

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

En Banc Hearing Concerning
Interconnection and Tariffs for
Large Load Customers

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Docket No. M-2025-3054271

**COMMENTS OF
CONSTELLATION ENERGY GENERATION, LLC**

Constellation Energy Generation, LLC (“Constellation”) appreciates the opportunity to submit these comments in response to the Pennsylvania Public Utility Commission’s (“Commission”) April 24, 2025 en banc hearing examining interconnection and tariffs for large load customers. Our comments focus on a number of considerations for a model large load tariff, including the importance of transparency, speed, and fair allocation of costs. We also explain why any model large load tariff should allow large load customers flexibility in choosing energy sources and interconnection configurations, recognize the critical role generation will play in bringing these large loads into the Commonwealth, and leverage existing competitive wholesale markets to support development of these resources.

I. INTRODUCTION

After nearly two decades of relatively flat electricity consumption, the United States is now witnessing a significant surge in power demand. This surge is propelled by various economic growth trends, including the proliferation of data centers, the widespread adoption of electric vehicles, the reshoring of manufacturing, and the electrification of buildings and industries. Pennsylvania has a unique opportunity to lead the way in developing best practices that effectively and efficiently enable this incredible growth opportunity while mitigating negative consumer impacts.

As a major energy producer in Pennsylvania, and the largest producer of clean electricity in the United States,¹ Constellation recognizes the importance of supporting this growing electricity demand with a strategy that takes into consideration the wide range of options that can help interconnect these vital large load customers in a timely and efficient manner that minimizes the need for costly transmission expansion. Constellation urges the Commission to adopt an approach that makes efficient use of existing generation, transmission, and distribution infrastructure, while supporting timely and prudent investments in competitively-sourced new

¹ Constellation is responsible for generating approximately one out of every ten megawatts of carbon-free energy nationwide.

<https://www.constellationenergy.com/newsroom/2024/Independent-Report-Confirms-Constellation-is-Nations-Largest-Producer-of-Emissions-Free-Energy.html>

resources, energy efficiency, grid-enhancing technologies, and other innovative strategies to meet this growing demand. These efforts are essential to the Commonwealth's and the broader Nation's economic growth, global competitiveness, and national security. To position itself as a national leader in attracting and growing large economic development opportunities, Pennsylvania must adopt a balanced approach that supports technological advancement, efficient energy practices, and fair cost allocations while maintaining a successful competitive energy market that brings numerous benefits to families and businesses in the Commonwealth.

II. CONSTELLATION SUPPORTS EXPLORING A MODEL LARGE LOAD INTERCONNECTION TARIFF

Constellation supports the Commission's exploration of model tariff designs tailored for new large-load customers. Constellation believes any such model tariff should focus on fair policy and financial outcomes that provide reliable power to new large customers while mitigating risks and adverse impacts to existing customers. Constellation believes that best practices emphasizing the importance of speed to market and transparency in large-load forecasting are necessary to the efficient integration of these critical large loads. This approach will create both near-term and long-lasting advantages for developing this load in the Commonwealth.

A. Any large load model tariff should encourage and enable a rapid and transparent interconnection study process.

Speed to market is of critical importance to many large load customers,² and there are several ways in which a model large load tariff can encourage and enable a rapid and transparent interconnection study process. First, a streamlined large load interconnection process that establishes timelines not to exceed certain periods for study completion is paramount. This will maximize study efficiency and ensure timely integration of large loads, giving the Commonwealth a regional and national advantage in the effort to attract new jobs, expand tax base and grow the economy. We agree with some of the large load companies that testified at the en banc hearing, suggesting that a study timeline of three to (not to exceed) six months is reasonable.³ Model tariff provisions that support transparency and flexibility in cost structures and funding of necessary upgrades can also reduce interconnection study time. For example, large load customers should be permitted to self-construct infrastructure, such as substations or system upgrades, and competitively source generation capacity (through either purchase power agreements with existing or new generation or new construction) at their own expense. This will enable speed to market through defined interconnection study timelines for physical interconnection for loads that meet specified requirements while preventing the socialization of these costs to existing customers.

² See Amazon Data Servs. Inc., Fradette Test. at 5; FirstEnergy Pennsylvania Electric Co., Grower Test. at 4; PPL Electric Utils. Corp., Lookup Test. at 2-3.

³ See Vantage Data Centers, Smith Test. at 5.

Additionally, leveraging existing infrastructure and capacity, advanced technologies, and load configurations when considering transmission investments is critical to supporting speed to market while ensuring reliability, particularly in the early stages of this large load opportunity. To that end, collaboration between the Commission, transmission owners, energy companies, and large load customers is essential to explore every opportunity to reduce additional transmission upgrade costs through grid-enhancing technologies, advanced reconductoring, co-location of existing or new generation resources and other alternatives. For example, unlike new infrastructure, which can take years to build and energize, demand-side resources can be deployed more quickly, offering nearer term benefits.⁴ In addition, co-locating new large loads with new or existing generation can reduce stress on the transmission system even when the load is grid-connected. This, in turn, reduces the need for infrastructure upgrades and reduces costs to existing customers while supporting speed to market.

Importantly, in certain instances utilizing existing generation proximate to the new large load facilities can offer significant financial savings and better mitigate ratepayer impacts compared to new infrastructure deployment. Constellation agrees with PECO's comments on this point:

Large Load projects have the potential to create jobs that support local workforces. **They may also be able to leverage sites with existing infrastructure and available capacity, and the amounts these customers pay for EDC service and connection may ultimately have the effect of decreasing system costs for other customers over time.** And as we have already seen in Pennsylvania, these projects can drive the reactivation of generation facilities that were determined to be uneconomic just a few years ago, creating additional jobs, expanding the state and local economies, and benefitting local communities.⁵

⁴ Like Google, META, and Exelon, Constellation is also a contributing stakeholder in the DC Flex initiative launched by the Electric Power Research Institute, which aims to demonstrate how data centers can support and stabilize the electric grid while improving interconnection and efficiency.

⁵ PECO Energy Co., Webster Test. at 5 (emphasis added). *See also* Answer of Constellation Energy Generation, LLC, Federal Energy Regulatory Commission Docket No. EL25-49-000 ("Constellation Answer"), Exh. 5, Affidavit of Michael Kormos ("Kormos Aff.") at ¶ 4 (filed Apr. 23, 2025), <https://elibrary.ferc.gov/eLibrary/filedownload?fileid=4109E04E-7E4F-C124-88A3-96646DC00000> ("Based on my years of experience as a grid planner and operator, I can say with certainty that the closer load is to its supply, the costs, time to connect the load, and the operational risk are all likely to be reduced.").

The Commission should embrace this opportunity to position the Commonwealth as a partner in bringing large loads online quickly while minimizing cost increases for existing customers and maintaining reliability of the transmission grid.

Constellation also acknowledges the necessity for new infrastructure development, but we implore the Commission to ensure that any such new infrastructure is planned and constructed on a foundation of accurate information. As a recent Harvard Electricity Law Initiative study emphasized, “[f]or competition to be effective, market participants need information about potential data centers’ location and power demands. When utilities withhold that information, they prevent generators and other infrastructure and technology developers from offering data centers solutions that compete with the utility’s offering.”⁶ Given the anticipated significant costs of new investments in transmission infrastructure, it is essential to have robust transparency and EDC disclosure of large load forecasting. Such load forecasting transparency will provide better oversight and integration with PJM long-term planning, guaranteeing that investments are both prudent and necessary. In alignment with the findings of the Harvard Study, we likewise emphasize the need for transparency and disclosure of large load forecasts by EDCs. We agree that this transparency is “crucial for protecting consumers, enabling competition, and ensuring reliability.”⁷ In addition, the EDC’s should follow a consistent approach in developing their demand projections to ensure consistency in their findings.⁸ The Commission can play a pivotal role by requiring EDCs to provide demand projections more frequently and requiring EDCs to enhance their reporting by providing potential locations and demands of new large load customers.⁹

B. Any large load model tariff should recognize the critical role existing generation will play in supporting large load interconnections.

While Constellation recognizes that generation is not the focus of this proceeding, we encourage the Commission to ensure that any model large load interconnection tariff enables large load customers to choose energy sources and interconnection configurations that minimize interconnection time and costs, meet their particular stability and reliability needs, and align with the customer’s sustainability goals. Without a doubt, meeting the new large load challenge will

⁶ Eliza Martin and Ari Peskoe, *Extracting Profits from the Public: How Utility Ratepayers are Paying for Big Tech’s Power* at 29 (March 2025) (“Harvard Study”), <https://eelp.law.harvard.edu/wp-content/uploads/2025/03/Harvard-ELI-Extracting-Profits-from-the-Public.pdf>.

⁷ *Id.* at 30.

⁸ See Pre-Technical Conference Comments of Constellation Energy Group, LLC (“Constellation Resource Adequacy Comments”), Federal Energy Regulatory Commission Docket No. AD25-7-000, at 19-20 (filed May 16, 2025), <https://elibrary.ferc.gov/eLibrary/filedownload?fileid=056EC392-7D29-C112-8956-96DAE3A00000>.

⁹ Harvard Study at 30.

require a diverse mix of existing and new generation sources to ensure reliability and flexibility in power supply. Pennsylvania, with its large, diverse generation fleet, is in a strong position to attract new large load customers, and the jobs and economic growth that comes with new large loads, compared to other neighboring states,¹⁰ and Constellation is proud to be a part of Pennsylvania’s diverse fleet of power producers.¹¹ While maintaining a reliable power grid at least reasonable cost and risk is always an imperative, and a mandate for the Commission, ensuring new large loads have sufficient energy supply is vital for protecting national security and for ensuring that data centers and artificial intelligence systems are safe, secure, and trustworthy.¹² Reliable energy supply and robust infrastructure are necessary for the successful deployment and expansion of these critical large loads, and a large load model tariff that enables those large load customers to choose energy sources and interconnection configurations that reduce costs on other customers and enable faster interconnection will play an important role in meeting these needs.

i. Any large load model tariff should enable and promote co-location with generation resources that reduce costs for other customers and enable faster interconnection.

Ensuring the prompt connection of these large loads is imperative to America’s economic competitiveness and national security, but existing processes for interconnecting large loads involve significant time and expense.¹³ In fact, it takes at least four to five years,¹⁴ *and often even longer*, to complete the study process and build all the transmission upgrades necessary to provide

¹⁰ Pennsylvania is the third-largest producer of electricity in the United States. *See* U.S. Energy Information Administration, *Electric Power Annual 2023*, Table 3.7:Utility Scale Facility Net Generation (Oct. 2024), https://www.eia.gov/electricity/annual/table.php?t=epa_03_07.html. In fact, Pennsylvania regularly exceeds its power consumption, acting as a net exporter. *See* U.S. Energy Information Administration, *State Electricity Profiles 2023* (Oct. 2024), <https://www.eia.gov/electricity/state/>; PJM, *2023 Pennsylvania State Infrastructure Report*, at 24 (June 2024), <https://www.pjm.com/-/media/DotCom/library/reports-notice/state-specific-reports/2023/pennsylvania.pdf> (depicting net energy import/export trend).

¹¹ Constellation is actively engaged in increasing its output to meet the grid’s growing demand, including the notable investment in Constellation’s Crane Clean Energy Center (CCEC) in Londonderry Township. Importantly, CCEC, together with five other energy projects, were recently selected as part of PJM’s Reliability Resource Initiative (“RRI”) to Pennsylvania for immediate study in the interconnection queue. *See* PJM, Reliability Resource Initiative Additional Summaries (May 6, 2025), <https://www.pjm.com/-/media/DotCom/committees-groups/committees/pc/2025/20250506/20250506-rri-addendum---post-meeting.pdf>

¹² *See* Constellation Answer, Exh. 1, Declaration of Dr. Paul Stockton (“Stockton Decl.”).

¹³ *See, e.g.*, FirstEnergy Pennsylvania Electric Co., *Grower Test*. at 4.

¹⁴ *See* Michael Kormos, *The Co-Located Load Solution* at 2 (July 2024), <https://ferc.gov/media/co-located-load-solution-paper> (Kormos Paper); *see also* Stockton Decl. at 9 (stating that it can “take as many as 7 years or longer to build the necessary transmission infrastructure and meet other project requirements”).

network integration transmission service to a hyperscale data center. Four years or longer is too long for any new load to wait, but this is particularly true given the global race for artificial intelligence dominance. Moreover, requiring large load customers to interconnect to and take service from an EDC's grid increases the likelihood that costly upgrades will be required, which increases the cost of the transmission grid for all customers in the region. In many cases, these costs could be reduced or avoided if large loads were able to select an interconnection option that was less reliant on the distribution/transmission system. The Commission can speed interconnection of large loads and reduce costs by adopting a model tariff that enables and encourages large load customers to co-locate with existing generation. Co-locating load at or near generation, either on a behind-the-meter (BTM) or front-of-the-meter (FTM) basis, can obviate the need for many transmission upgrades and reduce the overall system costs paid by other customers.¹⁵

Co-location not only provides cost savings, but reliability benefits as well. Recent widely-publicized¹⁶ voltage drops on the grid caused by data centers in Virginia were created by data centers that were *connected to the grid* and taking service from remote generators in a FTM configuration. The voltage issue had nothing to do with co-location. Had the data centers been co-located BTM, Mike Kormos, PJM's former head of operations, suggests that the voltage drops might not have occurred.¹⁷ In addition, co-located large-load customers may use BTM generation to improve site reliability, reduce the level of contracted capacity and energy, and manage their demand and/or energy charges. A BTM configuration can be beneficial for EDCs as well. Specifically, from the EDC perspective, if configured to allow flow from the generator to the grid, BTM generation as a primary or backup resource can help meet grid needs and improve system reliability. In addition, BTM generation as a supplemental power resource can serve as flexible resource to mitigate system peak demand and integrate variable renewable energy resources.

The rate design of a large load tariff should create incentives to locate the load near or at existing, 24/7, around-the clock generation to minimize the impact on the transmission grid and reduce the need for time consuming and expensive transmission upgrades. Minimum demand charges coupled with netting of generation and load for the purpose of determining volumetric

¹⁵ See Kormos Paper at 9 (explaining that connecting data centers to the grid can result in costs that are “substantial (easily in the billions) and can be spread beyond the data center customer to all other customers”).

¹⁶ See Data Center Dynamics, *Virginia Narrowly Avoided Power Cuts When 60 Data Centers Dropped Off the Grid at Once* (Mar. 20, 2025), <https://www.datacenterdynamics.com/en/news/virginia-narrowly-avoided-power-cuts-when-60-data-centers-dropped-off-the-grid-at-once/>.

¹⁷ See Constellation Answer at 22; *id.*, Exh. 5, Kormos Aff. at ¶7 (“Large generators also typically provide significant inertia that can help the local grid avoid or minimize the impact of many anomalies. Given the reduced likelihood of a voltage drop in the first place for load co-located with a generator, it is less likely that such load will sense a voltage anomaly that will lead it to drop.”).

charges may present a strong incentive to co-locate while still ensuring that the large load customer uses and pays for service from the grid, contributing to the overall cost of the grid.

ii. Any model large load tariff should enable large load customers to choose energy sources best suited to meet their needs, including existing nuclear.

Any model large load tariff should enable large load customers to choose energy sources suited to meet their needs, and in many cases, existing nuclear generation is the best option for these customers. Nuclear generation is particularly suited to meeting the needs of large load customers while providing reliability and environmental benefits to Pennsylvania. Consequently, continued operation, and potential expansion, of nuclear power in Pennsylvania is essential to maintaining and expanding Pennsylvania's resource adequacy, which in turn is critical to supporting the growth of large loads and economic development in the Commonwealth.¹⁸

On top of its general resource adequacy benefits, nuclear power is capable of providing the stable, reliable source of energy large load customers require. According to PJM's former head of operations, Michael Kormos, existing "nuclear plants are large, often with multiple units, carbon-free and sustainable, and capable of and preferring to run at maximum power for up to 18 to 24 months, which matches perfectly with the data center load profile. Nuclear units have the highest reliability and availability of any of the existing resources."¹⁹ Nuclear generators also often have state of the art voltage regulators, which can prevent the type of voltage deviations that recently led large loads to drop offline simultaneously in Virginia.²⁰ Moreover, as evidenced by the testimony submitted by large load customers in this proceeding, these customers are often strongly committed to clean energy and sustainability, with established goals to power their high demand with 100% carbon-free energy in the near future. Existing and new nuclear generation will play a critical role in providing a year-round, around-the-clock, stable and reliable source of carbon-free energy for these large load customers and can also provide significant economic benefits to the Commonwealth. In addition, as other states have affirmed, nuclear power "has demonstrated the lowest lifecycle emissions of any generation technology."²¹ By taking steps to support new and existing nuclear generation in any model large load tariff, the Commission has

¹⁸ For example, Constellation's CCEC is well underway with a \$1.6 billion investment in the plant and the 835 MWs of energy it will add to the grid. The project is creating more than 3,400 jobs, including 650+ permanent jobs at the plant. In addition to the improved grid reliability and significant job opportunities, once completed, the CCEC will add \$16 billion in state GDP and \$3.5 billion of estimated state and local tax revenues over the next twenty years.

<https://www.pabuildingtrades.org/ULWSiteResources/pabctc/Resources/file/News-Events/CCEC/CCEC-Brattle-Report-Complete.pdf>.

¹⁹ See Kormos Paper at 3-4 (internal citations omitted).

²⁰ See Constellation Answer, Exh. 5, Kormos Aff. at ¶ 7.

²¹ N.Y. State Energy Research and Dev. Auth., Draft Blueprint for Consideration of Advanced Nuclear Technologies at 3 (2024).

the opportunity to help Pennsylvania maintain resource adequacy while supporting large load customers in a decarbonizing power system.²²

Adoption of a model large load tariff that enables large load customers to choose energy sources that best support their needs through competitive markets will be mutually beneficial to both large load customers and preservation of Pennsylvania's nuclear fleet. Despite the numerous benefits of nuclear power, and its importance to resource adequacy in Pennsylvania and throughout the nation, in recent years nuclear units have faced economic challenges that triggered premature retirements.²³ Although the federal nuclear production tax credit provides support for nuclear resources until 2032, both the EIA and EPA project a resurgence of nuclear plant retirements when that program expires.²⁴ In contrast, competitive long-term contracts with a data center or other large customer could provide the long-term financial stability needed to justify the investments to keep these carbon-free and reliable plants operating.

A retired nuclear plant provides no reliability or environmental benefits to anyone. However, using a portion of a nuclear plant to serve a large load under a long-term contract provides the reliable, stable power large load customers need, as well as the financial stability needed for nuclear plant owners to invest in the plant to increase output and extend life cycle.²⁵ An uprate to a nuclear unit in Pennsylvania would be one of the fastest paths to bringing new, clean energy online, given that these projects can be executed faster than greenfield development. The cost of a significant uprate project can approach a billion dollars; this level of investment requires the type of financial stability provided by a long-term contract, resulting in a win-win for everyone: ensuring the continued operation and expansion of a highly valuable clean generator so that it can

²² We note that nuclear power provides roughly 45% of Pennsylvania's carbon-free energy and roughly 32% of the state's overall electricity. Nuclear Energy Institute, Pennsylvania Fact Sheet 2024, <https://www.nei.org/CorporateSite/media/filefolder/resources/fact-sheets/state-fact-sheets/Pennsylvania-State-Fact-Sheet.pdf>. Nuclear power is also significantly more efficient in terms of land use: it requires 31 times less land than solar facilities and 173 times less land than wind farms for the same amount of energy output. Nuclear Energy Institute, Nuclear Needs Small Amounts of Land to Deliver Big Amounts of Electricity (Apr. 29, 2022), <https://www.nei.org/news/2022/nuclear-brings-more-electricity-with-less-land#:~:text=A%20nuclear%20energy%20facility%20has,sites%20in%20the%20United%20States>.

²³ See Kormos Paper at 4.

²⁴ U.S. Energy Info. Admin., Annual Energy Outlook 2023, Table 9 (Electric Generating Capacity, Reference Case), <https://www.eia.gov/outlooks/aeo/data/brower/#/?id=9-AEO2023&cases=ref2023&sourcekey=0>; EPA, Power Sector Modeling, Post-IRA 2022 Reference Case, <https://www.epa.gov/power-sector-modeling/post-ira-2022-reference-case>; EPA, Power Sector Modeling, Pre-IRA 2022 Reference Case, <https://www.epa.gov/power-sector-modeling/pre-ira-2022-reference-case>.

²⁵ Constellation, for example, has identified up to 1,000 MW of uprate potential across its entire nuclear fleet and is prioritizing investment at sites that have stable long-term financial viability.

provide service to both the new load (and support economic growth in the state) and the broader grid.

C. The Commission should protect Pennsylvania customers and reject calls for reform that would undermine the competitive wholesale markets.

Competitive wholesale markets are vital for connecting large load customers who require stable and reliable power with generators capable of supporting both co-located and grid-connected loads in the most cost-effective, efficient and flexible manner. It is crucial that the Commission reject any calls for reform that could potentially undermine these essential competitive markets. This proceeding has highlighted that one of the greatest concerns of the Commission is stranded costs and unfair ratepayer impacts associated with new large loads. Given this real concern, it would be nonsensical to even consider shifting the risk of new generation costs onto captive EDC customers by having EDCs build and own generation. Constellation aligns with the findings of the Harvard Study, which suggest that all states, even those that still have vertically integrated utility models, should consider requiring new data centers to procure power from competitive non-utility suppliers.²⁶ Pennsylvania already has a well-functioning competitive market, and continuing with a market-based approach for large load customers would protect ratepayers from both short-term costs and long-term risks.

The Harvard Study further explains that by requiring data centers to contract with competitive suppliers instead of EDCs, states can ensure that any stranded costs associated with generation are allocated between the data center and its supplier. The study also highlights that the costs associated with utility-built power plants for data centers could be exorbitant. For instance, in an Indiana proceeding, the utility's own estimates indicated that meeting data center demand with self-built plants could lead to expenditures of up to \$17 billion on new power plants over the next several years. Constellation firmly believes that it benefits all Pennsylvanians to retain robust retail and competitive wholesale markets.²⁷

It has been over a quarter of a century since Pennsylvania restructured its electric generation market. During this time, EDCs in Pennsylvania, like many other states in the region, have functionally separated or divested their generation resources, replacing integrated resource plans with a reliance on wholesale competitive markets and bulk power transmission planning. This transition has allowed private developers of generation resources in PJM to rely on wholesale markets as an investment signal, with private capital—not the ratepayer—assuming the investment risk.

Recently, there have been suggestions from some EDCs within the PJM footprint, and Pennsylvania in particular, that the most recent capacity auction indicates that competitive markets are not working. These utilities have proposed that they should be permitted to develop generation

²⁶ Harvard Study at 27.

²⁷ *Id.*

to manage anticipated load growth.²⁸ We urge caution as Pennsylvania considers these proposals. Returning to utility-owned generation (or similar arrangements) would have significant customer cost and risk implications. Guaranteed cost recovery for new generation creates a very different risk profile for customers and would undermine competition from merchant developers, thereby imperiling the cost reductions that competitive markets can and have created for Pennsylvanians. For instance, a recent study by former Pennsylvania Commissioner John Hanger highlighted key trends in Pennsylvania's energy market since restructuring.²⁹ Hanger's analysis revealed that the lowest fixed-rate retail supplier charges in 2024 are significantly lower than the EDC monopoly charges from 1996.³⁰ This trend is consistent across all Pennsylvania EDC service territories. Additionally, in six out of the seven EDC service territories, the default EDC supply charges for 2024 are also lower than the 1996 EDC charges when adjusted for inflation.³¹ These findings clearly demonstrate the positive impact competitively driven markets have had on lowering supply charges. If the Commission is concerned with stranded costs and negative ratepayer impacts for Pennsylvania families and businesses resulting from unnecessary transmission and distribution buildouts, it should flatly reject the unnecessary and ill-guided push for EDCs to get back into building generation, consequently putting the risk and costs associated with those EDC power plants on ratepayers' backs.

Constellation strongly supports competitive markets and, while not perfect, we believe they are working.³² PJM's wholesale markets incentivize the development of new resources and the retention of existing ones through competitive price signals.³³ These markets have been successful at attracting new, privately-financed investment in generation, shifting the risk inherent in large-

²⁸ See PPL, Lookup Test. at 2 (citing Comments of PPL Energy Corp., Docket No. M-2024-3051988 at 7-10 (filed Jan. 9, 2025)).

²⁹ See John Hanger, *Pennsylvania's Continued Success: Competition Maintains Low Electric Prices for All Residents* (June 2, 2025), <https://tinyurl.com/55fee3ww>. Mr. John Hanger was appointed as a Commissioner of the Commission in 1993 by then-Governor Bob Casey, Sr. During his five-year tenure with the Commission, Mr. Hanger played a pivotal role in leading Pennsylvania's energy market restructuring, which culminated in the passage of the 1996 Electricity Generation Competition and Customer Choice Act. This monumental restructuring opened the doors for new energy generators and suppliers to serve the customers of Pennsylvania, fostering a competitive and dynamic market landscape.

³⁰ See *id.*

³¹ See *id.*

³² Over a gigawatt of generation resources that were scheduled to retire have reversed their decisions since the most recent auction. For a list of future, current, and withdrawn deactivations, see *PJM Generation Deactivations*, <https://www.pjm.com/planning/service-requests/gen-deactivations>. See also Constellation Resource Adequacy Comments at 8-19.

³³ PJM described the clearing prices in the 2025/26 Base Residual Auction as a "new-build investment price signal" that was "consistent with market fundamentals." Letter from Mark Takahashi, Chair, PJM Board of Managers at 2 (Sept. 19, 2024), <https://opc.maryland.gov/Portals/0/Files/Board%20Response%20to%20Consumer%20Advocate%2009-19-24.pdf?ver=VV52b1ldZwLHhRJZVUY3w%3D%3D>.

scale projects to private capital rather than captive ratepayers. Despite resource retirements, severe weather, load growth, and other challenges, the markets have delivered reliable service. PJM has consistently delivered robust resource reserve margins, including an 18.5% reserve margin for the 2025/2026 delivery year.³⁴ As mentioned above, PJM has also taken steps to spur the development of highly reliable resources through RRI, a one-time opportunity for shovel-ready resources to receive expedited interconnection and ensure continued grid reliability. PJM recently selected 51 projects representing more than 11.9 gigawatts of nameplate capacity.³⁵ This total includes the CCEC, enabling Constellation to restart the project faster and bringing almost a gigawatt of new nuclear capacity to the Commonwealth ahead of schedule.

Many have expressed concern about higher prices in the most recent PJM capacity auction. However, higher prices in the last auction do not mean that PJM's capacity market is broken or that structural changes to resource adequacy are needed. We respectfully encourage all parties to zoom out from this single auction and consider the bigger picture. The capacity market had previously cleared at historic lows, sending a clear and unmistakable signal that resources should be exiting the market instead of expanding.³⁶ It is understandable that states and consumers were not concerned about capacity prices being too low. Now that supply/demand fundamentals have changed and it is clear that we need to retain and expand resources instead of retiring them, it should come as no surprise that capacity prices have increased. This is the way the capacity market – and indeed any market – is designed to operate. Recent capacity prices reflect tightening supply/demand fundamentals after many years of an over-supplied market, and these price signals attract the necessary investment to meet demand. Large load customers, along with all other loads in Pennsylvania, benefit from the competition generated by robust wholesale markets. Constellation encourages the Commission to use a fact-based and market-driven approach as it considers how to address concerns over reliability and affordability. The markets are already responding to the call for needed new generation, and we encourage the Commission to support market-based principles in a model tariff to help promote consistency and certainty.

³⁴ See PJM, *2025/2026 Base Residual Auction Report* at 4 (July 30, 2024), <https://www.pjm.com/-/media/DotCom/markets-ops/rpm/rpm-auction-info/2025-2026/2025-2026-base-residual-auction-report.ashx>.

³⁵ PJM, *Reliability Resource Initiative Additional Summaries* (May 6, 2025), <https://www.pjm.com/-/media/DotCom/committees-groups/committees/pc/2025/20250506/20250506-rri-addendum---post-meeting.pdf>.

³⁶ See PJM, *Energy Transition in PJM: Resource Retirements, Replacements & Risks* at 1 (Feb. 24, 2023), <https://www.pjm.com/-/media/DotCom/library/reports-notices/special-reports/2023/energy-transition-in-pjm-resource-retirements-replacements-and-risks.ashx>.

D. The Commission should resist calls to require large load customers to bring their own new generation.

Contrary to Duquesne’s and Vantage’s arguments,³⁷ requiring large load customers to bring their own new generation would be unduly discriminatory and likely to exacerbate the very resource adequacy issues it purports to address. As an initial matter, no other state has this type of requirement. Adopting such a requirement in Pennsylvania could drive large customers to other states, taking with them billions of dollars in investment, thousands of jobs, and hundreds of millions of dollars in tax revenue. Customers who choose to contract for their power needs across the border would use the same amount of electricity, leading to similar impacts on electricity prices while depriving the Commonwealth of the associated economic benefits. Similar proposals to single out large customers for new-build generation requirements have been considered – and rejected – in other states like Maryland, Virginia, and California. Some of those states instead have embraced the data economy and are creating more jobs and investment in the sector than other states while using that economic growth to support a build-out of clean energy infrastructure. It is already the case that many larger data center investments – the bigger sites with more construction jobs – are going to Indiana, Ohio, and other neighbors. Moreover, as noted above, speed to market is a critical consideration for many large load customers, and a requirement for large load customers to wait for new generation to be sited and built, in addition to the time already required to site and build the large load facility itself (while excess generation available in Pennsylvania is exported to support load being developed in those other states), may be a significant deterrent to siting in a state with such a requirement. Accordingly, adoption by Pennsylvania of a bring-your-own-new-generation approach would expand the competitive advantage of these other states over Pennsylvania.

Another concern is that the right to integrate with the system is of very high value to large loads, and restricting that right to only those loads that bring their own new generation confers an additional high-value benefit on new capacity that is able to secure a contract with a new entrant large load. As a result, a bring-your-own-new-generation approach discriminates against existing generation and new generation that for whatever reason cannot contract with a new large co-located load prior to completion of the generator interconnection queue process. Such a result would further advantage this subset of capacity relative to other types of capacity by paying them a large effective subsidy. Further, such a policy will lead to the underutilization of, and depressed revenue for, existing generation capacity or new capacity that cannot co-locate with new large load. That, in turn, will stunt overall development efforts by chilling new entry from resources that are unable to contract with new large loads and potentially leading to market exit by existing resources, undermining reliability and reducing overall market efficiency. This is untenable considering the importance of promptly connecting large data center load.

These flaws are not cured by Duquesne’s suggestion that “new generation” under such a policy could include restarting retired generation. In fact, such an approach may create perverse

³⁷ See Duquesne Light Co., Davis Test. at 3; Vantage Data Centers, Smith Test. at 2.

incentives for existing generators to retire in order to take advantage of the large effective subsidy described above. Specifically, generators already considering retirement may choose to continue down that path because once they have retired, they would be eligible to vie for co-located load projects seeking deactivated generators that can quickly come online (or stay online).

Any potential advantages of a bring-your-own-new-generation approach that Duquesne and Vantage identify do not outweigh its fatal flaws, *i.e.*, it is unduly discriminatory and does not make efficient use of the existing system. For these reasons, such an approach should not be considered as a viable option.

E. The Commission should not allow resource adequacy concerns driven primarily by potentially over-stated load growth projections to cause it to adopt policies that will harm Pennsylvania in the long run.

After many years of stagnant load growth, regions throughout the country are projecting significant load growth. The increase in demand is in part driven by data center development but also by increased building and transportation electrification, on-shoring of industry, and other electrification efforts. Although it is true that new supply (including upgrades of existing resources) and investment in transmission infrastructure are needed to support this development, as Google points out, the extent of that load growth is uncertain.³⁸ While most agree data center demand will continue to increase, the scope and pace of that demand is hotly debated with many questioning the validity of load forecasts that far exceed the supply chain capabilities of the data center industry. In addition, as discussed above, the lack of transparency in load forecasting with respect to large loads in particular exacerbates the risk of inaccuracy.

Uncertainty in load forecasts is nothing new. Further challenging the ability to reliably meet this load growth is the ability to accurately predict the magnitude and timing of the new load. Indeed, the forecast projections that both market participants and resource planners rely on are frequently subject to revisions. This is not a large load problem. Rather, EDCs are structurally incentivized to err on the side of over-stating expected load to ensure that they have a delivery system able to meet demand under a range of potential scenarios while also justifying the build out of more infrastructure that increases the utility's rate base. The lumpiness caused by large load additions further complicates load forecasting, but the undeniable pattern of over-stating load forecasts pre-dates the recent surge in large load service requests. The Commission should not allow uncertain load forecasts to cause it to adopt policies that will harm Pennsylvania's resource adequacy, economy, and opportunity to position itself as a national leader in attracting and growing large load investments.

III. CONCLUSION

Constellation urges the Commission to carefully consider the policies it adopts as it rises to meet the challenge and embrace the opportunity of attracting and integrating large loads in the

³⁸ See Google LLC, Baatz Test. at 6-7.

Commonwealth. The influx of large loads is likely to continue into the future and the Commonwealth has the great opportunity to position itself as a leader in developing best practices that effectively and efficiently enable the interconnection of these critical customers. Constellation looks forward to collaborating with the Commission and all stakeholders to ensure Pennsylvania's leadership in meeting this energy growth opportunity.

Respectfully submitted,

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