggregation process as a result of FERC Order 2222 implementation. At this time, the Company is still identifying the full business impacts to understand the total costs associated with implementation. ACE envisions this will potentially include costs for software updates to support operational processes and additional support for the interconnection application process. The Company is continuing to evaluate the impact to additional business functions and does not have a full estimated cost at this time. As ACE continues to work towards implementation, it will continue to identify the costs associated with implementation of FERC Order 2222.

The Company is still evaluating the cost recovery mechanism across ACE and its sister utilities in Exelon as well as with other New Jersey Electric Distribution Companies. With respect to FERC Order 2222 enabling investments (software and related IT), ACE anticipates these capital investments would be recovered in either a base rate case or a

tariff rider. The Company is continuing to evaluate cost recovery mechanisms pertaining to ongoing administration. As ACE continues to prepare for and implements FERC Order 2222, it will continue to assess the manner of recovering costs to determine the mechanism(s) that will be reasonable.

5. Have you evaluated how combining current and planned generation projects will fit into existing projects and plans, and where limitations may exist?

ACE Response:

ACE does not believe this question is relevant to the Company because ACE is a transmission and distribution only company that does not plan generation projects.

6. How will your EDC ensure that provisions in PJM's rules pertaining to the double compensation risk for net energy metered DERs are enforced for resources within your company's service territory that will also participate in the wholesale energy markets?

ACE Response:

ACE is still in the process of developing its processes pertaining to aggregation registration and evaluating double compensation risk. The Company envisions during the registration period if a customer seeking to participate in a wholesale market is identified as participating in an existing NEM program, the customers profile in the billing system would be updated to ensure they are being billed and participating in the correct program and on the correct rate schedule.

7. Are there any misalignments in telemetry, metering, and settlement requirements required for DERAs at PJM and that of resources within your service territory? If so, please explain whether this creates technological limitations for existing resources' ability to participate. Please detail, if applicable, how your telemetry, metering and settlement requirements differ from PJM's.

a. Does your EDC have comments on the advanced metering infrastructure (AMI) data interval requirements as it relates to the requirements for authorized communication networks in the wholesale market?

b. Specifically, how would any modifications be implemented to interval metering devices to bring them into compliance for DERA operation?

ACE Response:

In its proposed tariff revisions, PJM suggests the EDCs will have settlement data reflecting DER aggregation operations the next business day. While the next business day requirement may be used for larger generation resources, it may not be appropriate for smaller DER or aggregated resources. Additionally, if it's PJM's intent to allow DER

Aggregators to utilized EDC interval metering to provide this data, the required 24 hours will not be sufficient for most EDCs, as the utilities themselves will likely not have the meter data within 24 hours. It is unclear whether the DER Aggregator would be able to provide the settlement data to PJM via their own metering in that timeframe.

PJM has yet to formalize the process by which a Component DERs data will be obtained for each Component DER in a DER Aggregation and until this process is clearly outlined, knowing how PJM requirements would be accommodated in the retail interconnection process by EDCs is still unknown. Currently, a resource that is seeking to interconnect to the distribution system may not be reviewed with an eye towards market participation or as part of a DER Aggregation. For example, the metering required to participate in a retail NEM program is very different from the metering contemplated in the wholesale energy market. It may not be feasible (or practical) for EDCs to obtain meter data for NEM customers even within 30 days. The EDCs need individual Component DER data, not aggregated data, to perform settlements. While ACE appreciates that PJM has endeavored to establish uniformity, ACE does not agree that a comparison of a large base load generator with sophisticated metering and operational parameters with smaller DER resources that do not otherwise have sophisticated metering and should consider where possible utilization of the EDC interval metering.

ACE's AMI network and meters currently meet all of PJM's requirements for authorized communication networks in the wholesale markets and, at this time, modifications are not anticipated to be necessary.

8. Please specify any unique needs or concerns your EDC has in regard to PJM's demand response opt-out provisions. Are there existing limitations that may restrict demand response from joining a DERA within your service territory?

ACE Response:

Currently, ACE is in the process of evaluating the impacts of DERAs, including demand response participation in a DERA. Potential limitations that have been identified are ACE currently has a petition with the NJ BPU for its Second Triennium Energy Efficient Program Plan (QO23120871). Utility-implemented demand response programs are part of this plan. Within this proceeding, there have been several data requests regarding how the utility program, if approved, would be coordinated with third-party aggregators. As customers cannot participate in multiple demand response programs, it will be necessary to confirm that customers are not enrolled in either the utility's or third-party's demand response offer.

9. Are there any aspects of the cybersecurity standards that govern DERAs that your EDC has questions or concerns about? How does your EDC intend to enforce cybersecurity for DERAs that fall within your service territory?

a. Please clarify any details on who in your organization will be responsible for coordinating DERA cybersecurity issues and what procedures you will enact to enforce cybersecurity processes among DER components?

ACE Response:

Exelon is responsible for cybersecurity for ACE and Exelon's other operating companies. To optimize security and customer value, the Company leverages a single security approach across our operating companies and jurisdictions. Exelon 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 it. 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 electric distribution systems and DERs. The process to develop implementation guidance is underway with likely release in the later part of this year (2024). Similarly, the cybersecurity portion of IEEE 1547 (1547.3) is currently written as an informative guideline and not as a standard. It would be difficult to enforce or require adherence or compliance with an informative guideline as opposed to an established standard. Work is needed by the IEEE committee to develop the guidelines in 1547.3 into a set of adopted standards. Until a uniform standard is adopted, Exelon intends to follow its company security policies and standards which include implementation of National Institute of Standards and Technology (NIST) based controls covering the distribution system since 2017. Exelon will seek to contractually establish cyber security terms and conditions with DERAs and DER vendors and conduct cyber security due diligence through a set of questionnaires designed to assess the security posture and risk of interconnecting with the proposed DERs/DERAs or their systems.

Exelon's Cyber Information Security Services (CISS) team is responsible for coordinating with appropriate internal and external stakeholders on cybersecurity issues affecting Exelon's operating companies—including ACE—associated vendors, and customers. As mentioned above, Exelon would 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/DERAs or their systems.

10. **With New Jersey adopting the Institute of Electrical and Electronics Engineers (IEEE) Standard 1547, specifically 1547-2018, to govern the interconnection and interoperability between inverter based DERs and utility electric power systems, do you anticipate any difficulty in managing aggregations and the individual DER Components that are interconnected? Are there processes or limitations existing today on a DERA's ability to use 1547's capabilities or for allowing individual DERs or microgrids that are disconnected in emergencies to still fulfill their obligations to other resources in the aggregation?**

ACE Response:

ACE has already adopted IEEE Standard 1547-2018 in its interconnection technical requirements and currently requires all inverter- based DERs to supply UL-1741-SB inverter certification. However, implementation of IEEE Standard 1547-2018 by itself does not mitigate the difficulty of managing DERs and DERAs that are interconnected. New processes are required for ACE to effectively manage interconnected DERs and DERAs. This includes, but is not limited to, processes to maintain up to date DERA and DER contact information and processes to disconnect DERAs in an emergency. It is unclear to the Company at this time how a DER disconnected in an emergency would fulfill its obligation to the DERA. The needs for implementation of FERC Order 2222 will continue to evolve and ACE will continue to evolve its preparations as necessary to successfully implement FERC Order 2222.

11. **Does your EDC have any plans to prepare for Order No. 2222's implementation by means of launching pilot DERA program(s)? If so, please provide details on the pilot program, such as timelines and potential planned phases, and how the pilot will support subsequent DERAs. Please provide justification for why a pilot program is needed prior to full deployment and explain what the anticipated benefits of such a pilot program are.**

ACE Response:

At this time ACE does not have plans to launch a pilot DERA program.

12. **Does your EDC have procedures in place in the event that a DERA or a Component DER's Registration review period goes past 60 days and is granted additional time for the review?**

ACE Response:

At this time, ACE does not have a procedure in place. The needs for implementation of FERC Order 2222 will continue to evolve and ACE will continue to evolve its preparations as necessary to successfully implement FERC Order 2222.