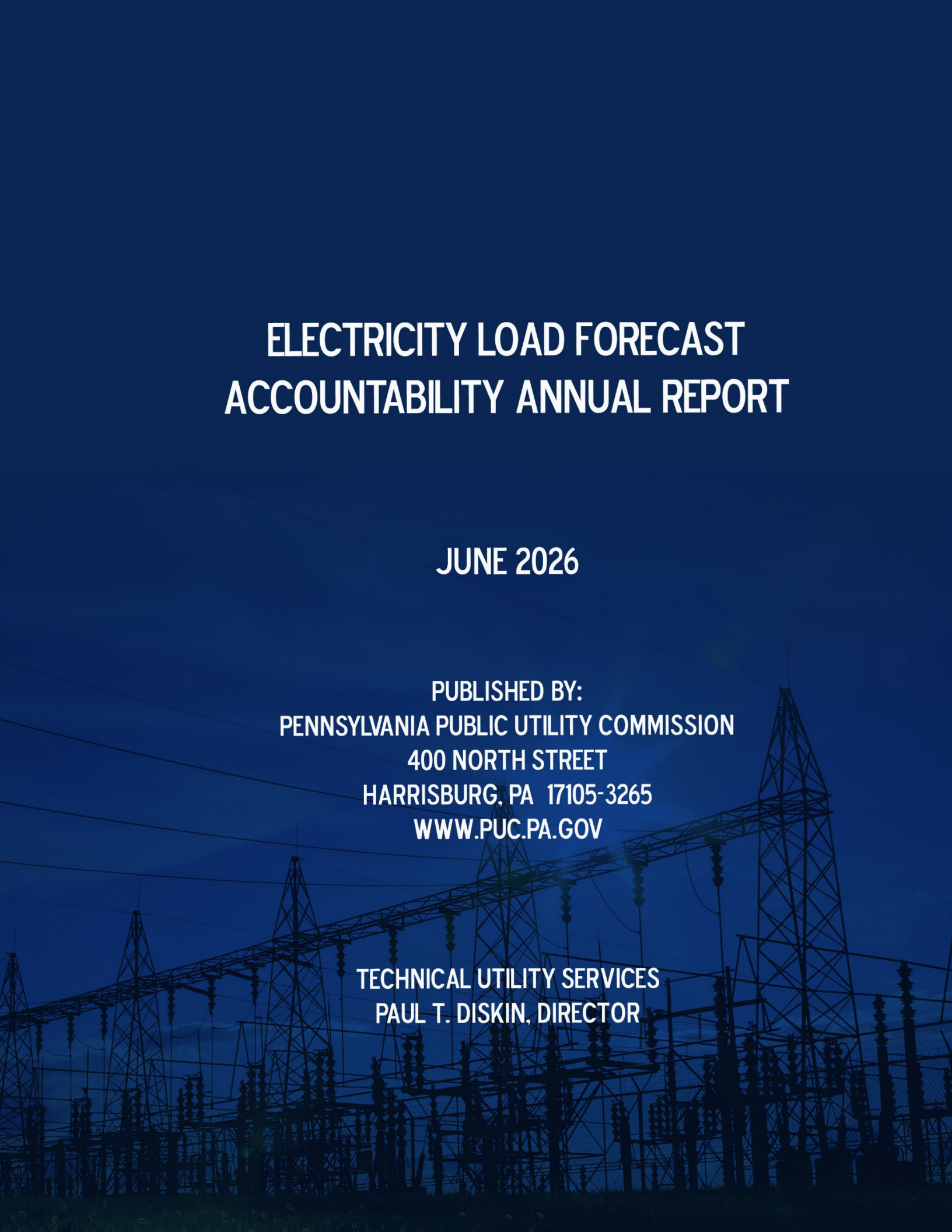
ELECTRICITY LOAD FORECAST ACCOUNTABILITY ANNUAL REPORT

JUNE 2026

PUBLISHED BY:
PENNSYLVANIA PUBLIC UTILITY COMMISSION
400 NORTH STREET
HARRISBURG, PA 17105-3265
WWW.PUC.PA.GOV

TECHNICAL UTILITY SERVICES
PAUL T. DISKIN, DIRECTOR



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Technical Utility Services

Paul T. Diskin, Director

The Honorable Patrick J. Stefano
Chair of the Pennsylvania Senate Consumer Protection & Professional Licensure Committee

The Honorable Lisa M. Boscola
Minority Chair of the Pennsylvania Senate Consumer Protection & Professional Licensure Committee

The Honorable Danilo Burgos
Chair of the Pennsylvania House Consumer Protection, Technology & Utilities Committee

The Honorable Carl Walker Metzgar
Minority Chair of the Pennsylvania House Consumer Protection, Technology & Utilities Committee

I am pleased to submit for your review the Pennsylvania Public Utility Commission's (Commission's) Electricity Load Forecast Accountability Annual Report.

On November 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 Act 45 of 2025, which amends the state's Fiscal Code Act of April 9, 1929 (P.L. 343, No. 176), by serving as the omnibus legislation necessary to effectuate implementation of the state's Fiscal Year 2025-2026 budget. Through Act 45, the General Assembly has declared that Commission oversight of electric 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.

Act 45 directed the Commission to investigate the methodologies, data and assumptions used by electric distribution companies (EDCs) when developing load forecasts submitted to the regional electric transmission organization, PJM Interconnection, LLC (PJM). Act 45 required the Commission to submit an annual report by June 30 of each year to the chair and minority chair of the legislative committees noted above and to post the report on the Commission's public website.

This Electricity Load Forecast Accountability Annual Report meets the requirements of Act 45 by describing the following:

- Actions taken by the commission to implement Act 45 requirements during the prior fiscal year.
- Findings from the Commission's review of utility load-forecast processes and materials submitted to PJM.
- Coordination efforts with PJM and other states to prevent duplicative counting of projects and customer contracts.
- Recommendations for statutory or regulatory changes to improve load-forecast oversight and reliability.

The Commission notes that this is the first annual report for Act 45 and that electricity load forecasting is a dynamic process. Thus, the Commission expects that subsequent annual reports will describe the impact of any initiatives and directives from state and federal regulators and EDCs to meet the challenge of electricity load forecasting and the impact of large load users such as data centers.

Sincerely,

Stephen M. DeFrank
Chairman, Pennsylvania Public Utility Commission

Executive Summary

Section 1 – Overview

Section 2 – Annual Report

Appendix A

Appendix B

Appendix C

Executive Summary

On November 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 Act 45 of 2025, which amends the state's Fiscal Code Act of April 9, 1929 (P.L. 343, No. 176), by serving as the omnibus legislation necessary to implement the state's Fiscal Year 2025-2026 budget. Through Act 45, the General Assembly declared that Pennsylvania Public Utility Commission (Commission) oversight of electric load forecasts is necessary to provide information on significant growth in electricity demand driven by vehicle and building electrification, data centers, and other large load customer additions.

Act 45 directs the Commission to investigate the methodologies, data and assumptions used by electric distribution companies (EDCs) when developing load forecasts submitted to the regional electric transmission organization, PJM Interconnection LLC (PJM). Act 45 requires the Commission to complete an annual report by June 30 of each year, based on this review. The Commission tasked the Bureau of Technical Utility Services (TUS) with preparing the report and collaborating with other key Commission Bureaus for input and review. This is the first annual report pursuant to Act 45.

Evaluation

We note that while much of the information in this report was publicly available in various forms on PJM's website and in reports submitted to PJM by Pennsylvania EDCs, it is not transparent to someone without a firm understanding of the electric power industry, PJM, and PJM's and the Commission's websites. Providing transparency for such information, specifically electric load forecasts that project significant increases in future electric load, is critical because these forecasts can have an impact on reliability, and potentially increase, wholesale electric prices. This ultimately translates to consumers' electric bills.

As detailed in this report, the 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. Therefore, as charged by Act 45, the Commission must thoroughly review the EDCs' large load adjustment requests and the methodologies utilized to develop those forecasts.

Overall, the Commission found that the differences in the EDCs' forecast methodologies make it difficult to achieve consensus on what may be the "correct" methodology to achieve the most accurate forecast. However, it can be said that the large load that is considered "Firm" by PJM is most likely to come into service due to there being an executed contract with firm commitments, as compared to "Non-Firm" load, which is more speculative. There is insufficient data to determine the accuracy of the forecasts for Firm data center load as PJM only began indicating the impact of data centers on its long-term load forecast in 2023. Several years of forecast versus actual load by EDCs for those large load customers would be needed for comparison. Further work remains for Commission staff with the EDCs, other State Commissions, and PJM to develop some consensus on forecast methodologies and the proposed revisions to PJM's Manual 19: Load Forecasting and Analysis may facilitate that discussion.

The Commission also believes that its continuing interaction and collaboration with other state regulatory agencies and PJM on load forecasts and load forecasting evaluation will provide benefits by ensuring that EDCs are providing a realistic outlook to PJM and that large load customers are not having the same project approved in multiple zones in PJM.

EDC Load Forecast Findings and Recommendations

The Commission identified several findings regarding the EDC load forecast process and the EDCs' load forecast methodologies. Key findings include:

- The PUC found no evidence of double-counting of large load customers within Pennsylvania by the EDCs in the load forecasts for Firm large load customers.
- PPL and PECO were the only EDCs with firm data center load in their 20-year load forecasts.
- The EDCs' large load adjustment forecasts in Pennsylvania and other PJM states varied by EDC with no consistent methodologies for key thresholds for inclusion in forecasts such as ramp rates, utilization rates, and inclusion/non-inclusion of large load customers with/without executed construction contracts or electric service obligations (CCs/ESOs).
- In general, the large load customer contracts reviewed by TUS contained provisions to ensure that the customer provided the contributions to ensure that the EDC was made whole for any expenditures to extend its service lines (electric conductors and associated equipment) to the customer. However, the contracts were executed before the Commission's Model Tariff for large load customers was finalized at Docket No. M-2025-3054271.
- TUS will collaborate with the EDCs to establish common methodologies for the development of the large load adjustment forecasts, e.g., determine the parameters, definitions, and standards for utilization rates, ramp rates, and inclusion of Non-Firm load.
- EDCs in Pennsylvania should consider utilizing only Firm load for the large load adjustment forecasts submitted to PJM to reduce the speculative aspect of the forecast.
- TUS has scheduled meetings with each Pennsylvania EDC following PJM's June 5, 2026, Load Analysis Subcommittee (LAS) meeting.
- TUS will annually schedule meetings with EDCs going forward in July/August to discuss load forecasts and all large load adjustment forecasts prior to the EDCs filing the large load adjustment forecasts with PJM in September, to the extent that is possible.
- TUS will participate in Relevant Electric Retail Regulatory Authority (RERRA) review this July/August and in the summers during the PJM annual process.
- TUS will participate in the September/October Stakeholder presentations to the PJM Load Analysis Subcommittee.
- TUS anticipates PJM final load forecast adjustments and presentations at PJM's LAS Meetings in November/December 2026.

Recommendations for Statutory or Regulatory Changes

The Commission identified several recommendations for statutory or regulatory changes that would potentially improve the ability of the Commission to receive, process, and evaluate electric load forecast information provided by EDCs to the Commission and PJM.

- Suggested statutory changes:
  - Incorporate requirements of Act 45 into the Pennsylvania Public Utility Code at 66 Pa.C.S. § 524, for administrative efficiencies.
  - Align the due date of the Commission report required by Act 45 with the Commission report required by Section 524(b) of the Pennsylvania Public Utility Code, 66 Pa.C.S. § 524(b).
- Suggested regulatory changes:
  - Draft a Tentative Order that discusses Act 45 compliance and solicits comments on potential additions and/or changes to Commission regulations.
  - Align the timeframes and information required under 52 Pa. Code §§ 57.141-154 with the requirements of Act 45 and PJM's Manual 19 process.

Section 1 – Overview

Introduction

On November 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 Act 45 of 2025, which amends the state's Fiscal Code Act of April 9, 1929 (P.L. 343, No. 176), by serving as the omnibus legislation necessary to implement the state's Fiscal Year 2025-2026 budget.

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 Pennsylvania Public Utility Commission (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. Act 45 is intended to avoid duplicative counting of load and create more accurate and transparent load forecasting. The regional electric transmission organization, PJM Interconnection LLC (PJM), relies on load forecasts submitted by Pennsylvania electric distribution companies (EDCs) to plan system needs and set capacity requirements that affect costs to consumers. Act 45 noted that the current process by which utilities submit information to PJM lacks transparency for policymakers, regulators, and stakeholders. Accordingly, Act 45 required the Commission to investigate and validate load forecasts submitted by Pennsylvania utility companies to PJM, coordinate with PJM and other states so that system planning reflects accurate information, and where necessary obtain access to confidential materials that are necessary to perform this oversight. 72 P.S., Chp. 1, Article XVII-B, Section 1802-B (relating to findings and declaration of policy).[1]

Act 45 directed the PUC to investigate the methodologies, data and assumptions used by utilities when developing load forecasts submitted to PJM. Act 45 charged the Commission with the following tasks:

- Reviewing materials, data sets and filings that EDCs provide to PJM for load forecasting.
- Evaluating the accuracy, consistency and transparency of EDC forecasting methods and assumptions.
- Reviewing and auditing specific large-load interconnection requests to ensure that only projects with a high likelihood of development are included in a forecast.
- Coordinating with PJM so that Pennsylvania forecasts are incorporated into regional planning on a fair, accurate and nonduplicative basis.

[1] For the purposes of this report, large load customers and the electric demand forecast for large load customers through the information that EDCs submit to PJM are the primary focus of the Commission's review. As explained in this report, the EDCs' forecast adjustments for large load customers submitted to PJM are the single most significant factor in the forecasted increase in electric demand and load. Large load customers are defined as those with a maximum contract capacity of over 50 megawatts (MW) individually or multiple closely located customers with a maximum contract capacity of 100 MW in the aggregate, which is consistent with PJM's large load adjustment review process and with the Commission's Final Order on a model tariff for large load customers at Docket No. M-2025-3054271.

- Collaborating with PJM and other state utility commissions within the PJM footprint to prevent double counting of new large loads and customer contracts and to assess whether other state practices would improve this commonwealth's approach.

Annual Report Requirement

Act 45 required the PUC to complete an annual report by June 30 of each year, based on the review as described above. The Commission tasked the Bureau of Technical Utility Services (TUS) with preparing the report and collaborating with other key Commission Bureaus for input and review. The annual report was required to describe the following:

- Actions taken by the Commission to implement Act 45 requirements during the prior fiscal year.
- Findings from the Commission's review of utility load-forecast processes and materials submitted to PJM.
- Coordination efforts with PJM and other states to prevent duplicative counting of projects and customer contracts.
- Recommendations for statutory or regulatory changes to improve load-forecast oversight and reliability.

This document is the first Act 45 annual report. We note that most of the information in this report was available in various forms on PJM's website and in reports submitted by Pennsylvania EDCs. However, locating and collating this information would not be an easy task for the layperson, *i.e.,* someone without a firm understanding of the electric power industry, PJM, and PJM's and the Commission's websites. A primary purpose of this report is to provide a clear picture of the impact of data centers and other large load customers on the EDCs' load forecasts, the methodologies of the EDCs for how those load forecasts are developed, how EDC load forecasts are reviewed and adjusted by PJM, and findings from the Commission on the accuracy, consistency and transparency of EDC forecasting methods and assumptions.

Impact of Data Centers and Other Large Load Customers

The Commission appreciates the authorities and directives provided by Act 45 so that the Commission can better evaluate the load forecasts of Pennsylvania EDCs as those forecasts have real impacts as explained below.

The additional electric peak load (additional expected peak electric usage at one time during a calendar year) projected by EDCs in Pennsylvania by 2030 is approximately 15,619 megawatts (MW). In its review of EDC peak load forecasts, PJM discounted the increase to Pennsylvania EDCs' peak load forecasts to approximately 6,123 MW by 2030. For context, the EDCs' total non-coincidental peak load (*i.e.,* the maximum load that each EDC could experience on one day, but not necessarily all at the same time) in 2024 was 30,323 MW. The EDCs' and PJM's forecasts by 2030 exhibit a significant increase in expected peak load in Pennsylvania in a short time frame.

Unprecedented load growth is not unique to Pennsylvania as PJM forecasts the 2030 coincidental summer peak load for the entire PJM region to be 183,009 MW,[2] as compared to the actual coincidental summer peak load in 2025 of 162,400 MW.[3] This is an increase of 20,609 MW, or 12.7%, in just five years. In December 2025, PJM fell short of its reliability requirement for its base residual auction (BRA) for the 2027/2028 delivery year, which is a troubling sign that more electric capacity must be added to avoid potential shortfalls in PJM's required reserve margin for the system.[4] The North American Electric Reliability Corporation (NERC) in its most recent *Long-Term Reliability Assessment* report stated that PJM could have significant reserve margin issues in 2029. NERC considered PJM as a high-risk area in its assessment, noting that PJM's current projections for resource additions do not keep pace with escalating demand forecasts and expected generator retirements.[5] NERC also indicated that new data centers for artificial intelligence and the digital economy account for most of the projected increase in North American electricity demand over the next 10 years and that data centers and other large commercial and industrial loads are connecting rapidly to the bulk-power system.[6] As detailed in this report, those types of loads are also increasing the Pennsylvania EDCs' load forecasts by significant amounts.

Prior to Act 45, and based on the EDC, PJM, and NERC long-term forecasts and assessments described above, 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 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. The Commission expects this effort should help inform key decision-makers as they look to formulate energy policy.

Assessment of EDC Load Projections

The impact of data centers and other large load customers in both Pennsylvania and PJM's region on electric load forecasts is significant. First, PJM must ensure that it has enough generation and capacity resources to meet load forecasts and to maintain adequate reserve margins. Pricing for capacity resources through the BRA process ultimately impacts prices for end-use electric customers as the prices will rise when the demand begins to exceed the available, or planned, supply of

[2] PJM, *Load Forecast Development Process* webpage, available at: https://www.pjm.com/planning/resource-adequacy-planning/load-forecast-dev-process.
[3] PJM, *PJM Inside Lines*, released on December 30, 2025, available at: https://insidelines.pjm.com/209696-2/.
[4] PJM, PJM news release, available here: https://www.pjm.com/-/media/DotCom/about-pjm/newsroom/2025-releases/20251217-pjm-auction-procures-134479-mw-of-generation-resources.pdf. PJM conducts BRAs, which are capacity auctions three years in advance of the delivery year, to procure unforced capacity to satisfy reliability requirements on behalf of load serving entities. BRAs are part of PJM's capacity market design, the reliability pricing model, that includes a series of auctions to satisfy the reliability requirements of the region PJM serves for a delivery year. The next planned BRA will occur in June 2026 for the 2028/2029 delivery year. The 2029/2030 BRA is scheduled for December 2026.
[5] NERC, *Long-Term Reliability Assessment*, pages 90 through 94, available at: https://www.nerc.com/globalassets/our-work/assessments/nerc_ltra_2025.pdf. NERC has been granted legal authority by the Federal Energy Regulatory Commission to enforce electric reliability standards and to mandate compliance with those standards. NERC oversees the reliability of the bulk power system that provides electricity to approximately 400 million people.
[6] *Id.*, page 27.

electricity. For example, the BRA clearing price for the 2025/2026 delivery year was $269.92/MW-day for much of the PJM footprint, as compared to $28.92/MW-day for the 2024/2025 BRA.[7] This was a substantial increase in capacity pricing and a clear market signal that existing and planned generation capacity was insufficient to meet the demand spike from large load customers.

On December 30, 2024, Governor Shapiro filed a complaint with the Federal Energy Regulatory Commission (FERC) with specific proposals to fix PJM's capacity market immediately, before the next BRA that was to take place in July 2025.[8] A settlement was reached in January 2025 with PJM agreeing to file tariff revisions with FERC to allow PJM to establish a price "collar" (minimum price and maximum price) for the BRAs for the 2026/2027 and 2027/2028 delivery years.[9] PJM's filing was accepted by FERC on April 21, 2025, with the collar establishing a minimum and maximum price for the capacity bids in the aforementioned BRAs.[10] On February 27, 2026, PJM filed with FERC a proposal that, among other things, sought to extend the BRA price collar to the auctions for the 2028/2029 and 2029/2030 delivery years, which was accepted by FERC on April 28, 2026.[11]

As explained in this report, PJM incorporates the load forecasts from its annual *Long-Term Load Forecast Report* (LTLF) into its Reliability Pricing Model (RPM) process, which PJM utilizes to establish the demand for BRAs. Given the potential impact on pricing, it is clear that PJM should be producing as accurate a forecast as possible in its LTLF, allowing utilities and policymakers to make choices with the best information available. The LTLF is dependent on input from EDCs including the expected change (whether positive or negative) from large loads like data centers. In fact, absent the large load impacts forecast by EDCs, the forecast load in the PJM region is essentially flat over the next 10-year timeframe of the LTLF. Therefore, as charged by Act 45, the Commission must thoroughly review the EDCs' large load forecasts and methodologies utilized to develop those forecasts. In addition, collaboration and communication with the other states that are in the PJM region are keys to ensuring that the load forecast by PJM accurately reflects reality, given the impact to electric capacity and planning.

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[7] PJM, *PJM Capacity Auction Procures Sufficient Resources To Meet RTO Reliability Requirement*, available here: https://insidelines.pjm.com/pjm-capacity-auction-procures-sufficient-resources-to-meet-rto-reliability-requirement/.
[8] *See*, https://www.pa.gov/governor/newsroom/2024-press-releases/lawsuit-against-pjm-to-prevent-energy-price-hikes.
[9] *See*, https://www.pa.gov/governor/newsroom/2025-press-releases/gov-shapiro-agreement-pjm-prevent-price-hikes-save-consumers-ove.
[10] *See*, Order Accepting Tariff Revisions and Dismissing Complaint, at Docket Nos. ER25-1357-000 and EL25-46-000, 191 FERC ¶61,066.
[11] *See*, Order Accepting Tariff Revisions at Docket No. ER26-1556-000, 195 FERC ¶61,076, available here: https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20260428-3065. *See also*, PJM, *PJM Inside Lines*, released on March 2, 2026, available at: https://insidelines.pjm.com/pjm-files-price-collar-expedited-interconnection-as-part-of-large-load-plan/.

Section 2 – Annual Report

1 – Implementation Actions

The Commission has been actively building its capacity to ensure that it meets its requirements under Act 45 since its enactment and into the future; the details of specific actions taken by the Commission are noted below and in Section 2, Part 3 of this report. As Act 45 is not intended as a one-time process, the Commission will continue to work on the review, outreach, and collaborative requirements of Act 45 and document its actions in subsequent annual reports.

- On December 15, 2025, TUS, via Secretarial Letter, issued a data request (TUS Data Request) to all jurisdictional EDCs. The TUS Data Request was intended to enhance the review of the large load customer adjustment forecasts EDCs submit to PJM. To be consistent with PJM and the Commission's Model Tariff (Model Tariff), a large load customer was defined as a customer with maximum contract capacity of more than 50 MW individually or multiple closely located customers with maximum contract capacity of 100 MW in the aggregate.[12] The TUS Data Request required that all jurisdictional EDCs file with the Commission:
    - A copy of the EDCs' most recent large load adjustment forecast submitted to PJM and a description of the EDC's large load adjustment process;
    - Copies of all executed contracts and/or agreements currently in effect with any large load customer; and
    - A completed Large Load Workbook that included a 20-year demand forecast, a 20-year peak load forecast, a listing of large load customers, a description of load factors applied to forecast demand by customer type, large load adjustment forecast details, large load customer questions, and identification of any known load retirements.
- On January 16, 2026, TUS met virtually with members of PECO Energy Company (PECO) to discuss PECO's large load adjustment filing with PJM. PECO's filing with PJM was included in the filing by Exelon, PECO's parent company, on behalf of all Exelon utilities. The following aspects of Exelon's filing were discussed:
    - Thresholds/requirements for load to be included in Exelon's load forecast;
    - Utilization rate assumption of 70%; and
    - Exelon's assumed ramp rate or the incremental load increase to final capacity.
- On January 26, 2026, TUS met virtually with members of Duquesne Light Company (DLC) to discuss DLC's large load adjustment filing with PJM. DLC described its load forecasting methodology and thresholds for adding large load customers.
- FirstEnergy Pennsylvania Electric Company's (FE PA's) large load adjustment and forecasting data was discussed with TUS during its regularly scheduled monthly check-in meetings.

[12] *See*, *Interconnection and Tariffs for Large Load Customers Final Order*, Order entered May 12, 2026, at Docket No. M-2025-305427.

- PPL Electric Utilities Corporation's (PPL's) large load adjustment submittal and its load forecasting data were also discussed with TUS during regularly scheduled monthly check-in meetings and through correspondence via email.
- As EDCs filed responses to the TUS Data Request, TUS aggregated the data received and began to analyze the forecast methodologies described by each EDC to identify best practices.
- TUS continually monitors and reviews information on load forecasts produced by PJM. TUS also monitors and participates in meetings for various PJM committees, subcommittees, task forces and workshops.

2 – Review of Electric Utility Forecasts

PJM Load Forecast Overview

TUS believes it instructive to review the PJM long-term load forecast process before reviewing the EDCs' large load forecasts. The information submitted by EDCs to PJM is only a part of the data and analysis that PJM utilizes to create its annual LTLF. PJM's process for the development of its long-term load forecast is transparent and explained in detail in PJM's *PJM Manual 19: Load Forecasting and Analysis* (Manual 19).[13] The information submitted by EDCs is explained below. PJM utilizes a Load Forecast Model that produces 20-year monthly forecasts for peak loads, assuming a range of weather conditions, for each PJM zone, locational delivery area (LDA),[14] and the entire Regional Transmission Organization (RTO). PJM's model takes into account several variables and trend analyses and the model is used for: setting the peak loads for capacity obligations; reliability studies; and to support the Regional Transmission Expansion Plan (RTEP).[15] The net energy forecasts produced are used in the reporting requirements of NERC and FERC, and for market efficiency studies. The LTLF is typically released by the end of January each year.[16] PJM also provides detailed information on its load forecast process, assumptions, and econometric data on its website at its *Load Forecast Development Process* webpage.[17]

[13] PJM, *PJM Manual 19: Load Forecasting and Analysis* is available here: https://www.pjm.com/-/media/DotCom/documents/manuals/m19.pdf.

[14] LDAs represent internal PJM locational constraints within the RTO and each LDA has a separate target capacity reserve level and a maximum limit on the amount of capacity that it can import from resources located outside of the LDA. The PJM 2027/2028 Base Residual Auction Report provides further details on the specific LDAs established for the 2027/2028 Reliability Pricing Model Base Residual Auction, available here: https://www.pjm.com/-/media/DotCom/markets-ops/rpm/rpm-auction-info/2027-2028/2027-2028-bra-report.pdf. The 2026/2027 information is available here: https://www.pjm.com/-/media/DotCom/markets-ops/rpm/rpm-auction-info/2026-2027/2026-2027-bra-report.pdf.

[15] PJM RTEPs are available here: https://www.pjm.com/library/reports-notices/rtep-documents.

[16] The 2026 PJM *Long-Term Load Forecast Report* may be found here: https://www.pjm.com/-/media/DotCom/library/reports-notices/load-forecast/2026-load-report.pdf.

[17] PJM, *Load Forecast Development Process*, available at: https://www.pjm.com/planning/resource-adequacy-planning/load-forecast-dev-process.

PJM's Load Forecast utilizes multiple regression models to estimate hourly peak load for each PJM zone and the models for each PJM zone share the same general specification. The variables considered in the Load Forecast Model are:[18]

- Unrestricted Load – Hourly historical metered load data (submitted and supplemented by EDCs as explained further below) is supplemented by factors such as load drops associated with peak shaving programs (energy efficiency and conservation programs), battery storage, distributed solar generation, etc.
- Calendar Effects – Holidays, Daylight Saving, etc.
- Weather Data – Full collection of weather variables for each PJM zone, such as temperature, humidity, wind speed, etc., with winter and summer parameters defined.
- Economic Drivers – Measures of economic and demographic activity.
- End-Use Trends – Measures of the stock and efficiency of various electrical equipment and appliances used in residential and commercial settings.
- Load Adjustments – Where a zone has experienced or expects a significant load change that may not be captured in the forecast, PJM may elect to apply a load forecast adjustment. For expected load change, PJM will base any adjustment on information received from EDC load forecasters in response to PJM's annual request for details on large load changes (as explained further below).
- Peak Shaving Adjustments – Where a zone has an approved Peak Shaving Adjustment Plan, PJM will develop a load forecast adjustment to capture the impact of the program.
- Non-Coincident Base and 90/10 Scenarios – Essentially, PJM develops load forecasts for each PJM zone using a weather rotation simulation process using actual weather patterns observed over several years. For each year, by weather scenario, the maximum daily non-coincident peak (NCP) is developed.[19] For each zone and year, a distribution of zonal NCP by weather scenario is developed and from this the median values are used for the monthly profile within each season. The median result is utilized as the base forecast (50/50, *i.e.,* most likely summer and winter NCP) and the values at the 10th percentile and 90th percentile are assigned to the 90/10 weather bands, *i.e.,* potential extreme NCP summer and winter loads.
- RTO and Coincident Forecasts – PJM determines the RTO/LDA peak forecasts by summing the solution for each of the zonal coincidental peak (CP) models by day, hour and weather scenario to obtain the RTO/LDA peak for the day. Then, by weather scenario, the maximum daily RTO/LDA value for the season is determined. For the RTO/LDA, a distribution of the seasonal RTO/LDA peak vs. weather scenario is developed and from this distribution the median result is used as the base (50/50) forecast with the values at the 10th and 90th percentile assigned to the 90/10 weather bands. The final zonal RTO/LDA CP forecasts are determined through a methodology similar to the process for deriving zonal NCPs. PJM, by weather scenario, develops a maximum daily CP load for a zone over the summer season. For each zone, a distribution of zonal CP vs. weather scenario is developed and from this distribution the median value is selected. The sum of the median zonal CPs is then utilized to apportion the forecasted RTO/LDA peak to produce the final zonal CP forecasts.

[18] *PJM Manual 19: Load Forecasting and Analysis,* pages 12 through 17.

[19] Daily NCP, in essence, is the maximum load that each zone could have on one day, but not necessarily all at the same time, *i.e.,* the NCP forecasts do not necessarily represent the actual expected peak load at one time on that day.

- Net Energy for Load Forecasts – A distribution of forecasts for each PJM zone is developed by using a weather rotation simulation process with weather distributions developed using observed historical weather data.
- Load Management, Price Responsive Demand and Behind-the-Meter Generation – PJM incorporates assumptions of load management, price responsive demand, behind-the-meter generation, and battery storage to supplement the base, unrestricted forecast.

In terms of the information provided by EDCs to PJM for development of PJM's long-term load forecast, there are two key components. The first is the after-the-fact hourly metered load data that is submitted through the Power Meter application. PJM utilizes this historical data to derive seasonal load profiles and other factors to inform its forecast.[20] As explained below, the second component is the load adjustment request that PJM solicits from EDCs for any expected large load shifts (either positive or negative) that may be unknown to PJM.

EDCs provide PJM with expected significant changes in load forecast (either positive or negative) for the load forecast period, *i.e.,* a 20-year horizon, through the load adjustment requests. Manual 19's *Attachment B: Load Forecast Adjustment Guidelines* details how PJM solicits, reviews, and adjusts the load adjustment requests submitted by EDCs. PJM also released a brief summary of its approach to the EDCs' load adjustment submissions, *Load Adjustment Request Implementation*, on July 1, 2025, to further clarify how it may adjust the load forecasted by EDCs.[21] PJM annually (in mid-July) solicits information from EDCs for large load shifts with responses expected in time for the proposed adjustments to be discussed and reviewed with PJM's Load Analysis Subcommittee in the September/October timeframe.[22] EDCs submit 20-year, hourly load forecasts for expected large load shifts to PJM. As explained in Manual 19 and in the section on PJM large load adjustments below, PJM utilizes several verification criteria to ensure that the proposed load adjustments are real and significant.[23] The next section will discuss the EDCs' large load adjustment filings for the expected load increases due to data centers.

In summary, PJM utilizes historical usage data, forecast large load adjustment data, and a series of econometric, weather, and electric usage data and assumptions in its model to develop its forecast. However, as seen in the sections below, the EDC large load adjustment requests have a significant impact on the load forecast.

PJM Large Load Forecast Adjustments

As noted above, the large load adjustment forecasts submitted by the EDCs are reviewed by PJM and discussed in an open forum through PJM's Load Analysis Subcommittee. PJM then adjusts the EDCs' forecasts based on its review and the discussion at the subcommittee meeting. In July of

[20] PJM, *PJM Manual 19: Load Forecasting and Analysis,* page 8.
[21] PJM, *Load Adjustment Request Implementation,* available here: https://www.pjm.com/-/media/DotCom/committees-groups/subcommittees/las/postings/load-adjustment-request-implementation.pdf.
[22] The Load Access Subcommittee meeting materials and load adjustment request templates can be found here: https://www.pjm.com/committees-and-groups/subcommittees/las. The meetings that occurred in 2025 and the associated meeting materials address the discussions for the load adjustments that fed into the PJM *Long-Term Load Forecast Report.*
[23] PJM, *PJM Manual 19: Load Forecasting and Analysis*, page 26.

2025, PJM released a brief summary of its approach to the EDCs' load adjustment submissions, *Load Adjustment Request Implementation,* which provided more detail on how PJM requests and reviews the EDC load adjustment submissions.[24]

Attachment B of PJM's Manual 19 describes how PJM verifies that the issues (*i.e.,* load shift projections based on expected new large loads) presented by the EDCs in their load adjustment submissions are real and significant. PJM utilizes the following criteria:[25]

- Determining if the load change has been publicly acknowledged through the media, press release, regulatory process, etc.
- Verifying that requesting the EDC and/or Load Serving Entity (LSE)[26] has or will adjust its own financial/planning forecast. When appropriate the requesting EDC should provide PJM, on a confidential basis, with the certainty backed by a Letter of Agreement and/or Electric Service Agreement (LOA/ESA).
- Ascertaining whether the load shift is related to a single site or a limited number of related sites (not a systemic cause).
- The EDC shall identify to PJM the LSE where the addition will occur.
- Identifying if the load would already have been captured in the load forecast model to identify potential double counting. These steps may include: discussing with economic forecast vendor(s) whether or not the load shift is reflected in its/their economic forecast(s); determining if the requested load adjustment's load impact is consistent with its economic impact; and determining if the requested load adjustment is tied to any of the metro areas that PJM uses to define the economic variable of a zone.
- Verifying that any behind-the-meter generation adjustment has complied with PJM's behind-the-meter process.
- Determining the adjustment's significance, either by sheer magnitude or percentage of a zone's load.
- For PJM's review, provide any available independent analysis of the impact of the load change.

PJM's *Load Adjustment Request Implementation* document further clarified PJM's review approach.[27] PJM noted that EDCs should submit the load adjustment forecast in both capacity (*i.e.,* how much total energy that could be needed at one time by the large load customers) and demand (expected peak customer demand by hour) values for load projects of 50 MW or above. However, PJM only utilizes demand adjustments in its forecast. An EDC can include projects below 50 MW

[24] PJM, *Load Adjustment Request Implementation*, available here: https://www.pjm.com/-/media/DotCom/committees-groups/subcommittees/las/postings/load-adjustment-request-implementation.pdf.
[25] PJM, *PJM Manual 19: Load Forecasting and Analysis*, pages 26.
[26] An 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). In Pennsylvania, the Commission-jurisdictional EDCs and electric generation suppliers are LSEs. While non-Commission-jurisdictional rural cooperatives and municipal cooperatives provide end-users with electricity in Pennsylvania and may participate in PJM energy markets, those entities are ultimately supplied electricity by the EDCs.
[27] PJM, *Load Adjustment Request Implementation*, pages 3 through 5.

to be reviewed by PJM on a case-by-case basis. PJM further clarified that for EDC load that is coming online in three years or less, only those load projects that have a construction commitment (CC) [28] or electric service obligation (ESO) [29] would be considered for inclusion in PJM's forecast. Load projects that are coming online in more than three years but less than eight years will be considered for inclusion, even if they do not have a CC or ESO, but those projects must have cleared demonstratable project milestones to be considered certain or PJM would de-rate the load by some amount to reflect the uncertainty. Examples of such milestones include site control, financial commitments, officer certification, long-lead procurement, and state support for the anticipated load growth and associated transmission upgrades. Absent any probability factor with supporting documentation and analysis provided by an EDC, PJM would utilize a 50% probability factor for such loads. For load trends eight years and beyond, EDCs could include additional load expectations based on expected agreement flows or other extrapolation techniques, so long as those are explained. PJM used a default three-year ramp rate (the time it takes a customer to ramp up to full demand) absent an EDC/LSE-provided ramp rate with supporting information for each project.

PJM presented its adjustments to the EDCs' large load adjustment forecasts at the November 24, 2025, Load Analysis Subcommittee (LAS) meeting.[30] In addition to the parameters discussed above, PJM noted that in its review it worked to identify those load projects that had a CC or ESO and marked those as "Firm" and that all other projects would be labeled as "Non-Firm". Only Firm projects will be allowed to impact PJM's Reliability Pricing Model (RPM).[31] PJM also reviewed the utilization rate (the percent of final capacity for each project that is expected to be used) for each project and imposed a 70% rate unless the EDC/LSE could support a higher rate. PJM also reviewed economic data in the load forecast model to mitigate double counting load growth. Non-Firm projects were included in the PJM forecast but were discounted as discussed above, *e.g.,* load equal to zero prior to 2030, a 70% utilization rate, three-year ramp rate, and load reduced further by the 50% probability factor. PJM's adjustments to the EDCs' large load adjustment forecasts submitted in 2025 are discussed in detail in the PA Electric Utility Large Load Forecasts section below.

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[28] A CC is defined by PJM as a legal obligation that a public utility must discharge in furtherance of its obligation to serve all load and involves constructing transmission system facilities necessary to serve both load being added by an end-use customer as well as existing load in a manner that continues to ensure safe, adequate and reliable service to all customers. Alternatively, a construction commitment could provide indication that corresponding work is in the public utility's capital project plan.

[29] An ESO is defined by PJM as a binding commitment by a prospective retail customer to construct and operate facilities that will use electric services provided by the electric service provider (EDC/LSE) in accordance with the forecast load. That customer obligation may be reflected in different forms, including but not limited to a contract between the customer and the EDC/LSE or in rates, terms, and conditions of service approved by a Relevant Electric Retail Regulatory Authority (RERRA) that control the relationship between an electric service provider and an end-use retail customer. The ESO should reflect a commitment to pay the charges associated with the requested load and can also outline the scope of work, fees, termination, and other relevant information.

[30] PJM, *Load Adjustment Requests Summary for 2026 Load Forecast – Preliminary*, available at: https://www.pjm.com/-/media/DotCom/committees-groups/subcommittees/las/2025/20251124/20251124-item-03---large-load-adjustment-requests-summary.pdf.

[31] RPM is PJM's capacity market design that includes a series of auctions to satisfy the reliability requirements of the region PJM serves for a delivery year. PJM conducts base residual auctions (BRAs), which are capacity auctions three years in advance of the delivery year, to procure unforced capacity to satisfy reliability requirements on behalf of LSEs. Effectively, PJM uses its Long-Term Load Forecast in its process for the BRA, which can impact capacity prices for electricity. Thus, for any years that would be in any planned BRA timelines, PJM will only include load in its load adjustment forecast that has been deemed Firm. The next planned BRA will occur in June 2026 for the 2028/2029 delivery year. The 2029/2030 BRA is scheduled for December 2026.

We note here that subsequent to PJM's review of the EDC large load adjustments for 2025, PJM has proposed improvements to the load forecasting process, building on the progress made by PJM staff and stakeholders through the Load Analysis Subcommittee. Specifically, on January 16, 2026, the PJM Board of Managers issued the *Board Decisional Letter on Critical Issue Fast Path - Large Load Additions* (PJM Letter) that, among other things, directed PJM staff to implement certain load forecasting improvements, including the initiatives discussed above in the PJM supplemental large load forecast documents.[32] PJM staff presented a draft of the proposed updates on February 20, 2026, at the Post CIFP Workshop - Load Forecasting Page Turn meeting.[33]

The PJM Letter and staff proposal outlined several improvements to be incorporated into Attachment B of Manual 19, including:

- State Review - PJM will add a step to the large load adjustment annual submission process that will allow for state commissions (defined as the Relevant Electric Retail Regulatory Authority, or RERRA) to review and provide feedback on the large load adjustments submitted by EDCs prior to finalizing and issuing the PJM Load Forecast. The state review should take place in parallel with the timing of the large load addition submission to PJM. EDCs/LSEs would be required to indicate the date the EDCs/LSEs shared the large load additions with the RERRA and provide any feedback received.
- Duplicative Requests - EDCs shall inquire with their subject customers, and indicate to PJM if known, whether any load interconnection requests without a CC/ESO are duplicative with other such requests made to interconnect large load either within or outside of the PJM region such that only a subset of such requests are expected to achieve actual commercial operation. For such duplicative requests, EDCs are required to provide the number of sites and megawatts that are duplicative that are included in their submission. If the submitter does not provide the number of sites and megawatts, or further sufficient justification and explanation, then all such requests will be removed from the forecast.
- Additional Review - PJM may obtain additional review and an independent forecast through an independent third party. This review would weigh EDC/LSE information as well as national and intra PJM trends that would help inform PJM's final determination.

The Commission welcomes the proposed improvements as those would address many of the concerns related to Act 45 and the Commission's required review of the EDCs' and PJM's load forecasts.

[32] PJM, *PJM Board Decisional Letter on Critical Issue Fast Path - Large Load Additions,* available here: 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.

[33] The PJM Board of Managers initiated the Critical Issue Fast Path (CFIP) stakeholder process 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 Electric Distribution Companies. More information and the February 20th meeting materials are available here: https://www.pjm.com/committees-and-groups/cifp-lla.

However, we note that even if the load forecasts were restricted to Firm-only large loads for PA EDCs and in all of PJM,[34] the increase would still be substantial. Table 1 below details that even if only Firm load from the large load adjustment requests was included, the increase in peak load by 2030 and 2035 as compared to the forecast peak load in 2026 is substantial. Therefore, even if all Non-Firm load could be excluded from load forecasts, PJM and the states in PJM's region will still be challenged by the need to add generation resources and undertake transmission planning and improvement to meet the future load projections.

Table 1: Comparison of 2026 Forecast Peak Load MW to Forecast Firm Large Load Additions[35]

PA EDC 2026 Forecast Peak Load MW	30,700	% of 2026 Peak Load
PA EDC 2030 Forecast Peak Load MW - Firm Only Load Addition	3,800	12.4%
PA EDC 2035 Forecast Peak Load MW - Firm Only Load Addition	4,950	16.1%
PJM 2026 Forecast Peak Load MW	156,375	% of PJM 2026 Peak
PJM 2030 Approx. Forecast Peak Load MW - Firm Only Load Addition	30,000	19.2%
PJM 2035 Apporx. Forecast Peak Load MW - Firm Only Load Addition	50,000	32.0%

We also note that TUS has been in communication with the Lawrence Berkeley National Lab (LBNL) on data center impacts to Pennsylvania, among other potential electric grid impacts from other technologies, as part of a Federal Department of Energy-funded technical assistance program. Based on a review of LBNL's research, the PA EDCs' forecast peak for Firm large load customers in 2030 detailed in Table 1 is consistent with LBNL's range of expected data center peak load. This is important because LBNL's outlook is independent of the EDCs' large load forecasts. The LBNL research was based on a bottom-up methodology that estimated data center energy consumption by tracking historical and projected data center construction and shipments of server components and other related IT equipment, *i.e.*, LBNL does not rely on the forecasts of the electric utilities and instead reviews the actual and forecast build out of data centers.[36] This context is important as we review the EDC large load forecast methodologies below.

PA Electric Utility Large Load Forecasts

In response to the TUS Data Request described above, Pennsylvania's four smaller EDCs[37] (Citizens' Electric Company, Pike County Light and Power, Wellsboro Electric Company, and UGI Utilities Inc. – Electric Division) reported to the Commission that they did not file a large load adjustment forecast with PJM in 2025.

The seven larger EDCs (Duquesne Light Company, PPL Electric Utilities Corporation, PECO Energy Company, and the FirstEnergy Pennsylvania Electric Company Rate Districts of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company,

[34] In essence, assuming the load is under contract and likely to occur and not likely to be double counted in PJM zones.
[35] Data sourced from PJM, *Load Forecast Development Process*, available at: https://www.pjm.com/planning/resource-adequacy-planning/load-forecast-dev-process, and from the EDC submissions at Docket No. M-2025-3058814.
[36] For further detail on LBNL's methodology, see LBNL, *2024 United States Data Center Energy Usage Report,* available at: https://escholarship.org/uc/item/32d6m0d1.
[37] *See,* 52 Pa. Code § 57.195. Small EDCs are defined as those with less than 100,000 customers.

and West Penn Power Company)[38] each provided copies of the large load adjustment requests submitted to PJM in 2025 and a description of the processes and thresholds used to determine the load that is included in the large load adjustment forecast. A table depicting the large load adjustment requests submitted to PJM by each larger EDC and PJM's adjustments to those requests for inclusion in its summer peak load forecast is provided as Table 4 in Appendix B of this report. We will discuss each of the larger EDC's large load adjustment methodologies, large load adjustments submitted to PJM in 2025, and any differences between the EDC's large load adjustment request and PJM's 2026 Long-Term Load Forecast, below.

Duquesne Light Company (DLC)

DLC's Large Load Adjustment Methodology, included in its response to the TUS Data Request, indicated that DLC only includes loads in its large load adjustment for projects that have completed an initial interconnection study and have been presented to PJM stakeholders as part of the M-3 process.[39] Projects that reach this milestone have: 1) funded all interconnection study costs; 2) demonstrated control of the property; 3) provided sufficient technical information about the project; and 4) indicated that the developer has been informed of the costs they would be required to fund to be interconnected. DLC's large load adjustment submitted to PJM in 2025 represents the addition of a single large load within PJM's Duquesne Light Company zone, sized to reflect the most mature request going through its interconnection process. However, DLC noted that it has received eight interconnection applications, which together represent over three (3) gigawatts (GW) of potential load.[40]

DLC's Large Load Adjustment Request Summary identified a load adjustment of 250 MW, consisting of an initial 75 MW at the start of 2029, an additional 75 MW coming online six months later, and the full 250 MW in 2030. PJM accounted for this load in its Total Adjustment to Summer Peak Load as 46 MW in 2030, 75 MW in 2031, and 87 MW in 2032 through 2046.[41] A graph depicting DLC's Large Load Adjustment Request and PJM's resulting adjustments is provided as Figure 8 in Appendix B of this report.

PECO Energy Company (PECO)

PECO indicated that its load forecast includes projects that have signed engineering agreements with financial deposits, *i.e.,* equivalent to a CC/ESO. PECO also considers whether the customer project has been submitted, or is expected to be submitted by year-end, to the Transmission Expansion Advisory Committee (TEAC) at PJM through the FERC-approved M-3 procedure. PECO averred that this approach establishes a certainty criterion that "draws a line" and excludes more prospective

[38] 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.

[39] *See,* PJM, *PJM Manual 03: Transmission Operations, Revision 70,* available at *https://www.pjm.com/-/media/DotCom/committees-groups/committees/oc/2026/20260507/20260507-item-02---3-manual-03---revision-71---redline.pdf*

[40] *See,* https://www.pjm.com/-/media/DotCom/planning/res-adeq/load-forecast/dlco-documentation.pdf

[41] *See, https://www.pjm.com/-/media/DotCom/planning/res-adeq/load-forecast/total-load-adjustments-breakdown.xlsx*

large load projects, which have expressed interest in coming to its service territories but have not made firm commitments. It was also noted that of roughly 65 GW in total customer-requested capacity across Exelon, PECO's parent company, approximately 45 GW of less-certain project capacity is excluded from the forecast submitted to PJM. To further refine its forecast, PECO applies a linear ramp assumption over a 5-year to 8-year period beginning from each project's estimated in-service date. Final forecasted demand is translated from customer-requested capacity by using an assumed utilization rate of 70% applied to the original capacity request.

PJM did not significantly adjust PECO's large load adjustment request in its LTLF. A graph depicting PECO's large load adjustment submittal and PJM's resulting adjustments is provided as Figure 12 in Appendix B of this report.

PPL Electric Utilities Corporation (PPL)

PPL's forecasting methodology is described in its large load adjustment request submitted to PJM.[42] PPL indicated that load is included in its forecast after a letter of authorization (LOA) is executed with a retail customer. The LOA includes monetary penalties if the customer cancels the project. PPL avers that this approach excludes speculative projects and aligns with PJM's requirements for defensible forecasts. PPL then works with the retail customer to finalize the details of an electric services agreement and construction service agreement (CC/ESO equivalent). PPL assumes an 80% utilization factor consistent with ESA minimum demand payment obligations.

In its LTLF, PJM reduced PPL's large load adjustment request by discounting all projects with a signed LOA to 0 MW prior to 2031 and applying a 33% discount factor to load estimated beyond 2031. A graph depicting PPL's large load adjustment submittal and PJM's resulting adjustments is provided as Figure 13 in Appendix B of this report.

FirstEnergy Pennsylvania Electric Company (FE PA)

FE PA's PJM LAS large load adjustment presentation dated September 16, 2025, identified FE PA's forecast additional large loads for each PJM zone in which FE PA operates.[43] As described in the presentation, FE PA's large load adjustment process uses a scoring system based on answers to questions to determine when a customer interconnection request will be included in FE PA's large load adjustment submittal to PJM. The questions relate to aspects of the large load project such as if the customer has a signed CC/ESO, does the customer own or control the land, etc. Projects that score greater than or equal to five are included in the submittal. A load factor of 0.90 was assumed and applied to data center loads. The large load adjustments for each of FE PA's four rate zones are discussed below.

Metropolitan Edison Company (Met-Ed)

Met-Ed is considered PJM's Metropolitan Edison zone (METED). FE PA's large load adjustment submittal to PJM for Met-Ed consisted of 1,000 MW for one project with a four-year ramp starting

[42] *See, https://www.pjm.com/-/media/DotCom/planning/res-adeq/load-forecast/ppl-documentation.pdf*
[43] *See, www.pjm.com/-/media/DotCom/committees-groups/subcommittees/las/postings/load-adjustment-request-implementation.pdf*

in 2029 at 250 MW.[44] PJM discounted this load to 10 MW in 2029, ramping up to 234 MW over six years.[45] A graph depicting Met-Ed's large load adjustment submittal and PJM's resulting adjustments is provided as Figure 9 in Appendix B of this report.

Pennsylvania Electric Company (Penelec)

FE PA did not include a large load adjustment for Penelec in its large load adjustment submittal to PJM.

Pennsylvania Power Company (Penn Power)

Penn Power is part of PJM's American Transmission Systems, Inc. zone (ATSI). FE PA's large load adjustment submittal to PJM for Penn Power included 80 MW for one project.[46] PJM adjusted this load to 6.3 MW in 2027, ramping up to approximately 55 MW by 2032. A graph depicting Penn Power's large load adjustment submittal and PJM's resulting adjustments is provided as Figure 10 in Appendix B of this report.

West Penn Power Company (West Penn)

FE PA's West Penn is part of PJM's Allegheny Power zone (APS). FE PA's large load adjustment submittal to PJM for West Penn included seven projects totaling 1,240 MW.[47] PJM adjusted this load in its forecast to approximately 150 MW starting in 2030, ramping up to approximately 386 MW by 2033. A graph depicting West Penn's large load adjustment submittal and PJM's resulting adjustments is provided as Figure 11 in Appendix B of this report.

PA Electric Utility 20-Year Load Forecasts

Aggregate data for the 20-year annual demand and peak load forecasts for the seven larger EDCs and UGI can be found in Appendix A of this report. Data for the smaller EDCs was not included in this data set because the smaller EDCs did not file large load adjustments with PJM and the sum of their load is minimal as compared to the large EDCs. The aggregate data of the larger EDCs and UGI indicated that total forecast energy demand is anticipated to increase from approximately 144 million megawatt hours (MWh) in 2026 to 232 million MWh in 2035 and to approximately 249 million MWh by 2046. Non-coincidental peak load is projected to increase from 30,450 MW in 2026 to 41,351 MW in 2035 and to 42,902 MW in 2046.

The 20-year energy demand and peak load forecasts provided by the EDCs included data center demand in the reported total, with the exception of the FE PA rate districts.[48] EDCs were asked to separately forecast the impact of data centers and other select sectors. Responses varied, with some

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[44] *See, Id.*

[45] *See, https://www.pjm.com/-/media/DotCom/planning/res-adeq/load-forecast/2026-load-adjustment-breakdown-for-capacity-obligations.xlsx*

[46] *See, www.pjm.com/-/media/DotCom/committees-groups/subcommittees/las/postings/load-adjustment-request-implementation.pdf*

[47] *See, www.pjm.com/-/media/DotCom/committees-groups/subcommittees/las/postings/load-adjustment-request-implementation.pdf*

[48] While FE PA submits a large load adjustment forecast that includes potential data center load, it did not include any of that load in its 20-year energy demand and peak load forecasts provided to the Commission.

EDCs reporting data center impacts as MWh and some as peak demand in MWs. Graphic depictions of the data center impact compared to the total are provided in Appendix A. Appendix A includes the following tables and graphs based on the data filed with the Commission.

Table 2: Aggregate 20-Year Energy Demand Forecast.

Table 3: Aggregate 20-Year Peak Demand Forecast and Data Center Impact.

Figure 1: Aggregate 20-Year Forecast Energy Demand.

Figure 2: Aggregate 20-Year Peak Demand and Data Center Impact.

Figure 3: DLC 20-Year Demand Forecast.

Figure 4: FE PA 20-Year Demand Forecast.

Figure 5: PECO 20-Year Demand Forecast.

Figure 6: PPL 20-Year Demand Forecast.

Figure 7: UGI 20-Year Demand Forecast.

PA Electric Utility Large Load Customer Information Review

In the information filed with the Commission in response to the TUS Data Request, Pennsylvania's larger EDCs identified 36 potential large load customers, including 17 identified as data centers, and three as industrial. Of those potential customers, 13 have signed interconnection, construction, or line extension agreements and 10 of those have signed CCs/ESOs. These large load customers represent a potential load of 20,379 MW by 2046. However, this is only potential load and was not necessarily included in the EDCs' large load adjustment submittals to PJM. Only 5,485 MW are currently under a signed interconnection, construction, or line extension agreement and 6,814 MW[49] are under an executed contract for future electric service.

The Excel workbook included in the TUS Data Request contained a series of questions regarding the potential large load customers identified by the EDCs. These questions were intended to gauge the level of certainty that a customer will connect to the system and identify the justification for the inclusion of that customer load in the large load adjustment. Of note, no EDC identified any potential load as interruptible. A list of these questions is provided in Appendix C of this report. EDCs were also asked to provide copies of any CCs/ESOs that the EDC had executed with potential customers whose load was included in EDC's large load adjustment.

CCs define the specific scope of facilities to be constructed by the customer and the facilities to be constructed by the EDC, a construction timeline, and payment terms.

[49] These numbers are higher than the MW total for Firm load in Table 5 because it is before the EDC utilization rates and other factors are applied.

ESOs, *inter alia,* identify the location of service, voltages of service, contract capacity, rates and rate base commitments, obligations of the customer and the EDC, and the term and termination clauses of the agreement.

The CCs and ESOs filed with the Commission in response to the TUS Data Request generally contained terms to ensure that the costs of providing electric service to the potential large load customers were not socialized to the existing customers of the EDC, apart from some system upgrades for reliability that benefit all customers. Specifically, the Contribution in Aid of Construction (CIAC) provisions of the ESOs reviewed appear to align with the Commission's Model Tariff which provides that all transmission and distribution costs necessary to interconnect the new large load customers, except for already planned upgrades or additions by the EDC before the customer requested service, be recovered from the large load customer.

PA Electric Utility Load Forecast Review Findings

As noted in the Introduction, Act 45 charges the Commission with the following review requirements:

- Reviewing materials, data sets and filings that utilities provide to PJM for load forecasting.
- Evaluating the accuracy, consistency and transparency of forecasting methods and assumptions.
- Reviewing and auditing specific large-load interconnection requests to ensure that only projects with a high likelihood of development are included in a forecast, including consideration of financial commitments made by an interconnecting customer.

The Commission was required to develop findings based on its review of the EDCs' load forecast processes and materials submitted to PJM. As a result of researching and reviewing information from the EDCs and PJM, TUS and other Commission staff developed the following findings.

EDC Large Load Adjustment Methodologies and Forecasts

- The EDCs' large load adjustment forecasts in Pennsylvania and other PJM states varied by EDC with no consistent methodologies for key aspects such as ramp rates, utilization rates, and inclusion/non-inclusion of large load customers with/without CCs/ESOs.
- The Pennsylvania EDCs have differing utilization rates with no clearly defined methodology backed by data to establish the utilization rates. We note that PJM applied a 70% utilization rate, but TUS could not determine how PJM found that rate to be appropriate.
- EDCs should collaborate and share data with each other and PJM regarding utilization rates so that some consensus on an appropriate utilization rate may be found for data center loads in general, understanding that an EDC may develop a utilization rate specific to a large load customer if the EDC has data to support the rate.
- TUS will collaborate with the EDCs to establish common methodologies for the development of large load adjustment forecasts, *e.g.*, determine the parameters and standards for utilization rates, ramp rates, inclusion of Non-Firm load, etc.

- EDCs should consider utilizing only Firm load for the large load adjustment forecasts submitted to PJM to reduce the speculative aspect of forecasts.
- The large load adjustment forecasts submitted by the EDCs to PJM, even when discounted by PJM and including only Firm load, still represent a significant increase in peak load in the next five to ten years in both Pennsylvania and PJM as a whole.
- DLC did not include any Firm load in its large load adjustment forecast to PJM.
- DLC's large load adjustment forecast to PJM was less than 200 MW by 2030 and beyond, but DLC indicated that it has received applications for potential customers that in total may exceed 3,000 MW of potential load.
- TUS found that FE PA's scoring methodology for inclusion of large load customers in its forecast could allow for inclusion of projects without signed CCs/ESOs. FE PA does not differentiate customers as Firm or Non-Firm, pursuant to PJM's definitions.
- FE PA did not include any Non-Firm large load customers in its 20-year forecast for demand and peak load that it submitted to the Commission, but FE PA does include Non-Firm large load customers in its large load adjustment forecast submitted to PJM.
- FE PA only included one Firm large load customer in its large load adjustment forecast to PJM and that customer was not a data center.
- PECO only included Firm customers in both its 20-year forecast for demand and peak load that it submitted to the Commission and its large load adjustment forecast to PJM.
- PECO's large load adjustment was not appreciably discounted by PJM.
- PPL included both Firm and Non-Firm customers in both its 20-year forecast for demand and peak load that it submitted to the Commission and its large load adjustment forecast to PJM.
- As shown in Appendix B, Table 4 and Figure 13, PJM significantly discounted PPL's large load adjustment forecast (by over 8,000 MW in 2030 and 8,800 MW in 2035) in part due to PPL's inclusion of Non-Firm load in its forecast.
- The Firm load forecast in PPL's large load adjustment forecast to PJM is still significant as PPL forecasted over 2,800 MW of Firm large load adjustments by 2030 and over 3,100 MW by 2035.
- A depiction of each of the EDCs' undiscounted large load adjustment compared to firm only load and PJM's discounted load adjustment is provided in Appendix B, Figure 14.
- TUS will coordinate annual meetings with each Pennsylvania EDC to discuss load forecasts and all large load adjustment forecasts prior to the EDCs filing the large load adjustment forecasts with PJM, to the extent that is possible.
- TUS will participate in RERRA review this July/August and in the summers during the PJM annual process.
- TUS will participate in the September/October Stakeholder presentations to the PJM LAS.
- TUS anticipates PJM final load forecast adjustments and presentations at PJM's LAS Meetings in November/December 2026.

Large Load Customers

- Certain EDCs (PPL and FE PA) allowed large load customers without a CC/ESO to be included in its large load adjustment forecast with no probability factor adjustment, *e.g.,* for PPL, customers with only an LOA are assumed to have a 100% probability factor.
- No evidence of double-counting of large load by the Pennsylvania EDCs for Firm large load customers was discovered. However, more collaboration with other state utility commissions and PJM is required to ensure that large load customers do not have agreements with PA EDCs for load that may also have an agreement with an EDC in another PJM zone outside of Pennsylvania.
- In general, the CCs/ESOs reviewed by TUS did contain provisions to ensure that the customer provided the contributions to ensure that the EDC was made whole for any expenditures to extend its service lines (electric conductors) to the customer. Also, none of the CCs/ESOs contained provisions for interruptible service.
- While the direct service line costs were allocated directly to the large load customer, it seems possible that any system upgrades that the EDC may need to undertake to support those service lines may be socialized to all ratepayers through the transmission planning process at PJM and in rate filings at FERC.
- The CCs/ESOs reviewed by TUS were executed before the Commission's Model Tariff for large load customers was finalized at Docket No. M-2025-3054271.
- In subsequent reviews pursuant to Act 45, TUS will review the EDC large load customer CCs/ESOs in the context of the Commission's Model Tariff for large load customers.
- The updates to PJM's Manual 19 will be a positive step towards enabling more effective coordination between state utility commissions, EDCs and PJM for large load adjustment forecasts and reviewing large load customer data.

3 – Summary of Coordination with PJM and other States

As noted in the Introduction, Act 45 charges the Commission with coordinating with PJM so that Pennsylvania forecasts are incorporated into regional planning on a fair, accurate and nonduplicative basis. Further, the Commission is to collaborate with PJM and other state utility commissions within the PJM footprint to prevent double counting of new large loads and customer contracts and to assess whether other state practices would be beneficial to Pennsylvania. These tasks will be deliberate and require cooperation from stakeholders that are not Commission-jurisdictional entities. The Commission has taken some initial steps to address Act 45 requirements, as described below. However, these tasks will take some time as coordination efforts are developed with stakeholders such as PJM and other state regulatory commissions. Fortunately, the Commission is a member of an existing stakeholder group focused on PJM matters with the state commissions within the PJM footprint.

The Commission is a member of the Organization of PJM States, Inc. (OPSI). OPSI is an inter-governmental organization of utility regulatory agencies of the 14 jurisdictions where PJM operates. The 14 jurisdictions are wholly or partly in the service area of PJM. OPSI was established on May 13, 2005, as a non-profit organization. The Chairman of the Commission, Stephen M. DeFrank, is the current Vice President of the OPSI Board of Directors. Staff in the Commission's Law Bureau

(LAW) initiated discussions with OPSI and staff from other regulatory agencies as described below. TUS and LAW will continue to pursue opportunities for collaboration through OPSI and other regulatory stakeholder groups such as the National Association of Regulatory Utility Commissioners (NARUC), of which the Commission is a member.

TUS and LAW staff participated in the following discussions and meetings related to the PJM load forecast and system planning in general:

- On December 9 through 11, 2025, TUS attended a workshop in Arlington, Virginia, on Integrated Distribution System Planning, titled "Opportunities and Emerging Practices." This workshop was provided as part of the NARUC-NASEO[50] Initiative: Comprehensive Electricity Planning in an Era of Load Growth. As part of the workshop, participants continued to edit and improve the distribution system planning flowcharts created during the Planning for Load Growth and Local Resources workshop.
- On March 11 through 12, 2026, TUS attended a workshop in Detroit, Michigan, on Integrated Distribution System Planning, titled "Planning for Load Growth and Local Resources." This workshop was provided as part of the NARUC-NASEO Initiative: Training and Action Planning for States. As part of this workshop, participants created flowcharts depicting best practices in distribution system planning under the regulatory frameworks of transmission only, fully integrated, and integrated with outside markets. These flowcharts are intended to be used as a tool for system planners and regulators when contemplating grid expansion projects.
- On April 6, 2026, Commission staff met with an OPSI Load Forecasting Work Group to begin the discussion of sharing of load forecasting data between the states. OPSI developed a restricted-access webpage for the purpose of sharing public information among the OPSI states. It is anticipated that monthly meetings will occur with the group focused on discussion of large load forecasts.
- On May 6 through 7, 2026, TUS attended the second half of the Integrated Distribution System Planning workshop in Charleston, South Carolina. This portion of the workshop was titled "Modeling for Comprehensive Electricity Planning" and discussed how modeling is used and can be further implemented to improve load forecasting, including Distributed Energy Resources. During this workshop, the previously created flowcharts were finalized. NARUC-NASEO indicated that it intends to publish these flowcharts in an online library, including other implementation resources, in late summer 2026.
- On May 11, 2026, Commission Staff met with staff from LBNL, which is also conducting a load forecasting study. It is anticipated that from that effort, LBNL will develop suggested questions for the Commission to ask PJM and other states to avoid double counting of large loads in PJM's territory.
- On June 8, 2026, PA PUC Staff led the OPSI Load Forecasting Working Group's meeting. Information regarding load forecasting, pending and existing legislation in the PJM States, and memoranda of understanding between States was discussed. OPSI has a restricted access database whereby States can upload and download public information regarding laws and

[50] NASEO is the National Association of State Energy Officials and is the only national nonprofit organization representing the governor-designated energy directors and their offices – the State Energy Offices – from the 56 States and Territories of the nation.

load forecasting. This is a tool that can be used to assist all States. The group has also listened to Berkeley Labs (who is reaching out to each state individually) and who believes definitions/standards for considering load should be developed between States. Synapse also gave a presentation on some of the work it is doing for the PA PUC. Delaware seems to be contemplating a law similar to Act 45.

- Commission staff are also in conversations with PJM regarding changes to PJM's Manual 19, specific to load forecasting procedures and the timing for state input.
- Commission staff is willing to work with PJM and OPSI States on a registry of large load for tracking regarding cost allocations yet to come with reliability backstop procurement and connect and manage yet to come.

4 – Recommendations for Statutory or Regulatory Changes

Act 45 provided the Commission with the directive to oversee certain aspects of electric load forecasting and required the Commission to complete an annual report by June 30. However, Act 45 was part of a legislative bill that amends the state's Fiscal Code Act of April 9, 1929, not the Public Utility Code at Title 66. As such, from an administrative perspective, a statutory change would be appropriate to incorporate the requirements of Act 45 into the Pennsylvania Public Utility Code, specifically within Section 524 (relating to data to be supplied by electric utilities), 66 Pa.C.S. § 524. Subsection 524(a) of the Public Utility Code, *inter alia*, requires EDCs to submit to the Commission a 20-year forecast of energy demand, divided into the residential, commercial, industrial and utility sectors. Subsection 524(b) requires the Commission to prepare a report summarizing and discussing the data provided pursuant to Subsection 524(a) and annually, on or before September 1, submit that report to the General Assembly, the Governor, the Office of Consumer Advocate and each affected public utility. Subsection 524(c) empowers the Commission to promulgate regulations pertaining to the informational requirements of Subsection 524(a). Administrative efficiencies could be obtained by combining the informational directives and timing of the requirements in Act 45 with Section 524 of the Public Utility Code.

Separately, the Commission could consider issuing a Tentative Order seeking comment on any regulatory changes that would facilitate the Commission's ability to obtain and review information pursuant to its requirements under Act 45 and Section 524 of the Public Utility Code. Specifically, the reporting requirements within 52 Pa. Code §§ 57.141-154 (relating to Annual Resource Planning Reports (ARPRs)) could be amended to align with information that the Commission requires to perform its duties under Act 45, such as the EDCs' submissions to PJM for large load adjustments. It may also be beneficial to align the timing and timescale of reporting required by 52 Pa. Code § 57.141 with that of PJM's LTLF. For example, EDCs are required to provide actual data for the past year and estimated data for the ensuing five years in ARPRs. The Commission could consider extending the five-year requirement to 20 years of estimated data to align with PJM's LTLF and the EDCs' large load adjustment forecasts. In addition, the EDCs are not currently required to provide information on large load customer interconnection requests with the ARPRs. It may be beneficial to add this reporting requirement to the ARPRs. Finally, the Commission can seek comment on other pertinent regulatory changes and propose draft reporting templates through a rulemaking.

Appendix A – 20-Year Annual Demand and Peak Load Forecast Data, Large EDCs and UGI

Table 2: 20-Year Aggregate Annual Demand by Customer Class (residential, commercial, industrial, other, and resale)

	ENERGY DEMAND (MWh)							ANNUAL
Year	RES	COM	IND	OTHER	RETAIL	RESALE	TOTAL	% CHANGE
2026	52,280,896	38,367,372	48,702,423	810,024	140,160,714	4,225,438	144,386,153	
2027	52,670,476	38,649,375	57,431,417	808,057	149,559,326	4,225,760	153,785,086	6.51%
2028	53,244,594	39,544,499	73,215,409	809,681	166,814,183	4,229,319	171,043,502	11.22%
2029	53,500,410	39,538,783	92,376,558	807,495	186,223,246	4,223,808	190,447,054	11.34%
2030	54,021,953	39,748,171	106,944,045	807,608	201,521,777	4,224,028	205,745,806	8.03%
2031	54,591,768	40,178,115	116,402,536	807,615	211,980,035	4,224,595	216,204,630	5.08%
2032	55,219,590	40,511,133	122,411,320	807,873	218,949,916	4,228,896	223,178,812	3.23%
2033	55,598,448	40,751,957	124,927,639	807,789	222,085,833	4,224,755	226,310,588	1.40%
2034	56,121,357	41,179,562	127,919,060	807,765	226,027,744	4,224,140	230,251,884	1.74%
2035	56,700,518	41,748,019	129,298,910	807,873	228,555,320	4,224,057	232,779,377	1.10%
2036	57,363,440	42,464,857	130,723,040	808,059	231,359,396	4,228,732	235,588,128	1.21%
2037	57,919,977	43,101,301	131,214,073	808,257	233,043,609	4,224,138	237,267,747	0.71%
2038	58,552,314	43,792,699	131,222,557	808,470	234,376,039	4,223,728	238,599,768	0.56%
2039	59,186,145	44,481,842	131,235,586	808,694	235,712,268	4,223,120	239,935,388	0.56%
2040	59,892,825	45,217,168	131,293,749	808,932	237,212,674	4,227,376	241,440,050	0.63%
2041	60,469,321	45,836,586	131,249,644	809,184	238,364,736	4,223,020	242,587,756	0.48%
2042	61,126,277	46,493,416	131,241,853	809,337	239,670,883	4,223,109	243,893,993	0.54%
2043	61,776,108	47,153,343	131,223,564	809,481	240,962,496	4,223,096	245,185,592	0.53%
2044	62,508,209	47,868,460	131,249,458	809,608	242,435,735	4,227,671	246,663,406	0.60%
2045	63,092,799	48,471,822	131,172,638	809,712	243,546,971	4,223,758	247,770,729	0.45%
2046	63,743,784	49,087,822	131,091,751	809,785	244,733,142	4,224,585	248,957,727	0.48%
						10-YEAR CHANGE		63.17%
						AVG ANNUAL CHANGE		2.82%

Table 3: 20-Year Aggregate Peak Demand and Data Center Impact

Year	NON-CO PEAK MW	ANNUAL % CHANGE	DATA CENTER IMPACT	
			MWh	PEAK MW
2026	30,450		61,630	293
2027	32,085	5.37%	359,823	1,666
2028	34,636	7.95%	1,599,716	6,293
2029	36,897	6.53%	3,214,900	10,032
2030	38,282	3.75%	4,543,057	12,992
2031	39,464	3.09%	5,585,356	15,015
2032	40,046	1.47%	6,548,467	15,755
2033	40,424	0.95%	7,901,674	15,977
2034	40,964	1.34%	9,949,622	16,152
2035	41,351	0.94%	11,329,322	16,327
2036	41,643	0.71%	12,731,198	16,502
2037	41,868	0.54%	13,223,417	16,560
2038	42,011	0.34%	13,223,417	16,560
2039	42,150	0.33%	13,223,417	16,560
2040	42,258	0.25%	13,258,193	16,560
2041	42,400	0.34%	13,223,417	16,560
2042	42,517	0.27%	13,223,417	16,560
2043	42,620	0.24%	13,223,417	16,560
2044	42,697	0.18%	13,258,193	16,560
2045	42,812	0.27%	13,223,417	16,560
2046	42,902	0.21%	13,223,417	16,560
10-YEAR CHANGE		36.76%		
AVG ANNUAL CHANGE		1.75%		

Figure 1: Aggregate 20-Year Energy Demand

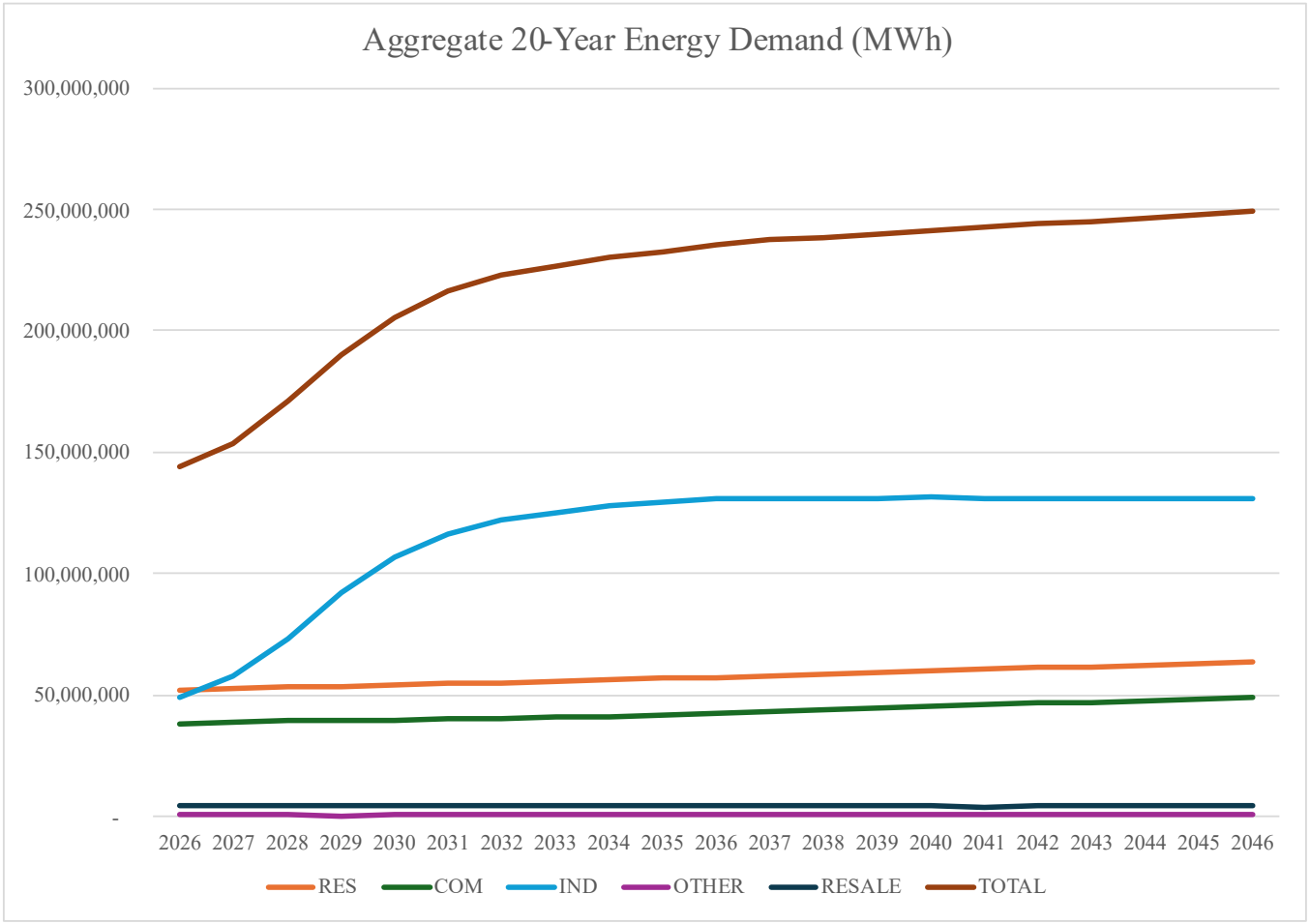


Figure 2: Aggregate 20-Year Peak Demand with Data Center Impact

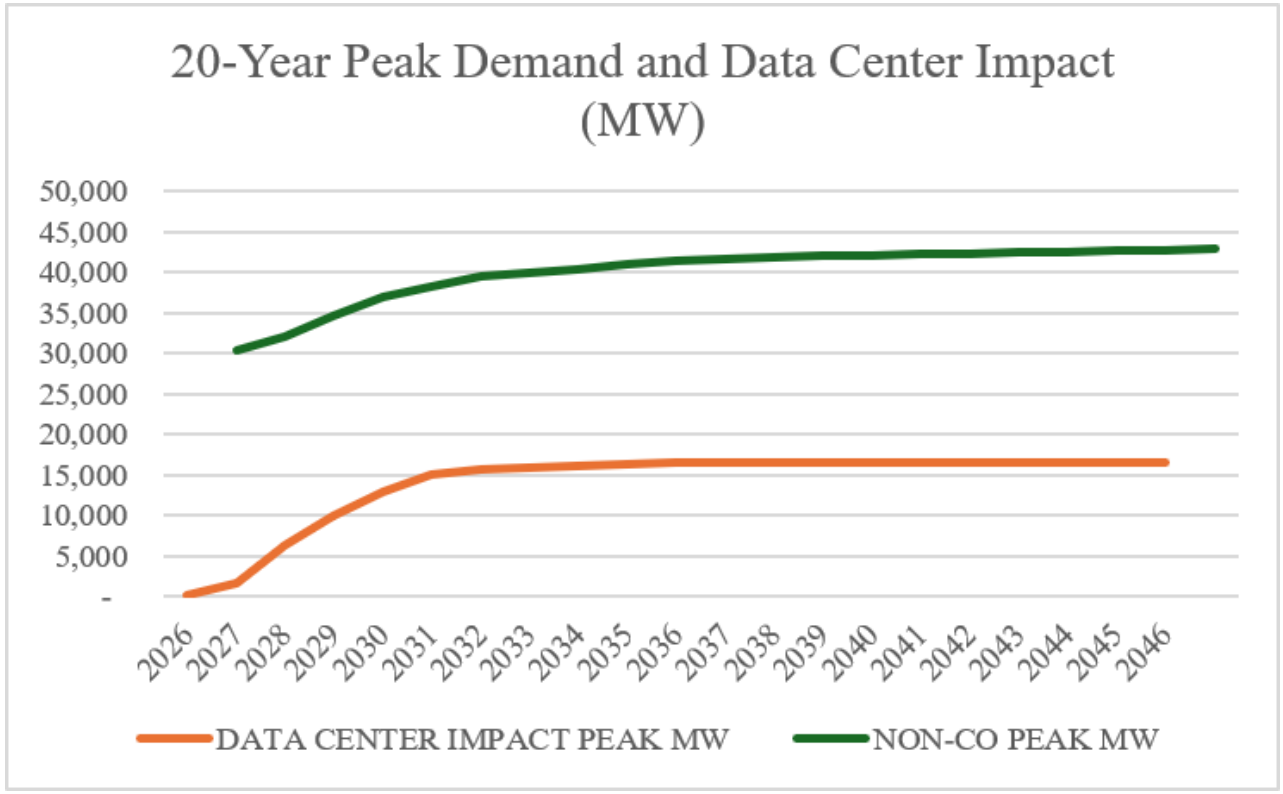


Figure 3: DLC 20-Year Demand Forecast

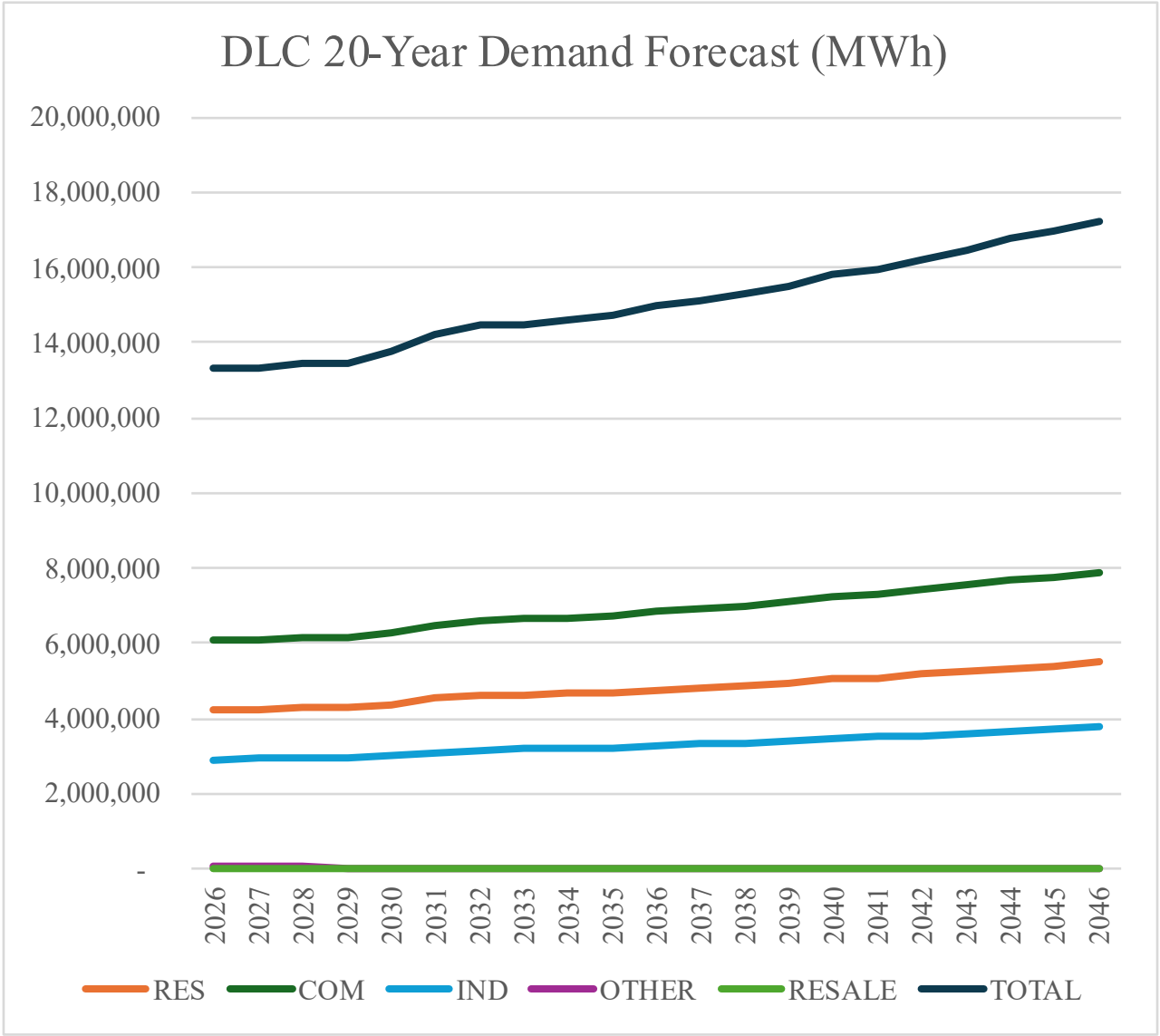


Figure 4: FE PA 20-Year Demand Forecast

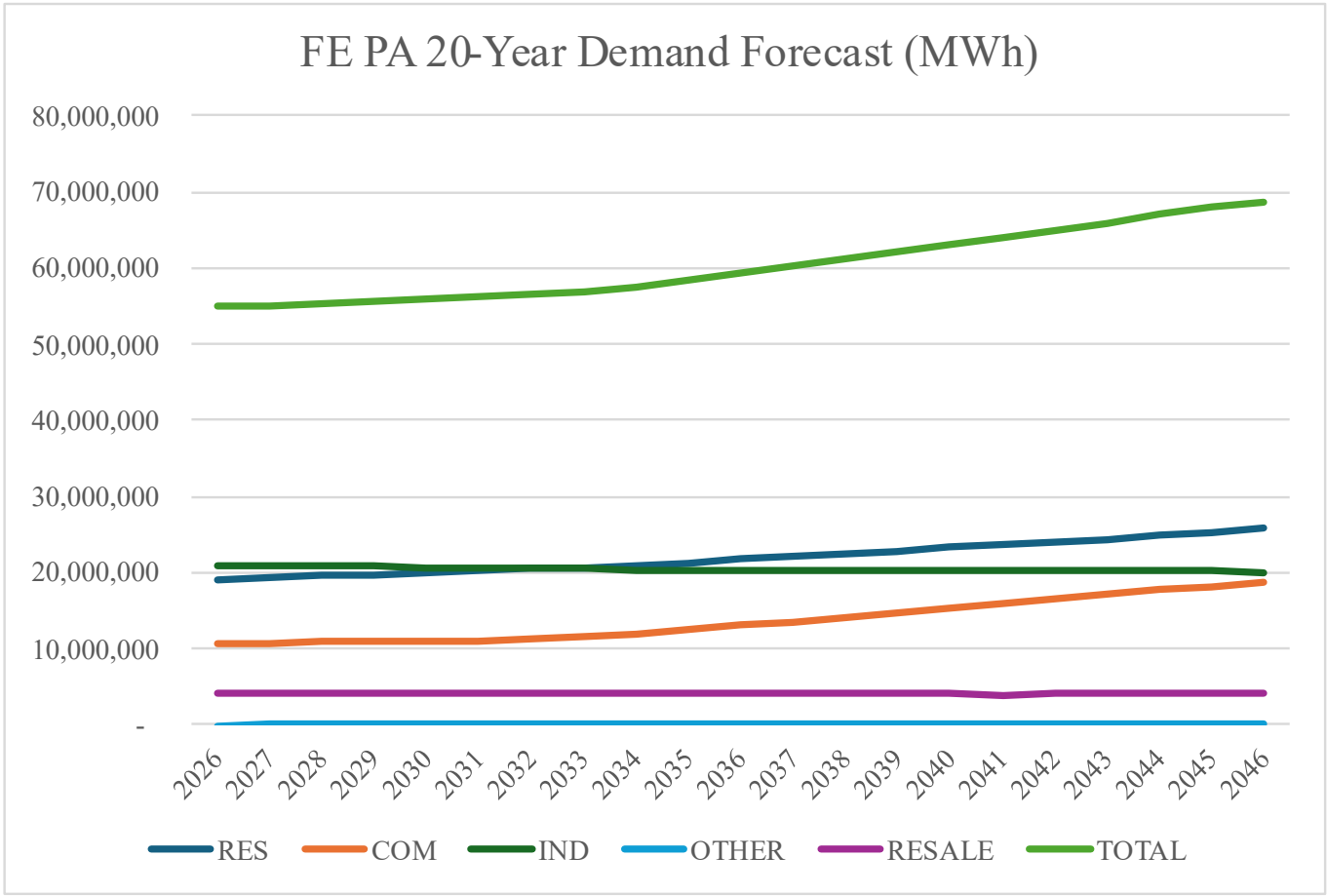


Figure 5: PECO 20-Year Demand Forecast

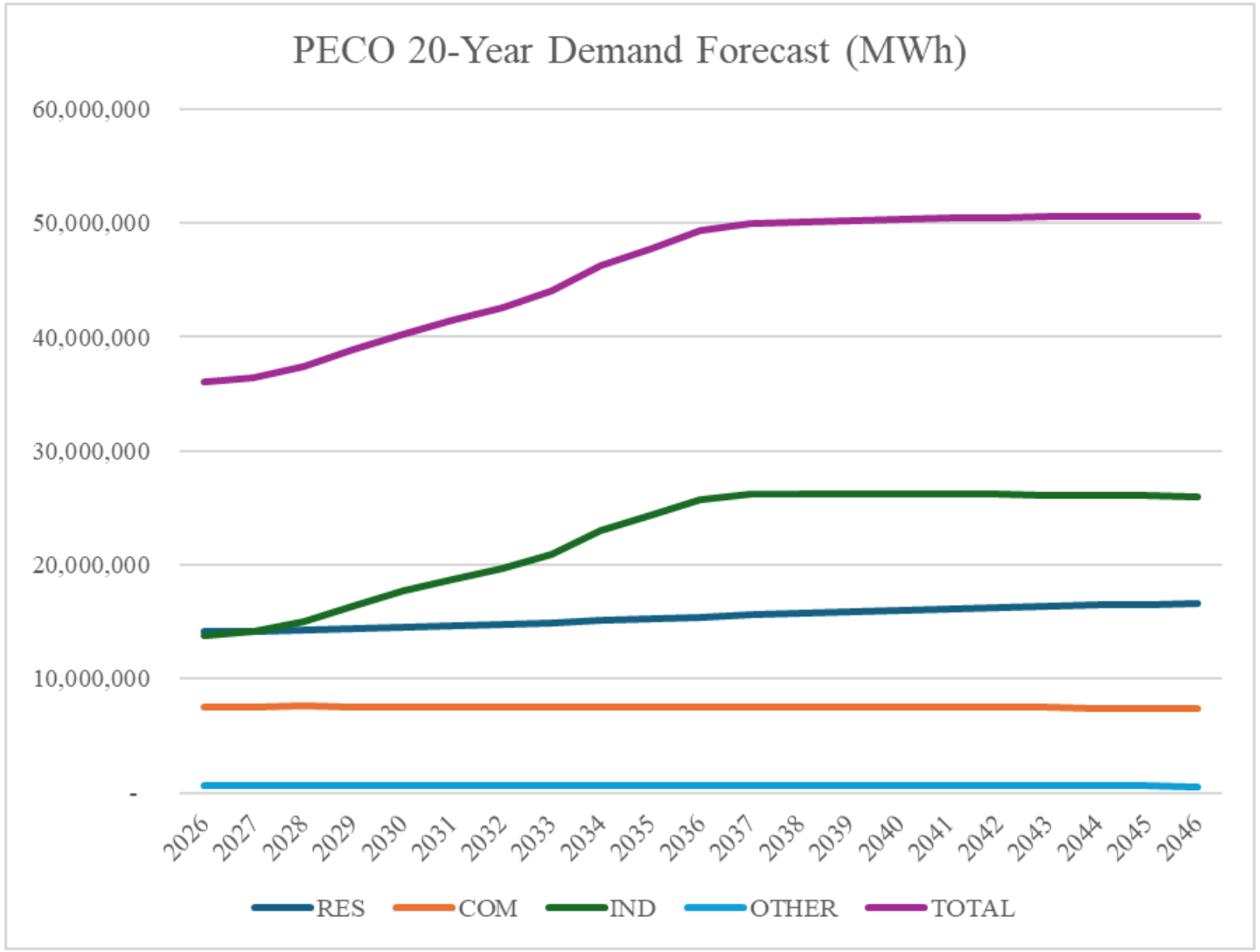


Figure 6: PPL 20-Year Demand Forecast

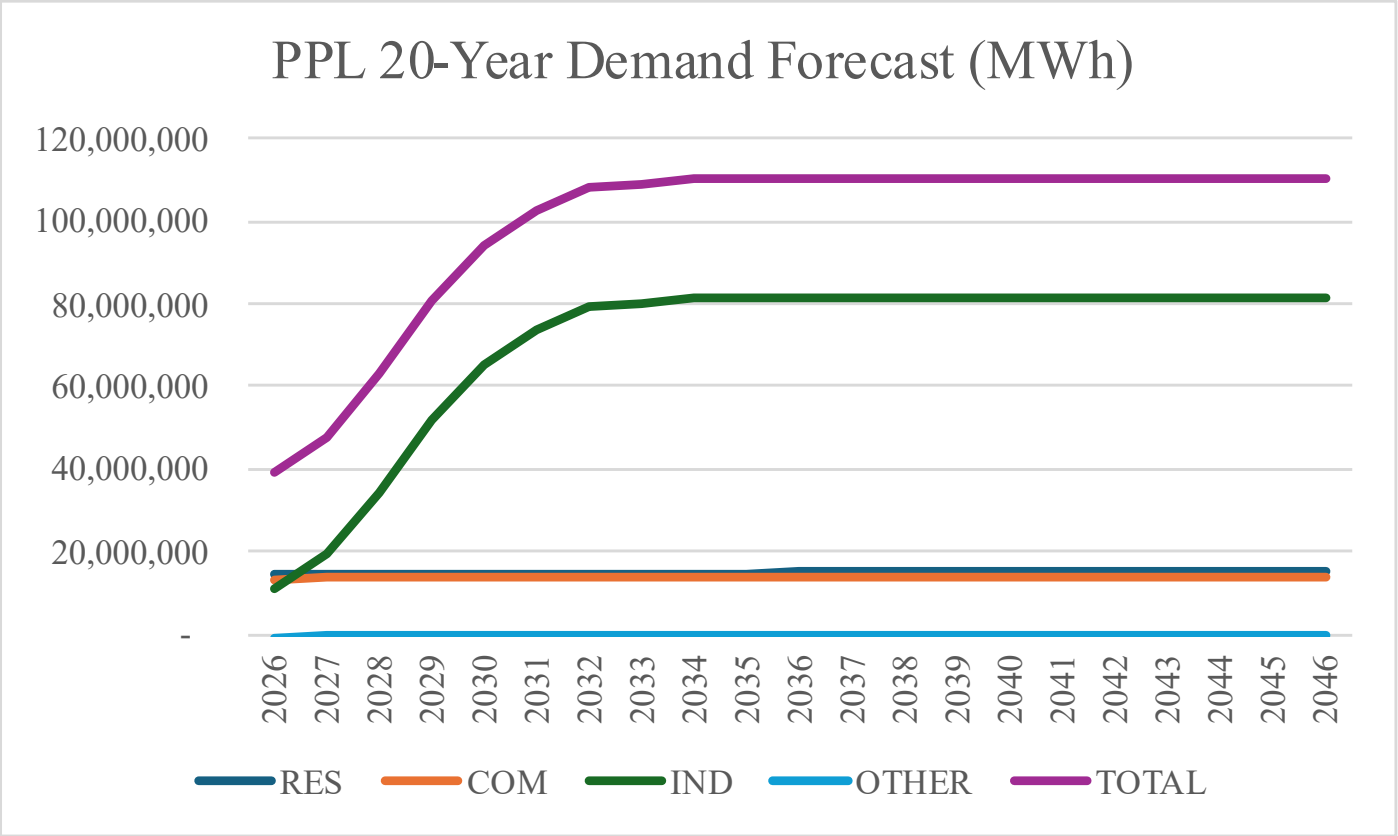
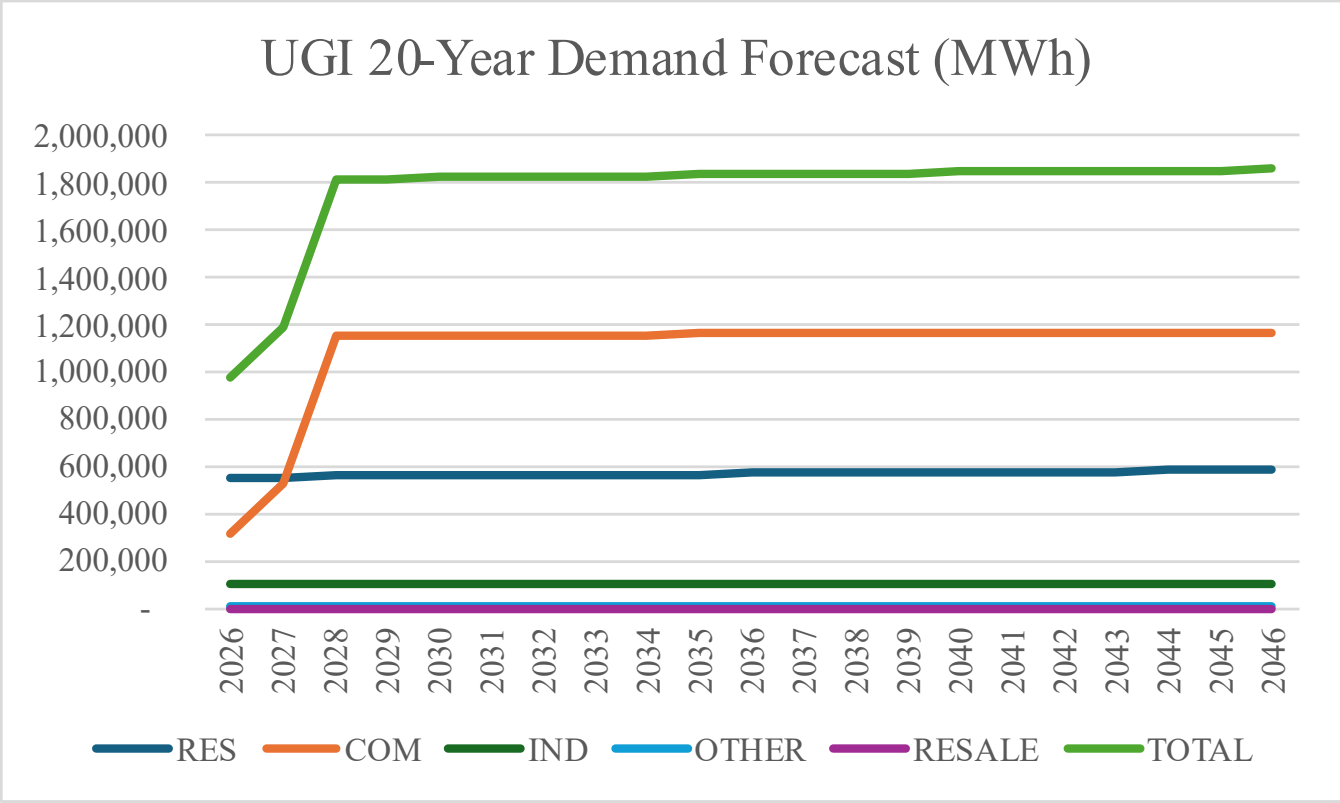


Figure 7: UGI 20-Year Demand Forecast



Appendix B – Large Load Adjustment Requests and PJM Adjustments to Summer Peak Load Forecast

Table 4: PA EDC Large Load Adjustments Submitted to PJM and PJM Adjustments

	ZONENAME	AREANAME	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
FE PA	Met-Ed	Met-Ed	0.0	0.0	0.0	225.0	450.0	675.0	900.0	900.0	900.0	900.0	900.0	900.0	900.0	900.0	900.0	900.0	900.0	900.0	900.0	900.0	900.0
	PJM Adjustment		0.0	0.0	0.0	-215.0	-375.0	-600.0	-774.0	-713.0	-666.0	-666.0	-667.0	-667.0	-667.0	-667.0	-666.0	-667.0	-667.0	-666.0	-666.0	-666.0	-666.0
PECO	PECO	PECO	17.0	88.0	281.0	517.0	824.0	1,146.0	1,414.0	1,560.0	1,664.0	1,698.0	1,697.0	1,698.0	1,698.0	1,698.0	1,698.0	1,698.0	1,699.0	1,699.0	1,700.0	1,701.0	1,702.0
	PJM Adjustment		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FE PA	Penelec	Penelec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PJM Adjustment		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PPL	PPL	PPL	248.0	2,492.0	6,718.0	10,729.0	13,343.0	14,807.0	14,998.0	15,096.0	15,096.0	15,096.0	15,096.0	15,096.0	15,096.0	15,096.0	15,096.0	15,096.0	15,096.0	15,096.0	15,096.0	15,096.0	15,096.0
	PJM Adjustment		-59.0	-2,098.0	-5,444.0	-8,853.0	-8,347.0	-8,901.0	-8,757.0	-8,811.0	-8,812.0	-8,814.0	-8,817.0	-8,818.0	-8,817.0	-8,816.0	-8,815.0	-8,817.0	-8,817.0	-8,818.0	-8,815.0	-8,813.0	-8,812.0
FE PA[#]	APS	West Penn	105.0	150.0	423.0	596.7	680.4	828.0	1,080.0	1,080.0	1,080.0	1,080.0	1,080.0	1,080.0	1,080.0	1,080.0	1,080.0	1,080.0	1,080.0	1,080.0	1,080.0	1,080.0	1,080.0
	PJM Adjustment		-105.0	-150.0	-423.0	-596.7	-529.6	-608.9	-712.9	-694.3	-694.3	-694.3	-694.3	-694.3	-694.3	-694.3	-694.3	-694.3	-694.3	-694.3	-694.3	-694.3	-694.3
FE PA	ATSI	Penn Power	0.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0
	PJM Adjustment		0.0	-65.7	-54.2	-53.7	-41.1	-26.9	-16.8	-16.8	-16.8	-16.8	-16.8	-16.8	-16.8	-16.8	-16.8	-16.8	-16.8	-16.8	-16.8	-16.8	-16.8
DLCO	Duquesne	Duquesne	0.0	0.0	0.0	150.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	PJM Adjustment		0.0	0.0	0.0	-150.0	-204.0	-175.0	-163.0	-163.0	-163.0	-163.0	-163.0	-163.0	-163.0	-163.0	-163.0	-163.0	-163.0	-163.0	-163.0	-163.0	-163.0
PA EDCs*	Total		370.0	2,802.0	7,494.0	12,289.7	15,619.4	17,778.0	18,714.0	18,958.0	19,062.0	19,096.0	19,095.0	19,096.0	19,096.0	19,096.0	19,096.0	19,096.0	19,097.0	19,097.0	19,098.0	19,099.0	19,100.0
Total Change from PJM Adjustment			-164.0	-2,313.7	-5,921.2	-9,868.4	-9,496.7	-10,311.8	-10,423.7	-10,398.1	-10,352.1	-10,354.1	-10,358.1	-10,359.1	-10,358.1	-10,357.1	-10,355.1	-10,358.1	-10,358.1	-10,358.1	-10,355.1	-10,353.1	-10,352.1
PJM RTO Total			6,413.0	10,795.0	16,252.0	22,300.0	33,717.0	41,487.0	48,781.0	55,098.0	59,898.0	63,805.0	67,379.0	71,840.0	74,817.0	76,337.0	77,458.0	78,336.0	79,131.0	79,821.0	80,504.0	81,156.0	81,818.0

[#] Note that West Penn's projections included 180 MW of non-data center (Industrial) load

* Pike County Light and Power, UGI Electric, Wellsboro Electric, and Citizens' Electric have no large load adjustments

Table 5: PA EDC Large Load Adjustments Submitted to PJM - Using Firm Only Large Load Customers

	ZONENAME	AREANAME	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
FE PA	Met-Ed	Met-Ed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PECO	PECO	PECO	17.0	88.0	281.0	517.0	824.0	1,146.0	1,414.0	1,560.0	1,664.0	1,698.0	1,697.0	1,698.0	1,698.0	1,698.0	1,698.0	1,698.0	1,699.0	1,699.0	1,700.0	1,701.0	1,702.0
FE PA	Penelec	Penelec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PPL	PPL	PPL	276.0	700.0	1,975.0	2,480.0	2,856.0	3,168.0	3,176.0	3,176.0	3,176.0	3,176.0	3,176.0	3,176.0	3,176.0	3,176.0	3,176.0	3,176.0	3,176.0	3,176.0	3,176.0	3,176.0	3,176.0
FE PA*	APS	West Penn	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
FE PA	ATSI	Penn Power	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DLCO	Duquesne	Duquesne	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PA EDCs	Total		368.0	863.0	2,331.0	3,072.0	3,755.0	4,389.0	4,665.0	4,811.0	4,915.0	4,949.0	4,948.0	4,949.0	4,949.0	4,949.0	4,949.0	4,949.0	4,950.0	4,950.0	4,951.0	4,952.0	4,953.0
Total Change from PJM Forecast			162.0	374.7	758.2	650.7	-2,367.7	-3,077.2	-3,625.3	-3,748.9	-3,794.9	-3,792.9	-3,788.9	-3,787.9	-3,788.9	-3,789.9	-3,791.9	-3,788.9	-3,788.9	-3,788.9	-3,791.9	-3,793.9	-3,794.9

Figure 8: Duquesne Light Company

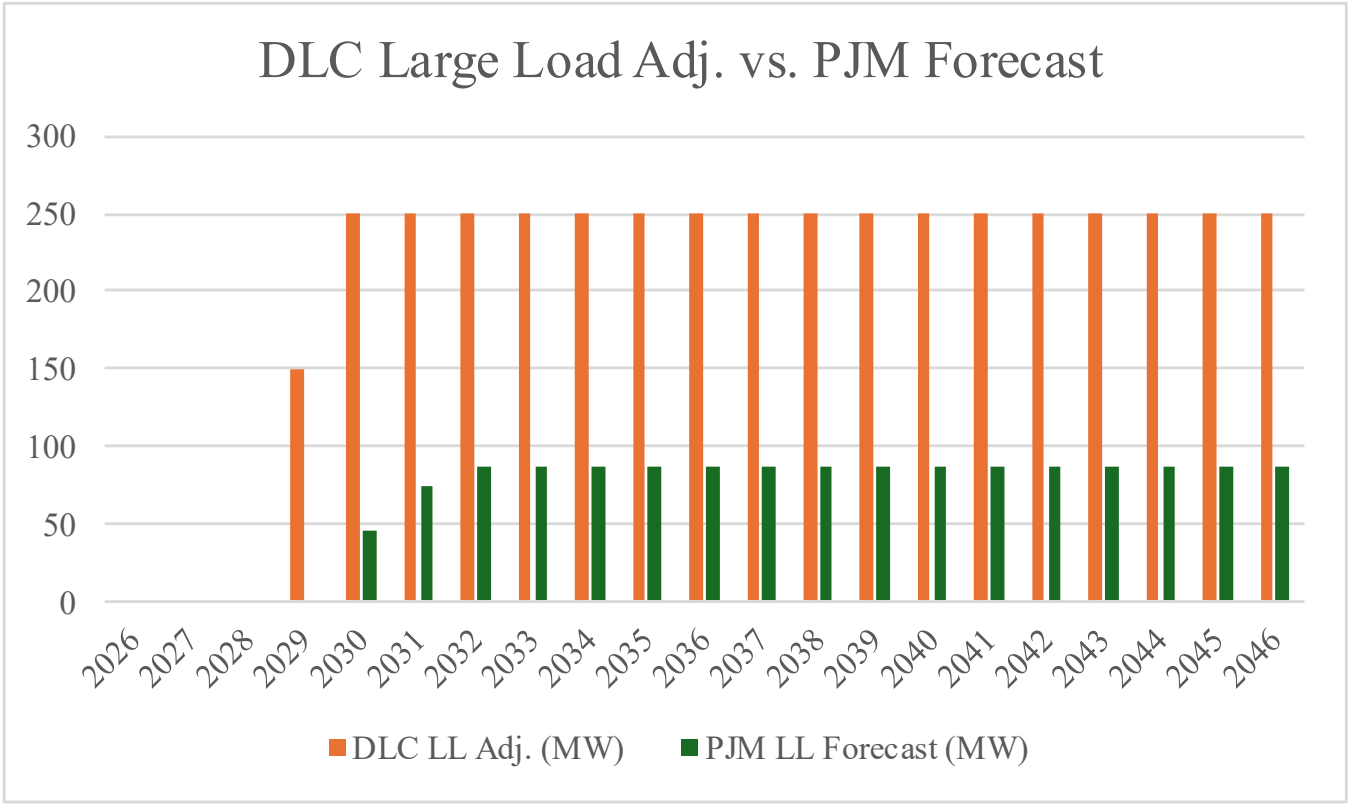


Figure 9: Met-Ed

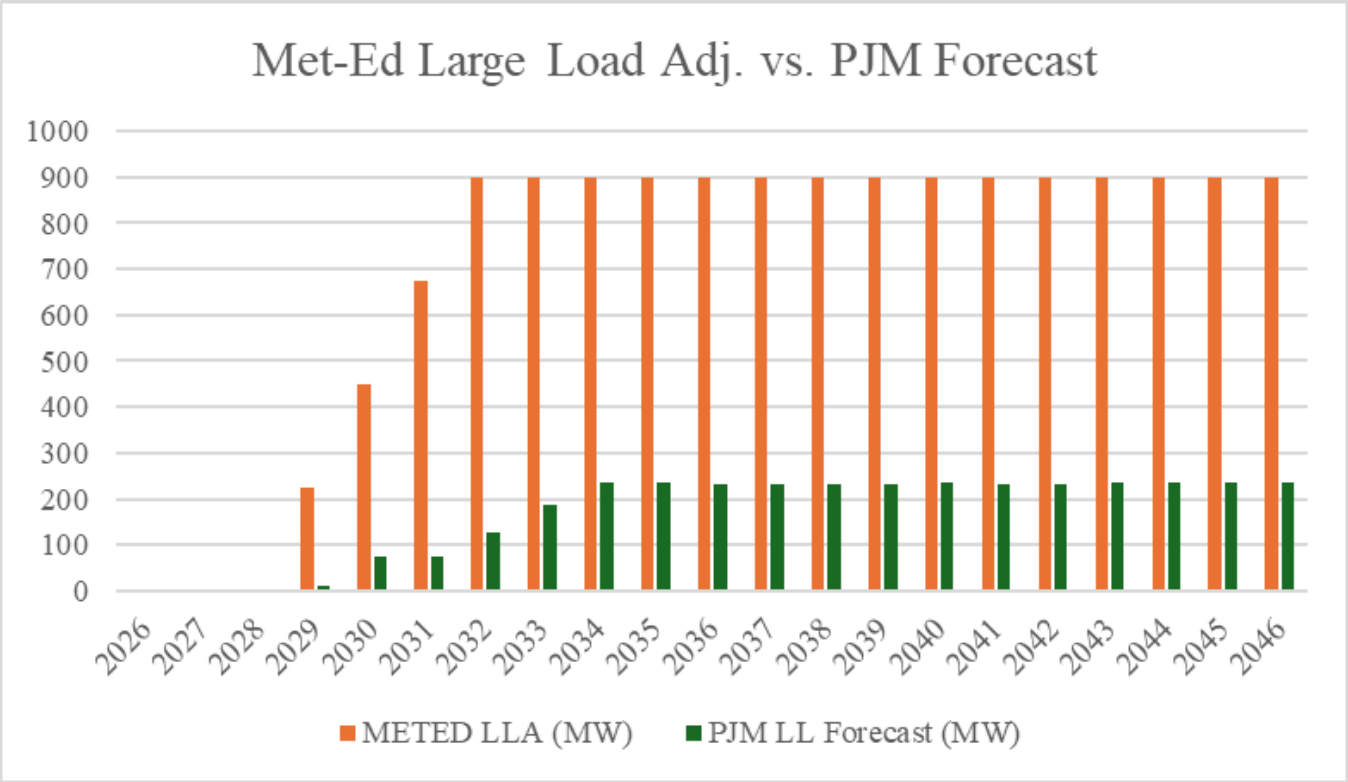


Figure 10: Penn Power

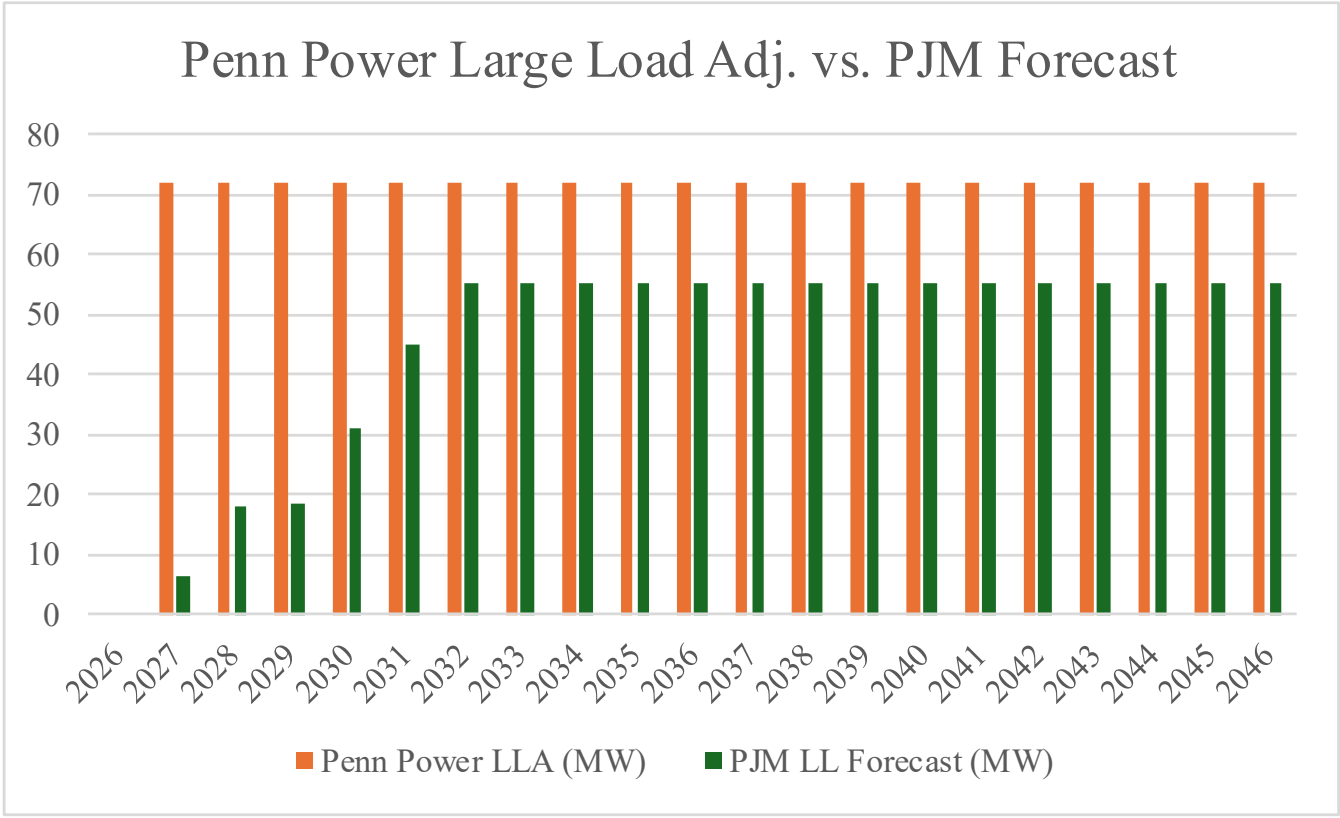


Figure 11: West Penn

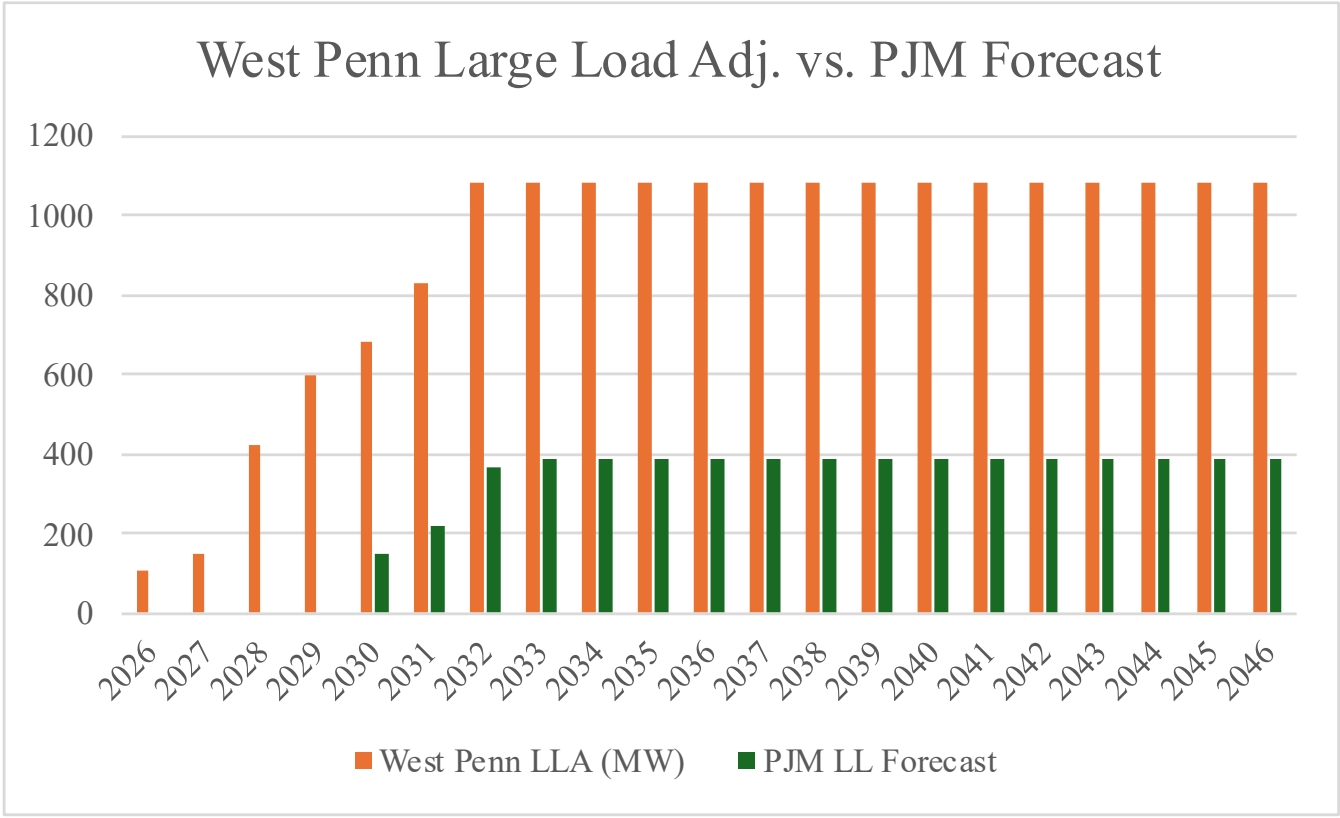


Figure 12: PECO

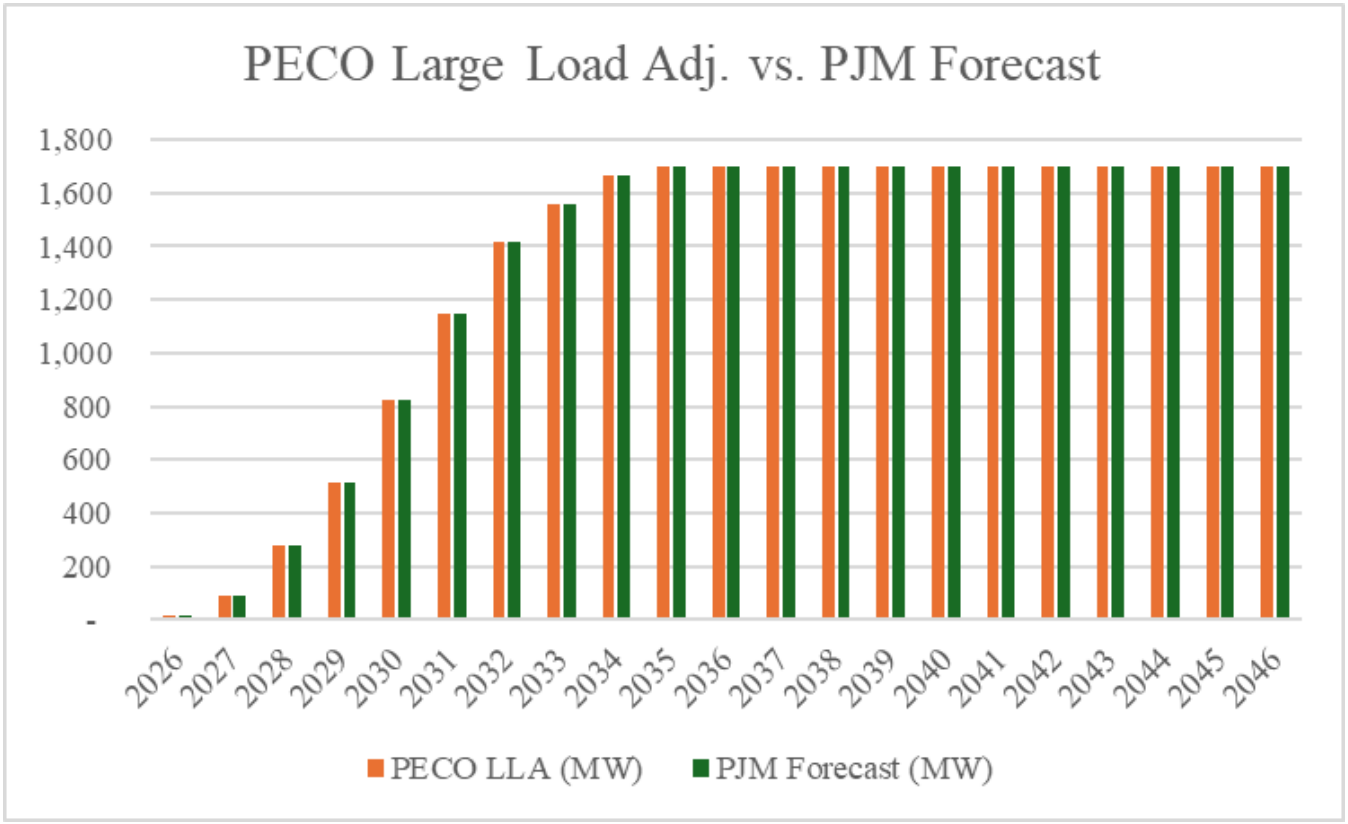


Figure 13: PPL

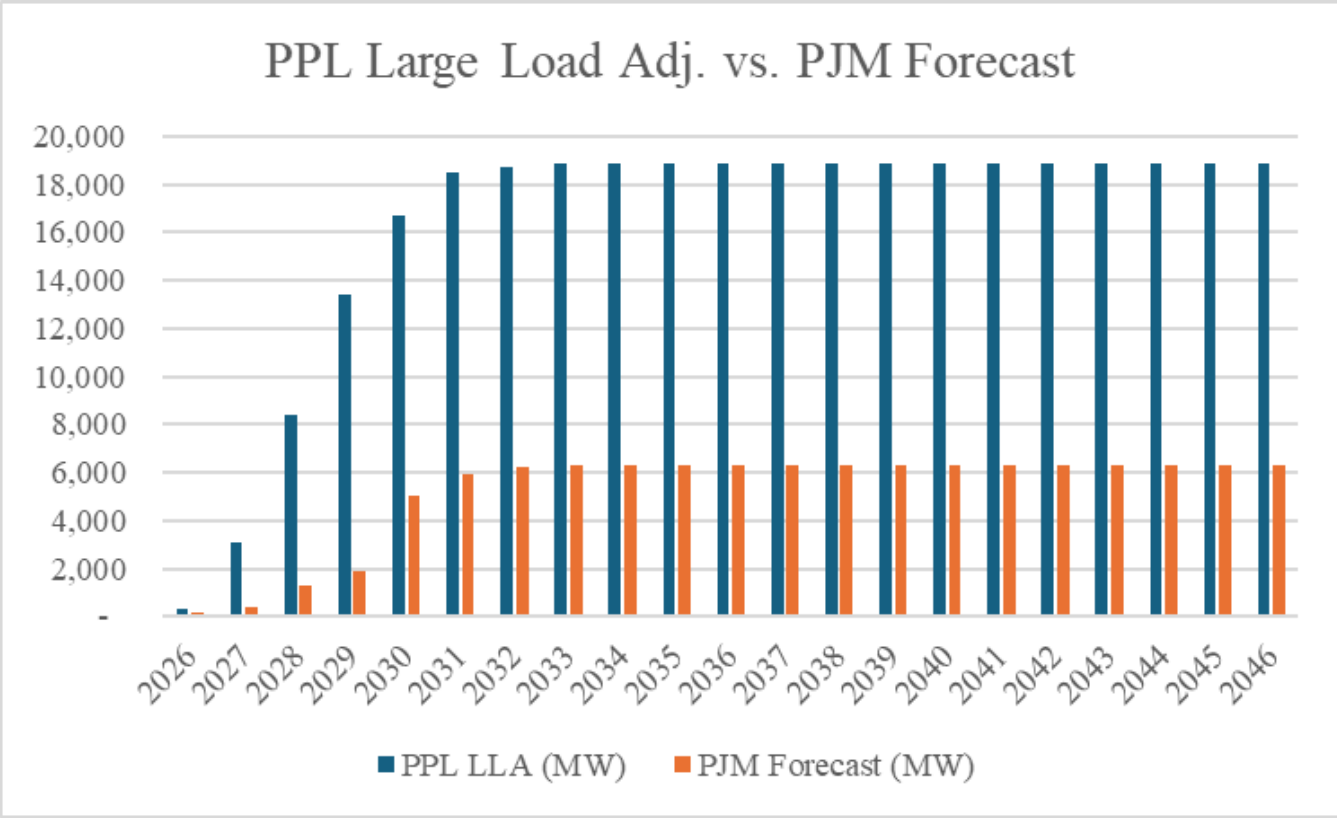
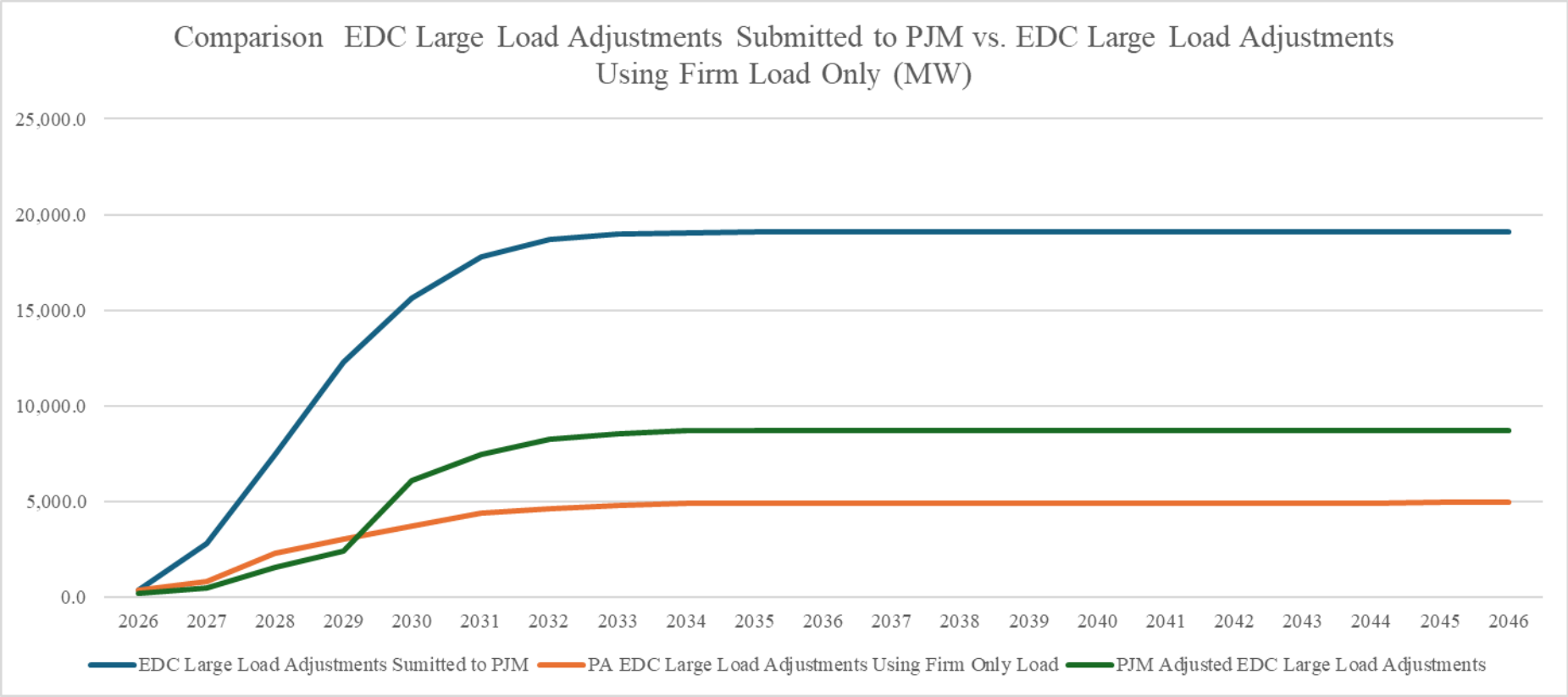


Figure 14: EDC Large Load Adjustments Compared to Large Load Adjustments Using Firm Load Only and PJM's Adjustments



Appendix C – Large Load Customer Questionnaire

1. Is the customer considering other locations outside of EDC service territory?
2. Does the customer own or control the land?
3. Does the customer have all necessary building permits?
4. Does the customer have preliminary or final subdivision plan approval?
5. Does the customer have tenants or raw materials secured?
6. Has the customer publicly announced their project?
7. Has the customer signed an interconnection, construction, or line extension agreement with EDC?
8. Has the customer signed an Electric Service Agreement with EDC?
9. Is a Detailed Load Study complete?
10. Is a Circuit Load Study Complete?
11. Does the customer have its own generation?
12. Additional criteria as necessary

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