



Electric Power Outlook for Pennsylvania 2025-2030

August 2026

PENNSYLVANIA PUBLIC UTILITY COMMISSION

ELECTRIC POWER OUTLOOK FOR PENNSYLVANIA 2025–2030

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Technical Utility Services

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Executive Summary

Introduction

Section 524(a) of the Public Utility Code (Code) requires jurisdictional electric distribution companies (EDCs) to submit annually to the Pennsylvania Public Utility Commission (PUC or Commission) information concerning plans and projections for meeting future customer demand.¹ The PUC's regulations set forth the form and content of such information, which is to be filed on or before May 1 of each year.² Section 524(b) of the Code requires the Commission to prepare an annual report summarizing and discussing the data provided, on or before September 1. This report is to be submitted to the General Assembly, the Governor, the Office of Consumer Advocate and each affected public utility.³ This report is authored by the Commission's Bureau of Technical Utility Services (TUS) on behalf of the Commission.

Since the enactment of the *Electricity Generation Customer Choice and Competition Act*,⁴ the Commission's regulations have been modified to reflect the competitive market. Thus, projections of generating capability and overall system reliability have been obtained from regional assessments completed by the North American Electric Reliability Corporation (NERC) and PJM Interconnection, LLC (PJM).

Regional Overview

NERC published its 2025 Long-Term Reliability Assessment (2025 LTRA) in January of 2026.⁵ The 2025 LTRA consisted of reliability assessments of the Regional Transmission Organizations (RTOs) that manage bulk electric systems (BES). PJM is the RTO for Pennsylvania. NERC concluded that PJM's Anticipated Reserve Margin (ARM) may fall below its Installed Reserve Requirement (or RML) in 2029 when the ARM falls below 19% and the RML reaches 24%.⁶ This means that the anticipated available resources may fall short of the reserve capacity required to reliably meet peak electricity demand. NERC noted that PJM faces an extreme and rapid tightening of supply and demand for capacity resources in the near term and needs additional resources to rapidly address its near-term reliability challenges. NERC also noted that PJM will be heavily reliant on good generation performance from both fossil and inverter-based generation to avoid or minimize the need for emergency procedures and that the greatest risk is still during the summer peak period.

TUS' review of NERC's 2025 LTRA and PJM's analysis and studies (see the sections on PJM below) indicated that in the near term PJM has sufficient generation resources. However, the PJM Load Forecast Report released on Jan. 14, 2026,⁷ forecasts higher peak loads than those in the 2025

¹ See, 66 Pa.C.S. § 524(a).

² See, 52 Pa. Code §§ 57.141—57.154.

³ See, 66 Pa.C.S. § 524(b).

⁴ See, 66 Pa.C.S. §§ 2801—2812.

⁵ See, NERC, *2025 Long-Term Reliability Assessment*, January 2026, modified on February 24, 2026, available at: https://www.nerc.com/globalassets/our-work/assessments/nerc_ltra_2025.pdf.

⁶ *Id.*, Page 92

⁷ See, PJM, *2026 PJM Load Forecast Report January*, available at: <https://www.pjm.com/-/media/DotCom/library/reports-notice/load-forecast/2026-load-report.pdf>

LTRA and PJM has found risks due to the potential mismatch between retirements, load growth and the pace of new generation entry.

PJM has taken several steps to address the issues and risks noted in the 2025 LTRA in terms of adding generation capacity. PJM's Reliability Resource Initiative (RRI) is a one-time opportunity for shovel-ready resources that can come online quickly and most effectively contribute to reliability. The RRI proposal was approved by the Federal Energy Regulatory Commission (FERC) on Feb. 11, 2025.⁸ Through the RRI process, PJM selected 51 projects that can come online quickly and provide more than 9,300 MW of reliable capacity. The projects consist of 39 uprates and 12 new construction proposals. The uprates apply to existing natural gas, nuclear, coal and onshore wind resources. Of the new projects, half are gas, five are batteries and one is nuclear. The uprates total 2,108 MW of unforced capacity (UCAP), or the amount of energy a resource can be expected to provide during times of highest system reliability risk. PJM noted that the new projects would contribute 7,253 MW of UCAP, for a combined total of 9,361 MW. PJM also stated that 90% of the projects are expected to be online by 2030 with all projects projected to be online by 2031.

On Aug. 8, 2025, PJM announced that the PJM Board of Managers (PJM Board) would implement the Critical Issue Fast Path (CIFP) accelerated stakeholder process mechanism to pursue stakeholder consensus that would inform a PJM Board decision on a potential FERC filing on solutions to the potential resource adequacy challenges posed by rapidly interconnecting large loads, with a target of December 2025 for filing.⁹ PJM noted that this process was to address the development of reliability-focused solutions to ensure large load additions can continue to be integrated rapidly and reliably, without causing resource inadequacy, and while recognizing jurisdictional boundaries and data center relationships with existing Load Serving Entities and/or EDCs.

On Jan. 16, 2026, the PJM Board issued a decisional letter describing several initiatives that will be implemented through the CIFP including; significant load forecasting improvements; voluntary bring your own new generation (BYONG) paired with an expedited interconnection track (EIT); connect and manage for new large load additions that do not BYONG and curtailment prior to emergency demand response in circumstances necessitating load shed; immediate initiation of reliability backstop procurement; a holistic review of investment incentives in PJM's markets in 2026; and a feedback request on price collar for 2028/2029 and 2029/2030 capacity auctions.¹⁰

On July 27, 2026, stemming from the CIFP stakeholder process efforts, the PJM Board issued a letter that summarized the PJM Board's direction to PJM to file two proposals with the Federal Energy Regulatory Commission (FERC): one filing to address the need to attract more generation to the grid with a Reliability Backstop Procurement (RBP) in concert with facilitation of private bilateral contracts; and one filing for the purpose of developing an operational tool to facilitate large load growth while preserving BES reliability during capacity shortages (Interim Resource Adequacy Service, or IRAS, previously referred to as Connect and Manage). The PJM Board noted that both proposed measures address near-term reliability needs while longer-term holistic market reforms

⁸ See, <https://insidelines.pjm.com/reliability-resource-initiative-draws-94-applications/>.

⁹ See, PJM, *Critical Issue Fast Path – Large Load Additions*, available here: <https://www.pjm.com/committees-and-groups/cifp-lla>.

¹⁰ See, <https://www.pjm.com/-/media/DotCom/about-pjm/who-we-are/public-disclosures/2026/20260116-pjm-board-letter-re-results-of-the-cifp-process-large-load-additions.pdf>

advance at PJM.¹¹ The RBP proposal would address the shortfall in capacity acquired in the 2028/2029 Base Residual Auction,¹² while the IRAS would address how large loads could interconnect without bringing their own new capacity by reducing their electric load or by switching to on-site backup generation resources under specific, limited circumstances.¹³

Pennsylvania Overview

Pennsylvania's aggregate net energy usage (residential, commercial, industrial, sales for resale, and other) in 2025 was 142,298 gigawatt hours (GWh) as compared to: 142,644 GWh in 2024.¹⁴ Year-over-year (YOY) electric usage decreased by -0.24%. In general, residential, commercial, and industrial usage changed YOY by 2.83%, -1.78%, and -2.76%, respectively. Pennsylvania's 2025 GDP saw a smaller YOY increase of 1.9%, as compared to 2024 when the GDP experienced a YOY increase of 4.9%.¹⁵

Despite the decreased electric usage between 2024 and 2025, the total average annual aggregate five-year energy usage for the residential, commercial, and industrial classes of PA's large EDCs is projected to increase to 7.85% per year. This includes a residential increase of 0.52% per year, a commercial increase of 0.32%, and an industrial increase of 18.56% for the five-year period. The significant increase in industrial demand is primarily due to PPL Electric Utility Corporation's (PPL's) forecast for a number of larger users such as data centers. See the summary of PPL's forecast in the section on PPL in this report.

To prepare for the projected demand increase the Commission has taken steps to better understand and evaluate the issues of resource adequacy, load forecasting, the impact of the interconnection of large load customers such as data centers, and the need for large load customer tariffs.¹⁶ For this report, TUS requested that the EDCs provide 20-year forecasts of demand and peak load in addition to the required five-year forecasts for comparison to PJM's long-term forecast.¹⁷ All EDCs complied. Thus, Appendix D of this report contains tables of the 20-year forecasts of the seven large EDCs and UGI. TUS notes that 20-year forecasts should be viewed as much more speculative than five-year or ten-year forecasts.

Notably, on Nov. 12, 2025, Governor Josh Shapiro signed House Bill 416, a Fiscal Code Bill and a segment of the Pennsylvania budget package for Fiscal Year 2025-26. This Bill is now known as

¹¹ See, PJM, *Board Decisional Letter on Critical Issue Fast Path – Reliability Backstop Procurement and Connect and Manage*, available at: <https://www.pjm.com/-/media/DotCom/about-pjm/who-we-are/public-disclosures/2026/20260727-board-decisional-letter-on-cifp-reliability-backstop-procurement-and-connect-and-manage.pdf>.

¹² See, PJM, *CIFP Reliability Backstop Procurement – PJM Board Decision*, available at: <https://www.pjm.com/-/media/DotCom/about-pjm/who-we-are/public-disclosures/2026/20260727-cifp-reliability-backstop-procurement-pjm-board-decision.pdf>.

¹³ See, PJM, *CIFP Framework for Service During Periods of Insufficient Resource Adequacy – PJM Proposal*, available at: <https://www.pjm.com/-/media/DotCom/about-pjm/who-we-are/public-disclosures/2026/20260727-cifp-framework-for-service-during-periods-of-insufficient-resource-adequacy-executive-summary.pdf>.

¹⁴ For comparison Pennsylvania's aggregate net energy usage was 138,744 GWh in 2023; 143,511 GWh in 2022; 142,827 GWh in 2021; and 139,185 GWh in 2020.

¹⁵ US Bureau of Economic Analysis: <https://apps.bea.gov/regional/bearfacts/> (Accessed Thursday June 18, 2026).

¹⁶ See, PJM, *PJM Load Forecast Report January 2025*, available at <https://www.pjm.com/-/media/DotCom/library/reports-notices/load-forecast/2025-load-report.ashx>.

¹⁷ See, 52 Pa. Code §§ 57.141—57.154.

Act 45 of 2025. Specifically, Act 45 of 2025 amended the Fiscal Code by adding Article XVIII-B, Electricity Load Forecast Accountability, Sections 1802-B – 1805-B. 72 P.S., Chp. 1, Article XVIII-B. Through Act 45, the General Assembly has declared that Commission oversight of load forecasts is necessary to provide information on projections for significant growth in electricity demand driven by data centers, vehicle and building electrification, and other large load customer additions. Among other things, Act 45 requires that the Commission complete an annual report by June 30 of each year, based on the review of materials, data sets, and filings that EDCs provide to PJM for load forecasting. The Commission tasked TUS with preparing the report and collaborating with other key Commission Bureaus for input and review. The first Act 45 Annual Report was completed by TUS and is available on the Commission’s website.¹⁸

As can be seen in Appendix D and as detailed in the Commission’s Act 45 Annual Report, large load adjustment requests submitted by EDCs to PJM represent the largest factor in the forecasted increase in electric load over the next 20 years. PPL is predicting significant demand and peak load growth due to industrial customers, primarily data centers. However, this is subject to change as the dynamics of large load users seeking reliable generation may seek more opportunities in Pennsylvania. Additionally, there are many financial and technological factors forthcoming that will hasten or discourage data center buildout. TUS notes that while PPL has projected significantly higher demand and peak loads, this is factored into the capacity planning process through PJM and does not by itself indicate potential shortfalls in electric capacity in PPL or PJM. As noted above, PJM and NERC are cautioning stakeholders and policymakers that the forecasted increased demand for electric will require expeditious onboarding of additional electric generation and transmission resources and careful management of generation retirements, especially those that provide essential reliability service (ERS).

Prior to Act 45 of 2025, the Commission held a technical conference on resource adequacy on Nov. 25, 2024, and received comments from numerous stakeholders such as generators, EDCs, and consumer and environmental groups.¹⁹

The Commission also held an *en banc* hearing concerning interconnection and tariffs for large load customers on April 24, 2025, pursuant to the Motion of Chairman Stephen M. DeFrank that was adopted on March 27, 2025 (Motion). The Motion directed Commission staff to review the testimony and written comments submitted at the Motion docket and to develop a proposed model tariff for large load customers for the Commission’s review. On Nov. 6, 2025, the Commission issued a Tentative Order and on Nov. 22, 2025, the Tentative Order was published in the PA Bulletin with comments due within thirty days. Numerous comments were filed and considered. On May 12, 2026, the Commission issued a Final Order on the proceedings that established a model large load customer tariff. A copy of the model large load customer tariff was included in the Final Order as Appendix A.²⁰

Additionally, the Commission issued a request for proposal (RFP) in late September 2025 to obtain a Resource Adequacy Consultant (RAC) that would be tasked with, among other things, completing independent 15-year load and capacity forecasts for each transmission zone within Pennsylvania and

¹⁸ See, PUC, *Electricity Load Forecast Accountability Report*, available here: <https://www.puc.pa.gov/filing-resources/reports/electricity-load-forecast-accountability-report/>.

¹⁹ See, Docket No. M-2024-3051988, information available here: <https://www.puc.pa.gov/docket/M-2024-3051988>.

²⁰ See, Docket No. M-2025-3054271, information available here: <https://www.puc.pa.gov/docket/M-2025-3054271>.

PJM. Synapse Energy Economics Inc. was selected as the RAC with project deliverables including a final report due in late summer 2026. When completed, the final report will be posted on the Commission's website and provided to the General Assembly.

Evaluation

The impact of data centers and other large load customers in both Pennsylvania and PJM's broader footprint is significant. Among other factors, an insufficient level of construction of electric generation and continued retirement of base load electric generation is resulting in the need for stakeholders such as policy makers, regulators, utilities, and generation owners, to work together to ensure the continued reliable operation of the BES. PJM in particular must manage a significant impact from data centers. It continues to be essential that stakeholders address resource adequacy to ensure ERS are maintained and the BES functions reliably. The Commission is committed to continuing its efforts in this regard and is providing information and support to policy makers in Pennsylvania to ensure Pennsylvania EDCs can continue to provide reliable service at a reasonable price.

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Section 1 – Regional Electric Outlook

Purpose

The *Electric Power Outlook for Pennsylvania 2025-2030* discusses the current and future electric power supply and demand needs for the 11 investor-owned jurisdictional electric distribution companies (EDCs) operating in the state and the entities responsible for maintaining the reliability of the bulk electric system (BES) within the region that encompasses the state.

The information contained in this report includes highlights of 2025, as well as the EDCs' projections of energy demand and peak load for 2026-2030. The state's seven largest EDCs²¹ represent 95% of both jurisdictional electricity customers and electrical energy consumption in Pennsylvania. Accordingly, information regarding the other four smallest EDCs contained in this report is limited. The report further provides a regional perspective with statistical information on the projected resources and aggregate peak loads for the region that impacts Pennsylvania.

Note that by the Order entered on Dec. 7, 2023, the Commission granted certain approvals and certificates of public convenience for the unification of the four FirstEnergy Company EDCs that operated in Pennsylvania (Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company) into one EDC, FirstEnergy Pennsylvania Electric Company (FE PA).²² The former EDCs are now rate districts of FE PA. FE PA assumed all responsibilities and requirements of the former EDCs, including, *inter alia*, electric reliability (for reliability performance and reporting requirements).²³ FE PA reports as one EDC but reports data for each rate district. To avoid confusion and to allow comparison to previous electric reliability reports, the FE PA rate districts are referred to as EDCs throughout this report.

As permitted under Section 2809(e) of the Public Utility Code, the Commission has adopted revised regulations, reducing from 20 years to five years the reporting requirements and the reporting horizon for energy demand, connected peak load, and number of customers. However, as noted in this report, the Commission requested 20-year forecasts for demand and peak load from the EDCs to compare with the 2026 long-term load forecast of PJM Interconnection LLC. (PJM), which indicated a significant increase in projected peak load and net energy load over the next 20 years, as compared to PJM's report in 2025.²⁴ Because Pennsylvania has a competitive retail electric market, certain information is no longer required to be reported. This includes information regarding generation facilities such as capital investments, energy costs, new facilities, and expansion of existing facilities.

Data for the report is submitted annually by EDCs, pursuant to the Commission's regulations.²⁵ The Commission relied on reports and analyses of regional entities, including ReliabilityFirst

²¹ Those EDCs with at least 100,000 customers.

²² See, *Joint Application of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, West Penn Power Company, Keystone Appalachian Transmission Company, Mid-Atlantic Interstate Transmission, LLC, and FirstEnergy Pennsylvania Electric Company*, at Docket Nos. A-2023-3038771, et al.

²³ *Id.* See also, at the same Docket Nos., *Joint Petition for Approval of Settlement of All Issues*, filed Aug. 30, 2023, and *Recommended Decision of Administrative Law Judge Conrad A. Johnson and Administrative Law Judge Emily I. DeVoe*, dated Oct. 19, 2023.

²⁴ See, <https://www.pjm.com/-/media/DotCom/library/reports-notice/load-forecast/2026-load-report.pdf>

²⁵ See, 52 Pa. Code §§ 57.141—57.154.

Corporation (RFC) and PJM, to obtain a more complete assessment of the current and future status of the electric power supply within the region. Sources also include data submitted by regional reliability councils to the North American Electric Reliability Corporation (NERC), which is subsequently forwarded to the U.S. Energy Information Administration (EIA).

Pursuant to Title 66, Pennsylvania Consolidated Statutes, Section 524(b), the PUC annually submits this report to the General Assembly, the Governor, the Office of Consumer Advocate and affected public utilities. It also is posted on the Commission's website.²⁶

Regional Reliability Organizations

In Pennsylvania, all jurisdictional EDCs are interconnected with neighboring systems extending beyond state boundaries. These systems are organized into regional reliability entities responsible for ensuring the reliability of the BES.

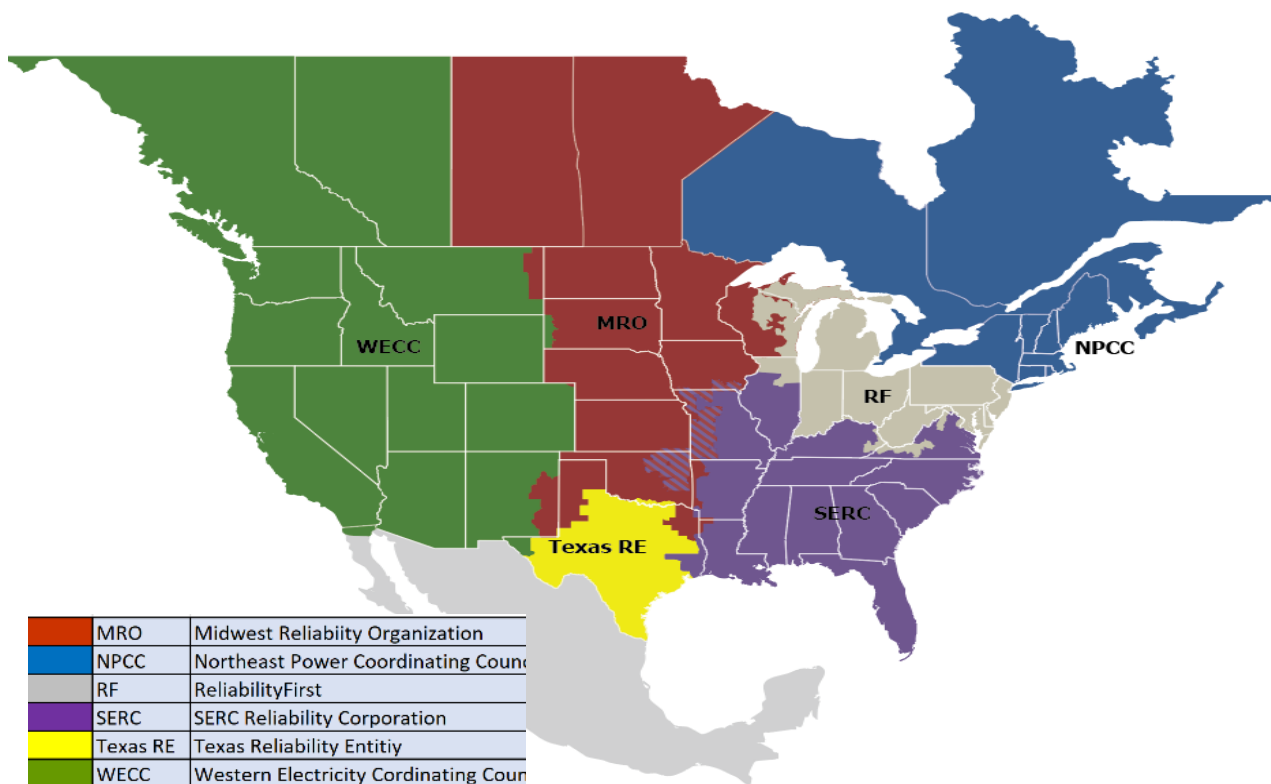
North American Electric Reliability Corporation

NERC has been granted legal authority by the Federal Energy Regulatory Commission (FERC) to enforce reliability standards and to mandate compliance with those standards. NERC oversees the reliability of the BES that provides electricity to approximately 400 million people, has over 5,239 conventional generating units (greater than 20 megawatts (MW)), a peak capacity of over 1,440 gigawatts (GW), and projected supplied electricity at approximately 4.98 million gigawatt hours (GWh) in 2025. NERC has approximately 527,942 miles of high-voltage transmission lines (100,000 volts and greater).²⁷ NERC's 2025 LTRA indicated a cumulative level of 41,000 miles of high-voltage transmission lines under construction or in various stages of development for the next 10 years, which is substantially higher than the 2024 LTRA 10-year projections (28,275 miles).

NERC is a not-for-profit international regulatory authority with the mission to assure the reliability of the BES in North America. NERC develops and enforces reliability standards; annually assesses seasonal and long-term reliability; monitors the BES through system awareness; and educates, trains, and certifies industry personnel.

²⁶ The reports are available at : http://www.puc.pa.gov/utility_industry/electricity/electric_reports.aspx.

²⁷ See, NERC, *2026 State of Reliability*, Modified June 24, 2026, available at: https://www.nerc.com/globalassets/programs/rapa/pa/nerc_sor_2026_technical_assessment.pdf.



NERC Regional Reliability Entities

As shown above, NERC's members operate in six regional reliability entities. Members include investor-owned utilities, federal and provincial entities, rural electric cooperatives, state/municipal and provincial utilities, independent power producers, independent system operators, merchant electricity generators, power marketers and end-use electricity customers. The membership accounts for virtually all the electricity supplied in the United States, Canada, and the northern portion of Baja California, Mexico. The regional entity operating in Pennsylvania is RF.

To conduct NERC reliability assessments, NERC further divides the Regional Entities into 20 assessment areas, shown below.

North American Electric Reliability Corporation Assessment Areas



NERC Executive Summary & Reliability Assessment

NERC's *2025 Long-Term Reliability Assessment*²⁸ (2025 LTRA) is an independent assessment and comprehensive report on the adequacy of the planned North American BES resources to reliably meet the electricity demand across North America over the next 10 years. The 2025 LTRA also identifies reliability trends, emerging issues, and potential risks that could impact the long-term reliability, resilience, and security of the BES.

NERC indicated that the overall resource adequacy outlook for the North American BES is worsening and that most of the North American BES faces mounting resource adequacy challenges over the next 10 years as new data centers and other large loads drive escalating demand forecasts. NERC noted that most new resources in development to come online in the next five years consist of variable energy resources (VER)²⁹ such as battery storage and solar photovoltaic (PV), pointing out that approximately 40% of new interconnection requests to PJM are solar resources. These are inverter-based and weather-dependent resources that increase the complexity of planning and operating a reliable grid. NERC indicated that the continuing shift in the resource mix toward weather-dependent resources and less fuel diversity increases risks of supply shortfalls during winter months. NERC stated that to ensure there are sufficient resources for supplying electricity in the future and to reliably meet the growing electricity needs for North Americans, industry, regulators, and policymakers need to be vigilant for shifting projections, keep plans for deactivating existing generators flexible, expedite system development, and perform robust adequacy assessments of future scenarios.

²⁸ See, NERC, *2025 Long-Term Reliability Assessment*, January 2026, available at:

https://www.nerc.com/globalassets/our-work/assessments/nerc_ltra_2025.pdf

²⁹ The performance of VERs is dependent on weather and other factors that may vary over the course of the demand day.

Capacity and Risk Assessment

In the Capacity and Energy Risk Assessment Section of the 2025 LTRA, NERC noted that traditional capacity-based adequacy criteria were not designed to consider the magnitude, frequency, duration, and timing of potential energy shortfalls and that such considerations have become increasingly important as the resource mix evolves from capacity-based resources with assured and stored energy supplies to energy-constrained resources that are increasingly impacted by weather and environmental conditions. As such, NERC noted that the 2025 LTRA includes all hours probabilistic indices to measure these additional dimensions of risk and provide a more complete analysis to inform system plans.

NERC reported that it used the following two approaches in the LTRA to assess future resource capacity and energy risk; both are forward-looking snapshots of resource adequacy that are tied to industry forecasts of electricity supplies, demand, and transmission development:³⁰

- Assessing load-loss metrics determined from probability-based simulation of projected demand and resource availability over all hours. This approach identifies high-risk periods and potential energy constraints resulting in load-loss events. The 2025 ProbA is performed for each assessment area and examines the system as planned for the years 2027 and 2029. Loss-of-load hours (LOLH) and expected unserved energy (EUE) from NERC's ProbA are used to identify risk levels.³¹ In essence, ProbA is a more granular study that looks at hourly demand and supply for the entire year while factoring in risk factors such as extreme weather, fuel supply, expected generator outage rates, etc.
- Comparing the margin between projected resources and peak net demand (typically summer peak demand), or reserve margin, to a reserve margin target (known as RML) that represents the accepted level of risk based on a probability-based, loss-of-load analysis.

NERC classifies the risk categories as High, Elevated, and Normal Risk. Further details on each of the Risk Areas can be found in the 2025 LTRA.

- High Risk Areas: NERC stated that an assessment area is high risk when established resource adequacy targets or requirements are not met during this assessment period. Regulatory authorities or market operators establish resource adequacy targets. Most targets in North America are currently based on a one-day/event load loss in a 10-year planning requirement. High-risk areas are likely to experience a shortfall in electricity supplies at the peak of an average summer or winter season. NERC noted that unusual heat waves or deep-freeze events pose an even greater threat to reliability. In the 2025 LTRA, NERC identified PJM as Elevated Risk from 2026 through 2028 and High Risk starting in 2029.³²

³⁰ *Id.*, Page 11.

³¹ For more detail on NERC's evaluation process, see the "Methods and Assumptions" section of the LTRA.

³² See, NERC, *2025 Long-Term Reliability Assessment January 2026*, available at: https://www.nerc.com/globalassets/our-work/assessments/nerc_ltra_2025.pdf. Page 16.

- **Elevated Risk Areas:** NERC noted that an assessment area is considered at the elevated level when it meets the established resource adequacy target or requirement, but probabilistic or deterministic analysis of conditions that are plausible but more extreme than normal seasonal peaks are likely to cause shortfall in area reserves. More extreme conditions can include temperatures that result in above-normal demand levels, low resource output or availability, and/or disruption of normal electricity transfers. NERC stated that in the analysis, elevated risk may be found by modeling above-normal demand and low resource availability. The risk can also be identified by examining output data from probabilistic analysis tools to determine the underlying conditions for load-loss events. In simple terms, elevated-risk areas meet resource adequacy requirements but may face challenges meeting load under extreme conditions. In the 2025 LTRA, assessment areas are classified as elevated risk based on an evaluation of the following criteria for each of the first five years of the LTRA period (*i.e.*, 2026–2030).
 - Annual LOLH is between 0.1 and 2.4 hours/year for one or more years in the ProbA.
 - Annual normalized EUE is less than 0.002% (20 ppm) but non-zero for one or more years in the ProbA.
 - Resource adequacy target(s) established by the regulatory authority or market operator are met, but plausible scenarios of above-normal demand and/or low-resource conditions associated with a once-per-decade event indicate risk of load loss.
- **Normal Risk Areas:** NERC noted that in these areas, resource adequacy criteria are met, and it is unlikely for electricity supply shortfalls to occur even when demand is above forecasts or resource performance is abnormally low, *e.g.*, above-normal forced outages or low VER performance.

NERC classified PJM as an Elevated Risk Area for 2026-2028 and a High-Risk Area in 2029. NERC noted that PJM expects its summer peak demand to grow by 56 GW to a total of 210 GW in 2035, and its winter peak demand is expected to climb by 62 GW to reach 198 GW by winter 2034–35. NERC also noted that PJM faces an extreme and rapid tightening of capacity resources in the near term because of generator retirements and project delays. Although, as part of its reforms to speed interconnection with the system, PJM has approximately 30 GW of generation projections in the transitional interconnection queue to be processed in 2026.

NERC indicated that the elevated-risk determination is based on results of the 2024 ProbA and consideration of PJM’s 2026 Summer ARM declining from 35.7% to 29.7%.

NERC reported that risk is associated with generator availability and performance issues that can arise from equipment freezing and fuel supply issues during extreme winter conditions. PJM falls into the high-risk category beginning in 2029 as demand forecasts continue to climb, generators reach planned retirement dates, and the projected resources become less certain. The

winter risk profile indicates that new resources will need to be capable of reliably serving winter load.³³

TUS' review of the 2025 LTRA and PJM's analysis and studies (see the sections on PJM below) indicated that in the near term PJM has sufficient generation resources. However, the *PJM Long-Term Load Forecast Report* released on Jan. 14, 2026, forecasted higher peak loads than those in the 2025 LTRA.³⁴ In reviewing NERC's ProbA and PJM's Load Forecast, TUS notes that PJM could have operational issues as soon as 2026, given certain scenarios, *e.g.*, an extreme cold snap combined with constraints on natural gas availability and higher-than-expected generator disruptions. As noted later in this report, PJM has taken interim operational actions to improve natural gas electric generation performance during extreme cold events. Still, given the apparent potential for future disruptions to the BES as discussed above, TUS recommends supporting continued development of additional generation and associated transmission/distribution infrastructure.

Emerging Issues

While developing the 2025 LTRA, NERC noted that it and the industry considered trends and developments that have the potential to impact the future reliability of the BES over the next 10 years and beyond. Discussed below are the emerging issues and trends identified by NERC in the 2025 LTRA that have the potential to impact future long-term projections or resource availability and operations.

- **Data Centers and Large Industrial Load:** Growth in large load parcels like data centers and industrial facilities pose various challenges for system planners and operators, in addition to fueling rapid demand growth. Other types of large industrial loads include smelters, manufacturing centers, hydrogen electrolyzers, and future electrified mass transit or shipping charging stations. Adding large parcels of load on the system can add new uncertainties to peak and hourly load forecasting. For example, data centers have longer operating hours and require more heating and cooling than other commercial buildings. The behavior of large data centers during normal grid faults is also an emerging concern because customer-initiated automatic disconnecting of sizeable load can cause operating issues.
- **Electric Vehicles and Electric Load:** With increased adoption of electric vehicles (EV), which use batteries to store energy, there is a need to understand the impact of battery charging on system performance. EV forecasting is important for resource adequacy and system planning to account for changing load and load patterns. It is also important for system studies to include EV modeling and parameterization that account for the behavior of battery charging systems on system performance. In January 2024, NERC

³³ *Id.*, Page 17.

³⁴ See, PJM, PJM Load Forecast Report January 2026, available at <https://www.pjm.com/-/media/DotCom/library/reports-notice/load-forecast/2026-load-report.pdf>.

released the EV Charging Study, noting that the behavior of large amounts of EV chargers in operation can affect the BES response to common outages.³⁵

- **Battery Energy Storage Systems (BESS):** NERC noted that planners and operators are focused on requirements to model, study, and operate the BES with increased BESS and hybrid resources. BESS are increasingly being relied upon in areas with substantial amounts of solar PV resources to reduce ramping requirements on other resources by discharging in late afternoon as solar PV output rapidly declines. BESS are also often used for ancillary services, such as frequency response. Accurately accounting for BESS in operating and planning studies is a challenge because it requires assumptions and modeling capabilities for battery charging and discharging behavior. In real-time operations, system operators often do not have visibility into battery state-of charge, a necessary condition for reliably integrating batteries into system operating plans. Without such information, operators may be surprised should battery resources fail to deliver when needed. System planners in many areas will be counting on new BESS facilities to manage variability and demand and resources.
- **Energy Drought:** NERC noted that more reliance on wind, solar, and hydro resources in the resource mix has the potential to expose the electric system to supply shortages under abnormal weather patterns. When two or more resource types are simultaneously affected by conditions that cause below-normal resource output, operators can face challenges in meeting demand. There is also a higher likelihood for energy droughts to more likely occur during high-load periods than at other times, underscoring the importance in considering such events in planning for resource and storage needs.

Continuing Resource Mix Changes and Reliability Implications

NERC noted that the shift toward a more variable resource mix continues, as battery, solar PV, and hybrid generation lead the most recent and projected near-term additions and as fossil-fired generators retire. From 2024 to 2025, the existing capacity from fossil-fueled generators fell by 21 GW, while BES capacity for peak demand hours from battery, wind, and solar resources increased by 23 GW.³⁶

NERC stated that as older fossil-fired generators retire and are replaced by more battery and solar PV resources, the resource mix is becoming increasingly variable and weather-dependent. Solar PV, wind, and other VER contribute some fraction of their nameplate capacity output to serving demand based on the energy-producing inputs (e.g., solar irradiance, wind speed). The new resources also have different physical and operating characteristics from the generators that they are replacing, affecting the essential reliability resources (ERS) that the resource mix

³⁵ See, NERC, *Potential Bulk Power System Impact of Electric Vehicle Chargers Preliminary Findings and Recommendations January 2024*, available at: <https://www.nerc.com/globalassets/who-we-are/standing-committees/rstc/evstudyreport.pdf>.

³⁶ See, NERC, *2025 Long-Term Reliability Assessment, January 2026*, available at: https://www.nerc.com/globalassets/our-work/assessments/nerc_ltra_2025.pdf.

provides.³⁷ As generators are deactivated and replaced by new types of resources, ERS must still be maintained for the grid to operate reliably.

Natural-gas-fired generators are a vital BES resource. They provide ERSs by ramping up and down to balance a more variable resource mix and are a dispatchable electricity supply for winter and times when wind and solar resources are less capable of serving demand. NERC noted that as new natural-gas-fired generators progress through interconnection processes, generator owners, grid planners, and natural gas infrastructure developers need to take steps to ensure that regional natural gas infrastructure can reliably serve the needs of BES generators.

Trends and Implications for Reliability

- **Demand Trends:** NERC noted that electricity peak demand and energy growth forecasts over the 10-year assessment period continue to climb; demand growth is now higher than at any point in the past two decades. Large commercial and industrial loads are connecting rapidly to the BES in increasing amounts. The size and speed with which data centers (including cryptocurrency and artificial intelligence (AI)) can be constructed and connect to the grid presents unique challenges for demand forecasting and planning for system behavior. Additionally, NERC reported that the continued adoption of electric vehicles and heat pumps is a substantial driver for demand around North America. NERC noted that the aggregated BES-wide projections for both winter and summer have increased massively over the 10-year period.
 - The aggregated assessment area summer peak demand forecast is expected to rise by over 224 GW or 69% for the 10-year period. This is an increase from 132 GW in the 2024 LTRA and over 80 GW in the 2023 LTRA.
 - The aggregated assessment area winter peak demand forecast is expected to grow by 245 GW for the 10-year period, as compared to 149 GW in the 2024 LTRA and almost 92 GW in the 2023 LTRA.
- **Transmission Trends:** NERC noted that transmission projections reported for the 2025 LTRA continue to reflect a significant increase in transmission development. This year's cumulative level of 41,000 miles of transmission lines (>100 kV) in various stages of development for the next 10 years is substantially higher than the 2024 LTRA 10-year projections (28,275 miles). Transmission in construction has yet to increase substantially; rather, the large increase in transmission projects is seen in planning stages of development. New transmission projects are being driven to support new generation and enhance reliability, and development continues to be affected by siting and permitting challenges. NERC reported that of the 900 projects that are under construction or in planning for the next 10 years, 390 projects have been delayed from their originally expected in-service dates.

³⁷ ERS are those generating resources that provide voltage control, frequency support, and ramping capability to balance and maintain the BES. More information on ERS can be found here: <https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/ERS%20Abstract%20Report%20Final.pdf>.

NERC Conclusions and Recommendations

NERC recommended the following six actions for consideration, not in any particular order of importance, to address the energy and capacity risks identified in 2025 LTRA.

- Expedite new resources to meet growing demand and carefully manage generator deactivations. BPS planners should develop, implement, or enhance mechanisms to expedite resource additions to the grid that provide the services needed to address anticipated reliability issues related to each area's needs. Independent System Operator/Regional Transmission Organizations (ISO/RTO) should evaluate mechanisms and process enhancements for obtaining information on expected generator retirements that would support early identification of reliability risks. State and provincial regulators and ISO/RTOs need to have mechanisms they can employ to extend the service of generators seeking to retire when they are needed for reliability, including the management of energy shortfall risks. Regulators must support resource development and manage the pace of retirements such that replacement infrastructure can be developed and placed in service to support reliability needs.
- Understand and manage reliability risks accompanying large load growth and leverage potential capabilities in new types of loads to provide flexibility to operators during times of grid stress. An increasing number of large commercial and industrial loads are rapidly connecting to the BPS. Emerging large loads—such as data centers (including cryptocurrency and AI applications) and hydrogen fuel plants—present unique challenges in BPS planning and operations. Stakeholders should support NERC's Large Loads Action Plan and collaborate through NERC's Large Loads Task Force. ISO/RTOs should collectively work to create more uniform requirements to address the emerging reliability issues associated with large data center loads.
- Improve the LTRA by incorporating new analysis and criteria to inform stakeholders of future reliability risks. NERC increased the frequency of the ProbA from biennial to annual and included unserved energy and load-loss metrics as the basis for risk analysis in this year's LTRA. To promote consistency in analysis and develop assessment capabilities, NERC and the Regional Entities piloted interconnection-wide energy assessments using a common probabilistic resource adequacy tool in 2025. Wide-area energy analysis will support the evaluation of interregional transfer capabilities and the effects of extreme weather and regional fuel supply issues on the BES at an interconnection level. Industry should work with NERC through its technical groups to implement energy assessments in the 2026 LTRA and continue to improve consistency in the annual ProbA. NERC and the Regional Entities, in consultation with NERC's Reliability and Security Technical Committee, should also continue to enhance NERC's LTRA to assess ERS in the future system and the potential impact of new and evolving electricity market practices, regulations, or legislation on resource adequacy.
- Streamline siting and permitting processes to remove barriers to resource and transmission development. As ISO/RTOs continue looking for opportunities to speed transmission planning processes, many states are also taking steps to expedite siting and permitting. Siting and permitting issues are among the most common causes for delayed transmission

projects. Support from regulators and policymakers at the federal, state, and provincial levels is urgently needed.

- Continue identifying and implementing solutions for addressing the operating and planning needs of the interconnected natural gas-electric energy system. As various initiatives launched in past years roll out recommendations for addressing reliability needs, stakeholders should act with urgency on implementation. Continued collaboration through readiness forums and working groups remains a priority. While new regulatory and oversight mechanisms of the natural gas industry have yet to solidify, voluntary actions for managing natural gas production, processing, and delivery risks are needed. NERC, gas and electric industry, and research partners should continue studies and assessments of regional fuel supply risks to BPS generation.
- Continue to ensure that ERS are maintained. The changing composition of the North American resource mix calls for more robust planning approaches to ensure adequate ERSs. Retiring conventional generation is being replaced with large amounts of wind and solar; planning considerations must adapt with more attention to ERS. As replacement resources are interconnected, these new resources should be capable of supporting voltage, frequency, ramping, and dispatchability. Many technologies can contribute to ERS, including VER. However, policies and market mechanisms need to reflect these requirements to ensure that these are provided and maintained.

ReliabilityFirst Corporation

RF, headquartered in Cleveland, Ohio, is one of six NERC regional entities serving North America, and is the regional reliability entity for Pennsylvania. Its service territory consists of more than 89 million people in New Jersey, Delaware, Pennsylvania, Maryland, District of Columbia, West Virginia, Ohio, Indiana; and parts of Michigan, Wisconsin, Illinois, Kentucky, Tennessee, and Virginia.³⁸ Its membership includes load-serving entities (LSEs),³⁹ RTOs, suppliers, and transmission companies.

RF controls reliability standards and enforcement by entering into delegation agreements with regional entities to ensure adequate generating capacity and transmission. Program areas include compliance monitoring, enforcement, entity development, event analysis and situational awareness, regulation and certification, reliability assessment and performance analysis, risk analysis and mitigation, and standards.

RF is responsible for resolving and enforcing noncompliance using a risk-based approach. RF notes that this involves the following: assessing the risk of the noncompliance and understanding the root cause (and contributing cause(s)); working with entities to ensure they take steps to remediate the noncompliance and prevent recurrence; and processing the noncompliance through an appropriate resolution based on risk and other factors.



In 2025, RF remained focused on eliminating older open violations. More than 85% of open violations as of the first quarter of 2026 were identified between 2024 and 2025. This is down slightly from prior years, as more than 80% of noncompliance discovered in 2025 were either self-reported or self-logged, showing continued diligence and transparency of entities in identifying and reporting issues.⁴⁰

³⁸ See, RF, *2025 Impact Report*, available at: <https://feature.rfirst.org/impact-report-2025/>.

³⁹ A Load Serving Entity (LSE) is any entity (or the duly designated agent of such an entity), including a load aggregator or power marketer that (a) serves end-users within the PJM Control Area, and (b) is granted the authority or has an obligation pursuant to state or local law, regulation or franchise to sell electric energy to end-users located within the PJM Control Area (definition from *PJM.com* glossary).

⁴⁰ See, RF, *2025 Impact Report*, available at: <https://feature.rfirst.org/impact-report-2025/>.

Regional Transmission Organization: PJM Interconnection, LLC

The two RTOs within the RF footprint are PJM and MISO. Because MISO does not operate in Pennsylvania, only PJM will be addressed in this report.



PJM is a regional transmission organization that ensures the reliability of the largest centrally dispatched control area in North America, covering 368,906 square miles. PJM coordinates the operations of more than 88,417 miles of transmission lines.⁴¹ The PJM RTO coordinates the movement of electricity for over 67 million people through all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia. PJM coordinates the operation of electric power generators with approximately 185,989 MW of generating capacity. PJM's peak customer load of 165,563 MW was recorded during Summer of 2006. According to the Summer 2026 PJM Reliability Assessment, PJM is prepared to serve a forecasted summer peak demand for electricity of approximately 156,400 MW but has performed reliability studies at even higher loads in excess of 169,100 MW. PJM has approximately 180,200 MW of generation capacity to serve demand, as well as approximately 7,800 MW of contracted demand response.⁴²

PJM manages a sophisticated regional planning process for generation and transmission expansion to ensure the continued reliability of the electric system. PJM is responsible for maintaining the integrity of the regional power grid and its associated infrastructure and for managing changes and additions to the grid to accommodate both new and deactivating generating plants. In addition, PJM analyzes and forecasts future electricity needs of the region. Its planning process ensures that the electric system's growth is efficient and takes place in an orderly fashion. PJM supports market innovation through its active support for demand response markets for energy, capacity, and ancillary services, and helps ensure that appropriate infrastructure and operational capabilities are in place to support newly installed renewable energy and other generation facilities.

PJM's outlines its vision as being the electric industry leader in reliable operations, efficient wholesale markets, and infrastructure and describes its mission as follows:⁴³

- Primarily to ensure the safety, reliability and security of the BES.
- Understand customer needs and deliver valued service to meet those needs in a cost-effective manner.
- Create and operate robust, competitive and non-discriminatory electric power markets.

⁴¹ See, PJM, *2025 PJM Annual Report*, available at: <https://services.pjm.com/annualreport2025/>.

⁴² See, PJM, <https://insidelines.pjm.com/summer-outlook-2026-pjm-prepared-to-meet-growing-summer-demand-with-adequate-resources/>.

⁴³ See, PJM, <https://www.pjm.com/about-pjm>.

- Achieve productivity through the efficient union of superior knowledge workers and technology advances.

PJM coordinates the continuous buying, selling, and delivery of wholesale electricity through open and competitive spot markets. PJM balances the needs of suppliers, wholesale customers and other market participants, and continuously monitors market behavior in tandem with the Monitoring Analytics LLC, the PJM RTO Market Monitoring Unit.

PJM Bulk Power System Status

PJM membership included 1,116 energy suppliers, generation and/or transmission owners and operators at the end of 2025. The PJM market amount billed increased to \$80.5 billion⁴⁴ in 2025 as compared to \$51.7 billion in 2024; \$48.6 billion in 2023; \$86.3 billion in 2022; \$54.1 billion in 2021; \$36.2 billion in 2020; and \$39.2 billion in 2019.

In its 2025 Pennsylvania State Infrastructure Report, PJM indicated that Pennsylvania had no generators deactivate or give a notice of deactivation. However, PJM received more than 30 deactivation notifications totaling over 6.5 GW in 2025. More than 48,023 MW of coal-fired generation has retired since 2011 as the economic impacts of environmental public policy, coupled with the age of these plants, many more than 40 years old, make ongoing operation prohibitively expensive. PJM modeling has also indicated retirements totaling 7.9 GW of generators fueled by coal, natural gas and oil by 2029.⁴⁵ On August 4, 2026, PJM requested that the Department of Energy renew Order No. 202-26-25, which expires on August 19, 2026. Extending this order would authorize PJM to direct Wagner Unit 4 to continue to operate, consistent with PJM's Governing Agreements, Good Utility Practice, the Settlement Agreement accepted by FERC in Docket No. ER24-1787, and beyond at least the Operating Limit in compliance with certain instances named in the request.⁴⁶

As of Dec. 31, 2025, PJM's 184,780 MW of eligible existing installed capacity reflects a fuel mix comprising 47.7% natural gas, 20.2% coal, 17.5% nuclear, and oil 3.1% as shown in Figure 1 below. Hydroelectric, wind, solar, oil, waste fuels, and other constitute approximately 11.5%. Nameplate capacity values represent the full power output of the generators.⁴⁷

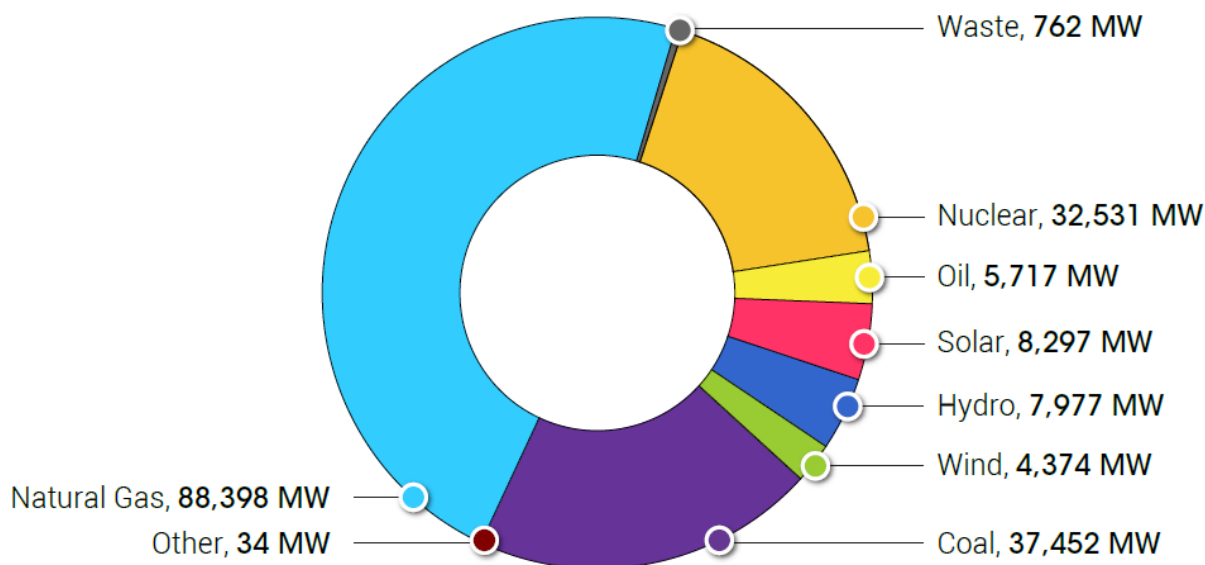
⁴⁴ See, PJM, *PJM 2025 Regional Transmission Expansion Plan Report*, available at: <https://www.pjm.com/-/media/DotCom/library/reports-notices/2025-rtep/2025-rtep-report.pdf>, and *2025 Pennsylvania State Infrastructure Report*, available at: <https://www.pjm.com/-/media/DotCom/library/reports-notices/state-specific-reports/2025/pennsylvania.pdf>.

⁴⁵ See, PJM, *PJM 2025 Regional Transmission Expansion Plan Report*, available at: <https://www.pjm.com/-/media/DotCom/library/reports-notices/2025-rtep/2025-rtep-report.pdf>.

⁴⁶ See, PJM, *Wagner Unit 4 202c Request*, available at: <https://www.pjm.com/-/media/DotCom/documents/other-fed-state/20260804-wagner-unit-4-202c-request.pdf>.

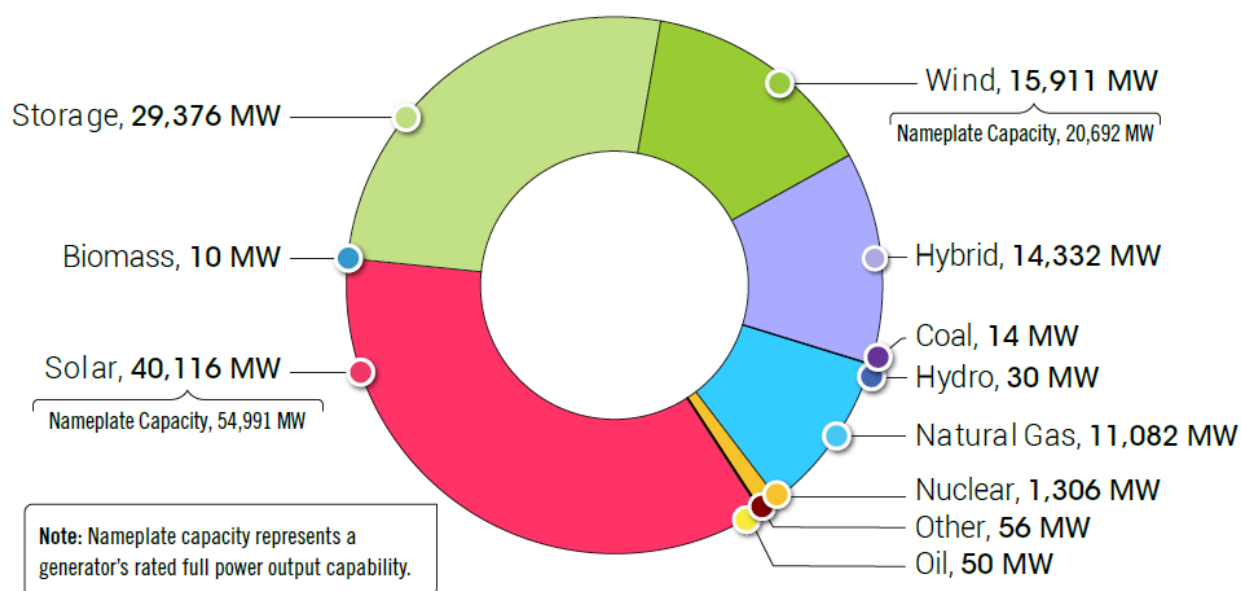
⁴⁷ See, PJM, *2025 Pennsylvania State Infrastructure Report*, available at: <https://www.pjm.com/-/media/DotCom/library/reports-notices/state-specific-reports/2025/pennsylvania.pdf>.

Figure 1: Existing Installed Capacity Mix within PJM as of Dec. 31, 2025



Totaling over 99,775 MW of Capacity Interconnection Rights (CIRs), renewable and hybrid fuels are changing the landscape of PJM’s interconnection queue. Solar energy makes up approximately 36% of the generation in PJM’s interconnection queue. An increase in solar generation interconnection requests is attributable to improved resource economics as well as state policies encouraging renewable generation. Figure 2 below shows PJM’s fuel mix based on requested CIRs for generation as of Dec. 31, 2025.⁴⁸

Figure 2: PJM Interconnection Service Request Generation Fuel Mix – Requested CIRs



⁴⁸ *Id.*

PJM Load Growth and Projections

Net energy for load growth for the PJM RTO is projected to average 5.3% per year over the next 10-year period, and 2.7% per year over the next 20 years. Total PJM RTO energy is forecasted to be 1,437,629 GWh in 2036, a 10-year increase of 581,554 GWh, and 1,667,075 GWh by 2046, a 20-year increase of 811,000 GWh. Annualized 10-year growth rates for individual transmission zones in PJM range from 0.1% to 8.8% with a median of 2.5%.⁴⁹ This significant load growth is primarily due to the impact of data centers and the large loads those require. However, the majority of the forecasted data center demand is located in three transmission zones within PJM: Dominion, AEP, and PPL.⁵⁰

Summer peak load growth for PJM is projected to average 3.6% per year over the next 10 years and 2.4% over the next 20 years. The summer peak is forecasted to be 222,106 MW in 2036, which is a 10-year increase of 65,733 MW, and the summer peak reaches 253,077 MW in 2046, which is a 20-year increase of 96,704 MW. Annualized 10-year growth rates for individual zones range from -0.2% to 6.4% with a median of 1.6%.

Winter peak load growth for PJM is projected to average 4.0% per year over the next 10-year period, and 2.7% over the next 20 years. The winter peak load for the 2035/36 winter is forecasted to be 204,650 MW, which is a 10-year increase of 66,980 MW, and the winter peak reaches 236,693 MW in 2045/46 winter, which is a 20-year increase of 99,023 MW. Annualized 10-year growth rates for individual zones range from 0.0% to 6.5%, with a median of 2.1%.⁵¹

PJM Pennsylvania State Infrastructure Information

The Pennsylvania electric power outlook generally reflects the projections of RF, which are based on forecasts of PJM and MISO. PJM evaluates regional data concerning the current and future condition of the bulk power system because it is planned on a regional rather than a state basis. While the aggregate load for the state's consumers can be determined, the availability and mix of electrical generation units cannot be predicted, since the complexities of weather, generation availability, and fuel prices will be the primary driving forces.

An RTO such as PJM has the primary responsibility to coordinate and plan future upgrades and expansion of the regional transmission system. PJM noted that a key part of the planning process is to evaluate existing generation deactivation, new generation interconnection, and merchant transmission interconnection requests. Although transmission planning is performed on a regional basis, most upgrades and expansion in Pennsylvania are planned to support the local delivery system and new generation facilities.

⁴⁹ See, PJM, *PJM Load Forecast Report January 2026*, available at <https://www.pjm.com/-/media/DotCom/library/reports-notice/load-forecast/2026-load-report.pdf>.

⁵⁰ See, PJM, *PJM Load Forecast Development Process*, available here: <https://www.pjm.com/planning/resource-adequacy-planning/load-forecast-dev-process.aspx>. In particular, see the Excel tables for the *Long-Term Load Forecast* and *Load Adjustment Breakdown for Capacity Obligations* under the Forecasts and Reports section.

⁵¹ See, PJM, *PJM Load Forecast Report January 2026*, available at <https://www.pjm.com/-/media/DotCom/library/reports-notice/load-forecast/2026-load-report.pdf>.

LSEs acquire capacity resources as follows: entering bilateral agreements; participating in the PJM-operated capacity market; owning generation; and/or pursuing load management options. The PJM generator interconnection process ensures new capacity resources satisfy LSE requirements to reliably meet their obligations.

New generation that anticipates interconnecting to the BES and operating in parallel with the PJM transmission grid and participating in the PJM capacity and/or energy markets must submit an interconnection request to PJM for technical evaluation and approval. A summary of key information related to generation capacity and usage for the PJM RTO area and information specific to electric generation in Pennsylvania are provided in Appendices B and C of this report.

PJM Pennsylvania State Infrastructure Summary:⁵²

- Existing Capacity: Generating capacity in 2025 for Pennsylvania totaled 45,733 MW as compared to 45,096 MW in 2024; 44,889 MW in 2023; 46,977 MW in 2022; 47,633 MW in 2021; and 46,941 MW in 2020.
- Natural gas represents approximately 54% of the total installed capacity in Pennsylvania and nuclear represents 20%. See Figure 3 below. In terms of actual electrical generation in 2025 for Pennsylvania, natural gas generated 59% of the load, nuclear 32%, and coal 6.3%. See Figure 4 below.
- Interconnection Requests: PJM indicated that it would update its 2025 Pennsylvania State Infrastructure Report with a more detailed breakdown of interconnection requests after the Cycle 1 applications have all been reviewed and posted to PJM.com. In the 2025 Regional Transmission Expansion Plan (RTEP), PJM identified 8,059 MW of Interconnection Request Capacity including: 3,463 MW of Solar, 1,327 MW of Storage, 1,733 MW of Hybrid, 329 MW Natural Gas, 803 MW of Nuclear, and 3 MW designated as Other. On April 29, 2026, PJM announced that 811 new generation projects, capable of generating 220 gigawatts of electricity, have applied to connect to the grid through the first cycle of PJM's reformed interconnection process and on August 3, 2026, PJM announced that 715 of these projects, capable of generating more than 200 GW of electricity, have qualified to be studied in the first cycle of the reformed interconnection process.
- Deactivations: Pennsylvania had no generators provide a notice of deactivation in 2025.⁵³ This is compared to: 2 MW of announced deactivation in 2024; 1,937 MW in 2023, 832 MW in 2022; 920.8 MW in 2021; 78.3 MW in 2020; and 976.2 MW in 2019.⁵⁴

⁵² See, PJM, *2025 Pennsylvania State Infrastructure Report*, available at: <https://www.pjm.com/-/media/DotCom/library/reports-notice/state-specific-reports/2025/pennsylvania.pdf>.

⁵³ Eddystone 3 & 4 generation plants deactivation had been postponed until August 22, 2026, due to the U.S. Department of Energy enacting an emergency order on May 21, 2026, pursuant to section 202 (c) of Federal Power Act. See, Order No. 202-26-24, available at: <https://www.energy.gov/ceser/federal-power-act-section-202c-pjm-interconnection-llc-pjm-order-no-202-26-24>.

⁵⁴ A listing of previously deactivated generators can be found at: <https://www.pjm.com/planning/service-requests/gen-deactivations>.

- RTEP 2025: Pennsylvania's 2025 RTEP project total represents approximately \$3.56 billion in investment as compared to Pennsylvania's 2024 RTEP projects that totaled \$1.64 billion. A listing of PJM RTEP projects, and those specific to Pennsylvania, may be found in PJM's RTEP.⁵⁵ The status of individual PJM Board-approved baseline and network RTEP projects, as well as that of Transmission Owner Supplemental Projects, is available on the PJM website.⁵⁶
- On July 30, 2026, PJM was informed by Exelon of an anticipated reduction in the ComEd load forecast (Illinois) resulting from the latest information about the firmness of commitments from customers. Based on current estimates, the ComEd load forecast is expected to decrease by approximately 1.3 GW in the 2031 planning year. Preliminary analysis indicates a 3.3 GW reduction in the ComEd load forecast for the 2034 planning year. However, other factors may also impact PJM's latest RTEP study assumptions and outcomes, including potential load growth from additional large-load projects under study and incremental generation deactivation requests within the ComEd zone, particularly in the 2034 planning year. PJM is currently working with Exelon to update the 2026 RTEP models to reflect the Load Forecast reductions for 2031 and 2034 and will post those updates, together with an updated Flowgate list and Problem Statement.
- Load Forecast: Depending on the transmission zone, Pennsylvania's summer peak load growth is projected to range between -0.1% and 6.4% annually over the next ten years, while the winter peak load growth is projected to range between 0% and 6.5% annually over the next ten years. PPL's 10-year annual load growth is projected as 6.4% for summer and 6.5% for winter, which is the highest of all the transmission zones that serve Pennsylvania.⁵⁷
- Calendar Year 2025 Market Performance: Pennsylvania's average hourly locational marginal prices (LMPs) were generally lower than the PJM average hourly LMP.
- 2026/27 Capacity Market: Pennsylvania's service territory cleared at the RTO clearing price, \$329.17/MW-day, for the 2026/2027 Base Residual Auction (BRA) for the entire PJM footprint. This includes the BGE zone in Maryland and the Dominion zones in Virginia and North Carolina.⁵⁸
- 2027/28 Capacity Market: Pennsylvania's service territory cleared at the RTO clearing price, \$333.44/MW-day, for the 2027/2028 BRA for the entire PJM footprint. The capacity of the resources procured in the 2027/2028 BRA, plus Fixed Resource Requirement (FRR) resources, is short of PJM's reliability requirement by 6,623 MW, meaning that the committed supply is less than what would be required to meet the one-event-in-10-year

⁵⁵ See, PJM, *PJM 2025 Regional Transmission Expansion Plan Report*, available at: <https://www.pjm.com/-/media/DotCom/library/reports-notices/2025-rtep/2025-rtep-report.pdf>.

⁵⁶ See: <https://www.pjm.com/planning/m/project-construction>.

⁵⁷ See, PJM, *2025 Pennsylvania State Infrastructure Report*, available at: <https://www.pjm.com/-/media/DotCom/library/reports-notices/state-specific-reports/2025/pennsylvania.pdf>.

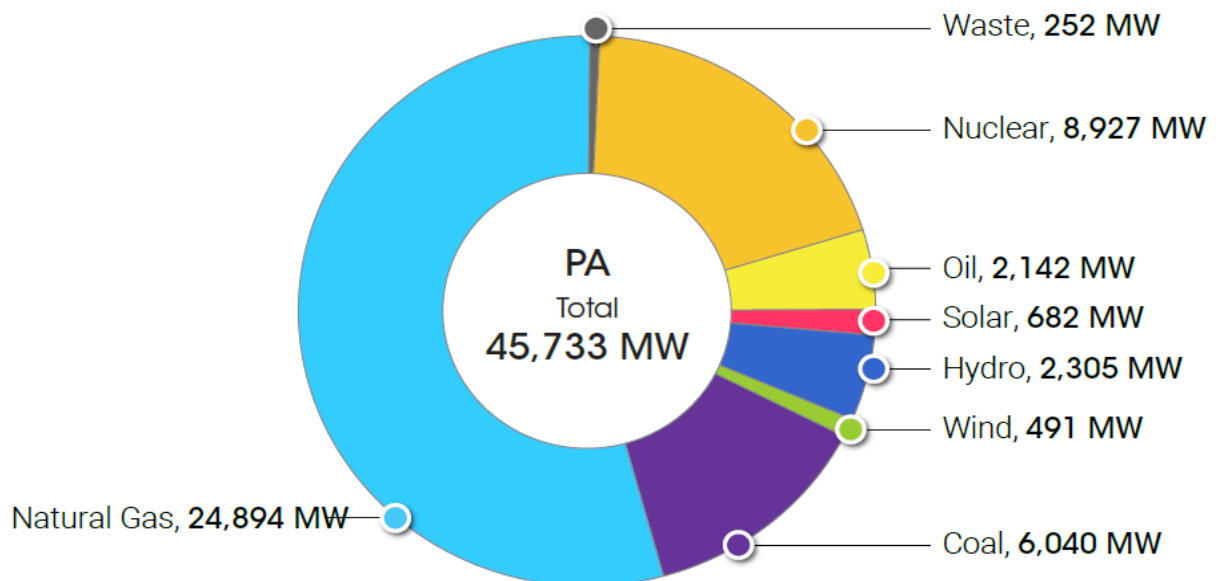
⁵⁸ See PJM, *2026/2027 Base Residual Auction Report*, available at: <https://www.pjm.com/-/media/DotCom/markets-ops/rpm/rpm-auction-info/2026-2027/2026-2027-bra-report.pdf>.

reliability standard of a 20% reserve margin. To address this shortfall, PJM will conduct an Incremental Auction for the 2027/2028 Delivery Year in February 2027.⁵⁹

- Emissions: Pennsylvania’s average CO2 emissions increased in 2025 compared to 2024 levels.

On July 14, 2026, PJM announced the results of its 2028/2029 BRA. The 2028/2029 BRA secured 138,317.8 MW of Unforced Capacity (UCAP) in the RTO at the price cap of \$325/MW-day for the entire PJM footprint. Regions under the FRR acquired an additional 10,864 MW in UCAP, for a total of 149,182 MW in UCAP. This is 6,831.3 MW UCAP below the RTO Reliability Requirement, meaning that the committed supply is less than what would be required to meet the one-event-in-10-year reliability standard.⁶⁰ As noted in this report’s Executive Summary, the PJM Board is submitting a proposal to FERC to address the shortfall for the 2028/2029 BRA, which includes a Reliability Backstop Procurement (RBP) in concert with facilitation of private bilateral contracts.⁶¹

Figure 3: Pennsylvania Installed Electric Generation Capacity by Fuel Type as of Dec. 31, 2025⁶²



⁵⁹ PJM, *PJM Auction Procures 134,479 MW of Generation Resources*, available at: <https://insidelines.pjm.com/pjm-auction-procures-134479-mw-of-generation-resources/>.

⁶⁰ See, PJM, *2028/2029 Base Residual Auction Report*, July 14, 2026, available at: <https://www.pjm.com/-/media/DotCom/markets-ops/rpm/rpm-auction-info/2028-2029/2028-2029-bra-results-report.pdf>.

⁶¹ See, PJM, *CIFP Reliability Backstop Procurement – PJM Board Decision*, available at: <https://www.pjm.com/-/media/DotCom/about-pjm/who-we-are/public-disclosures/2026/20260727-cifp-reliability-backstop-procurement-pjm-board-decision.pdf>.

⁶² See, PJM, *PJM 2025 Regional Transmission Expansion Plan Report*, available at: [2025-rtep-report.pdf](https://www.pjm.com/-/media/DotCom/markets-ops/rpm/rpm-auction-info/2025-rtep-report.pdf)

Figure 4: Pennsylvania Electric Generation by Fuel Type 2025⁶³

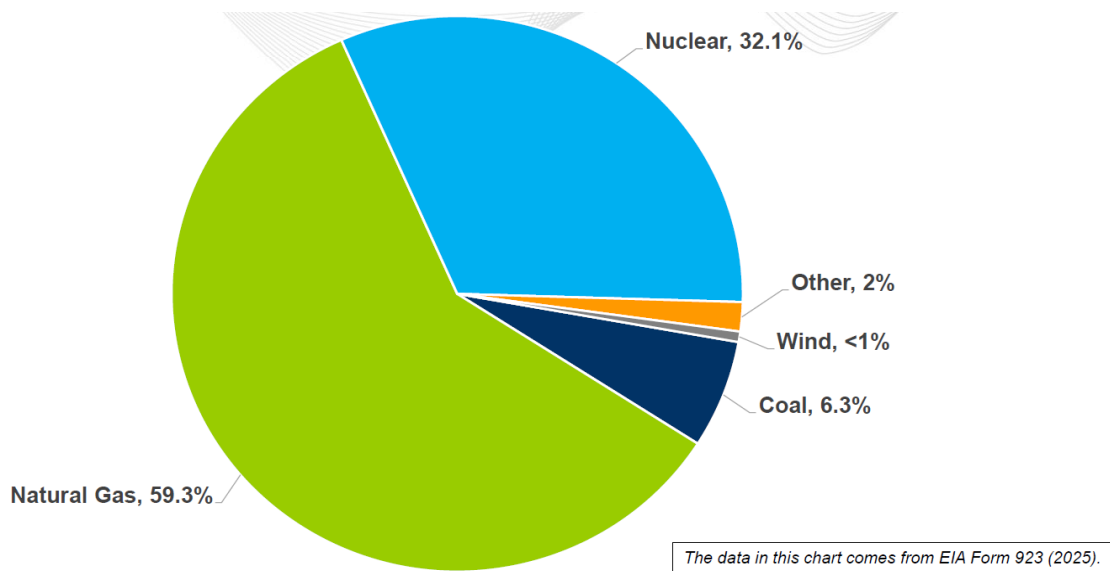
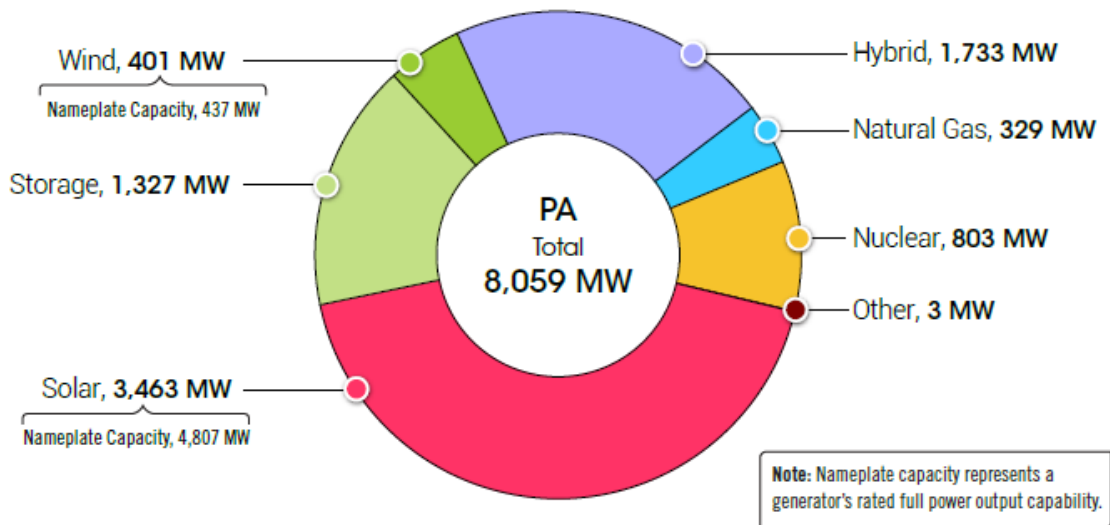


Figure 5: Pennsylvania – Interconnection Requests by Fuel Type – Dec. 31, 2025⁶⁴



⁶³ See, PJM, 2025 Pennsylvania State Infrastructure Report, available at: <https://www.pjm.com/-/media/DotCom/library/reports-notices/state-specific-reports/2025/pennsylvania.pdf>.

⁶⁴ See, PJM, 2025 Pennsylvania State Infrastructure Report, available at: <https://www.pjm.com/-/media/DotCom/library/reports-notices/2025-rtep/2025-rtep-report.pdf>.

PJM Winter Performance

Based on the anticipated demand for power, PJM takes measures every year to prepare for the upcoming winter. For the 2025/26 winter season winter reliability assessment, PJM integrated the new NERC Extreme Cold Weather Temperature Standard (ECWTS) EOP-012-2⁶⁵ into its regular winter operations and preparedness protocols. ECWTS was developed to mitigate the vulnerabilities identified in the BES during extreme cold weather events, such as Winter Storm Elliot in 2022 and Winter Storm Uri in 2021. Before the cold weather arrives, PJM conducts annual winter readiness assessments, gathering information on minimum operating temperatures, fuel inventory, supply and delivery characteristic, and consulting with federal, state, and neighboring systems to review winter preparations, and performing its Emergency Operations Drill.⁶⁶

PJM's forecast for the 2025/26 winter outlook expected adequate power supplies to meet a peak load of 145,700 MW under normal conditions.⁶⁷

PJM noted that it and its transmission and generation owners maintained reliability of the electric system during the strongest sustained cold period that the PJM system has experienced since the 1990s. The 2025/26 winter brought multiple days of extreme cold, record or near-record electricity demand, and significant stress across both the electric and natural gas systems. From Jan. 16 through Jan. 21, 2026, temperatures across the PJM footprint stayed below freezing. This was followed by Winter Storm Fern, which brought snow and ice, as well as a round of more severe arctic weather for Jan. 23 through Feb. 2, 2026.⁶⁸

PJM noted that the key challenge to the event was the misalignment of gas and electric markets. PJM had to secure gas supplies the morning of Friday, Jan. 23, through the morning peak demand of Tuesday morning, Jan. 27. Tight gas supplies and inflexible gas scheduling meant that PJM had increased operational costs and required PJM to take additional actions to preserve reliability during the highest-risk periods. These actions cost approximately \$798 million in out-of-market “uplift” costs from January 24th through February 1st, according to preliminary figures.

PJM also noted that the Department of Energy granted two emergency orders under Section 202(c) of the Federal Power Act to (1) allow generators to run in excess of environmental permit levels in case of emergency; and (2) allow PJM to direct data centers and other large load customers onto backup generation if needed in an emergency to avoid electrical outages to other customers. A total of 15 generators were dispatched under the environmental permit order for a total of 1,035 run hours and provided 5.2 GW, however, PJM did not need to implement the backup generation order.

⁶⁵ See, NERC, <https://www.nerc.com/pa/Stand/Reliability%20Standards/EOP-012-2.pdf>.

⁶⁶ See, PJM, <https://insidelines.pjm.com/pjm-winter-outlook-adequate-power-supplies-available-to-serve-growing-demand-under-expected-conditions/> and <https://insidelines.pjm.com/pjm-and-members-conduct-annual-winter-emergency-operations-drill/>.

⁶⁷ See, PJM, <https://insidelines.pjm.com/pjm-winter-outlook-adequate-power-supplies-available-under-normal-conditions>.

⁶⁸ See, PJM, <https://insidelines.pjm.com/pjm-reviews-january-cold-weather-operations/>.

Section 2 – Pennsylvania Electric Outlook

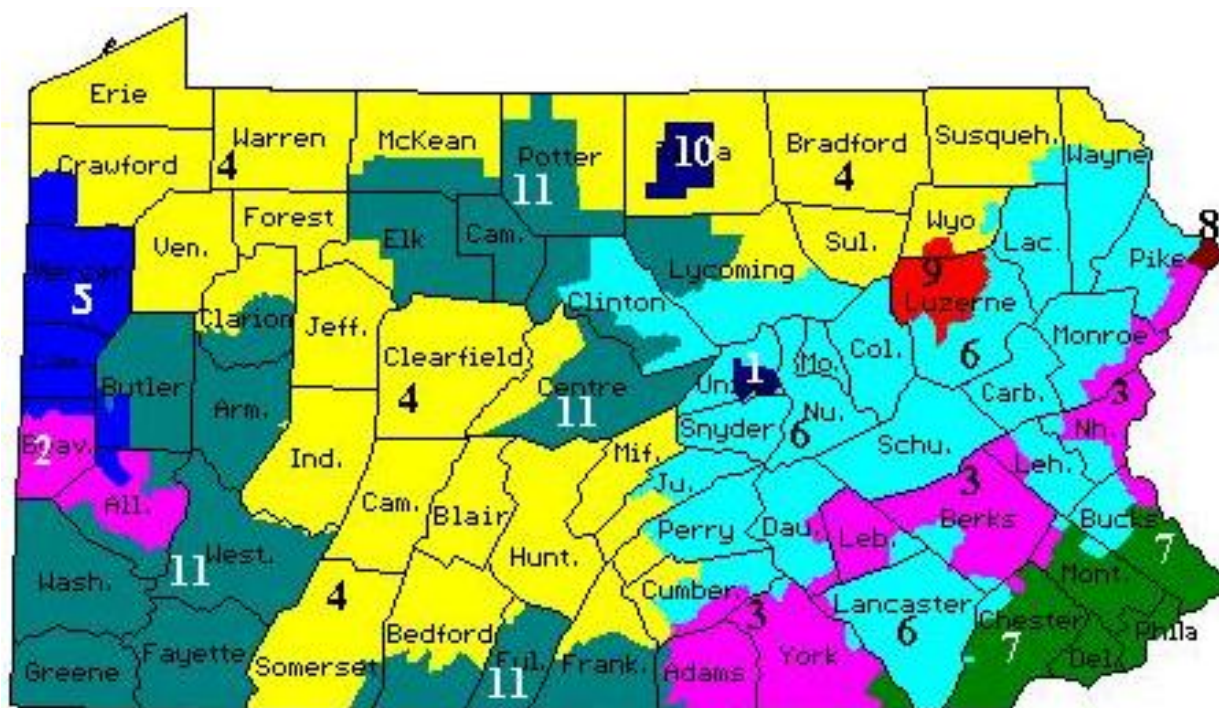
Electric Distribution Companies

Eleven EDCs currently serve the electricity needs of most Pennsylvania's homes, businesses and industries. Cooperatives and municipal systems provide service to several rural and urban areas. The Commission does not regulate the cooperative and municipal electric systems. The 11 jurisdictional EDCs⁶⁹ shown in Figure 6 below are:

1. Citizens' Electric Company
2. Duquesne Light Company
3. Metropolitan Edison Company (FE PA)
4. Pennsylvania Electric Company (FE PA)
5. Pennsylvania Power Company (FE PA)
6. PPL Electric Utilities Corporation
7. PECO Energy Company (Exelon)
8. Pike County Light & Power Company
9. UGI Utilities Inc. – Electric Division
10. Wellsboro Electric Company
11. West Penn Power Company (FE PA)

⁶⁹ Note that by the Order entered on Dec. 7, 2023, at Docket Nos. A-2023-3038771, *et al.*, the Commission granted certain approvals and certificates of public convenience for the unification of the four FirstEnergy Company EDCs that operated in Pennsylvania (Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company) into one EDC, FirstEnergy Pennsylvania Electric Company (FE PA). In order to avoid confusion and to allow comparison to previous electric reliability reports, the FE PA rate districts are referred to as EDCs throughout this report.

Figure 6: Map of EDC Service Territories



As noted above LSEs are responsible for making provisions for adequate generating resources to serve its customers. In Pennsylvania the LSEs are either the local EDCs or a Commission approved alternative Default Service Provider (DSP)⁷⁰ and must acquire electricity, pursuant to a Commission approved competitive procurement process, for customers who:

1. Contract with a competitive Electric Generation Supplier (EGS). Contracting with an EGS allows customers to choose an electric provider in the competitive retail market. The Commission provides a website that provides a one source comparison of EGS electric offers and allows electric customers to directly link into an EGS website to switch electric services.⁷¹

or,

2. Stay with the local EDC or Commission approved DSP. Under current law, the default electric generation prices are required to be based upon a “prudent mix” procurement strategy that will produce the least cost to customers over time.⁷²

Statewide Review of Electrical Energy Usage

As shown on Tables 1 and 2 below, Pennsylvania’s total electrical consumption energy usage (residential, commercial, industrial, sales for resale, and other) in 2025 was 142,298 GWh compared

⁷⁰ See, 66 Pa.C.S. § 2803.

⁷¹ <http://www.papowerswitch.com>.

⁷² See, 66 Pa.C.S. § 2807(e)(3).

to: 142,644 GWh in 2024. The year-over-year (YOY) decrease for electrical usage in 2025 was 0.24%. In general, residential, commercial, and industrial usage changed YOY by 2.83%, -1.78% and -2.76%, respectively. Pennsylvania's 2025 GDP saw a smaller YOY increase of 1.9% as compared to 2024 when the GDP experienced a YOY increase of 4.9%.⁷³ In 2025, the total number of electrical customers increased to 6,001,039 from 5,977,883 in 2024, which is a YOY increase of 0.39%.

Table 1: PA EDC customers served, energy usage, and peak load (2025)

Company	Total Customers Served	Residential (MWh)	Commercial (MWh)	Industrial (MWh)	Other (MWh)	Sales For Resale (MWh)	Total Consumption (MWh)	System Losses (MWh)	Company Use (MWh)	Net Energy For Load (MWh)	Peak Load (MW)
Duquesne	616,011	4,120,748	5,667,713	2,452,421	50,328	18,780	12,309,990	959,358	28,894	11,360,746	2,695
Met-Ed	596,196	5,889,007	2,852,556	5,330,737	25,991	578,817	14,677,107	706,791	0	15,383,898	3,003
Penelec	588,827	4,379,437	3,249,494	5,379,655	32,682	2,826,981	15,868,249	1,021,144	0	16,889,393	2,895
Penn Power	172,848	1,690,231	939,989	2,027,547	3,224	171,621	4,832,611	122,054	0	4,954,665	895
PPL	1,495,756	14,684,901	13,965,821	8,309,537	72,209	0	37,032,468	2,669,690	46,559	39,748,717	7,557
PECO	1,706,342	14,077,885	7,537,229	13,682,877	687,113	2,851	35,987,955	2,970,663	2,832	38,961,450	8,379
West Penn	743,007	7,281,264	3,837,638	8,334,262	21,089	778,365	20,252,618	1,227,625	0	21,480,243	3,912
UGI	63,201	566,408	328,715	96,664	5,065	126	996,978	70,686	2,053	1,069,717	217
Citizens'	7,116	87,528	27,090	41,608	280	0	156,506	7,669	148	164,323	50
Pike County	5,302	35,505	47,689	0	432	0	83,626	0	28	83,654	20
Wellsboro	6,497	43,639	31,775	24,701	65	106	100,286	6,362	217	106,865	18
Total	6,001,103	52,856,553	38,485,709	45,680,009	898,477	4,377,647	142,298,395	9,762,042	80,731	150,203,672	29,641
% of Total		37.14%	27.05%	32.10%	0.63%	3.08%	100%				

Table 2: PA EDC customers served, energy usage, and peak load (2024)

Company	Total Customers Served	Residential (MWh)	Commercial (MWh)	Industrial (MWh)	Other (MWh)	Sales For Resale (MWh)	Total Consumption (MWh)	System Losses (MWh)	Company Use (MWh)	Net Energy For Load (MWh)	Peak Load (MW)
Duquesne	609,591	4,034,089	6,664,571	2,960,549	50,472	26,378	13,736,059	750,941	28,903	14,515,903	2,691
Met-Ed	593,342	5,759,051	2,774,052	5,403,434	25,890	563,201	14,525,628	809,065	0	15,334,693	3,073
Penelec	588,521	4,221,435	3,198,114	5,881,003	32,740	2,735,041	16,068,333	1,010,851	0	17,079,184	2,953
Penn Power	172,182	1,610,252	904,140	1,932,785	3,232	168,571	4,618,980	154,592	0	4,773,572	935
PPL	1,487,328	14,117,062	13,761,299	8,470,645	73,810	0	36,422,816	2,625,862	47,492.00	39,096,170	7,840
PECO	1,704,093	13,963,265	7,682,585	13,889,264	620,986	3,655	36,159,755	1,952,780	2,832	38,115,367	8,651
West Penn	740,746	6,989,065	3,772,161	8,268,711	21,591	751,904	19,803,432	1,166,309	0	20,969,741	3,874
UGI	63,069	551,084	322,988	100,857	5,033	127	980,089	73,878	1,987	1,055,954	217
Citizens'	7,220	81,722	25,599	43,289	289	0	150,899	4,829	133	155,861	50
Pike County	5,318	34,173	46,750	0	458	0	81,381	0	28	81,409	20
Wellsboro	6,473	41,906	30,336	24,610	65	103	97,020	3,470	207	100,697	19
Total	5,977,883	51,403,104	39,182,595	46,975,147	834,566	4,248,980	142,644,392	8,552,577	81,582	151,278,551	30,323
% of Total		36.04%	27.47%	32.93%	0.59%	2.98%	100%				

As shown in Table 3, below, the total average annual aggregate five-year energy usage growth projection for the residential, commercial, and industrial classes is projected to increase by 7.85% per year. This includes an annual average residential growth rate of 0.52%, a commercial growth rate increase of 0.32%, and an industrial growth rate increase of 18.56% for the entire five-year projected period. The significant increase in industrial demand is primarily due to PPL's forecast for a number of larger users such as data centers. See the summary of PPL's forecast in the section on PPL below.

⁷³ US Bureau of Economic Analysis: <https://www.bea.gov/>.

Table 3: Average Aggregate Five-year Electrical Energy Projection

PA Energy Usage Projection (GWh)				
Year	Residential	Commercial	Industrial	Total
2026	51,796	38,195	48,486	138,476
2027	52,180	38,252	57,219	147,652
2028	52,750	38,510	73,006	164,266
2029	53,000	38,485	92,169	183,655
2030	53,516	38,678	106,737	198,930
Average annual growth (%)	0.52%	0.32%	18.56%	7.85%

Figure 7 below represents, in GWh, the Pennsylvania historic usage for residential, commercial, and industrial retail from 1972 through 2025, and forecasted GWh usage from 2026 through 2030.

Figure 7: Pennsylvania Retail Energy Usage and Five-year Forecast (GWh)

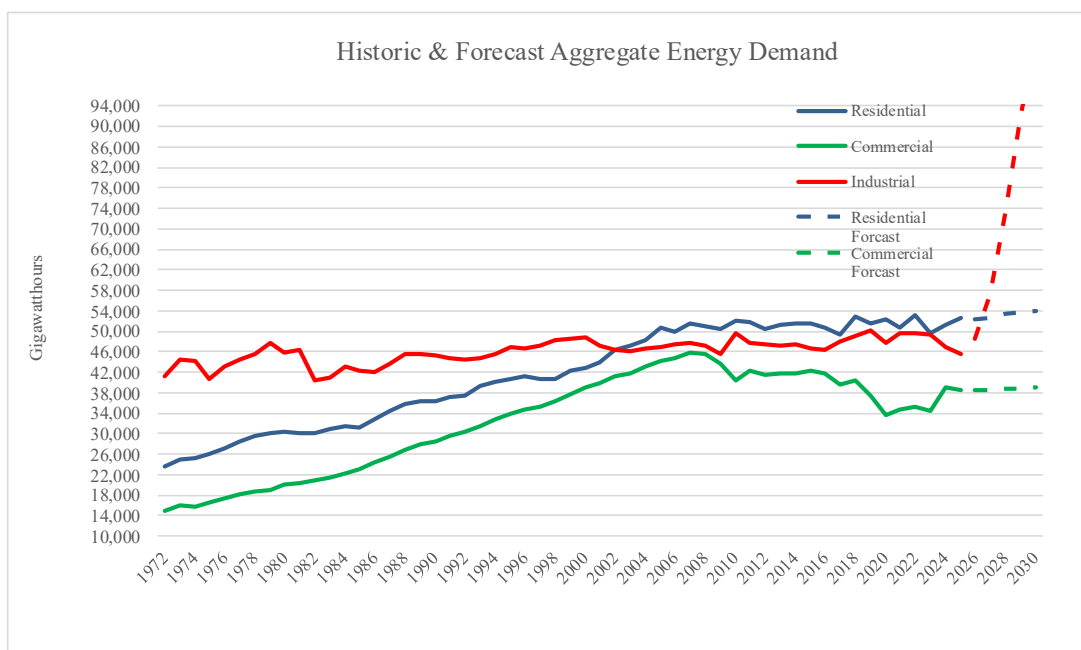


Figure 8 below shows average residential usage and nominal cost from 1940 through 2025. For this year's report, a discounted cost (using 2025 dollars) was added. During the last 10 years, residential usage decreased at an average of -0.77% each year, while the nominal yearly cost increased at an average of 5.24% each year and the discounted cost increased by an average of 2.63% each year. Note that these are not weighted averages (accounting for customer counts of each utility) and are only for the large EDCs. In 2025, the average customer paid 17.11 cents per kWh, which increased from 15.60 cents per kWh in 2024. This increase can partly be attributed to increased distribution rates following several base rate increases completed in 2025. However, the generation and transmission cost for residential electric retail customers is likely the primary driver of the increase due to increased natural-gas costs. The price of natural gas has a significant impact on electric prices in PJM with natural-gas accounting for approximately 42.8% of generation in 2025 Pennsylvania,

as shown in Appendix C, Table C-1. Nationally, the average price of natural gas delivered to electric generators increased 36% from the all-time low in 2024.⁷⁴

In 2025, the average Pennsylvania residential customer used 9.60 MWh as compared to: 9.41 MWh in 2024; 9.53 MWh in 2023; 10.21 MWh in 2022; 10.40 MWh in 2021; and 10.13 MWh in 2020.

Figure 8: Average Residential Nominal Cost (cents/kWh) and Usage (MWh/year)⁷⁵

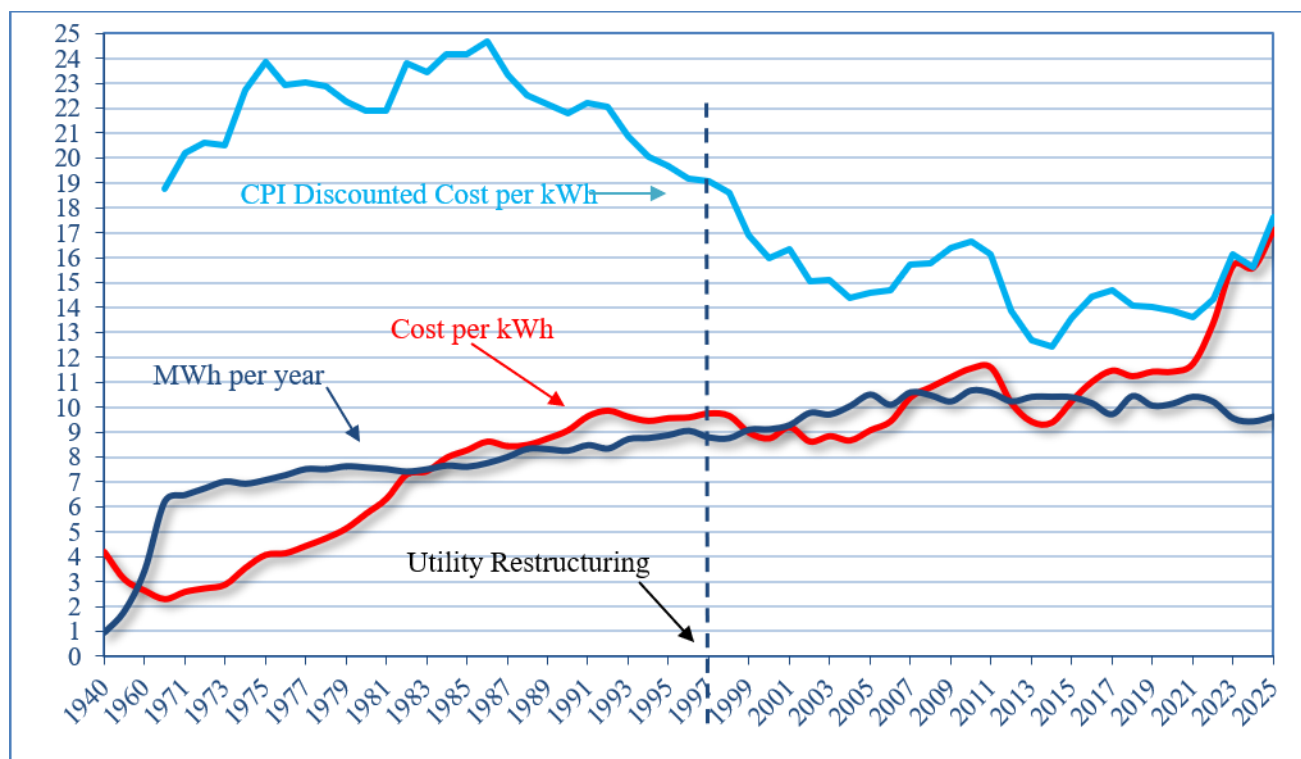


Figure 9 below shows the EDCs' aggregate non-coincidental peak load demand from 2016 through 2025, and the associated five-year projections estimated during the last three years. Note the large increases in forecast peak load in 2025, which are driven primarily by PPL's forecast peak loads due to large load users such as data centers. See the summary of PPL's forecast in the section on PPL below.

⁷⁴ See, Lawrence Berkeley National Laboratory, *Retail Price Trends: July 2026 Briefing*, available at: https://emp.lbl.gov/sites/default/files/2026-07/Retail%20Price%20Trends_2026%20edition_JulyUpdate.pdf.

⁷⁵ The cost per kWh was discounted to 2025 dollars by using the annual Consumer Price Index for All Urban Consumers (CPI-U), available at the Bureau of Labor Statistics website. See, <https://www.bls.gov>.

Figure 9: Pennsylvania Aggregate Non-Coincidental Peak Load (MW)

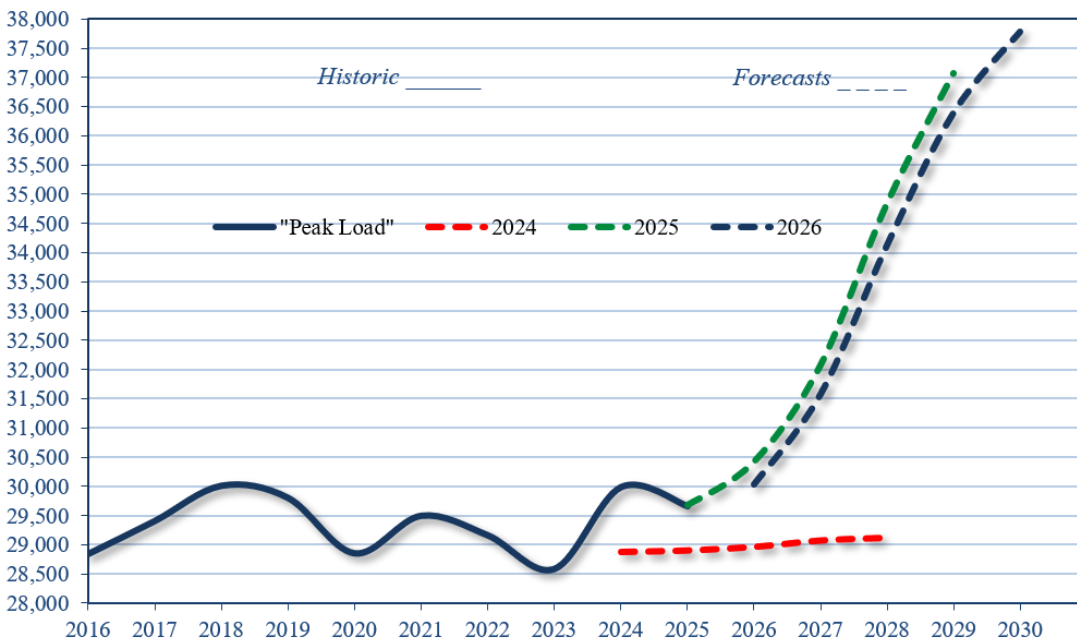
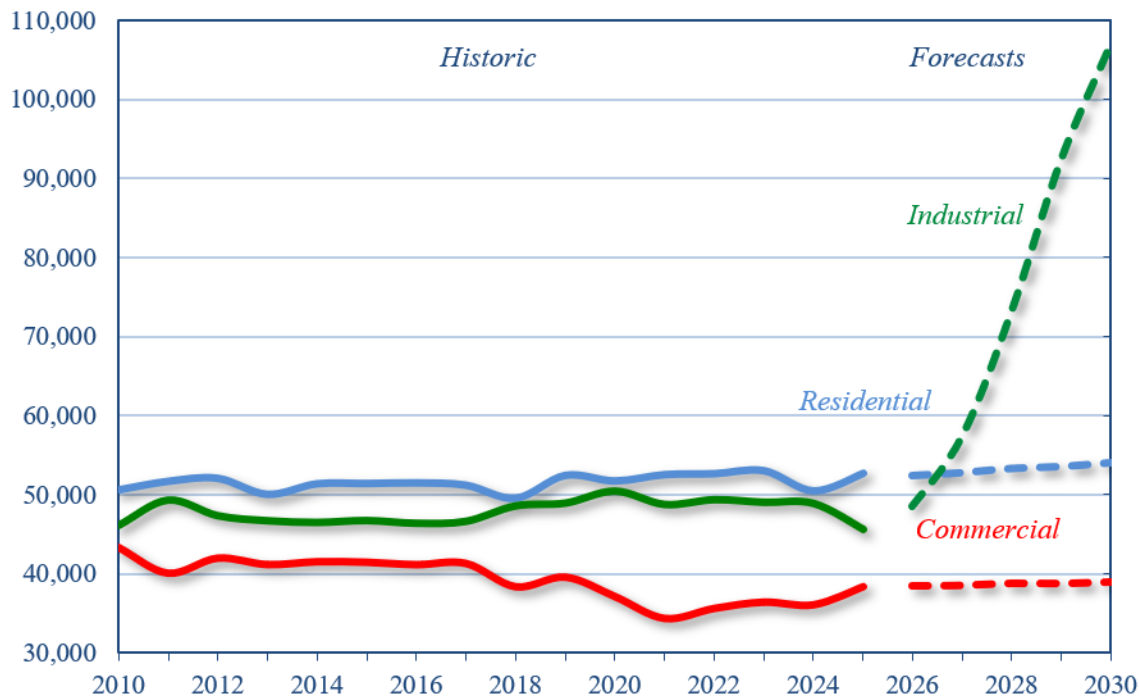


Figure 10 below shows the EDCs' aggregate energy demand from 2010 through 2025 and the associated five-year projections. Note the high forecast load projections for the industrial sector, which again is driven by PPL's forecast. See the summary of PPL's forecast in the section below.

Figure 10: Pennsylvania Aggregate Energy Demand (GWh)



Summary of Data for the Seven Largest EDCs

Individual EDC forecasts are more specific to customers and geographical areas than the PJM forecast, which is a broader forecast that includes all Pennsylvania EDC territories. Each EDC bases its forecast on the forecast methodology and data assumptions of its choosing.

The following section provides historic and projected energy usage and peak load demand statistics for Pennsylvania's seven largest EDCs. Note that TUS made an informal request for the EDCs to provide 20-year forecasts of demand and peak load in addition to the required five-year forecasts.⁷⁶ TUS sought to understand the EDCs' longer-term forecasts as they compared to PJM's long-term forecasts for the transmission zones in PA and the impact of large load customers such as data centers.⁷⁷ Thus, Appendix D of this report contains tables of the 20-year forecasts of the seven large EDCs and UGI. TUS notes that 20-year forecasts should be seen as much more speculative than five-year forecasts and should be taken with the proverbial grain of salt.

As can be seen in Appendix D, PPL is predicting significant demand and peak load growth due to industrial customers, primarily data centers. It can also be seen that, apart from PECO, the other EDCs are not predicting significant impacts from data center load at this time. However, this is subject to change as the dynamics of large load users seeking reliable generation may seek more opportunities in Pennsylvania. PECO has projected an increase in demand, but not to the scale that PPL and the two other transmission zones (Dominion and AEP) in PJM have predicted. As shown in the supporting documentation for the *PJM Load Forecast Report January 2026*, by 2030, PPL, Dominion and AEP comprise approximately 68% of the forecast adjustments to summer peak load due to large load users, *i.e.*, data centers, provided by the transmission zones in PJM.⁷⁸

Duquesne Light Company (Duquesne)

Duquesne provides electric service to about 616,011 customers in the City of Pittsburgh and portions of Allegheny and Beaver counties in Southwestern Pennsylvania. Duquesne's 2025 energy usage total was 12,315 GWh, as compared to: 13,736 GWh in 2024; 12,237 GWh in 2023; 12,527 GWh in 2022; 12,581 GWh in 2021; and 12,159 GWh in 2020. Year-over-year (YOY) energy usage decreased 10.3%. Duquesne's total usage mix consisted of residential (33.47%), commercial (46.04%), industrial (19.92%), other (0.41%) and sales for resale (0.15%).



Duquesne notes that its customer base is projected to grow at a compound annual growth rate of 0.3% between 2026 and 2045. However, its total net energy sales are projected to decline at a

⁷⁶ See, 52 Pa. Code §§ 57.141—57.154.

⁷⁷ See, PJM, *PJM Load Forecast Report January 2026*, available at <https://www.pjm.com/-/media/DotCom/library/reports-notices/load-forecast/2026-load-report.pdf>.

⁷⁸ See, PJM, *PJM Load Forecast Development Process*, available here: <https://www.pjm.com/planning/resource-adequacy-planning/load-forecast-dev-process.aspx>. In particular, see the Excel tables for the Long-Term Load Forecast and Load Adjustment Breakdown for Capacity Obligations under the Forecasts and Reports section. .

compound annual growth rate of 0.3% between 2026 and 2045. Over the next five years, total energy usage is projected to increase at an average annual rate of 2.2%. This includes a residential usage average annual increase of 1.19%, commercial usage increase of 2.08%, and an industrial usage increase of 4.15%, as shown in Figure 11 below.

Duquesne indicated that it experienced its 2025 summer peak load of 2,695 MW on June 23, 2025. The 2025 summer peak represents a YOY decrease of -8.98% from the previous year's peak load of 2,961 MW. Duquesne also indicated that its winter peak of 2,002 MW occurred on January 30, 2026. The five-year peak load forecast is projected to increase by an average of 0.07% per year as shown in Figure 12 below.

Refer to Appendix A, Tables A01-A04 for Duquesne's forecasts of peak load and residential, commercial, and industrial energy demand, filed with the Commission in the years 2016 through 2025. Refer to Appendix D for Duquesne's 20-year demand and peak load forecast.

Figure 11: Duquesne energy usage (GWh)

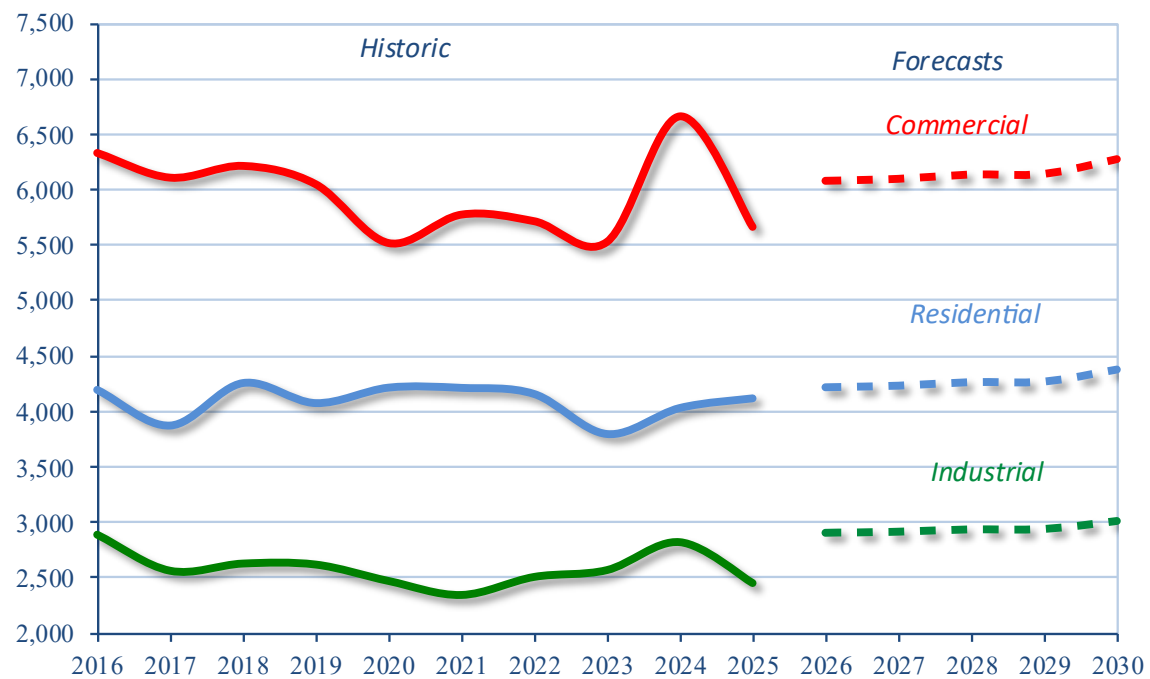
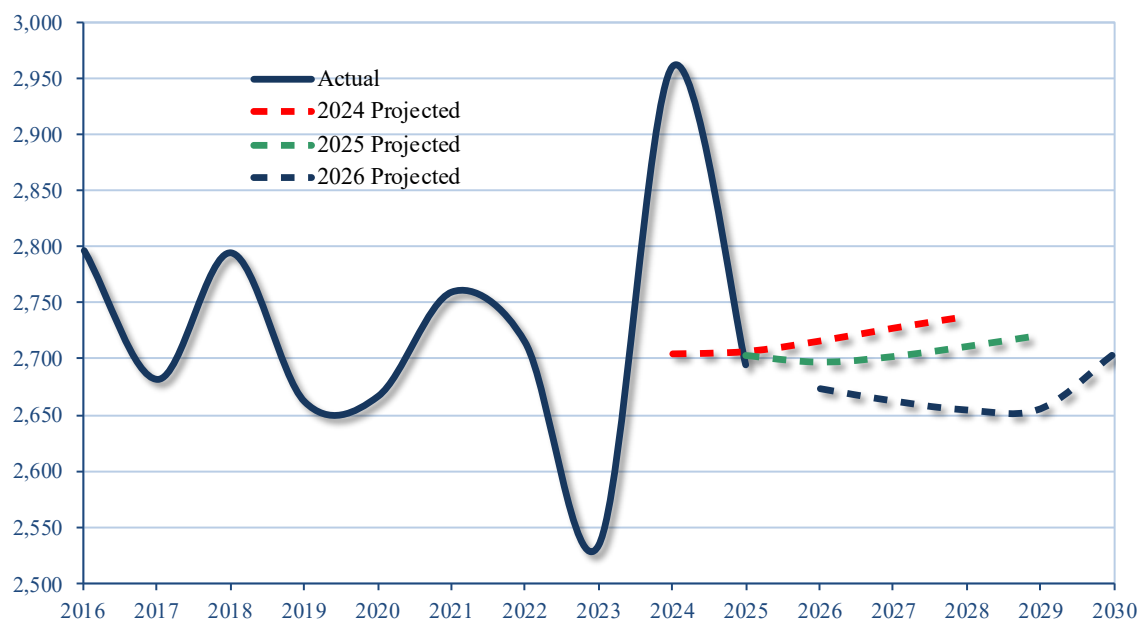
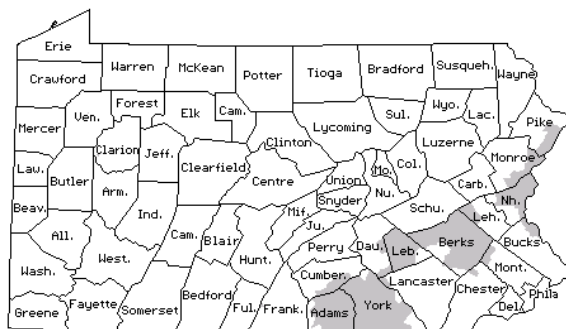


Figure 12: Duquesne peak load (MW)



Metropolitan Edison Company (Met-Ed)

Met-Ed provides electric service to about 596,196 customers in all or portions of 14 counties in Eastern and Southcentral Pennsylvania. Met-Ed's 2025 energy usage total was 14,677 GWh, as compared to: 14,525 GWh in 2024; 14,215 GWh in 2023; 14,949 GWh in 2022; 14,748 GWh in 2021; and 14,291 GWh in 2020. Year-over-year (YOY) energy usage increased 1.04%. Met-Ed's total usage mix consisted of residential (40.12%), commercial (19.4%), industrial (36.32%) and sales for resale (3.94%).



Over the next five years, total energy usage is projected to increase at an average annual rate of 0.50%. This includes a residential usage average annual increase of 0.93%, commercial usage increase of 0.37%, and industrial usage increase of 0.08% as shown in Figure 13 below.

Met-Ed's highest peak load in 2025 was 3,003 MW. This represents a YOY decrease of 2.28% from the previous year's peak of 3,073 MW. The five-year peak load forecast is projected to increase by 0.13% each year as shown in Figure 14 below.

Refer to Appendix A, Tables A05-A08 for Met-Ed's forecasts of peak load and residential, commercial, and industrial energy demand, filed with the Commission in the years 2016 through 2025. Refer to Appendix D for Met-Ed's 20-year demand and peak load forecast.

Figure 13: Met-Ed energy usage (GWh)

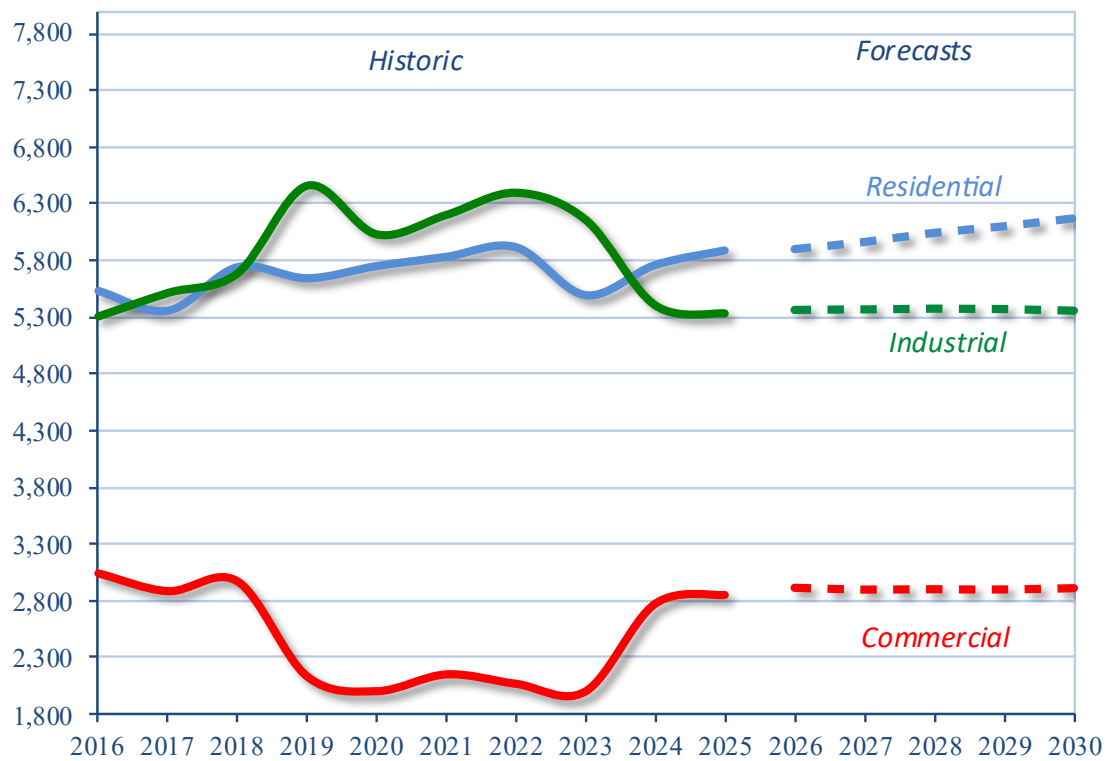
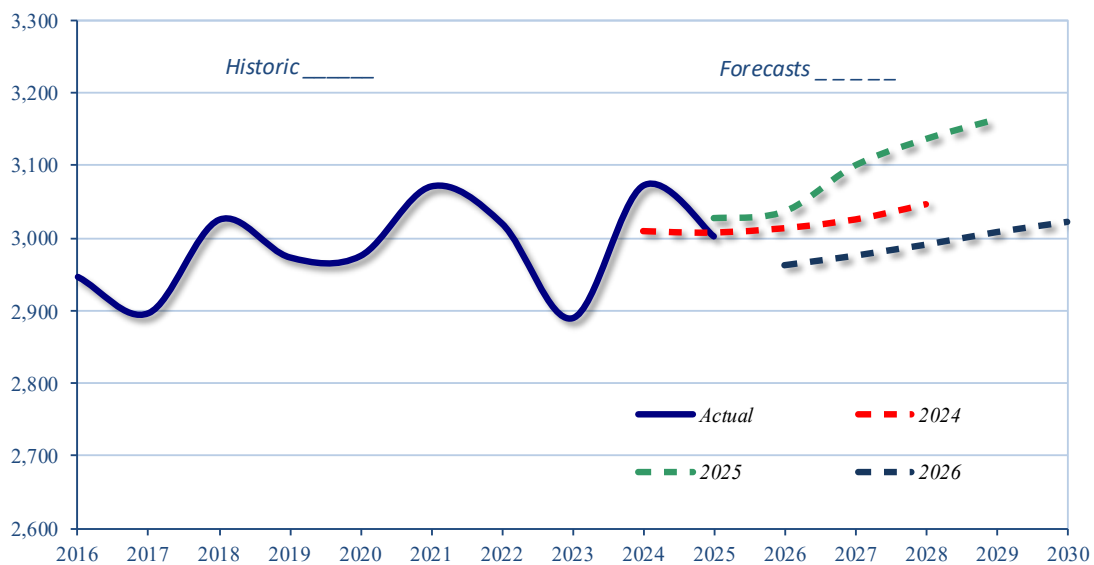
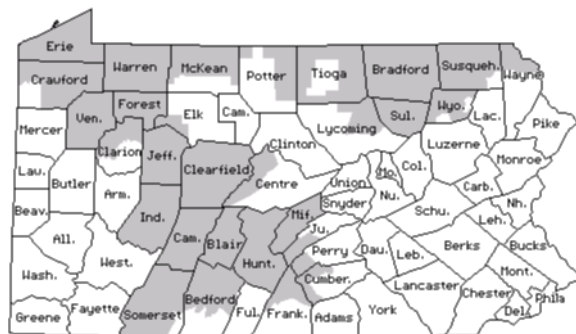


Figure 14: Met-Ed peak load (MW)



Pennsylvania Electric Company (Penelec)

Penelec provides electric service to about 588,827 customers in all or portions of 29 counties in Western and Northern Pennsylvania. Penelec's 2025 energy usage total was 15,868 GWh, as compared to: 16,068 GWh in 2024; 15,683 GWh in 2023; 16,091 GWh in 2022; 15,972 GWh in 2021; and 15,715 GWh in 2020. Year-over-year (YOY) energy usage decreased 1.25%. Penelec's total usage mix consisted of residential (27.60%), commercial (20.48%), industrial (33.90%), and sales for resale (17.82%).



Over the next five years, total energy usage is projected to decrease at an average annual rate of -0.12% . This includes a residential usage average annual increase of 0.37% , commercial usage increase of 0.18% , and industrial usage decrease of -1.23% , as shown in Figure 15 below.

Penelec's highest peak load in 2025 was 2,895 MW. This represents a YOY increase of 4.78% from the previous year's peak of 2,953 MW. The five-year peak load forecast is projected to decrease by an average of -0.05% per year as shown in Figure 16 below.

Refer to Appendix A, Tables A09-A12 for Penelec's forecasts of peak load and residential, commercial and industrial energy demand, filed with the Commission in the years 2016 through 2025. Refer to Appendix D for Penelec's 20-year demand and peak load forecast.

Figure 15: Penelec energy usage (GWh)

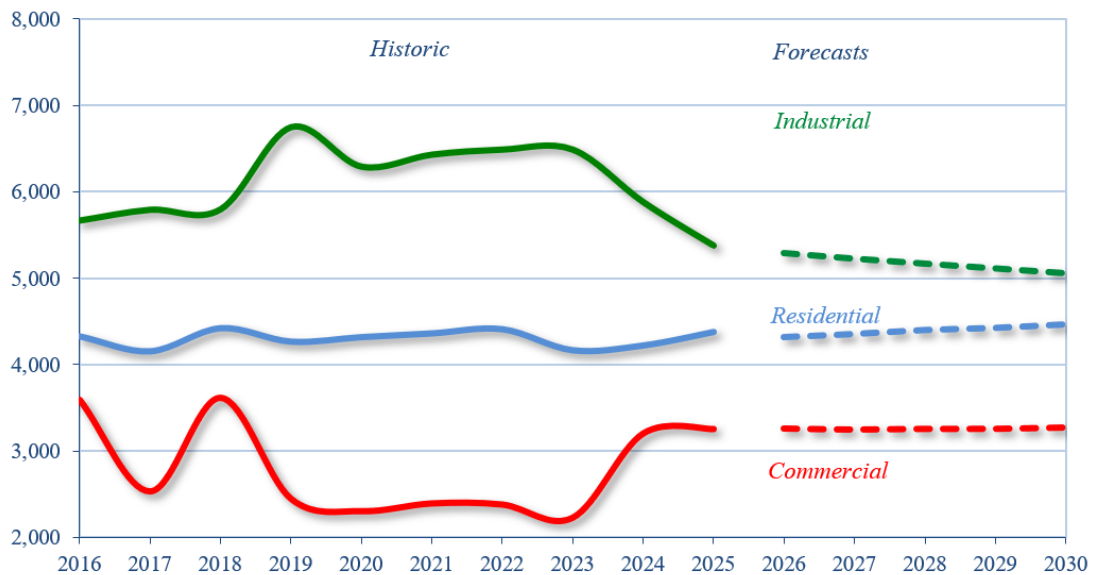
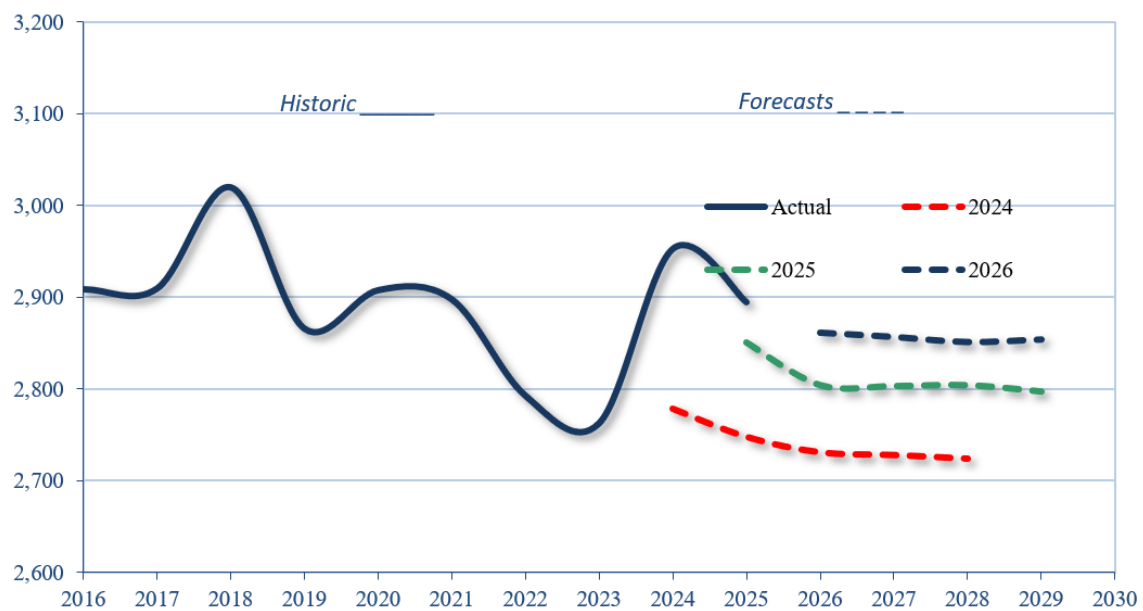
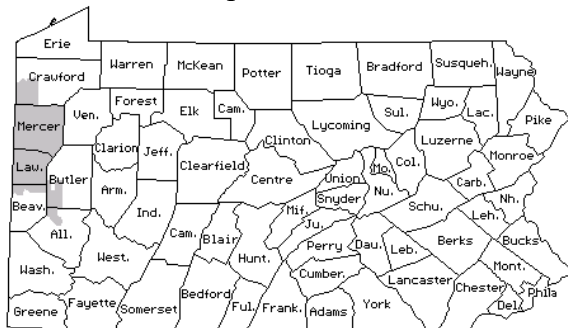


Figure 16: Penelec peak load (MW)



Pennsylvania Power Company (Penn Power)

Penn Power provides electric service to about 172,848 customers in all or portions of six counties in Western Pennsylvania. Penn Power's 2025 energy usage total was 4,832 GWh, as compared to: 4,619 GWh in 2024; 4,594 in 2023; 4,752 GWh in 2022; 4,600 GWh in 2021; and 4,427 GWh in 2020. Year-over-year (YOY) energy usage increased 4.63%. Penn Power's total usage mix consisted of residential (34.98%), commercial (19.45%), industrial (41.96%), and sales for resale (3.55%).



Over the next five years, total energy usage is projected to increase at an average annual rate of 0.31%. This includes residential usage increasing at an average annual rate of 1.26%, a commercial average annual usage decrease of -1.21%, and an industrial usage increase of 0.19% as shown in Figure 17 below.

Penn Power's highest peak load in 2025 was 935 MW. This represents a YOY increase of 3.89% from the previous year's peak of 900 MW. The five-year peak load forecast is projected to increase by an average of 0.80% per year as shown in Figure 18 below.

Refer to Appendix A, Tables A13-A16 for Penn Power's forecasts of peak load and residential, commercial, and industrial energy demand, filed with the Commission in years 2016 through 2025. Refer to Appendix D for Penn Power's 20-year demand and peak load forecast.

Figure 17: Penn Power energy usage (GWh)

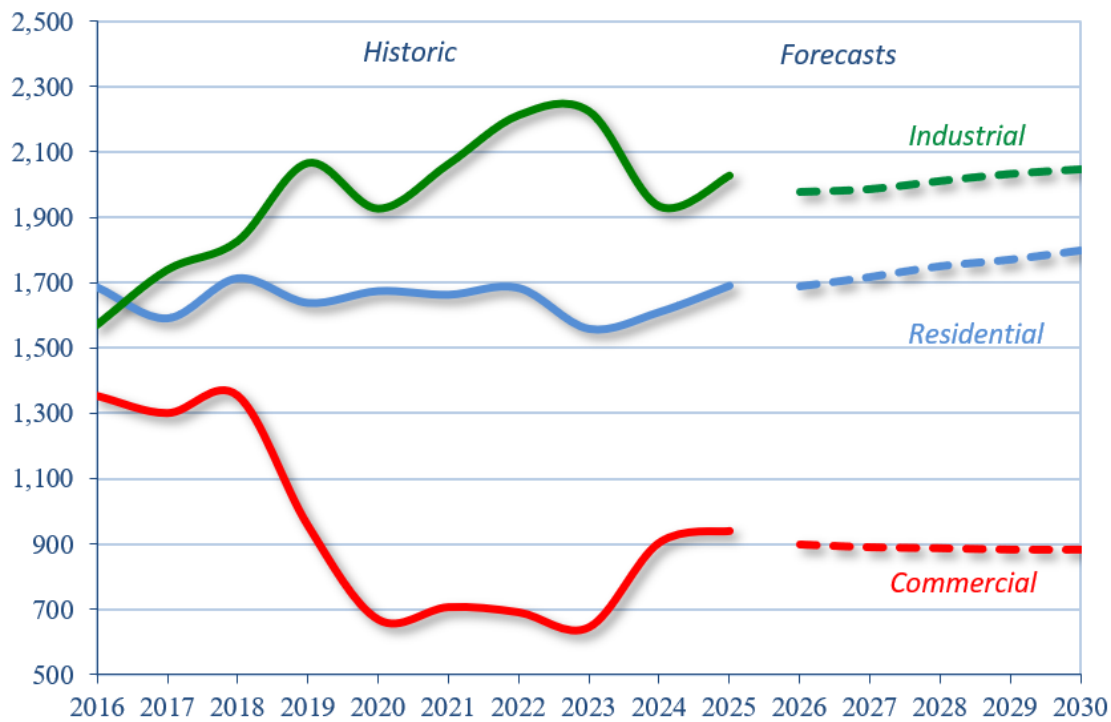
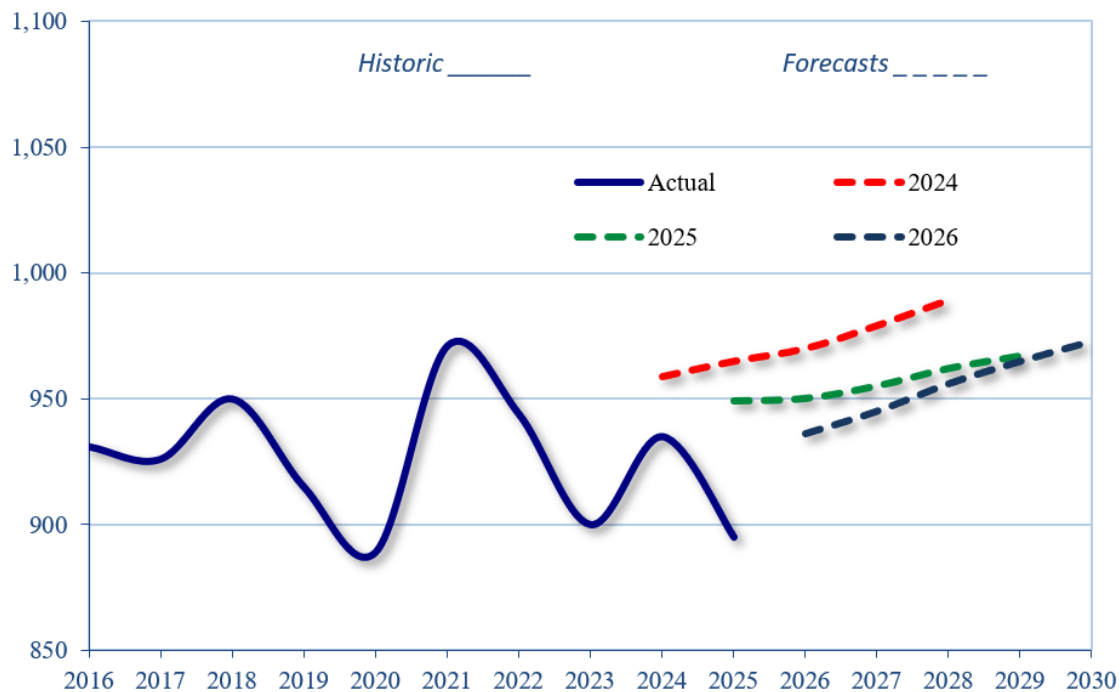
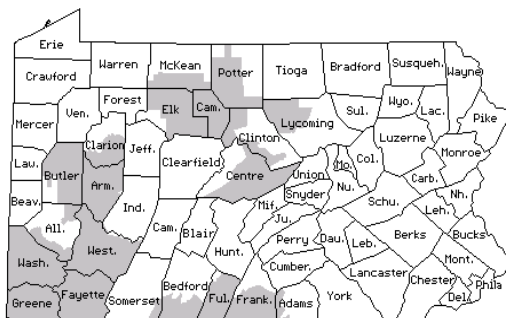


Figure 18: Penn Power peak load (MW)



West Penn provides electric service to 743,007 customers in all or portions of 24 counties in Western, North and South-Central Pennsylvania. West Penn's 2025 energy usage total was 20,252 GWh, as compared to: 19,804 GWh in 2024; 19,409 GWh in 2023; 20,353 in 2022; 20,050 GWh in 2021; and 19,598 in 2020. Year-over-year (YOY) energy usage increased by 2.27%. West Penn's total usage mix consisted of residential (35.95%), commercial (18.95%), industrial (41.15%), and sales for resale (3.84%).



West Penn's highest peak load in 2025 was 3,912 MW. This represents a YOY increase of 0.98% from the previous year's peak of 3,874 MW. The five-year peak load forecast is projected to decrease by an average of -0.85% per year as shown in Figure 20 below.

Refer to Appendix A, Tables A25-A28 for West Penn's forecasts of peak load and residential, commercial, and industrial energy demand, filed with the Commission in the years 2016 through 2025. Refer to Appendix D for West Penn's 20-year demand and peak load forecast.

Figure 19: West Penn energy usage (GWh)

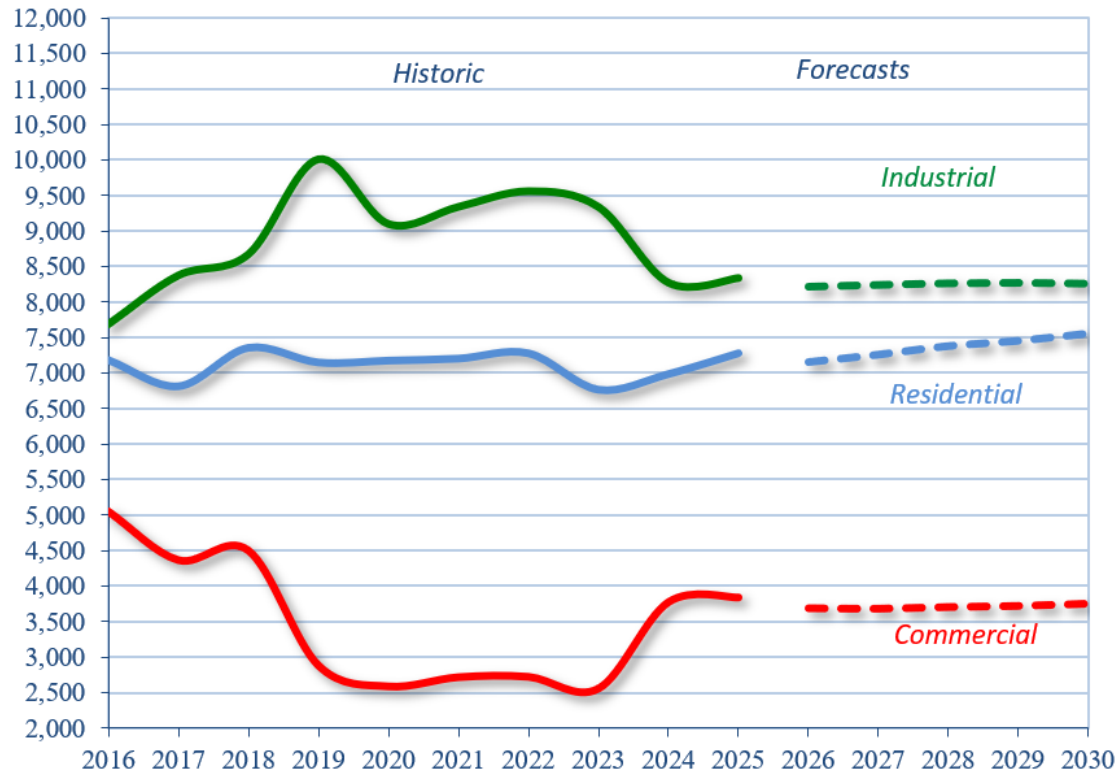
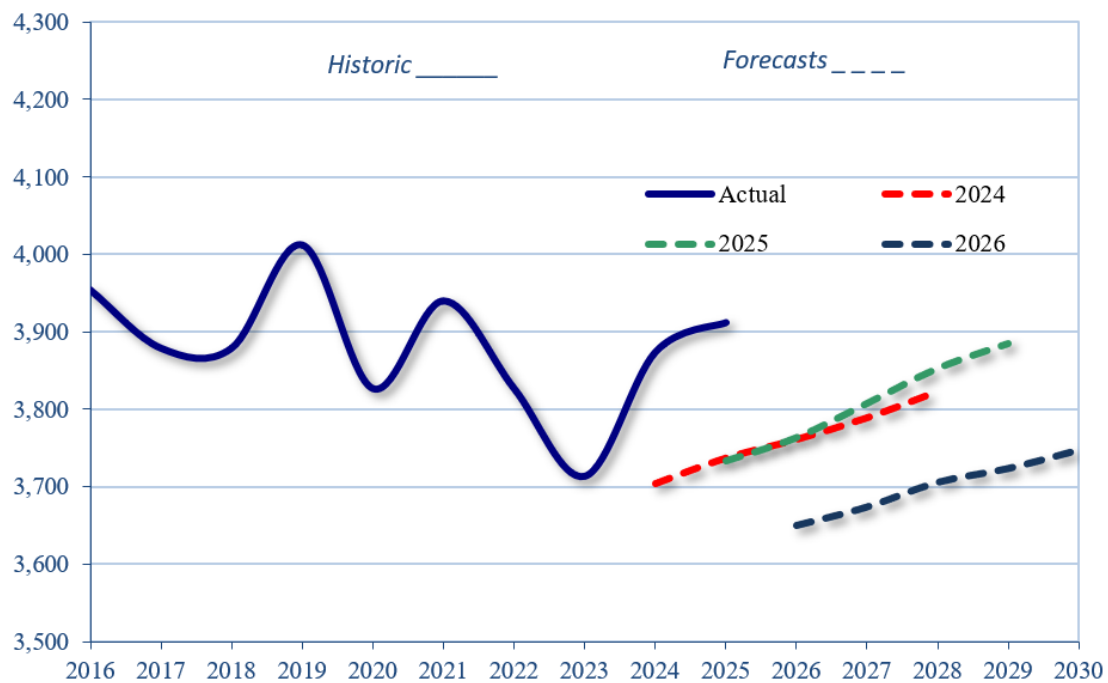
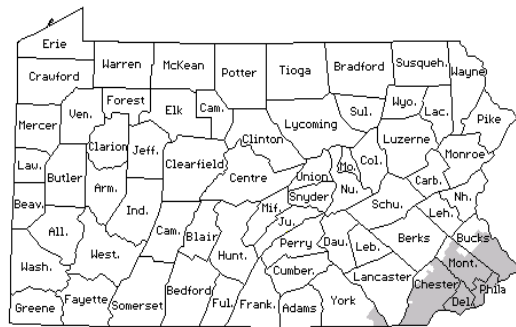


Figure 20: West Penn peak load (MW)



PECO Energy Company (PECO)

PECO is the largest electric utility in Pennsylvania, providing service to about 1,706,342 customers in the City of Philadelphia and all or portions of six counties in Southeastern Pennsylvania. PECO's 2025 energy usage total was 35,987 GWh as compared to: 36,160 GWh in 2024; 34,882 GWh in 2023; 39,773 in 2022; 36,431 GWh in 2021; and 35,507 GWh in 2020. Year-over-year (YOY) energy usage decreased by -0.48%. PECO's total usage mix consisted of residential (39.12%), commercial (20.94%), industrial (38.02%), other (1.91%) and sales for resale (less than 1%).



Over the next five years, total energy usage is projected to increase at an average annual rate of 2.28%. This includes a residential usage average annual increase of 0.55%, commercial usage average annual decrease of -0.02%, and an industrial usage increase of 5.26% as shown in Figure 21 below.

PECO's highest peak load in 2025 was 8,379 MW. This represents a YOY decrease of -3.14% from the previous year's peak of 8,651 MW. The five-year peak load forecast is projected to increase by an average of 1.70% per year as shown in Figure 22 below.

Refer to Appendix A, Tables A21-A24 for PECO's forecasts of peak load and residential, commercial, and industrial energy demand, filed with the Commission in the years 2016 through 2025. Refer to Appendix D for PECO's 20-year demand and peak load forecast.

Figure 21: PECO Energy Company energy usage (GWh)

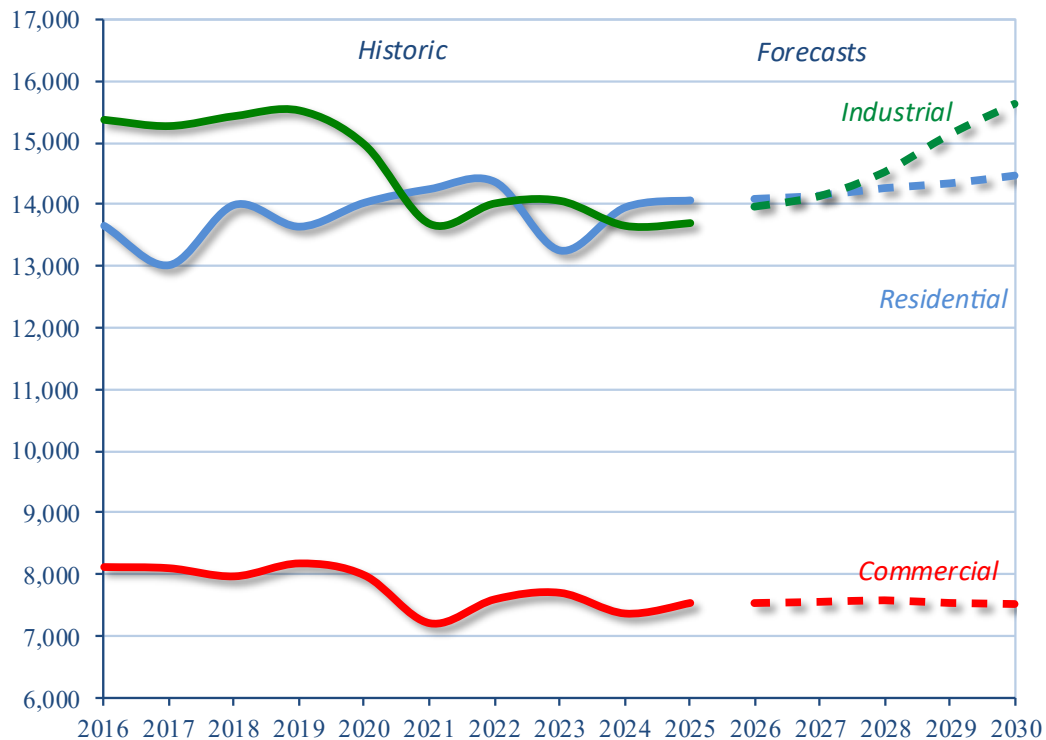
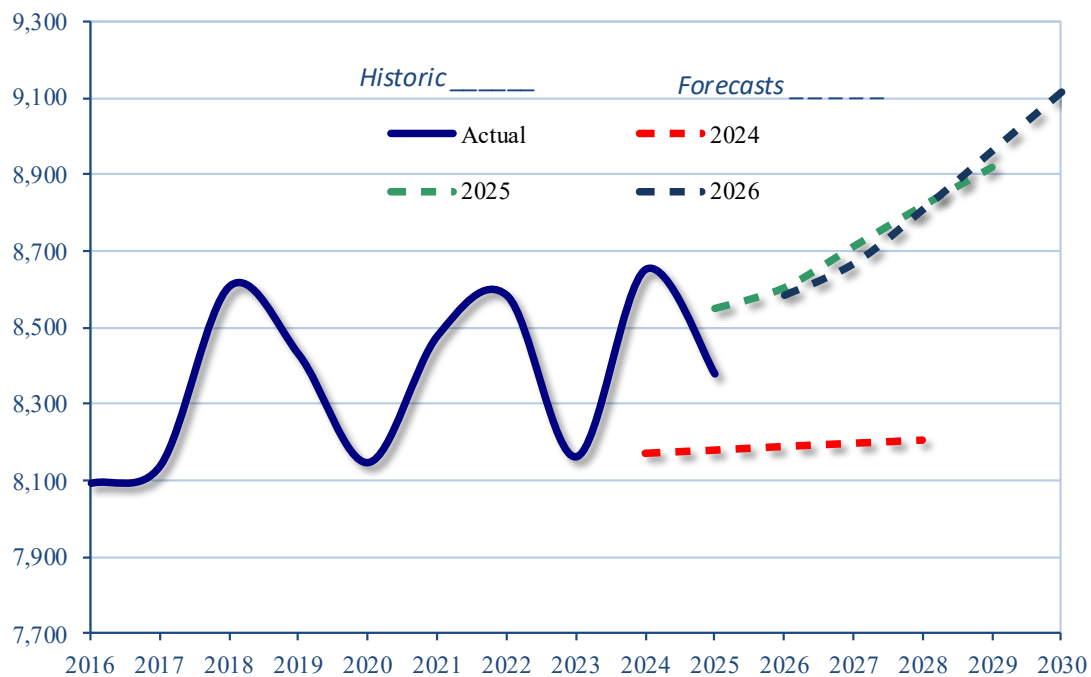
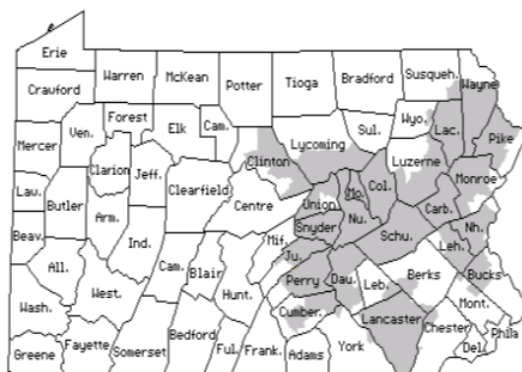


Figure 22: PECO Energy Company peak load (MW)



PPL Electric Utilities Corporation (PPL)

PPL provides service to about 1,495,756 customers over a 10,000-square-mile area in all or portions of 29 counties in Central Eastern Pennsylvania. PPL's 2025 energy total usage was 37,032 GWh as compared to: 36,423 GWh in 2024; 36,441 GWh in 2023; 39,729 GWh in 2022; 37,104 in 2021; and 36,171 GWh in 2020. Year-over-year (YOY) energy usage increased by 1.67%. PPL's total usage mix consisted of residential (39.65%), commercial (37.71%), industrial (22.44%), and other (less than 1%).



Over the next five years, total energy usage is projected to increase at an average annual rate of 20.51%. This includes a residential usage average annual increase of 0.01%, commercial usage increase of 0.10%, and industrial usage increase of 51.05% as shown in Figure 23 below. Note that the scale in Figure 23 does not allow for the full growth of the industrial usage (over 94,141 GWh by 2030) to be shown. PPL has projected a substantial increase in industrial usage and peak load as shown in Figures 23 and 24 below. Note that this is almost entirely due to the onboarding of large data centers.⁷⁹ PPL's demand and peak load growth due to data centers is by far the largest of any of the PA EDCs. In terms of a 20-year outlook, PPL's forecast is far larger than any other large EDC, as shown in Appendix D.

PPL's highest annual peak load in 2025 was 7,557 MW. This represents a YOY decrease of -3.61% from the previous year's peak of 7,840 MW. The five-year peak load forecast is projected to increase by an average of 14.93% per year as shown in Figure 24 below. The large increase in expected peak load is due to large user load such as data centers.

Refer to Appendix A, Tables A17-A20 for PPL's forecasts of peak load and residential, commercial, and industrial energy demand, filed with the Commission in the years 2016 through 2025. Also refer to Appendix D for PPL's 20-year demand and peak load forecast.

⁷⁹ PPL's projections and additions due to data center load have been documented in the *PJM Load Forecast Report January 2025*, available at <https://www.pjm.com/-/media/DotCom/library/reports-notices/load-forecast/2025-load-report.ashx>, and supporting documents, available at: <https://www.pjm.com/planning/resource-adequacy-planning/load-forecast-dev-process.aspx>.

Figure 23: PPL Electric Utilities Corporation energy usage (GWh) (see note above)

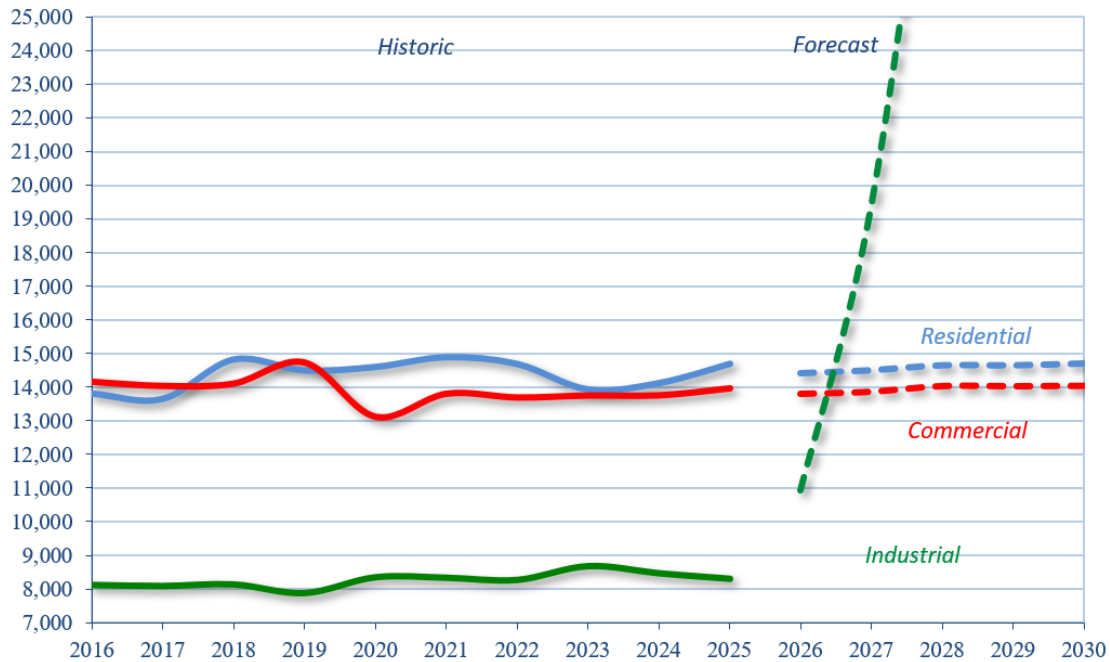
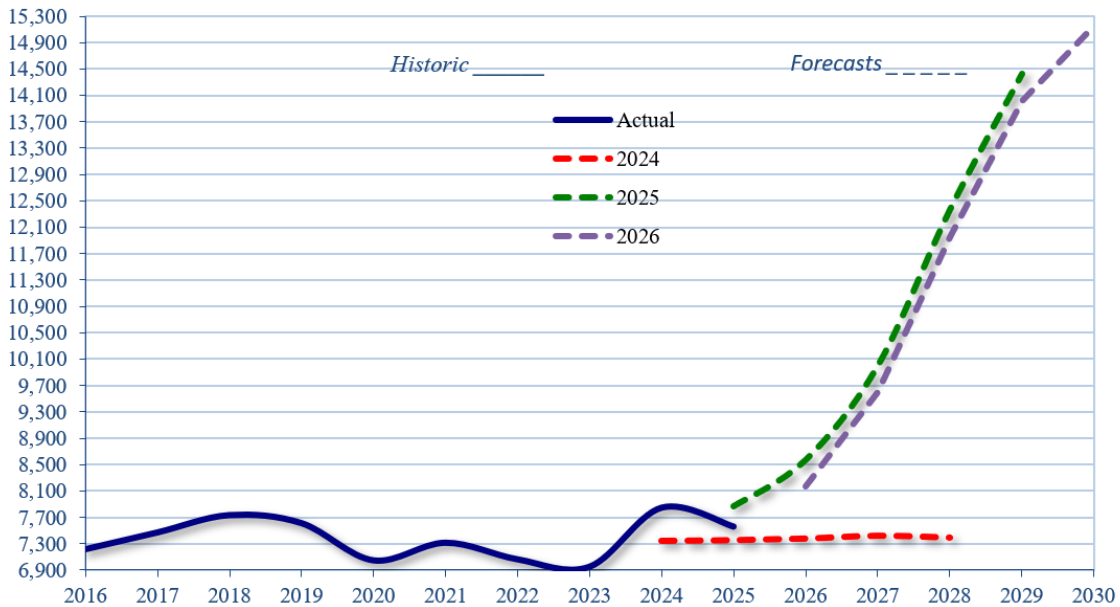


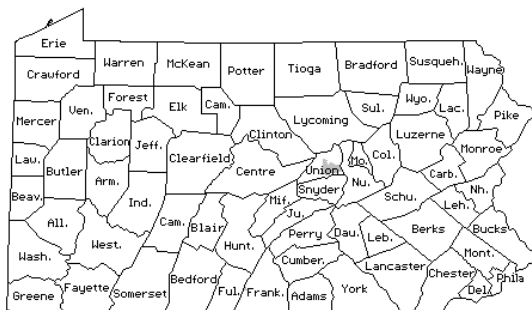
Figure 24: PPL Electric Utilities Corporation peak load (MW)



Summary of Data for the Four Smallest EDCs

Citizens' Electric Company (Citizens')

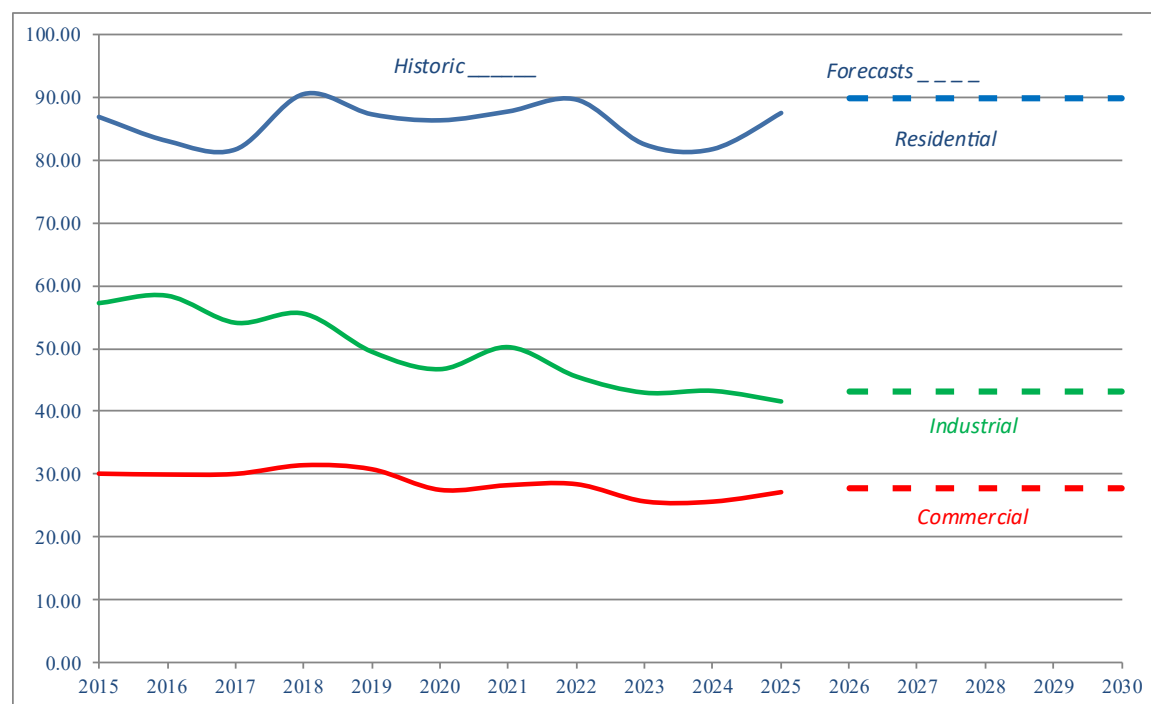
Citizens' provides service to about 7,116 customers in Union County, Pennsylvania. Citizens' 2025 energy usage total was 164 GWh, as compared to: 155 GWh in 2024; 155 GWh in 2023; 164 GWh in 2022; 167 GWh in 2021; and 161 GWh in 2020. Year-over-year (YOY) energy usage increased by 3.72%. Citizens' total usage mix consisted of residential (55.93%), commercial (17.31%), industrial (28.59%), and other (less than 1%).



Over the next five years, total energy usage is projected to increase at an average annual rate of 0.61%. This includes a residential usage average annual increase of 0.54%, commercial usage increase of 0.54%, and industrial usage increase of 0.79% as shown in Figure 25 below.

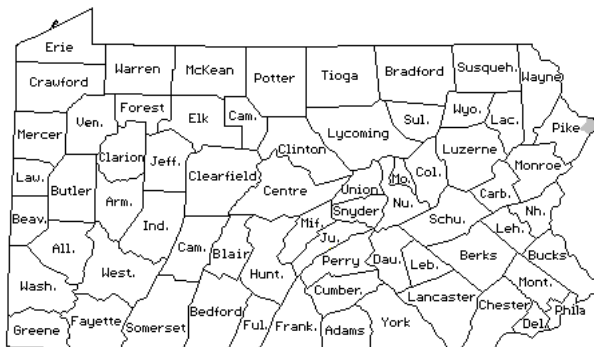
Citizens' highest peak load in 2025 was 49.8 MW. This represents a YOY decrease of -0.20% from the previous year's peak of 49.9 MW. The five-year peak load forecast is projected to decrease by an average of -0.45% per year.

Figure 25: Citizens' energy usage (GWh)



Pike County Light & Power Company (Pike)

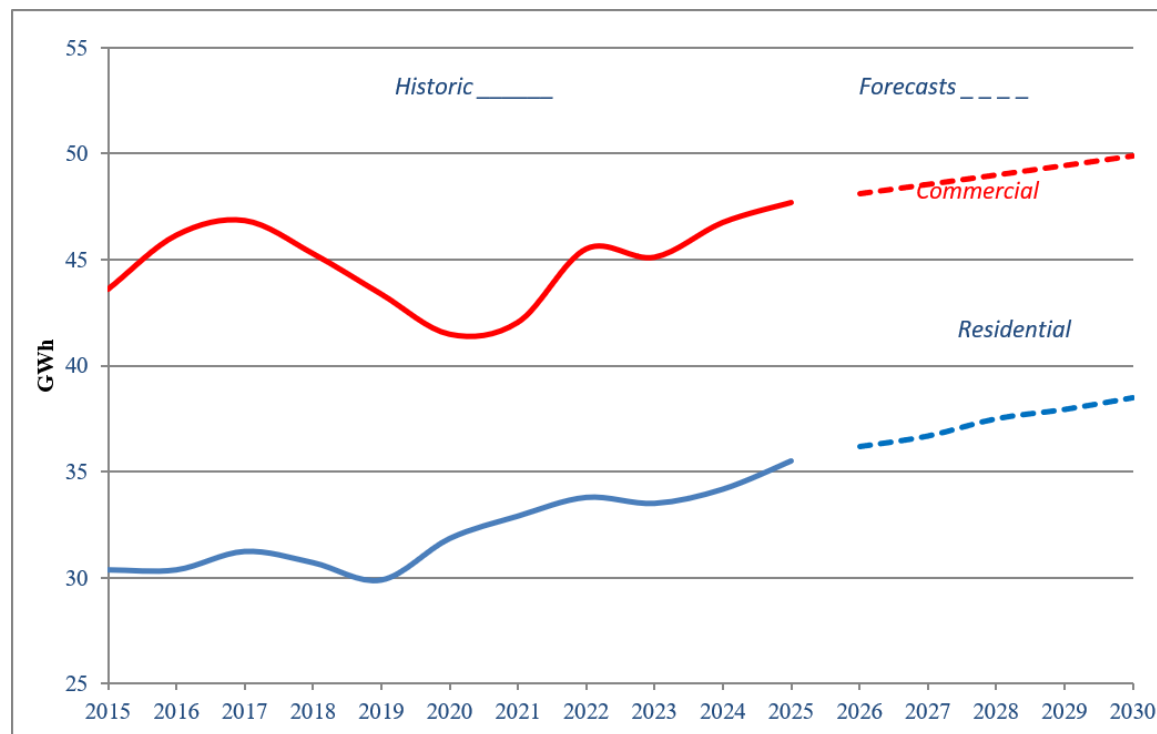
Pike provides service to about 5,302 customers in Eastern Pike County, Northeastern Pennsylvania. Pike's 2025 energy usage total was 83.63 GWh, as compared to 81.4 GWh in 2024; 79.0 GWh in 2023; 79.7 GWh in 2022; 75.4 GWh in 2021; and 73.7 GWh in 2020. Year-over-year (YOY) energy usage increased 2.76%. Pike's total usage mix consisted of residential (42.46%), commercial (57.03%), and other (less than 1%). Pike has no industrial customers or sales for resale.



Over the next five years, total energy usage is projected to increase at an average annual rate of 1.11%. This includes a residential usage average annual increase of 1.63%, and a commercial usage increase of 0.90% as shown in Figure 26 below.

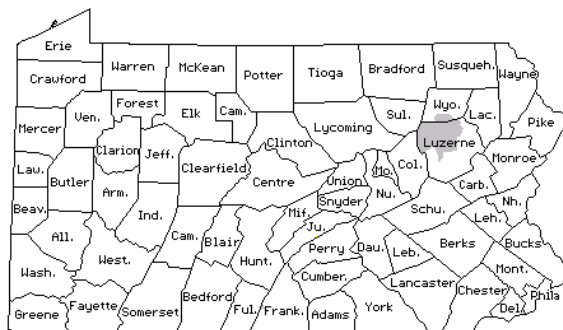
Pike's peak load in 2025 was 19.71 MW. This represents a YOY increase of 1.60% from the previous year's peak of 19.4 MW. The five-year peak load forecast is projected to increase by an average of 0.60% per year.

Figure 26: Pike County Light & Power energy usage (GWh)



UGI Utilities Inc. — Electric Division (UGI)

UGI provides electric service to about 63,201 customers in Northwestern Luzerne and Southern Wyoming counties in Pennsylvania. UGI's 2025 energy usage total was 997 GWh, as compared to: 980 GWh in 2024; 954 GWh in 2023; 1,001 GWh in 2022; 996 GWh in 2021; and 977 GWh in 2020. Year-over-year (YOY) energy usage increased by 1.72%. UGI's total usage mix consisted of residential (56.81%), commercial (32.97%), industrial (9.70%), and sales for resale (less than 1%).

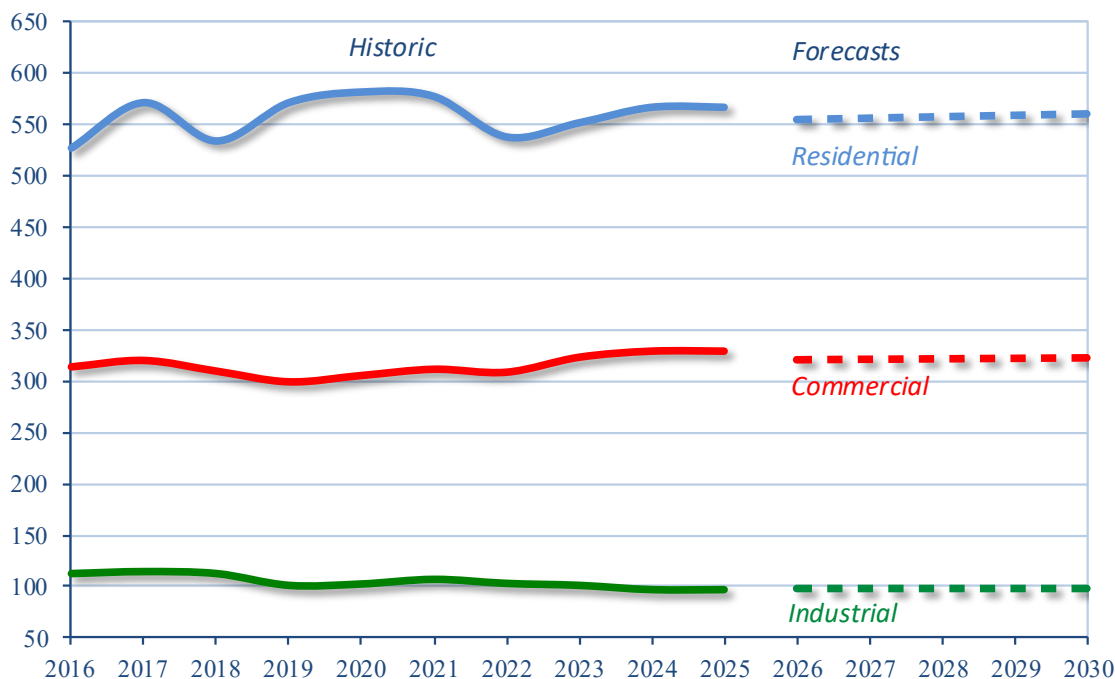


Over the next five years, total energy usage is projected to decrease at an average annual rate of -0.19%. This includes a residential average annual decrease of 0.19%, commercial usage decrease of 0.33%, and an industrial increase of 0.38%.

UGI's highest peak load in 2025 was 217 MW, which is unchanged from the previous year's peak of 217 MW. The five-year peak load forecast is projected to decrease by an average of -1.42% per year.

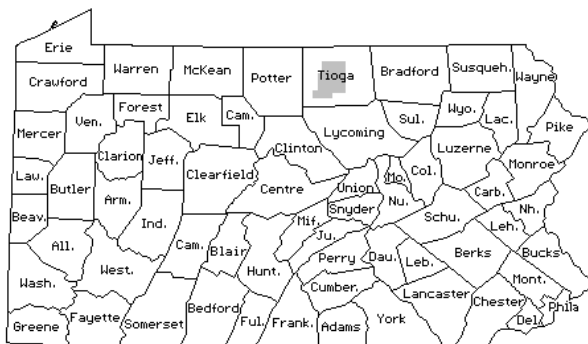
See Appendix D for UGI's 20-year demand and peak load forecast.

Figure 27: UGI Utilities Inc. energy usage (GWh)



Wellsboro Electric Company (Wellsboro)

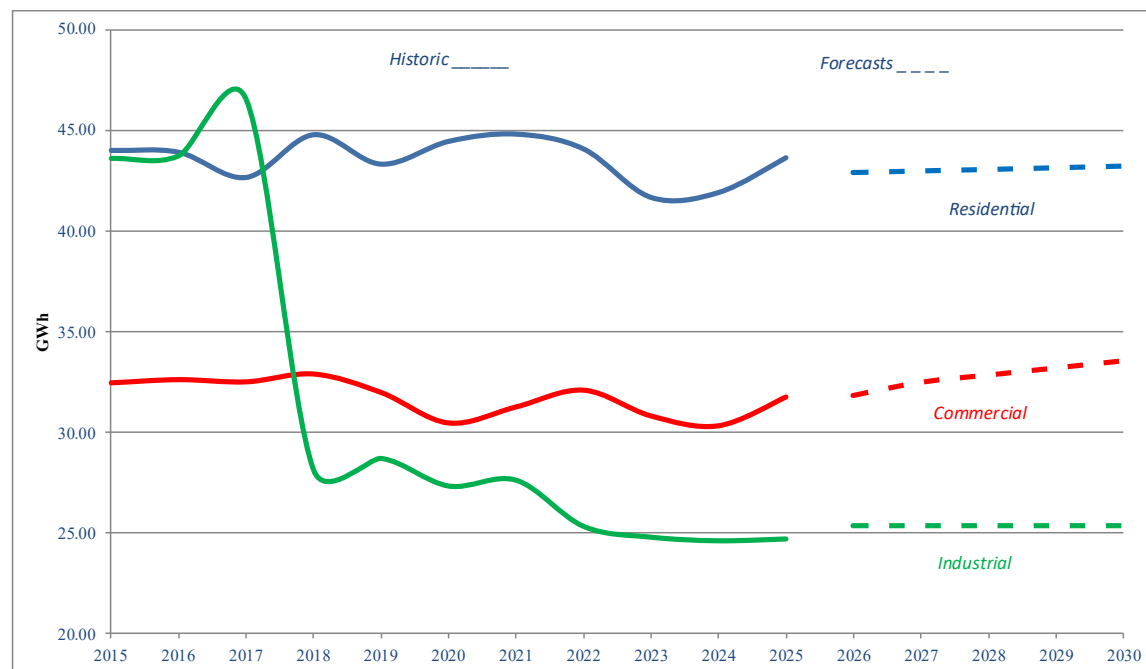
Wellsboro provides electric service to about 6,497 customers in Tioga County, North Central Pennsylvania. Wellsboro's 2025 energy use was 100.3 GWh, as compared to: 96 GWh in 2024; 98 GWh in 2023; 102 GWh in 2022; 104 GWh in 2021; and 103 GWh in 2020. Year-over-year (YOY) energy usage increased by approximately 3.37%. Wellsboro's total usage mix consisted of residential (43.51%), commercial (31.68%), industrial (24.63%), and other/sales for resale (less than 1%).



Over the next five years, total energy usage is projected to increase at an average annual rate of 0.38%. This includes a residential average annual decrease of -0.20%, commercial usage increase of 1.08%, and industrial usage increase of 0.53% as shown in Figure 28 below.

Wellsboro's highest peak load in 2025 was 18 MW. This represents a YOY decrease of -7.2% from the previous year's peak of 19.4 MW. The five-year peak load forecast is projected to increase by an average of 1.92% per year.

Figure 28: Wellsboro Electric Company energy usage (GWh)



Alternative Energy Portfolio Standards

The PUC continues to implement procedures and guidelines necessary to carry out the requirements of the Alternative Energy Portfolio Standards Act (AEPS) of 2004 (Act 213).⁸⁰ Act 213 required annual increasing percentages of electricity sold to Pennsylvania retail customers be derived from alternative energy resources. The amount of electricity to be supplied by alternative resources increased to its peak total of 18% in 2021, including 8% from Tier I resources, including solar, and 10% from Tier II resources. In 2008, the Commission adopted regulations pertaining to the AEPS obligations of EDCs and EGSs.⁸¹ All EDCs and EGSs have been required to comply since Jan. 1, 2011.

Eligible resources are categorized as Tier I and Tier II. Tier I resources include solar, wind, low-impact hydropower, geothermal, biologically derived methane gas, fuel cells, biomass (including electricity generated in Pennsylvania utilizing by-products of the pulping process and wood manufacturing process, including bark, wood chips, sawdust and lignin's in spent pulping liquors)⁸² and coal mine methane. Tier II resources include waste coal, demand side management, distributed generation, and large-scale hydropower.

To meet the requirements of Act 213, EDCs and EGSs acquire alternative energy credits (AECs) in quantities commensurate with the required tier percentage and the electricity sold to retail customers. AECs are separate from the electricity sold to customers. An AEC represents one megawatt hour (MWh) of qualified alternative electric generation or conservation, whether self-generated, purchased along with the electric commodity, or purchased separately through a tradable instrument.⁸³

AECs are earned when a qualified facility generates one MWh of electricity. An AEC is a serialized, tradable, and tracked certificate that represents the characteristics of electricity generated from a facility. PJM's Environmental Information Services' Generation Attribute Tracking System (GATS) is the alternative energy credit registry used by the Commission to create, track, transfer, and retire alternative energy credits.

An AEC can be sold or traded separately from the power. AECs are generally purchased by EDCs and EGSs to meet the AEPS requirements for any given year. AECs can also be obtained and retired to comply with the private sector's voluntary commitments. AECs can be moved (sold or traded) multiple times until they are ultimately retired for regulatory or voluntary compliance purposes, but they can only be used for compliance purposes (retired) once. The Commission, together with its Pennsylvania AEPS Program Administrator, verifies that EGSs and EDCs are complying with the requirements of Act 213.

⁸⁰ Alternative Energy Portfolio Standards Act, effective Feb. 28, 2005; 73 P.S. §§ 1648.1—1648.8.

⁸¹ See, Docket No. L-00060180; 52 Pa. Code §§ 75.61-75.70.

⁸² See, 66 Pa.C.S. § 2814(b).

⁸³ See, 52 Pa. Code §§ 75.61—75.70.

Under Act 213, the Commission adopted regulations promoting onsite generation by customer-generators using renewable resources and eliminated previously existing barriers to net metering.⁸⁴ The regulations also provide for required metering capabilities and a compensation mechanism that reimburses customer-generators for surplus energy supplied to the electric grid.⁸⁵ Act 35 of 2007 amended Act 213 by altering the reconciliation mechanism used to compensate resellers for surplus energy supplied through net metering.⁸⁶

The Commission also adopted regulations that govern interconnection for customer-generators. The regulations strive to eliminate barriers which may have previously existed with regard to interconnection, while ensuring that interconnection by customer-generators will not pose unnecessary risks to the Commonwealth's electric distribution systems.⁸⁷

On Oct. 27, 2016, the Commission adopted regulations to revise and update existing regulations to comply with Act 129 of 2008, and Act 35 of 2007, and to clarify certain issues of law, administrative procedure, and policy.⁸⁸ On Apr. 19, 2018, the Commission adopted a Final Implementation Order to provide the Commission's interpretation and implementation of Section 11.1 of Act 40 of 2017.⁸⁹ Effective Oct. 30, 2017, Act 40 contained a section that further amended Act 213 by establishing geographical limits on solar photovoltaic (solar PV) systems that qualify for the solar PV share requirements of the AEPS. On May 6, 2021, the Commission adopted a Final Implementation Order to provide the Commission's interpretation as well as implementation of Sections 10 and 14 of Act 114.⁹⁰

Effective Nov. 23, 2020, Act 114 at Section 10 amended the Act 213 by revising the definition of customer-generator. Section 10 added the following to the definition of customer-generator: net-metered distributed generation systems owned, operated, or supporting the Department of Military and Veterans Affairs (DMVA) on property owned or leased and operated by the DMVA with a nameplate capacity not exceeding the DMVA's annual electric needs to support the DMVA's facilities on its property. Furthermore, Act 114 at Section 14 amended Act 213 by establishing geographic limits on Tier II alternative energy resource systems that qualify for the Tier II share requirements of the AEPS.

As of May 31, 2024, Pennsylvania had certified 71,569⁹¹ alternate energy facilities, of which 60,015 are located within the state. For additional information on Alternative Energy in Pennsylvania, please visit the Commission's website.⁹²

⁸⁴ Net metering measures the difference between the electricity supplied by an electric utility or EGS and the electricity generated by a customer-generator when any portion of the electricity generated by the alternative energy generating system is used to offset part or all of the customer-generator's requirements for electricity. *See* 52 Pa. Code § 75.12.

⁸⁵ *See*, Docket No. L-00050174; 52 Pa. Code §§ 75.11-75.15.

⁸⁶ *Id.*

⁸⁷ *See*, Docket No. L-00050175; 52 Pa. Code §§ 75.21-75.40.

⁸⁸ *See*, Docket No. L-2014-2404361; 52 Pa. Code §§ 75.1-75.72.

⁸⁹ *See*, Docket No. M-2017-2631527.

⁹⁰ *See*, Docket No. M-2020-3023323.

⁹¹ *See* [Reports – Pennsylvania Alternative Energy Portfolio Standard Program \(pennaeps.com\)](https://pennaeps.com).

⁹² http://www.puc.pa.gov/consumer_info/electricity/alternative_energy.aspx.

Energy Efficiency and Conservation Program (Act 129)

Act 129 of 2008⁹³ required the seven EDCs⁹⁴ with at least 100,000 customers⁹⁵ to establish an energy efficiency and conservation (EE&C) plan. The Act is being implemented in phases. Phases I through III are complete. Phase IV of Act 129, the current five-year phase, began on June 1, 2021, and ended on May 31, 2026. Phase V will begin June 1, 2026, and end May 31, 2031.

In its planning for Phase IV, the Commission directed the Statewide Evaluator (SWE) to perform electric consumption baseline studies to establish baseline energy use and building characteristics for the residential, commercial and industrial sectors. The SWE submitted the final residential and non-residential baseline studies to the Commission on Feb. 12, 2019.⁹⁶

The Commission further directed the SWE to perform an EE and Peak Demand Reduction (EEPDR) potential study to inform the Commission of the energy savings potential remaining in the EDCs' service territories. This data was used to assist the Commission to determine EE&C consumption reduction targets for Phase IV. In addition, the Commission tasked the SWE to conduct a Dispatchable Demand Response (DDR) potential study to determine if cost-effective dispatchable demand response potential remains in the EDCs service territories for a potential Phase IV. The SWE submitted the final EEPDR and DDR Potential Studies to the Commission on Feb. 28, 2020.^{97 98}

The EEPDR and DDR Potential Studies were released publicly via a Commission Secretarial Letter served March 2, 2020.⁹⁹ Following a review of the SWE's EEPDR and DDR Potential Studies, the Commission determined that additional consumption and peak demand reduction targets were cost-effective.

On June 18, 2020, the Commission adopted the Final Implementation Order prescribing targets for Phase IV of the Act 129 EE&C Program.¹⁰⁰ The Commission found that peak demand reductions from EE measures were more cost-effective and longer lasting than DDR programming, persisting for years after Phase IV has ended. In addition, peak demand reductions from EE measures are available every day rather than just a small number of DR event days and can be recognized in PJM's Forward Capacity Market.¹⁰¹ For these reasons, Phase IV includes Peak Demand Reduction targets but does not include a DDR target.

⁹³ Act 129 of 2008, effective Nov. 14, 2008; 66 Pa. C.S. §§ 2806.1-2806.2.

⁹⁴ The seven EDCs with Act 129 Energy Efficiency and Conservation obligations are Duquesne Light Company, Metropolitan Edison Company, PECO Energy Company, Pennsylvania Electric Company, Pennsylvania Power Company, PPL Electric Utilities Corporation, and West Penn Power Company.

⁹⁵ See, 66 Pa. C.S. § 2806.1.

⁹⁶ The 2018 Pennsylvania Residential and Non-Residential Baseline Studies are available at: <https://www.puc.pa.gov/filing-resources/issues-laws-regulations/act-129/act-129-statewide-evaluator-swe/>.

⁹⁷ See, Pennsylvania Act 129 Phase IV Energy Efficiency and Peak Demand Reduction Market Potential Study Report, filed by NMR Group, Inc. on Feb. 28, 2020, at Docket No. M-2020-3015229.

⁹⁸ See, Pennsylvania Act 129 Phase IV Demand Response Potential Study, filed by NMR Group, Inc. on Feb. 28, 2020, at Docket No. M-2020-3015229.

⁹⁹ See, Secretarial Letter, at Docket No. M-2020-3015229, served Mar. 2, 2020.

¹⁰⁰ See, Energy Efficiency and Conservation Program Implementation Order, at Docket No. M-2020-3015228, entered June 18, 2020, at 7-8.

¹⁰¹ *Id.* at 62.

Phase IV began on June 1, 2021, and ended on May 31, 2026. The EDCs' Phase IV electric consumption and peak demand reduction requirements and compliance for Program Years 13 (PY13), 14 (PY14), 15 (PY15), 16 (PY16) and the first six months of Program Year 17 (PY17) are provided in Table 4 below.

Table 4: Phase IV Electric Consumption and Peak Demand Reduction Targets

	EDC	Phase IV Electric Consumption Reduction Targets (MWh)	Phase IV Electric Consumption Reduction Compliance to Date (MWh)	Phase IV Peak Demand Reduction Targets (MW)	Phase IV Peak Demand Reduction Compliance to Date (MW)
	PECO	1,380,837	1,503,982	256	257.24
	PPL	1,250,157	1,380,710	229	198.95
	Duquesne	348,126	358,110	62	62.12
	Met-Ed	463,215	573,896	76	68.67
	Penelec	437,676	488,047	80	65.26
	Penn Power	128,909	175,386	20	19.56
	West Penn	504,951	642,612	86	74.92
	FirstEnergy (FEPA)				

PY13: June 1, 2021 – May 31, 2022

PY14: June 1, 2022 – May 31, 2023

PY15: June 1, 2023 – May 31, 2024

PY16: June 1, 2024 – May 31, 2025

PY17: June 1, 2025 – May 31, 2026

For Phase IV, the Commission concluded that it was unnecessary to continue requiring preliminary annual reports. Therefore, to streamline the reporting process, only semiannual and final annual reports are required. In addition, in the interest of providing the final annual reports to the public in a much timelier fashion, the Commission required the EDCs to submit the final annual reports by September 30 of each year and semi-annual reports by January 15 of each year.¹⁰²

The EDCs filed their semiannual reports for the for the fifth and final year of Phase IV were filed in January 2026, with final annual reports due to the Commission by Sept. 30, 2026.¹⁰³

In its planning for a potential Phase V, the Commission directed the SWE to perform electric consumption baseline studies to establish baseline energy use and building characteristics for the residential, commercial and industrial sectors. The SWE submitted the final residential and non-

¹⁰² *Id.* at 102-103.

¹⁰³ See, the EDCs semiannual reports for PY16 at:

http://www.puc.pa.gov/filing_resources/issues_laws_regulations/act_129_information/electric_distribution_company_act_129_reporting_requirements.aspx

residential baseline studies to the Commission in February and March 2024.¹⁰⁴ The studies were released publicly via a Commission Secretarial Letter served March 25, 2024.¹⁰⁵

The Commission further directed the SWE to perform an energy efficiency market potential study to inform the Commission of the energy savings potential remaining in the EDCs' service territories. This data will be used to assist the Commission to determine energy efficiency and conservation consumption reduction targets for Phase V.

In addition, the Commission tasked the SWE to conduct a demand response market potential study to determine if cost-effective demand response potential remains in the EDCs service territories for the next phase of Act 129. These studies were released publicly, also by a Commission Secretarial Letter served Feb. 21, 2025.¹⁰⁶

On June 18, 2025, the Commission adopted the Final Implementation Order prescribing targets for Phase V of the Act 129 EE&C Program.¹⁰⁷

Phase V began June 1, 2026, and will end May 31, 2031. The EDCs' Phase V electric consumption and peak demand reduction requirements are provided in Table 5 below.

Table 5: Phase V Electric Consumption and Peak Demand Reduction

EDC	Phase V Electric Consumption Reduction Targets (MWh)	Phase V Peak Demand Reduction Targets (MW)
PECO	1,111,685	194.8
PPL	828,231	151
Duquesne	261,583	46.5
FEPA	1,097,605	191
TOTAL	3,299,104	583.3

¹⁰⁴ The 2023 Pennsylvania Residential and Non-Residential Baseline Studies are available at: <https://www.puc.pa.gov/filing-resources/issues-laws-regulations/act-129/act-129-statewide-evaluator-swe/>

¹⁰⁵ See, Secretarial Letter, at Docket No. M-2023-3044490, served March 25, 2024.

¹⁰⁶ See, Secretarial Letter, at Docket No. M-2025-3052827, served Feb. 21, 2025.

¹⁰⁷ See, Energy Efficiency and Conservation Program Implementation Order, at Docket No. M-2025-3052826, entered June 18, 2025, at 12.

Appendix A – Data Tables

The following tables provide actual and projected peak load as well as residential, commercial and industrial energy demand by EDC. The five-year projections are filed each year by the large EDCs. Actual values are provided for the years 2016 through 2025 and values are listed in the second column labeled “Actual.” The lower-right-most-column in the body of the table is the latest five-year projection for the years 2026 through 2030.

**Table A01 Duquesne Light Company
Actual and Projected Peak Load (MW)**

		Projected Peak Load Requirments (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Year	Actual											
2016	2797	2893										
2017	2682	2918	2884									
2018	2795	2938	2895	2872								
2019	2662	2950	2901	2874	2862							
2020	2667	2942	2890	2861	2852	2759						
2021	2760		2882	2862	2853	2781	2768					
2022	2715			2869	2865	2797	2796	2742				
2023	2534				2866	2807	2832	2759	2712			
2024	2961					2818	2855	2776	2710	2705		
2025	2695						2875	2794	2712	2707	2703	
2026								2804	2711	2716	2697	2674
2027									2705	2727	2702	2663
2028										2737	2711	2655
2029											2721	2656
2030												2705

**Table A03 Duquesne Light Company
Actual and Projected Commercial Energy Demand (GWh)**

		Projected Commercial Energy Demand (Btu)										
		(Year Forecast Was Filed)										
Year	Actual	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	6335	6371										
2017	6112	6327	6261									
2018	6218	6299	6232	6072								
2019	6053	6254	6187	6024	6098							
2020	5522	6210	6151	5980	6029	6057						
2021	5778		6082	5905	5973	5986	5645					
2022	5719			5833	5896	5881	5711	5707				
2023	5532				5804	5807	5624	5666	5625			
2024	6665					5754	5556	5603	5622	5663		
2025	5668						5463	5508	5720	5666	5527	
2026								5419	5840	5644	5501	6077
2027									5806	5622	5460	6095
2028										5616	5423	6137
2029											5380	6143
2030												6284

**Table A02 Duquesne Light Company
Actual and Projected Residential Energy Demand (GWh)**

		Projected Residential Energy Demand (Year Forecast Was Filed)										
Year	Actual	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	4197	4081										
2017	3876	4068	4004									
2018	4258	4067	3987	3949								
2019	4078	4053	3955	3915	4011							
2020	4217	4012	3908	3856	3971	4005						
2021	4215		3863	3797	3913	3951	4021					
2022	4160			3747	3862	3908	3895	3975				
2023	3800				3816	3864	3834	3934	4136			
2024	4034					3821	3782	3887	4125	3954		
2025	4121						3722	3836	4120	3948	3936	
2026								3791	4110	3947	3910	4228
2027									4103	3957	3886	4240
2028										3975	3866	4269
2029											3840	4273
2030												4371

**Table A04 Duquesne Light Company
Actual and Projected Industrial Energy Demand (GWh)**

		Projected Industrial Energy Demand (Year Forecast Was Filed)										
Year	Actual	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	2898	2909										
2017	2566	2896	2890									
2018	2632	2873	2852	2665								
2019	2623	2851	2837	2658	2675							
2020	2472	2826	2819	2640	2656	2719						
2021	2343		2803	2638	2650	2783	2641					
2022	2509			2618	2627	2733	2553	2405				
2023	2572				2605	2712	2519	2399	2347			
2024	2829					2692	2485	2367	2318	2608		
2025	2452						2457	2343	2291	2583	2933	
2026								2312	2253	2547	3012	2906
2027									2225	2518	3001	2915
2028										2492	3326	2935
2029											3450	2938
2030												3005

**Table A05 Metropolitan Edison Company
Actual and Projected Peak Load (MW)**

Year	Actual	Projected Peak Load Requirements (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	2947	2987										
2017	2897	2995	2901									
2018	3026	2997	2895	2926								
2019	2974	2996	2872	2907	2921							
2020	2976	2995	2855	2874	2871	2934						
2021	3072		2856	2865	2868	2928	2837					
2022	3021			2875	2876	2940	2891	2966				
2023	2890				2883	2949	2935	3039	3014			
2024	3073					2971	2960	3047	3028	3009		
2025	3003						2977	3043	3034	3007	3028	
2026								3046	3057	3013	3037	2963
2027									3107	3025	3100	2976
2028										3046	3136	2991
2029											3163	3008
2030												3022

**Table A07 Metropolitan Edison Company
Actual and Projected Commercial Energy Demand (GWh)***

Actual and Projected Commercial Energy Demand (GWh)												
Year	Actual	Projected Commercial Energy Demand (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	3043	2953										
2017	2886	2948	2952									
2018	2972	2941	2948	2940								
2019	2133	2935	2924	2899	2101							
2020	2003	2925	2904	2873	2081	1906						
2021	2151		2912	2875	2083	1933	2074					
2022	2068			2880	2089	1956	2031	2147				
2023	2001				2146	1969	2021	2133	2083			
2024	2774					1965	1982	2093	2064	3062		
2025	2853						1960	2070	2049	3047	3062	
2026								2067	2057	3064	3047	2909
2027									2077	3100	3064	2898
2028										3126	3100	2900
2029											3126	2899
2030												2906

**Table A06 Metropolitan Edison Company
Actual and Projected Residential Energy Demand (GWh)**

Year	Actual	Projected Residential Energy Demand (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	5528	5316										
2017	5351	5242	5347									
2018	5740	5154	5265	5318								
2019	5641	5083	5201	5239	5460							
2020	5750	5044	5166	5201	5422	5577						
2021	5832		5172	5198	5418	5539	5763					
2022	5918			5203	5428	5573	5702	5898				
2023	5490				5553	5628	5749	5901	5920			
2024	5759					5666	5701	5917	5879	5961		
2025	5889						5726	5899	5885	6016	5961	
2026								5972	5910	6117	6016	5899
2027									5968	6244	6117	5962
2028										6334	6244	6041
2029											6334	6098
2030												6168

**Table A08 Metropolitan Edison Company
Actual and Projected Industrial Energy Demand (GWh)***

Year	Actual	Projected Industrial Energy Demand											
		(Year Forecast Was Filed)											
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
2016	5304	5360											
2017	5512	5428	5449										
2018	5685	5408	5443	5451									
2019	6459	5397	5396	5372	6396								
2020	6029	5458	5388	5409	6422	6302							
2021	6201		5419	5450	6466	6471	6570						
2022	6397			5472	6507	6577	6677	6315					
2023	6159				6876	6625	6733	6363	6295				
2024	5403					6611	6735	6342	6283	5473			
2025	5331						6732	6413	6267	5435	5473		
2026								6578	6249	5566	5435	5360	
2027									6228	5589	5566	5366	
2028										5576	5589	5373	
2029											5576	5369	
2030												5353	

**Table A09 Pennsylvania Electric Company
Actual and Projected Peak Load (MW)**

Year	Actual	Projected Peak Load Requirements (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	2909	2890										
2017	2910	2898	2797									
2018	3020	2906	2794	2823								
2019	2866	2907	2775	2809	2849							
2020	2908	2907	2751	2779	2811	2892						
2021	2898		2739	2775	2811	2884	2855					
2022	2793			2779	2813	2884	2862	2865				
2023	2763				2817	2873	2880	2850	2850			
2024	2953					2866	2882	2835	2835	2779		
2025	2895						2886	2812	2812	2748	2851	
2026								2800	2800	2731	2804	2862
2027									2804	2728	2803	2857
2028										2724	2804	2851
2029											2797	2854
2030												2855

**Table A11 Pennsylvania Electric Company
Actual and Projected Commercial Energy Demand (GWh)***

Year	Actual	Projected Commercial Energy Demand (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	3587	3539										
2017	2529	3545	3483									
2018	3610	3551	3454	3525								
2019	2443	3553	3426	3516	3506							
2020	2300	3552	3392	3499	3459	2485						
2021	2390		3352	3473	3424	2459	2222					
2022	2377			3472	3406	2446	2296	2497				
2023	2225				3397	2440	2364	2446	2575			
2024	3198					2449	2403	2418	2558	2461		
2025	3249						2390	2354	2505	2408	3214	
2026									2470	2361	3164	3267
2027								2307				
2028									2452	2348	3149	3254
2029										2345	3146	3262
2030											3138	3263
												3279

**Table A10 Pennsylvania Electric Company
Actual and Projected Residential Energy Demand (GWh)**

Year	Actual	Projected Residential Energy Demand (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	4328	4145										
2017	4153	4011	4248									
2018	4424	3923	4229	4238								
2019	4266	3856	4181	4157	4187							
2020	4319	3791	4133	4090	4134	4141						
2021	4363		4112	4056	4104	4111	4279					
2022	4412			4057	4104	4109	4247	4269				
2023	4165				4112	4104	4244	4240	4341			
2024	4221					4112	4256	4223	4325	4403		
2025	4379						4259	4125	4308	4381	4364	
2026								4147	4293	4375	4384	4324
2027									4318	4391	4445	4357
2028										4420	4528	4400
2029											4574	4423
2030												4461

**Table A12 Pennsylvania Electric Company
Actual and Projected Industrial Energy Demand (GWh)***

Year	Actual	Projected Industrial Energy Demand (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	5668	5723										
2017	5792	5746	5602									
2018	5797	5721	5617	5822								
2019	6743	5675	5602	5832	5807							
2020	6289	5623	5569	5757	5720	6520						
2021	6427		5548	5751	5770	6587	6473					
2022	6485			5790	5819	6474	6522	6049				
2023	6485				5854	6394	6513	5988	6245			
2024	5881					6327	6481	6011	6295	5999		
2025	5380						6463	5977	6280	5896	5485	
2026								5990	6278	5831	5412	5286
2027									6284	5798	5350	5222
2028										5728	5267	5166
2029											5183	5112
2030												5057

**Table A13 Pennsylvania Power Company
Actual and Projected Peak Load (MW)**

Actual and Projected Peak Load (MW)													
Year	Actual	Projected Peak Load Requirements (Year Forecast Was Filed)											
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
2016	931	992											
2017	926	999	973										
2018	950	1003	965	983									
2019	915	1004	956	979	976								
2020	889	1006	951	975	965	923							
2021	971		945	977	968	926	910						
2022	944			985	973	927	912	932					
2023	900				976	937	924	942	942				
2024	935					945	932	951	951	959			
2025	895							940	953	953	965	949	
2026									957	957	970	950	936
2027										966	979	955	945
2028											989	962	956
2029												967	965
2030													973

**Table A15 Pennsylvania Power Company
Actual and Projected Commercial Energy Demand (GWh)**

Actual and Projected Commercial Energy Demand (\$/yr.)												
Year	Actual	Projected Commercial Energy Demand (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	1355	1311										
2017	1302	1315	1345									
2018	1356	1319	1330	1317								
2019	957	1321	1314	1312	1307							
2020	668	1321	1302	1303	1287	1016						
2021	706		1289	1295	1262	996	787					
2022	690			1293	1237	977	850	751				
2023	644				1221	967	908	724	744			
2024	904					1023	940	720	725	686		
2025	940						931	699	705	671	893	
2026								684	686	663	882	899
2027									680	664	878	891
2028										668	880	889
2029											879	885
2030												885

**Table A14 Pennsylvania Power Company
Actual and Projected Residential Energy Demand (GWh)**

Year	Actual	Projected Residential Energy Demand (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	1686	1597										
2017	1591	1563	1651									
2018	1713	1545	1632	1640								
2019	1638	1532	1609	1617	1630							
2020	1674	1520	1593	1604	1612	1613						
2021	1663		1584	1595	1604	1604	1647					
2022	1683			1598	1606	1608	1636	1692				
2023	1559				1614	1616	1647	1659	1684			
2024	1610					1657	1662	1682	1687	1722		
2025	1690						1672	1657	1683	1718	1705	
2026								1668	1692	1723	1716	1689
2027									1735	1735	1738	1718
2028										1754	1768	1751
2029											1789	1772
2030												1800

**Table A16 Pennsylvania Power Company
Actual and Projected Industrial Energy Demand (GWh)**

Actual and Projected Industrial Energy Demand (GWh)												
Year	Actual	Projected Industrial Energy Demand (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	1569	1637										
2017	1738	1696	1513									
2018	1826	1742	1476	1702								
2019	2066	1775	1465	1713	1727							
2020	1926	1790	1467	1726	1728	2088						
2021	2063		1460	1757	1781	2121	1970					
2022	2213			1794	1833	2153	2075	2250				
2023	2225				1866	2220	2141	2297	2240			
2024	1933					2298	2182	2346	2242	2239		
2025	2028						2200	2357	2280	2273	1978	
2026								2340	2256	2299	1982	1979
2027									2294	2323	1987	1988
2028										2343	1989	2012
2029											1989	2033
2030												2047

Table A17 PPL Electric Utilities Corporation
Actual and Projected Peak Load (MW)

Year	Actual	Projected Peak Load Requirements (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	7216	7209										
2017	7468	7298	7209									
2018	7729	7385	7298	7248								
2019	7609	7435	7385	7215	7250							
2020	7049	7427	7435	7194	7229	7336						
2021	7314		7427	7208	7267	7383	7513					
2022	7065			7243	7280	7449	7512	7252				
2023	6953				7294	7497	7513	7249	7334			
2024	7840					7541	7552	7260	7377	7342		
2025	7557						7584	7261	7391	7353	7875	
2026								7271	7399	7379	8577	8170
2027									7425	7425	10004	9595
2028										7395	12369	11956
2029											14429	14016
2030												15151

Table A18 PPL Electric Utilities Corporation
Actual and Projected Residential Energy Demand (GWh)

Year	Actual	Projected Residential Energy Demand (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	13810	13721										
2017	13650	13750	13856									
2018	14811	13825	13940	13588								
2019	14490	13826	13982	13499	14050							
2020	14592	13679	13853	13448	13960	14399						
2021	14879		13750	13253	13901	14383	14011					
2022	14680			13045	13845	14383	14075	14643				
2023	13928				13827	14382	14115	14565	14714			
2024	14117					14382	14102	14604	14727	14557		
2025	14685						14056	14588	14691	14462	14364	
2026								14653	14708	14433	14400	14400
2027									14718	14346	14491	14491
2028										14249	14638	14638
2029											14637	14637
2030												14693

Table A19 PPL Electric Utilities Corporation
Actual and Projected Commercial Energy Demand (GWh)

Year	Actual	Projected Commercial Energy Demand (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	14160	14214										
2017	14037	14257	14394									
2018	14105	14326	14517	14353								
2019	14728	14357	14578	14372	13986							
2020	13129	14357	14560	14336	13880	14721						
2021	13807		14493	14307	13818	14776	13609					
2022	13696			14260	13810	14799	13807	14046				
2023	13755				13802	14803	13926	14140.4	14121			
2024	13761					14827	13976	14195.9	14196	13975		
2025	13966						13950	14194.9	14201	14003	13742	
2026								14187	14199	14046	13649	13810
2027									14205	14085	13709	13869
2028										14142	13867	14029
2029											13863	14025
2030												14035

Table A20 PPL Electric Utilities Corporation
Actual and Projected Industrial Energy Demand (GWh)

Year	Actual	Projected Industrial Energy Demand (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	8128	8283										
2017	8098	8354	8370									
2018	8144	8420	8467	8421								
2019	7889	8450	8521	8486	8109							
2020	8354	8450	8520	8440	8058	7814						
2021	8340		8520	8406	8025	7836	8364					
2022	8276			8345	7997	7855	8585	8470				
2023	8681				7965	7872	8724	8533	8612			
2024	8471					7891	8783	8589	8668	8629		
2025	8310						8787	8607	8686	8651	8385	
2026								8624	8703	8674	11077	10918
2027									8725	8700	19544	19385
2028										8739	34408	34248
2029											52205	52045
2030												65340

Table A21 PECO Energy Company
Actual and Projected Peak Load (MW)

Year	Actual	Projected Peak Load Requirements (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	8094	8102										
2017	8141	8110	8102									
2018	8608	8118	8110	8149								
2019	8428	8126	8118	8157	8617							
2020	8148	8135	8126	8165	8625	8436						
2021	8479		8135	8174	8634	8445	8156					
2022	8583			8182	8642	8453	8164	8487				
2023	8163				8651	8462	8172	8496	8592			
2024	8651					8470	8181	8504	8600	8171		
2025	8379						8189	8513	8609	8179	8548	
2026								8521	8617	8188	8602	8584
2027									8626	8196	8710	8667
2028										8204	8817	8809
2029											8918	8963
2030												9117

Table A23 PECO Energy Company
Actual and Projected Commercial Energy Demand (GWh)

		Projected Commercial Energy Demand (Year Forecast Was Filed)											
Year	Actual	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
2016	8118	8044											
2017	8099	8020	8132										
2018	7968	8016	8073	7992									
2019	8177	8018	8063	8043	8143								
2020	7983	8019	8046	8049	8156	7976							
2021	7210		7995	8038	8163	7936	7638						
2022	7597			8042	8163	7917	7873	7809					
2023	7701				8163	7892	7866	7818	7709				
2024	7367					7882	7857	7813	7692	7620			
2025	7537						7809	7757	7643	7557	7599		
2026								7739	7647	7559	7615	7542	
2027									7672	7592	7653	7559	
2028										7646	7707	7583	
2029											7674	7545	
2030												7528	

Table A22 PECO Energy Company
Actual and Projected Residential Energy Demand (GWh)

Year	Actual	Projected Residential Energy Demand (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	13664	13366										
2017	13024	13341	13436									
2018	14005	13352	13423	13266								
2019	13650	13354	13404	13240	13581							
2020	14041	13360	13428	13182	13661	13600						
2021	14262		13346	13104	13718	13570	13809					
2022	14379			13009	13741	13580	13602	14037				
2023	13262				13762	13599	13672	14135	14140			
2024	13963					13671	13804	14304	14281	14227		
2025	14078						13848	14393	14367	14260	14255	
2026								14508	14496	14369	14317	14099
2027									14655	14532	14414	14151
2028										14796	14591	14271
2029											14753	14345
2030												14469

Table A24 PECO Energy Company
Actual and Projected Industrial Energy Demand (GWh)

Year	Actual	Projected Industrial Energy Demand (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	15365	15547										
2017	15263	15515	15016									
2018	15425	15513	15364	15421								
2019	15516	15517	15320	15293	15385							
2020	14958	15529	15356	15306	15415	14430						
2021	13669		15355	15247	15431	14444	14173					
2022	14003			15217	15431	14598	14647	14367				
2023	14046				15431	14715	14692	14511	14146			
2024	13638					14687	14623	14604	14158	14075		
2025	13683						14587	14611	14106	13974	13956	
2026								14698	14116	13922	14129	13956
2027									14133	13897	14520	14129
2028										13886	15137	14520
2029											15637	15137
2030												15637

Table A25 West Penn Power Company
Actual and Projected Peak Load (MW)

Actual and Projected Peak Load (MW)												
Year	Actual	Projected Peak Load Requirements (Year Forecast Was Filed)										
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	3954	3793										
2017	3879	3840	3776									
2018	3879	3886	3789	3828								
2019	4012	3916	3775	3824	3764							
2020	3827	3917	3767	3804	3704	3821						
2021	3940		3762	3802	3690	3862	3821					
2022	3827			3821	3695	3884	3862	3800				
2023	3714				3704	3894	3884	3846	3846			
2024	3874					3891	3894	3844	3844	3704		
2025	3912						3891	3822	3822	3737	3733	
2026								3819	3819	3761	3763	3650
2027									3838	3789	3807	3674
2028										3823	3852	3706
2029											3884	3724
2030												3748

Table A27 West Penn Power Company
Actual and Projected Commercial Energy Demand (GWh)

Projected Commercial Energy Demand												
		(Year Forecast Was Filed)										
Year	Actual	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	5051	4900										
2017	4364	4915	4996									
2018	4500	4941	4957	4285								
2019	2880	4952	5015	4246	4261							
2020	2584	4954	5029	4208	4260	2879						
2021	2714		5006	4184	4266	2882	2686					
2022	2719			4184	4273	2880	2738	2818				
2023	2553				4279	2868	2786	2729	2998			
2024	3772					2861	2819	2734	2942	2728		
2025	3838						2805	2626	2915	2691	3603	
2026								2585	2788	2662	3560	3692
2027									2795	2668	3555	3685
2028										2682	3569	3710
2029											3579	3727
2030												3761

Table A26 West Penn Power Company
Actual and Projected Residential Energy Demand (GWh)

		Projected Residential Energy Demand (Year Forecast Was Filed)											
Year	Actual	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
2016	7186	6775											
2017	6817	6634	7383										
2018	7358	6548	7157	6931									
2019	7152	6473	7244	6906	6988								
2020	7178	6407	7298	6819	6901	6931							
2021	7206		7303	6756	6851	6844	6925						
2022	7281			6756	6858	6849	6877	7202					
2023	6769				6864	6846	6897	7081	7233				
2024	6989					6862	6926	7179	7232	7315			
2025	7281						6916	7016	7241	7277	7222		
2026								7076	7205	7270	7264	7156	
2027									7289	7286	7365	7260	
2028										7337	7501	7379	
2029											7589	7452	
2030												7555	

Table A28 West Penn Power Company
Actual and Projected Industrial Energy Demand (GWh)

		Projected Industrial Energy Demand (Year Forecast Was Filed)											
Year	Actual	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
2016	7684	8287											
2017	8371	8641	8053										
2018	8667	8798	8492	8785									
2019	10003	8847	8903	8873	8617								
2020	9094	8852	9321	8865	8540	10074							
2021	9334		9700	8920	8651	10209	9889						
2022	9554			8920	8760	10306	10162	9726					
2023	9333				8813	10375	10258	10077	9351				
2024	8269					10857	10273	10219	9807	9438			
2025	8334						10237	10249	10013	9653	8807		
2026								10282	10146	9806	8967	8211	
2027									10257	9937	9093	8235	
2028										10049	9188	8257	
2029											9260	8263	
2030												8252	

Appendix B – Plant Additions and Upgrades

Table B-1 below provides details of PJM interconnection requests for new generating resources located in Pennsylvania.¹⁰⁸ Currently Pennsylvania has 1,084 MW under construction as compared to: 276 MW in 2024; 1,340 MW in 2023; 1,153 MW in 2022; 1,563 in 2021; 2,503 MW in 2020; and 2,831 MW in 2019.

Table B-1: New Generation Queue for Pennsylvania – Interconnection Requests (Dec. 31, 2025)

		In Queue				Complete				Grand Total	
		Active		Suspended		Under Construction		In Service		Withdrawn	
		Projects	Capacity (MW)	Projects	Capacity (MW)	Projects	Capacity (MW)	Projects	Capacity (MW)	Projects	Capacity (MW)
Non-Renewable	Coal	0	0.0	0	0.0	0	0.0	17	231.5	28	14,354.6
	Diesel	0	0.0	0	0.0	0	0.0	2	31.3	13	51.5
	Natural Gas	2	328.6	0	0.0	0	0.0	126	21,729.3	271	99,898.3
	Nuclear	1	803.0	0	0.0	0	0.0	15	2,609.0	15	1,731.0
	Oil	0	0.0	0	0.0	0	0.0	9	16.9	9	1,307.0
	Other	1	2.9	0	0.0	0	0.0	1	304.0	4	344.0
	Storage	14	1,177.6	3	133.0	2	16.0	4	0.0	119	4,060.7
Renewable	Biomass	0	0.0	0	0.0	0	0.0	1	6.4	4	36.5
	Hybrid	32	1,612.6	0	0.0	6	120.3	0	0.0	109	2,555.5
	Hydro	0	0.0	0	0.0	0	0.0	12	480.8	26	974.6
	Methane	0	0.0	0	0.0	0	0.0	22	120.2	37	201.3
	Solar	122	2,078.8	30	456.7	46	927.3	45	712.4	627	9,594.6
	Wind	12	380.4	0	0.0	1	20.5	40	281.4	142	1,819.2
	Wood	0	0.0	0	0.0	0	0.0	0	0.0	1	16.0
Grand Total		184	6,384.0	33	589.7	55	1,084.1	294	26,523.1	1,405	136,944.7

¹⁰⁸ See, PJM, *PJM Regional Transmission Expansion Plan 2025*, Page 247, available at: <https://www.pjm.com/-/media/DotCom/library/reports-notice/2025-rtep/2025-rtep-report.pdf>.

Appendix C – Pennsylvania Generation Capability/Facilities

Table C-1 below represents the PJM region installed electrical capacity percentage and actual generation percentage by energy source from 2020 through 2025.¹⁰⁹ Chart C on the next page represents 2025 and 2024 installed capacity percentage by energy source in Pennsylvania.¹¹⁰ Table C-2 starting on Page 66 represents existing generating facilities by fuel type located in Pennsylvania.¹¹¹

Table C-1 PJM Region Electrical Power Supply Mix

PJM Region Electrical Power Supply Mix 2025/2024/2023/2022/2021/2020

Energy Source	Capacity						Generation					
	2025	2024	2023	2022	2021	2020	2025	2024	2023	2022	2021	2020
Coal	20.4	21	21.8	23.4	26.1	27	16.7	14.5	14.7	20	22.2	19.3
Nuclear	17.5	17.9	18.1	17.4	17.4	17.5	31.0	32.2	33.3	32.3	32.8	34.2
Natural Gas	48.3	49.4	49.3	47.9	46.1	45.6	42.8	44.5	44.3	40	37.9	39.8
Hydro, Wind, Solar & Other	11.7	9.4	8.5	8.4	7.9	7	8.9	8.7	7.5	7.4	6.8	6.4
Oil	2.2	2.2	2.5	2.8	3	3	0.6	0.5	0.3	0.3	0.3	0.2

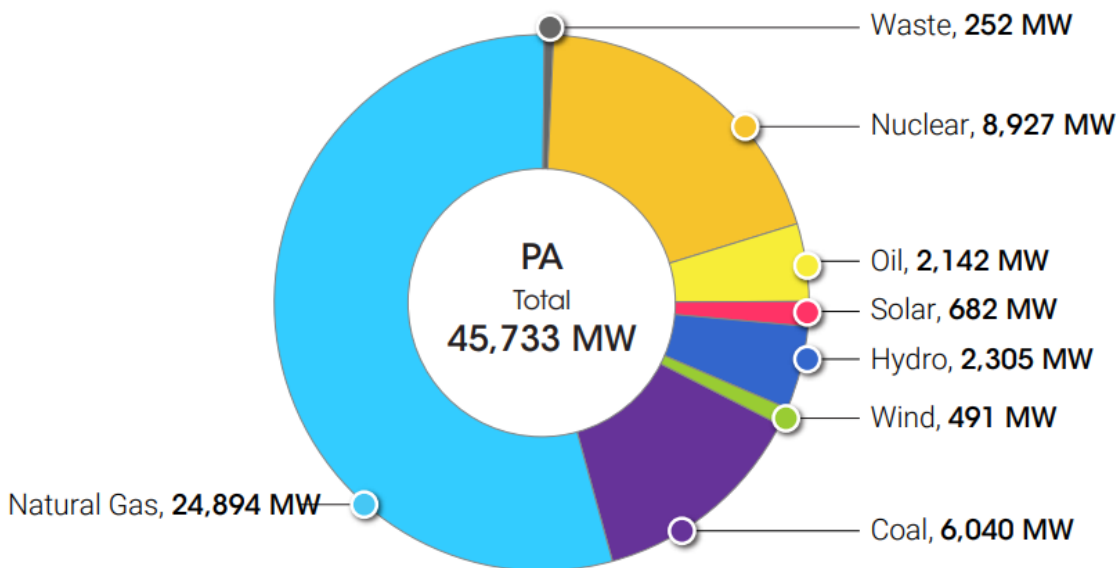
¹⁰⁹ See, PJM, *State of the Market Report for PJM*, Volume II, Sections 3 & 5 reporting years 2025, 2024, 2023, 2022, 2021, and 2020. Available at: https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2025.shtml; and <https://www.pjm.com/-/media/DotCom/committees-groups/committees/mc/2025/20250731-web/item-03a---2-pjm-market-operations-report---appendix.xlsx>.

¹¹⁰ See, PJM, *2025 PJM Pennsylvania State Infrastructure Report*, available at: <https://www.pjm.com/-/media/DotCom/library/reports-notices/2025-rtep/2025-rtep-report.pdf>, and also, PJM, *2023 PJM Pennsylvania State Infrastructure Report*, available at: <https://www.pjm.com/-/media/library/reports-notices/state-specific-reports/2024/pennsylvania.ashx>.

¹¹¹ Data accessed through S&P Global Market Intelligence as of July 21, 2025. Note: S&P Global Market Intelligence uses the best available data to estimate the power market region for each power plant unit and electric utility. Estimates are based on ownership, purchase power agreements, interconnected utilities, membership lists (load serving or transmission owning), and geographically based public information. Power plant units which belong to more than one power market region are allocated on a percentage basis of their operating capacity. Companies which belong to more than one power market region will be wholly placed into each region to which they are assigned.

Chart C – Electrical Power Capacity Mix

2025 Pennsylvania Installed Capacity



2024 Pennsylvania Installed Capacity

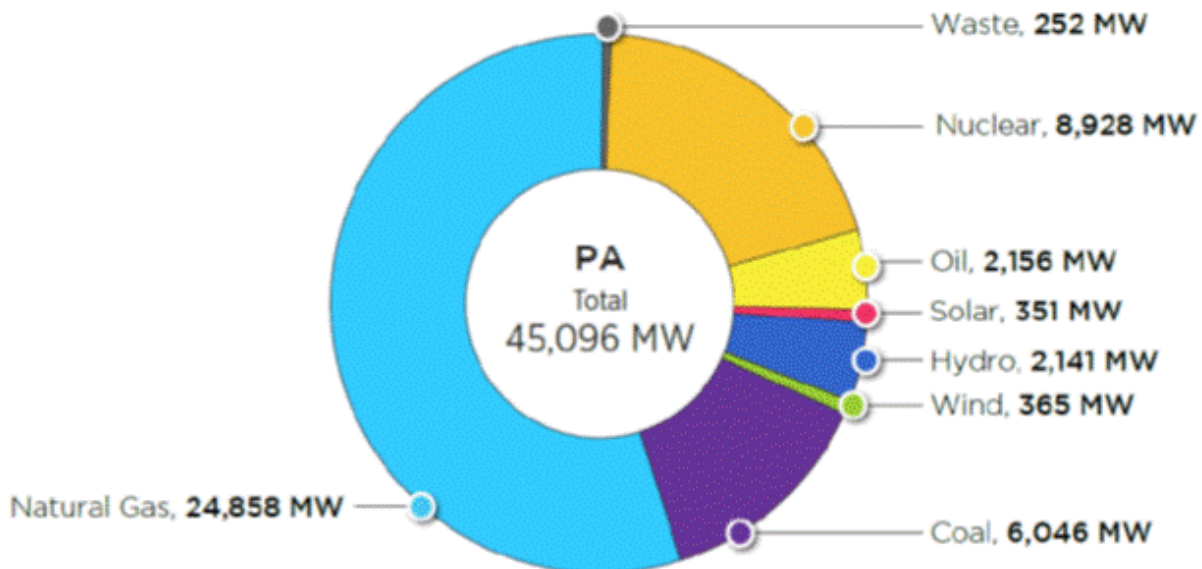


Table C-2 Electric Generating Facilities in Pennsylvania

<i>Power Plant</i>	<i>Owner Name</i>	<i>Fuel Type</i>	<i>Operating Capacity (MW)</i>	<i>State</i>	<i>First Unit Online</i>	<i>Last Unit Online</i>
500 Virginia Solar	500 Virginia Solar Lp	Solar	1.0	PA	7/2011	7/2011
ABE4 Solar Project	Mid-River PA LLC	Solar	3.0	PA	9/2020	9/2020
AE Hunlock 4	UGI Development Company	Natural Gas	50.5	PA	12/2000	12/2000
Allegheny 5	Ontario Power Generation Inc.	Water	10.0	PA	10/1988	10/1988
Allegheny 6	Ontario Power Generation Inc.	Water	12.0	PA	11/1988	11/1988
Allegheny Ridge Wind Farm	Allegheny Ridge Wind Farm LLC	Wind	80.0	PA	6/2007	6/2007
Allenwood (PPLRE Lycoming County Landfill Project)	Talen Renewable Energy	Biomass	3.2	PA	10/2012	10/2012
Alpaca Gas Project	Tenaska Energy Inc.	Natural Gas	20.4	PA	4/2017	4/2017
Andromeda One A Biomass Plant	Andromeda Green Energy	Biomass	4.0	PA	2/2016	2/2016
Aqua Ingrams Mill Solar	Essential Utilities Inc.	Solar	0.9	PA	12/2009	12/2009
Archbald Cogeneration	PEI Power Corporation	Natural Gas	20.0	PA	9/1988	9/1988
Archbald Power Station	PEI Power Corporation	Natural Gas	59.2	PA	5/2001	2/2010
Arden Landfill	WM Renewable Energy LLC	Biomass	4.8	PA	2/2009	2/2009
Armenia Mountain Wind	ALLETE Clean Energy	Wind	100.5	PA	12/2009	12/2009
Armstrong County	IHI Power Services Corp.	Natural Gas	829.7	PA	5/2002	5/2002
Beaver Dam Gas Project	Tenaska Energy Inc.	Natural Gas	21.0	PA	5/2016	5/2016
Beaver Solar	Tangent Energy Solutions Inc.	Solar	1.3	PA	12/2012	12/2012
Bethlehem CC	Calpine LLC	Natural Gas	1,136.0	PA	1/2003	1/2003
Big Level Wind Project (Cunningham)	TransAlta Renewables Inc.	Wind	90.0	PA	12/2019	12/2019
Birdsboro Combined Cycle Plant	NAES Corp	Natural Gas	485.0	PA	5/2019	5/2019
Brunner Island	Talen Generation LLC	Natural Gas	1,411.0	PA	5/1961	6/1969
Brunot Island	GenOn Power Midwest, LP	Petroleum Products	18.1	PA	3/1972	3/1972
Brunot Island CC	GenOn Power Midwest, LP	Natural Gas	270.0	PA	6/1973	7/1974
Bucknell University	Bucknell University	Natural Gas	6.7	PA	10/1991	6/1998
Casselman Wind	Avangrid Power LLC	Wind	34.5	PA	12/2007	12/2007
Chester Operations CC	Kimberly-Clark Corp.	Natural Gas	65.2	PA	8/2020	8/2020
Clairton Works	U.S. Steel Corp.	Other Fuel	26.0	PA	1/1955	1/1955
Colver Power Project	Colver Green Energy LLC	Coal	110.0	PA	2/1995	2/1995
Conemaugh	ArcLight Capital Partners LLC	Coal	1,700.0	PA	5/1970	5/1971
Conemaugh IC	ArcLight Capital Partners LLC	Petroleum Products	11.2	PA	2/1970	2/1970
Cottontail Solar 2 Project (Hokes 1 Solar)	Lightsource bp Renewable Energ	Solar	20.0	PA	2/2024	2/2024
Cottontail Solar 8 Project (Hokes 2 Solar)	Lightsource bp Renewable Energ	Solar	20.0	PA	4/2024	4/2024
Covanta Plymouth (Montenay Montgomery)	Covanta Plymouth Renewable	Biomass	28.0	PA	12/1991	12/1991
CPV Fairview Energy Center	NAES Corp	Natural Gas	1,094.5	PA	12/2019	12/2019
Crayola Solar Park	Talen Renewable Energy	Solar	2.8	PA	5/2010	11/2011
Dart Container Corp Cogen	Dart Container Corp.	Biomass	10.4	PA	12/2012	12/2012
Delaware County Resource Recovery Facility	Covanta Delaware Valley	Biomass	80.0	PA	4/1991	4/1991
Dickinson Solar Project (Carlisle)	Dickinson Solar LLC	Solar	3.0	PA	12/2016	12/2016
East Campus Plant	The PA State University	Natural Gas	8.9	PA	6/2011	6/2011

Table C-2 Electric Generating Facilities in Pennsylvania (cont'd)

Power Plant	Owner Name	Fuel Type	Operating Capacity (MW)	State	First Unit Online	Last Unit Online
Ebensburg Power Company	Ebensburg Power Co.	Coal	50.0 PA	5/1991	5/1991	
EDF Saucon Valley Solar Project	Standard Solar Inc.	Solar	2.6 PA	6/2024	6/2024	
Elizabethtown Solar	Community Energy Solar LLC	Solar	2.0 PA	2/2016	2/2016	
Elk Hill Solar 1	Lightsource bp Renewable Energ	Solar	20.0 PA	12/2022	12/2022	
Elk Hill Solar 2 Project	Elk Hill Solar 2, LLC	Solar	15.0 PA	12/2020	12/2020	
Ephrata PA BTM IC Power Plant	American Mun Power Inc	Petroleum Products	5.4 PA	11/2021	11/2021	
ER Bison Solar CSG Project	Greenbacker Renewable Energy	Solar	1.4 PA	1/2023	1/2023	
Erie County Solar Project	Cypress Creek Renewables	Solar	24.0 PA	2/2025	2/2025	
Exelon-Conergy Solar Energy Center	Mf Mesa Lane, LLC	Solar	3.0 PA	11/2008	11/2008	
Fairless Works Energy Center	Vistra Corp.	Natural Gas	1,355.4 PA	5/2004	6/2004	
Falling Spring	Chambersburg Borough of	Natural Gas	7.1 PA	12/1967	6/2001	
Fayette Energy Facility	Vistra Corp.	Natural Gas	716.0 PA	6/2003	6/2003	
Fort Indiantown Gap Solar Project (FTIG)	Standard Solar Inc.	Solar	3.0 PA	1/2019	1/2019	
Franklin Solar	Hecate Energy	Solar	20.0 PA	Not Available	Not Available	
Frey Farm Landfill	Talen Renewable Energy	Biomass	3.2 PA	1/2006	1/2006	
General Electric Company	General Electric Co.	Petroleum Products	4.3 PA	6/1984	6/1984	
Girard (PA) RTO BTM	American Mun Power Inc	Petroleum Products	2.7 PA	3/2022	3/2022	
Glades Pike Cogeneration Plant IC	State Correctional Inst (Laure	Biomass	3.2 PA	10/2011	10/2011	
Grays Ferry Cogeneration	Grays Ferry Cogeneration Ptnsh	Natural Gas	183.6 PA	10/1997	10/1997	
Greater Lebanon Refuse Authority Landfill	Talen Renewable Energy	Biomass	3.2 PA	9/2007	9/2007	
Green Knight Energy Center	Waste Mgmt Inc.	Biomass	8.7 PA	2/2001	2/2001	
GSK York RDC Solar Facility	GlaxoSmithKline Cnsmr Hlthcr L	Solar	1.6 PA	12/2010	12/2010	
Handsome Lake Energy	Handsome Lake Energy, LLC	Natural Gas	267.5 PA	7/2001	8/2001	
Hatfield PA BTM IC Power Plant	American Mun Power Inc	Petroleum Products	2.7 PA	12/2022	12/2022	
Hazleton Cogeneration	NAES Corp	Natural Gas	150.9 PA	1/1989	6/2002	
Highland Wind Project (Krayn Wind)	Cambria Wind LLC	Wind	62.5 PA	8/2009	8/2009	
Holtwood Hydroelectric Plant	Talen Energy Supply LLC	Water	249.0 PA	10/1910	11/2013	
Honey Brook Generating Station (Granger)	Granger Electric Co	Biomass	3.2 PA	12/2006	8/2010	
Hunker Solar River Project	Hunker Solar River LLC	Solar	3.3 PA	10/2021	10/2021	
Hunlock Repowering	UGI Development Company	Natural Gas	128.9 PA	7/2011	7/2011	
IESI Blue Ridge Landfill	Talen Renewable Energy	Biomass	6.4 PA	1/2013	1/2013	
IKEA Conshohocken Rooftop PV System	IKEA Energy US LLC	Solar	1.0 PA	7/2012	7/2012	
Indiana University of Pennsylvania	IN University PA	Natural Gas	24.0 PA	3/1988	3/1988	
Jefferson Torresdale Hospital IC Project (Cogen)	Jefferson Torresdale Hospital	Natural Gas	1.1 PA	5/2016	5/2016	
John B Rich Memorial Power Station	RI-CORP Development	Coal	80.0 PA	2/1988	2/1988	
Johnsonburg Mill	Domtar Paper Co. LLC	Biomass	49.0 PA	2/1993	2/1993	
Juniata Locomotive Shop GT Project	Norfolk Southern Corporation	Natural Gas	1.5 PA	4/2015	4/2015	
Keystone	ArcLight Capital Partners LLC	Coal	1,700.0 PA	8/1967	7/1968	

Table C-2 Electric Generating Facilities in Pennsylvania (cont'd)

<i>Power Plant</i>	<i>Owner Name</i>	<i>Fuel Type</i>	<i>Operating Capacity (MW)</i>	<i>State</i>	<i>First Unit Online</i>	<i>Last Unit Online</i>
Keystone IC	ArcLight Capital Partners LLC	Petroleum Products	11.2	PA	11/1968	11/1968
Keystone Solar Project	Keystone Solar LLC	Solar	5.0	PA	9/2012	9/2012
Kinzua Pumped Storage Project (Seneca)	PE Hydro Generation LLC	Water	463.4	PA	1/1970	1/1970
Knouse Foods Solar Plant	Knouse Foods Co-Operative Inc	Solar	3.0	PA	12/2010	12/2010
Lackawanna Energy Center	Invenergy LLC	Natural Gas	1,467.0	PA	3/2018	1/2019
Lakeview Gas Recovery	WM Renewable Energy LLC	Biomass	6.0	PA	5/1997	6/1997
Lancaster County Resource Recovery	Covanta Lancaste	Biomass	32.4	PA	5/1991	5/1991
Liberty Electric Power	Liberty Electric Power LLC	Natural Gas	562.0	PA	5/2002	5/2002
Locust Ridge II	Avangrid Power LLC	Wind	102.0	PA	5/2009	5/2009
Locust Ridge Wind Farm	Avangrid Power LLC	Wind	26.0	PA	2/2007	2/2007
Longwood Gardens Solar Plant	Ecogy Pennsylvania Systems Llc	Solar	1.3	PA	5/2010	5/2010
Lower Mount Bethel	Talen Energy Corporation	Natural Gas	601.6	PA	3/2004	2/2004
Lycoming County Landfill Project (PPL Renewable)	Talen Renewable Energy	Biomass	3.0	PA	10/2012	10/2012
Mahoning Creek	Ontario Power Generation Inc.	Water	6.7	PA	12/2013	12/2013
Maple Hill Solar Project	Competitive Power Ventures Inc	Solar	100.0	PA	11/2023	11/2023
Marlboro Mushrooms Solar Field	Marlborough Mushrooms	Solar	1.0	PA	11/2011	11/2011
Martin Limestone Solar Array Plant	Sunstream Energy Llc	Solar	1.0	PA	12/2012	12/2012
Martins Creek 3 and 4	Talen Generation LLC	Natural Gas	1,700.0	PA	10/1975	3/1977
Masser Farms Realty Solar	Masser Farms Realty, Ltd.	Solar	1.0	PA	5/2011	5/2011
Mehoopany	The Procter & Gamble Co.	Natural Gas	1.6	PA	10/1984	10/1984
Mehoopany CT	The Procter & Gamble Co.	Natural Gas	123.0	PA	6/1985	4/2013
Merck-Upper Gwynedd Solar Array	Ray Angelini, Inc.	Solar	1.5	PA	5/2011	5/2011
Meyersdale Wind Project	GlidePath Power Solutions	Wind	30.0	PA	12/2003	12/2003
Milan Gas Project	Tenaska Energy Inc.	Natural Gas	20.4	PA	4/2017	4/2017
Mill Run Wind Farm	GlidePath Power Solutions	Wind	15.0	PA	12/2001	12/2001
Mon Valley Works	U.S. Steel Corp.	Other Fuel	67.9	PA	6/1943	2/2002
Montour	Talen Generation LLC	Natural Gas	1,504.0	PA	3/1972	4/1973
Morgantown Generating Station	Granger Electric Co	Biomass	1.6	PA	5/2016	5/2016
Mount Carmel Cogeneration	Mt Carmel Co-Gen	Coal	43.0	PA	1/1990	1/1990
Mount Joy Wire	Mount Joy Wire Corp.	Natural Gas	1.1	PA	12/2011	12/2011
Mountain View Landfill	CCI Power Holdings	Biomass	14.4	PA	3/2003	3/2003
Moxie Freedom Generating Plant	Talen Generation LLC	Natural Gas	1,105.0	PA	8/2018	8/2018
Navy Yard Natural Gas Plant	Ameresco Inc.	Natural Gas	8.0	PA	1/2018	11/2018
New Castle	GenOn Power Midwest, LP	Natural Gas	327.0	PA	11/1939	6/1964
New Castle IC	GenOn Power Midwest, LP	Petroleum Products	2.5	PA	12/1968	12/1968
Newman & Company Inc.	Newman & Co.	Natural Gas	1.8	PA	5/1964	5/1964
Northern Tier Landfill	Talen Renewable Energy	Biomass	1.6	PA	1/2009	1/2009
Ontelaunee Energy Center	Dynegy Power	Natural Gas	596.1	PA	5/2002	5/2002
Orchard Park	Chambersburg Borough of	Natural Gas	23.2	PA	12/2003	12/2003

Table C-2 Electric Generating Facilities in Pennsylvania (cont'd)

<i>Power Plant</i>	<i>Owner Name</i>	<i>Fuel Type</i>	<i>Operating Capacity (MW)</i>	<i>State</i>	<i>First Unit Online</i>	<i>Last Unit Online</i>
Oxbow Creek Energy	Tenaska Energy Inc.	Natural Gas	21.0	PA	12/2019	12/2019
P.H. Glatfelter Company - Pennsylvania	Glatfelter Corp.	Coal	86.1	PA	7/1948	1/1994
PA Solar Park II Project	Con Edison Development	Solar	10.0	PA	1/2020	1/2020
PA Solar Park Project	Con Edison Development	Solar	10.0	PA	10/2012	10/2012
PA4 Solar Farm	DEPCOM Power Inc.	Solar	3.6	PA	5/2019	5/2019
Panda Liberty Generating Station (Moxie Liberty)	Cogentrix Energy Power Mgmt LL	Natural Gas	850.0	PA	10/2016	10/2016
Patriot Power Generation Plant (Moxie Patriot)	Cogentrix Energy Power Mgmt LL	Natural Gas	906.0	PA	7/2016	7/2016
Peach Bottom	Constellation Energy Corp.	Uranium	2,690.3	PA	7/1974	12/1974
Perkasie PA BTM IC Project	American Mun Power Inc	Petroleum Products	4.4	PA	4/2022	4/2022
Phoenix Contact - CCHP Plant	Phoenix Contact USA, Inc.	Natural Gas	1.0	PA	3/2014	3/2014
Pickering Solar	Essential Utilities Inc.	Solar	1.4	PA	1/2012	1/2012
Pine Grove Landfill	CCI Power Holdings	Biomass	5.4	PA	2/2008	2/2008
Piney	Brookfield Power Piney & Deep	Water	33.2	PA	6/1924	2/1928
Pioneer Crossing Landfill	Fortistar LLC	Biomass	8.0	PA	10/2008	11/2013
PPG Monroeville Chemicals Center	PPG Monroeville Chemicals	Petroleum Products	1.1	PA	10/1998	9/2000
PPG Place	PPG Industries Inc.	Petroleum Products	2.3	PA	5/1990	6/1998
Quakertown Power Plant	American Mun Power Inc	Petroleum Products	10.8	PA	11/2023	11/2023
Ringer Hill Wind Farm	Skyline Renewables LLC	Wind	38.3	PA	12/2016	12/2016
Romark PA Solar	Romark Logistics Of Pa, Inc.	Solar	1.8	PA	11/2011	11/2011
Roundtop	Tenaska Energy Inc.	Natural Gas	21.0	PA	10/2015	10/2015
Safe Harbor	Safe Harbor Water Power Corp.	Water	417.5	PA	12/1931	4/1986
Schuylkill Haven BTM PA Generation Project	American Mun Power Inc	Petroleum Products	5.4	PA	6/2023	6/2023
SECCRA Community Landfill	Southeastern Chester County Re	Biomass	2.5	PA	1/2007	11/2010
Seward Waste Coal	Robindale Energy Services Inc	Coal	521.0	PA	11/2004	11/2004
Shell Chemical Appalachia Cogen	Shell Chemical Appalachia LLC	Natural Gas	291.1	PA	7/2021	10/2021
Shippensburg (Cumberland County) Landfill	Talen Renewable Energy	Biomass	6.4	PA	1/2009	1/2009
Somerset Wind Project	GlidePath Power Solutions	Wind	9.0	PA	12/2001	12/2001
South Chestnut Wind Project	Avangrid Power LLC	Wind	50.4	PA	4/2012	4/2012
Spring House IC Plant	Janssen Pharmaceuticals Inc.	Natural Gas	3.8	PA	4/2013	4/2013
Spring Lane Solar Project	MN8 Energy Inc.	Solar	13.8	PA	12/2024	12/2024
St. Nicholas Cogeneration	Schuylkill Energy Resources In	Coal	86.0	PA	9/1990	9/1990
Sunbury CT	Sunbury Generation LP	Petroleum Products	36.0	PA	11/1971	11/1971
Sunbury IC	Sunbury Generation LP	Petroleum Products	5.0	PA	4/1967	4/1967
Susquehanna Nuclear	Susquehanna Nuclear, LLC	Uranium	2,494.0	PA	6/1983	2/1985
Susquehanna Resource Management Complex (Harrisburg F	Covanta Harrisburg, Inc.	Biomass	16.7	PA	10/1986	4/2006
Susquehanna University Solar Project	TerraForm Power Inc	Solar	3.0	PA	9/2018	9/2018
Temple SEGF Plant	Temple University The Cmnlwth	Natural Gas	16.0	PA	5/1993	5/1993
Temple Solar Arrays Project	UGI Energy Services LLC	Solar	2.2	PA	5/2011	5/2011
Tenaska Westmoreland Generating Station	Tenaska Operations, Inc.	Natural Gas	1,032.0	PA	12/2018	12/2018

Table C-2 Electric Generating Facilities in Pennsylvania (cont'd)

<i>Power Plant</i>	<i>Owner Name</i>	<i>Fuel Type</i>	<i>Operating Capacity (MW)</i>	<i>State</i>	<i>First Unit Online</i>	<i>Last Unit Online</i>
Townsend Hydro	Beaver Falls Municipal Authori	Water	4.2 PA		10/1987	10/1987
TPE Pennsylvania Solar 1	DEPCOM Power Inc.	Solar	3.6 PA		8/2019	8/2019
Tullytown Landfill Gas Facility	WM Renewable Energy LLC	Biomass	1.6 PA		3/2013	3/2013
Turkey Point Wind Project (Frey Farm Wind)	Talen Renewable Energy	Wind	3.2 PA		1/2011	1/2011
Twin Ridges Wind Farm	Senvion GmbH	Wind	139.4 PA		12/2012	12/2012
University Park Solar Project	SS Pa II PSU LLC	Solar	1.5 PA		12/2018	12/2018
Vitro Architectural Glass (PA)	PPG Industries Inc.	Petroleum Products	5.0 PA		7/1972	11/2021
Wallenpaupack	Brookfield Renewable	Water	44.0 PA		6/1926	6/1926
Warrior Ridge Hydroelectric	American Hydro Power Co.	Water	2.8 PA		12/1985	12/1985
Waymart Wind Farm	GlidePath Power Solutions	Wind	64.5 PA		10/2003	10/2003
West Campus Plant	The PA State University	Natural Gas	7.1 PA		1/1938	12/2021
West Campus Steam Plant CHP Expansion	The PA State University	Natural Gas	6.1 PA		12/2021	12/2021
West Point Facility	Merck & Co.	Natural Gas	66.0 PA		1/1989	4/2001
West Point Facility IC	Merck & Co.	Natural Gas	18.3 PA		1/1972	7/2024
Western Berks Internal Combustion Plant	NextEra Energy Resources LLC	Biomass	3.2 PA		3/2024	3/2024
Westtown School Solar Project	NJR Clean Energy Ventures Corp	Solar	1.5 PA		9/2025	9/2025
Westwood Generating Station	WPS Westwood Generation LLC	Coal	30.0 PA		6/1987	6/1987
Wheelabrator Falls	Wheelabrator Falls Inc.	Biomass	43.9 PA		5/1994	5/1994
Whitetail Solar 1	Whitetail Solar 1 LLC	Solar	13.5 PA		12/2019	12/2019
Whitetail Solar 2	Lightsource bp Renewable Energ	Solar	20.0 PA		9/2020	9/2020
Whitetail Solar 3	Lightsource bp Renewable Energ	Solar	20.0 PA		8/2020	8/2020
Wind Park Bear Creek Project	Wind Park Bear CReek LLC	Wind	24.0 PA		3/2006	3/2006
Wm F Matson Generating Station	Allegheny Electric Coop	Water	21.7 PA		6/1988	6/1988
Wolf Run Energy Project	Tenaska Energy Inc.	Natural Gas	22.0 PA		6/2019	6/2019
York 2 Energy Center	Calpine LLC	Natural Gas	864.0 PA		3/2019	3/2019
York County Resource Recovery Center	Covanta York Renewable Energy	Biomass	36.5 PA		11/1989	11/1989
York Energy Center (Delta Power Project)	Conectiv Mid Merit LLC	Natural Gas	569.0 PA		3/2011	3/2011
York Haven	Ontario Power Generation Inc.	Water	19.0 PA		12/1905	12/1905
Yough Hydro Power	D/R Hydro Co.	Water	12.2 PA		12/1989	12/1989
Zook Generating Station (L&S Sweetners)	Granger Electric Co	Biomass	3.2 PA		10/2013	10/2013

Appendix D – Large EDC (and UGI) 20-Year Demand and Peak Load Forecasts¹¹²

Duquesne											
	ENERGY DEMAND (MWH)							ANNUAL		ANNUAL	
Year	RES	COM	IND	OTHER	Data Center	RETAIL	RESALE	TOTAL	% INCREASE	PEAK	% INCREASE
2025	4,120,748	5,667,713	2,452,421	50,328	5,144	12,291,210	18,780	12,309,990		2,695	
2026	4,227,520	6,077,060	2,906,420	50,054	8,730	13,261,054	26,378	13,287,432	7.94%	2,674	-0.78%
2027	4,240,320	6,095,460	2,915,220	49,492	16,717	13,300,492	26,378	13,326,870	0.30%	2,663	-0.41%
2028	4,269,440	6,137,320	2,935,240	48,894	334,964	13,390,894	26,378	13,417,272	0.68%	2,655	-0.30%
2029	4,273,280	6,142,840	2,937,880	48,275	1,157,723	13,402,275	26,378	13,428,653	0.08%	2,656	0.04%
2030	4,371,200	6,283,600	3,005,200	48,275	1,188,212	13,708,275	26,378	13,734,653	2.28%	2,705	1.84%
2031	4,515,520	6,491,060	3,104,420	48,275	1,188,212	14,159,275	26,378	14,185,653	3.28%	2,737	1.18%
2032	4,598,720	6,610,660	3,161,620	48,275	1,191,467	14,419,275	26,378	14,445,653	1.83%	2,753	0.58%
2033	4,611,840	6,629,520	3,170,640	48,275	1,188,212	14,460,275	26,378	14,486,653	0.28%	2,765	0.44%
2034	4,647,360	6,680,580	3,195,060	48,275	1,188,212	14,571,275	26,378	14,597,653	0.77%	2,780	0.54%
2035	4,689,600	6,741,300	3,224,100	48,275	1,188,212	14,703,275	26,378	14,729,653	0.90%	2,800	0.72%
2036	4,765,120	6,849,860	3,276,020	48,275	1,191,467	14,939,275	26,378	14,965,653	1.60%	2,828	1.00%
2037	4,807,040	6,910,120	3,304,840	48,275	1,188,212	15,070,275	26,378	15,096,653	0.88%	2,855	0.95%
2038	4,870,080	7,000,740	3,348,180	48,275	1,188,212	15,267,275	26,378	15,293,653	1.30%	2,885	1.05%
2039	4,939,520	7,100,560	3,395,920	48,275	1,188,212	15,484,275	26,378	15,510,653	1.42%	2,917	1.11%
2040	5,031,680	7,233,040	3,459,280	48,275	1,191,467	15,772,275	26,378	15,798,653	1.86%	2,956	1.34%
2041	5,087,040	7,312,620	3,497,340	48,275	1,188,212	15,945,275	26,378	15,971,653	1.10%	2,992	1.22%
2042	5,160,640	7,418,420	3,547,940	48,275	1,188,212	16,175,275	26,378	16,201,653	1.44%	3,028	1.20%
2043	5,237,760	7,529,280	3,600,960	48,275	1,188,212	16,416,275	26,378	16,442,653	1.49%	3,065	1.22%
2044	5,334,720	7,668,660	3,667,620	48,275	1,191,467	16,719,275	26,378	16,745,653	1.84%	3,102	1.21%
2045	5,396,480	7,757,440	3,710,080	48,275	1,188,212	16,912,275	26,378	16,938,653	1.15%	3,145	1.39%
						10-YEAR INCREASE			12.63%		5.76%

Met-Ed										
	ENERGY DEMAND (MWh)							ANNUAL		ANNUAL
Year	RES	COM	IND	OTHER	RETAIL	RESALE	TOTAL	% INCREASE	PEAK	% INCREASE
2025	5,889,007	2,852,556	5,330,737	25,991	14,098,290	578,817	14,677,107		3,003	
2026	5,899,214	2,908,744	5,360,432	28,639	14,197,029	531,543	14,728,573	0.35%	2,963	-1.33%
2027	5,961,707	2,898,171	5,365,856	28,782	14,254,516	529,970	14,784,486	0.38%	2,976	0.44%
2028	6,041,460	2,900,321	5,372,898	28,933	14,343,612	529,241	14,872,854	0.60%	2,991	0.50%
2029	6,098,356	2,898,773	5,368,585	29,091	14,394,806	526,620	14,921,426	0.33%	3,008	0.57%
2030	6,168,043	2,906,365	5,352,676	29,258	14,456,342	524,953	14,981,295	0.40%	3,022	0.47%
2031	6,237,957	2,925,006	5,332,143	29,433	14,524,539	523,260	15,047,799	0.44%	3,037	0.50%
2032	6,317,893	2,965,872	5,309,748	29,615	14,623,128	522,427	15,145,554	0.65%	3,054	0.56%
2033	6,384,135	3,023,823	5,290,350	29,806	14,728,114	519,923	15,248,038	0.68%	3,082	0.92%
2034	6,464,896	3,116,960	5,274,242	30,005	14,886,103	518,409	15,404,512	1.03%	3,115	1.07%
2035	6,551,229	3,240,155	5,262,924	30,212	15,084,519	517,011	15,601,531	1.28%	3,157	1.35%
2036	6,653,462	3,387,673	5,256,745	30,414	15,328,294	516,606	15,844,900	1.56%	3,181	0.76%
2037	6,736,971	3,532,214	5,252,378	30,596	15,552,159	514,393	16,066,552	1.40%	3,207	0.82%
2038	6,834,203	3,679,797	5,247,713	30,778	15,792,491	513,150	16,305,641	1.49%	3,232	0.78%
2039	6,931,952	3,826,456	5,245,490	30,962	16,034,860	511,905	16,546,765	1.48%	3,256	0.74%
2040	7,045,833	3,974,929	5,244,391	31,147	16,296,300	511,611	16,807,911	1.58%	3,281	0.77%
2041	7,141,194	4,114,163	5,248,602	31,332	16,535,291	509,501	17,044,792	1.41%	3,306	0.76%
2042	7,250,291	4,254,104	5,252,237	31,519	16,788,151	508,416	17,296,567	1.48%	3,332	0.79%
2043	7,359,286	4,395,082	5,255,841	31,707	17,041,916	507,378	17,549,294	1.46%	3,358	0.78%
2044	7,482,854	4,541,015	5,260,288	31,896	17,316,054	507,363	17,823,417	1.56%	3,384	0.77%
2045	7,581,813	4,676,237	5,265,992	32,086	17,556,129	505,481	18,061,609	1.34%	3,410	0.77%
						10-YEAR INCREASE		7.58%		7.36%

Penelec										
	ENERGY DEMAND (MWH)							ANNUAL		ANNUAL
Year	RES	COM	IND	OTHER	RETAIL	RESALE	TOTAL	% INCREASE	PEAK	% INCREASE
2025	4,379,437	3,249,494	5,379,655	32,682	13,041,268	2,826,981	15,868,249		2,895	
2026	4,324,363	3,266,592	5,285,633	32,621	12,909,209	2,751,315	15,660,524	-1.31%	2,862	-1.14%
2027	4,357,454	3,254,243	5,222,270	32,694	12,866,661	2,754,457	15,621,118	-0.25%	2,857	-0.17%
2028	4,400,016	3,262,317	5,166,132	32,769	12,861,234	2,760,206	15,621,440	0.00%	2,851	-0.21%
2029	4,422,801	3,263,042	5,112,044	32,847	12,830,734	2,758,905	15,589,639	-0.20%	2,854	0.11%
2030	4,460,817	3,279,412	5,057,432	32,927	12,830,588	2,761,173	15,591,761	0.01%	2,855	0.04%
2031	4,502,245	3,309,731	5,008,730	33,010	12,853,716	2,763,456	15,617,172	0.16%	2,861	0.21%
2032	4,555,880	3,368,839	4,964,716	33,096	12,922,531	2,768,985	15,691,516	0.48%	2,869	0.28%
2033	4,596,217	3,443,772	4,931,712	33,185	13,004,886	2,768,299	15,773,185	0.52%	2,893	0.84%
2034	4,649,299	3,567,152	4,908,321	33,276	13,158,048	2,771,051	15,929,099	0.99%	2,924	1.07%
2035	4,708,423	3,727,736	4,892,832	33,370	13,362,361	2,774,280	16,136,641	1.30%	2,964	1.37%
2036	4,783,150	3,921,343	4,879,598	33,463	13,617,554	2,781,218	16,398,772	1.62%	2,985	0.71%
2037	4,842,945	4,103,798	4,872,336	33,548	13,852,627	2,781,728	16,634,355	1.44%	3,007	0.74%
2038	4,915,319	4,295,059	4,863,523	33,634	14,107,535	2,785,688	16,893,223	1.56%	3,027	0.67%
2039	4,988,610	4,483,360	4,856,185	33,719	14,361,874	2,789,591	17,151,465	1.53%	3,048	0.69%
2040	5,075,404	4,678,260	4,848,162	33,805	14,635,631	2,796,968	17,432,599	1.64%	3,070	0.72%
2041	5,145,138	4,853,679	4,845,756	33,891	14,878,464	2,797,755	17,676,219	1.40%	3,091	0.68%
2042	5,228,212	5,033,189	4,839,839	33,977	15,135,217	2,802,347	17,937,564	1.48%	3,113	0.71%
2043	5,312,087	5,213,994	4,832,768	34,064	15,392,913	2,807,150	18,200,063	1.46%	3,135	0.71%
2044	5,409,964	5,405,076	4,823,598	34,150	15,672,788	2,815,830	18,488,618	1.59%	3,157	0.70%
2045	5,487,341	5,576,702	4,818,628	34,237	15,916,908	2,817,781	18,734,689	1.33%	3,180	0.73%
							10-YEAR INCREASE	4.71%		4.30%

Penn Power										
	ENERGY DEMAND (MWH)							ANNUAL		ANNUAL
Year	RES	COM	IND	OTHER	RETAIL	RESALE	TOTAL	% INCREASE	PEAK	% INCREASE
2025	1,690,231	939,989	2,027,547	3,224	4,660,990	171,621	4,832,611		895	
2026	1,689,403	898,954	1,979,221	3,259	4,570,837	168,451	4,739,288	-1.93%	936	4.58%
2027	1,718,169	891,234	1,987,638	3,266	4,600,307	167,087	4,767,394	0.59%	945	0.96%
2028	1,751,303	888,582	2,011,863	3,272	4,655,021	165,543	4,820,564	1.12%	956	1.16%
2029	1,771,546	884,677	2,033,093	3,279	4,692,596	163,920	4,856,515	0.75%	965	0.94%
2030	1,799,656	884,511	2,046,812	3,286	4,734,264	163,476	4,897,740	0.85%	973	0.83%
2031	1,828,604	887,592	2,056,279	3,292	4,775,767	163,389	4,939,157	0.85%	982	0.92%
2032	1,862,836	896,570	2,063,798	3,299	4,826,503	162,926	4,989,429	1.02%	993	1.12%
2033	1,888,926	909,916	2,067,023	3,306	4,869,170	161,902	5,031,073	0.83%	1,002	0.91%
2034	1,922,096	934,730	2,065,124	3,313	4,925,262	159,955	5,085,217	1.08%	1,014	1.20%
2035	1,958,932	969,127	2,062,038	3,320	4,993,416	157,906	5,151,323	1.30%	1,028	1.38%
2036	2,004,511	1,011,362	2,062,253	3,327	5,081,453	155,882	5,237,335	1.67%	1,037	0.88%
2037	2,040,286	1,051,433	2,062,583	3,334	5,157,635	152,809	5,310,444	1.40%	1,047	0.96%
2038	2,082,842	1,092,663	2,062,699	3,340	5,241,544	149,488	5,391,033	1.52%	1,056	0.86%
2039	2,125,608	1,133,566	2,062,393	3,347	5,324,914	146,036	5,470,950	1.48%	1,066	0.95%
2040	2,175,830	1,175,633	2,060,678	3,354	5,415,496	143,018	5,558,514	1.60%	1,075	0.84%
2041	2,215,214	1,213,662	2,056,367	3,361	5,488,605	139,777	5,628,381	1.26%	1,085	0.93%
2042	2,263,419	1,252,321	2,051,205	3,368	5,570,312	136,122	5,706,433	1.39%	1,095	0.92%
2043	2,313,117	1,291,743	2,045,277	3,375	5,653,511	132,089	5,785,600	1.39%	1,105	0.91%
2044	2,372,002	1,332,779	2,040,153	3,382	5,748,315	127,717	5,876,033	1.56%	1,115	0.90%
2045	2,419,446	1,370,491	2,035,136	3,389	5,828,462	123,427	5,951,889	1.29%	1,125	0.90%
							10-YEAR INCREASE	10.51%		10.79%

West Penn										
	ENERGY DEMAND (MWH)							ANNUAL		ANNUAL
Year	RES	COM	IND	OTHER	RETAIL	RESALE	TOTAL	% INCREASE	PEAK	% INCREASE
2025	7,281,264	3,837,638	8,334,262	21,089	19,474,253	778,365	20,252,618		3,912	
2026	7,156,365	3,691,505	8,211,100	21,656	19,080,626	746,812	19,827,438	-2.10%	3,650	-6.70%
2027	7,259,818	3,684,665	8,234,943	21,681	19,201,107	746,833	19,947,940	0.61%	3,674	0.66%
2028	7,379,342	3,709,616	8,256,819	21,707	19,367,484	746,982	20,114,466	0.83%	3,706	0.87%
2029	7,452,191	3,726,568	8,263,040	21,734	19,463,533	746,854	20,210,387	0.48%	3,724	0.49%
2030	7,554,829	3,760,559	8,252,077	21,762	19,589,227	746,865	20,336,092	0.62%	3,748	0.64%
2031	7,658,897	3,807,249	8,234,834	21,792	19,722,772	746,876	20,469,648	0.66%	3,774	0.69%
2032	7,780,250	3,883,352	8,219,374	21,823	19,904,799	747,023	20,651,822	0.89%	3,810	0.95%
2033	7,872,367	3,971,117	8,203,833	21,855	20,069,172	746,901	20,816,073	0.80%	3,843	0.87%
2034	7,994,004	4,112,620	8,194,889	21,888	20,323,401	746,918	21,070,319	1.22%	3,892	1.28%
2035	8,132,106	4,292,254	8,191,413	21,923	20,637,696	746,942	21,384,638	1.49%	3,953	1.57%
2036	8,303,982	4,510,491	8,189,925	21,961	21,026,359	747,106	21,773,465	1.82%	3,990	0.94%
2037	8,440,221	4,711,197	8,180,798	22,006	21,354,222	747,004	22,101,226	1.51%	4,028	0.95%
2038	8,605,048	4,925,775	8,171,202	22,055	21,724,080	747,039	22,471,119	1.67%	4,064	0.89%
2039	8,769,537	5,135,199	8,161,850	22,106	22,088,692	747,072	22,835,764	1.62%	4,102	0.94%
2040	8,958,688	5,355,427	8,152,524	22,160	22,488,799	747,240	23,236,039	1.75%	4,140	0.93%
2041	9,106,416	5,549,663	8,138,337	22,217	22,816,633	747,143	23,563,776	1.41%	4,179	0.94%
2042	9,288,966	5,752,357	8,122,487	22,250	23,186,060	747,185	23,933,245	1.57%	4,218	0.93%
2043	9,475,768	5,956,095	8,104,464	22,280	23,558,607	747,231	24,305,838	1.56%	4,257	0.92%
2044	9,697,865	6,174,067	8,086,703	22,306	23,980,941	747,415	24,728,356	1.74%	4,297	0.94%
2045	9,873,105	6,367,965	8,065,531	22,326	24,328,927	747,336	25,076,263	1.41%	4,337	0.93%
						10-YEAR INCREASE		9.81%		9.32%

PECO										
	ENERGY DEMAND (MWH)							ANNUAL		ANNUAL
Year	RES	COM	IND	OTHER	RETAIL	RESALE	TOTAL	% INCREASE	PEAK	% INCREASE
2025	14,077,885	7,537,229	13,682,877	687,113	35,985,104	2,851	35,987,955		8,379	
2026	14,098,988	7,542,456	13,824,337	595,285	36,061,066	2,857	36,063,923	0.21%	8,584	2.45%
2027	14,151,260	7,559,417	14,108,248	593,113	36,412,038	2,885	36,414,923	0.97%	8,667	0.97%
2028	14,271,097	7,582,747	15,014,901	593,993	37,462,738	2,968	37,465,706	2.89%	8,809	1.64%
2029	14,344,769	7,544,732	16,409,868	592,257	38,891,626	3,081	38,894,707	3.81%	8,963	1.75%
2030	14,469,029	7,528,491	17,682,454	592,089	40,272,063	3,190	40,275,253	3.55%	9,117	1.72%
2031	14,614,681	7,517,076	18,694,213	59,192	40,885,162	3,281	40,888,443	1.52%	9,261	1.58%
2032	14,773,472	7,509,864	19,636,061	591,752	42,511,149	3,368	42,514,517	3.98%	9,447	2.01%
2033	14,936,869	7,505,680	20,973,785	591,583	44,007,917	3,486	44,011,403	3.52%	9,677	2.43%
2034	15,101,057	7,503,156	23,007,793	591,415	46,203,421	3,660	46,207,081	4.99%	9,872	2.02%
2035	15,263,108	7,502,699	24,378,568	591,246	47,735,621	3,782	47,739,403	3.32%	10,068	1.99%
2036	15,421,341	7,502,341	25,771,697	591,078	49,286,457	3,905	49,290,362	3.25%	10,240	1.71%
2037	15,574,327	7,501,659	26,254,585	59,091	49,389,662	3,955	49,393,617	0.21%	10,341	0.99%
2038	15,721,834	7,499,809	26,243,147	590,741	50,055,531	3,965	50,059,496	1.35%	10,358	0.16%
2039	15,863,217	7,496,625	26,229,307	590,573	50,179,722	3,975	50,183,697	0.25%	10,374	0.15%
2040	15,998,032	7,492,086	26,247,799	590,404	50,328,321	3,987	50,332,308	0.30%	10,366	-0.08%
2041	16,126,319	7,482,654	26,187,919	590,236	50,387,128	3,992	50,391,120	0.12%	10,399	0.32%
2042	16,245,624	7,470,876	26,158,588	590,067	50,465,155	3,998	50,469,153	0.15%	10,408	0.09%
2043	16,348,136	7,454,413	26,120,811	589,899	50,513,259	4,002	50,517,261	0.10%	10,411	0.03%
2044	16,441,680	7,436,164	26,114,589	589,731	50,582,164	4,007	50,586,171	0.14%	10,390	-0.20%
2045	16,524,163	7,412,025	26,028,200	589,562	50,553,950	4,005	50,557,955	-0.06%	10,410	0.19%
						10-YEAR INCREASE		36.67%		19.29%

PPL										
	ENERGY DEMAND (MWH)							ANNUAL		ANNUAL
Year	RES	COM	IND	OTHER	RETAIL	RESALE	TOTAL	% INCREASE	PEAK	% INCREASE
2025	14,684,901	13,965,821	8,309,537	72,209	37,032,468	-	37,032,468		7,557	
2026	14,400,164	13,809,582	10,918,427	71,802	39,199,975	-	39,199,975	5.85%	8,170	8.11%
2027	14,491,146	13,869,161	19,385,122	72,308	47,817,737	-	47,817,737	21.98%	9,595	17.44%
2028	14,637,714	14,028,919	34,248,422	73,363	62,988,418	-	62,988,418	31.73%	11,956	24.61%
2029	14,637,081	14,024,798	52,044,586	73,265	80,779,730	-	80,779,730	28.25%	14,016	17.23%
2030	14,692,734	14,034,575	65,340,027	73,265	94,140,601	-	94,140,601	16.54%	15,151	8.10%
2031	14,723,910	14,157,638	73,761,034	73,149	102,715,731	-	102,715,731	9.11%	16,096	6.24%
2032	14,818,775	14,183,507	78,844,375	73,266	107,919,923	-	107,919,923	5.07%	16,403	1.91%
2033	14,792,288	14,162,421	80,078,301	73,038	109,106,048	-	109,106,048	1.10%	16,445	0.26%
2034	14,823,815	14,147,157	81,060,976	72,857	110,104,805	-	110,104,805	0.92%	16,650	1.25%
2035	14,874,709	14,147,344	81,073,803	72,793	110,168,649	-	110,168,649	0.06%	16,663	0.08%
2036	14,911,374	14,170,729	81,129,999	72,699	110,284,801	-	110,284,801	0.11%	16,687	0.14%
2037	14,948,130	14,194,395	81,186,626	72,605	110,401,756	-	110,401,756	0.11%	16,711	0.14%
2038	14,984,976	14,218,345	81,243,686	72,511	110,519,518	-	110,519,518	0.11%	16,735	0.14%
2039	15,021,913	14,242,580	81,301,183	72,418	110,638,094	-	110,638,094	0.11%	16,759	0.14%
2040	15,058,941	14,267,103	81,359,120	72,324	110,757,488	-	110,757,488	0.11%	16,783	0.14%
2041	15,096,061	14,291,916	81,417,500	72,231	110,877,708	-	110,877,708	0.11%	16,808	0.15%
2042	15,133,272	14,317,020	81,476,327	72,137	110,998,756	-	110,998,756	0.11%	16,833	0.15%
2043	15,170,575	14,342,417	81,535,604	72,044	111,120,640	-	111,120,640	0.11%	16,857	0.14%
2044	15,207,970	14,368,111	81,595,334	71,951	111,243,366	-	111,243,366	0.11%	16,882	0.15%
2045	15,245,458	14,394,102	81,655,521	71,858	111,366,939	-	111,366,939	0.11%	16,908	0.15%
							10-YEAR INCREASE	181.34%		104.25%

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	ENERGY DEMAND (MWH)							ANNUAL		ANNUAL
Year	RES	COM	IND	OTHER	RETAIL	RESALE	TOTAL	% INCREASE	PEAK	% INCREASE
2025	566,408	328,715	96,664	5,065	996,852	126	996,978		217	
2026	554,878	320,554	98,493	4,773	978,698	126	978,824	-1.82%	204	-5.99%
2027	556,408	321,262	98,493	4,773	980,936	126	981,062	0.23%	204	0.00%
2028	557,937	321,969	98,493	4,773	983,172	126	983,298	0.23%	204	0.00%
2029	559,467	322,677	98,493	4,773	985,410	126	985,536	0.23%	203	-0.49%
2030	560,997	323,384	98,493	4,773	987,647	126	987,773	0.23%	202	-0.49%
2031	562,527	324,092	98,493	4,773	989,885	126	990,011	0.23%	202	0.00%
2032	564,057	324,800	98,493	4,773	992,123	126	992,249	0.23%	202	0.00%
2033	565,587	325,507	98,493	4,773	994,360	126	994,486	0.23%	202	0.00%
2034	567,117	326,215	98,493	4,773	996,598	126	996,724	0.23%	202	0.00%
2035	568,647	326,923	98,493	4,773	998,836	126	998,962	0.22%	202	0.00%
2036	570,177	327,630	98,493	4,773	1,001,073	126	1,001,199	0.22%	203	0.50%
2037	571,706	328,338	98,493	4,773	1,003,310	126	1,003,436	0.22%	204	0.49%
2038	573,236	329,045	98,493	4,773	1,005,547	126	1,005,673	0.22%	204	0.00%
2039	574,766	329,753	98,493	4,773	1,007,785	126	1,007,911	0.22%	206	0.98%
2040	576,296	330,461	98,493	4,773	1,010,023	126	1,010,149	0.22%	207	0.49%
2041	577,826	331,168	98,493	4,773	1,012,260	126	1,012,386	0.22%	208	0.48%
2042	579,356	331,876	98,493	4,773	1,014,498	126	1,014,624	0.22%	210	0.96%
2043	580,886	332,584	98,493	4,773	1,016,736	126	1,016,862	0.22%	212	0.95%
2044	582,416	333,291	98,493	4,773	1,018,973	126	1,019,099	0.22%	214	0.94%
2045	583,945	333,999	98,493	4,773	1,021,210	126	1,021,336	0.22%	215	0.47%
							10-YEAR INCREASE	2.29%		-0.49%



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