COMMONWEALTH OF PENNSYLVANIA

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

Re: Technical Conference on Resource Adequacy in Pennsylvania
Docket No. M-2024-3051988

Dear Secretary Chiavetta:

Enclosed for filing is the Office of Consumer Advocate's Comments in the above-referenced proceeding.

Respectfully submitted,

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Enclosures

cc: Office of Small Business Advocate (ra-sba@pa.gov)

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Technical Conference on Resource Adequacy in Pennsylvania	:	Docket No. M-2024-3051988

POST-TECHNICAL CONFERENCE
COMMENTS OF THE
OFFICE OF CONSUMER ADVOCATE

I. INTRODUCTION

The Public Utility Commission (Commission or PUC) conducted a Technical Conference on Electric Resource Adequacy on November 25, 2024. Pennsylvania's Consumer Advocate, Patrick M. Cicero, participated in one of the three panels assembled by the Commission to address various aspects of the resource adequacy issue. In addition to remarks made at the Technical Conference, the Commission invited interested parties to submit post-Technical Conference written comments. What follows are the comments of the Office of Consumer Advocate (OCA).

At the outset, the OCA observes that discussion at the Technical Conference was wide-ranging and thought-provoking as it touched on a host of topics ranging from the details of non-PUC jurisdictional PJM's capacity market to integrated resource assessments conducted by Commission-regulated Electric Distribution Companies (EDCs). Though many aspects of resource adequacy issues were addressed, not everything discussed is within the Commission's jurisdiction or authority to address or effectuate under current law. The focus of the OCA's comments will be on actions or efforts that are within the Commission's existing authority that can be undertaken to potentially address electric resource adequacy concerns. The OCA acknowledges that there may be statutory changes that ultimately should be considered by the General Assembly and the OCA

looks forward to a robust conversation on those issues at a future time. However, for purposes of these comments, the OCA does not address legislative changes here.

Before providing specific recommendations, the OCA would note that several commenters at the Technical Conference referred to the fact that while resource adequacy is a concern at the regional (PJM) level, there is not a short-term concern over adequacy within Pennsylvania. To that point, PJM recently compiled a Resource Adequacy Analysis specifically for Pennsylvania, which determined that Pennsylvania's resource mix (adjusted for Electric Load Carrying Capability (ELCC)) would remain resource adequate in 2032, even in a no new resource entry scenario, given the parameters studied in the analysis.[1] However, PJM states in the analysis that this outlook would change if Pennsylvania experiences a sharp increase in demand or decrease in supply (e.g. hyperscale loads due to AI and data centers). Pennsylvania leaders should take a deliberate approach to addressing resource adequacy, one that seeks to maintain existing resources and to incentivize new resources, including new natural gas resources, thus availing Pennsylvanians of one of the Commonwealth's plentiful natural resources.

II. AREAS WITHIN THE COMMISSION'S EXISTING AUTHORITY

A. Long-term contracts with in-state resources as a part of coordinated EDC Default Service Plans.

Initially, the OCA submits that one area that bears Commission exploration is the provision of default service by the Commonwealth's larger EDCs. The provision of that service is governed by Section 2803(e) (3.1-3.9) of the Public Utility Code. The statute provides that EDCs are to procure a "prudent mix" of spot, short-term contracts, and long-term contracts. The prudent mix

[1] Pennsylvania Resource Adequacy Analysis, Q3, 2024. Available at: https://www.pjm.com/-/media/DotCom/library/reports-notices/special-reports/2024/20241121-pa-resource-adequacy-analysis.pdf

is supposed to ensure that adequate and reliable service will be provided at "the least cost to customers over time." The statute defines long-term contracts as being between four and twenty years in length and not comprising more than 25% of an EDC's anticipated default service load. The Commission has discretion under the statute to approve contracts of longer than 20 years and that exceed the 25% threshold. 66 Pa.C.S. § 2807(e)(3.2)(iii).

Given the current concerns over resource adequacy, the Commission could undertake an examination of whether incorporating some longer-term default service supply contracts might better meet the "prudent mix" standard and contribute to an improved resource adequacy situation. The predominant default supply contracts now relied upon by the EDCs are one- to two-year fixed price full requirements contracts that have the benefit of reflecting current wholesale pricing but do not necessarily incent new resource entry through longer-term revenue stability. The Commission has authority to consider whether longer-term default service contracts would better meet the standard of ensuring adequate and reliable service at the least cost over time and whether a different structure could facilitate new entry.

For example, EDCs can be moved to the same default service planning and review schedule. Currently, four of the EDCs (PECO, PPL, Duquesne and UGI) have default service plans that run from June 1, 2025 through May 31, 2029. The FirstEnergy EDCs (Met-Ed, Penelec, West Penn and Penn Power) are on a cycle that runs from June of 2023 through May of 2027. This means that the FirstEnergy companies will not file a new default service plan until early 2026. Having all EDCs on the same schedule could aid in coordinating load forecasting and implementing long-term contracting.

Another example is the encouragement of inter-utility planning and coordination. The Commission could encourage utilities with contiguous service territories to consider whether they

should jointly pursue bilateral contracts with generators as a part of their respective default service loads thereby increasing the likelihood that Pennsylvania-specific generation is under contract for Pennsylvania consumers while spreading the risk that a long-term contract may produce a higher price over a larger base of customers.

B. EDCs contract with large loads outside of default service plans.

A significant concern in terms of load growth within the EDCs' service territories is the development of hyperscale data centers with loads that can reach more than 1,000 megawatts within several years of beginning operation. The rapid growth of these data centers is a primary contributor to the current resource adequacy concerns. In terms of meeting this burgeoning demand, the OCA recommends the Commission explore the scope of possible options presented by Section 2807(e)(5)(i) of the Code which authorizes EDCs to offer customers with a demand of 15 megawatts or more a negotiated rate for service for any duration agreed upon by the EDC and customer. The rates that are contracted for are subject to review by the Commission to ensure that "all costs related to the rates are borne by the parties to the contract and that no costs related to the contract are borne by other customers or customer classes." Though not entirely clear, this provision appears to offer the potential of meeting large-scale loads outside the confines of a least cost default service plan, and because the contract can be of any length, there is the potential for the EDC to enter into a long-term contract with one or more supply resources to meet the hyperscale load.

Section 2807(e)(5)(i) states that its provisions are discretionary, not mandatory. Thus, the Commission cannot compel an EDC to enter into such a contract. However, if after deliberation, the Commission determines that contracting under this provision is something the EDCs should pursue, it can certainly encourage them to do so by way of a policy statement or other means.

C. Coordination between resource planning and default service planning.

The Commission can consider establishing greater coordination between annual resource planning reporting under Code section 524(a) and default service planning, particularly in terms of incorporating information from the Annual Resource Planning Reports (ARPR) into planning for the provision of default service. Doing so, however, may first require a fresh look at the ARPR requirements to ensure that they fully reflect the restructured nature of electric industry as well as require EDCs to describe their load forecasting methodology. EDCs should be required to address in their default service plans how resource adequacy has been and will be maintained in any prospective plan being filed under Code section 2807(e)(3.6).

Each year, the Commission compiles the information supplied by the EDCs in their ARPRs into a report called the Electric Power Outlook for Pennsylvania (EPO).[2] The EPO discusses various aspects of the North American Reliability Corporation's (NERC) Long-Term Reliability Assessment, including emerging issues, conclusions and recommendations. The OCA encourages careful Commission review of NERC recommendations with an eye toward taking action to carry out those initiatives that are within the Commission's authority.

By way of example, NERC's 2024 Long-Term Reliability Assessment includes a number of recommendations.[3] Most are aimed at actions to be taken by RTOs/ISOs at the wholesale level, but several have relevance to distribution level activity. One of the recommendations involves NERC's Inverter-based Resource (IBR) strategy. FERC Order No. 991, issued in October 2023, provided clear direction for the industry to develop requirements that address reliability gaps

[2] Electric Power Outlook for Pennsylvania 2023-2028, August 2024, *available at* https://www.puc.pa.gov/media/3124/2024-epo-2023-2028-7-2024_final.pdf

[3] NERC 2024 Long-Term Reliability Assessment, December 2024, pp. 144-148, *available at* https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_Long%20Term%20Reliability%20Assessment_2024.pdf

associated with IBRs in data-sharing, model validation, planning, operational studies and performance requirements.[4] Another recommendation calls for continuing efforts to evaluate potential reliability concerns associated with increasing Distributed Energy Resource (DER) penetration and performance.[5] Because many IBRs and most DERs connect to EDC distribution systems, not the bulk power system, the Commission should be in a position to offer its technical expertise regarding IBR and DER distribution-level connections to assist NERC in achieving its objectives in these efforts.

D. Coordination of communications between PJM and PUC during grid emergencies.

In a critical reliability situation as was experienced in Winter Storm Elliott (WSE) in December 2022, the actions of retail customers can be consequential in terms of whether rolling blackouts or worse can be avoided. In WSE, the actions of some retail customers to conserve in response to a request by PJM played an important role in keeping the lights on at the most critical hours of the crisis. Nevertheless, the conservation efforts by customers across the PJM footprint were uneven and likely could have produced a greater response had communications channels, including those of state commissions been more effective. The Commission has a robust and effective Office of Communications that can and should amplify conservation messaging that is coming from PJM in times of a grid emergency. This requires planning about the kind of messaging that resonates with consumers, including practical and effective ways for consumers to reduce usage without complication. The Commission should take a key leadership role in this process and should directly engage with PJM on these issues. It is clear from the Winter Storm Elliott example that coordination of communication protocols between PJM, state commissions

[4] *Ibid.* at 145.
[5] *Ibid.* at 147-148.

and state emergency management agencies can be improved to achieve wider dissemination of calls for conservation in emergency situations.

E. The Commission should actively engage in advocacy at PJM and FERC.

The OCA submits that the Commission's voice is needed at PJM and FERC on issues of reliability and resource adequacy. The OCA appreciates the recent engagement by the Commission both through the Organization of PJM States, Inc. (OPSI) and on its own initiative. This is critical. As we try to determine a path forward on state-specific needs, it is incumbent upon the Commission to provide leadership in both forums. For example, the Commission, through OPSI, has expressed support for subannual capacity markets.[6] At the Technical Conference, the PJM Market Monitor, Dr. Bowring, commented that he thought a seasonal capacity market would produce less favorable results than an annual market. Dr. Bowring argued for greater granularity in the capacity market, but rather than segmenting the market by different seasons, he advocated for addressing capacity on an hourly basis. The Market Monitor's hourly approach to the capacity market was proposed during PJM's 2023 Critical Issue Fast Path (CIFP) process. Called the Sustainable Capacity Market (SCM), the approach focuses on the hourly availability of capacity resources throughout a delivery year. Pricing would continue to be set annually, but unlike the current structure, capacity resources would not be paid for all hours of a delivery year. Rather, resources would be paid only when available to produce energy. If not available to produce energy, they would receive no capacity payment. This payment only when available feature is central to the SCM approach. It represents a move away from the current Capacity Performance (CP)

[6] OPSI Letters to the PJM Board of Managers, August 30, 2023 https://www.pjm.com/-/media/DotCom/about-pjm/who-we-are/public-disclosures/20230830-opsi-letter-re-cifp-proposals.pdf and September 27, 2024 (cont'd) https://www.pjm.com/-/media/DotCom/about-pjm/who-we-are/public-disclosures/2024/20240927-opsi-letter-re-results-of-the-2025-2026-bra.pdf

structure. During the CIFP discussions, the Market Monitor prepared an Executive Summary of its SCM proposal in which he explained the differences between SCM and CP and the reasons to move away from CP:

> The use of capacity market penalties rather than energy market incentives creates risk. This risk is not risk that is fundamental to the operation of a wholesale power market. This is risk created by the CP design in order, …to provide an incentive to produce energy during high demand hours that is even higher than the energy market incentive. When that artificial risk is included in capacity market prices, customers pay to cover it. The goal of incentives is to increase the likelihood that resources will be available to produce energy when called on. Paying resources only when they are available provides an important incentive to perform at all times. Paying resources only when they are available is a long term, predictable incentive for performance. This is a positive performance incentive based on the market price of capacity rather than a penalty.
>
> If units' capacity market revenue depends on investing in making generators more reliable in every hour, the units are more likely to be available at times of high stress… Linking payment of those revenues to hourly performance is a strong incentive to invest in reliability. The approach to incentives in the SCM design is intended to provide… incentives for performance through a combination of paying only when resources are available and stronger testing requirements. These elements create a strong incentive to invest in maximum availability, including availability during high stress hours. On a routine basis (in the absence of infrequent [Performance Assessment Intervals (PAI)]), the CP model provides no incentives for performance. Units are paid their equal hourly capacity price regardless of performance. The CP approach provides no incentive to perform when markets are tight but there is no defined emergency or PAI. The failure of CP incentives to result in improved unit performance has the perverse effect of increasing the probability of PAI emergencies. The absence of regular, ongoing incentives in the CP approach means less maintenance which results in failures under extreme circumstances. The important difference between the SCM proposed design and the current CP design is that under the proposed SCM design, capacity resources are not paid the hourly capacity price when the resources are not available in an hour. Under the existing design, capacity resources are paid the same hourly capacity price in every hour even when resources are on long term planned outages, when resources are on maintenance outages, when resources are on forced outages and when thermal or

intermittent resources are not capable of producing energy equal to ICAP as a result of ambient conditions.[7]

The OCA finds that the Sustainable Capacity Market (SCM) approach may be preferable to a less granular seasonal approach and that the logic of payment only for resource availability has appeal compared to the current CP model. Accordingly, the OCA encourages the Commission and other members of OPSI to consider SCM as a viable alternative to a more arbitrary seasonal approach to capacity procurement.

F. The Commission should encourage robust energy efficiency targets and demand response in Phase V of Act 129.

In 2025, the Commission will be determining whether it remains cost effective to implement Phase V of Act 129, and if so, what the appropriate savings targets and goals are for each of the EDCs. In making this determination and ultimately in setting targets, the Commission should consider the current resource adequacy constraints over the coming years and encourage the development of robust measures that incentivize deep savings for all classes of consumers. The OCA supports the continuation of Act 129 into Phase V as a companion to all other efforts to ensure effective resource adequacy in the coming years. Robust energy efficiency that is targeted to an actual (rather than deemed) savings of energy for consumers could help put downward pressure on load forecasts in coming years. Furthermore, robust demand response by residential and commercial customers is an essential component of capacity planning and the Commission

[7] Monitoring Analytics, Executive Summary of IMM Capacity market design proposal: Sustainable Capacity Market (SCM) at 9-10, August 23, 2023, *available at* https://www.monitoringanalytics.com/reports/Presentations/2023/IMM_RASTF-CIFP_SCM_Executive_Summary_20230816.pdf. Further details of the SCM approach can be found in the Market Monitor's presentation, "Sustainable Capacity Market (SCM) Part 3" made during CIFP discussions on July 27, 2023, *available at* https://www.monitoringanalytics.com/reports/Presentations/2023/IMM_RASTF-CIFP_Sustainable_Capacity_Market_Proposal_Part_3_20230727.pdf

should ensure through its Act 129 implementation orders that demand response is a part of Phase V of Act 129 that is available to all classes of consumers.

III. CONCLUSION

The OCA encourages the Commission to pursue the avenues available to it so that resource adequacy can be assured in Pennsylvania and the PJM region. As all involved realize, there is no single or predominant solution to the current capacity challenges. A resolution requires each stakeholder doing what it can, playing its part. The OCA urges the Commission to adopt that view as it weighs its options for acting with respect to resource adequacy concerns.

Respectfully Submitted,

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Dated: January 9, 2025