

Prepared Testimony of
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before the
Senate Consumer Protection and Professional Licensure Committee &
Environmental Resources & Energy Committee

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Good morning, Chairs Stefano, Yaw, Boscola, Comitta, and other members of the Committees. My name is Stephen DeFrank, Chairman of the Pennsylvania Public Utility Commission (PUC or Commission).

I appreciate the opportunity to testify in front of the Senate Consumer Protection and Professional Licensure Committee and the Senate Environmental Resources and Energy Committee today on the important topic of resource adequacy in our electric system.

The Commission continues to monitor and address critical issues in the state's electricity sector, ensuring that electricity remains reliable, affordable, and competitive. The Commission is actively engaged in assessing resource adequacy and supporting the continued development of Pennsylvania's competitive electricity markets.

Today's hearing on electric resource adequacy is very timely. This issue is gaining increased attention as a result of activity surrounding PJM Interconnection (PJM), the regional grid operator for Pennsylvania and much of the Mid-Atlantic and Midwest. In February 2023, PJM issued its Energy Transition Report on Resource Retirements, Replacements & Risk (Four R Report). Then in July 2024, PJM released the results of its most recent capacity auction. The Four R Report showed approximately 40 GWs of generation at risk of retirement. Subsequently, PJM's capacity auction resulted in a significant price increase for the 12-month period beginning June 2025. The primary drivers of these cost increases include:

- The retirement of traditional generation units and the growing use of intermittent renewable energy resources, which require a balanced mix of capacity solutions to maintain reliability.
- Delays in the PJM's interconnection queue to study and approve new resources, as well as supply chain and construction delays for projects that do receive interconnection rights.
- Projected electric load growth, particularly from data centers supporting artificial intelligence (AI) applications, which could account for 16% of total electricity demand by 2039 – up from 4% today.
- Increased adoption of electric vehicles (EVs) and electrification of heating systems, adding to future demand growth.
- Newly established auction parameters.

Recognizing the potential challenges posed by these developments, the PUC hosted a Technical Conference on Resource Adequacy in November of last year. Participants included utilities, generators, consumer advocates, the Governor's Office, and other experts. Key topics discussed included:

- Whether utilities should play a more direct role in securing new generation resources.
- The potential use of long-term power purchase agreements to support new generation development and grid stability.
- The need for large-load users, such as data centers, to provide their own backup generation rather than relying solely on the grid.

- The role of energy storage, demand response, and energy efficiency in balancing supply and demand.
- Regulatory and policy barriers that may slow new generation and transmission development, including lags in PJM's process for interconnecting new generation resources, local permitting challenges, environmental policies, and supply chain constraints.

Following the conference, the PUC received 30 formal comments that it solicited via the Pennsylvania Bulletin. The Commission recently took its first action resulting from that technical conference. On April 24th, the Commission convened an *en banc* hearing to research and discuss the subject of large load tariffs for electric distribution companies (EDC). Our goal is to establish a model tariff in Pennsylvania that can appropriately balance the economic development potential of data center customers, the rate stability benefits these large users can bring, the infrastructure upgrades and funding necessary to interconnect these accounts, and important ratepayer protections from interconnection and upgrade costs. We established a 30-day comment period following the *en banc* hearing which is ongoing and will be followed by a 15-day reply comment period. The Comment period ends May 27, 2025 and the reply comment period ends on June 11, 2025.

While I am pleased to be moving forward on this issue, it is not the only item being deliberated at the Commission. We are also placing a keen focus on a number of other topics. First, our technical staff are presently working to refine EDC load growth projections. As a restructured state, the Commission has placed less emphasis on integrated resource planning over the last several decades as the Commission was largely relieved of this obligation when restructuring occurred. Resource planning, to the extent it occurs, is now done through the marketplace and PJM. However, with the significant changes taking place in both wholesale and retail electric markets, we are enhancing our efforts to obtain and analyze more granular load projection data from each of our EDCs to better inform the Commission and the Commonwealth of the outlook of electricity markets. For instance, the Commission is interested to see how EDC projections compare with those of PJM. We are also interested to see if some large users are applying for interconnection in multiple EDC service territories simultaneously for the same single project—this was one issue we raised within our *en banc* hearing.

We are also focused on bringing more attention to, and increasing uptake of, time-of-use (TOU) rate designs. TOU rates, when properly designed, can reduce peak demand on the grid, thereby flattening the load curve and helping to reduce the costs associated with meeting peak demand. All major EDCs currently offer TOU rates as part of their provision of default service. However, the uptake on those TOU offerings, whether from EDCs or electric generation suppliers (EGSs), has been low - only 5,970 accounts enrolled in TOU offerings in 2023. The Commission is committed to improving customer awareness of TOU offerings, as they can be a valuable tool in helping manage increased electricity costs at both the consumer and system level.

Moving on, the Commission has recently approved some competitive power purchase agreements (PPAs) as part of EDCs' default service programs designed to construct new solar generation. Such purchases were approved for Duquesne Light Company, resulting in the construction of a 4.7 MW solar facility located at the Pittsburgh International Airport, and PECO, which is commencing a

competitive solicitation for construction of an up to 25 MW solar project in Pennsylvania via a 10-year PPA.

On the topic of energy efficiency, the Commission recently issued a Tentative Order proposing Phase V of the Act 129 Energy Efficiency and Conservation Programs. This phase, like the previous phase of the program, would run for five years, commencing on June 1, 2026. The proposal includes five main areas of energy efficiency measures: market rate energy efficiency, low-income energy efficiency, solar, combined heat and power, and demand response. As I noted in a statement when approving the Tentative Order, Act 129 has provided significant benefits to the Commonwealth, delivering approximately \$4.5 billion in savings to Pennsylvania homes and businesses. As prices for both generation and delivery of electricity face upward pressures, the value of investments to save on usage will become even more economic. I believe energy efficiency will be an extremely important tool as we navigate this chapter of high demand growth. After all, the cheapest watt is the one you do not use.

Another tool the Commission uses to ensure electricity remains reliable and affordable is our participation and advocacy at PJM and the Federal Energy Regulatory Commission (FERC). As I previously stated, wholesale electricity markets are not within our jurisdiction, but we are an important stakeholder as the largest generator and exporter of power within the PJM footprint. Whether participating directly, or through the Organization of PJM States, Inc. (OPSI), the Commission has maintained an active voice.

For instance, I personally participated in a FERC Technical Conference discussing the topic of co-located load, offering the perspective of the Commonwealth's utility regulator to ensure end users pay their fair share of costs. As well, just recently the Commission filed comments at FERC regarding tariff policies at PJM where we highlighted concerns about having enough visibility into the potential resource adequacy and reliability impacts arising from co-location.¹ And of significant importance, PJM just released the results of its Reliability Resource Initiative (or RRI), a process which the Commission supported through our participation in OPSI.² The RRI is a one-time FERC approved process permitting PJM to allow additional "shovel ready" generation projects to interconnect quickly and offer into the capacity market. The RRI resulted in commitments from 39 uprate projects totaling 2,108 MWs and 12 new construction projects totaling 7,253 MW.³ This represents a combined total of 9,631 MW, with 90% expected online by 2030 and all projects online by 2031.⁴

Another promising industry development which offers a new avenue for investment, grid management, and resource adequacy are virtual power plants. In September of 2020, FERC issued Order 2222, allowing distributed energy resources to participate in wholesale markets. Regional Transmission Organizations throughout the country are currently implementing rules and procedures to get this new marketplace up and running. The Commission issued an advanced notice of proposed rulemaking on Order 2222 last year, and we are currently deliberating next steps. Given the investment in advanced metering infrastructure throughout the Commonwealth,

¹ Commission comments filed April 22, 2025 at FERC Docket Nos. EL25-49-000 *et al.*

² OPSI comments filed on January 8, 2025 at FERC Docket No. ER25-71-000.

³ <https://insidelines.pjm.com/pjm-chooses-51-generation-resource-projects-to-address-near-term-electricity-demand-growth/>

⁴ Initial review of the results shows that 1,292.6 MWs will be uprated/constructed in Pennsylvania.

the Commission hopes any next steps, including a potential rulemaking, can increase efficiency, enhance service, and potentially lower costs through proper utilization of virtual power plants.

Finally, I would also like to touch on Pennsylvania's competitive retail electric marketplace. The Commission strives to ensure Pennsylvania consumers benefit from fair pricing, transparency, and robust supplier competition. In this time of rising electric prices, retail EGS contracts represent an opportunity for customers to save. The PUC provides a great resource to review supplier offerings at PaPowerSwitch.com.

As Pennsylvania's electricity landscape continues to evolve, the PUC remains focused on ensuring resource adequacy through continued engagement with PJM, utilities, and stakeholders to address emerging grid reliability challenges while fostering a competitive electricity market that provides affordable and transparent options for consumers.

The Commission understands that there are numerous issues concerning electricity markets and EDCs that are being debated. They include most notably those that the Governor's Lightning Plan package of bills is attempting to address.

The Commission looks forward to working with the Governor's Office, General Assembly, industry partners, and consumer advocates on these issues and others. And of equal importance, the Commission will continue our concerted focus to think outside-the-box about new policies and tools we can presently leverage to further facilitate an affordable, safe, and reliable energy future for all Pennsylvanians.

On behalf of the Commission, I appreciate the opportunity to testify today at this joint hearing. I welcome your questions and look forward to continuing our collaboration with the General Assembly to advance policies that benefit all Pennsylvanians.