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TABLE OF CONTENTS

	TABLE NUMBER	CHART PAGE	TABLE PAGE
EXECUTIVE SUMMARY			1
ECONOMIC FORECAST SUMMARY			4
FORECAST COMPARISON:			
Each Zone and PJM RTO – Comparison to Prior Summer Peak Forecasts	A-1		47
Each Zone and PJM RTO – Comparison to Prior Winter Peak Forecasts	A-2		49
PEAK LOAD FORECAST AND ANNUAL GROWTH RATES:			
Summer Peak Forecasts and Growth Rates of each Zone, Geographic Region and PJM RTO	B-1	19, 21-46	51
Winter Peak Forecasts and Growth Rates of each Zone, Geographic Region and PJM RTO	B-2	20, 21-46	55
Spring Peak Forecasts of each Zone, Geographic Region and PJM RTO	B-3		59
Fall Peak Forecasts of each Zone, Geographic Region and PJM RTO	B-4		61
Monthly Peak Forecasts of each Zone, Geographic Region and PJM RTO	B-5		63
Monthly Peak Forecasts of FE-East and PLGrp	B-6		65
Load Management Placed Under PJM Coordination by Zone, used in Planning	B-7		66
Distributed Solar Adjustments to Summer Peak Forecasts	B-8		72
Adjustments to Summer Peak Forecasts	B-9		73
Summer Coincident Peak Load Forecasts of each Zone, Locational Deliverability Area and PJM RTO (RPM Forecast)	B-10		74
Seasonal Unrestricted PJM Control Area Peak Forecasts of each NERC Region	B-11,B-12		75

	TABLE NUMBER	CHART PAGE	TABLE PAGE
LOCATIONAL DELIVERABILITY AREA SEASONAL PEAKS:			
Central Mid-Atlantic: BGE, MetEd, PEPCO, PL and UGI Seasonal Peaks	C-1		79
Western Mid-Atlantic: MetEd, PENLC, PL and UGI Seasonal Peaks	C-2		80
Eastern Mid-Atlantic: AE, DPL, JCPL, PECO, PS and RECO Seasonal Peaks	C-3		81
Southern Mid-Atlantic: BGE and PEPCO Seasonal Peaks	C-4		82
EXTREME WEATHER (90/10) PEAK LOAD FORECASTS:			
Summer 90/10 Peak Forecasts of each Zone, Geographic Region and PJM RTO	D-1		83
Winter 90/10 Peak Forecasts of each Zone, Geographic Region and PJM RTO	D-2		85
NET ENERGY FORECAST AND ANNUAL GROWTH RATES:			
Annual Net Energy Forecasts of each Zone, Geographic Region and PJM RTO	E-1		87
Monthly Net Energy Forecasts of each Zone, Geographic Region and PJM RTO	E-2		91
Monthly Net Energy Forecasts of FE-East and PLGrp	E-3		93
PJM HISTORICAL DATA:			
Historical RTO Summer and Winter Peaks	F-1		94
Historical RTO Net Energy for Load	F-2		95
Weather-Normalized Seasonal Peaks of each Zone, Geographic Region and PJM RTO	F-3		96
ECONOMIC GROWTH: Average Economic Growth of each Zone and RTO	G-1		97

TERMS AND ABBREVIATIONS USED IN THIS REPORT

AE	Atlantic Electric zone (part of Pepco Holdings, Inc)
AEP	American Electric Power zone (incorporated 10/1/2004)
APP	Appalachian Power, sub-zone of AEP
APS	Allegheny Power zone (incorporated 4/1/2002)
ATSI	American Transmission Systems, Inc. zone (incorporated 6/1/2011)
Base Load	Average peak load on non-holiday weekdays with no heating or cooling load. Base load is insensitive to weather.
BGE	Baltimore Gas & Electric zone
CEI	Cleveland Electric Illuminating, sub-zone of ATSI
COMED	Commonwealth Edison zone (incorporated 5/1/2004)
Contractually Interruptible	Load Management from customers responding to direction from a control center
Cooling Load	The weather-sensitive portion of summer peak load
CSP	Columbus Southern Power, sub-zone of AEP
Direct Control	Load Management achieved directly by a signal from a control center
DAY	Dayton Power & Light zone (incorporated 10/1/2004)
DEOK	Duke Energy Ohio/Kentucky zone (incorporated 1/1/2012)
DLCO	Duquesne Lighting Company zone (incorporated 1/1/2005)
DOM	Dominion Virginia Power zone (incorporated 5/1/2005)
DPL	Delmarva Power & Light zone (part of Pepco Holdings, Inc)
EKPC	East Kentucky Power Cooperative (incorporated 6/1/2013)
FE-East	The combination of FirstEnergy's Jersey Central Power & Light, Metropolitan Edison, and Pennsylvania Electric zones (formerly GPU)
Heating Load	The weather-sensitive portion of winter peak load
INM	Indiana Michigan Power, sub-zone of AEP
JCPL	Jersey Central Power & Light zone
КР	Kentucky Power, sub-zone of AEP

METED	Metropolitan Edison zone
MP	Monongahela Power, sub-zone of APS
NERC	North American Electric Reliability Corporation
Net Energy	Net Energy for Load, measured as net generation of main generating units plus energy receipts minus energy deliveries
OEP	Ohio Edison, sub-zone of ATSI
OP	Ohio Power, sub-zone of AEP
PECO	PECO Energy zone
PED	Potomac Edison, sub-zone of APS
PEPCO	Potomac Electric Power zone (part of Pepco Holdings, Inc)
PL	PPL Electric Utilities, sub-zone of PLGroup
PLGroup/PLGRP	Pennsylvania Power & Light zone
PENLC	Pennsylvania Electric zone
РР	Pennsylvania Power, sub-zone of ATSI
PS	Public Service Electric & Gas zone
RECO	Rockland Electric (East) zone (incorporated 3/1/2002)
TOL	Toledo Edison, sub-zone of ATSI
UGI	UGI Utilities, sub-zone of PLGroup
Unrestricted Peak	Peak load prior to any reduction for load management or voltage reduction.
WP	West Penn Power, sub-zone of APS
Zone	Areas within the PJM Control Area, as defined in the PJM Reliability Assurance Agreement

2017 PJM LOAD FORECAST REPORT

EXECUTIVE SUMMARY

- This report presents an independent load forecast prepared by PJM staff.
- The report includes long-term forecasts of peak loads, net energy, load management and distributed solar generation for each PJM zone, region, locational deliverability area, and the total RTO.
- All load models were estimated with historical data from January 1998 through August 2016. The models were simulated with weather data from years 1993 through 2015, generating 299 scenarios. The economic forecast used was Moody's Analytics' September 2016 release. Equipment indexes reflect the 2016 update of Itron's end-use data, which is consistent with the Clean Power Plan scenario of the Energy Information Administration's 2016 Annual Energy Outlook.
- Table F-3 has been added to the report, detailing the weather-normalized peaks of the most recent summer and winter seasons.
- Since the 2016 report, minor refinements were made to how two of the inputs to the load forecast model are computed: 1) the heating and cooling end-use indexes now incorporate the thermal efficiency of residential and commercial structures; and 2) additional weather stations were used to develop historical solar generation estimates to increase granularity within each transmission zone.
- The forecasts of the following zones have been adjusted to account for large, unanticipated load changes (see Table B-9 for details):
 - The forecast of the APS zone has been adjusted to account for accelerating load related to natural gas processing plants, adding 60-250 MW to the summer peak from 2017 through 2022 before declining to 160 MW in 2032;
 - The forecast of the DOM zone has been adjusted to account for substantial on-going growth in data center construction, which adds 130-500 MW to the summer peak from 2017 through 2021 before declining to 60 MW in 2032.
- Summer peak load growth for the PJM RTO is projected to average 0.2% per year over the next 10 years, and 0.2% over the next 15 years. The PJM RTO summer peak is forecasted to be 155,773 MW in 2027, a 10-year increase of 2,774 MW, and reaches 157,994 MW in 2032, a 15-year increase of 4,995 MW. Annualized 10-year growth rates for individual zones range from -0.3% to 0.4%.
- Winter peak load growth for PJM RTO is projected to average 0.3% per year over the next 10-year period, and 0.3% over the next 15-years. The PJM RTO winter peak load in 2026/27 is forecasted to be 134,915 MW, a 10-year increase of 3,524 MW,

and reaches 137,486 MW in 2031/32, a 15-year increase of 6,095 MW. Annualized 10-year growth rates for individual zones range from -0.4% to 0.6%.

- Net energy for load growth for PJM RTO is projected to average 0.2% per year over the next 10-year period, and 0.3% over the next 15-years. Total PJM RTO energy is forecasted to be 835,137 GWh in 2027, a 10-year increase of 20,299 GWh, and reaches 851,227 GWh in 2032, a 15-year increase of 36,389 GWh. Annualized 10-year growth rates for individual zones range from -0.4% to 0.6%.
- Compared to the 2016 Load Report, the 2017 PJM RTO summer peak forecast shows the following changes for three years of interest:
 - The next delivery year 2017 -1,150 MW (-0.7%)
 - \circ The next RPM auction year 2020 -3,203 MW (-2.0%)
 - o The next RTEP study year 2022 -4,561 MW (-2.9%)

NOTE:

Unless noted otherwise, all peak and energy values are non-coincident, unrestricted peaks, which represent the peak load or net energy after reductions for distributed solar generation and prior to reductions for load management impacts.

All compound growth rates are calculated from the first year of the forecast.

Summary Table

SUMMER PEAK LOAD (MW) AND GROWTH RATES FOR PJM RTO AND SELECTED GEOGRAPHIC REGIONS

	METERED 2016	UNRESTRICTED 2016	THIS YEAR 2017	RPM YEAR 2020	RTEP YEAR 2022
PJM RTO	151,907	151,951	152,999	153,684	153,425
Demand Resources PJM RTO - Restricted			-9,120 143,879	-6,177 147,507	-6,169 147,256
PJM MID-ATLANTIC	56,261	56,666	57,164	57,217	56,730
Demand Resources MID-ATL - Restricted			-3,595 53,569	-2,388 54,829	-2,374 54,356
EASTERN MID-ATLANTIC	30,992	30,993	31,346	31,263	31,079
Demand Resources EMAAC - Restricted			-1,277 30,069	-851 30,412	-848 30,231
SOUTHERN MID-ATLANTIC	13,075	13,453	13,370	13,274	13,160
Demand Resources SWMAAC - Restricted			-1,197 12,173	-788 12,486	-780 12,380

Note:

Normal 2016 and all forecast values are non-coincident as estimated by PJM staff.

Except as noted, all values reflect the membership of the PJM RTO as of June 1, 2016.

Summary of the September 2016 U.S. macro forecast

The U.S. economy had a good summer. The job market posted impressive gains, vehicle sales have never been stronger, home sales and house prices have largely recovered from the bust, and the stock market is hitting new highs. A string of geopolitical shocks, most notably the British vote to exit the European Union, has done no discernible damage.

Federal Reserve officials appear to be gearing up for another interest rate increase. The only hike since the financial crisis was in December 2015, when policymakers lifted rates off the zero bound. Their extraordinarily cautious approach to normalizing interest rates seems to have convinced financial markets of a new normal and rates are not likely to rise much. Anything that changes these expectations could ignite a rapid re-pricing of stocks, bonds, real estate and other assets, and quickly hurt the economy.

Solid balance sheet

A fundamental reason for optimism is the economy's strong balance sheet. Household balance sheets could not be better. The household debt service burden is as low as it has been in the available data back to 1980. This reflects both the massive deleveraging during the financial crisis and the rock-bottom interest rates.



Households have locked in the low rates, which is especially encouraging. Homeowners have used successive mortgage refinancing waves to move into 15and 30-year mortgages at steadily lower rates. The average coupon on outstanding loans guaranteed by Fannie Mae and Freddie Mac is now near 4%. Nonmortgage debt has higher rates and shorter terms, but only a little more than one-fifth of all outstanding debt owed by households has a rate that adjusts within one year of a change in market interest rates.



Most impressive is the balance sheet of the financial system. Since the financial crisis, the banks have raised substantial amounts of capital, significantly improved their liquidity, and vastly upgraded their risk management practices. Banks have worked hard to increase their capitalization. Since the crisis hit, total bank equity capital has risen by nearly \$500 billion, an increase of well more than one-third, and capital ratios have risen significantly. The banking system has also become much more liquid. The share of bank assets invested in U.S. government securities

Corporate Balance Sheets Are Sturdy

has increased from less than 11% prior to the crisis to well over 16% currently. And the share of bank liabilities in sticky deposits has risen from 65% prior to the crisis to more than 76% today. The system could weather a tough economic storm.



Appropriately ample credit

The financial system's fortress balance sheet is supporting the credit growth necessary to power the economy's expansion. Overall credit to households and businesses is rising at a mid-single-digit pace, approximately equal to the economy's nominal potential growth. Credit growth is thus not too strong, which would increase debt loads and inflate asset bubbles, and not too weak, which would strangle investment and entrepreneurship.

Only single-family housing seems somewhat credit starved. That helps explain halting first-time homebuyer demand. Mortgage lenders have been easing their credit standards, but they still appear tight compared with other more typical periods. In the early 2000s, prior to the housing bubble, the average credit score for borrowers getting loans backed by Fannie Mae and Freddie Mac was just over 700, roughly the median score for all consumers. Today, the average score for borrowers with loans backed by the government-sponsored enterprises is closer to 740. This difference represents as many as 8 million potential homeowners.

A ways to run

At the center of every economic downturn is a serious problem with the economy's balance sheet. In the financial crisis, highly leveraged households stopped making their mortgage payments and caused the financial system to seize up. The proximate cause of the Y2K recession was overextended technology companies and the bubble in the stock market. Junk corporate bonds and commercial real estate lending precipitated the savings and loan crisis and recession of the early 1990s.

Given the current strength of the economy's balance sheet, it is difficult to be too anxious about another recession any time soon. It is also reassuring that regulators appear to be carefully monitoring the financial system, and willing and able to take action to head off problems before they become existential threats. Regulators' recent guidance to banks on their multifamily mortgage lending is a case in point. This is a sea change from regulators' stance prior to the financial crisis.

Another recession is coming, to be sure. It will emanate from a part of the economy's balance sheet that is opaque and not well understood. Most everyone will miss it. But odds are that the current expansion, which is already one of the longest, has a ways to run.

Risks to the outlook

U.S. presidential election

The U.S. presidential election results came as a shock to many, including Moody's Analytics. Financial markets initially reacted negatively to the news of a Donald Trump presidency: Futures markets plunged and volatility spiked. But after the initial shock, financial markets rallied and volatility subsided. Still, financial markets will remain volatile over the coming months as market participants assess the potential impacts on the economy. Trump's upset victory increases uncertainty both in the U.S. and abroad. Chances are high that a Trump presidency will take an anti-globalization stance on trade and immigration, with important implications for the global economy. Immigration will add to uncertainty as undocumented workers leave the country, leading to a contraction in the labor force. It is possible that deportations could reduce the labor force by 2.16 million, or 1.4%. Given the increase in uncertainty, businesses will likely delay investment and hiring decisions, and consumers will pause at least for a while to take stock. Ultimately, the economic impact will depend on what policies the new administration will actually pursue.

Under the Trump economy, growth will be about the same as the baseline in 2017, but over his term per annum growth will be weaker. Behind this poorer performance is the smaller workforce as some undocumented workers leave and fewer legal immigrants come. Global trade also suffers given the greater skepticism around our trading relationships and what is likely to be a stronger U.S. dollar, particularly against the Chinese yuan and other emerging currencies such as the Mexican peso.

There are long-term economic benefits from lower marginal tax rates and the adoption of a territorial corporate tax system, but these changes are too small to have a significant impact on growth over the medium term. Unemployment will fall as low as 4.4%, well below the economy's full-employment unemployment rate. This will fuel inflationary pressures, and in turn a more restrictive monetary policy and higher long-term interest rates.

Core inflation is expected to break through the Federal Reserve's 2% target by this time next year and peak near 3% in early 2019. The Fed will respond to the tight labor market and above-target inflation by normalizing rates more quickly—raising rates at its next meeting in December and steadily thereafter, with the federal funds rate expected to rise well above its estimated long-run equilibrium rate of 3% by mid-2019. Ten-year Treasury yields will peak about the same time at near 4%.

China

A hard landing for China's economy would reverberate across the world economy. The slowdown in China is already weighing on the country's trading partners in Asia and Latin America and has fanned financial market volatility. Although conditions have stabilized, the global recovery remains fragile and could derail should growth in China falter significantly. Growth in the world's second largest economy will continue to decelerate as the government attempts to transition away from excessive reliance on industry and more toward domestic consumption of services.

The uncertainty lies in China's ability to continue to generate sturdy growth and the possible impact of its interventions in the foreign exchange market on other global markets. China's economic growth has been supported by a huge buildup in credit that poured into residential and nonresidential investments. Should property prices crumble, that mountain of debt may prove to be unsustainable. Moreover, an unstable Chinese yuan could set off financial markets. China has already burned through more than \$500 billion in foreign reserves in 2015 in an attempt to stabilize the yuan. Last year's surprise yuan devaluation roiled markets, causing a global selloff of risky assets.

Geopolitical tensions

Geopolitical tensions pose an indirect threat to the U.S. economy, transmitted through international trade, consumer sentiment and financial markets. Britain's vote to leave the European Union jolted financial markets and triggered a global selloff of risky assets. Although markets have since stabilized, the British vote casts uncertainty about the future, including how and under what terms Britain will leave the EU. The fallout from the British vote includes heightened concern about Italy's already-weak banking system and threatens to undermine the Continent's fourth largest economy. Uncertainty also surrounds the European project by energizing other Eurosceptic political parties in the region. Anti-EU sentiment driven by immigration and trade policies also poses long-term risks for the EU as well as for the broader global economy. Elections in Italy later this year and in France, Germany and Netherlands next year could drastically change the EU's political and economic landscape. The risk is that these elections could result in further fragmentation of the EU, which would weaken the global economy and damage the U.S. expansion.

Elsewhere, conflicts in Iraq and Syria threaten to further destabilize the Middle East. Although the war against the Islamic State has been confined to Iraq and Syria, it could spread to other Middle Eastern countries. Additionally, the failed coup attempt in Turkey has strained U.S.-Turkey relations. The worst-case scenario involves an escalation of tensions in the region that could cause not only a spike in oil prices but also greater turmoil in global financial markets, leading to a drop in trade and slower global growth.

Monetary policy

Near-term economic uncertainty resulting from an unexpected Trump presidency could impact monetary policy decisions, especially if markets become unhinged. Fed funds futures are still pricing in around a 75% probability of a Federal Reserve rate hike in December. However, we are now less certain about that than are financial markets.

The Fed will still face the same challenges as it tries to normalize monetary policy. If the Fed were to raise interest rates too quickly it could undermine markets. This could derail the U.S. expansion and even force the Fed to reverse course and perhaps introduce a new round of quantitative easing or even negative interest rates. Another possibility is that the Fed waits too long to raise rates. As a result it might be forced to raise rates more aggressively than required, which could also undermine the expansion. Additionally, with interest rates still near the zero lower bound, the Fed is limited in the tools it has at its disposal to combat a re-cession.

Productivity

Productivity growth has been lackluster in the aftermath of the financial crisis. Since the recession, nonfarm business productivity has averaged a disappointing 1% per annum, and even less than that more recently. The decline in productivity that stems from a pullback in business investment is especially concerning. Restrictions on legal immigration and the accelerated deportation of undocumented workers could reduce long-run productivity, as immigrants have historically been a key driver of business creation and have played an important role in increasing productivity growth and in the growth of tech industries. With the U.S. fast approaching full employment, unless productivity gains improve, the economy will not deliver on GDP, income, profits, tax revenue and asset returns.

Summary of the forecast for PJM service territories

The PJM service territory covers all or parts of 13 states and the District of Columbia, accounting for more than 52 million people, or about a sixth of the U.S. population. The regional economies of the service territory include metro areas in the Midwest, South and Northeast and run the gamut from highly diversified, large economies such as Chicago, to small economies that depend heavily on one industry, such as Elkhart-Goshen IN.

Overall, education/healthcare remains the dominant industry in the service territory. Job growth for the industry has consistently outpaced the overall service territory economy. Over the longer term, increasing demand from the aging population within the service territory and out will support job gains because of its greater utilization of healthcare services. Healthcare is an export industry to some economies in the service territory.

Consistent with the historical trend, education- and healthcare-related services will provide a significant share of new jobs in the forecast period. Professional and financial services will also play a significant part, helped by large metro areas such as Chicago, Newark NJ and Pittsburgh.



Professional/Financial a Source of Job Gains

10

On average, the concentration of manufacturing in the service territory is roughly in line with the national average. However, approximately 60% of the metro areas, mainly smaller old-line manufacturing localities in the Northeast and Midwest, rely more heavily on industrial production for growth. The highest concentration of manufacturing is in Elkhart-Goshen IN, where nearly half of all jobs are in manufacturing. In contrast, the lowest concentration is in California-Lexington Park MD, where less than 1% of employment is in manufacturing.

The natural resources and mining industry represents a small portion of the service territory's economy, but has been a major source of weakness in recent years. Low energy prices, a glut of natural gas, and heightened regulatory burdens on coal producers have left the industry shedding employment even faster in 2016 than last year. Compared with a year earlier, natural resources and mining employment has declined 15%. The losses have been widespread in the service territory, with significant declines in Pennsylvania, Ohio, Virginia and West Virginia. The good news is that employment has flatlined in the last few months, and even increased in Ohio. This suggests that the worst losses may be in the past.

Weakness in natural resources and mining is also affecting manufacturing, as demand for inputs falters. This has been especially pronounced in the areas with significant natural gas industries, such as Pittsburgh and Williamsport PA. Additional manufacturing weakness is being caused by a strong U.S. dollar, weakness in global demand, and a turn in the inventory cycle have weighed on output. Some of these weights will prove more persistent than others. The dollar will likely appreciate further as the Fed tightens monetary policy more in 2016.

While the public sector has a slightly smaller presence in the service territory than it does nationally, there is a greater concentration of federal government employment. This is largely due to the presence of the Washington-Arlington-Alexandria metro division, which contains the nation's capital and is home to one out of 10 federal government employees. With federal budget deficits under 3% and the deficit forecast over the next 10 years improving, the political pressure for austerity has declined. However, poor state fiscal positions in Illinois and Pennsylvania present a risk to the forecast for the service territory.

Recent Performance

The service territory economy continues to improve. While the estimate of GDP growth from the third quarter of 2015 to the third quarter of 2016 is lower than expected, it still showed modest real growth. Total employment was much closer to the forecast, at 1.6% year to year in the third quarter compared with a forecast of 1.8%. Total employment is only 20,000 jobs short of 28 million forecast.

Healthcare/education has outperformed the forecast, as job growth has accelerated faster than expected. The acceleration is due to fading adjustment costs from the Affordable Care Act, which had weighed on hospital profitability and employment in particular. In addition, declining uninsured rates due to the Affordable Care Act and state Medicaid expansions are increasing the demand for healthcare services as well.

The tightening in the job market and increased churn have boosted income as jobs are more plentiful and employers must increasingly raise wages to hire and retain workers. Although real income growth in the second quarter, the most recent available data, has not improved as quickly as forecast it is likely that this will be revised upward. The added income has boosted consumer spending, which has benefited leisure/hospitality. Employment in leisure/hospitality is rising nearly twice as fast as overall employment, and is now well above last year's forecast.

Manufacturing employment shrunk compared with a year earlier, falling short of expectations. Manufacturing is an important driver, particularly in many of the territory's Midwest metal-producing and auto-related metro areas. A stronger dollar has held job growth back by eroding international competitiveness of manufacturing exports. Another factor has been spillover job losses from natural resources and mining. This can be seen clearly in the significant manufacturing losses in Pittsburgh, where manufacturers that supply the coal and natural gas industries have suffered layoffs.

Finance has given back some of the jobs generated in 2015 and has fallen short of the forecast. Professional and business services have been stronger, providing a wider boost to the economy thanks to high-paying, high-wage jobs. Gains in professional and business services have been especially strong in Philadelphia and the suburban Philadelphia metro division of Bucks-Chester-Montgomery. The region's concentration of life science research institutes and skilled workforce are helping, with scientific research and development services adding nearly 1,000 jobs over the last year in Montgomery-Bucks-Chester.

While some metro areas grew fast in the service territory, others suffered job losses this year. The biggest losses were in Elkhart-Goshen IN, where the strong dollar has weighed on exports of recreational vehicles that the metro area specializes in, costing it 6% of its manufacturing jobs over the last year. Atlantic City NJ remains near the bottom of the list because of a casino industry has struggled under stiff regional competition. Williamsport PA is also among the worst performing metro areas as a result of its reliance on the struggling natural gas industry.

While job growth in the service area is lagging that of the U.S. overall, it has closed the gap in 2016 as private services have picked up steam.

Local government remains a source of weakness in some areas because of state and local fiscal problems, in particular Illinois and Pennsylvania. Increasing pension costs are weighing on some areas, which has led local government employment to fall in Philadelphia, Allentown-Bethlehem and Lancaster PA.

Pennsylvania and Ohio are steadily adding jobs, which account for a substantial portion of PJM's customers. Ohio and Pennsylvania metro areas make up 36% of the territory's payroll employment.

Ohio's economy is in the midst of its longest spate of growth since the early 1990s. Though slightly underperforming the Midwest, the state has strengthened since midyear thanks to solid growth in private services, which lifted payroll employment in the third quarter to its highest since late 2001. Technical services, healthcare, and transportation and warehousing are key growth drivers. The factory sector has been mixed with auto and heavy machinery manufacturing advancing but with steel manufacturing in the midst of a protracted slump. The jobless rate fell to 4.7% in August, but this was partially driven by a drop in the labor force in addition to more robust hiring.

Pennsylvania is lagging the rest of the Northeast, as challenges for goods producers are holding back the economy. Weak global demand, a strong dollar, and an energy glut have led to job losses in manufacturing and natural resources/mining, which together shaved 0.3 percentage point from overall job growth. This has slowed but not stopped progress toward full employment. Job additions are still around 1% year over year, a respectable pace for a state that is weathering fallout in manufacturing and energy, and has an aging and slowly growing population. Job opportunities have even improved enough to draw people back into the labor force to look for work.

Near-term outlook and changes to the forecast

The 2016 regional baseline forecast was generated in the context of the U.S. macro forecast. Changes to the near-term outlook for the PJM service territory are similar to those in the U.S. macro forecast. The recent performance was weaker than expected in terms of output, but closer to expectations in terms of employment. This reflects weak growth in productivity, a nationwide phenomenon. Overall, the forecast has been lowered for the next few quarters. However, the recovery is now expected to last longer than previously expected as a result of the slower return to full employment.

Manufacturing is an area that fell short of expectations in 2016 because of the stronger dollar, low energy prices, weakness in global demand, and a turn in the inventory cycle. However, following a broader U.S. trend, the near-term outlook for the worst losses for manufacturing are expected to be in the past and employment is expected to hold mostly steady for the next few years. As the U.S. economy heats up over the next two years, this will spur more domestic demand for manufacturing and drive job growth that will temporarily offset the longer structural decline due to automation and globalization.

The single-family housing market has improved steadily, but the robust catch-up in single-family permitting that was expected has not materialized. Probably the strongest, though the least quantifiable, reason for the slower than expected recovery is still-low confidence in the long-term aftermath of the housing crisis, given the strong links between the housing and labor markets. Employment growth may be relatively strong, but growth in the high- and mid-tier jobs needed to lift median income has been insufficient. Indeed, real median family income has been flat for the past 15 years, while real median household income has trended downward.

Given the depth of last decade's housing crisis, there is also new awareness that purchasing a home may no longer be a solid investment. House prices, like financial prices, may be subject to prolonged downturns in the wake of overinvestment. When added to standard costs such as mortgage interest, property taxes, insurance and maintenance, a home purchase looks less lucrative this decade than prior to 2008.

Multifamily housing has continued to grow but also fell short of the forecast amid reports of skilled worker shortages and an increased backlog of multifamily construction projects.

Strong hiring in the labor market and increased tightness, as measured by the unemployment rate and ratio of employment to working-age population, points to stronger wage income growth in coming years. The indirect effect will be to strengthen household spending, including home purchases. Sales of existing homes will likely expand by close to 1 million annualized over the next two years before they subside, and this increase will also pull up construction. The extent of the projected increase in residential construction depends on the ability of the

industry to expand capacity and reduce skilled worker shortages, but builders will still be able to substantially increase the current pace of single-family construction at least.

Overall, the return of the service territory economy to full employment will be more gradual than expected, and as a result above-trend job growth will last slightly longer than previously expected. This short-term outlook mirrors the U.S. macro forecast. Over the past year, manufacturing and housing have fallen short of expectations, while the natural resources and mining sector shed jobs quickly. Growth will hold steady in 2017 as headwinds fade but the economy moves closer to full employment.

Long-term outlook

The September 2016 forecast for long-term GDP growth in metro areas in the PJM service territory has been slightly upgraded from October 2015. Over the next few years, faster household formation than previously expected will boost economic growth.



Population Projections Lowered Slightly...

Census data from 2015, the most recent available, reveal that population once again fell slightly below forecast. As a result, the September 2016 forecast is for population to expand by 5.6% between 2015 and 2030, down from 6.8% in the October 2015 forecast. As a result, population will be 813,000 lower by 2030 than previously expected.





Weaker population growth translates to fewer households in the long run. However, a new method for estimating household formation has changed both the history and forecast. Household formation has been stronger than previously believed over the past few years, but the near-term rapid recovery in household formation is no longer expected. Instead, household formation will improve only slightly over the next year as labor markets tighten and wage growth accelerates. On the upside, in the long run the new forecast projects fewer people per household. This translates into more households for a given amount of population growth. As a result, the long-run outlook for household formation is more optimistic and the near-term forecast is less so.



Overall, the long-term GDP forecast has not been altered substantially in the long run. The PJM service territory will underperform the U.S., with average annual real GDP growth of 1.9% from 2017 to 2030, compared with the U.S. average of 2.1%.

Relative to last year's forecast, GDP growth from 2017 to 2030 in the service territory is unchanged.

The southernmost metro areas, including the southern parts of Pennsylvania, are expected to be among the fastest-growing in the PJM service territory. The biggest comparative advantage for these areas is their favorable demographic trends, which will help boost overall final demand. While the near-term forecast is weaker, household formation will hold steady in the long run and will drive growth in consumer-based services, including education/healthcare and leisure/hospitality.

Suburban areas are outperforming the cities they neighbor in several cases, thanks to higher levels of education and the regulatory and policy problems that big cities face. For example, the Elgin metro division is expected to outpace the Chicago metro division in terms of population and GDP growth, and Montgomery-Bucks-Chester will do the same for Philadelphia. Washington DC will outperform the service territory thanks to a highly educated labor force, productivity growth, and positive demographic trends.



Sources: Census Bureau, Moody's Analytics

Metro areas in Ohio, West Virginia, and western and northern Pennsylvania will expand more slowly. Expansion in those states will be more restrained as the region transitions away from manufacturing and other blue-collar industries toward more service-oriented economies. With lower-value-added services accounting for a larger part of the regional economies, income gains are expected to be more restrained. Weaker demographics will also undermine long-term growth, as workers and their families are expected to seek opportunities in stronger labor markets outside of the slow-growth metro areas in the Midwest and Northeast. While the presence of institutions of higher education and high tech will help some cities such as Pittsburgh, even there the long-standing bluecollar industry headwinds will lead to below-average demographic performance.

Service Territory Will Underperform the U.S. Avg real GDP growth from 2016 to 2030, % U.S.=2.1 2 or more 1 to <2 <1

Sources: Census Bureau, Moody's Analytics

Of the 10 areas with the weakest increases in the number of households, five are in Ohio and two are in Pennsylvania. Half of these areas will post net declines in the number of households. In Pennsylvania, the long-run decline of manufacturing is exacerbated by poor public sector finances that will weigh on local government employment as well as taxpayers.

PJM SUMMER PEAK LOAD GROWTH RATE 2017 - 2027



PJM WINTER PEAK LOAD GROWTH RATE 2017 - 2027



PERCENT/YEAR

SUMMER PEAK DEMAND FOR PJM RTO GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR PJM RTO GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR PJM MID-ATLANTIC GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR PJM MID-ATLANTIC GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR EASTERN MID-ATLANTIC GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR EASTERN MID-ATLANTIC GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR SOUTHERN MID-ATLANTIC GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR SOUTHERN MID-ATLANTIC GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR PJM WESTERN GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR PJM WESTERN GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR AE GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR AE GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR BGE GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR BGE GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR DPL GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR DPL GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR JCPL GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR JCPL GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR METED GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR METED GEOGRAPHIC ZONE


SUMMER PEAK DEMAND FOR PECO GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR PECO GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR PENLC GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR PENLC GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR PEPCO GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR PEPCO GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR PL GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR PL GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR PS GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR PS GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR RECO GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR RECO GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR UGI GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR UGI GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR AEP GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR AEP GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR APS GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR APS GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR ATSI GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR ATSI GEOGRAPHIC ZONE



40

SUMMER PEAK DEMAND FOR COMED GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR COMED GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR DAYTON GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR DAYTON GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR DEOK GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR DEOK GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR DLCO GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR DLCO GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR EKPC GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR EKPC GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR DOM GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR DOM GEOGRAPHIC ZONE



PJM MID-ATLANTIC REGION SUMMER PEAK LOAD COMPARISONS OF THE CURRENT FORECAST TO THE JANUARY 2016 LOAD FORECAST REPORT

	20)17	20	22	2027		
	MW	%	MW	%	MW	%	
AE	(35)	-1.4%	(55)	-2.2%	(52)	-2.1%	
BGE	(100)	-1.4%	(274)	-3.9%	(320)	-4.4%	
DPL	(2)	-0.0%	(134)	-3.3%	(157)	-3.8%	
JCPL	18	0.3%	(62)	-1.0%	(73)	-1.2%	
METED	(35)	-1.2%	(95)	-3.1%	(177)	-5.5%	
PECO	(111)	-1.3%	(256)	-2.9%	(468)	-5.1%	
PENLC	(9)	-0.3%	(32)	-1.1%	(72)	-2.5%	
PEPCO	0	0.0%	(177)	-2.6%	(268)	-3.9%	
PL	(138)	-1.9%	(243)	-3.3%	(433)	-5.7%	
PS	(116)	-1.1%	(224)	-2.2%	(229)	-2.2%	
RECO	(5)	-1.2%	(8)	-2.0%	(6)	-1.5%	
UGI	1	0.5%	(2)	-1.1%	(6)	-3.1%	
PJM MID-ATLANTIC	(572)	-1.0%	(1,708)	-2.9%	(2,420)	-4.1%	
FE-EAST	(37)	-0.3%	(208)	-1.8%	(343)	-2.8%	
LUKL	(141)	-1.9%	(240)	-5.5%	(444)	-3.7%	

PJM WESTERN REGION, PJM SOUTHERN REGION AND PJM RTO SUMMER PEAK LOAD COMPARISONS OF THE CURRENT FORECAST TO THE JANUARY 2016 LOAD FORECAST REPORT

	20	17	20	22	2027		
	MW	%	MW	%	MW	%	
AEP	(364)	-1.6%	(852)	-3.5%	(1.225)	-4.9%	
APS	(212)	-2.4%	(310)	-3.3%	(525)	-5.5%	
ATSI	(10)	-0.1%	(196)	-1.5%	(310)	-2.3%	
COMED	80	0.4%	(529)	-2.3%	(968)	-4.1%	
DAYTON	26	0.8%	(82)	-2.3%	(172)	-4.7%	
DEOK	(3)	-0.1%	(103)	-1.8%	(160)	-2.7%	
DLCO	(34)	-1.2%	(69)	-2.3%	(118)	-3.9%	
EKPC	1	0.1%	(19)	-1.0%	(42)	-2.0%	
PJM WESTERN	(456)	-0.6%	(2,061)	-2.5%	(3,407)	-4.0%	
DOM	(323)	-1.6%	(1,091)	-5.1%	(1,755)	-7.9%	
PJM RTO	(1,150)	-0.7%	(4,561)	-2.9%	(7,215)	-4.4%	

PJM MID-ATLANTIC REGION WINTER PEAK LOAD COMPARISONS OF THE CURRENT FORECAST TO THE JANUARY 2016 LOAD FORECAST REPORT

	16	/17	21	/22	26/27		
	MW	%	MW	%	MW	%	
AE	(2)	-0.1%	(34)	-2.1%	(62)	-3.8%	
BGE	(111)	-1.9%	(215)	-3.5%	(306)	-4.9%	
DPL	(18)	-0.5%	(96)	-2.7%	(154)	-4.2%	
JCPL	42	1.1%	(33)	-0.9%	(116)	-3.0%	
METED	(22)	-0.8%	(77)	-2.8%	(137)	-4.9%	
PECO	(76)	-1.1%	(179)	-2.6%	(335)	-4.7%	
PENLC	(7)	-0.2%	(21)	-0.7%	(29)	-1.0%	
PEPCO	(103)	-1.9%	(213)	-3.8%	(267)	-4.7%	
PL	(120)	-1.6%	(224)	-3.0%	(364)	-4.8%	
PS	20	0.3%	(38)	-0.6%	(167)	-2.4%	
RECO	0	0.0%	(1)	-0.4%	(2)	-0.9%	
UGI	1	0.5%	(2)	-1.0%	(5)	-2.6%	
PJM MID-ATLANTIC	(256)	-0.6%	(983)	-2.1%	(1,779)	-3.7%	
FE-EAST PLGRP	20 (114)	0.2% -1.5%	(105) (222)	-1.1% -2.9%	(275) (362)	-2.9% -4.7%	
	()		()		(- •-)		

PJM WESTERN REGION, PJM SOUTHERN REGION AND PJM RTO WINTER PEAK LOAD COMPARISONS OF THE CURRENT FORECAST TO THE JANUARY 2016 LOAD FORECAST REPORT

	16/	17	21/	22	26/27		
	$\mathbf{M}\mathbf{W}$	%	MW	%	MW	%	
AEP	(572)	-2.5%	(1,099)	-4.6%	(1,491)	-6.0%	
APS	(172)	-2.0%	(350)	-3.8%	(522)	-5.5%	
ATSI	(13)	-0.1%	(137)	-1.3%	(226)	-2.0%	
COMED	(25)	-0.2%	(446)	-2.7%	(793)	-4.6%	
DAYTON	33	1.1%	(66)	-2.2%	(154)	-5.0%	
DEOK	(20)	-0.4%	(108)	-2.3%	(169)	-3.5%	
DLCO	(9)	-0.4%	(27)	-1.2%	(52)	-2.3%	
EKPC	(23)	-0.9%	(79)	-2.9%	(135)	-4.8%	
PJM WESTERN	(699)	-1.0%	(2,220)	-3.1%	(3,445)	-4.6%	
DOM	(138)	-0.8%	(992)	-5.1%	(1,760)	-8.5%	
PJM RTO	(1,091)	-0.8%	(4,213)	-3.1%	(7,072)	-5.0%	

SUMMER PEAK LOAD (MW) AND GROWTH RATES FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION 2017 - 2027

Ν	IETERED 2016	UNRESTRICTED 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Annual Growth Rate (10 yr)
AE	2,674	2,674	2,495	2,486	2,475	2,454	2,442 -0.5%	2,451	2,435	2,434	2,436	2,440	2,445	(0.2%)
BGE	6,601	6,932	6,889	6,953	-0.4% 6,860 -1.3%	6,879 0.3%	-0.3% 6,824 -0.8%	6,786	-0.7% 6,784 -0.0%	6,811 0.4%	6,886	6,905 0.3%	6,911 0.1%	0.0%
DPL	4,127	4,127	4,028	4,037 0.2%	4,024	3,995 -0.7%	-0.3% 3,952 -1.1%	-0.0% 3,937 -0.4%	3,936 -0.0%	3,943 0.2%	3,966 0.6%	3,980 0.4%	3,983 0.1%	(0.1%)
JCPL	5,955	5,955	6,056	6,085 0.5%	6,080 -0.1%	6,054 -0.4%	6,033 -0.3%	6,014 -0.3%	6,018 0.1%	6,026 0.1%	6,050 0.4%	6,084 0.6%	6,108 0.4%	0.1%
METED	2,948	2,948	2,940	2,976 1.2%	2,991 0.5%	2,983 -0.3%	2,971 -0.4%	2,973 0.1%	2,964 -0.3%	2,988 0.8%	3,007 0.6%	3,022 0.5%	3,028 0.2%	0.3%
PECO	8,364	8,364	8,547	8,614 0.8%	8,643 0.3%	8,597 -0.5%	8,583 -0.2%	8,586 0.0%	8,581 -0.1%	8,610 0.3%	8,636 0.3%	8,693 0.7%	8,693 0.0%	0.2%
PENLC	2,910	2,910	2,891	2,899 0.3%	2,904 0.2%	2,893 -0.4%	2,878 -0.5%	2,869 -0.3%	2,856 -0.5%	2,855 -0.0%	2,855 0.0%	2,860 0.2%	2,847 -0.5%	(0.2%)
PEPCO	6,584	6,584	6,614	6,616 0.0%	6,599 -0.3%	6,550 -0.7%	6,515 -0.5%	6,503 -0.2%	6,492 -0.2%	6,502 0.2%	6,518 0.2%	6,533 0.2%	6,543 0.2%	(0.1%)
PL	6,841	6,841	7,132	7,185 0.7%	7,201 0.2%	7,186 -0.2%	7,169 -0.2%	7,162 -0.1%	7,125 -0.5%	7,137 0.2%	7,162 0.4%	7,186 0.3%	7,186 0.0%	0.1%
PS	9,801	9,801	10,057	$10,071 \\ 0.1\%$	10,047 -0.2%	10,000 -0.5%	9,965 -0.4%	9,963 -0.0%	9,960 -0.0%	9,947 -0.1%	9,964 0.2%	9,996 0.3%	10,012 0.2%	(0.0%)
RECO	402	402	404	404 0.0%	403 -0.2%	403 0.0%	401 -0.5%	401 0.0%	402 0.2%	401 -0.2%	403 0.5%	404 0.2%	404 0.0%	0.0%
UGI	200	200	191	192 0.5%	192 0.0%	190 -1.0%	188 -1.1%	187 -0.5%	186 -0.5%	186 0.0%	185 -0.5%	185 0.0%	185 0.0%	(0.3%)
DIVERSITY - MID-ATLANTIC(-) PJM MID-ATLANTIC	56,261	56,666	1,080 57,164	1,186 57,332 0.3%	1,089 57,330 -0.0%	967 57,217 -0.2%	1,132 56,789 -0.7%	1,102 56,730 -0.1%	1,066 56,673 -0.1%	1,074 56,766 0.2%	934 57,134 0.6%	961 57,327 0.3%	1,161 57,184 -0.2%	0.0%
FE-EAST	11,692	11,692	11,618	11,689	11,699	11,630	11,593 -0.3%	11,587 -0.1%	11,582	11,605	11,626	11,669	11,693	0.1%
PLGRP	7,025	7,031	7,276	7,328 0.7%	7,337 0.1%	7,327 -0.1%	7,312 -0.2%	7,302 -0.1%	7,262 -0.5%	7,271 0.1%	7,302 0.4%	7,324 0.3%	7,326 0.0%	0.1%

Notes:

All forecast values are non-coincident as estimated by PJM staff. All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management. All average growth rates are calculated from the first year of the forecast (2017).

Summer season indicates peak from June, July, August.

Table B-1 (continued)

SUMMER PEAK LOAD (MW) AND GROWTH RATES FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION 2028 - 2032

						Annual
	2020	2020	2020	2021	2022	Growth Rate
	2028	2029	2030	2031	2032	(15 yr)
AE	2,454	2,460	2,460	2,471	2,481	(0.0%)
	0.4%	0.2%	0.0%	0.4%	0.4%	
BGE	6,887	6,972	6,968	7,031	7,043	0.1%
	-0.3%	1.2%	-0.1%	0.9%	0.2%	
DPL	4,002	4,017	4,029	4,058	4,057	0.0%
	0.5%	0.4%	0.3%	0.7%	-0.0%	
JCPL	6,120	6,163	6,170	6,219	6,277	0.2%
	0.2%	0.7%	0.1%	0.8%	0.9%	
METED	3,016	3,031	3,023	3,015	3,006	0.1%
	-0.4%	0.5%	-0.3%	-0.3%	-0.3%	
PECO	8,717	8,719	8,697	8,652	8,629	0.1%
	0.3%	0.0%	-0.3%	-0.5%	-0.3%	
PENLC	2,835	2,815	2,789	2,755	2,724	(0.4%)
	-0.4%	-0.7%	-0.9%	-1.2%	-1.1%	
PEPCO	6,567	6,589	6,609	6,640	6,654	0.0%
	0.4%	0.3%	0.3%	0.5%	0.2%	
PL	7,167	7,155	7,107	7,060	7,018	(0.1%)
	-0.3%	-0.2%	-0.7%	-0.7%	-0.6%	
PS	10,049	10,073	10,074	10,128	10,185	0.1%
	0.4%	0.2%	0.0%	0.5%	0.6%	
RECO	405	406	407	409	410	0.1%
	0.2%	0.2%	0.2%	0.5%	0.2%	
UGI	184	183	181	180	178	(0.5%)
	-0.5%	-0.5%	-1.1%	-0.6%	-1.1%	
	1.005	1 150	1 101	05.4	1 1 1 0	
DIVERSITY - MID-ATLANTIC(-)	1,085	1,150	1,121	954	1,119	0.00/
PJM MID-ATLANTIC	57,518	57,455	57,595 0.10/	57,004	57,545	0.0%
	0.2%	0.2%	-0.1%	0.5%	-0.2%	
FE-EAST	11,726	11,750	11,730	11,713	11,726	0.1%
	0.3%	0.2%	-0.2%	-0.1%	0.1%	
PLGRP	7,302	7,292	7,237	7,195	7,157	(0.1%)
	-0.3%	-0.1%	-0.8%	-0.6%	-0.5%	

Notes:

All forecast values are non-coincident as estimated by PJM staff. All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management. All average growth rates are calculated from the first year of the forecast (2017).

Summer season indicates peak from June, July, August.

SUMMER PEAK LOAD (MW) AND GROWTH RATES FOR EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO 2017 - 2027

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Μ	IETERED 2016	UNRESTRICTED 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Annual Growth Rate (10 yr)
AEP	22,489	22,489	22,945	23,157 0.9%	23,283 0.5%	23,199 -0.4%	23,197 -0.0%	23,267 0.3%	23,349 0.4%	23,499 0.6%	23,605 0.5%	23,764 0.7%	23,888 0.5%	0.4%
APS	8,718	8,718	8,802	8,874	8,916 0.5%	8,952 0.4%	8,976 0.3%	9,004 0.3%	8,991 0.1%	9,011	9,049 0.4%	9,075	9,087	0.3%
ATSI	12,753	12,753	12,994	13,063 0.5%	13,109 0.4%	13,038 -0.5%	13,005 -0.3%	13,011 0.0%	-0.1% 13,005 -0.0%	13,065 0.5%	13,097 0.2%	13,139 0.3%	13,177 0.3%	0.1%
COMED	21,175	21,187	22,296	22,442 0.7%	22,514 0.3%	22,386 -0.6%	22,357 -0.1%	22,406 0.2%	22,467 0.3%	22,565 0.4%	22,654 0.4%	22,778 0.5%	22,872 0.4%	0.3%
DAYTON	3,327	3,327	3,479	3,498 0.5%	3,509 0,3%	3,482 -0.8%	3,467 -0.4%	3,466 -0.0%	3,469 0.1%	3,480 0.3%	3,485 0.1%	3,498 0.4%	3,503 0.1%	0.1%
DEOK	5,309	5,309	5,497	5,555 1 1 %	5,598 0.8%	5,580 -0.3%	5,573 -0.1%	5,582 0.2%	5,610 0.5%	5,655 0.8%	5,687 0.6%	5,718 0.5%	5,741 0.4%	0.4%
DLCO	2,797	2,797	2,884	2,895	2,901 0.2%	2,890	2,882	2,879	2,871 -0.3%	2,873 0.1%	2,877 0.1%	2,882	2,882	(0.0%)
EKPC	2,026	2,026	1,948	1,957 0.5%	1,968 0.6%	1,968 0.0%	1,969 0.1%	1,970 0.1%	1,981 0.6%	1,991 0.5%	1,999 0.4%	2,005 0.3%	2,010 0.2%	0.3%
DIVERSITY - WESTERN(-) PJM WESTERN	77,855	77,882	1,529 79,316	1,572 79,869 0.7%	1,668 80,130 0.3%	1,544 79,951 -0.2%	1,551 79,875 -0.1%	1,515 80,070 0.2%	1,491 80,252 0.2%	$1,601 \\ 80,538 \\ 0.4\%$	1,597 80,856 0.4%	1,542 81,317 0.6%	1,468 81,692 0.5%	0.3%
DOM	19,539	19,559	19,729	20,021 1.5%	20,191 0.8%	20,150 -0.2%	20,162 0.1%	20,153 -0.0%	20,165 0.1%	$20,241 \\ 0.4\%$	20,315 0.4%	20,408 0.5%	20,501 0.5%	0.4%
DIVERSITY - INTERREGIONAL(-) PJM RTO	151,907	151,951	3,210 152,999	3,271 153,951 0.6%	3,373 154,278 0.2%	3,634 153,684 -0.4%	3,442 153,384 -0.2%	3,528 153,425 0.0%	3,368 153,722 0.2%	3,403 154,142 0.3%	3,733 154,572 0.3%	3,904 155,148 0.4%	3,604 155,773 0.4%	0.2%

Notes:

All forecast values are non-coincident as estimated by PJM staff. All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management. All average growth rates are calculated from the first year of the forecast (2017). Summer season indicates peak from June, July, August.

Table B-1 (continued)

SUMMER PEAK LOAD (MW) AND GROWTH RATES FOR EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO 2028 - 2032

						Annual Growth Rate
	2028	2029	2030	2031	2032	(15 yr)
AEP	24,040	24,209	24,366	24,500	24,647	0.5%
	0.6%	0.7%	0.6%	0.5%	0.6%	
APS	9,102	9,124	9,121	9,136	9,111	0.2%
	0.2%	0.2%	-0.0%	0.2%	-0.3%	
ATSI	13,203	13,244	13,296	13,318	13,341	0.2%
	0.2%	0.3%	0.4%	0.2%	0.2%	
COMED	22,999	23,118	23,214	23,340	23,484	0.3%
	0.6%	0.5%	0.4%	0.5%	0.6%	
DAYTON	3,518	3,535	3,544	3,551	3,559	0.2%
	0.4%	0.5%	0.3%	0.2%	0.2%	
DEOK	5,779	5,816	5,861	5,895	5,915	0.5%
	0.7%	0.6%	0.8%	0.6%	0.3%	
DLCO	2,881	2,873	2,860	2,839	2,828	(0.1%)
	-0.0%	-0.3%	-0.5%	-0.7%	-0.4%	
EKPC	2,020	2,030	2,044	2,054	2,060	0.4%
	0.5%	0.5%	0.7%	0.5%	0.3%	
DIVERSITY - WESTERN(-)	1,435	1,478	1,591	1,625	1,480	
PJM WESTERN	82,107	82,471	82,715	83,008	83,465	0.3%
	0.5%	0.4%	0.3%	0.4%	0.6%	
DOM	20,632	20,753	20,829	20,909	20,957	0.4%
	0.6%	0.6%	0.4%	0.4%	0.2%	
DIVERSITY - INTERREGIONAL(-)	3.638	3.641	3,709	4,068	3.971	
PJM RTO 1	156,419	157,016	157,228	157,513	157,994	0.2%
	0.4%	0.4%	0.1%	0.2%	0.3%	

Notes:

All forecast values are non-coincident as estimated by PJM staff. All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management. All average growth rates are calculated from the first year of the forecast (2017). Summer season indicates peak from June, July, August.

WINTER PEAK LOAD (MW) AND GROWTH RATES FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION 2016/17 - 2026/27

I	METERED 15/16	UNRESTRICTED 15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Annual Growth Rate (10 yr)
AE	1,556	1,556	1,630	1,631	1,634	1,609	1,596	1,586	1,580	1,579	1,569	1,565	1,565	(0.4%)
BGE	5,811	5,811	5,883	0.1% 5,899	0.2% 5,901	-1.5% 5,894	-0.8% 5,885	-0.6% 5,883	-0.4% 5,887	-0.1% 5,893	-0.6% 5,892	-0.3% 5,908	0.0% 5,920	0.1%
DPL	3,471	3,471	3,443	0.3% 3,466	0.0% 3,481	-0.1% 3,474	-0.2% 3,465	-0.0% 3,464	0.1% 3,472	0.1% 3,481	-0.0% 3,488	0.3% 3,498	0.2% 3,515	0.2%
JCPL	3,574	3,574	3,864	0.7% 3,908	0.4% 3,913	-0.2% 3,861	-0.3% 3,844	-0.0% 3,824	0.2% 3,809	0.3% 3,805	0.2% 3,792	0.3% 3,793	0.5% 3,797	(0.2%)
METED	2,535	2,535	2,615	1.1% 2,642	0.1% 2,660	-1.3% 2,643	-0.4% 2,634	-0.5% 2,634	-0.4% 2,641	-0.1% 2,649	-0.3% 2,652	0.0% 2,659	0.1% 2,670	0.2%
PECO	6,383	6,383	6,694	1.0% 6,754	0.7% 6,796	-0.6% 6,751	-0.3% 6,707	0.0% 6,720	0.3% 6,731	0.3% 6,741	0.1% 6,719	0.3% 6,727	0.4% 6,741	0.1%
PENLC	2 758	2,758	2 821	0.9% 2.826	0.6% 2.837	-0.7% 2.822	-0.7% 2.811	0.2% 2.809	0.2% 2.810	0.1% 2.812	-0.3% 2.806	0.1% 2.805	0.2% 2.807	(0.0%)
PEPCO	5 466	<u>-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	5 352	0.2%	0.4%	-0.5%	-0.4%	-0.1%	0.0%	0.1%	-0.2%	-0.0%	0.1%	0.2%
DI	6,709	6,709	5,552	0.5%	0.3%	-0.1%	-0.2%	-0.0%	0.1%	0.2%	0.2%	0.3%	0.4%	0.270
PL	0,798	6,798	/,1//	7,241 0.9%	0.3%	-0.5%	-0.3%	-0.2%	0.1%	0.1%	-0.0%	0.1%	0.2%	0.1%
PS	6,333	6,333	6,821	6,872 0.7%	6,903 0.5%	6,861 -0.6%	6,812 -0.7%	6,804 -0.1%	6,791 -0.2%	6,784 -0.1%	6,752 -0.5%	6,749 -0.0%	6,754 0.1%	(0.1%)
RECO	219	219	234	235 0.4%	236 0.4%	234 -0.8%	234 0.0%	234 0.0%	234 0.0%	234 0.0%	232 -0.9%	232 0.0%	233 0.4%	(0.0%)
UGI	194	194	195	196 0.5%	196 0.0%	194 -1.0%	192 -1.0%	191 -0.5%	190 -0.5%	190 0.0%	189 -0.5%	188 -0.5%	188 0.0%	(0.4%)
DIVERSITY - MID-ATLANTIC(- PJM MID-ATLANTIC) 44,087	44,087	481 46,248	579 46,470 0.5%	583 46,633 0.4%	622 46,343 -0.6%	564 46,204 -0.3%	520 46,202 -0.0%	491 46,236 0.1%	516 46,251 0.0%	563 46,136 -0.2%	565 46,187 0.1%	557 46,295 0.2%	0.0%
FE-EAST	8,828	8,828	9,249	9,328	9,367	9,271	9,225	9,218	9,214	9,227	9,196	9,198	9,210	(0.0%)
PLGRP	6,984	6,984	7,362	0.9% 7,423 0.8%	0.4% 7,442 0.3%	-1.0% 7,395 -0.6%	-0.5% 7,378 -0.2%	-0.1% 7,373 -0.1%	-0.0% 7,371 -0.0%	0.1% 7,380 0.1%	-0.5% 7,374 -0.1%	0.0% 7,378 0.1%	0.1% 7,390 0.2%	0.0%

Notes:

All forecast values are non-coincident as estimated by PJM staff. All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management. All average growth rates are calculated from the first year of the forecast (2016/17). Winter season indicates peak from December, January, February. 55

Table B-2 (Continued)

WINTER PEAK LOAD (MW) AND GROWTH RATES FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION 2027/28 - 2031/32

						Annual
	27/20	20/20	20/20	20/21	21/22	Growth Rate
	27/28	28/29	29/30	30/31	31/32	(15 yr)
AE	1,565	1,566	1,567	1,559	1,561	(0.3%)
	0.0%	0.1%	0.1%	-0.5%	0.1%	
BGE	5,926	5,943	5,952	5,955	5,976	0.1%
	0.1%	0.3%	0.2%	0.1%	0.4%	
DPL	3,526	3,541	3,554	3,562	3,583	0.3%
	0.3%	0.4%	0.4%	0.2%	0.6%	
JCPL	3,801	3,809	3,814	3,802	3,819	(0.1%)
	0.1%	0.2%	0.1%	-0.3%	0.4%	
METED	2,678	2,688	2,703	2,705	2,719	0.3%
	0.3%	0.4%	0.6%	0.1%	0.5%	
PECO	6,774	6,783	6,818	6,798	6,818	0.1%
	0.5%	0.1%	0.5%	-0.3%	0.3%	
PENLC	2,808	2,810	2,824	2,812	2,814	(0.0%)
	0.0%	0.1%	0.5%	-0.4%	0.1%	
PEPCO	5,456	5,479	5,496	5,505	5,525	0.2%
	0.2%	0.4%	0.3%	0.2%	0.4%	
PL	7,225	7,245	7,251	7,251	7,272	0.1%
	0.1%	0.3%	0.1%	0.0%	0.3%	
PS	6,778	6,767	6,782	6,768	6,786	(0.0%)
	0.4%	-0.2%	0.2%	-0.2%	0.3%	
RECO	233	233	235	231	233	(0.0%)
	0.0%	0.0%	0.9%	-1.7%	0.9%	
UGI	187	187	187	186	185	(0.4%)
	-0.5%	0.0%	0.0%	-0.5%	-0.5%	
	465	505		504	5.40	
DIVERSITY - MID-ATLANTIC(-)	465	537	556	524	548	0.10/
PJM MID-ATLANTIC	46,492	46,514	46,627	46,610	46,743	0.1%
	0.4%	0.0%	0.2%	-0.0%	0.3%	
FE-EAST	9,245	9,264	9,297	9,276	9,303	0.0%
	0.4%	0.2%	0.4%	-0.2%	0.3%	
PLGRP	7,404	7,415	7,415	7,422	7,440	0.1%
	0.2%	0.1%	0.0%	0.1%	0.2%	

Notes:

All forecast values are non-coincident as estimated by PJM staff. All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management. All average growth rates are calculated from the first year of the forecast (2016/17).

Winter season indicates peak from December, January, February.

WINTER PEAK LOAD (MW) AND GROWTH RATES FOR EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO 2016/17 - 2026/27

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Ν	1ETERED 15/16	UNRESTRICTED 15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Annual Growth Rate (10 yr)
AEP	22,256	22,256	22,317	22,565 1.1%	22,784 1.0%	22,766 -0.1%	22,736 -0.1%	22,849 0.5%	22,943 0.4%	23,111 0.7%	23,205 0.4%	23,372 0.7%	23,522 0.6%	0.5%
APS	8,666	8,666	8,606	8,720 1.3%	8,803 1.0%	8,844 0.5%	8,869 0.3%	8,906 0.4%	8,928 0.2%	8,953 0.3%	8,980 0.3%	8,998 0.2%	9,035 0.4%	0.5%
ATSI	10,395	10,395	10,644	10,706	10,788 0.8%	10,724	10,689	10,711	10,755 0.4%	10,785 0 3%	10,791 0.1%	10,823	10,856 0.3%	0.2%
COMED	14,956	14,956	15,807	15,971	16,085 0.7%	15,994 -0.6%	15,940 -0.3%	15,957	16,007 0.3%	16,098	16,149	16,220	16,308 0.5%	0.3%
DAYTON	2,885	2,885	2,934	2,951	2,958	2,941	2,931	2,931	2,938	2,943 0.2%	2,937 -0.2%	2,944	2,954 0.3%	0.1%
DEOK	4,381	4,381	4,469	4,511	4,530	4,537	4,531	4,550	4,572	4,600	4,602	4,627	4,663	0.4%
DLCO	2,073	2,073	2,171	2,183	2,191	2,182	2,177	2,174	2,176	2,176	2,172	2,174 0.1%	2,179	0.0%
EKPC	2,501	2,501	2,611	2,622 0.4%	2,626 0.2%	2,621 -0.2%	2,634 0.5%	2,653 0.7%	2,666 0.5%	2,677 0.4%	-0.2% 2,664 -0.5%	2,678 0.5%	2,696 0.7%	0.3%
DIVERSITY - WESTERN(-) PJM WESTERN	67,292	67,292	1,268 68,291	1,355 68,874 0.9%	1,437 69,328 0.7%	1,488 69,121 -0.3%	1,484 69,023 -0.1%	1,405 69,326 0.4%	1,445 69,540 0.3%	1,472 69,871 0.5%	1,463 70,037 0.2%	1,523 70,313 0.4%	1,525 70,688 0.5%	0.3%
DOM	18,948	18,948	17,925	18,248 1.8%	18,484 1.3%	18,466 -0.1%	18,560 0.5%	18,555 -0.0%	18,614 0.3%	18,692 0.4%	18,683 -0.0%	18,821 0.7%	18,938 0.6%	0.6%
DIVERSITY - INTERREGIONAL(-) PJM RTO	129,414	129,414	1,073 131,391	940 132,652 1.0%	1,051 133,394 0.6%	988 132,942 -0.3%	904 132,883 -0.0%	1,033 133,050 0.1%	1,151 133,239 0.1%	972 133,842 0.5%	1,059 133,797 -0.0%	979 134,342 0.4%	1,006 134,915 0.4%	0.3%

Notes:

All forecast values are non-coincident as estimated by PJM staff. All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management. All average growth rates are calculated from the first year of the forecast (2016/17). Winter season indicates peak from December, January, February. 57

Table B-2 (Continued)

WINTER PEAK LOAD (MW) AND GROWTH RATES FOR EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO 2027/28 - 2031/32

						Annual
	27/20	20/20	20/20	20/21	21/22	Growth Rate
	27/28	28/29	29/30	30/31	31/32	(15 yr)
AEP	23 696	23 861	24 078	24 140	24 327	0.6%
	0.7%	0.7%	0.9%	0.3%	0.8%	01070
APS	9,066	9,096	9,166	9,176	9,206	0.5%
	0.3%	0.3%	0.8%	0.1%	0.3%	
ATSI	10,899	10,910	11,012	10,990	11,023	0.2%
	0.4%	0.1%	0.9%	-0.2%	0.3%	
COMED	16,406	16,492	16,588	16,613	16,697	0.4%
	0.6%	0.5%	0.6%	0.2%	0.5%	
DAYTON	2,965	2,971	2,981	2,976	2,987	0.1%
	0.4%	0.2%	0.3%	-0.2%	0.4%	
DEOK	4,699	4,723	4,748	4,761	4,793	0.5%
	0.8%	0.5%	0.5%	0.3%	0.7%	
DLCO	2,182	2,184	2,192	2,186	2,191	0.1%
	0.1%	0.1%	0.4%	-0.3%	0.2%	
EKPC	2,726	2,736	2,755	2,755	2,773	0.4%
	1.1%	0.4%	0.7%	0.0%	0.7%	
DIVERSITY - WESTERN(-)	1,435	1,508	1,665	1,566	1,604	
PJM WESTERN	71,204	71,465	71,855	72,031	72,393	0.4%
	0.7%	0.4%	0.5%	0.2%	0.5%	
DOM	19,035	19,177	19,258	19,296	19,441	0.5%
	0.5%	0.7%	0.4%	0.2%	0.8%	
DIVERSITY - INTERREGIONAL(-)	1.064	1.061	1.125	1.261	1.091	
PJM RTO	135,667	136,095	136,615	136,676	137,486	0.3%
	0.6%	0.3%	0.4%	0.0%	0.6%	

Notes:

All forecast values are non-coincident as estimated by PJM staff. All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management. All average growth rates are calculated from the first year of the forecast (2016/17). Winter season indicates peak from December, January, February.

SPRING PEAK LOAD (MW) FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION 2017 - 2032

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
AE	1,702	1,702	1,692	1,668	1,659	1,657	1,655	1,655	1,647	1,652	1,653	1,663	1,670	1,668	1,663	1,673
BGE	5,450	5,432	5,399	5,365	5,357	5,374	5,368	5,365	5,372	5,396	5,402	5,413	5,427	5,443	5,444	5,466
DPL	3,065	3,071	3,060	3,035	3,013	2,997	3,001	2,994	3,003	3,025	3,038	3,053	3,062	3,065	3,072	3,095
JCPL	4,319	4,349	4,354	4,229	4,213	4,266	4,287	4,296	4,285	4,253	4,269	4,343	4,371	4,386	4,377	4,398
METED	2,458	2,482	2,483	2,461	2,460	2,469	2,470	2,464	2,468	2,477	2,473	2,483	2,477	2,458	2,429	2,414
PECO	6,702	6,760	6,780	6,674	6,658	6,685	6,737	6,743	6,686	6,708	6,710	6,808	6,803	6,770	6,641	6,597
PENLC	2,613	2,610	2,597	2,589	2,581	2,574	2,569	2,544	2,530	2,538	2,529	2,526	2,504	2,477	2,439	2,424
PEPCO	5,287	5,312	5,292	5,207	5,180	5,200	5,208	5,229	5,219	5,214	5,215	5,274	5,313	5,327	5,316	5,302
PL	6,450	6,470	6,458	6,437	6,466	6,450	6,421	6,368	6,347	6,399	6,397	6,388	6,353	6,292	6,211	6,202
PS	7,753	7,776	7,777	7,639	7,619	7,697	7,703	7,701	7,633	7,638	7,652	7,766	7,782	7,794	7,746	7,786
RECO	299	299	299	295	295	296	298	298	295	296	296	300	300	302	298	299
UGI	172	172	170	168	168	167	166	164	163	163	162	161	160	157	155	154
DIVERSITY - MID-ATLANTIC(-)	2,352	2,323	2,442	2,771	2,886	2,640	2,367	2,404	2,558	2,830	2,828	2,224	2,143	2,285	2,416	2,763
PJM MID-ATLANTIC	43,918	44,112	43,919	42,996	42,783	43,192	43,516	43,417	43,090	42,929	42,968	43,954	44,079	43,854	43,375	43,047
FE-EAST	8,846	8,930	8,919	8,724	8,694	8,737	8,794	8,808	8,735	8,703	8,721	8,879	8,924	8,857	8,775	8,716
PLGRP	6,429	6,479	6,479	6,431	6,441	6,434	6,397	6,367	6,357	6,374	6,386	6,368	6,350	6,291	6,224	6,191

SPRING PEAK LOAD (MW) FOR EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO 2017 - 2032

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
AEP	20,456	20,609	20,648	20,658	20,760	20,790	20,902	20,911	21,012	21,251	21,373	21,513	21,629	21,717	21,763	22,006
APS	7,826	7,866	7,891	7,947	8,024	8,042	8,046	8,011	8,023	8,102	8,135	8,140	8,146	8,124	8,095	8,128
ATSI	10,448	10,541	10,565	10,352	10,328	10,492	10,494	10,550	10,442	10,469	10,462	10,657	10,723	10,745	10,606	10,571
COMED	17,137	17,288	17,350	17,065	17,036	17,261	17,321	17,406	17,281	17,417	17,494	17,793	17,884	17,958	17,841	17,987
DAYTON	2,838	2,856	2,858	2,824	2,808	2,830	2,833	2,835	2,832	2,840	2,840	2,872	2,881	2,884	2,877	2,881
DEOK	4,469	4,519	4,539	4,486	4,481	4,545	4,565	4,590	4,607	4,610	4,629	4,704	4,741	4,763	4,750	4,768
DLCO	2,374	2,388	2,390	2,350	2,351	2,376	2,369	2,369	2,346	2,348	2,346	2,374	2,370	2,357	2,307	2,297
EKPC	2,075	2,077	2,077	2,084	2,113	2,114	2,126	2,113	2,122	2,143	2,160	2,162	2,171	2,177	2,184	2,205
DIVERSITY - WESTERN(-) PJM WESTERN	4,775 62,848	4,796 63,348	4,888 63,430	4,844 62,922	5,001 62,900	5,014 63,436	5,135 63,521	5,040 63,745	4,870 63,795	5,101 64,079	5,021 64,418	5,316 64,899	5,285 65,260	5,360 65,365	4,906 65,517	5,081 65,762
DOM	16,651	16,935	17,102	17,087	17,132	17,114	17,126	17,180	17,239	17,312	17,411	17,519	17,641	17,700	17,731	17,800
DIVERSITY - INTERREGIONAL(-) PJM RTO	3,343 120,074	3,335 121,060	3,007 121,444	3,258 119,747	3,097 119,718	2,955 120,787	3,191 120,972	3,137 121,205	3,171 120,953	3,074 121,246	3,281 121,516	3,469 122,903	3,429 123,551	3,545 123,374	3,511 123,112	3,935 122,674

FALL PEAK LOAD (MW) FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION 2017 - 2032

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
AE	1,954	1,947	1,945	1,947	1,931	1,916	1,905	1,906	1,918	1,926	1,930	1,916	1,920	1,921	1,943	1,954
BGE	5,825	5,820	5,821	5,853	5,816	5,800	5,770	5,800	5,837	5,878	5,891	5,840	5,860	5,911	5,956	5,987
DPL	3,319	3,330	3,331	3,330	3,308	3,294	3,288	3,299	3,316	3,340	3,356	3,348	3,364	3,384	3,409	3,427
JCPL	4,660	4,689	4,705	4,707	4,676	4,645	4,626	4,646	4,673	4,705	4,720	4,692	4,719	4,745	4,802	4,844
METED	2,512	2,541	2,564	2,571	2,558	2,551	2,542	2,567	2,588	2,609	2,616	2,598	2,612	2,623	2,638	2,645
PECO	7,168	7,225	7,261	7,297	7,261	7,249	7,227	7,264	7,322	7,377	7,392	7,356	7,381	7,397	7,432	7,448
PENLC	2,593	2,595	2,593	2,605	2,597	2,589	2,569	2,562	2,581	2,592	2,589	2,563	2,551	2,550	2,558	2,549
PEPCO	5,595	5,590	5,599	5,628	5,588	5,563	5,540	5,557	5,596	5,631	5,643	5,611	5,620	5,668	5,713	5,743
PL	6,229	6,275	6,285	6,295	6,278	6,268	6,254	6,254	6,277	6,321	6,332	6,302	6,297	6,289	6,297	6,314
PS	8,196	8,220	8,265	8,313	8,254	8,206	8,147	8,185	8,244	8,286	8,292	8,218	8,244	8,290	8,378	8,421
RECO	317	317	318	321	319	317	316	316	319	321	321	318	319	321	323	325
UGI	164	165	164	163	161	160	159	158	158	159	159	157	156	156	155	155
DIVERSITY - MID-ATLANTIC(-)	1,071	1,033	865	1,231	1,131	1,108	1,062	869	977	1,130	1,160	1,015	998	878	1,004	1,131
PJM MID-ATLANTIC	47,461	47,681	47,986	47,799	47,616	47,450	47,281	47,645	47,852	48,015	48,081	47,904	48,045	48,377	48,600	48,681
FE-EAST	9,496	9,548	9,636	9,611	9,570	9,533	9,479	9,553	9,603	9,642	9,653	9,605	9,623	9,689	9,739	9,767
PLGRP	6,372	6,419	6,437	6,399	6,385	6,383	6,391	6,397	6,406	6,426	6,432	6,441	6,435	6,424	6,415	6,411

FALL PEAK LOAD (MW) FOR EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO 2017 - 2032

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
AEP	20,485	20,633	20,726	21,000	20,903	20,879	20,885	20,968	21,328	21,565	21,629	21,549	21,642	21,769	22,193	22,326
APS	7,704	7,770	7,829	7,951	7,967	7,973	7,932	7,958	8,033	8,089	8,111	8,050	8,079	8,107	8,159	8,194
ATSI	11,161	11,194	11,235	11,419	11,335	11,269	11,222	11,248	11,374	11,543	11,524	11,417	11,430	11,489	11,633	11,707
COMED	18,461	18,433	18,599	18,822	18,698	18,673	18,676	18,707	18,927	19,173	19,222	19,189	19,189	19,340	19,575	19,802
DAYTON	3,010	2,990	3,040	3,053	3,033	3,024	3,007	3,022	3,044	3,067	3,078	3,054	3,038	3,082	3,109	3,129
DEOK	4,826	4,829	4,879	4,931	4,928	4,923	4,916	4,935	4,999	5,050	5,090	5,063	5,071	5,120	5,191	5,243
DLCO	2,497	2,493	2,513	2,536	2,528	2,506	2,496	2,499	2,523	2,537	2,542	2,514	2,500	2,512	2,527	2,532
EKPC	1,920	1,929	1,918	1,940	1,948	1,955	1,958	1,945	1,957	1,983	1,993	1,999	2,012	2,003	2,019	2,047
DIVERSITY - WESTERN(-) PJM WESTERN	1,818 68,246	2,183 68,088	2,099 68,640	2,455 69,197	2,193 69,147	1,917 69,285	1,884 69,208	2,098 69,184	2,110 70,075	2,458 70,549	2,362 70,827	1,889 70,946	2,421 70,540	2,183 71,239	2,304 72,102	2,459 72,521
DOM	17,274	17,556	17,753	17,846	17,842	17,800	17,770	17,880	18,024	18,102	18,202	18,161	18,353	18,437	18,604	18,660
DIVERSITY - INTERREGIONAL(-) PJM RTO	3,724 129,257	4,213 129,112	3,780 130,599	4,024 130,818	3,817 130,788	3,855 130,680	3,625 130,634	3,723 130,986	4,149 131,802	4,069 132,597	3,902 133,208	3,656 133,355	4,115 132,823	3,809 134,244	4,225 135,081	4,031 135,831

MONTHLY PEAK FORECAST (MW) FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION

													MID-ATLANTIC	PJM MID-
	AE	BGE	DPL	JCPL	METED	PECO	PENLC	PEPCO	PL	PS	RECO	UGI	DIVERSITY	ATLANTIC
Jan 2017	1,630	5,883	3,443	3,864	2,615	6,694	2,821	5,352	7,177	6,821	229	195	476	46,248
Feb 2017	1,572	5,555	3,293	3,721	2,533	6,444	2,786	5,114	6,848	6,582	220	187	442	44,413
Mar 2017	1,402	5,010	3,004	3,357	2,413	5,965	2,613	4,642	6,450	6,127	210	172	1,623	39,742
Apr 2017	1,334	4,545	2,628	3,243	2,214	5,690	2,422	4,356	5,712	6,108	226	149	1,986	36,641
May 2017	1,702	5,450	3,065	4,319	2,458	6,702	2,484	5,287	5,960	7,753	299	152	1,713	43,918
Jun 2017	2,206	6,449	3,731	5,493	2,800	8,140	2,774	6,283	6,699	9,409	374	176	729	53,805
Jul 2017	2,495	6,889	4,028	6,056	2,940	8,547	2,891	6,614	7,132	10,057	404	191	1,080	57,164
Aug 2017	2,357	6,628	3,827	5,471	2,831	8,115	2,774	6,387	6,750	9,324	366	176	720	54,286
Sep 2017	1,954	5,825	3,319	4,660	2,512	7,168	2,593	5,595	6,229	8,196	317	162	1,069	47,461
Oct 2017	1,422	4,489	2,598	3,532	2,170	5,869	2,381	4,394	5,711	6,592	244	148	1,789	37,761
Nov 2017	1,402	4,679	2,705	3,349	2,266	5,805	2,513	4,363	6,167	6,149	215	164	579	39,198
Dec 2017	1,612	5,437	3,192	3,885	2,534	6,496	2,787	4,975	6,753	6,769	235	190	402	44,463
	AE	BGE	DPL	JCPL	METED	PECO	PENLC	PEPCO	PL	PS	RECO	UGI	DIVERSITY	MID-ATLANTIC
Jan 2018	1,631	5,899	3,466	3,908	2,642	6,754	2,826	5,379	7,241	6,872	229	196	573	46,470
Feb 2018	1,575	5,573	3,332	3,771	2,560	6,505	2,792	5,132	6,903	6,633	221	188	552	44,633
Mar 2018	1,396	4,964	2,982	3,353	2,422	5,944	2,610	4,630	6,470	6,119	208	172	1,681	39,589
Apr 2018	1,349	4,547	2,642	3,445	2,264	5,896	2,441	4,453	5,838	6,600	234	151	3,150	36,710
May 2018	1,702	5,432	3,071	4,349	2,482	6,760	2,498	5,312	6,044	7,776	299	153	1,766	44,112
Jun 2018	2,194	6,490	3,725	5,510	2,829	8,181	2,779	6,269	6,726	9,311	371	176	832	53,729
Jul 2018	2,486	6,953	4,037	6,085	2,976	8,614	2,899	6,616	7,185	10,071	404	192	1,186	57,332
Aug 2018	2,355	6,694	3,842	5,509	2,870	8,177	2,788	6,397	6,802	9,272	363	177	995	54,251
Sep 2018	1,947	5,820	3,330	4,689	2,541	7,225	2,595	5,590	6,275	8,220	317	162	1,030	47,681
Oct 2018	1,443	4,545	2,645	3,627	2,228	6,005	2,411	4,499	5,827	6,824	249	150	2,017	38,436
Nov 2018	1,405	4,681	2,724	3,381	2,290	5,858	2,521	4,371	6,221	6,189	216	165	598	39,424
Dec 2018	1,624	5,447	3,216	3,913	2,570	6,563	2,809	5,022	6,825	6,847	236	192	401	44,863
	AE	BGE	DPL	JCPL	METED	PECO	PENLC	PEPCO	PL	PS	RECO	UGI	DIVERSITY	MID-ATLANTIC
Jan 2019	1,634	5,901	3,481	3,908	2,660	6,796	2,837	5,396	7,263	6,903	229	196	571	46,633
Feb 2019	1,576	5,587	3,343	3,765	2,573	6,533	2,801	5,162	6,928	6,665	221	188	487	44,855
Mar 2019	1,380	4,917	2,963	3,339	2,420	5,954	2,597	4,598	6,458	6,081	207	170	1,665	39,419
Apr 2019	1,335	4,491	2,632	3,433	2,259	5,895	2,423	4,425	5,842	6,580	233	150	2,903	36,795
May 2019	1,692	5,399	3,060	4,354	2,483	6,780	2,488	5,292	6,052	7,777	299	154	1,911	43,919
Jun 2019	2,189	6,409	3,720	5,475	2,843	8,186	2,775	6,251	6,724	9,297	370	175	626	53,788
Jul 2019	2,475	6,860	4,024	6,080	2,991	8,643	2,904	6,599	7,201	10,047	403	192	1,089	57,330
Aug 2019	2,352	6,622	3,839	5,490	2,883	8,182	2,785	6,396	6,810	9,267	363	176	1,080	54,085
Sep 2019	1,945	5,821	3,331	4,705	2,564	7,261	2,593	5,599	6,285	8,265	318	164	865	47,986
Oct 2019	1,434	4,523	2,636	3,624	2,232	6,003	2,395	4,483	5,793	6,819	249	150	1,966	38,375
Nov 2019	1,384	4,638	2,683	3,357	2,270	5,815	2,483	4,342	6,086	6,152	214	164	594	38,994
Dec 2019	1,608	5,429	3,202	3,861	2,553	6,537	2,781	5,011	6,811	6,797	234	191	456	44,559
Dec 2019	1,608	5,429	3,202	3,861	2,553	6,537	2,781	5,011	6,811	6,797	234	191		456

Notes: All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management.

MONTHLY PEAK FORECAST (MW) FOR EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO

												INTER				
									WESTERN	PJM		REGION				
	AEP	APS	ATSI	COMED	DAYTON	DEOK	DLCO	EKPC	DIVERSITY	WESTERN	DOM	DIVERSITY	PJM RTO			
Jan 2017	22,317	8,606	10,644	15,807	2,934	4,469	2,171	2,611	1,268	68,291	17,925	1,073	131,391			
Feb 2017	21,311	8,269	10,493	15,324	2,827	4,287	2,101	2,401	1,299	65,714	16,696	1,193	125,630			
Mar 2017	20,456	7,826	9,844	14,277	2,650	3,963	2,038	2,075	2,433	60,696	15,848	1,187	115,099			
Apr 2017	18,625	6,952	9,181	13,602	2,498	3,832	2,068	1,666	2,518	55,906	15,059	2,046	105,560			
May 2017	19,473	7,383	10,448	17,137	2,838	4,469	2,374	1,573	2,847	62,848	16,651	3,343	120,074			
Jun 2017	22,061	8,423	12,470	20,862	3,279	5,228	2,770	1,858	1,236	75,715	18,963	4,014	144,469			
Jul 2017	22,945	8,802	12,994	22,296	3,479	5,497	2,884	1,948	1,529	79,316	19,729	3,210	152,999			
Aug 2017	22,773	8,640	12,670	21,698	3,423	5,457	2,810	1,931	831	78,571	19,399	3,448	148,808			
Sep 2017	20,485	7,704	11,161	18,461	3,010	4,826	2,497	1,729	1,627	68,246	17,274	3,724	129,257			
Oct 2017	18,102	6,833	9,023	14,089	2,497	3,895	2,006	1,629	1,805	56,269	15,040	1,812	107,258			
Nov 2017	19,048	7,280	9,463	14,264	2,584	3,825	1,964	1,920	1,111	59,237	14,714	1,626	111,523			
Dec 2017	20,955	8,074	10,604	15,960	2,810	4,289	2,142	2,360	1,235	65,959	16,353	977	125,798			
	AEP	APS	ATSI	COMED	DAYTON	DEOK	DLCO	EKPC	DIVERSITY	WESTERN	DOM	DIVERSITY	PJM RTO			
Jan 2018	22,565	8,720	10,706	15,971	2,951	4,511	2,183	2,622	1,355	68,874	18,248	940	132,652			
Feb 2018	21,531	8,361	10,548	15,491	2,846	4,319	2,112	2,410	1,350	66,268	17,016	1,043	126,874			
Mar 2018	20,609	7,866	9,881	14,329	2,652	3,993	2,042	2,077	2,389	61,060	16,017	1,334	115,332			
Apr 2018	19,398	7,135	9,314	14,046	2,580	4,012	2,202	1,691	2,776	57,602	15,570	-571	110,453			
May 2018	19,678	7,451	10,541	17,288	2,856	4,519	2,388	1,579	2,952	63,348	16,935	3,335	121,060			
Jun 2018	22,151	8,472	12,484	20,870	3,280	5,259	2,766	1,860	1,456	75,686	19,213	3,441	145,187			
Jul 2018	23,157	8,874	13,063	22,442	3,498	5,555	2,895	1,957	1,572	79,869	20,021	3,271	153,951			
Aug 2018	22,943	8,707	12,735	21,857	3,432	5,492	2,820	1,942	1,084	78,844	19,728	3,297	149,526			
Sep 2018	20,633	7,770	11,194	18,433	2,990	4,829	2,493	1,729	1,983	68,088	17,556	4,213	129,112			
Oct 2018	18,934	7,016	9,155	14,359	2,588	4,035	2,141	1,656	1,610	58,274	15,440	1,493	110,657			
Nov 2018	19,341	7,362	9,517	14,372	2,584	3,868	1,983	1,929	1,247	59,709	14,987	1,637	112,483			
Dec 2018	21,246	8,198	10,743	16,085	2,830	4,329	2,167	2,369	1,179	66,788	16,675	1,172	127,154			
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1 2010	AEP	APS	ATSI	COMED	DAYTON	DEOK	DLCO	EKPC	DIVERSITY	WESTERN	DOM	DIVERSITY	PJM RTO			
Jan 2019	22,784	8,803	10,788	16,005	2,958	4,530	2,191	2,626	1,357	69,328	18,484	1,051	133,394			
Feb 2019	21,772	8,439	10,645	15,549	2,860	4,349	2,124	2,418	1,250	66,906	17,250	1,293	127,718			
Mar 2019	20,648	7,891	9,948	14,365	2,654	4,012	2,034	2,077	2,509	61,120	16,120	1,132	115,527			
Apr 2019	19,681	7,149	9,345	14,050	2,577	4,017	2,193	1,696	2,679	58,029	15,751	-526	111,101			
May 2019	19,729	7,468	10,565	17,350	2,858	4,539	2,390	1,581	3,050	63,430	17,102	3,007	121,444			
Jun 2019	22,198	8,497	12,518	20,914	3,285	5,285	2,765	1,871	2,115	75,218	19,376	2,986	145,396			
Jul 2019	23,283	8,916	13,109	22,514	3,509	5,598	2,901	1,968	1,668	80,130	20,191	3,373	154,278			
Aug 2019	23,075	8,767	12,766	21,897	3,438	5,529	2,822	1,953	1,798	78,449	19,898	2,663	149,769			
Sep 2019	20,726	7,829	11,235	18,599	3,040	4,879	2,513	1,746	1,927	68,640	17,753	3,780	130,599			
Oct 2019	18,906	7,029	9,156	14,373	2,593	4,041	2,118	1,669	1,494	58,391	15,414	1,222	110,958			
Nov 2019	19,073	7,290	9,449	14,320	2,571	3,854	1,969	1,918	912	59,532	14,978	1,887	111,617			
Dec 2019	21,216	8,175	10,634	15,994	2,815	4,331	2,150	2,359	1,140	66,534	16,743	1,190	126,646			

Notes: All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management.

MONTHLY PEAK FORECAST (MW) FOR FE-EAST AND PLGRP

	FE_EAST	PLGRP
Jan 2017	9,249	7,362
Feb 2017	9,000	7,033
Mar 2017	8,010	6,429
Apr 2017	7,474	5,686
May 2017	8,846	5,989
Jun 2017	10,913	6,875
Jul 2017	11,618	7,276
Aug 2017	10,997	6,926
Sep 2017	9,496	6,372
Oct 2017	7,769	5,831
Nov 2017	8,046	6,326
Dec 2017	9,191	6,943

FE_EAST PLGRP

Jan 2018	9,328	7,423
Feb 2018	9,098	7,084
Mar 2018	8,054	6,479
Apr 2018	7,570	5,812
May 2018	8,930	6,069
Jun 2018	10,959	6,902
Jul 2018	11,689	7,328
Aug 2018	11,073	6,972
Sep 2018	9,548	6,419
Oct 2018	7,871	5,893
Nov 2018	8,115	6,373
Dec 2018	9,274	7,017

FE_EAST PLGRP

9,367	7,442
9,121	7,111
8,026	6,479
7,573	5,850
8,919	6,085
10,965	6,894
11,699	7,337
11,039	6,959
9,636	6,437
7,877	5,878
8,040	6,249
9,184	7,002
	9,367 9,121 8,026 7,573 8,919 10,965 11,699 11,039 9,636 7,877 8,040 9,184

Notes: All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management. FE_EAST contains JCPL, METED and PENLC zones. PLGRP contains PL and UGI zones.

PJM MID-ATLANTIC REGION LOAD MANAGEMENT PLACED UNDER PJM COORDINATION - SUMMER (MW)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
AE																
	47															
EXTENDED SUMMER	58															
ANNUAL	3															
BASE		105	104	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY PERFORMANCE		3	3	72	70	72	70	70	70	70	71	71	71	71	71	71
TOTAL LOAD MANAGEMENT	108	108	107	72	70	72	70	70	70	70	71	71	71	71	71	71
BGE																
LIMITED	650															
EXTENDED SUMMER	41															
ANNUAL	4															
BASE		698	688	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY PERFORMANCE		4	4	460	456	454	454	455	459	460	460	458	463	462	466	470
TOTAL LOAD MANAGEMENT	695	702	692	460	456	454	454	455	459	460	460	458	463	462	466	470
DPL																
LIMITED	146															
EXTENDED SUMMER	123															
ANNIAL	0															
BASE	0	270	269	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY PERFORMANCE		2,0	209	176	175	174	174	174	175	175	175	176	176	177	178	179
TOTAL LOAD MANAGEMENT	269	270	269	176	175	174	174	174	175	175	175	176	176	177	178	179
ICPL																
LIMITED	114															
EXTENDED SUMMER	22															
	4															
BASE	1	137	136	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY PERFORMANCE		157	150	03	03	03	03	03	03	04	04	04	04	04	95	96
TOTAL LOAD MANAGEMENT	140	141	140	93	93	93	93	93	93	94 94	94	94	94	94	95 95	96
METED																
IMITED	103															
EVTENDED SUMMED	175															
	1 د ر															
	4	220	221	0	0	0	0	0	0	0	0	0	0	0	0	0
BASE		250	251	150	150	150	155	150	157	150	150	157	150	150	150	154
CAPACITY PERFORMANCE	227	4	4	156	156	156	155	156	157	158	158	157	158	158	156	154
TOTAL LOAD MANAGEMENT	231	234	235	156	156	156	155	156	157	158	158	157	158	158	156	154

DR Forecast accounts for the transition from Limited, Extended Summer and Annual DR to Base and Capacity Performance (CP) DR in Delivery Year (DY) 2018, and then to only CP DR in DY 2020.

DR Forecast is based on the average ratio of committed DR (by DR product) to past forecasted peak in the last 3 DYs (2014, 2015 and 2016) multiplied by the forecasted summer peaks in Table B-1.

The following assumptions are made to forecast the new products that begin in DY 2018:

-For DYs 2018 and 2019, Limited and Extended Summer DR are assumed to become Base DR while Annual DR is assumed to become CP DR.

-For DY 2020 and beyond, Annual DR is assumed to become CP DR. In addition, a portion of Base DR is assumed to become CP DR. This portion is computed based on the DR offers submitted to the 2019 BRA. Full transition to Base and CP DR for regions with FRR DR (AEP, DEOK) is completed in DY 2019.

Winter load management is equal to Annual for Delivery Year 2017. After those Delivery Years, winter load management is equal to Capacity Performance.
PJM MID-ATLANTIC REGION LOAD MANAGEMENT PLACED UNDER PJM COORDINATION - SUMMER (MW)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
PECO	202															
LIVITED EXTENDED SUMMED	502															
	/1															
BASE	/	376	378	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY PERFORMANCE		570	570	255	254	254	254	255	255	257	257	257	257	256	255	254
TOTAL LOAD MANAGEMENT	380	383	385	255	254	254	254	255	255	257	257	257	257	256	255	254
PENLC																
LIMITED	232															
EXTENDED SUMMER	36															
ANNUAL	1															
BASE		269	269	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY PERFORMANCE		1	1	178	178	176	176	176	176	175	174	174	172	171	169	167
TOTAL LOAD MANAGEMENT	269	270	270	178	178	176	176	176	176	175	174	174	172	171	169	167
PEPCO																
LIMITED	225															
EXTENDED SUMMER	276															
ANNUAL	1															
BASE		501	500	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY PERFORMANCE		1	1	328	327	326	326	325	326	326	327	328	328	329	330	331
TOTAL LOAD MANAGEMENT	502	502	501	328	327	326	326	325	326	326	327	328	328	329	330	331
PL																
LIMITED	521															
EXTENDED SUMMER	93															
ANNUAL	7															
BASE		-	-	415	415	41.4	410	412	412	41.4	412	411	411	100	405	102
CAPACITY PERFORMANCE	(21		(27	415	415	414	412	412	413	414	413	411	411	408	405	402
IOTAL LOAD MANAGEMENT	621	626	627	415	415	414	412	412	413	414	413	411	411	408	405	402
PS																
LIMITED	302															
EXTENDED SUMMER	57															
ANNUAL	17															
BASE		360	359	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY PERFORMANCE		17	17	252	252	252	252	251	252	252	253	253	253	253	255	257
TOTAL LOAD MANAGEMENT	376	377	376	252	252	252	252	251	252	252	253	253	253	253	255	257

DR Forecast accounts for the transition from Limited, Extended Summer and Annual DR to Base and Capacity Performance (CP) DR in Delivery Year (DY) 2018, and then to only CP DR in DY 2020.

DR Forecast is based on the average ratio of committed DR (by DR product) to past forecasted peak in the last 3 DYs (2014, 2015 and 2016) multiplied by the forecasted summer peaks in Table B-1.

The following assumptions are made to forecast the new products that begin in DY 2018:

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-For DY 2020 and beyond, Annual DR is assumed to become CP DR. In addition, a portion of Base DR is assumed to become CP DR. This portion is computed based on the DR offers submitted to the 2019 BRA. Full transition to Base and CP DR for regions with FRR DR (AEP, DEOK) is completed in DY 2019.

PJM MID-ATLANTIC REGION LOAD MANAGEMENT PLACED UNDER PJM COORDINATION - SUMMER (MW)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
RECO																
LIMITED	3															
EXTENDED SUMMER	1															
ANNUAL	0															
BASE		4	4	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY PERFORMANCE		0	0	3	3	3	3	3	3	3	3	3	3	3	3	3
TOTAL LOAD MANAGEMENT	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3
UGI																
LIMITED	0															
EXTENDED SUMMER	0															
ANNUAL	0															
BASE		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY PERFORMANCE		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PJM MID-ATLANTIC																
LIMITED	2,735															
EXTENDED SUMMER	812															
ANNUAL	48															
BASE		3,569	3,558	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY PERFORMANCE		48	48	2,388	2,379	2,374	2,369	2,370	2,379	2,384	2,385	2,382	2,386	2,382	2,383	2,384
TOTAL LOAD MANAGEMENT	3,595	3,617	3,606	2,388	2,379	2,374	2,369	2,370	2,379	2,384	2,385	2,382	2,386	2,382	2,383	2,384

DR Forecast accounts for the transition from Limited, Extended Summer and Annual DR to Base and Capacity Performance (CP) DR in Delivery Year (DY) 2018, and then to only CP DR in DY 2020. DR Forecast is based on the average ratio of committed DR (by DR product) to past forecasted peak in the last 3 DYs (2014, 2015 and 2016) multiplied by the forecasted summer peaks in Table B-1.

The following assumptions are made to forecast the new products that begin in DY 2018:

-For DYs 2018 and 2019, Limited and Extended Summer DR are assumed to become Base DR while Annual DR is assumed to become CP DR.

-For DY 2020 and beyond, Annual DR is assumed to become CP DR. In addition, a portion of Base DR is assumed to become CP DR. This portion is computed based on the DR offers submitted to the 2019 BRA. Full transition to Base and CP DR for regions with FRR DR (AEP, DEOK) is completed in DY 2019.

PJM WESTERN REGION AND PJM SOUTHERN REGION LOAD MANAGEMENT PLACED UNDER PJM COORDINATION - SUMMER (MW)

AEP 1,313 392 EXTENDED SUMMER 48 ANUAL 62 BASE 981 1,381 0		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
LIMITED 1,313 392 EXTENDED SUMMER 48 ANNUAL 62 BASE 981 1,381 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	AEP	1 212	202														
EXTENDED SUMMER 48 ANUAL 62 BASE 981 1,381 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		1,313	392														
ANNUAL 62 BASE 981 1,381 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	EXTENDED SUMMER	48															
BASE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ANNUAL	62															
CAPACITY PERFORMANCE 63 63 971 971 974 978 983 986 992 996 1,001 1,007 1,014 1,018 1,022 APS LMITED 532 EXTENDED SUMMER 100 ANUAL 43 BASE 640 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	BASE		981	1,381	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT 1,423 1,436 1,444 971 971 974 978 983 986 992 996 1,001 1,007 1,014 1,018 1,022 APS LIMITED 532 532 532 532 532 532 532 532 532 532 532 532 532 533 533 533 533 533 533 533 533 533 533 533 533 533 474 473 474 475 475 474 473 ANUAL 65 681 684 468 470 471 471 472 473 473 474 475 475 474 473 ATSI ILMITED 512 512 512 513 503 503 505 506 507 508 509 510 511 512 EXTENDED SUMMER 194 ANUAL 30 303 503 503 505 506 507 508 509 510 511 512 512 <	CAPACITY PERFORMANCE		63	63	971	971	974	978	983	986	992	996	1,001	1,007	1,014	1,018	1,022
APS 532 LIMITED 532 EXTENDED SUMMER 100 ANUAL 43 BASE 638 640 0	TOTAL LOAD MANAGEMENT	1,423	1,436	1,444	971	971	974	978	983	986	992	996	1,001	1,007	1,014	1,018	1,022
LIMITED 532 EXTENDED SUMMER 100 ANNUAL 43 BASE 6638 640 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	APS																
EXTENDED SUMMER 100 ANNUAL 43 BASE 638 640 0	LIMITED	532															
ANNUAL 43 BASE 638 640 0	EXTENDED SUMMER	100															
BASE 638 640 0<	ANNUAL	43															
CAPACITY PERFORMANCE 43 44 468 470 471 471 472 473 473 474 475 475 474 473 TOTAL LOAD MANAGEMENT 675 681 684 468 470 471 471 472 473 473 473 474 475 475 474 473 ATSI LIMITED 512 512 473 473 473 473 473 474 475 475 474 473 ATSI LIMITED 512 473 473 473 473 473 473 473 474 475 474 473 ATSI LIMITED 512 473 473 473 473 474 473 473 473 473 473 473 474 473 473 474 473 473 473	BASE		638	640	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT 675 681 684 468 470 471 471 472 473 473 474 475 475 474 473 ATSI LIMITED 512 EXTENDED SUMMER 194 ANNUAL 36 - </td <td>CAPACITY PERFORMANCE</td> <td></td> <td>43</td> <td>44</td> <td>468</td> <td>470</td> <td>471</td> <td>471</td> <td>472</td> <td>472</td> <td>473</td> <td>473</td> <td>474</td> <td>475</td> <td>475</td> <td>474</td> <td>473</td>	CAPACITY PERFORMANCE		43	44	468	470	471	471	472	472	473	473	474	475	475	474	473
ATSI LIMITED 512 EXTENDED SUMMER 194 ANNUAL 36 BASE 709 712 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	TOTAL LOAD MANAGEMENT	675	681	684	468	470	471	471	472	472	473	473	474	475	475	474	473
LIMITED 512 EXTENDED SUMMER 194 ANNUAL 36 BASE 709 712 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ATSI																
EXTENDED SUMMER 194 ANNUAL 36 BASE 709 712 0	LIMITED	512															
ANNUAL 36 BASE 709 712 0	EXTENDED SUMMER	194															
BASE 709 712 0<	ANNUAL	36															
CAPACITY PERFORMANCE 37 37 37 503 503 503 505 506 507 508 509 510 511 512 TOTAL LOAD MANAGEMENT 742 746 749 503 503 503 505 506 507 508 509 510 511 512 COMED 1	BASE		709	712	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT 742 746 749 503 503 503 505 506 507 508 509 510 511 512 COMED LIMITED 965 EXTENDED SUMMER 228 ANNUAL 60	CAPACITY PERFORMANCE		37	37	503	503	503	503	505	505	506	507	508	509	510	511	512
COMED 965 LIMITED 965 EXTENDED SUMMER 228 ANNUAL 60 BASE 1,200 1,204 0 <td>TOTAL LOAD MANAGEMENT</td> <td>742</td> <td>746</td> <td>749</td> <td>503</td> <td>503</td> <td>503</td> <td>503</td> <td>505</td> <td>505</td> <td>506</td> <td>507</td> <td>508</td> <td>509</td> <td>510</td> <td>511</td> <td>512</td>	TOTAL LOAD MANAGEMENT	742	746	749	503	503	503	503	505	505	506	507	508	509	510	511	512
IMITED 965 EXTENDED SUMMER 228 ANNUAL 60 BASE 1,200 1,204 0 <	COMED																
EXTENDED SUMMER 228 ANNUAL 60 BASE 1,200 1,204 0	LIMITED	965															
ANNUAL 60 BASE 1,200 1,204 0	EXTENDED SUMMER	228															
BASE 1,200 1,204 0 <t< td=""><td>ANNUAL</td><td>60</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	ANNUAL	60															
CAPACITY PERFORMANCE 61 61 851 852 855 857 860 863 867 870 873 877 881 885 TOTAL LOAD MANAGEMENT 1,253 1,261 1,265 851 851 852 855 857 860 863 867 870 873 877 881 885 DAYTON	BASE	00	1 200	1 204	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT 1,253 1,261 1,265 851 851 852 855 860 863 867 870 873 877 881 885 DAYTON LIMITED 152 EXTENDED SUMMER 6	CAPACITY PERFORMANCE		61	61	851	851	852	855	857	860	863	867	870	873	877	881	885
DAYTON LIMITED 152 EXTENDED SUMMER 6	TOTAL LOAD MANAGEMENT	1,253	1,261	1,265	851	851	852	855	857	860	863	867	870	873	877	881	885
LIMITED 152 EXTENDED SUMMER 6	DAYTON																
EXTENDED SUMMER 6	LIMITED	152															
	EXTENDED SUMMER	6															
ANNUAL 7	ANNUAL	7															
	BASE	/	159	160	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY PERFORMANCE 7 7 112 111 111 112 112 112 112 113 113 113	CAPACITY PERFORMANCE		137	7	112	111	111	111	112	112	112	112	112	113	113	113	113
f_{12} TOTAL LOAD MANAGEMENT 165 166 167 112 111 111 111 112 112 112 112 112 11	TOTAL LOAD MANAGEMENT	165	166	, 167	112	111	111	111	112	112	112	112	112	113	113	113	113

DR Forecast accounts for the transition from Limited, Extended Summer and Annual DR to Base and Capacity Performance (CP) DR in Delivery Year (DY) 2018, and then to only CP DR in DY 2020.

DR Forecast is based on the average ratio of committed DR (by DR product) to past forecasted peak in the last 3 DYs (2014, 2015 and 2016) multiplied by the forecasted summer peaks in Table B-1.

The following assumptions are made to forecast the new products that begin in DY 2018:

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PJM WESTERN REGION AND PJM SOUTHERN REGION LOAD MANAGEMENT PLACED UNDER PJM COORDINATION - SUMMER (MW)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
DEOK																
LIMITED	203	29														
EXTENDED SUMMER	38	3														
ANNUAL	3															
BASE		211	245	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY PERFORMANCE		3	3	164	164	164	165	166	167	168	169	169	170	171	172	173
TOTAL LOAD MANAGEMENT	244	246	248	164	164	164	165	166	167	168	169	169	170	171	172	173
DLCO																
LIMITED	110															
EXTENDED SUMMER	14															
ANNUAL	10															
BASE		124	124	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY PERFORMANCE		10	10	92	92	92	92	91	91	91	91	91	91	90	90	90
TOTAL LOAD MANAGEMENT	134	134	134	92	92	92	92	91	91	91	91	91	91	90	90	90
EKPC																
LIMITED	94															
EXTENDED SUMMER	0															
ANNUAL	39															
BASE		94	95	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY PERFORMANCE		39	39	102	102	102	103	103	103	104	104	104	105	105	106	107
TOTAL LOAD MANAGEMENT	133	133	134	102	102	102	103	103	103	104	104	104	105	105	106	107
PJM WESTERN																
LIMITED	3,881	421														
EXTENDED SUMMER	628	3														
ANNUAL	260															
BASE		4,116	4,561	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY PERFORMANCE		263	264	3,263	3,264	3,269	3,278	3,289	3,296	3,309	3,319	3,329	3,343	3,355	3,365	3,375
TOTAL LOAD MANAGEMENT	4,769	4,803	4,825	3,263	3,264	3,269	3,278	3,289	3,296	3,309	3,319	3,329	3,343	3,355	3,365	3,375

DR Forecast accounts for the transition from Limited, Extended Summer and Annual DR to Base and Capacity Performance (CP) DR in Delivery Year (DY) 2018, and then to only CP DR in DY 2020.

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The following assumptions are made to forecast the new products that begin in DY 2018:

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PJM WESTERN REGION AND PJM SOUTHERN REGION LOAD MANAGEMENT PLACED UNDER PJM COORDINATION - SUMMER (MW)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
DOM																
LIMITED	647															
EXTENDED SUMMER	62															
ANNUAL	47															
BASE		719	725	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY PERFORMANCE		48	48	526	526	526	527	528	529	531	533	536	538	540	542	544
TOTAL LOAD MANAGEMENT	756	767	773	526	526	526	527	528	529	531	533	536	538	540	542	544
PJM RTO																
LIMITED	7,263	421														
EXTENDED SUMMER	1,502	3														
ANNUAL	355															
BASE		8,404	8,844	0	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY PERFORMANCE		359	360	6,177	6,169	6,169	6,174	6,187	6,204	6,224	6,237	6,247	6,267	6,277	6,290	6,303
TOTAL LOAD MANAGEMENT	9,120	9,187	9,204	6,177	6,169	6,169	6,174	6,187	6,204	6,224	6,237	6,247	6,267	6,277	6,290	6,303

DR Forecast accounts for the transition from Limited, Extended Summer and Annual DR to Base and Capacity Performance (CP) DR in Delivery Year (DY) 2018, and then to only CP DR in DY 2020. DR Forecast is based on the average ratio of committed DR (by DR product) to past forecasted peak in the last 3 DYs (2014, 2015 and 2016) multiplied by the forecasted summer peaks in Table B-1. The following assumptions are made to forecast the new products that begin in DY 2018:

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DISTRIBUTED SOLAR ADJUSTMENTS TO SUMMER PEAK LOAD (MW) FOR EACH PJM ZONE AND RTO 2017 - 2032

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
AE	74	79	82	82	82	81	80	80	79	78	78	78	78	78	77	77
BGE	77	109	144	179	193	200	210	213	211	210	209	209	208	207	207	206
DPL	51	63	80	104	133	152	160	162	163	163	163	165	169	174	179	184
JCPL	126	138	144	145	144	143	142	140	139	138	138	138	138	138	137	137
METED	13	14	17	20	26	35	48	54	58	64	75	92	114	144	184	217
PECO	18	23	29	38	53	76	108	124	133	148	178	220	277	352	452	536
PENLC	3	5	8	12	18	29	44	51	55	62	76	95	120	154	200	239
PEPCO	56	80	107	135	151	165	179	185	186	189	191	193	194	195	195	196
PL	29	33	40	48	62	85	116	131	139	154	183	224	278	351	448	529
PS	202	225	238	239	239	237	235	232	230	229	229	229	229	229	229	229
RECO	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6
UGI	0	0	0	1	1	2	2	3	3	3	4	5	6	8	10	12
AEP	20	27	42	70	115	155	193	215	222	231	244	257	273	293	318	350
APS	32	44	59	75	89	106	128	140	145	154	170	193	224	265	319	365
ATSI	19	22	30	46	74	101	126	141	148	156	169	184	204	229	262	298
COMED	12	19	31	49	72	100	135	153	163	177	193	210	230	255	282	310
DAYTON	5	6	8	13	21	29	36	39	41	43	46	49	52	57	63	70
DEOK	5	6	9	15	25	35	43	48	51	53	57	61	65	71	78	88
DLCO	2	3	5	8	12	19	29	34	37	41	50	63	80	103	134	159
EKPC	0	0	1	1	2	3	5	8	8	9	10	11	12	12	13	13
DOM	130	162	200	248	307	356	408	433	430	450	466	486	512	548	507	661
DOM	130	102	200	240	100	0.0	400	-10 10	409	4JU	400	1 00	512	040	140	001
PJM RTO	878	1,066	1,279	1,533	1,826	2,115	2,435	2,591	2,655	2,761	2,934	3,166	3,469	3,868	4,390	4,883

Notes: Adjustment values presented here are reflected in all summer peak forecast values. Adjustments reflecte the impact of historical distributed solar generation and forecasted distributed solar generation.

ADJUSTMENTS TO SUMMER PEAK LOAD (MW) FOR EACH PJM ZONE AND RTO 2017 - 2032

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
ΔF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BGE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DPL	Ő	0	Ő	Ő	0	0 0	Ő	0	0	0	0	Ő	0	0	Ő	Ő
ICPL	Ő	0	Ő	Ő	0	0 0	Ő	0	0	0	0	Ő	0	0	Ő	Ő
METED	Ő	Ő	Ő	Ő	Ő	Ő	Õ	Ő	Ő	Ő	Ő	Ő	Ő	Ő	Ő	Ő
PECO	0	Õ	0	0	Õ	Õ	0	Õ	Õ	Õ	Ő	0	Õ	Õ	0	0
PENLC	0	Õ	0	0	Õ	0	0	Õ	Õ	Õ	Ő	0	Õ	Õ	0	0
PEPCO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RECO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UGI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APS	60	90	120	190	230	250	240	230	220	210	200	190	190	180	170	160
ATSI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COMED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAYTON	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEOK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DLCO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EKPC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DOM	130	250	340	430	500	460	420	380	340	300	260	220	180	140	100	60
PJM RTO	190	340	460	620	730	710	660	610	560	510	460	410	370	320	270	220

Notes: Adjustment values presented here are reflected in Tables B-1 through B-6 and Tables B-10, B-11, and B-12. Adjustments are large, unanticipated changes deemed by PJM to not be captured in the load forecast model.

SUMMER COINCIDENT PEAK LOAD (MW) FOR EACH PJM ZONE, LOCATIONAL DELIVERABILITY AREA AND RTO 2017 - 2032

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
AE	2,413	2,402	2,388	2,368	2,357	2,365	2,354	2,350	2,350	2,352	2,360	2,369	2,374	2,372	2,380	2,393
BGE	6,630	6,645	6,580	6,566	6,512	6,514	6,531	6,533	6,588	6,608	6,594	6,635	6,684	6,670	6,748	6,723
DPL	3,883	3,887	3,875	3,844	3,800	3,786	3,790	3,797	3,814	3,826	3,831	3,851	3,869	3,878	3,900	3,900
JCPL	5,846	5,865	5,862	5,815	5,804	5,800	5,810	5,816	5,825	5,842	5,878	5,907	5,945	5,951	5,987	6,041
METED	2,827	2,862	2,874	2,865	2,863	2,858	2,850	2,874	2,892	2,904	2,914	2,901	2,916	2,907	2,895	2,888
PECO	8,275	8,329	8,348	8,305	8,291	8,293	8,300	8,316	8,334	8,383	8,394	8,418	8,414	8,382	8,328	8,312
PENLC	2,773	2,772	2,774	2,771	2,749	2,741	2,731	2,724	2,720	2,730	2,716	2,704	2,684	2,655	2,613	2,586
PEPCO	6,352	6,351	6,327	6,278	6,246	6,230	6,227	6,231	6,237	6,246	6,266	6,291	6,307	6,322	6,342	6,366
PL	6,863	6,898	6,910	6,889	6,866	6,858	6,844	6,845	6,857	6,870	6,878	6,872	6,854	6,799	6,735	6,699
PS	9,708	9,701	9,685	9,641	9,608	9,601	9,600	9,593	9,590	9,626	9,658	9,677	9,700	9,713	9,737	9,816
RECO	387	386	386	385	383	383	384	384	385	385	386	388	388	389	390	392
UGI	184	184	184	182	180	179	178	178	177	177	177	176	175	174	171	170
AEP	22.045	22,288	22,390	22.313	22,301	22,309	22,404	22,587	22,678	22,793	22,957	23,066	23.254	23,381	23,485	23.644
APS	8,500	8,559	8,593	8,617	8,646	8,674	8,683	8,690	8,702	8,726	8,751	8,777	8,793	8,781	8,763	8,758
ATSI	12,489	12,539	12,573	12,508	12,477	12,481	12,497	12,530	12,550	12,595	12,634	12,678	12,708	12,730	12,742	12,775
COMED	21,528	21,654	21,696	21,589	21,561	21,615	21,709	21,766	21,843	21,944	22,065	22,199	22,291	22,364	22,452	22,592
DAYTON	3,305	3,318	3,328	3,305	3,288	3,286	3,294	3,304	3,309	3,316	3,325	3,341	3,352	3,361	3,366	3,376
DEOK	5,283	5,326	5,358	5,343	5,336	5,354	5,386	5,420	5,456	5,474	5,505	5,544	5,578	5,616	5,654	5,670
DLCO	2,774	2,777	2,780	2,771	2,765	2,762	2,759	2,755	2,757	2,761	2,765	2,764	2,755	2,739	2,714	2,707
EKPC	1,886	1,892	1,901	1,901	1,903	1,903	1,917	1,924	1,930	1,935	1,942	1,953	1,960	1,973	1,980	1,988
DOM	19,050	19,315	19,467	19,428	19,447	19,431	19,475	19,526	19,580	19,654	19,776	19,910	20,012	20,073	20,129	20,196
PJM RTO	153,001	153,950	154,279	153,684	153,383	153,423	153,723	154,143	154,574	155,147	155,772	156,421	157,013	157,230	157,511	157,992
PJM MID-ATLANTIC EASTERN MID-ATLANTIC SOUTHERN MID-ATLANTIC	56,141 30,512 12,982	56,282 30,570 12,996	56,193 30,544 12,907	55,909 30,358 12,844	55,659 30,243 12,758	55,608 30,228 12,744	55,599 30,238 12,758	55,641 30,256 12,764	55,769 30,298 12,825	55,949 30,414 12,854	56,052 30,507 12,860	56,189 30,610 12,926	56,310 30,690 12,991	56,212 30,685 12,992	56,226 30,722 13,090	56,286 30,854 13,089

Notes:

All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management. Load values for Zones and Locational Deliverability Areas are coincident with the PJM RTO peak. This table used for the Reliability Pricing Model. Summer season indicates peak from June, July, August.

PJM CONTROL AREA - JANUARY 2017 SUMMER TOTAL INTERNAL DEMAND FORECAST (MW) FOR EACH NERC REGION 2017 - 2032

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	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Annual Growth Rate (10 yr)
PJM - RELIABILITY FIRST TOTAL INTERNAL DEMAND % TOTAL	131,322	131,973 0.5%	132,119 0.1%	131,566 -0.4%	131,253 -0.2%	131,302 0.0%	131,576 0.2%	131,910 0.3%	132,258 0.3%	132,735 0.4%	133,262 0.4%	0.1%
CONTRACTUALLY INTERRUPTIBLE DIRECT CONTROL TOTAL LOAD MANAGEMENT	8,231 0 8,231	8,287 0 8,287	8,297 0 8,297	5,549 0 5,549	5,541 0 5,541	5,541 0 5,541	5,544 0 5,544	5,556 0 5,556	5,572 0 5,572	5,589 0 5,589	5,600 0 5,600	
NET INTERNAL DEMAND % NET	123,091	123,686 0.5%	123,822 0.1%	126,017 1.8%	125,712 -0.2%	125,761 0.0%	126,032 0.2%	126,354 0.3%	126,686 0.3%	$127,146 \\ 0.4\%$	127,662 0.4%	0.4%
PJM - SERC TOTAL INTERNAL DEMAND % TOTAL	21,677	21,978 1.4%	22,159 0.8%	22,118 -0.2%	22,131 0.1%	22,123 -0.0%	22,146 0.1%	22,232 0.4%	22,314 0.4%	22,413 0.4%	22,511 0.4%	0.4%
CONTRACTUALLY INTERRUPTIBLE DIRECT CONTROL TOTAL LOAD MANAGEMENT	889 0 889	900 0 900	907 0 907	628 0 628	628 0 628	628 0 628	630 0 630	631 0 631	632 0 632	635 0 635	637 0 637	
NET INTERNAL DEMAND % NET	20,788	$21,078 \\ 1.4\%$	21,252 0.8%	$21,490 \\ 1.1\%$	$21,503 \\ 0.1\%$	21,495 -0.0%	$21,516 \\ 0.1\%$	$21,\!601 \\ 0.4\%$	$21,\!682 \\ 0.4\%$	$21,778 \\ 0.4\%$	21,874 0.4%	0.5%
PJM RTO TOTAL INTERNAL DEMAND % TOTAL	152,999	153,951 0.6%	154,278 0.2%	153,684 -0.4%	153,384 -0.2%	153,425 0.0%	153,722 0.2%	154,142 0.3%	154,572 0.3%	155,148 0.4%	155,773 0.4%	0.2%
CONTRACTUALLY INTERRUPTIBLE DIRECT CONTROL TOTAL LOAD MANAGEMENT	9,120 0 9,120	9,187 0 9,187	9,204 0 9,204	6,177 0 6,177	6,169 0 6,169	6,169 0 6,169	$6,174 \\ 0 \\ 6,174$	6,187 0 6,187	$6,204 \\ 0 \\ 6,204$	6,224 0 6,224	6,237 0 6,237	
NET INTERNAL DEMAND % NET	143,879	$144,764 \\ 0.6\%$	145,074 0.2%	147,507 1.7%	147,215 -0.2%	147,256 0.0%	147,548 0.2%	147,955 0.3%	148,368 0.3%	$148,924 \\ 0.4\%$	149,536 0.4%	0.4%

Notes:

Total Internal Demand = projected PJM seasonal peak load at normal peak weather conditions in the absence of any load reductions due to load management, voltage reductions or voluntary curtailments. Contractually Interruptible = Firm Service Level + Guaranteed Load Drop

The above forecasts incorporate all load in the PJM Control Area, including members and non-members

All average growth rates are calculated from the first year of the forecast (2017).

PJM CONTROL AREA - JANUARY 2017 SUMMER TOTAL INTERNAL DEMAND FORECAST (MW) FOR EACH NERC REGION 2017 - 2032

						Annual Growth Rate
PIM - RELIABILITY FIRST	2028	2029	2030	2031	2032	(15 yr)
TOTAL INTERNAL DEMAND	133,767	134,233	134,355	134,550	134,977	0.2%
% TOTAL	0.4%	0.3%	0.1%	0.1%	0.3%	
CONTRACTUALLY INTERRUPTIBLE	5,607	5,624	5,632	5,642	5,652	
DIRECT CONTROL	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	5,607	5,624	5,632	5,642	5,652	
NET INTERNAL DEMAND	128,160	128,609	128,723	128,908	129,325	0.3%
% NET	0.4%	0.4%	0.1%	0.1%	0.3%	
PJM - SERC						
TOTAL INTERNAL DEMAND	22,652	22,783	22,873	22,963	23,017	0.4%
% TOTAL	0.6%	0.6%	0.4%	0.4%	0.2%	
CONTRACTUALLY INTERRUPTIBLE	640	643	645	648	651	
DIRECT CONTROL	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	640	643	645	648	651	
NET INTERNAL DEMAND	22,012	22,140	22,228	22,315	22,366	0.5%
% NET	0.6%	0.6%	0.4%	0.4%	0.2%	
PJM RTO						
TOTAL INTERNAL DEMAND	156,419	157,016	157,228	157,513	157,994	0.2%
% TOTAL	0.4%	0.4%	0.1%	0.2%	0.3%	
CONTRACTUALLY INTERRUPTIBLE	6,247	6,267	6,277	6,290	6,303	
DIRECT CONTROL	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	6,247	6,267	6,277	6,290	6,303	
NET INTERNAL DEMAND	150,172	150,749	150,951	151,223	151,691	0.4%
% NET	0.4%	0.4%	0.1%	0.2%	0.3%	

Notes:

Total Internal Demand = projected PJM seasonal peak load at normal peak weather conditions in the absence of any load reductions due to load management, voltage reductions or voluntary curtailments.

Contractually Interruptible = Firm Service Level + Guaranteed Load Drop

The above forecasts incorporate all load in the PJM Control Area, including members and non-members

All average growth rates are calculated from the first year of the forecast (2017).

PJM CONTROL AREA - JANUARY 2017 WINTER TOTAL INTERNAL DEMAND FORECAST (MW) FOR EACH NERC REGION 2016/17 - 2026/27

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	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Annual Growth Rate (10 yr)
PJM - RELIABILITY FIRST TOTAL INTERNAL DEMAND % TOTAL	110,855	111,782 0.8%	112,284 0.4%	111,855 -0.4%	111,689 -0.1%	111,842 0.1%	111,959 0.1%	112,473 0.5%	112,450 -0.0%	112,843 0.3%	113,281 0.4%	0.2%
CONTRACTUALLY INTERRUPTIBLE DIRECT CONTROL TOTAL LOAD MANAGEMENT	269 0 269	272 0 272	273 0 273	5,549 0 5,549	5,541 0 5,541	5,541 0 5,541	5,544 0 5,544	5,556 0 5,556	5,572 0 5,572	5,589 0 5,589	5,600 0 5,600	
NET INTERNAL DEMAND % NET	110,586	$111,510 \\ 0.8\%$	112,011 0.4%	106,306 -5.1%	106,148 -0.1%	106,301 0.1%	106,415 0.1%	106,917 0.5%	106,878 -0.0%	107,254 0.4%	107,681 0.4%	(0.3%)
PJM - SERC TOTAL INTERNAL DEMAND % TOTAL	20,536	20,870 1.6%	21,110 1.1%	21,087 -0.1%	21,194 0.5%	21,208 0.1%	21,280 0.3%	21,369 0.4%	21,347 -0.1%	21,499 0.7%	21,634 0.6%	0.5%
CONTRACTUALLY INTERRUPTIBLE DIRECT CONTROL TOTAL LOAD MANAGEMENT	86 0 86	87 0 87	87 0 87	628 0 628	628 0 628	628 0 628	630 0 630	631 0 631	632 0 632	635 0 635	637 0 637	
NET INTERNAL DEMAND % NET	20,450	20,783 1.6%	21,023 1.2%	20,459 -2.7%	20,566 0.5%	$20,580 \\ 0.1\%$	20,650 0.3%	$20,738 \\ 0.4\%$	20,715 -0.1%	20,864 0.7%	20,997 0.6%	0.3%
PJM RTO TOTAL INTERNAL DEMAND % TOTAL	131,391	132,652 1.0%	133,394 0.6%	132,942 -0.3%	132,883 -0.0%	133,050 0.1%	133,239 0.1%	133,842 0.5%	133,797 -0.0%	134,342 0.4%	134,915 0.4%	0.3%
CONTRACTUALLY INTERRUPTIBLE DIRECT CONTROL TOTAL LOAD MANAGEMENT	355 0 355	359 0 359	360 0 360	6,177 0 6,177	6,169 0 6,169	6,169 0 6,169	$6,174 \\ 0 \\ 6,174$	6,187 0 6,187	$6,204 \\ 0 \\ 6,204$	6,224 0 6,224	6,237 0 6,237	
NET INTERNAL DEMAND % NET	131,036	132,293 1.0%	133,034 0.6%	126,765 -4.7%	126,714 -0.0%	$126,881 \\ 0.1\%$	$127,065 \\ 0.1\%$	127,655 0.5%	127,593 -0.0%	$128,118 \\ 0.4\%$	$128,678 \\ 0.4\%$	(0.2%)

Notes:

Total Internal Demand = projected PJM seasonal peak load at normal peak weather conditions in the absence of any load reductions due to load management, voltage reductions or voluntary curtailments. Contractually Interruptible = Firm Service Level + Guaranteed Load Drop

The above forecasts incorporate all load in the PJM Control Area, including members and non-members

All average growth rates are calculated from the first year of the forecast (2016/17).

PJM CONTROL AREA - JANUARY 2017 WINTER TOTAL INTERNAL DEMAND FORECAST (MW) FOR EACH NERC REGION 2016/17 - 2026/27

	27/28	28/29	29/30	30/31	31/32	Annual Growth Rate (15 vr)
PJM - RELIABILITY FIRST	112.000	114 102	114 (02	114 (25	115 050	0.20
101AL INTERNAL DEMAND % TOTAL	113,906	0.2%	114,602	114,625	115,272	0.3%
/0 TOTAL	0.070	0.270	0.170	0.070	0.070	
CONTRACTUALLY INTERRUPTIBLE	5,607	5,624	5,632	5,642	5,652	
DIRECT CONTROL	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	5,607	5,624	5,632	5,642	5,652	
NET INTERNAL DEMAND	108,299	108,558	108,970	108,983	109,620	(0.1%)
% NET	0.6%	0.2%	0.4%	0.0%	0.6%	
PJM - SERC						
TOTAL INTERNAL DEMAND	21,761	21,913	22,013	22,051	22,214	0.5%
% TOTAL	0.6%	0.7%	0.5%	0.2%	0.7%	
CONTRACTUALLY INTERRUPTIBLE	640	643	645	648	651	
DIRECT CONTROL	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	640	643	645	648	651	
NET INTERNAL DEMAND	21,121	21,270	21,368	21,403	21,563	0.4%
% NET	0.6%	0.7%	0.5%	0.2%	0.7%	
PJM RTO						
TOTAL INTERNAL DEMAND	135,667	136,095	136,615	136,676	137,486	0.3%
% TOTAL	0.6%	0.3%	0.4%	0.0%	0.6%	
CONTRACTUALLY INTERRUPTIBLE	6,247	6,267	6,277	6,290	6,303	
DIRECT CONTROL	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	6,247	6,267	6,277	6,290	6,303	
NET INTERNAL DEMAND	129,420	129,828	130,338	130,386	131,183	0.0%
% NET	0.6%	0.3%	0.4%	0.0%	0.6%	

Notes:

Total Internal Demand = projected PJM seasonal peak load at normal peak weather conditions in the absence of any load reductions due to load management, voltage reductions or voluntary curtailments.

Contractually Interruptible = Firm Service Level + Guaranteed Load Drop

The above forecasts incorporate all load in the PJM Control Area, including members and non-members

All average growth rates are calculated from the first year of the forecast (2016/17).

PJM LOCATIONAL DELIVERABILITY AREAS CENTRAL MID-ATLANTIC: BGE, METED, PEPCO, PL and UGI SEASONAL PEAKS - MW

BASE (50/50) FORECAST

SPRING	SUMMER	FALL	WINTER
18,933	23,446	19,966	21,132
19,007	23,520	20,045	21,236
18,981	23,499	20,106	21,284
18,776	23,386	20,068	21,191
18,724	23,284	19,986	21,157
18,782	23,250	19,954	21,171
18,763	23,220	19,909	21,177
18,762	23,273	20,009	21,214
18,760	23,346	20,110	21,208
18,757	23,406	20,185	21,239
18,768	23,462	20,217	21,285
18,901	23,495	20,174	21,378
18,894	23,533	20,230	21,437
18,808	23,517	20,325	21,459
18,735	23,481	20,418	21,456
18,644	23,484	20,450	21,516
	SPRING 18,933 19,007 18,981 18,776 18,724 18,762 18,763 18,762 18,760 18,757 18,768 18,901 18,894 18,808 18,808 18,735 18,644	SPRINGSUMMER18,93323,44619,00723,52018,98123,49918,77623,38618,72423,28418,78223,25018,76323,22018,76223,27318,76023,34618,75723,40618,76823,46218,76823,49518,89423,53318,80823,51718,73523,48118,64423,484	SPRINGSUMMERFALL18,93323,44619,96619,00723,52020,04518,98123,49920,10618,77623,38620,06818,72423,28419,98618,78223,25019,95418,76323,22019,90918,76223,34620,11018,75723,40620,18518,76823,46220,21718,90123,49520,17418,89423,53320,23018,80823,51720,32518,73523,48120,41818,64423,48420,450

EXTREME WEATHER (90/10) FORECAST

YEAR	SPRING	SUMMER	FALL	WINTER
2017	20,431	24,885	21,604	21,966
2018	20,499	24,761	21,641	22,073
2019	20,489	24,749	21,638	22,111
2020	20,136	24,672	21,544	22,027
2021	20,174	24,540	21,513	22,002
2022	20,272	24,688	21,478	21,992
2023	20,265	24,681	21,538	22,011
2024	20,300	24,569	21,546	22,033
2025	20,153	24,781	21,666	22,042
2026	20,189	24,765	21,676	22,077
2027	20,373	24,778	21,750	22,124
2028	20,514	25,001	21,855	22,184
2029	20,554	24,888	21,868	22,219
2030	20,525	24,890	21,918	22,237
2031	20,297	25,022	21,974	22,290
2032	20,498	24,899	22,018	22,347

All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management. Spring season indicates peak from March, April, May. Summer season indicates peak from June, July, August. Fall season indicates peak from September, October, November. 79

Notes:

PJM LOCATIONAL DELIVERABILITY AREAS WESTERN MID-ATLANTIC: METED, PENLC, PL and UGI SEASONAL PEAKS - MW

BASE (50/50) FORECAST

YEAR	SPRING	SUMMER	FALL	WINTER
2017	11,315	12,987	11,324	12,741
2018	11,399	13,061	11,402	12,837
2019	11,422	13,091	11,483	12,869
2020	11,337	13,029	11,427	12,790
2021	11,313	13,004	11,404	12,756
2022	11,293	12,988	11,373	12,778
2023	11,250	12,958	11,317	12,780
2024	11,244	12,973	11,397	12,792
2025	11,239	13,002	11,461	12,765
2026	11,260	13,032	11,485	12,777
2027	11,248	13,043	11,456	12,802
2028	11,215	13,031	11,427	12,854
2029	11,171	13,000	11,398	12,854
2030	11,053	12,909	11,426	12,866
2031	10,919	12,797	11,513	12,882
2032	10,861	12,723	11,397	12,919

EXTREME WEATHER (90/10) FORECAST

YEAR	SPRING	SUMMER	FALL	WINTER
2017	11,772	13,761	12,038	13,097
2018	11,857	13,746	12,152	13,179
2019	11,844	13,805	12,182	13,222
2020	11,769	13,792	12,148	13,161
2021	11,760	13,700	12,107	13,116
2022	11,730	13,763	12,111	13,119
2023	11,695	13,746	12,078	13,127
2024	11,710	13,704	12,150	13,134
2025	11,694	13,801	12,213	13,121
2026	11,691	13,825	12,226	13,128
2027	11,670	13,766	12,248	13,145
2028	11,682	13,847	12,233	13,188
2029	11,678	13,731	12,306	13,191
2030	11,544	13,672	12,288	13,202
2031	11,450	13,641	12,282	13,212
2032	11,344	13,480	12,273	13,241

All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management. Spring season indicates peak from March, April, May. Summer season indicates peak from June, July, August. Fall season indicates peak from September, October, November.

Notes:

PJM LOCATIONAL DELIVERABILITY AREAS EASTERN MID-ATLANTIC: AE, DPL, JCPL, PECO, PS and RECO SEASONAL PEAKS - MW

BASE (50/50) FORECAST

YEAR	SPRING	SUMMER	FALL	WINTER
2017	23,097	31,346	25,245	22,528
2018	23,279	31,291	25,428	22,694
2019	23,246	31,394	25,603	22,774
2020	22,704	31,263	25,455	22,587
2021	22,432	31,001	25,363	22,484
2022	22,862	31,079	25,304	22,441
2023	22,935	31,085	25,123	22,433
2024	22,978	31,104	25,389	22,433
2025	22,958	31,217	25,455	22,373
2026	22,713	31,341	25,534	22,394
2027	22,572	31,280	25,603	22,421
2028	23,219	31,492	25,462	22,483
2029	23,321	31,491	25,631	22,519
2030	23,281	31,611	25,813	22,544
2031	23,255	31,683	25,916	22,541
2032	22,756	31,706	26,022	22,612

EXTREME WEATHER (90/10) FORECAST

YEAR	SPRING	SUMMER	FALL	WINTER
2017	26,268	33,883	28,216	23,156
2018	26,294	33,795	28,139	23,317
2019	26,195	33,840	28,292	23,349
2020	25,988	33,619	28,062	23,164
2021	26,130	33,521	27,975	23,082
2022	26,096	33,505	27,944	23,021
2023	26,096	33,647	28,092	23,033
2024	25,942	33,577	28,095	23,011
2025	25,978	33,641	28,258	22,960
2026	26,044	33,747	28,182	22,975
2027	26,294	33,863	28,236	23,029
2028	26,380	34,135	28,461	23,070
2029	26,441	34,036	28,406	23,094
2030	26,356	34,138	28,560	23,098
2031	26,398	34,214	28,753	23,098
2032	26,593	34,352	28,746	23,176

All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management. Spring season indicates peak from March, April, May. Summer season indicates peak from June, July, August. Fall season indicates peak from September, October, November. 81

Notes:

PJM LOCATIONAL DELIVERABILITY AREAS SOUTHERN MID-ATLANTIC: BGE and PEPCO SEASONAL PEAKS - MW

BASE (50/50) FORECAST

YEAR	SPRING	SUMMER	FALL	WINTER
2017	10,441	13,370	11,351	11,235
2018	10,498	13,389	11,361	11,225
2019	10,457	13,334	11,362	11,238
2020	10,240	13,274	11,349	11,234
2021	10,177	13,207	11,290	11,247
2022	10,245	13,160	11,254	11,263
2023	10,268	13,150	11,238	11,258
2024	10,333	13,181	11,297	11,238
2025	10,298	13,256	11,373	11,267
2026	10,254	13,292	11,401	11,306
2027	10,265	13,318	11,408	11,338
2028	10,418	13,335	11,385	11,382
2029	10,489	13,388	11,429	11,379
2030	10,516	13,429	11,508	11,398
2031	10,519	13,529	11,608	11,429
2032	10,450	13,567	11,617	11,473

EXTREME WEATHER (90/10) FORECAST

$\begin{array}{cccccccccccccccccccccccccccccccccccc$	YEAR	SPRING	SUMMER	FALL	WINTER
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2017	11,453	14,214	12,226	11,729
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2018	11,445	14,138	12,254	11,759
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2019	11,402	14,133	12,176	11,768
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2020	11,308	14,026	12,120	11,753
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2021	11,280	13,935	12,102	11,733
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2022	11,271	14,002	12,074	11,735
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2023	11,271	14,000	12,112	11,739
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2024	11,283	13,996	12,103	11,754
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2025	11,295	14,028	12,158	11,769
202711,37714,07412,21011,819202811,42514,20312,27611,854202911,46714,18012,33811,873203011,49814,27312,33311,883203111,53014,33312,38611,923203211,59214,35612,42611,951	2026	11,327	14,059	12,164	11,792
202811,42514,20312,27611,854202911,46714,18012,33811,873203011,49814,27312,33311,883203111,53014,33312,38611,923203211,59214,35612,42611,951	2027	11,377	14,074	12,210	11,819
202911,46714,18012,33811,873203011,49814,27312,33311,883203111,53014,33312,38611,923203211,59214,35612,42611,951	2028	11,425	14,203	12,276	11,854
203011,49814,27312,33311,883203111,53014,33312,38611,923203211,59214,35612,42611,951	2029	11,467	14,180	12,338	11,873
203111,53014,33312,38611,923203211,59214,35612,42611,951	2030	11,498	14,273	12,333	11,883
2032 11,592 14,356 12,426 11,951	2031	11,530	14,333	12,386	11,923
	2032	11,592	14,356	12,426	11,951

All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management. Spring season indicates peak from March, April, May. Summer season indicates peak from June, July, August. Fall season indicates peak from September, October, November.

Notes:

SUMMER EXTREME WEATHER (90/10) PEAK LOAD FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION 2017 - 2032

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
AE	2,614	2,589	2,598	2,571	2,547	2,555	2,557	2,559	2,556	2,559	2,555	2,580	2,568	2,588	2,593	2,595
BGE	7,312	7,267	7,262	7,210	7,169	7,212	7,217	7,219	7,239	7,259	7,269	7,338	7,329	7,380	7,414	7,427
DPL	4,202	4,194	4,198	4,155	4,108	4,114	4,115	4,120	4,131	4,142	4,148	4,188	4,184	4,211	4,228	4,233
JCPL	6,616	6,590	6,614	6,592	6,539	6,577	6,584	6,569	6,600	6,638	6,633	6,706	6,688	6,734	6,794	6,829
METED	3,069	3,077	3,109	3,093	3,082	3,101	3,105	3,113	3,126	3,139	3,143	3,169	3,146	3,157	3,143	3,129
PECO	9,055	9,015	9,152	9,110	9,057	9,072	9,123	9,155	9,189	9,221	9,210	9,284	9,178	9,268	9,231	9,176
PENLC	3,017	3,013	3,020	3,006	2,985	2,993	2,982	2,974	2,978	2,976	2,961	2,966	2,939	2,917	2,883	2,845
PEPCO	6,902	6,872	6,871	6,816	6,766	6,790	6,783	6,777	6,789	6,800	6,805	6,865	6,851	6,893	6,919	6,929
PL	7,474	7,453	7,471	7,491	7,433	7,492	7,483	7,418	7,499	7,513	7,465	7,549	7,453	7,403	7,422	7,315
PS	11,013	10,956	10,990	10,913	10,842	10,898	10,900	10,884	10,893	10,903	10,901	11,001	10,964	11,027	11,070	11,098
RECO	455	452	453	451	449	451	451	450	452	452	452	456	454	457	459	460
UGI	203	203	205	202	200	199	198	199	198	197	197	196	195	195	193	191
DIVERSITY - MID-ATLANTIC(-)	240	2	59	134	0	287	285	62	136	134	0	301	1	43	119	0
PJM MID-ATLANTIC	61,692	61,679	61,884	61,476	61,177	61,167	61,213	61,375	61,514	61,665	61,739	61,997	61,948	62,187	62,230	62,227
FE-EAST	12,641	12,599	12,721	12,657	12,606	12,510	12,602	12,635	12,664	12,718	12,737	12,772	12,696	12,792	12,785	12,801
PLGRP	7,677	7,655	7,676	7,693	7,633	7,691	7,681	7,616	7,697	7,710	7,662	7,745	7,647	7,598	7,615	7,506

SUMMER EXTREME WEATHER (90/10) PEAK LOAD FOR EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO 2017 - 2032

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
AEP	23,769	23,848	24,023	23,991	23,943	24,160	24,196	24,267	24,405	24,585	24,717	24,943	24,969	25,182	25,335	25,503
APS	8,977	9,031	9,071	9,091	9,093	9,169	9,172	9,174	9,198	9,220	9,223	9,298	9,313	9,301	9,287	9,265
ATSI	13,478	13,523	13,563	13,486	13,415	13,497	13,517	13,540	13,570	13,608	13,622	13,742	13,751	13,799	13,820	13,822
COMED	24,452	24,512	24,646	24,504	24,414	24,603	24,679	24,741	24,850	24,945	25,022	25,291	25,299	25,483	25,613	25,701
DAYTON	3,594	3,596	3,617	3,591	3,568	3,588	3,589	3,594	3,599	3,611	3,613	3,646	3,643	3,664	3,670	3,674
DEOK	5,750	5,754	5,799	5,782	5,765	5,844	5,864	5,864	5,896	5,929	5,951	6,041	6,029	6,077	6,114	6,138
DLCO	3,001	2,997	3,011	2,997	2,973	2,994	2,989	2,986	2,984	2,993	2,981	3,004	2,982	2,978	2,955	2,936
EKPC	2,058	2,058	2,071	2,079	2,078	2,092	2,096	2,100	2,111	2,120	2,126	2,142	2,141	2,157	2,171	2,180
DIVERSITY - WESTERN(-)	495	38	11	58	85	229	455	12	291	61	90	498	65	10	295	80
PJM WESTERN	84,584	85,281	85,790	85,463	85,164	85,718	85,647	86,254	86,322	86,950	87,165	87,609	88,062	88,631	88,670	89,139
DOM	20,596	20,794	21,018	20,966	20,934	21,028	21,047	21,082	21,159	21,235	21,312	21,547	21,560	21,698	21,784	21,807
DIVERSITY - INTERREGIONAL(-) PJM RTO	2,300 164,572	2,274 165,480	2,573 166,119	2,603 165,302	2,251 165,024	2,781 165,132	2,358 165,549	2,465 166,246	2,213 166,782	2,593 167,257	2,363 167,853	2,399 168,754	2,250 169,320	2,437 170,079	2,186 170,498	2,489 170,684

WINTER EXTREME WEATHER (90/10) PEAK LOAD FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION 2016/17 - 2031/32

	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32
ΔF	1 670	1 669	1 663	1 642	1 628	1 620	1 614	1 610	1 601	1 598	1 597	1 598	1 596	1 594	1 588	1 590
BGE	6.150	6.160	6.161	6.151	6.140	6.139	6.138	6.146	6.151	6.159	6.170	6.180	6.190	6.192	6.210	6.221
DPL	3,608	3,626	3,616	3,609	3,623	3,627	3,629	3,643	3,627	3,658	3,673	3,696	3,699	3,696	3,707	3,741
JCPL	3,928	3,965	3,994	3,955	3,918	3,905	3,897	3,895	3,860	3,850	3,858	3,870	3,869	3,903	3,860	3,875
METED	2,676	2,696	2,716	2,713	2,698	2,709	2,715	2,709	2,714	2,718	2,725	2,749	2,744	2,766	2,762	2,773
PECO	6,844	6,896	6,911	6,870	6,851	6,847	6,851	6,866	6,864	6,873	6,886	6,902	6,918	6,916	6,933	6,954
PENLC	2,874	2,865	2,879	2,854	2,847	2,847	2,851	2,855	2,841	2,840	2,840	2,849	2,846	2,856	2,845	2,845
PEPCO	5,579	5,599	5,608	5,602	5,593	5,596	5,601	5,608	5,618	5,633	5,650	5,674	5,684	5,691	5,713	5,730
PL	7,360	7,416	7,425	7,394	7,374	7,366	7,365	7,375	7,372	7,377	7,386	7,398	7,409	7,396	7,414	7,432
PS	6,896	6,940	6,971	6,928	6,891	6,881	6,879	6,877	6,829	6,825	6,831	6,851	6,838	6,876	6,846	6,852
RECO	239	239	240	237	237	238	238	238	236	235	236	237	236	239	236	236
UGI	201	202	202	200	198	197	196	195	194	194	194	193	192	192	191	191
DIVERSITY - MID-ATLANTIC(-)	188	135	171	241	234	199	211	218	192	211	311	236	260	270	189	198
PJM MID-ATLANTIC	47,837	48,138	48,215	47,914	47,764	47,773	47,763	47,799	47,715	47,749	47,735	47,961	47,961	48,047	48,116	48,242
FE-EAST	9,464	9,526	9,569	9,492	9,439	9,431	9,430	9,425	9,407	9,399	9,411	9,441	9,454	9,482	9,467	9,491
PLGRP	7,561	7,618	7,627	7,593	7,572	7,563	7,561	7,570	7,566	7,570	7,580	7,591	7,601	7,588	7,605	7,623

Notes: All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management. Winter season indicates peak from December, January, February.

WINTER EXTREME WEATHER (90/10) PEAK LOAD FOR EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO 2017 - 2032

	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32
AEP	23,518	23,748	23,885	23,871	23,927	24,023	24,160	24,330	24,441	24,596	24,791	24,962	25,137	25,229	25,420	25,606
APS	9,026	9,117	9,171	9,221	9,256	9,295	9,315	9,348	9,369	9,401	9,438	9,475	9,521	9,537	9,579	9,614
ATSI	10,877	10,935	10,978	10,940	10,921	10,939	10,966	11,007	11,030	11,059	11,091	11,126	11,147	11,181	11,218	11,248
COMED	16,236	16,356	16,448	16,320	16,326	16,353	16,404	16,471	16,496	16,575	16,663	16,776	16,841	16,922	16,937	17,032
DAYTON	3,022	3,038	3,047	3,027	3,015	3,017	3,021	3,030	3,030	3,035	3,040	3,051	3,058	3,063	3,067	3,075
DEOK	4,650	4,690	4,690	4,684	4,691	4,710	4,746	4,775	4,777	4,807	4,841	4,870	4,901	4,906	4,937	4,971
DLCO	2,204	2,217	2,223	2,213	2,206	2,204	2,206	2,206	2,203	2,205	2,207	2,212	2,214	2,219	2,216	2,220
EKPC	2,903	2,916	2,929	2,934	2,941	2,950	2,961	2,975	2,988	3,005	3,021	3,037	3,053	3,069	3,090	3,112
DIVERSITY - WESTERN(-)	683	629	714	684	890	666	721	736	1,026	1,000	1,049	880	1,034	995	1,142	1,078
PJM WESTERN	71,753	72,388	72,657	72,526	72,393	72,825	73,058	73,406	73,308	73,683	74,043	74,629	74,838	75,131	75,322	75,800
DOM	19,300	19,607	19,816	19,856	19,917	19,921	19,952	20,032	20,090	20,179	20,317	20,435	20,533	20,593	20,718	20,833
DIVERSITY - INTERREGIONAL(-) PJM RTO	1,253 137,637	1,252 138,881	1,302 139,386	1,282 139,014	1,102 138,972	1,305 139,214	1,372 139,401	1,355 139,882	1,016 140,097	1,045 140,566	990 141,105	1,194 141,831	987 142,345	1,255 142,516	1,065 143,091	1,103 143,772

ANNUAL NET ENERGY (GWb) AND GROWTH RATES FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION 2017 - 2027

												Annual Growth Rate
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	(10 yr)
AE	10,411	10,400	10,360	10,266	10,191	10,155	10,134	10,155	10,112	10,114	10,119	(0.3%)
BGE	33,386	-0.1% 33,319	-0.4%	-0.9% 33,060	-0.7% 32,923	-0.4% 32,922	-0.2% 32,916	0.2% 33,052	-0.4% 33,012	33,076 0.2%	0.0% 33,141 0.2%	(0.1%)
DPL	19,102	-0.2% 19,148	-0.4% 19,112	19,012	18,832	-0.0%	18,781	18,883	18,873	18,933	0.2% 18,999	(0.1%)
JCPL	23,525	23,710 0.8%	23,707	-0.3% 23,469	23,306	23,243	23,216 0.1%	23,287	23,198	23,232	23,292	(0.1%)
METED	16,129	16,312	-0.0% 16,353	16,295	16,232	16,232	16,222	16,303	16,295	16,352	16,394	0.2%
PECO	42,081	42,477	42,569	42,409	42,224	42,185	42,126	42,307	42,248	42,331	42,363	0.1%
PENLC	18,054	18,122	0.2% 18,102	-0.4% 18,104	-0.4%	-0.1% 17,983	-0.1% 17,918	0.4% 17,938	-0.1%	17,892	0.1%	(0.1%)
PEPCO	31,939	0.4% 31,989	-0.1% 31,935	0.0% 31,847	-0.4% 31,705	-0.2% 31,677	-0.4% 31,667	0.1% 31,817	-0.5% 31,808	0.0% 31,909	-0.1% 32,030	0.0%
PL	41,476	0.2% 41,871	-0.2% 41,950	-0.3% 41,855	-0.4% 41,690	-0.1% 41,637	-0.0% 41,554	0.5% 41,712	-0.0% 41,625	0.5% 41,703	0.4% 41,732	0.1%
PS	45,581	45,810	45,808	-0.2% 45,673	-0.4% 45,460	-0.1% 45,416	-0.2% 45,376	0.4% 45,478	-0.2% 45,371	0.2% 45,451	0.1% 45,549	(0.0%)
RECO	1,537	1,537	-0.0% 1,534	-0.3% 1,535	-0.5% 1,530	-0.1%	-0.1%	0.2% 1,530	-0.2% 1,529	1,529	0.2% 1,531	(0.0%)
UGI	1,052	1,058 0.6%	-0.2% 1,056 -0.2%	1,042 -1.3%	-0.3% 1,029 -1.2%	1,023 -0.6%	-0.1% 1,018 -0.5%	1,016 -0.2%	-0.1% 1,007 -0.9%	1,006 -0.1%	1,001 -0.5%	(0.5%)
PJM MID-ATLANTIC	284,273	285,753 0.5%	285,659 -0.0%	284,567 -0.4%	283,147 -0.5%	282,777 -0.1%	282,457 -0.1%	283,478 0.4%	282,967 -0.2%	283,528 0.2%	284,023 0.2%	(0.0%)
FE-EAST	57,708	58,144	58,162	57,868	57,563	57,458	57,356	57,528	57,382	57,476	57,558	(0.0%)
PLGRP	42,528	42,929 0.9%	43,006 0.2%	42,897 -0.3%	42,719 -0.4%	42,660 -0.1%	42,572 -0.2%	42,728 0.4%	42,632 -0.2%	42,709 0.2%	42,733 0.1%	0.0%

Notes: All forecast values represent metered energy, after reductions for distributed solar generation. All average growth rates are calculated from the first year of the forecast (2017).

Table E-1 (continued)

ANNUAL NET ENERGY (GWh) AND GROWTH RATES FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION 2028 - 2032

						Annual
	2028	2020	2030	2031	2032	Growth Rate
	2020	202)	2050	2051	2052	(15 yi)
AE	10,167	10,159	10,144	10,153	10,212	(0.1%)
	0.5%	-0.1%	-0.1%	0.1%	0.6%	. ,
BGE	33,318	33,331	33,377	33,459	33,626	0.0%
	0.5%	0.0%	0.1%	0.2%	0.5%	
DPL	19,134	19,152	19,184	19,235	19,352	0.1%
	0.7%	0.1%	0.2%	0.3%	0.6%	
JCPL	23,449	23,502	23,485	23,573	23,795	0.1%
	0.7%	0.2%	-0.1%	0.4%	0.9%	
METED	16,462	16,431	16,337	16,258	16,290	0.1%
	0.4%	-0.2%	-0.6%	-0.5%	0.2%	
PECO	42,488	42,346	42,078	41,805	41,762	(0.1%)
	0.3%	-0.3%	-0.6%	-0.6%	-0.1%	
PENLC	17,863	17,757	17,615	17,498	17,463	(0.2%)
	-0.1%	-0.6%	-0.8%	-0.7%	-0.2%	
PEPCO	32,233	32,291	32,370	32,484	32,703	0.2%
	0.6%	0.2%	0.2%	0.4%	0.7%	
PL	41,837	41,689	41,404	41,139	41,129	(0.1%)
	0.3%	-0.4%	-0.7%	-0.6%	-0.0%	
PS	45,796	45,812	45,777	45,919	46,278	0.1%
	0.5%	0.0%	-0.1%	0.3%	0.8%	
RECO	1,536	1,536	1,531	1,537	1,545	0.0%
	0.3%	0.0%	-0.3%	0.4%	0.5%	
UGI	1,000	992	983	970	965	(0.6%)
	-0.1%	-0.8%	-0.9%	-1.3%	-0.5%	
PJM MID-ATLANTIC	285.283	284,998	284.285	284.030	285.120	0.0%
	0.4%	-0.1%	-0.3%	-0.1%	0.4%	
FE-EAST	57,774	57,690	57,437	57,329	57,548	(0.0%)
	0.4%	-0.1%	-0.4%	-0.2%	0.4%	(, •)
PLGRP	42,837	42,681	42,387	42,109	42,094	(0.1%)
	0.2%	-0.4%	-0.7%	-0.7%	-0.0%	. ,

Notes: All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management. All average growth rates are calculated from the first year of the forecast (2017).

ANNUAL NET ENERGY (GWb) AND GROWTH RATES FOR EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO 2017 - 2027

												Annual Growth Rate
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	(10 yr)
AEP	134,310	135,611	136,215	136,269	136,094	136,617	137,271	138,481	138,844	139,724	140,646	0.5%
		1.0%	0.4%	0.0%	-0.1%	0.4%	0.5%	0.9%	0.3%	0.6%	0.7%	
APS	50,230	50,722	50,943	51,189	51,269	51,479	51,558	51,872	51,891	52,112	52,313	0.4%
		1.0%	0.4%	0.5%	0.2%	0.4%	0.2%	0.6%	0.0%	0.4%	0.4%	
ATSI	69,824	70,249	70,353	70,385	70,132	70,236	70,335	70,690	70,750	71,044	71,342	0.2%
		0.6%	0.1%	0.0%	-0.4%	0.1%	0.1%	0.5%	0.1%	0.4%	0.4%	
COMED	104,593	105,579	105,925	105,683	105,376	105,671	106,073	106,899	107,188	107,867	108,563	0.4%
		0.9%	0.3%	-0.2%	-0.3%	0.3%	0.4%	0.8%	0.3%	0.6%	0.6%	
DAYTON	18,417	18,525	18,542	18,463	18,362	18,360	18,363	18,443	18,427	18,489	18,547	0.1%
		0.6%	0.1%	-0.4%	-0.5%	-0.0%	0.0%	0.4%	-0.1%	0.3%	0.3%	
DEOK	28,064	28,347	28,484	28,494	28,441	28,561	28,706	28,947	29,034	29,224	29,426	0.5%
		1.0%	0.5%	0.0%	-0.2%	0.4%	0.5%	0.8%	0.3%	0.7%	0.7%	
DLCO	14,872	14,983	14,996	14,988	14,937	14,927	14,897	14,937	14,908	14,941	14,958	0.1%
		0.7%	0.1%	-0.1%	-0.3%	-0.1%	-0.2%	0.3%	-0.2%	0.2%	0.1%	
EKPC	10,889	10,930	10,946	10,991	10,994	11,019	11,038	11,093	11,088	11,121	11,152	0.2%
		0.4%	0.1%	0.4%	0.0%	0.2%	0.2%	0.5%	-0.0%	0.3%	0.3%	
PJM WESTERN	431,199	434,946	436,404	436,462	435,605	436,870	438,241	441,362	442,130	444,522	446,947	0.4%
		0.9%	0.3%	0.0%	-0.2%	0.3%	0.3%	0.7%	0.2%	0.5%	0.5%	
DOM	99,366	100,939	101,827	101,802	101,663	101,694	101,928	102,682	102,847	103,452	104,167	0.5%
	,	1.6%	0.9%	-0.0%	-0.1%	0.0%	0.2%	0.7%	0.2%	0.6%	0.7%	
PJM RTO	814,838	821,638	823,890	822,831	820,415	821,341	822,626	827,522	827,944	831,502	835,137	0.2%
	,	0.8%	0.3%	-0.1%	-0.3%	0.1%	0.2%	0.6%	0.1%	0.4%	0.4%	

Notes: All forecast values represent metered energy, after reductions for distributed solar generation. All average growth rates are calculated from the first year of the forecast (2017).

ANNUAL NET ENERGY (GWh) AND GROWTH RATES FOR EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO 2017 - 2027

						Annual
						Growth Rate
	2028	2029	2030	2031	2032	(15 yr)
		1 10 500	1 10 01 0	111.000	1 15 (00	0.50/
AEP	142,011	142,739	143,310	144,206	145,622	0.5%
	1.0%	0.5%	0.4%	0.6%	1.0%	
APS	52,658	52,763	52,750	52,774	53,007	0.4%
	0.7%	0.2%	-0.0%	0.0%	0.4%	
ATSI	71,747	71,856	71,867	72,094	72,597	0.3%
	0.6%	0.2%	0.0%	0.3%	0.7%	
COMED	109,522	110,028	110,311	110,913	112,015	0.5%
	0.9%	0.5%	0.3%	0.5%	1.0%	
DAYTON	18,650	18,677	18,668	18,717	18,844	0.2%
	0.6%	0.1%	-0.0%	0.3%	0.7%	
DEOK	29,720	29,872	29,976	30,153	30,442	0.5%
	1.0%	0.5%	0.3%	0.6%	1.0%	
DLCO	15,003	14,960	14,876	14,812	14,829	(0.0%)
	0.3%	-0.3%	-0.6%	-0.4%	0.1%	
EKPC	11,222	11,230	11,255	11,298	11,371	0.3%
	0.6%	0.1%	0.2%	0.4%	0.6%	
PJM WESTERN	450,533	452,125	453,013	454,967	458,727	0.4%
	0.8%	0.4%	0.2%	0.4%	0.8%	
DOM	105.283	105.808	106.131	106.605	107.380	0.5%
	1.1%	0.5%	0.3%	0.4%	0.7%	
PJM RTO	841,099	842,931	843,429	845,602	851,227	0.3%
	0.7%	0.2%	0.1%	0.3%	0.7%	

MONTHLY NET ENERGY FORECAST (GWh) FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION

	AE	BGE	DPL	JCPL	METED	PECO	PENLC	РЕРСО	PL	PS	RECO	UGI	PJM MID- ATLANTIC
Jan 2017	878	3.101	1.780	2.036	1.475	3.707	1.660	2.853	3.964	3.876	126	105	25.561
Feb 2017	779	2.733	1,580	1.802	1.326	3,309	1,495	2,524	3,526	3.452	112	92	22.730
Mar 2017	802	2.716	1.544	1.845	1,354	3,394	1.541	2,547	3,560	3,591	118	92	23,104
Apr 2017	731	2,389	1.344	1.672	1.211	3.074	1,398	2.281	3.128	3,331	112	79	20,750
May 2017	778	2.440	1.387	1.748	1.248	3.167	1.436	2,390	3.166	3.479	119	78	21.436
Jun 2017	938	2.941	1.662	2.121	1,356	3.729	1.451	2.892	3,329	4.103	141	82	24,745
Jul 2017	1.142	3,309	1.911	2,496	1.477	4.201	1.541	3.232	3.638	4.669	161	91	27.868
Aug 2017	1.096	3.227	1.863	2,390	1.476	4.101	1.567	3.165	3.625	4,556	157	89	27.312
Sep 2017	850	2,575	1.492	1.871	1.239	3.344	1.415	2,564	3.140	3.699	127	77	22.393
Oct 2017	782	2,454	1,399	1,772	1,260	3,213	1,467	2,352	3,233	3,542	123	81	21,678
Nov 2017	773	2,552	1.446	1.770	1.277	3.239	1.470	2,410	3,364	3.481	117	86	21.985
Dec 2017	862	2,949	1,694	2,002	1,430	3,603	1,613	2,729	3,803	3,802	124	100	24,711
	AE	BGE	DPL	JCPL	METED	PECO	PENLC	PEPCO	PL	PS	RECO	UGI	MID-ATLANTIC
Jan 2018	878	3,109	1,793	2,060	1,499	3,757	1,674	2,870	4,018	3,916	126	105	25,805
Feb 2018	778	2,729	1,585	1,817	1,341	3,342	1,502	2,530	3,561	3,474	112	93	22,864
Mar 2018	798	2,701	1,542	1,851	1,361	3,411	1,538	2,541	3,573	3,597	118	92	23,123
Apr 2018	731	2,385	1,349	1,693	1,232	3,114	1,414	2,287	3,177	3,360	112	80	20,934
May 2018	777	2,430	1,389	1,763	1,263	3,198	1,443	2,390	3,199	3,501	119	78	21,550
Jun 2018	935	2,927	1,662	2,132	1,366	3,753	1,452	2,888	3,348	4,108	140	82	24,793
Jul 2018	1,142	3,312	1,918	2,518	1,503	4,259	1,556	3,251	3,694	4,709	162	92	28,116
Aug 2018	1,094	3,219	1,866	2,405	1,490	4,137	1,570	3,169	3,653	4,572	157	90	27,422
Sep 2018	848	2,564	1,492	1,882	1,250	3,366	1,418	2,559	3,163	3,709	127	77	22,455
Oct 2018	783	2,447	1,402	1,787	1,277	3,242	1,475	2,358	3,268	3,563	123	81	21,806
Nov 2018	774	2,548	1,451	1,787	1,292	3,268	1,476	2,415	3,396	3,505	118	87	22,117
Dec 2018	862	2,948	1,699	2,015	1,438	3,630	1,604	2,731	3,821	3,796	123	101	24,768
	AE	BGE	DPL	JCPL	METED	PECO	PENLC	PEPCO	PL	PS	RECO	UGI	MID-ATLANTIC
Jan 2019	875	3,100	1,794	2,062	1,503	3,767	1,672	2,869	4,023	3,917	126	105	25,813
Feb 2019	774	2,721	1,585	1,819	1,348	3,352	1,503	2,528	3,571	3,480	112	93	22,886
Mar 2019	794	2,689	1,539	1,852	1,365	3,418	1,536	2,532	3,579	3,598	118	92	23,112
Apr 2019	729	2,376	1,348	1,696	1,240	3,128	1,417	2,286	3,195	3,366	112	80	20,973
May 2019	775	2,415	1,385	1,766	1,268	3,208	1,442	2,385	3,209	3,506	119	78	21,556
Jun 2019	931	2,911	1,654	2,131	1,366	3,757	1,447	2,876	3,345	4,099	140	82	24,739
Jul 2019	1,140	3,302	1,919	2,524	1,516	4,282	1,566	3,251	3,727	4,722	162	93	28,204
Aug 2019	1,089	3,199	1,856	2,401	1,489	4,136	1,563	3,155	3,645	4,557	156	89	27,335
Sep 2019	847	2,557	1,493	1,888	1,258	3,389	1,421	2,566	3,180	3,724	127	77	22,527
Oct 2019	780	2,437	1,400	1,788	1,282	3,250	1,476	2,354	3,279	3,567	123	81	21,817
Nov 2019	770	2,531	1,444	1,777	1,286	3,259	1,465	2,403	3,384	3,489	117	86	22,011
Dec 2019	856	2,935	1,695	2,003	1,432	3,623	1,594	2,730	3,813	3,783	122	100	24,686

MONTHLY NET ENERGY FORECAST (GWb) FOR EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO

									PJM		
	AEP	APS	ATSI	COMED	DAYTON	DEOK	DLCO	EKPC	WESTERN	DOM	PJM RTO
Jan 2017	12,671	4,815	6,286	9,134	1,667	2,512	1,292	1,196	39,573	9,202	74,336
Feb 2017	11,175	4,268	5,637	8,121	1,472	2,212	1,152	1,014	35,051	8,092	65,873
Mar 2017	11,318	4,302	5,856	8,434	1,515	2,240	1,209	927	35,801	7,921	66,826
Apr 2017	10,072	3,752	5,347	7,782	1,387	2,040	1,125	740	32,245	7,014	60,009
May 2017	10,382	3,823	5,519	8,083	1,443	2,133	1,170	739	33,292	7,357	62,085
Jun 2017	11,119	4,114	5,837	8,993	1,573	2,518	1,304	868	36,326	8,856	69,927
Jul 2017	11,930	4,435	6,288	10,266	1,693	2,741	1,417	944	39,714	9,779	77,361
Aug 2017	11,991	4,447	6,340	10,150	1,710	2,747	1,414	948	39,747	9,560	76,619
Sep 2017	10,277	3,776	5,479	8,186	1,436	2,195	1,179	759	33,287	7,919	63,599
Oct 2017	10,498	3,871	5,597	8,254	1,463	2,151	1,181	757	33,772	7,320	62,770
Nov 2017	10,741	4,030	5,551	8,151	1,456	2,149	1,168	883	34,129	7,560	63,674
Dec 2017	12,136	4,597	6,087	9,039	1,602	2,426	1,261	1,114	38,262	8,786	71,759
	AEP	APS	ATSI	COMED	DAYTON	DEOK	DLCO	EKPC	WESTERN	DOM	PJM RTO
Jan 2018	12,843	4,877	6,353	9,263	1,685	2,547	1,307	1,202	40,077	9,370	75,252
Feb 2018	11,285	4,311	5,677	8,202	1,481	2,236	1,162	1,019	35,373	8,220	66,457
Mar 2018	11,362	4,326	5,858	8,469	1,513	2,250	1,212	927	35,917	8,027	67,067
Apr 2018	10,205	3,807	5,407	7,893	1,402	2,067	1,138	744	32,663	7,143	60,740
May 2018	10,483	3,861	5,557	8,169	1,452	2,155	1,180	741	33,598	7,480	62,628
Jun 2018	11,200	4,139	5,853	9,045	1,576	2,535	1,310	870	36,528	8,978	70,299
Jul 2018	12,111	4,492	6,377	10,418	1,716	2,780	1,434	951	40,279	9,939	78,334
Aug 2018	12,094	4,484	6,376	10,242	1,718	2,775	1,423	951	40,063	9,696	77,181
Sep 2018	10,352	3,806	5,503	8,248	1,441	2,212	1,186	760	33,508	8,029	63,992
Oct 2018	10,601	3,913	5,640	8,340	1,473	2,173	1,190	760	34,090	7,445	63,341
Nov 2018	10,844	4,070	5,586	8,230	1,465	2,171	1,178	887	34,431	7,684	64,232
Dec 2018	12,231	4,636	6,062	9,060	1,603	2,446	1,263	1,118	38,419	8,928	72,115
	AEP	APS	ATSI	COMED	DAYTON	DEOK	DLCO	EKPC	WESTERN	DOM	PJM RTO
Jan 2019	12,926	4,905	6,364	9,299	1,688	2,564	1,309	1,205	40,260	9,468	75,541
Feb 2019	11,361	4,333	5,700	8,249	1,486	2,252	1,165	1,022	35,568	8,304	66,758
Mar 2019	11,422	4,347	5,872	8,505	1,515	2,262	1,214	928	36,065	8,107	67,284
Apr 2019	10,276	3,836	5,434	7,940	1,408	2,083	1,142	746	32,865	7,230	61,068
May 2019	10,542	3,883	5,572	8,208	1,455	2,169	1,183	743	33,755	7,559	62,870
Jun 2019	11,240	4,149	5,849	9,055	1,575	2,542	1,308	871	36,589	9,041	70,369
Jul 2019	12,208	4,526	6,412	10,492	1,726	2,800	1,440	954	40,558	10,030	78,792
Aug 2019	12,106	4,489	6,363	10,239	1,713	2,778	1,420	952	40,060	9,752	77,147
Sep 2019	10,418	3,833	5,528	8,293	1,447	2,229	1,190	763	33,701	8,124	64,352
Oct 2019	10,661	3,936	5,655	8,374	1,478	2,187	1,193	761	34,245	7,513	63,575
Nov 2019	10,833	4,074	5,567	8,224	1,456	2,170	1,173	887	34,384	7,728	64,123
Dec 2019	12,222	4,632	6,037	9,047	1,595	2,448	1,259	1,114	38,354	8,971	72,011

MONTHLY NET ENERGY FORECAST (GWh) FOR FE-EAST AND PLGRP

	FE_EAST	PLGRP
Jan 2017	5,171	4,069
Feb 2017	4,623	3,618
Mar 2017	4,740	3,652
Apr 2017	4,281	3,207
May 2017	4,432	3,244
Jun 2017	4,928	3,411
Jul 2017	5,514	3,729
Aug 2017	5,433	3,714
Sep 2017	4,525	3,217
Oct 2017	4,499	3,314
Nov 2017	4,517	3,450
Dec 2017	5,045	3,903

FE_EAST PLGRP

Jan 2018	5,233	4,123
Feb 2018	4,660	3,654
Mar 2018	4,750	3,665
Apr 2018	4,339	3,257
May 2018	4,469	3,277
Jun 2018	4,950	3,430
Jul 2018	5,577	3,786
Aug 2018	5,465	3,743
Sep 2018	4,550	3,240
Oct 2018	4,539	3,349
Nov 2018	4,555	3,483
Dec 2018	5,057	3,922

FE_EAST PLGRP

Jan 2019	5,237	4,128
Feb 2019	4,670	3,664
Mar 2019	4,753	3,671
Apr 2019	4,353	3,275
May 2019	4,476	3,287
Jun 2019	4,944	3,427
Jul 2019	5,606	3,820
Aug 2019	5,453	3,734
Sep 2019	4,567	3,257
Oct 2019	4,546	3,360
Nov 2019	4,528	3,470
Dec 2019	5,029	3,913

Table F-1

PJM RTO HISTORICAL PEAKS MW

SUMMER

YEAR	NORMALIZED BASE	NORMALIZED COOLING	NORMALIZED TOTAL	UNRESTRICTED PEAK	PEAK DATE	TIME
1998				133,280	Tuesday, July 21, 1998	17:00
1999	89,051			141,486	Friday, July 30, 1999	17:00
2000	91,069	47,676	138,745	131,803	Wednesday, August 9, 2000	17:00
2001	92,113	50,112	142,225	150,929	Thursday, August 9, 2001	16:00
2002	92,690	54,215	146,905	150,830	Thursday, August 1, 2002	17:00
2003	93,653	52,902	146,555	145,233	Thursday, August 21, 2003	17:00
2004	95,169	53,126	148,295	139,219	Tuesday, August 3, 2004	17:00
2005	95,786	58,999	154,785	155,209	Tuesday, July 26, 2005	16:00
2006	95,253	62,147	157,400	166,866	Wednesday, August 2, 2006	17:00
2007	96,680	62,995	159,675	161,988	Wednesday, August 8, 2007	16:00
2008	97,144	62,531	159,675	150,560	Monday, June 9, 2008	17:00
2009	94,670	57,180	151,850	145,056	Monday, August 10, 2009	16:00
2010	93,133	61,107	154,240	157,188	Wednesday, July 7, 2010	17:00
2011	93,328	60,067	153,395	165,466	Thursday, July 21, 2011	17:00
2012	92,948	61,082	154,030	158,151	Tuesday, July 17, 2012	17:00
2013	92,464	56,956	149,420	159,039	Thursday, July 18, 2013	17:00
2014	91,837	58,403	150,240	141,402	Tuesday, June 17, 2014	18:00
2015	91,117	59,243	150,360	143,493	Tuesday, July 28, 2015	17:00
2016	89,789	60,296	150,085	151,951	Thursday, August 11, 2016	16:00

WINTER

YEAR	NORMALIZED BASE	NORMALIZED HEATING	NORMALIZED TOTAL	UNRESTRICTED PEAK	PEAK DATE	TIME
97/98				103,235	Wednesday, January 14, 1998	19:00
98/99	87,538			116,078	Tuesday, January 5, 1999	19:00
99/00	89,288	26,322	115,610	118,438	Thursday, January 27, 2000	20:00
00/01	91,324	26,436	117,760	118,051	Wednesday, December 20, 2000	19:00
01/02	92,410	23,660	116,070	112,221	Wednesday, January 2, 2002	19:00
02/03	92,591	27,909	120,500	129,972	Thursday, January 23, 2003	19:00
03/04	93,710	29,030	122,740	122,357	Friday, January 23, 2004	9:00
04/05	94,387	30,013	124,400	131,164	Monday, December 20, 2004	19:00
05/06	94,643	32,307	126,950	126,703	Wednesday, December 14, 2005	19:00
06/07	96,076	34,094	130,170	136,739	Monday, February 5, 2007	20:00
07/08	97,180	34,950	132,130	128,313	Wednesday, January 2, 2008	19:00
08/09	96,326	32,814	129,140	134,021	Friday, January 16, 2009	19:00
09/10	93,425	35,015	128,440	125,276	Monday, January 4, 2010	19:00
10/11	91,823	37,027	128,850	132,228	Tuesday, December 14, 2010	19:00
11/12	92,284	34,106	126,390	124,420	Tuesday, January 3, 2012	19:00
12/13	92,061	34,019	126,080	128,724	Tuesday, January 22, 2013	19:00
13/14	91,120	38,100	129,220	141,746	Tuesday, January 7, 2014	19:00
14/15	90,162	38,198	128,360	142,762	Friday, February 20, 2015	8:00
15/16	89,633	37,247	126,880	129,414	Tuesday, January 19, 2016	8:00

Notes:

Normalized values for 2005 - 2016 are calculated by PJM staff using a methodology described in Manual 19. Normalized base values are calculated by PJM staff using a two-period average of peak loads on non-heating/non-coolong days. All times are shown in hour ending Eastern Prevailing Time and historic peak values reflect current membership of the PJM RTO.

Table F-2

PJM RTO HISTORICAL NET ENERGY (GWh)

YEAR	ENERGY	GROWTH RATE
1998	718.551	0.0%
1999	740.052	3.0%
2000	756,237	2.2%
2001	754,541	-0.2%
2002	782,300	3.7%
2003	780,693	-0.2%
2004	796,257	2.0%
2005	822,873	3.3%
2006	802,509	-2.5%
2007	835,782	4.1%
2008	822,098	-1.6%
2009	780,693	-5.0%
2010	819,576	5.0%
2011	805,366	-1.7%
2012	791,219	-1.8%
2013	794,484	0.4%
2014	795,519	0.1%
2015	790,902	-0.6%

Table F-3

WEATHER NORMALIZED LOAD (MW) FOR EACH PJM ZONE, LOCATIONAL DELIVERABILITY AREA AND RTO

	Summer	Winter
	2016	2015/16
AE	2,590	1,540
BGE	6,590	5,740
DPL	3,920	3,420
JCPL	5,920	3,620
METED	2,930	2,600
PECO	8,440	6,480
PENLC	2,840	2,760
PEPCO	6,230	5,280
PL	6,830	7,000
PS	9,930	6,460
RECO	405	210
UGI	195	200
AEP	22,510	21,910
APS	8,570	8,590
ATSI	12,900	10,240
COMED	21,560	14,800
DAYTON	3,410	2,920
DEOK	5,140	4,440
DLCO	2,840	2,070
EKPC	1,980	2,430
DOM	19.060	18,060
	- ,	- , *
PIM MID-ATLANTIC	56 285	44 600
PJM WESTERN	77.810	66,000
PJM RTO	150.085	126.880

Notes: Zonal Normal 2016 are non-coincident as estimated by PJM staff. Locational Deliverability Area and PJM RTO Normal 2016 are coincident with their regional peak as estimated by PJM staff.

Table G-1

ANNUALIZED AVERAGE GROWTH OF INDEXED ECONOMIC VARIABLE FOR EACH PJM ZONE AND RTO

	5-Year (2017-22)	10-Year (2017-27)	15-Year (2017-32)
AE	0.6%	0.7%	0.7%
BGE	1.2%	1.2%	1.2%
DPL	1.4%	1.3%	1.3%
JCPL	0.9%	0.9%	0.9%
METED	1.6%	1.5%	1.5%
PECO	1.4%	1.4%	1.4%
PENLC	1.1%	1.1%	1.1%
PEPCO	1.4%	1.3%	1.3%
PL	1.4%	1.4%	1.3%
PS	1.0%	0.9%	0.9%
RECO	0.9%	0.9%	0.9%
UGI	0.8%	0.8%	0.7%
AEP	1.6%	1.5%	1.5%
APS	1.6%	1.5%	1.5%
ATSI	1.3%	1.3%	1.2%
COMED	1.3%	1.2%	1.2%
DAYTON	1.1%	1.0%	0.9%
DEOK	1.5%	1.5%	1.4%
DLCO	1.3%	1.2%	1.2%
EKPC	1.6%	1.5%	1.5%
DOM	1.5%	1.4%	1.4%
PJM RTO	1.4%	1.3%	1.3%

Source: Moody's Analytics, September, 2016

Notes:

Values presented are annualized compound average growth rates. Indexed economic variable is a combination of U.S. Gross Domestic Product, Gross Metropolitan Product, Real Personal Income, Population, Households, and Non-Manufacturing Employment.