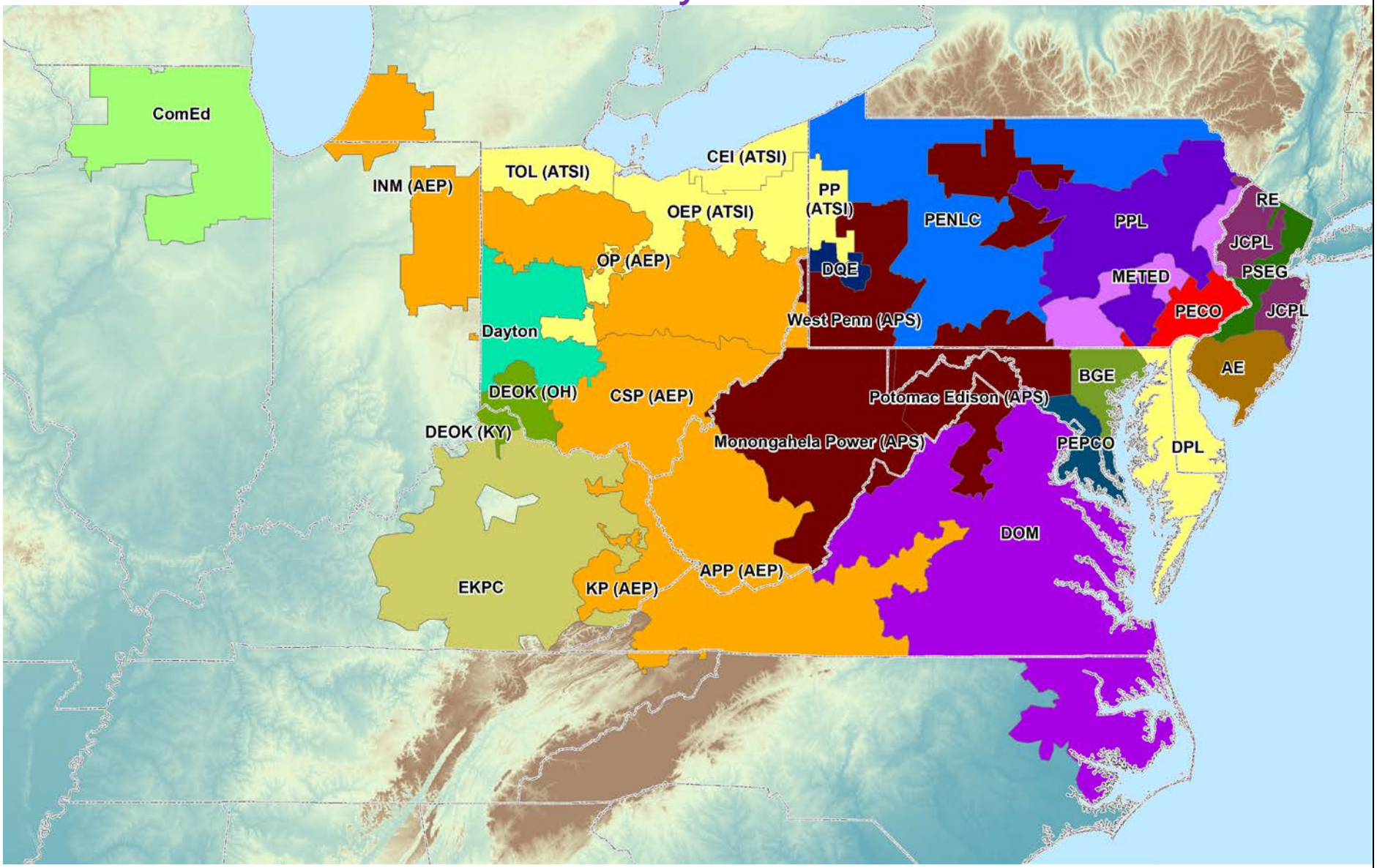
PJM Load Forecast Report

January 2018



Prepared by PJM Resource Adequacy Planning Department

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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 zone (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
KP	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
PP	Pennsylvania Power, sub-zone of ATSI
PRD	Price Responsive Demand
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

2018 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 2017. The models were simulated with weather data from years 1994 through 2016, generating 299 scenarios. The economic forecast used was Moody's Analytics' September 2017 release.

- Equipment indexes reflect the 2017 update of Itron's end-use data, which is consistent with the Energy Information Administration's 2017 Annual Energy Outlook. PJM obtained additional information from certain zones on Residential saturation rates based on their own load research. Detail on zones providing information are as follows:
  - American Electric Power (AEP) provided saturation data on all appliance categories through 2015;
  - Allegheny Power (APS) provided saturation data on all appliance categories through 2016;
  - American Transmission Systems, Inc (ATSI) provided saturation data on all appliance categories through 2016;
  - Commonwealth Edison (COMED) provided saturation data on all appliance categories for 2012;
  - Duke Energy Ohio and Kentucky (DUKE) provided saturation data on all appliance categories through 2014;
  - East Kentucky Power Cooperative (EKPC) provided saturation data on Heat Pumps for Heating and Cooling, Electric Furnaces, Secondary Heating (Room Heating), Central A/C, Room Air Conditioners, and Water Heaters through 2013;
  - Jersey Central Power & Light (JCPL) provided saturation data on all appliance categories through 2016;
  - Metropolitan Edison (METED) provided saturation data on all appliance categories through 2016;
  - Pennsylvania Electric (PENLC) provided saturation data on all appliance categories through 2016;
  - Dominion Virginia Power (DOM or VEPCO) provided saturation data on Heat Pumps for Cooling, Central A/C and Room Air Conditioners through 2014.

- Table B-7 has been revised to add the Price Responsive Demand product to the load management forecast. Also, Summer-Period DR detail refers to DR resources that aggregate with Winter-Period resources to form a year-round commitment.

- 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 160-530 MW to the summer peak from 2018 through 2022 before declining to 350 MW in 2033;
  - The forecast of the DOM zone has been adjusted to account for substantial on-going growth in data center construction, which adds 160-560 MW to the summer peak from 2018 through 2022 before declining to 210 MW in 2033;

- Summer peak load growth for the PJM RTO is projected to average 0.4% per year over the next 10 years, and 0.4% over the next 15 years. The PJM RTO summer peak is forecasted to be 157,635 MW in 2028, a 10-year increase of 5,527 MW, and reaches 162,095 MW in 2033, a 15-year increase of 9,987 MW. Annualized 10-year growth rates for individual zones range from -0.2% to 0.8%.

- Winter peak load growth for PJM RTO is projected to average 0.4% per year over the next 10-year period, and 0.4% over the next 15-years. The PJM RTO winter peak load in 2027/28 is forecasted to be 136,702 MW, a 10-year increase of 5,239 MW, and reaches 139,975 MW in 2032/33, a 15-year increase of 8,512 MW. Annualized 10-year growth rates for individual zones range from -0.3% to 0.9%.

- Net energy for load growth for PJM RTO is projected to average 0.4% per year over the next 10-year period, and 0.5% over the next 15-years. Total PJM RTO energy is forecasted to be 841,506 GWh in 2028, a 10-year increase of 34,781 GWh, and reaches 864,236 GWh in 2033, a 15-year increase of 57,511 GWh. Annualized 10-year growth rates for individual zones range from -0.4% to 0.9%.

- Compared to the 2017 Load Report, the 2018 PJM RTO summer peak forecast shows the following changes for three years of interest:
  - The next delivery year – 2018-1,843 MW (-1.2%)
  - The next RPM auction year – 2021 -1,021 MW (-0.7%)
  - The next RTEP study year – 2023 -90 MW (-0.1%)

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 2017	UNRESTRICTED 2017	THIS YEAR 2018	RPM YEAR 2021	RTEP YEAR 2023
PJM RTO	145,331	145,331	152,108	152,363	153,632
Demand Resources			-9,095	-7,691	-7,747
PJM RTO - Restricted			143,013	144,672	145,885
PJM MID-ATLANTIC	55,220	55,220	56,601	55,999	56,189
Demand Resources			-3,445	-2,999	-3,007
MID-ATL - Restricted			53,156	53,000	53,182
EASTERN MID-ATLANTIC	30,128	30,128	30,840	30,472	30,615
Demand Resources			-1,203	-1,066	-1,070
EMAAC - Restricted			29,637	29,406	29,545
SOUTHERN MID-ATLANTIC	12,545	12,545	13,172	12,937	12,910
Demand Resources			-1,159	-905	-903
SWMAAC - Restricted			12,013	12,032	12,007

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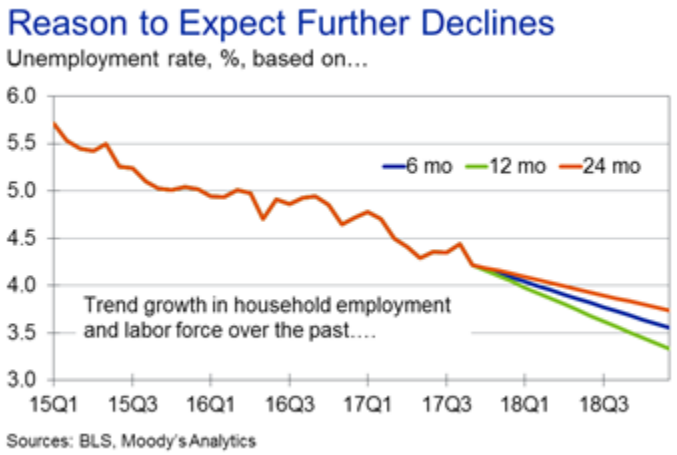
Summary of the September 2017 U.S. macro forecast

The U.S. economy is powering forward. Despite the uncertainty created by Hurricanes Harvey and Irma, Washington brinkmanship over almost everything, and North Korean nuclear threats, the expansion remains firmly intact. Real GDP is on track to come in at just over 2% this year and well more than 2 million jobs will be created.

This is about the same growth seen since the expansion began more than eight years ago and is above the economy's current growth potential. Unemployment and underemployment continue to decline steadily—a half and full percentage point per annum, respectively—and are consistent with most estimates of full employment.

The labor market

The unemployment rate fell from 4.4% in August to 4.2% in September even as the labor force increased by 575,000. The rate is already below the Fed's estimate of the longer-run unemployment rate of 4.6% and even below the lowest estimate within the Fed's central tendency of the longer-run unemployment rate.



Concerns that the labor market may overheat and ignite wage and price inflation are not misplaced but are slightly premature. Businesses have been grumbling that they are having trouble finding qualified workers. However, if labor shortages were a serious issue, nominal wage growth would be accelerating more quickly. Because this has not happened, the labor supply pool is not completely dry.

There is no official estimate of the potential supply of workers. However, a loose one includes the number of unemployed—those who are willing and able to work now and thus reflect the existing potential labor pool—plus those who are not in the labor force but want a job. To pull more of the reserve supply into the labor force, stronger wage growth is needed. Since the mid-1960s, changes in labor income have had a strong relationship with labor force growth. This also makes sense in theory: Workers have a sense of the minimum they will accept—a reservation wage—to take a job.

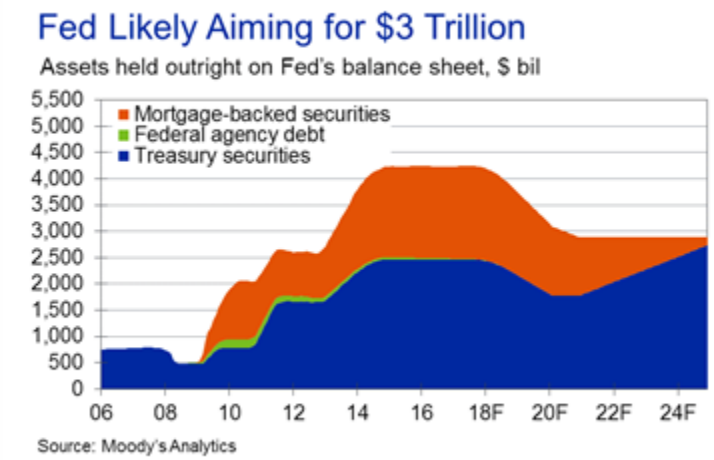
The Moody's Analytics estimate of the pool of potential workers is 7.5% of the labor force, higher than that seen prior to the last recession and above that when the labor market was very tight in 1999 and 2000. If the potential labor supply declines an additional 1 million to 2 million, wage pressures will intensify as demand for labor outstrips supply.

All told, the supply of workers may not be a serious impediment to continued expansion over the next few months or even next year, but eventually it will be.

Normalizing monetary policy

Despite the progress the economy has made, the cleanup from the Great Recession is incomplete. Normalizing monetary policy from the emergency measures taken during the financial crisis is critical unfinished business. The next step in the normalization process is the right-sizing of the Federal Reserve's balance sheet. The Fed dramatically expanded its balance sheet through several

rounds of so-called quantitative easing by purchasing trillions of dollars in longer-term Treasury securities, Fannie and Freddie's debt, and mortgage securities backed by Fan, Fred and Ginnie Mae. The Fed's ownership of these securities ballooned from less than $1 trillion before the crisis, equal to just over 5% of GDP, to $4.5 trillion today, some 25% of GDP. QE-induced low long-term rates have



been critical to jump-starting and supporting the expansion. They have facilitated several mortgage refinancing waves that eased pressure on hard-pressed homeowners and fueled housing demand, helping to end the housing collapse. They have also been behind the raging bull market in stocks, which has lifted household wealth, and thus consumer spending via the wealth effect. More broadly, the low rates have incented greater risk-taking, which is key to growth, but was severely depressed by the crisis.

The Fed appropriately believes the U.S. economy is in a good enough place to slowly end QE and reduce its security holdings. In the Fed's script, the QE wind-down will occur as the securities it owns mature and prepay, ramping up from $10 billion a month initially to a peak of $50 billion a month. Moody's Analytics expects the Fed will continue with this script until it owns approximately $3 trillion in securities, not quite 15% of GDP, which is where policymakers will hold the balance sheet. Given changes in the way it manages short-term rates post-crisis, the Fed needs to maintain a bigger balance sheet than prior to the crisis. It should take the Fed approximately five years to right-size its balance sheet.

Whither short-term rates

There is little debate among investors over the wind-down of QE given the Fed's transparency on how it will go, but there is heated debate over the future path of short-term interest rates. The sentiment of policymakers as represented by the median of the dot-plot of their future interest rate expectations is for a quarter-

point rate hike in December, three hikes in 2018, and a 3% equilibrium rate—the rate that prevails in the long run when the economy is at full employment and growing at its potential and inflation is at the Fed's 2% target.

This seems a reasonable outlook given that while the economy is already at full employment and growing above its potential, inflation remains stubbornly below the Fed's target and has moderated this year. But if past business cycles are a guide, given the tightening labor market, wage and price pressures will soon develop, and the Fed will find itself scrambling to catch up a year or two from now, raising rates more quickly than policymakers currently anticipate. This would be consistent with the Moody's Analytics outlook for short-term rates.

Washington wild card

The catalyst for a change in investor expectations may emanate from Washington. The widely held view is that the Trump administration and Congress will fail to get anything done on taxes and infrastructure and government spending—the status quo on fiscal policy will prevail. Perhaps. But there are powerful political incentives for the administration and Republican-controlled Congress to pass something—if not tax reform, then tax relief for U.S. corporations. Given that this will likely add to future deficits, conservative Republicans may not go along, thus requiring a few Democratic votes in the Senate. Some Democrats might go along if as part of the package there was a meaningful step-up in infrastructure spending.

There are lots of different directions all of this could go, but it is premature to rule out the passage of a modest package of tax and spending changes. Of course, deficit-financed tax cuts and spending increases, also known as fiscal stimulus, will pump-up growth, at least temporarily, which in a full-employment economy will create greater wage and price pressures. Investors will rightly figure that the Fed will respond by normalizing interest rates more quickly.

Regardless of how all this plays out, it is clear that fully cleaning up from the Great Recession is still a long way off and rife with risk. It is important that policymakers get the job done before the next recession hits.

Housing

Gradually rising prices and a tight supply characterize the housing market in the U.S., and these factors have led to a slowdown in existing-home sales that has been exacerbated by recent natural disasters. Hurricanes Harvey and Irma pulled down on home sales in the South late in the summer and may have caused total sales to fall below expectations. However, the hurricanes do not account for all of the slowdown in sales, especially as the West had a monthly decline that was almost as large. The two main causes for the leveling out of existing-home sales

since last year are the scarcity of listings and moderate demand that has yet to reach full potential.

In addition, a rising number of households are paying a premium to purchase a dwelling with the desired location and features. This is also especially true in many western metro areas, where prices have advanced most quickly among their peers the past several years. In addition, the persistent shortage of skilled, specialty construction labor has prevented new-home supply from meeting increasing demand. Single-family home completions remain below the rate that would exist without these capacity constraints. As of now, the jobless rate for experienced construction workers per unit under construction remains at a cycle low.

The housing market outlook is still cautiously optimistic, as the tightening of the labor market will start to generate income gains that are stronger than the historical average, even among workers without advanced degrees. The financial position of renters will improve in the next few years as unemployment remains low, providing a better foundation for home purchase demand.

Forecast risks

Trade and immigration

President Trump's strong protectionist stance on immigration and trade, especially anti-China and anti-Mexico trade rhetoric and the desire to renegotiate key trade agreements, poses a significant downside risk to the forecast. Though the baseline forecast does not assume a trade war, it would not be surprising if foreign countries retaliated in kind against U.S. tariffs. Should this scenario play out, growth in the U.S. would fall short of expectations. Immigration adds to uncertainty as undocumented workers leave the country, causing a contraction in the labor force. Tighter immigration policies, including a plan to limit the number of green cards, will dampen population growth, which is already the slowest since the Great Depression.

Renewed global growth

Despite numerous geopolitical risks, the global economy is strengthening and there are reasons to be optimistic that growth will be even stronger in the years ahead. Nearly 10 years after the recession, all the world's major economies are expanding. U.S. growth has accelerated after a sluggish first quarter, and the euro zone is expanding at the fastest rate in two years. South America is on the path to recovery after a two-year recession. Asia will remain the world's fastest-expanding region, with stabilizing growth in China driving broad-based expansion. Assuming the global economy can avoid serious setbacks, solid economic fundamentals could usher in a period of stronger economic growth.

U.S. fiscal policy

Trump has struck a deal with congressional Democrats to pass a three-month continuing resolution and a suspension of the debt limit for the same amount of time. However, the deal only postpones a potentially bruising fiscal showdown until December. A shutdown during the holidays would do more economic harm than in the fall because of the sheer amount of consumer spending. Once the debt ceiling kicks in again in December, the Treasury will have fewer extraordinary measures at its disposal than in March when the statutory limit was last reinstated. This means that Treasury will only be able to stave off the deadline to raise the debt limit into early to mid-spring at most. Finally, the looming fiscal showdown could distract lawmakers from tax reform in the intervening period.

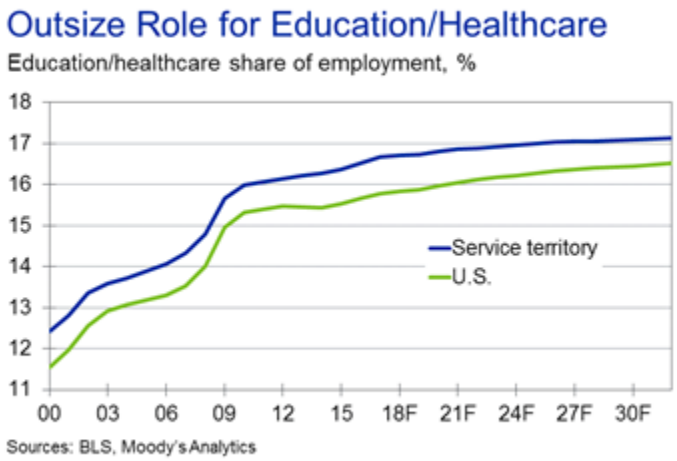
Productivity

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. The decline in productivity that stems from the pullback in business investment is especially concerning. Restrictions on legal immigration and the accelerated deportation of undocumented workers could affect long-run productivity as well, as immigrants have historically been a key driver of business creation and have played an important role in the tech industry. With the U.S. at or near full employment, unless productivity gains begin to improve, the economy will not deliver on GDP, income, profits, tax revenue and asset returns.

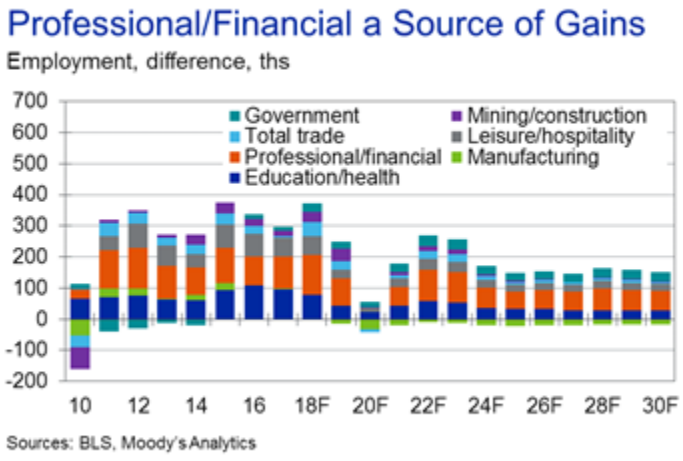
Summary of the forecast for PJM service territories

The PJM service territory covers all or parts of 13 states and the District of Columbia, accounting for more than 65 million people, or just over 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. Even compared with the U.S. overall, healthcare and education make up a larger share of the economy in the service territory. 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 health services. Healthcare is an export industry to some economies in the service territory. For example, both Pittsburgh and Philadelphia have large, specialized healthcare institutions that serve the regional population.



Professional and financial services will also play a significant part, helped by large metro areas such as Chicago, Newark NJ and Pittsburgh. Job growth in professional and business services will be particularly strong, with growth expected to double that of overall employment. Finance will be a source of job gains as well, albeit at a more moderate pace. Finance has generally lagged overall employment in the aftermath of the Great Recession thanks to more stringent banking regulations and declining use of brick-and-mortar banking as customers increasingly switch to online banking. However, as the economy has strengthened finance is finally making up for lost time, and in recent quarters has pulled ahead of overall job growth.



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

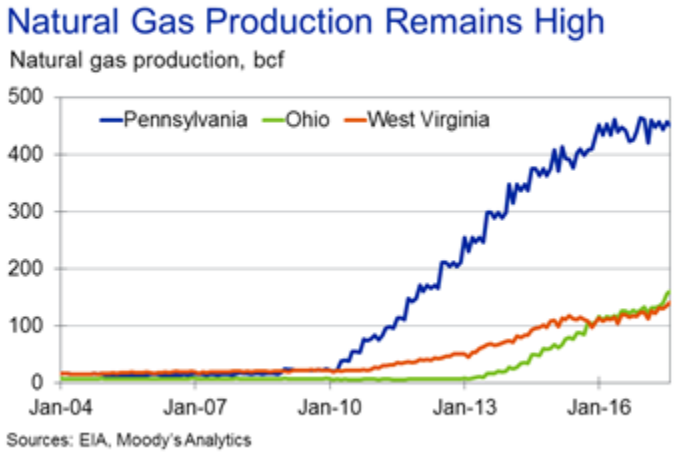
Midwest, rely more heavily on industrial production for growth. The highest concentration of manufacturing is in Elkhart-Goshen IN, where nearly half of all jobs are in manufacturing. In contrast, the lowest concentration is in California-Lexington Park MD, where less than 1% of employment is in manufacturing.

The factory sector's contribution to the labor market has downshifted and manufacturing employment is flat compared with its level two years ago. Local steel manufacturers have been hit hard by inexpensive imports. Although tariffs enacted a year earlier have provided a modicum of support, steel manufacturing employment has yet to regain the cyclical high reached in early 2015. This is weighing on payrolls in Pittsburgh and Western Pennsylvania in general.

Likewise, auto manufacturers have kept hiring restrained. Vehicle sales have topped out nationally despite the transitory September bump driven by replacement demand after Hurricane Harvey. Even machinery manufacturers have reduced headcount over the past 18 months as capital is steadily replacing labor. The broad-based slowdown in the factory sector has been especially detrimental to Akron, Toledo, Canton and Youngstown, where industrial diversity remains below average.

The outlook for manufacturing output is more positive, as global demand and an expanding U.S. economy should support production. However, automation and productivity gains will remain a headwind for labor demand. As a result, manufacturing employment will continue to shrink.

The natural resources and mining industry represents a small portion of the service territory's economy but has been a source of both job growth and job loss over the last decade. From 2006 to 2012, natural resources and mining added thousands of jobs to the service area, with strong gains in Pennsylvania, Ohio and West Virginia, thanks to the natural gas boom. However, a global drop in energy prices combined with a lack of infrastructure to ship natural gas out of the region translated to major layoffs and cutbacks on investment. The outlook is better, with natural resources and mining employment expected to bounce back over the next few years. The forecast is supported by the improving natural gas prices and an uptick in the Baker Hughes active rig count. In addition, the industry has benefited from significant productivity gains that have allowed output to remain steady despite the declines in rig count and employment. This will help the region remain a low-cost source of energy and output but means that the job gains will not be enough to recover those lost in the last few years.



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 because of 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 Republican leaders and the Trump administration focused more on tax cuts than spending increases, the outlook for federal government employment is for growth to lag that of the U.S. overall.

After years of cutbacks, an improving economy and growing revenues will help boost local government employment over the next few years, but it will be a slow path back to the previous employment peak. In addition, 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. The unemployment rate has fallen to 4.5% compared with 4.9% a year earlier, and employment is growing at 1%. The service territory's unemployment and job growth are just slightly underperforming compared with the U.S. overall.

While the estimate of GDP growth from the third quarter of 2016 to the third quarter of 2017 is lower than had been expected, it still shows modest real growth. Total employment fell short of the forecast as well, but remains healthy. One reason the service territory's economy underperformed the forecast was that the momentum in job growth in 2016 was not as strong as it was previously believed. In the third quarter of 2016, job growth was initially estimated at 1.7% year to year, but the more comprehensive Quarterly Census of Employment and Wages revised growth down to 1.3%. Nevertheless, despite falling below

expectations, job growth has been strong enough to lower the unemployment rate and move the service territory closer to full employment

In the most recent quarter, education/healthcare is tracking the forecast for year-to-year growth but in general has outperformed expectations. Strong growth in healthcare is helped by healthcare systems, which are investing to meet the growing demand of an aging population. As a result, healthcare employment is expanding in 70% of the metro areas in the service territory.

Manufacturing employment is mostly flat, with total employment coming in close to expectations. Manufacturing is an important driver in many of the territory's metro areas, particularly Midwest metal-producing and auto-related metro areas. Demand is weaker for auto manufacturers because of a slowdown in new-vehicle sales, and global headwinds that are weighing on steel producers. However, in general the biggest headwind for manufacturing labor demand is productivity gains and automation.

Performance has varied significantly across the service territory. West Virginia is lagging the most, but the state's economy is beginning to improve. Although the only state still in recession, West Virginia is no longer losing jobs and gross state product has steadied. Payroll employment has stabilized after a five-year decline, bolstered by gains in healthcare, business/professional and financial services. Mining is also showing signs of life thanks to higher coal prices. The unemployment rate is down 1.4 percentage points over the past year to 4.6%, but some of the drop owes to a dip in the labor force, which is the smallest it has been since 1993. Residential real estate in West Virginia is on the mend as progress in the labor market and firmer income growth has led to a modest uptick in home sales.

Pennsylvania, Ohio and Virginia are all tracking close to the service territory average. However, the healthy overall performance in these states masks significant variation. Many metro areas lack dynamic drivers, rely on one or two industries, and are mired in an industrial past. For example, in Williamsport PA, one out of every six workers is employed in natural resources/mining or manufacturing, compared with one out of 11 for the U.S. as a whole. Payrolls have been flat in Williamsport recently, especially in the wake of the energy bust, and the metro area lacks drivers to fill the gap. Another example is Youngtown-Warren-Boardman, which is one of the weakest economies in Ohio. Payroll employment there has been falling since early 2015, reversing two-fifths of the increase that occurred in the first half of the decade. Private services in this metro area are struggling to expand, and manufacturing is backtracking.

In contrast, other parts of Ohio and Pennsylvania are doing much better and feature a variety of assets. After lagging the nation for decades, Philadelphia is finally adding itself to the list of the Pennsylvania's strongest economies, with job growth powering ahead of the U.S. pace. The metro division is expanding quickly thanks to a downtown investment boom that reflects a broad set of growing industries. Cincinnati and Columbus OH are both outpacing the service territory

thanks to the presence of high value-added industries and positive migration trends.

Overall, regardless of their strengths, the more successful parts of the service territory feature drivers that do not leave them as reliant on an industrial past that still casts a long shadow on many of the struggling areas in the region. An educated population and strong private service growth, as well as healthy downtowns that draw tourism and in-migration, are generally shared features of the more successful metro areas in the service territory.

Finally, local government remains a source of weakness in many areas because of state and local fiscal problems. This is true in particular in Illinois and Pennsylvania. Increasing pension costs in these states, which weigh on many municipalities and school districts, are keeping a lid on local government payrolls. For the service territory overall, local government employment is flat year to year and remains well below the 2009 peak. Even in some of the healthiest metro areas in the service territory, local government remains stuck in neutral. For example, despite being the wealthiest metro division in Pennsylvania and having an unemployment rate below 4%, Montgomery-Bucks-Chester has yet to see any significant recovery in local government payrolls.

Near-term outlook and changes to the forecast

The 2017 baseline forecast for the region 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 changes in the U.S. macro forecast. Recent performance was weaker than expected in output, but still reflects an economy moving in the right direction. Payroll growth has slowed slightly as the economy approaches full employment. Meanwhile, productivity growth remains lackluster. Overall, output growth has disappointed recently, but this represents growth delayed, not cancelled, as the outlook calls for GDP growth to pick up over the next year.

Compared with last year's forecast, the economy will have a more volatile return to full employment. The Federal Reserve is expected to overshoot somewhat, as the unemployment rate falls below a rate that is consistent with a full-employment economy. In addition, immigration is expected to decrease amid restrictions pursued by the Trump administration. The net effect will that the unemployment rate will tick back up after bottoming out in the next two years.

Retail is a sector that fell well short of the forecast over the past year. Pressure from online sales is weighing on brick-and-mortar retail establishments. While e-commerce has continued to steadily grow over the last two decades, long-standing pressures have come to a head in 2017. Layoffs, bankruptcies and closings have affected more than a dozen large retailers, including Sears, Macy's, Payless and HHGregg. While the weakness in retail is true across the U.S., it is more pronounced in the service territory, where the headwind of online sales is compounded by weak population growth. However, the forecast calls for a return

to growth for retail payrolls as shuttered stores are eventually replaced by new retailers that can better compete with e-commerce.

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.

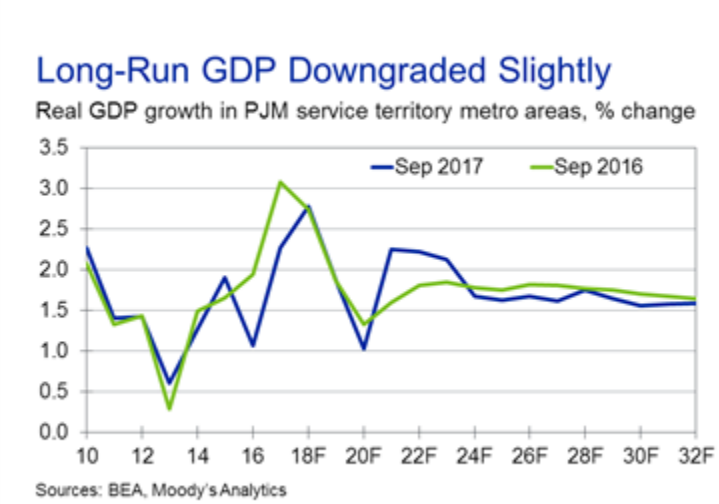
The single-family housing market has improved steadily, but the robust catch-up in single-family permitting that was expected has not yet materialized. Probably the strongest, though the least quantifiable, reason for the slower than expected recovery is still-low confidence in the long-term aftermath of the housing crisis, given the strong links between the housing and labor markets. Employment growth may be relatively strong, but wage growth has been slow to materialize as labor markets have yet to reach full employment.

The good news is that strong hiring 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. Wage growth will help households regain their willingness to invest in single-family housing, and as a result, the forecast for a single-family turnaround has only been pushed back.

Overall, the service territory economy will return to full employment in the near term. Job and GDP growth will pick up through mid-2018 as the final pieces of the full-employment economy come into place, in particular a recovery in the single-family housing market. After the service area transitions to full employment, job growth will begin to slow to a pace that is more consistent with the long-run trajectory of the economy.

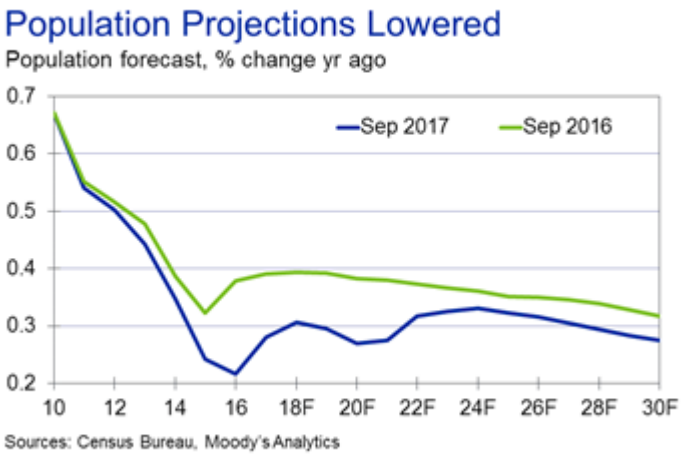
Long-term outlook

The September forecast for long-term GDP growth in metro areas in the PJM service territory has been slightly downgraded from September 2016. Over the next few years, GDP be will be more volatile than previously expected, but in the long run will settle into a slightly slower growth path.



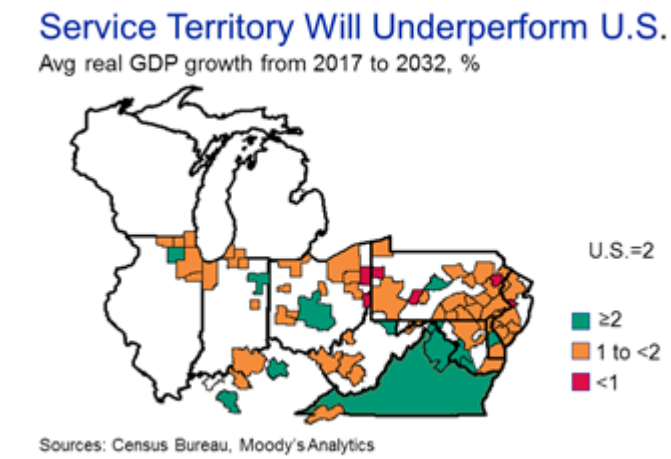
In the long run, the PJM service territory will underperform the U.S., with average annual real GDP growth of 1.8% from 2017 to 2032, compared with the U.S. average of 2%.

One reason for slower long-run GDP growth is that the population forecast has been lowered. Census data from 2016, the most recent available, reveal that population once again fell slightly below the forecast. As a result, the September forecast is for population to expand by 4.8% from 2017 to 2032, down from 5.8% in the September 2016 forecast. As a result, the service territory's population will be 783,000 lower by 2032 than previously expected.



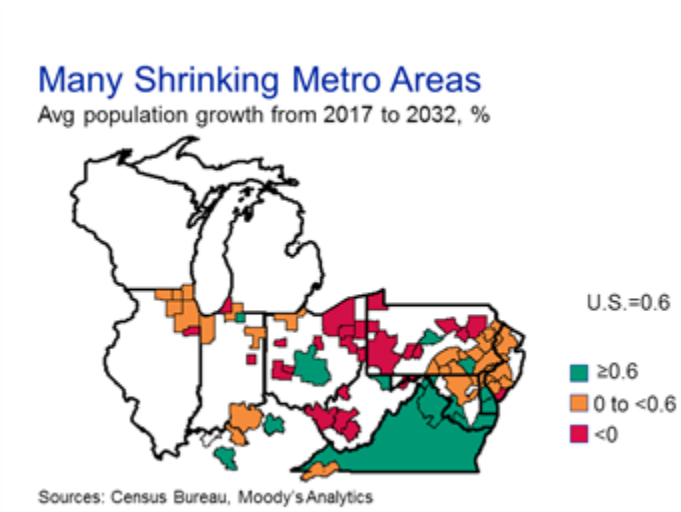
Washington DC and Virginia will outperform the service territory and U.S. for GDP growth thanks to a highly educated labor force, productivity growth, and positive

demographic trends. Other metro areas that will outperform the U.S. include Lancaster PA, Elgin IL, and Columbus OH.



Metro areas in Ohio, West Virginia, and western and northern Pennsylvania will expand more slowly. Expansion in those areas 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.

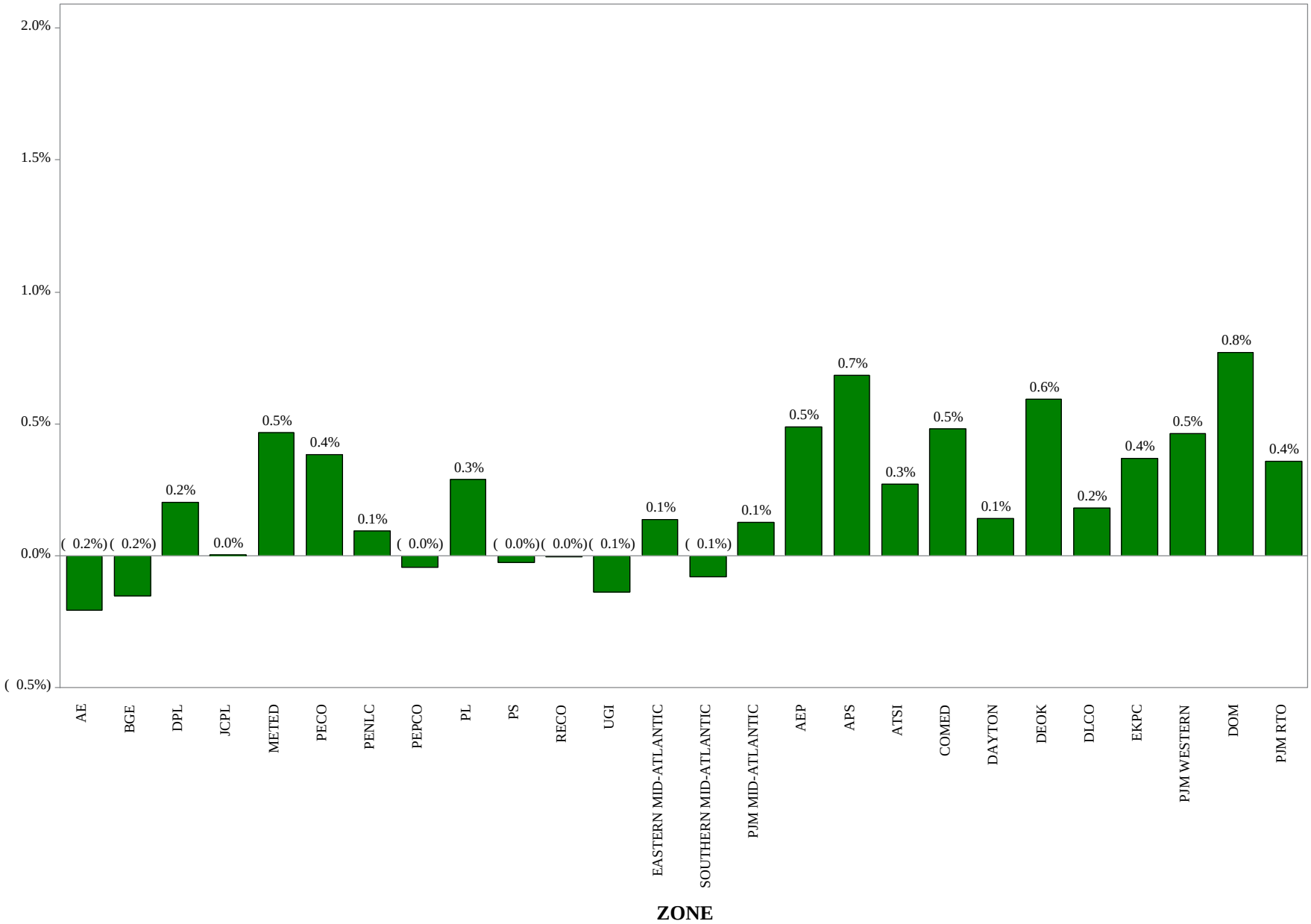
Weaker demographics will also undermine long-term growth for many metro areas, as workers and their families are expected to seek opportunities in stronger labor markets outside of the slow-growth metro areas in the Midwest and Northeast. While the presence of institutions of higher education and high tech will help some cities such as Pittsburgh, even there the long-standing blue-collar industry headwinds will lead to below-average demographic performance.



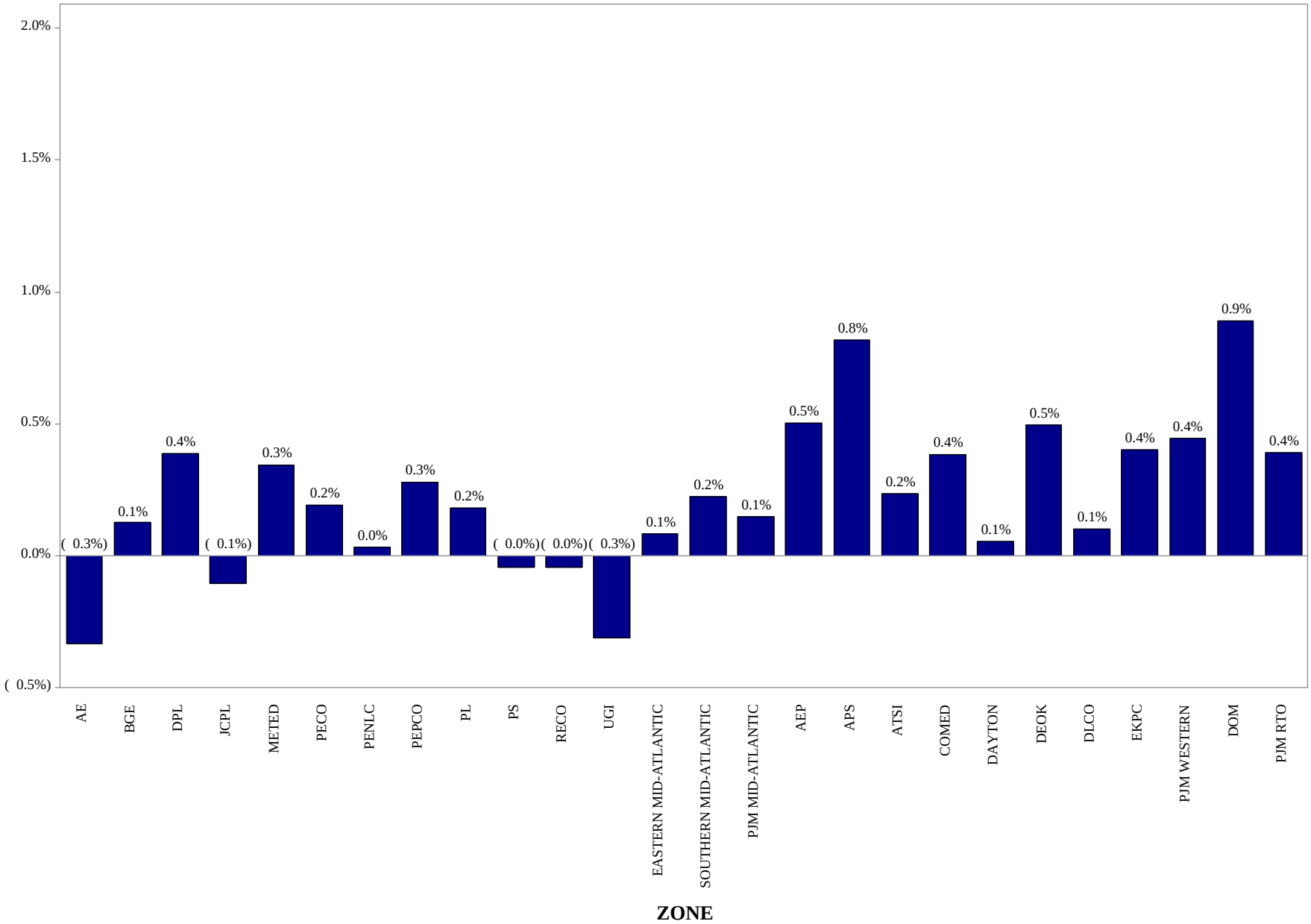
Of the 10 areas with the weakest population growth, nine are in Ohio or Pennsylvania. These areas, along with 15 others, will post net declines in the population.

In Pennsylvania, the long-run decline of manufacturing is exacerbated by poor public sector finances, which will weigh on local government employment as well as taxpayers.

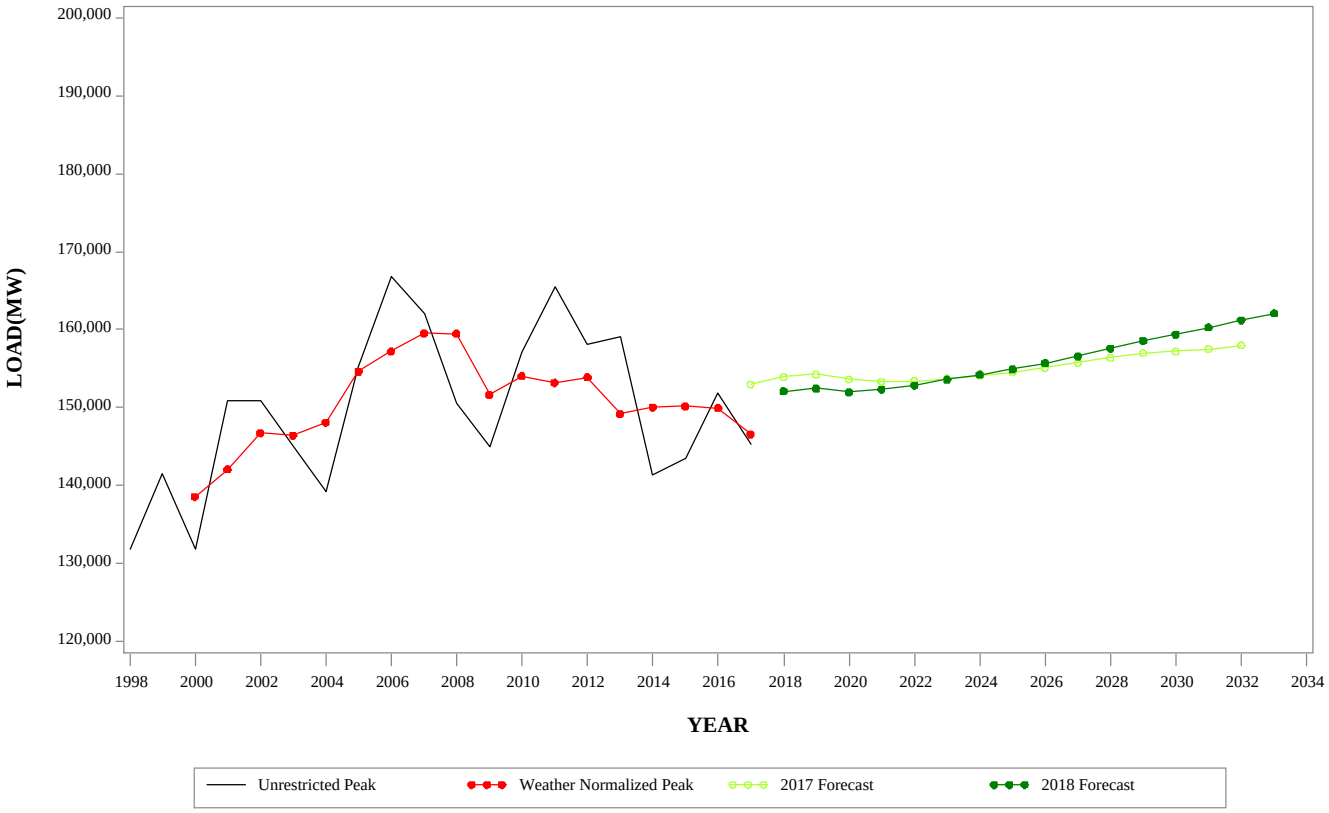
PJM SUMMER PEAK LOAD GROWTH RATE
2018 - 2028



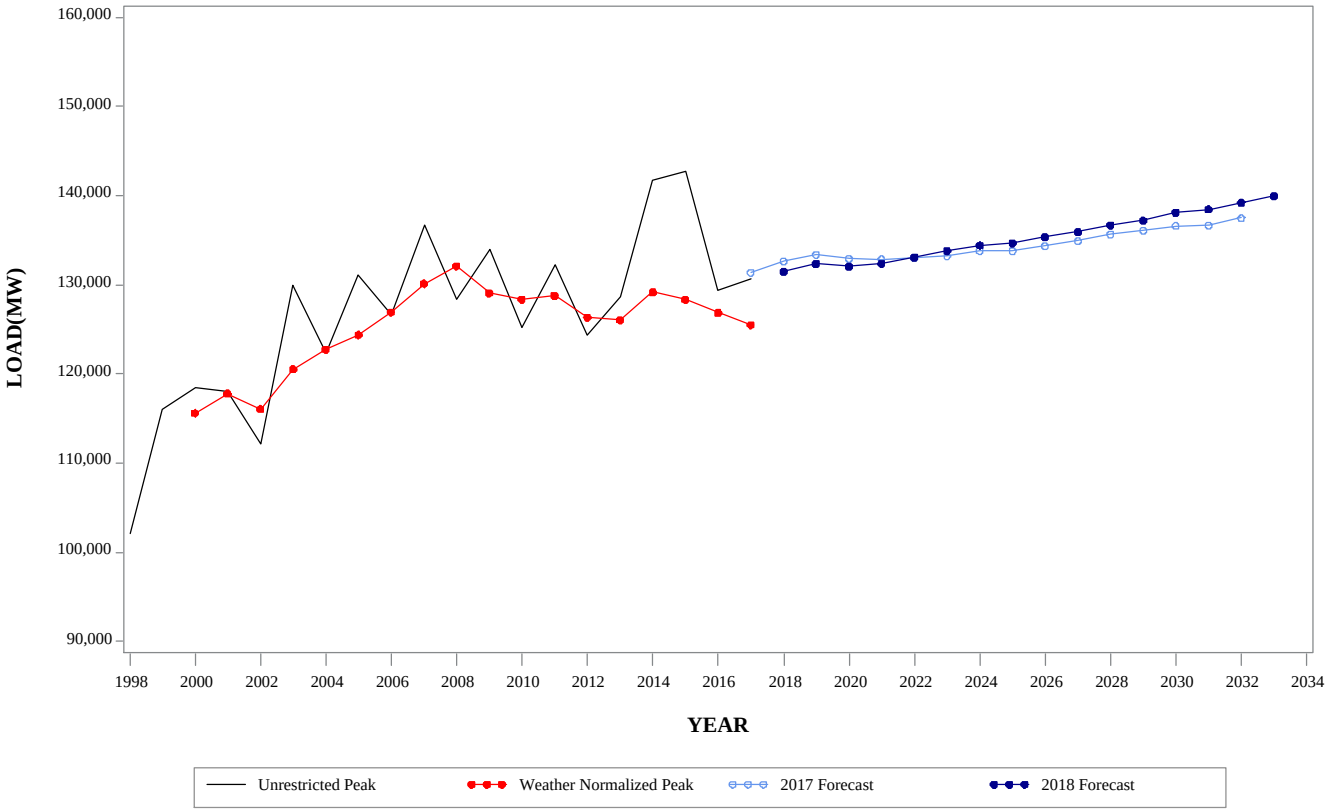
PJM WINTER PEAK LOAD GROWTH RATE
2018 - 2028



SUMMER COINCIDENT PEAK DEMAND FOR PJM RTO GEOGRAPHIC ZONE



WINTER COINCIDENT PEAK DEMAND FOR PJM RTO GEOGRAPHIC ZONE



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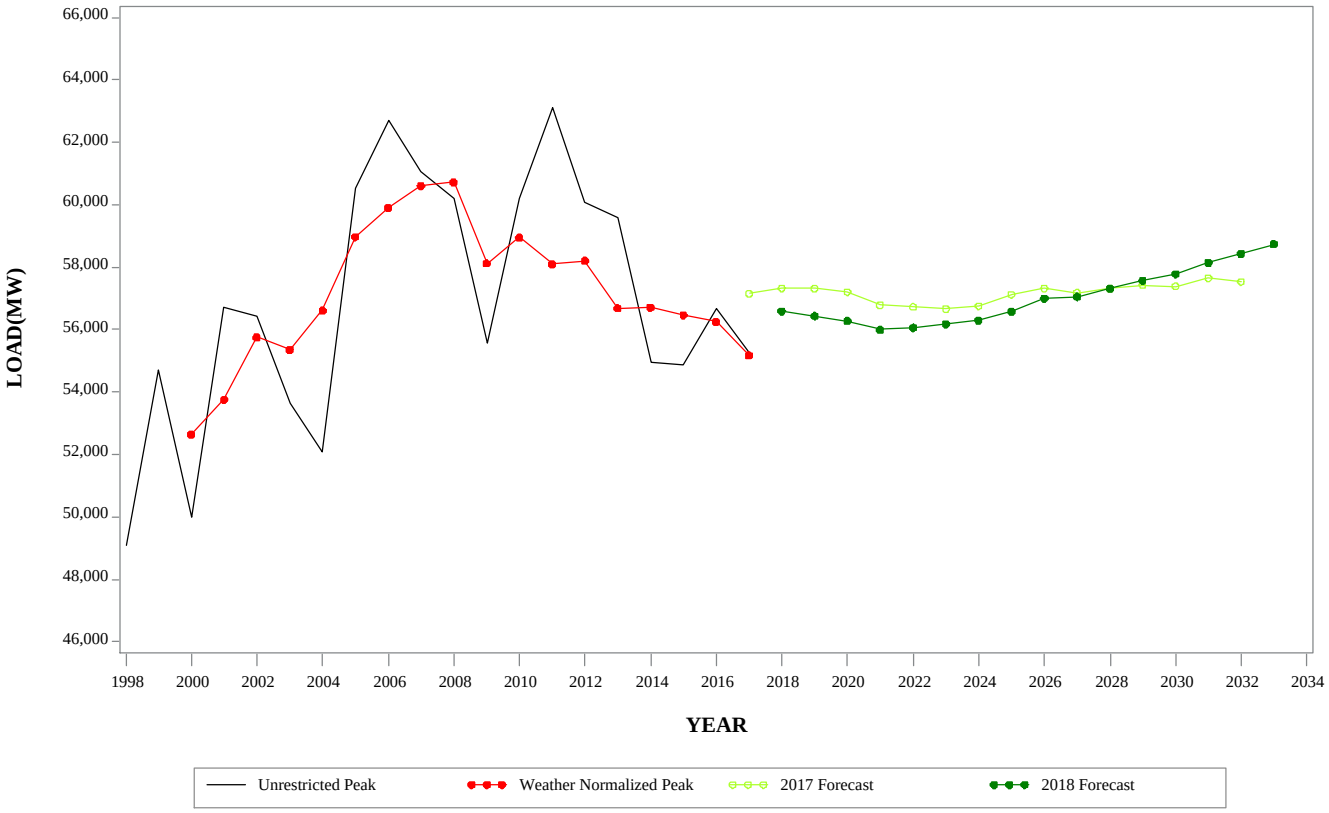

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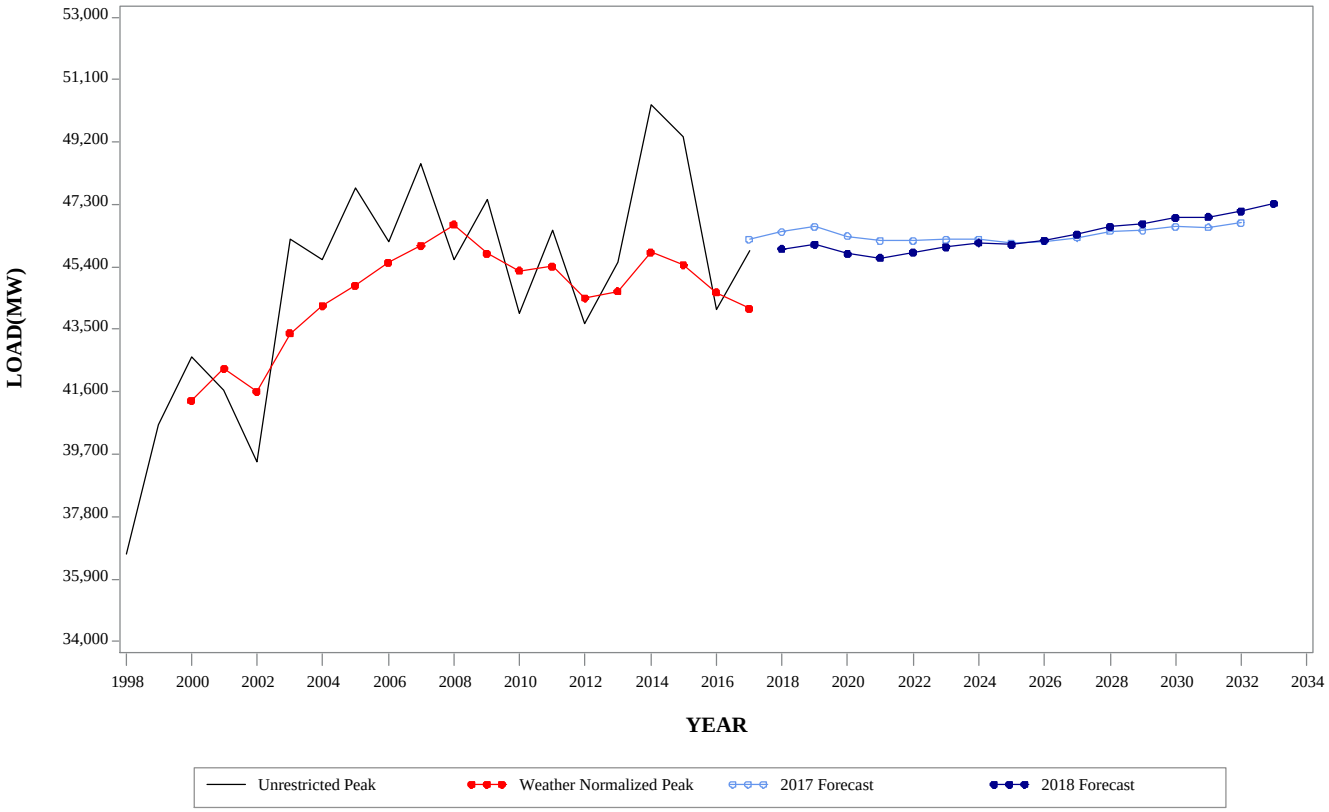

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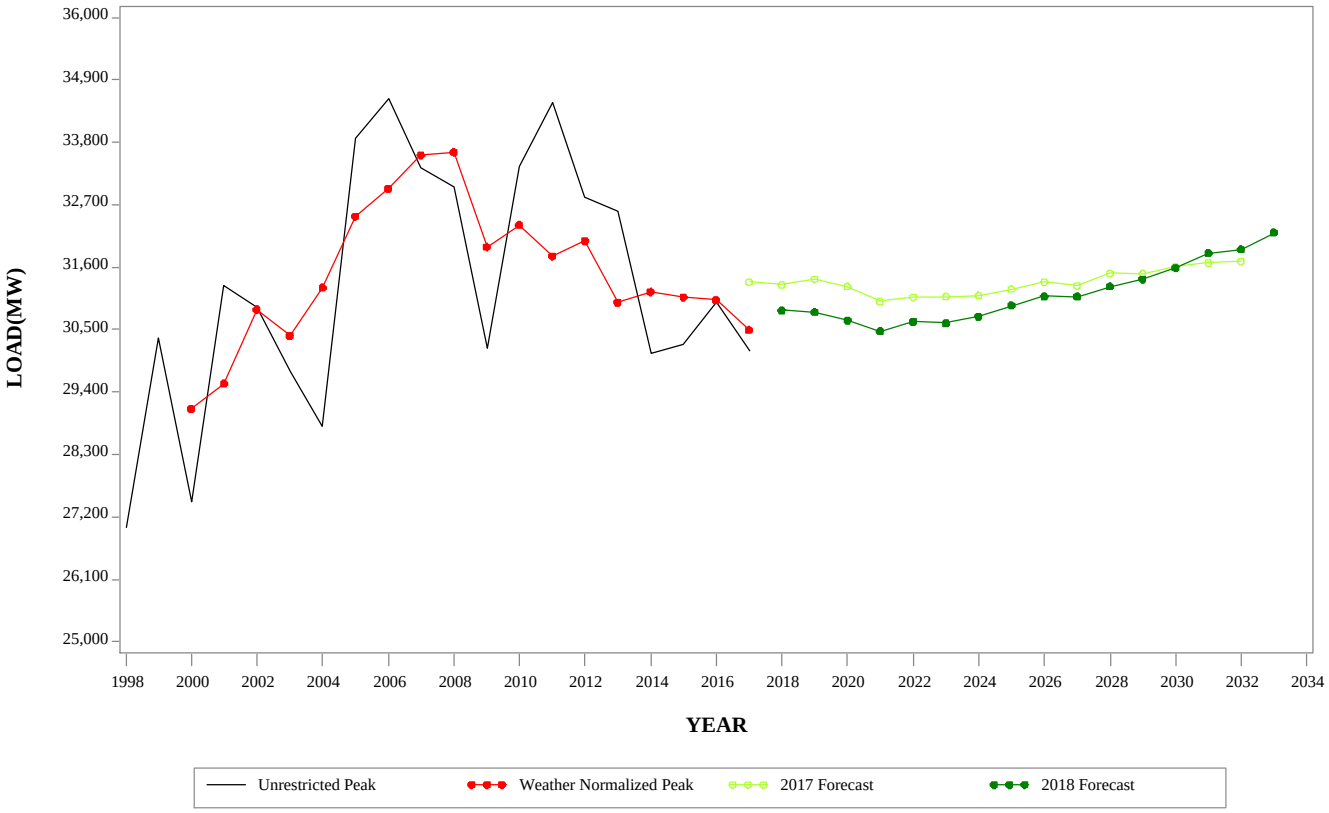
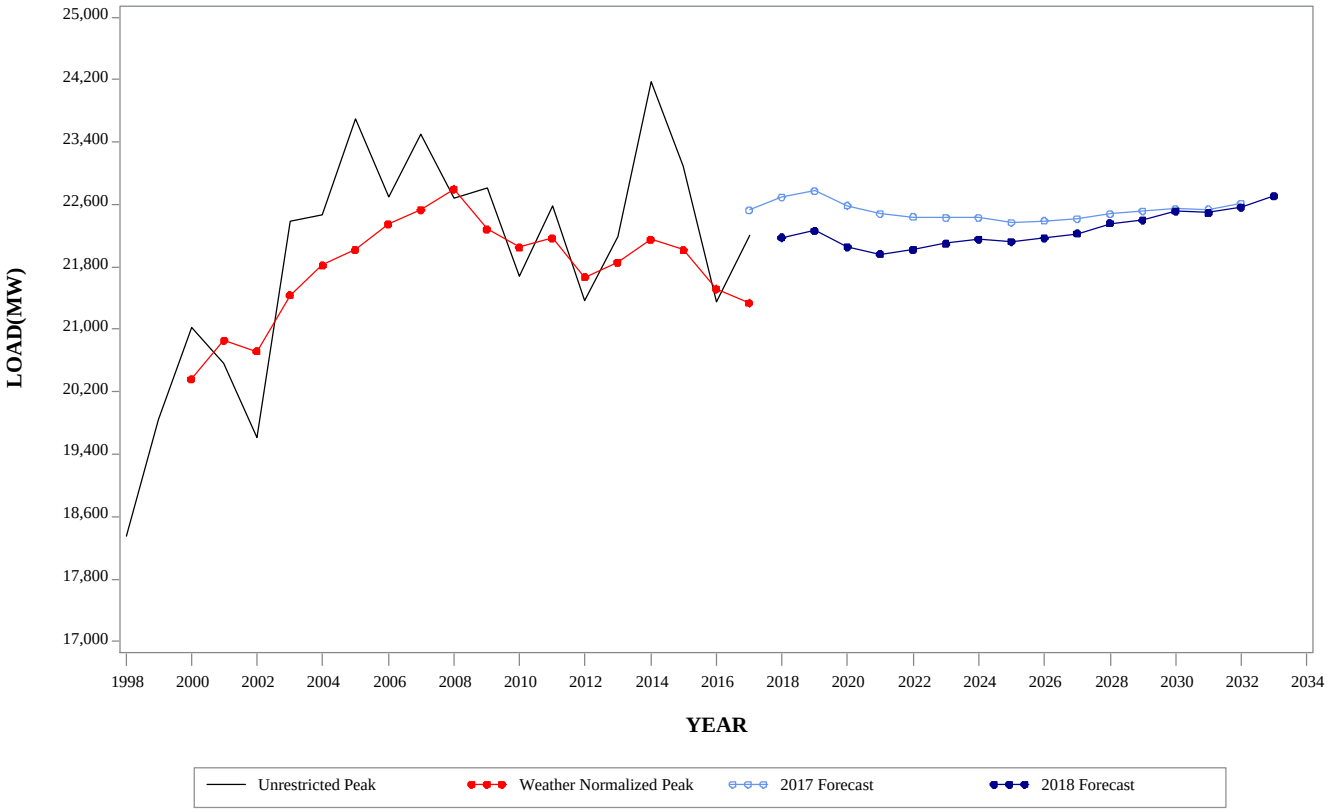


WINTER LDA COINCIDENT PEAK DEMAND FOR EASTERN MID-ATLANTIC GEOGRAPHIC ZONE



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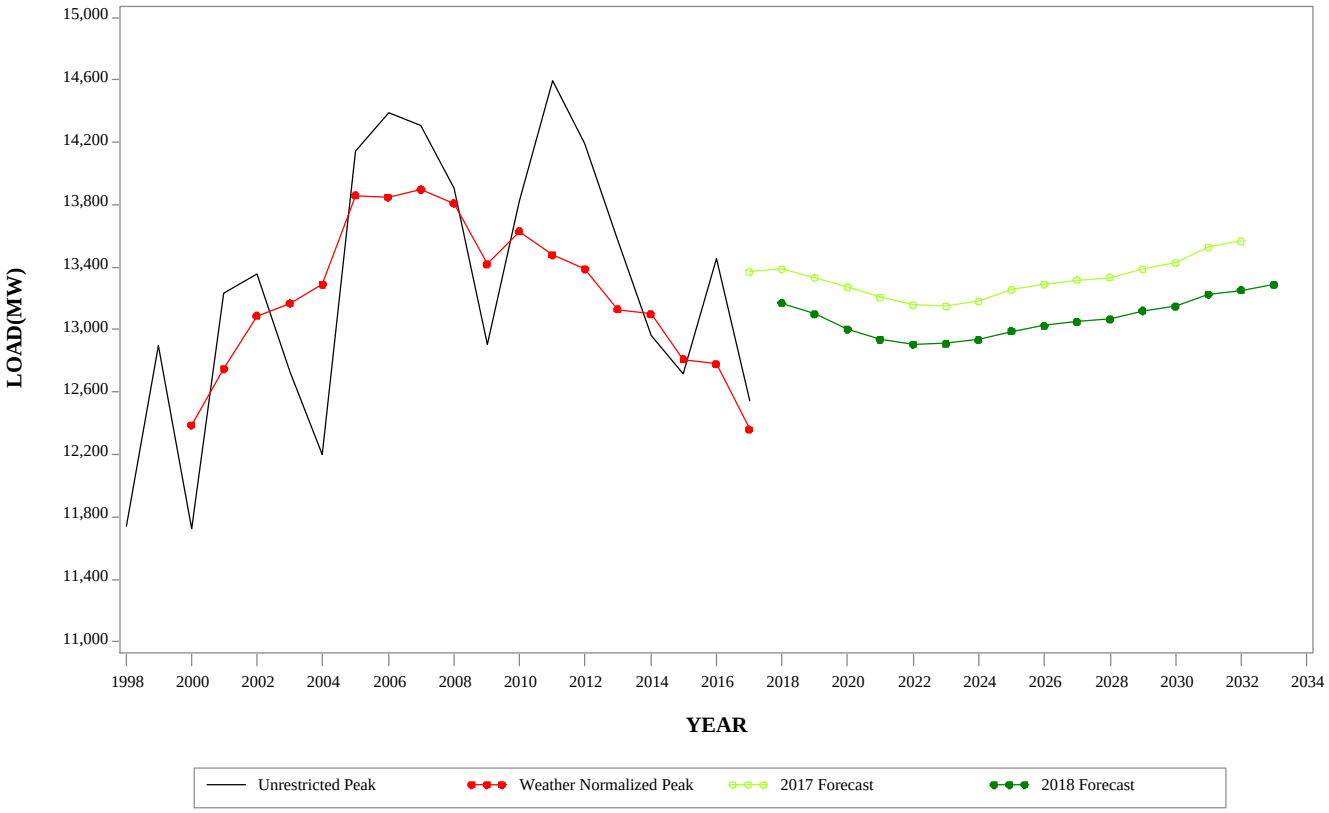

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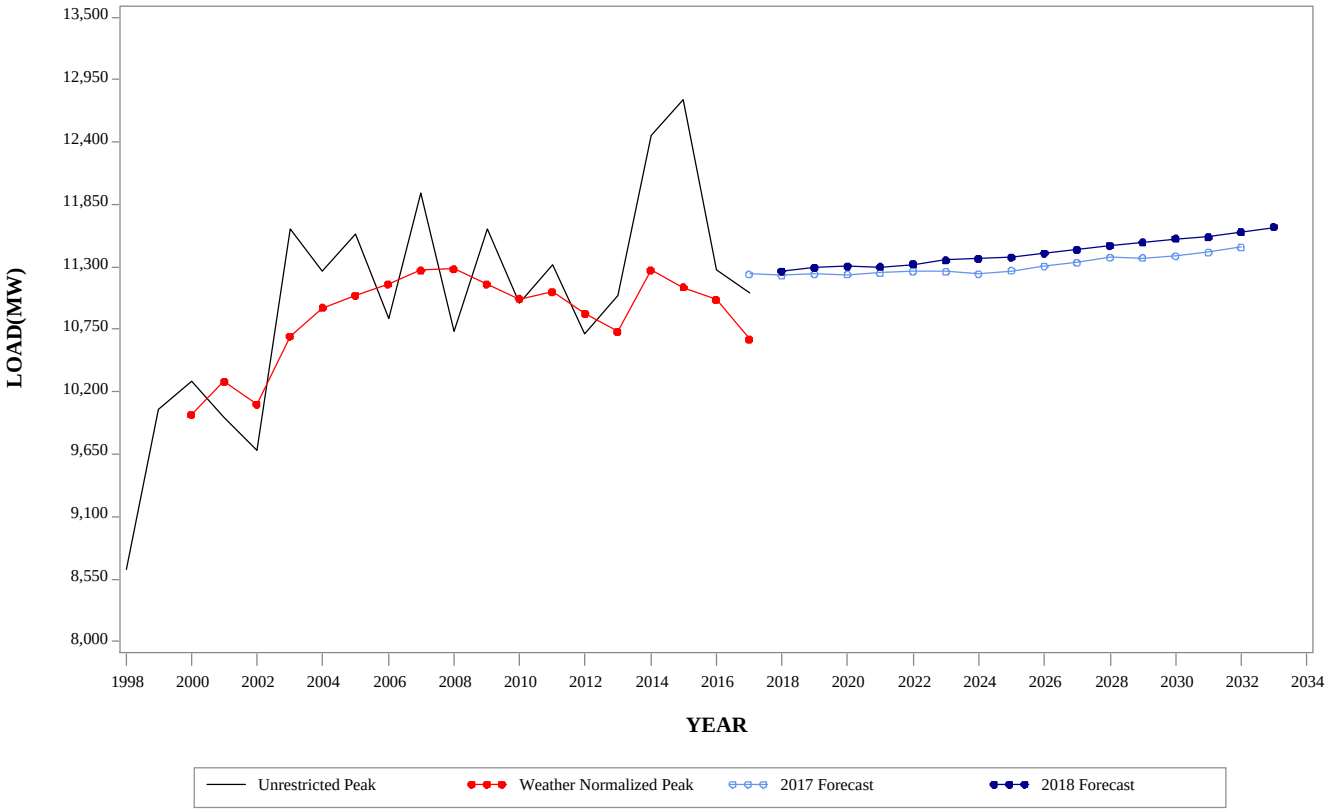

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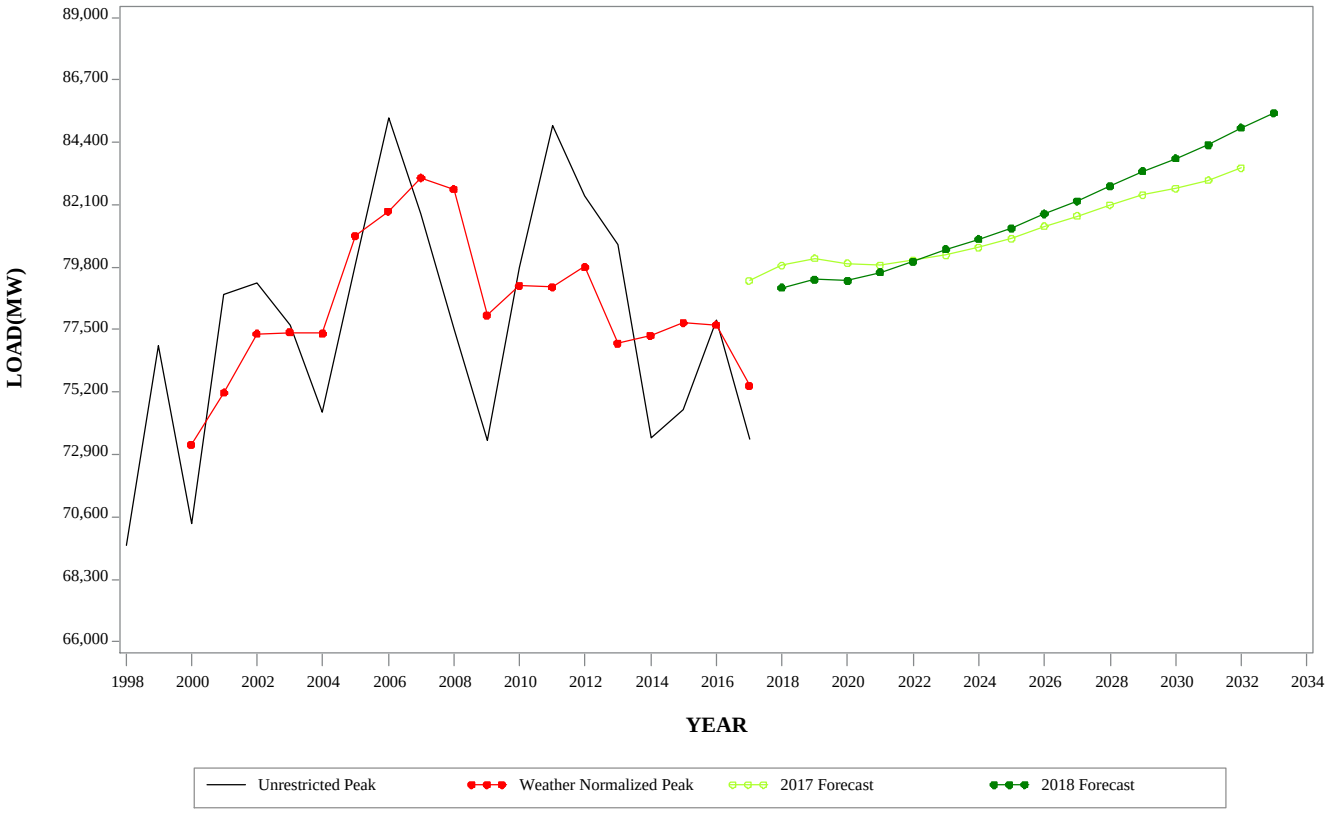

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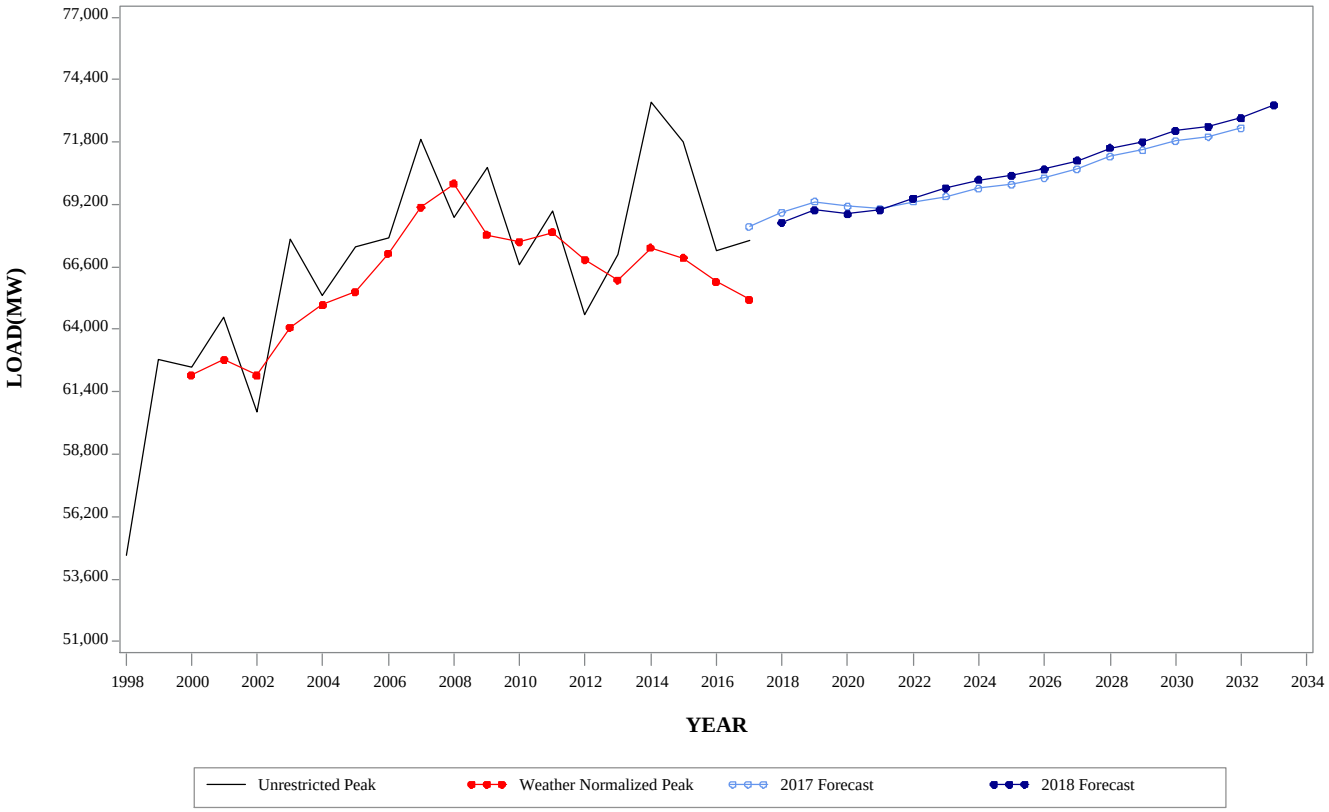

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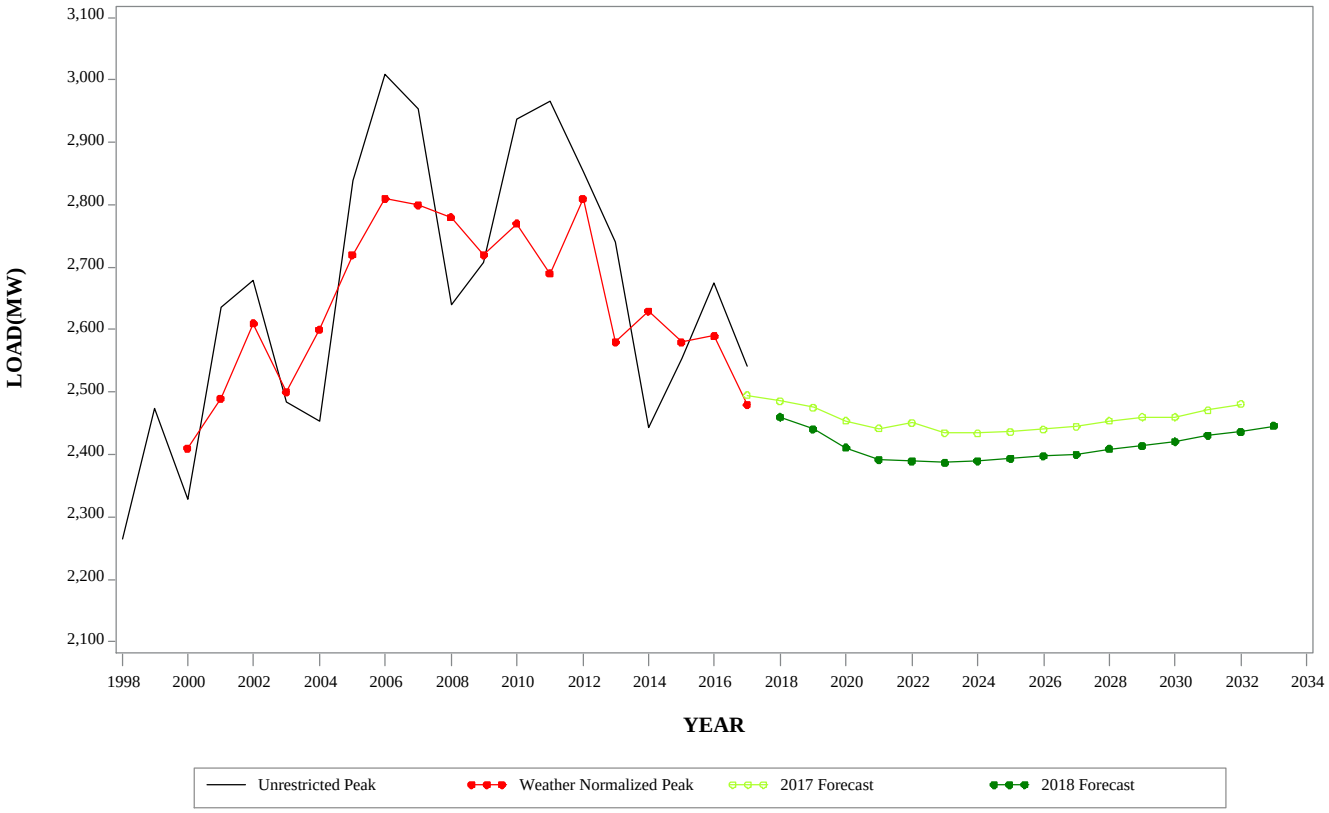
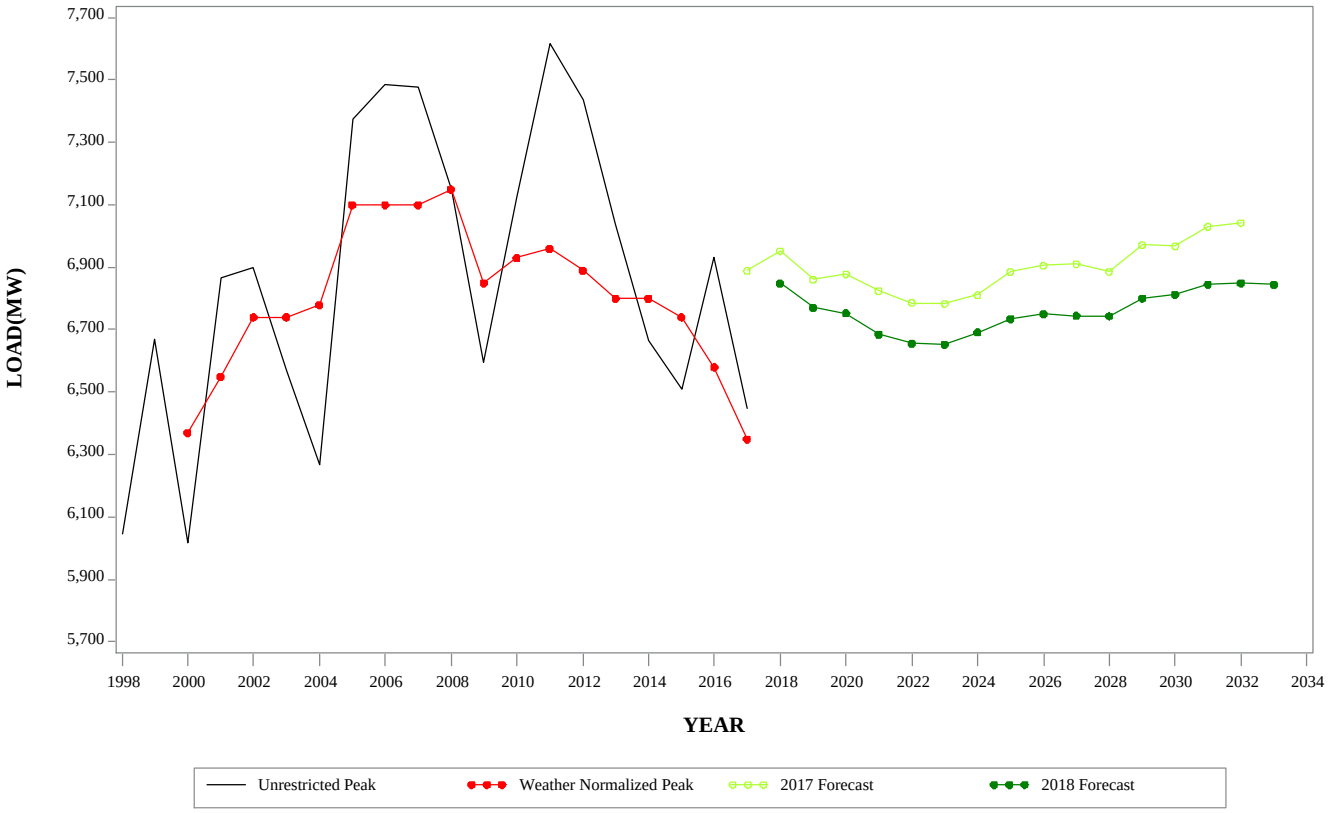


WINTER NON-COINCIDENT PEAK DEMAND FOR AE GEOGRAPHIC ZONE

SUMMER NON-COINCIDENT PEAK DEMAND FOR BGE GEOGRAPHIC ZONE



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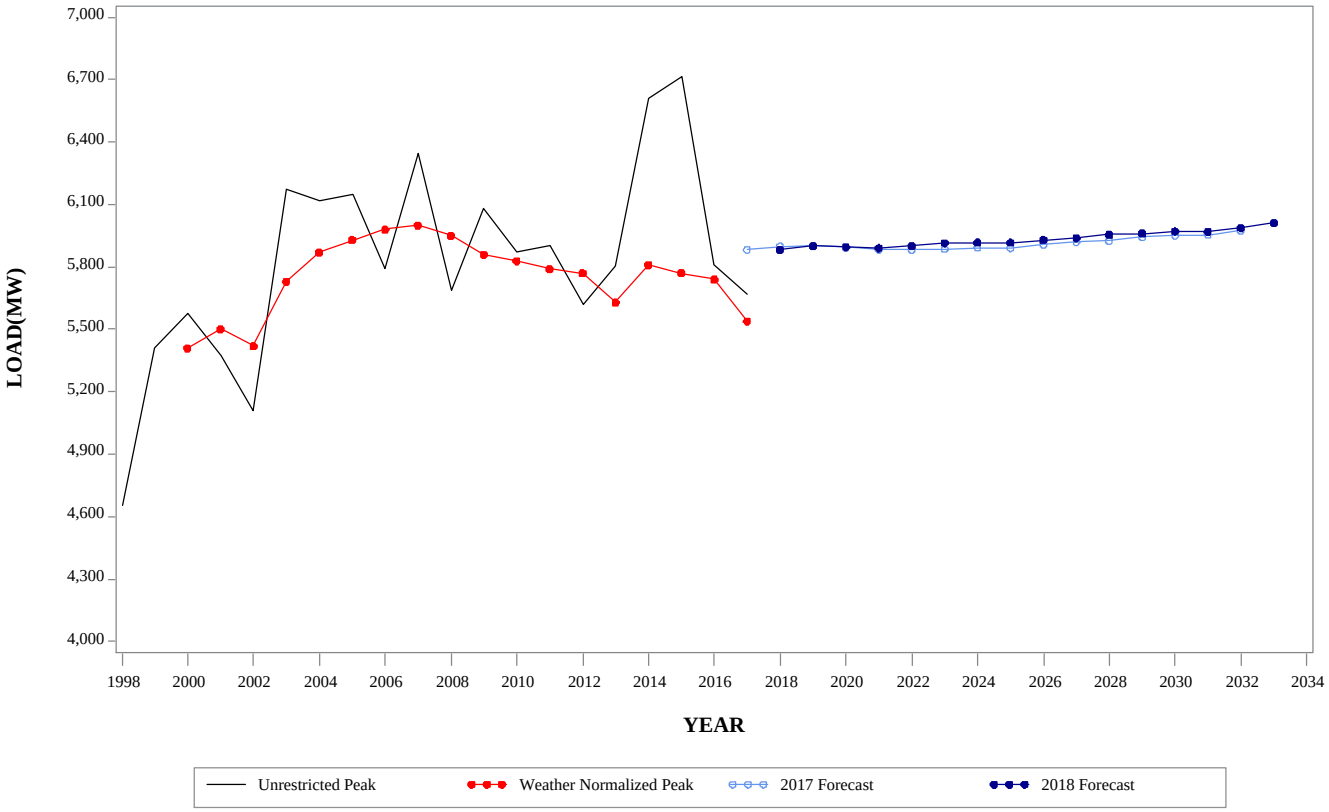

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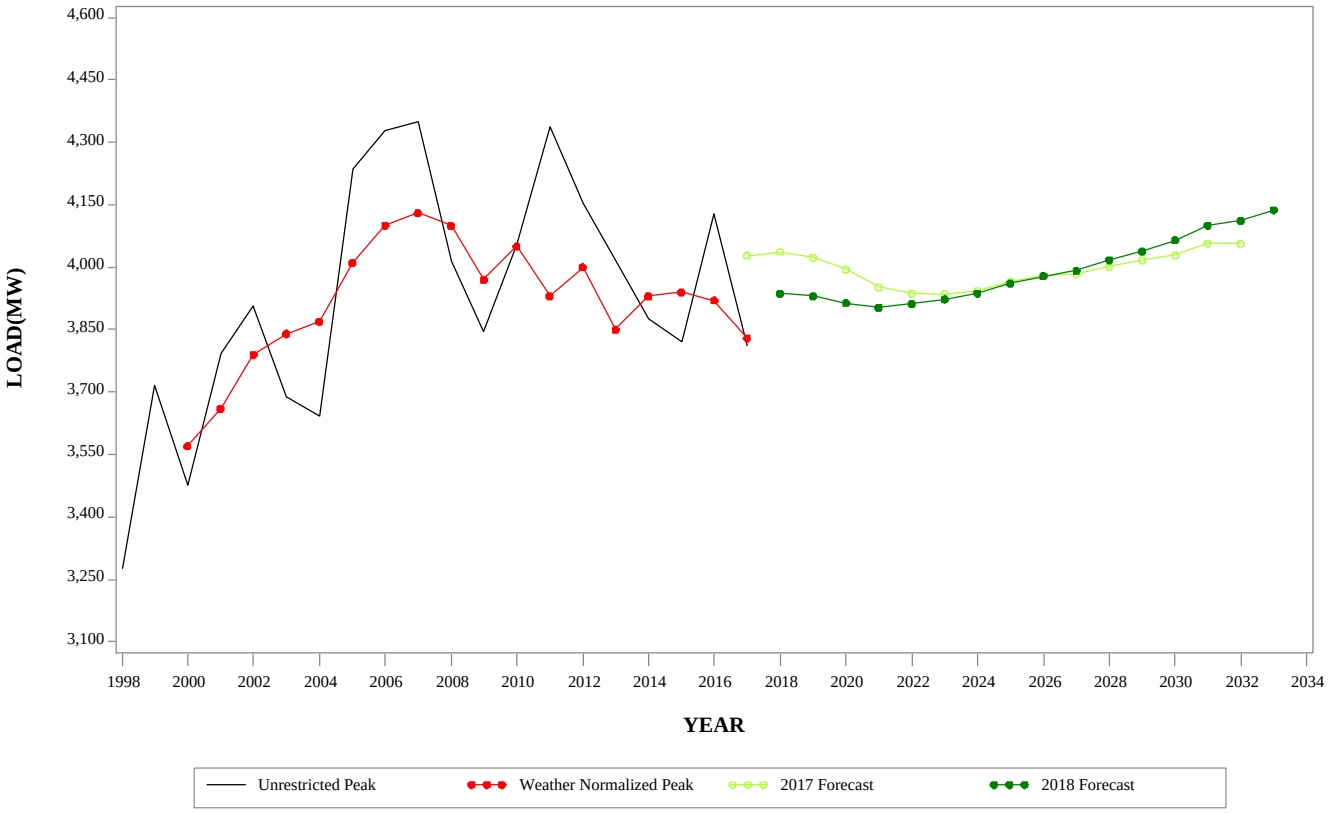

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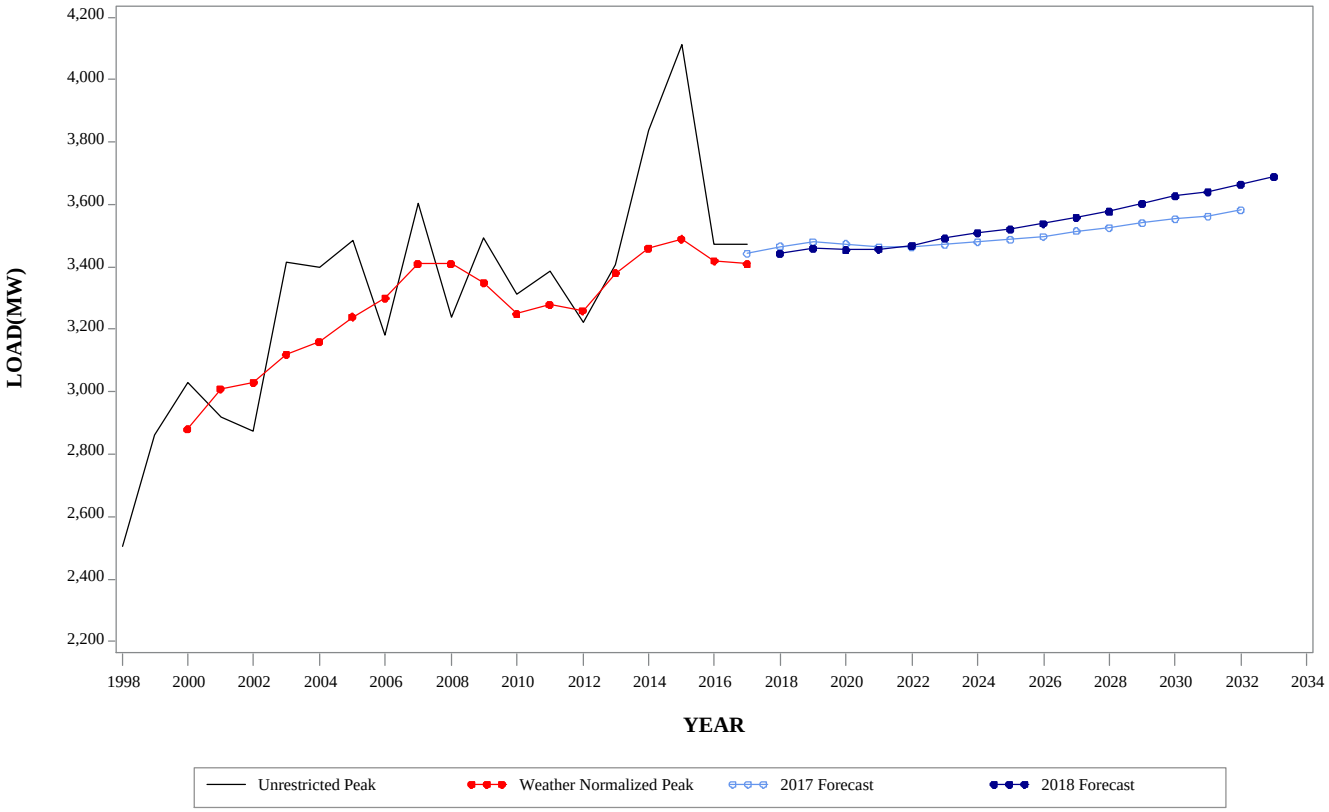

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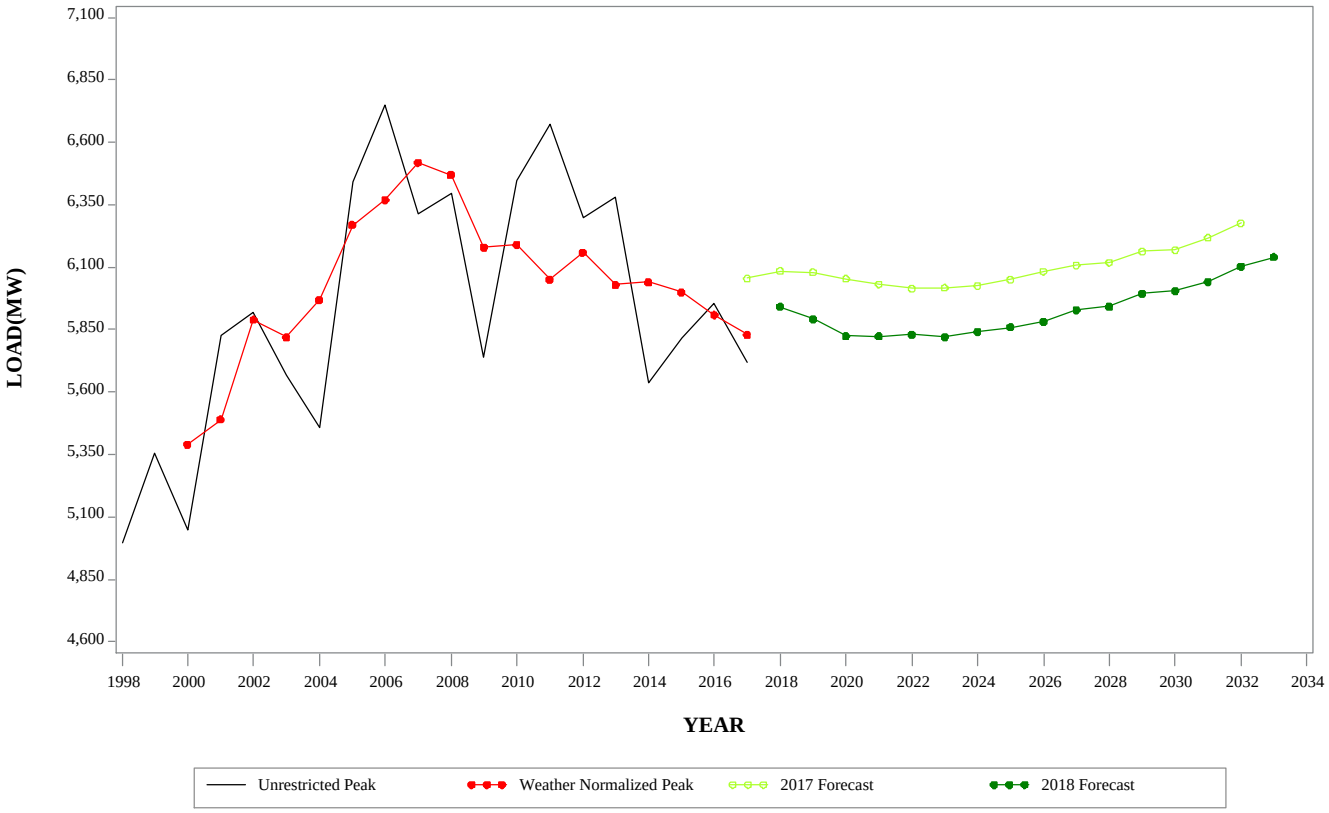

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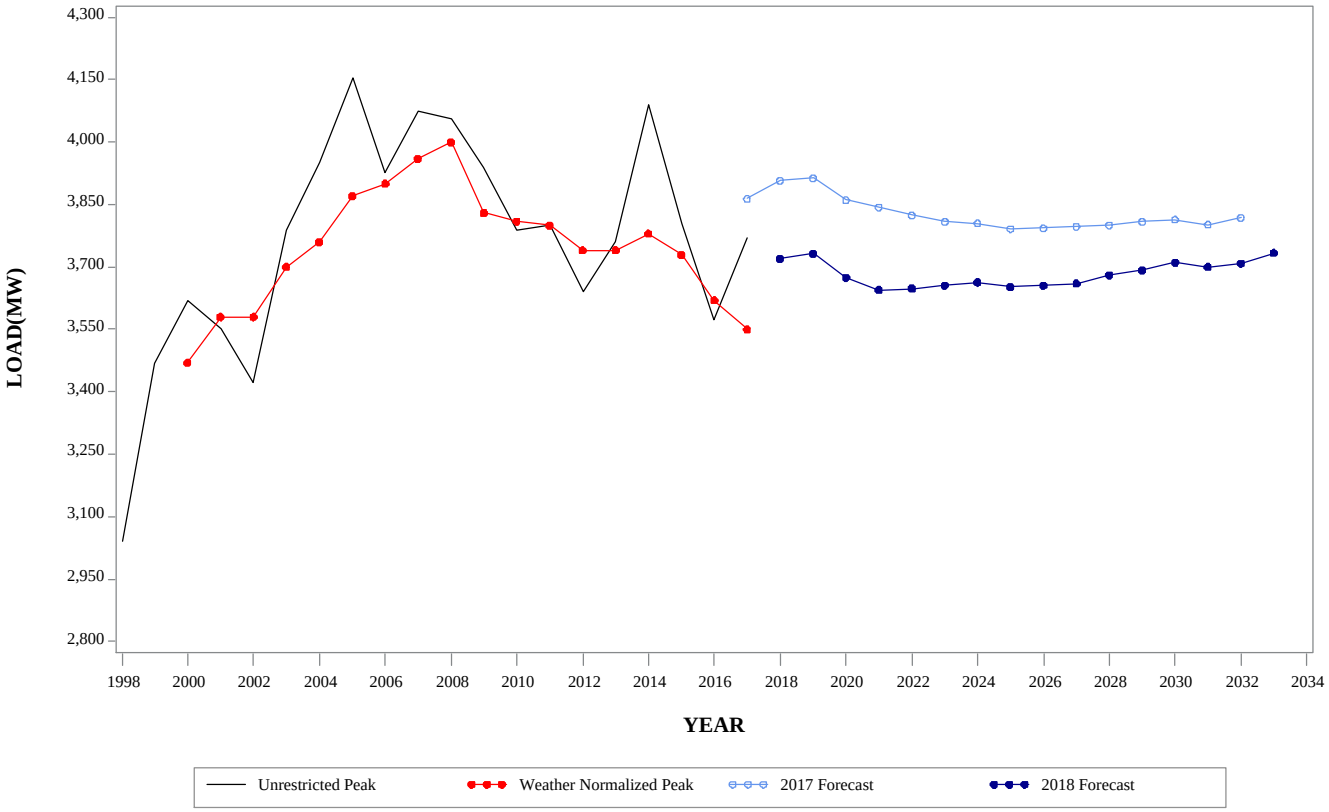

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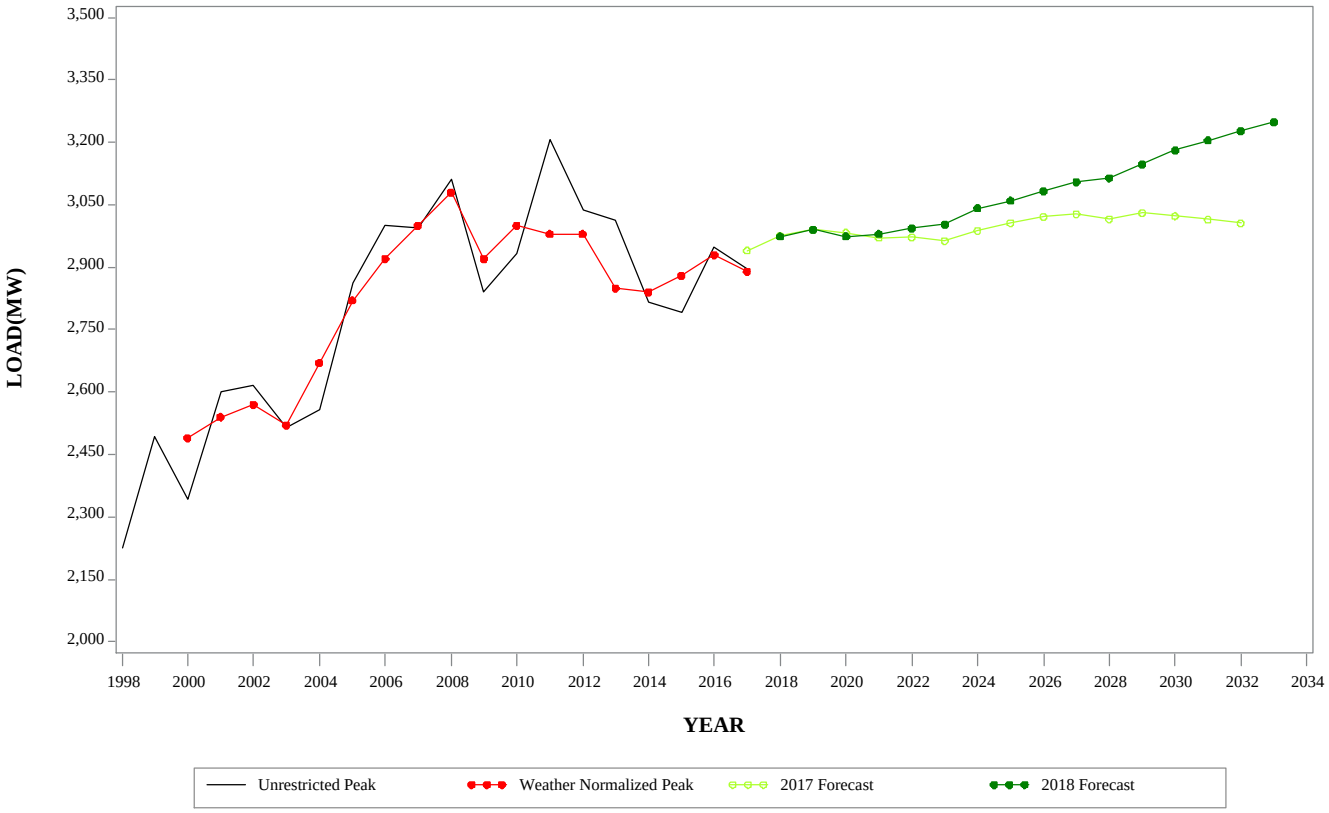

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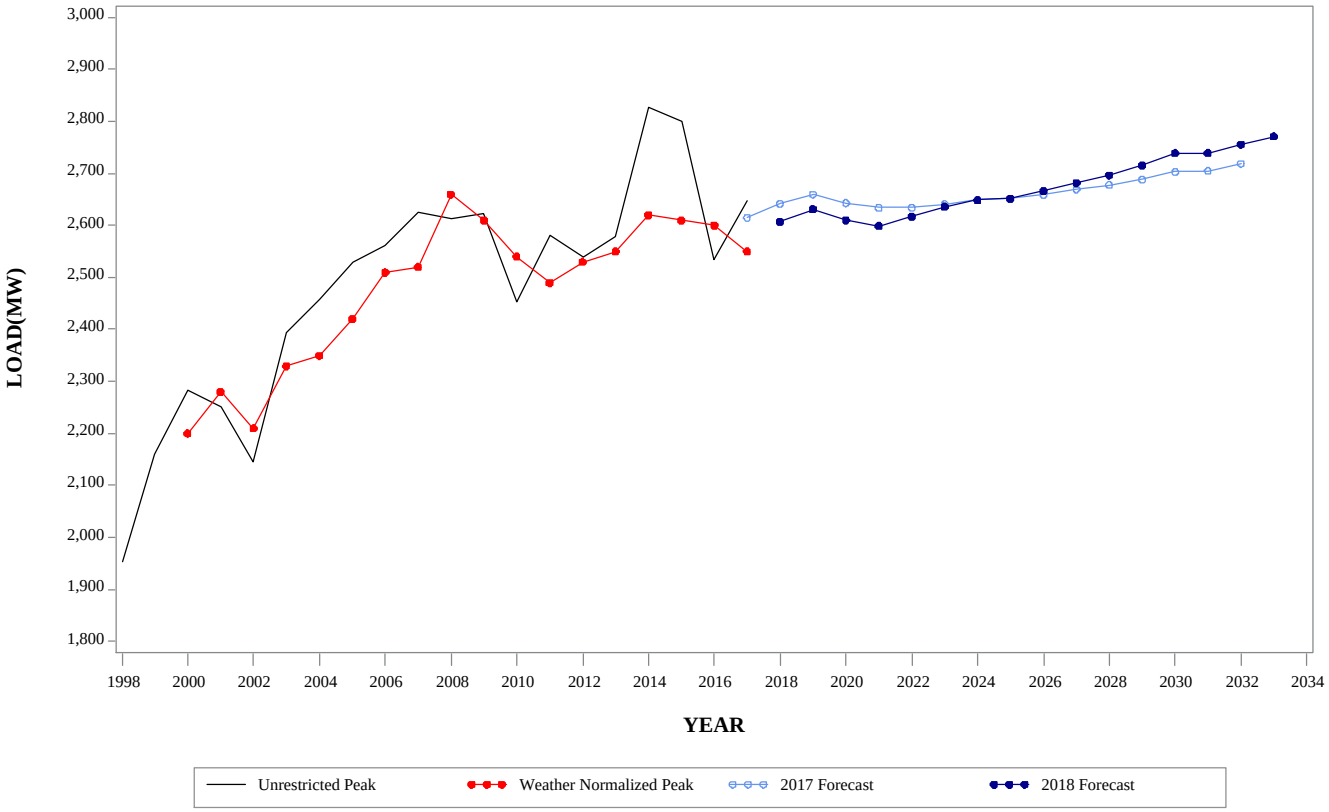

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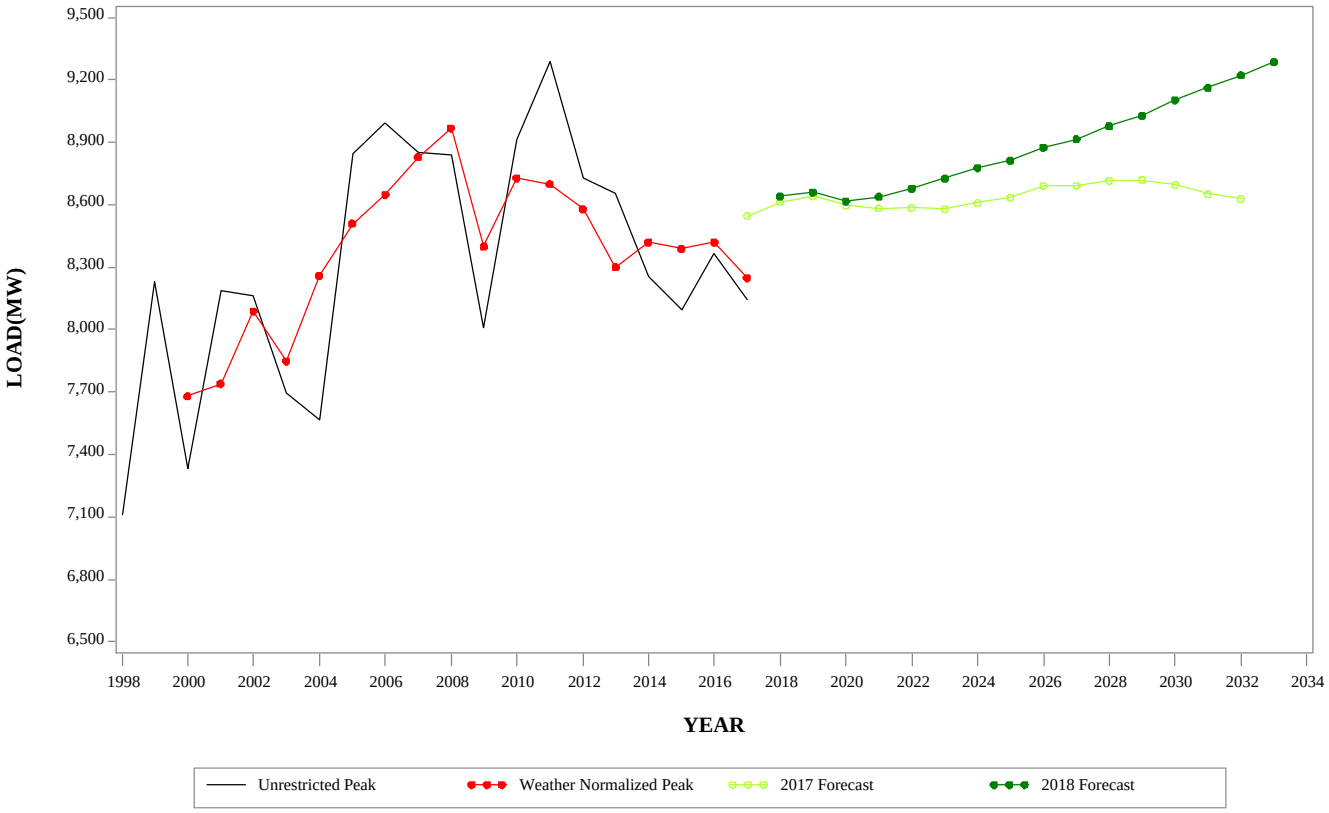

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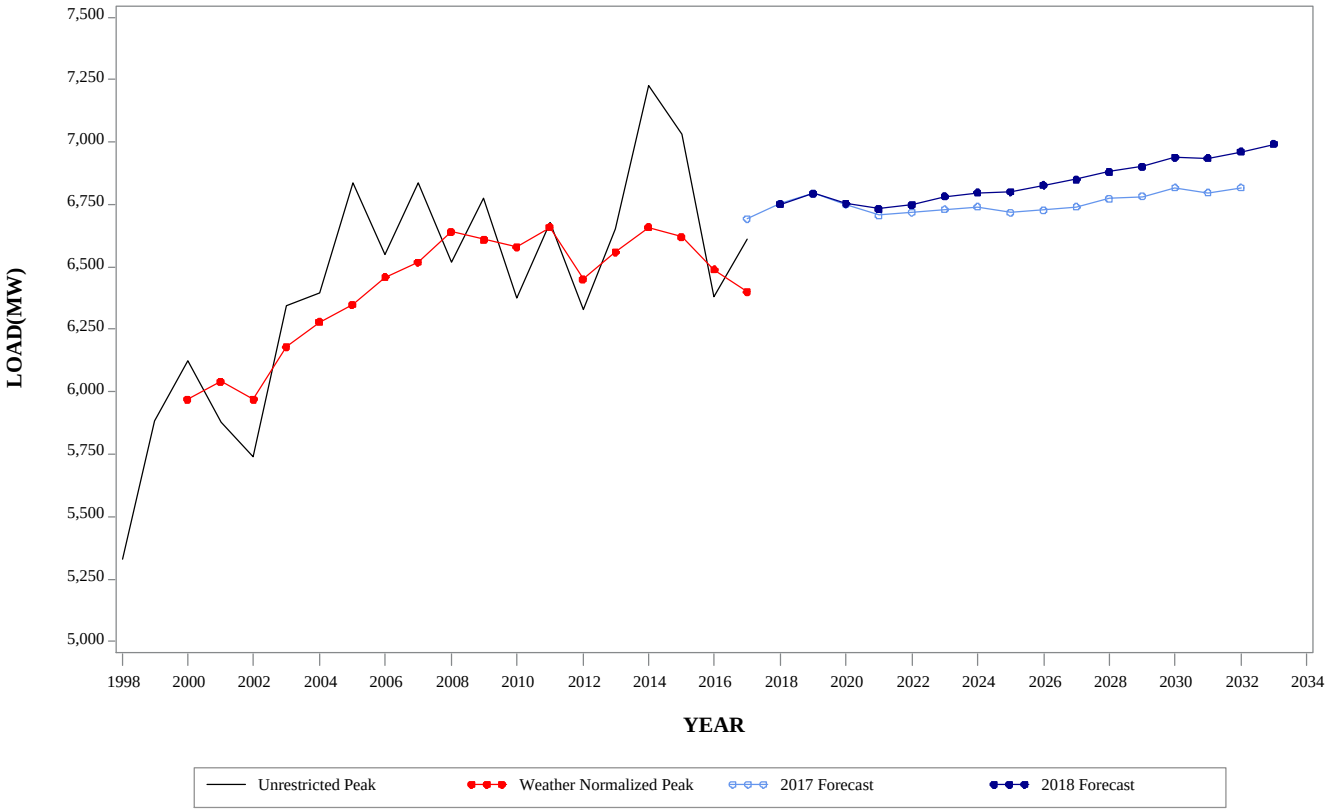

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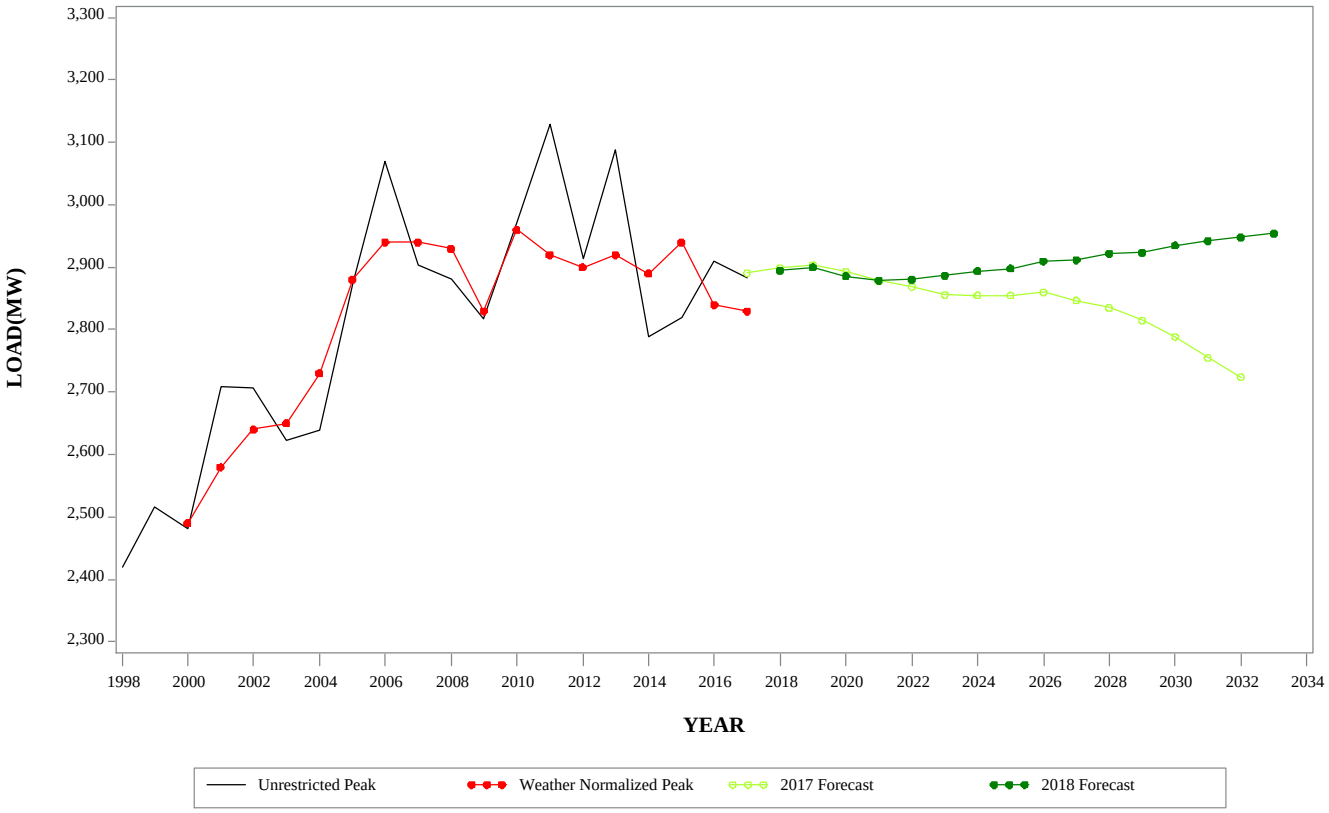

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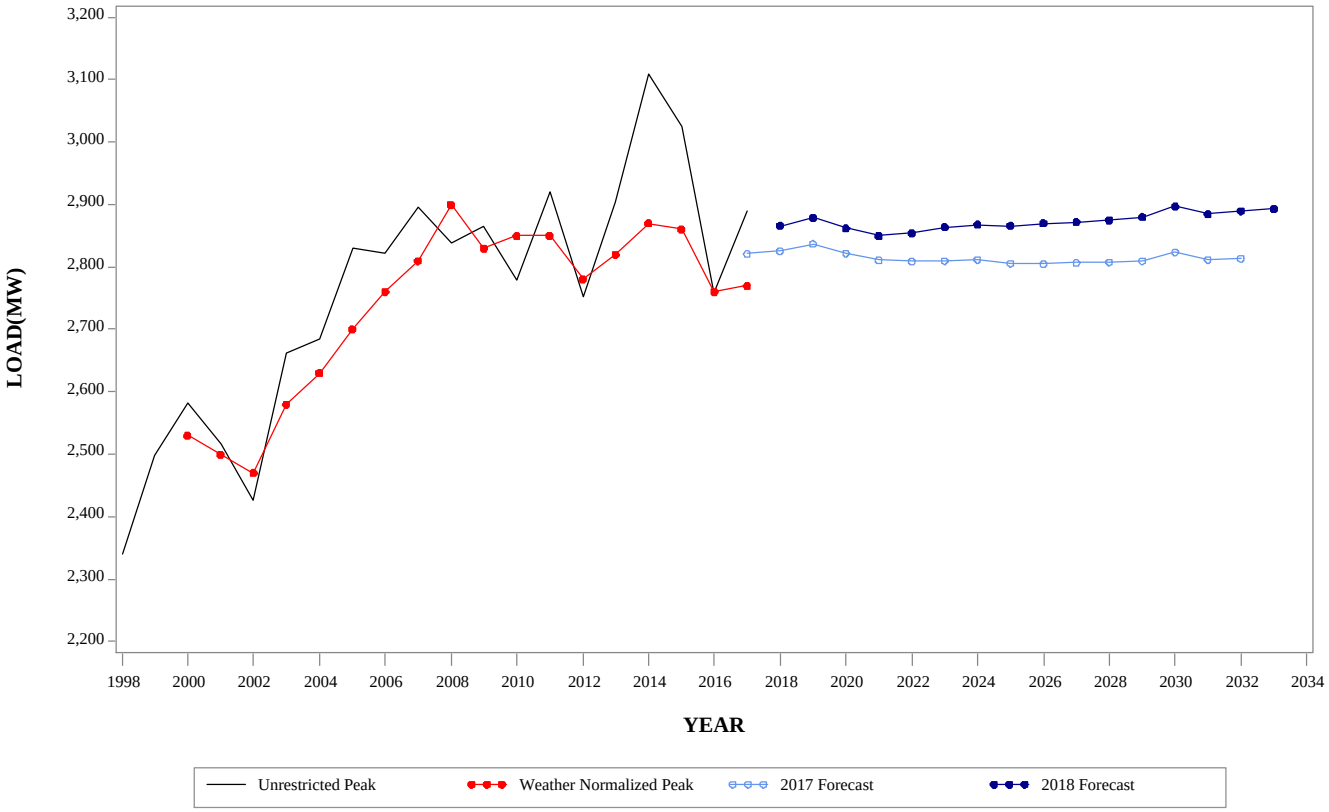

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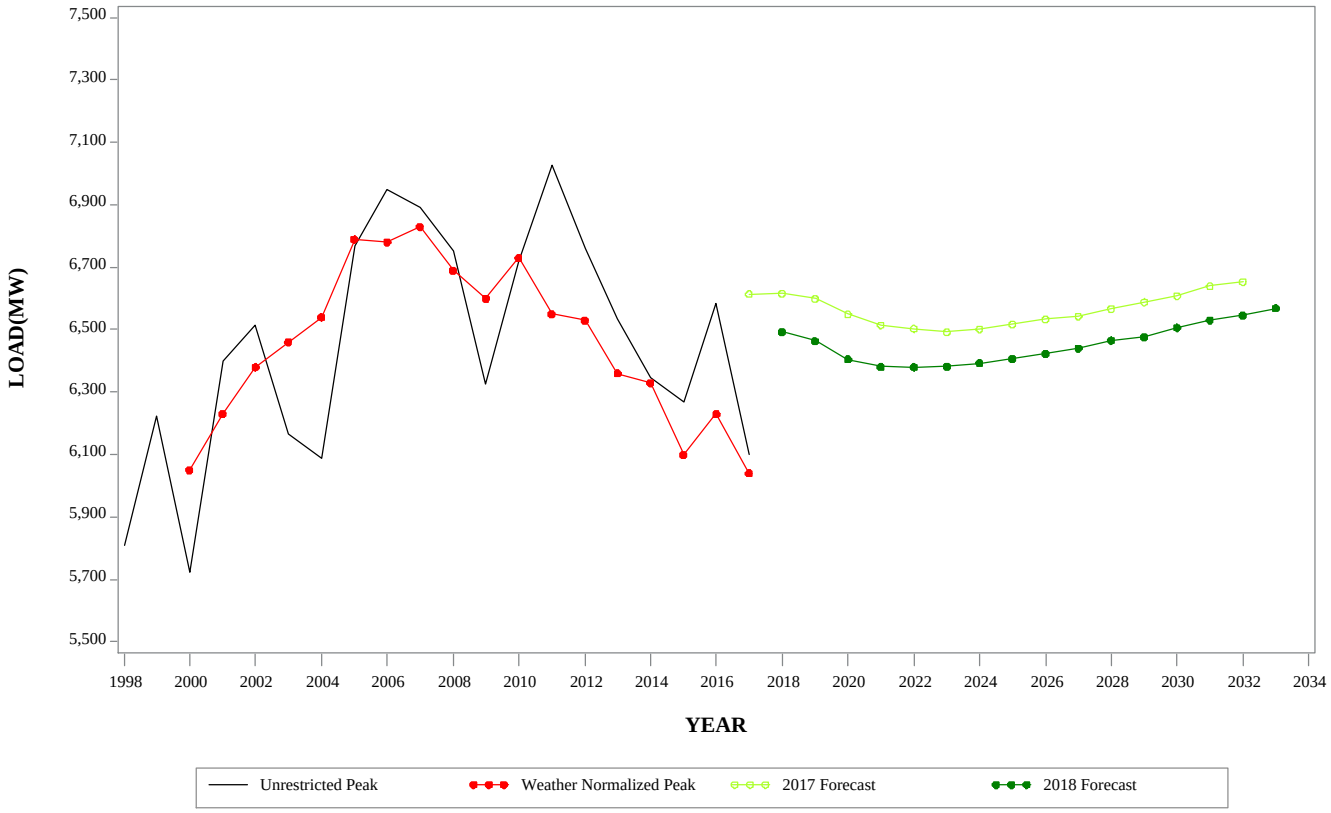

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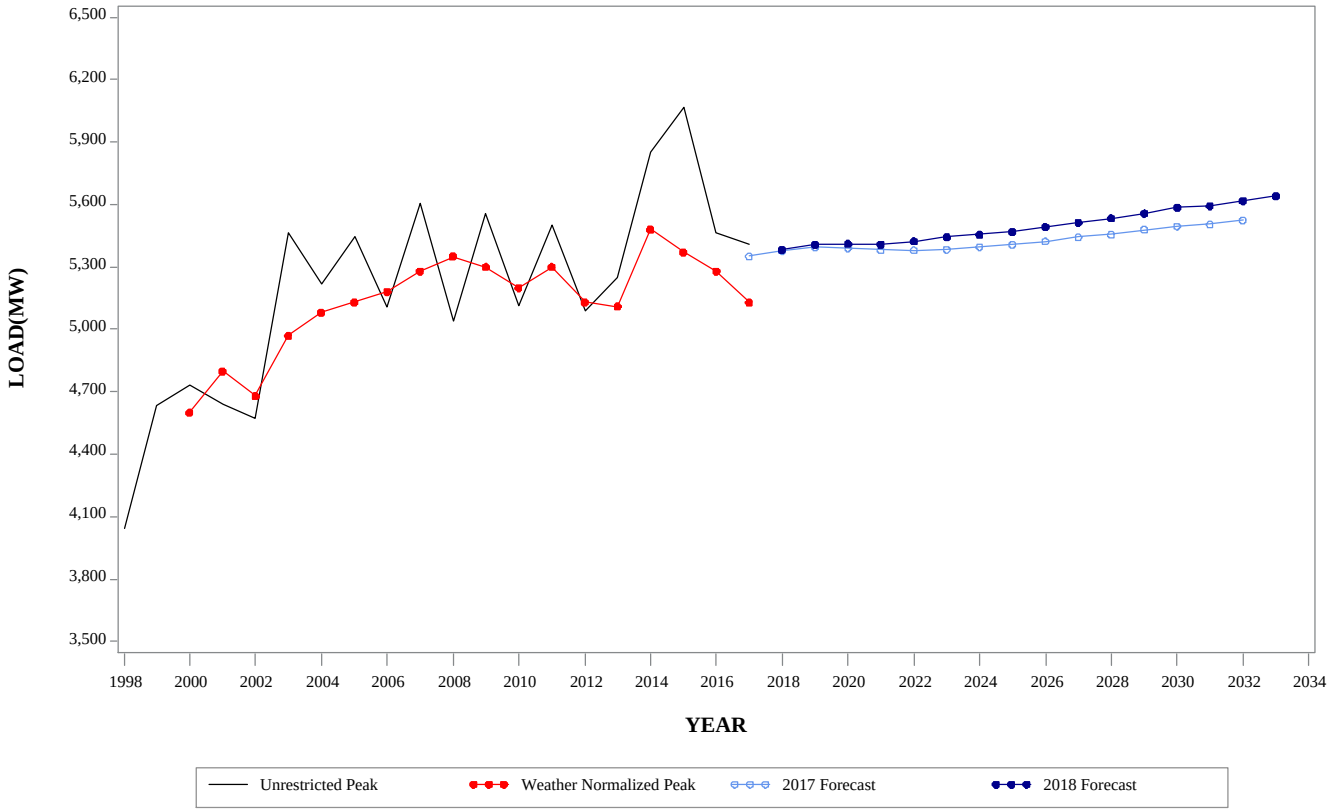

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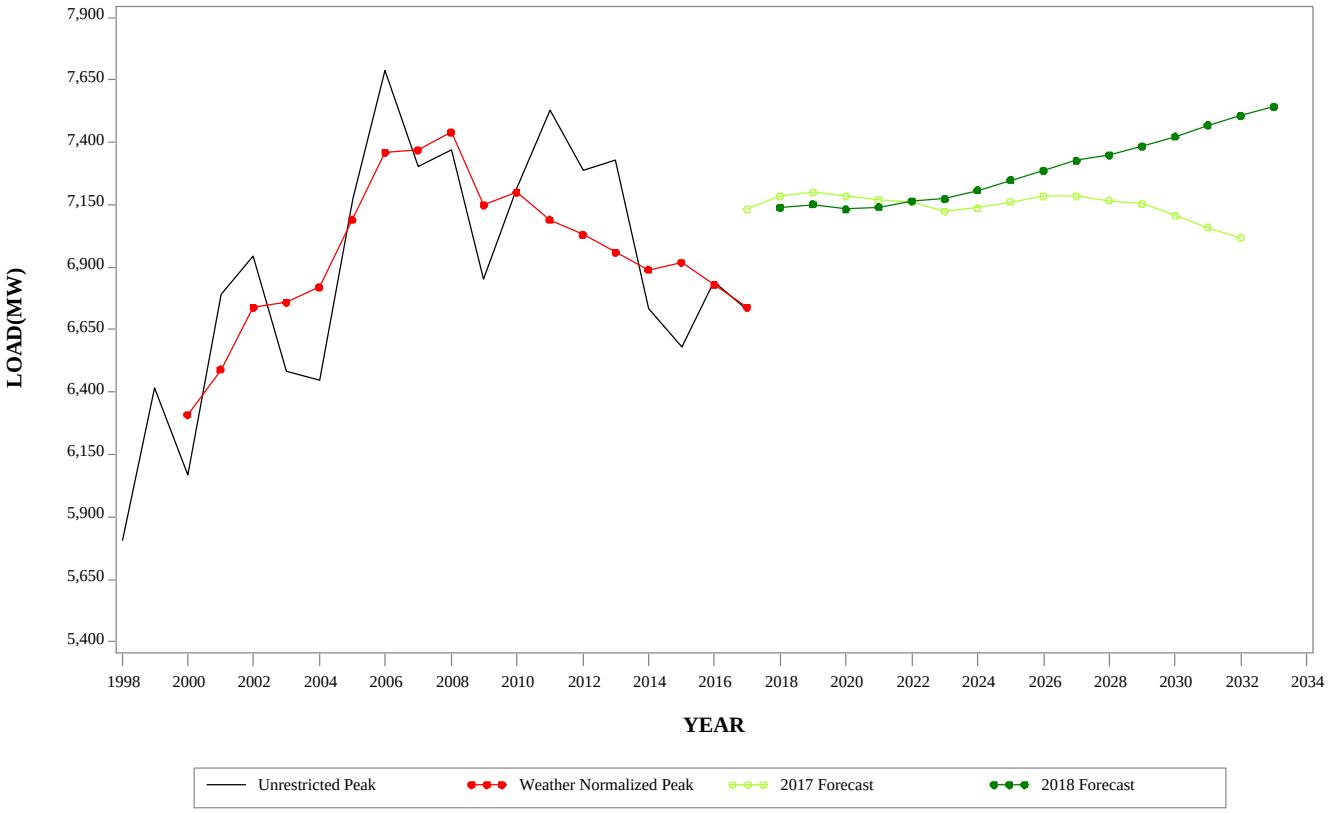

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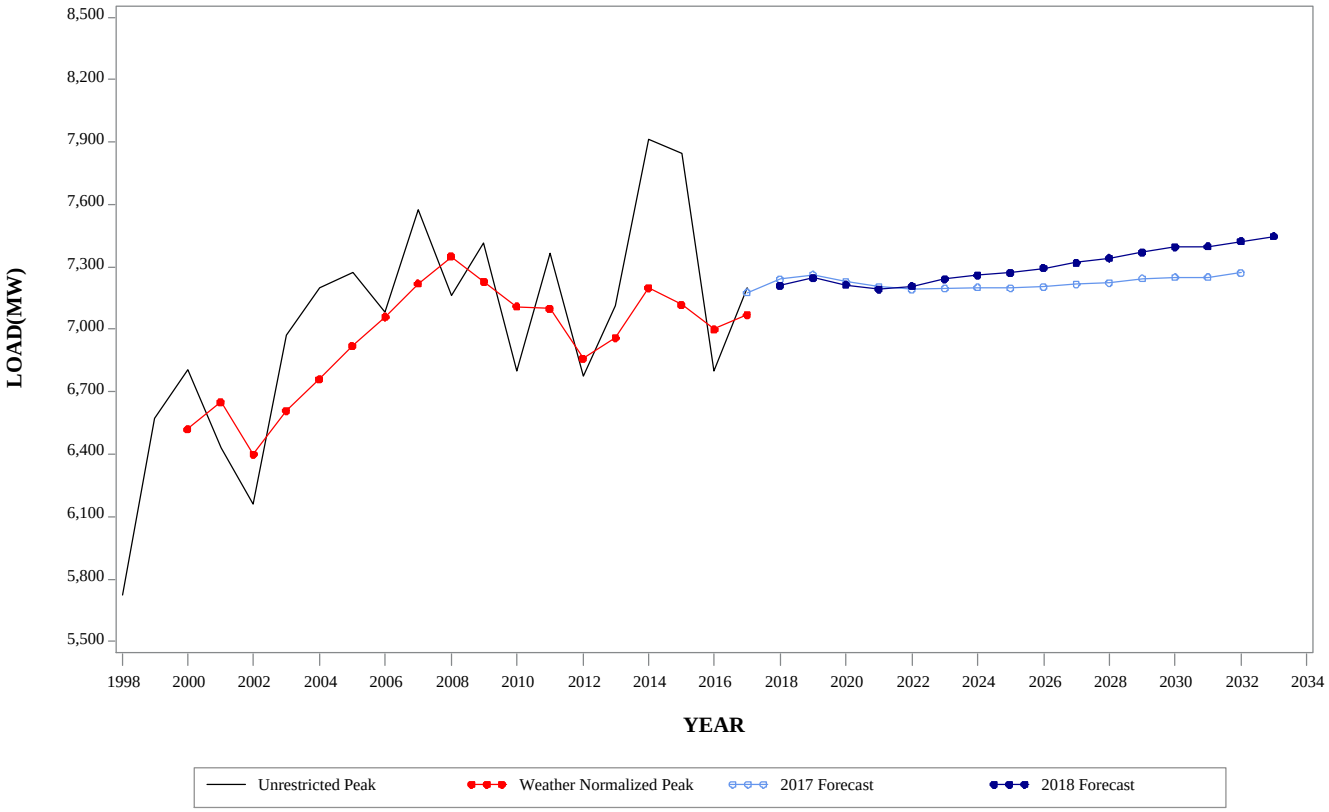

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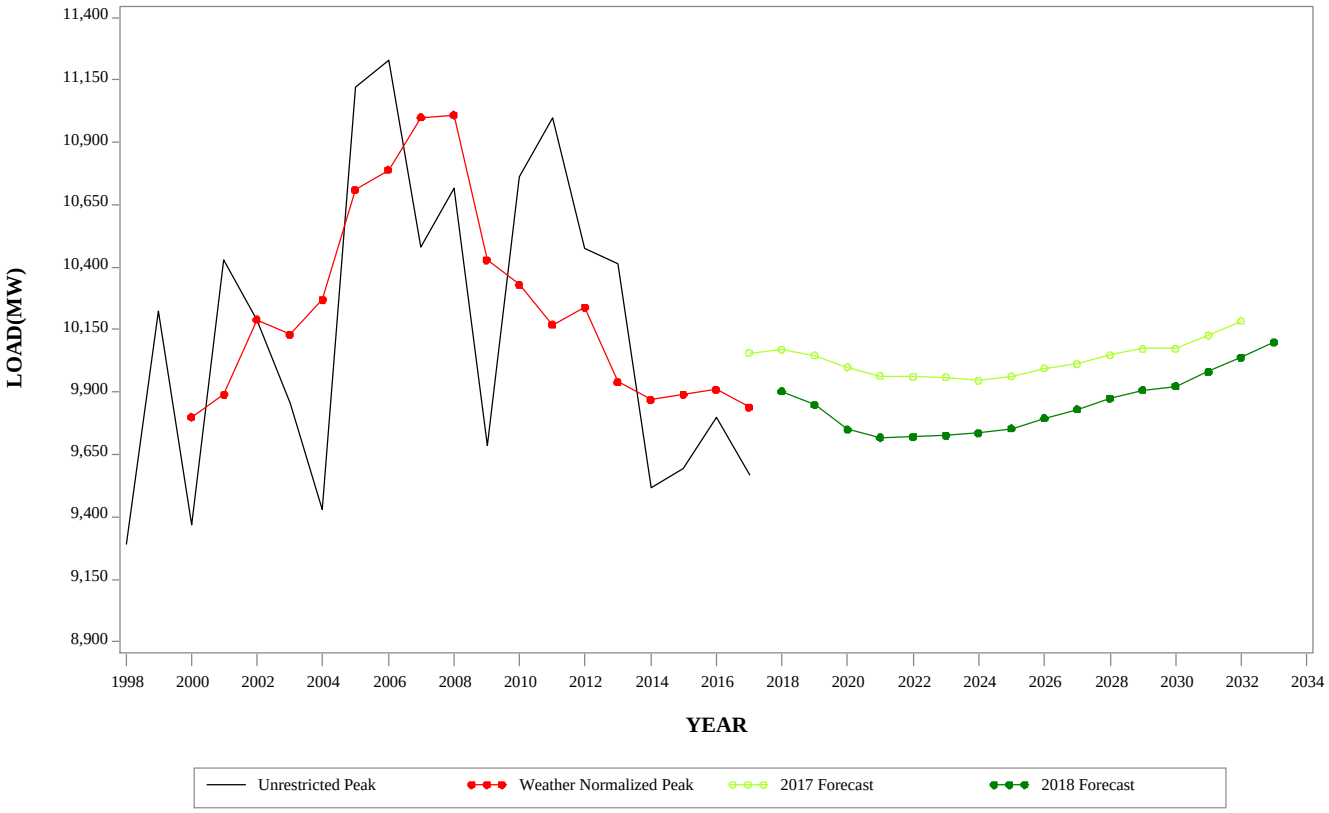

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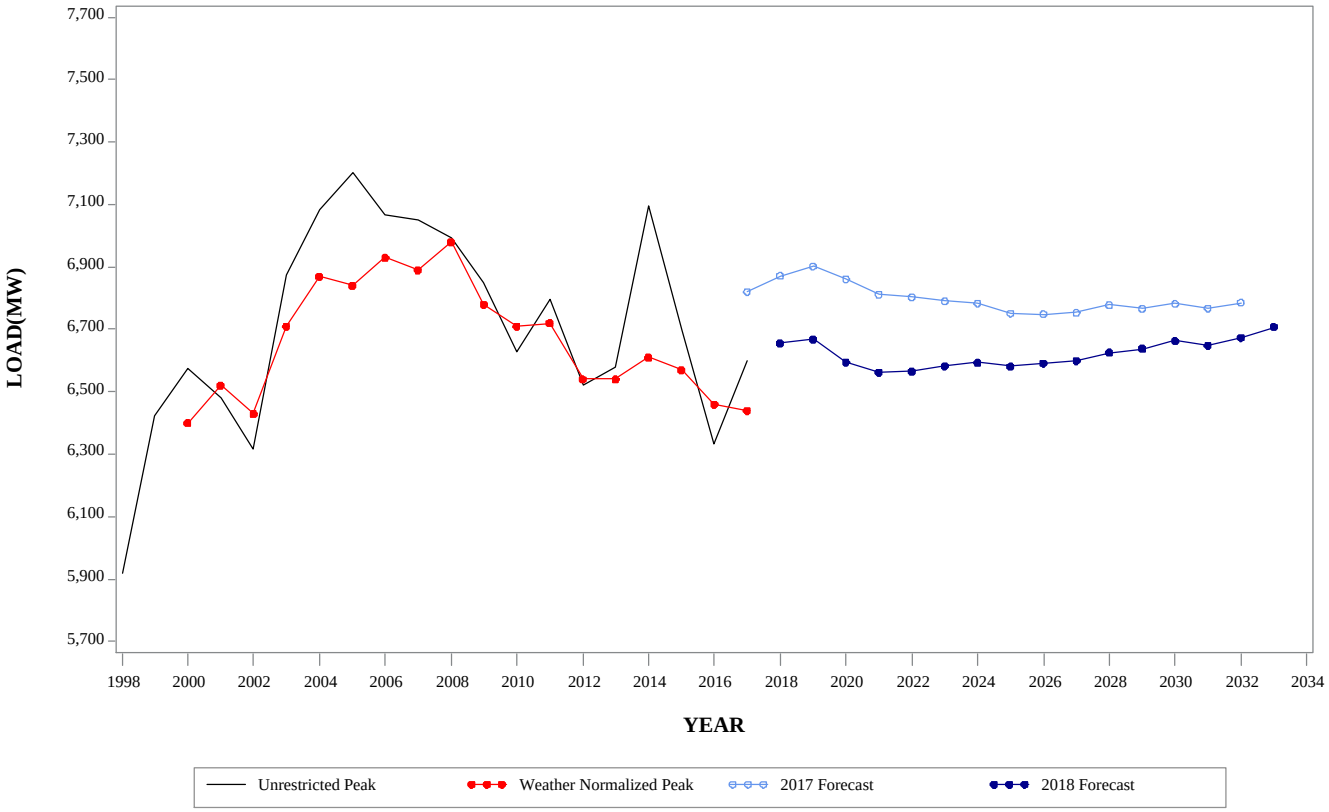
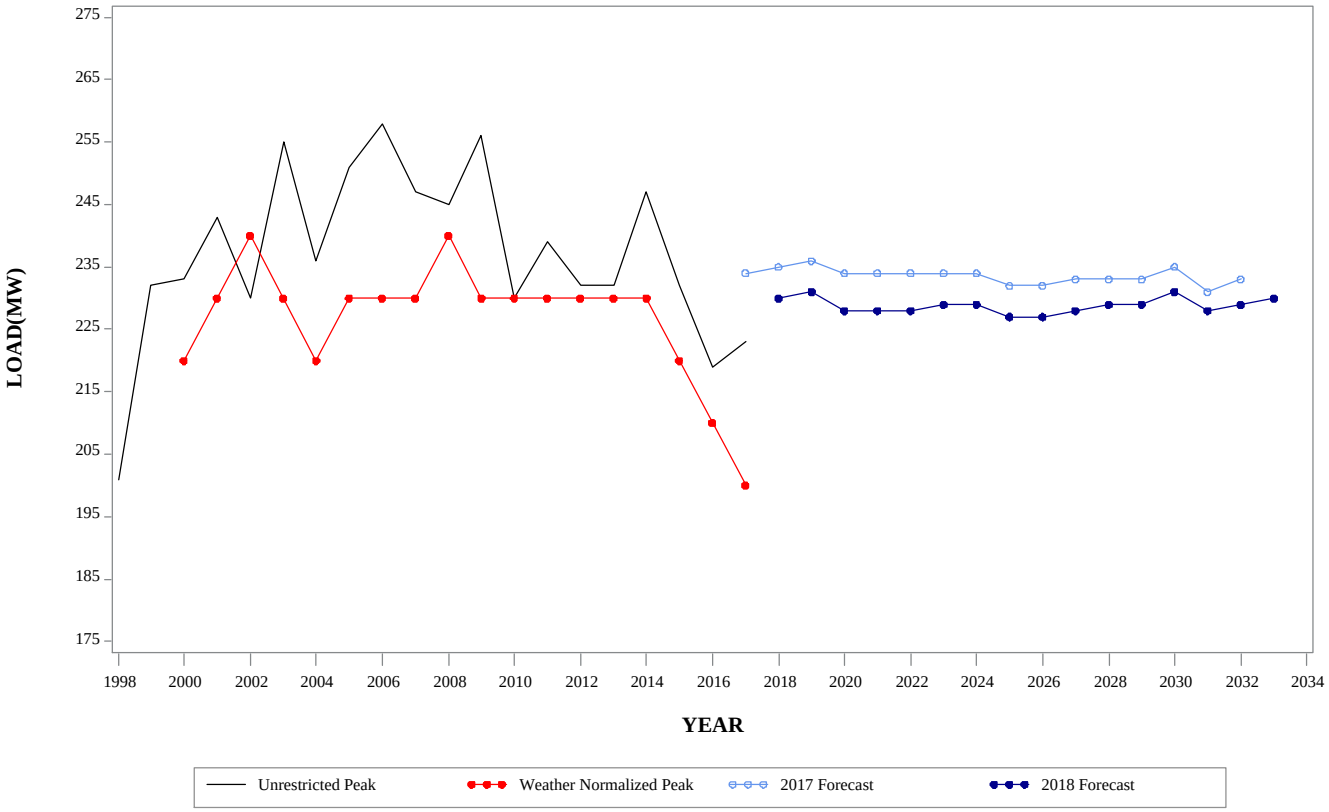


SUMMER NON-COINCIDENT PEAK DEMAND FOR RECO GEOGRAPHIC ZONE

WINTER NON-COINCIDENT PEAK DEMAND FOR RECO GEOGRAPHIC ZONE



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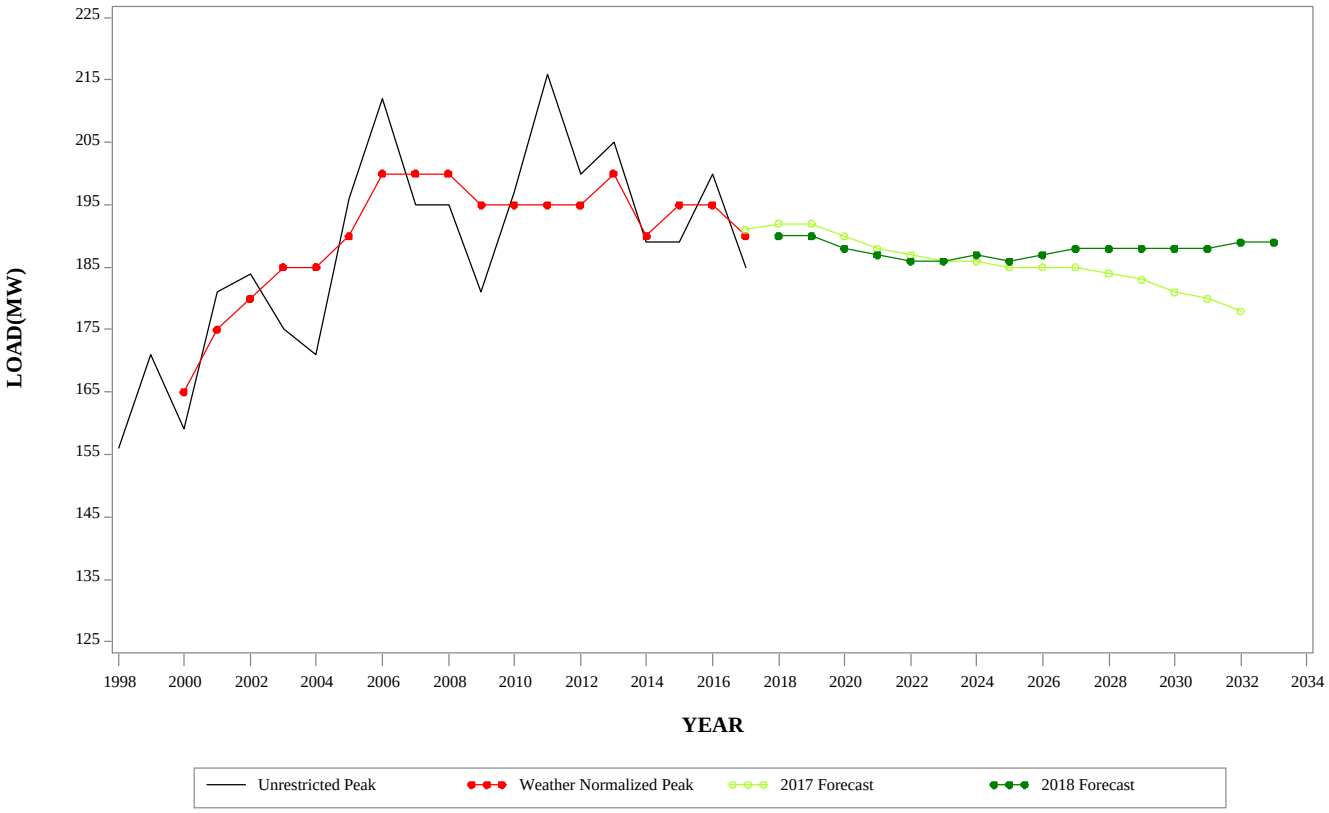
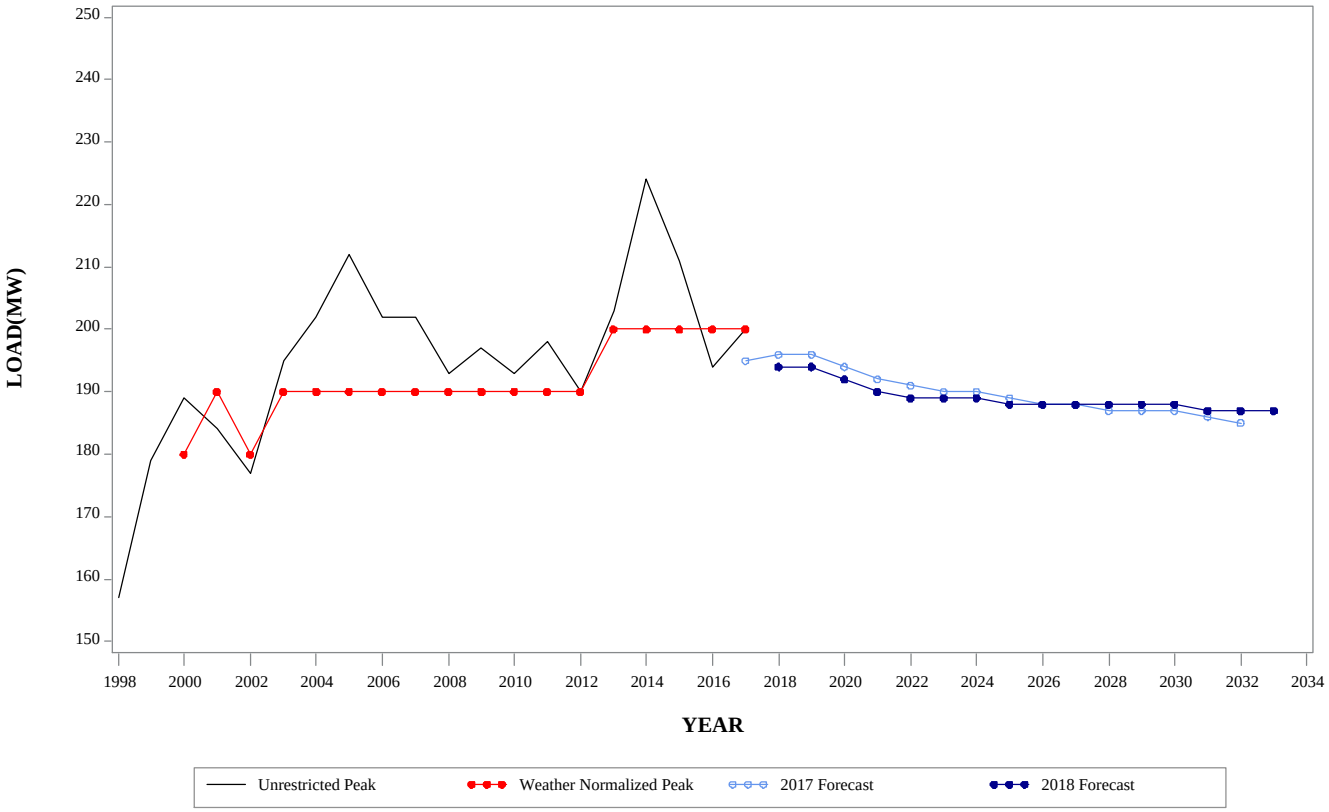


WINTER NON-COINCIDENT PEAK DEMAND FOR UGI GEOGRAPHIC ZONE



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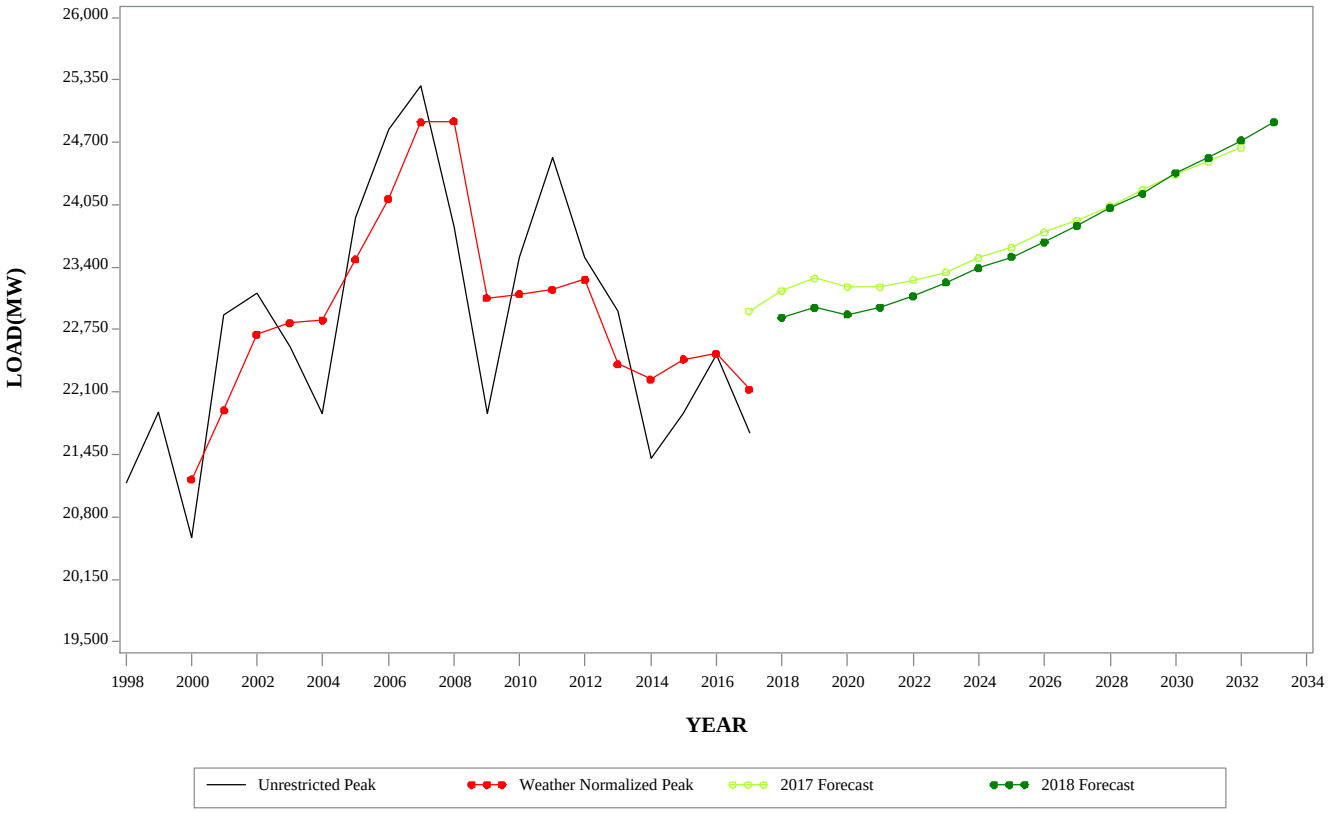

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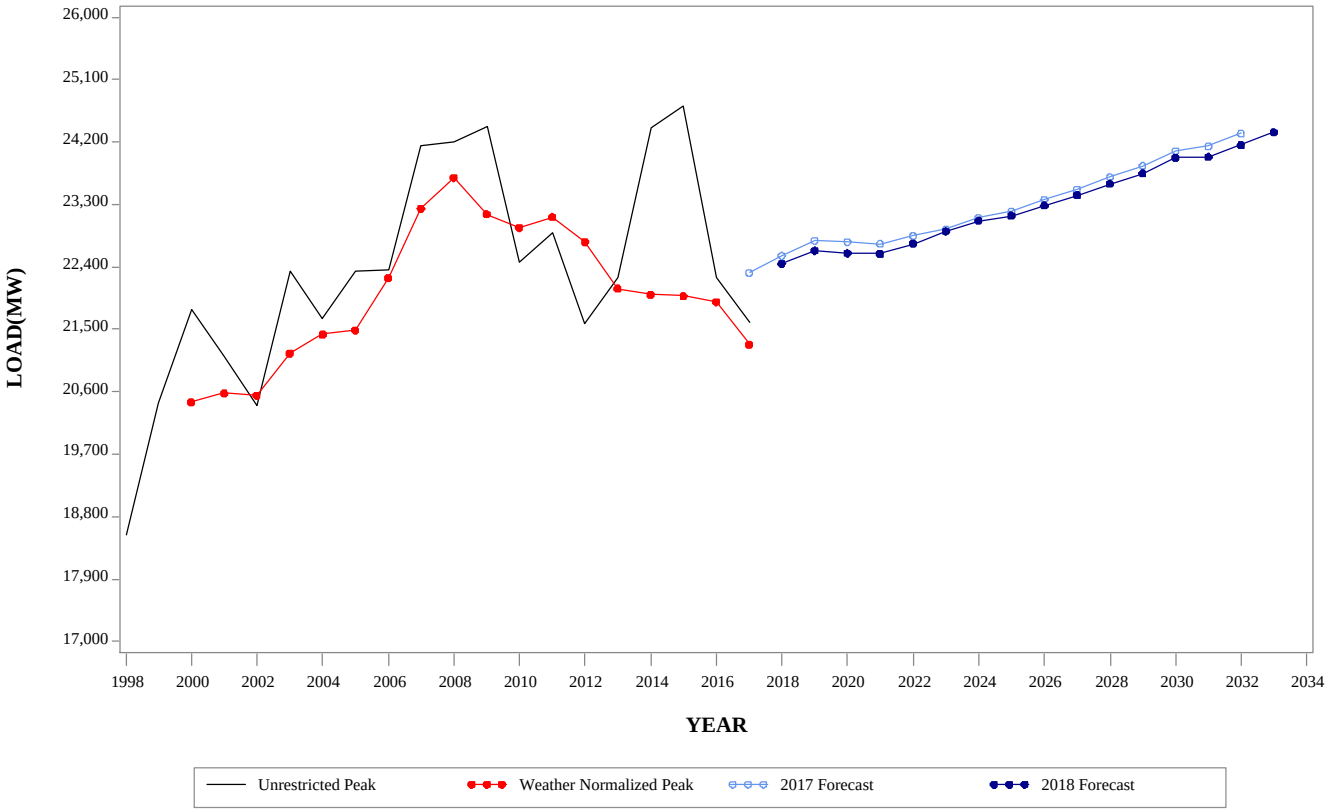
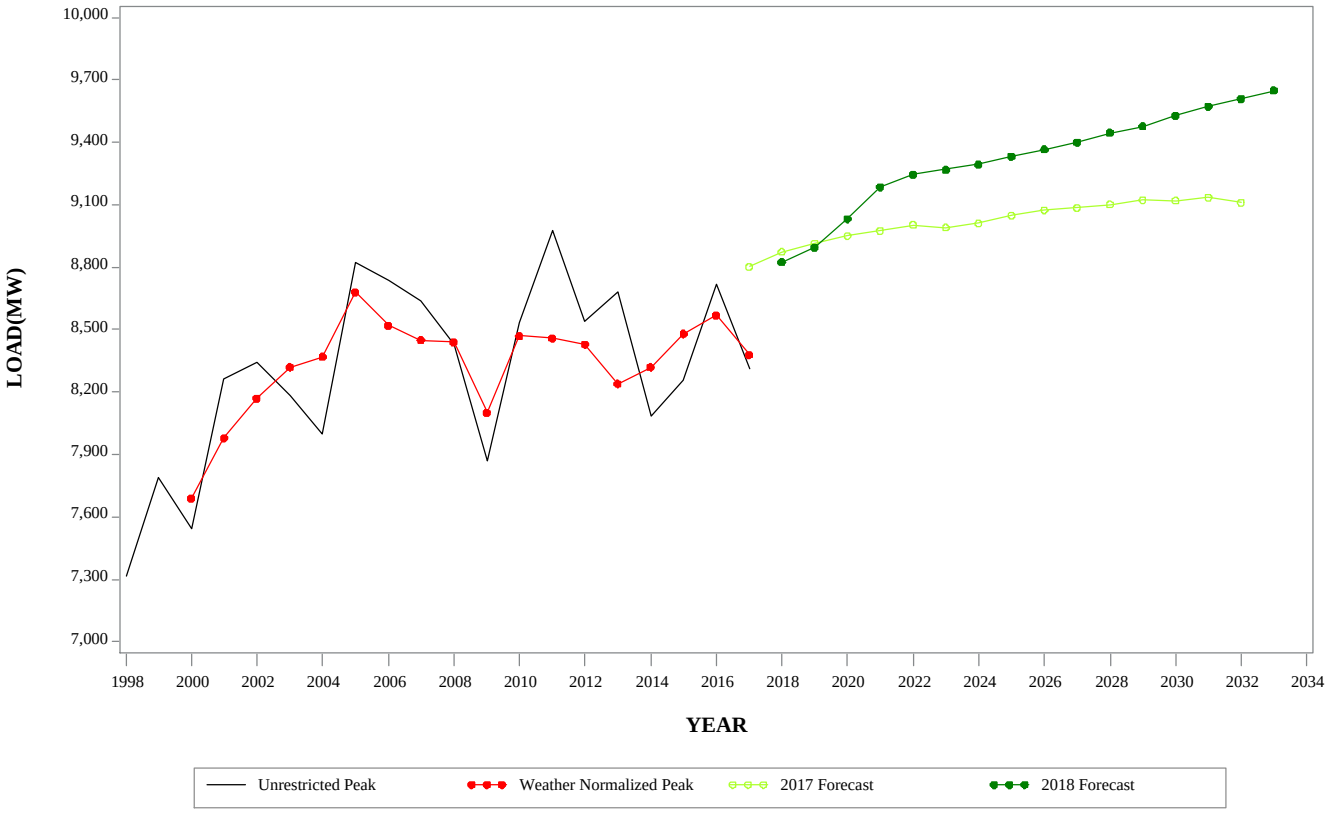


SUMMER NON-COINCIDENT PEAK DEMAND FOR APS GEOGRAPHIC ZONE



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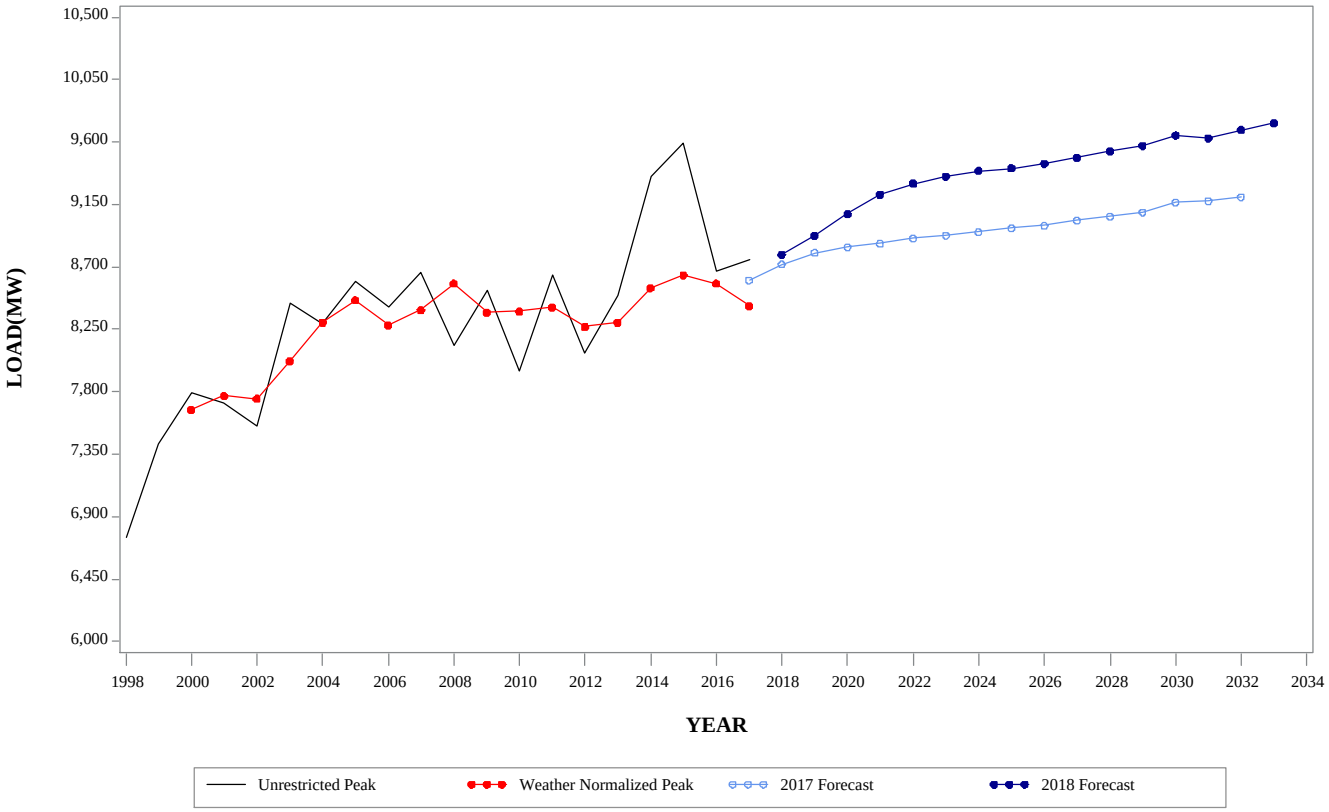

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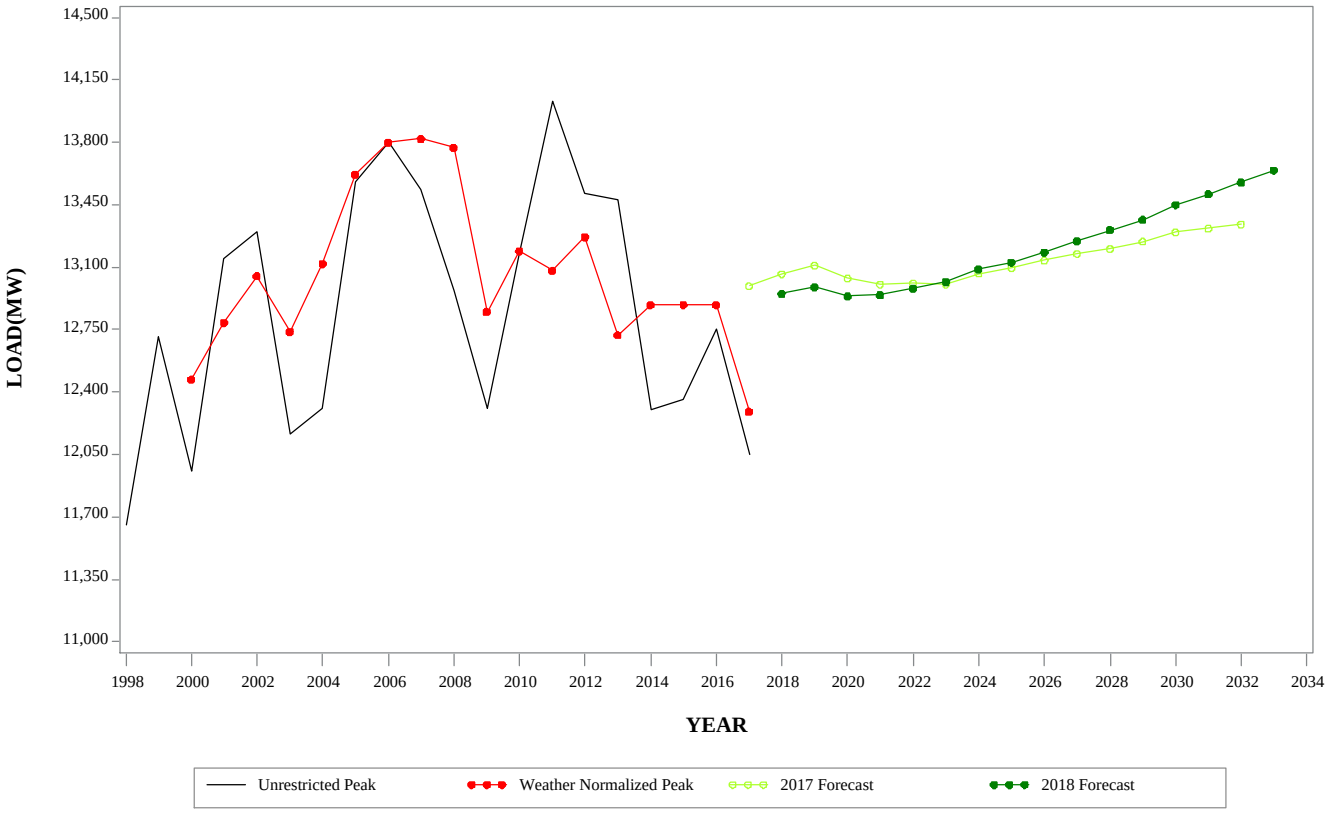

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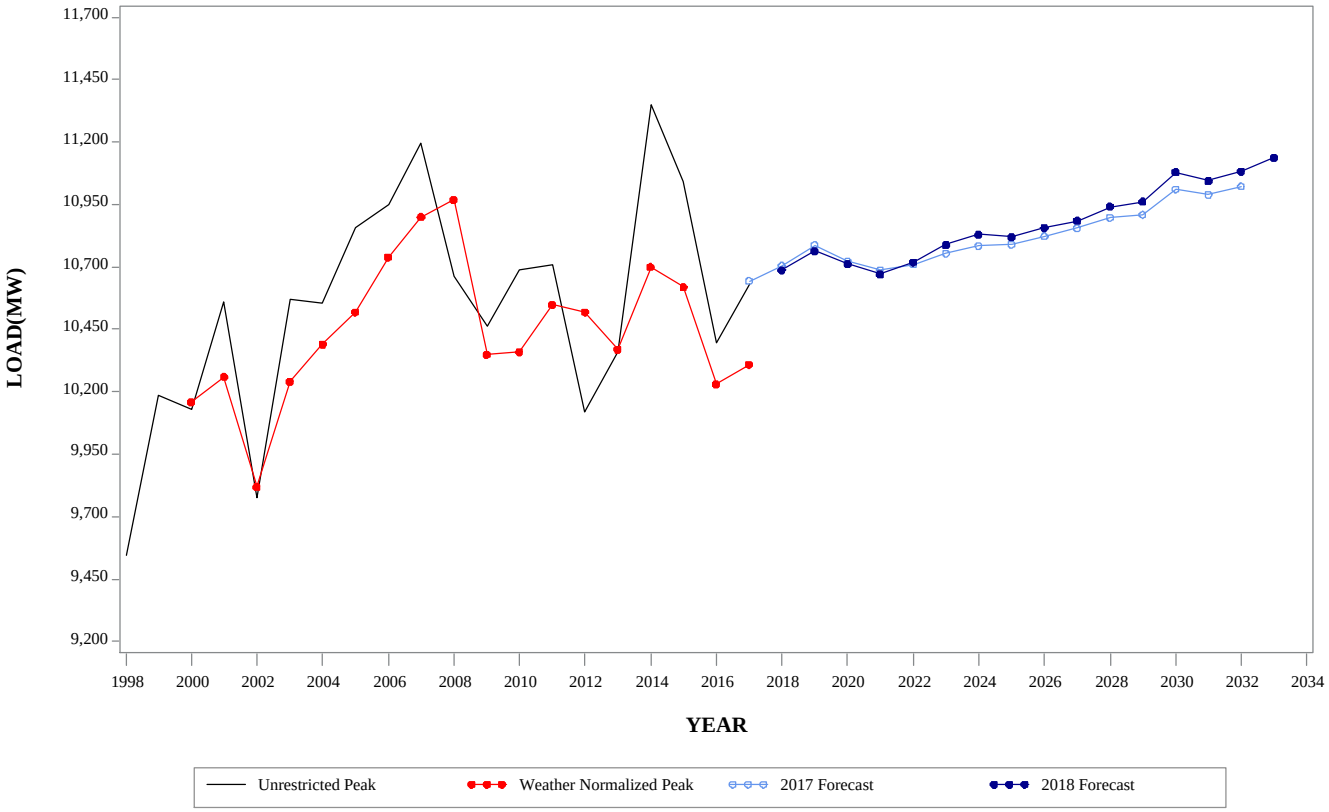

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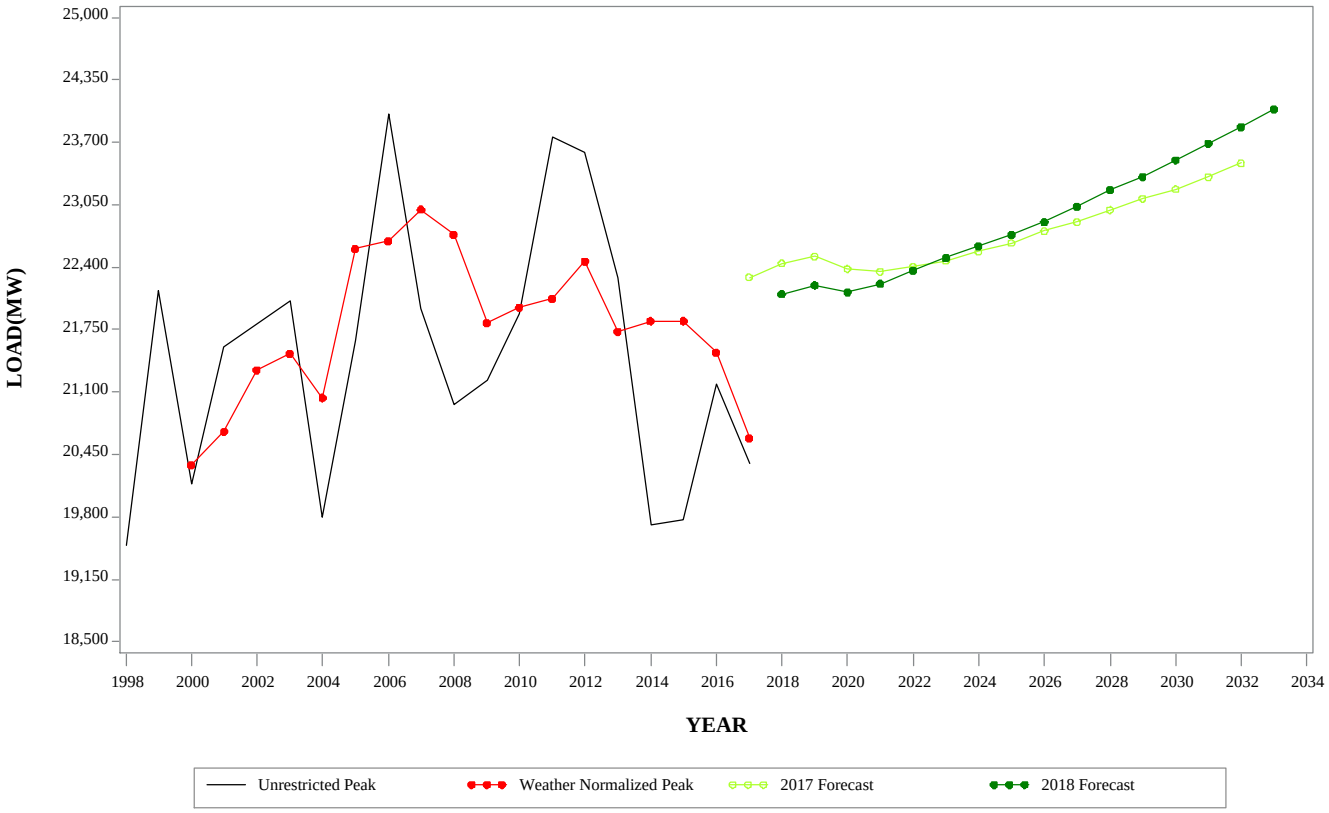

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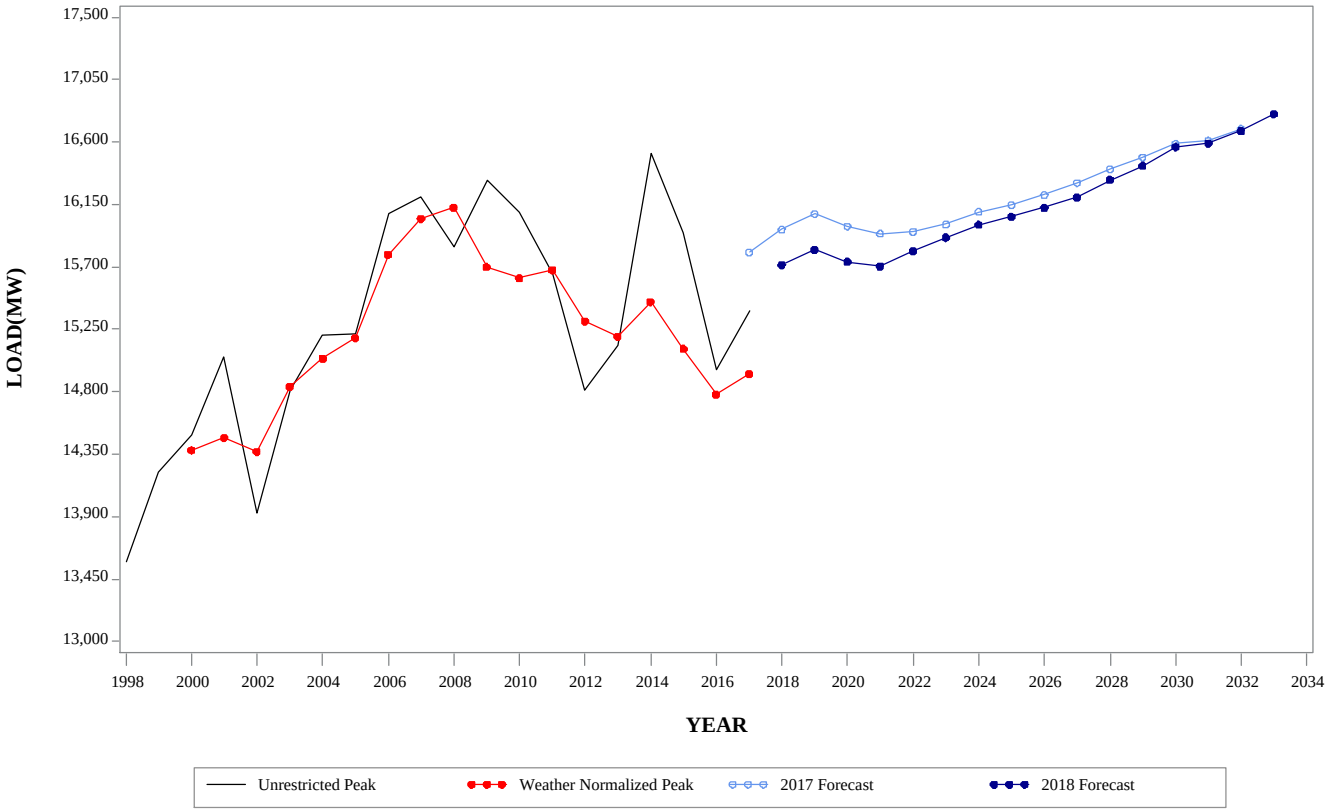
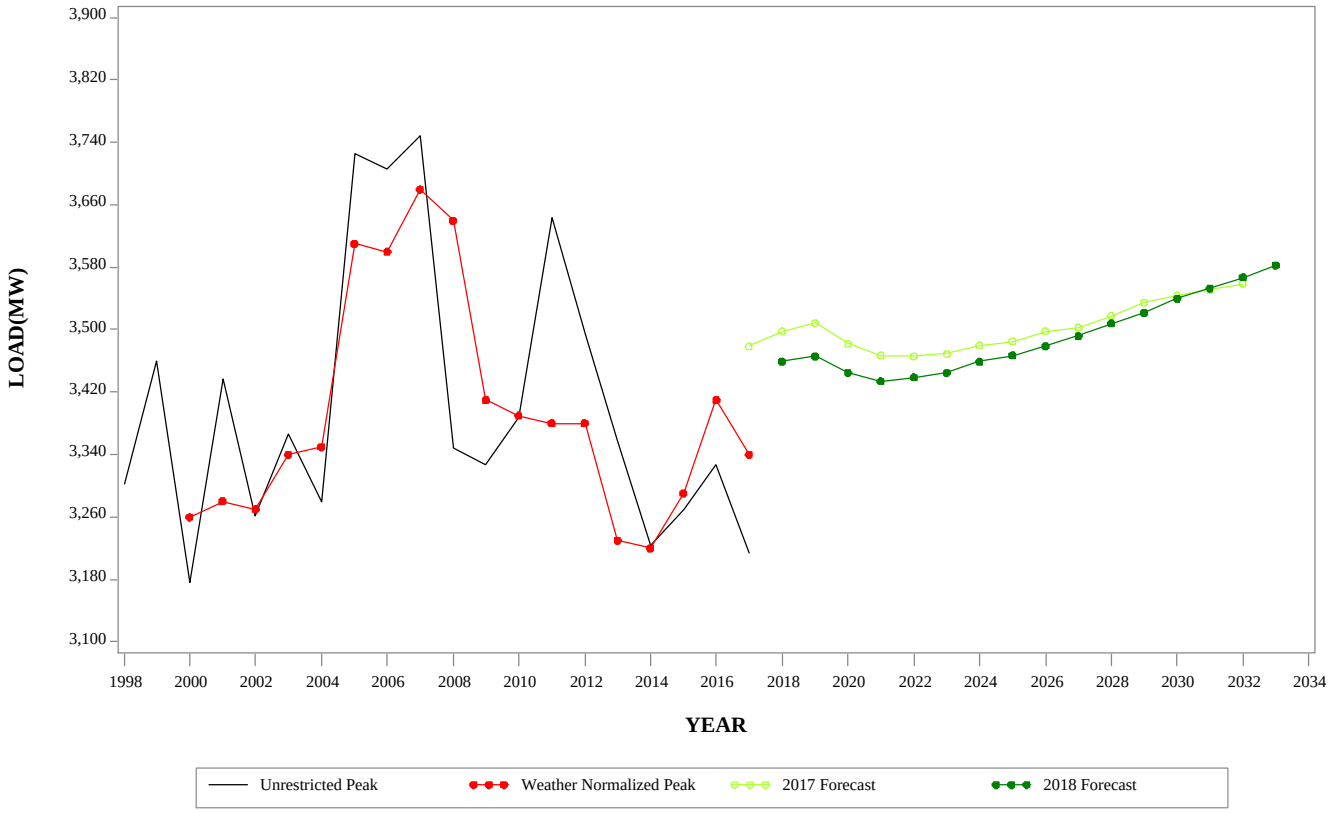
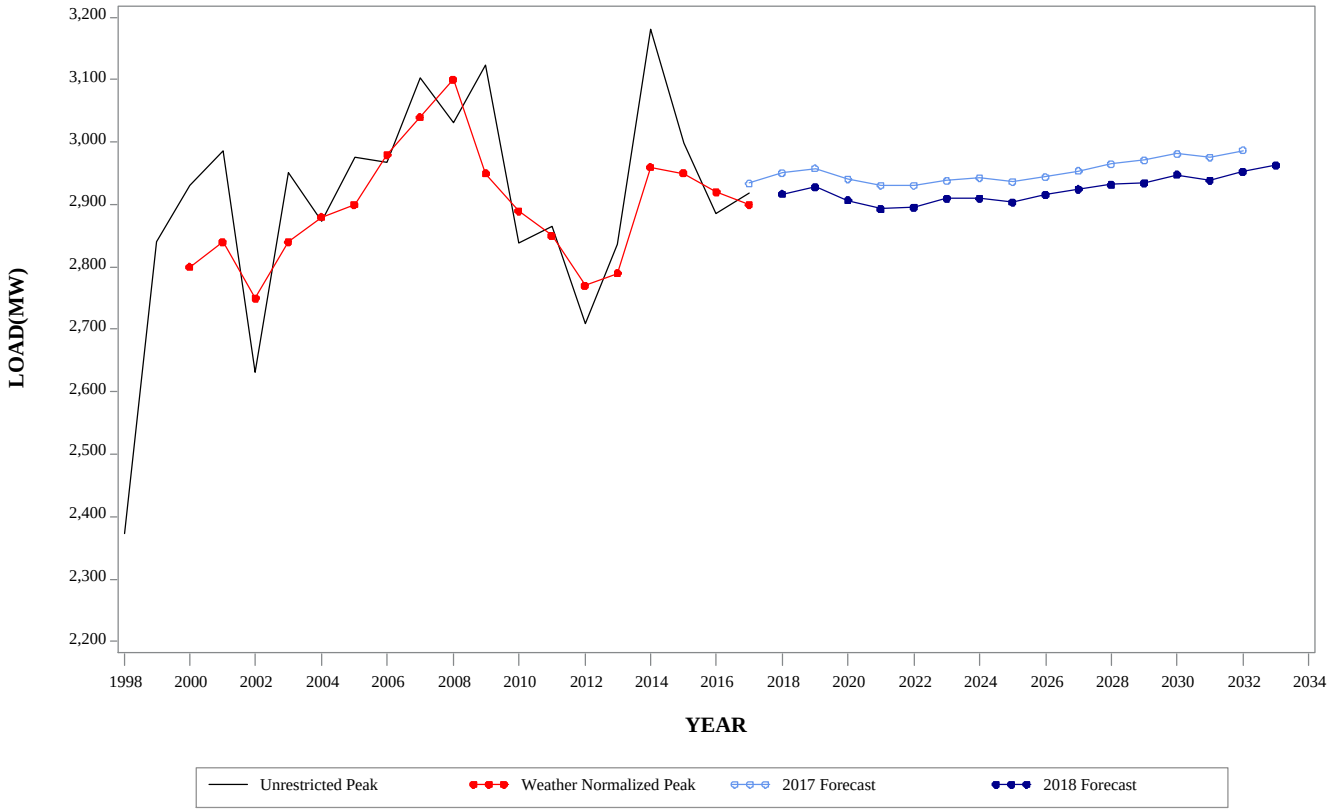


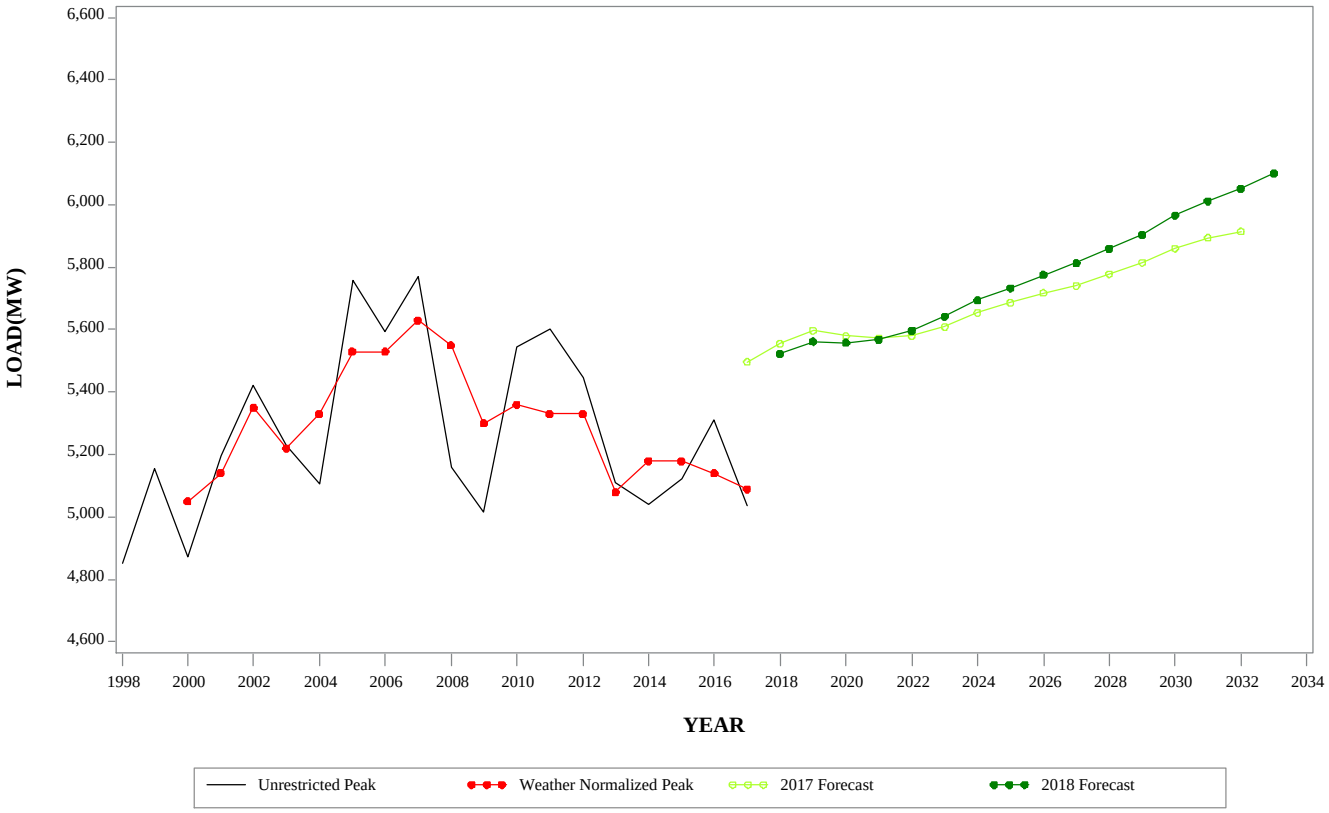
SUMMER NON-COINCIDENT PEAK DEMAND FOR DAYTON GEOGRAPHIC ZONE



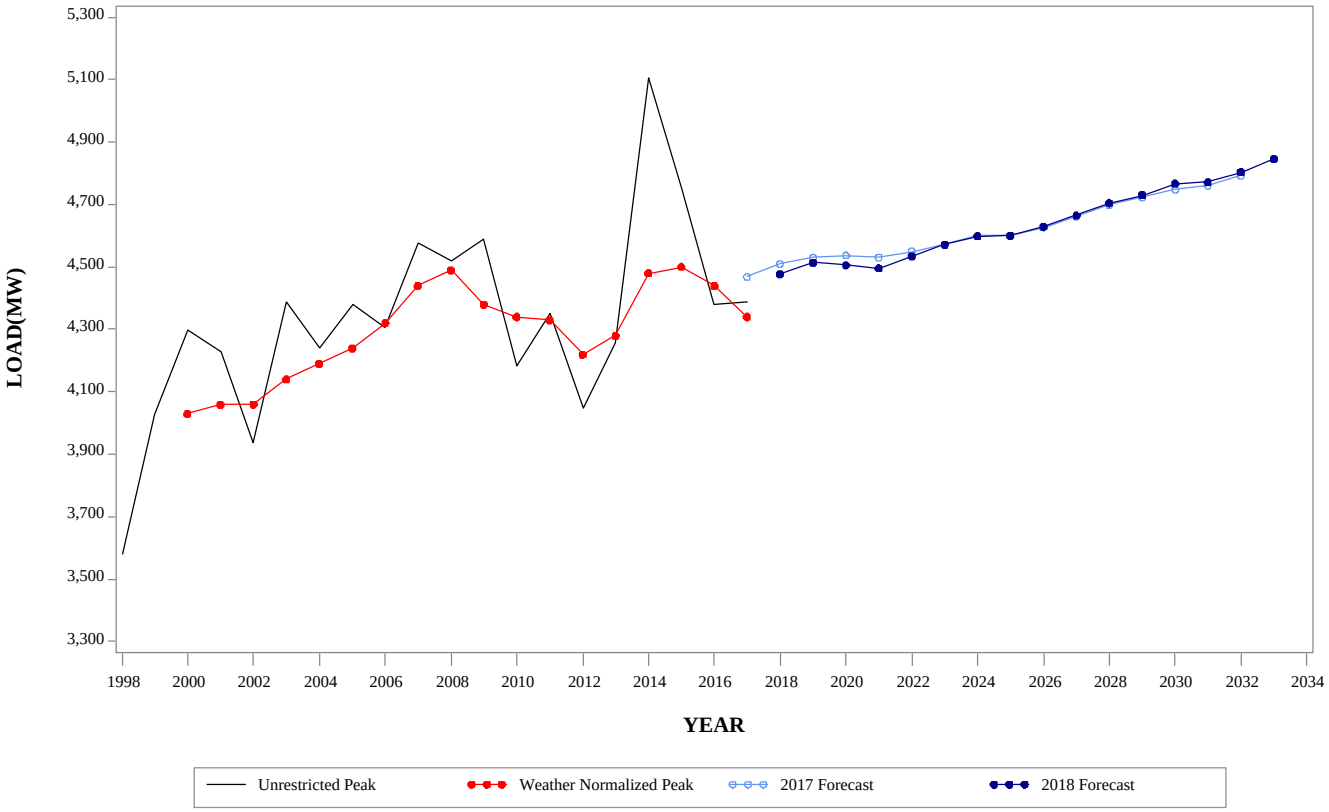
WINTER NON-COINCIDENT PEAK DEMAND FOR DAYTON GEOGRAPHIC ZONE



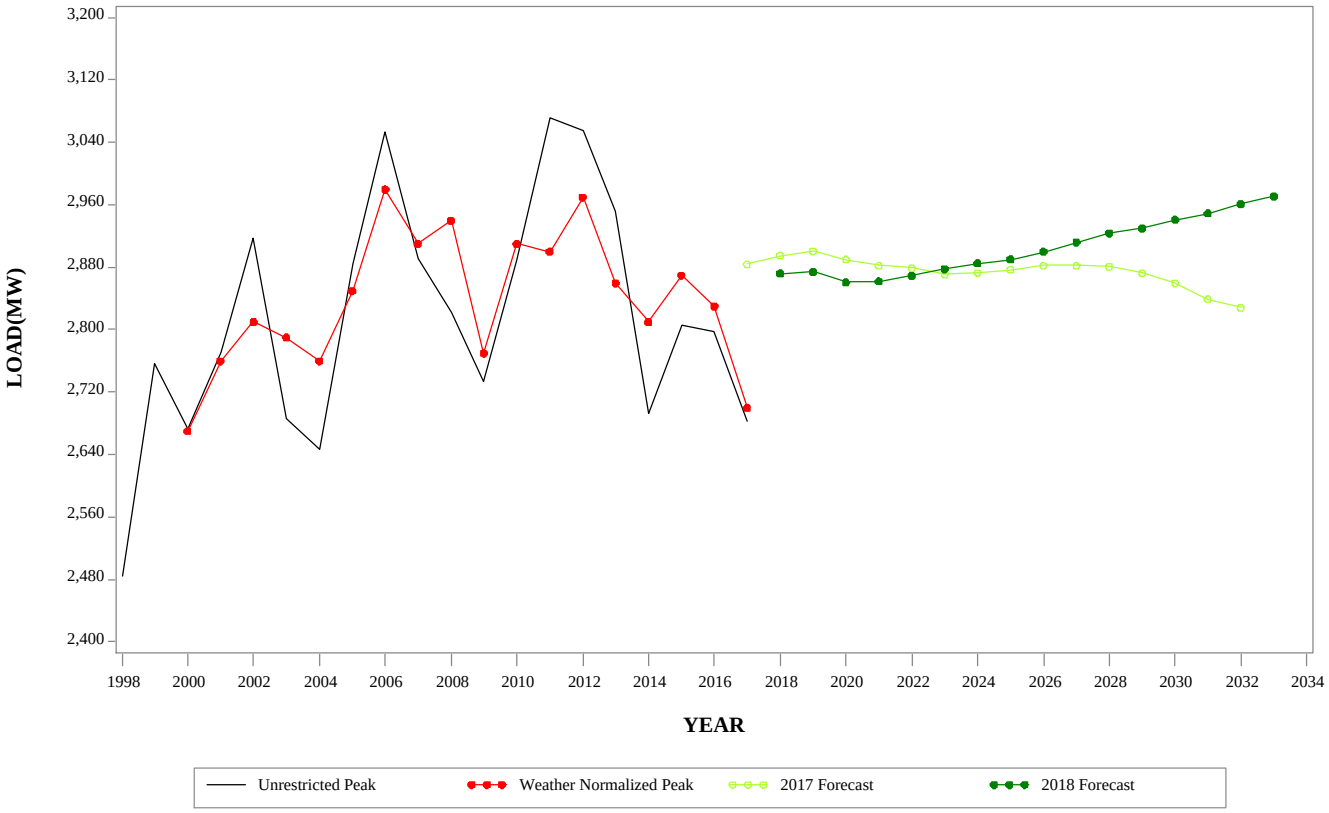
SUMMER NON-COINCIDENT PEAK DEMAND FOR DEOK GEOGRAPHIC ZONE



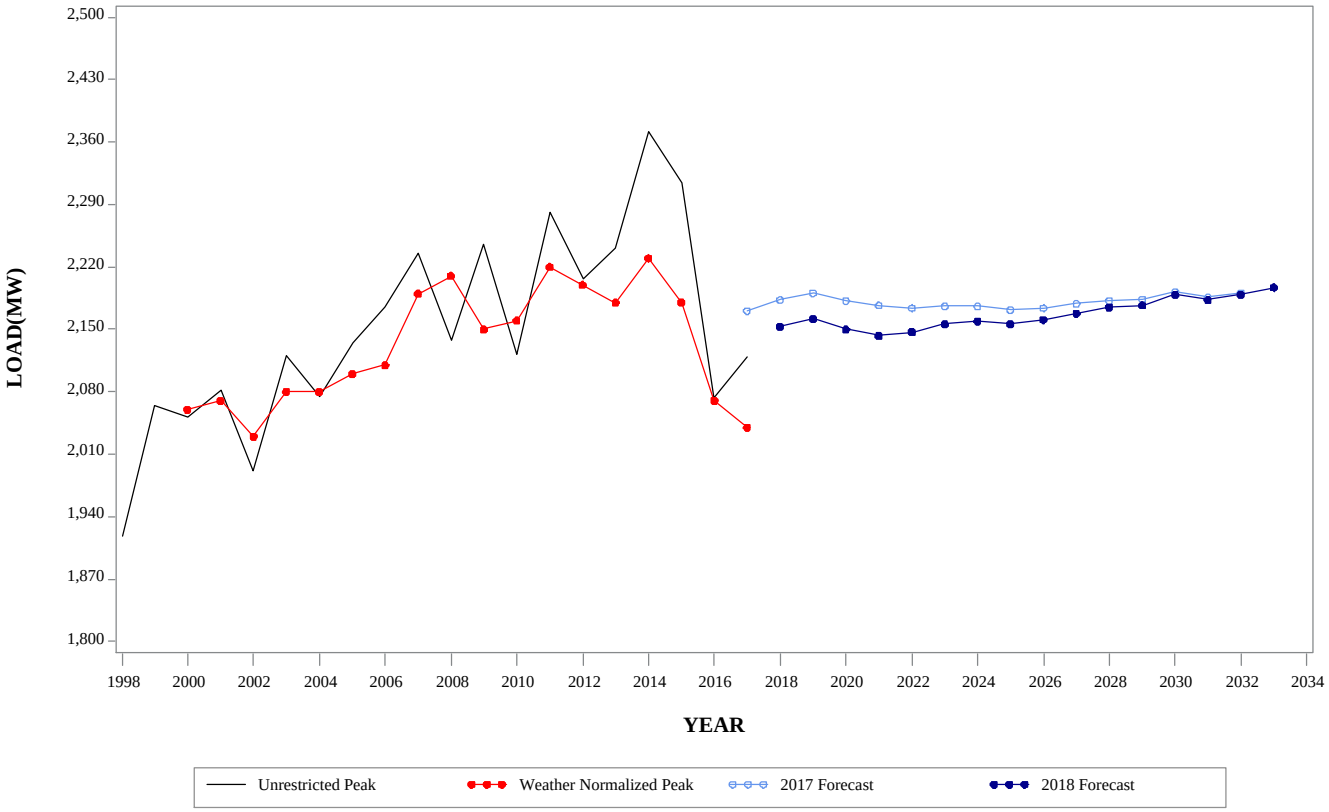
WINTER NON-COINCIDENT PEAK DEMAND FOR DEOK GEOGRAPHIC ZONE



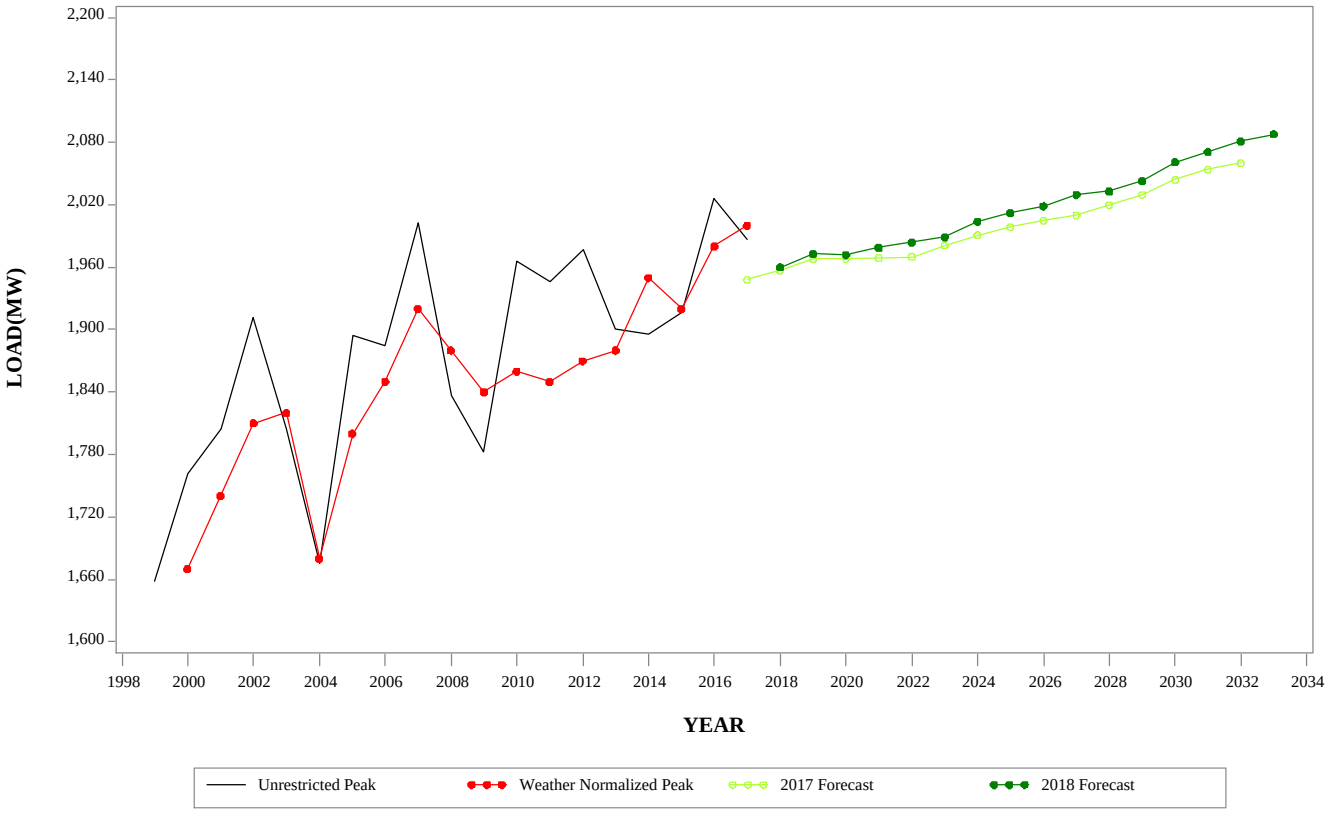
SUMMER NON-COINCIDENT PEAK DEMAND FOR DLCO GEOGRAPHIC ZONE



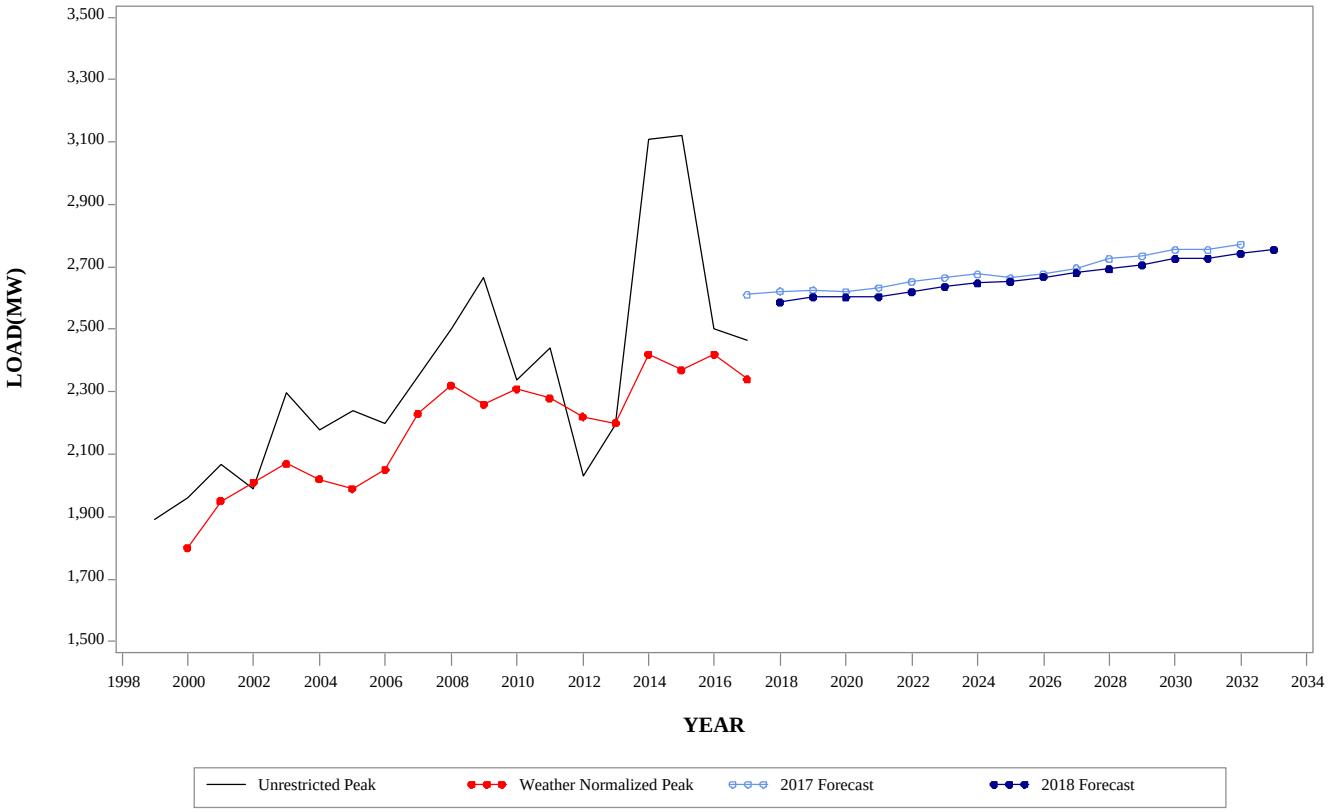
WINTER NON-COINCIDENT PEAK DEMAND FOR DLCO GEOGRAPHIC ZONE



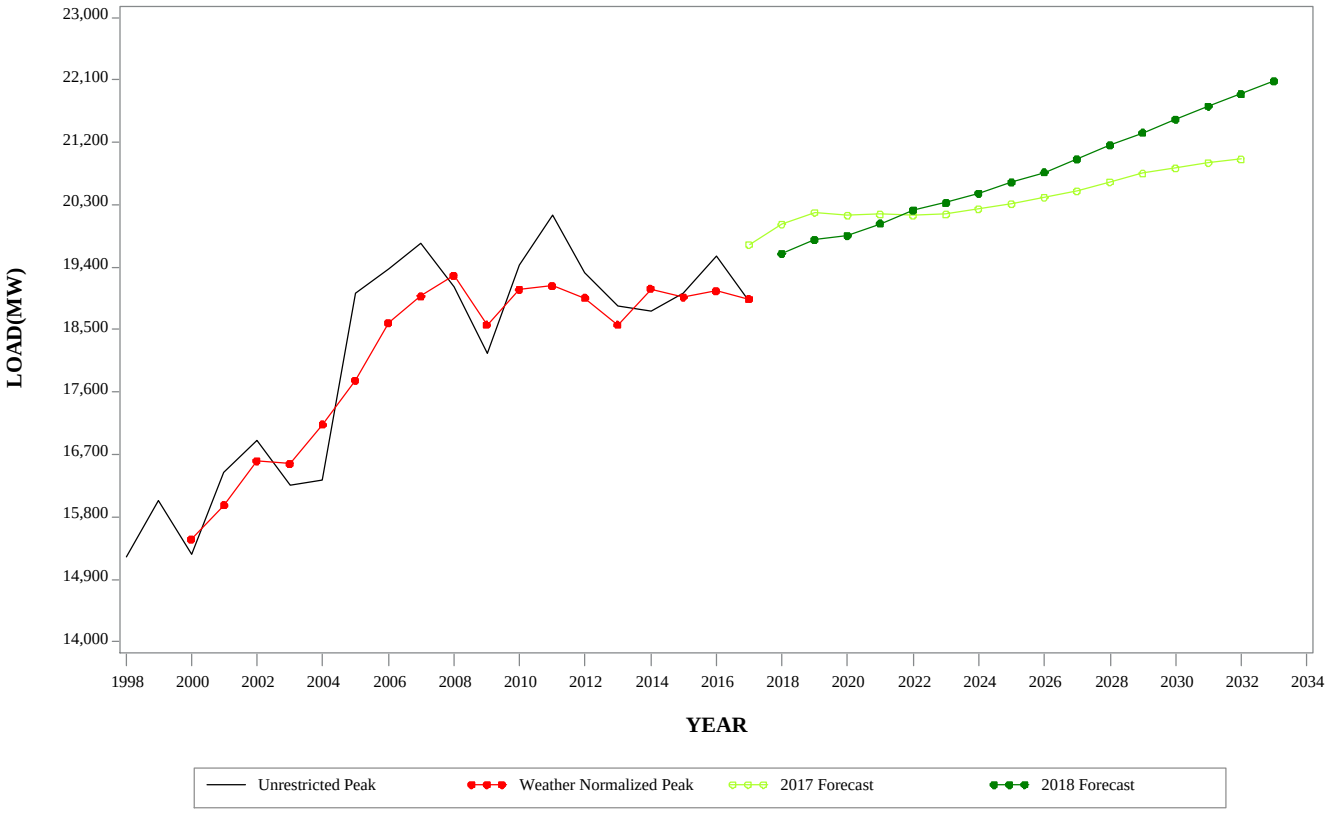
SUMMER NON-COINCIDENT PEAK DEMAND FOR EKPC GEOGRAPHIC ZONE



WINTER NON-COINCIDENT PEAK DEMAND FOR EKPC GEOGRAPHIC ZONE



SUMMER NON-COINCIDENT PEAK DEMAND FOR DOM GEOGRAPHIC ZONE



WINTER NON-COINCIDENT PEAK DEMAND FOR DOM GEOGRAPHIC ZONE

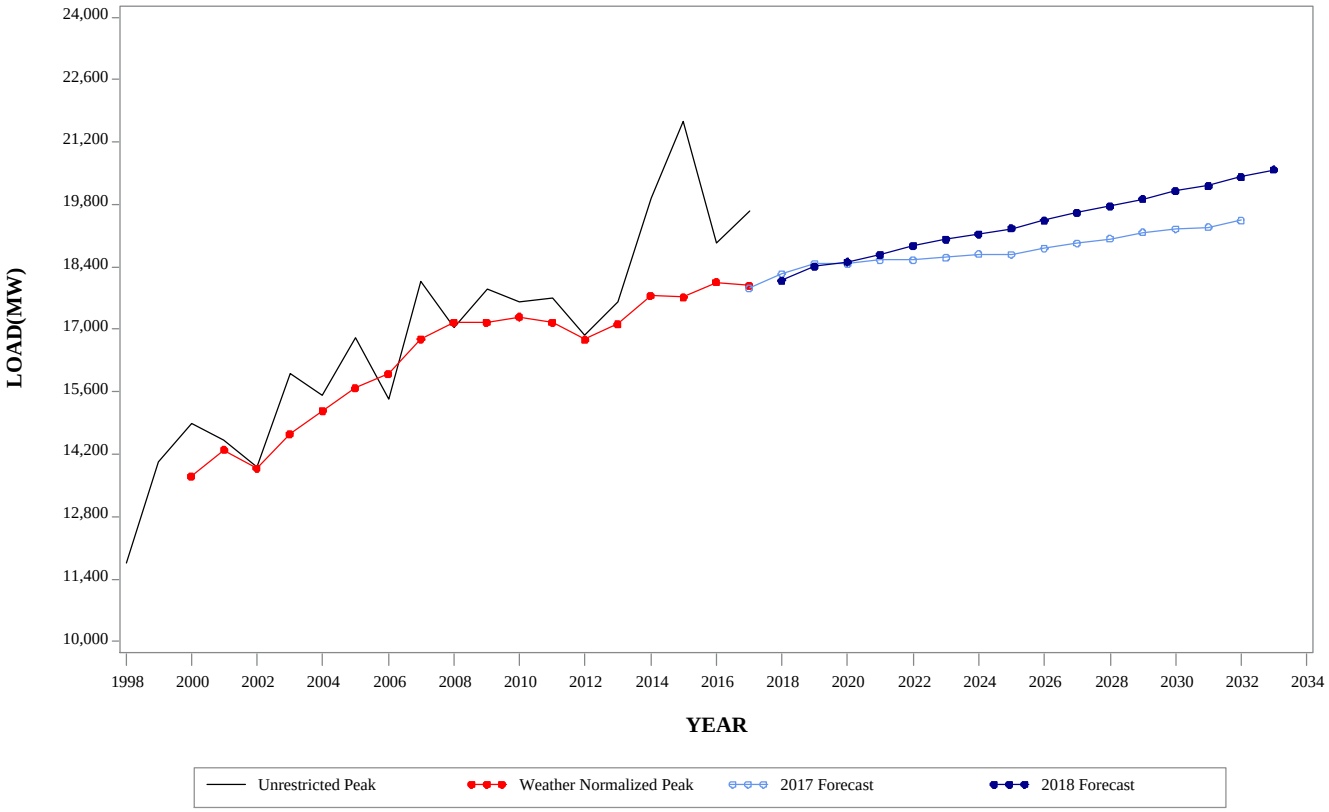


Table A-1

PJM MID-ATLANTIC REGION
SUMMER PEAK LOAD COMPARISONS OF THE CURRENT FORECAST
TO THE JANUARY 2017 LOAD FORECAST REPORT

INCREASE OR DECREASE OVER PRIOR FORECAST

	2018		2023		2028	
	MW	**%**	**MW**	**%**	**MW**	**%**
AE	(26)	-1.0%	(48)	-2.0%	(45)	-1.8%
BGE	(105)	-1.5%	(131)	-1.9%	(143)	-2.1%
DPL	(100)	-2.5%	(13)	-0.3%	16	0.4%
JCPL	(143)	-2.4%	(197)	-3.3%	(177)	-2.9%
METED	(2)	-0.1%	39	1.3%	99	3.3%
PECO	28	0.3%	145	1.7%	262	3.0%
PENLC	(4)	-0.1%	31	1.1%	87	3.1%
PEPCO	(123)	-1.9%	(110)	-1.7%	(101)	-1.5%
PL	(45)	-0.6%	48	0.7%	183	2.6%
PS	(168)	-1.7%	(234)	-2.3%	(173)	-1.7%
RECO	(2)	-0.5%	(5)	-1.2%	(3)	-0.7%
UGI	(2)	-1.0%	0	0.0%	4	2.2%
PJM MID-ATLANTIC	(731)	-1.3%	(484)	-0.9%	8	0.0%
FE-EAST	(180)	-1.5%	(126)	-1.1%	7	0.1%
PLGRP	(47)	-0.6%	48	0.7%	186	2.5%

Table A-1

PJM WESTERN REGION, PJM SOUTHERN REGION AND PJM RTO
SUMMER PEAK LOAD COMPARISONS OF THE CURRENT FORECAST
TO THE JANUARY 2017 LOAD FORECAST REPORT

INCREASE OR DECREASE OVER PRIOR FORECAST

	2018		2023		2028	
	MW	%	MW	%	MW	%
AEP	(281)	-1.2%	(109)	-0.5%	(22)	-0.1%
APS	(49)	-0.6%	278	3.1%	345	3.8%
ATSI	(111)	-0.8%	13	0.1%	106	0.8%
COMED	(321)	-1.4%	30	0.1%	208	0.9%
DAYTON	(39)	-1.1%	(24)	-0.7%	(10)	-0.3%
DEOK	(32)	-0.6%	33	0.6%	81	1.4%
DLCO	(23)	-0.8%	7	0.2%	43	1.5%
EKPC	3	0.2%	8	0.4%	13	0.6%
PJM WESTERN	(821)	-1.0%	210	0.3%	677	0.8%
DOM	(425)	-2.1%	166	0.8%	529	2.6%
PJM RTO	(1,843)	-1.2%	(90)	-0.1%	1,216	0.8%

Table A-2

PJM MID-ATLANTIC REGION
WINTER PEAK LOAD COMPARISONS OF THE CURRENT FORECAST
TO THE JANUARY 2017 LOAD FORECAST REPORT

INCREASE OR DECREASE OVER PRIOR FORECAST

	17/18		22/23		27/28	
	MW	**%**	**MW**	**%**	**MW**	**%**
AE	(42)	-2.6%	(33)	-2.1%	(28)	-1.8%
BGE	(16)	-0.3%	29	0.5%	30	0.5%
DPL	(23)	-0.7%	20	0.6%	52	1.5%
JCPL	(188)	-4.8%	(153)	-4.0%	(120)	-3.2%
METED	(35)	-1.3%	(5)	-0.2%	19	0.7%
PECO	(2)	-0.0%	52	0.8%	107	1.6%
PENLC	40	1.4%	54	1.9%	67	2.4%
PEPCO	4	0.1%	58	1.1%	78	1.4%
PL	(30)	-0.4%	46	0.6%	118	1.6%
PS	(217)	-3.2%	(208)	-3.1%	(152)	-2.2%
RECO	(5)	-2.1%	(5)	-2.1%	(4)	-1.7%
UGI	(2)	-1.0%	(1)	-0.5%	1	0.5%
PJM MID-ATLANTIC	(519)	-1.1%	(227)	-0.5%	139	0.3%
FE-EAST	(206)	-2.2%	(132)	-1.4%	(55)	-0.6%
PLGRP	(34)	-0.5%	46	0.6%	123	1.7%

Table A-2

PJM WESTERN REGION, PJM SOUTHERN REGION AND PJM RTO
WINTER PEAK LOAD COMPARISONS OF THE CURRENT FORECAST
TO THE JANUARY 2017 LOAD FORECAST REPORT

INCREASE OR DECREASE OVER PRIOR FORECAST

	17/18		22/23		27/28	
	MW	**%**	**MW**	**%**	**MW**	**%**
AEP	(118)	-0.5%	(27)	-0.1%	(96)	-0.4%
APS	69	0.8%	426	4.8%	470	5.2%
ATSI	(19)	-0.2%	34	0.3%	43	0.4%
COMED	(257)	-1.6%	(95)	-0.6%	(77)	-0.5%
DAYTON	(34)	-1.2%	(28)	-1.0%	(33)	-1.1%
DEOK	(33)	-0.7%	0	0.0%	6	0.1%
DLCO	(30)	-1.4%	(20)	-0.9%	(7)	-0.3%
EKPC	(35)	-1.3%	(29)	-1.1%	(33)	-1.2%
PJM WESTERN	(418)	-0.6%	361	0.5%	357	0.5%
DOM	(152)	-0.8%	405	2.2%	734	3.9%
PJM RTO	(1,189)	-0.9%	563	0.4%	1,035	0.8%

Table B-1

SUMMER PEAK LOAD (MW) AND GROWTH RATES FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION 2018 - 2028

	METERED 2017	UNRESTRICTED 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Annual Growth Rate (10 yr)
AE	2,541	2,541	2,460	2,441	2,411	2,392	2,390	2,387	2,390	2,394	2,398	2,400	2,409	(0.2%)
				-0.8%	-1.2%	-0.8%	-0.1%	-0.1%	0.1%	0.2%	0.2%	0.1%	0.4%	
BGE	6,449	6,449	6,848	6,771	6,753	6,685	6,656	6,653	6,691	6,735	6,751	6,745	6,744	(0.2%)
				-1.1%	-0.3%	-1.0%	-0.4%	-0.0%	0.6%	0.7%	0.2%	-0.1%	-0.0%	
DPL	3,813	3,813	3,937	3,930	3,914	3,903	3,912	3,923	3,938	3,961	3,979	3,992	4,018	0.2%
				-0.2%	-0.4%	-0.3%	0.2%	0.3%	0.4%	0.6%	0.5%	0.3%	0.7%	
JCPL	5,721	5,721	5,942	5,893	5,825	5,824	5,830	5,821	5,842	5,860	5,882	5,929	5,943	0.0%
				-0.8%	-1.2%	-0.0%	0.1%	-0.2%	0.4%	0.3%	0.4%	0.8%	0.2%	
METED	2,897	2,897	2,974	2,990	2,974	2,980	2,994	3,003	3,042	3,060	3,083	3,105	3,115	0.5%
				0.5%	-0.5%	0.2%	0.5%	0.3%	1.3%	0.6%	0.8%	0.7%	0.3%	
PECO	8,142	8,142	8,642	8,662	8,617	8,639	8,680	8,726	8,778	8,813	8,877	8,916	8,979	0.4%
				0.2%	-0.5%	0.3%	0.5%	0.5%	0.6%	0.4%	0.7%	0.4%	0.7%	
PENLC	2,883	2,883	2,895	2,900	2,886	2,879	2,881	2,887	2,894	2,898	2,910	2,912	2,922	0.1%
				0.2%	-0.5%	-0.2%	0.1%	0.2%	0.2%	0.1%	0.4%	0.1%	0.3%	
PEPCO	6,098	6,098	6,493	6,463	6,405	6,381	6,380	6,382	6,393	6,407	6,423	6,441	6,466	(0.0%)
				-0.5%	-0.9%	-0.4%	-0.0%	0.0%	0.2%	0.2%	0.2%	0.3%	0.4%	
PL	6,730	6,730	7,140	7,152	7,132	7,141	7,166	7,173	7,208	7,249	7,287	7,327	7,350	0.3%
				0.2%	-0.3%	0.1%	0.4%	0.1%	0.5%	0.6%	0.5%	0.5%	0.3%	
PS	9,567	9,567	9,903	9,850	9,750	9,718	9,722	9,726	9,736	9,754	9,795	9,831	9,876	(0.0%)
				-0.5%	-1.0%	-0.3%	0.0%	0.0%	0.1%	0.2%	0.4%	0.4%	0.5%	
RECO	402	402	402	400	398	397	396	397	397	398	400	401	402	0.0%
				-0.5%	-0.5%	-0.3%	-0.3%	0.3%	0.0%	0.3%	0.5%	0.3%	0.2%	
UGI	185	185	190	190	188	187	186	186	187	186	187	188	188	(0.1%)
				0.0%	-1.1%	-0.5%	-0.5%	0.0%	0.5%	-0.5%	0.5%	0.5%	0.0%	
DIVERSITY - MID-ATLANTIC(-)			1,225	1,201	970	1,127	1,123	1,075	1,193	1,127	960	1,131	1,086	
PJM MID-ATLANTIC	55,220	55,220	56,601	56,441	56,283	55,999	56,070	56,189	56,303	56,588	57,012	57,056	57,326	0.1%
				-0.3%	-0.3%	-0.5%	0.1%	0.2%	0.2%	0.5%	0.7%	0.1%	0.5%	
FE-EAST	11,424	11,424	11,509	11,498	11,404	11,385	11,421	11,456	11,500	11,550	11,601	11,656	11,733	0.2%
				-0.1%	-0.8%	-0.2%	0.3%	0.3%	0.4%	0.4%	0.4%	0.5%	0.7%	
PLGRP	6,912	6,912	7,281	7,289	7,272	7,279	7,302	7,310	7,341	7,389	7,428	7,467	7,488	0.3%
				0.1%	-0.2%	0.1%	0.3%	0.1%	0.4%	0.7%	0.5%	0.5%	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 (2018).
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 2029 - 2033

	2029	2030	2031	2032	2033	Annual Growth Rate (15 yr)
AE	2,414	2,421	2,431	2,436	2,446	(0.0%)
	0.2%	0.3%	0.4%	0.2%	0.4%	
BGE	6,801	6,813	6,845	6,850	6,845	(0.0%)
	0.8%	0.2%	0.5%	0.1%	-0.1%	
DPL	4,039	4,065	4,101	4,112	4,138	0.3%
	0.5%	0.6%	0.9%	0.3%	0.6%	
JCPL	5,995	6,006	6,041	6,104	6,141	0.2%
	0.9%	0.2%	0.6%	1.0%	0.6%	
METED	3,148	3,181	3,205	3,228	3,249	0.6%
	1.1%	1.0%	0.8%	0.7%	0.7%	
PECO	9,029	9,105	9,163	9,223	9,286	0.5%
	0.6%	0.8%	0.6%	0.7%	0.7%	
PENLC	2,924	2,935	2,942	2,948	2,954	0.1%
	0.1%	0.4%	0.2%	0.2%	0.2%	
PEPCO	6,477	6,507	6,531	6,546	6,569	0.1%
	0.2%	0.5%	0.4%	0.2%	0.4%	
PL	7,385	7,423	7,469	7,507	7,543	0.4%
	0.5%	0.5%	0.6%	0.5%	0.5%	
PS	9,908	9,924	9,981	10,039	10,099	0.1%
	0.3%	0.2%	0.6%	0.6%	0.6%	
RECO	402	404	406	408	409	0.1%
	0.0%	0.5%	0.5%	0.5%	0.2%	
UGI	188	188	188	189	189	(0.0%)
	0.0%	0.0%	0.0%	0.5%	0.0%	
DIVERSITY - MID-ATLANTIC(-)	1,132	1,180	1,153	1,154	1,126	
PJM MID-ATLANTIC	57,578	57,792	58,150	58,436	58,742	0.2%
	0.4%	0.4%	0.6%	0.5%	0.5%	
FE-EAST	11,807	11,860	11,928	12,002	12,080	0.3%
	0.6%	0.4%	0.6%	0.6%	0.6%	
PLGRP	7,531	7,560	7,611	7,652	7,685	0.4%
	0.6%	0.4%	0.7%	0.5%	0.4%	

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 (2018).
Summer season indicates peak from June, July, August.

Table B-1

SUMMER PEAK LOAD (MW) AND GROWTH RATES FOR
EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO
2018 - 2028

	METERED 2017	UNRESTRICTED 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Annual Growth Rate (10 yr)
AEP	21,673	21,673	22,876	22,980	22,908	22,983	23,100	23,240	23,392	23,509	23,662	23,833	24,018	0.5%
				0.5%	-0.3%	0.3%	0.5%	0.6%	0.7%	0.5%	0.7%	0.7%	0.8%	
APS	8,315	8,315	8,825	8,896	9,033	9,187	9,247	9,269	9,294	9,334	9,366	9,402	9,447	0.7%
				0.8%	1.5%	1.7%	0.7%	0.2%	0.3%	0.4%	0.3%	0.4%	0.5%	
ATSI	12,052	12,052	12,952	12,990	12,937	12,944	12,982	13,018	13,089	13,128	13,183	13,247	13,309	0.3%
				0.3%	-0.4%	0.1%	0.3%	0.3%	0.5%	0.3%	0.4%	0.5%	0.5%	
COMED	20,351	20,351	22,121	22,213	22,141	22,228	22,369	22,497	22,622	22,739	22,870	23,031	23,207	0.5%
				0.4%	-0.3%	0.4%	0.6%	0.6%	0.6%	0.5%	0.6%	0.7%	0.8%	
DAYTON	3,213	3,213	3,459	3,466	3,445	3,434	3,439	3,445	3,459	3,467	3,479	3,492	3,508	0.1%
				0.2%	-0.6%	-0.3%	0.1%	0.2%	0.4%	0.2%	0.3%	0.4%	0.5%	
DEOK	5,036	5,036	5,523	5,562	5,558	5,569	5,598	5,643	5,695	5,734	5,776	5,814	5,860	0.6%
				0.7%	-0.1%	0.2%	0.5%	0.8%	0.9%	0.7%	0.7%	0.7%	0.8%	
DLCO	2,683	2,683	2,872	2,874	2,861	2,862	2,869	2,878	2,885	2,890	2,900	2,912	2,924	0.2%
				0.1%	-0.5%	0.0%	0.2%	0.3%	0.2%	0.2%	0.3%	0.4%	0.4%	
EKPC	1,987	1,987	1,960	1,973	1,972	1,979	1,984	1,989	2,004	2,012	2,019	2,030	2,033	0.4%
				0.7%	-0.1%	0.4%	0.3%	0.3%	0.8%	0.4%	0.3%	0.5%	0.1%	
DIVERSITY - WESTERN(-)			1,540	1,610	1,551	1,566	1,575	1,517	1,599	1,566	1,477	1,513	1,522	
PJM WESTERN	73,486	73,487	79,048	79,344	79,304	79,620	80,013	80,462	80,841	81,247	81,778	82,248	82,784	0.5%
				0.4%	-0.1%	0.4%	0.5%	0.6%	0.5%	0.5%	0.7%	0.6%	0.7%	
DOM	18,903	18,903	19,596	19,800	19,858	20,031	20,227	20,331	20,466	20,625	20,768	20,956	21,161	0.8%
				1.0%	0.3%	0.9%	1.0%	0.5%	0.7%	0.8%	0.7%	0.9%	1.0%	
DIVERSITY - INTERREGIONAL(-)			3,137	3,106	3,483	3,287	3,423	3,350	3,365	3,519	3,834	3,655	3,636	
PJM RTO	145,331	145,331	152,108	152,479	151,962	152,363	152,887	153,632	154,245	154,941	155,724	156,605	157,635	0.4%
				0.2%	-0.3%	0.3%	0.3%	0.5%	0.4%	0.5%	0.5%	0.6%	0.7%	

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 (2018).
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 2029 - 2033

	2029	2030	2031	2032	2033	Annual Growth Rate (15 yr)
AEP	24,166	24,385	24,537	24,721	24,912	0.6%
	0.6%	0.9%	0.6%	0.7%	0.8%	
APS	9,478	9,530	9,574	9,609	9,650	0.6%
	0.3%	0.5%	0.5%	0.4%	0.4%	
ATSI	13,366	13,451	13,510	13,576	13,645	0.3%
	0.4%	0.6%	0.4%	0.5%	0.5%	
COMED	23,342	23,518	23,690	23,861	24,048	0.6%
	0.6%	0.8%	0.7%	0.7%	0.8%	
DAYTON	3,522	3,540	3,553	3,567	3,583	0.2%
	0.4%	0.5%	0.4%	0.4%	0.4%	
DEOK	5,904	5,967	6,013	6,053	6,101	0.7%
	0.8%	1.1%	0.8%	0.7%	0.8%	
DLCO	2,930	2,941	2,949	2,961	2,971	0.2%
	0.2%	0.4%	0.3%	0.4%	0.3%	
EKPC	2,043	2,061	2,071	2,081	2,088	0.4%
	0.5%	0.9%	0.5%	0.5%	0.3%	
DIVERSITY - WESTERN(-)	1,410	1,581	1,590	1,488	1,504	
PJM WESTERN	83,341	83,812	84,307	84,941	85,494	0.5%
	0.7%	0.6%	0.6%	0.8%	0.7%	
DOM	21,339	21,536	21,724	21,898	22,083	0.8%
	0.8%	0.9%	0.9%	0.8%	0.8%	
DIVERSITY - INTERREGIONAL(-)	3,634	3,728	3,887	4,016	4,224	
PJM RTO	158,624	159,412	160,294	161,259	162,095	0.4%
	0.6%	0.5%	0.6%	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 (2018).
Summer season indicates peak from June, July, August.

Table B-2

WINTER PEAK LOAD (MW) AND GROWTH RATES FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION 2017/18 - 2027/28

	METERED 16/17	UNRESTRICTED 16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Annual Growth Rate (10 yr)
AE	1,628	1,628	1,589	1,590	1,564	1,547	1,547	1,547	1,545	1,535	1,534	1,532	1,537	(0.3%)
				0.1%	-1.6%	-1.1%	0.0%	0.0%	-0.1%	-0.6%	-0.1%	-0.1%	0.3%	
BGE	5,666	5,666	5,883	5,901	5,897	5,892	5,901	5,916	5,917	5,917	5,930	5,940	5,956	0.1%
				0.3%	-0.1%	-0.1%	0.2%	0.3%	0.0%	0.0%	0.2%	0.2%	0.3%	
DPL	3,473	3,473	3,443	3,460	3,455	3,457	3,469	3,492	3,509	3,520	3,539	3,558	3,578	0.4%
				0.5%	-0.1%	0.1%	0.3%	0.7%	0.5%	0.3%	0.5%	0.5%	0.6%	
JCPL	3,769	3,769	3,720	3,732	3,675	3,645	3,648	3,656	3,663	3,652	3,656	3,660	3,681	(0.1%)
				0.3%	-1.5%	-0.8%	0.1%	0.2%	0.2%	-0.3%	0.1%	0.1%	0.6%	
METED	2,648	2,648	2,607	2,631	2,610	2,599	2,617	2,636	2,649	2,652	2,666	2,682	2,697	0.3%
				0.9%	-0.8%	-0.4%	0.7%	0.7%	0.5%	0.1%	0.5%	0.6%	0.6%	
PECO	6,612	6,612	6,752	6,794	6,755	6,733	6,750	6,783	6,798	6,802	6,828	6,850	6,881	0.2%
				0.6%	-0.6%	-0.3%	0.3%	0.5%	0.2%	0.1%	0.4%	0.3%	0.5%	
PENLC	2,890	2,890	2,866	2,879	2,862	2,850	2,854	2,864	2,868	2,866	2,870	2,872	2,875	0.0%
				0.5%	-0.6%	-0.4%	0.1%	0.4%	0.1%	-0.1%	0.1%	0.1%	0.1%	
PEPCO	5,408	5,408	5,383	5,408	5,411	5,408	5,423	5,443	5,456	5,470	5,492	5,514	5,534	0.3%
				0.5%	0.1%	-0.1%	0.3%	0.4%	0.2%	0.3%	0.4%	0.4%	0.4%	
PL	7,202	7,202	7,211	7,248	7,215	7,194	7,208	7,243	7,261	7,273	7,295	7,320	7,343	0.2%
				0.5%	-0.5%	-0.3%	0.2%	0.5%	0.2%	0.2%	0.3%	0.3%	0.3%	
PS	6,599	6,599	6,655	6,669	6,595	6,563	6,565	6,583	6,594	6,581	6,592	6,600	6,626	(0.0%)
				0.2%	-1.1%	-0.5%	0.0%	0.3%	0.2%	-0.2%	0.2%	0.1%	0.4%	
RECO	223	223	230	231	228	228	228	229	229	227	227	228	229	(0.0%)
				0.4%	-1.3%	0.0%	0.0%	0.4%	0.0%	-0.9%	0.0%	0.4%	0.4%	
UGI	200	200	194	194	192	190	189	189	189	188	188	188	188	(0.3%)
				0.0%	-1.0%	-1.0%	-0.5%	0.0%	0.0%	-0.5%	0.0%	0.0%	0.0%	
DIVERSITY - MID-ATLANTIC(-)			582	643	658	627	553	572	539	595	602	550	494	
PJM MID-ATLANTIC	45,889	45,889	45,951	46,094	45,801	45,679	45,846	46,009	46,139	46,088	46,215	46,394	46,631	0.1%
				0.3%	-0.6%	-0.3%	0.4%	0.4%	0.3%	-0.1%	0.3%	0.4%	0.5%	
FE-EAST	9,306	9,306	9,122	9,159	9,063	9,024	9,044	9,082	9,109	9,108	9,126	9,149	9,190	0.1%
				0.4%	-1.0%	-0.4%	0.2%	0.4%	0.3%	-0.0%	0.2%	0.3%	0.4%	
PLGRP	7,402	7,402	7,389	7,424	7,381	7,371	7,386	7,417	7,438	7,453	7,472	7,498	7,527	0.2%
				0.5%	-0.6%	-0.1%	0.2%	0.4%	0.3%	0.2%	0.3%	0.3%	0.4%	

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 (2017/18).
Winter season indicates peak from December, January, February.

Table B-2 (Continued)

WINTER PEAK LOAD (MW) AND GROWTH RATES FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION 2028/29 - 2032/33

	28/29	29/30	30/31	31/32	32/33	Annual Growth Rate (15 yr)
AE	1,537	1,542	1,531	1,531	1,536	(0.2%)
	0.0%	0.3%	-0.7%	0.0%	0.3%	
BGE	5,961	5,972	5,970	5,989	6,012	0.1%
	0.1%	0.2%	-0.0%	0.3%	0.4%	
DPL	3,604	3,627	3,640	3,665	3,689	0.5%
	0.7%	0.6%	0.4%	0.7%	0.7%	
JCPL	3,693	3,711	3,700	3,709	3,734	0.0%
	0.3%	0.5%	-0.3%	0.2%	0.7%	
METED	2,716	2,739	2,739	2,756	2,771	0.4%
	0.7%	0.8%	0.0%	0.6%	0.5%	
PECO	6,901	6,940	6,936	6,962	6,993	0.2%
	0.3%	0.6%	-0.1%	0.4%	0.4%	
PENLC	2,880	2,897	2,885	2,890	2,893	0.1%
	0.2%	0.6%	-0.4%	0.2%	0.1%	
PEPCO	5,558	5,586	5,594	5,619	5,640	0.3%
	0.4%	0.5%	0.1%	0.4%	0.4%	
PL	7,372	7,397	7,399	7,424	7,448	0.2%
	0.4%	0.3%	0.0%	0.3%	0.3%	
PS	6,638	6,663	6,649	6,674	6,708	0.1%
	0.2%	0.4%	-0.2%	0.4%	0.5%	
RECO	229	231	228	229	230	0.0%
	0.0%	0.9%	-1.3%	0.4%	0.4%	
UGI	188	188	187	187	187	(0.2%)
	0.0%	0.0%	-0.5%	0.0%	0.0%	
DIVERSITY - MID-ATLANTIC(-)	559	589	535	538	503	
PJM MID-ATLANTIC	46,718	46,904	46,923	47,097	47,338	0.2%
	0.2%	0.4%	0.0%	0.4%	0.5%	
FE-EAST	9,227	9,275	9,264	9,298	9,335	0.2%
	0.4%	0.5%	-0.1%	0.4%	0.4%	
PLGRP	7,547	7,559	7,577	7,600	7,622	0.2%
	0.3%	0.2%	0.2%	0.3%	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 (2017/18).
Winter season indicates peak from December, January, February.

Table B-2

WINTER PEAK LOAD (MW) AND GROWTH RATES FOR
EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO
2017/18 - 2027/28

	METERED 16/17	UNRESTRICTED 16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Annual Growth Rate (10 yr)
AEP	21,607	21,607	22,447	22,639	22,602	22,593	22,736	22,916	23,068	23,141	23,286	23,435	23,600	0.5%
				0.9%	-0.2%	-0.0%	0.6%	0.8%	0.7%	0.3%	0.6%	0.6%	0.7%	
APS	8,755	8,755	8,789	8,927	9,082	9,222	9,301	9,354	9,394	9,412	9,446	9,487	9,536	0.8%
				1.6%	1.7%	1.5%	0.9%	0.6%	0.4%	0.2%	0.4%	0.4%	0.5%	
ATSI	10,633	10,633	10,687	10,763	10,712	10,671	10,720	10,789	10,830	10,820	10,857	10,885	10,942	0.2%
				0.7%	-0.5%	-0.4%	0.5%	0.6%	0.4%	-0.1%	0.3%	0.3%	0.5%	
COMED	15,385	15,385	15,714	15,825	15,738	15,705	15,817	15,912	16,005	16,062	16,128	16,201	16,329	0.4%
				0.7%	-0.5%	-0.2%	0.7%	0.6%	0.6%	0.4%	0.4%	0.5%	0.8%	
DAYTON	2,919	2,919	2,917	2,928	2,907	2,893	2,896	2,910	2,910	2,904	2,916	2,925	2,932	0.1%
				0.4%	-0.7%	-0.5%	0.1%	0.5%	0.0%	-0.2%	0.4%	0.3%	0.2%	
DEOK	4,388	4,388	4,478	4,514	4,506	4,496	4,534	4,572	4,599	4,601	4,630	4,665	4,705	0.5%
				0.8%	-0.2%	-0.2%	0.8%	0.8%	0.6%	0.0%	0.6%	0.8%	0.9%	
DLCO	2,119	2,119	2,153	2,162	2,150	2,143	2,147	2,156	2,159	2,156	2,161	2,168	2,175	0.1%
				0.4%	-0.6%	-0.3%	0.2%	0.4%	0.1%	-0.1%	0.2%	0.3%	0.3%	
EKPC	2,465	2,465	2,587	2,604	2,603	2,605	2,620	2,637	2,648	2,652	2,668	2,681	2,693	0.4%
				0.7%	-0.0%	0.1%	0.6%	0.6%	0.4%	0.2%	0.6%	0.5%	0.4%	
DIVERSITY - WESTERN(-)			1,316	1,398	1,491	1,352	1,304	1,345	1,382	1,347	1,416	1,417	1,351	
PJM WESTERN	67,707	67,707	68,456	68,964	68,809	68,976	69,467	69,901	70,231	70,401	70,676	71,030	71,561	0.4%
				0.7%	-0.2%	0.2%	0.7%	0.6%	0.5%	0.2%	0.4%	0.5%	0.7%	
DOM	19,662	19,662	18,096	18,407	18,514	18,677	18,883	19,019	19,142	19,265	19,446	19,613	19,769	0.9%
				1.7%	0.6%	0.9%	1.1%	0.7%	0.6%	0.6%	0.9%	0.9%	0.8%	
DIVERSITY - INTERREGIONAL(-)			1,040	1,108	1,085	931	1,079	1,127	1,077	1,060	996	1,111	1,259	
PJM RTO	130,682	130,682	131,463	132,357	132,039	132,401	133,117	133,802	134,435	134,694	135,341	135,926	136,702	0.4%
				0.7%	-0.2%	0.3%	0.5%	0.5%	0.5%	0.2%	0.5%	0.4%	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 (2017/18).
Winter season indicates peak from December, January, February.

Table B-2 (Continued)

WINTER PEAK LOAD (MW) AND GROWTH RATES FOR EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO 2028/29 - 2032/33

	28/29	29/30	30/31	31/32	32/33	Annual Growth Rate (15 yr)
AEP	23,750	23,975	23,988	24,159	24,342	0.5%
	0.6%	0.9%	0.1%	0.7%	0.8%	
APS	9,576	9,650	9,630	9,689	9,737	0.7%
	0.4%	0.8%	-0.2%	0.6%	0.5%	
ATSI	10,962	11,080	11,045	11,083	11,138	0.3%
	0.2%	1.1%	-0.3%	0.3%	0.5%	
COMED	16,430	16,567	16,593	16,681	16,805	0.4%
	0.6%	0.8%	0.2%	0.5%	0.7%	
DAYTON	2,935	2,948	2,939	2,953	2,963	0.1%
	0.1%	0.4%	-0.3%	0.5%	0.3%	
DEOK	4,730	4,767	4,772	4,804	4,846	0.5%
	0.5%	0.8%	0.1%	0.7%	0.9%	
DLCO	2,177	2,189	2,183	2,189	2,197	0.1%
	0.1%	0.6%	-0.3%	0.3%	0.4%	
EKPC	2,706	2,726	2,727	2,742	2,756	0.4%
	0.5%	0.7%	0.0%	0.6%	0.5%	
DIVERSITY - WESTERN(-)	1,455	1,634	1,433	1,499	1,431	
PJM WESTERN	71,811	72,268	72,444	72,801	73,353	0.5%
	0.3%	0.6%	0.2%	0.5%	0.8%	
DOM	19,927	20,103	20,217	20,422	20,584	0.9%
	0.8%	0.9%	0.6%	1.0%	0.8%	
DIVERSITY - INTERREGIONAL(-)	1,257	1,155	1,115	1,104	1,300	
PJM RTO	137,199	138,120	138,469	139,216	139,975	0.4%
	0.4%	0.7%	0.3%	0.5%	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 (2017/18).
Winter season indicates peak from December, January, February.

Table B-3

SPRING PEAK LOAD (MW) FOR
EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION
2018 - 2033

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
AE	1,660	1,651	1,612	1,601	1,598	1,600	1,604	1,596	1,598	1,599	1,612	1,617	1,618	1,614	1,619	1,627
BGE	5,389	5,381	5,313	5,298	5,285	5,285	5,288	5,280	5,303	5,311	5,326	5,338	5,339	5,324	5,329	5,367
DPL	2,988	2,997	2,976	2,984	2,976	2,996	3,008	3,016	3,044	3,062	3,081	3,101	3,116	3,133	3,167	3,185
JCPL	4,164	4,159	3,998	3,988	4,043	4,074	4,095	4,079	4,058	4,080	4,157	4,183	4,196	4,192	4,208	4,263
METED	2,444	2,453	2,423	2,430	2,445	2,469	2,480	2,486	2,503	2,516	2,552	2,568	2,580	2,585	2,587	2,640
PECO	6,744	6,773	6,664	6,661	6,740	6,809	6,850	6,847	6,847	6,863	7,004	7,048	7,069	7,079	7,068	7,193
PENLC	2,600	2,610	2,602	2,615	2,596	2,593	2,587	2,595	2,603	2,621	2,605	2,592	2,590	2,604	2,623	2,615
PEPCO	5,234	5,233	5,125	5,097	5,112	5,155	5,182	5,149	5,162	5,156	5,234	5,268	5,272	5,256	5,244	5,295
PL	6,298	6,328	6,298	6,364	6,329	6,336	6,332	6,382	6,422	6,480	6,446	6,454	6,457	6,525	6,603	6,590
PS	7,579	7,567	7,369	7,347	7,413	7,441	7,462	7,436	7,427	7,457	7,541	7,561	7,580	7,579	7,630	7,681
RECO	295	296	290	289	291	292	293	289	290	291	296	296	297	293	295	298
UGI	167	167	164	165	163	163	162	162	162	164	163	162	161	161	162	161
DIVERSITY - MID-ATLANTIC(-)	2,218	2,375	2,589	2,865	2,329	2,282	2,318	2,474	2,632	2,826	2,168	2,089	2,107	2,302	2,727	2,226
PJM MID-ATLANTIC	43,344	43,240	42,245	41,974	42,662	42,931	43,025	42,843	42,787	42,774	43,849	44,099	44,168	44,043	43,808	44,689
FE-EAST	8,742	8,726	8,440	8,427	8,595	8,662	8,689	8,652	8,610	8,658	8,862	8,919	8,947	8,932	8,933	9,065
PLGRP	6,394	6,400	6,343	6,353	6,375	6,404	6,415	6,423	6,446	6,479	6,514	6,545	6,551	6,576	6,615	6,646

Notes:
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.

Table B-3

SPRING PEAK LOAD (MW) FOR
EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO
2018 - 2033

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
AEP	19,976	20,165	20,127	20,397	20,353	20,323	20,430	20,628	20,827	21,070	20,955	21,114	21,247	21,410	21,692	21,799
APS	7,760	7,889	8,034	8,284	8,269	8,293	8,294	8,359	8,415	8,502	8,461	8,468	8,495	8,551	8,660	8,645
ATSI	10,534	10,585	10,369	10,389	10,538	10,630	10,670	10,632	10,610	10,647	10,865	10,903	10,939	10,913	10,910	11,101
COMED	16,658	16,802	16,629	16,735	16,859	17,021	17,155	17,120	17,278	17,415	17,637	17,754	17,874	17,871	18,072	18,273
DAYTON	2,810	2,826	2,789	2,779	2,790	2,802	2,812	2,806	2,815	2,819	2,855	2,864	2,869	2,868	2,873	2,906
DEOK	4,492	4,527	4,458	4,477	4,539	4,585	4,627	4,603	4,639	4,670	4,760	4,807	4,834	4,814	4,861	4,942
DLCO	2,352	2,363	2,312	2,313	2,349	2,355	2,368	2,343	2,344	2,351	2,393	2,403	2,408	2,385	2,387	2,430
EKPC	2,033	2,045	2,049	2,089	2,075	2,081	2,081	2,102	2,118	2,138	2,122	2,122	2,129	2,153	2,176	2,171
DIVERSITY - WESTERN(-)	3,819	4,181	4,461	4,870	4,240	4,319	4,370	4,588	4,734	4,901	4,641	4,592	4,694	4,594	4,937	4,971
PJM WESTERN	62,796	63,021	62,306	62,593	63,532	63,771	64,067	64,005	64,312	64,711	65,407	65,843	66,101	66,371	66,694	67,296
DOM	16,889	17,177	17,258	17,411	17,425	17,522	17,777	17,783	17,956	18,080	18,168	18,427	18,610	18,721	18,760	18,959
DIVERSITY - INTERREGIONAL(-)	3,519	3,703	3,516	3,441	3,552	3,625	3,797	3,265	3,378	3,302	3,467	3,508	3,468	3,738	3,881	3,200
PJM RTO	119,510	119,735	118,293	118,537	120,067	120,599	121,072	121,366	121,677	122,263	123,957	124,861	125,411	125,397	125,381	127,744

Notes:
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.

Table B-4

FALL PEAK LOAD (MW) FOR
EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION
2018 - 2033

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
AE	1,911	1,910	1,902	1,889	1,886	1,870	1,873	1,886	1,894	1,896	1,883	1,882	1,896	1,914	1,923	1,928
BGE	5,707	5,722	5,766	5,712	5,708	5,675	5,688	5,744	5,781	5,764	5,736	5,721	5,776	5,837	5,842	5,846
DPL	3,235	3,249	3,256	3,252	3,264	3,266	3,279	3,306	3,332	3,346	3,352	3,365	3,399	3,438	3,463	3,481
JCPL	4,503	4,517	4,504	4,475	4,476	4,459	4,481	4,534	4,555	4,562	4,545	4,560	4,606	4,677	4,701	4,718
METED	2,505	2,539	2,544	2,541	2,550	2,554	2,579	2,610	2,634	2,647	2,646	2,659	2,696	2,730	2,750	2,763
PECO	7,179	7,240	7,274	7,268	7,295	7,296	7,341	7,424	7,486	7,507	7,500	7,529	7,597	7,696	7,741	7,765
PENLC	2,603	2,615	2,618	2,613	2,619	2,607	2,608	2,624	2,627	2,627	2,624	2,617	2,628	2,644	2,652	2,659
PEPCO	5,470	5,493	5,517	5,482	5,485	5,465	5,479	5,530	5,565	5,562	5,545	5,539	5,597	5,649	5,670	5,685
PL	6,186	6,217	6,221	6,215	6,243	6,255	6,269	6,313	6,356	6,382	6,390	6,395	6,436	6,495	6,532	6,560
PS	8,034	8,079	8,102	8,057	8,035	7,990	8,028	8,122	8,164	8,164	8,110	8,119	8,190	8,303	8,337	8,353
RECO	314	315	317	316	315	313	314	317	319	319	316	316	319	322	324	324
UGI	163	162	160	159	159	159	158	159	159	159	159	158	159	159	159	159
DIVERSITY - MID-ATLANTIC(-)	967	974	1,365	1,249	1,247	1,227	989	1,217	1,321	1,225	1,198	1,010	968	1,184	1,217	1,228
PJM MID-ATLANTIC	46,843	47,084	46,816	46,730	46,788	46,682	47,108	47,352	47,551	47,710	47,608	47,850	48,331	48,680	48,877	49,013
FE-EAST	9,331	9,388	9,348	9,329	9,328	9,306	9,392	9,460	9,516	9,549	9,536	9,553	9,668	9,753	9,820	9,850
PLGRP	6,346	6,353	6,317	6,323	6,343	6,378	6,401	6,423	6,452	6,480	6,520	6,544	6,573	6,608	6,634	6,664

Notes:
All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management.
Fall season indicates peak from September, October, November.

Table B-4

FALL PEAK LOAD (MW) FOR
EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO
2018 - 2033

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
AEP	20,308	20,472	20,771	20,733	20,822	20,805	20,871	21,313	21,503	21,532	21,484	21,528	21,752	22,185	22,331	22,423
APS	7,737	7,852	8,081	8,218	8,282	8,259	8,286	8,368	8,419	8,447	8,418	8,431	8,507	8,589	8,651	8,679
ATSI	11,093	11,186	11,383	11,312	11,298	11,270	11,296	11,451	11,622	11,586	11,503	11,496	11,609	11,770	11,871	11,890
COMED	18,289	18,440	18,647	18,688	18,696	18,733	18,815	19,141	19,324	19,422	19,329	19,409	19,595	19,978	20,175	20,212
DAYTON	2,964	3,015	3,021	3,005	3,007	2,991	3,009	3,036	3,055	3,058	3,042	3,020	3,077	3,109	3,126	3,130
DEOK	4,800	4,866	4,942	4,954	4,968	4,958	4,979	5,087	5,138	5,174	5,139	5,140	5,209	5,337	5,387	5,391
DLCO	2,472	2,492	2,512	2,509	2,499	2,498	2,502	2,532	2,546	2,552	2,534	2,528	2,550	2,583	2,595	2,585
EKPC	1,915	1,911	1,919	1,925	1,946	1,957	1,939	1,947	1,966	1,972	1,996	1,996	1,992	1,999	2,014	2,035
DIVERSITY - WESTERN(-)	1,550	1,737	2,361	2,195	2,048	1,806	1,747	2,394	2,354	2,258	1,776	1,706	1,774	2,459	2,324	2,257
PJM WESTERN	68,028	68,497	68,915	69,149	69,470	69,665	69,950	70,481	71,219	71,485	71,669	71,842	72,517	73,091	73,826	74,088
DOM	17,293	17,572	17,774	17,887	17,997	18,061	18,275	18,507	18,671	18,764	18,785	19,014	19,250	19,511	19,571	19,710
DIVERSITY - INTERREGIONAL(-)	4,570	4,327	4,195	4,040	4,085	3,949	4,345	4,329	4,273	4,161	3,993	4,710	4,457	4,513	4,256	4,012
PJM RTO	127,594	128,826	129,310	129,726	130,170	130,459	130,988	132,011	133,168	133,798	134,069	133,996	135,641	136,769	138,018	138,799

Notes:
All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management.
Fall season indicates peak from September, October, November.

Table B-5

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

	AE	BGE	DPL	JCPL	METED	PECO	PENLC	PEPCO	PL	PS	RECO	UGI	MID-ATLANTIC DIVERSITY	PJM MID-ATLANTIC
Jan 2018	1,589	5,883	3,443	3,711	2,607	6,752	2,866	5,383	7,211	6,655	224	194	567	45,951
Feb 2018	1,532	5,546	3,311	3,627	2,522	6,498	2,831	5,120	6,867	6,465	216	185	498	44,222
Mar 2018	1,297	4,855	2,864	3,060	2,305	5,791	2,600	4,475	6,298	5,728	200	167	1,176	38,464
Apr 2018	1,255	4,484	2,614	3,083	2,146	5,550	2,428	4,332	5,717	6,325	224	147	2,629	35,676
May 2018	1,660	5,389	2,988	4,164	2,444	6,744	2,478	5,234	6,009	7,579	295	152	1,792	43,344
Jun 2018	2,169	6,386	3,607	5,385	2,811	8,187	2,767	6,106	6,644	9,220	370	174	897	52,929
Jul 2018	2,460	6,848	3,937	5,942	2,974	8,642	2,895	6,493	7,140	9,903	402	190	1,225	56,601
Aug 2018	2,352	6,596	3,746	5,434	2,861	8,197	2,776	6,272	6,742	9,212	366	175	1,197	53,532
Sep 2018	1,911	5,707	3,235	4,503	2,505	7,179	2,603	5,470	6,186	8,034	314	160	964	46,843
Oct 2018	1,394	4,522	2,645	3,348	2,139	5,781	2,441	4,448	5,671	6,642	243	147	2,108	37,313
Nov 2018	1,337	4,642	2,678	3,142	2,223	5,790	2,564	4,334	6,116	5,884	210	163	611	38,472
Dec 2018	1,584	5,423	3,179	3,732	2,540	6,560	2,829	4,979	6,787	6,644	231	189	412	44,265

	AE	BGE	DPL	JCPL	METED	PECO	PENLC	PEPCO	PL	PS	RECO	UGI	DIVERSITY	MID-ATLANTIC
Jan 2019	1,590	5,901	3,460	3,709	2,631	6,794	2,879	5,408	7,248	6,669	224	194	613	46,094
Feb 2019	1,532	5,557	3,337	3,619	2,540	6,523	2,841	5,141	6,885	6,466	216	185	487	44,355
Mar 2019	1,286	4,866	2,877	3,042	2,339	5,827	2,610	4,484	6,328	5,688	199	167	1,341	38,372
Apr 2019	1,243	4,488	2,626	3,076	2,179	5,576	2,439	4,338	5,760	6,324	225	148	2,804	35,618
May 2019	1,651	5,381	2,997	4,159	2,453	6,773	2,481	5,233	6,006	7,567	296	152	1,909	43,240
Jun 2019	2,157	6,328	3,591	5,324	2,820	8,218	2,774	6,087	6,668	9,136	367	173	915	52,728
Jul 2019	2,441	6,771	3,930	5,893	2,990	8,662	2,900	6,463	7,152	9,850	400	190	1,201	56,441
Aug 2019	2,338	6,534	3,747	5,365	2,878	8,219	2,779	6,256	6,759	9,167	364	174	1,354	53,226
Sep 2019	1,910	5,722	3,249	4,517	2,539	7,240	2,615	5,493	6,217	8,079	315	162	974	47,084
Oct 2019	1,377	4,508	2,646	3,335	2,146	5,790	2,436	4,446	5,647	6,630	243	147	2,180	37,171
Nov 2019	1,315	4,622	2,669	3,096	2,213	5,755	2,537	4,320	5,996	5,828	208	161	568	38,152
Dec 2019	1,560	5,399	3,160	3,675	2,520	6,534	2,800	4,975	6,770	6,578	228	188	459	43,928

	AE	BGE	DPL	JCPL	METED	PECO	PENLC	PEPCO	PL	PS	RECO	UGI	DIVERSITY	MID-ATLANTIC
Jan 2020	1,564	5,897	3,455	3,642	2,610	6,755	2,862	5,411	7,215	6,595	223	192	620	45,801
Feb 2020	1,498	5,541	3,287	3,544	2,513	6,457	2,811	5,120	6,845	6,377	214	182	769	43,620
Mar 2020	1,259	4,834	2,883	2,987	2,340	5,806	2,602	4,472	6,298	5,620	197	164	1,344	38,118
Apr 2020	1,223	4,468	2,649	3,052	2,179	5,575	2,439	4,347	5,755	6,305	224	146	3,040	35,322
May 2020	1,612	5,313	2,976	3,998	2,423	6,664	2,432	5,125	5,856	7,369	290	146	1,959	42,245
Jun 2020	2,123	6,306	3,592	5,256	2,817	8,176	2,751	6,024	6,642	9,051	366	172	638	52,638
Jul 2020	2,411	6,753	3,914	5,825	2,974	8,617	2,886	6,405	7,132	9,750	398	188	970	56,283
Aug 2020	2,307	6,506	3,725	5,295	2,859	8,161	2,751	6,165	6,714	9,031	361	172	1,099	52,948
Sep 2020	1,902	5,766	3,256	4,504	2,544	7,274	2,618	5,517	6,221	8,102	317	160	1,365	46,816
Oct 2020	1,340	4,413	2,612	3,259	2,101	5,713	2,392	4,361	5,525	6,508	239	143	1,967	36,639
Nov 2020	1,290	4,587	2,660	3,036	2,193	5,739	2,511	4,297	5,923	5,761	206	158	556	37,805
Dec 2020	1,547	5,477	3,195	3,645	2,511	6,530	2,805	5,003	6,757	6,556	228	185	469	43,970

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

Table B-5

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

	AEP	APS	ATSI	COMED	DAYTON	DEOK	DLCO	EKPC	WESTERN DIVERSITY	PJM WESTERN	DOM	INTER REGION DIVERSITY	PJM RTO
Jan 2018	22,447	8,789	10,687	15,703	2,917	4,478	2,153	2,587	1,305	68,456	18,096	1,040	131,463
Feb 2018	21,346	8,398	10,476	15,189	2,813	4,274	2,079	2,377	1,336	65,616	16,765	1,342	125,261
Mar 2018	19,976	7,760	9,589	13,839	2,571	3,898	1,961	2,033	1,548	60,079	15,561	2,517	111,587
Apr 2018	18,987	7,157	9,131	13,627	2,510	3,947	2,090	1,687	2,613	56,523	15,364	501	107,062
May 2018	19,537	7,518	10,534	16,658	2,810	4,492	2,352	1,594	2,699	62,796	16,889	3,519	119,510
Jun 2018	21,803	8,424	12,427	20,629	3,265	5,235	2,745	1,865	1,123	75,270	18,733	3,783	143,149
Jul 2018	22,876	8,825	12,952	22,121	3,459	5,523	2,872	1,960	1,540	79,048	19,596	3,137	152,108
Aug 2018	22,613	8,653	12,616	21,497	3,413	5,456	2,797	1,940	1,212	77,773	19,292	2,907	147,690
Sep 2018	20,308	7,737	11,093	18,289	2,964	4,800	2,472	1,747	1,382	68,028	17,293	4,570	127,594
Oct 2018	18,408	7,021	9,100	14,127	2,554	4,083	2,113	1,678	1,974	57,110	15,257	1,335	108,345
Nov 2018	18,963	7,371	9,435	14,055	2,547	3,814	1,947	1,915	1,184	58,863	14,819	1,692	110,462
Dec 2018	21,028	8,217	10,633	15,825	2,808	4,291	2,127	2,351	1,082	66,198	16,377	1,099	125,741

	AEP	APS	ATSI	COMED	DAYTON	DEOK	DLCO	EKPC	DIVERSITY	WESTERN	DOM	DIVERSITY	PJM RTO
Jan 2019	22,639	8,927	10,763	15,792	2,928	4,514	2,162	2,604	1,365	68,964	18,407	1,108	132,357
Feb 2019	21,514	8,512	10,536	15,275	2,826	4,310	2,086	2,395	1,205	66,249	17,045	1,120	126,529
Mar 2019	20,165	7,889	9,669	13,963	2,590	3,943	1,968	2,045	1,544	60,688	15,909	2,730	112,239
Apr 2019	19,321	7,270	9,194	13,744	2,532	3,986	2,119	1,703	2,441	57,428	15,743	887	107,902
May 2019	19,666	7,556	10,585	16,802	2,826	4,527	2,363	1,597	2,901	63,021	17,177	3,703	119,735
Jun 2019	21,844	8,506	12,444	20,650	3,247	5,275	2,744	1,878	1,436	75,152	18,947	3,350	143,477
Jul 2019	22,980	8,896	12,990	22,213	3,466	5,562	2,874	1,973	1,610	79,344	19,800	3,106	152,479
Aug 2019	22,713	8,769	12,620	21,488	3,396	5,482	2,793	1,952	1,356	77,857	19,485	2,510	148,058
Sep 2019	20,472	7,852	11,186	18,440	3,015	4,866	2,492	1,767	1,593	68,497	17,572	4,327	128,826
Oct 2019	18,553	7,099	9,120	14,140	2,557	4,090	2,083	1,682	2,044	57,280	15,291	1,131	108,611
Nov 2019	18,869	7,367	9,393	14,035	2,531	3,804	1,927	1,911	1,111	58,726	14,836	1,961	109,753
Dec 2019	21,008	8,258	10,557	15,738	2,787	4,273	2,110	2,344	1,209	65,866	16,547	1,067	125,274

	AEP	APS	ATSI	COMED	DAYTON	DEOK	DLCO	EKPC	DIVERSITY	WESTERN	DOM	DIVERSITY	PJM RTO
Jan 2020	22,602	9,082	10,712	15,684	2,907	4,506	2,150	2,603	1,437	68,809	18,514	1,085	132,039
Feb 2020	21,458	8,675	10,481	15,129	2,800	4,293	2,071	2,395	1,537	65,765	17,159	897	125,647
Mar 2020	20,127	8,034	9,700	13,923	2,580	3,911	1,950	2,049	1,849	60,425	16,276	713	114,106
Apr 2020	19,354	7,448	9,252	13,773	2,530	3,973	2,114	1,713	2,896	57,261	16,181	-1,071	109,835
May 2020	19,195	7,618	10,369	16,629	2,789	4,458	2,312	1,593	2,657	62,306	17,258	3,516	118,293
Jun 2020	21,837	8,654	12,421	20,664	3,233	5,281	2,736	1,881	924	75,783	18,989	4,288	143,122
Jul 2020	22,908	9,033	12,937	22,141	3,445	5,558	2,861	1,972	1,551	79,304	19,858	3,483	151,962
Aug 2020	22,585	8,848	12,513	21,317	3,367	5,472	2,768	1,950	1,136	77,684	19,512	3,997	146,147
Sep 2020	20,771	8,081	11,383	18,647	3,021	4,942	2,512	1,797	2,239	68,915	17,774	4,195	129,310
Oct 2020	18,272	7,129	9,020	13,948	2,501	4,052	2,070	1,657	1,692	56,957	15,202	1,436	107,362
Nov 2020	18,970	7,541	9,386	13,960	2,512	3,805	1,925	1,919	1,367	58,651	14,870	1,623	109,703
Dec 2020	21,080	8,492	10,562	15,705	2,778	4,291	2,107	2,358	1,184	66,189	16,833	1,270	125,722

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

Table B-6

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

	FE_EAST	PLGRP
Jan 2018	9,122	7,389
Feb 2018	8,926	7,042
Mar 2018	7,755	6,394
Apr 2018	7,227	5,737
May 2018	8,742	6,046
Jun 2018	10,722	6,818
Jul 2018	11,509	7,281
Aug 2018	10,886	6,917
Sep 2018	9,331	6,346
Oct 2018	7,479	5,731
Nov 2018	7,813	6,271
Dec 2018	9,076	6,976

	FE_EAST	PLGRP
Jan 2019	9,159	7,424
Feb 2019	8,949	7,070
Mar 2019	7,754	6,400
Apr 2019	7,232	5,768
May 2019	8,726	6,019
Jun 2019	10,655	6,840
Jul 2019	11,498	7,289
Aug 2019	10,852	6,917
Sep 2019	9,388	6,353
Oct 2019	7,454	5,704
Nov 2019	7,721	6,142
Dec 2019	8,973	6,958

	FE_EAST	PLGRP
Jan 2020	9,063	7,381
Feb 2020	8,818	7,016
Mar 2020	7,693	6,343
Apr 2020	7,158	5,713
May 2020	8,440	5,868
Jun 2020	10,634	6,814
Jul 2020	11,404	7,272
Aug 2020	10,779	6,881
Sep 2020	9,348	6,317
Oct 2020	7,331	5,596
Nov 2020	7,622	6,060
Dec 2020	8,954	6,939

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.

Table B-7

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

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
AE																
BASE	105	105														
CAPACITY PERFORMANCE	5	5	56	56	56	56	56	56	56	56	56	56	56	57	57	57
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTAL LOAD MANAGEMENT	110	110	57	57	57	57	57	57	57	57	57	57	57	58	58	58
BGE																
BASE	646	639														
CAPACITY PERFORMANCE	5	5	158	156	156	156	157	158	158	158	158	159	159	160	160	160
PRD	0	0	330	327	325	325	327	329	330	330	330	332	333	334	335	336
SUMMER PERIOD			65	64	64	64	64	65	65	65	65	65	65	66	66	66
TOTAL LOAD MANAGEMENT	651	644	553	547	545	545	548	552	553	553	553	556	557	560	561	562
DPL																
BASE	299	298														
CAPACITY PERFORMANCE	5	5	150	150	150	151	151	152	153	153	154	155	156	157	158	159
PRD	0	0	58	58	58	58	58	59	59	59	60	60	60	61	61	61
SUMMER PERIOD			42	42	42	42	42	42	43	43	43	43	43	44	44	44
TOTAL LOAD MANAGEMENT	304	303	250	250	250	251	251	253	255	255	257	258	259	262	263	264
JCPL																
BASE	117	116														
CAPACITY PERFORMANCE	8	8	124	124	124	124	124	125	125	126	127	128	128	129	130	131
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			3	3	3	3	3	3	3	3	3	3	3	3	3	3
TOTAL LOAD MANAGEMENT	125	124	127	127	127	127	127	128	128	129	130	131	131	132	133	134
METED																
BASE	219	220														
CAPACITY PERFORMANCE	8	8	222	222	223	224	227	228	230	231	232	235	237	239	240	241
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT	227	228	222	222	223	224	227	228	230	231	232	235	237	239	240	241

DR Forecast accounts for the phase-out of Limited, Extended Summer, Annual, and Base DR in DY 2020.
DR Forecast for Limited, Extended Summer, Base, and CP prior to DY 2020 is based on the average ratio of committed DR (by DR product) to past forecasted peak in the last three DYs (2015, 2016 and 2017) 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.
-Full transition to Base and CP DR for regions with FRR DR (AEP, DEOK) is completed in DY 2019.
Summer-Period DR refers to DR resources that aggregate with Winter-Period resources to form a year-round commitment.
DR Forecast for CP DR, Summer-Period DR and Price Responsive Demand (PRD) for DY 2020 and beyond is based on actual cleared quantities of those products in the 2020/21 RPM Base Residual Auction.

Table B-7 (Continued)

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

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
PECO																
BASE	320	321														
CAPACITY PERFORMANCE	12	12	331	332	333	335	337	338	341	342	345	347	350	352	354	356
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			4	4	4	4	4	4	4	4	4	5	5	5	5	5
TOTAL LOAD MANAGEMENT	332	333	335	336	337	339	341	342	345	346	349	352	355	357	359	361
PENLC																
BASE	230	230														
CAPACITY PERFORMANCE	17	17	279	278	278	279	280	280	281	281	282	282	284	284	285	286
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT	247	247	279	278	278	279	280	280	281	281	282	282	284	284	285	286
PEPCO																
BASE	506	504														
CAPACITY PERFORMANCE	2	2	140	139	139	139	139	140	140	140	141	141	142	142	143	144
PRD	0	0	170	169	169	169	170	170	170	171	172	172	173	173	174	175
SUMMER PERIOD			51	50	50	50	51	51	51	51	51	51	51	52	52	52
TOTAL LOAD MANAGEMENT	508	506	361	358	358	358	360	361	361	362	364	364	366	367	369	371
PL																
BASE	500	500														
CAPACITY PERFORMANCE	109	109	528	528	530	531	533	536	539	542	544	547	549	553	556	559
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT	609	609	528	528	530	531	533	536	539	542	544	547	549	553	556	559
PS																
BASE	303	301														
CAPACITY PERFORMANCE	26	26	291	290	290	290	290	291	292	293	294	295	296	297	299	301
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			3	3	3	3	3	3	3	3	3	3	3	3	3	3
TOTAL LOAD MANAGEMENT	329	327	294	293	293	293	293	294	295	296	297	298	299	300	302	304

DR Forecast accounts for the phase-out of Limited, Extended Summer, Annual, and Base DR in DY 2020.
DR Forecast for Limited, Extended Summer, Base, and CP prior to DY 2020 is based on the average ratio of committed DR (by DR product) to past forecasted peak in the last three DYs (2015, 2016 and 2017) 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.
-Full transition to Base and CP DR for regions with FRR DR (AEP, DEOK) is completed in DY 2019.
Summer-Period DR refers to DR resources that aggregate with Winter-Period resources to form a year-round commitment.
DR Forecast for CP DR, Summer-Period DR and Price Responsive Demand (PRD) for DY 2020 and beyond is based on actual cleared quantities of those products in the 2020/21 RPM Base Residual Auction.

Table B-7 (Continued)

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

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
RECO																
BASE	3	3														
CAPACITY PERFORMANCE	0	0	3	3	3	3	3	3	3	3	3	3	4	4	4	4
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4
UGI																
BASE	0	0														
CAPACITY PERFORMANCE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			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																
BASE	3,248	3,237														
CAPACITY PERFORMANCE	197	197	2,282	2,278	2,282	2,288	2,297	2,307	2,318	2,325	2,336	2,348	2,361	2,374	2,386	2,398
PRD	0	0	558	554	552	552	555	558	559	560	562	564	566	568	570	572
SUMMER PERIOD			169	167	167	167	168	169	170	170	170	171	171	174	174	174
TOTAL LOAD MANAGEMENT	3,445	3,434	3,009	2,999	3,001	3,007	3,020	3,034	3,047	3,055	3,068	3,083	3,098	3,116	3,130	3,144

DR Forecast accounts for the phase-out of Limited, Extended Summer, Annual, and Base DR in DY 2020.
DR Forecast for Limited, Extended Summer, Base, and CP prior to DY 2020 is based on the average ratio of committed DR (by DR product) to past forecasted peak in the last three DYs (2015, 2016 and 2017) 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.
-Full transition to Base and CP DR for regions with FRR DR (AEP, DEOK) is completed in DY 2019.
Summer-Period DR refers to DR resources that aggregate with Winter-Period resources to form a year-round commitment.
DR Forecast for CP DR, Summer-Period DR and Price Responsive Demand (PRD) for DY 2020 and beyond is based on actual cleared quantities of those products in the 2020/21 RPM Base Residual Auction.

Table B-7 (Continued)

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

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
AEP																
LIMITED	515															
BASE	869	1,390														
CAPACITY PERFORMANCE	119	120	916	919	924	930	936	940	947	953	961	967	975	982	989	996
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT	1,503	1,510	916	919	924	930	936	940	947	953	961	967	975	982	989	996
APS																
BASE	593	598														
CAPACITY PERFORMANCE	93	93	658	669	673	675	677	680	682	684	688	690	694	697	700	703
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT	686	691	658	669	673	675	677	680	682	684	688	690	694	697	700	703
ATSI																
BASE	699	700														
CAPACITY PERFORMANCE	76	77	627	628	630	631	635	637	639	642	645	648	652	655	658	661
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT	775	777	627	628	630	631	635	637	639	642	645	648	652	655	658	661
COMED																
BASE	1,219	1,224														
CAPACITY PERFORMANCE	113	113	1,295	1,300	1,309	1,316	1,323	1,330	1,338	1,347	1,358	1,366	1,376	1,386	1,396	1,406
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			80	80	81	81	81	82	82	83	84	84	85	85	86	87
TOTAL LOAD MANAGEMENT	1,332	1,337	1,375	1,380	1,390	1,397	1,404	1,412	1,420	1,430	1,442	1,450	1,461	1,471	1,482	1,493
DAYTON																
BASE	153	153														
CAPACITY PERFORMANCE	20	20	149	149	149	149	150	150	151	151	152	153	153	154	154	154
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT	173	173	149	149	149	149	150	150	151	151	152	153	153	154	154	154

DR Forecast accounts for the phase-out of Limited, Extended Summer, Annual, and Base DR in DY 2020.
DR Forecast for Limited, Extended Summer, Base, and CP prior to DY 2020 is based on the average ratio of committed DR (by DR product) to past forecasted peak in the last three DYs (2015, 2016 and 2017) 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.
-Full transition to Base and CP DR for regions with FRR DR (AEP, DEOK) is completed in DY 2019.
Summer-Period DR refers to DR resources that aggregate with Winter-Period resources to form a year-round commitment.
DR Forecast for CP DR, Summer-Period DR and Price Responsive Demand (PRD) for DY 2020 and beyond is based on actual cleared quantities of those products in the 2020/21 RPM Base Residual Auction.

Table B-7 (Continued)

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

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
DEOK																
LIMITED	28															
EXTENDED SUMMER	7															
BASE	165	202														
CAPACITY PERFORMANCE	27	27	127	128	128	129	130	131	132	133	134	135	137	138	139	140
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			13	13	13	13	13	13	13	13	13	14	14	14	14	14
TOTAL LOAD MANAGEMENT	227	229	140	141	141	142	143	144	145	146	147	149	151	152	153	154
DLCO																
BASE	132	132														
CAPACITY PERFORMANCE	12	12	145	145	146	146	147	147	147	148	149	149	149	150	150	150
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT	144	144	145	145	146	146	147	147	147	148	149	149	149	150	150	150
EKPC																
BASE	58	58														
CAPACITY PERFORMANCE	72	73	126	126	127	127	128	128	129	130	130	130	131	132	133	134
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT	130	131	126	126	127	127	128	128	129	130	130	130	131	132	133	134
PJM WESTERN																
LIMITED	543															
EXTENDED SUMMER	7															
BASE	3,888	4,457														
CAPACITY PERFORMANCE	532	535	4,043	4,064	4,086	4,103	4,126	4,143	4,165	4,188	4,217	4,238	4,267	4,294	4,319	4,344
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			93	93	94	94	94	95	95	96	97	98	99	99	100	101
TOTAL LOAD MANAGEMENT	4,970	4,992	4,136	4,157	4,180	4,197	4,220	4,238	4,260	4,284	4,314	4,336	4,366	4,393	4,419	4,445

DR Forecast accounts for the phase-out of Limited, Extended Summer, Annual, and Base DR in DY 2020.
DR Forecast for Limited, Extended Summer, Base, and CP prior to DY 2020 is based on the average ratio of committed DR (by DR product) to past forecasted peak in the last three DYs (2015, 2016 and 2017) 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.
-Full transition to Base and CP DR for regions with FRR DR (AEP, DEOK) is completed in DY 2019.
Summer-Period DR refers to DR resources that aggregate with Winter-Period resources to form a year-round commitment.
DR Forecast for CP DR, Summer-Period DR and Price Responsive Demand (PRD) for DY 2020 and beyond is based on actual cleared quantities of those products in the 2020/21 RPM Base Residual Auction.

Table B-7 (Continued)

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

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
DOM																
BASE	621	628														
CAPACITY PERFORMANCE	59	59	530	535	540	543	546	551	555	560	565	570	575	580	585	590
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMMER PERIOD			0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT	680	687	530	535	540	543	546	551	555	560	565	570	575	580	585	590
PJM RTO																
LIMITED	543															
EXTENDED SUMMER	7															
BASE	7,757	8,322														
CAPACITY PERFORMANCE	788	791	6,855	6,877	6,908	6,934	6,969	7,001	7,038	7,073	7,118	7,156	7,203	7,248	7,290	7,332
PRD	0	0	558	554	552	552	555	558	559	560	562	564	566	568	570	572
SUMMER PERIOD			262	260	261	261	262	264	265	266	267	269	270	273	274	275
TOTAL LOAD MANAGEMENT	9,095	9,113	7,675	7,691	7,721	7,747	7,786	7,823	7,862	7,899	7,947	7,989	8,039	8,089	8,134	8,179

DR Forecast accounts for the phase-out of Limited, Extended Summer, Annual, and Base DR in DY 2020.
DR Forecast for Limited, Extended Summer, Base, and CP prior to DY 2020 is based on the average ratio of committed DR (by DR product) to past forecasted peak in the last three DYs (2015, 2016 and 2017) 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.
-Full transition to Base and CP DR for regions with FRR DR (AEP, DEOK) is completed in DY 2019.
Summer-Period DR refers to DR resources that aggregate with Winter-Period resources to form a year-round commitment.
DR Forecast for CP DR, Summer-Period DR and Price Responsive Demand (PRD) for DY 2020 and beyond is based on actual cleared quantities of those products in the 2020/21 RPM Base Residual Auction.

Table B-8

DISTRIBUTED SOLAR ADJUSTMENTS TO SUMMER PEAK LOAD (MW) FOR EACH PJM ZONE AND RTO
2018 - 2033

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
AE	105	116	128	136	140	144	145	145	145	146	147	148	148	149	150	151
BGE	115	154	199	232	255	278	288	288	288	290	292	297	303	310	319	328
DPL	63	71	81	91	98	106	109	108	108	108	108	108	109	109	112	115
JCPL	160	184	210	227	238	246	249	248	250	252	254	257	259	261	263	265
METED	18	20	24	27	30	31	31	32	32	32	33	33	35	36	38	40
PECO	29	36	44	54	62	65	65	65	66	67	68	70	73	78	83	88
PENLC	5	9	13	17	21	22	22	22	23	23	24	25	26	28	30	33
PEPCO	92	121	154	179	198	214	222	223	223	224	226	229	233	238	244	250
PL	41	48	56	65	73	75	75	76	76	77	78	80	83	87	92	97
PS	252	301	352	388	410	427	433	433	436	441	446	451	456	461	466	471
RECO	5	7	9	10	11	11	12	12	12	12	12	12	12	13	13	13
UGI	0	0	1	1	1	1	1	1	1	1	1	1	1	1	2	2
AEP	26	42	69	116	155	190	215	220	225	231	239	248	257	267	280	296
APS	48	64	83	101	115	127	134	135	136	138	140	143	148	153	160	168
ATSI	30	38	53	83	102	111	116	118	118	121	124	127	130	133	138	145
COMED	18	25	36	55	74	88	98	105	108	111	115	121	132	143	154	165
DAYTON	7	9	13	22	28	31	32	33	33	34	35	36	36	37	39	40
DEOK	6	8	14	26	33	36	39	39	40	41	42	43	45	46	48	50
DLCO	6	8	10	13	16	17	17	17	17	18	18	19	20	21	22	24
EKPC	1	1	2	3	5	7	10	10	11	12	12	13	14	15	15	16
DOM	193	231	276	333	386	440	472	473	476	480	485	491	498	510	527	547
PJM RTO	1,218	1,491	1,825	2,181	2,450	2,667	2,785	2,801	2,824	2,858	2,900	2,953	3,019	3,096	3,193	3,303

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

Table B-9

ADJUSTMENTS TO SUMMER PEAK LOAD (MW) FOR EACH PJM ZONE AND RTO
2018 - 2033

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
AE	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JCPL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
METED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PECO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PENLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	160	210	370	510	530	520	500	480	460	450	440	420	410	370	370	350
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	160	260	390	500	560	530	500	480	450	420	380	340	310	280	250	210
PJM RTO	320	470	760	1,010	1,090	1,050	1,000	960	910	870	820	760	720	650	620	560

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.

Table B-10

SUMMER COINCIDENT PEAK LOAD (MW) FOR
EACH PJM ZONE, LOCATIONAL DELIVERABILITY AREA AND RTO
2018 - 2033

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
AE	2,376	2,356	2,326	2,308	2,304	2,305	2,304	2,307	2,310	2,313	2,324	2,329	2,332	2,339	2,345	2,351
BGE	6,539	6,475	6,456	6,386	6,376	6,382	6,382	6,443	6,458	6,433	6,461	6,512	6,482	6,555	6,519	6,531
DPL	3,790	3,783	3,768	3,756	3,763	3,779	3,788	3,811	3,828	3,841	3,869	3,894	3,913	3,944	3,953	3,974
JCPL	5,734	5,689	5,620	5,616	5,620	5,623	5,634	5,651	5,671	5,717	5,735	5,787	5,788	5,816	5,879	5,908
METED	2,859	2,876	2,859	2,867	2,877	2,885	2,927	2,947	2,968	2,990	2,998	3,034	3,064	3,088	3,107	3,128
PECO	8,358	8,375	8,326	8,351	8,384	8,439	8,476	8,509	8,569	8,610	8,675	8,727	8,785	8,833	8,895	8,945
PENLC	2,771	2,771	2,756	2,754	2,752	2,762	2,763	2,766	2,772	2,781	2,792	2,795	2,800	2,803	2,812	2,815
PEPCO	6,223	6,196	6,135	6,112	6,103	6,112	6,115	6,126	6,139	6,160	6,184	6,200	6,216	6,231	6,249	6,261
PL	6,866	6,874	6,844	6,850	6,869	6,894	6,916	6,951	6,980	7,022	7,057	7,097	7,117	7,149	7,185	7,210
PS	9,571	9,505	9,396	9,363	9,364	9,382	9,384	9,401	9,434	9,462	9,511	9,545	9,562	9,599	9,651	9,703
RECO	383	381	381	379	377	378	378	379	383	383	383	384	385	387	390	390
UGI	182	182	180	179	178	179	179	179	179	180	180	180	180	180	181	181
AEP	22,036	22,133	22,047	22,124	22,191	22,325	22,493	22,599	22,729	22,902	23,066	23,246	23,419	23,558	23,746	23,901
APS	8,514	8,581	8,703	8,862	8,914	8,957	8,967	8,984	9,013	9,060	9,117	9,150	9,184	9,193	9,244	9,273
ATSI	12,435	12,471	12,411	12,424	12,452	12,508	12,547	12,583	12,647	12,700	12,774	12,826	12,891	12,938	13,008	13,064
COMED	21,354	21,441	21,363	21,458	21,577	21,728	21,820	21,928	22,054	22,207	22,380	22,521	22,651	22,819	22,974	23,129
DAYTON	3,278	3,287	3,264	3,252	3,254	3,266	3,278	3,286	3,296	3,306	3,323	3,337	3,352	3,361	3,372	3,384
DEOK	5,284	5,326	5,319	5,336	5,354	5,404	5,449	5,492	5,530	5,570	5,610	5,656	5,708	5,753	5,796	5,829
DLCO	2,755	2,756	2,741	2,744	2,748	2,760	2,765	2,770	2,777	2,790	2,803	2,812	2,818	2,824	2,835	2,842
EKPC	1,896	1,908	1,906	1,913	1,917	1,924	1,936	1,943	1,949	1,960	1,964	1,975	1,989	1,997	2,007	2,011
DOM	18,903	19,112	19,162	19,330	19,511	19,641	19,743	19,889	20,035	20,219	20,429	20,618	20,774	20,929	21,110	21,267
PJM RTO	152,107	152,478	151,963	152,364	152,885	153,633	154,244	154,944	155,721	156,606	157,635	158,625	159,410	160,296	161,258	162,097
PJM MID-ATLANTIC	55,652	55,463	55,047	54,921	54,967	55,120	55,246	55,470	55,691	55,892	56,169	56,484	56,624	56,924	57,166	57,397
EASTERN MID-ATLANTIC	30,212	30,089	29,817	29,773	29,812	29,906	29,964	30,058	30,195	30,326	30,497	30,666	30,765	30,918	31,113	31,271
SOUTHERN MID-ATLANTIC	12,762	12,671	12,591	12,498	12,479	12,494	12,497	12,569	12,597	12,593	12,645	12,712	12,698	12,786	12,768	12,792

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

Table B-11

PJM CONTROL AREA - JANUARY 2018
SUMMER TOTAL INTERNAL DEMAND FORECAST (MW) FOR EACH NERC REGION
2018 - 2033

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Annual Growth Rate (10 yr)
PJM - RELIABILITY FIRST												
TOTAL INTERNAL DEMAND	130,552	130,706	130,132	130,353	130,676	131,312	131,775	132,304	132,937	133,619	134,441	0.3%
% TOTAL		0.1%	-0.4%	0.2%	0.2%	0.5%	0.4%	0.4%	0.5%	0.5%	0.6%	
CONTRACTUALLY INTERRUPTIBLE	8,285	8,295	7,019	7,030	7,054	7,077	7,112	7,144	7,178	7,209	7,252	
DIRECT CONTROL	0	0	0	0	0	0	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	8,285	8,295	7,019	7,030	7,054	7,077	7,112	7,144	7,178	7,209	7,252	
NET INTERNAL DEMAND	122,267	122,411	123,113	123,323	123,622	124,235	124,663	125,160	125,759	126,410	127,189	0.4%
% NET		0.1%	0.6%	0.2%	0.2%	0.5%	0.3%	0.4%	0.5%	0.5%	0.6%	
PJM - SERC												
TOTAL INTERNAL DEMAND	21,556	21,773	21,830	22,010	22,211	22,320	22,470	22,637	22,787	22,986	23,194	0.7%
% TOTAL		1.0%	0.3%	0.8%	0.9%	0.5%	0.7%	0.7%	0.7%	0.9%	0.9%	
CONTRACTUALLY INTERRUPTIBLE	810	818	656	661	667	670	674	679	684	690	695	
DIRECT CONTROL	0	0	0	0	0	0	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	810	818	656	661	667	670	674	679	684	690	695	
NET INTERNAL DEMAND	20,746	20,955	21,174	21,349	21,544	21,650	21,796	21,958	22,103	22,296	22,499	0.8%
% NET		1.0%	1.0%	0.8%	0.9%	0.5%	0.7%	0.7%	0.7%	0.9%	0.9%	
PJM RTO												
TOTAL INTERNAL DEMAND	152,108	152,479	151,962	152,363	152,887	153,632	154,245	154,941	155,724	156,605	157,635	0.4%
% TOTAL		0.2%	-0.3%	0.3%	0.3%	0.5%	0.4%	0.5%	0.5%	0.6%	0.7%	
CONTRACTUALLY INTERRUPTIBLE	9,095	9,113	7,675	7,691	7,721	7,747	7,786	7,823	7,862	7,899	7,947	
DIRECT CONTROL	0	0	0	0	0	0	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	9,095	9,113	7,675	7,691	7,721	7,747	7,786	7,823	7,862	7,899	7,947	
NET INTERNAL DEMAND	143,013	143,366	144,287	144,672	145,166	145,885	146,459	147,118	147,862	148,706	149,688	0.5%
% NET		0.2%	0.6%	0.3%	0.3%	0.5%	0.4%	0.4%	0.5%	0.6%	0.7%	

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 (2018).

Table B-11 (Continued)

PJM CONTROL AREA - JANUARY 2018
SUMMER TOTAL INTERNAL DEMAND FORECAST (MW) FOR EACH NERC REGION
2018 - 2033

	2029	2030	2031	2032	2033	Annual Growth Rate (15 yr)
PJM - RELIABILITY FIRST						
TOTAL INTERNAL DEMAND	135,242	135,815	136,499	137,280	137,924	0.4%
% TOTAL	0.6%	0.4%	0.5%	0.6%	0.5%	
CONTRACTUALLY INTERRUPTIBLE	7,289	7,333	7,377	7,416	7,455	
DIRECT CONTROL	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	7,289	7,333	7,377	7,416	7,455	
NET INTERNAL DEMAND	127,953	128,482	129,122	129,864	130,469	0.4%
% NET	0.6%	0.4%	0.5%	0.6%	0.5%	
PJM - SERC						
TOTAL INTERNAL DEMAND	23,382	23,597	23,795	23,979	24,171	0.8%
% TOTAL	0.8%	0.9%	0.8%	0.8%	0.8%	
CONTRACTUALLY INTERRUPTIBLE	700	706	712	718	724	
DIRECT CONTROL	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	700	706	712	718	724	
NET INTERNAL DEMAND	22,682	22,891	23,083	23,261	23,447	0.8%
% NET	0.8%	0.9%	0.8%	0.8%	0.8%	
PJM RTO						
TOTAL INTERNAL DEMAND	158,624	159,412	160,294	161,259	162,095	0.4%
% TOTAL	0.6%	0.5%	0.6%	0.6%	0.5%	
CONTRACTUALLY INTERRUPTIBLE	7,989	8,039	8,089	8,134	8,179	
DIRECT CONTROL	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	7,989	8,039	8,089	8,134	8,179	
NET INTERNAL DEMAND	150,635	151,373	152,205	153,125	153,916	0.5%
% NET	0.6%	0.5%	0.5%	0.6%	0.5%	

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 (2018).

Table B-12

PJM CONTROL AREA - JANUARY 2018
WINTER TOTAL INTERNAL DEMAND FORECAST (MW) FOR EACH NERC REGION
2017/18 - 2027/28

	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Annual Growth Rate (10 yr)
PJM - RELIABILITY FIRST												
TOTAL INTERNAL DEMAND	110,780	111,346	110,922	111,119	111,614	112,146	112,645	112,777	113,227	113,632	114,240	0.3%
% TOTAL		0.5%	-0.4%	0.2%	0.4%	0.5%	0.4%	0.1%	0.4%	0.4%	0.5%	
CONTRACTUALLY INTERRUPTIBLE	657	659	6,199	6,216	6,241	6,264	6,295	6,322	6,354	6,383	6,423	
DIRECT CONTROL	0	0	0	0	0	0	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	657	659	6,199	6,216	6,241	6,264	6,295	6,322	6,354	6,383	6,423	
NET INTERNAL DEMAND	110,123	110,687	104,723	104,903	105,373	105,882	106,350	106,455	106,873	107,249	107,817	(0.2%)
% NET		0.5%	-5.4%	0.2%	0.4%	0.5%	0.4%	0.1%	0.4%	0.4%	0.5%	
PJM - SERC												
TOTAL INTERNAL DEMAND	20,683	21,011	21,117	21,282	21,503	21,656	21,790	21,917	22,114	22,294	22,462	0.8%
% TOTAL		1.6%	0.5%	0.8%	1.0%	0.7%	0.6%	0.6%	0.9%	0.8%	0.8%	
CONTRACTUALLY INTERRUPTIBLE	131	132	656	661	667	670	674	679	684	690	695	
DIRECT CONTROL	0	0	0	0	0	0	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	131	132	656	661	667	670	674	679	684	690	695	
NET INTERNAL DEMAND	20,552	20,879	20,461	20,621	20,836	20,986	21,116	21,238	21,430	21,604	21,767	0.6%
% NET		1.6%	-2.0%	0.8%	1.0%	0.7%	0.6%	0.6%	0.9%	0.8%	0.8%	
PJM RTO												
TOTAL INTERNAL DEMAND	131,463	132,357	132,039	132,401	133,117	133,802	134,435	134,694	135,341	135,926	136,702	0.4%
% TOTAL		0.7%	-0.2%	0.3%	0.5%	0.5%	0.5%	0.2%	0.5%	0.4%	0.6%	
CONTRACTUALLY INTERRUPTIBLE	788	791	6,855	6,877	6,908	6,934	6,969	7,001	7,038	7,073	7,118	
DIRECT CONTROL	0	0	0	0	0	0	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	788	791	6,855	6,877	6,908	6,934	6,969	7,001	7,038	7,073	7,118	
NET INTERNAL DEMAND	130,675	131,566	125,184	125,524	126,209	126,868	127,466	127,693	128,303	128,853	129,584	(0.1%)
% NET		0.7%	-4.9%	0.3%	0.5%	0.5%	0.5%	0.2%	0.5%	0.4%	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 (2017/18).

Table B-12 (Continued)

PJM CONTROL AREA - JANUARY 2018
WINTER TOTAL INTERNAL DEMAND FORECAST (MW) FOR EACH NERC REGION
2017/18 - 2027/28

	28/29	29/30	30/31	31/32	32/33	Annual Growth Rate (15 yr)
PJM - RELIABILITY FIRST						
TOTAL INTERNAL DEMAND	114,566	115,291	115,525	116,052	116,635	0.3%
% TOTAL	0.3%	0.6%	0.2%	0.5%	0.5%	
CONTRACTUALLY INTERRUPTIBLE	6,456	6,497	6,536	6,572	6,608	
DIRECT CONTROL	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	6,456	6,497	6,536	6,572	6,608	
NET INTERNAL DEMAND	108,110	108,794	108,989	109,480	110,027	(0.0%)
% NET	0.3%	0.6%	0.2%	0.5%	0.5%	
PJM - SERC						
TOTAL INTERNAL DEMAND	22,633	22,829	22,944	23,164	23,340	0.8%
% TOTAL	0.8%	0.9%	0.5%	1.0%	0.8%	
CONTRACTUALLY INTERRUPTIBLE	700	706	712	718	724	
DIRECT CONTROL	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	700	706	712	718	724	
NET INTERNAL DEMAND	21,933	22,123	22,232	22,446	22,616	0.6%
% NET	0.8%	0.9%	0.5%	1.0%	0.8%	
PJM RTO						
TOTAL INTERNAL DEMAND	137,199	138,120	138,469	139,216	139,975	0.4%
% TOTAL	0.4%	0.7%	0.3%	0.5%	0.5%	
CONTRACTUALLY INTERRUPTIBLE	7,156	7,203	7,248	7,290	7,332	
DIRECT CONTROL	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	7,156	7,203	7,248	7,290	7,332	
NET INTERNAL DEMAND	130,043	130,917	131,221	131,926	132,643	0.1%
% NET	0.4%	0.7%	0.2%	0.5%	0.5%	

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 (2017/18).

Table C-1

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

BASE (50/50) FORECAST

YEAR	SPRING	SUMMER	FALL	WINTER
2018	18,773	23,262	19,742	21,170
2019	18,737	23,222	19,784	21,252
2020	18,483	23,061	19,743	21,166
2021	18,437	23,000	19,686	21,164
2022	18,564	23,015	19,697	21,234
2023	18,618	23,079	19,692	21,310
2024	18,667	23,157	19,808	21,374
2025	18,631	23,227	19,918	21,416
2026	18,703	23,332	20,034	21,474
2027	18,715	23,408	20,076	21,541
2028	18,982	23,524	20,069	21,638
2029	19,081	23,632	20,164	21,713
2030	19,141	23,706	20,295	21,748
2031	19,130	23,817	20,448	21,823
2032	19,062	23,912	20,526	21,893
2033	19,318	23,981	20,559	21,974

EXTREME WEATHER (90/10) FORECAST

YEAR	SPRING	SUMMER	FALL	WINTER
2018	20,212	24,458	21,592	22,002
2019	20,023	24,402	21,574	22,063
2020	19,791	24,356	21,407	21,986
2021	19,768	24,201	21,428	21,992
2022	19,871	24,456	21,481	22,041
2023	19,984	24,521	21,551	22,128
2024	19,957	24,390	21,629	22,185
2025	19,973	24,678	21,700	22,228
2026	20,043	24,692	21,754	22,294
2027	20,141	24,692	21,874	22,351
2028	20,437	25,024	21,990	22,434
2029	20,589	24,950	22,111	22,503
2030	20,467	25,045	22,190	22,536
2031	20,505	25,349	22,286	22,605
2032	20,593	25,268	22,375	22,675
2033	20,738	25,567	22,473	22,748

Notes:
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.
Winter season indicates peak from December, January, February.

Table C-2

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

BASE (50/50) FORECAST

YEAR	SPRING	SUMMER	FALL	WINTER
2018	11,283	13,005	11,325	12,822
2019	11,295	13,022	11,366	12,874
2020	11,202	12,948	11,314	12,795
2021	11,221	12,960	11,314	12,788
2022	11,267	13,008	11,349	12,816
2023	11,315	13,059	11,365	12,862
2024	11,358	13,116	11,445	12,904
2025	11,366	13,173	11,508	12,927
2026	11,416	13,241	11,559	12,962
2027	11,466	13,304	11,603	13,016
2028	11,527	13,384	11,614	13,069
2029	11,580	13,459	11,629	13,094
2030	11,595	13,517	11,746	13,144
2031	11,615	13,584	11,841	13,162
2032	11,675	13,654	11,866	13,203
2033	11,735	13,722	11,923	13,252

EXTREME WEATHER (90/10) FORECAST

YEAR	SPRING	SUMMER	FALL	WINTER
2018	11,824	13,744	12,342	13,161
2019	11,854	13,766	12,360	13,204
2020	11,746	13,752	12,272	13,147
2021	11,757	13,696	12,304	13,120
2022	11,782	13,812	12,334	13,157
2023	11,840	13,879	12,413	13,213
2024	11,882	13,892	12,470	13,254
2025	11,891	14,023	12,518	13,269
2026	11,923	14,092	12,561	13,308
2027	11,970	14,080	12,639	13,344
2028	12,049	14,238	12,719	13,396
2029	12,108	14,264	12,798	13,446
2030	12,116	14,332	12,850	13,469
2031	12,144	14,487	12,912	13,495
2032	12,177	14,473	12,968	13,535
2033	12,278	14,586	12,986	13,572

Notes:
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.
Winter season indicates peak from December, January, February.

Table C-3

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
2018	22,922	30,840	25,001	22,177
2019	22,782	30,812	25,036	22,263
2020	22,170	30,665	24,861	22,059
2021	21,782	30,472	24,833	21,967
2022	22,396	30,647	24,848	22,026
2023	22,545	30,615	24,878	22,100
2024	22,631	30,733	25,039	22,158
2025	22,596	30,928	25,154	22,127
2026	22,454	31,087	25,264	22,170
2027	22,270	31,083	25,368	22,228
2028	23,040	31,263	25,441	22,360
2029	23,296	31,393	25,589	22,403
2030	23,243	31,594	25,731	22,518
2031	23,290	31,851	25,902	22,496
2032	22,912	31,917	26,053	22,568
2033	23,584	32,213	26,165	22,707

EXTREME WEATHER (90/10) FORECAST

YEAR	SPRING	SUMMER	FALL	WINTER
2018	25,843	33,047	28,089	22,753
2019	25,660	33,093	28,125	22,771
2020	25,385	32,810	27,900	22,578
2021	25,482	32,615	27,910	22,530
2022	25,516	32,813	27,944	22,554
2023	25,617	32,991	28,069	22,625
2024	25,592	33,053	28,167	22,677
2025	25,681	33,155	28,258	22,674
2026	25,765	33,279	28,344	22,735
2027	25,986	33,308	28,500	22,803
2028	26,130	33,697	28,668	22,877
2029	26,357	33,676	28,598	22,955
2030	26,360	33,986	28,945	22,986
2031	26,506	34,141	29,127	23,014
2032	26,620	34,232	29,267	23,111
2033	26,783	34,568	29,372	23,193

Notes:
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.
Winter season indicates peak from December, January, February.

Table C-4

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

BASE (50/50) FORECAST

YEAR	SPRING	SUMMER	FALL	WINTER
2018	10,343	13,172	11,160	11,265
2019	10,309	13,101	11,142	11,294
2020	10,097	13,005	11,133	11,307
2021	10,045	12,937	11,100	11,300
2022	10,117	12,907	11,050	11,324
2023	10,125	12,910	11,049	11,359
2024	10,186	12,935	11,089	11,373
2025	10,147	12,991	11,175	11,387
2026	10,120	13,026	11,210	11,422
2027	10,144	13,051	11,223	11,454
2028	10,250	13,067	11,183	11,490
2029	10,321	13,121	11,218	11,519
2030	10,378	13,151	11,292	11,549
2031	10,323	13,227	11,396	11,564
2032	10,308	13,253	11,399	11,608
2033	10,378	13,288	11,392	11,652

EXTREME WEATHER (90/10) FORECAST

YEAR	SPRING	SUMMER	FALL	WINTER
2018	11,236	13,946	12,148	11,758
2019	11,185	13,907	12,110	11,781
2020	11,081	13,800	12,034	11,771
2021	11,046	13,690	12,005	11,777
2022	11,039	13,761	11,974	11,802
2023	11,046	13,780	12,017	11,830
2024	11,056	13,761	12,060	11,854
2025	11,073	13,801	12,088	11,874
2026	11,107	13,837	12,113	11,904
2027	11,149	13,834	12,149	11,927
2028	11,200	13,970	12,166	11,964
2029	11,232	13,936	12,240	11,991
2030	11,258	14,022	12,282	12,009
2031	11,283	14,067	12,323	12,045
2032	11,327	14,071	12,344	12,077
2033	11,360	14,181	12,303	12,115

Notes:
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.
Winter season indicates peak from December, January, February.

Table D-1

SUMMER EXTREME WEATHER (90/10) PEAK LOAD FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION 2018 - 2033

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
AE	2,555	2,550	2,520	2,490	2,496	2,502	2,502	2,506	2,510	2,503	2,528	2,516	2,538	2,545	2,543	2,561
BGE	7,174	7,154	7,101	7,046	7,082	7,091	7,080	7,101	7,121	7,119	7,189	7,171	7,215	7,237	7,238	7,293
DPL	4,086	4,088	4,068	4,046	4,077	4,093	4,098	4,116	4,134	4,141	4,192	4,194	4,232	4,257	4,269	4,315
JCPL	6,394	6,412	6,319	6,269	6,317	6,335	6,372	6,366	6,390	6,392	6,469	6,470	6,558	6,569	6,591	6,678
METED	3,061	3,082	3,067	3,066	3,102	3,130	3,145	3,167	3,190	3,206	3,255	3,261	3,299	3,325	3,343	3,384
PECO	9,036	9,098	9,068	9,056	9,145	9,215	9,246	9,301	9,354	9,383	9,506	9,513	9,603	9,667	9,702	9,806
PENLC	3,028	3,030	3,019	3,003	3,017	3,031	3,031	3,041	3,048	3,044	3,071	3,067	3,081	3,091	3,088	3,104
PEPCO	6,772	6,754	6,699	6,644	6,679	6,690	6,681	6,700	6,717	6,715	6,781	6,765	6,807	6,830	6,834	6,888
PL	7,452	7,449	7,471	7,428	7,519	7,565	7,514	7,617	7,653	7,629	7,764	7,735	7,748	7,866	7,839	7,960
PS	10,541	10,510	10,402	10,323	10,379	10,411	10,403	10,431	10,455	10,453	10,562	10,545	10,614	10,660	10,682	10,781
RECO	436	435	433	431	434	435	433	435	436	436	441	438	441	443	445	449
UGI	203	205	202	200	200	200	202	202	201	201	201	201	204	205	203	203
DIVERSITY - MID-ATLANTIC(-)	410	554	507	325	655	726	545	587	483	328	722	354	534	537	347	672
PJM MID-ATLANTIC	60,328	60,213	59,862	59,677	59,792	59,972	60,162	60,396	60,726	60,894	61,237	61,522	61,806	62,158	62,430	62,750
FE-EAST	12,408	12,426	12,320	12,314	12,332	12,384	12,442	12,489	12,545	12,610	12,680	12,731	12,828	12,902	12,981	13,051
PLGRP	7,655	7,654	7,673	7,628	7,719	7,765	7,716	7,819	7,854	7,830	7,965	7,936	7,952	8,071	8,042	8,163

Notes:
All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management.
Summer season indicates peak from June, July, August.

Table D-1

SUMMER EXTREME WEATHER (90/10) PEAK LOAD FOR
EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO
2018 - 2033

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
AEP	23,656	23,798	23,763	23,747	24,008	24,167	24,248	24,412	24,566	24,656	24,985	25,068	25,303	25,488	25,612	25,927
APS	9,013	9,072	9,199	9,319	9,428	9,481	9,481	9,508	9,539	9,556	9,672	9,706	9,737	9,750	9,785	9,869
ATSI	13,455	13,489	13,437	13,394	13,512	13,586	13,614	13,663	13,720	13,741	13,898	13,928	14,018	14,077	14,112	14,248
COMED	24,292	24,429	24,364	24,378	24,667	24,850	24,931	25,085	25,222	25,316	25,661	25,709	25,969	26,153	26,269	26,594
DAYTON	3,571	3,586	3,565	3,540	3,568	3,577	3,583	3,592	3,606	3,608	3,646	3,643	3,671	3,682	3,690	3,726
DEOK	5,744	5,785	5,782	5,781	5,852	5,903	5,928	5,973	6,016	6,042	6,129	6,148	6,214	6,263	6,297	6,383
DLCO	2,995	3,003	2,990	2,973	3,003	3,016	3,017	3,024	3,035	3,031	3,067	3,062	3,081	3,089	3,090	3,116
EKPC	2,066	2,075	2,080	2,078	2,100	2,110	2,112	2,124	2,135	2,137	2,161	2,162	2,178	2,189	2,195	2,219
DIVERSITY - WESTERN(-)	289	196	226	0	325	728	195	530	167	0	709	314	160	521	0	274
PJM WESTERN	84,503	85,041	84,954	85,210	85,813	85,962	86,719	86,851	87,672	88,087	88,510	89,112	90,011	90,170	91,050	91,808
DOM	20,456	20,703	20,781	20,873	21,185	21,326	21,397	21,574	21,737	21,856	22,188	22,270	22,521	22,713	22,846	23,137
DIVERSITY - INTERREGIONAL(-)	1,691	1,851	2,051	1,847	2,128	1,686	1,848	1,573	2,144	1,981	1,780	1,758	1,916	1,580	2,135	2,429
PJM RTO	163,596	164,106	163,546	163,913	164,662	165,574	166,430	167,248	167,991	168,856	170,155	171,146	172,422	173,461	174,191	175,266

Notes:
All forecast values represent unrestricted peaks, after reductions for distributed solar generation and prior to reductions for load management.
Summer season indicates peak from June, July, August.

Table D-2

WINTER EXTREME WEATHER (90/10) PEAK LOAD FOR
EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION
2017/18 - 2032/33

	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	32/33
AE	1,621	1,614	1,593	1,582	1,576	1,572	1,571	1,565	1,564	1,563	1,565	1,565	1,563	1,557	1,559	1,562
BGE	6,146	6,155	6,148	6,150	6,156	6,163	6,174	6,178	6,187	6,193	6,201	6,213	6,216	6,229	6,239	6,247
DPL	3,596	3,584	3,581	3,606	3,621	3,641	3,657	3,651	3,688	3,708	3,732	3,753	3,751	3,773	3,815	3,841
JCPL	3,796	3,813	3,754	3,732	3,723	3,725	3,737	3,702	3,709	3,731	3,747	3,751	3,777	3,741	3,763	3,804
METED	2,657	2,673	2,676	2,657	2,677	2,695	2,698	2,708	2,722	2,736	2,757	2,771	2,783	2,795	2,810	2,829
PECO	6,876	6,899	6,854	6,854	6,871	6,899	6,928	6,938	6,961	6,980	7,008	7,037	7,046	7,068	7,092	7,113
PENLC	2,917	2,922	2,905	2,899	2,903	2,912	2,923	2,915	2,918	2,920	2,926	2,934	2,942	2,935	2,937	2,940
PEPCO	5,612	5,626	5,623	5,628	5,646	5,667	5,680	5,696	5,717	5,734	5,763	5,778	5,793	5,816	5,838	5,869
PL	7,388	7,410	7,369	7,368	7,382	7,411	7,439	7,452	7,474	7,494	7,519	7,547	7,550	7,573	7,595	7,611
PS	6,712	6,726	6,665	6,638	6,639	6,644	6,665	6,634	6,644	6,663	6,695	6,687	6,733	6,710	6,724	6,775
RECO	235	235	232	232	232	233	233	231	231	232	233	232	235	232	232	234
UGI	200	200	197	196	195	195	195	195	194	194	194	194	194	193	193	192
DIVERSITY - MID-ATLANTIC(-)	198	176	229	406	243	209	224	286	347	396	213	312	203	285	307	222
PJM MID-ATLANTIC	47,558	47,681	47,368	47,136	47,378	47,548	47,676	47,579	47,662	47,752	48,127	48,150	48,380	48,337	48,490	48,795
FE-EAST	9,333	9,350	9,276	9,239	9,262	9,294	9,315	9,314	9,337	9,362	9,397	9,429	9,443	9,463	9,490	9,533
PLGRP	7,588	7,609	7,566	7,564	7,577	7,606	7,634	7,646	7,668	7,688	7,713	7,741	7,744	7,766	7,788	7,803

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.

Table D-2

WINTER EXTREME WEATHER (90/10) PEAK LOAD FOR
EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO
2018 - 2033

	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	32/33
AEP	23,585	23,722	23,661	23,755	23,890	24,071	24,243	24,357	24,509	24,654	24,810	24,980	25,081	25,236	25,394	25,564
APS	9,174	9,292	9,445	9,615	9,684	9,740	9,781	9,806	9,844	9,886	9,935	9,980	10,014	10,033	10,093	10,131
ATSI	10,908	10,950	10,907	10,920	10,942	10,987	11,032	11,066	11,102	11,122	11,163	11,191	11,242	11,289	11,311	11,346
COMED	16,101	16,196	16,105	16,105	16,194	16,294	16,389	16,414	16,495	16,563	16,707	16,757	16,898	16,929	17,015	17,141
DAYTON	3,003	3,010	2,987	2,975	2,980	2,986	2,994	2,996	3,003	3,005	3,014	3,022	3,028	3,028	3,035	3,043
DEOK	4,659	4,662	4,651	4,670	4,695	4,739	4,770	4,777	4,811	4,843	4,874	4,908	4,916	4,945	4,980	5,018
DLCO	2,185	2,195	2,179	2,175	2,178	2,184	2,191	2,189	2,194	2,197	2,205	2,211	2,219	2,214	2,219	2,225
EKPC	2,906	2,922	2,921	2,932	2,944	2,962	2,976	2,989	3,005	3,017	3,031	3,046	3,058	3,073	3,089	3,102
DIVERSITY - WESTERN(-)	680	710	761	893	685	743	813	974	952	945	863	925	964	1,059	988	951
PJM WESTERN	71,841	72,239	72,095	72,254	72,822	73,220	73,563	73,620	74,011	74,342	74,876	75,170	75,492	75,688	76,148	76,619
DOM	19,512	19,790	19,894	20,078	20,282	20,416	20,567	20,704	20,862	21,039	21,207	21,373	21,509	21,685	21,864	22,049
DIVERSITY - INTERREGIONAL(-)	1,163	1,195	1,089	803	1,086	1,147	1,108	789	832	836	1,087	884	1,194	861	917	1,151
PJM RTO	137,748	138,515	138,268	138,665	139,396	140,037	140,698	141,114	141,703	142,297	143,123	143,809	144,187	144,849	145,585	146,312

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.

Table E-1

ANNUAL NET ENERGY (GWh) AND GROWTH RATES FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION 2018 - 2028

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Annual Growth Rate (10 yr)
AE	9,982	9,884	9,726	9,625	9,589	9,573	9,591	9,563	9,567	9,577	9,624	(0.4%)
		-1.0%	-1.6%	-1.0%	-0.4%	-0.2%	0.2%	-0.3%	0.0%	0.1%	0.5%	
BGE	32,899	32,741	32,620	32,430	32,375	32,329	32,409	32,354	32,397	32,438	32,579	(0.1%)
		-0.5%	-0.4%	-0.6%	-0.2%	-0.1%	0.2%	-0.2%	0.1%	0.1%	0.4%	
DPL	18,833	18,838	18,838	18,797	18,852	18,917	19,042	19,068	19,166	19,269	19,453	0.3%
		0.0%	0.0%	-0.2%	0.3%	0.3%	0.7%	0.1%	0.5%	0.5%	1.0%	
JCPL	22,233	22,068	21,700	21,495	21,481	21,512	21,602	21,570	21,630	21,709	21,878	(0.2%)
		-0.7%	-1.7%	-0.9%	-0.1%	0.1%	0.4%	-0.1%	0.3%	0.4%	0.8%	
METED	15,967	16,003	15,926	15,918	16,012	16,116	16,248	16,292	16,404	16,522	16,698	0.4%
		0.2%	-0.5%	-0.1%	0.6%	0.6%	0.8%	0.3%	0.7%	0.7%	1.1%	
PECO	42,011	42,102	41,934	41,893	42,063	42,287	42,587	42,631	42,839	43,054	43,423	0.3%
		0.2%	-0.4%	-0.1%	0.4%	0.5%	0.7%	0.1%	0.5%	0.5%	0.9%	
PENLC	18,054	18,031	18,031	17,984	18,002	18,015	18,074	18,048	18,086	18,120	18,191	0.1%
		-0.1%	0.0%	-0.3%	0.1%	0.1%	0.3%	-0.1%	0.2%	0.2%	0.4%	
PEPCO	31,568	31,509	31,430	31,310	31,351	31,400	31,554	31,581	31,709	31,843	32,071	0.2%
		-0.2%	-0.3%	-0.4%	0.1%	0.2%	0.5%	0.1%	0.4%	0.4%	0.7%	
PL	41,167	41,239	41,092	41,035	41,190	41,374	41,662	41,690	41,893	42,098	42,446	0.3%
		0.2%	-0.4%	-0.1%	0.4%	0.4%	0.7%	0.1%	0.5%	0.5%	0.8%	
PS	43,971	43,692	43,265	42,937	42,944	42,973	43,107	43,101	43,220	43,350	43,638	(0.1%)
		-0.6%	-1.0%	-0.8%	0.0%	0.1%	0.3%	-0.0%	0.3%	0.3%	0.7%	
RECO	1,508	1,498	1,490	1,479	1,478	1,476	1,478	1,478	1,479	1,479	1,486	(0.1%)
		-0.7%	-0.5%	-0.7%	-0.1%	-0.1%	0.1%	0.0%	0.1%	0.0%	0.5%	
UGI	1,035	1,032	1,015	1,004	1,003	1,005	1,008	1,000	999	1,001	1,006	(0.3%)
		-0.3%	-1.6%	-1.1%	-0.1%	0.2%	0.3%	-0.8%	-0.1%	0.2%	0.5%	
PJM MID-ATLANTIC	279,228	278,637	277,067	275,907	276,340	276,977	278,362	278,376	279,389	280,460	282,493	0.1%
		-0.2%	-0.6%	-0.4%	0.2%	0.2%	0.5%	0.0%	0.4%	0.4%	0.7%	
FE-EAST	56,254	56,102	55,657	55,397	55,495	55,643	55,924	55,910	56,120	56,351	56,767	0.1%
		-0.3%	-0.8%	-0.5%	0.2%	0.3%	0.5%	-0.0%	0.4%	0.4%	0.7%	
PLGRP	42,202	42,271	42,107	42,039	42,193	42,379	42,670	42,690	42,892	43,099	43,452	0.3%
		0.2%	-0.4%	-0.2%	0.4%	0.4%	0.7%	0.0%	0.5%	0.5%	0.8%	

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 (2018).

Table E-1 (continued)

ANNUAL NET ENERGY (GWh) AND GROWTH RATES FOR EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION 2029 - 2033

	2029	2030	2031	2032	2033	Annual Growth Rate (15 yr)
AE	9,621	9,610	9,619	9,665	9,665	(0.2%)
	-0.0%	-0.1%	0.1%	0.5%	0.0%	
BGE	32,537	32,538	32,572	32,678	32,614	(0.1%)
	-0.1%	0.0%	0.1%	0.3%	-0.2%	
DPL	19,520	19,609	19,723	19,889	19,950	0.4%
	0.3%	0.5%	0.6%	0.8%	0.3%	
JCPL	21,945	21,964	22,063	22,255	22,333	0.0%
	0.3%	0.1%	0.5%	0.9%	0.4%	
METED	16,789	16,848	16,963	17,139	17,214	0.5%
	0.5%	0.4%	0.7%	1.0%	0.4%	
PECO	43,571	43,694	43,907	44,243	44,338	0.4%
	0.3%	0.3%	0.5%	0.8%	0.2%	
PENLC	18,179	18,167	18,206	18,302	18,274	0.1%
	-0.1%	-0.1%	0.2%	0.5%	-0.2%	
PEPCO	32,136	32,231	32,366	32,580	32,629	0.2%
	0.2%	0.3%	0.4%	0.7%	0.2%	
PL	42,585	42,679	42,877	43,202	43,284	0.3%
	0.3%	0.2%	0.5%	0.8%	0.2%	
PS	43,686	43,709	43,902	44,238	44,345	0.1%
	0.1%	0.1%	0.4%	0.8%	0.2%	
RECO	1,484	1,482	1,486	1,493	1,492	(0.1%)
	-0.1%	-0.1%	0.3%	0.5%	-0.1%	
UGI	1,004	1,002	1,000	1,005	1,002	(0.2%)
	-0.2%	-0.2%	-0.2%	0.5%	-0.3%	
PJM MID-ATLANTIC	283,057	283,533	284,684	286,689	287,140	0.2%
	0.2%	0.2%	0.4%	0.7%	0.2%	
FE-EAST	56,913	56,979	57,232	57,696	57,821	0.2%
	0.3%	0.1%	0.4%	0.8%	0.2%	
PLGRP	43,589	43,681	43,877	44,207	44,286	0.3%
	0.3%	0.2%	0.4%	0.8%	0.2%	

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 (2018).

Table E-1

ANNUAL NET ENERGY (GWh) AND GROWTH RATES FOR EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO 2018 - 2028

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Annual Growth Rate (10 yr)
AEP	133,317	133,818	133,899	133,952	134,783	135,638	136,721	137,167	138,064	138,989	140,422	0.5%
		0.4%	0.1%	0.0%	0.6%	0.6%	0.8%	0.3%	0.7%	0.7%	1.0%	
APS	50,554	51,036	51,805	52,496	52,915	53,222	53,585	53,674	53,955	54,278	54,830	0.8%
		1.0%	1.5%	1.3%	0.8%	0.6%	0.7%	0.2%	0.5%	0.6%	1.0%	
ATSI	69,609	69,722	69,759	69,702	69,973	70,242	70,623	70,726	71,069	71,414	71,917	0.3%
		0.2%	0.1%	-0.1%	0.4%	0.4%	0.5%	0.1%	0.5%	0.5%	0.7%	
COMED	103,484	103,832	103,711	103,923	104,635	105,374	106,241	106,610	107,366	108,157	109,275	0.5%
		0.3%	-0.1%	0.2%	0.7%	0.7%	0.8%	0.3%	0.7%	0.7%	1.0%	
DAYTON	18,286	18,294	18,208	18,126	18,152	18,183	18,258	18,254	18,319	18,387	18,501	0.1%
		0.0%	-0.5%	-0.5%	0.1%	0.2%	0.4%	-0.0%	0.4%	0.4%	0.6%	
DEOK	28,094	28,240	28,255	28,296	28,496	28,720	28,976	29,094	29,312	29,540	29,874	0.6%
		0.5%	0.1%	0.1%	0.7%	0.8%	0.9%	0.4%	0.7%	0.8%	1.1%	
DLCO	14,667	14,675	14,642	14,617	14,662	14,711	14,780	14,777	14,829	14,887	14,991	0.2%
		0.1%	-0.2%	-0.2%	0.3%	0.3%	0.5%	-0.0%	0.4%	0.4%	0.7%	
EKPC	10,954	10,972	11,008	11,021	11,055	11,084	11,139	11,138	11,170	11,195	11,266	0.3%
		0.2%	0.3%	0.1%	0.3%	0.3%	0.5%	-0.0%	0.3%	0.2%	0.6%	
PJM WESTERN	428,965	430,589	431,287	432,133	434,671	437,174	440,323	441,440	444,084	446,847	451,076	0.5%
		0.4%	0.2%	0.2%	0.6%	0.6%	0.7%	0.3%	0.6%	0.6%	0.9%	
DOM	98,532	99,774	100,284	100,842	101,897	102,666	103,679	104,324	105,315	106,405	107,937	0.9%
		1.3%	0.5%	0.6%	1.0%	0.8%	1.0%	0.6%	0.9%	1.0%	1.4%	
PJM RTO	806,725	809,000	808,638	808,882	812,908	816,817	822,364	824,140	828,788	833,712	841,506	0.4%
		0.3%	-0.0%	0.0%	0.5%	0.5%	0.7%	0.2%	0.6%	0.6%	0.9%	

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 (2018).

Table E-1 (Continued)

ANNUAL NET ENERGY (GWh) AND GROWTH RATES FOR EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO 2018 - 2028

	2029	2030	2031	2032	2033	Annual Growth Rate (15 yr)
AEP	141,167	141,831	142,831	144,292	145,011	0.6%
	0.5%	0.5%	0.7%	1.0%	0.5%	
APS	55,038	55,275	55,482	56,021	56,194	0.7%
	0.4%	0.4%	0.4%	1.0%	0.3%	
ATSI	72,111	72,274	72,655	73,247	73,414	0.4%
	0.3%	0.2%	0.5%	0.8%	0.2%	
COMED	109,929	110,455	111,258	112,446	113,077	0.6%
	0.6%	0.5%	0.7%	1.1%	0.6%	
DAYTON	18,533	18,541	18,608	18,745	18,776	0.2%
	0.2%	0.0%	0.4%	0.7%	0.2%	
DEOK	30,057	30,221	30,458	30,779	30,953	0.6%
	0.6%	0.5%	0.8%	1.1%	0.6%	
DLCO	15,014	15,030	15,077	15,176	15,188	0.2%
	0.2%	0.1%	0.3%	0.7%	0.1%	
EKPC	11,268	11,291	11,327	11,390	11,396	0.3%
	0.0%	0.2%	0.3%	0.6%	0.1%	
PJM WESTERN	453,117	454,918	457,696	462,096	464,009	0.5%
	0.5%	0.4%	0.6%	1.0%	0.4%	
DOM	108,884	109,786	110,865	112,289	113,087	0.9%
	0.9%	0.8%	1.0%	1.3%	0.7%	
PJM RTO	845,058	848,237	853,245	861,074	864,236	0.5%
	0.4%	0.4%	0.6%	0.9%	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 (2018).

Table E-2

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

	AE	BGE	DPL	JCPL	METED	PECO	PENLC	PEPCO	PL	PS	RECO	UGI	PJM MID-ATLANTIC
Jan 2018	841	3,083	1,773	1,929	1,469	3,723	1,687	2,856	3,979	3,760	124	104	25,328
Feb 2018	740	2,696	1,561	1,696	1,311	3,303	1,509	2,506	3,509	3,332	110	91	22,364
Mar 2018	759	2,666	1,514	1,725	1,325	3,359	1,541	2,504	3,498	3,431	115	90	22,527
Apr 2018	695	2,361	1,327	1,576	1,201	3,071	1,408	2,259	3,112	3,200	110	78	20,398
May 2018	740	2,394	1,367	1,641	1,232	3,149	1,427	2,351	3,130	3,334	117	76	20,958
Jun 2018	904	2,881	1,629	2,011	1,342	3,714	1,438	2,833	3,293	3,965	138	80	24,228
Jul 2018	1,110	3,255	1,882	2,394	1,480	4,225	1,541	3,189	3,644	4,567	159	90	27,536
Aug 2018	1,065	3,167	1,832	2,289	1,469	4,107	1,556	3,114	3,601	4,437	155	88	26,880
Sep 2018	818	2,534	1,471	1,764	1,226	3,344	1,402	2,534	3,104	3,575	125	75	21,972
Oct 2018	747	2,416	1,378	1,664	1,246	3,191	1,460	2,327	3,198	3,402	120	79	21,228
Nov 2018	738	2,525	1,425	1,664	1,259	3,226	1,472	2,387	3,326	3,333	115	85	21,555
Dec 2018	825	2,921	1,674	1,880	1,407	3,599	1,613	2,708	3,773	3,635	120	99	24,254

	AE	BGE	DPL	JCPL	METED	PECO	PENLC	PEPCO	PL	PS	RECO	UGI	MID-ATLANTIC
Jan 2019	834	3,079	1,778	1,920	1,475	3,739	1,686	2,857	3,991	3,744	123	104	25,330
Feb 2019	734	2,690	1,565	1,689	1,320	3,319	1,512	2,507	3,526	3,323	109	91	22,385
Mar 2019	751	2,652	1,514	1,712	1,331	3,369	1,539	2,496	3,507	3,412	114	90	22,487
Apr 2019	688	2,351	1,330	1,565	1,209	3,086	1,410	2,259	3,129	3,182	109	78	20,396
May 2019	733	2,378	1,368	1,629	1,236	3,158	1,427	2,347	3,139	3,314	116	76	20,921
Jun 2019	894	2,856	1,625	1,992	1,341	3,715	1,431	2,818	3,287	3,924	137	80	24,100
Jul 2019	1,101	3,242	1,884	2,381	1,491	4,243	1,550	3,182	3,667	4,544	159	90	27,534
Aug 2019	1,054	3,146	1,826	2,270	1,466	4,108	1,549	3,099	3,595	4,396	153	87	26,749
Sep 2019	812	2,526	1,475	1,757	1,232	3,363	1,404	2,535	3,117	3,562	125	75	21,983
Oct 2019	740	2,405	1,380	1,653	1,249	3,197	1,460	2,325	3,205	3,384	120	79	21,197
Nov 2019	729	2,508	1,422	1,643	1,253	3,214	1,462	2,376	3,313	3,300	114	84	21,418
Dec 2019	814	2,908	1,671	1,857	1,400	3,591	1,601	2,708	3,763	3,607	119	98	24,137

	AE	BGE	DPL	JCPL	METED	PECO	PENLC	PEPCO	PL	PS	RECO	UGI	MID-ATLANTIC
Jan 2020	818	3,064	1,773	1,882	1,460	3,707	1,678	2,846	3,960	3,695	122	102	25,107
Feb 2020	743	2,763	1,615	1,708	1,349	3,401	1,554	2,578	3,610	3,385	112	92	22,910
Mar 2020	735	2,637	1,511	1,676	1,322	3,349	1,538	2,491	3,491	3,367	113	88	22,318
Apr 2020	671	2,327	1,323	1,524	1,194	3,049	1,401	2,239	3,096	3,120	108	76	20,128
May 2020	716	2,350	1,360	1,589	1,220	3,123	1,413	2,325	3,101	3,251	114	74	20,636
Jun 2020	880	2,842	1,622	1,960	1,338	3,703	1,430	2,808	3,286	3,888	136	79	23,972
Jul 2020	1,086	3,224	1,879	2,349	1,486	4,235	1,550	3,165	3,656	4,505	158	89	27,382
Aug 2020	1,036	3,114	1,812	2,227	1,447	4,071	1,533	3,071	3,549	4,324	151	85	26,420
Sep 2020	798	2,509	1,472	1,725	1,224	3,344	1,401	2,522	3,100	3,519	124	74	21,812
Oct 2020	725	2,384	1,374	1,615	1,231	3,166	1,447	2,306	3,168	3,330	118	77	20,941
Nov 2020	715	2,494	1,418	1,606	1,240	3,190	1,455	2,363	3,288	3,254	113	82	21,218
Dec 2020	803	2,912	1,679	1,839	1,415	3,596	1,631	2,716	3,787	3,627	121	97	24,223

Notes:
All forecast values represent metered energy, after reductions for distributed solar generation.

Table E-2

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

	AEP	APS	ATSI	COMED	DAYTON	DEOK	DLCO	EKPC	PJM WESTERN	DOM	PJM RTO
Jan 2018	12,699	4,882	6,312	9,070	1,663	2,524	1,279	1,201	39,630	9,226	74,184
Feb 2018	11,128	4,300	5,626	8,020	1,461	2,211	1,135	1,015	34,896	8,051	65,311
Mar 2018	11,160	4,300	5,793	8,271	1,487	2,217	1,182	919	35,329	7,819	65,675
Apr 2018	9,989	3,792	5,354	7,733	1,384	2,045	1,114	747	32,158	6,958	59,514
May 2018	10,238	3,846	5,494	7,998	1,433	2,131	1,150	748	33,038	7,263	61,259
Jun 2018	11,023	4,124	5,804	8,919	1,559	2,523	1,287	877	36,116	8,750	69,094
Jul 2018	11,926	4,466	6,324	10,240	1,694	2,756	1,412	955	39,773	9,706	77,015
Aug 2018	11,932	4,457	6,314	10,050	1,697	2,758	1,397	957	39,562	9,473	75,915
Sep 2018	10,190	3,803	5,458	8,100	1,428	2,210	1,161	772	33,122	7,842	62,936
Oct 2018	10,372	3,894	5,579	8,162	1,453	2,149	1,163	762	33,534	7,230	61,992
Nov 2018	10,601	4,052	5,530	8,050	1,444	2,145	1,151	885	33,858	7,484	62,897
Dec 2018	12,059	4,638	6,021	8,871	1,583	2,425	1,236	1,116	37,949	8,730	70,933

	AEP	APS	ATSI	COMED	DAYTON	DEOK	DLCO	EKPC	WESTERN	DOM	PJM RTO
Jan 2019	12,782	4,942	6,330	9,111	1,665	2,544	1,282	1,206	39,862	9,367	74,559
Feb 2019	11,206	4,353	5,657	8,078	1,466	2,230	1,140	1,020	35,150	8,173	65,708
Mar 2019	11,211	4,349	5,812	8,315	1,488	2,231	1,184	920	35,510	7,931	65,928
Apr 2019	10,054	3,843	5,383	7,782	1,390	2,062	1,118	749	32,381	7,076	59,853
May 2019	10,289	3,890	5,510	8,041	1,436	2,146	1,153	749	33,214	7,368	61,503
Jun 2019	11,050	4,149	5,796	8,917	1,557	2,531	1,284	877	36,161	8,842	69,103
Jul 2019	12,010	4,515	6,353	10,312	1,703	2,775	1,415	958	40,041	9,815	77,390
Aug 2019	11,944	4,483	6,309	10,060	1,692	2,765	1,393	957	39,603	9,556	75,908
Sep 2019	10,244	3,848	5,479	8,141	1,432	2,227	1,163	775	33,309	7,959	63,251
Oct 2019	10,418	3,936	5,592	8,193	1,457	2,162	1,165	763	33,686	7,326	62,209
Nov 2019	10,578	4,075	5,509	8,036	1,434	2,143	1,147	886	33,808	7,557	62,783
Dec 2019	12,032	4,653	5,992	8,846	1,574	2,424	1,231	1,112	37,864	8,804	70,805

	AEP	APS	ATSI	COMED	DAYTON	DEOK	DLCO	EKPC	WESTERN	DOM	PJM RTO
Jan 2020	12,738	4,989	6,304	9,055	1,649	2,536	1,275	1,205	39,751	9,381	74,239
Feb 2020	11,535	4,542	5,815	8,294	1,496	2,295	1,169	1,051	36,197	8,461	67,568
Mar 2020	11,213	4,405	5,808	8,286	1,481	2,232	1,180	920	35,525	7,965	65,808
Apr 2020	9,995	3,879	5,348	7,719	1,373	2,050	1,108	748	32,220	7,074	59,422
May 2020	10,220	3,927	5,466	7,976	1,419	2,132	1,142	747	33,029	7,370	61,035
Jun 2020	11,068	4,215	5,806	8,934	1,557	2,541	1,283	880	36,284	8,871	69,127
Jul 2020	12,014	4,575	6,350	10,291	1,697	2,777	1,412	960	40,076	9,855	77,313
Aug 2020	11,860	4,512	6,243	9,966	1,668	2,747	1,378	956	39,330	9,555	75,305
Sep 2020	10,223	3,900	5,465	8,113	1,422	2,220	1,157	776	33,276	7,985	63,073
Oct 2020	10,362	3,979	5,551	8,134	1,436	2,149	1,156	761	33,528	7,338	61,807
Nov 2020	10,530	4,127	5,486	7,992	1,419	2,135	1,139	887	33,715	7,572	62,505
Dec 2020	12,141	4,755	6,117	8,951	1,591	2,441	1,243	1,117	38,356	8,857	71,436

Notes:
All forecast values represent metered energy, after reductions for distributed solar generation.

Table E-3

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

	FE_EAST	PLGRP
Jan 2018	5,085	4,083
Feb 2018	4,516	3,600
Mar 2018	4,591	3,588
Apr 2018	4,185	3,190
May 2018	4,300	3,206
Jun 2018	4,791	3,373
Jul 2018	5,415	3,734
Aug 2018	5,314	3,689
Sep 2018	4,392	3,179
Oct 2018	4,370	3,277
Nov 2018	4,395	3,411
Dec 2018	4,900	3,872

	FE_EAST	PLGRP
Jan 2019	5,081	4,095
Feb 2019	4,521	3,617
Mar 2019	4,582	3,597
Apr 2019	4,184	3,207
May 2019	4,292	3,215
Jun 2019	4,764	3,367
Jul 2019	5,422	3,757
Aug 2019	5,285	3,682
Sep 2019	4,393	3,192
Oct 2019	4,362	3,284
Nov 2019	4,358	3,397
Dec 2019	4,858	3,861

	FE_EAST	PLGRP
Jan 2020	5,020	4,062
Feb 2020	4,611	3,702
Mar 2020	4,536	3,579
Apr 2020	4,119	3,172
May 2020	4,222	3,175
Jun 2020	4,728	3,365
Jul 2020	5,385	3,745
Aug 2020	5,207	3,634
Sep 2020	4,350	3,174
Oct 2020	4,293	3,245
Nov 2020	4,301	3,370
Dec 2020	4,885	3,884

Notes:
All forecast values represent metered energy, after reductions for distributed solar generation.

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	47,541	138,610	131,803	Wednesday, August 9, 2000	17:00
2001	92,113	49,972	142,085	150,929	Thursday, August 9, 2001	16:00
2002	92,690	54,095	146,785	150,830	Thursday, August 1, 2002	17:00
2003	93,653	52,782	146,435	145,233	Thursday, August 21, 2003	17:00
2004	95,169	52,966	148,135	139,219	Tuesday, August 3, 2004	17:00
2005	95,786	58,864	154,650	155,209	Tuesday, July 26, 2005	16:00
2006	95,253	61,957	157,210	166,866	Wednesday, August 2, 2006	17:00
2007	96,680	62,835	159,515	161,988	Wednesday, August 8, 2007	16:00
2008	97,144	62,341	159,485	150,560	Monday, June 9, 2008	17:00
2009	94,670	56,975	151,645	145,056	Monday, August 10, 2009	16:00
2010	93,133	60,927	154,060	157,188	Wednesday, July 7, 2010	17:00
2011	93,328	59,897	153,225	165,466	Thursday, July 21, 2011	17:00
2012	92,948	60,942	153,890	158,151	Tuesday, July 17, 2012	17:00
2013	92,464	56,776	149,240	159,039	Thursday, July 18, 2013	17:00
2014	91,837	58,253	150,090	141,402	Tuesday, June 17, 2014	18:00
2015	91,117	59,053	150,170	143,493	Tuesday, July 28, 2015	17:00
2016	89,794	60,191	149,985	151,951	Thursday, August 11, 2016	16:00
2017	88,933	57,662	146,595	143,417	Wednesday, July 19, 2017	18:00

Notes:
Normalized values for 2000 - 2017 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-1

PJM RTO HISTORICAL PEAKS
(MW)

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	26,342	115,630	118,438	Thursday, January 27, 2000	20:00
00/01	91,324	26,466	117,790	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	27,939	120,530	129,972	Thursday, January 23, 2003	19:00
03/04	93,710	29,070	122,780	122,357	Friday, January 23, 2004	9:00
04/05	94,387	30,003	124,390	131,164	Monday, December 20, 2004	19:00
05/06	94,643	32,317	126,960	126,703	Wednesday, December 14, 2005	19:00
06/07	96,076	34,054	130,130	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	32,774	129,100	134,021	Friday, January 16, 2009	19:00
09/10	93,425	34,965	128,390	125,276	Monday, January 4, 2010	19:00
10/11	91,823	36,997	128,820	132,228	Tuesday, December 14, 2010	19:00
11/12	92,284	34,086	126,370	124,420	Tuesday, January 3, 2012	19:00
12/13	92,061	34,009	126,070	128,724	Tuesday, January 22, 2013	19:00
13/14	91,120	38,060	129,180	141,746	Tuesday, January 7, 2014	19:00
14/15	90,162	38,208	128,370	142,762	Friday, February 20, 2015	8:00
15/16	89,633	37,237	126,870	129,414	Tuesday, January 19, 2016	8:00
16/17	89,095	36,430	125,525	130,689	Thursday, December 15, 2016	19:00

Notes:
Normalized values for 2000 - 2017 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%
2016	790,498	-0.1%

Note: All historic net energy values reflect the current membership of the PJM RTO.

Table F-3

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

	Summer 2017	Winter 2016/17
AE	2,480	1,560
BGE	6,350	5,540
DPL	3,830	3,410
JCPL	5,830	3,550
METED	2,890	2,550
PECO	8,250	6,400
PENLC	2,830	2,770
PEPCO	6,040	5,130
PL	6,740	7,070
PS	9,840	6,440
RECO	400	200
UGI	190	200
AEP	22,130	21,280
APS	8,380	8,420
ATSI	12,290	10,310
COMED	20,620	14,930
DAYTON	3,340	2,900
DEOK	5,090	4,340
DLCO	2,700	2,040
EKPC	2,000	2,340
DOM	18,940	17,980
PJM MID-ATLANTIC	55,175	44,135
PJM WESTERN	75,440	65,240
PJM RTO	146,595	125,525

Notes:
Zonal Normal 2017 are non-coincident as estimated by PJM staff.
Locational Deliverability Area and PJM RTO Normal 2017 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 (2018-23)	10-Year (2018-28)	15-Year (2018-33)
AE	0.6%	0.7%	0.7%
BGE	1.3%	1.2%	1.2%
DPL	1.3%	1.3%	1.3%
JCPL	1.0%	0.9%	0.9%
METED	1.5%	1.4%	1.4%
PECO	1.4%	1.4%	1.3%
PENLC	1.1%	1.1%	1.0%
PEPCO	1.3%	1.3%	1.2%
PL	1.3%	1.3%	1.2%
PS	1.0%	0.9%	0.9%
RECO	0.9%	0.9%	0.9%
UGI	0.7%	0.7%	0.6%
AEP	1.6%	1.5%	1.5%
APS	1.6%	1.5%	1.4%
ATSI	1.3%	1.2%	1.1%
COMED	1.3%	1.2%	1.2%
DAYTON	0.8%	0.8%	0.7%
DEOK	1.5%	1.4%	1.3%
DLCO	1.2%	1.1%	1.1%
EKPC	1.5%	1.4%	1.4%
DOM	1.4%	1.3%	1.3%
PJM RTO	1.3%	1.3%	1.2%

Source: Moody's Analytics, September, 2017

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.