Introduction

In September 2025, American Electric Power (AEP) submitted a request for adjustments to the PJM 2026 Load Forecast. The request was presented publicly to stakeholders at the PJM Load Analysis Subcommittee (LAS) meeting in September. This document serves as a summary of the request and public presentation. It includes an overview of the methodology for large load adjustments, a summary of the overall adjustment request for 2026, and insights into the future project pipeline at AEP.

Load Addition Criteria and Methodology at AEP

AEP's forecasting methodology for load additions can be broken into two parts. Near-term, or up to 2030 in this instance, additions are based on contracts in place at the time the forecast is submitted. Within the first five years of the forecast, a project must, at a minimum, have a signed Letter of Agreement (LOA) and an Electric Service Agreement (ESA) in progress. Of the approximately 11.2 GW of adjustments submitted within the first five years of AEP's request, over 8.6 GW of the adjustments currently have a signed ESA in place, while the remainder have a signed LOA with ESAs currently being negotiated.

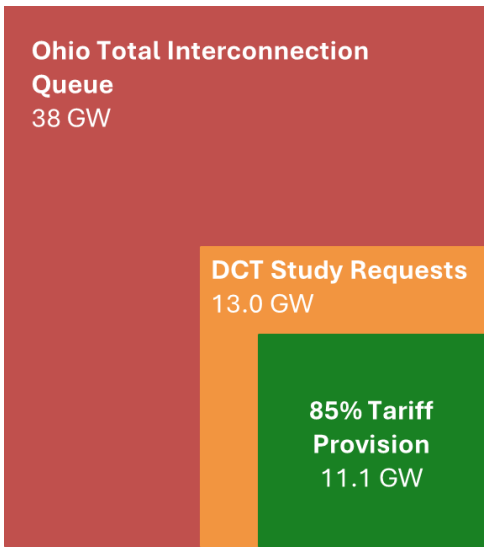
Both an LOA and ESA are legally binding contracts that include financial commitments from the customer. However, an ESA generally takes the form of a take-or-pay contract in which a customer is required to purchase a minimum amount of energy over several years. An LOA only covers the customer interconnect, including any engineering or infrastructure costs associated with connecting the customer to the system.

These arrangements serve to protect other customers from absorbing these costs if a project does not proceed as contracted. This approach helps to mitigate uncertainty around large loads, allowing AEP to align its capacity planning with actual expected demand in the near to intermediate term.

Beyond five years, 2031 and beyond in this instance, AEP Ohio has included load adjustments that represent load from the Central Ohio queue. Specifically, Ohio's data center Tariff (DCT) has established rules to sort through the Central Ohio queue that has expanded over the past several years. These new data center customers must commit to a non-refundable study fee to remain in the queue and cannot sign an LOA or ESA until said study is completed.

As a way to conservatively and responsibly estimate this load, AEP began with data center projects that had requested a formal study with a fee as of 9/8/2025. The sum of customer requests with a formal study is roughly 13 GW. AEP then adjusted this load per the DCT provisions to 85% of the load, resulting in 11.1 GW. Load ramps were estimated to begin in 2031 and gradually increased through 2035. Figure 1 visually represents the Ohio Interconnection Queue, the DCT Study Requests, and the 11.1 GW of load included in the load adjustment.

Figure 1: Accounting for Ohio's DCT



Regardless of the year, AEP uses the same criteria for its own internal financial forecasts. This means the additions submitted to PJM for use in this forecast are the same additions that are incorporated into the AEP internal financial forecast for budgeting purposes.

Summary of Request by Year and Zone

In total, AEP requested 11,182 MW of load additions by 2030 and 26,105 MW by 2036. These represent values for the month of August to reflect expectations for the summer peak. These details can be found in the documents submitted to PJM in September, which are publicly available on the PJM LAS website. Table 1 shows AEP's cumulative summer load additions by operating company for the first five years and the ultimate load which is reached in 2036.

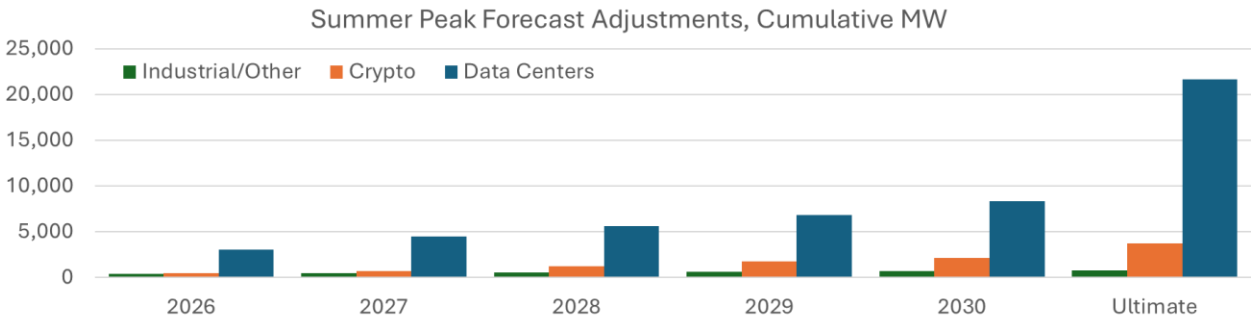
Table 1: AEP Cumulative Summer Load Addition Request

Cumulative Additions (MW)	2026	2027	2028	2029	2030	Ultimate
Appalachian Power	375	375	375	375	375	375
Indiana & Michigan Power	1,240	1,761	2,224	2,526	3,192	3,458
AEP Ohio	2,273	3,526	4,724	6,338	7,615	22,272
Total AEP	3,888	5,662	7,323	9,239	11,182	26,105

Summary of Request by Customer Type

The overall adjustment request reflects a mixture of customer types but is largely driven by data centers. This is particularly true at AEP Ohio and I&M which have contracts with several data center customers, most of which are large hyperscalers. AEP Ohio also has industrial additions, totaling over 300 MW by the end of the request period. Appalachian Power (APCo) additions are entirely industrial, primarily by primary metal manufacturing additions. Figure 2 below summarizes the additions by customer type, breaking down between industrial/other, crypto, and data center customers.

Figure 2: AEP Forecast Adjustments by Customer Type



Summary of Request by Agreement Type

For load additions through 2030, all projects across the AEP system have some type of signed customer agreement in place. Furthermore, over 8.6 GW of the 11.2 GW of load additions through 2030 have a signed Electric Service Agreement (ESA) in place alongside an LOA.

For load additions in 2031 and beyond, AEP has a mix of signed agreements and planned additions. Specifically, in Ohio, 11.1 GW are planned additions representing load from the Central Ohio queue adjusted for the DCT.

Load Behavior

AEP works closely with its customers to obtain the most accurate load ramp specifications for each project, which are typically provided once the customer agreement with financial commitments is signed. This collaborative approach ensures that AEP's adjustment requests align with the needs and expectations of our customers.

Once fully ramped, customer behavior is generally differentiated by type. However, similar to load ramps, AEP works closely with individual customers to estimate future load factors based on the type of customer and ultimate end usage. As such, there can be variability across projects.

Data centers typically run at the highest load factors. AEP has historical usage data showing data centers running at load factors of more than 80% on average, with large hyperscale data centers running as high as 95%.

Industrial customers typically run at lower load factors than data centers, though some can run as high as 80% depending on the underlying industry. Most industrial customers are expected to run at roughly 60% based on historical usage patterns.

Conclusion

AEP has a great deal of confidence in its load adjustment submission for the 2026 PJM Forecast due to its reliance on signed customer financial commitments. This reliance on actual customer demand, combined

with AEP's robust demand pipeline across multiple load zones helps reinforce these projections as a reasonable, and responsible basis for future planning.