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Date of Hearing: 1/19/2016

Case No. 14-1297-EL-SSO

PUCO Case Caption: In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company for Authority to Provide for a Standard Service Offer Pursuant to R.C. 4928.143 in the Form of an Electric Security Plan.
Volume XXVIII

List of exhibits being filed:

Company 167, 168, 169, 170, 171, 172
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PUCO

BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

- - -

In the Matter of the :
Application of Ohio Edison:
Company, The Cleveland :
Electric Illuminating :
Company, and The Toledo :
Edison Company for : Case No. 14-1297-EL-SSO
Authority to Provide for :
a Standard Service Offer :
Pursuant to R.C. 4928.143 :
in the Form of an Electric:
Security Plan. :

- - -

PROCEEDINGS

before Mr. Gregory Price, Ms. Mandy Chiles, and
Ms. Megan Addison, Attorney Examiners, and
Commissioner Asim Haque at the Public Utilities
Commission of Ohio, 180 East Broad Street, Room 11-A,
Columbus, Ohio, called at 9:00 a.m. on Tuesday,
January 19, 2016.

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VOLUME XXXVIII

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Short-Term Energy Outlook (STEO)

Highlights

- This edition of the *Short-Term Energy Outlook* is the first to include forecasts for 2017.
- North Sea Brent crude oil prices averaged \$38/barrel (b) in December, a \$6/b decrease from November, and the lowest monthly average price since June 2004. Brent crude oil prices averaged \$52/b in 2015, down \$47/b from the average in 2014, as growth in global liquids inventories put downward pressure on Brent prices throughout much of the year.
- Forecast Brent crude oil prices average \$40/b in 2016 and \$50/b in 2017. Forecast West Texas Intermediate (WTI) crude oil prices average \$2/b lower than Brent in 2016 and \$3/b lower in 2017. However, the current values of futures and options contracts continue to suggest high uncertainty in the price outlook. For example, EIA's forecast for the average WTI price in April 2016 of \$37/b should be considered in the context of recent contract values for April 2016 delivery (*Market Prices and Uncertainty Report*) suggesting that the market expects WTI prices to range from \$25/b to \$56/b (at the 95% confidence interval).
- The price of U.S. retail regular gasoline is forecast to average \$2.03/gallon (gal) in 2016 and \$2.21/gal in 2017, compared with \$2.43/gal in 2015. In December, average retail regular gasoline prices were \$2.04/gal, a decrease of 12 cents/gal from November and 51 cents/gal lower than in December 2014. EIA expects monthly retail prices of U.S. regular gasoline to reach a seven-year low of \$1.90/gal in February 2016, before rising during the spring.
- U.S. crude oil production averaged an estimated 9.4 million barrels per day (b/d) in 2015, and it is forecast to average 8.7 million b/d in 2016 and 8.5 million b/d in 2017. EIA estimates that crude oil production in December fell 80,000 b/d from the November level.
- Natural gas working inventories were 3,643 billion cubic feet (Bcf) on January 1, which was 17% higher than during the same week last year and 15% higher than the previous five-year average (2011-15) for that week. EIA forecasts that inventories will end the winter heating season (March 31) at 2,043 Bcf, which would be 38% above the level at the same time last year. Forecast Henry Hub spot prices average \$2.65/million British thermal units (MMBtu) in 2016 and \$3.22/MMBtu in 2017, compared with an average of \$2.63/MMBtu in 2015.
- A decline in power generation from fossil fuels in the forecast period is offset by an increase from renewable sources. The share of generation from natural gas falls from 33% in 2015 to 31% in 2017, and coal falls from 34% to 33%. For renewables, the forecast share of total

generation supplied by hydropower rises from 6% in 2015 to 7% in 2017, and the forecast share for other renewables increases from 7% in 2015 to 9% in 2017.

Global Petroleum and Other Liquid Fuels

EIA estimates that global oil inventories increased by 1.9 million b/d in 2015, marking the second consecutive year of inventory builds. This oversupply has contributed to oil prices reaching the lowest monthly average level since mid-2004. Inventories are forecast to rise by an additional 0.7 million b/d in 2016, before the global oil market becomes relatively balanced in 2017. The first draw on global oil inventories in 15 consecutive quarters is expected in the third quarter of 2017.

Global Petroleum and Other Liquid Fuels Consumption. EIA estimates global consumption of petroleum and other liquid fuels grew by 1.4 million b/d in 2015, averaging 93.8 million b/d for the year. EIA expects global consumption of petroleum and other liquid fuels to grow by 1.4 million b/d in both 2016 and 2017. Forecast real gross domestic product (GDP) for the world weighted by oil consumption, which increased by an estimated 2.4% in 2015, rises by 2.7% in 2016 and by 3.2% in 2017.

Consumption of petroleum and other liquid fuels in countries outside the Organization for Economic Cooperation and Development (OECD) increased by an estimated 0.8 million b/d in 2015, considerably lower than the 1.4 million b/d increase in 2014 mainly because of the slowdown in Eurasia, which saw a contraction in its consumption, and to a lesser degree because of China's slightly slower demand growth. Non-OECD consumption growth is expected to be 1.1 million b/d in both 2016 and 2017, reflecting higher growth in the Middle East and Eurasia.

OECD petroleum and other liquid fuels consumption rose by 0.6 million b/d in 2015. OECD consumption is expected to continue rising in both 2016 and 2017 by 0.3 and 0.4 million b/d, respectively, driven by an increase in U.S. consumption. OECD Europe demand is also expected to increase through the forecast period, albeit at a slower pace than the 0.3 million b/d increase in 2015. U.S. consumption is forecast to increase by 0.2 and 0.3 million b/d in 2016 and 2017, respectively. Consumption in Japan is forecast to decline by less than 0.1 million b/d in both 2016 and 2017.

Non-OPEC Petroleum and Other Liquid Fuels Supply. EIA estimates that petroleum and other liquid fuels production in countries outside of the Organization of the Petroleum Exporting Countries (OPEC) grew by 1.3 million b/d in 2015. The 2015 growth occurred mainly in North America. EIA expects non-OPEC production to decline by 0.6 million b/d in 2016, which would be the first decline since 2008. Most of the forecast decline in 2016 is expected to be in the United States. Non-OPEC production is forecast to decrease by an additional 0.1 million b/d in 2017.

Changes in non-OPEC production are driven by changes in U.S. tight oil production, which is characterized by high decline rates and relatively short investment horizons that make it among the most price-sensitive production globally. Forecast total U.S. liquid fuels production declines

by 0.4 million b/d in 2016 and remains relatively flat in 2017, as low oil prices contribute to drilling rig counts falling below levels required to sustain current production.

Outside of the United States, forecast non-OPEC production declines by 0.2 million b/d in 2016 and by 0.1 million b/d in 2017. Despite low crude oil prices, production declines are relatively minor because of investments committed to projects when oil prices were higher. Although oil companies have reduced investments, most of the cuts have been in capital exploration budgets that largely affect production levels beyond the forecast period. Additionally, strength in the U.S. dollar and production cost reductions have moderated the effects of declining oil revenues in some countries. Because oil revenues are denominated in dollars, the appreciation of the dollar relative to the currencies of several large oil producers means each dollar of revenue has more purchasing power if production costs are denominated in local currency.

Among other non-OPEC producers, the largest declines are forecast to be in the North Sea and Russia. After increasing in 2015, production in the North Sea is expected to return to its long-term declining trend in 2016 and 2017, as the planned start of several projects is not enough to offset the region's steep decline rates. Production in Russia also increased in 2015, as international sanctions had little effect on oil production, but Russia's production is expected to decline by 0.1 million b/d in both 2016 and 2017. However, Russia's exposure to low oil prices has been mitigated by the depreciation of the ruble relative to the dollar, given ruble-denominated production costs, and by Russia's taxation regime for the oil sector.

Some non-OPEC countries, led by Canada and Brazil, will continue to see increasing oil production during the forecast period. Production in Canada is expected to increase by 50,000 b/d in both 2015 and 2016, as a number of oil sands projects that are under construction will begin production, including the Imperial Oil and Cenovus projects scheduled to come online by the end of 2016. These projects were commissioned before the sharp decline in crude oil price. Production in Brazil is expected to increase by about 40,000 b/d in 2016 and 20,000 b/d in 2017. This growth is down from growth of 0.2 million b/d in 2015, which was the result of several floating production, storage, and offloading facilities coming online. Reduced growth in Brazil's production occurs because Petrobras's high debt levels and the legal fallout from the ongoing corruption probe are expected to reduce investment.

Unplanned supply disruptions among non-OPEC producers averaged 0.4 million b/d in December, reflecting a downward revision of roughly 0.3 million b/d compared with the last STEO. EIA revised downward its estimate of non-OPEC disruptions because of a revision in production capacity held by Syria and Yemen. EIA's estimates of unplanned production outages are calculated as the difference between estimated effective production capacity (the level of supply that could be available within one year) and estimated production. Therefore, these outage estimates can differ from those measured against other capacity types, such as nameplate capacity or the production level prior to the disruption.

OPEC Petroleum and Other Liquid Fuels Supply. At their December 4 meeting, OPEC members voted to reactivate Indonesia's OPEC membership after an almost seven-year hiatus. As of this

STEO, EIA includes Indonesia's crude oil and other liquids production in the OPEC total for both history and the forecast.

OPEC crude oil production averaged 31.6 million b/d in 2015, an increase of 0.9 million b/d from 2014. Iraq led the OPEC production increases. Its production rose by 0.7 million b/d in 2015. Saudi Arabia also boosted production to defend its share of the global oil market, with its production increasing by 0.3 million b/d in 2015.

Forecast OPEC crude oil production increases by 0.5 million b/d in 2016, with Iran expected to increase production once international sanctions targeting its oil sector are suspended. Under the Joint Comprehensive Plan of Action (JCPOA) between Iran and the five permanent members of the United Nations Security Council and Germany (P5+1), which was announced on July 14, 2015, sanctions relief is contingent on verification by the International Atomic Energy Agency (IAEA) that Iran has complied with key nuclear-related steps. Forecast OPEC crude oil production is expected to increase by 0.6 million b/d in 2017, with Iran accounting for most of the increase.

Although uncertainty remains as to the timing of sanctions relief, EIA assumes the implementation occurs in the first quarter of 2016, clearing the way to ease sanctions at that time. EIA has moved up the anticipated implementation day because Iran has made faster-than-expected progress in meeting key obligations required under the JCPOA.

Iran's crude oil production is forecast to grow by about 0.3 million b/d in 2016 and by 0.5 million b/d in 2017. The forecast growth of Iran's crude oil production through the forecast period also depends on internal factors including Iran's ability to mitigate production decline rates and meet technical challenges and on its willingness to discount oil.

OPEC noncrude liquids production averaged 6.7 million b/d in 2015, and it is forecast to increase by 0.3 million b/d in both 2016 and 2017, led by increases in Iran and Qatar.

In December, unplanned crude oil supply disruptions among OPEC producers averaged 2.8 million b/d, up slightly compared with the previous month. Kuwait and Saudi Arabia continue to have a combined disruption of 0.5 million b/d at the Wafra and Khafji fields in the Neutral Zone that straddles the two countries.

OPEC surplus crude oil production capacity, which averaged 1.6 million b/d in 2015, is expected to increase to 2.0 million b/d in 2016 and then be 1.9 million b/d in 2017. EIA estimates that Iran's crude oil production capacity is 3.6 million b/d, which is 0.8 million b/d higher than its current estimated production level. EIA currently categorizes that 0.8 million b/d difference as a disruption because Iran's production is restricted by sanctions that affect the country's ability to sell its oil. However, if sanctions are lifted, any difference between its crude oil production capacity and its crude oil production level would henceforth be considered surplus capacity.

Surplus capacity is typically an indicator of market conditions, and surplus capacity below 2.5 million b/d indicates a relatively tight oil market. However, the continuing inventory builds and

high current and forecast levels of global oil inventories make the projected low surplus capacity level less significant.

OECD Petroleum Inventories. EIA estimates that OECD commercial crude oil and other liquid fuels inventories totaled 3.06 billion barrels at the end of 2015, equivalent to roughly 66 days of consumption. Forecast OECD inventories rise to 3.13 billion barrels at the end of 2016, and they are also expected to be 3.13 billion barrels at the end of 2017.

Crude Oil Prices. Brent crude oil spot prices decreased by \$6/b in December to a monthly average of \$38/b, the lowest monthly average price since June 2004. Prices fell in December, as OPEC producers (at their December 4 meeting) indicated plans to continue the policy of defending market share in a low oil price environment and as global oil inventories continued to build. Continuing increases in global liquids inventories have put significant downward pressure on oil prices since mid-2014. Inventories rose by an estimated 1.9 million b/d in 2015, and Brent crude oil prices averaged \$52/b in 2015, a decrease of \$47/b from 2014.

With global inventory builds expected to continue in 2016, upward pressure on crude oil prices will be limited. Forecast Brent prices average \$40/b in 2016. The largest inventory builds occur in the first half of 2016, keeping Brent prices below \$40/b through April.

Brent prices are forecast to average \$50/b in 2017, with upward price pressures concentrated in the latter part that year. At that point the market is expected to experience small inventory draws, with the possibility of further draws beyond the forecast period. Brent prices are forecast to average \$56/b in the fourth quarter of 2017.

Forecast West Texas Intermediate (WTI) crude oil prices average \$2/b lower than Brent in 2016 and \$3/b lower in 2017. EIA had previously assumed the 2016 WTI discount to be \$5/b. The lower forecast WTI discount to Brent is based on the relative storage availability in the United States compared with other regions that encourages placing crude oil in the U.S. market in a period of global oversupply.

During the forecast period, oil prices could continue to experience periods of heightened volatility. The oil market faces many uncertainties heading into 2016, including the pace and volume at which Iranian oil reenters the market, the strength of oil consumption growth, and the responsiveness of non-OPEC production to low oil prices.

The current values of futures and options contracts continue to suggest high uncertainty in the price outlook (*Market Prices and Uncertainty Report*). WTI futures contracts for April 2016 delivery, traded during the five-day period ending January 7, averaged \$38/b, while implied volatility averaged 46%. These levels established the lower and upper limits of the 95% confidence interval for the market's expectations of monthly average WTI prices in April 2016 at \$25/b and \$56/b, respectively. The 95% confidence interval for market expectations widens over time, with lower and upper limits of \$22/b and \$82/b for prices in December 2016. Last year at this time, WTI for April 2015 delivery averaged \$51/b, and implied volatility averaged

48%. The corresponding lower and upper limits of the 95% confidence interval were \$34/b and \$76/b.

U.S. Petroleum and Other Liquid Fuels

Monthly data show gasoline consumption in the United States increased by 2.8% during the first 10 months of 2015 compared with same period in 2014. U.S. gasoline consumption growth reflects increases in employment and lower gasoline prices. Growing domestic and global consumption of gasoline contributed to high refinery wholesale gasoline margins (the difference between the wholesale price of gasoline and the price of Brent crude oil) for most of 2015. Average wholesale gasoline margins reached 73 cents/gal in August, which was the highest monthly average since May 2007. Margins returned closer to typical seasonal levels in October but increased in December, a month in which they typically decline. The estimated average wholesale gasoline margin in December reached 42 cents/gal, which would mark the highest December margin in EIA's data that begin in 1987.

Despite the increasing wholesale gasoline margins, U.S. regular gasoline retail prices fell from a monthly average of \$2.16/gal in November to \$2.04/gal in December because of lower crude oil prices. Monthly average regional gasoline retail prices for December ranged from a low of \$1.79/gal in PADD 3 (Gulf Coast) to a high of \$2.56/gal in PADD 5 (West Coast). EIA expects gasoline prices to fall from current levels, with the U.S. regular gasoline price averaging \$1.90/gal in February 2016.

Liquid Fuels Consumption. Total U.S. liquid fuels consumption is projected to increase by 270,000 b/d (1.4%) in 2015, more than the 140,000 b/d (0.8%) growth in 2014. U.S. consumption has been stimulated by continued growth in employment and the economy and lower petroleum product prices. In 2016, total liquid fuels consumption is forecast to increase by 160,000 b/d (0.8%) from the 2015 level. In 2017, total U.S. liquid fuels consumption is projected to rise by an additional 270,000 b/d (1.4%).

Motor gasoline consumption increased by an estimated 240,000 b/d (2.6%) in 2015 to an average of 9.2 million b/d, the highest level since the record of 9.3 million b/d in 2007. Although total nonfarm employment and total highway travel since then have increased by 2.9% and 3.7%, respectively, improving vehicle fuel economy continues to keep gasoline consumption below its previous peak throughout the forecast period. Gasoline consumption is forecast to increase by 70,000 b/d (0.8%) in 2016, as employment and population growth offset continuing improvements in vehicle fleet fuel economy. In 2017, motor gasoline consumption is projected to rise by 20,000 b/d (0.2%).

In 2015, jet fuel consumption increased by an estimated 70,000 b/d (4.8%). Forecast jet fuel consumption declines slightly in 2016, with improvement in average airline fleet fuel economy offsetting growth in freight and passenger travel. In 2017, jet fuel consumption is projected to rise by 20,000 b/d (1.3%).

Consumption of distillate fuel, which includes diesel fuel and heating oil, fell by an estimated 80,000 b/d (1.9%) in 2015. Based on expectations of continued economic growth, total distillate consumption is projected to grow by an annual average of 80,000 b/d (2.0%) over the next two years.

Hydrocarbon gas liquids (HGL) consumption is expected to increase by 10,000 b/d in 2016 and by 130,000 b/d in 2017. In 2016, a 30,000 b/d decline in propane consumption, mainly from reduced heating consumption in the first quarter, is offset by growth in petrochemical consumption of HGL, mainly ethane. In 2017, more normal weather contributes to a 20,000 b/d increase in propane consumption, and the start-up of six ethane-fed petrochemical plants contributes to a 100,000 b/d increase in ethane consumption. New HGL export terminal capacity contributes to an increase in HGL net exports from an estimated average of 840,000 b/d in 2015 to 1.3 million b/d in 2017.

Liquid Fuels Supply. U.S. crude oil production is projected to decrease from an average of 9.4 million b/d in 2015 to 8.7 million b/d in 2016 and to 8.5 million b/d in 2017. The forecast reflects an extended decline in Lower 48 onshore production driven by persistently low oil prices that is partially offset by growing production in the federal Gulf of Mexico.

According to the latest survey-based reporting of monthly crude oil production data, U.S. production averaged 9.5 million b/d through the first 10 months of 2015, about 0.2 million b/d higher than in the fourth quarter of 2014. The estimates include EIA survey-based monthly crude oil production data for Oklahoma for the first time. These new estimates are roughly 0.1 million b/d per month higher than those generated by the previous methodology for Oklahoma, which was based on state-reported data that was later adjusted by EIA. The recently expanded EIA-914 survey now collects oil production from the largest oil producers in 15 states (including Oklahoma) and the federal Gulf of Mexico.

Based on these estimates, total U.S. production began falling in May 2015, led by Lower 48 onshore production that has fallen nearly 0.5 million b/d. These declines have been tempered by production growth of 0.1 million b/d in the Gulf of Mexico since April.

With WTI prices falling below \$40/b in December 2015 and projected to remain below that level through mid-2016, EIA expects oil production to decline in most Lower 48 onshore oil production regions. The expectation of reduced cash flows in 2016 and 2017 has prompted many companies to scale back investment programs, deferring major new undertakings until a sustained price recovery occurs. The prospect of higher interest rates and tougher lending conditions will likely limit the availability of capital for many smaller producers, giving rise to distressed asset sales and consolidation of acreage holdings by more financially sound firms. The retrenchment in onshore investment is anticipated to push the count of oil-directed rigs and well completions in 2016 and 2017 below current levels.

The focus of drilling and production activities will be on the core areas of major tight oil plays. Despite the significant decline in total rig counts in 2015, rig counts have largely stabilized in the core counties of the Bakken, Eagle Ford, Niobrara, and Permian. In these areas, falling costs and

ongoing technological and process improvements in rig, labor, and well productivity are *anticipated to lead to faster rates of well completions and less-rapid production declines* relative to other Lower 48 onshore areas. The ongoing gains in learning-by-doing, cost reductions, and rig and well productivity are expected to enhance the economic viability of these areas as well as to be disseminated to other regions, incrementally reducing the breakeven costs of production in more marginal areas.

EIA expects U.S. crude oil production to decline steadily from 9.2 million b/d in December 2015, reaching about 8.5 million b/d in November 2016. Production is expected to stay near 8.5 million b/d for most of 2017. This level of production would be 1.2 million b/d below the April 2015 level, which was the highest monthly production since April 1971.

Productivity improvements, lower breakeven costs, and anticipated oil price increases in the second half of 2017 are expected to end over two years of falling Lower 48 onshore production. Onshore production averaged 7.6 million b/d in the second quarter of 2015, and it is forecast to fall below 6.2 million b/d in September 2017 before increasing modestly in the fourth quarter of 2017. The forecast remains sensitive to actual wellhead prices and rapidly changing drilling economics that vary across regions and operators.

Projected crude oil production in the Gulf of Mexico rises during the forecast period, and oil production in Alaska falls. Production in these areas is less sensitive than onshore production in the Lower 48 states to short-term price movements and reflects anticipated growth from new projects in the Gulf of Mexico and declines from legacy fields in Alaska. Several projects in the Gulf that came or will come online in 2014-16 will push up production from an average of 1.6 million b/d in 2015 to 1.9 million b/d in the fourth quarter of 2017. It is possible some projects will start production later than expected, potentially shifting some of the anticipated production gains from late 2017 into early 2018.

Late in the forecast period EIA expects small sales from the U.S. Strategic Petroleum Reserve (SPR). Recent legislation authorized sales of SPR oil between Fiscal Years (FY) 2018-25 for deficit reduction, SPR modernization, and highway funding purposes. EIA assumes 5 million barrels of SPR sales for deficit reduction purposes in FY 2018 (which starts in October 2017), equivalent to 14,000 b/d of SPR draws during the fourth quarter of 2017. EIA further assumes no SPR sales occur for SPR modernization during the forecast period.

EIA projects HGL production at natural gas processing plants will increase by 0.2 million b/d (6.3%) in 2016 and by 0.3 million b/d (8.1%) in 2017. Expected additions of natural gas processing and distribution infrastructure contribute to forecast HGL production growing at a faster pace than the natural gas streams from which it is produced. EIA expects higher ethane recovery rates in 2016 and 2017, following planned increases to petrochemical plant feedstock demand in the United States and abroad. Planned terminal builds and expansions and a growing ship fleet allow more U.S. ethane, propane, and butanes to reach international markets, with forecast net HGL exports averaging 1.1 million b/d in 2016 and 1.3 million b/d in 2017.

The growth in domestic crude oil and other liquids production has contributed to a significant decline in imports. The share of total U.S. liquid fuels consumption met by net imports fell from 60% in 2005 to an estimated 24% in 2015. EIA expects the net import share to remain flat in 2016, before increasing slightly to 25% in 2017, as domestic oil production falls. This would be the first annual increase in the share of consumption met by net imports since 2005.

Petroleum Product Prices. Lower crude oil prices contributed to U.S. regular gasoline retail prices declining to an average of \$2.04/gal in December, down from an average of \$2.16/gal in November. EIA projects regular gasoline retail prices to fall to an average \$1.90/gal in February 2016 and average \$1.95/gal in the first quarter of 2016.

The U.S. regular gasoline retail price, which averaged \$2.43/gal in 2015, is projected to average \$2.03/gal in 2016, 33 cents/gal lower than estimated in last month's STEO, and \$2.21/gal in 2017.

The diesel fuel retail price, which averaged \$2.71/gal in 2015, is projected to average \$2.29/gal in 2016, 38 cents/gal lower than in last month's STEO, and \$2.59/gal in 2017.

Lower projected crude oil prices this winter (2015-16) compared with last winter contribute to a reduction in the forecast residential heating oil price and average household heating oil expenditures. Households that use heating oil as a primary space heating fuel are expected to pay an average of \$2.17/gal this winter, 87 cents/gal less than last winter. The average household is now expected to spend \$1,088 for heating oil this winter, \$763 less than last winter. The reduction in expenditures also reflects lower forecast consumption because warmer temperatures are forecast this winter compared with last winter.

Propane prices this winter are expected to be 9% lower than last winter in the Northeast and 18% lower in the Midwest, contributing to households spending 24% and 31% less on propane in those regions, respectively.

Natural Gas

Forecast Henry Hub spot prices average \$2.65/MMBtu in 2016 and \$3.22/MMBtu in 2017, compared with an average of \$2.63/MMBtu in 2015. Although annual average prices for 2015 and 2016 are similar, prices are forecast to rise through much of 2016, from prices that began the year near \$2/MMBtu. Price increases reflect consumption growth, mainly from the industrial sector, that outpaces production growth in 2016.

EIA expects production growth will be relatively flat in 2016, partly in response to lower prices and declining rig activity. With higher prices in 2017, and as new consumption and more export capacity comes online, EIA projects production will pick up slightly.

Natural Gas Consumption. EIA's forecast of U.S. total natural gas consumption averages 76.6 billion cubic feet/day (Bcf/d) in 2016 and 77.2 Bcf/d in 2017, compared with 75.5 Bcf/d in 2015. Increases in industrial sector consumption drive total consumption growth in 2016 and 2017. Industrial sector consumption of natural gas increases by 3.5% in 2016 and by 2.5% in 2017, as

new projects in the fertilizer and chemicals sectors come online. EIA expects a 0.1 Bcf/d (0.3%) decline in consumption of natural gas for power generation in 2016 and a 1.4% decrease in 2017. Natural gas consumption in the residential and commercial sectors is projected to increase in 2016 and 2017, reflecting slightly higher heating demand in those years.

Natural Gas Production and Trade. In September, total marketed production of natural gas hit a record high of 80.2 Bcf/d before declining the following month, according to EIA's survey data. EIA estimates that marketed natural gas production averaged 79.1 Bcf/d in 2015, an increase of 4.2 Bcf/d (5.7%) from 2014. EIA projects growth will slow to 0.7% in 2016, as low natural gas prices and declining rig activity begin to affect production. In 2017, however, forecast production growth increases to 1.8%, as forecast prices rise and more demand comes from industrial sectors and liquefied natural gas (LNG) exporters.

Although demand growth levels off, production remains high, which is expected to reduce demand for natural gas imports from Canada and to support growth in exports to Mexico. EIA expects natural gas exports to Mexico to increase because of growing demand from Mexico's electric power sector coupled with flat natural gas production in Mexico. EIA projects LNG gross exports will increase to an average of 0.7 Bcf/d in 2016, with the start-up of Cheniere's Sabine Pass LNG liquefaction plant planned for early this year. EIA projects gross exports will average 1.4 Bcf/d in 2017, as Sabine Pass ramps up its capacity.

Natural Gas Inventories. On January 1, natural gas working inventories were 3,643 Bcf. Withdrawals during the heating season have been relatively low because of warmer-than-normal weather. January 1 inventories were 535 Bcf (17%) above year-ago levels and 464 Bcf (15%) above the five-year (2011-15) average. Inventories are forecast to be 2,043 Bcf at the end of March 2016, which would be 421 Bcf above the five-year average.

Natural Gas Prices. The Henry Hub natural gas spot price averaged \$1.93/MMBtu in December, a decrease of 16 cents/MMBtu from the November price. Warmer-than-normal temperatures in the first half of the heating season, record inventory levels, production growth, and forecasts for a warm winter contributed to spot prices remaining low. Monthly average Henry Hub spot prices are forecast to rise through 2016, but they remain less than \$3/MMBtu until December. Forecast Henry Hub natural gas prices average \$2.65/MMBtu in 2016 and \$3.22/MMBtu in 2017.

Natural gas futures contracts for April 2016 delivery traded during the five-day period ending January 7 averaged \$2.38/MMBtu. Current options and futures prices imply market participants place the lower and upper bounds for the 95% confidence interval for April 2016 contracts at \$1.61/MMBtu and \$3.52/MMBtu, respectively. In January 2015, the natural gas futures contract for April 2015 delivery averaged \$2.88/MMBtu, and the corresponding lower and upper limits of the 95% confidence interval were \$1.90/MMBtu and \$4.36/MMBtu.

Coal

Coal Supply. EIA estimates U.S. coal production declined by 109 million short tons (MMst) (11%) in 2015, the largest decline ever recorded. The 2015 drop in production occurred in all coal-producing regions, with the largest percentage decrease occurring in the Appalachian region (15%). Production in the Interior region, which includes the Illinois Basin, declined by 11% in 2015, which was the first decline in that region since 2009. Western region production declined by 9%, with production below 500 MMst for the first time since 1998.

Forecast U.S. coal production continues to decline over the next two years. Production is projected to fall by 38 MMst (4%) in 2016 and by an additional 9 MMst (1%) in 2017. Interior region production, which accounted for only 13% of coal production 10 years ago (2006), is projected to account for 20% of production in 2016 and 2017. This increase in share reflects the region's growing competitive advantages compared to the other coal-producing regions. These factors include the higher heat content of the coal, closer proximity to major markets than coal produced in the Western region, and lower mining costs than Appalachian-produced coal. Appalachian production, which accounted for 34% of production 10 years ago, is projected to decline to 24% in 2016 and 2017. The Western region's share, which was 53% 10 years ago, increases to 56% in 2016 and 2017.

Electric power sector coal stockpiles were 176 MMst in October, an 8% increase from September, which is similar to the typical seasonal pattern. October coal inventories averaged 155 MMst during the previous 10 years (2005-14). Coal stockpiles are still relatively high because of the loss in market share to natural gas for power generation.

Coal Consumption. EIA estimates that coal consumption decreased by 11% in 2015, mainly as a result of an 11% drop in electric power sector consumption. Lower natural gas prices are the primary driver of the decrease in coal consumption. Low natural gas prices make it more economical to increase generation at natural gas-fired units and to decrease generation at coal-fired units. Retirements of coal-fired power plants, stemming from both increased competition with natural gas generation and the implementation of the Mercury and Air Toxics Standards (MATS), also reduce coal-fired generation capacity, but the full effect will not be evident until 2016.

Higher forecast natural gas prices in 2016 and 2017 are expected to contribute to higher utilization rates among the remaining coal-fired power plants. This higher utilization rate somewhat mitigates the effect of lower consumption from coal-plant retirements. Coal consumption in the electric power sector is forecast to remain relatively unchanged in 2016. In 2017, increases in nuclear (1%), hydropower (8%), and other renewable-based (12%) electricity generation are forecast to contribute to a 1% decline in electric power sector coal consumption.

Coal Trade. Slower growth in world coal demand and lower international coal prices have contributed to a decline in U.S. coal exports. Lower mining costs, cheaper transportation costs, and favorable exchange rates will continue to provide an advantage to mines in other major coal-exporting countries compared with U.S. producers over the next few years.

EIA estimates U.S. coal exports decreased 20 MMst (21%) from 2014 levels to 77 MMst in 2015. The current global coal market trends are expected to continue, and coal exports are forecast to decline by an additional 9 MMst (12%) in 2016 and by 2 MMst (4%) in 2017.

U.S. coal imports, which were 11 MMst in 2014, remained at that level in 2015. Coal imports, primarily from Latin America, are forecast to maintain their market share with power generators along the Atlantic and Gulf coasts, as imported coal's delivered price in those markets remains competitive with prices for domestically produced coal. Imports are projected to average just under 11 MMst in 2016 and 2017.

Coal Prices. The annual average price of coal to the electric power sector averaged \$2.36/MMBtu in 2014. EIA estimates the delivered coal price averaged \$2.23/MMBtu in 2015. Forecast prices are \$2.19/MMBtu in 2016 and \$2.20/MMBtu in 2017.

Electricity

The mix of generating units that supply electricity in the United States is undergoing a significant transformation. Many older coal plants are being decommissioned as the industry adapts to sustained low costs of competing natural gas generating units and the effects of environmental regulations. EIA estimates that at least 14 gigawatts (GW) of coal-fired capacity were retired during 2015, equal to nearly 5% of the operable coal capacity existing at the end of 2014. Power plant operators have reported to EIA that they plan to retire at least 10.7 GW of additional coal capacity during 2016 and 2017. This total could rise as state policies related to the Clean Power Plan take shape.

Electricity Consumption. Forecast U.S. retail sales of electricity to the residential sector fall by 0.5% during 2016 compared with 2015. Residential electricity consumption during the first quarter this year is projected to be 5.8% lower than the same period in 2015, which experienced colder-than-normal weather with heating degree days 7% above the 10-year average. EIA expects U.S. residential electricity sales to grow by 1.7% in 2017. The total number of residential customers grows by 0.9% next year, which would be the highest growth rate since 2007. Forecast U.S. retail electricity sales to the commercial sector rise by 0.9% and by 1.1% in 2016 and 2017, respectively. Forecast U.S. industrial sector sales increase by 1.1% in 2016 and by 0.4% in 2017.

Electricity Generation. Total U.S. electricity generation in 2016 is expected to average 11.3 terawatt-hours per day, 0.4% higher than 2015 generation. Total generation grows by an additional 1.0% in 2017. Natural gas prices are forecast to remain at relatively low levels, with the Henry Hub spot price remaining below \$3/MMBtu until late 2016. EIA expects that the share of total generation fueled by natural gas in 2016 will average 32.2% while coal supplies 33.6% of generation, similar to their shares in 2015. The projected generation shares for natural gas and coal generation fall in 2017 to 31.4% and 33.0%, respectively, as generation from renewable energy sources increases.

Electricity Retail Prices. The U.S. retail price of electricity in the residential sector is projected to average 12.7 cents per kilowatthour (kWh) in 2016, which is unchanged from the average price in 2015. The U.S. retail price of electricity in the residential sector is projected to be 13.0 cents/kWh in 2017, 3.0% higher than the average price in 2016. In New England, where residential electricity prices are forecast to be highest in the country in 2016, the forecast residential electricity price averages 19.1 cents/kWh in the first quarter of 2016, whereas in the West South Central region it is expected to be lowest in 2016, averaging 10.2 cents/kWh in the first quarter of 2016.

Renewables and Carbon Dioxide Emissions

Electricity and Heat Generation from Renewables. EIA expects total renewables used in the electric power sector to increase by 9.5% in 2016. Forecast hydropower generation in the electric power sector increases by 4.8% in 2016. The current El Niño cycle has mixed implications for the hydroelectric generation outlook. This winter started off wet in the Pacific Northwest, where roughly half of the nation's hydropower is generated. In December 2015, most of the Pacific Northwest saw precipitation levels more than 30% above normal (according to the Northwest River Forecast Center), which points to above-normal snowpack levels in the region. California also had above-average levels of precipitation in December. However, drought conditions persist in much of the state.

In December 2015, Congress passed an extension and modification of federal tax credits for new wind and solar generators. Production tax credit eligibility for wind generators was extended for plants starting construction through the end of 2019, with the value of the credit declining from 2.4 cents/kWh to 1.0 cent/kWh for the first 10 years of plant operation. Investment tax credits eligibility for solar generators was extended at the 30% level for plants starting construction through the end of 2019, with the value dropping each year down to 10% for plants under construction in 2022 and beyond.

EIA expects little impact from these renewable electricity tax credit extensions in 2016 because most plants that will enter service in 2016 are already being developed. Impacts in 2017 depend on how many wind and solar projects are already in the development queue but not yet under construction. The U.S. Environmental Protection Agency's (EPA) approval of the Clean Power Plan in August 2015 may also affect new renewable builds over the next several years, but these near-term effects will be less certain until states start to lay out their implementation plans.

EIA expects continued growth in utility-scale solar power generation, which is projected to average 129 gigawatthours per day (GWh/d) in 2017, an increase of 45% from the 2016 level. Utility-scale solar power averages 1.1% of total U.S. electricity generation in 2017. Although solar growth has historically been concentrated in customer-sited distributed generation installations (rooftop panels), EIA expects utility-scale solar capacity will increase by 126% (13 GW) between the end of 2014 and the end of 2016, with 4.9 GW of new capacity being built in California. Other states leading in utility-scale solar capacity additions include North Carolina

and Nevada, which, combined with California, account for about two-thirds of the projected utility-scale capacity additions for 2015 and 2016.

Wind capacity, which starts from a significantly larger installed capacity base than solar, grew by 13% in 2015, and it is forecast to increase by 14% in 2016 and by 3% in 2017.

Liquid Biofuels. On November 30, EPA finalized a rule setting Renewable Fuel Standard (RFS) volumes for 2014 through 2016. EIA used these finalized volumes to develop the current STEO forecast and assumes the 2016 targets for 2017, except the biomass-based diesel 2017 target of 2.0 billion gallons, which was included in the November 30 rule. Ethanol production, which averaged an estimated 964,000 b/d in 2015, is forecast to average about 970,000 b/d in both 2016 and 2017. Ethanol consumption, which averaged 910,000 b/d in 2015, is forecast to average 930,000 b/d in both 2016 and 2017. This level of consumption results in the ethanol share of the total gasoline pool averaging 10.0% in both 2016 and 2017. EIA does not expect significant increases in E15 or E85 consumption over the forecast period.

EIA expects that the largest effect of the proposed RFS targets will be on biodiesel consumption, which helps to meet the RFS targets for use of biomass-based diesel, advanced biofuel, and total renewable fuel. Biodiesel production averaged an estimated 85,000 b/d in 2015 and is forecast to average 107,000 b/d in 2016 and 112,000 b/d in 2017. Net imports of biomass-based diesel are also expected to increase from 28,000 b/d in 2015 to 47,000 b/d in both 2016 and 2017.

Energy-Related Carbon Dioxide Emissions. EIA estimates that emissions of CO₂ declined by 1.9% in 2015. Emissions are projected to increase 0.6% in 2016 but remain flat in 2017. These forecasts are sensitive to assumptions about weather and economic growth.

U.S. Economic Assumptions

Recent Economic Indicators. The Bureau of Economic Analysis reported that real GDP increased at an annual rate of 2.0% in the third quarter of 2015. The increase in real GDP in the third quarter reflected positive contributions from personal consumption expenditures, state and local government spending, and residential fixed investment.

EIA used the December 2015 version of the IHS macroeconomic model with EIA's energy price forecasts as model inputs to develop the economic projections in the STEO.

Production, Income, and Employment. Forecast real GDP growth reaches 2.7% in 2016 and 3.3% in 2017, above the growth of 2.5% estimated for 2015. Real disposable income grows by 3.2% and 3.5% in 2016 and 2017, respectively. Total industrial production grows at 0.8% in 2016 and 3.7% in 2017. Projected growth in nonfarm employment averages 1.5% in 2016 and 2017.

Expenditures. Forecast private real fixed investment growth averages 5.9% and 7.3% in 2016 and 2017, respectively. Real consumption expenditures grow faster than real GDP at 3.0% in 2016 and 3.7% in 2017. Durable goods expenditures drive consumption spending in both years. Export growth is 2.5% and 5.3% over the same two years, while import growth is 4.7% in 2016 and 9.1% in 2017. Total government expenditures rise by 2.2% in 2016 and by 0.4% in 2017.

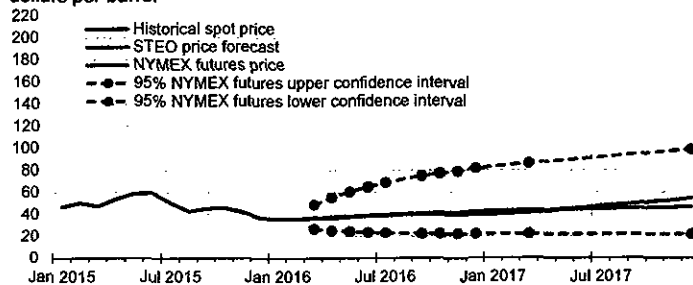
This report was prepared by the U.S. Energy Information Administration (EIA), the statistical and analytical agency within the U.S. Department of Energy. By law, EIA's data, analyses, and forecasts are independent of approval by any other officer or employee of the United States Government. The views in this report therefore should not be construed as representing those of the U.S. Department of Energy or other federal agencies.



Short-Term Energy Outlook

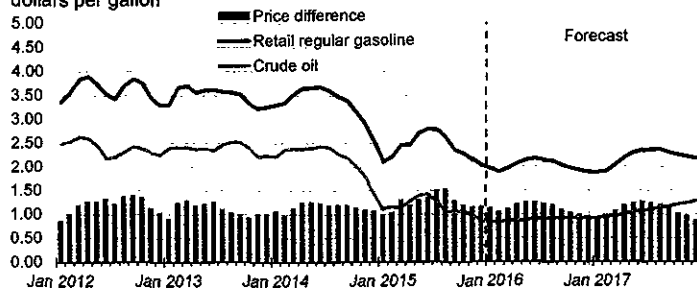
Chart Gallery for January 2016

West Texas Intermediate (WTI) Crude Oil Price
dollars per barrel



Note: Confidence interval derived from options market information for the 5 trading days ending Jan. 7, 2016. Intervals not calculated for months with sparse trading in near-the-money options contracts.
Source: Short-Term Energy Outlook, January 2016.

U.S. Gasoline and Crude Oil Prices
dollars per gallon

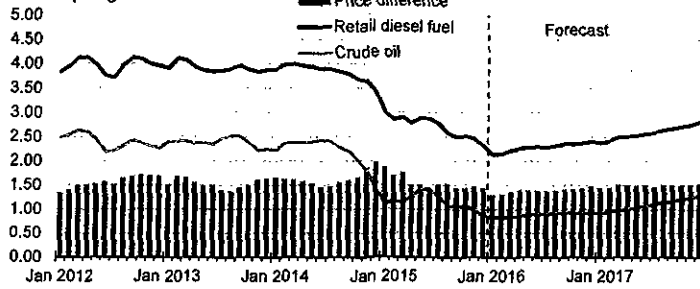


Crude oil price is composite refiner acquisition cost. Retail prices include state and federal taxes.

Source: Short-Term Energy Outlook, January 2016.

U.S. Diesel Fuel and Crude Oil Prices

dollars per gallon

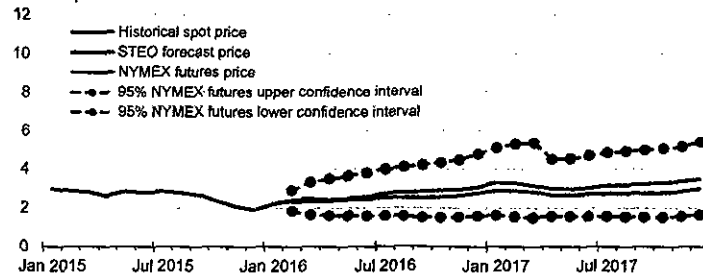


Crude oil price is composite refiner acquisition cost. Retail prices include state and federal taxes.

Source: Short-Term Energy Outlook, January 2016.

Henry Hub Natural Gas Price

dollars per million Btu

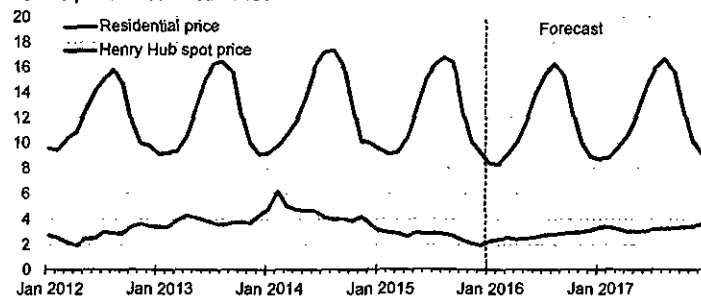


Note: Confidence interval derived from options market information for the 5 trading days ending Jan. 7, 2016. Intervals not calculated for months with sparse trading in near-the-money options contracts.

Source: Short-Term Energy Outlook, January 2016.

U.S. Natural Gas Prices

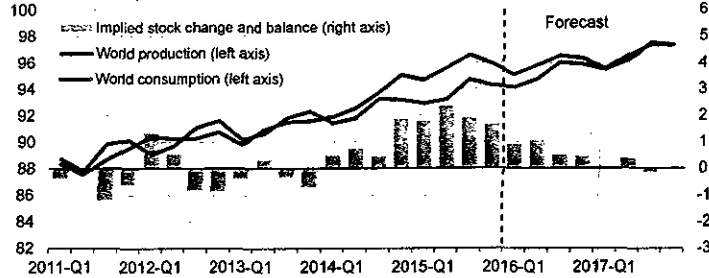
dollars per thousand cubic feet



Source: Short-Term Energy Outlook, January 2016.

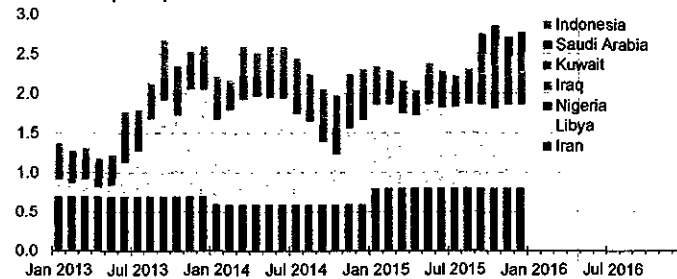
World Liquid Fuels Production and Consumption Balance

million barrels per day (MMb/d)



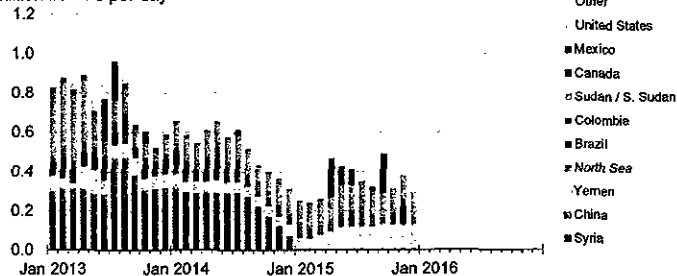
Estimated Historical Unplanned OPEC Crude Oil Production Outages

million barrels per day



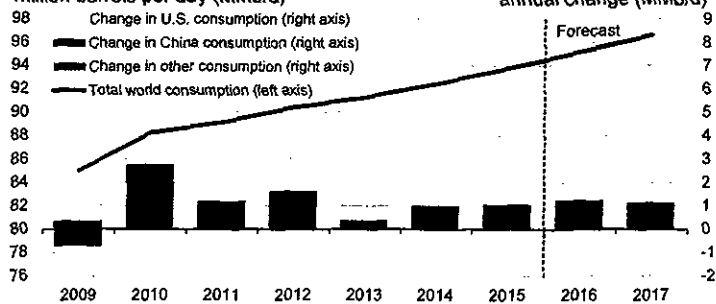
Estimated Historical Unplanned Non-OPEC Liquid Fuels Production Outages

million barrels per day



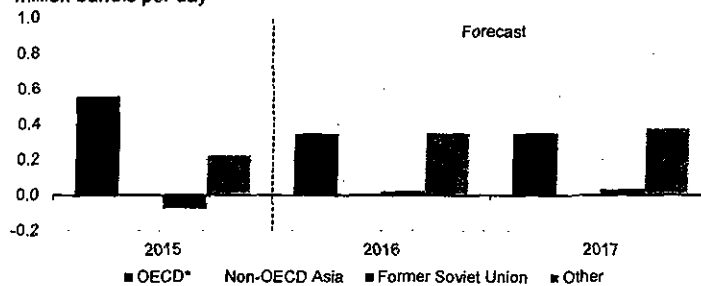
World Liquid Fuels Consumption

million barrels per day (MMb/d)



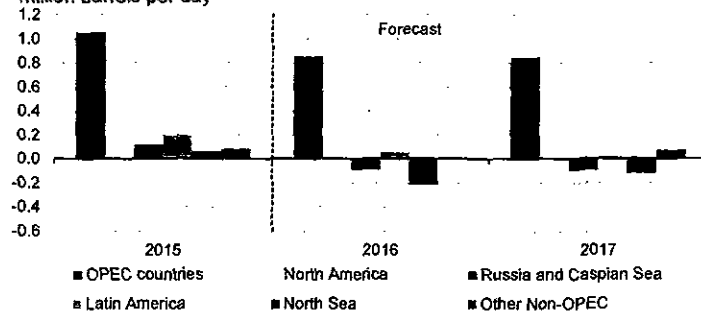
World Liquid Fuels Consumption Growth

million barrels per day



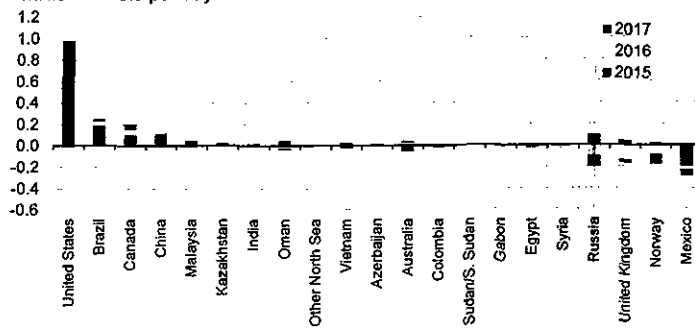
World Crude Oil and Liquid Fuels Production Growth

million barrels per day



Non-OPEC Crude Oil and Liquid Fuels Production Growth

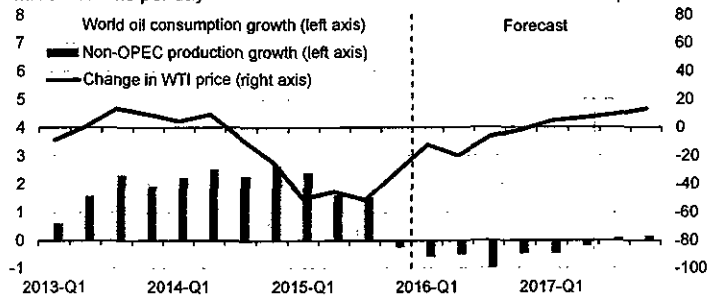
eia



Source: Short-Term Energy Outlook, January 2016.

World Consumption and Non-OPEC Production Growth

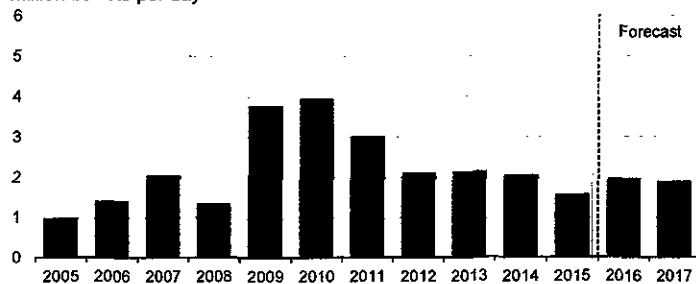
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Source: Short-Term Energy Outlook, January 2016.

OPEC surplus crude oil production capacity

eia

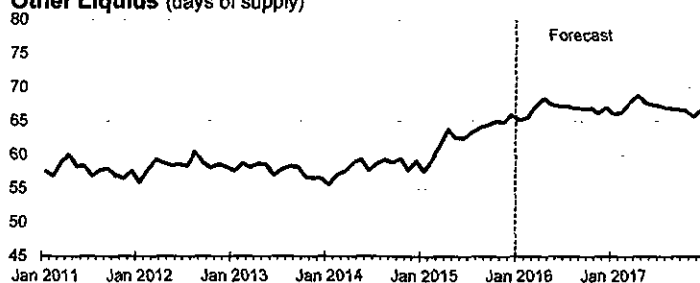


Note: Shaded area represents 2005-2015 average (2.2 million barrels per day).

Source: Short-Term Energy Outlook, January 2016.

OECD Commercial Stocks of Crude Oil and Other Liquids (days of supply)

eia

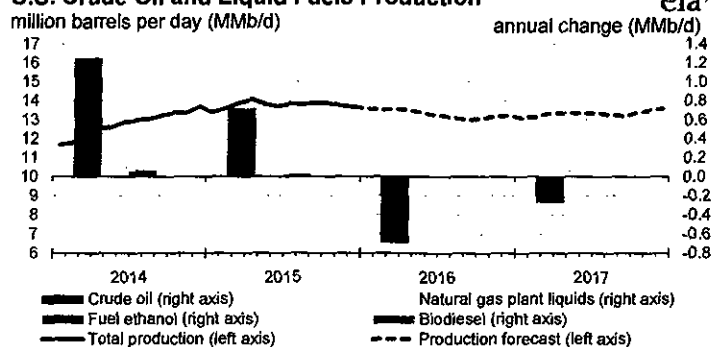


Note: Colored band around days of supply of crude oil and other liquids stocks represents the range between the minimum and maximum from Jan. 2011 - Dec. 2015.

Source: Short-Term Energy Outlook, January 2016.

U.S. Crude Oil and Liquid Fuels Production

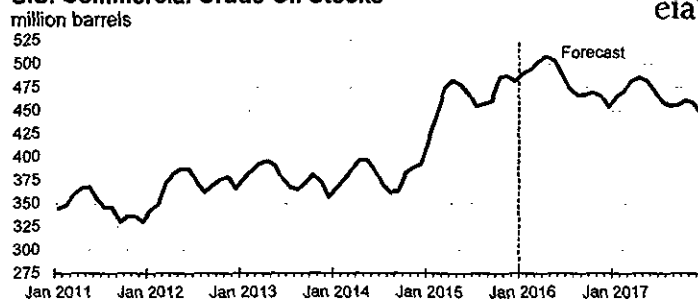
eia



Source: Short-Term Energy Outlook, January 2016.

U.S. Commercial Crude Oil Stocks

eia



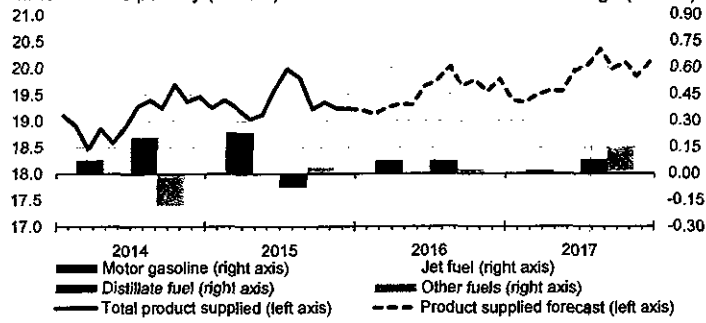
Note: Colored band around storage levels represents the range between the minimum and maximum from Jan. 2011 - Dec. 2015.

Source: Short-Term Energy Outlook, January 2016.

U.S. Liquid Fuels Product Supplied

million barrels per day (MMb/d)

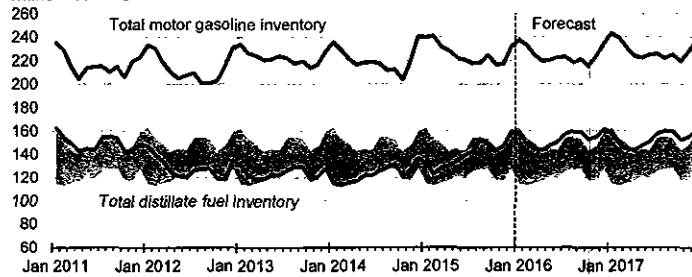
annual change (MMb/d)



Source: Short-Term Energy Outlook, January 2016.

U.S. Gasoline and Distillate Inventories

million barrels



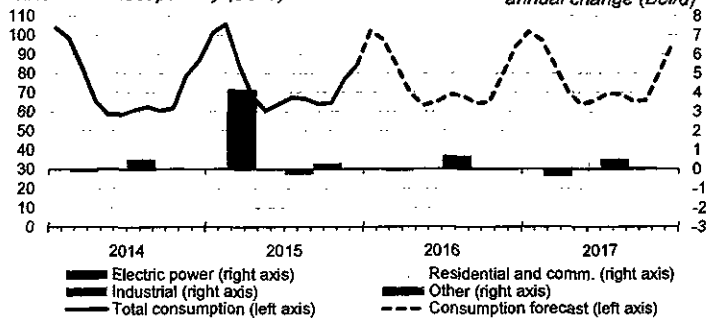
Note: Colored bands around storage levels represent the range between the minimum and maximum from Jan. 2011 - Dec. 2015.

Source: Short-Term Energy Outlook, January 2016.

U.S. Natural Gas Consumption

billion cubic feet per day (Bcf/d)

annual change (Bcf/d)

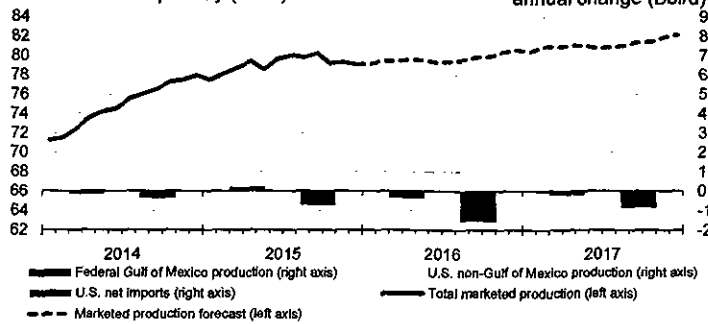


Source: Short-Term Energy Outlook, January 2016.

U.S. Natural Gas Production and Imports

billion cubic feet per day (Bcf/d)

annual change (Bcf/d)

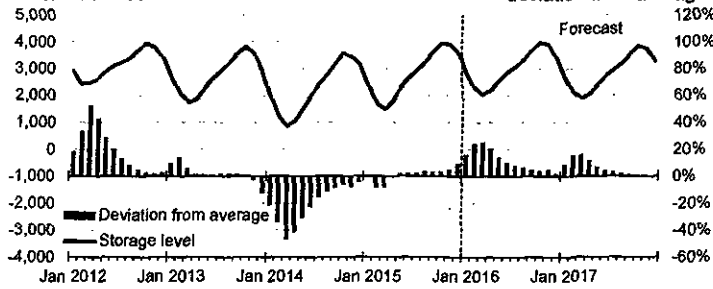


Source: Short-Term Energy Outlook, January 2016.

U.S. Working Natural Gas in Storage

billion cubic feet

deviation from average



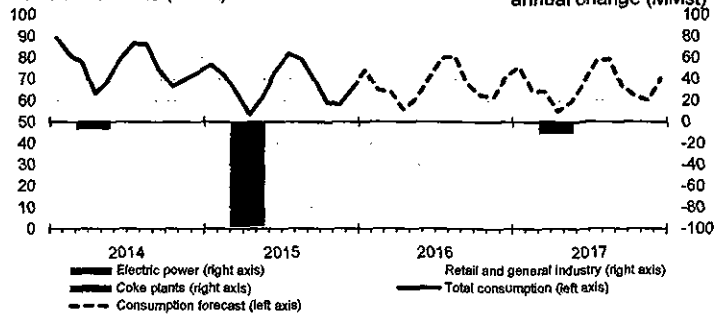
Note: Colored band around storage levels represents the range between the minimum and maximum from Jan. 2011 - Dec. 2015.

Source: Short-Term Energy Outlook, January 2016.

U.S. Coal Consumption

million short tons (MMst)

annual change (MMst)

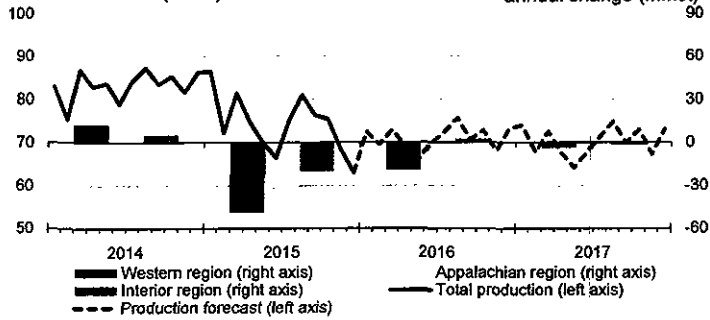


Source: Short-Term Energy Outlook, January 2016.

U.S. Coal Production

million short tons (MMst)

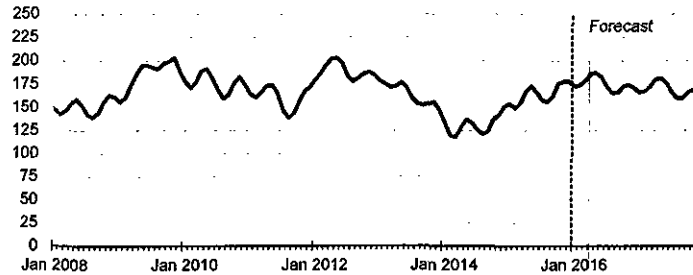
annual change (MMst)



Source: Short-Term Energy Outlook, January 2016.

U.S. Electric Power Coal Stocks

million short tons



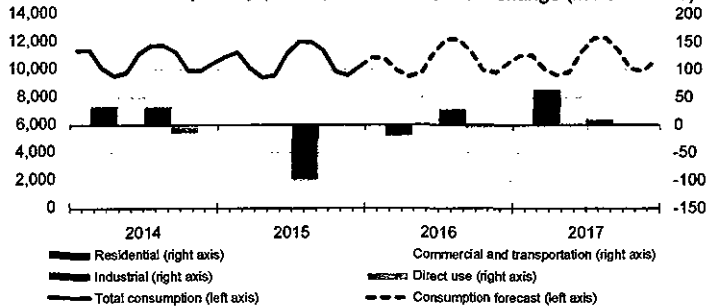
Note: Colored band around stock levels represents the range between the minimum and maximum from Jan. 2008 - Dec. 2015.

Source: Short-Term Energy Outlook, January 2016.

U.S. Electricity Consumption

million kilowatthours per day (kWh/d)

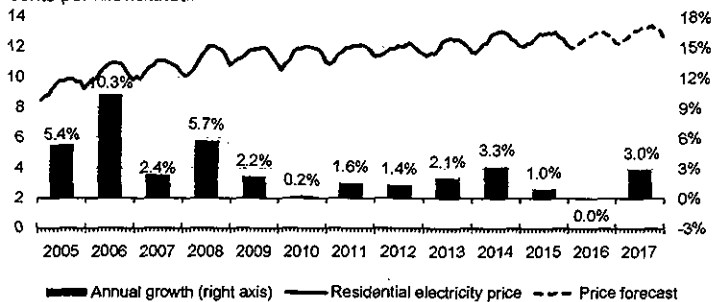
annual change (million kWh/d)



Source: Short-Term Energy Outlook, January 2016.

U.S. Residential Electricity Price

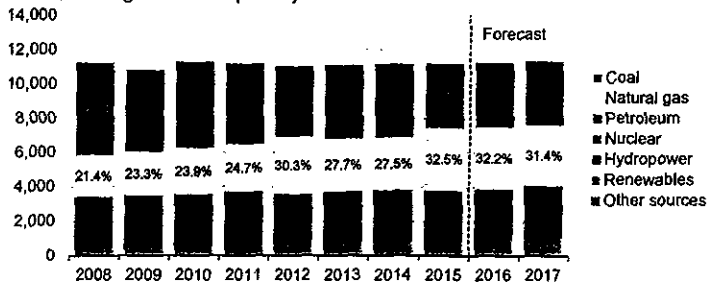
cents per kilowatthour



Source: Short-Term Energy Outlook, January 2016.

U.S. Electricity Generation by Fuel, All Sectors

thousand megawatthours per day

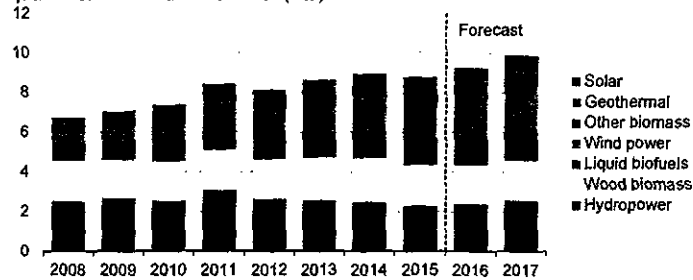


Note: Labels show percentage share of total generation provided by coal and natural gas.

Source: Short-Term Energy Outlook, January 2016.

U.S. Renewable Energy Supply

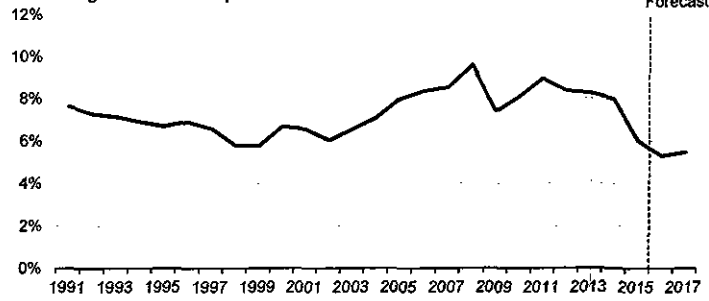
quadrillion British thermal units (Btu)



Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol and biodiesel. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste.

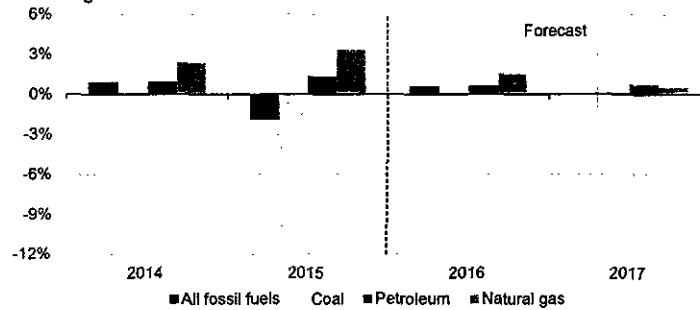
Source: Short-Term Energy Outlook, January 2016.

U.S. Annual Energy Expenditures share of gross domestic product



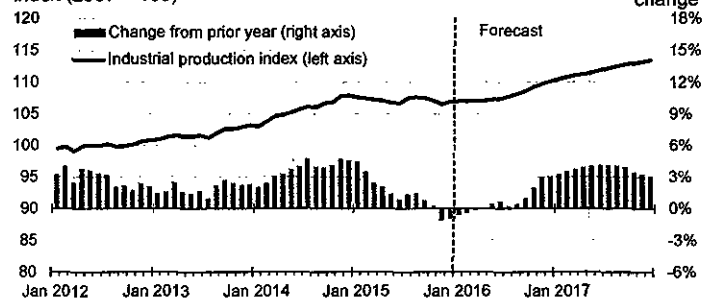
Source: Short-Term Energy Outlook, January 2016.

U.S. Energy-Related Carbon Dioxide Emissions annual growth



Source: Short-Term Energy Outlook, January 2016.

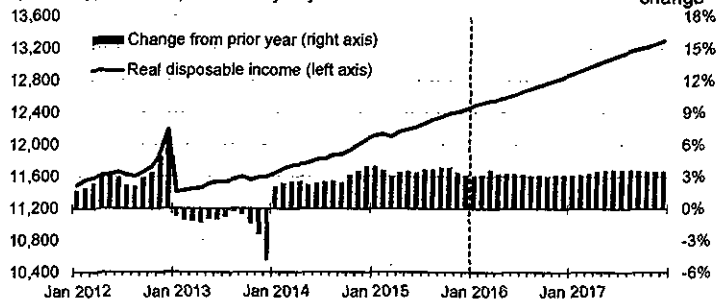
U.S. Total Industrial Production Index index (2007 = 100)



Source: Short-Term Energy Outlook, January 2016.

U.S. Disposable Income

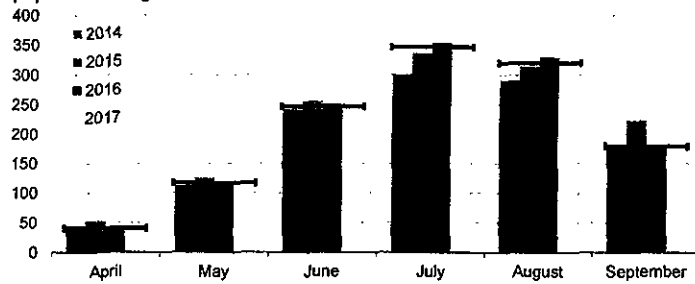
billion 2009 dollars, seasonally adjusted



Source: Short-Term Energy Outlook, January 2016.

U.S. Summer Cooling Degree Days

population-weighted

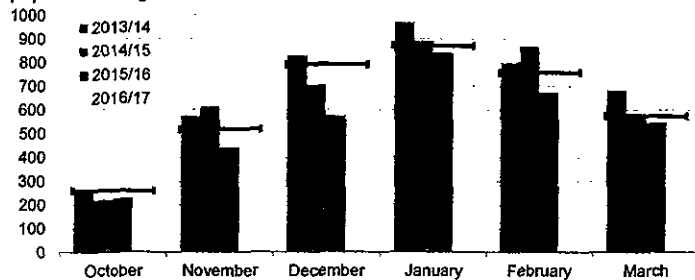


Note: EIA calculations based on from the National Oceanic and Atmospheric Administration data. Horizontal lines indicate each month's prior 10-year average (2006-2015). Projections reflect NOAA's 14-16 month outlook.

Source: Short-Term Energy Outlook, January 2016.

U.S. Winter Heating Degree Days

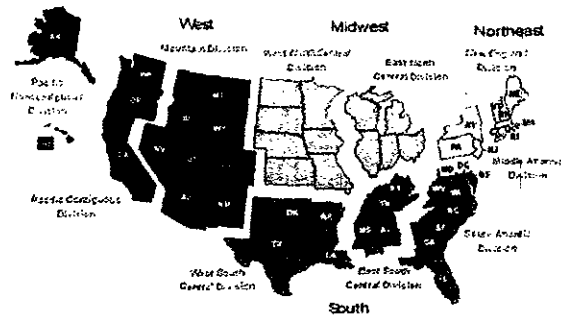
population-weighted



Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Horizontal lines indicate each month's prior 10-year average (Oct 2005 - Mar 2015). Projections reflect NOAA's 14-16 month outlook.

Source: Short-Term Energy Outlook, January 2016.

U.S. Census Regions and Divisions



Source: Short-Term Energy Outlook, January 2016.

Table WF01. Average Consumer Prices and Expenditures for Heating Fuels During the Winter

U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

Fuel / Region	Winter of							Forecast	
	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	% Change
Natural Gas									
Northeast									
Consumption (Mcf ^{***})	80.3	75.7	80.7	66.4	76.1	84.0	84.7	69.9	-17.5
Price (\$/mcf)	15.83	13.31	12.66	12.21	11.71	11.53	10.85	10.76	-0.9
Expenditures (\$)	1,272	1,007	1,022	812	891	969	919	752	-18.2
Midwest									
Consumption (Mcf)	80.7	78.6	80.2	65.4	77.6	88.1	83.1	69.6	-16.3
Price (\$/mcf)	11.47	9.44	9.23	8.99	8.36	8.69	8.55	7.75	-9.4
Expenditures (\$)	926	742	740	587	648	766	711	539	-24.2
South									
Consumption (Mcf)	47.3	53.3	49.3	40.9	46.5	52.1	50.5	42.6	-15.7
Price (\$/mcf)	14.07	11.52	11.02	11.45	10.71	10.77	10.84	11.10	2.4
Expenditures (\$)	665	614	544	468	498	562	548	473	-13.6
West									
Consumption (Mcf)	47.8	49.9	49.4	49.1	48.6	46.3	41.4	45.7	10.4
Price (\$/mcf)	10.86	9.91	9.67	9.35	9.13	9.96	10.67	9.06	-15.1
Expenditures (\$)	519	494	478	459	443	462	441	414	-6.2
U.S. Average									
Consumption (Mcf)	64.2	64.4	65.0	55.7	62.5	68.0	64.8	57.1	-11.8
Price (\$/mcf)	12.87	10.83	10.46	10.25	9.72	9.97	9.91	9.32	-6.0
Expenditures (\$)	826	698	680	571	607	677	642	532	-17.1
Heating Oil									
U.S. Average									
Consumption (gallons)	576.7	544.8	580.7	471.2	545.5	606.9	608.8	500.5	-17.8
Price (\$/gallon)	2.65	2.85	3.38	3.73	3.87	3.88	3.04	2.17	-28.5
Expenditures (\$)	1,530	1,552	1,966	1,757	2,113	2,352	1,851	1,088	-41.2
Electricity									
Northeast									
Consumption (kWh ^{****})	7,063	6,847	7,076	6,436	6,862	7,221	7,250	6,590	-9.1
Price (\$/kwh)	0.152	0.152	0.154	0.154	0.152	0.163	0.168	0.169	0.6
Expenditures (\$)	1,071	1,039	1,091	993	1,046	1,177	1,221	1,116	-8.6
Midwest									
Consumption (kWh)	8,751	8,660	8,733	7,897	8,588	9,168	8,858	8,143	-8.1
Price (\$/kwh)	0.097	0.099	0.105	0.111	0.112	0.112	0.118	0.119	1.3
Expenditures (\$)	851	856	914	875	958	1,031	1,043	971	-6.9
South									
Consumption (kWh)	8,057	8,486	8,224	7,470	7,977	8,385	8,291	7,601	-8.3
Price (\$/kwh)	0.109	0.103	0.104	0.107	0.107	0.109	0.111	0.109	-2.0
Expenditures (\$)	878	873	856	798	851	914	920	827	-10.2
West									
Consumption (kWh)	7,084	7,239	7,216	7,190	7,150	6,979	6,591	6,928	5.1
Price (\$/kwh)	0.107	0.110	0.112	0.115	0.119	0.123	0.126	0.131	3.6
Expenditures (\$)	755	799	809	825	848	860	833	907	8.9
U.S. Average									
Consumption (kWh)	7,725	7,937	7,844	7,253	7,672	7,983	7,805	7,336	-6.0
Price (\$/kwh)	0.112	0.110	0.113	0.116	0.117	0.120	0.123	0.123	0.1
Expenditures (\$)	866	873	884	843	895	956	960	904	-5.9

Table WF01. Average Consumer Prices and Expenditures for Heating Fuels During the Winter

U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

Fuel / Region	Winter of							Forecast	
	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	% Change
Propane									
Northeast									
Consumption (gallons)	714.7	672.0	717.5	595.6	675.8	745.1	751.3	627.7	-16.5
Price* (\$/gallon)	2.84	2.98	3.24	3.34	3.00	3.56	3.00	2.73	-9.0
Expenditures (\$)	2,031	2,004	2,321	1,990	2,031	2,653	2,254	1,714	-24.0
Midwest									
Consumption (gallons)	795.0	779.6	791.8	644.3	766.4	868.6	813.3	687.8	-15.4
Price* (\$/gallon)	2.11	1.99	2.11	2.23	1.74	2.61	1.91	1.56	-18.3
Expenditures (\$)	1,678	1,548	1,674	1,437	1,333	2,267	1,553	1,073	-30.9

Number of households by primary space heating fuel (thousands)

Northeast									
Natural gas	10,889	10,992	11,118	11,236	11,345	11,484	11,612	11,681	0.6
Heating oil	6,280	6,016	5,858	5,701	5,458	5,218	5,084	4,931	-3.0
Propane	713	733	744	761	813	844	839	845	0.8
Electricity	2,563	2,645	2,776	2,894	3,011	3,028	3,064	3,149	2.8
Wood	474	501	512	548	582	579	581	596	2.6
Other/None	307	311	315	324	377	434	432	433	0.3
Midwest									
Natural gas	18,288	18,050	17,977	18,019	18,054	18,098	18,176	18,095	-0.4
Heating oil	491	451	419	393	360	337	316	291	-8.0
Propane	2,131	2,098	2,073	2,037	2,063	2,096	2,056	2,012	-2.2
Electricity	4,570	4,715	4,922	5,119	5,333	5,430	5,516	5,710	3.5
Wood	584	616	618	631	640	630	630	635	0.8
Other/None	264	283	289	282	319	354	348	348	0.0
South									
Natural gas	13,958	13,731	13,657	13,636	13,681	13,775	13,897	13,881	-0.1
Heating oil	956	906	853	790	738	700	662	614	-7.3
Propane	2,220	2,165	2,098	2,024	1,982	1,946	1,887	1,802	-4.5
Electricity	25,258	25,791	26,555	27,283	27,857	28,203	28,655	29,225	2.0
Wood	593	586	599	609	612	611	612	627	2.4
Other/None	314	314	309	304	367	420	395	387	-2.0
West									
Natural gas	15,027	14,939	15,020	15,021	15,008	15,043	15,198	15,251	0.3
Heating oil	294	289	279	261	247	234	226	219	-3.3
Propane	936	940	914	885	909	931	900	879	-2.3
Electricity	7,768	7,877	8,126	8,439	8,671	8,745	8,905	9,180	3.1
Wood	703	721	725	736	728	741	759	757	-0.3
Other/None	837	850	850	829	903	1,023	1,018	985	-3.2
U.S. Totals									
Natural gas	58,162	57,713	57,771	57,912	58,088	58,400	58,882	58,908	0.0
Heating oil	8,021	7,662	7,408	7,145	6,803	6,489	6,288	6,054	-3.7
Propane	5,999	5,936	5,829	5,707	5,766	5,816	5,682	5,538	-2.5
Electricity	40,159	41,029	42,380	43,734	44,872	45,405	46,139	47,264	2.4
Wood	2,353	2,424	2,454	2,524	2,563	2,561	2,583	2,616	1.3
Other/None	1,723	1,758	1,763	1,739	1,965	2,231	2,192	2,153	-1.8

Heating degree days

Northeast	5,313	4,933	5,337	4,217	4,964	5,593	5,646	4,494	-20.4
Midwest	5,810	5,639	5,773	4,484	5,544	6,451	6,004	4,854	-19.2
South	2,493	2,870	2,632	2,023	2,430	2,787	2,697	2,135	-20.8
West	3,116	3,285	3,258	3,229	3,181	2,987	2,563	2,935	14.5
U.S. Average	3,869	3,937	3,939	3,224	3,721	4,109	3,883	3,310	-14.8

Note: Winter covers the period October 1 through March 31. Fuel prices are nominal prices. Fuel consumption per household is based only on households that use that fuel as the primary space-heating fuel. Included in fuel consumption is consumption for water heating, appliances, and lighting (electricity). Per-household consumption based on an average of EIA 2005 and 2009 Residential Energy Consumption Surveys corrected for actual and projected heating degree days. Number of households using heating oil includes kerosene.

* Prices exclude taxes

** thousand cubic feet

*** kilowatt-hour

Table 1. U.S. Energy Markets Summary

U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
Energy Supply															
Crude Oil Production (a) (million barrels per day)	9.49	9.50	9.43	9.30	9.11	8.86	8.48	8.49	8.52	8.48	8.34	8.52	9.43	8.73	8.46
Dry Natural Gas Production (billion cubic feet per day)	73.67	74.50	75.26	74.36	74.50	74.65	74.75	75.39	75.82	76.02	76.14	76.84	74.45	74.82	76.21
Coal Production (million short tons)	240	211	232	207	215	205	219	214	214	200	216	213	890	852	843
Energy Consumption															
Liquid Fuels (million barrels per day)	19.29	19.25	19.68	19.27	19.19	19.42	19.81	19.71	19.41	19.68	20.12	20.01	19.37	19.53	19.81
Natural Gas (billion cubic feet per day)	96.67	64.09	66.07	75.34	94.30	65.87	67.05	79.15	94.14	66.47	67.88	80.61	75.46	76.57	77.21
Coal (b) (million short tons)	212	189	231	183	203	187	228	196	205	183	224	193	816	815	804
Electricity (billion kilowatt hours per day)	10.74	10.04	11.79	9.88	10.52	10.14	11.90	10.06	10.68	10.23	12.00	10.17	10.61	10.66	10.78
Renewables (c) (quadrillion Btu)	2.43	2.43	2.34	2.31	2.43	2.65	2.50	2.47	2.60	2.86	2.65	2.58	9.51	10.06	10.69
Total Energy Consumption (d) (quadrillion Btu)	26.38	23.01	24.49	23.77	25.72	23.00	24.38	24.61	25.83	23.30	24.65	24.90	97.65	97.71	98.68
Energy Prices															
Crude Oil West Texas Intermediate Spot (dollars per barrel)	48.48	57.85	46.55	41.94	36.36	38.02	39.69	40.00	41.03	44.72	49.00	53.29	48.67	38.54	47.00
Natural Gas Henry Hub Spot (dollars per million Btu)	2.90	2.75	2.76	2.12	2.37	2.47	2.78	2.98	3.27	3.00	3.20	3.41	2.63	2.65	3.22
Coal (dollars per million Btu)	2.27	2.25	2.22	2.18	2.18	2.21	2.21	2.17	2.17	2.22	2.23	2.19	2.23	2.19	2.20
Macroeconomic															
Real Gross Domestic Product (billion chained 2009 dollars - SAAR)	16,177	16,334	16,418	16,483	16,595	16,707	16,849	17,009	17,141	17,288	17,419	17,521	16,353	16,790	17,342
Percent change from prior year	2.9	2.7	2.2	2.1	2.6	2.3	2.6	3.2	3.3	3.5	3.4	3.0	2.5	2.7	3.3
GDP Implicit Price Deflator (Index, 2009=100)	109.1	109.7	110.0	110.5	111.2	111.7	112.2	112.7	113.4	113.9	114.3	114.9	109.8	111.9	114.1
Percent change from prior year	1.0	1.0	0.9	1.3	1.9	1.9	1.9	2.0	2.0	1.9	1.9	2.0	1.1	1.9	2.0
Real Disposable Personal Income (billion chained 2009 dollars - SAAR)	12,115	12,194	12,312	12,417	12,520	12,593	12,704	12,806	12,923	13,049	13,164	13,260	12,259	12,656	13,099
Percent change from prior year	3.6	3.5	3.8	3.5	3.3	3.3	3.2	3.1	3.2	3.6	3.6	3.6	3.6	3.2	3.5
Manufacturing Production Index (Index, 2012=100)	105.5	105.8	106.7	107.0	106.9	106.9	107.9	109.8	110.9	111.6	112.7	113.5	106.2	107.9	112.2
Percent change from prior year	3.5	2.3	2.0	1.3	1.3	1.0	1.1	2.6	3.8	4.3	4.4	3.4	2.3	1.5	4.0
Weather															
U.S. Heating Degree-Days	2,343	443	49	1,247	2,063	453	69	1,516	2,121	477	76	1,550	4,082	4,101	4,223
U.S. Cooling Degree-Days	46	434	876	130	39	399	866	98	40	404	882	100	1,486	1,402	1,426

- = no data available

Prices are not adjusted for inflation.

(a) Includes lease condensate.

(b) Total consumption includes Independent Power Producer (IPP) consumption.

(c) Renewable energy includes minor components of non-marketed renewable energy that is neither bought nor sold, either directly or indirectly, as inputs to marketed energy.

EIA does not estimate or project end-use consumption of non-marketed renewable energy.

(d) The conversion from physical units to Btu is calculated using a subset of conversion factors used in the calculations of gross energy consumption in EIA's Monthly Energy Review. Consequently, the historical data may not precisely match those published in the MER or the Annual Energy Review (AER).

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

 Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109;

Petroleum Supply Annual, DOE/EIA-0340/2; *Weekly Petroleum Status Report*, DOE/EIA-0208; *Petroleum Marketing Monthly*, DOE/EIA-0380; *Natural Gas Monthly*, DOE/EIA-0130;

Electric Power Monthly, DOE/EIA-0226; *Quarterly Coal Report*, DOE/EIA-0121; and *International Petroleum Monthly*, DOE/EIA-0520.

Minor discrepancies with published historical data are due to independent rounding.

Projections: EIA Regional Short-Term Energy Model. Macroeconomic projections are based on Global Insight Model of the U.S. Economy.

Weather projections from National Oceanic and Atmospheric Administration.

Table 2. Energy Prices

U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
Crude Oil (dollars per barrel)															
West Texas Intermediate Spot Average	48.48	57.85	46.55	41.94	36.36	38.02	39.69	40.00	41.03	44.72	49.00	53.29	48.67	38.54	47.00
Brent Spot Average	53.91	61.65	50.43	43.53	36.36	40.02	41.69	42.34	44.03	47.72	52.00	56.29	52.32	40.15	50.00
U.S. Imported Average	46.40	56.12	45.59	37.95	32.85	34.50	36.17	36.50	37.51	41.17	45.49	49.84	46.41	35.09	43.61
U.S. Refiner Average Acquisition Cost	47.98	57.47	47.70	40.82	35.34	37.01	38.66	39.00	40.01	43.69	47.98	52.36	48.52	37.53	46.11
U.S. Liquid Fuels (cents per gallon)															
Refiner Prices for Resale															
Gasoline	159	201	184	144	121	141	139	122	127	157	162	148	172	131	149
Diesel Fuel	176	189	161	141	121	131	138	142	146	154	167	179	167	133	162
Heating Oil	178	180	161	126	117	123	130	139	143	145	158	175	156	127	156
Refiner Prices to End Users															
Jet Fuel	172	186	166	136	119	126	132	137	141	149	161	173	162	128	156
No. 6 Residual Fuel Oil (a)	137	154	123	106	92	91	96	98	101	106	117	128	128	94	113
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	227	267	260	216	195	213	211	194	196	228	235	222	243	203	221
Gasoline All Grades (b)	236	275	269	226	204	222	220	203	205	237	244	231	252	212	230
On-highway Diesel Fuel	292	285	263	244	217	228	232	237	243	253	263	276	271	229	259
Heating Oil	288	276	247	224	213	212	213	223	235	234	242	258	265	216	243
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	2.99	2.83	2.84	2.18	2.44	2.55	2.86	3.07	3.37	3.09	3.30	3.51	2.71	2.73	3.32
Henry Hub Spot (dollars per million Btu)	2.90	2.75	2.76	2.12	2.37	2.47	2.78	2.98	3.27	3.00	3.20	3.41	2.63	2.65	3.22
U.S. End-Use Prices (dollars per thousand cubic feet)															
Industrial Sector	4.57	3.68	3.65	3.44	3.57	3.36	3.74	4.16	4.55	3.97	4.21	4.62	3.85	3.72	4.35
Commercial Sector	7.94	8.13	8.41	7.43	7.24	7.65	8.40	7.78	7.95	8.34	8.92	8.25	7.89	7.59	8.21
Residential Sector	9.30	11.96	16.46	10.16	8.59	11.39	15.69	9.82	9.02	11.83	16.09	10.08	10.37	9.85	10.23
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.27	2.25	2.22	2.18	2.18	2.21	2.21	2.17	2.17	2.22	2.23	2.19	2.23	2.19	2.20
Natural Gas	4.09	3.11	3.09	2.99	3.52	3.25	3.36	4.07	4.43	3.74	3.74	4.45	3.29	3.53	4.05
Residual Fuel Oil (c)	10.82	11.64	10.48	8.97	7.86	8.41	8.44	8.48	8.58	9.63	9.87	10.37	10.66	8.29	9.59
Distillate Fuel Oil	15.61	15.16	13.18	11.63	10.74	11.40	11.84	12.61	13.00	13.43	14.20	15.43	14.49	11.59	13.95
End-Use Prices (cents per kilowatthour)															
Industrial Sector	6.78	6.81	7.31	6.66	6.75	6.80	7.33	6.74	6.87	6.88	7.42	6.83	6.90	6.91	7.01
Commercial Sector	10.47	10.63	10.95	10.52	10.61	10.70	11.15	10.76	10.86	10.93	11.38	11.00	10.63	10.82	11.05
Residential Sector	12.23	12.85	12.99	12.50	12.16	12.70	13.00	12.68	12.48	13.14	13.40	13.04	12.65	12.65	13.02

- = no data available

Prices are not adjusted for inflation.

(a) Average for all sulfur contents.

(b) Average self-service cash price.

(c) Includes fuel oils No. 4, No. 5, No. 6, and topped crude.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Prices exclude taxes unless otherwise noted.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Marketing Monthly*, DOE/EIA-0380;*Weekly Petroleum Status Report*, DOE/EIA-0208; *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; and *Monthly Energy Review*, DOE/EIA-0035.WTI and Brent crude oils, and Henry Hub natural gas spot prices from Reuter's News Service (<http://www.reuters.com>).

Minor discrepancies with published historical data are due to independent rounding.

Projections: EIA Regional Short-Term Energy Model.

Table 3a. International Petroleum and Other Liquids Production, Consumption, and Inventories
U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2016	2017
Supply (million barrels per day) (a)															
OECD	26.65	26.48	26.79	26.59	26.30	26.05	25.80	25.98	25.88	25.88	25.91	26.16	26.63	26.03	25.96
U.S. (50 States)	14.81	15.10	15.14	15.05	14.82	14.69	14.40	14.48	14.45	14.64	14.59	14.83	15.03	14.60	14.63
Canada	4.69	4.22	4.55	4.52	4.50	4.50	4.58	4.60	4.58	4.55	4.62	4.64	4.60	4.55	4.60
Mexico	2.68	2.58	2.62	2.63	2.62	2.60	2.59	2.57	2.55	2.54	2.53	2.51	2.63	2.59	2.53
North Sea (b)	3.00	3.10	2.92	2.84	2.83	2.72	2.69	2.77	2.75	2.59	2.60	2.60	2.97	2.75	2.63
Other OECD	1.47	1.47	1.55	1.54	1.53	1.53	1.54	1.55	1.55	1.56	1.58	1.58	1.51	1.54	1.57
Non-OECD	68.04	69.11	69.81	69.36	68.77	69.73	70.73	70.36	69.65	70.66	71.45	71.14	69.09	69.90	70.73
OPEC	37.63	38.24	38.75	38.67	38.50	38.94	39.66	39.52	39.44	39.90	40.38	40.32	38.30	39.16	40.01
Crude Oil Portion	30.98	31.67	32.03	31.90	31.60	31.97	32.62	32.43	32.23	32.65	33.05	32.94	31.65	32.16	32.72
Other Liquids (c)	6.65	6.57	6.72	6.77	6.90	6.97	7.04	7.10	7.21	7.25	7.32	7.38	6.65	7.00	7.29
Eurasia	14.09	14.01	14.01	13.93	13.88	13.90	13.93	13.95	13.79	13.81	13.82	13.83	14.01	13.92	13.81
China	4.66	4.73	4.72	4.69	4.67	4.70	4.71	4.71	4.69	4.72	4.73	4.73	4.70	4.70	4.72
Other Non-OECD	11.76	12.13	12.33	12.07	11.72	12.18	12.43	12.17	11.73	12.23	12.52	12.26	12.07	12.13	12.19
Total World Supply	94.69	95.58	96.60	95.95	95.07	95.78	96.53	96.33	95.52	96.54	97.36	97.30	95.71	95.93	96.69
Non-OPEC Supply	57.16	57.34	57.85	57.29	56.57	56.84	56.87	56.81	56.08	56.64	56.98	56.98	57.41	56.77	56.68
Consumption (million barrels per day) (d)															
OECD	46.62	45.36	46.61	46.65	46.83	45.80	46.73	47.17	47.12	46.15	47.12	47.55	46.28	46.63	46.99
U.S. (50 States)	19.29	19.25	19.68	19.27	19.19	19.42	19.81	19.71	19.41	19.68	20.12	20.01	19.37	19.53	19.81
U.S. Territories	0.37	0.37	0.37	0.37	0.40	0.40	0.40	0.40	0.42	0.42	0.42	0.42	0.37	0.40	0.42
Canada	2.36	2.27	2.43	2.41	2.38	2.32	2.43	2.41	2.38	2.32	2.43	2.41	2.37	2.38	2.38
Europe	13.53	13.43	13.91	13.86	13.74	13.47	13.92	13.87	13.76	13.50	13.95	13.89	13.68	13.75	13.78
Japan	4.80	3.92	3.91	4.28	4.58	3.85	3.88	4.25	4.54	3.82	3.85	4.22	4.23	4.14	4.11
Other OECD	6.26	6.13	6.21	6.45	6.54	6.34	6.29	6.53	6.60	6.40	6.34	6.59	6.26	6.42	6.48
Non-OECD	46.27	47.85	48.19	47.63	47.31	48.93	49.28	48.70	48.34	50.01	50.37	49.77	47.49	48.56	49.63
Eurasia	4.71	4.65	4.92	4.90	4.73	4.66	4.93	4.92	4.75	4.68	4.96	4.94	4.80	4.81	4.83
Europe	0.71	0.72	0.74	0.74	0.72	0.73	0.75	0.75	0.73	0.74	0.76	0.76	0.73	0.73	0.74
China	10.77	11.36	11.32	11.27	11.08	11.69	11.64	11.59	11.37	11.99	11.94	11.89	11.18	11.50	11.80
Other Asia	12.11	12.33	11.87	12.19	12.49	12.71	12.23	12.56	12.84	13.07	12.57	12.92	12.13	12.50	12.85
Other Non-OECD	17.96	18.79	19.35	18.53	18.30	19.15	19.73	18.89	18.85	19.53	20.14	19.26	18.66	19.02	19.40
Total World Consumption	92.89	93.21	94.69	94.28	94.14	94.73	96.01	95.87	95.45	96.16	97.49	97.31	93.77	95.19	96.61
Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)															
U.S. (50 States)	-0.54	-0.69	-0.32	-0.10	0.20	-0.32	-0.01	0.55	0.05	-0.38	-0.08	0.61	-0.41	0.11	0.05
Other OECD	-0.35	-0.65	-0.57	-0.57	-0.42	-0.25	-0.18	-0.36	-0.05	0.00	0.07	-0.21	-0.53	-0.30	-0.05
Other Stock Draws and Balance	-0.91	-1.04	-1.02	-1.00	-0.71	-0.47	-0.33	-0.65	-0.08	0.00	0.14	-0.38	-0.99	-0.54	-0.08
Total Stock Draw	-1.80	-2.37	-1.91	-1.68	-0.93	-1.04	-0.52	-0.46	-0.07	-0.38	0.13	0.02	-1.94	-0.74	-0.08
End-of-period Commercial Crude Oil and Other Liquids Inventories															
U.S. Commercial Inventory	1,217	1,277	1,306	1,316	1,297	1,326	1,327	1,276	1,271	1,306	1,313	1,258	1,316	1,276	1,258
OECD Commercial Inventory	2,800	2,918	2,998	3,061	3,080	3,132	3,149	3,132	3,132	3,166	3,167	3,131	3,061	3,132	3,131

- = no data available

OECD = Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

OPEC = Organization of Petroleum Exporting Countries: Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, Venezuela.

(a) Supply includes production of crude oil (including lease condensates), natural gas plant liquids, biofuels, other liquids, and refinery processing gains.

(b) Includes offshore supply from Denmark, Germany, the Netherlands, Norway, and the United Kingdom.

(c) Includes lease condensate, natural gas plant liquids, other liquids, and refinery processing gain. Includes other unaccounted-for liquids.

(d) Consumption of petroleum by the OECD countries is synonymous with "petroleum product supplied," defined in the glossary of the EIA *Petroleum Supply Monthly*, DOE/EIA-0109.

Consumption of petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel and loss, and bunkering.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration international energy statistics.

Minor discrepancies with published historical data are due to independent rounding.

Projections: EIA Regional Short-Term Energy Model.

Table 3b. Non-OPEC Petroleum and Other Liquids Supply (million barrels per day)

U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
North America	22.18	21.90	22.31	22.20	21.94	21.79	21.57	21.66	21.58	21.74	21.73	21.98	22.15	21.74	21.76
Canada	4.69	4.22	4.55	4.52	4.50	4.50	4.58	4.60	4.58	4.55	4.62	4.64	4.50	4.55	4.60
Mexico	2.68	2.58	2.62	2.63	2.62	2.60	2.59	2.57	2.55	2.54	2.53	2.51	2.63	2.59	2.53
United States	14.81	15.10	15.14	15.05	14.82	14.69	14.40	14.48	14.45	14.64	14.59	14.83	15.03	14.60	14.63
Central and South America	4.95	5.43	5.69	5.38	4.99	5.50	5.75	5.47	5.01	5.52	5.77	5.49	5.37	5.43	5.45
Argentina	0.70	0.72	0.74	0.75	0.70	0.72	0.76	0.76	0.72	0.74	0.77	0.77	0.73	0.74	0.75
Brazil	2.75	3.23	3.49	3.14	2.77	3.27	3.53	3.21	2.78	3.29	3.55	3.23	3.16	3.19	3.22
Colombia	1.05	1.05	0.99	1.03	1.05	1.04	0.99	1.02	1.03	1.02	0.97	1.00	1.03	1.03	1.01
Other Central and S. America	0.46	0.43	0.46	0.47	0.47	0.47	0.47	0.48	0.48	0.47	0.48	0.49	0.45	0.47	0.48
Europe	3.95	4.05	3.88	3.78	3.77	3.66	3.63	3.72	3.69	3.53	3.55	3.55	3.92	3.70	3.58
Norway	1.84	1.84	1.83	1.88	1.88	1.80	1.84	1.84	1.81	1.76	1.73	1.69	1.92	1.84	1.75
United Kingdom (offshore)	0.88	0.98	0.82	0.79	0.77	0.74	0.67	0.75	0.75	0.63	0.68	0.72	0.87	0.73	0.70
Other North Sea	0.18	0.18	0.17	0.17	0.18	0.18	0.18	0.19	0.19	0.19	0.19	0.19	0.18	0.18	0.19
Eurasia	14.11	14.02	14.03	13.94	13.90	13.92	13.94	13.97	13.81	13.82	13.84	13.85	14.03	13.93	13.83
Azerbaijan	0.86	0.87	0.88	0.88	0.88	0.88	0.87	0.87	0.87	0.86	0.86	0.85	0.87	0.87	0.86
Kazakhstan	1.76	1.71	1.69	1.70	1.71	1.71	1.72	1.75	1.76	1.75	1.74	1.73	1.72	1.72	1.75
Russia	10.99	10.98	10.95	10.87	10.83	10.84	10.86	10.87	10.70	10.73	10.76	10.78	10.95	10.85	10.74
Turkmenistan	0.29	0.27	0.28	0.27	0.28	0.29	0.29	0.28	0.29	0.29	0.29	0.29	0.28	0.29	0.29
Other Eurasia	0.20	0.19	0.22	0.21	0.21	0.20	0.20	0.20	0.19	0.19	0.19	0.19	0.21	0.20	0.19
Middle East	1.18	1.13	1.15	1.14	1.14	1.12	1.12	1.12	1.11	1.09	1.09	1.09	1.15	1.13	1.09
Oman	0.97	0.88	1.02	1.02	0.98	0.98	0.97	0.98	0.97	0.97	0.96	0.97	1.00	0.98	0.97
Syria	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.03	0.01	0.00
Yemen	0.11	0.04	0.02	0.01	0.09	0.07	0.07	0.07	0.06	0.04	0.05	0.04	0.05	0.07	0.05
Asia and Oceania	8.51	8.54	8.49	8.53	8.55	8.56	8.57	8.58	8.58	8.60	8.62	8.62	8.52	8.57	8.61
Australia	0.39	0.38	0.46	0.45	0.44	0.44	0.44	0.45	0.46	0.46	0.47	0.47	0.42	0.44	0.46
China	4.66	4.73	4.72	4.69	4.67	4.70	4.71	4.71	4.69	4.72	4.73	4.73	4.70	4.70	4.72
India	1.01	1.00	1.01	1.01	1.02	1.02	1.03	1.02	1.03	1.03	1.04	1.03	1.01	1.02	1.03
Malaysia	0.80	0.77	0.68	0.73	0.78	0.77	0.76	0.77	0.77	0.76	0.75	0.75	0.75	0.77	0.76
Vietnam	0.36	0.34	0.35	0.36	0.35	0.35	0.34	0.34	0.34	0.33	0.33	0.33	0.35	0.35	0.33
Africa	2.28	2.26	2.29	2.29	2.27	2.28	2.28	2.30	2.31	2.35	2.38	2.41	2.28	2.28	2.36
Egypt	0.71	0.70	0.71	0.70	0.70	0.70	0.69	0.69	0.69	0.68	0.68	0.68	0.71	0.69	0.68
Equatorial Guinea	0.27	0.27	0.27	0.27	0.25	0.25	0.25	0.25	0.24	0.24	0.25	0.25	0.27	0.25	0.24
Gabon	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.20	0.20	0.20	0.20	0.21	0.21	0.20
Sudan and South Sudan	0.26	0.25	0.26	0.26	0.26	0.26	0.26	0.26	0.25	0.25	0.25	0.25	0.26	0.26	0.25
Total non-OPEC liquids	57.16	57.34	57.85	57.29	56.57	56.84	56.87	56.81	56.08	56.64	56.98	56.98	57.41	56.77	56.68
OPEC non-crude liquids	6.55	6.57	6.72	6.77	6.90	6.97	7.04	7.10	7.21	7.25	7.32	7.38	6.65	7.00	7.29
Non-OPEC + OPEC non-crude	63.71	63.91	64.57	64.06	63.46	63.81	63.91	63.90	63.29	63.89	64.31	64.36	64.07	63.77	63.97
Unplanned non-OPEC Production Outages	0.27	0.46	0.40	0.35	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	0.37	<i>n/a</i>	<i>n/a</i>

- = no data available

OPEC = Organization of Petroleum Exporting Countries: Algeria, Angola, Ecuador, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, Venezuela.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Supply includes production of crude oil (including lease condensates), natural gas plant liquids, biofuels, other liquids, and refinery processing gains.

Not all countries are shown in each region and sum of reported country volumes may not equal regional volumes.

Historical data: Latest data available from Energy Information Administration international energy statistics.

Minor discrepancies with published historical data are due to independent rounding.

Projections: EIA Regional Short-Term Energy Model.

Table 3c. OPEC Crude Oil (excluding condensates) Supply (million barrels per day)

U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
Crude Oil															
Algeria	1.10	1.10	1.10	1.10	-	-	-	-	-	-	-	-	1.10	-	-
Angola	1.77	1.78	1.81	1.77	-	-	-	-	-	-	-	-	1.78	-	-
Ecuador	0.65	0.64	0.55	0.67	-	-	-	-	-	-	-	-	0.65	-	-
Indonesia	0.66	0.71	0.69	0.71	-	-	-	-	-	-	-	-	0.69	-	-
Iran	2.80	2.80	2.80	2.80	-	-	-	-	-	-	-	-	2.80	-	-
Iraq	3.67	4.03	4.33	4.37	-	-	-	-	-	-	-	-	4.08	-	-
Kuwait	2.67	2.63	2.50	2.45	-	-	-	-	-	-	-	-	2.61	-	-
Libya	0.40	0.45	0.38	0.39	-	-	-	-	-	-	-	-	0.40	-	-
Nigeria	2.03	1.88	1.88	1.90	-	-	-	-	-	-	-	-	1.92	-	-
Qatar	0.68	0.68	0.68	0.68	-	-	-	-	-	-	-	-	0.68	-	-
Saudi Arabia	9.73	10.07	10.22	10.07	-	-	-	-	-	-	-	-	10.02	-	-
United Arab Emirates	2.70	2.70	2.70	2.70	-	-	-	-	-	-	-	-	2.70	-	-
Venezuela	2.40	2.40	2.40	2.40	-	-	-	-	-	-	-	-	2.40	-	-
OPEC Total	30.98	31.67	32.03	31.90	31.60	31.97	32.62	32.43	32.23	32.65	33.05	32.94	31.65	32.16	32.72
Other Liquids (a)	6.55	6.67	6.72	6.77	6.90	6.97	7.04	7.10	7.21	7.25	7.32	7.38	6.65	7.00	7.29
Total OPEC Supply	37.53	38.24	38.75	38.67	38.50	38.94	39.66	39.52	39.44	39.90	40.38	40.32	38.30	39.16	40.01
Crude Oil Production Capacity															
Africa	5.31	5.21	5.17	5.16	5.08	5.13	5.18	5.26	5.28	5.35	5.43	5.49	5.21	5.16	5.39
South America	2.95	2.94	2.95	2.97	2.87	2.85	2.86	2.89	2.77	2.76	2.68	2.68	2.95	2.87	2.72
Middle East	23.97	24.34	24.56	24.60	24.75	25.42	25.65	25.57	25.62	25.74	25.94	25.92	24.37	25.35	25.81
Asia	0.69	0.71	0.69	0.71	0.71	0.74	0.76	0.76	0.72	0.71	0.71	0.70	0.70	0.74	0.71
OPEC Total	32.92	33.21	33.37	33.43	33.41	34.14	34.45	34.48	34.40	34.57	34.74	34.80	33.23	34.12	34.63
Surplus Crude Oil Production Capacity															
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
South America	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Middle East	1.92	1.63	1.33	1.53	1.81	2.18	1.83	2.05	2.17	1.92	1.69	1.88	1.68	1.97	1.91
Asia	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
OPEC Total	1.94	1.54	1.33	1.53	1.81	2.18	1.83	2.05	2.17	1.92	1.69	1.88	1.69	1.97	1.91
Unplanned OPEC Production Outages	2.57	2.64	2.76	2.78	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	2.69	<i>n/a</i>	<i>n/a</i>

- = no data available

OPEC = Organization of Petroleum Exporting Countries: Algeria, Angola, Libya, and Nigeria (Africa); Ecuador and Venezuela (South America); Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates (Middle East); Indonesia (Asia).

(a) Includes lease condensate, natural gas plant liquids, other liquids, and refinery processing gain. Includes other unaccounted-for liquids.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration international energy statistics.

Minor discrepancies with published historical data are due to independent rounding.

Projections: EIA Regional Short-Term Energy Model.

Table 3d. World Petroleum and Other Liquids Consumption (million barrels per day)

U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				2015	2016	2017
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
North America	23.57	23.47	24.04	23.62	23.52	23.70	24.17	24.06	23.73	23.96	24.49	24.36	23.68	23.86	24.14
Canada	2.36	2.27	2.43	2.41	2.38	2.32	2.43	2.41	2.38	2.32	2.43	2.41	2.37	2.38	2.38
Mexico	1.91	1.95	1.92	1.93	1.93	1.95	1.92	1.93	1.93	1.95	1.92	1.93	1.93	1.93	1.93
United States	19.29	19.25	19.68	19.27	19.19	19.42	19.81	19.71	19.41	19.68	20.12	20.01	19.37	19.53	19.81
Central and South America	7.08	7.35	7.41	7.38	7.17	7.44	7.47	7.45	7.24	7.51	7.55	7.53	7.31	7.38	7.46
Brazil	3.03	3.14	3.21	3.20	3.06	3.18	3.24	3.23	3.09	3.21	3.28	3.26	3.15	3.18	3.21
Europe	14.24	14.14	14.64	14.59	14.46	14.20	14.67	14.62	14.49	14.24	14.71	14.65	14.41	14.49	14.52
Eurasia	4.74	4.68	4.95	4.93	4.76	4.69	4.97	4.95	4.79	4.71	4.99	4.98	4.83	4.84	4.87
Russia	3.39	3.34	3.54	3.53	3.35	3.30	3.50	3.48	3.31	3.26	3.45	3.44	3.45	3.41	3.37
Middle East	7.93	8.53	9.13	8.29	8.12	8.73	9.33	8.45	8.27	8.91	9.53	8.62	8.47	8.66	8.84
Asia and Oceania	31.43	31.16	30.68	31.60	32.07	31.95	31.41	32.33	32.73	32.64	32.08	33.01	31.22	31.94	32.61
China	10.77	11.36	11.32	11.27	11.08	11.69	11.64	11.59	11.37	11.99	11.94	11.89	11.18	11.50	11.80
Japan	4.80	3.92	3.91	4.28	4.58	3.85	3.88	4.25	4.54	3.82	3.85	4.22	4.23	4.14	4.11
India	4.08	4.06	3.72	4.02	4.25	4.23	3.88	4.19	4.42	4.41	4.04	4.37	3.87	4.14	4.31
Africa	3.89	3.88	3.84	3.86	4.04	4.03	3.99	4.01	4.20	4.19	4.14	4.17	3.86	4.02	4.17
Total OECD Liquid Fuels Consumption	46.62	45.36	46.51	46.65	46.83	45.80	46.73	47.17	47.12	46.15	47.12	47.55	46.28	46.63	46.99
Total non-OECD Liquid Fuels Consumption	46.27	47.85	48.19	47.63	47.31	48.93	49.28	48.70	48.34	50.01	50.37	49.77	47.49	48.56	49.63
Total World Liquid Fuels Consumption	92.89	93.21	94.69	94.28	94.14	94.73	96.01	95.87	95.45	96.16	97.49	97.31	93.77	95.19	96.61
Oil-weighted Real Gross Domestic Product (a)															
World Index, 2010 Q1 = 100	116.1	116.9	117.5	118.1	118.9	119.8	120.6	121.6	122.6	123.6	124.5	125.6	117.1	120.3	124.1
Percent change from prior year	2.6	2.5	2.3	2.1	2.4	2.6	2.7	3.0	3.1	3.1	3.2	3.2	2.4	2.7	3.2
OECD Index, 2010 Q1 = 100	109.2	109.8	110.4	110.8	111.4	112.0	112.7	113.5	114.3	114.9	115.5	116.2	110.0	112.4	115.2
Percent change from prior year	2.0	2.1	2.0	1.9	2.0	2.0	2.2	2.5	2.6	2.6	2.5	2.3	2.0	2.2	2.5
Non-OECD Index, 2010 Q1 = 100	125.0	125.8	126.5	127.5	128.5	129.9	130.8	132.1	133.3	134.9	136.2	137.8	126.2	130.3	135.6
Percent change from prior year	3.3	2.9	2.7	2.4	2.8	3.2	3.4	3.6	3.7	3.8	4.1	4.4	2.8	3.2	4.0
Real U.S. Dollar Exchange Rate (a)															
Index, January 2010 = 100	119.29	119.54	122.98	124.93	128.49	129.01	128.72	128.06	127.69	127.09	126.77	126.42	121.69	128.57	126.99
Percent change from prior year	10.4	10.8	12.8	9.9	7.7	7.9	4.7	2.5	-0.6	-1.5	-1.5	-1.3	11.0	5.7	-1.2

- = no data available

OECD = Organisation for Economic Co-operation and Development: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

(a) Weighted geometric mean of real indices for various countries with weights equal to each country's share of world oil consumption in the base period. Exchange rate is measured in foreign currency per U.S. dollar.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration international energy statistics.

Minor discrepancies with published historical data are due to independent rounding.

Projections: EIA Regional Short-Term Energy Model.

Table 4a. U.S. Petroleum and Other Liquids Supply, Consumption, and Inventories
U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
Supply (million barrels per day)															
Crude Oil Supply															
Domestic Production (a)	9.49	9.50	9.43	9.30	9.11	8.86	8.48	8.49	8.52	8.48	8.34	8.52	9.43	8.73	8.46
Alaska	0.50	0.48	0.44	0.50	0.49	0.48	0.43	0.48	0.47	0.45	0.42	0.46	0.48	0.47	0.45
Federal Gulf of Mexico (b)	1.46	1.47	1.64	1.64	1.67	1.70	1.61	1.73	1.81	1.83	1.73	1.85	1.55	1.68	1.81
Lower 48 States (excl GOM)	7.52	7.55	7.35	7.16	6.94	6.68	6.45	6.28	6.23	6.20	6.19	6.20	7.39	6.59	6.21
Crude Oil Net Imports (c)	6.84	6.74	6.93	6.97	6.57	7.26	7.66	7.42	7.22	7.79	8.01	7.51	6.87	7.23	7.63
SPR Net Withdrawals	0.00	-0.03	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	-0.01	0.00	0.00
Commercial Inventory Net Withdrawals	-0.91	0.06	0.10	-0.23	-0.23	0.15	0.25	0.13	-0.30	0.10	0.17	0.10	-0.24	0.08	0.02
Crude Oil Adjustment (d)	0.11	0.22	0.13	0.09	0.19	0.19	0.21	0.15	0.19	0.19	0.21	0.15	0.14	0.19	0.19
Total Crude Oil Input to Refineries	15.53	16.48	16.58	16.13	15.63	16.46	16.60	16.19	15.62	16.56	16.72	16.29	16.18	16.22	16.30
Other Supply															
Refinery Processing Gain	0.99	1.02	1.08	1.07	1.05	1.05	1.09	1.10	1.04	1.07	1.09	1.10	1.04	1.07	1.08
Natural Gas Plant Liquids Production	3.09	3.27	3.31	3.35	3.35	3.44	3.49	3.56	3.56	3.75	3.80	3.88	3.26	3.46	3.74
Renewables and Oxygenate Production (e)	1.05	1.10	1.10	1.11	1.10	1.10	1.12	1.10	1.11	1.11	1.12	1.11	1.09	1.11	1.11
Fuel Ethanol Production	0.96	0.96	0.96	0.98	0.97	0.96	0.98	0.96	0.98	0.96	0.98	0.96	0.96	0.97	0.97
Petroleum Products Adjustment (f)	0.20	0.21	0.21	0.22	0.21	0.23	0.23	0.23	0.22	0.24	0.24	0.24	0.21	0.22	0.24
Product Net Imports (c)	-1.89	-2.12	-2.20	-2.73	-2.59	-2.40	-2.45	-2.89	-2.50	-2.56	-2.61	-3.10	-2.24	-2.58	-2.69
Hydrocarbon Gas Liquids	-0.68	-0.80	-0.93	-0.94	-1.06	-1.09	-1.18	-1.19	-1.21	-1.25	-1.35	-1.35	-0.84	-1.13	-1.29
Unfinished Oils	0.26	0.28	0.38	0.29	0.34	0.22	0.34	0.32	0.37	0.29	0.38	0.36	0.30	0.31	0.35
Other HC/Oxygenates	-0.08	-0.09	-0.06	-0.07	-0.07	-0.05	-0.03	-0.03	-0.07	-0.05	-0.03	-0.03	-0.07	-0.04	-0.04
Motor Gasoline Blend Comp.	0.41	0.52	0.50	0.34	0.38	0.68	0.52	0.44	0.42	0.64	0.53	0.42	0.47	0.50	0.50
Finished Motor Gasoline	-0.44	-0.32	-0.40	-0.47	-0.45	-0.41	-0.30	-0.52	-0.41	-0.47	-0.36	-0.55	-0.41	-0.42	-0.45
Jet Fuel	-0.06	0.01	-0.05	-0.06	-0.05	-0.02	-0.02	-0.09	-0.02	-0.03	-0.03	-0.09	-0.04	-0.05	-0.04
Distillate Fuel Oil	-0.67	-1.05	-1.12	-1.12	-0.94	-1.03	-1.09	-1.03	-0.88	-0.96	-1.05	-1.08	-0.99	-1.02	-0.99
Residual Fuel Oil	-0.13	-0.21	-0.11	-0.14	-0.23	-0.25	-0.22	-0.19	-0.22	-0.29	-0.22	-0.21	-0.15	-0.22	-0.24
Other Oils (g)	-0.50	-0.46	-0.50	-0.57	-0.51	-0.45	-0.48	-0.59	-0.48	-0.45	-0.48	-0.58	-0.50	-0.51	-0.49
Product Inventory Net Withdrawals	0.36	-0.72	-0.41	0.13	0.44	-0.47	-0.26	0.42	0.36	-0.48	-0.25	0.50	-0.16	0.03	0.03
Total Supply	19.32	19.25	19.68	19.27	19.19	19.42	19.81	19.71	19.41	19.68	20.12	20.01	19.38	19.53	19.81
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	2.72	2.27	2.29	2.52	2.61	2.24	2.31	2.66	2.64	2.36	2.49	2.86	2.45	2.46	2.59
Unfinished Oils	-0.05	0.05	-0.03	0.02	0.00	0.00	0.01	0.02	-0.01	0.00	0.01	0.02	0.00	0.01	0.01
Motor Gasoline	8.81	9.26	9.39	9.16	8.89	9.33	9.49	9.21	8.95	9.35	9.49	9.22	9.16	9.23	9.25
Fuel Ethanol blended into Motor Gasoline	0.87	0.92	0.93	0.91	0.89	0.93	0.95	0.93	0.89	0.93	0.95	0.92	0.91	0.93	0.93
Jet Fuel	1.45	1.54	1.59	1.58	1.47	1.55	1.56	1.52	1.49	1.58	1.59	1.54	1.54	1.53	1.55
Distillate Fuel Oil	4.27	3.88	3.93	3.77	4.11	3.98	3.95	4.08	4.21	4.08	4.05	4.13	3.96	4.03	4.12
Residual Fuel Oil	0.24	0.19	0.31	0.26	0.22	0.20	0.23	0.21	0.21	0.19	0.22	0.20	0.25	0.22	0.20
Other Oils (g)	1.85	2.06	2.20	1.97	1.88	2.10	2.25	2.00	1.92	2.12	2.28	2.03	2.02	2.06	2.09
Total Consumption	19.29	19.25	19.68	19.27	19.19	19.42	19.81	19.71	19.41	19.68	20.12	20.01	19.37	19.53	19.81
Total Petroleum and Other Liquids Net Imports	4.95	4.61	4.74	4.23	3.98	4.86	5.20	4.53	4.71	5.23	5.40	4.41	4.63	4.64	4.94
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	474.8	469.5	460.8	482.3	503.6	489.7	466.7	454.7	481.8	472.3	456.7	447.7	482.3	454.7	447.7
Hydrocarbon Gas Liquids	138.8	196.3	228.7	195.1	161.9	207.0	232.8	186.4	156.3	204.0	226.7	175.3	195.1	186.4	175.3
Unfinished Oils	84.7	86.0	88.8	84.6	93.6	90.1	87.6	82.0	92.3	89.8	87.7	82.1	84.6	82.0	82.1
Other HC/Oxygenates	26.7	25.0	23.8	25.9	28.1	26.8	26.1	26.4	28.5	27.3	26.5	26.8	25.9	26.4	26.8
Total Motor Gasoline	231.6	221.0	225.1	232.0	224.8	222.8	221.5	234.7	231.1	225.1	224.9	236.2	232.0	234.7	236.2
Finished Motor Gasoline	26.9	25.7	29.0	28.8	25.9	24.9	25.7	27.3	26.7	25.2	26.3	27.6	28.8	27.3	27.6
Motor Gasoline Blend Comp.	204.6	195.4	196.1	203.2	199.0	197.9	195.8	207.4	204.4	199.9	198.7	208.5	203.2	207.4	208.5
Jet Fuel	37.2	43.7	40.4	40.2	39.7	40.9	43.3	39.7	39.5	40.8	43.2	39.6	40.2	39.7	39.6
Distillate Fuel Oil	128.3	139.4	148.8	159.4	144.3	150.5	159.6	161.4	144.5	150.9	159.2	160.5	159.4	161.4	160.5
Residual Fuel Oil	38.1	41.8	41.3	42.1	41.6	41.1	38.4	38.7	39.3	39.7	38.0	38.5	42.1	38.7	38.5
Other Oils (g)	57.3	54.6	48.3	53.8	59.3	56.7	50.5	52.1	57.9	55.7	49.7	51.5	53.8	52.1	51.5
Total Commercial Inventory	1,217	1,277	1,306	1,315	1,297	1,326	1,327	1,276	1,271	1,306	1,313	1,258	1,315	1,276	1,258
Crude Oil in SPR	691	694	695	695	695	695	695	695	695	695	695	694	695	695	694

- = no data available

(a) Includes lease condensate.

(b) Crude oil production from U.S. Federal leases in the Gulf of Mexico (GOM).

(c) Net imports equals gross imports minus gross exports.

(d) Crude oil adjustment balances supply and consumption and was previously referred to as "Unaccounted for Crude Oil."

(e) Renewables and oxygenate production includes pentanes plus, oxygenates (excluding fuel ethanol), and renewable fuels.

(f) Petroleum products adjustment includes hydrogen/oxygenates/renewables/other hydrocarbons, motor gasoline blend components, and finished motor gasoline.

(g) "Other Oils" includes aviation gasoline blend components, finished aviation gasoline, kerosene, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, and miscellaneous products.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

SPR: Strategic Petroleum Reserve

HC: Hydrocarbons

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; and *Weekly Petroleum Status Report*, DOE/EIA-0208.

Minor discrepancies with published historical data are due to independent rounding.

Projections: EIA Regional Short-Term Energy Model.

Table 4b. U.S. Hydrocarbon Gas Liquids (HGL) and Petroleum Refinery Balances (million barrels per day, except inventories and utilization factor)
U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
HGL Production															
Natural Gas Processing Plants															
Ethane	1.05	1.10	1.09	1.13	1.21	1.22	1.25	1.31	1.32	1.43	1.46	1.51	1.09	1.25	1.43
Propane	1.07	1.12	1.13	1.13	1.11	1.14	1.14	1.16	1.16	1.19	1.19	1.20	1.11	1.14	1.19
Butanes	0.58	0.62	0.64	0.64	0.62	0.64	0.63	0.65	0.65	0.67	0.66	0.68	0.62	0.63	0.67
Natural Gasoline (Pentanes Plus)	0.39	0.44	0.46	0.44	0.41	0.44	0.46	0.44	0.43	0.46	0.48	0.46	0.43	0.44	0.46
Refinery and Blender Net Production															
Ethane/Ethylene	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00
Propane/Propylene	0.54	0.58	0.56	0.56	0.55	0.57	0.56	0.56	0.55	0.58	0.57	0.57	0.56	0.56	0.57
Butanes/Butylenes	-0.08	0.27	0.19	-0.18	-0.06	0.25	0.19	-0.17	-0.06	0.25	0.19	-0.17	0.05	0.05	0.05
Renewable Fuels and Oxygenate Plant Net Production															
Natural Gasoline (Pentanes Plus)	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
HGL Net Imports															
Ethane	-0.05	-0.07	-0.06	-0.07	-0.11	-0.12	-0.16	-0.19	-0.21	-0.22	-0.24	-0.26	-0.07	-0.14	-0.23
Propane/Propylene	-0.40	-0.49	-0.56	-0.59	-0.63	-0.61	-0.64	-0.66	-0.67	-0.65	-0.71	-0.72	-0.51	-0.64	-0.69
Butanes/Butylenes	-0.06	-0.09	-0.11	-0.10	-0.13	-0.18	-0.16	-0.14	-0.12	-0.18	-0.17	-0.15	-0.09	-0.15	-0.15
Natural Gasoline (Pentanes Plus)	-0.17	-0.15	-0.21	-0.18	-0.20	-0.18	-0.22	-0.20	-0.22	-0.20	-0.24	-0.22	-0.18	-0.20	-0.22
HGL Refinery and Blender Net Inputs															
Butanes/Butylenes	0.40	0.27	0.32	0.46	0.36	0.27	0.30	0.42	0.36	0.27	0.30	0.43	0.36	0.34	0.34
Natural Gasoline (Pentanes Plus)	0.15	0.14	0.16	0.16	0.15	0.15	0.16	0.16	0.15	0.15	0.16	0.16	0.15	0.16	0.16
HGL Consumption															
Ethane/Ethylene	1.03	1.02	1.02	1.09	1.09	1.06	1.10	1.16	1.11	1.17	1.24	1.30	1.04	1.10	1.20
Propane/Propylene	1.43	0.92	0.96	1.14	1.31	0.90	0.93	1.20	1.30	0.90	0.96	1.24	1.11	1.09	1.10
Butanes/Butylenes	0.16	0.24	0.22	0.21	0.16	0.22	0.21	0.23	0.18	0.24	0.23	0.25	0.21	0.21	0.22
Natural Gasoline (Pentanes Plus)	0.10	0.09	0.09	0.09	0.05	0.06	0.06	0.07	0.05	0.06	0.06	0.07	0.09	0.06	0.06
HGL Inventories (million barrels)															
Ethane/Ethylene	31.38	31.65	31.86	32.53	31.64	36.04	36.77	34.29	32.83	36.70	37.32	34.50	31.86	34.69	35.35
Propane/Propylene	58.10	84.20	100.20	97.34	72.09	90.68	103.01	90.18	66.82	88.73	95.14	77.10	97.34	90.18	77.10
Butanes/Butylenes	32.46	59.42	76.52	47.83	39.43	59.45	72.85	43.87	37.58	59.12	73.27	44.72	47.83	43.87	44.72
Natural Gasoline (Pentanes Plus)	17.16	20.51	19.00	18.68	17.50	19.82	20.47	19.39	18.14	20.56	21.30	20.49	18.68	19.39	20.49
Refinery and Blender Net Inputs															
Crude Oil	15.53	16.48	16.58	16.13	15.63	16.46	16.60	16.19	15.62	16.56	16.72	16.29	16.18	16.22	16.30
Hydrocarbon Gas Liquids	0.54	0.40	0.47	0.62	0.51	0.42	0.45	0.58	0.51	0.43	0.46	0.59	0.51	0.49	0.50
Other Hydrocarbons/Oxygenates	1.12	1.18	1.19	1.17	1.19	1.24	1.28	1.25	1.20	1.25	1.30	1.26	1.17	1.24	1.25
Unfinished Oils	0.24	0.22	0.38	0.32	0.25	0.25	0.36	0.36	0.27	0.32	0.39	0.40	0.29	0.31	0.34
Motor Gasoline Blend Components	0.72	0.91	0.75	0.46	0.63	0.92	0.74	0.51	0.67	0.91	0.74	0.51	0.71	0.70	0.71
Aviation Gasoline Blend Components	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Refinery and Blender Net Inputs	18.14	19.18	19.38	18.70	18.22	19.30	19.43	18.90	18.26	19.47	19.60	19.05	18.85	18.96	19.10
Refinery Processing Gain															
.....	0.99	1.02	1.08	1.07	1.05	1.05	1.09	1.10	1.04	1.07	1.09	1.10	1.04	1.07	1.08
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	0.47	0.86	0.76	0.39	0.50	0.83	0.75	0.39	0.49	0.83	0.76	0.40	0.62	0.62	0.62
Finished Motor Gasoline	9.48	9.83	9.97	9.79	9.52	9.95	9.99	9.93	9.56	10.01	10.04	9.97	9.77	9.85	9.90
Jet Fuel	1.50	1.61	1.60	1.64	1.52	1.59	1.61	1.58	1.51	1.62	1.64	1.59	1.59	1.57	1.59
Distillate Fuel	4.82	4.99	5.08	4.94	4.83	5.02	5.08	5.07	4.85	5.05	5.13	5.16	4.96	5.00	5.05
Residual Fuel	0.43	0.44	0.41	0.41	0.44	0.45	0.42	0.41	0.43	0.49	0.42	0.41	0.42	0.43	0.44
Other Oils (a)	2.44	2.48	2.63	2.60	2.46	2.52	2.67	2.61	2.46	2.54	2.70	2.63	2.54	2.57	2.58
Total Refinery and Blender Net Production	19.13	20.20	20.45	19.76	19.26	20.35	20.51	19.99	19.31	20.54	20.69	20.16	19.89	20.03	20.18
Refinery Distillation Inputs															
.....	15.78	16.69	16.85	16.33	15.94	16.66	16.87	16.47	15.93	16.76	16.99	16.56	16.42	16.49	16.56
Refinery Operable Distillation Capacity															
.....	17.88	17.98	18.08	18.11	18.14	18.15	18.31	18.40	18.43	18.43	18.43	18.43	18.01	18.25	18.43
Refinery Distillation Utilization Factor															
.....	0.88	0.93	0.93	0.90	0.88	0.92	0.92	0.90	0.86	0.91	0.92	0.90	0.91	0.90	0.90

- = no data available

(a) "Other Oils" includes aviation gasoline blend components, finished aviation gasoline, kerosene, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, and miscellaneous products.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; *Weekly Petroleum Status Report*, DOE/EIA-0208.

Minor discrepancies with published historical data are due to independent rounding.

Projections: EIA Regional Short-Term Energy Model.

Table 4c. U.S. Regional Motor Gasoline Prices and Inventories

U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
Prices (cents per gallon)															
Refiner Wholesale Price	159	201	184	144	121	141	139	122	127	157	162	148	172	131	149
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	228	259	247	211	195	210	208	197	199	226	232	225	236	203	221
PADD 2	216	256	253	209	182	210	207	188	190	226	232	216	234	197	217
PADD 3	204	240	228	190	172	191	188	171	176	206	211	198	216	181	198
PADD 4	207	261	277	218	181	203	211	191	181	216	233	218	241	197	213
PADD 5	271	328	327	264	239	251	245	222	223	259	267	250	298	239	250
U.S. Average	227	267	260	216	195	213	211	194	196	228	235	222	243	203	221
Gasoline All Grades Including Taxes	236	275	269	226	204	222	220	203	205	237	244	231	252	212	230
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	64.5	61.3	62.6	59.8	60.7	62.0	58.8	61.2	61.3	62.9	60.9	63.4	59.8	61.2	63.4
PADD 2	52.9	50.4	47.0	54.0	51.4	49.0	49.5	51.2	51.2	48.3	49.1	51.0	54.0	51.2	51.0
PADD 3	78.4	74.6	78.1	83.1	78.7	77.9	78.3	82.6	81.3	79.1	80.2	82.5	83.1	82.6	82.5
PADD 4	6.5	6.8	7.1	7.7	7.0	6.9	6.9	7.7	7.1	7.1	7.1	7.8	7.7	7.7	7.8
PADD 5	29.2	28.0	30.3	27.4	26.9	27.0	28.0	32.0	30.1	27.7	27.8	31.4	27.4	32.0	31.4
U.S. Total	231.5	221.0	225.1	232.0	224.8	222.8	221.5	234.7	231.1	225.1	224.9	236.2	232.0	234.7	236.2
Finished Gasoline Inventories															
U.S. Total	26.9	25.7	29.0	28.8	25.9	24.9	25.7	27.3	26.7	25.2	26.3	27.6	28.8	27.3	27.6
Gasoline Blending Components Inventories															
U.S. Total	204.6	195.4	196.1	203.2	199.0	197.9	195.8	207.4	204.4	199.9	198.7	208.5	203.2	207.4	208.5

- = no data available

Prices are not adjusted for inflation.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Regions refer to Petroleum Administration for Defense Districts (PADD).

 See "Petroleum for Administration Defense District" in EIA's Energy Glossary (<http://www.eia.doe.gov/glossary/index.html>) for a list of States in each region.

 Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Marketing Monthly*, DOE/EIA-0380; *Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; and *Weekly Petroleum Status Report*, DOE/EIA-0208.

Minor discrepancies with published historical data are due to independent rounding.

Projections: EIA Regional Short-Term Energy Model.

Table 5a. U.S. Natural Gas Supply, Consumption, and Inventories
U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
Supply (billion cubic feet per day)															
Total Marketed Production	78.11	79.20	80.01	79.21	79.34	79.50	79.61	80.29	80.75	80.96	81.08	81.83	79.14	79.68	81.16
Alaska	0.99	0.93	0.86	0.96	0.99	0.84	0.76	0.92	0.97	0.82	0.75	0.91	0.94	0.88	0.86
Federal GOM (a)	3.37	3.68	3.95	3.58	3.43	3.38	3.21	3.17	3.22	3.17	3.00	3.03	3.65	3.30	3.10
Lower 48 States (excl GOM)	73.75	74.58	75.20	74.67	74.91	75.27	75.64	76.19	76.56	76.97	77.34	77.89	74.55	75.51	77.19
Total Dry Gas Production	73.67	74.50	75.26	74.36	74.50	74.65	74.75	75.39	75.82	76.02	76.14	76.84	74.45	74.82	76.21
LNG Gross Imports	0.43	0.08	0.26	0.20	0.14	0.16	0.17	0.15	0.12	0.12	0.12	0.12	0.24	0.15	0.12
LNG Gross Exports	0.06	0.06	0.09	0.03	0.16	0.52	0.96	1.04	1.04	1.28	1.48	1.89	0.06	0.67	1.42
Pipeline Gross Imports	8.36	6.69	6.69	6.75	7.21	6.21	6.53	6.71	7.24	6.20	6.51	6.76	7.12	6.66	6.68
Pipeline Gross Exports	4.86	4.36	4.81	5.10	5.22	4.99	5.15	5.31	5.26	5.06	5.23	5.38	4.78	5.17	5.23
Supplemental Gaseous Fuels	0.17	0.16	0.14	0.16	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.16	0.16	0.17
Net Inventory Withdrawals	18.48	-12.99	-10.48	-0.14	17.51	-9.06	-8.93	3.26	16.73	-9.15	-9.05	3.00	-1.36	0.68	0.32
Total Supply	96.19	64.00	66.97	76.21	94.15	66.61	66.58	79.32	93.78	67.02	67.17	79.62	75.76	76.64	76.83
Balancing Item (b)	0.48	0.09	-0.91	-0.87	0.15	-0.74	0.47	-0.17	0.36	-0.54	0.71	0.99	-0.31	-0.07	0.38
Total Primary Supply	96.67	64.09	66.07	75.34	94.30	65.87	67.05	79.15	94.14	66.47	67.88	80.61	75.46	76.57	77.21
Consumption (billion cubic feet per day)															
Residential	27.52	6.90	3.46	13.24	25.38	7.32	3.63	15.88	25.94	7.56	3.63	16.02	12.72	13.03	13.23
Commercial	16.01	5.85	4.44	9.06	14.51	5.94	4.57	10.56	14.90	6.06	4.61	10.71	8.81	8.89	9.05
Industrial	22.69	19.62	19.19	21.09	22.76	20.35	20.14	22.21	23.25	20.89	20.72	22.76	20.64	21.36	21.90
Electric Power (c)	23.05	25.28	32.41	25.12	24.19	25.72	32.14	23.50	22.50	25.34	32.24	23.97	26.49	26.40	26.04
Lease and Plant Fuel	4.29	4.35	4.39	4.35	4.35	4.36	4.37	4.41	4.43	4.44	4.45	4.49	4.34	4.37	4.45
Pipeline and Distribution Use	3.03	2.01	2.07	2.38	3.02	2.06	2.10	2.51	3.01	2.08	2.13	2.56	2.37	2.42	2.44
Vehicle Use	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.10	0.10
Total Consumption	96.67	64.09	66.07	75.34	94.30	65.87	67.05	79.15	94.14	66.47	67.88	80.61	75.46	76.57	77.21
End-of-period Inventories (billion cubic feet)															
Working Gas Inventory	1,483	2,658	3,625	3,637	2,043	2,867	3,688	3,389	1,883	2,715	3,548	3,272	3,637	3,389	3,272
East Region (d)	242	576	859	840	384	652	888	723	295	563	817	671	840	723	671
Midwest Region (d)	252	565	972	978	472	687	1,026	889	400	637	989	854	978	889	854
South Central Region (d)	575	1,002	1,206	1,284	785	990	1,139	1,191	789	982	1,109	1,180	1,284	1,191	1,180
Mountain Region (d)	113	155	203	187	129	168	222	199	126	161	214	191	187	199	191
Pacific Region (d)	276	336	359	322	248	346	389	361	248	348	394	350	322	361	350
Alaska	24	24	25	26	24	24	25	26	24	24	25	26	26	26	26

- = no data available

(a) Marketed production from U.S. Federal leases in the Gulf of Mexico.

(b) The balancing item represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas demand.

(c) Natural gas used for electricity generation and (a limited amount of) useful thermal output by electric utilities and independent power producers.

(d) For a list of States in each inventory region refer to *Weekly Natural Gas Storage Report, Notes and Definitions* (<http://ir.eia.gov/ngs/notes.html>).

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

LNG: liquefied natural gas.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Natural Gas Monthly*, DOE/EIA-0130; and *Electric Power Monthly*, DOE/EIA-0226.

Minor discrepancies with published historical data are due to independent rounding.

Projections: EIA Regional Short-Term Energy Model.

Table 5b. U.S. Regional Natural Gas Prices (dollars per thousand cubic feet)
U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
Wholesale/Spot															
Henry Hub Spot Price	2.99	2.83	2.84	2.18	2.44	2.55	2.86	3.07	3.37	3.09	3.30	3.51	2.71	2.73	3.32
Residential															
New England	13.09	13.33	16.09	12.17	11.41	13.39	16.42	12.92	12.46	13.89	16.64	13.16	13.10	12.52	13.18
Middle Atlantic	9.53	11.20	16.32	11.08	10.12	12.73	17.23	11.67	10.50	12.87	17.13	11.58	10.54	11.42	11.58
E. N. Central	7.78	10.58	16.71	8.36	6.91	10.53	16.30	8.20	7.65	11.12	16.63	8.47	8.75	8.30	8.85
W. N. Central	8.66	11.85	17.60	9.80	7.24	9.44	16.28	8.74	7.88	10.51	17.27	9.54	9.85	8.49	9.21
S. Atlantic	10.74	16.68	22.69	13.44	11.07	16.02	22.17	12.48	11.06	15.89	21.92	12.33	12.81	12.80	12.68
E. S. Central	9.34	14.36	19.21	12.11	9.16	12.76	17.97	10.75	9.17	13.33	18.49	11.23	11.02	10.54	10.72
W. S. Central	8.45	13.94	19.88	12.54	8.75	12.56	18.05	10.57	8.58	13.03	18.64	11.42	10.88	10.47	10.68
Mountain	9.67	10.87	14.50	9.15	8.09	8.95	12.75	8.15	7.79	9.13	13.28	8.62	10.01	8.60	8.67
Pacific	11.46	11.40	12.05	9.74	8.93	9.70	10.42	9.74	9.63	10.27	10.91	9.98	10.95	9.51	10.01
U.S. Average	9.30	11.96	16.46	10.16	8.59	11.39	15.69	9.82	9.02	11.83	16.09	10.08	10.37	9.85	10.23
Commercial															
New England	10.77	10.11	9.65	8.85	10.03	9.63	9.68	10.07	10.67	10.71	10.73	11.02	10.11	9.95	10.78
Middle Atlantic	7.91	7.48	6.65	6.95	7.19	6.99	7.06	7.85	6.36	7.99	7.90	8.56	7.49	7.32	8.30
E. N. Central	6.95	7.51	8.80	6.48	6.49	7.53	8.58	6.88	7.10	8.34	9.20	7.39	7.04	6.92	7.51
W. N. Central	7.65	7.98	8.99	7.06	6.73	7.19	8.46	7.15	7.46	7.87	8.97	7.58	7.62	7.06	7.66
S. Atlantic	8.48	9.21	9.66	8.63	8.35	9.15	9.97	9.12	9.13	9.21	9.88	9.19	8.77	8.90	9.26
E. S. Central	8.54	9.62	9.89	8.81	7.88	8.62	9.43	8.76	8.37	9.26	9.98	9.24	8.90	8.42	8.93
W. S. Central	7.15	7.21	8.00	7.30	6.40	6.91	7.69	7.16	7.14	7.69	8.23	7.64	7.32	6.87	7.52
Mountain	8.27	8.34	9.03	7.34	6.67	6.79	7.99	7.03	6.70	6.98	8.32	7.38	8.05	6.94	7.13
Pacific	9.20	8.43	8.69	8.20	8.19	8.19	8.77	8.54	8.73	8.81	9.30	8.87	8.63	8.39	8.88
U.S. Average	7.94	8.13	8.41	7.43	7.24	7.65	8.40	7.78	7.95	8.34	8.92	8.25	7.89	7.59	8.21
Industrial															
New England	9.10	7.61	6.10	6.64	7.56	7.46	7.63	8.65	8.81	8.00	7.87	8.76	7.75	7.83	8.47
Middle Atlantic	8.31	7.56	7.53	6.82	6.99	6.47	7.08	7.86	8.16	7.35	7.68	8.34	7.77	7.11	8.00
E. N. Central	6.41	5.65	5.54	5.42	5.65	5.39	5.74	5.96	6.53	6.20	6.38	6.51	5.93	5.71	6.46
W. N. Central	5.81	4.59	4.41	4.54	4.53	3.88	4.20	4.82	5.32	4.62	4.78	5.31	4.92	4.39	5.05
S. Atlantic	5.46	4.50	4.50	4.44	4.45	4.53	4.87	5.21	5.40	5.06	5.25	5.58	4.75	4.77	5.33
E. S. Central	5.15	4.28	4.02	3.98	4.23	4.13	4.47	4.84	5.24	4.73	4.90	5.24	4.39	4.42	5.04
W. S. Central	3.21	2.92	3.07	2.55	2.48	2.67	3.15	3.29	3.47	3.25	3.59	3.74	2.93	2.90	3.51
Mountain	6.61	6.22	6.11	5.65	4.91	4.59	5.25	5.41	5.24	5.09	5.77	5.91	6.16	5.04	5.50
Pacific	7.32	6.57	6.62	6.17	5.40	5.33	5.98	6.22	6.08	5.99	6.51	6.64	6.68	5.73	6.31
U.S. Average	4.57	3.68	3.65	3.44	3.57	3.36	3.74	4.16	4.55	3.97	4.21	4.62	3.85	3.72	4.35

- = no data available

Prices are not adjusted for inflation.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Regions refer to U.S. Census divisions.

See "Census division" in EIA's Energy Glossary (<http://www.eia.doe.gov/glossary/index.html>) for a list of States in each region.

Historical data: Latest data available from Energy Information Administration databases supporting the *Natural Gas Monthly*, DOE/EIA-0130.

Natural gas Henry Hub spot price from Reuter's News Service (<http://www.reuters.com>).

Minor discrepancies with published historical data are due to independent rounding.

Projections: EIA Regional Short-Term Energy Model.

Table 6. U.S. Coal Supply, Consumption, and Inventories

U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
Supply (million short tons)															
Production	240.2	211.1	232.4	206.8	214.8	204.6	218.8	214.2	214.3	199.5	216.1	213.3	890.5	852.4	843.3
Appalachia	62.3	54.6	60.3	50.6	54.1	53.4	50.5	48.6	53.1	51.4	49.7	48.3	227.8	206.6	202.6
Interior	45.2	38.9	44.8	39.7	43.9	41.7	43.3	42.3	41.5	41.1	43.7	43.3	168.7	171.2	169.6
Western	132.7	117.6	127.2	116.5	116.8	109.4	125.0	123.4	119.7	107.0	122.7	121.7	494.0	474.6	471.1
Primary Inventory Withdrawals	-0.7	0.3	3.1	-1.6	-1.0	0.7	2.9	-1.6	-1.9	0.7	2.9	-1.6	1.1	1.0	0.0
Imports	3.0	2.6	3.0	2.7	2.2	2.4	3.3	2.9	2.2	2.4	3.3	2.9	11.3	10.7	10.8
Exports	22.0	19.8	16.9	18.3	15.9	18.5	15.7	17.4	11.8	17.7	16.5	19.1	76.9	67.6	65.1
Metallurgical Coal	13.5	12.7	10.3	10.7	10.9	10.9	8.8	10.3	9.1	10.9	9.7	11.7	47.3	41.0	41.4
Steam Coal	8.5	7.0	6.6	7.5	5.0	7.6	6.9	7.2	2.7	6.8	6.8	7.4	29.6	26.7	23.7
Total Primary Supply	220.5	194.3	221.5	189.6	200.1	189.1	209.2	198.0	202.8	185.0	205.7	195.4	825.9	796.5	788.9
Secondary Inventory Withdrawals	-2.4	-12.7	3.9	-16.1	0.2	-4.5	16.3	-5.0	-0.7	-4.9	16.2	-5.3	-27.3	7.0	5.3
Waste Coal (a)	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.5	2.5	2.5	2.5	10.8	11.1	10.0
Total Supply	220.8	184.3	228.1	176.2	203.1	187.4	228.3	195.8	204.5	182.6	224.4	192.6	809.4	814.5	804.2
Consumption (million short tons)															
Coke Plants	4.4	4.4	5.1	5.0	4.2	3.9	4.9	4.7	4.1	4.0	4.7	4.4	18.9	17.7	17.2
Electric Power Sector (b)	196.4	174.7	215.6	167.3	187.4	172.8	212.9	180.1	189.0	167.9	209.2	177.3	754.0	753.3	743.4
Retail and Other Industry	11.4	10.4	10.5	10.8	11.4	10.6	10.5	11.0	11.4	10.7	10.5	11.0	43.0	43.5	43.5
Residential and Commercial	0.8	0.6	0.6	0.7	0.8	0.5	0.4	0.6	0.7	0.4	0.4	0.6	2.7	2.3	2.1
Other Industrial	10.6	9.8	9.9	10.1	10.6	10.1	10.1	10.4	10.6	10.2	10.2	10.4	40.3	41.2	41.5
Total Consumption	212.2	189.4	231.1	183.1	203.1	187.4	228.3	195.8	204.5	182.6	224.4	192.6	815.8	814.5	804.2
Discrepancy (c)	8.6	-5.1	-3.1	-6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.4	0.0	0.0
End-of-period Inventories (million short tons)															
Primary Inventories (d)	45.5	45.2	42.1	43.7	44.7	44.0	41.1	42.7	44.7	44.0	41.1	42.7	43.7	42.7	42.7
Secondary Inventories	161.0	173.7	169.8	185.9	185.7	190.2	174.0	178.9	179.7	184.6	168.4	173.7	185.9	178.9	173.7
Electric Power Sector	154.8	166.8	162.4	178.1	178.9	182.8	166.0	170.7	172.5	176.8	160.2	165.2	178.1	170.7	165.2
Retail and General Industry	4.1	4.5	5.1	5.5	4.8	5.0	5.6	5.9	5.1	5.4	5.9	6.2	5.5	5.9	6.2
Coke Plants	1.6	1.9	1.9	1.8	1.6	1.9	1.8	1.8	1.5	1.9	1.8	1.8	1.8	1.8	1.8
Coal Market Indicators															
Coal Miner Productivity															
(Tons per hour)	5.61	5.61	5.61	5.61	5.46	5.46	5.46	5.46	5.32	5.32	5.32	5.32	5.61	5.46	5.32
Total Raw Steel Production															
(Million short tons per day)	0.247	0.242	0.248	0.227	0.235	0.229	0.231	0.207	0.206	0.214	0.194	0.166	0.241	0.225	0.195
Cost of Coal to Electric Utilities															
(Dollars per million Btu)	2.27	2.25	2.22	2.18	2.18	2.21	2.21	2.17	2.17	2.22	2.23	2.19	2.23	2.19	2.20

- = no data available

(a) Waste coal includes waste coal and coal slurry reprocessed into briquettes.

(b) Coal used for electricity generation and (a limited amount of) useful thermal output by electric utilities and independent power producers.

(c) The discrepancy reflects an unaccounted-for shipper and receiver reporting difference, assumed to be zero in the forecast period.

(d) Primary stocks are held at the mines and distribution points.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Quarterly Coal Report*, DOE/EIA-0121; and *Electric Power Monthly*, DOE/EIA-0226.

Minor discrepancies with published historical data are due to independent rounding.

Projections: EIA Regional Short-Term Energy Model.

Table 7a. U.S. Electricity Industry Overview

U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
Electricity Supply (billion kilowatthours per day)															
Electricity Generation	11.36	10.77	12.44	10.37	11.03	10.91	12.52	10.65	11.15	11.02	12.63	10.78	11.23	11.28	11.40
Electric Power Sector (a)	10.93	10.36	11.99	9.94	10.60	10.51	12.07	10.22	10.73	10.61	12.18	10.34	10.80	10.85	10.97
Comm. and Indus. Sectors (b)	0.43	0.41	0.45	0.43	0.42	0.40	0.44	0.43	0.42	0.41	0.45	0.44	0.43	0.42	0.43
Net Imports	0.17	0.20	0.20	0.16	0.16	0.16	0.18	0.13	0.15	0.15	0.18	0.13	0.18	0.16	0.15
Total Supply	11.52	10.96	12.65	10.52	11.18	11.07	12.70	10.79	11.30	11.17	12.81	10.91	11.41	11.44	11.55
Losses and Unaccounted for (c)	0.78	0.93	0.86	0.64	0.67	0.93	0.80	0.73	0.61	0.94	0.81	0.73	0.80	0.78	0.77
Electricity Consumption (billion kilowatthours per day unless noted)															
Retail Sales	10.36	9.68	11.39	9.51	10.14	9.78	11.51	9.68	10.31	9.87	11.60	9.79	10.23	10.28	10.39
Residential Sector	4.20	3.35	4.51	3.37	3.96	3.40	4.53	3.46	4.07	3.45	4.57	3.52	3.86	3.84	3.90
Commercial Sector	3.60	3.65	4.11	3.52	3.61	3.67	4.17	3.57	3.64	3.71	4.22	3.61	3.72	3.76	3.80
Industrial Sector	2.54	2.66	2.75	2.59	2.56	2.68	2.79	2.63	2.57	2.69	2.80	2.63	2.64	2.66	2.67
Transportation Sector	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Direct Use (d)	0.38	0.36	0.40	0.38	0.37	0.36	0.39	0.38	0.37	0.36	0.40	0.39	0.38	0.38	0.38
Total Consumption	10.74	10.04	11.79	9.88	10.52	10.14	11.90	10.06	10.68	10.23	12.00	10.17	10.61	10.66	10.78
Average residential electricity usage per customer (kWh)	2,924	2,351	3,191	2,383	2,760	2,370	3,179	2,422	2,783	2,379	3,179	2,446	10,849	10,731	10,787
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.27	2.25	2.22	2.18	2.18	2.21	2.21	2.17	2.17	2.22	2.23	2.19	2.23	2.19	2.20
Natural Gas	4.09	3.11	3.09	2.99	3.52	3.25	3.36	4.07	4.43	3.74	3.74	4.45	3.29	3.53	4.05
Residual Fuel Oil	10.82	11.64	10.48	8.97	7.86	8.41	8.44	8.48	8.58	9.63	9.87	10.37	10.56	8.29	9.59
Distillate Fuel Oil	15.61	15.16	13.18	11.63	10.74	11.40	11.84	12.61	13.00	13.43	14.20	15.43	14.49	11.59	13.95
End-Use Prices (cents per kilowatthour)															
Residential Sector	12.23	12.85	12.99	12.50	12.16	12.70	13.00	12.68	12.48	13.14	13.40	13.04	12.65	12.65	13.02
Commercial Sector	10.47	10.53	10.95	10.52	10.61	10.70	11.15	10.76	10.86	10.93	11.38	11.00	10.63	10.82	11.05
Industrial Sector	6.78	6.81	7.31	6.66	6.75	6.80	7.33	6.74	6.87	6.88	7.42	6.83	6.90	6.91	7.01

- = no data available. kWh = kilowatthours. Btu = British thermal units.

Prices are not adjusted for inflation.

(a) Generation supplied by electricity-only and combined-heat-and-power (CHP) plants operated by electric utilities and independent power producers.

(b) Generation supplied by CHP and electricity-only plants operated by businesses in the commercial and industrial sectors, primarily for onsite use.

(c) Includes transmission and distribution losses, data collection time-frame differences, and estimation error.

 (d) Direct Use represents commercial and industrial facility use of onsite net electricity generation; and electrical sales or transfers to adjacent or colocated facilities for which revenue information is not available. See Table 7.6 of the EIA *Monthly Energy Review*.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Electric Power Monthly*, DOE/EIA-0226; and *Electric Power Annual*, DOE/EIA-0348.

Minor discrepancies with published historical data are due to independent rounding.

Projections: EIA Regional Short-Term Energy Model.

Table 7b. U.S. Regional Electricity Retail Sales (Million Kilowatthours per Day)
U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
Residential Sector															
New England	162	112	144	117	143	113	142	121	144	113	142	121	131	130	130
Middle Atlantic	423	321	423	314	386	322	424	323	394	323	423	326	370	364	368
E. N. Central	587	428	556	454	542	443	583	472	563	444	574	478	506	510	515
W. N. Central	325	232	309	256	313	241	318	264	326	242	313	270	280	284	288
S. Atlantic	1,078	889	1,137	833	995	876	1,148	865	1,033	888	1,157	885	984	971	991
E. S. Central	390	275	384	273	352	283	389	286	364	285	391	290	331	328	332
W. S. Central	602	503	782	491	565	533	756	493	562	549	796	507	595	587	604
Mountain	235	240	333	234	243	244	344	237	250	248	348	242	261	267	272
Pacific contiguous	396	337	425	387	403	336	409	383	422	344	414	392	386	383	393
AK and HI	13	12	13	13	13	12	12	13	13	12	12	13	13	13	13
Total	4,202	3,348	4,505	3,372	3,957	3,405	4,527	3,458	4,070	3,449	4,569	3,524	3,856	3,838	3,903
Commercial Sector															
New England	147	139	159	137	144	140	158	140	144	140	158	140	146	146	146
Middle Atlantic	443	417	477	402	437	416	479	409	440	417	481	411	435	435	437
E. N. Central	509	489	543	474	507	498	561	490	516	504	567	497	504	514	521
W. N. Central	281	269	305	265	283	275	314	270	290	279	318	275	280	286	290
S. Atlantic	805	859	939	792	809	853	957	810	815	860	965	815	849	857	864
E. S. Central	235	239	279	229	233	239	283	226	236	242	287	235	246	245	250
W. S. Central	496	530	625	518	503	538	630	519	508	544	641	524	542	547	555
Mountain	240	256	289	246	245	260	295	251	248	264	299	254	258	263	266
Pacific contiguous	424	433	479	445	429	439	476	439	430	442	482	442	445	446	449
AK and HI	16	16	17	16	16	16	17	16	16	16	17	17	16	16	16
Total	3,598	3,646	4,114	3,523	3,606	3,673	4,171	3,569	3,643	3,709	4,215	3,610	3,721	3,756	3,795
Industrial Sector															
New England	49	50	52	50	48	50	52	52	48	50	53	52	50	50	51
Middle Atlantic	198	196	204	190	204	198	205	197	204	200	210	200	197	201	204
E. N. Central	520	525	531	500	520	523	535	513	513	519	530	505	519	523	517
W. N. Central	237	240	252	243	243	250	260	252	247	247	256	248	243	251	250
S. Atlantic	375	406	406	377	368	397	401	379	375	407	411	384	391	387	394
E. S. Central	279	287	290	281	277	291	294	282	283	296	298	284	284	286	290
W. S. Central	427	456	485	469	441	472	495	469	441	461	488	465	460	469	464
Mountain	217	235	251	223	221	241	259	231	228	249	267	239	232	238	246
Pacific contiguous	227	251	266	242	222	247	269	242	221	248	269	242	247	245	245
AK and HI	13	13	15	14	13	13	15	14	13	13	15	14	14	14	14
Total	2,541	2,660	2,751	2,589	2,557	2,683	2,786	2,630	2,573	2,691	2,797	2,634	2,636	2,664	2,674
Total All Sectors (a)															
New England	350	302	357	305	337	305	353	314	338	305	355	314	328	327	328
Middle Atlantic	1,076	944	1,115	918	1,039	947	1,120	940	1,050	952	1,126	948	1,013	1,012	1,019
E. N. Central	1,618	1,444	1,632	1,430	1,571	1,466	1,682	1,476	1,593	1,469	1,672	1,483	1,531	1,549	1,554
W. N. Central	843	742	866	763	840	766	893	786	864	769	888	793	803	821	828
S. Atlantic	2,262	2,158	2,486	2,005	2,176	2,131	2,510	2,058	2,226	2,158	2,537	2,088	2,227	2,219	2,253
E. S. Central	904	801	953	783	862	814	966	794	882	824	976	809	860	859	873
W. S. Central	1,525	1,490	1,892	1,479	1,509	1,544	1,882	1,482	1,512	1,555	1,926	1,497	1,597	1,605	1,623
Mountain	692	731	874	703	710	746	899	720	726	761	914	734	751	769	784
Pacific contiguous	1,050	1,023	1,172	1,076	1,056	1,024	1,157	1,066	1,075	1,037	1,168	1,079	1,081	1,076	1,090
AK and HI	43	41	44	44	43	41	44	43	43	41	44	44	43	43	43
Total	10,364	9,675	11,390	9,505	10,143	9,783	11,506	9,680	10,309	9,870	11,604	9,789	10,234	10,280	10,395

- = no data available

(a) Total retail sales to all sectors includes residential, commercial, industrial, and transportation sector sales.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Retail Sales represents total retail electricity sales by electric utilities and power marketers.

Regions refer to U.S. Census divisions.

See "Census division" in EIA's Energy Glossary (<http://www.eia.doe.gov/glossary/index.html>) for a list of States in each region.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Electric Power Monthly*, DOE/EIA-0226; and *Electric Power Annual*, DOE/EIA-0348.

Minor discrepancies with published historical data are due to independent rounding.

Projections: EIA Regional Short-Term Energy Model.

Table 7c. U.S. Regional Electricity Prices (Cents per Kilowatthour)
U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
Residential Sector															
New England	20.41	20.27	18.34	18.89	19.14	18.84	18.56	19.49	20.20	19.88	19.59	20.58	19.47	19.00	20.05
Middle Atlantic	16.76	16.06	16.47	16.19	16.13	16.36	16.88	16.71	16.71	16.99	17.48	17.17	16.12	16.53	17.10
E. N. Central	12.22	13.20	13.15	12.97	12.36	13.29	13.38	13.48	12.75	13.76	13.86	13.93	12.85	13.11	13.56
W. N. Central	10.24	12.16	12.47	10.88	10.45	12.30	12.70	11.14	10.65	12.55	12.99	11.34	11.40	11.64	11.85
S. Atlantic	11.37	11.91	12.14	11.47	11.07	11.52	11.84	11.34	11.13	11.72	12.08	11.55	11.74	11.46	11.64
E. S. Central	10.34	11.16	10.90	10.71	10.51	11.26	11.24	11.19	10.88	11.62	11.59	11.58	10.75	11.04	11.40
W. S. Central	10.67	11.36	11.04	10.67	10.23	10.85	10.92	10.86	10.68	11.37	11.36	11.17	10.94	10.73	11.17
Mountain	11.31	12.21	12.33	11.46	11.53	12.47	12.64	11.80	11.89	12.87	13.02	12.13	11.88	12.16	12.53
Pacific	13.69	13.47	16.76	14.18	13.87	13.71	15.48	13.96	14.09	14.52	16.09	14.50	14.34	14.29	14.82
U.S. Average	12.23	12.85	12.99	12.50	12.16	12.70	13.00	12.68	12.48	13.14	13.40	13.04	12.65	12.65	13.02
Commercial Sector															
New England	16.91	16.19	14.89	15.32	18.01	16.33	16.14	16.61	19.18	17.49	17.21	17.74	16.57	16.76	17.89
Middle Atlantic	13.17	12.99	13.71	13.10	13.39	13.20	13.95	13.52	13.72	13.45	14.21	13.77	13.26	13.53	13.80
E. N. Central	9.75	9.95	10.03	9.96	9.81	9.98	10.08	9.97	9.88	10.04	10.15	10.05	9.92	9.96	10.04
W. N. Central	8.57	9.52	9.95	8.87	8.72	9.73	10.21	9.12	8.92	9.98	10.50	9.39	9.25	9.47	9.72
S. Atlantic	9.66	9.45	9.59	9.54	9.82	9.63	9.78	9.71	9.99	9.81	9.98	9.92	9.56	9.74	9.93
E. S. Central	10.22	10.35	10.27	10.45	10.80	10.72	10.55	10.71	11.14	10.93	10.75	10.91	10.32	10.69	10.92
W. S. Central	8.04	7.89	7.94	7.53	7.56	7.67	7.87	7.64	7.68	7.75	7.94	7.71	7.85	7.69	7.78
Mountain	9.36	9.96	10.21	9.43	9.52	10.19	10.47	9.67	9.77	10.47	10.77	9.95	9.77	9.99	10.27
Pacific	12.22	13.31	16.61	13.73	12.64	13.68	16.06	14.10	13.04	14.08	16.40	14.52	13.78	14.17	14.57
U.S. Average	10.47	10.53	10.95	10.52	10.61	10.70	11.15	10.76	10.86	10.93	11.38	11.00	10.63	10.82	11.05
Industrial Sector															
New England	13.17	11.83	11.85	11.83	13.67	12.18	12.15	12.15	14.11	12.49	12.44	12.42	12.15	12.52	12.84
Middle Atlantic	7.87	7.20	7.36	7.26	7.88	7.24	7.40	7.45	8.12	7.34	7.44	7.52	7.42	7.49	7.60
E. N. Central	6.87	6.77	7.06	6.88	6.98	6.89	7.18	6.99	7.13	7.03	7.32	7.14	6.90	7.01	7.16
W. N. Central	6.49	6.89	7.51	6.53	6.71	7.04	7.65	6.63	6.86	7.20	7.83	6.77	6.86	7.02	7.17
S. Atlantic	6.55	6.38	6.90	6.33	6.54	6.44	6.97	6.42	6.71	6.51	7.02	6.48	6.55	6.60	6.68
E. S. Central	5.77	5.95	6.58	5.77	5.95	5.96	6.58	5.82	6.02	5.97	6.60	5.87	6.03	6.08	6.12
W. S. Central	5.66	5.50	5.70	5.16	5.08	5.15	5.49	5.15	5.05	5.06	5.44	5.15	5.50	5.22	5.18
Mountain	6.17	6.65	7.17	5.91	6.01	6.63	7.23	5.99	6.17	6.81	7.41	6.12	6.50	6.50	6.66
Pacific	7.99	8.95	10.46	9.18	8.28	9.19	10.51	9.27	8.47	9.30	10.65	9.37	9.20	9.37	9.51
U.S. Average	6.78	6.81	7.31	6.66	6.75	6.80	7.33	6.74	6.87	6.88	7.42	6.83	6.90	6.91	7.01
All Sectors (a)															
New England	17.89	16.49	15.82	16.08	17.83	16.55	16.49	16.94	18.83	17.51	17.43	17.91	16.58	16.96	17.92
Middle Atlantic	13.21	12.82	13.58	12.92	13.30	13.01	13.84	13.32	13.73	13.34	14.14	13.59	13.16	13.39	13.72
E. N. Central	9.72	9.75	10.13	9.84	9.75	9.87	10.30	10.05	10.01	10.10	10.53	10.31	9.86	10.00	10.24
W. N. Central	8.63	9.49	10.14	8.80	8.78	9.66	10.35	9.00	8.98	9.90	10.61	9.24	9.28	9.47	9.69
S. Atlantic	9.96	9.88	10.32	9.74	9.84	9.81	10.27	9.79	9.96	9.97	10.46	9.98	9.99	9.94	10.11
E. S. Central	8.90	9.05	9.40	8.86	9.13	9.20	9.62	9.15	9.39	9.39	9.82	9.38	9.07	9.29	9.51
W. S. Central	8.41	8.33	8.65	7.82	7.84	8.00	8.47	7.92	8.03	8.23	8.72	8.08	8.33	8.08	8.30
Mountain	9.03	9.63	10.15	8.99	9.12	9.79	10.37	9.19	9.37	10.05	10.84	9.42	9.49	9.66	9.92
Pacific	11.85	12.28	14.48	12.86	12.19	12.59	14.55	12.94	12.50	13.06	14.95	13.34	12.93	13.11	13.51
U.S. Average	10.28	10.31	10.88	10.17	10.24	10.33	10.95	10.35	10.50	10.60	11.22	10.61	10.43	10.49	10.75

- = no data available

²Prices are not adjusted for inflation.

a) Volume-weighted average of retail prices to residential, commercial, industrial, and transportation sectors.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Regions refer to U.S. Census divisions.

See "Census division" in EIA's Energy Glossary (<http://www.eia.doe.gov/glossary/index.html>) for a list of States in each region.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Electric Power Monthly*, DOE/EIA-0226; and *Electric Power Annual*, DOE/EIA-0348.

Minor discrepancies with published historical data are due to independent rounding.

Projections: EIA Regional Short-Term Energy Model.

Table 7d. U.S. Regional Electricity Generation, All Sectors (Thousand megawatthours per day)

U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
United States															
Coal	4,091	3,512	4,276	3,304	3,825	3,509	4,251	3,575	3,915	3,424	4,193	3,528	3,795	3,791	3,765
Natural Gas	3,248	3,476	4,378	3,503	3,390	3,497	4,328	3,304	3,156	3,446	4,339	3,368	3,654	3,631	3,580
Petroleum (a)	123	61	72	61	81	71	78	70	83	71	78	69	79	75	75
Other Gases	37	33	40	32	35	32	40	32	35	32	40	33	36	35	35
Nuclear	2,248	2,133	2,286	2,086	2,140	2,002	2,257	2,126	2,197	2,024	2,266	2,135	2,188	2,132	2,156
Renewable Energy Sources:	1,590	1,525	1,371	1,359	1,534	1,778	1,540	1,522	1,746	1,995	1,689	1,619	1,460	1,593	1,762
Conventional Hydropower	802	690	616	531	647	803	717	594	735	873	761	624	659	690	748
Wind	506	532	441	559	611	654	478	622	694	736	534	673	509	591	659
Wood Biomass	119	112	122	112	116	109	121	115	117	111	124	118	116	115	118
Waste Biomass	58	59	61	60	59	59	61	60	60	59	61	60	59	60	60
Geothermal	48	46	45	46	48	47	48	48	49	47	48	48	46	48	48
Solar	57	87	86	50	53	106	116	83	92	168	161	96	70	89	129
Pumped Storage Hydropower	-15	-10	-18	-15	-14	-12	-16	-14	-13	-12	-16	-14	-15	-14	-14
Other Nonrenewable Fuels (b)	33	37	39	38	34	37	39	38	34	38	39	38	37	37	37
Total Generation	11,355	10,766	12,444	10,367	11,026	10,914	12,517	10,652	11,153	11,018	12,629	10,775	11,234	11,279	11,396
Northeast Census Region															
Coal	292	174	203	129	226	141	176	154	250	155	197	153	199	174	188
Natural Gas	483	534	714	550	547	590	734	552	511	572	715	558	571	606	589
Petroleum (a)	46	2	5	4	9	4	6	6	10	5	6	5	14	6	7
Other Gases	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Nuclear	545	499	542	499	504	470	526	496	497	458	513	483	521	499	488
Hydropower (c)	93	99	97	81	93	107	100	94	99	115	106	99	92	98	105
Other Renewables (d)	76	65	58	72	73	64	60	73	81	70	65	78	68	68	73
Other Nonrenewable Fuels (b)	11	12	12	12	11	12	12	12	11	12	12	12	12	12	12
Total Generation	1,547	1,387	1,633	1,347	1,466	1,390	1,616	1,388	1,461	1,388	1,615	1,390	1,479	1,465	1,464
South Census Region															
Coal	1,715	1,539	1,908	1,288	1,517	1,543	1,883	1,374	1,570	1,517	1,884	1,379	1,612	1,580	1,588
Natural Gas	1,971	2,074	2,452	1,972	1,960	2,104	2,443	1,844	1,835	2,086	2,458	1,854	2,118	2,088	2,059
Petroleum (a)	42	24	29	24	34	30	32	25	34	29	32	25	30	30	30
Other Gases	14	13	15	14	14	13	15	14	14	13	16	15	14	14	14
Nuclear	974	956	1,001	879	939	883	1,004	946	985	908	1,016	957	953	943	967
Hydropower (c)	122	108	94	88	126	123	104	103	134	132	110	108	103	114	121
Other Renewables (d)	231	265	253	271	299	323	269	322	355	384	313	353	255	304	351
Other Nonrenewable Fuels (b)	14	15	16	17	14	16	16	16	14	16	16	16	16	16	16
Total Generation	5,084	4,995	5,769	4,554	4,903	5,034	5,767	4,645	4,942	5,085	5,846	4,707	5,101	5,088	5,146
Midwest Census Region															
Coal	1,579	1,302	1,578	1,350	1,519	1,337	1,630	1,458	1,523	1,298	1,563	1,401	1,452	1,486	1,446
Natural Gas	299	257	340	264	307	276	354	268	304	290	384	316	290	301	324
Petroleum (a)	12	11	13	9	13	12	13	11	13	11	13	11	11	12	12
Other Gases	15	13	16	9	12	12	16	10	12	12	16	10	13	12	13
Nuclear	553	529	570	554	538	502	562	529	553	509	570	537	552	533	542
Hydropower (c)	44	47	42	30	41	49	42	36	44	52	44	37	41	42	44
Other Renewables (d)	251	218	168	280	266	252	180	271	294	278	198	289	224	242	265
Other Nonrenewable Fuels (b)	4	5	5	5	4	5	5	5	4	5	5	5	5	5	5
Total Generation	2,757	2,381	2,732	2,481	2,701	2,443	2,802	2,587	2,746	2,456	2,794	2,606	2,587	2,634	2,651
West Census Region															
Coal	505	496	587	537	563	488	562	588	572	454	549	594	532	550	542
Natural Gas	494	611	873	717	576	527	797	640	507	498	782	640	675	636	608
Petroleum (a)	23	23	25	23	25	25	26	27	26	26	27	27	23	26	27
Other Gases	7	6	7	6	7	6	7	6	7	6	7	6	7	7	7
Nuclear	176	149	172	153	158	147	165	155	162	149	167	158	163	157	159
Hydropower (c)	527	425	365	318	373	513	456	348	444	562	485	366	408	422	464
Other Renewables (d)	230	287	276	225	249	336	313	262	281	390	352	274	254	290	324
Other Nonrenewable Fuels (b)	4	4	5	5	5	5	6	5	5	5	6	5	5	5	5
Total Generation	1,967	2,002	2,310	1,986	1,956	2,047	2,332	2,032	2,004	2,089	2,374	2,072	2,067	2,092	2,136

(a) Residual fuel oil, distillate fuel oil, petroleum coke, and other petroleum liquids.

(b) Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, nonrenewable waste, and miscellaneous technologies.

(c) Conventional hydroelectric and pumped storage generation.

(d) Wind, biomass, geothermal, and solar generation.

Notes: Data reflect generation supplied by electricity-only and combined-heat-and-power (CHP) plants operated by electric utilities, independent power producers, and the commercial and industrial sectors. The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from U.S. Energy Information Administration *Electric Power Monthly* and *Electric Power Annual*.

Projections: EIA Regional Short-Term Energy Model.

Table 7e. U.S. Regional Fuel Consumption for Electricity Generation, All Sectors
U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
Fuel Consumption for Electricity Generation, All Sectors															
United States															
Coal (thousand st/d)	2,187	1,923	2,349	1,824	2,064	1,904	2,321	1,964	2,105	1,851	2,281	1,933	2,071	2,064	2,043
Natural Gas (million cf/d)	24,028	26,271	33,510	26,188	25,166	26,639	33,144	24,526	23,458	26,279	33,275	25,037	27,522	27,377	27,034
Petroleum (thousand b/d)	215	108	126	107	146	126	137	125	150	126	138	123	139	133	134
Residual Fuel Oil	76	26	33	28	36	31	34	32	38	32	34	31	41	33	34
Distillate Fuel Oil	66	26	24	21	36	29	30	29	37	28	30	29	34	31	31
Petroleum Coke (a)	61	52	65	53	66	62	68	59	67	62	69	58	58	64	64
Other Petroleum Liquids (b)	12	4	4	4	8	5	5	5	8	5	5	5	6	6	6
Northeast Census Region															
Coal (thousand st/d)	134	82	100	62	105	66	85	73	116	72	94	72	94	82	89
Natural Gas (million cf/d)	3,638	4,102	5,595	4,150	4,147	4,520	5,715	4,168	3,869	4,376	5,564	4,212	4,376	4,639	4,509
Petroleum (thousand b/d)	75	5	9	7	17	8	11	9	18	8	12	9	24	11	12
South Census Region															
Coal (thousand st/d)	888	819	1,023	696	789	813	1,000	735	815	797	997	735	856	835	836
Natural Gas (million cf/d)	14,410	15,633	18,665	14,734	14,446	15,976	18,612	13,617	13,536	15,858	18,742	13,702	15,869	15,665	15,469
Petroleum (thousand b/d)	79	45	53	45	66	57	60	49	67	56	60	48	55	58	58
Midwest Census Region															
Coal (thousand st/d)	881	742	896	762	852	752	921	823	852	729	881	790	820	837	813
Natural Gas (million cf/d)	2,329	2,010	2,725	2,035	2,334	2,170	2,864	2,054	2,322	2,291	3,129	2,428	2,275	2,356	2,544
Petroleum (thousand b/d)	24	23	26	18	23	21	23	22	23	21	22	22	23	22	22
West Census Region															
Coal (thousand st/d)	285	280	331	303	318	273	316	333	322	253	308	336	300	310	305
Natural Gas (million cf/d)	3,650	4,526	6,526	5,269	4,238	3,972	5,952	4,687	3,731	3,755	5,841	4,695	5,001	4,716	4,512
Petroleum (thousand b/d)	37	36	39	37	40	41	42	44	42	41	44	44	37	42	43
End-of-period U.S. Fuel Inventories Held by Electric Power Sector															
Coal (million short tons)	154.8	166.8	162.4	178.1	178.9	182.8	166.0	170.7	172.5	176.8	160.2	165.2	178.1	170.7	165.2
Residual Fuel Oil (mmb)	10.2	10.5	10.6	13.0	13.2	12.9	12.4	12.7	12.7	12.4	12.0	12.2	13.0	12.7	12.2
Distillate Fuel Oil (mmb)	16.6	16.7	17.1	17.6	17.7	17.5	17.4	17.7	17.7	17.5	17.4	17.7	17.6	17.7	17.7
Petroleum Coke (mmb)	4.1	5.2	5.5	5.7	5.6	5.5	5.4	5.3	5.2	5.1	5.0	4.9	5.7	5.3	4.9

(a) Petroleum coke consumption converted from short tons to barrels by multiplying by five.

(b) Other petroleum liquids include jet fuel, kerosene, and waste oil.

Notes: Data reflect generation supplied by electricity-only and combined-heat-and-power (CHP) plants operated by electric utilities, independent power producers, and the commercial and industrial sectors. Data include fuel consumed only for generation of electricity. Values do not include consumption by CHP plants for useful thermal output. The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Physical Units: st/d = short tons per day; b/d = barrels per day; cf/d = cubic feet per day; mmb = million barrels.

Historical data: Latest data available from U.S. Energy Information Administration *Electric Power Monthly* and *Electric Power Annual*.

Projections: EIA Regional Short-Term Energy Model.

Table 8. U.S. Renewable Energy Consumption (Quadrillion Btu)
U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
Electric Power Sector															
Hydroelectric Power (a)	0.685	0.596	0.539	0.462	0.557	0.692	0.625	0.517	0.619	0.752	0.663	0.543	2.282	2.391	2.578
Wood Biomass (b)	0.063	0.058	0.067	0.058	0.060	0.055	0.067	0.061	0.062	0.057	0.070	0.063	0.246	0.243	0.252
Waste Biomass (c)	0.067	0.066	0.070	0.069	0.067	0.068	0.071	0.069	0.067	0.068	0.071	0.068	0.272	0.275	0.274
Wind	0.433	0.460	0.385	0.489	0.528	0.566	0.418	0.544	0.594	0.637	0.468	0.588	1.768	2.056	2.287
Geothermal	0.041	0.040	0.040	0.040	0.042	0.041	0.042	0.042	0.042	0.041	0.042	0.042	0.161	0.167	0.167
Solar	0.047	0.073	0.074	0.043	0.045	0.090	0.100	0.072	0.077	0.144	0.139	0.083	0.238	0.306	0.444
Subtotal	1.337	1.293	1.174	1.161	1.299	1.512	1.323	1.304	1.461	1.699	1.453	1.389	4.966	5.438	6.002
Industrial Sector															
Hydroelectric Power (a)	0.004	0.003	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.013	0.012	0.012
Wood Biomass (b)	0.324	0.320	0.324	0.319	0.306	0.302	0.312	0.315	0.307	0.303	0.314	0.316	1.287	1.234	1.240
Waste Biomass (c)	0.046	0.049	0.050	0.050	0.048	0.048	0.050	0.049	0.049	0.049	0.051	0.050	0.195	0.196	0.199
Geothermal	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.004	0.004	0.004
Biofuel Losses and Co-products (f)	0.189	0.192	0.195	0.193	0.196	0.194	0.199	0.196	0.194	0.194	0.199	0.195	0.770	0.784	0.782
Subtotal	0.569	0.571	0.577	0.571	0.558	0.552	0.570	0.569	0.558	0.554	0.572	0.570	2.287	2.249	2.255
Commercial Sector															
Wood Biomass (b)	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.020	0.020	0.076	0.077	0.078
Waste Biomass (c)	0.013	0.010	0.010	0.011	0.011	0.010	0.011	0.011	0.010	0.010	0.011	0.011	0.044	0.043	0.043
Geothermal	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.020	0.020	0.020
Subtotal	0.038	0.036	0.037	0.036	0.035	0.035	0.036	0.036	0.036	0.035	0.037	0.036	0.148	0.142	0.144
Residential Sector															
Wood Biomass (b)	0.110	0.111	0.113	0.113	0.103	0.104	0.105	0.105	0.106	0.106	0.106	0.106	0.447	0.418	0.426
Geothermal	0.010	0.010	0.010	0.010	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.040	0.044	0.045
Solar (d)	0.069	0.070	0.071	0.071	0.077	0.077	0.078	0.078	0.088	0.089	0.090	0.090	0.281	0.311	0.356
Subtotal	0.189	0.191	0.194	0.194	0.191	0.193	0.195	0.195	0.206	0.207	0.208	0.208	0.768	0.773	0.827
Transportation Sector															
Ethanol (e)	0.266	0.284	0.292	0.281	0.275	0.289	0.299	0.290	0.273	0.289	0.298	0.289	1.122	1.153	1.149
Biomass-based Diesel (e)	0.034	0.058	0.064	0.063	0.068	0.072	0.081	0.081	0.070	0.074	0.084	0.083	0.219	0.302	0.310
Subtotal	0.300	0.341	0.356	0.346	0.343	0.361	0.380	0.370	0.343	0.363	0.382	0.372	1.344	1.454	1.459
All Sectors Total															
Hydroelectric Power (a)	0.689	0.599	0.541	0.465	0.560	0.695	0.629	0.520	0.622	0.755	0.667	0.546	2.295	2.403	2.591
Wood Biomass (b)	0.517	0.508	0.523	0.508	0.488	0.480	0.504	0.500	0.494	0.486	0.510	0.506	2.056	1.972	1.996
Waste Biomass (c)	0.126	0.125	0.129	0.129	0.126	0.126	0.132	0.129	0.126	0.127	0.133	0.130	0.510	0.513	0.516
Wind	0.433	0.460	0.385	0.489	0.528	0.566	0.418	0.544	0.594	0.637	0.468	0.588	1.768	2.056	2.287
Geothermal	0.057	0.056	0.056	0.056	0.059	0.058	0.059	0.059	0.059	0.058	0.059	0.060	0.225	0.235	0.236
Solar	0.118	0.145	0.146	0.114	0.123	0.169	0.179	0.152	0.167	0.234	0.230	0.174	0.523	0.622	0.806
Ethanol (e)	0.271	0.289	0.298	0.289	0.280	0.295	0.305	0.295	0.278	0.294	0.304	0.295	1.146	1.175	1.171
Biomass-based Diesel (e)	0.034	0.058	0.064	0.063	0.068	0.072	0.081	0.081	0.070	0.074	0.084	0.083	0.219	0.302	0.310
Biofuel Losses and Co-products (f)	0.189	0.192	0.195	0.193	0.196	0.194	0.199	0.196	0.194	0.194	0.199	0.195	0.770	0.784	0.782
Total Consumption	2.434	2.433	2.338	2.307	2.427	2.652	2.504	2.474	2.603	2.859	2.651	2.575	9.512	10.057	10.688

- = no data available

(a) Conventional hydroelectric power only. Hydroelectricity generated by pumped storage is not included in renewable energy.

(b) Wood and wood-derived fuels.

(c) Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass.

(d) Includes small-scale solar thermal and photovoltaic energy used in the commercial, industrial, and electric power sectors.

(e) Fuel ethanol and biomass-based diesel consumption in the transportation sector includes production, stock change, and imports less exports. Some biomass-based diesel may be consumed in the residential sector in heating oil.

(f) Losses and co-products from the production of fuel ethanol and biomass-based diesel

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from EIA databases supporting the following reports: *Electric Power Monthly*, DOE/EIA-0226 and *Renewable Energy Annual*, DOE/EIA-0603; *Petroleum Supply Monthly*, DOE/EIA-0109.

Minor discrepancies with published historical data are due to independent rounding.

Projections: EIA Regional Short-Term Energy Model.

Table 9a. U.S. Macroeconomic Indicators and CO₂ Emissions

U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
Macroeconomic															
Real Gross Domestic Product															
(billion chained 2009 dollars - SAAR)	16,177	16,334	16,418	16,483	16,595	16,707	16,849	17,009	17,141	17,288	17,419	17,521	16,353	16,790	17,342
Real Personal Consumption Expend.															
(billion chained 2009 dollars - SAAR)	11,081	11,179	11,263	11,334	11,415	11,495	11,597	11,715	11,827	11,932	12,037	12,131	11,214	11,556	11,982
Real Fixed Investment															
(billion chained 2009 dollars - SAAR)	2,701	2,736	2,758	2,796	2,841	2,885	2,927	2,981	3,040	3,098	3,150	3,196	2,748	2,909	3,121
Business Inventory Change															
(billion chained 2009 dollars - SAAR)	127	128	101	49	33	28	39	53	66	78	76	68	101	38	72
Real Government Expenditures															
(billion chained 2009 dollars - SAAR)	2,839	2,857	2,869	2,875	2,914	2,922	2,927	2,931	2,927	2,935	2,944	2,935	2,860	2,924	2,935
Real Exports of Goods & Services															
(billion chained 2009 dollars - SAAR)	2,091	2,118	2,122	2,097	2,117	2,143	2,173	2,203	2,233	2,261	2,287	2,313	2,107	2,159	2,274
Real Imports of Goods & Services															
(billion chained 2009 dollars - SAAR)	2,633	2,652	2,666	2,652	2,703	2,745	2,795	2,857	2,935	3,002	3,064	3,113	2,651	2,775	3,028
Real Disposable Personal Income															
(billion chained 2009 dollars - SAAR)	12,116	12,194	12,312	12,417	12,520	12,593	12,704	12,806	12,923	13,049	13,164	13,260	12,259	12,656	13,099
Non-Farm Employment															
(millions)	141.0	141.6	142.2	142.9	143.4	143.9	144.3	144.8	145.4	145.9	146.5	147.0	141.9	144.1	146.2
Civilian Unemployment Rate															
(percent)	5.6	5.4	5.2	5.0	5.0	5.0	4.9	4.8	4.8	4.7	4.7	4.7	5.3	4.9	4.7
Housing Starts															
(millions - SAAR)	0.98	1.16	1.16	1.11	1.14	1.18	1.26	1.33	1.40	1.45	1.48	1.50	1.10	1.23	1.46
Industrial Production Indices (Index, 2012=100)															
Total Industrial Production	107.4	106.8	107.6	106.9	107.0	107.2	108.2	109.7	110.8	111.5	112.6	113.3	107.2	108.0	112.0
Manufacturing	105.5	105.8	106.7	107.0	106.9	106.9	107.9	109.8	110.9	111.6	112.7	113.5	106.2	107.9	112.2
Food	104.7	104.7	105.9	106.0	106.6	107.0	107.4	108.1	108.8	109.3	110.0	110.6	105.3	107.3	109.7
Paper	97.2	97.1	95.9	96.2	95.4	95.1	95.0	95.5	95.7	95.6	95.8	96.1	96.6	95.2	95.8
Petroleum and Coal Products	107.9	108.9	109.3	110.3	109.9	110.1	110.7	111.6	112.2	112.6	113.2	113.5	109.1	110.6	112.9
Chemicals	102.8	103.1	103.4	104.1	104.3	104.6	105.2	106.4	107.5	108.5	110.0	111.7	103.4	105.1	109.4
Nonmetallic Mineral Products	111.3	111.1	112.2	114.9	113.6	114.5	115.8	117.3	118.9	120.5	122.1	123.6	112.4	115.3	121.3
Primary Metals	100.7	100.1	100.0	98.6	97.4	96.4	96.5	98.3	98.9	98.6	99.6	100.0	99.8	97.1	99.3
Coal-weighted Manufacturing (a)	103.6	103.8	104.0	104.3	103.6	103.5	104.0	105.3	106.1	106.5	107.7	108.6	103.9	104.1	107.2
Distillate-weighted Manufacturing (a)	106.6	106.5	107.5	108.3	107.9	108.3	109.2	110.7	111.9	112.8	113.9	114.8	107.2	109.0	113.3
Electricity-weighted Manufacturing (a)	104.7	105.0	105.6	105.6	105.2	105.2	105.9	107.6	108.7	109.3	110.6	111.7	105.2	106.0	110.1
Natural Gas-weighted Manufacturing (a)	104.5	105.4	105.8	105.9	105.5	105.6	106.3	108.0	109.1	109.9	111.5	112.9	105.4	106.4	110.9
Price Indexes															
Consumer Price Index (all urban consumers)															
(index, 1982-1984=1.00)	2.35	2.37	2.38	2.38	2.38	2.39	2.41	2.42	2.44	2.45	2.46	2.48	2.37	2.40	2.46
Producer Price Index: All Commodities															
(index, 1982=1.00)	1.92	1.92	1.91	1.89	1.89	1.90	1.91	1.92	1.94	1.94	1.96	1.98	1.91	1.90	1.96
Producer Price Index: Petroleum															
(index, 1982=1.00)	1.71	1.95	1.80	1.58	1.40	1.50	1.53	1.46	1.49	1.66	1.75	1.74	1.76	1.47	1.66
GDP Implicit Price Deflator															
(index, 2009=100)	109.1	109.7	110.0	110.5	111.2	111.7	112.2	112.7	113.4	113.9	114.3	114.9	109.8	111.9	114.1
Miscellaneous															
Vehicle Miles Traveled (b)															
(million miles/day)	7,990	8,982	8,920	8,541	8,213	9,149	9,082	8,693	8,359	9,251	9,168	8,796	8,611	8,785	8,895
Air Travel Capacity															
(Available ton-miles/day, thousands)	517	574	584	545	534	587	564	546	537	572	569	549	555	553	557
Aircraft Utilization															
(Revenue ton-miles/day, thousands)	322	356	365	338	333	353	357	345	337	359	363	348	345	347	352
Airline Ticket Price Index															
(index, 1982-1984=100)	286.4	313.0	283.3	288.8	287.4	305.4	288.7	295.5	299.4	319.9	303.2	311.7	292.9	294.2	308.5
Raw Steel Production															
(million short tons per day)	0.247	0.242	0.248	0.227	0.235	0.229	0.231	0.207	0.206	0.214	0.194	0.166	0.241	0.225	0.195
Carbon Dioxide (CO₂) Emissions (million metric tons)															
Petroleum	562	568	584	569	562	571	584	579	563	577	590	584	2,282	2,297	2,314
Natural Gas	469	313	327	375	463	322	331	391	457	325	336	399	1,483	1,507	1,516
Coal	397	354	432	350	381	351	427	367	383	342	420	360	1,532	1,525	1,505
Total Energy (c)	1,429	1,236	1,344	1,295	1,407	1,245	1,345	1,339	1,404	1,245	1,347	1,344	5,304	5,336	5,340

- = no data available

SAAR = Seasonally-adjusted annual rate

(a) Fuel share weights of individual sector indices based on EIA Manufacturing Energy Consumption Survey

(b) Total highway travel includes gasoline and diesel fuel vehicles.

(c) Includes electric power sector use of geothermal energy and non-biomass waste.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from U.S. Department of Commerce, Bureau of Economic Analysis; Federal Reserve System, Statistical release G17; Federal Highway Administration; and Federal Aviation Administration. Minor discrepancies with published historical data are due to independent rounding.

Projections: EIA Regional Short-Term Energy Model. Macroeconomic projections are based on Global Insight Model of the U.S. Economy.

Table 9b. U.S. Regional Macroeconomic Data

U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
Real Gross State Product (Billion \$2009)															
New England	863	871	875	877	883	888	895	903	909	915	921	925	872	893	918
Middle Atlantic	2,417	2,445	2,456	2,469	2,482	2,497	2,514	2,534	2,549	2,567	2,581	2,592	2,447	2,507	2,572
E. N. Central	2,219	2,240	2,249	2,257	2,268	2,280	2,296	2,316	2,332	2,349	2,363	2,373	2,241	2,290	2,354
W. N. Central	1,048	1,056	1,061	1,065	1,072	1,079	1,088	1,098	1,105	1,114	1,122	1,128	1,058	1,084	1,117
S. Atlantic	2,851	2,884	2,901	2,915	2,940	2,962	2,989	3,019	3,043	3,070	3,093	3,112	2,888	2,977	3,080
E. S. Central	735	741	745	749	754	758	764	771	776	783	788	792	742	762	785
W. S. Central	2,025	2,036	2,047	2,051	2,064	2,077	2,098	2,120	2,140	2,163	2,185	2,205	2,040	2,090	2,173
Mountain	1,033	1,042	1,048	1,053	1,062	1,072	1,082	1,094	1,105	1,117	1,128	1,137	1,044	1,078	1,121
Pacific	2,897	2,926	2,943	2,954	2,978	3,001	3,028	3,059	3,086	3,114	3,139	3,159	2,930	3,016	3,125
Industrial Output, Manufacturing (Index, Year 2012=100)															
New England	101.7	102.4	103.8	103.9	103.8	103.9	104.8	106.5	107.6	108.1	109.1	109.7	102.9	104.8	108.6
Middle Atlantic	102.1	102.7	103.3	103.4	103.2	103.1	103.9	105.6	106.5	107.0	108.1	108.8	102.9	104.0	107.6
E. N. Central	107.7	108.5	109.5	109.7	109.5	109.3	110.2	112.2	113.3	113.8	115.0	115.9	108.9	110.3	114.5
W. N. Central	105.6	105.7	106.5	106.8	106.8	106.8	107.9	109.8	110.9	111.5	112.6	113.4	106.2	107.8	112.1
S. Atlantic	106.3	106.8	108.0	108.6	108.5	108.5	109.5	111.3	112.3	112.9	113.9	114.6	107.4	109.4	113.4
E. S. Central	108.0	108.2	109.5	109.9	109.9	109.9	110.8	112.5	113.6	114.2	115.3	116.0	108.9	110.8	114.8
W. S. Central	104.7	103.6	103.2	103.0	102.7	102.5	103.4	105.1	106.3	107.0	108.3	109.3	103.6	103.4	107.7
Mountain	107.2	107.9	109.2	109.8	110.0	110.5	111.8	113.9	115.4	116.3	117.7	118.5	108.5	111.6	117.0
Pacific	105.3	106.0	106.6	107.0	106.9	107.1	108.3	110.3	111.5	112.2	113.4	114.3	106.2	108.2	112.9
Real Personal Income (Billion \$2009)															
New England	740	746	752	758	765	769	775	781	787	795	801	806	749	772	797
Middle Atlantic	1,896	1,912	1,925	1,943	1,954	1,964	1,979	1,993	2,007	2,024	2,039	2,050	1,919	1,972	2,030
E. N. Central	2,010	2,023	2,043	2,061	2,077	2,088	2,103	2,117	2,135	2,154	2,171	2,183	2,034	2,096	2,161
W. N. Central	970	976	987	996	1,004	1,011	1,017	1,025	1,034	1,043	1,051	1,059	982	1,014	1,047
S. Atlantic	2,622	2,644	2,670	2,696	2,722	2,742	2,769	2,794	2,824	2,855	2,882	2,904	2,658	2,757	2,866
E. S. Central	760	764	769	776	782	787	793	799	806	814	820	825	767	790	816
W. S. Central	1,710	1,717	1,732	1,745	1,758	1,769	1,785	1,801	1,821	1,844	1,863	1,879	1,726	1,778	1,852
Mountain	922	930	940	950	959	966	976	985	997	1,009	1,019	1,028	935	972	1,013
Pacific	2,218	2,241	2,265	2,288	2,312	2,327	2,348	2,369	2,393	2,418	2,441	2,461	2,253	2,339	2,428
Households (Thousands)															
New England	5,834	5,843	5,849	5,855	5,865	5,871	5,876	5,882	5,889	5,898	5,906	5,916	5,855	5,882	5,916
Middle Atlantic	15,991	16,011	16,022	16,036	16,058	16,073	16,084	16,093	16,106	16,122	16,140	16,157	16,036	16,093	16,157
E. N. Central	18,625	18,639	18,655	18,679	18,709	18,732	18,754	18,777	18,803	18,829	18,858	18,886	18,679	18,777	18,886
W. N. Central	8,451	8,469	8,483	8,499	8,521	8,539	8,557	8,576	8,598	8,619	8,640	8,662	8,499	8,576	8,662
S. Atlantic	24,593	24,675	24,756	24,843	24,947	25,037	25,124	25,211	25,301	25,395	25,489	25,585	24,843	25,211	25,585
E. S. Central	7,522	7,532	7,541	7,555	7,572	7,587	7,602	7,617	7,633	7,650	7,667	7,684	7,555	7,617	7,684
W. S. Central	14,309	14,360	14,405	14,451	14,508	14,561	14,613	14,664	14,715	14,769	14,823	14,878	14,451	14,664	14,878
Mountain	8,778	8,810	8,841	8,874	8,914	8,948	8,986	9,023	9,061	9,101	9,142	9,184	8,874	9,023	9,184
Pacific	18,400	18,456	18,503	18,553	18,616	18,672	18,724	18,779	18,835	18,892	18,949	19,006	18,553	18,779	19,006
Total Non-farm Employment (Millions)															
New England	7.2	7.2	7.2	7.3	7.3	7.3	7.3	7.3	7.4	7.4	7.4	7.4	7.2	7.3	7.4
Middle Atlantic	18.9	19.0	19.1	19.2	19.2	19.2	19.3	19.3	19.4	19.4	19.4	19.5	19.1	19.3	19.4
E. N. Central	21.4	21.5	21.5	21.6	21.6	21.7	21.7	21.8	21.9	21.9	22.0	22.0	21.5	21.7	22.0
W. N. Central	10.4	10.5	10.5	10.5	10.5	10.6	10.6	10.6	10.7	10.7	10.7	10.8	10.5	10.6	10.7
S. Atlantic	26.7	26.9	27.0	27.2	27.3	27.4	27.6	27.7	27.8	27.9	28.1	28.2	27.0	27.5	28.0
E. S. Central	7.8	7.8	7.8	7.9	7.9	7.9	8.0	8.0	8.0	8.0	8.1	8.1	7.8	7.9	8.1
W. S. Central	16.6	16.6	16.7	16.7	16.8	16.8	16.9	17.0	17.0	17.1	17.2	17.3	16.6	16.9	17.2
Mountain	9.9	10.0	10.0	10.1	10.1	10.2	10.2	10.3	10.4	10.4	10.5	10.5	10.0	10.2	10.4
Pacific	21.8	21.9	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.7	22.8	22.9	22.0	22.4	22.8

- = no data available

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Regions refer to U.S. Census divisions.

See "Census division" in EIA's Energy Glossary (<http://www.eia.doe.gov/glossary/index.html>) for a list of States in each region.

Historical data: Latest data available from U.S. Department of Commerce, Bureau of Economic Analysis; Federal Reserve System, Statistical release G17.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Macroeconomic projections are based on the Global Insight Model of the U.S. Economy.

Table 9c. U.S. Regional Weather Data

U.S. Energy Information Administration | Short-Term Energy Outlook - January 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
Heating Degree Days															
New England	3,854	819	58	1,793	3,093	818	130	2,204	3,065	810	131	2,150	6,523	6,246	6,155
Middle Atlantic	3,580	612	41	1,547	2,808	636	80	1,990	2,850	648	90	1,989	5,780	5,515	5,578
E. N. Central	3,693	660	75	1,745	3,007	687	114	2,234	3,104	721	129	2,268	6,174	6,041	6,222
W. N. Central	3,375	653	95	1,960	3,119	659	141	2,414	3,224	688	155	2,462	6,083	6,332	6,529
South Atlantic	1,676	156	8	657	1,454	201	13	975	1,443	208	16	981	2,498	2,643	2,648
E. S. Central	2,147	184	14	886	1,860	258	18	1,293	1,846	263	22	1,312	3,231	3,429	3,443
W. S. Central	1,397	69	2	613	1,266	98	4	776	1,200	101	5	748	2,081	2,144	2,054
Mountain	1,901	704	122	1,863	2,191	658	132	1,805	2,248	677	134	1,850	4,590	4,786	4,909
Pacific	1,085	526	77	1,162	1,271	462	83	1,113	1,497	534	87	1,265	2,850	2,929	3,383
U.S. Average	2,343	443	49	1,247	2,063	453	69	1,516	2,121	477	76	1,550	4,082	4,101	4,223
Heating Degree Days, Prior 10-year Average															
New England	3,166	838	134	2,147	3,212	824	132	2,104	3,226	822	127	2,133	6,285	6,273	6,309
Middle Atlantic	2,935	666	90	1,976	2,982	651	90	1,927	2,996	649	85	1,950	5,667	5,650	5,680
E. N. Central	3,192	694	123	2,262	3,247	689	125	2,206	3,268	694	121	2,217	6,272	6,267	6,301
W. N. Central	3,273	691	150	2,433	3,298	693	150	2,392	3,325	707	146	2,407	6,546	6,533	6,584
South Atlantic	1,481	196	14	1,013	1,502	185	14	975	1,512	188	13	980	2,704	2,676	2,693
E. S. Central	1,853	236	19	1,358	1,898	225	19	1,308	1,916	233	17	1,306	3,466	3,451	3,472
W. S. Central	1,188	86	5	834	1,221	83	5	814	1,248	90	4	814	2,113	2,123	2,157
Mountain	2,258	730	150	1,873	2,231	724	147	1,879	2,227	731	139	1,871	5,011	4,980	4,968
Pacific	1,534	621	92	1,205	1,495	610	88	1,208	1,458	596	87	1,196	3,453	3,400	3,337
U.S. Average	2,182	493	77	1,567	2,199	483	76	1,534	2,204	484	73	1,538	4,319	4,293	4,299
Cooling Degree Days															
New England	0	72	489	0	0	96	429	0	0	99	444	0	561	525	543
Middle Atlantic	0	185	612	1	0	177	578	6	0	176	576	5	798	761	758
E. N. Central	0	221	499	7	0	231	574	9	0	221	553	8	727	814	782
W. N. Central	3	266	659	13	3	283	711	12	3	275	688	11	941	1,008	977
South Atlantic	136	762	1,157	320	114	630	1,160	233	114	632	1,167	234	2,375	2,137	2,147
E. S. Central	23	578	1,018	89	27	506	1,072	72	27	508	1,070	69	1,708	1,678	1,673
W. S. Central	51	858	1,572	272	69	819	1,498	212	72	863	1,609	227	2,754	2,599	2,770
Mountain	45	432	923	86	19	442	971	88	19	439	973	88	1,487	1,521	1,520
Pacific	52	229	687	123	31	204	586	75	32	211	613	77	1,091	897	933
U.S. Average	46	434	876	130	39	399	866	98	40	404	882	100	1,486	1,402	1,426
Cooling Degree Days, Prior 10-year Average															
New England	0	85	420	1	0	81	420	1	0	82	422	1	506	502	506
Middle Atlantic	0	168	557	5	0	168	548	5	0	172	550	6	731	721	728
E. N. Central	3	234	545	6	3	229	528	6	3	234	530	7	787	765	773
W. N. Central	7	282	683	9	7	279	674	9	7	277	672	10	981	969	966
South Atlantic	110	635	1,154	210	113	659	1,144	220	114	662	1,145	223	2,108	2,136	2,144
E. S. Central	33	526	1,053	52	32	541	1,038	55	31	541	1,038	59	1,664	1,667	1,670
W. S. Central	94	883	1,519	184	90	890	1,518	192	84	875	1,518	194	2,679	2,690	2,671
Mountain	17	424	930	75	21	429	931	76	22	423	940	78	1,445	1,457	1,462
Pacific	26	170	602	65	29	180	613	72	30	178	609	74	863	894	892
U.S. Average	40	396	849	83	42	404	845	88	41	404	847	90	1,369	1,378	1,383

- = no data available

Notes: Regional degree days for each period are calculated by EIA as contemporaneous period population-weighted averages of state degree day data published by the National Oceanic and Atmospheric Administration (NOAA).

 See *Change in Regional and U.S. Degree-Day Calculations* (http://www.eia.gov/forecasts/steo/special/pdf/2012_sp_04.pdf) for more information.

The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

 Regions refer to U.S. Census divisions. See "Census division" in EIA's Energy Glossary (<http://www.eia.gov/tools/glossary/>) for a list of states in each region.

Historical data: Latest data available from U.S. Department of Commerce, National Oceanic and Atmospheric Association (NOAA).

Projections: Based on forecasts by the NOAA Climate Prediction Center (<http://www.cpc.ncep.noaa.gov/pacdir/DDdir/NHOME3.shtml>).


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Capacity Market (RPM)

PJM's capacity market, called the Reliability Pricing Model, ensures long-term grid reliability by securing the appropriate amount of power supply resources needed to meet predicted energy demand in the future. Learn more about the capacity market at the [Learning Center](#).

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Delivery Years

[2019/2020](#)
[2018/2019](#)

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Resources Designated in Fixed Resource Request Capacity Plans PDF	11.17.2015
Base Residual Auction: Report PDF Results XLS	8.28.2015
Pricing Points XLS	8.27.2015
Planning Period Parameters for Base Residual Auction XLS	8.27.2015
eRPM Instructions for Participation in the 2018/2019 Base Residual Auction PDF	7.29.2015
Net CONE for Capacity Performance Market Seller Offer Caps XLS	7.22.2015
2018-19 Base Residual Auction Capacity Performance Pre-Auction Credit Calculator XLS	7.17.2015
Resource Model XLS	3.19.2015
Minimum Offer Price Rule Floor Offer Prices - Final XLS	3.13.2015
Minimum Offer Price Rule Exemption Requests PDF	3.12.2015
Planning Period Parameters for Base Residual Auction PDF	2.6.2015
Participation of Planned Resources in Base Residual Auction Communication PDF	1.28.2015
Joint PJM/IMM Clarification of 1.11.2015 Deadline for Submission of Capacity Performance Information PDF	1.8.2015

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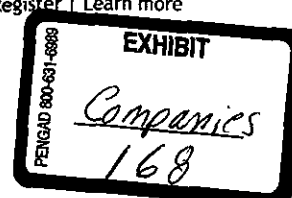
Auctions

Incremental Auction FAQ PDF	12.11.2014
Base Residual Auction FAQ PDF	12.5.2014
Base Residual Auction Optimization Formulation PDF	12.12.2007

Capacity Performance

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June 2015 Parameter Limitations PDF	6.12.2015
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2016/2017	
2015/2016	
2014/2015	
2013/2014	
2012/2013	
2011/2012	
2010/2011	
2009/2010	
2008/2009	
2007/2008	

	Date
Resource Clearing Prices Auctions Summary 2007/08 - 2018/19 XLS	11.4.2015
Pricing Point Definitions PDF	10.26.2015
Commitments by Fuel Type & Delivery Year 2007/08 - 2018/19 XLS	8.28.2015
Base Residual Auction vs Incremental Auction (IA) Prices & IA Buy-Back 2008/09-2015/16 XLS	3.10.2014
Annual Penalties by Delivery Year 2007/08 - 2010/11 XLS	9.22.2011

Demand Resources & Energy Efficiency

Demand Resources

	Date
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Operational Resource Flexibility Transition Provision PDF	12.17.2015

Generation Resources

	Date
Preliminary Requests for Exemption to Must-Offer Requirement Based on Proposed Deactivation 2017/18 & 2019/20 XLS	12.7.2015
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Peak Hour Period Availability Charge/Credit FAQ PDF	12.11.2014
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External Resource Must-Offer Agreement for Capacity Import Limits Exception PDF	4.29.2014
Reimbursement Agreement for Pseudo-Ties PDF	4.29.2014
Dynamic Transfers	

Manuals & Notices

	Date
M-18: PJM Capacity Market Current Redline PDF All sections	
M-18B: Energy Efficiency Measurement & Verification Current Redline PDF All sections	
Capital Recovery Factors (CRF) Clarification PDF	4.15.2011
RPM Planned Resource Milestone Certification Forms for Credit Reduction: Officer Certification of Financial Close for Balance Sheet Financed Resources DOC Independent Engineer Certification of Milestone DOC	

External Reports

	Date
Brattle Reports	
Variable Resource Requirement Curve PDF	5.15.2014
Cost of New Entry Estimates (CONE) for Combustion Turbine & Combined Cycle Plants PDF	5.15.2014
Brattle/MISO Capacity Market Seam Report - Initial PJM Comments PDF	12.15.2011
Second Performance Assessment of PJM's Reliability Pricing Model PDF	8.29.2011
Cost of New Entry Estimates (CONE) for Combustion Turbine & Combined Cycle Plants PDF	8.26.2011

Duke Integration

	Date
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Demand Resources & Energy Efficiency

	Date
Zones of Concern [PDF]	11.30.2015
Sell Offer Plan Officer Certification Form [DOC]	3.28.2013
Subzonal Load Delivery Areas (LDA) by Zip Code [XLS]	12.12.2012
Sell Offer Plan Templates	
Instructions for Demand Response Sell Offer Plans for Capacity Performance Transition Auctions [PDF]	8.3.2015
Capacity Performance Transition Auction: 2017/2018 2016/2017 [XLS]	8.3.2015
2018/19 Delivery Year [XLS]	1.27.2015
2017/18 Delivery Year [XLS]	2.20.2014
2016/17 Delivery Year [XLS]	6.17.2015
2015/16 Delivery Year [XLS]	6.19.2014
2014/15 Delivery Year [XLS]	1.14.2014

Energy Efficiency

Sell Offer Plans for Capacity Performance Transition Incremental Auctions [PDF]	8.5.2015
Sell Offer Plan Template for Capacity Performance Transition Auction: 2016-2017 2017-2018 [XLS]	8.5.2015
Nominated Energy Efficiency Value Template [XLS]	4.4.2013
Post-Installation Measurement & Verification Report Template [PDF]	4.4.2012
Energy Efficiency FAQ [PDF]	3.30.2011
Estimation of Precision for Resource for Aggregated Energy Efficiency Installations Example [XLS]	3.30.2011
Initial Measurement & Verification Plan Template [PDF]	3.25.2011

ATSI Integration

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Instructions for Load Serving Entities for 2011/12 & 2012/13 [PDF]	1.29.2010
Capacity Payment Agreement for Load Serving Entities [PDF]	1.15.2010
Demand Resources Participation in Fixed Resource Requirement Integration Auctions [PDF]	1.15.2010
Opt-Out Agreement for Load Serving Entities 2011/12 [PDF]	1.15.2010

Fixed Resource Requests

Duke Integration

	Date
Submitting Opt-Out Resource Plans Instructions 2011/12-2014/15 [PDF]	3.24.2011
Load Serving Entities Instructions 2011/12-2013/14 [PDF]	3.10.2011
Fixed Resource Request (FRR) Plan Load Settlements Approach Summary [PDF]	2.24.2011
Demand Response Integration Business Rules for Partial Delivery Year 2011/12 (Jan-May 2012) [PDF]	2.11.2011

Capacity Payment Agreements

2014/15 [PDF]	3.23.2011
2013/14 [PDF]	3.23.2011
2012/13 [PDF]	3.23.2011
2011/12 [PDF]	3.23.2011

ATSI Integration

	Date
Integration Auction FAQ (PDF)	2.3.2011
Plan Load Settlements Approach Summary (PDF)	12.8.2010
Integration Auction Rules (PDF)	3.11.2010
Capacity Purchase & Sale Agreement: 2011/12 2012/13 (PDF)	3.11.2010

Scenario #	Scenario Description	Auction Results	RTO	MAAC	EMAAC	SWMAAC	PSEG	PS-NORTH	DPL-SOUTH	PEPCO	ATSI	ATSI-C	COMED	BGE	PPL
Base	Actual 2018/2019 results	CP RCP	\$164.77	\$164.77	\$225.42	\$164.77	\$225.42	\$225.42	\$225.42	\$164.77	\$164.77	\$164.77	\$215.00	\$164.77	\$164.77
		Base Capacity Gen RCP	\$149.98	\$149.98	\$210.63	\$149.98	\$210.63	\$210.63	\$210.63	\$149.98	\$149.98	\$149.98	\$200.21	\$149.98	\$149.98
		Base DR/EE RCP	\$149.98	\$149.98	\$210.63	\$149.98	\$210.63	\$210.63	\$210.63	\$149.98	\$149.98	\$149.98	\$200.21	\$149.98	\$149.98
		Cleared CP Generation MW	138,228.9	52,669.8	22,766.6	9,162.5	4,793.1	3,003.6	1,261.3	4,786.2	8,505.1	1,984.9	19,807.8	1,971.2	8,122.0
		Cleared BC Generation MW	16,277.1	8,856.8	6,573.5	672.8	111.4	30.0	345.4	103.0	790.7	0.0	891.5	569.8	663.7
		Cleared CP DR MW	1,484.2	554.6	152.4	106.9	15.7	3.5	9.0	33.8	68.1	17.6	221.0	73.1	233.5
		Cleared BC DR MW	9,600.2	3,731.4	1,522.2	1,076.2	366.5	129.1	77.8	489.3	808.9	250.0	1,655.7	586.9	482.7
		Cleared CP EE MW	887.3	244.6	51.6	151.1	12.4	0.9	0.0	55.7	10.3	0.0	535.6	95.4	24.9
		Cleared BC EE MW	359.2	14.0	2.7	11.2	1.7	0.9	0.0	10.7	28.5	5.6	208.8	0.5	0.1
		Total Cleared MW	166,836.9	66,071.2	31,069.0	11,180.7	5,300.8	3,168.0	1,693.5	5,478.7	10,171.6	2,258.1	23,320.4	3,296.9	9,526.9
1	Unconstrained Simulation - Remove LDA import limits	CP RCP	\$185.07	\$185.07	\$185.07	\$185.07	\$185.07	\$185.07	\$185.07	\$185.07	\$185.07	\$185.07	\$185.07	\$185.07	\$185.07
		Base Capacity Gen RCP	\$164.37	\$164.37	\$164.37	\$164.37	\$164.37	\$164.37	\$164.37	\$164.37	\$164.37	\$164.37	\$164.37	\$164.37	\$164.37
		Base DR/EE RCP	\$164.37	\$164.37	\$164.37	\$164.37	\$164.37	\$164.37	\$164.37	\$164.37	\$164.37	\$164.37	\$164.37	\$164.37	\$164.37
		Cleared CP Generation MW	137,473.5	51,760.7	21,279.5	9,435.1	4,324.2	2,671.2	1,281.0	4,786.2	8,793.2	2,100.8	19,489.0	2,243.8	8,258.7
		Cleared BC Generation MW	16,286.9	8,917.1	6,533.0	672.8	111.4	30.0	304.9	103.0	790.7	0.0	901.8	569.8	663.7
		Cleared CP DR MW	1,502.3	572.7	150.9	113.3	14.7	2.5	8.7	39.4	68.1	17.6	221.0	73.9	246.7
		Cleared BC DR MW	9,590.5	3,737.4	1,523.3	1,076.2	360.9	129.9	79.2	489.3	804.2	246.1	1,653.4	586.9	482.7
		Cleared CP EE MW	887.3	244.6	51.6	151.1	12.4	0.9	0.0	55.7	10.3	0.0	535.6	95.4	24.9
		Cleared BC EE MW	359.1	13.9	2.6	11.2	1.6	0.9	0.0	10.7	28.5	5.6	208.8	0.5	0.1
		Total Cleared MW	166,099.6	65,246.4	29,540.9	11,459.7	4,825.2	2,835.4	1,673.8	5,484.3	10,455.0	2,370.1	23,009.6	3,570.3	9,676.8
2	Remove 3000 MW of CP supply from bottom of supply curve in region outside of MAAC (1806 MW in rest of RTO, 760 MW in ComEd, 285 MW in rest of ATSI, 149 MW in ATSI-Cleveland)	CP RCP	\$188.26	\$188.26	\$225.36	\$188.26	\$225.36	\$225.36	\$225.36	\$188.26	\$188.26	\$188.26	\$220.00	\$188.26	\$188.26
		Base Capacity Gen RCP	\$176.90	\$176.90	\$214.00	\$176.90	\$214.00	\$214.00	\$214.00	\$176.90	\$176.90	\$176.90	\$208.64	\$176.90	\$176.90
		Base DR/EE RCP	\$176.90	\$176.90	\$214.00	\$176.90	\$214.00	\$214.00	\$214.00	\$176.90	\$176.90	\$176.90	\$208.64	\$176.90	\$176.90
		Cleared CP Generation MW	137,363.3	53,534.4	22,766.6	9,628.5	4,793.1	3,003.6	1,261.3	4,786.2	8,359.2	1,951.8	19,768.1	2,437.2	8,258.7
		Cleared BC Generation MW	16,224.6	8,909.7	6,573.5	672.8	111.4	30.0	345.4	103.0	790.7	0.0	901.8	569.8	663.7
		Cleared CP DR MW	1,496.3	574.3	152.3	114.0	15.7	3.5	8.7	39.4	68.1	17.6	221.0	74.6	247.8
		Cleared BC DR MW	9,652.7	3,741.6	1,522.6	1,076.2	366.6	129.2	78.0	489.3	816.2	252.2	1,655.6	586.9	482.7
		Cleared CP EE MW	887.3	244.6	51.6	151.1	12.4	0.9	0.0	55.7	10.3	0.0	535.6	95.4	24.9
		Cleared BC EE MW	359.2	14.0	2.7	11.2	1.7	0.9	0.0	10.7	28.5	5.6	208.8	0.5	0.1
		Total Cleared MW	165,983.4	67,018.6	31,069.3	11,653.8	5,300.9	3,168.1	1,693.4	5,484.3	10,033.0	2,227.2	23,290.9	3,764.4	9,677.9
3	Add 3000 MW of CP supply to bottom of supply curve in region outside of MAAC (1806 MW in rest of RTO, 760 MW in ComEd, 285 MW in rest of ATSI, 149 MW in ATSI-Cleveland)	CP RCP	\$148.50	\$149.27	\$225.36	\$149.27	\$225.36	\$225.36	\$225.36	\$149.27	\$148.50	\$148.50	\$174.42	\$149.27	\$149.27
		Base Capacity Gen RCP	\$127.50	\$128.27	\$204.36	\$128.27	\$204.36	\$204.36	\$204.36	\$128.27	\$127.50	\$127.50	\$153.42	\$128.27	\$128.27
		Base DR/EE RCP	\$127.50	\$128.27	\$204.36	\$128.27	\$204.36	\$204.36	\$204.36	\$128.27	\$127.50	\$127.50	\$153.42	\$128.27	\$128.27
		Cleared CP Generation MW	138,902.2	51,349.6	22,766.6	9,162.5	4,793.1	3,003.6	1,261.3	4,786.2	8,788.1	2,097.7	20,073.8	1,971.2	7,238.0
		Cleared BC Generation MW	16,303.1	8,861.6	6,573.5	672.8	111.4	30.0	345.4	103.0	790.7	0.0	884.0	473.8	663.7
		Cleared CP DR MW	1,401.9	472.3	152.3	106.9	15.7	3.5	8.7	39.4	68.1	17.6	221.0	29.4	201.3
		Cleared BC DR MW	9,574.2	3,731.8	1,522.6	1,076.2	366.6	129.2	78.0	489.3	803.5	250.0	1,635.3	586.9	482.7
		Cleared CP EE MW	887.3	244.6	51.6	151.1	12.4	0.9	0.0	55.7	10.3	0.0	535.6	95.4	24.9
		Cleared BC EE MW	359.2	14.0	2.7	11.2	1.7	0.9	0.0	10.7	28.5	5.6	208.8	0.5	0.1
		Total Cleared MW	167,427.9	64,673.9	31,069.3	11,034.7	5,300.9	3,168.1	1,693.4	5,472.4	10,449.2	2,370.9	23,558.5	3,157.2	8,610.7
4	Remove 6000 MW of CP supply from bottom of supply curve in region outside of MAAC (3612 MW in rest of RTO, 1520 MW in ComEd, 570 MW in rest of ATSI, 298 MW in ATSI-Cleveland)	CP RCP	\$205.28	\$205.28	\$225.36	\$205.28	\$225.36	\$225.36	\$225.36	\$205.28	\$205.28	\$205.28	\$224.85	\$205.28	\$205.28
		Base Capacity Gen RCP	\$193.92	\$193.92	\$214.00	\$193.92	\$214.00	\$214.00	\$214.00	\$193.92	\$193.92	\$193.92	\$213.49	\$193.92	\$193.92
		Base DR/EE RCP	\$193.92	\$193.92	\$214.00	\$193.92	\$214.00	\$214.00	\$214.00	\$193.92	\$193.92	\$193.92	\$213.49	\$193.92	\$193.92
		Cleared CP Generation MW	136,711.7	54,567.7	22,766.6	9,996.1	4,793.1	3,003.6	1,261.3	5,153.8	8,210.7	1,899.3	19,757.4	2,437.2	8,916.8
		Cleared BC Generation MW	16,158.3	8,896.2	6,573.5	701.9	111.4	30.0	345.4	103.0	750.7	0.0	884.0	598.9	628.7
		Cleared CP DR MW	1,518.4	587.4	152.3	126.9	15.7	3.5	8.7	48.7	68.6	18.1	221.0	78.2	247.8
		Cleared BC DR MW	9,719.0	3,783.5	1,522.4	1,076.2	366.6	129.2	78.0	489.3	823.0	254.0	1,655.6	586.9	517.7
		Cleared CP EE MW	898.1	244.6	51.6	151.1	12.4	0.9	0.0	55.7	10.3	0.0	535.6	95.4	24.9
		Cleared BC EE MW	359.2	14.0	2.7	11.2	1.7	0.9	0.0	10.7	28.5	5.6	208.8	0.5	0.1
		Total Cleared MW	165,364.7	68,093.4	31,069.3	12,063.4	5,300.9	3,168.1	1,693.4	5,861.2	9,891.8	2,177.0	23,262.4	3,797.1	10,336.0

EXHIBIT

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169

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Scenario #	Scenario Description	Auction Results	RTO	MAAC	EMAAC	SWMAAC	PSEG	PS-NORTH	PPL-SOUTH	PEPCO	ATSI	ATSI-C	COMED	BGE	PPL
5	Add 6000 MW of CP supply to bottom of supply curve in region outside of MAAC (3612 MW in rest of RTO, 1520 MW in ComEd, 570 MW in rest of ATSI, 298 MW in ATSI-Cleveland)	CP RCP	\$120.51	\$149.19	\$225.38	\$149.19	\$225.38	\$225.38	\$225.38	\$149.19	\$120.51	\$120.51	\$160.00	\$149.19	\$149.19
		Base Capacity Gen RCP	\$100.00	\$128.68	\$204.88	\$128.68	\$204.88	\$204.88	\$204.88	\$128.68	\$100.00	\$100.00	\$139.49	\$128.68	\$70.95
		Base DR/EE RCP	\$100.00	\$128.68	\$204.88	\$49.95	\$204.88	\$204.88	\$204.88	\$41.09	\$100.00	\$100.00	\$139.49	\$49.95	\$70.95
		Cleared CP Generation MW	139,997.2	51,158.0	22,667.9	9,162.5	4,793.1	3,003.6	1,261.3	4,786.2	9,137.5	2,246.7	20,179.6	1,971.2	7,238.0
		Cleared BC Generation MW	16,567.2	9,056.3	6,672.2	57.9	11.4	30.0	345.4	103.0	750.7	0.0	884.0	476.9	663.7
		Cleared CP DR MW	1,383.8	470.3	151.9	53.3	15.7	3.5	8.7	27.5	66.7	16.2	221.0	27.8	201.3
		Cleared BC DR MW	9,310.0	3,732.1	1,522.9	1,076.2	366.6	129.2	78.0	489.3	768.4	266.8	1,614.8	586.9	482.7
		Cleared CP EE MW	887.3	244.6	51.6	151.1	12.4	0.9	0.0	55.7	10.3	0.0	535.6	95.4	24.9
		Cleared BC EE MW	359.2	14.0	2.7	11.2	1.7	0.9	0.0	10.7	28.5	5.6	208.8	0.5	0.1
		Total Cleared MW	168,444.7	64,675.3	31,069.2	11,036.2	5,300.9	3,128.1	1,693.4	5,472.4	10,762.1	2,505.3	23,643.8	3,158.7	8,610.7
6	Remove 3000 MW of CP supply from bottom of supply curve in MAAC (300 MW in rest of MAAC, 1001 MW in rest of EMAAC, 264 MW in rest of PS, 252 MW in PS-North, 122 MW in DPL-South, 331 MW in PEPCO, 359 MW in BGE, 371 MW in PPL)	CP RCP	\$179.33	\$179.33	\$239.02	\$179.33	\$239.02	\$239.02	\$239.02	\$179.33	\$179.33	\$179.33	\$215.00	\$179.33	\$179.33
		Base Capacity Gen RCP	\$155.31	\$155.31	\$215.00	\$155.31	\$215.00	\$215.00	\$215.00	\$155.31	\$155.31	\$155.31	\$190.98	\$155.31	\$90.37
		Base DR/EE RCP	\$155.31	\$155.31	\$215.00	\$59.95	\$215.00	\$215.00	\$215.00	\$41.09	\$155.31	\$155.31	\$190.98	\$59.95	\$90.37
		Cleared CP Generation MW	137,677.6	51,604.5	22,319.0	8,615.7	4,434.8	2,765.3	1,139.3	4,455.2	8,717.7	2,082.7	19,822.9	1,755.4	7,887.7
		Cleared BC Generation MW	16,237.2	9,044.5	6,955.1	672.8	493.0	30.0	345.4	103.0	750.7	0.0	876.5	569.8	663.7
		Cleared CP DR MW	1,506.1	574.8	153.0	113.3	15.7	3.5	8.7	39.4	68.1	17.6	221.0	73.9	246.7
		Cleared BC DR MW	9,640.1	3,738.7	1,521.9	1,076.2	366.6	129.2	78.0	489.3	816.2	252.2	1,655.6	586.9	482.7
		Cleared CP EE MW	887.3	244.6	51.6	151.1	12.4	0.9	0.0	55.7	10.3	0.0	535.6	95.4	24.9
		Cleared BC EE MW	359.2	14.0	2.7	11.2	1.7	0.9	0.0	10.7	28.5	5.6	208.8	0.5	0.1
		Total Cleared MW	166,307.5	65,221.1	31,003.3	10,640.3	5,324.2	2,929.8	1,571.4	5,153.3	10,391.5	2,358.1	23,320.4	3,081.9	9,305.8
7	Add 3000 MW of CP supply to bottom of supply curve in MAAC (300 MW in rest of MAAC, 1001 MW in rest of EMAAC, 264 MW in rest of PS, 252 MW in PS-North, 122 MW in DPL-South, 331 MW in PEPCO, 359 MW in BGE, 371 MW in PPL)	CP RCP	\$150.00	\$150.00	\$185.34	\$150.00	\$185.34	\$185.34	\$185.34	\$150.00	\$150.00	\$150.00	\$215.00	\$150.00	\$150.00
		Base Capacity Gen RCP	\$130.00	\$130.00	\$165.34	\$130.00	\$165.34	\$165.34	\$165.34	\$130.00	\$130.00	\$130.00	\$195.00	\$130.00	\$70.95
		Base DR/EE RCP	\$130.00	\$130.00	\$165.34	\$49.95	\$165.34	\$165.34	\$165.34	\$41.09	\$130.00	\$130.00	\$195.00	\$49.95	\$70.95
		Cleared CP Generation MW	138,830.7	53,625.6	23,065.8	9,852.5	4,931.6	2,949.9	1,316.8	5,117.2	8,402.9	1,960.5	19,739.5	2,330.2	8,043.8
		Cleared BC Generation MW	16,327.8	8,805.4	6,619.2	579.9	111.4	30.0	391.1	103.0	750.7	0.0	959.9	476.9	663.7
		Cleared CP DR MW	1,418.9	489.3	169.3	56.9	14.7	2.5	27.1	27.5	68.1	17.6	221.0	29.4	201.3
		Cleared BC DR MW	9,549.6	3,686.9	1,477.7	1,076.2	357.7	129.4	46.5	489.3	803.5	250.0	1,655.6	586.9	482.7
		Cleared CP EE MW	887.3	244.6	51.6	151.1	12.4	0.9	0.0	55.7	10.3	0.0	535.6	95.4	24.9
		Cleared BC EE MW	359.1	13.9	2.6	11.2	1.6	0.9	0.0	10.7	28.5	5.6	208.8	0.5	0.1
		Total Cleared MW	167,373.4	66,865.7	31,386.2	11,777.8	5,429.4	3,113.6	1,781.5	5,803.4	10,064.0	2,233.7	23,320.4	3,519.3	9,416.5
8	Remove 6000 MW of CP supply from bottom of supply curve in MAAC (600 MW in rest of MAAC, 2002 MW in rest of EMAAC, 528 MW in rest of PS, 504 MW in PS-North, 244 MW in DPL-South, 662 MW in PEPCO, 718 MW in BGE, 742 MW in PPL)	CP RCP	\$196.77	\$196.77	\$412.39	\$196.77	\$412.39	\$412.39	\$412.39	\$196.77	\$196.77	\$196.77	\$215.00	\$196.77	\$196.77
		Base Capacity Gen RCP	\$166.04	\$166.04	\$381.66	\$166.04	\$381.66	\$381.66	\$381.66	\$166.04	\$166.04	\$166.04	\$184.27	\$166.04	\$90.37
		Base DR/EE RCP	\$166.04	\$166.04	\$381.66	\$68.00	\$381.66	\$381.66	\$381.66	\$41.09	\$166.04	\$166.04	\$184.27	\$68.00	\$90.37
		Cleared CP Generation MW	137,043.6	50,434.6	21,502.4	8,616.1	4,437.3	2,572.4	1,017.3	4,491.8	8,883.4	2,118.3	19,822.9	1,719.2	7,884.1
		Cleared BC Generation MW	16,227.7	9,033.9	6,899.5	672.8	653.3	30.0	345.4	103.0	750.7	0.0	876.5	569.8	663.7
		Cleared CP DR MW	1,511.6	581.3	152.8	120.5	15.7	3.5	8.7	45.9	68.6	18.1	221.0	74.6	247.8
		Cleared BC DR MW	9,644.3	3,741.2	1,522.2	1,076.2	366.6	129.2	78.0	489.3	815.9	251.9	1,655.6	586.9	482.7
		Cleared CP EE MW	882.5	239.8	46.8	151.1	12.4	0.9	0.0	55.7	10.3	0.0	535.6	95.4	24.9
		Cleared BC EE MW	364.5	19.3	8.0	11.2	1.9	1.1	0.0	10.7	28.5	5.6	208.8	0.5	0.1
		Total Cleared MW	165,674.2	64,050.1	30,131.7	10,647.9	5,499.2	2,737.1	1,449.4	5,196.4	10,557.4	2,393.9	23,320.4	3,046.4	9,253.3
9	Add 6000 MW of CP supply to bottom of supply curve in MAAC (600 MW in rest of MAAC, 2002 MW in rest of EMAAC, 528 MW in rest of PS, 504 MW in PS-North, 244 MW in DPL-South, 662 MW in PEPCO, 718 MW in BGE, 742 MW in PPL)	CP RCP	\$143.22	\$143.22	\$168.74	\$143.22	\$168.74	\$168.74	\$168.74	\$143.22	\$143.22	\$143.22	\$215.00	\$143.22	\$143.22
		Base Capacity Gen RCP	\$123.21	\$123.21	\$148.73	\$123.21	\$148.73	\$148.73	\$148.73	\$123.21	\$123.21	\$123.21	\$194.99	\$123.21	\$64.73
		Base DR/EE RCP	\$123.21	\$123.21	\$148.73	\$49.95	\$148.73	\$148.73	\$148.73	\$41.09	\$123.21	\$123.21	\$194.99	\$49.95	\$64.73
		Cleared CP Generation MW	139,190.9	54,368.2	23,231.2	10,459.6	4,544.7	2,961.3	1,425.1	5,379.4	8,354.1	1,968.7	19,775.1	2,675.1	7,980.0
		Cleared BC Generation MW	16,299.1	8,746.0	6,619.2	567.1	111.4	30.0	391.1	103.0	750.7	0.0	924.3	464.1	617.1
		Cleared CP DR MW	1,305.4	375.8	169.3	37.2	14.7	2.5	27.1	27.5	68.1	17.6	221.0	9.7	107.5
		Cleared BC DR MW	9,578.5	3,771.0	1,465.2	1,076.2	351.2	128.3	46.5	489.3	803.5	250.0	1,655.6	586.9	529.3
		Cleared CP EE MW	887.3	244.6	51.6	151.1	12.4	0.9	0.0	55.7	10.3	0.0	535.6	95.4	24.9
		Cleared BC EE MW	358.9	13.7	2.4	11.2	1.4	0.7	0.0	10.7	28.5	5.6	208.8	0.5	0.1
		Total Cleared MW	167,620.1	67,469.3	31,538.9	12,302.4	5,035.8	3,123.7	1,889.8	6,065.6	10,015.2	2,221.9	23,320.4	3,831.7	9,258.9

Scenario #	Scenario Description	Auction Results	RTO	MAAC	EMAAC	SWMAAC	PSEG	PS-NORTH	PL-SOUTH	PEPCO	ATSI	ATSI-C	COMED	BGE	PPL
10	Use VRR curve shape and Net CONE values of the 2017/2018 BRA	CP RCP	\$159.78	\$159.78	\$224.77	\$159.78	\$224.77	\$224.77	\$224.77	\$159.78	\$159.78	\$159.78	\$216.32	\$159.78	\$159.78
		Base Capacity Gen RCP	\$137.00	\$137.00	\$201.99	\$137.00	\$201.99	\$201.99	\$201.99	\$137.00	\$137.00	\$137.00	\$193.54	\$137.00	\$75.00
		Base DR/EE RCP	\$137.00	\$137.00	\$201.99	\$59.95	\$201.99	\$201.99	\$201.99	\$41.09	\$137.00	\$137.00	\$193.54	\$59.95	\$75.00
		Cleared CP Generation MW	137,361.3	51,895.1	22,692.4	9,162.5	4,917.0	3,003.6	1,261.3	4,786.2	8,505.1	1,984.9	19,790.8	1,971.2	7,672.8
		Cleared BC Generation MW	16,627.1	9,155.7	6,771.6	672.8	111.4	30.0	345.4	103.0	750.7	0.0	909.3	569.8	663.7
		Cleared CP DR MW	1,338.1	449.8	144.8	49.3	14.8	2.3	8.3	26.5	66.8	17.4	210.6	22.8	196.9
		Cleared BC DR MW	9,266.9	3,654.3	1,475.4	1,076.7	353.2	124.5	76.7	489.8	769.0	237.7	1,601.2	586.9	482.7
		Cleared CP EE MW	844.5	232.2	48.7	143.9	11.6	0.8	0.0	53.0	9.8	0.0	510.5	90.9	23.7
		Cleared BC EE MW	342.5	13.4	2.6	10.7	1.7	0.9	0.0	10.2	27.2	5.4	199.0	0.5	0.1
		Total Cleared MW	165,780.4	65,400.5	31,135.5	11,115.9	5,409.7	3,162.1	1,691.7	5,468.7	10,128.6	2,245.4	23,221.4	3,242.1	9,039.9
11	Use VRR curve shape of the 2017/2018 BRA	CP RCP	\$152.98	\$152.98	\$212.79	\$152.98	\$212.79	\$212.79	\$212.79	\$152.98	\$152.98	\$152.98	\$205.00	\$152.98	\$152.98
		Base Capacity Gen RCP	\$128.27	\$128.27	\$188.08	\$49.95	\$188.08	\$188.08	\$188.08	\$41.09	\$128.27	\$128.27	\$180.29	\$128.27	\$70.00
		Base DR/EE RCP	\$128.27	\$128.27	\$188.08	\$49.95	\$188.08	\$188.08	\$188.08	\$41.09	\$128.27	\$128.27	\$180.29	\$49.95	\$70.00
		Cleared CP Generation MW	136,859.6	51,721.1	22,590.2	9,162.5	4,793.1	3,003.6	1,261.3	4,786.2	8,429.6	1,966.8	19,593.4	1,971.2	7,672.8
		Cleared BC Generation MW	16,241.9	8,864.6	6,573.5	579.8	111.4	30.0	345.4	103.0	750.7	0.0	909.3	476.8	663.7
		Cleared CP DR MW	1,420.1	488.0	154.8	56.9	16.7	3.5	9.0	27.5	70.1	18.3	221.0	29.4	214.5
		Cleared BC DR MW	9,635.4	3,750.8	1,541.6	1,076.2	365.5	129.9	80.2	489.3	801.5	249.3	1,680.0	586.9	482.7
		Cleared CP EE MW	887.3	244.6	51.6	151.1	12.4	0.9	0.0	55.7	10.3	0.0	535.6	95.4	24.9
		Cleared BC EE MW	359.2	14.0	2.7	11.2	1.7	0.9	0.0	10.7	28.5	5.6	208.8	0.5	0.1
		Total Cleared MW	165,403.5	65,083.1	30,914.4	11,037.7	5,300.8	3,168.8	1,695.9	5,472.4	10,090.7	2,240.0	23,148.1	3,160.2	9,058.7
12	Remove Base DR/EE and Base Capacity constraints for all LDA's but maintain for overall RTO	CP RCP	\$160.00	\$160.00	\$220.94	\$160.00	\$220.94	\$220.94	\$220.94	\$160.00	\$160.00	\$160.00	\$213.97	\$160.00	\$160.00
		Base Capacity Gen RCP	\$137.00	\$137.00	\$197.94	\$137.00	\$197.94	\$197.94	\$197.94	\$137.00	\$137.00	\$137.00	\$190.97	\$137.00	\$137.00
		Base DR/EE RCP	\$137.00	\$137.00	\$197.94	\$137.00	\$197.94	\$197.94	\$197.94	\$137.00	\$137.00	\$137.00	\$190.97	\$137.00	\$137.00
		Cleared CP Generation MW	138,630.6	52,493.5	23,060.0	9,244.7	4,828.5	3,003.6	1,215.6	4,812.4	8,505.1	1,984.9	19,804.6	2,027.2	7,526.8
		Cleared BC Generation MW	15,531.2	8,724.8	6,280.0	590.5	76.0	30.0	391.1	76.7	750.7	0.0	876.5	513.8	1,101.4
		Cleared CP DR MW	1,255.4	314.7	157.8	8.9	17.7	4.5	9.0	2.4	70.1	18.3	223.0	6.5	80.5
		Cleared BC DR MW	10,307.9	4,428.7	1,538.6	1,463.4	364.5	128.9	80.2	662.6	804.7	249.3	1,678.0	800.8	782.1
		Cleared CP EE MW	887.3	244.6	51.6	151.1	12.4	0.9	0.0	55.7	10.3	0.0	535.6	95.4	24.9
		Cleared BC EE MW	397.4	52.2	2.7	49.4	1.7	0.9	0.0	10.7	28.5	5.6	208.8	38.7	0.1
		Total Cleared MW	167,009.8	66,258.5	31,090.7	11,508.0	5,300.8	3,168.8	1,695.9	5,620.5	10,169.4	2,258.1	23,326.5	3,482.4	9,515.8
13	100% CP requirements	CP RCP	\$236.67	\$236.67	\$427.23	\$236.67	\$427.23	\$427.23	\$427.23	\$236.67	\$236.67	\$236.67	\$250.00	\$236.67	\$236.67
		Base Capacity Gen RCP	\$236.67	\$236.67	\$427.23	\$236.67	\$427.23	\$427.23	\$427.23	\$236.67	\$236.67	\$236.67	\$250.00	\$236.67	\$236.67
		Base DR/EE RCP	\$236.67	\$236.67	\$427.23	\$236.67	\$427.23	\$427.23	\$427.23	\$236.67	\$236.67	\$236.67	\$250.00	\$236.67	\$236.67
		Cleared CP Generation MW	159,264.6	64,260.3	29,547.6	10,150.8	6,060.3	3,076.4	1,596.4	5,238.3	10,146.0	2,312.5	21,770.3	2,507.4	9,882.3
		Cleared BC Generation MW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Cleared CP DR MW	4,181.9	1,170.2	476.7	148.6	107.2	40.4	36.8	53.7	352.6	68.8	836.0	94.9	309.5
		Cleared BC DR MW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Cleared CP EE MW	972.1	244.6	51.6	151.1	12.4	0.9	0.0	55.7	10.3	0.0	535.6	95.4	24.9
		Cleared BC EE MW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Total Cleared MW	164,418.6	65,675.1	30,075.9	10,450.5	6,179.9	3,117.7	1,633.2	5,347.7	10,508.9	2,381.3	23,141.9	2,697.7	10,216.8

Notes:

(1) Incremental supply additions and removals have been allocated to LDAs based on LDA pro-rata share of the peak-load of the region to which supply is being added or removed.

(2) In scenarios 2 through 5, the rest of RTO area includes the AEP, APS, DAY, DECK, DUQ, DOM and EAPC zones; and the rest of ATSI area includes the ATSI zone outside of the ATSI-Cleveland LDA.

(3) In scenarios 6 through 9, the rest of MAAC area includes the Penelac and Meted zones; the rest of EMAAC area includes the AECO, JCP, PECO zones and the DPL zone outside of the DPL-South LDA; and the rest of PS area includes the PS zone outside of the PS-North LDA.

PJM Load Forecast Report January 2015



Prepared by PJM Resource Adequacy Planning Department

EXHIBIT
COMPARISONS

170

TABLE OF CONTENTS

	TABLE NUMBER	CHART PAGE	TABLE PAGE
EXECUTIVE SUMMARY			1
ECONOMIC FORECAST SUMMARY			4
FORECAST COMPARISON:			
Each Zone and PJM RTO – Comparison to Prior Summer Peak Forecasts	A-1		42
Each Zone and PJM RTO – Comparison to Prior Winter Peak Forecasts	A-2		44
PEAK LOAD FORECAST AND ANNUAL GROWTH RATES:			
Summer Peak Forecasts and Growth Rates of each Zone, Geographic Region and PJM RTO	B-1	14, 16-41	46
Winter Peak Forecasts and Growth Rates of each Zone, Geographic Region and PJM RTO	B-2	15, 16-41	50
Spring Peak Forecasts of each Zone, Geographic Region and PJM RTO	B-3		54
Fall Peak Forecasts of each Zone, Geographic Region and PJM RTO	B-4		56
Monthly Peak Forecasts of each Zone, Geographic Region and PJM RTO	B-5		58
Monthly Peak Forecasts of FE/GPU and PLGrp	B-6		60
Load Management Placed Under PJM Coordination by Zone, used in Planning	B-7		61
Energy Efficiency Programs used in Planning	B-8		65
Adjustments to Summer Peak Forecasts	B-9		69
Summer Coincident Peak Load Forecasts of each Zone, Locational Deliverability Area and PJM RTO (RPM Forecast)	B-10		70
Seasonal Unrestricted PJM Control Area Peak Forecasts of each NERC Region	B-11,B-12		71

	TABLE NUMBER	CHART PAGE	TABLE PAGE
LOCATIONAL DELIVERABILITY AREA SEASONAL PEAKS:			
Central Mid-Atlantic: BGE, MetEd, PEPCO, PL and UGI Seasonal Peaks	C-1		75
Western Mid-Atlantic: MetEd, PENLC, PL and UGI Seasonal Peaks	C-2		76
Eastern Mid-Atlantic: AE, DPL, JCPL, PECO, PS and RECO Seasonal Peaks	C-3		77
Southern Mid-Atlantic: BGE and PEPCO Seasonal Peaks	C-4		78
Mid-Atlantic and APS: AE, APS, BGE, DPL, JCPL, MetEd, PECO, PENLC, PEPCO, PS, RECO and UGI Seasonal Peaks	C-5		79
EXTREME WEATHER (90/10) PEAK LOAD FORECASTS:			
Summer 90/10 Peak Forecasts of each Zone, Geographic Region and PJM RTO	D-1		80
Winter 90/10 Peak Forecasts of each Zone, Geographic Region and PJM RTO	D-2		82
NET ENERGY FORECAST AND ANNUAL GROWTH RATES:			
Annual Net Energy Forecasts of each Zone, Geographic Region and PJM RTO	E-1		84
Monthly Net Energy Forecasts of each Zone, Geographic Region and PJM RTO	E-2		88
Monthly Net Energy Forecasts of FE/GPU and PLGrp	E-3		90
ALTERNATIVE NET ENERGY FORECAST:			
Annual Net Energy Forecasts of each Zone, Geographic Region and PJM RTO	E-1a		91
Monthly Net Energy Forecasts of each Zone, Geographic Region and PJM RTO	E-2a		95
Monthly Net Energy Forecasts of FE/GPU and PLGrp	E-3a		97

	TABLE NUMBER	CHART PAGE	TABLE PAGE
PJM HISTORICAL DATA:			
Historical RTO Summer and Winter Peaks	F-1		98
Historical RTO Net Energy	F-2		99
ECONOMIC GROWTH:			
Average Economic Growth of each Zone and RTO	G-1		100

TERMS AND ABBREVIATIONS USED IN THIS REPORT

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

2015 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 energy efficiency 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 2014. The models were simulated with weather data from years 1973 through 2013, generating 533 scenarios. The economic forecast used was Moody's Analytics' October 2014 release.
- The forecast of the EKPC zone used historic load values that were re-calculated to be consistent with load on that transmission system. This led to higher peak loads for both summer and winter forecasts.
- Table B-7 has been restructured to provide load management detail by Demand Resource product (Limited, Extended Summer, and Annual). The previous B-7 detail (Contractually Interruptible and Direct Control) has been added to Tables B-11 and B-12, as it is required to be reported by NERC region.
- The introduction of a binary variable into the load forecast model for years 2013 and 2014 resulted in generally lower peak and energy forecasts in this year's report, compared to the same year in last year's report. PJM introduced this change as a short-term solution as it pursues its announced intention to better reflect usage trends such as adoption of more energy efficient end uses and behind the meter generation which are not currently captured in the forecast model.
- The forecast of the DOM zone has been adjusted to account for substantial on-going growth in data center construction, which adds 150-730 MW to the summer peak beginning in 2016.
- Included in the report is a second set of E-Tables (net energy), representing an alternative derivation of the forecast. This version incorporates a new specification that takes into account energy usage trends (changing appliance mixes, energy efficiency, etc.) based on Energy Information Administration information obtained from Itron, Inc.

- The PJM RTO weather normalized summer peak for 2014 was 156,140 MW. The projection for the 2015 PJM RTO summer peak is 155,544 MW, a decrease of 596 MW, or 0.4%, from the 2014 normalized peak. The decrease is a result of the introduction of the new variable to the load forecast model mentioned above.
- Summer peak load growth for the PJM RTO is projected to average 1.0% per year over the next 10 years, and 0.9% over the next 15 years. The PJM RTO summer peak is forecasted to be 171,580 MW in 2025, a 10-year increase of 16,036 MW, and reaches 178,052 MW in 2030, a 15-year increase of 22,508 MW. Annualized 10-year growth rates for individual zones range from 0.4% to 1.7%.
- Winter peak load growth for PJM RTO is projected to average 0.9% per year over the next 10-year period, and 0.9% over the next 15-years. The PJM RTO winter peak load in 2024/25 is forecasted to be 142,561 MW, a 10-year increase of 12,850 MW, and reaches 147,981 MW in 2029/30, a 15-year increase of 18,270 MW. Annualized 10-year growth rates for individual zones range from 0.2% to 1.7%.
- Compared to the 2014 Load Report, the 2015 PJM RTO summer peak forecast shows the following changes for three years of interest:
 - The next delivery year – 2015 -4,716 MW (-2.9%)
 - The next RPM auction year – 2018 -4,351 MW (-2.6%)
 - The next RTEP study year – 2020 -4,152 MW (-2.5%)
- Assumptions for future Load Management (LM) have decreased from the 2014 Load Report (from approximately 12,400 MW to 11,100 MW). Energy Efficiency (EE) impacts have increased from approximately 900 MW to 1,200MW. Assumptions for both LM and EE are based on Reliability Pricing Model (RPM) auction results.

NOTE:

Unless noted otherwise, all peak and energy values are non-coincident, unrestricted peaks, which represent the peak load or net energy prior to reductions for load management or energy efficiency 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 2014	UNRESTRICTED 2014	NORMAL 2014	THIS YEAR 2015	RPM YEAR 2018	RTEP YEAR 2020
PJM RTO	141,395	141,402	156,140	155,544	161,128	164,443
Demand Resources + Energy Efficiency				-0.4%		
PJM RTO - Restricted				-15,763	-12,335	-12,335
				139,781	148,793	152,108
PJM MID-ATLANTIC	54,948	54,964	59,505	58,901	60,737	61,639
Demand Resources + Energy Efficiency				-1.0%		
MID-ATL - Restricted				-6,661	-4,460	-4,460
				52,240	56,277	57,179
EASTERN MID-ATLANTIC	30,083	30,083	32,660	32,194	33,191	33,701
Demand Resources + Energy Efficiency				-1.4%		
EMAAC - Restricted				-2,593	-1,555	-1,555
				29,601	31,636	32,146
SOUTHERN MID-ATLANTIC	12,963	12,963	13,920	13,721	14,046	14,259
Demand Resources + Energy Efficiency				-1.4%		
SWMAAC - Restricted				-2,062	-1,556	-1,556
				11,659	12,490	12,703

Note:

Normal 2014 and all forecast values are non-coincident as estimated by PJM staff.
Except as noted, all values reflect the membership of the PJM RTO as of June 1, 2014.

December 2014

Adam Ozimek, 610-235-5127

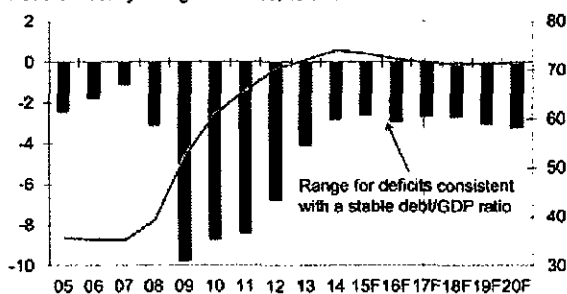
Summary of the November 2014 U.S. Macro Forecast

The U.S. economy heads into 2015 in better shape than in any of the first five years following the financial collapse. Real GDP growth has shifted into a higher gear recently; we are now in a 3% growth economy that will accelerate closer to 4% for a few quarters late next year. This is a meaningful improvement from the 2% world that has characterized the sluggish recovery, and the acceleration is mostly due to the public sector stepping out of the way. Fiscal drag—at both the federal and state and local levels—reduced GDP growth by nearly a full percentage point per annum during the 2009-2013 period. The 3% world would have been realized long ago if government had been even a neutral contributor.

It is impressive that the economy was as resilient as it was given the unprecedented cuts. Federal employment declined by 160,000 and state and local governments shed 700,000 jobs. Direct government job losses were just the beginning, as the private sector felt shock waves from government shutdown, sequestration, and a debt-ceiling crisis. But fiscal drag has dissipated and government spending may even add to growth in 2015. The federal deficit has been reined in significantly and is now at a sustainable 3% of nominal GDP, so deficit hawks in Congress are not likely to generate much support for additional cost-cutting in the near term.

Deficits Return to a Sustainable Range

Federal fiscal yr budget balance, % of GDP



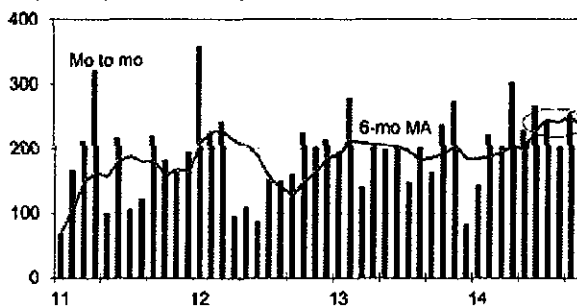
Sources: CBO, Moody's Analytics

The private sector is also in much better shape. The labor market provides the best evidence that the economy is off and running. Job growth is the best it has been since late 2011 and shows no signs of slowing. The economy is adding upwards of 225,000 jobs per month in 2014, up from the ho-hum 200,000 rate that prevailed the last few years. At this pace, unemployment and underemployment

are rapidly diminishing. The number of long-term unemployed is now falling, and more part-timers are finding full-time jobs. Assuming labor force participation remains steady, as it has over the past year, the economy will return to full employment by late 2016. Although the slack in the labor market remains considerable, at an estimated well over 1% of the labor force, there are nascent indications of stronger wage growth. The employment cost index, arguably the most accurate measure of labor compensation trends, has seemingly broken above the 2% pace that has prevailed since the economic recovery began.

Trend Job Growth Has Kicked Up a Notch

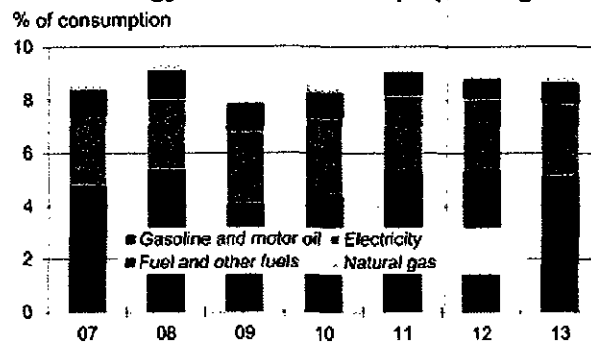
Payroll employment, change, ths



Sources: BLS, Moody's Analytics

More jobs and stronger wage growth augur well for better consumer spending. Consumers have been careful spenders throughout the recovery. Saving rates have held firm, with the exception of the millennials, who have recently begun to let loose. The stable saving rates are somewhat surprising given that stock prices are setting records and housing values have risen strongly. There has not been a discernible wealth effect. Despite the caution, consumers should increase their spending with any increase in their incomes. Adding to consumers' purchasing power is the sharp 25% decline in oil prices. If prices stabilize near their current level of just over \$80 per barrel, which is expected, household energy bills will be reduced by close to \$75 billion next year. That is more than \$500 in savings for each American household. Even assuming that only two-thirds of this is spent, approximately a quarter percentage point would be added to GDP growth in 2015. There will be some offset to growth from weaker energy exploration and development, but this should be modest. Breakeven for most North American shale oil producers is closer to \$75 per barrel. Prices would also have to stay low for much longer to convince these producers that the lower prices are here to stay and persuade them to significantly pull back on their investments.

Lower Energy Costs Will Free Up Spending



Sources: BLS, Moody's Analytics

The better job market also improves prospects for a revival in the housing recovery. Single-family housing demand went sideways the summer before last when fixed mortgage rates jumped on concerns that the Federal Reserve might wind down its bond-buying program. With unemployment still high and wages depressed, the higher borrowing costs undermined affordability. First-time homebuyers were especially put off, as they also grappled with very tight mortgage lending standards. More jobs combined with lower mortgage rates *should prove a strong enticement to more homebuyers. Homebuilders also appear to be adjusting and are putting up smaller homes at more affordable price points. Mortgage credit is still tight, but it is slowly easing as policymakers work to bring down the regulatory impediments to more first mortgage lending. This is a process and will take time, but it is happening.*

Prospects for multifamily building are even better. The millennials are getting jobs and apartments. Rental vacancy rates are at 20-year lows, and at the current pace of construction they are set to fall further. Rent growth in much of the country is already strong and will accelerate. Capital is also flowing freely into multifamily development. Everything suggests that more units will soon be going up.

Risks to the U.S. Outlook

There are some risks to the outlook but they appear less threatening than in recent years. Most significantly, the euro zone may be headed for another recession. Italy and France are contracting and even the usually robust German economy has slowed noticeably. Deflation is rearing its head, which raises alarms not only for a recession but a prolonged secular stagnation. Fortunately, the European Central Bank has taken a more aggressive stance to support growth through bond-buying and low interest rates.

The U.S. economy's links to Europe, while significant, are small in the broad scheme of things. Exports account for less than 15% of U.S. GDP, and U.S. exports to the EU account for about 20% of all exports. U.S. exports to the EU thus account for 3% of U.S. GDP. Even if the EU suffered a Great Recession-like decline of 5% in its GDP next year, the direct impact on U.S. growth would be 0.15%. This clearly understates the fallout on the U.S. economy, but it highlights that it would take a very serious problem in the EU to hurt the U.S. expansion.

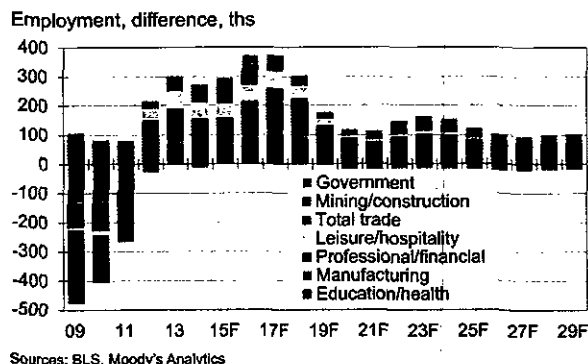
There are many other clear threats to the U.S. economy. China's slowdown may prove trickier than anticipated, ISIS-spawned terrorism is a concern, Russian President Vladimir Putin could double down in Ukraine, and the potential for a conflict with Iran over its nuclear program remains. And there is Ebola. But there are always risks, and in some respects the current ones seem less risky than those we have grappled with since the financial collapse and Great Recession. Of course, things could still go off the rails, but for the first time in many years it feels as though the U.S. economy is firmly on the tracks.

Summary of the Forecast for PJM Service Territories

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

Overall, the dominant industry in the service territory is education/healthcare. In addition to employing the largest share of the region's workers, about 17%, it was one of the few industries to add jobs during the recession. As a result, for at least the last decade, healthcare has taken up an increasing share of the economy. Healthcare hiring has exceeded overall employment growth in PJM's service territory, but growth has fallen short of expectations. Slower than expected growth is the result of hospital cost-cutting and consolidation, both of which are partly due to adjustments required to conform to Affordable Care Act. Over the longer term, increasing demand from the expanding elderly population will support job gains. Consistent with the historical trend, education- and healthcare-related services will provide a significant share of new jobs in the forecast period.

Education/Health Will Drive Job Gains



On average, the concentration of manufacturing in the service territory is roughly in line with the national average, but more than half of the metro areas, mainly smaller old-line manufacturing localities in the Northeast and Midwest, rely more heavily on industrial production for growth.

The resource and mining industry represents a small portion of the service territory's economy, but it has been a source of strength in recent years, especially in eastern Ohio and western Pennsylvania. As the industry has moved from the boom stage to a more mature growth stage, many of the gains have been realized already. It will remain a source of growth.

While the public sector has a slightly smaller presence in the service territory than it does nationally, the federal government accounts for a larger share of employment. The public sector is a pillar of the Mid-Atlantic and many southern metro areas in the service territory include state capitals, college towns and military-reliant areas. With federal budget deficits at 3% and the deficit forecast over the next 10 years improving, the political pressure for austerity has declined. However, poor state fiscal positions in Illinois and Pennsylvania present a risk to the forecast for the service area.

Recent Performance

The economy of the service territory is in its best shape since the financial crisis. Yet while conditions are strong, the estimate of GDP growth from the third quarter of 2013 to the third quarter of 2014 of 0.23% is much lower than the pace of 2.45% expected in November 2013. Total employment growth of only 0.8% in the year to the third quarter of 2014 falls short of the forecast of 1.2%. Total employment is 121,000 lower than expected, with growth coming in at 0.8% for the year compared with the forecast 1.3%. Despite its role as a leading sector, healthcare underperformed, as did leisure and hospitality. However, manufacturing has contracted less than expected and nonmanufacturing employment outside of healthcare and leisure and hospitality has grown more strongly. Real income growth is stronger than expected as well; it will rise about 1.1%, compared with expectations of 0.6% a year ago.

Manufacturing was flat over the last year, first outperforming at the end of 2013, then underperforming for 2014. Manufacturing is an important driver, particularly in many of the territory's Midwest metal-producing and auto-related metro areas. Overall, the sector benefited from robust growth in auto demand and transportation equipment manufacturing, which grew three times faster than forecast over the last year. Elkhart IN, for example, experienced fast growth because of its recreational vehicle industry.

Transportation and warehousing exceeded expectations and delivered fast growth over the last year. Low costs of business and good access to transportation infrastructure have helped Pennsylvania in particular become a popular destination for transportation and warehousing for companies such as Amazon and FedEx to serve the Northeast corridor.

While some metro areas grew fast, others suffered job losses this year. The biggest losses were in Atlantic City NJ, where the casino industry has struggled under stiff regional competition, and Lynchburg VA, which is shedding defense contractor jobs.

The service territory added fewer jobs in percent terms than the nation partly because the low growth in government employment has disproportionately affected the area. Federal employment fell more steeply in PJM's service territory than it did for the nation. Federal government accounts for 3% of total employment, compared with 2% in the rest of the U.S. The concentration is, of course, much higher in the District of Columbia, Maryland, and Virginia. Moreover, federal workers earn more in the Mid-Atlantic than elsewhere in the country. Therefore, federal layoffs do more damage to incomes. In addition, local government employment grew more slowly in the service area than in the U.S. overall. Philadelphia had significant losses, primarily because of the Philadelphia school district's severe budgetary problems. Roanoke VA and Pittsburgh also experienced significant losses in local government employment.

Employment gains slowed this year in Pennsylvania and Ohio, which account for a substantial portion of PJM's customers. Ohio and Pennsylvania metro areas make up 20% to 25% of the territory's payroll employment. Ohio's recovery has moderated in recent months and is lagging those of nearby states, but it is still moving in the right direction. The factory sector has led the way, driven by resilient vehicle and machinery production. While it did underperform expectations in Pennsylvania, healthcare has nevertheless logged job growth in both states, as the area's fast-growing and larger than average elderly population fuels demand for nurses and healthcare technicians. Natural gas prices have fallen recently, but production costs in the region are low compared with those in other areas of the U.S., so the shale industry should continue expanding in the two states.

Near-Term Outlook and Changes to the Forecast

The October 2014 regional forecast was generated in the context of the U.S. macro forecast described above. Changes to the near-term outlook for the PJM service territory are similar to those in the U.S. macro forecast. The recent performance was slightly weaker than expected, and while stronger job growth is still expected, it is arriving slightly later than expected. As a result, the forecast has been lowered for the next few quarters, but raised starting in the end of 2015.

Manufacturing is an area that outperformed expectations, and the outlook has been raised. Manufacturing employment grew an estimated 0.2% since the third quarter of 2013, beating expectations of a 0.2% fall. This is the beginning of a short-term rebound in manufacturing that was not expected to start until early 2015, and will it continue through 2017 before returning to secular decline over the long term. The outlook for transportation and warehousing has been raised given the recent outperformance. Real GDP in the service territory is forecast to rise 1.9% over the next four quarters. Last year, output was projected to grow 3.9% in this same period. The forecast calls for employment in the service territory to increase 2.2% in the year ending in the third quarter of 2015, down from the previous forecast of 2.4%. In the year ending in the third quarter of 2016, employment will grow 1.8%, up from the previous forecast of 1.5%.

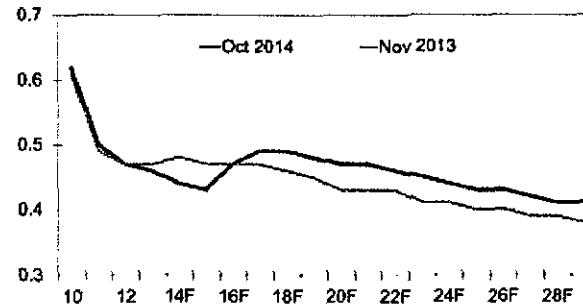
All in all, the service area economy is expected to have a jump in growth in the short term, but this jump will occur slightly later than had been expected a year ago. The positive short-term outlook mirrors the U.S. macro forecast. Over the past year, the service sector has fallen short of expectations. Service growth will accelerate in 2015, and as the delayed growth peaks at the end of the year, the service area will finally outperform last year's forecast.

Long-Term Outlook

The October 2014 forecast for long-term GDP growth in metro areas in the PJM service territory is relatively unchanged from November 2013. Growth is up because of improved population, but this is partly offset by weaker household growth. The region's aging population is likely dampening the latter.

Population Projections Better in Long Run...

Population forecast, % change yr ago

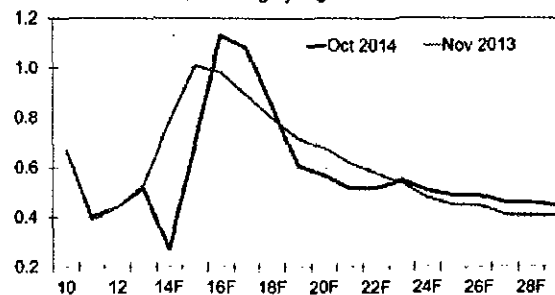


Sources: Census Bureau, Moody's Analytics

For the metro areas in the service territory, the October 2014 forecast is for population to expand 7% between 2014 and 2028, up from 6.7% in the November 2013 forecast. In the short run, the population forecast has been revised down. This will mean 30,000 fewer residents in 2017. But growth will accelerate and as a result the forecast population will be 60,000 higher by 2022, and 180,000 by 2029.

...But Household Growth Weaker...

Households forecast, % change yr ago

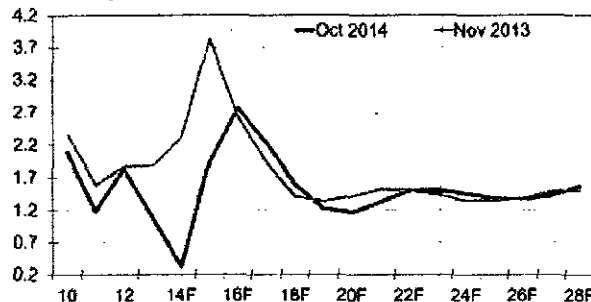


Sources: Census Bureau, Moody's Analytics

Stronger population growth does not translate into more households, as the headship rate is forecast to fall. By 2029, population is expected to be 180,000 higher than expected a year ago, while the number of households has been revised down by 120,000. As a result, real GDP growth will be largely unchanged in the long run, averaging 1.6% from 2016 to 2029.

...Impact on Output Growth Is Mixed

Real GDP growth in PJM service territory metro areas, % change



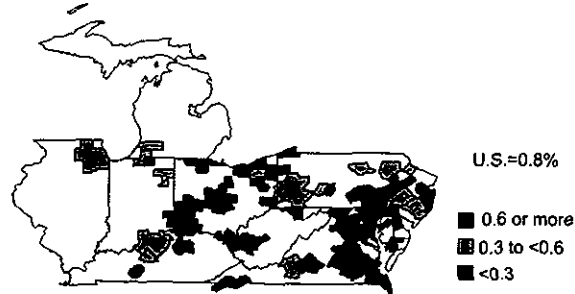
Sources: BEA, Moody's Analytics

Overall, the long-term GDP forecast has not been altered substantially. The PJM service area will underperform the U.S., with average annual real GDP growth of 1.6% from 2015 to 2029, compared with the U.S. average of 2.2%. Relative to last year, long-run average annual U.S. GDP growth has been revised slightly higher from 2%, while that for the PJM service area is unchanged.

The southernmost metro areas are expected to be among the fastest-growing in the PJM service territory. The biggest comparative advantage for these areas is their favorable demographic trends, which will help boost overall final demand. While the long-term forecast is weaker, in-migration and household formation will rebound in 2015 and will drive growth in consumer-based services such as education/healthcare and leisure/hospitality. In the long run, Virginia metro areas, including Lynchburg and Richmond, as well as Bowling Green KY, are expected to lead with average annual real GDP growth of 2% or more. Relatively low costs will buoy growth in these metro areas. Large metro areas including Chicago and Baltimore and metro areas in the Mid-Atlantic, including Washington DC and those in Delaware, will also outperform the rest of the service area. These metro areas will be driven by highly educated labor forces and productivity growth as well as their demographic trends.

Stronger Demographics Benefit the South

Avg annual household growth from 2015 to 2028, %

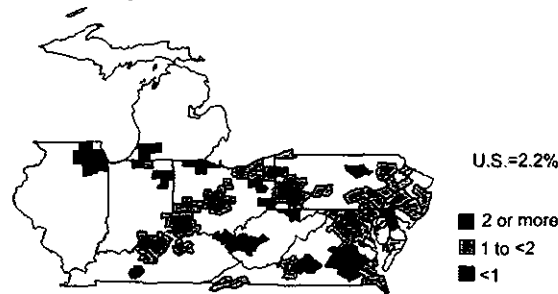


Sources: Census Bureau, Moody's Analytics

Metro areas in Ohio, West Virginia, and parts of Pennsylvania will expand more slowly. Expansion in those states will be more restrained as the region transitions away from manufacturing toward more service-oriented economies. With lower-value-added services accounting for a larger part of the regional economies, income gains are expected to be more restrained. Weaker demographics will also undermine long-term growth, as workers and their families are expected to seek opportunities in stronger labor markets outside of the slow-growth metro areas in the Midwest and Northeast. Of the 10 areas with the weakest increases in the number of households, seven are in Ohio and three are in West Virginia. The number of households will decline in just three areas, all in Ohio: Youngstown, Cleveland and Mansfield.

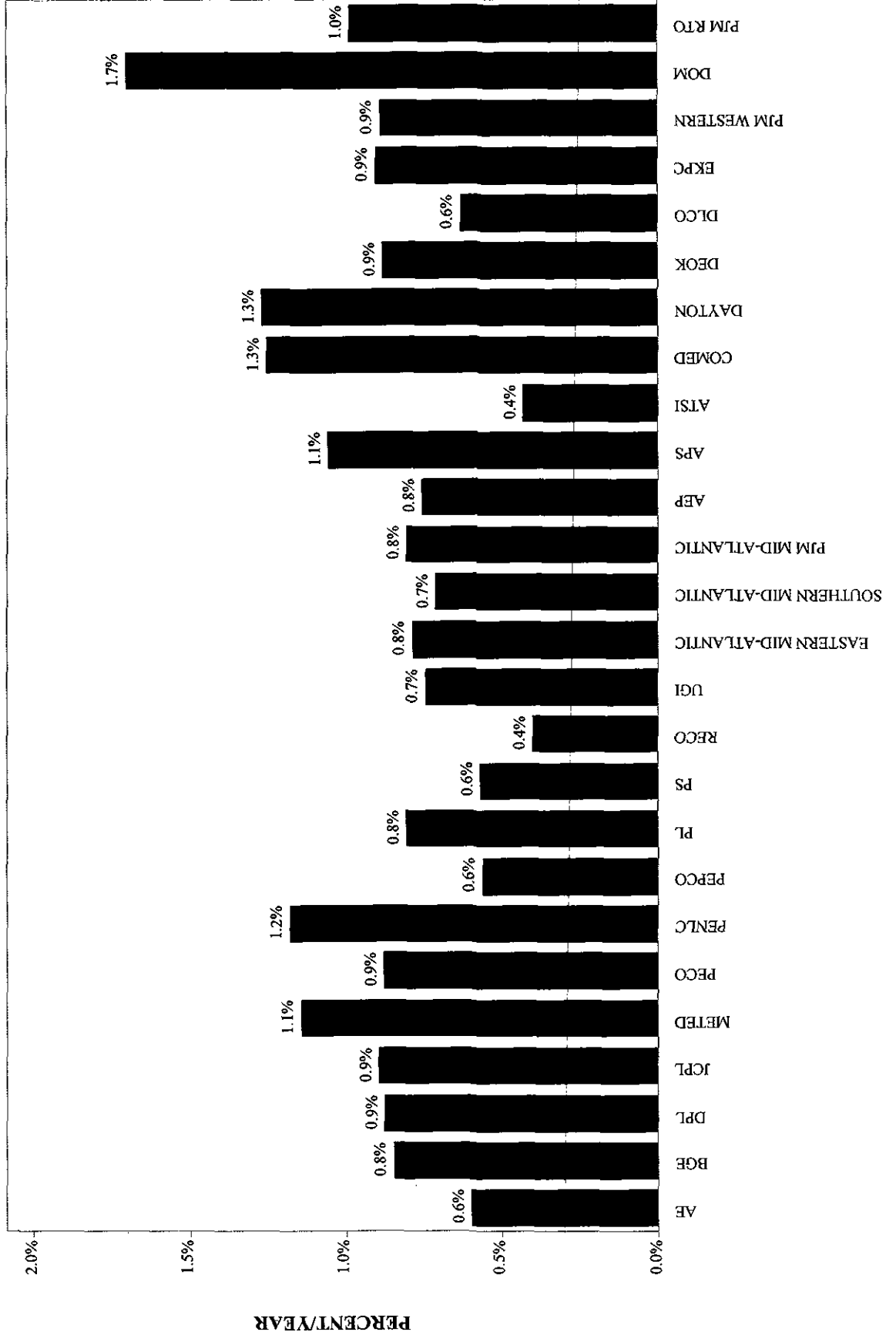
The Service Territory Will Underperform the U.S.

Avg real GDP growth from 2015 to 2029, %

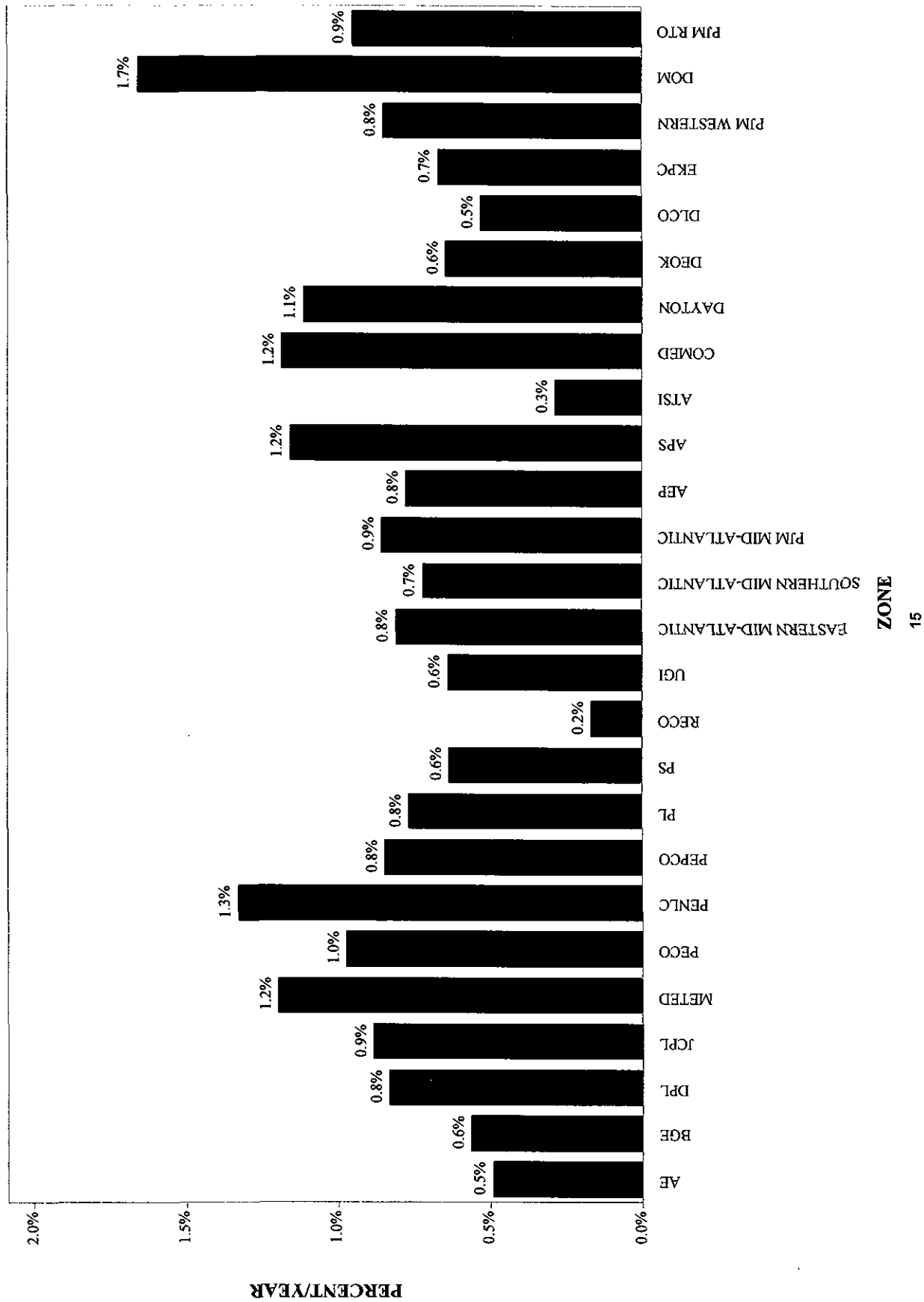


Sources: Census Bureau, Moody's Analytics

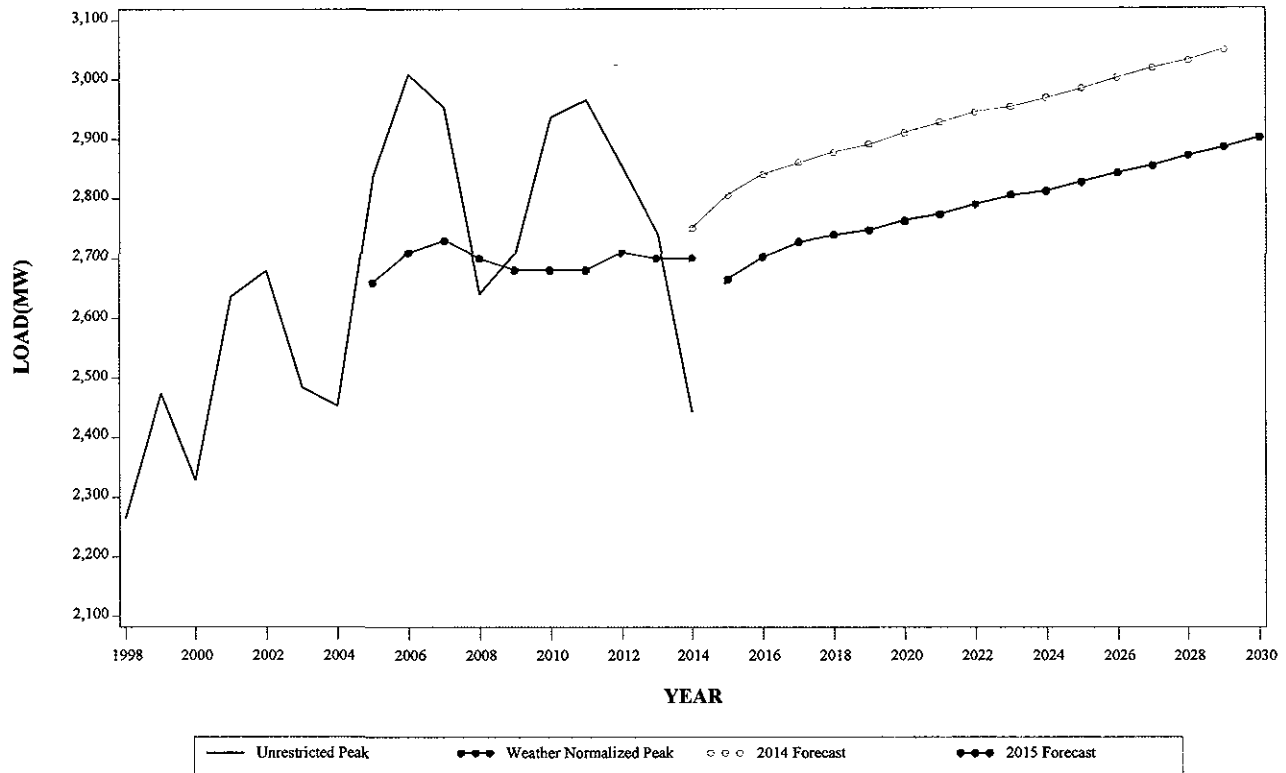
**PJM SUMMER PEAK LOAD GROWTH RATE
2015 - 2025**



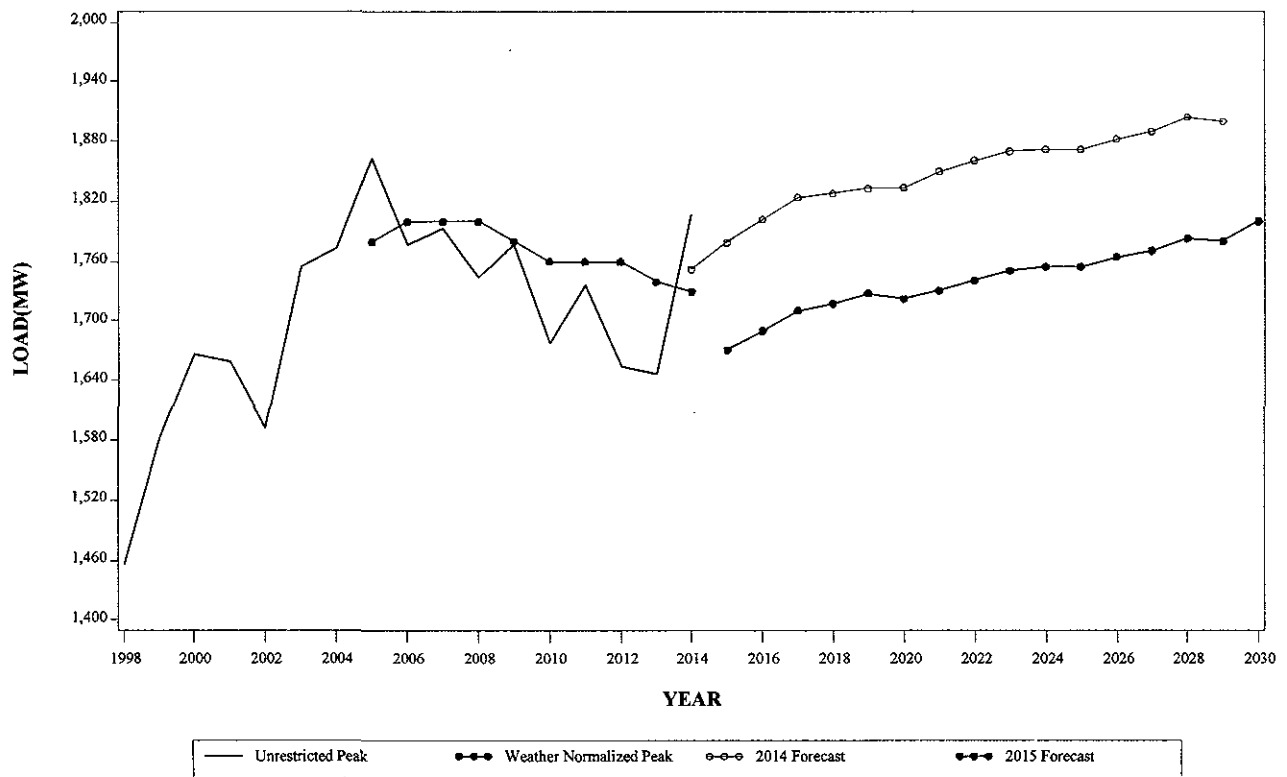
**PJM WINTER PEAK LOAD GROWTH RATE
2015 - 2025**



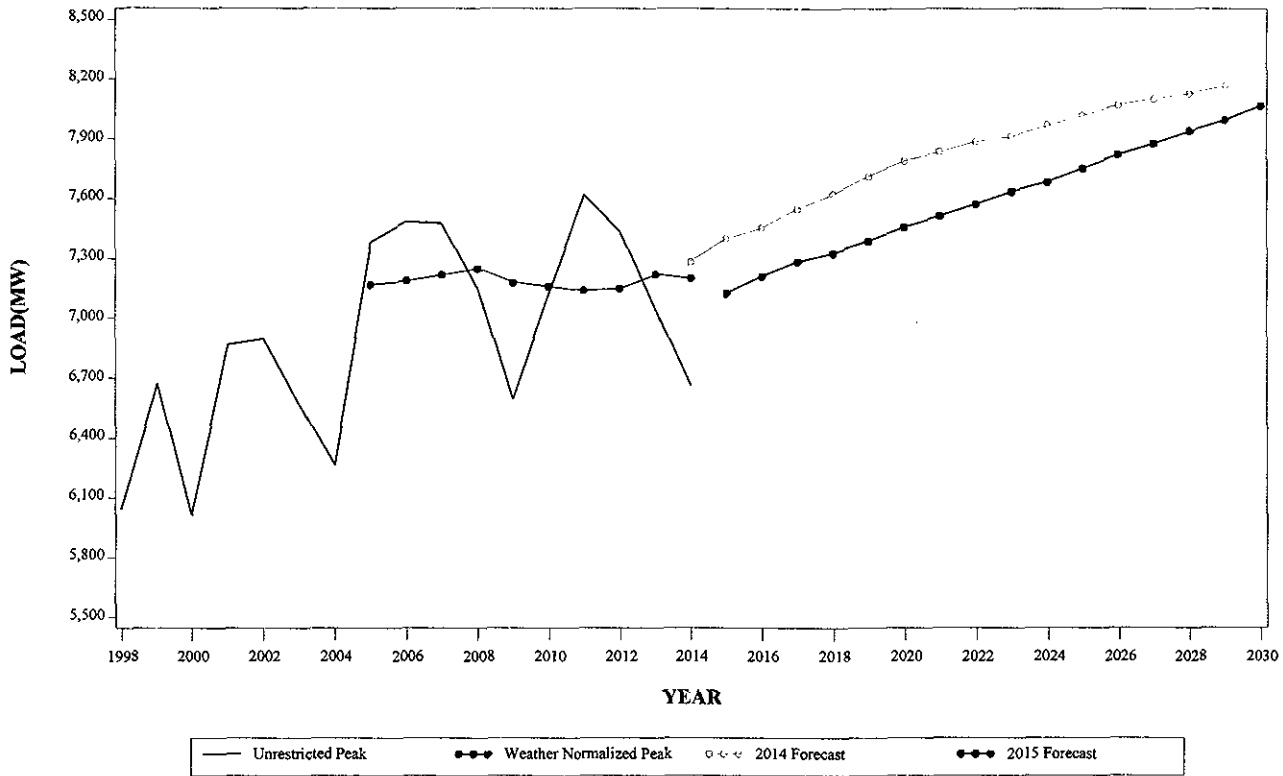
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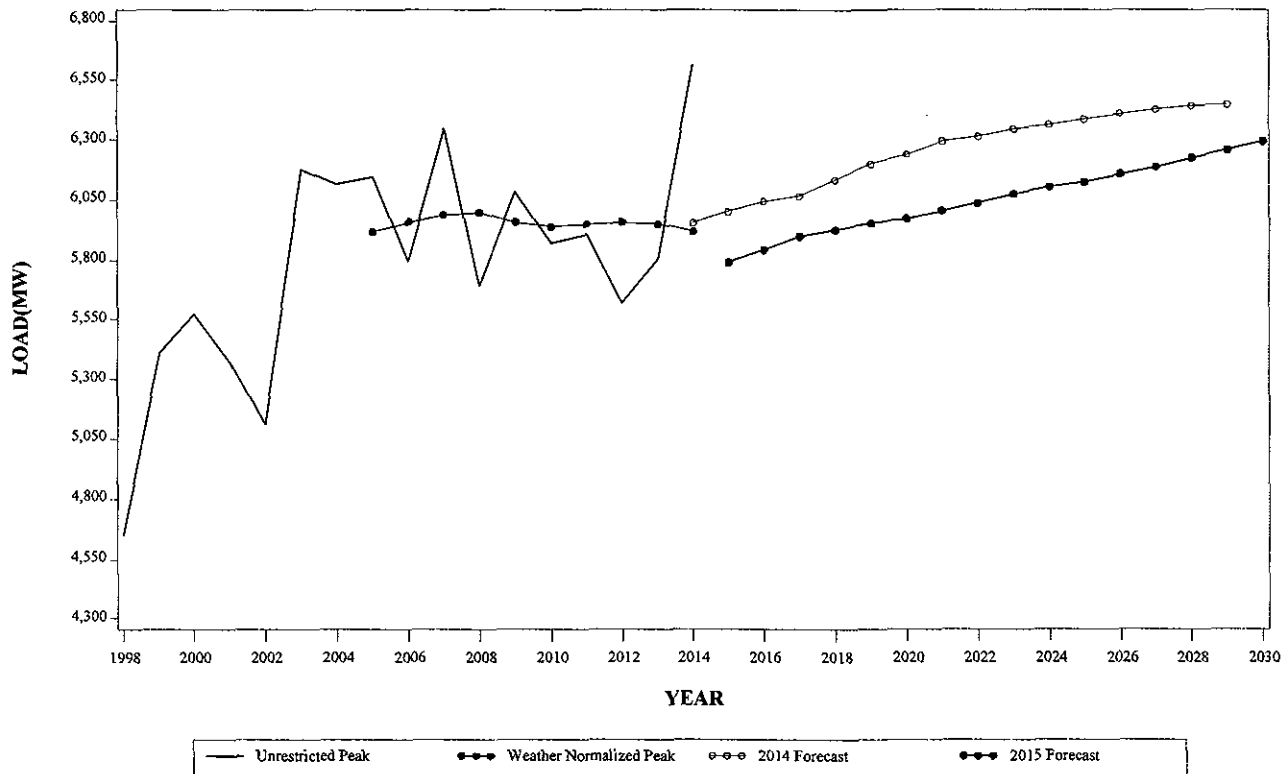
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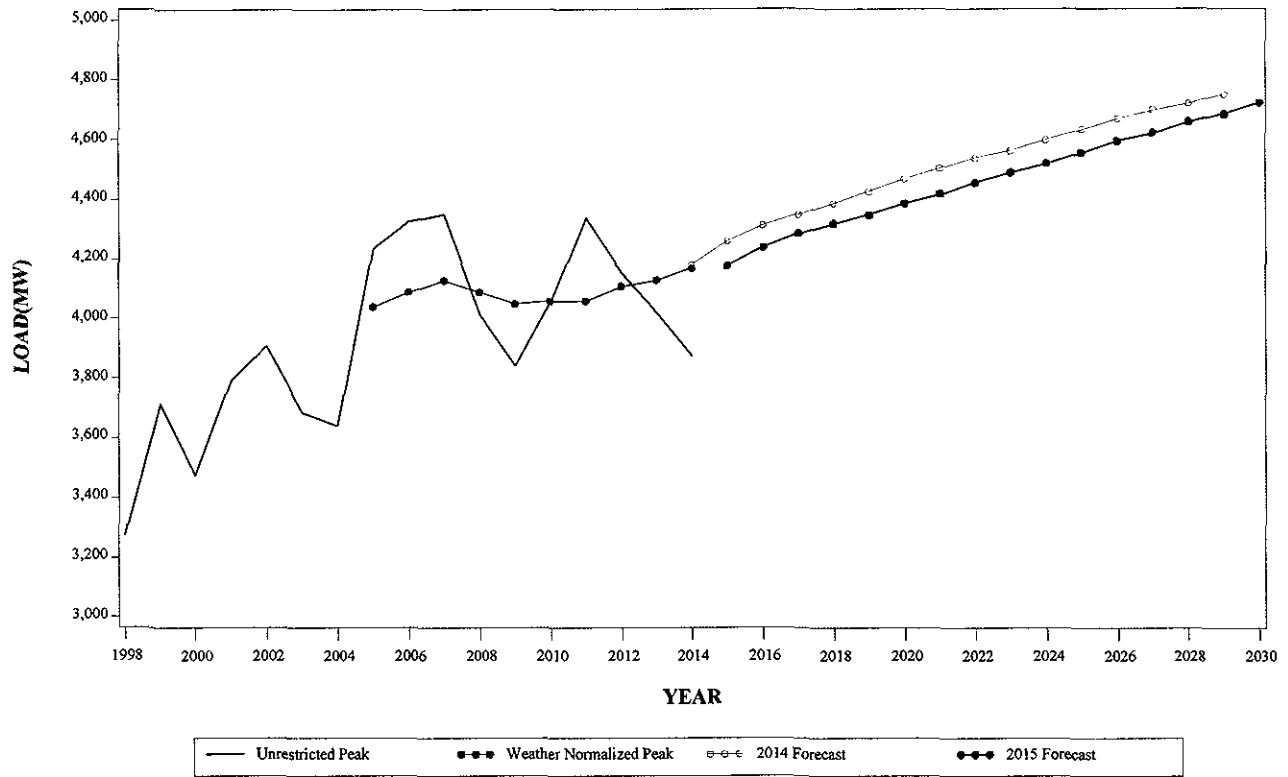
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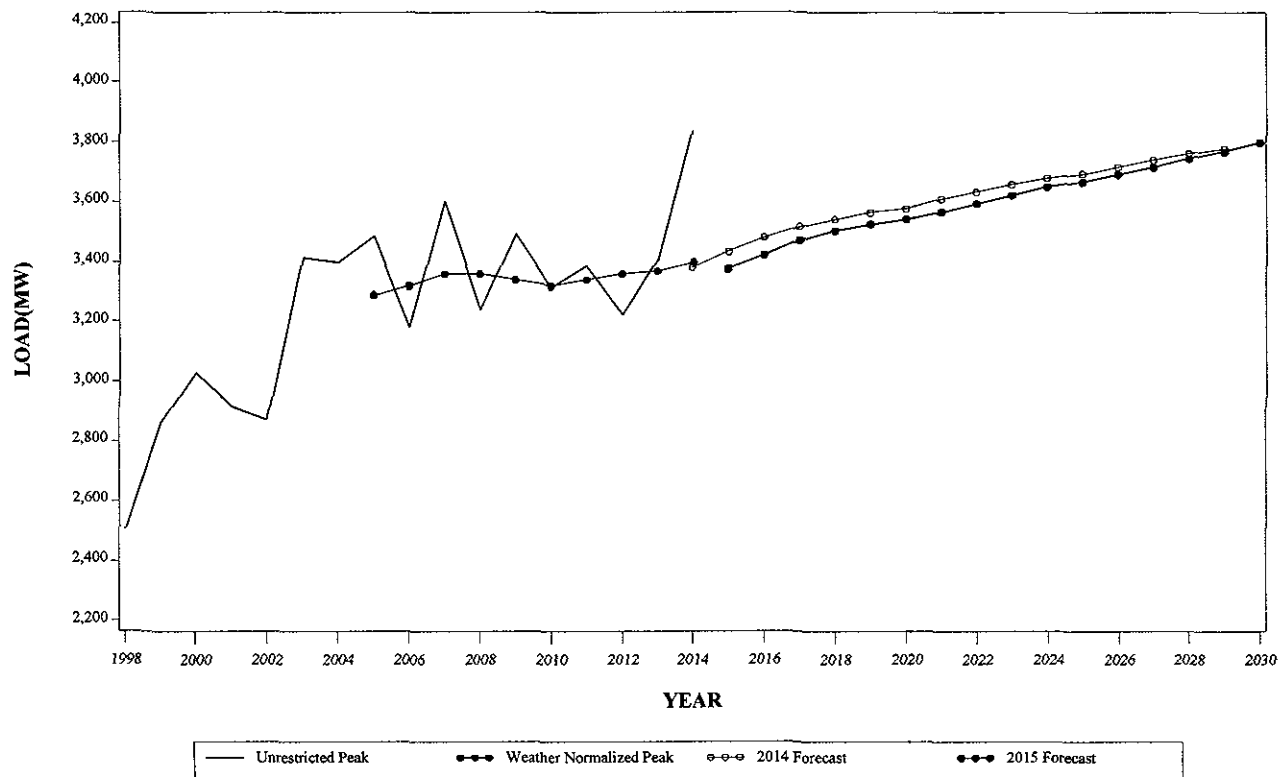
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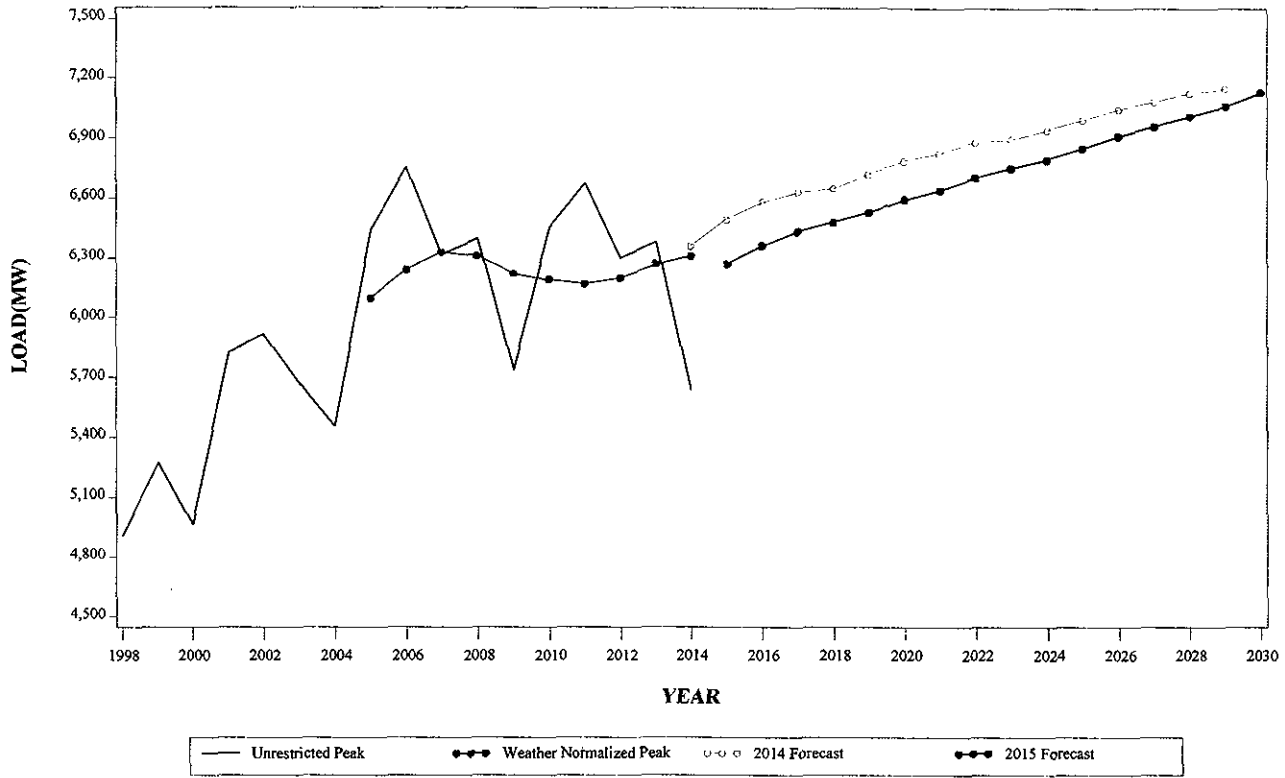
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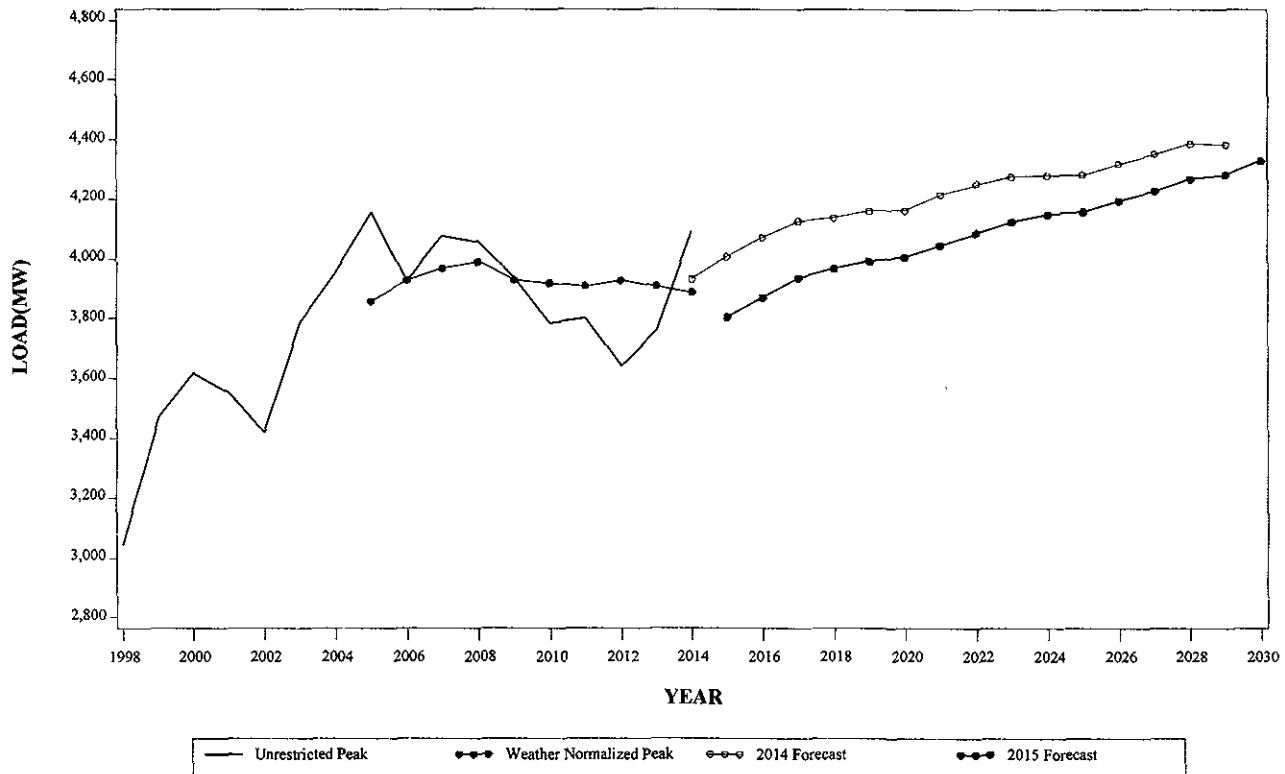
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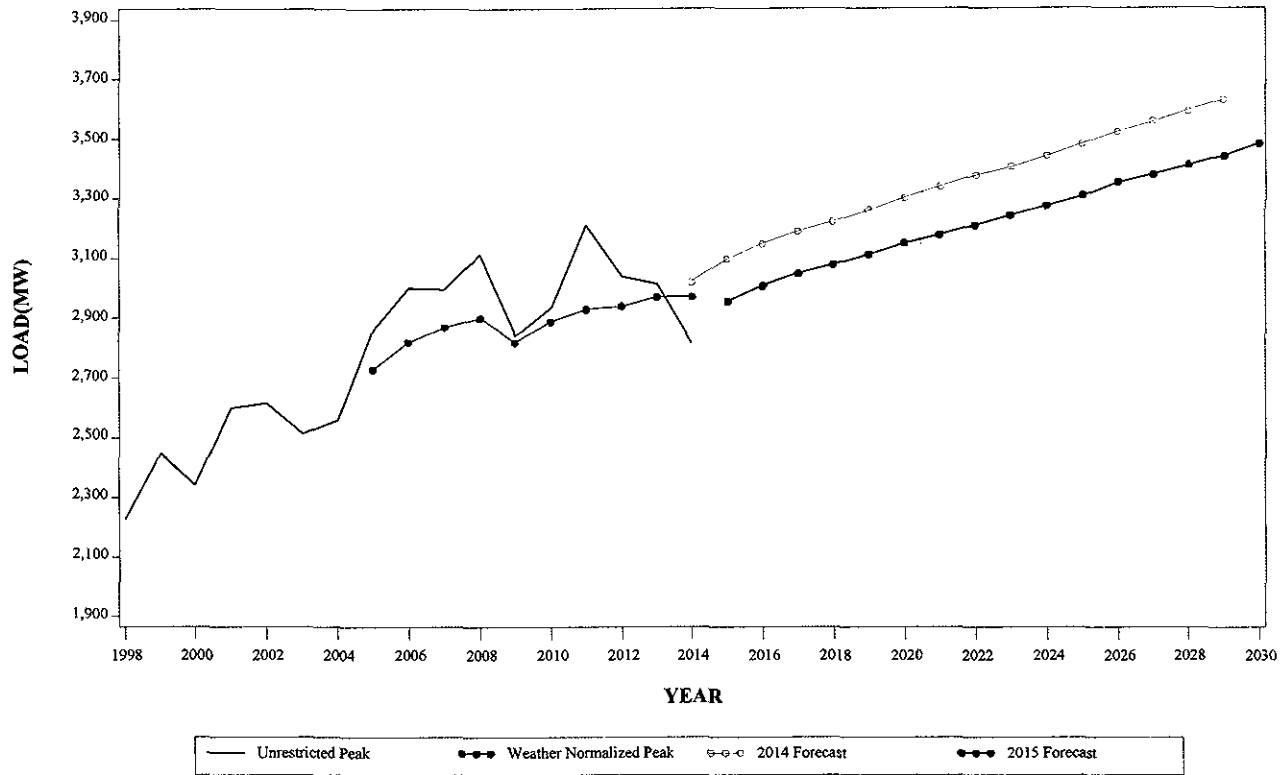
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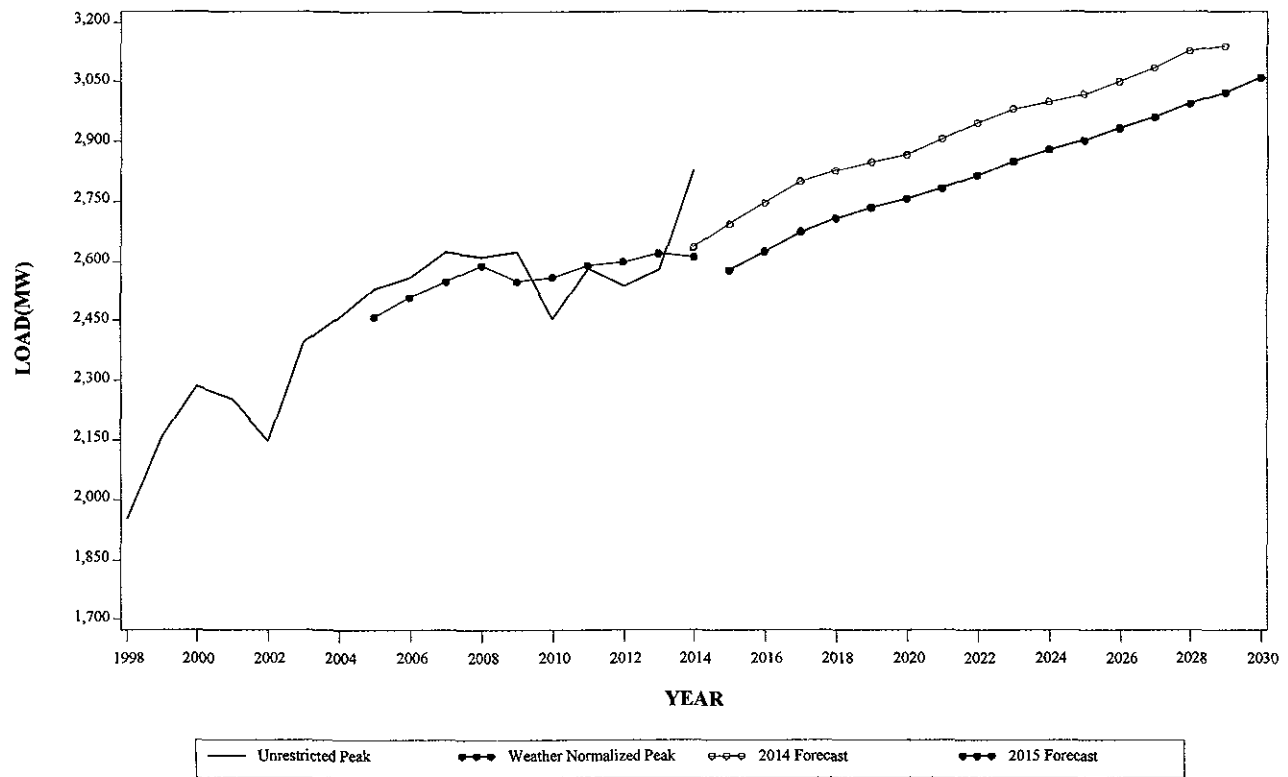
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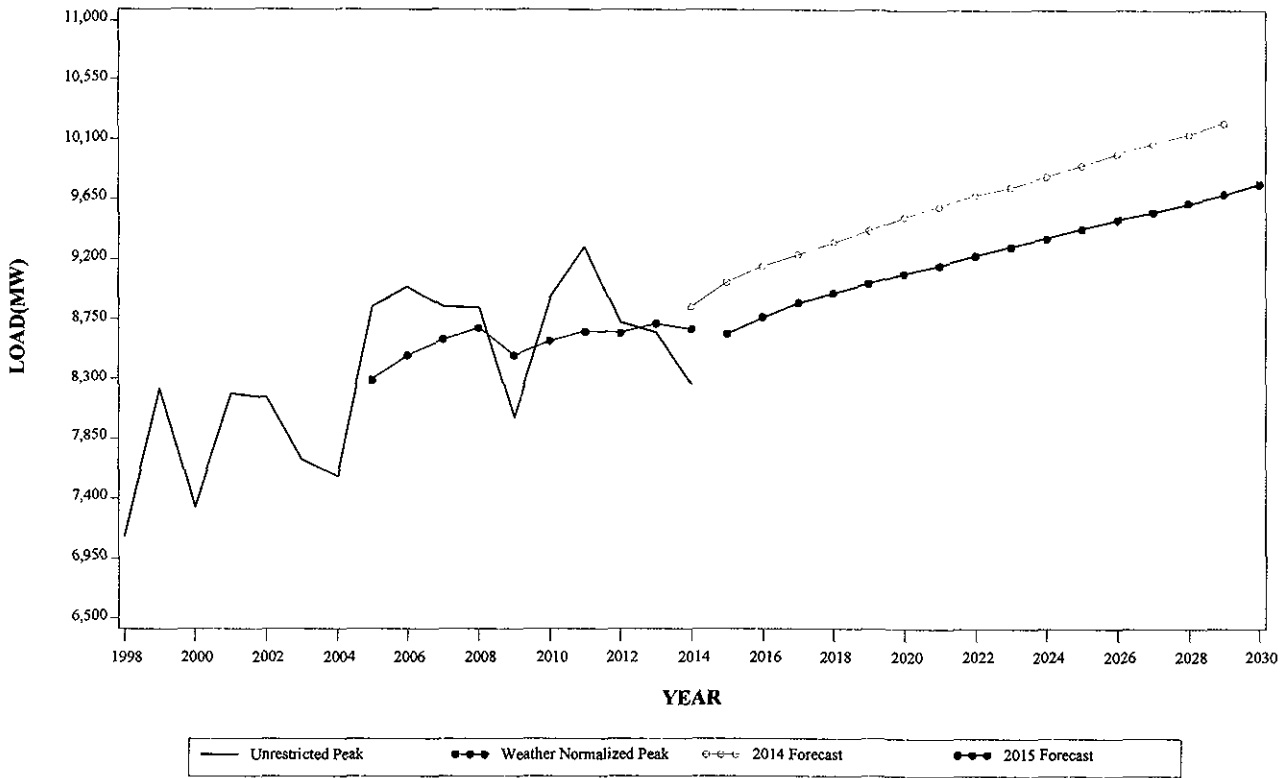
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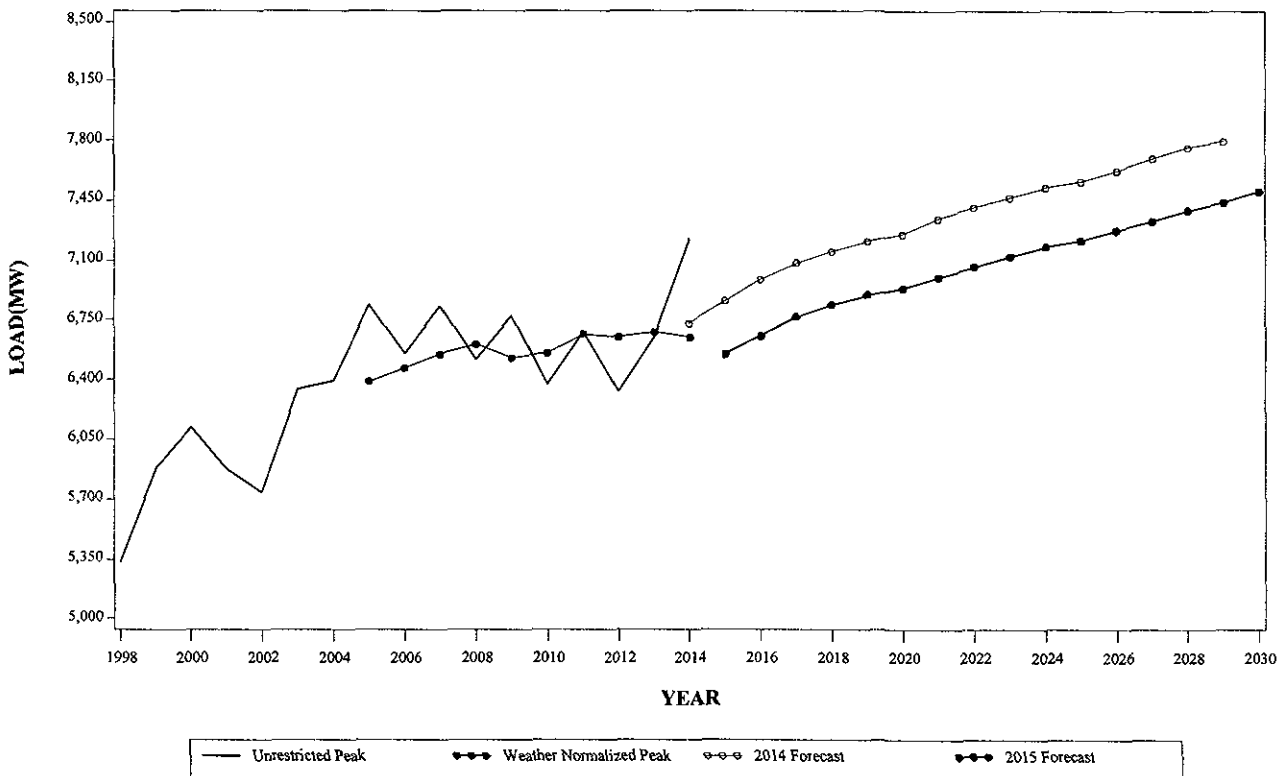
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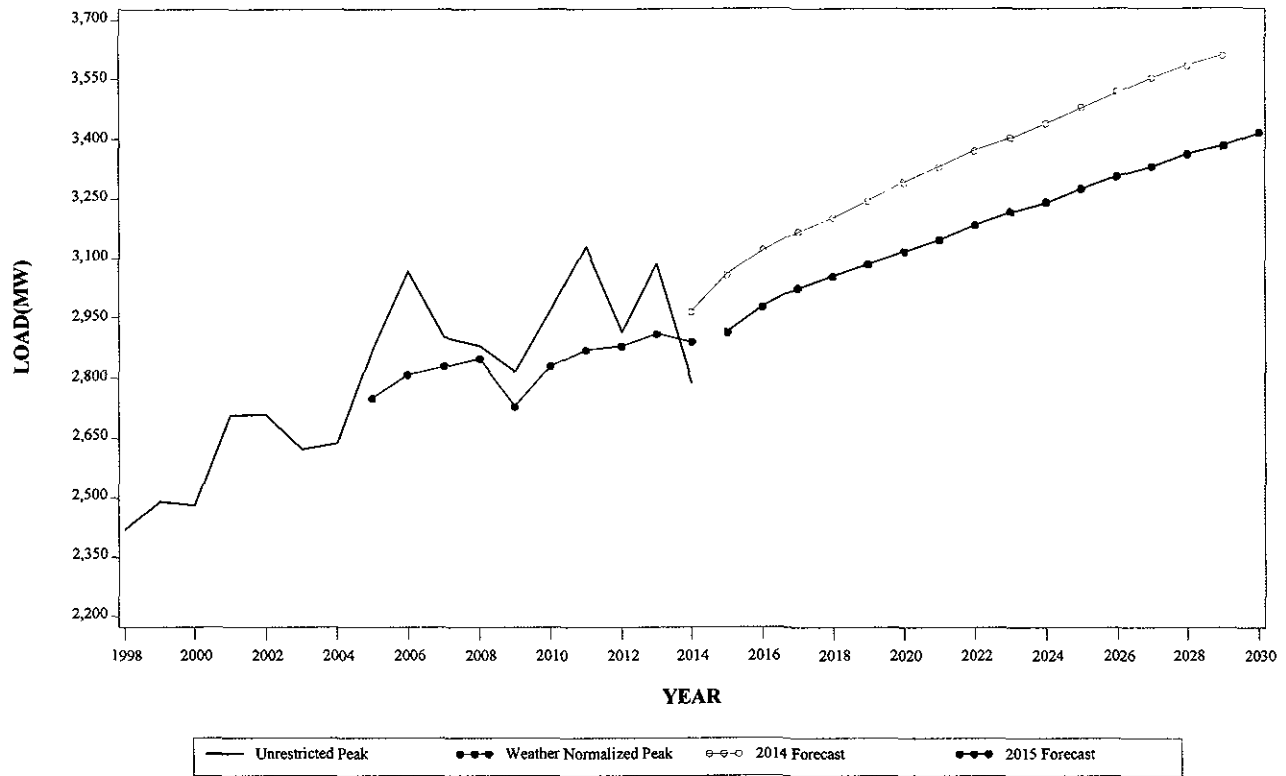
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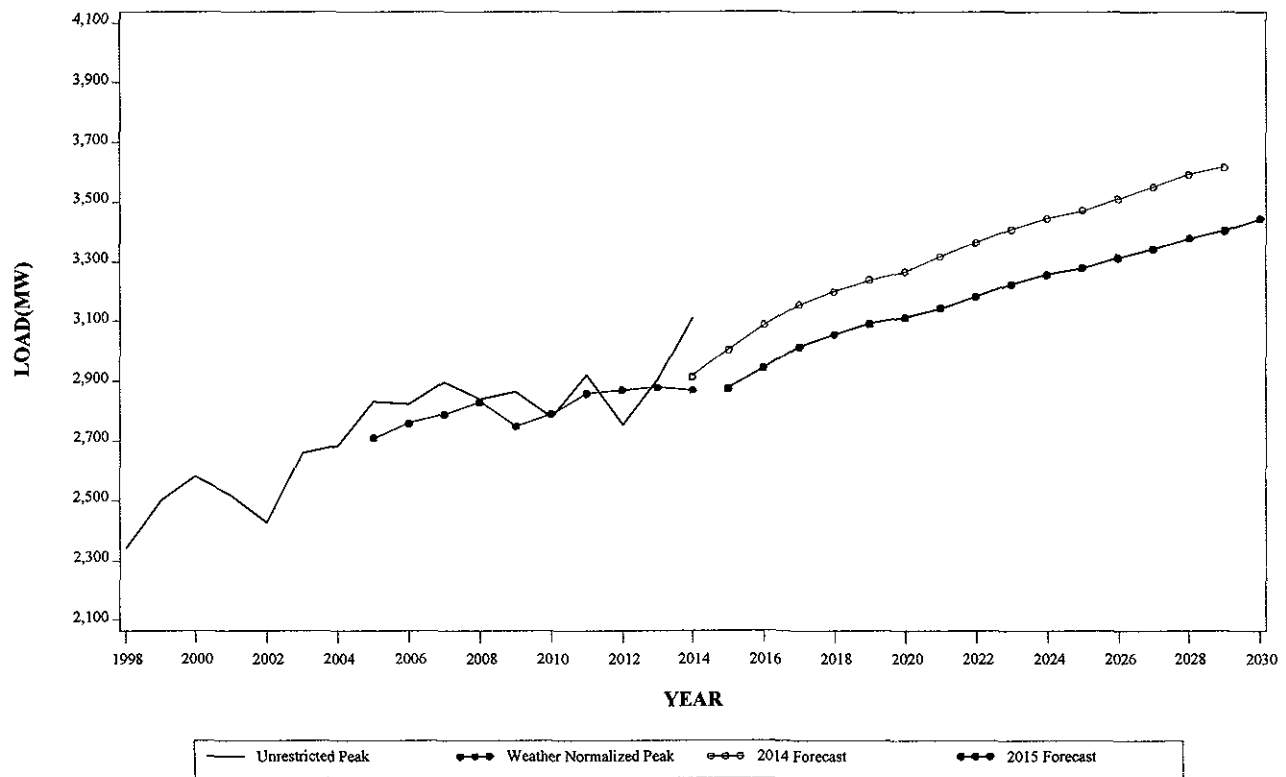
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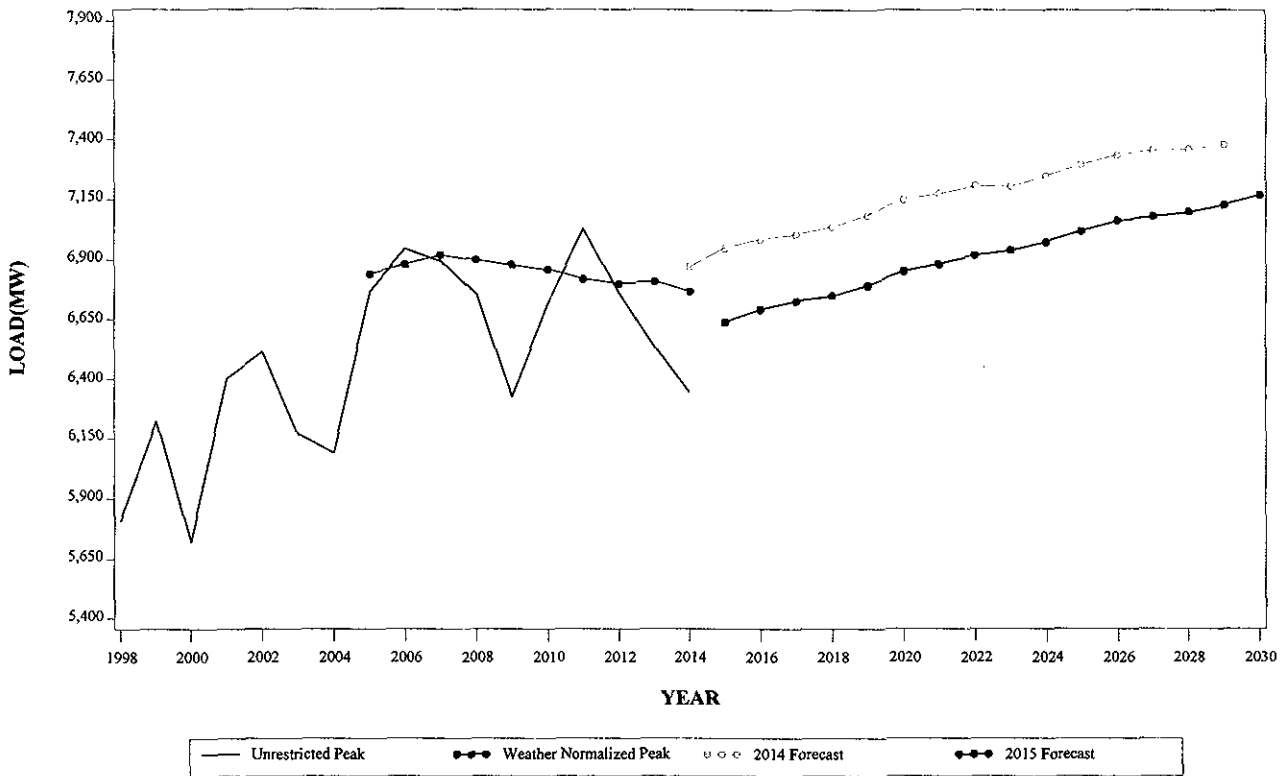
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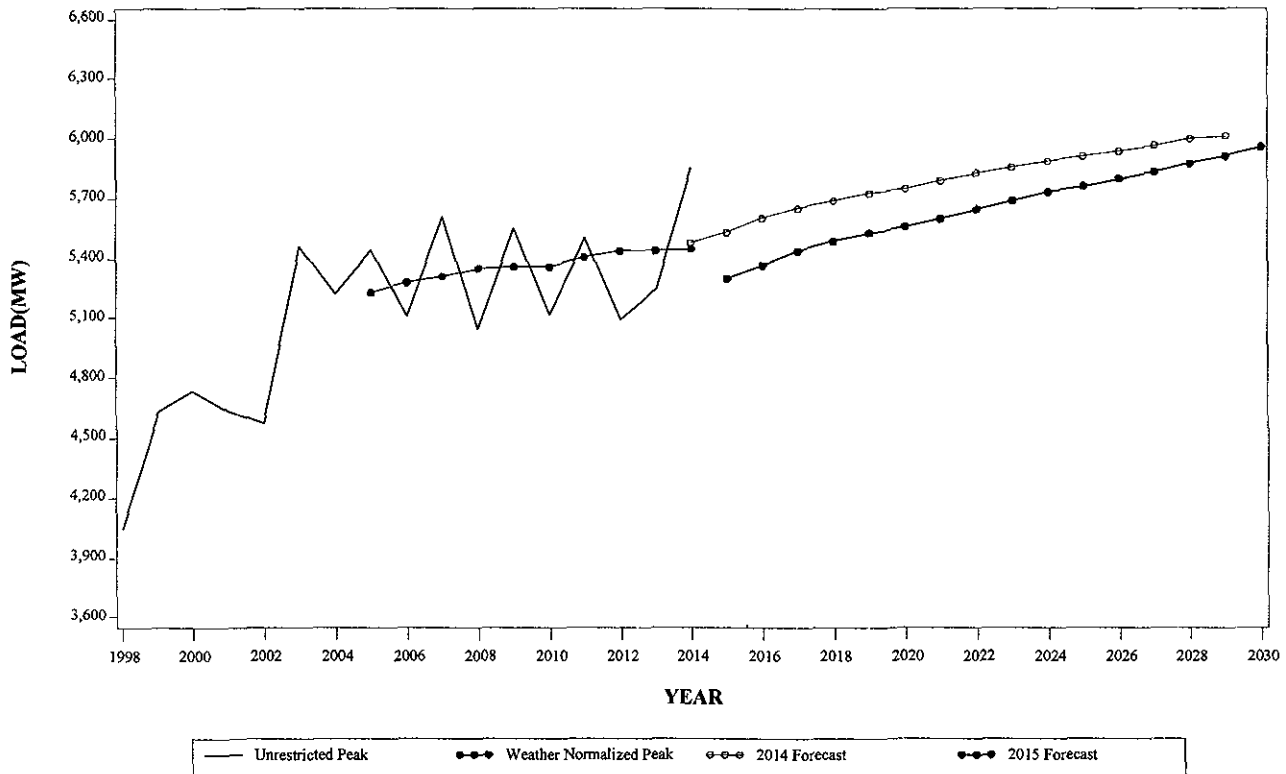
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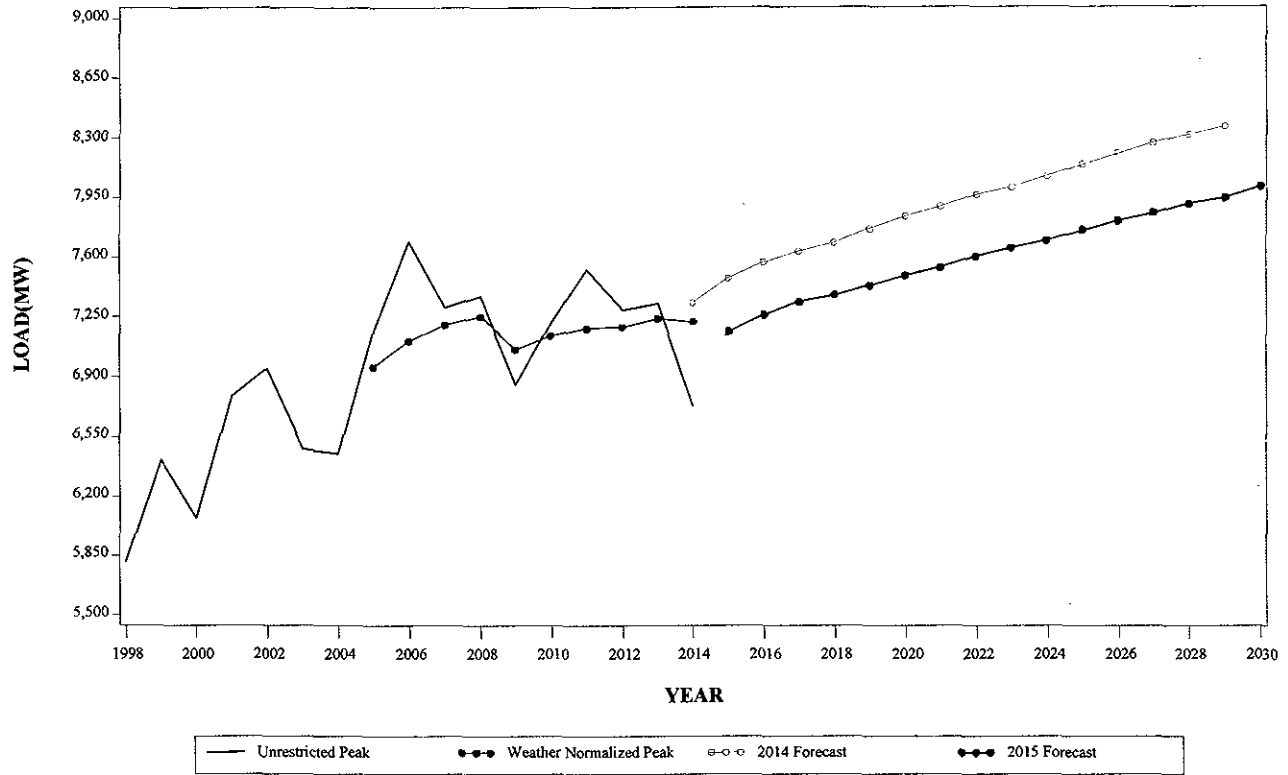
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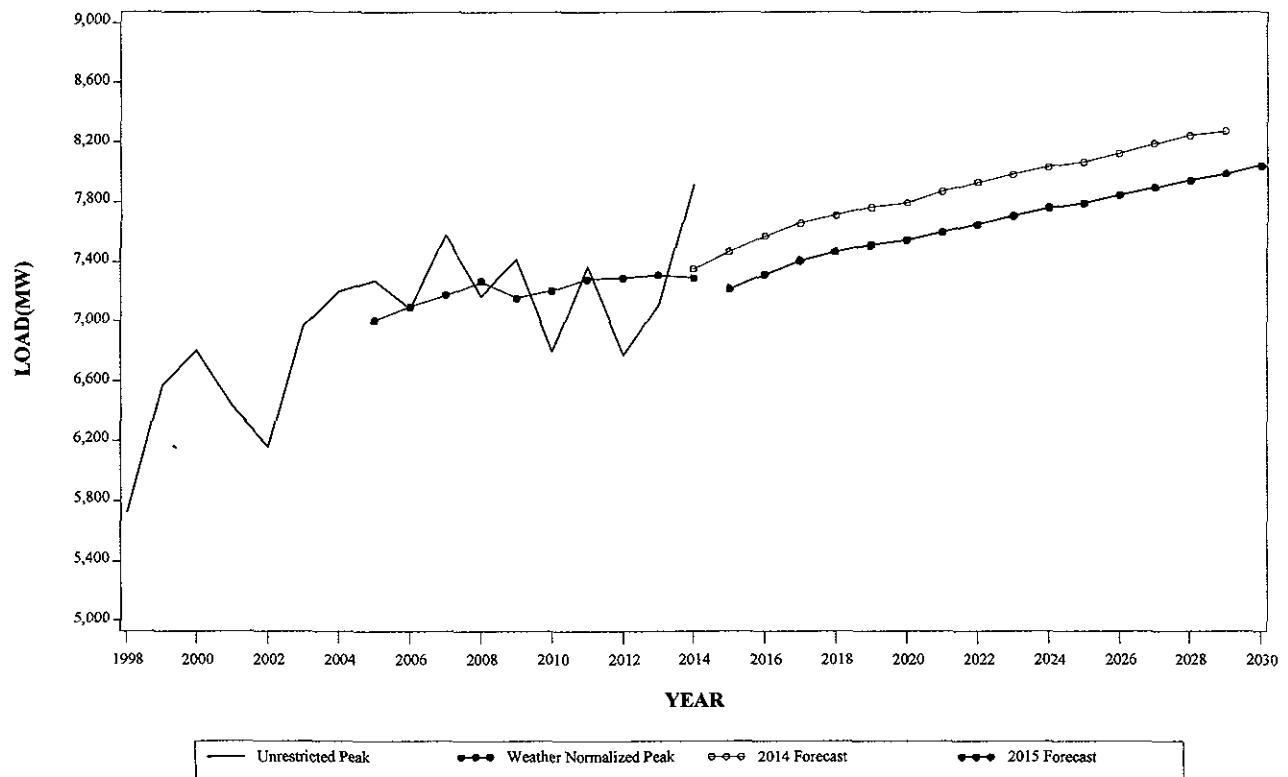
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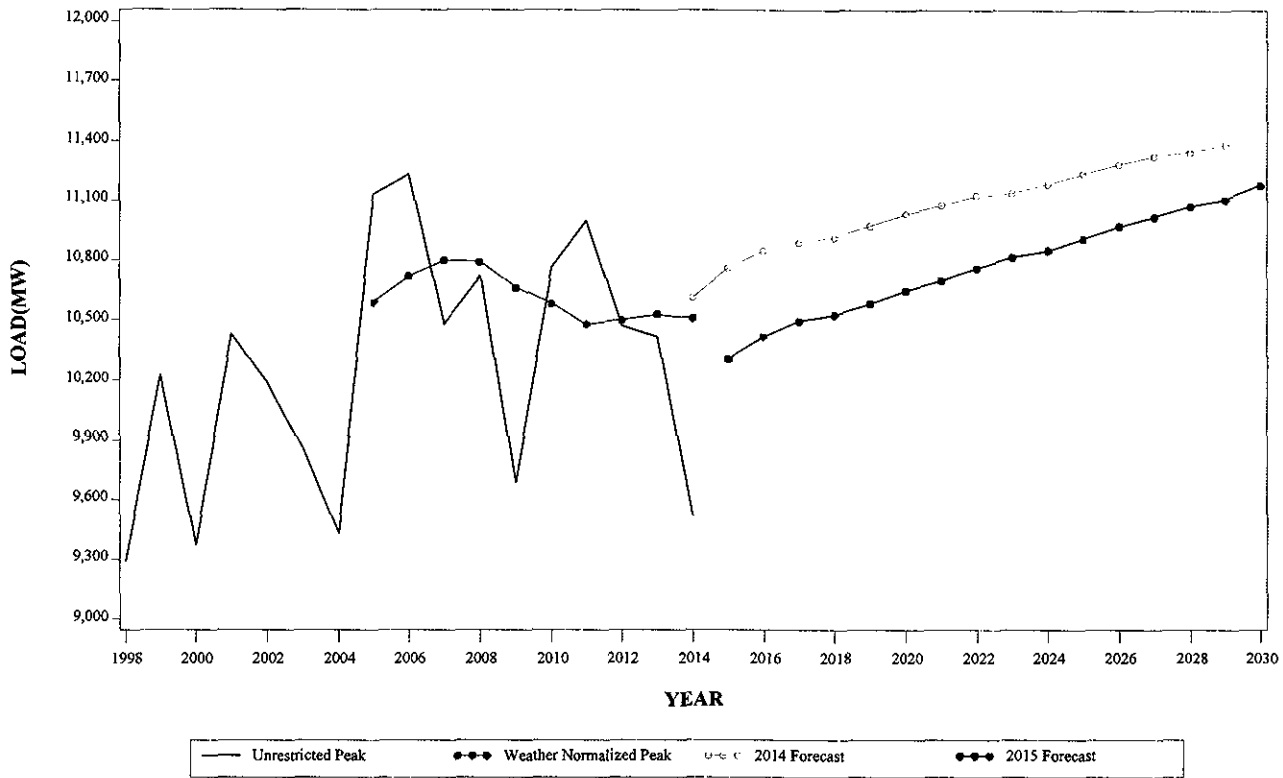
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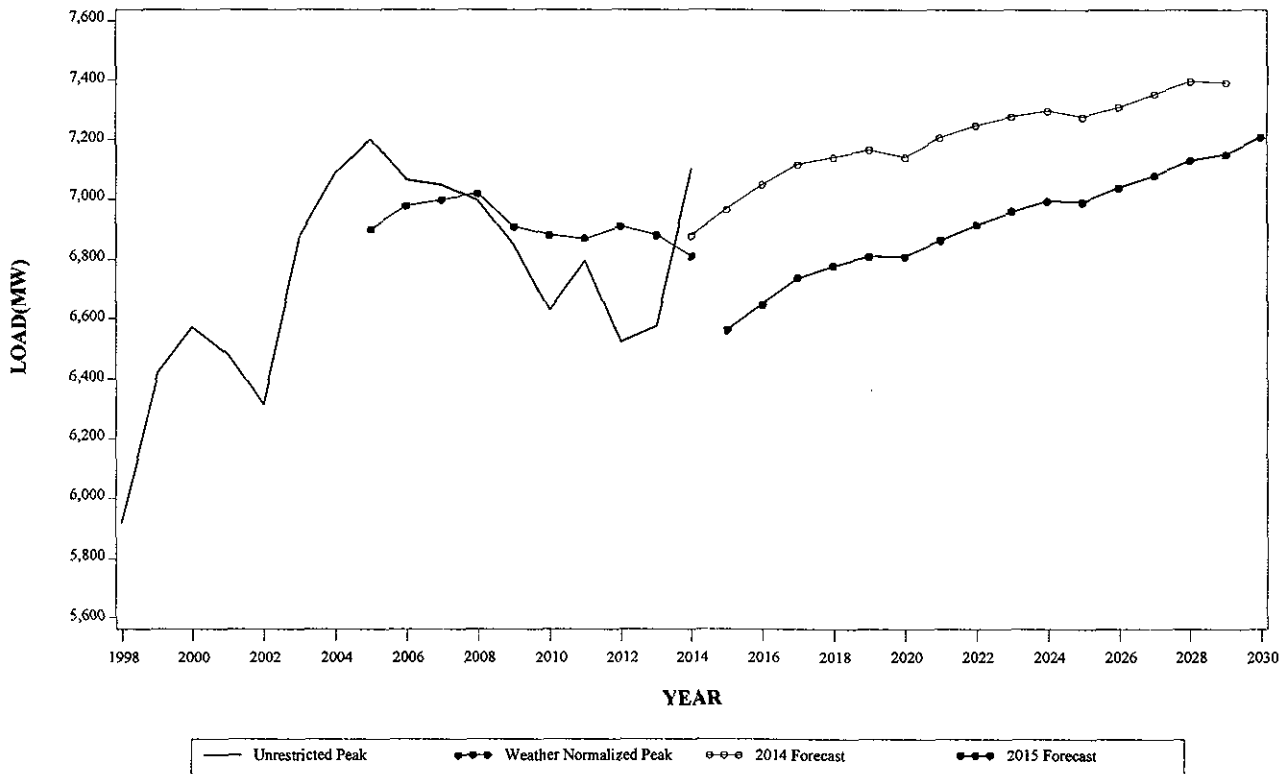
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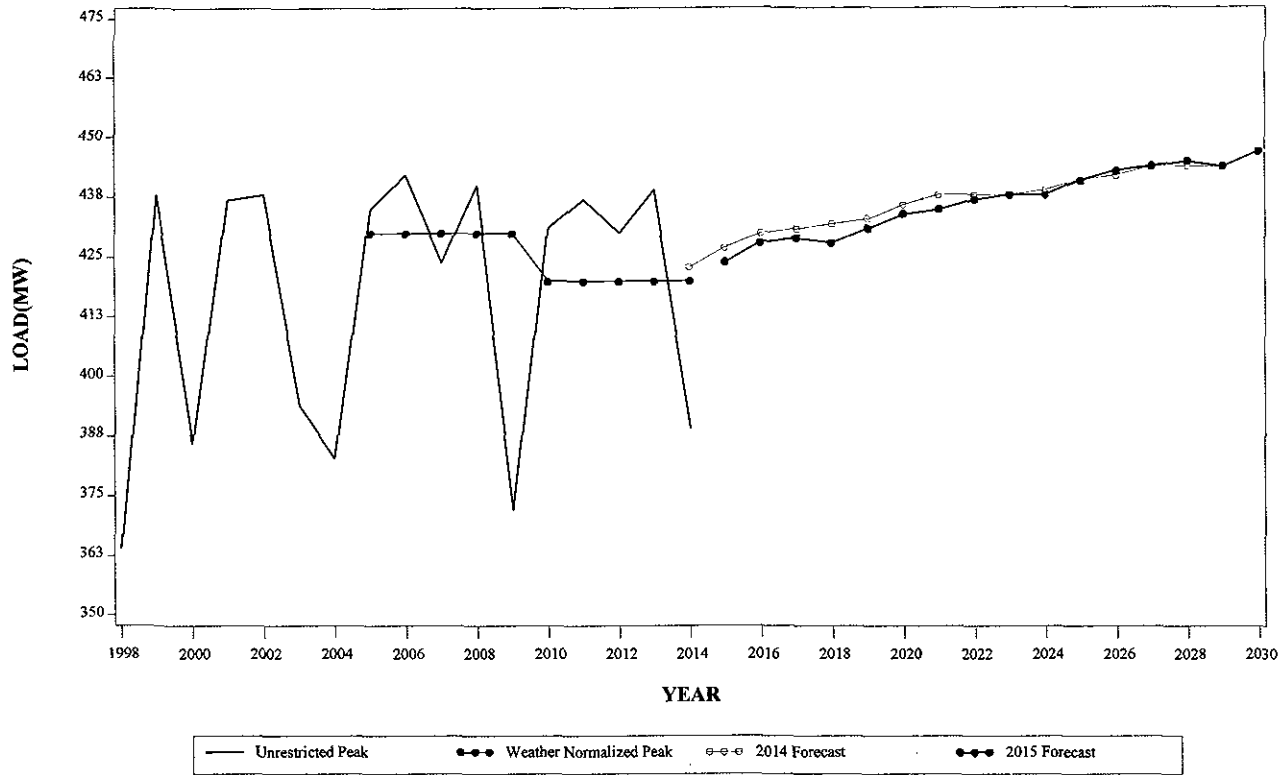
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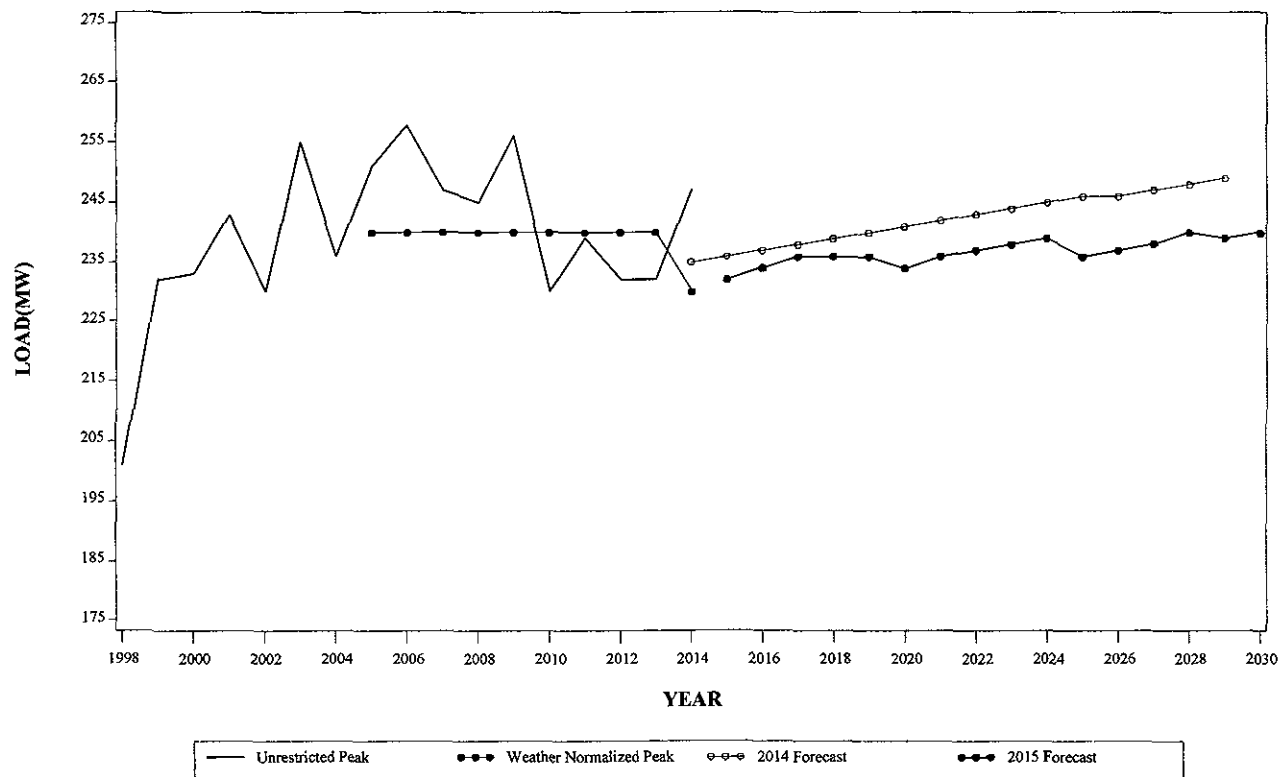
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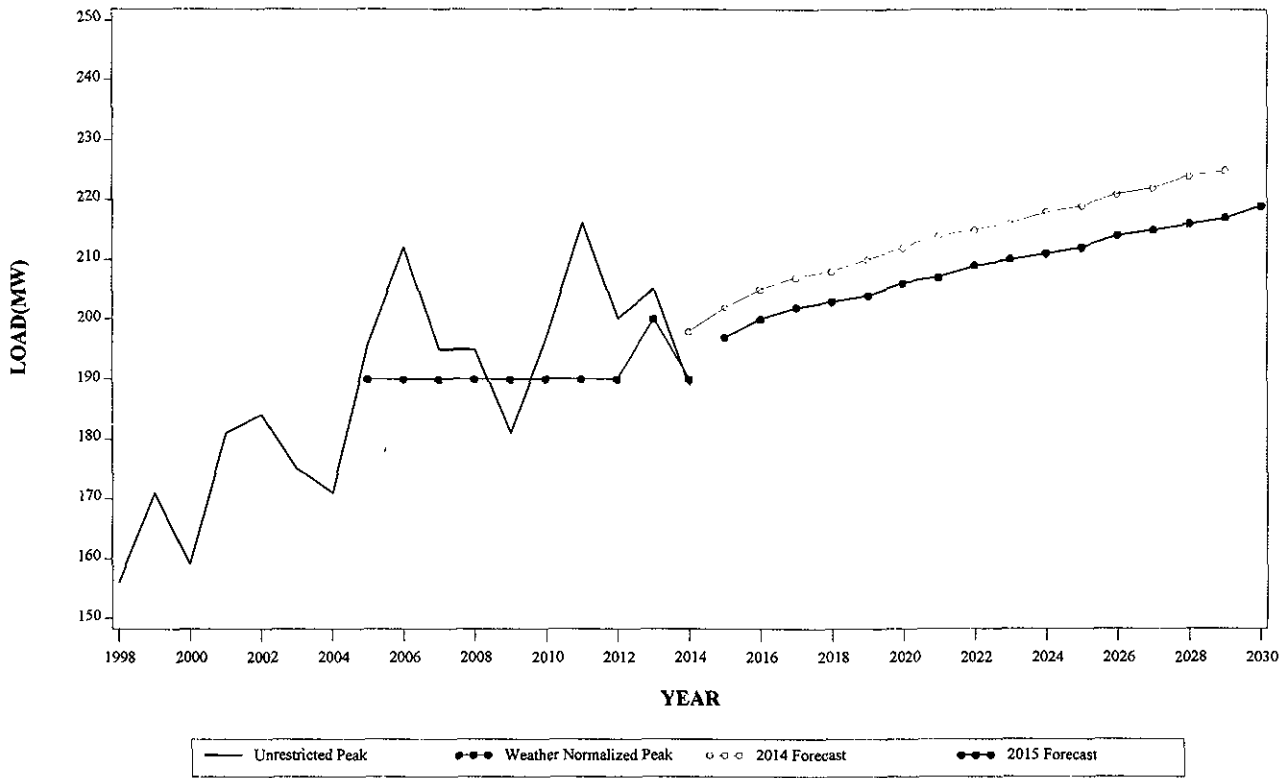
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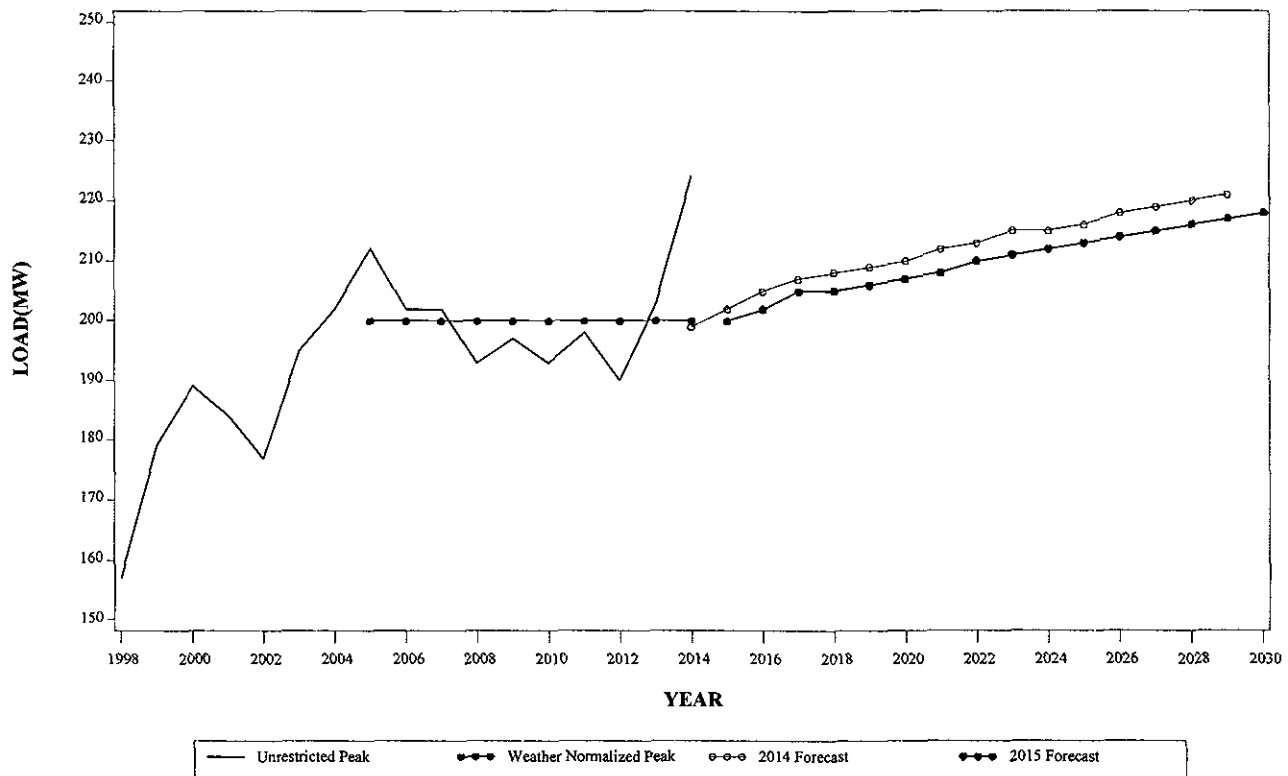
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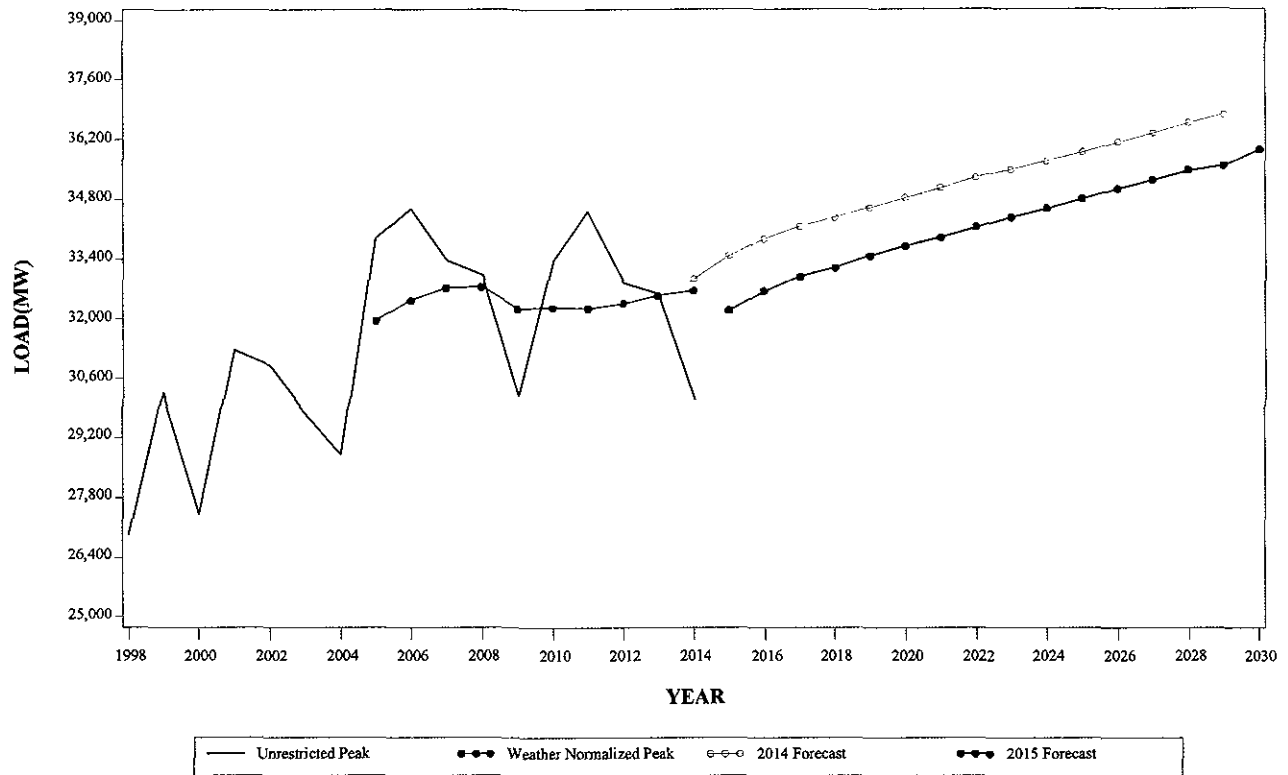
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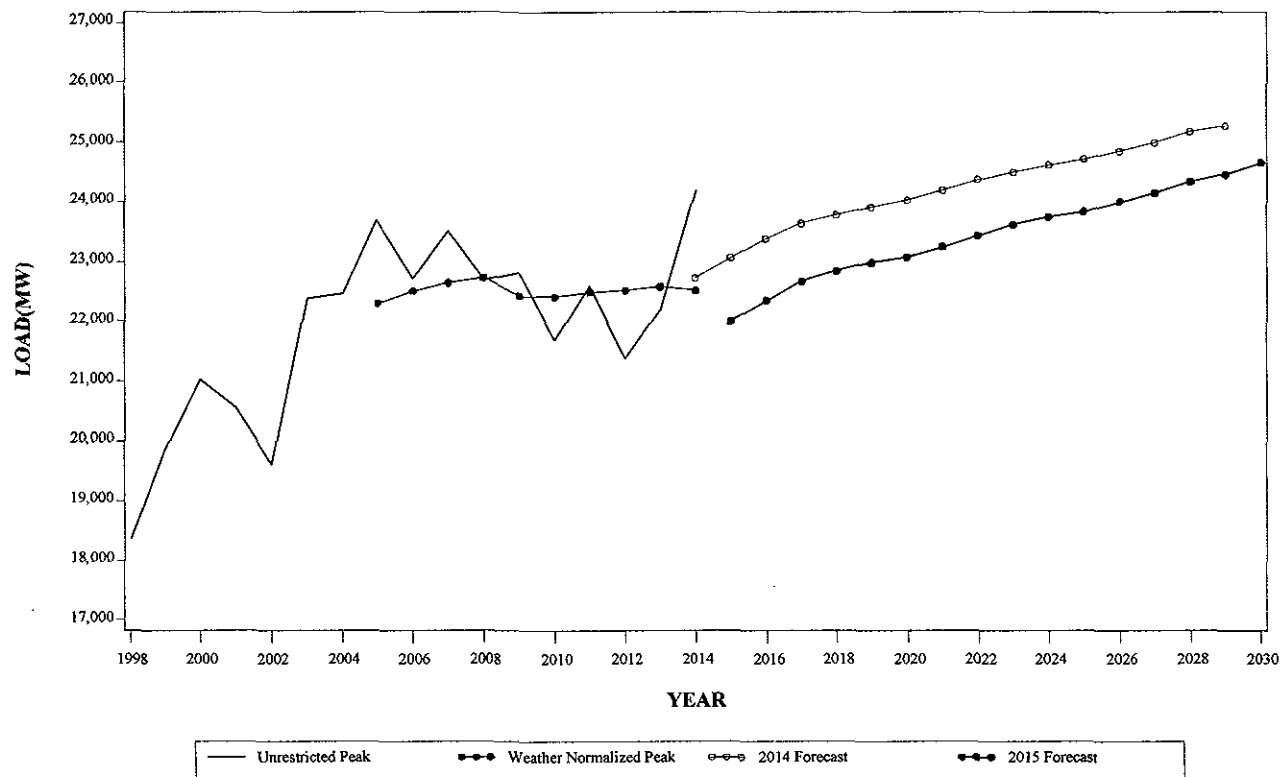
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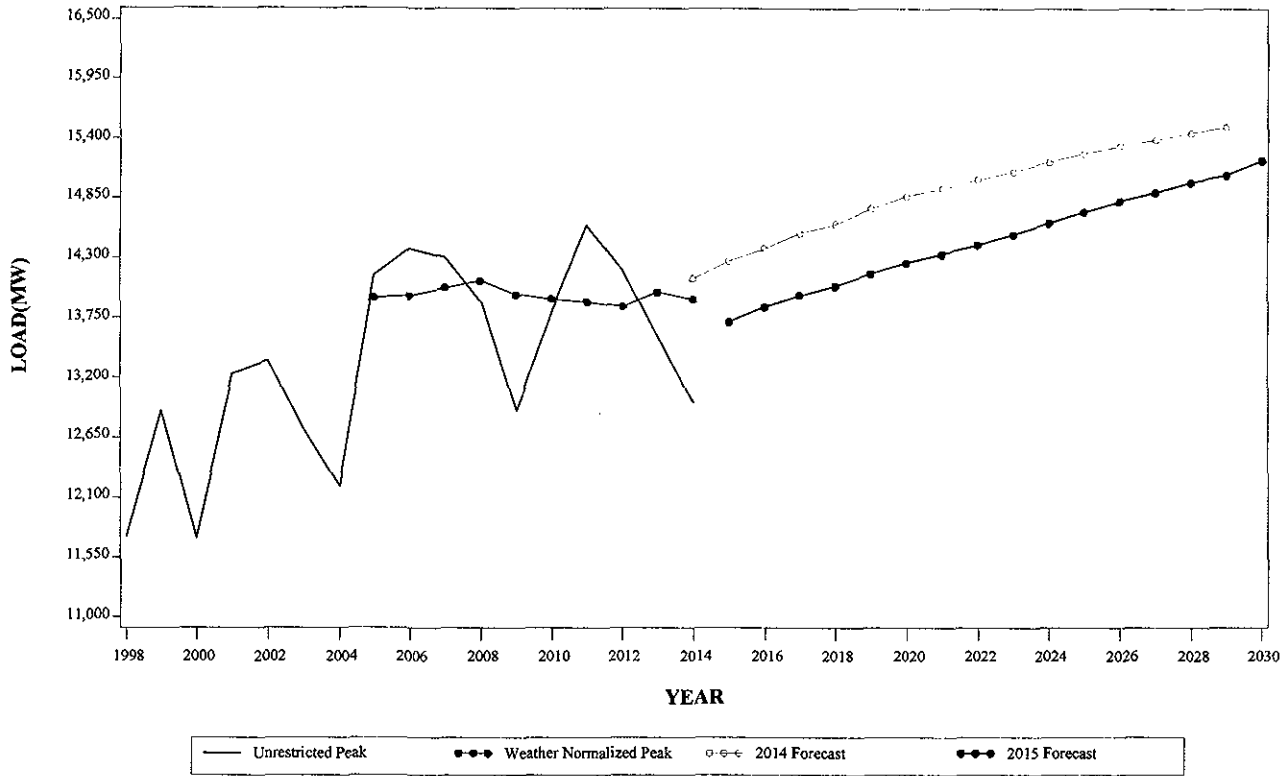
SUMMER PEAK DEMAND FOR EASTERN MID-ATLANTIC GEOGRAPHIC ZONE



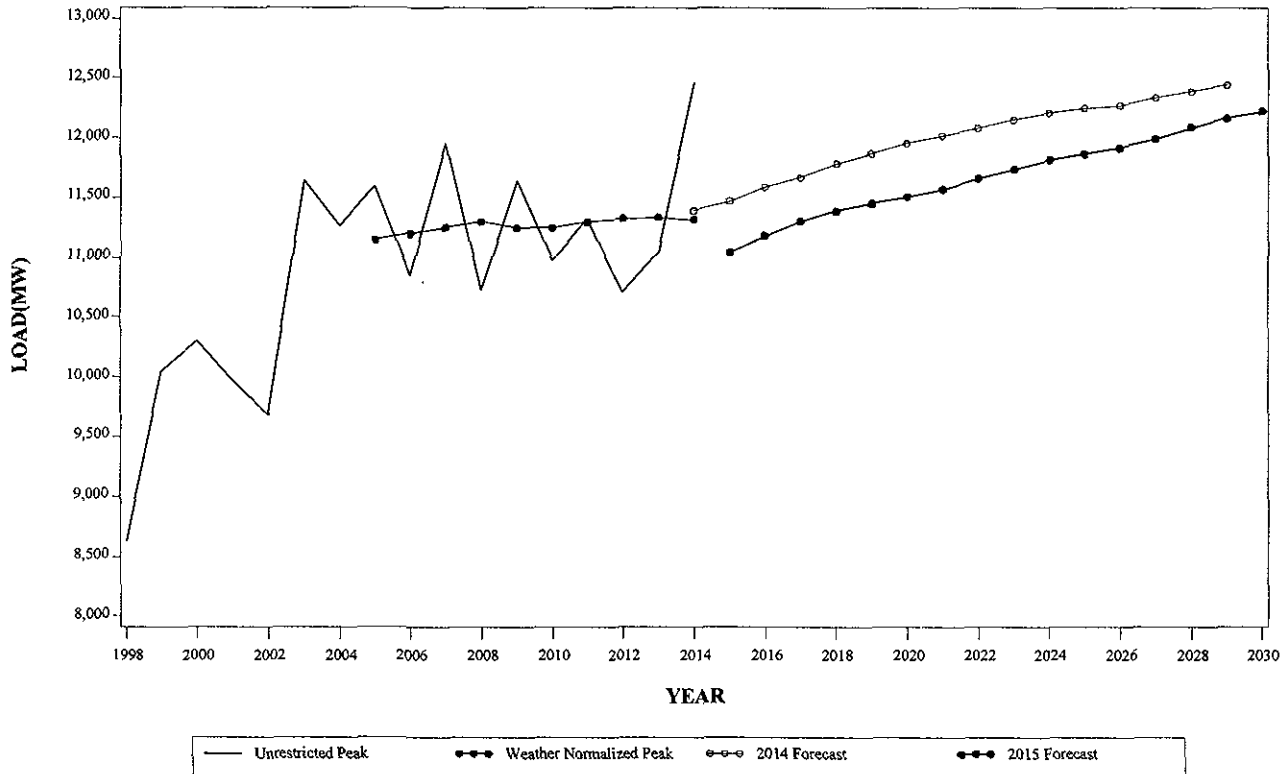
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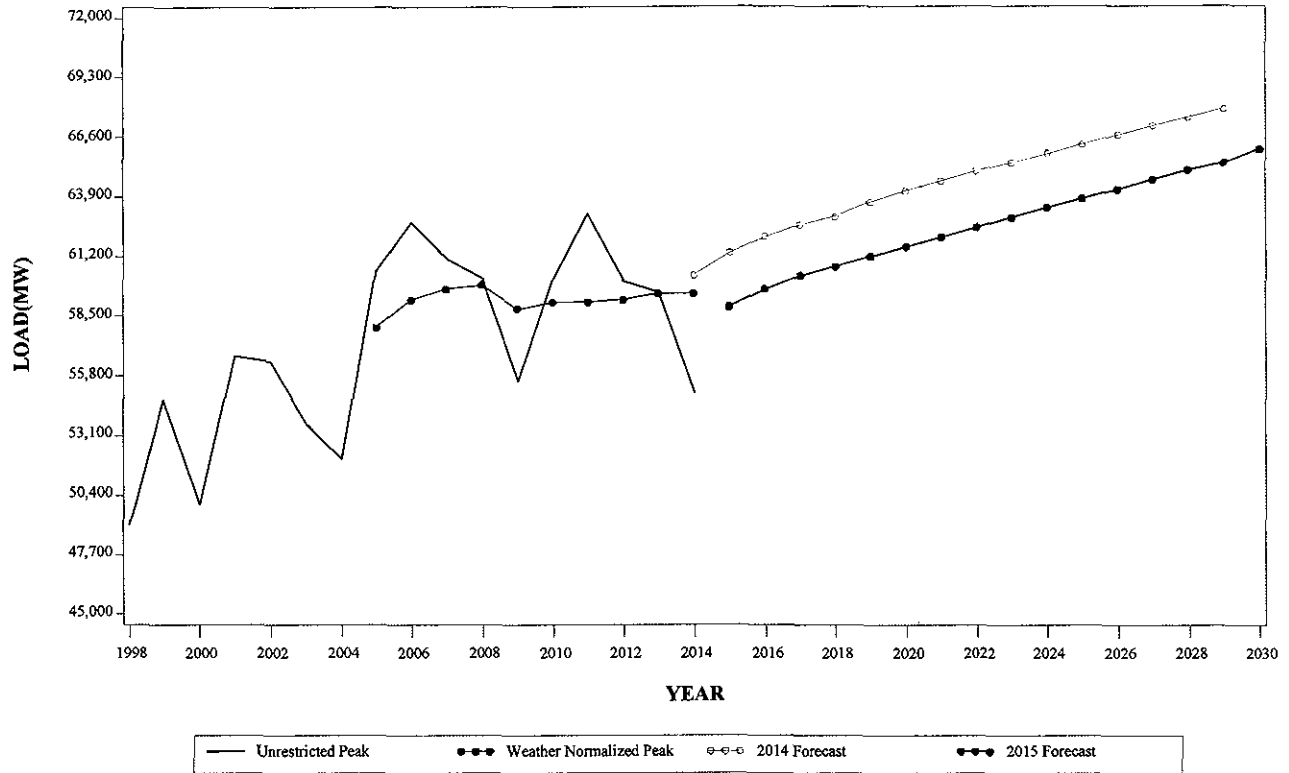
SUMMER PEAK DEMAND FOR SOUTHERN MID-ATLANTIC GEOGRAPHIC ZONE



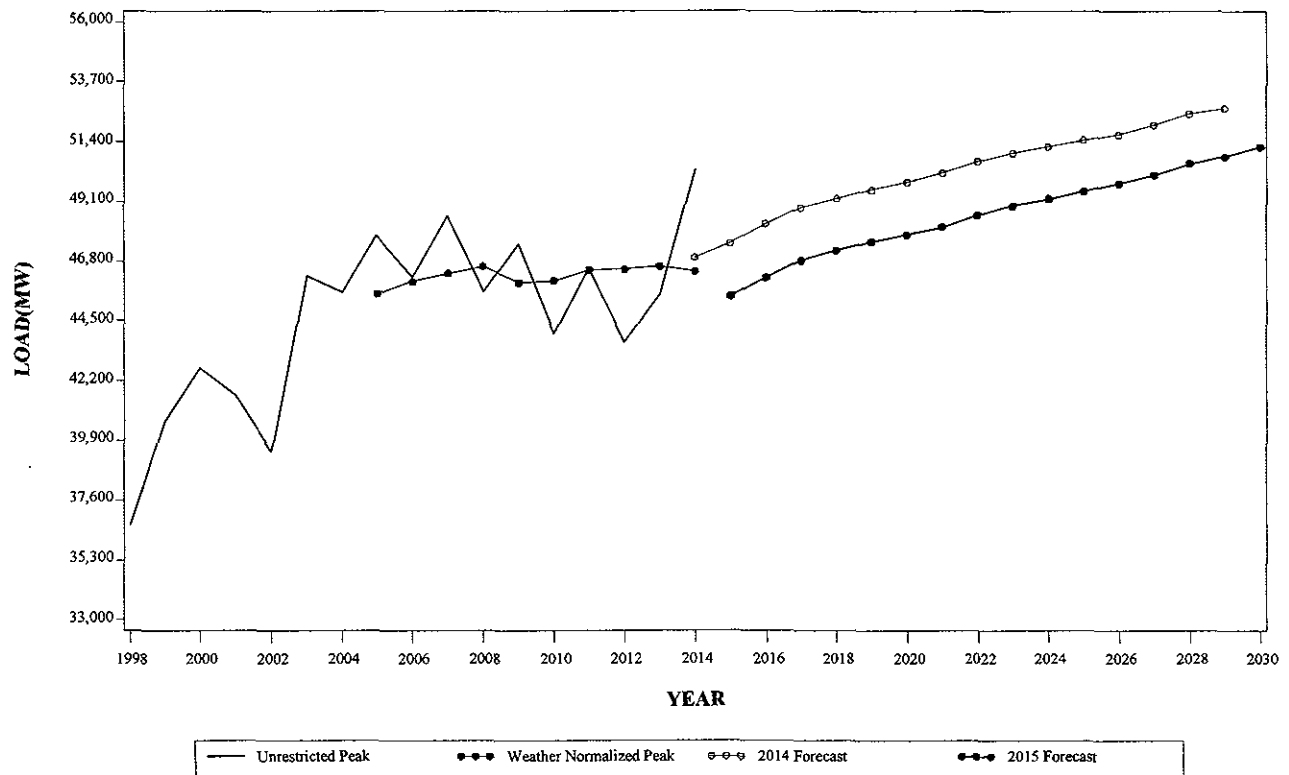
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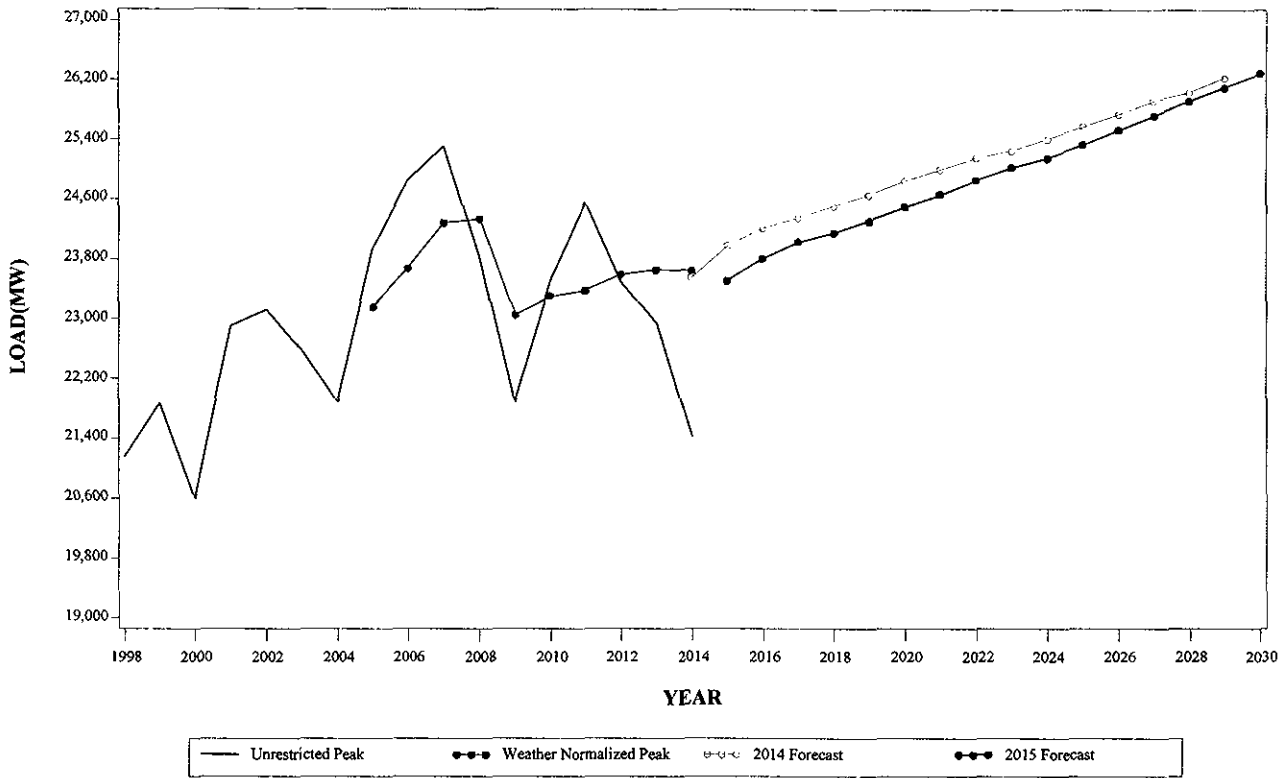
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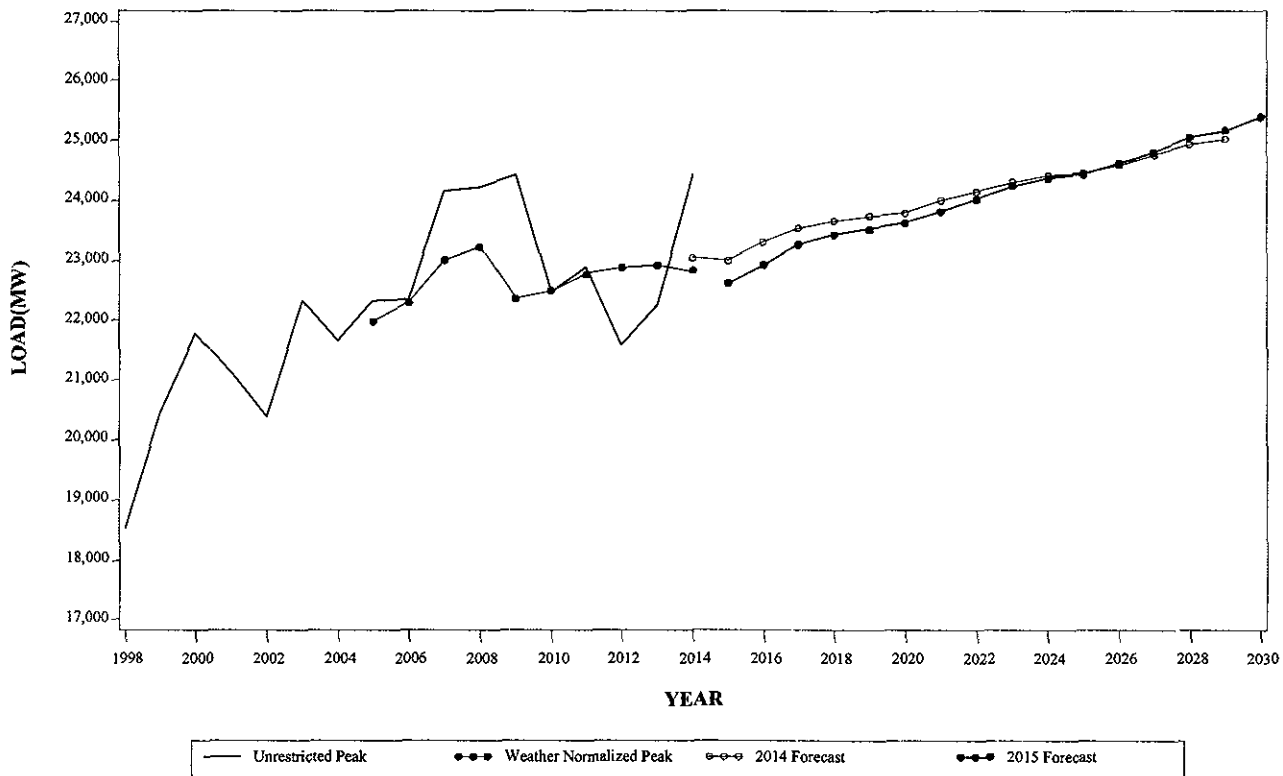
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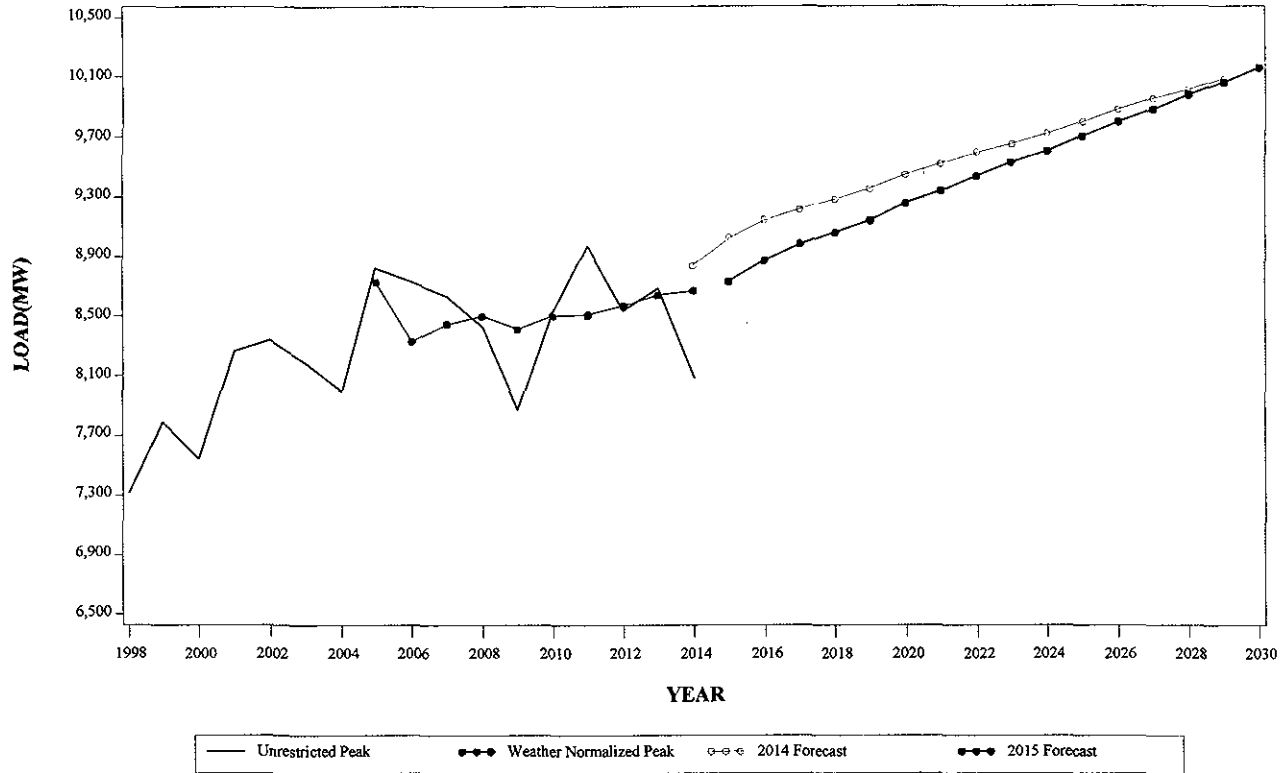
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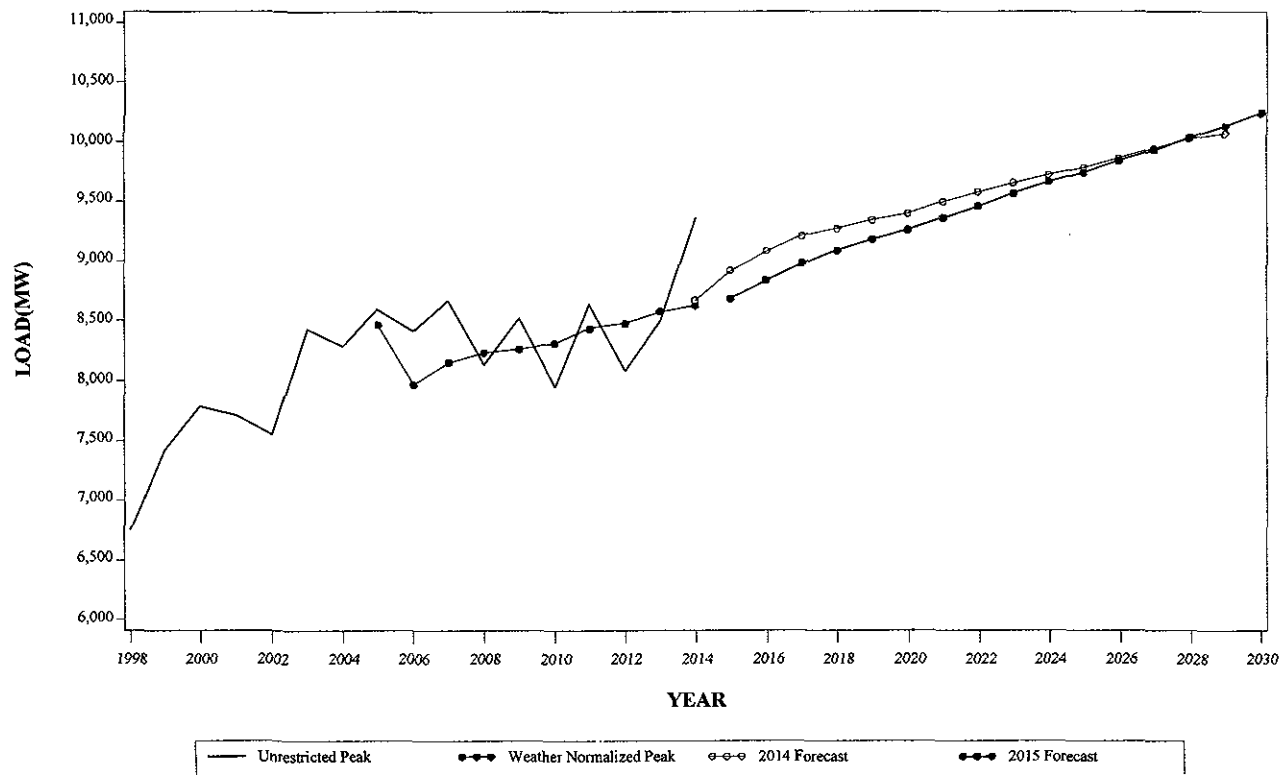
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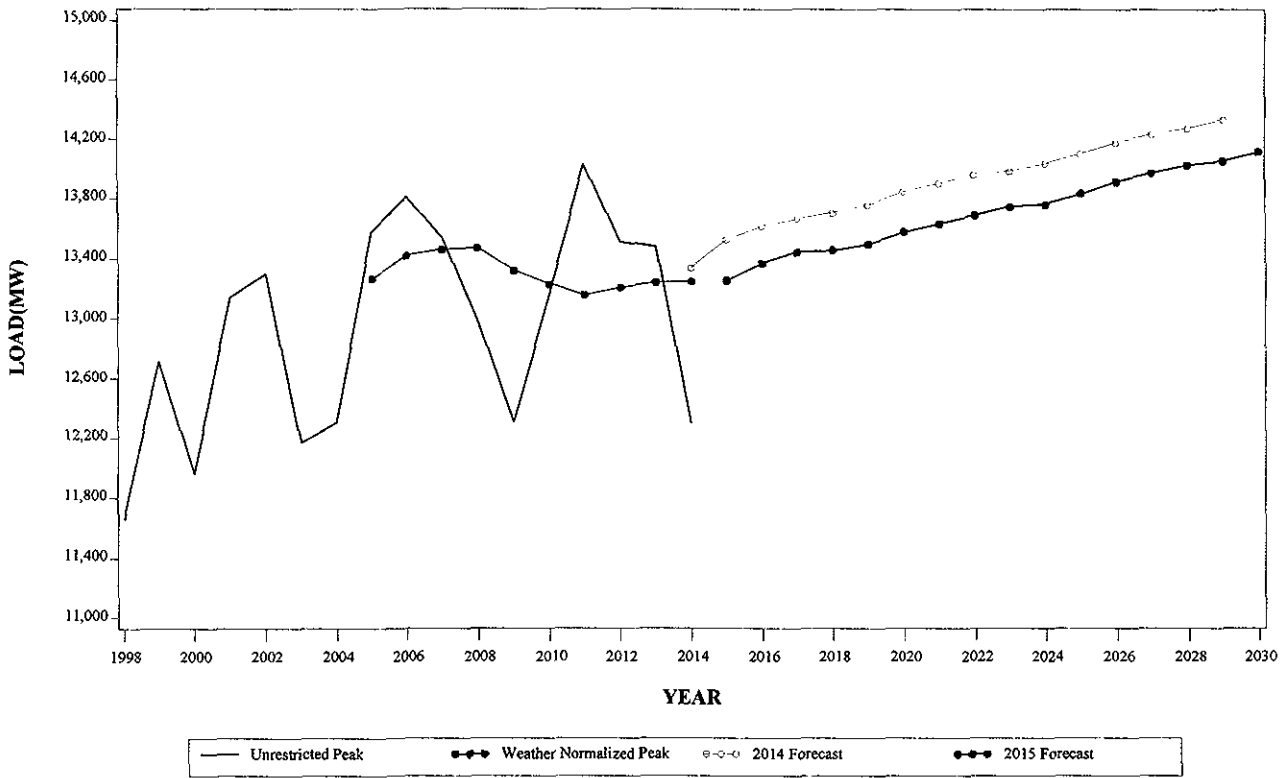
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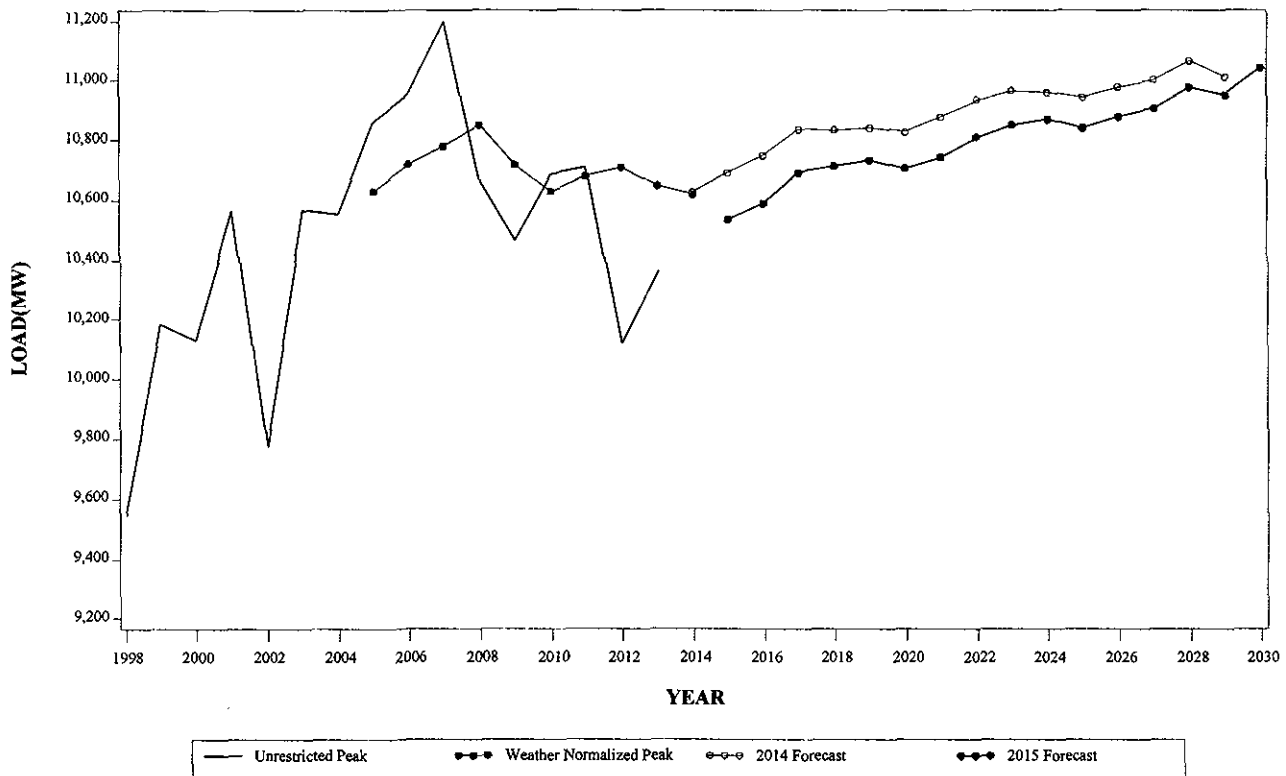
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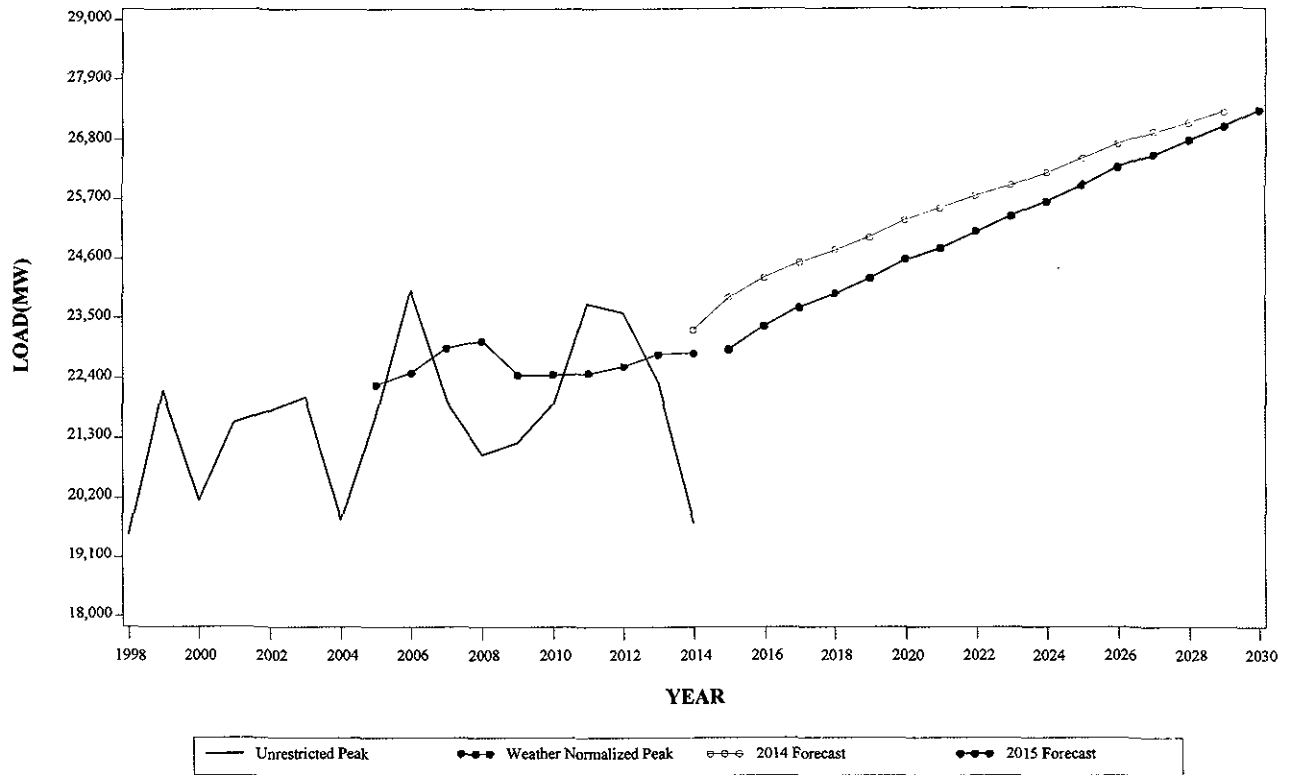
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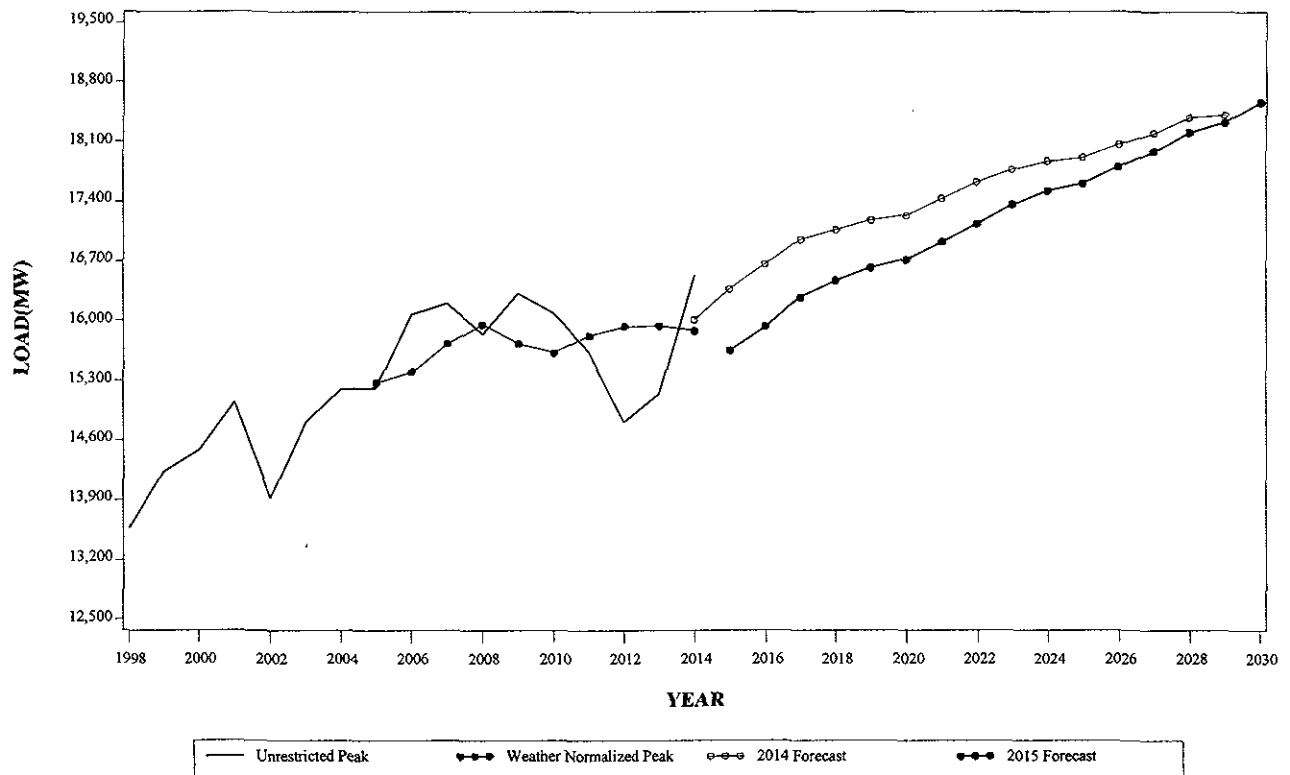
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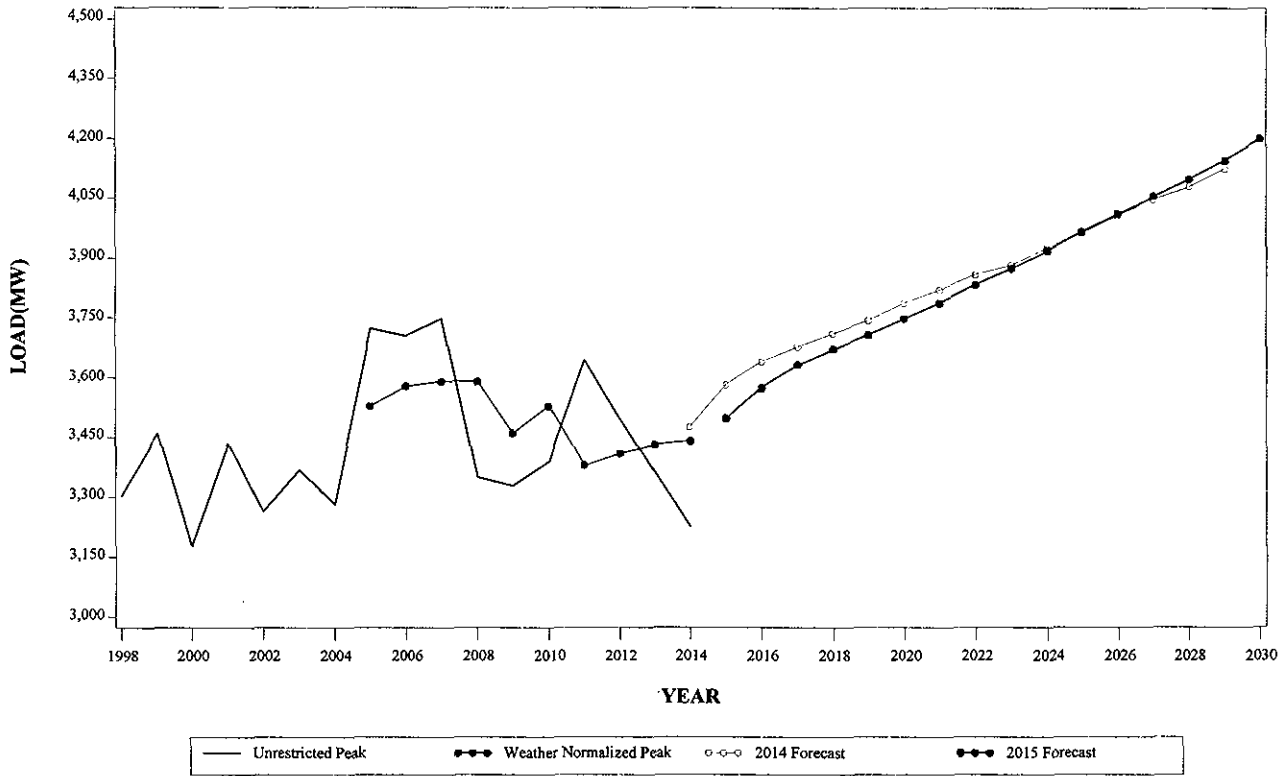
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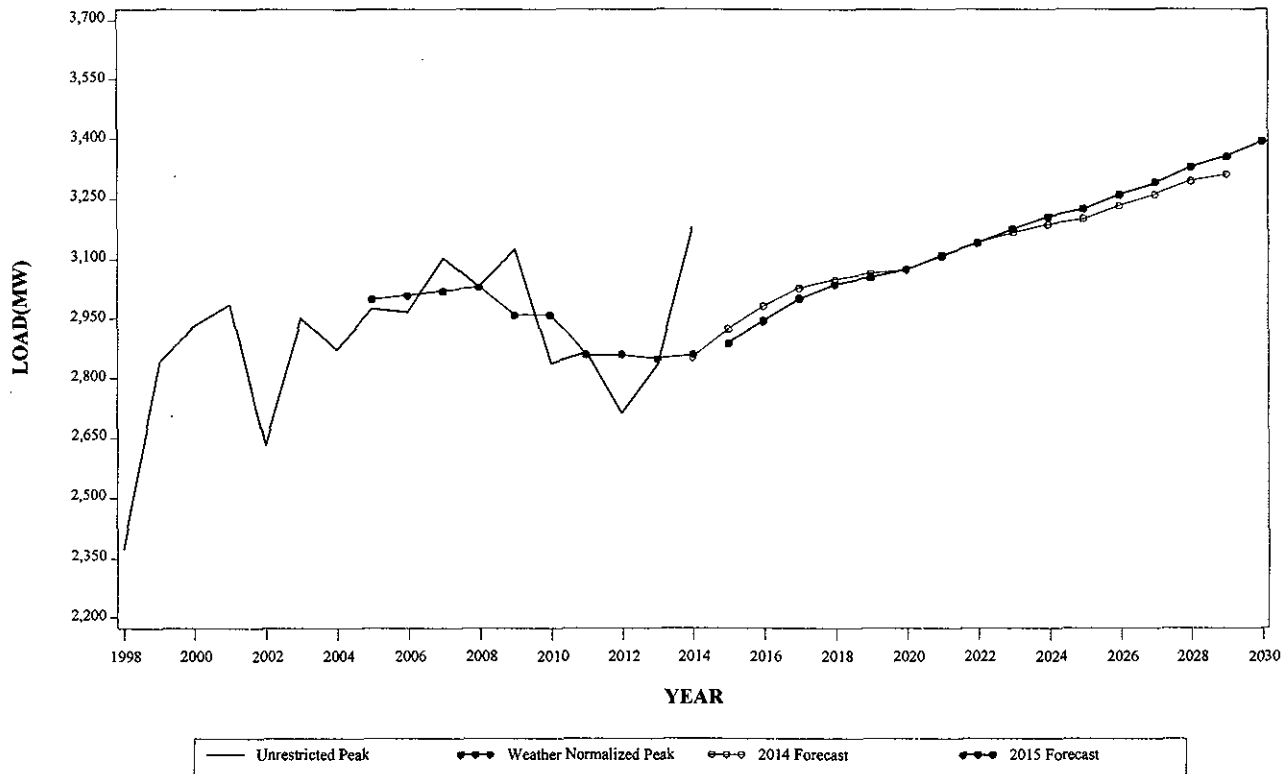
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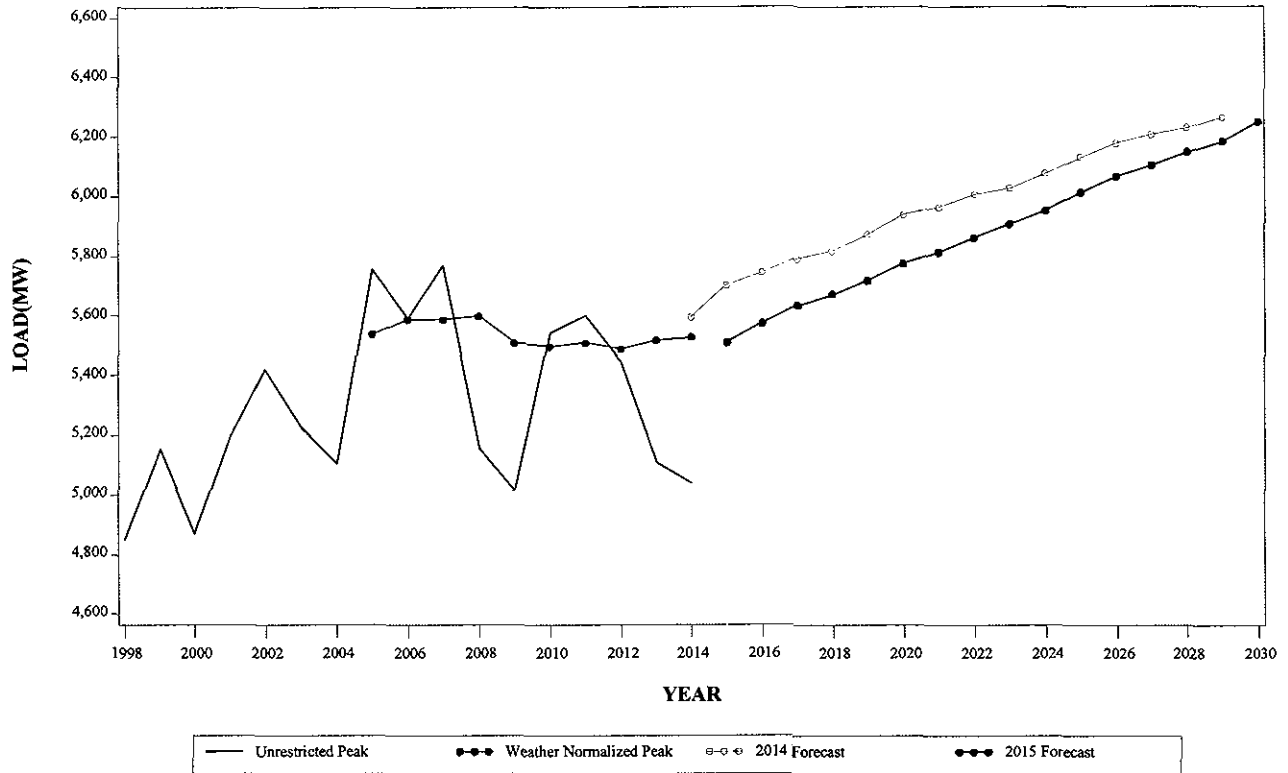
SUMMER PEAK DEMAND FOR DAYTON GEOGRAPHIC ZONE



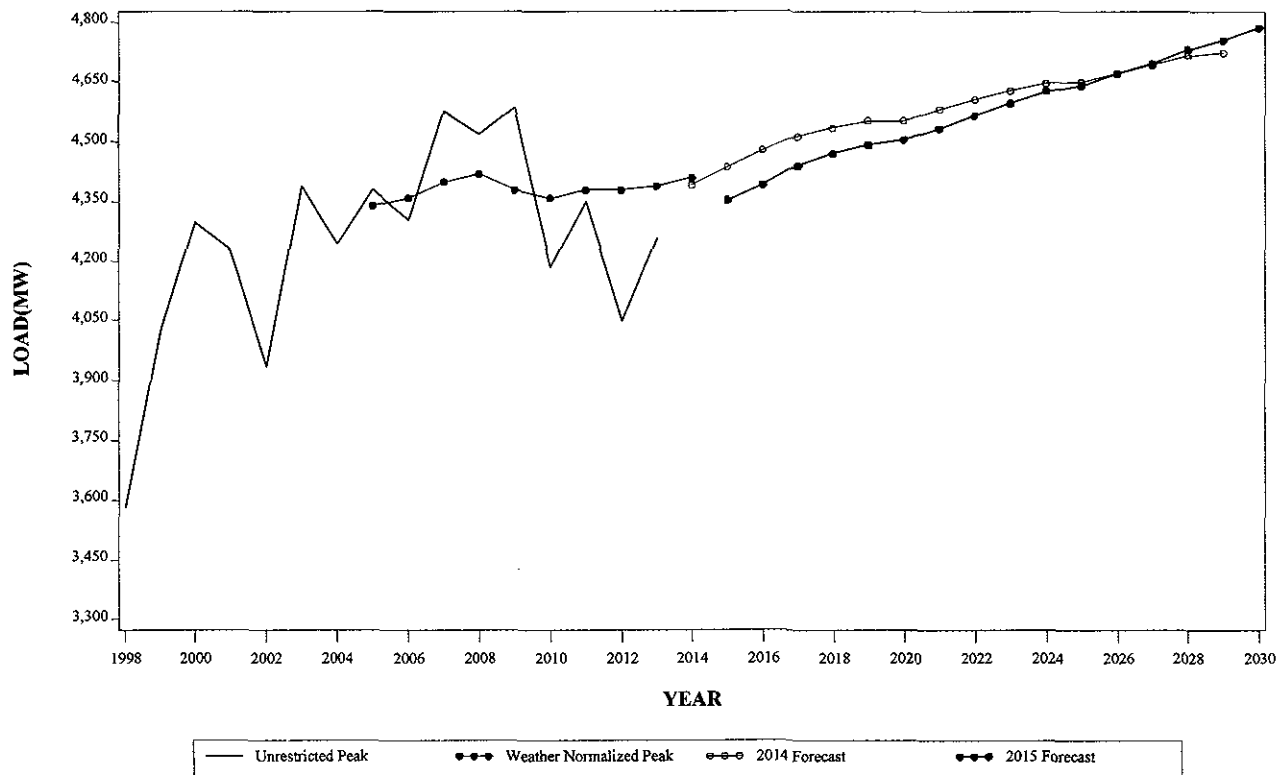
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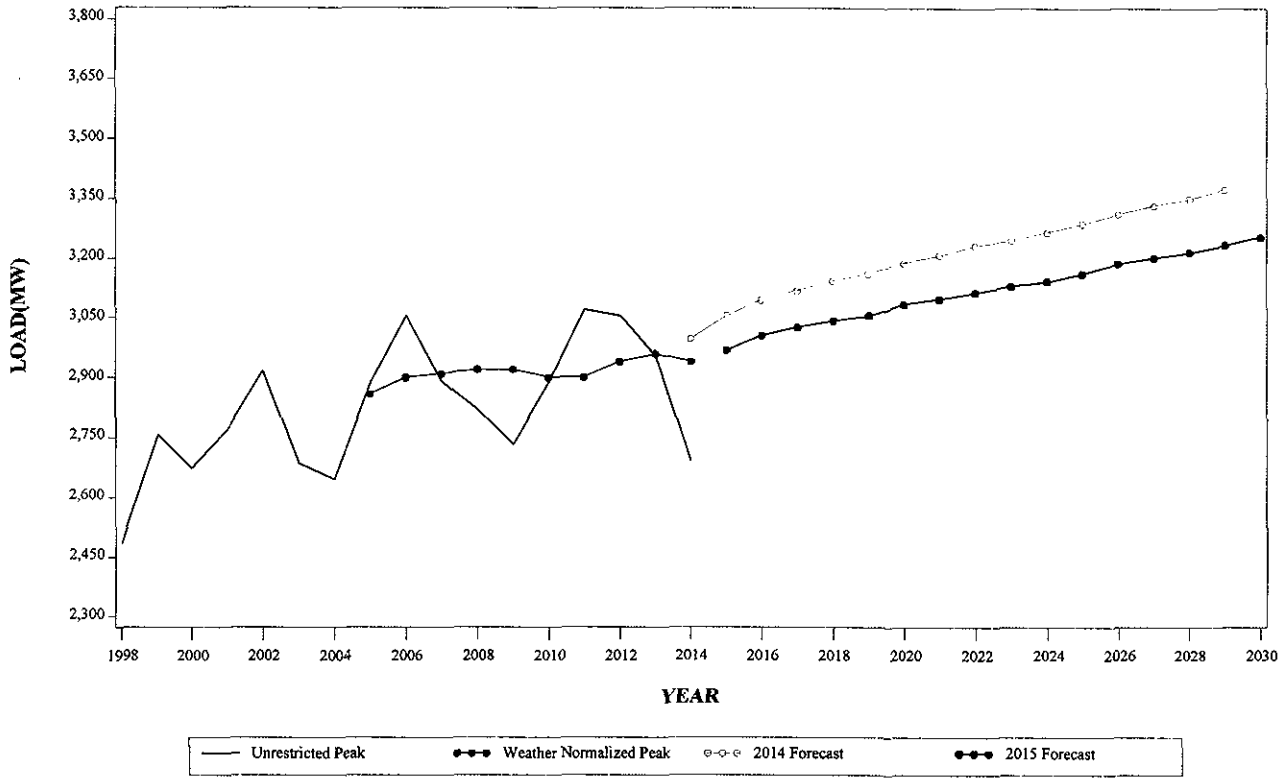
SUMMER PEAK DEMAND FOR DEOK GEOGRAPHIC ZONE



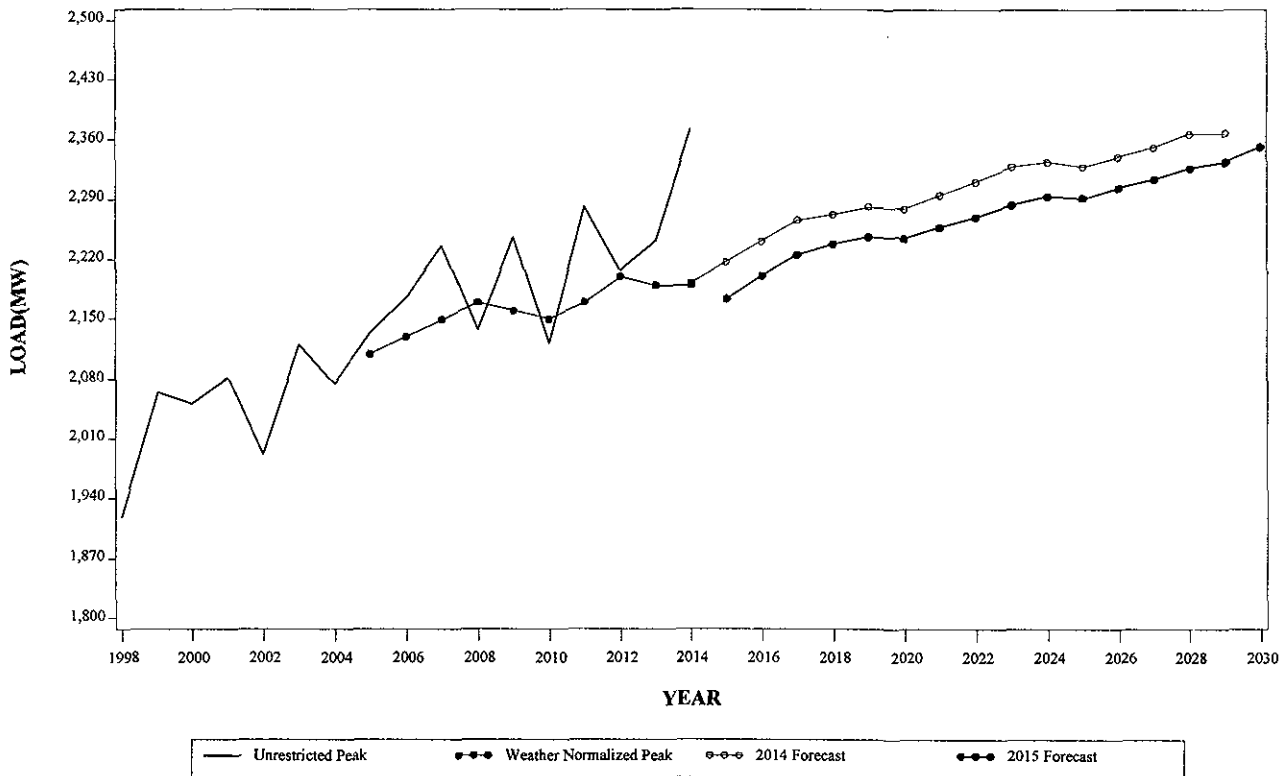
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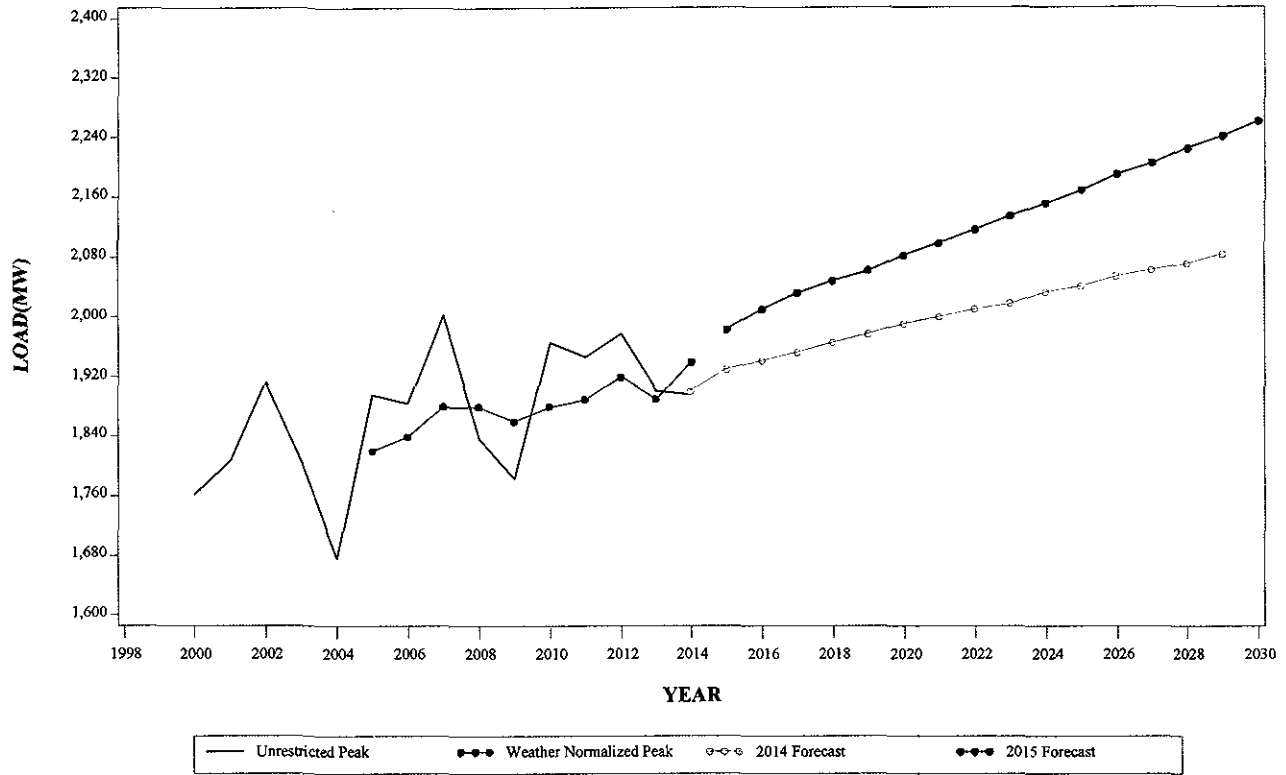
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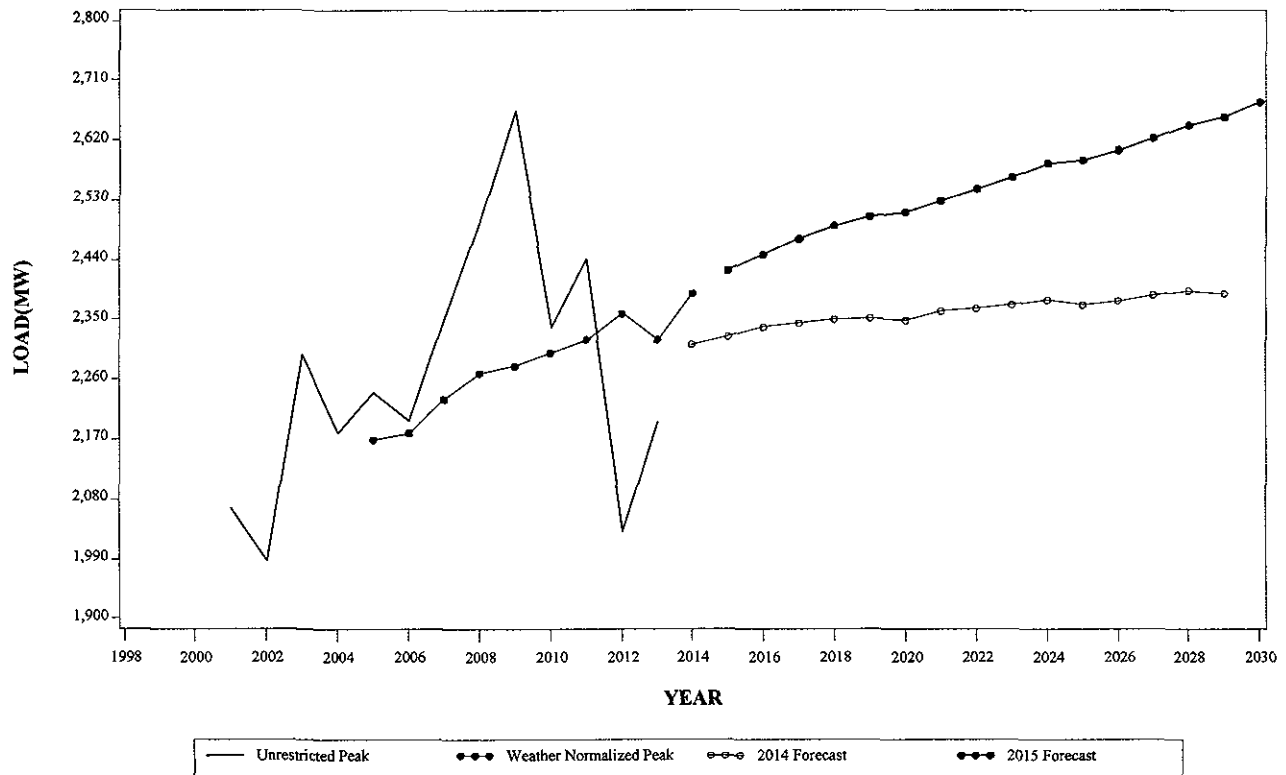
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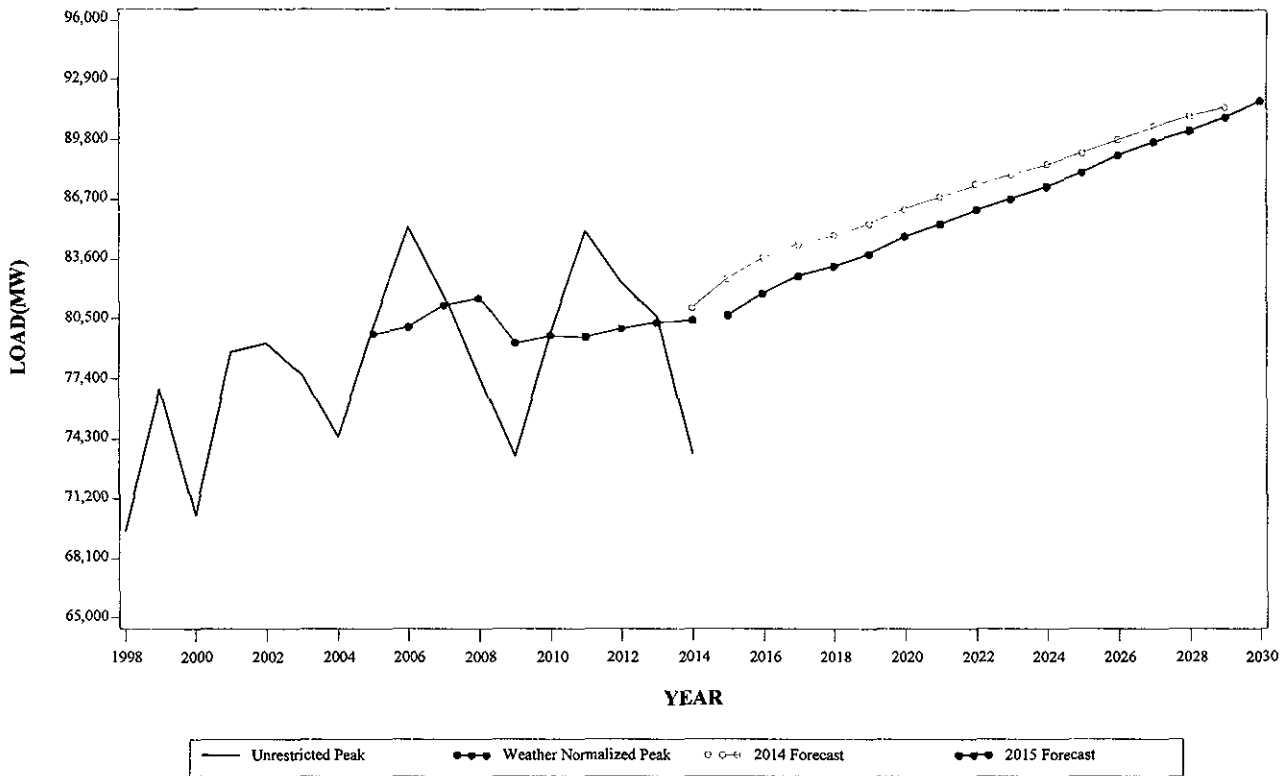
SUMMER PEAK DEMAND FOR EKPC GEOGRAPHIC ZONE



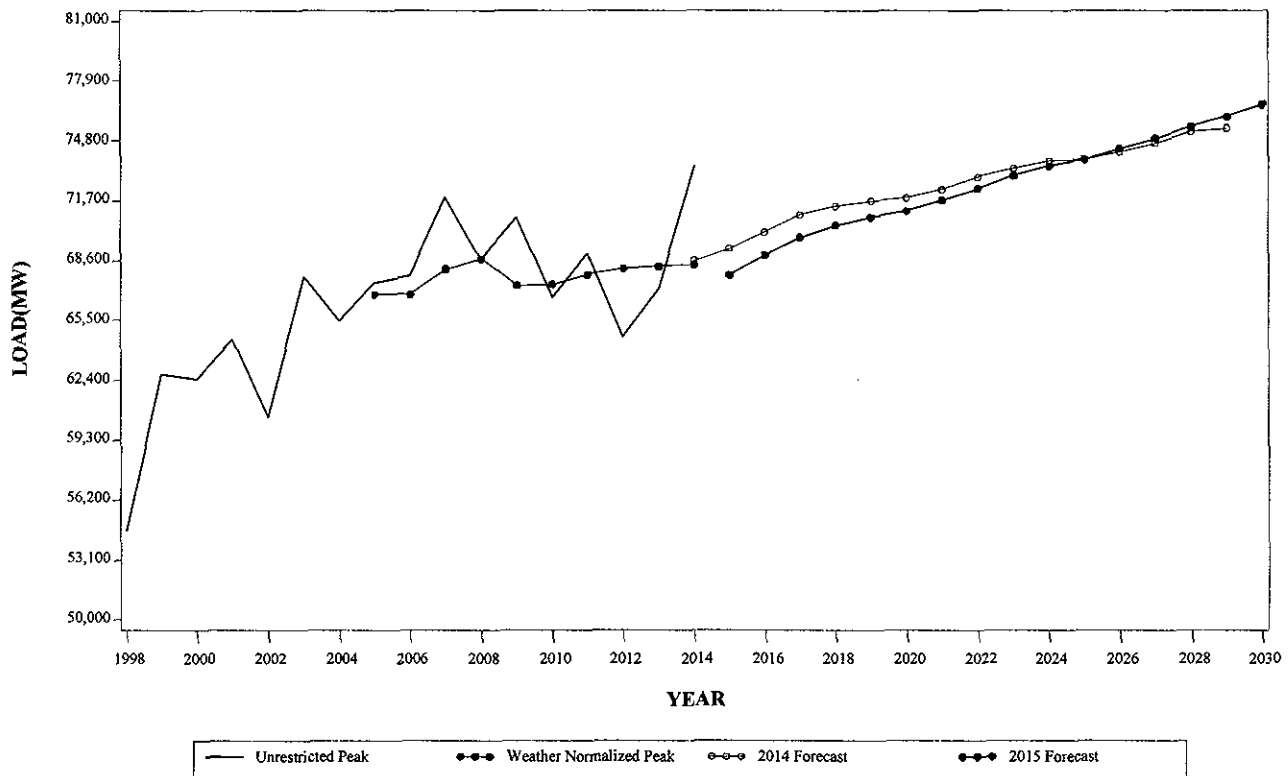
WINTER PEAK DEMAND FOR EKPC GEOGRAPHIC ZONE



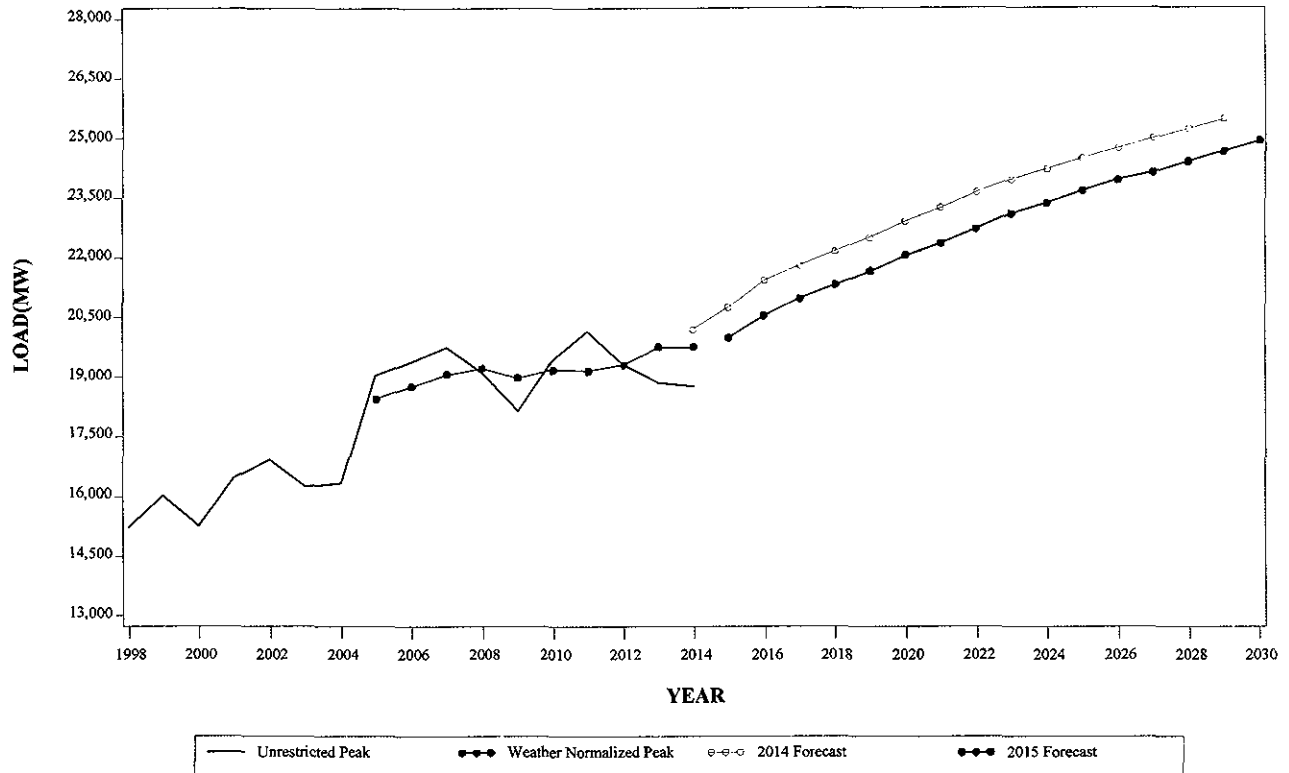
SUMMER PEAK DEMAND FOR PJM WESTERN GEOGRAPHIC ZONE



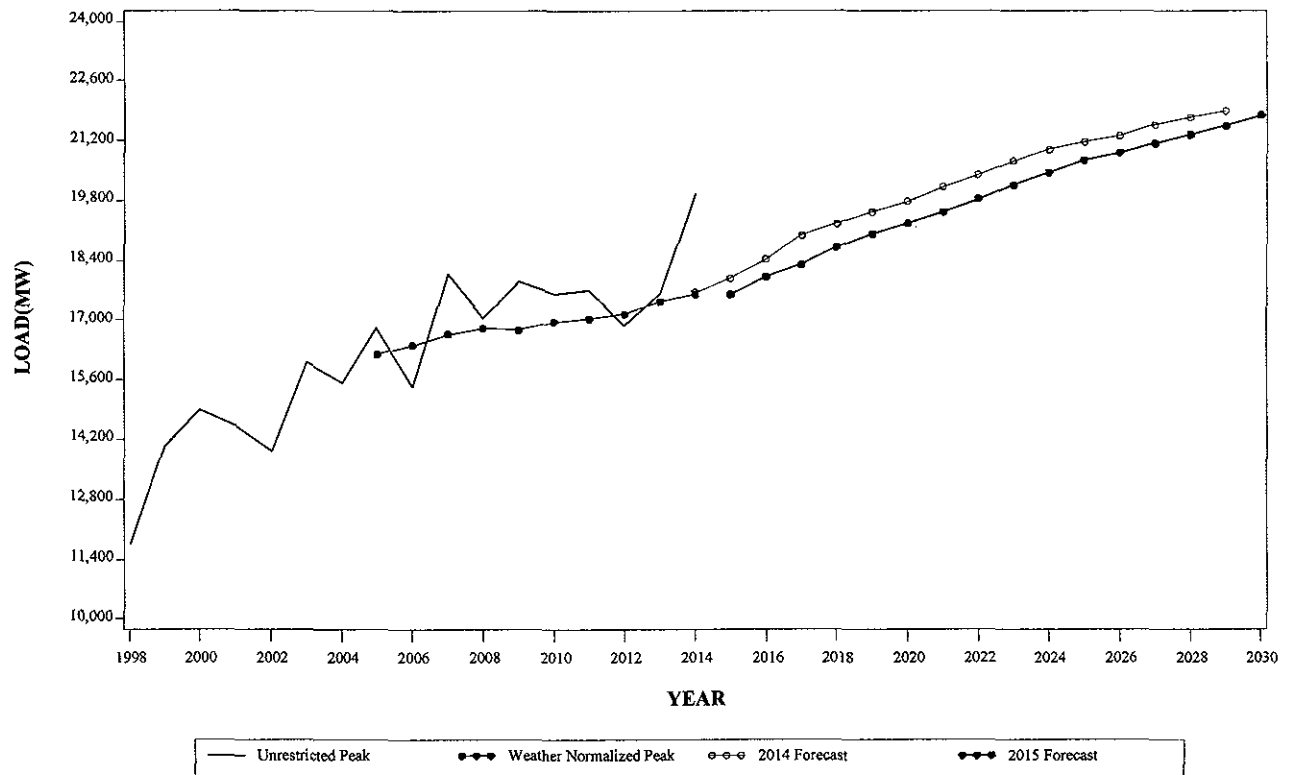
WINTER PEAK DEMAND FOR PJM WESTERN GEOGRAPHIC ZONE



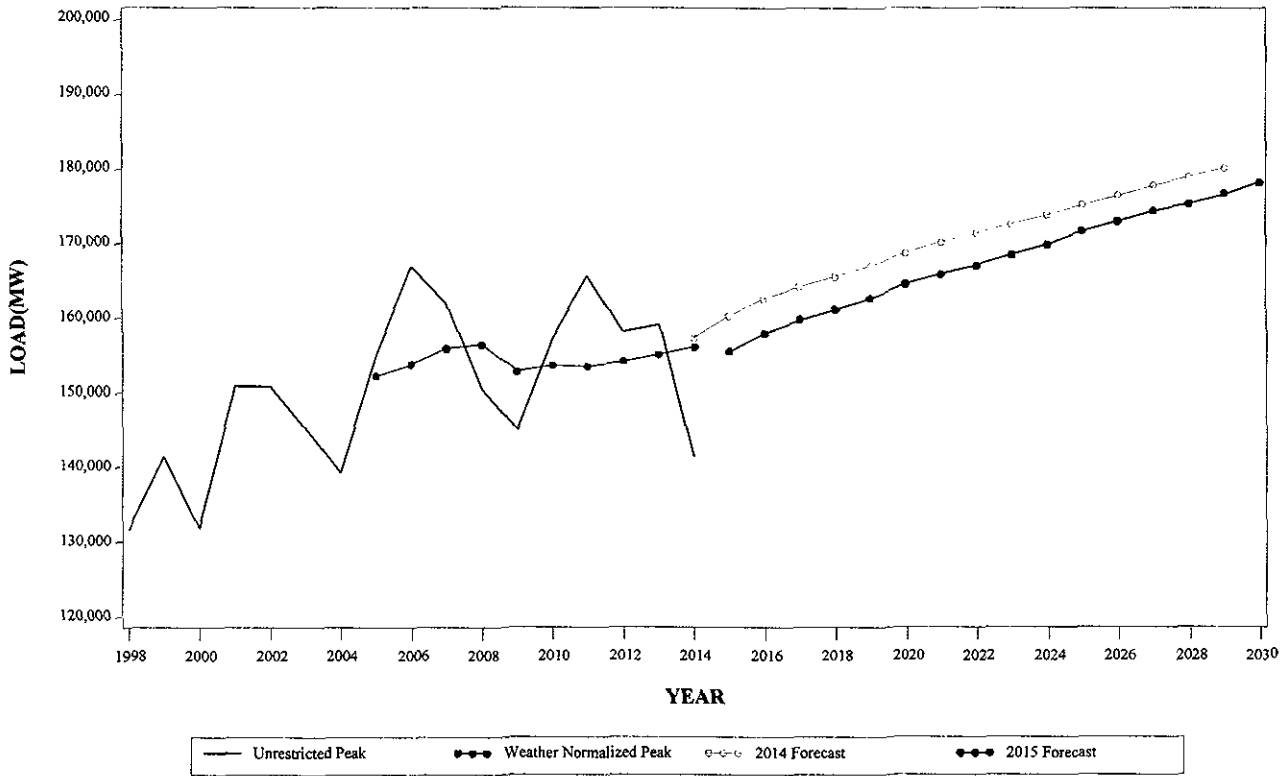
SUMMER PEAK DEMAND FOR DOM GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR DOM GEOGRAPHIC ZONE



SUMMER PEAK DEMAND FOR PJM RTO GEOGRAPHIC ZONE



WINTER PEAK DEMAND FOR PJM RTO GEOGRAPHIC ZONE

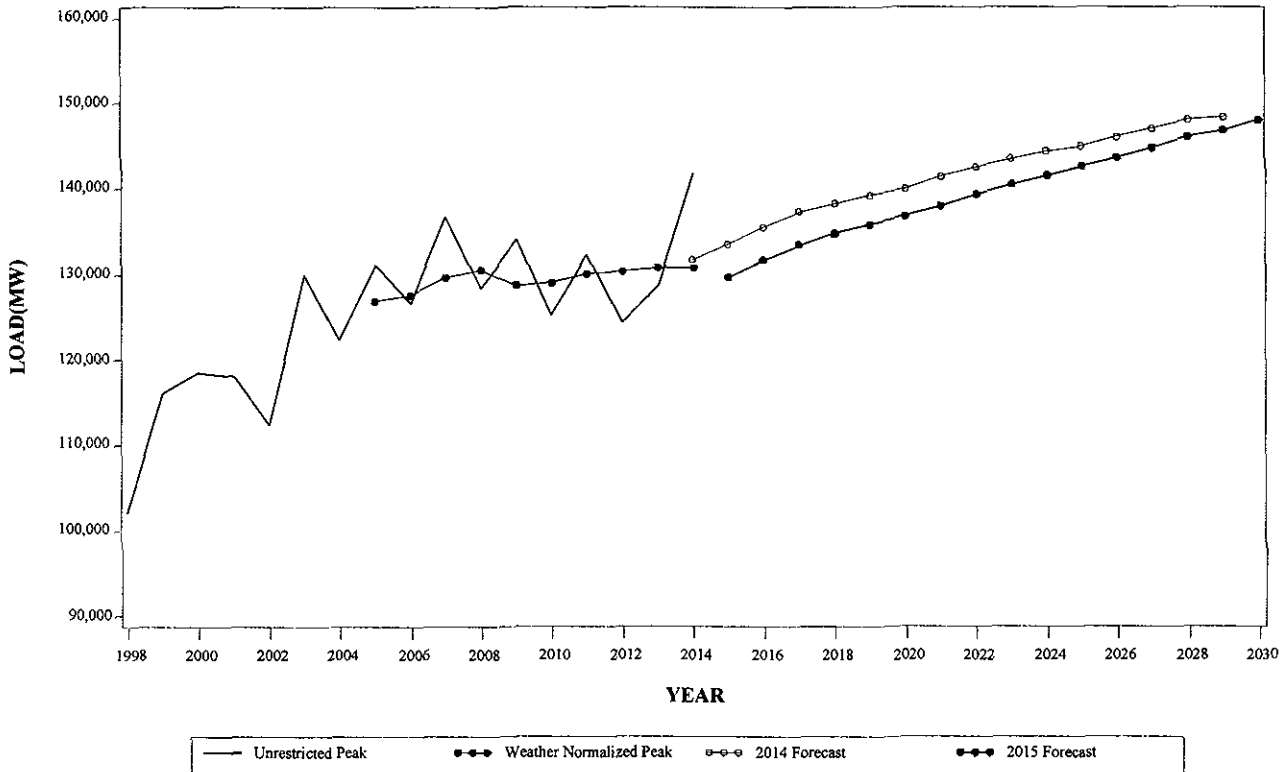


Table A-1

**PJM MID-ATLANTIC REGION
SUMMER PEAK LOAD COMPARISONS OF THE CURRENT FORECAST
TO THE JANUARY 2014 LOAD FORECAST REPORT**

INCREASE OR DECREASE OVER PRIOR FORECAST

	2015		2020		2025	
	MW	%	MW	%	MW	%
AE	(142)	-5.1%	(148)	-5.1%	(158)	-5.3%
BGE	(272)	-3.7%	(334)	-4.3%	(267)	-3.3%
DPL	(84)	-2.0%	(82)	-1.8%	(78)	-1.7%
JCPL	(225)	-3.5%	(192)	-2.8%	(141)	-2.0%
METED	(142)	-4.6%	(153)	-4.6%	(173)	-5.0%
PECO	(387)	-4.3%	(426)	-4.5%	(476)	-4.8%
PENLC	(145)	-4.7%	(174)	-5.3%	(204)	-5.9%
PEPCO	(308)	-4.4%	(297)	-4.2%	(277)	-3.8%
PL	(315)	-4.2%	(350)	-4.5%	(387)	-4.8%
PS	(454)	-4.2%	(385)	-3.5%	(328)	-2.9%
RECO	(3)	-0.7%	(2)	-0.5%	0	0.0%
UGI	(5)	-2.5%	(6)	-2.8%	(7)	-3.2%
PJM MID-ATLANTIC	(2,463)	-4.0%	(2,518)	-3.9%	(2,441)	-3.7%
FE-EAST	(505)	-4.1%	(496)	-3.8%	(490)	-3.6%
PLGRP	(309)	-4.0%	(345)	-4.3%	(394)	-4.7%

Table A-1

**PJM WESTERN REGION, PJM SOUTHERN REGION AND PJM RTO
SUMMER PEAK LOAD COMPARISONS OF THE CURRENT FORECAST
TO THE JANUARY 2014 LOAD FORECAST REPORT**

INCREASE OR DECREASE OVER PRIOR FORECAST

	2015		2020		2025	
	MW	%	MW	%	MW	%
ABP	(471)	-2.0%	(343)	-1.4%	(247)	-1.0%
APS	(290)	-3.2%	(193)	-2.0%	(98)	-1.0%
ATSI	(274)	-2.0%	(269)	-1.9%	(266)	-1.9%
COMED	(965)	-4.0%	(730)	-2.9%	(485)	-1.8%
DAYTON	(86)	-2.4%	(39)	-1.0%	1	0.0%
DEOK	(193)	-3.4%	(165)	-2.8%	(118)	-1.9%
DLCO	(87)	-2.8%	(105)	-3.3%	(128)	-3.9%
EKPC	53	2.7%	91	4.6%	129	6.3%
PJM WESTERN	(1,908)	-2.3%	(1,416)	-1.6%	(1,020)	-1.1%
DOM	(766)	-3.7%	(846)	-3.7%	(818)	-3.3%
PJM RTO	(4,716)	-2.9%	(4,152)	-2.5%	(3,503)	-2.0%

Table A-2

PJM MID-ATLANTIC REGION

WINTER PEAK LOAD COMPARISONS OF THE CURRENT FORECAST

TO THE JANUARY 2014 LOAD FORECAST REPORT

INCREASE OR DECREASE OVER PRIOR FORECAST

	14/15		19/20		24/25	
	MW	%	MW	%	MW	%
AE	(108)	-6.1%	(111)	-6.1%	(117)	-6.3%
BGE	(211)	-3.5%	(266)	-4.3%	(261)	-4.1%
DPL	(58)	-1.7%	(35)	-1.0%	(28)	-0.8%
JCPL	(201)	-5.0%	(157)	-3.8%	(126)	-2.9%
METED	(116)	-4.3%	(110)	-3.8%	(116)	-3.8%
PECO	(312)	-4.5%	(316)	-4.4%	(346)	-4.6%
PENLC	(128)	-4.3%	(154)	-4.7%	(193)	-5.6%
PEPCO	(233)	-4.2%	(188)	-3.3%	(150)	-2.5%
PL	(246)	-3.3%	(250)	-3.2%	(278)	-3.4%
PS	(400)	-5.7%	(331)	-4.6%	(286)	-3.9%
RECO	(4)	-1.7%	(7)	-2.9%	(10)	-4.1%
UGI	(2)	-1.0%	(3)	-1.4%	(3)	-1.4%
PJM MID-ATLANTIC	(2,015)	-4.2%	(2,037)	-4.1%	(1,971)	-3.8%
FE-EAST	(452)	-4.7%	(426)	-4.2%	(426)	-4.0%
PLGRP	(240)	-3.1%	(248)	-3.1%	(265)	-3.2%

Table A-2

**PJM WESTERN REGION, PJM SOUTHERN REGION AND PJM RTO
WINTER PEAK LOAD COMPARISONS OF THE CURRENT FORECAST
TO THE JANUARY 2014 LOAD FORECAST REPORT**

INCREASE OR DECREASE OVER PRIOR FORECAST

	14/15	19/20	24/25	
	MW	MW	MW	%
AEP	(370)	(166)	(19)	-0.1%
APS	(232)	(138)	(41)	-0.4%
ATSI	(155)	(120)	(104)	-1.0%
COMED	(716)	(515)	(306)	-1.7%
DAYTON	(36)	(1)	24	0.7%
DEOK	(83)	(47)	(9)	-0.2%
DLCO	(43)	(35)	(37)	-1.6%
EKPC	99	163	218	9.2%
PJM WESTERN	(1,357)	(672)	2	0.0%
DOM	(372)	(515)	(425)	-2.0%
PJM RTO	(3,798)	(3,187)	(2,351)	-1.6%

Table B-1

**SUMMER PEAK LOAD (MW) AND GROWTH RATES FOR
EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION
2015 - 2025**

	METERED 2014	UNRESTRICTED 2014	NORMAL 2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Annual Growth Rate (10 yr)
AE	2,444	2,444	2,700	2,664 -1.3%	2,702 1.4%	2,727 0.9%	2,739 0.4%	2,747 0.3%	2,762 0.5%	2,773 0.4%	2,790 0.6%	2,805 0.5%	2,812 0.2%	2,827 0.5%	0.6%
BGE	6,666	6,666	7,200	7,127 -1.0%	7,212 1.2%	7,287 1.0%	7,330 0.6%	7,388 0.8%	7,457 0.9%	7,511 0.7%	7,573 0.8%	7,637 0.8%	7,685 0.6%	7,753 0.9%	0.8%
DPL	3,876	3,876	4,170	4,177 0.2%	4,240 1.5%	4,287 1.1%	4,319 0.7%	4,349 0.7%	4,388 0.9%	4,418 0.7%	4,456 0.9%	4,491 0.8%	4,520 0.6%	4,557 0.8%	0.9%
JCPL	5,637	5,637	6,310	6,269 -0.6%	6,362 1.5%	6,435 1.1%	6,480 0.7%	6,531 0.8%	6,596 1.0%	6,643 0.7%	6,705 0.9%	6,752 0.7%	6,795 0.6%	6,851 0.8%	0.9%
METED	2,817	2,817	2,970	2,954 -0.5%	3,007 1.8%	3,048 1.4%	3,078 1.0%	3,112 1.1%	3,150 1.2%	3,177 0.9%	3,210 1.0%	3,243 1.0%	3,276 1.0%	3,310 1.0%	1.1%
PECO	8,258	8,258	8,680	8,645 -0.4%	8,768 1.4%	8,877 1.2%	8,951 0.8%	9,020 0.8%	9,096 0.8%	9,156 0.7%	9,230 0.8%	9,298 0.7%	9,360 0.7%	9,434 0.8%	0.9%
PENLC	2,789	2,789	2,890	2,914 0.8%	2,978 2.2%	3,026 1.6%	3,055 1.0%	3,086 1.0%	3,118 1.0%	3,148 1.0%	3,184 1.1%	3,217 1.0%	3,242 0.8%	3,276 1.0%	1.2%
PEPCO	6,346	6,346	6,770	6,640 -1.9%	6,694 0.8%	6,728 0.5%	6,752 0.4%	6,795 0.6%	6,853 0.9%	6,881 0.4%	6,920 0.6%	6,941 0.3%	6,973 0.5%	7,022 0.7%	0.6%
PL	6,716	6,732	7,220	7,162 -0.8%	7,262 1.4%	7,337 1.0%	7,379 0.6%	7,434 0.7%	7,492 0.8%	7,539 0.6%	7,603 0.8%	7,656 0.7%	7,699 0.6%	7,759 0.8%	0.8%
PS	9,516	9,516	10,510	10,306 -1.9%	10,418 1.1%	10,495 0.7%	10,528 0.3%	10,582 0.5%	10,649 0.6%	10,698 0.5%	10,761 0.6%	10,816 0.5%	10,849 0.3%	10,907 0.5%	0.6%
RECO	389	389	420	424 1.0%	428 0.9%	429 0.2%	428 -0.2%	431 0.7%	434 0.7%	435 0.2%	437 0.5%	438 0.2%	438 0.0%	441 0.7%	0.4%
UGI	189	189	190	197 3.7%	200 1.5%	202 1.0%	203 0.5%	204 0.5%	206 1.0%	207 0.5%	209 1.0%	210 0.5%	211 0.5%	212 0.5%	0.7%
DIVERSITY - MID-ATLANTIC(-) PJM MID-ATLANTIC	54,948	54,964	59,505	58,901 -1.0%	59,711 1.4%	60,315 1.0%	60,737 0.7%	61,205 0.8%	61,639 0.7%	62,058 0.7%	62,527 0.8%	62,949 0.7%	63,404 0.7%	63,819 0.7%	0.8%
FE-EAST	11,029	11,029	11,980	11,929 -0.4%	12,168 2.0%	12,307 1.1%	12,405 0.8%	12,544 1.1%	12,647 0.8%	12,765 0.9%	12,902 1.1%	13,009 0.8%	13,125 0.9%	13,236 0.8%	1.0%
PLGRP	6,891	6,908	7,400	7,330 -0.9%	7,432 1.4%	7,509 1.0%	7,562 0.7%	7,622 0.8%	7,670 0.6%	7,720 0.7%	7,782 0.8%	7,835 0.7%	7,892 0.7%	7,944 0.7%	0.8%

Notes:

Normal 2014 and all forecast values are non-coincident as estimated by PJM staff.

Normal 2014 and all forecast values represent unrestricted peaks, prior to reductions for load management and energy efficiency.

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

Table B-1 (Continued)

**SUMMER PEAK LOAD (MW) AND GROWTH RATES FOR
EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION
2026 - 2030**

	2026	2027	2028	2029	2030	Annual Growth Rate (15 yr)
AE	2,842 0.5%	2,855 0.5%	2,872 0.6%	2,886 0.5%	2,902 0.6%	0.6%
BGE	7,822 0.9%	7,877 0.7%	7,941 0.8%	7,995 0.7%	8,066 0.9%	0.8%
DPL	4,596 0.9%	4,623 0.6%	4,660 0.8%	4,685 0.5%	4,724 0.8%	0.8%
JCPL	6,914 0.9%	6,962 0.7%	7,013 0.7%	7,061 0.7%	7,131 1.0%	0.9%
METED	3,355 1.4%	3,380 0.7%	3,412 0.9%	3,442 0.9%	3,484 1.2%	1.1%
PECO	9,503 0.7%	9,558 0.6%	9,626 0.7%	9,691 0.7%	9,768 0.8%	0.8%
PENLC	3,307 0.9%	3,333 0.8%	3,363 0.9%	3,384 0.6%	3,417 1.0%	1.1%
PEPCO	7,065 0.6%	7,083 0.3%	7,101 0.3%	7,127 0.4%	7,170 0.6%	0.5%
PL	7,814 0.7%	7,859 0.6%	7,912 0.7%	7,950 0.5%	8,015 0.8%	0.8%
PS	10,972 0.6%	11,018 0.4%	11,073 0.5%	11,107 0.3%	11,177 0.6%	0.5%
RECO	443 0.5%	444 0.2%	445 0.2%	444 -0.2%	447 0.7%	0.4%
UGI	214 0.9%	215 0.5%	216 0.5%	217 0.5%	219 0.9%	0.7%
DIVERSITY - MID-ATLANTIC(-)	611	542	525	540	479	
PJM MID-ATLANTIC	64,236 0.7%	64,665 0.7%	65,109 0.7%	65,449 0.5%	66,041 0.9%	0.8%
FE-EAST	13,351 0.9%	13,475 0.9%	13,586 0.8%	13,690 0.8%	13,837 1.1%	1.0%
PLGRP	7,997 0.7%	8,049 0.7%	8,097 0.6%	8,144 0.6%	8,212 0.8%	0.8%

Notes:
Normal 2014 and all forecast values are non-coincident as estimated by PJM staff.
Normal 2014 and all forecast values represent unrestricted peaks, prior to reductions for load management and energy efficiency.
All average growth rates are calculated from the first year of the forecast.

Table B-1
SUMMER PEAK LOAD (MW) AND GROWTH RATES FOR
EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO
2015 - 2025

	METERED 2014	UNRESTRICTED 2014	NORMAL 2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Annual Growth Rate (10 yr)
AEP	21,411	21,411	23,640	23,511	23,812	24,030	24,156	24,315	24,507	24,671	24,854	25,032	25,155	25,343	0.8%
APS	8,085	8,085	8,670	-0.5%	1.3%	0.9%	0.5%	0.7%	0.8%	0.7%	0.7%	0.7%	0.5%	0.7%	0.8%
ATSI	12,162	12,300	13,250	8,734	8,872	8,982	9,059	9,143	9,255	9,339	9,436	9,531	9,603	9,701	1.1%
COMED	19,722	19,723	22,850	0.7%	1.6%	1.2%	0.9%	0.9%	1.2%	0.9%	1.0%	1.0%	0.8%	1.0%	0.4%
DAYTON	3,192	3,224	3,440	13,256	13,369	13,443	13,458	13,499	13,581	13,636	13,691	13,748	13,764	13,835	0.4%
DEOK	5,039	5,039	5,530	0.0%	0.9%	0.6%	0.1%	0.3%	0.6%	0.4%	0.4%	0.4%	0.1%	0.5%	1.3%
DLCO	2,693	2,693	2,940	0.3%	1.9%	1.4%	1.1%	1.2%	1.5%	0.9%	1.2%	1.1%	1.1%	1.2%	1.3%
EKPC	1,896	1,896	1,940	3,497	3,575	3,633	3,673	3,707	3,749	3,787	3,833	3,875	3,919	3,966	1.3%
DIVERSITY - WESTERN(-) PJM WESTERN	73,519	73,520	80,430	1.7%	2.2%	1.6%	1.1%	0.9%	1.1%	1.0%	1.2%	1.1%	1.1%	1.2%	0.9%
DOM	18,691	18,761	19,760	5,511	5,576	5,636	5,673	5,719	5,777	5,816	5,864	5,910	5,955	6,015	0.9%
DIVERSITY - INTERREGIONAL(-) PJM RTO	141,395	141,402	156,140	-0.3%	1.2%	1.1%	0.7%	0.8%	1.0%	0.7%	0.8%	0.8%	0.8%	1.0%	0.6%
				2,969	3,005	3,026	3,042	3,056	3,084	3,097	3,114	3,130	3,142	3,161	0.6%
				1.0%	1.2%	0.7%	0.5%	0.5%	0.9%	0.4%	0.5%	0.5%	0.4%	0.6%	0.9%
				1,983	2,010	2,032	2,048	2,062	2,082	2,099	2,117	2,135	2,152	2,170	0.9%
				2.2%	1.4%	1.1%	0.8%	0.7%	1.0%	0.8%	0.9%	0.9%	0.8%	0.8%	0.8%
				1,682	1,737	1,735	1,809	1,822	1,812	1,773	1,849	1,971	1,950	1,997	1.7%
				80,693	81,834	82,727	83,249	83,907	84,805	85,465	86,161	86,768	87,387	88,147	0.9%
				0.3%	1.4%	1.1%	0.6%	0.8%	1.1%	0.8%	0.8%	0.7%	0.7%	0.9%	0.9%
				19,999	20,551	20,980	21,322	21,666	22,068	22,367	22,734	23,105	23,361	23,676	1.7%
				1.2%	2.8%	2.1%	1.6%	1.6%	1.9%	1.4%	1.6%	1.6%	1.1%	1.3%	1.3%
				4,049	4,184	4,214	4,180	4,160	4,069	4,126	4,520	4,423	4,446	4,062	1.0%
				155,544	157,912	159,808	161,128	162,618	164,443	165,764	166,902	168,399	169,706	171,580	1.0%
				-0.4%	1.5%	1.2%	0.8%	0.9%	1.1%	0.8%	0.7%	0.9%	0.8%	1.1%	1.1%

Table B-1 (Continued)

**SUMMER PEAK LOAD (MW) AND GROWTH RATES FOR
EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO
2026 - 2030**

	2026	2027	2028	2029	2030	Annual Growth Rate (15 yr)
AEP	25,539 0.8%	25,731 0.8%	25,924 0.8%	26,101 0.7%	26,296 0.7%	0.7%
APS	9,800 1.0%	9,883 0.8%	9,977 1.0%	10,059 0.8%	10,159 1.0%	1.0%
ATSI	13,914 0.6%	13,973 0.4%	14,028 0.4%	14,052 0.2%	14,114 0.4%	0.4%
COMED	26,276 1.2%	26,513 0.9%	26,782 1.0%	27,030 0.9%	27,322 1.1%	1.2%
DAYTON	4,011 1.1%	4,054 1.1%	4,097 1.1%	4,144 1.1%	4,199 1.3%	1.2%
DEOK	6,068 0.9%	6,107 0.6%	6,149 0.7%	6,186 0.6%	6,250 1.0%	0.8%
DLCO	3,187 0.8%	3,201 0.4%	3,216 0.5%	3,234 0.6%	3,253 0.6%	0.6%
EKPC	2,191 1.0%	2,206 0.7%	2,225 0.9%	2,242 0.8%	2,262 0.9%	0.9%
DIVERSITY - WESTERN(-) PJM WESTERN	1,963 89,023 1.0%	1,931 89,737 0.8%	2,076 90,322 0.7%	2,042 91,006 0.8%	2,039 91,816 0.9%	0.9%
DOM	23,945 1.1%	24,147 0.8%	24,412 1.1%	24,661 1.0%	24,928 1.1%	1.5%
DIVERSITY - INTERREGIONAL(-) PJM RTO	4,306 172,898 0.8%	4,316 174,233 0.8%	4,660 175,183 0.5%	4,569 176,547 0.8%	4,733 178,052 0.9%	0.9%

Notes:

Normal 2014 and all forecast values are non-coincident as estimated by PJM staff.

Normal 2014 and all forecast values represent unrestricted peaks, prior to reductions for load management and energy efficiency.

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

Table B-2

**WINTER PEAK LOAD (MW) AND GROWTH RATES FOR
EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION
2014/15 - 2024/25**

	METERED 13/14	UNRESTRICTED 13/14	NORMAL 13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	Annual Growth Rate (10 yr)
AE	1,802	1,807	1,730	1,671	1,690	1,711	1,718	1,728	1,723	1,731	1,741	1,751	1,755	1,755	0.5%
BGE	6,527	6,612	5,920	5,792	5,845	5,901	5,928	5,955	-0.3%	6,005	6,038	6,077	6,107	6,127	0.6%
DPL	3,839	3,839	3,400	3,377	3,424	3,472	3,505	3,527	0.3%	3,569	3,597	3,625	3,653	3,668	0.8%
JCPL	4,079	4,091	3,890	3,807	3,872	3,938	3,969	3,993	0.5%	4,046	4,086	4,124	4,150	4,157	0.9%
METED	2,804	2,827	2,610	2,577	2,625	2,674	2,707	2,735	0.3%	2,784	2,815	2,851	2,880	2,903	1.2%
PECO	7,167	7,224	6,650	6,552	6,658	6,770	6,843	6,899	0.8%	7,006	7,066	7,127	7,182	7,217	1.0%
PENLC	3,052	3,110	2,870	2,875	2,944	3,015	3,057	3,092	0.6%	3,145	3,183	3,225	3,257	3,280	1.3%
PEPCO	5,845	5,851	5,450	5,300	5,367	5,440	5,488	5,530	0.7%	5,599	5,646	5,691	5,735	5,764	0.8%
PL	7,819	7,913	7,290	7,220	7,314	7,408	7,467	7,511	0.6%	7,597	7,651	7,709	7,761	7,792	0.8%
PS	7,067	7,097	6,810	6,565	6,650	6,739	6,780	6,811	0.4%	6,865	6,915	6,960	6,995	6,992	0.6%
RECO	246	247	230	232	234	236	236	236	0.0%	236	237	238	239	236	0.2%
UGI	224	224	200	200	202	205	205	206	-0.8%	208	210	211	212	213	0.6%
				0.0%	1.0%	1.5%	0.0%	0.5%	0.5%	0.5%	1.0%	0.5%	0.5%	0.5%	
DIVERSITY - MID-ATLANTIC(-)				699	652	679	698	664	594	661	625	649	719	602	
PJM MID-ATLANTIC	49,920	50,338	46,400	45,469	46,173	46,830	47,205	47,559	47,819	48,130	48,560	48,940	49,207	49,502	0.9%
				-2.0%	1.5%	1.4%	0.8%	0.7%	0.5%	0.7%	0.9%	0.8%	0.5%	0.6%	
FE-EAST	9,934	10,028	9,310	9,189	9,386	9,566	9,673	9,763	9,816	9,920	10,039	10,141	10,221	10,282	1.1%
PLGRP	8,039	8,133	7,480	7,403	7,508	7,594	7,658	7,702	7,742	7,794	7,851	7,904	7,956	7,996	0.8%
				-1.0%	1.4%	1.1%	0.8%	0.6%	0.5%	0.7%	0.7%	0.7%	0.7%	0.5%	

Notes:

Normal 13/14 and all forecast values are non-coincident as estimated by PJM staff.

Normal 13/14 and all forecast values represent unrestricted peaks, prior to reductions for load management and energy efficiency.

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

Table B-2 (Continued)

**WINTER PEAK LOAD (MW) AND GROWTH RATES FOR
EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION
2025/26 – 2029/30**

	25/26	26/27	27/28	28/29	29/30	Annual Growth Rate (15 yr)
AE	1,765	1,771	1,783	1,780	1,800	0.5%
	0.6%	0.3%	0.7%	-0.2%	1.1%	
BGE	6,159	6,189	6,226	6,259	6,296	0.6%
	0.5%	0.5%	0.6%	0.5%	0.6%	
DPL	3,695	3,718	3,746	3,771	3,800	0.8%
	0.7%	0.6%	0.8%	0.7%	0.8%	
JCPL	4,196	4,228	4,270	4,283	4,329	0.9%
	0.9%	0.8%	1.0%	0.3%	1.1%	
METED	2,934	2,962	2,996	3,024	3,060	1.2%
	1.1%	1.0%	1.1%	0.9%	1.2%	
PECO	7,279	7,333	7,395	7,441	7,506	0.9%
	0.9%	0.7%	0.8%	0.6%	0.9%	
PENLC	3,314	3,343	3,378	3,405	3,444	1.2%
	1.0%	0.9%	1.0%	0.8%	1.1%	
PEPCO	5,801	5,834	5,878	5,916	5,961	0.8%
	0.6%	0.6%	0.8%	0.6%	0.8%	
PL	7,849	7,894	7,947	7,991	8,047	0.7%
	0.7%	0.6%	0.7%	0.6%	0.7%	
PS	7,039	7,080	7,131	7,150	7,209	0.6%
	0.7%	0.6%	0.7%	0.3%	0.8%	
RECO	237	238	240	239	240	0.2%
	0.4%	0.4%	0.8%	-0.4%	0.4%	
UGI	214	215	216	217	218	0.6%
	0.5%	0.5%	0.5%	0.5%	0.5%	
DIVERSITY - MID-ATLANTIC(-)	685	660	624	633	685	
PJM MID-ATLANTIC	49,797	50,145	50,582	50,843	51,225	0.8%
	0.6%	0.7%	0.9%	0.5%	0.8%	
FE-EAST	10,376	10,477	10,602	10,650	10,772	1.1%
	0.9%	1.0%	1.2%	0.5%	1.1%	
PLGRP	8,046	8,098	8,155	8,197	8,246	0.7%
	0.6%	0.6%	0.7%	0.5%	0.6%	

Notes:

Normal 24/25 and all forecast values are non-coincident as estimated by PJM staff.

Normal 24/25 and all forecast values represent unrestricted peaks, prior to reductions for load management and energy efficiency.

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

Table B-2

**WINTER PEAK LOAD (MW) AND GROWTH RATES FOR
EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO**

2014/15 - 2024/25

	METERED 13/14	UNRESTRICTED 13/14	NORMAL 13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	Annual Growth Rate (10 yr)
AEP	24,421	24,421	22,840	22,635	22,938	23,281	23,448	23,542	23,644	23,839	24,039	24,255	24,383	24,449	0.8%
APS	9,350	9,351	8,630	8,688	8,837	8,981	9,089	9,181	9,261	9,362	9,462	9,568	9,667	9,745	1.2%
ATSI	11,352	11,352	10,620	10,538	10,592	10,694	10,716	10,736	10,708	10,745	10,810	10,852	10,870	10,841	0.3%
COMED	16,515	16,519	15,890	15,663	15,941	16,279	16,472	16,626	16,724	16,930	17,141	17,360	17,527	17,617	1.2%
DAYTON	3,180	3,180	2,860	2,889	2,946	3,002	3,038	3,055	3,075	3,108	3,142	3,176	3,207	3,226	1.1%
DEOK	5,105	5,105	4,410	4,354	4,393	4,441	4,472	4,493	4,507	4,535	4,567	4,598	4,628	4,642	0.6%
DLCO	2,367	2,372	2,190	2,174	2,201	2,225	2,238	2,247	2,245	2,258	2,270	2,284	2,294	2,292	0.5%
EKPC	3,010	3,111	2,390	2,424	2,448	2,472	2,492	2,506	2,512	2,530	2,547	2,565	2,586	2,591	0.7%
				1.4%	1.0%	1.0%	0.8%	0.6%	0.2%	0.7%	0.7%	0.7%	0.8%	0.2%	
DIVERSITY - WESTERN(-) PJM WESTERN	73,473	73,476	68,380	67,883	68,880	69,821	70,455	70,869	71,198	71,743	72,358	73,007	73,535	73,860	0.8%
				-0.7%	1.5%	1.4%	0.9%	0.6%	0.5%	0.8%	0.9%	0.9%	0.7%	0.4%	
DOM	19,784	19,942	17,610	17,604	18,017	18,298	18,706	19,018	19,269	19,546	19,839	20,161	20,453	20,749	1.7%
				-0.0%	2.3%	1.6%	2.2%	1.7%	1.3%	1.4%	1.5%	1.6%	1.4%	1.4%	
DIVERSITY - INTERREGIONAL(-) PJM RTO	140,222	141,746	130,825	129,711	131,721	133,442	134,770	135,813	136,788	138,018	139,319	140,479	141,516	142,561	0.9%
				-0.9%	1.5%	1.3%	1.0%	0.8%	0.7%	0.9%	0.9%	0.8%	0.7%	0.7%	

Notes:

Normal 13/14 and all forecast values are non-coincident as estimated by PJM staff.

Normal 13/14 and all forecast values represent unrestricted peaks, prior to reductions for load management and energy efficiency.

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

Table B-2 (Continued)
WINTER PEAK LOAD (MW) AND GROWTH RATES FOR
EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO
2025/26 - 2029/30

	25/26	26/27	27/28	28/29	29/30	Annual Growth Rate (15 yr)
AEP	24,628 0.7%	24,810 0.7%	25,066 1.0%	25,176 0.4%	25,399 0.9%	0.8%
APS	9,847 1.0%	9,934 0.9%	10,041 1.1%	10,137 1.0%	10,248 1.1%	1.1%
ATSI	10,879 0.4%	10,907 0.3%	10,978 0.7%	10,951 -0.2%	11,043 0.8%	0.3%
COMED	17,809 1.1%	17,994 1.0%	18,219 1.3%	18,330 0.6%	18,566 1.3%	1.1%
DAYTON	3,262 1.1%	3,291 0.9%	3,330 1.2%	3,356 0.8%	3,394 1.1%	1.1%
DEOK	4,672 0.6%	4,697 0.5%	4,732 0.7%	4,756 0.5%	4,787 0.7%	0.6%
DLCO	2,304 0.5%	2,314 0.4%	2,327 0.6%	2,334 0.3%	2,352 0.8%	0.5%
EKPC	2,606 0.6%	2,624 0.7%	2,643 0.7%	2,655 0.5%	2,678 0.9%	0.7%
DIVERSITY - WESTERN(-) PJM WESTERN	1,605 74,402 0.7%	1,615 74,956 0.7%	1,782 75,554 0.8%	1,638 76,057 0.7%	1,736 76,731 0.9%	0.8%
DOM	20,923 0.8%	21,140 1.0%	21,350 1.0%	21,538 0.9%	21,793 1.2%	1.4%
DIVERSITY - INTERREGIONAL(-) PJM RTO	1,512 143,610 0.7%	1,482 144,759 0.8%	1,514 145,972 0.8%	1,646 146,792 0.6%	1,768 147,981 0.8%	0.9%

Notes:
Normal 24/25 and all forecast values are non-coincident as estimated by PJM staff.
Normal 24/25 and all forecast values represent unrestricted peaks, prior to reductions for load management and energy efficiency.
All average growth rates are calculated from the first year of the forecast.

Table B-3

**SPRING (APRIL) PEAK LOAD (MW) FOR
EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION
2015 - 2030**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
AE	1,424	1,457	1,472	1,492	1,499	1,497	1,525	1,530	1,525	1,568	1,553	1,568	1,584	1,572	1,583	1,621
BGE	4,734	4,751	4,782	4,834	4,855	4,931	5,017	4,990	4,981	5,083	5,103	5,181	5,234	5,192	5,272	5,320
DPL	2,691	2,741	2,751	2,794	2,808	2,843	2,903	2,907	2,900	2,954	2,981	3,019	3,042	3,024	3,037	3,087
JCP&L	3,255	3,319	3,353	3,418	3,441	3,503	3,593	3,574	3,541	3,707	3,735	3,793	3,826	3,724	3,808	3,907
MET&D	2,265	2,302	2,330	2,363	2,381	2,438	2,450	2,472	2,491	2,526	2,556	2,596	2,624	2,633	2,663	2,691
PECO	5,626	5,696	5,743	5,842	5,883	6,010	6,103	6,074	6,068	6,197	6,258	6,359	6,435	6,330	6,423	6,505
PEN&C	2,546	2,596	2,645	2,691	2,718	2,762	2,791	2,807	2,834	2,868	2,892	2,947	2,981	2,989	3,017	3,045
PEP&C	4,355	4,358	4,380	4,454	4,484	4,538	4,575	4,565	4,550	4,624	4,651	4,709	4,748	4,703	4,753	4,791
PL	5,792	5,847	5,905	5,981	6,015	6,088	6,128	6,138	6,159	6,258	6,282	6,365	6,406	6,396	6,448	6,516
PS	5,970	5,981	6,013	6,091	6,103	6,206	6,302	6,237	6,219	6,380	6,404	6,457	6,527	6,393	6,470	6,597
RECO	221	219	219	220	220	225	225	224	221	224	225	227	228	224	225	226
UGI	156	158	160	162	162	164	166	166	166	170	170	172	173	172	173	176
DIVERSITY - MID-ATLANTIC(-)	2,288	2,141	1,974	2,344	2,040	2,369	2,451	2,217	1,989	2,051	2,017	2,271	2,611	2,193	2,483	2,150
PJM MID-ATLANTIC	36,747	37,284	37,779	37,998	38,529	38,836	39,327	39,467	39,666	40,508	40,793	41,122	41,197	41,159	41,389	42,332
FE-EAST	7,637	7,757	7,875	7,990	8,091	8,218	8,329	8,349	8,418	8,641	8,731	8,841	8,896	8,855	8,965	9,181
PLGRP	5,725	5,794	5,855	5,936	5,988	6,017	6,051	6,087	6,117	6,234	6,267	6,297	6,325	6,351	6,409	6,496

Table B-3

**SPRING (APRIL) PEAK LOAD (MW) FOR
EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO
2015 - 2030**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
AEP	18,646	18,863	19,009	19,231	19,311	19,497	19,641	19,699	19,779	19,973	20,032	20,303	20,515	20,537	20,747	20,859
APS	7,068	7,166	7,262	7,358	7,413	7,531	7,626	7,665	7,708	7,839	7,893	8,023	8,118	8,106	8,193	8,307
ATSI	9,503	9,527	9,552	9,598	9,585	9,682	9,848	9,697	9,700	9,810	9,804	9,925	10,070	9,866	9,914	9,985
COMED	13,838	14,125	14,294	14,695	14,832	15,177	15,408	15,453	15,588	16,010	16,304	16,578	16,814	16,694	17,068	17,291
DAYTON	2,437	2,494	2,546	2,587	2,606	2,649	2,688	2,707	2,729	2,777	2,806	2,859	2,898	2,906	2,951	2,992
DEOK	3,739	3,752	3,768	3,846	3,855	3,913	3,945	3,929	3,938	4,014	4,031	4,103	4,136	4,098	4,152	4,199
DILCO	2,039	2,046	2,055	2,093	2,097	2,129	2,145	2,126	2,134	2,163	2,166	2,205	2,224	2,193	2,228	2,242
EKPC	1,644	1,658	1,669	1,687	1,700	1,718	1,733	1,737	1,741	1,775	1,776	1,798	1,816	1,807	1,824	1,849
DIVERSITY - WESTERN(-)	2,818	3,356	3,271	3,462	3,310	3,068	2,877	3,631	3,616	3,567	2,880	3,156	3,291	4,071	4,179	3,888
PJM WESTERN	56,096	56,275	56,884	57,633	58,089	59,228	60,157	59,382	59,701	60,794	61,932	62,638	63,300	62,136	62,898	63,836
DOM	14,126	14,413	14,833	15,158	15,399	15,764	16,116	16,315	16,596	16,937	17,067	17,396	17,629	17,691	17,924	18,103
DIVERSITY - INTERREGIONAL(-)	1,747	1,472	1,725	1,543	1,394	1,934	1,574	1,690	1,968	1,248	2,333	2,096	1,900	2,102	2,056	1,692
PJM RTO	105,222	106,500	107,771	109,246	110,623	111,894	114,026	113,474	113,995	116,991	117,459	119,060	120,226	118,884	120,155	122,579

Table B-4

**FALL (OCTOBER) PEAK LOAD (MW) FOR
EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION
2015 - 2030**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
AE	1,477	1,493	1,510	1,524	1,533	1,538	1,542	1,555	1,571	1,583	1,589	1,598	1,599	1,619	1,636	1,649
BGE	4,490	4,518	4,589	4,632	4,668	4,668	4,682	4,750	4,826	4,877	4,915	4,944	4,909	5,012	5,070	5,113
DPL	2,608	2,635	2,677	2,733	2,756	2,745	2,762	2,796	2,851	2,887	2,904	2,914	2,902	2,963	2,995	3,028
JCPL	3,366	3,355	3,440	3,533	3,567	3,571	3,574	3,596	3,669	3,752	3,775	3,789	3,792	3,860	3,941	3,987
METED	2,108	2,145	2,179	2,209	2,236	2,247	2,268	2,309	2,343	2,377	2,396	2,418	2,427	2,473	2,504	2,537
PECO	5,505	5,554	5,670	5,741	5,793	5,819	5,866	5,933	6,008	6,075	6,111	6,151	6,166	6,248	6,326	6,383
PENLC	2,497	2,556	2,610	2,643	2,665	2,679	2,706	2,755	2,799	2,823	2,840	2,866	2,889	2,939	2,965	3,002
PEPCO	4,328	4,306	4,374	4,431	4,459	4,469	4,475	4,478	4,550	4,595	4,613	4,631	4,619	4,668	4,708	4,745
PL	5,524	5,630	5,697	5,759	5,788	5,769	5,801	5,916	5,984	6,043	6,047	6,063	6,062	6,187	6,255	6,297
PS	6,258	6,220	6,323	6,426	6,468	6,460	6,448	6,449	6,547	6,652	6,668	6,686	6,664	6,720	6,826	6,884
RECO	239	237	241	245	245	242	242	241	245	248	248	246	246	247	251	252
UGI	154	156	157	159	160	160	161	165	166	167	167	168	167	171	172	173
DIVERSITY - MID-ATLANTIC(-)	1,474	1,252	1,342	1,344	1,368	1,435	1,366	1,287	1,263	1,320	1,268	1,279	1,442	1,269	1,362	1,410
PJM MID-ATLANTIC	37,080	37,553	38,125	38,691	38,970	38,932	39,161	39,656	40,296	40,759	41,005	41,195	41,000	41,838	42,287	42,640
FE-EAST	7,724	7,868	8,006	8,130	8,202	8,244	8,306	8,473	8,596	8,724	8,792	8,854	8,826	9,036	9,156	9,265
PLGRP	5,647	5,767	5,834	5,905	5,923	5,911	5,947	6,056	6,116	6,176	6,182	6,200	6,206	6,332	6,403	6,435

Table B-4

**FALL (OCTOBER) PEAK LOAD (MW) FOR
EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO
2015 - 2030**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
AEP	17,677	17,881	18,144	18,274	18,306	18,329	18,446	18,658	18,863	18,953	19,078	19,131	19,235	19,566	19,752	19,822
APS	6,677	6,784	6,871	6,955	7,033	7,077	7,138	7,263	7,373	7,475	7,495	7,560	7,582	7,750	7,872	7,952
ATSI	8,992	9,033	9,082	9,120	9,150	9,138	9,150	9,251	9,317	9,367	9,375	9,390	9,321	9,462	9,508	9,557
COMED	13,815	14,056	14,365	14,706	14,892	15,006	15,184	15,413	15,700	16,078	16,272	16,478	16,480	16,764	17,095	17,343
DAYTON	2,393	2,440	2,491	2,531	2,559	2,574	2,596	2,643	2,694	2,736	2,764	2,793	2,800	2,866	2,910	2,950
DEOK	3,654	3,687	3,748	3,780	3,806	3,808	3,831	3,875	3,930	3,965	3,988	4,003	4,017	4,078	4,114	4,150
DLCO	1,927	1,941	1,962	1,979	1,993	1,995	2,000	2,016	2,038	2,061	2,067	2,070	2,068	2,092	2,116	2,135
EKPC	1,608	1,622	1,638	1,653	1,682	1,681	1,682	1,711	1,725	1,760	1,775	1,776	1,768	1,797	1,813	1,841
DIVERSITY - WESTERN(-)	1,841	1,790	1,757	1,867	1,852	1,988	2,010	1,955	2,094	2,130	2,190	2,319	2,255	2,316	2,393	2,389
PJM WESTERN	54,902	55,654	56,544	57,131	57,569	57,620	58,017	58,875	59,546	60,265	60,624	60,882	61,016	62,059	62,787	63,361
DOM	13,853	14,268	14,664	14,992	15,254	15,448	15,703	16,048	16,414	16,629	16,806	16,959	17,103	17,380	17,677	17,847
DIVERSITY - INTERREGIONAL(-)	1,903	1,805	1,827	1,829	1,880	1,964	1,960	1,867	1,969	1,919	1,919	1,935	2,129	2,133	2,106	2,067
PJM RTO	103,932	105,670	107,506	108,985	109,913	110,036	110,921	112,712	114,287	115,734	116,516	117,101	116,990	119,144	120,645	121,781

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 2015	1,671	5,792	3,377	3,807	2,577	6,552	2,875	5,500	7,220	6,565	226	200	693	45,469
Feb 2015	1,598	5,564	3,240	3,624	2,497	6,289	2,799	5,074	6,932	6,297	213	190	914	43,403
Mar 2015	1,476	5,009	2,907	3,385	2,407	5,852	2,674	4,489	6,338	5,974	209	174	1,752	39,142
Apr 2015	1,424	4,734	2,691	3,255	2,265	5,626	2,546	4,355	5,792	5,970	220	156	2,287	36,747
May 2015	1,757	5,472	3,081	4,314	2,387	6,563	2,440	5,219	5,755	7,752	318	150	2,176	43,032
Jun 2015	2,330	6,502	3,770	5,616	2,772	8,002	2,789	6,167	7,751	9,451	387	182	513	54,206
Jul 2015	2,664	7,127	4,177	6,269	2,954	8,645	2,914	6,640	7,162	10,306	424	197	578	58,901
Aug 2015	2,521	6,766	3,907	5,659	2,815	8,213	2,827	6,294	6,871	9,401	380	186	323	55,517
Sep 2015	2,097	6,053	3,428	4,853	2,508	7,201	2,662	5,685	6,276	8,470	339	171	920	48,823
Oct 2015	1,477	4,490	2,608	3,366	2,108	5,505	2,497	4,328	5,524	6,258	239	154	1,474	37,080
Nov 2015	1,445	4,627	2,714	3,353	2,240	5,726	2,632	4,371	6,034	5,975	212	172	480	38,927
Dec 2015	1,681	5,511	3,225	3,860	2,537	6,483	2,870	5,037	6,944	6,586	237	199	554	44,616
	AE	BGE	DPL	JCPL	METED	PECO	PENLC	PEPCO	PL	PS	RECO	UGI	DIVERSITY	MID-ATLANTIC
Jan 2016	1,690	5,845	3,424	3,872	2,625	6,658	2,944	5,367	7,314	6,650	227	202	645	46,173
Feb 2016	1,623	5,638	3,290	3,691	2,551	6,404	2,869	5,145	7,049	6,390	214	193	758	44,299
Mar 2016	1,523	5,045	2,987	3,487	2,461	5,956	2,739	4,565	6,430	6,055	209	177	1,614	40,020
Apr 2016	1,457	4,751	2,741	3,319	2,302	5,696	2,596	4,358	5,847	5,981	220	158	2,142	37,284
May 2016	1,807	5,559	3,151	4,415	2,445	6,680	2,511	5,279	5,858	7,860	321	153	2,020	44,019
Jun 2016	2,371	6,609	3,848	5,757	2,840	8,150	2,863	6,269	6,870	9,685	396	185	724	55,119
Jul 2016	2,702	7,212	4,240	6,362	3,007	8,768	2,978	6,694	7,262	10,418	428	200	560	59,711
Aug 2016	2,568	6,882	4,008	5,795	2,888	8,382	2,903	6,410	6,997	9,638	388	190	529	56,520
Sep 2016	2,120	6,095	3,447	4,902	2,539	7,262	2,709	5,703	6,319	8,489	337	172	830	49,264
Oct 2016	1,493	4,518	2,635	3,355	2,145	5,554	2,556	4,306	5,630	6,220	237	156	1,252	37,553
Nov 2016	1,462	4,676	2,758	3,418	2,282	5,809	2,699	4,322	6,167	6,038	213	173	433	39,584
Dec 2016	1,708	5,569	3,277	3,938	2,595	6,590	2,963	5,107	7,051	6,700	238	202	651	45,287
	AE	BGE	DPL	JCPL	METED	PECO	PENLC	PEPCO	PL	PS	RECO	UGI	DIVERSITY	MID-ATLANTIC
Jan 2017	1,711	5,901	3,472	3,928	2,674	6,770	3,015	5,440	7,408	6,739	228	205	661	46,830
Feb 2017	1,639	5,680	3,332	3,744	2,599	6,499	2,937	5,213	7,136	6,466	215	195	751	44,904
Mar 2017	1,537	5,077	3,007	3,529	2,491	6,009	2,796	4,608	6,496	6,096	209	178	1,481	40,552
Apr 2017	1,472	4,782	2,751	3,353	2,330	5,743	2,645	4,380	5,905	6,013	219	160	1,974	37,779
May 2017	1,833	5,624	3,194	4,492	2,500	6,795	2,569	5,340	5,952	7,952	323	155	1,991	44,738
Jun 2017	2,400	6,681	3,879	5,837	2,879	8,257	2,919	6,322	6,960	9,759	398	187	755	55,723
Jul 2017	2,727	7,287	4,287	6,435	3,048	8,877	3,026	6,728	7,337	10,495	429	202	563	60,315
Aug 2017	2,600	6,966	4,056	5,873	2,929	8,491	2,959	6,474	7,091	9,713	390	192	651	57,083
Sep 2017	2,133	6,134	3,485	4,959	2,558	7,341	2,754	5,739	6,381	8,533	337	173	832	49,695
Oct 2017	1,510	4,589	2,677	3,440	2,179	5,670	2,610	4,374	5,697	6,323	241	157	1,342	38,125
Nov 2017	1,475	4,709	2,791	3,463	2,315	5,887	2,754	4,358	6,240	6,080	214	175	426	40,035
Dec 2017	1,715	5,578	3,303	3,969	2,621	6,642	2,997	5,131	7,102	6,726	236	202	642	45,580

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		DOM	INTER REGION	PJM RTO
									DIVERSITY	PJM			
Jan 2015	22,635	8,688	10,538	15,620	2,889	4,354	2,174	2,424	1,439	67,883	17,604	1,245	129,711
Feb 2015	21,850	8,376	10,298	15,105	2,794	4,182	2,103	2,312	1,276	65,744	16,823	1,354	124,616
Mar 2015	20,229	7,647	9,883	13,985	2,557	3,797	2,010	1,925	1,569	60,464	15,092	1,070	113,628
Apr 2015	18,646	7,068	9,503	13,838	2,437	3,739	2,039	1,644	2,818	56,096	14,126	1,747	105,222
May 2015	19,153	6,922	10,110	16,407	2,724	4,350	2,323	1,568	2,405	61,152	15,958	3,543	116,599
Jun 2015	22,394	8,296	12,670	20,990	3,267	5,220	2,806	1,876	2,046	75,473	18,589	3,240	145,028
Jul 2015	23,511	8,734	13,256	22,914	3,497	5,511	2,969	1,983	1,682	80,693	19,999	4,049	155,544
Aug 2015	22,915	8,366	12,650	21,842	3,372	5,357	2,831	1,953	1,405	77,881	19,207	4,476	148,129
Sep 2015	20,920	7,725	11,314	18,977	3,077	4,922	2,594	1,824	2,071	69,282	17,237	3,503	131,839
Oct 2015	17,677	6,677	8,992	13,815	2,393	3,654	1,927	1,608	1,841	54,902	13,853	1,903	103,932
Nov 2015	19,057	7,249	9,450	14,037	2,503	3,724	1,967	1,866	1,056	58,797	14,184	742	111,166
Dec 2015	21,802	8,395	10,518	15,941	2,830	4,253	2,182	2,266	1,186	67,001	16,796	1,387	127,026
Jan 2016	22,938	8,837	10,592	15,895	2,946	4,393	2,201	2,448	1,370	68,880	18,017	1,349	131,721
Feb 2016	22,173	8,527	10,359	15,411	2,854	4,221	2,130	2,344	1,128	66,891	17,288	1,648	126,830
Mar 2016	20,482	7,787	9,946	14,338	2,621	3,841	2,029	1,940	2,228	60,756	15,418	639	115,555
Apr 2016	18,863	7,166	9,527	14,125	2,494	3,752	2,046	1,658	3,356	56,275	14,413	1,472	106,500
May 2016	19,545	7,130	10,231	16,979	2,819	4,423	2,364	1,591	2,552	62,530	16,375	3,129	119,795
Jun 2016	22,884	8,472	12,822	21,533	3,374	5,312	2,855	1,909	2,289	76,872	19,272	3,519	147,744
Jul 2016	23,812	8,872	13,369	23,352	3,575	5,576	3,005	2,010	1,737	81,834	20,551	4,184	157,912
Aug 2016	23,395	8,577	12,897	22,427	3,477	5,460	2,885	1,992	1,771	79,339	19,910	4,749	151,020
Sep 2016	21,027	7,787	11,278	19,223	3,123	4,934	2,607	1,828	1,678	70,129	17,687	3,442	133,638
Oct 2016	17,881	6,784	9,033	14,056	2,440	3,687	1,941	1,622	1,790	55,654	14,268	1,805	105,670
Nov 2016	19,321	7,399	9,513	14,330	2,567	3,763	1,992	1,882	945	59,822	14,637	845	113,198
Dec 2016	22,207	8,563	10,694	16,279	2,905	4,312	2,218	2,287	1,353	68,112	17,297	1,708	128,988
Jan 2017	23,281	8,981	10,689	16,133	3,002	4,441	2,225	2,472	1,403	69,821	18,298	1,507	133,442
Feb 2017	22,508	8,655	10,443	15,631	2,908	4,268	2,152	2,360	1,287	67,638	17,581	1,885	128,238
Mar 2017	20,708	7,906	9,961	14,560	2,674	3,877	2,045	1,955	2,239	61,447	15,836	963	116,872
Apr 2017	19,009	7,262	9,552	14,294	2,346	3,768	2,055	1,669	3,271	56,884	14,833	1,725	107,771
May 2017	19,820	7,257	10,304	17,334	2,887	4,490	2,392	1,613	2,749	63,348	16,863	3,275	121,674
Jun 2017	23,119	8,580	12,909	21,997	3,434	5,368	2,883	1,928	2,361	77,857	19,710	3,712	149,578
Jul 2017	24,030	8,982	13,443	23,680	3,633	5,636	3,026	2,032	1,735	82,727	20,980	4,214	159,808
Aug 2017	23,618	8,692	13,020	22,915	3,539	5,524	2,917	2,014	1,972	80,267	20,367	4,917	152,800
Sep 2017	21,203	7,843	11,255	19,540	3,170	4,982	2,625	1,845	1,878	70,585	17,921	3,890	134,311
Oct 2017	18,144	6,871	9,082	14,365	2,491	3,748	1,962	1,638	1,757	56,544	14,664	1,827	107,506
Nov 2017	19,587	7,486	9,554	14,565	2,611	3,795	2,008	1,899	945	60,560	14,949	914	114,630
Dec 2017	22,283	8,641	10,704	16,472	2,934	4,332	2,229	2,297	1,443	68,449	17,574	1,800	129,803

Table B-6

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

	FE EAST	PLGRP
Jan 2015	9,189	7,403
Feb 2015	8,807	7,106
Mar 2015	8,147	6,338
Apr 2015	7,637	5,725
May 2015	8,730	5,761
Jun 2015	10,952	6,920
Jul 2015	11,929	7,330
Aug 2015	11,152	7,056
Sep 2015	9,793	6,431
Oct 2015	7,724	5,647
Nov 2015	8,132	6,188
Dec 2015	9,226	7,127

	FE EAST	PLGRP
Jan 2016	9,386	7,508
Feb 2016	9,040	7,239
Mar 2016	8,344	6,447
Apr 2016	7,757	5,794
May 2016	8,971	5,868
Jun 2016	11,233	7,040
Jul 2016	12,168	7,432
Aug 2016	11,456	7,187
Sep 2016	9,941	6,491
Oct 2016	7,868	5,767
Nov 2016	8,319	6,340
Dec 2016	9,427	7,218

	FE EAST	PLGRP
Jan 2017	9,566	7,594
Feb 2017	9,203	7,314
Mar 2017	8,463	6,517
Apr 2017	7,875	5,855
May 2017	9,125	5,954
Jun 2017	11,369	7,121
Jul 2017	12,307	7,509
Aug 2017	11,556	7,280
Sep 2017	10,052	6,554
Oct 2017	8,006	5,834
Nov 2017	8,441	6,415
Dec 2017	9,523	7,276

Table B-7

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

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
AE																
LIMITED	76	105	26	26	26	26	26	26	26	26	26	26	26	26	26	26
EXTENDED SUMMER	123	62	83	83	83	83	83	83	83	83	83	83	83	83	83	83
ANNUAL	0	1	20	20	20	20	20	20	20	20	20	20	20	20	20	20
TOTAL LOAD MANAGEMENT	199	168	129	129	129	129	129	129	129	129	129	129	129	129	129	129
BGE																
LIMITED	771	848	64	64	64	64	64	64	64	64	64	64	64	64	64	64
EXTENDED SUMMER	333	53	666	666	666	666	666	666	666	666	666	666	666	666	666	666
ANNUAL	2	1	33	33	33	33	33	33	33	33	33	33	33	33	33	33
TOTAL LOAD MANAGEMENT	1,106	902	763	763	763	763	763	763	763	763	763	763	763	763	763	763
DPL																
LIMITED	285	203	54	54	54	54	54	54	54	54	54	54	54	54	54	54
EXTENDED SUMMER	160	222	293	293	293	293	293	293	293	293	293	293	293	293	293	293
ANNUAL	4	0	12	12	12	12	12	12	12	12	12	12	12	12	12	12
TOTAL LOAD MANAGEMENT	449	425	359	359	359	359	359	359	359	359	359	359	359	359	359	359
JCP&L																
LIMITED	178	190	39	39	39	39	39	39	39	39	39	39	39	39	39	39
EXTENDED SUMMER	166	24	77	77	77	77	77	77	77	77	77	77	77	77	77	77
ANNUAL	0	0	37	37	37	37	37	37	37	37	37	37	37	37	37	37
TOTAL LOAD MANAGEMENT	344	214	153	153	153	153	153	153	153	153	153	153	153	153	153	153
MET&D																
LIMITED	254	264	95	95	95	95	95	95	95	95	95	95	95	95	95	95
EXTENDED SUMMER	89	28	175	175	175	175	175	175	175	175	175	175	175	175	175	175
ANNUAL	0	9	18	18	18	18	18	18	18	18	18	18	18	18	18	18
TOTAL LOAD MANAGEMENT	343	301	288	288	288	288	288	288	288	288	288	288	288	288	288	288
PECO																
LIMITED	556	456	188	188	188	188	188	188	188	188	188	188	188	188	188	188
EXTENDED SUMMER	223	52	238	238	238	238	238	238	238	238	238	238	238	238	238	238
ANNUAL	0	2	36	36	36	36	36	36	36	36	36	36	36	36	36	36
TOTAL LOAD MANAGEMENT	779	510	462	462	462	462	462	462	462	462	462	462	462	462	462	462
PEN&C																
LIMITED	204	380	91	91	91	91	91	91	91	91	91	91	91	91	91	91
EXTENDED SUMMER	310	34	168	168	168	168	168	168	168	168	168	168	168	168	168	168
ANNUAL	10	0	86	86	86	86	86	86	86	86	86	86	86	86	86	86
TOTAL LOAD MANAGEMENT	524	414	345	345	345	345	345	345	345	345	345	345	345	345	345	345

Notes:

Forecast represents the amount of Demand Resources committed to the PJM Reliability Pricing Model via RPM Auctions (including incremental auctions) and FRR Capacity Plans. Winter load management is equal to Annual.

Table B-7 (Continued)

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

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
PEPCO																
LIMITED	476	279	87	87	87	87	87	87	87	87	87	87	87	87	87	87
EXTENDED SUMMER	361	360	454	454	454	454	454	454	454	454	454	454	454	454	454	454
ANNUAL	0	0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
TOTAL LOAD MANAGEMENT	837	639	585	585	585	585	585	585	585	585	585	585	585	585	585	585
PL																
LIMITED	645	838	40	40	40	40	40	40	40	40	40	40	40	40	40	40
EXTENDED SUMMER	467	121	177	177	177	177	177	177	177	177	177	177	177	177	177	177
ANNUAL	0	1	443	443	443	443	443	443	443	443	443	443	443	443	443	443
TOTAL LOAD MANAGEMENT	1,112	960	660	660	660	660	660	660	660	660	660	660	660	660	660	660
PS																
LIMITED	391	529	172	172	172	172	172	172	172	172	172	172	172	172	172	172
EXTENDED SUMMER	358	61	149	149	149	149	149	149	149	149	149	149	149	149	149	149
ANNUAL	18	18	54	54	54	54	54	54	54	54	54	54	54	54	54	54
TOTAL LOAD MANAGEMENT	767	608	375	375	375	375	375	375	375	375	375	375	375	375	375	375
RECO																
LIMITED	10	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTENDED SUMMER	10	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
ANNUAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT	20	10	3	3	3	3	3	3	3	3	3	3	3	3	3	3
UGI																
LIMITED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EXTENDED SUMMER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANNUAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PJM MID-ATLANTIC																
LIMITED	3,846	4,099	856	856	856	856	856	856	856	856	856	856	856	856	856	856
EXTENDED SUMMER	2,600	1,020	2,483	2,483	2,483	2,483	2,483	2,483	2,483	2,483	2,483	2,483	2,483	2,483	2,483	2,483
ANNUAL	34	32	783	783	783	783	783	783	783	783	783	783	783	783	783	783
TOTAL LOAD MANAGEMENT	6,480	5,151	4,122	4,122	4,122	4,122	4,122	4,122	4,122	4,122	4,122	4,122	4,122	4,122	4,122	4,122

Notes:
Forecast represents the amount of Demand Resources committed to the PJM Reliability Pricing Model via RPM Auctions (including incremental auctions) and FRR Capacity Plans.
Winter load management is equal to Annual.

Table B-7

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

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
AEP																
LIMITED	1,342	1,163	738	738	738	738	738	738	738	738	738	738	738	738	738	738
EXTENDED SUMMER	291	165	926	926	926	926	926	926	926	926	926	926	926	926	926	926
ANNUAL	316	459	216	216	216	216	216	216	216	216	216	216	216	216	216	216
TOTAL LOAD MANAGEMENT	1,949	1,787	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880
APS																
LIMITED	521	571	105	105	105	105	105	105	105	105	105	105	105	105	105	105
EXTENDED SUMMER	404	105	621	621	621	621	621	621	621	621	621	621	621	621	621	621
ANNUAL	10	20	167	167	167	167	167	167	167	167	167	167	167	167	167	167
TOTAL LOAD MANAGEMENT	935	696	893	893	893	893	893	893	893	893	893	893	893	893	893	893
ATSI																
LIMITED	643	971	165	165	165	165	165	165	165	165	165	165	165	165	165	165
EXTENDED SUMMER	804	778	706	706	706	706	706	706	706	706	706	706	706	706	706	706
ANNUAL	311	8	107	107	107	107	107	107	107	107	107	107	107	107	107	107
TOTAL LOAD MANAGEMENT	1,758	1,757	978	978	978	978	978	978	978	978	978	978	978	978	978	978
COMED																
LIMITED	1,166	1,128	248	248	248	248	248	248	248	248	248	248	248	248	248	248
EXTENDED SUMMER	515	184	1,124	1,124	1,124	1,124	1,124	1,124	1,124	1,124	1,124	1,124	1,124	1,124	1,124	1,124
ANNUAL	0	6	50	50	50	50	50	50	50	50	50	50	50	50	50	50
TOTAL LOAD MANAGEMENT	1,681	1,318	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422
DAYTON																
LIMITED	135	224	50	50	50	50	50	50	50	50	50	50	50	50	50	50
EXTENDED SUMMER	54	17	121	121	121	121	121	121	121	121	121	121	121	121	121	121
ANNUAL	0	0	32	32	32	32	32	32	32	32	32	32	32	32	32	32
TOTAL LOAD MANAGEMENT	189	241	203	203	203	203	203	203	203	203	203	203	203	203	203	203
DEOK																
LIMITED	217	284	124	124	124	124	124	124	124	124	124	124	124	124	124	124
EXTENDED SUMMER	64	52	84	84	84	84	84	84	84	84	84	84	84	84	84	84
ANNUAL	32	0	8	8	8	8	8	8	8	8	8	8	8	8	8	8
TOTAL LOAD MANAGEMENT	313	336	216	216	216	216	216	216	216	216	216	216	216	216	216	216
DLCO																
LIMITED	106	129	19	19	19	19	19	19	19	19	19	19	19	19	19	19
EXTENDED SUMMER	130	13	98	98	98	98	98	98	98	98	98	98	98	98	98	98
ANNUAL	0	0	39	39	39	39	39	39	39	39	39	39	39	39	39	39
TOTAL LOAD MANAGEMENT	236	142	156	156	156	156	156	156	156	156	156	156	156	156	156	156

Notes:
Forecast represents the amount of Demand Resources committed to the PJM Reliability Pricing Model via RPM Auctions (including incremental auctions) and FRR Capacity Plans.
Winter load management is equal to Annual.

Table B-7 (Continued)
PJM WESTERN REGION AND PJM SOUTHERN REGION LOAD MANAGEMENT
PLACED UNDER PJM COORDINATION - SUMMER (MW)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
EKPC																
LIMITED	126	128	135	135	135	135	135	135	135	135	135	135	135	135	135	135
EXTENDED SUMMER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANNUAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LOAD MANAGEMENT	126	128	135	135	135	135	135	135	135	135	135	135	135	135	135	135
PJM WESTERN																
LIMITED	4,256	4,598	1,584	1,584	1,584	1,584	1,584	1,584	1,584	1,584	1,584	1,584	1,584	1,584	1,584	1,584
EXTENDED SUMMER	2,262	1,314	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680	3,680
ANNUAL	669	493	619	619	619	619	619	619	619	619	619	619	619	619	619	619
TOTAL LOAD MANAGEMENT	7,187	6,405	5,883	5,883	5,883	5,883	5,883	5,883	5,883	5,883	5,883	5,883	5,883	5,883	5,883	5,883
DOM																
LIMITED	1,156	934	327	327	327	327	327	327	327	327	327	327	327	327	327	327
EXTENDED SUMMER	177	217	740	740	740	740	740	740	740	740	740	740	740	740	740	740
ANNUAL	0	0	30	30	30	30	30	30	30	30	30	30	30	30	30	30
TOTAL LOAD MANAGEMENT	1,333	1,151	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097
PJM RTO																
LIMITED	9,258	9,631	2,767	2,767	2,767	2,767	2,767	2,767	2,767	2,767	2,767	2,767	2,767	2,767	2,767	2,767
EXTENDED SUMMER	5,039	2,551	6,903	6,903	6,903	6,903	6,903	6,903	6,903	6,903	6,903	6,903	6,903	6,903	6,903	6,903
ANNUAL	703	525	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432
TOTAL LOAD MANAGEMENT	15,000	12,707	11,102	11,102	11,102	11,102	11,102	11,102	11,102	11,102	11,102	11,102	11,102	11,102	11,102	11,102

Table B-8

**PJM MID-ATLANTIC REGION ENERGY EFFICIENCY PROGRAMS
AND SUM OF ENERGY EFFICIENCY AND LOAD MANAGEMENT - SUMMER (MW)**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
AE																
ENERGY EFFICIENCY	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
LOAD MANAGEMENT	199	168	129	129	129	129	129	129	129	129	129	129	129	129	129	129
TOTAL	200	169	130	130	130	130	130	130	130	130	130	130	130	130	130	130
BGE																
ENERGY EFFICIENCY	74	99	113	113	113	113	113	113	113	113	113	113	113	113	113	113
LOAD MANAGEMENT	1,106	902	763	763	763	763	763	763	763	763	763	763	763	763	763	763
TOTAL	1,180	1,001	876	876	876	876	876	876	876	876	876	876	876	876	876	876
DPL																
ENERGY EFFICIENCY	13	20	27	27	27	27	27	27	27	27	27	27	27	27	27	27
LOAD MANAGEMENT	449	425	359	359	359	359	359	359	359	359	359	359	359	359	359	359
TOTAL	462	445	386	386	386	386	386	386	386	386	386	386	386	386	386	386
JCP&L																
ENERGY EFFICIENCY	0	5	7	7	7	7	7	7	7	7	7	7	7	7	7	7
LOAD MANAGEMENT	344	214	153	153	153	153	153	153	153	153	153	153	153	153	153	153
TOTAL	344	219	160	160	160	160	160	160	160	160	160	160	160	160	160	160
MET&D																
ENERGY EFFICIENCY	9	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11
LOAD MANAGEMENT	343	301	288	288	288	288	288	288	288	288	288	288	288	288	288	288
TOTAL	352	309	299	299	299	299	299	299	299	299	299	299	299	299	299	299
PE&CO																
ENERGY EFFICIENCY	11	15	23	23	23	23	23	23	23	23	23	23	23	23	23	23
LOAD MANAGEMENT	779	510	462	462	462	462	462	462	462	462	462	462	462	462	462	462
TOTAL	790	525	485	485	485	485	485	485	485	485	485	485	485	485	485	485
PEN&L&C																
ENERGY EFFICIENCY	8	8	12	12	12	12	12	12	12	12	12	12	12	12	12	12
LOAD MANAGEMENT	524	414	345	345	345	345	345	345	345	345	345	345	345	345	345	345
TOTAL	532	422	357	357	357	357	357	357	357	357	357	357	357	357	357	357

Notes:
Energy Efficiency values represent the amount committed to the PJM Reliability Pricing Model via RPM Auctions (including incremental auctions) and FRR Capacity Plans, statistically adjusted for the number of years the resource has been installed.
Load Management details appear in Table B-7.

Table B-8 (Continued)

**PJM MID-ATLANTIC REGION ENERGY EFFICIENCY PROGRAMS
AND SUM OF ENERGY EFFICIENCY AND LOAD MANAGEMENT - SUMMER (MW)**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
PEPCO																
ENERGY EFFICIENCY	45	71	95	95	95	95	95	95	95	95	95	95	95	95	95	95
LOAD MANAGEMENT	837	639	585	585	585	585	585	585	585	585	585	585	585	585	585	585
TOTAL	882	710	680	680	680	680	680	680	680	680	680	680	680	680	680	680
PL																
ENERGY EFFICIENCY	10	31	33	33	33	33	33	33	33	33	33	33	33	33	33	33
LOAD MANAGEMENT	1,112	960	660	660	660	660	660	660	660	660	660	660	660	660	660	660
TOTAL	1,122	991	693	693	693	693	693	693	693	693	693	693	693	693	693	693
PS																
ENERGY EFFICIENCY	10	18	16	16	16	16	16	16	16	16	16	16	16	16	16	16
LOAD MANAGEMENT	767	608	375	375	375	375	375	375	375	375	375	375	375	375	375	375
TOTAL	777	626	391	391	391	391	391	391	391	391	391	391	391	391	391	391
RECO																
ENERGY EFFICIENCY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOAD MANAGEMENT	20	10	3	3	3	3	3	3	3	3	3	3	3	3	3	3
TOTAL	20	10	3	3	3	3	3	3	3	3	3	3	3	3	3	3
UGI																
ENERGY EFFICIENCY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOAD MANAGEMENT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PJM MID-ATLANTIC																
ENERGY EFFICIENCY	181	276	338	338	338	338	338	338	338	338	338	338	338	338	338	338
LOAD MANAGEMENT	6,480	5,151	4,122	4,122	4,122	4,122	4,122	4,122	4,122	4,122	4,122	4,122	4,122	4,122	4,122	4,122
TOTAL	6,661	5,427	4,460	4,460	4,460	4,460	4,460	4,460	4,460	4,460	4,460	4,460	4,460	4,460	4,460	4,460

Notes:
 Energy Efficiency values represent the amount committed to the PJM Reliability Pricing Model via RPM Auctions (including incremental auctions) and FRR Capacity Plans, statistically adjusted for the number of years the resource has been installed.
 Load Management details appear in Table B-7.

Table B-8

**PJM WESTERN REGION AND PJM SOUTHERN REGION ENERGY EFFICIENCY PROGRAMS
AND SUM OF ENERGY EFFICIENCY AND LOAD MANAGEMENT - SUMMER (MW)**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
AEP																
ENERGY EFFICIENCY	167	99	126	126	126	126	126	126	126	126	126	126	126	126	126	126
LOAD MANAGEMENT	1,949	1,787	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880	1,880
TOTAL	2,116	1,886	2,006	2,006	2,006	2,006	2,006	2,006	2,006	2,006	2,006	2,006	2,006	2,006	2,006	2,006
APS																
ENERGY EFFICIENCY	20	13	9	9	9	9	9	9	9	9	9	9	9	9	9	9
LOAD MANAGEMENT	935	696	893	893	893	893	893	893	893	893	893	893	893	893	893	893
TOTAL	955	709	902	902	902	902	902	902	902	902	902	902	902	902	902	902
ATSI																
ENERGY EFFICIENCY	56	175	131	131	131	131	131	131	131	131	131	131	131	131	131	131
LOAD MANAGEMENT	1,758	1,757	978	978	978	978	978	978	978	978	978	978	978	978	978	978
TOTAL	1,814	1,932	1,109	1,109	1,109	1,109	1,109	1,109	1,109	1,109	1,109	1,109	1,109	1,109	1,109	1,109
COMED																
ENERGY EFFICIENCY	325	370	538	538	538	538	538	538	538	538	538	538	538	538	538	538
LOAD MANAGEMENT	1,681	1,318	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422	1,422
TOTAL	2,006	1,688	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960
DAYTON																
ENERGY EFFICIENCY	2	9	45	45	45	45	45	45	45	45	45	45	45	45	45	45
LOAD MANAGEMENT	189	241	203	203	203	203	203	203	203	203	203	203	203	203	203	203
TOTAL	191	250	248	248	248	248	248	248	248	248	248	248	248	248	248	248
DEOK																
ENERGY EFFICIENCY	3	4	17	17	17	17	17	17	17	17	17	17	17	17	17	17
LOAD MANAGEMENT	313	336	216	216	216	216	216	216	216	216	216	216	216	216	216	216
TOTAL	316	340	233	233	233	233	233	233	233	233	233	233	233	233	233	233
DLCO																
ENERGY EFFICIENCY	4	4	10	10	10	10	10	10	10	10	10	10	10	10	10	10
LOAD MANAGEMENT	236	142	156	156	156	156	156	156	156	156	156	156	156	156	156	156
TOTAL	240	146	166	166	166	166	166	166	166	166	166	166	166	166	166	166
EKPC																
ENERGY EFFICIENCY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LOAD MANAGEMENT	126	128	135	135	135	135	135	135	135	135	135	135	135	135	135	135
TOTAL	126	128	135	135	135	135	135	135	135	135	135	135	135	135	135	135

Notes:
 Energy Efficiency values represent the amount committed to the PJM Reliability Pricing Model via RPM Auctions (including incremental auctions) and FRR Capacity Plans, statistically adjusted for the number of years the resource has been installed.
 Load Management details appear in Table B-7.

Table B-8 (Continued)

PJM WESTERN REGION AND PJM SOUTHERN REGION ENERGY EFFICIENCY PROGRAMS AND SUM OF ENERGY EFFICIENCY AND LOAD MANAGEMENT - SUMMER (MW)																
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
PJM WESTERN																
ENERGY EFFICIENCY	577	674	876	876	876	876	876	876	876	876	876	876	876	876	876	876
LOAD MANAGEMENT	7,187	6,405	5,883	5,883	5,883	5,883	5,883	5,883	5,883	5,883	5,883	5,883	5,883	5,883	5,883	5,883
TOTAL	7,764	7,079	6,759	6,759	6,759	6,759	6,759	6,759	6,759	6,759	6,759	6,759	6,759	6,759	6,759	6,759
DOM																
ENERGY EFFICIENCY	5	26	19	19	19	19	19	19	19	19	19	19	19	19	19	19
LOAD MANAGEMENT	1,333	1,151	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097
TOTAL	1,338	1,177	1,116	1,116	1,116	1,116	1,116	1,116	1,116	1,116	1,116	1,116	1,116	1,116	1,116	1,116
PJM RTO																
ENERGY EFFICIENCY	763	976	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233
LOAD MANAGEMENT	15,000	12,707	11,102	11,102	11,102	11,102	11,102	11,102	11,102	11,102	11,102	11,102	11,102	11,102	11,102	11,102
TOTAL	15,763	13,683	12,335	12,335	12,335	12,335	12,335	12,335	12,335	12,335	12,335	12,335	12,335	12,335	12,335	12,335

Notes:
 Energy Efficiency values represent the amount committed to the PJM Reliability Pricing Model via RPM Auctions (including incremental auctions) and FRR Capacity Plans, statistically adjusted for the number of years the resource has been installed.
 Load Management details appear in Table B-7.

Table B-9
ADJUSTMENTS TO SUMMER PEAK LOAD (MW) FOR
EACH PJM ZONE AND RTO
2015 – 2030

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	150	220	290	370	450	540	640	730	730	730	730	730	730	730	730
PJM RTO	0	150	220	290	370	450	540	640	730	730	730	730	730	730	730	730

Notes:
Adjustment values presented here are reflected in Tables B-1 through B-6 and Tables B-10, B-11 and B12.
Adjustments are large; unanticipated load changes deemed by PJM to not be captured in the forecast model.

Table B-10
SUMMER COINCIDENT PEAK LOAD (MW) FOR
EACH PJM ZONE, LOCATIONAL DELIVERABILITY AREA AND RTO
2015 - 2030

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
AE	2,555	2,596	2,620	2,634	2,642	2,658	2,670	2,681	2,695	2,706	2,727	2,738	2,753	2,761	2,778	2,794
BGE	6,858	6,941	7,019	7,062	7,123	7,200	7,254	7,291	7,358	7,413	7,491	7,548	7,607	7,652	7,712	7,778
DPL	4,024	4,084	4,130	4,164	4,198	4,237	4,266	4,292	4,327	4,359	4,402	4,434	4,465	4,490	4,519	4,555
JCPL	6,025	6,117	6,189	6,236	6,289	6,349	6,396	6,441	6,492	6,540	6,607	6,655	6,705	6,745	6,800	6,862
MEETED	2,833	2,885	2,925	2,958	2,991	3,028	3,055	3,084	3,117	3,152	3,191	3,228	3,256	3,282	3,315	3,353
PECO	8,318	8,438	8,541	8,622	8,690	8,769	8,830	8,881	8,952	9,014	9,101	9,159	9,222	9,271	9,343	9,410
PENLC	2,785	2,846	2,893	2,923	2,956	2,991	3,020	3,047	3,079	3,108	3,147	3,173	3,202	3,223	3,249	3,280
PEPCO	6,398	6,434	6,469	6,500	6,541	6,614	6,640	6,649	6,675	6,708	6,781	6,809	6,836	6,836	6,862	6,901
PL	6,884	6,981	7,054	7,092	7,153	7,215	7,263	7,305	7,361	7,407	7,478	7,521	7,573	7,610	7,655	7,709
PS	9,926	10,037	10,114	10,146	10,207	10,275	10,323	10,360	10,414	10,456	10,533	10,578	10,629	10,664	10,714	10,776
RECO	406	409	410	411	412	416	418	418	419	420	423	425	426	426	425	428
UGI	189	192	194	195	197	198	199	200	202	203	204	206	207	208	209	210
AEP	22,566	22,849	23,072	23,224	23,371	23,563	23,719	23,843	24,003	24,151	24,363	24,522	24,715	24,839	25,036	25,214
APS	8,397	8,524	8,631	8,713	8,795	8,902	8,984	9,056	9,149	9,227	9,336	9,420	9,505	9,577	9,667	9,756
ATSI	12,742	12,828	12,911	12,924	12,963	13,072	13,118	13,138	13,192	13,212	13,321	13,370	13,437	13,453	13,498	13,551
COMED	21,986	22,379	22,705	22,959	23,254	23,572	23,812	24,030	24,307	24,578	24,918	25,194	25,445	25,626	25,862	26,156
DAYTON	3,339	3,412	3,467	3,506	3,543	3,586	3,624	3,657	3,698	3,745	3,797	3,837	3,879	3,911	3,959	4,011
DEOK	5,281	5,342	5,400	5,425	5,478	5,536	5,574	5,605	5,646	5,692	5,766	5,810	5,850	5,872	5,917	5,977
DLCO	2,840	2,878	2,894	2,908	2,926	2,956	2,971	2,982	2,991	3,005	3,029	3,055	3,072	3,073	3,093	3,112
EKPC	1,908	1,933	1,955	1,970	1,989	2,011	2,027	2,039	2,057	2,074	2,096	2,114	2,131	2,143	2,163	2,181
DOM	19,283	19,804	20,212	20,557	20,900	21,295	21,601	21,902	22,267	22,535	22,868	23,102	23,321	23,523	23,772	24,038
PJM RTO	155,543	157,909	159,805	161,129	162,618	164,443	165,764	166,901	168,401	169,705	171,579	172,898	174,236	175,185	176,548	178,052
PJM MID-ATLANTIC	57,201	57,960	58,558	58,943	59,399	59,950	60,334	60,649	61,091	61,486	62,085	62,474	62,881	63,168	63,581	64,056
EASTERN MID-ATLANTIC	31,254	31,681	32,004	32,213	32,438	32,704	32,903	33,073	33,299	33,495	33,793	33,989	34,200	34,357	34,579	34,825
SOUTHERN MID-ATLANTIC	13,256	13,375	13,488	13,562	13,664	13,814	13,894	13,940	14,033	14,121	14,272	14,357	14,443	14,488	14,574	14,679
MID-ATLANTIC and APS	65,598	66,484	67,189	67,656	68,194	68,852	69,318	69,705	70,240	70,713	71,421	71,894	72,386	72,745	73,248	73,812

Notes:
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.

Table B-11

**PJM CONTROL AREA - JANUARY 2015
SUMMER TOTAL INTERNAL DEMAND FORECAST (MW) FOR EACH NERC REGION
2015 - 2025**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Annual Growth Rate (10 yr)
PJM - RELIABILITY FIRST												
TOTAL INTERNAL DEMAND	133,562	135,351	136,796	137,758	138,890	140,293	141,298	142,051	143,159	144,193	145,734	0.9%
% TOTAL		1.3%	1.1%	0.7%	0.8%	1.0%	0.7%	0.5%	0.8%	0.7%	1.1%	
CONTRACTUALLY INTERRUPTIBLE												
DIRECT CONTROL	13,189	11,078	9,527	9,527	9,527	9,527	9,527	9,527	9,527	9,527	9,527	
% TOTAL		478	478	478	478	478	478	478	478	478	478	
TOTAL LOAD MANAGEMENT	13,667	11,556	10,005	10,005	10,005	10,005	10,005	10,005	10,005	10,005	10,005	
NET INTERNAL DEMAND												
% NET	119,895	123,795	126,791	127,753	128,885	130,288	131,293	132,046	133,154	134,188	135,729	1.2%
		3.3%	2.4%	0.8%	0.9%	1.1%	0.8%	0.6%	0.8%	0.8%	1.1%	
PJM - SERC												
TOTAL INTERNAL DEMAND	21,982	22,561	23,012	23,370	23,728	24,150	24,466	24,851	25,240	25,513	25,846	1.6%
% TOTAL		2.6%	2.0%	1.6%	1.5%	1.8%	1.3%	1.6%	1.6%	1.1%	1.3%	
CONTRACTUALLY INTERRUPTIBLE												
DIRECT CONTROL	1,220	1,038	984	984	984	984	984	984	984	984	984	
% TOTAL	113	113	113	113	113	113	113	113	113	113	113	
TOTAL LOAD MANAGEMENT	1,333	1,151	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	1,097	
NET INTERNAL DEMAND												
% NET	20,649	21,410	21,915	22,273	22,631	23,053	23,369	23,754	24,143	24,416	24,749	1.8%
		3.7%	2.4%	1.6%	1.6%	1.9%	1.4%	1.6%	1.6%	1.1%	1.4%	
PJM RTO												
TOTAL INTERNAL DEMAND	155,544	157,912	159,808	161,128	162,618	164,443	165,764	166,902	168,399	169,706	171,580	1.0%
% TOTAL		1.5%	1.2%	0.8%	0.9%	1.1%	0.8%	0.7%	0.9%	0.8%	1.1%	
CONTRACTUALLY INTERRUPTIBLE												
DIRECT CONTROL	14,409	12,116	10,511	10,511	10,511	10,511	10,511	10,511	10,511	10,511	10,511	
% TOTAL	591	591	591	591	591	591	591	591	591	591	591	
TOTAL LOAD MANAGEMENT	15,000	12,707	11,102	11,102	11,102	11,102	11,102	11,102	11,102	11,102	11,102	
NET INTERNAL DEMAND												
% NET	140,544	145,205	148,706	150,026	151,516	153,341	154,662	155,800	157,297	158,604	160,478	1.3%
		3.3%	2.4%	0.9%	1.0%	1.2%	0.9%	0.7%	1.0%	0.8%	1.2%	

Notes:
 Total Internal Demand = projected PJM seasonal peak load at normal peak weather conditions in the absence of any load reductions due to load management, voltage reductions or voluntary curtailments.
 Contractually Interruptible = Firm Service Level + Guaranteed Load Drop
 The above forecasts incorporate all load in the PJM Control Area, including members and non-members.
 All growth rates are calculated from the first year of the forecast.

Table B-11 (Continued)

PJM CONTROL AREA - JANUARY 2015
SUMMER TOTAL INTERNAL DEMAND FORECAST (MW) FOR EACH NERC REGION
2026 - 2030

	2026	2027	2028	2029	2030	Annual Growth Rate (15 yr)
PJM - RELIABILITY FIRST						
TOTAL INTERNAL DEMAND	146,762	147,880	148,546	149,644	150,862	0.8%
% TOTAL	0.7%	0.8%	0.5%	0.7%	0.8%	
CONTRACTUALLY INTERRUPTIBLE						
DIRECT CONTROL	9,527	9,527	9,527	9,527	9,527	
TOTAL LOAD MANAGEMENT	478	478	478	478	478	
	10,005	10,005	10,005	10,005	10,005	
NET INTERNAL DEMAND						
% NET	136,757	137,875	138,541	139,639	140,857	1.1%
	0.8%	0.8%	0.5%	0.8%	0.9%	
PJM - SERC						
TOTAL INTERNAL DEMAND	26,136	26,353	26,637	26,903	27,190	1.4%
% TOTAL	1.1%	0.8%	1.1%	1.0%	1.1%	
CONTRACTUALLY INTERRUPTIBLE						
DIRECT CONTROL	984	984	984	984	984	
TOTAL LOAD MANAGEMENT	113	113	113	113	113	
	1,097	1,097	1,097	1,097	1,097	
NET INTERNAL DEMAND						
% NET	25,039	25,256	25,540	25,806	26,093	1.6%
	1.2%	0.9%	1.1%	1.0%	1.1%	
PJM RTO						
TOTAL INTERNAL DEMAND	172,898	174,233	175,183	176,547	178,052	0.9%
% TOTAL	0.8%	0.8%	0.5%	0.8%	0.9%	
CONTRACTUALLY INTERRUPTIBLE						
DIRECT CONTROL	10,511	10,511	10,511	10,511	10,511	
TOTAL LOAD MANAGEMENT	591	591	591	591	591	
	11,102	11,102	11,102	11,102	11,102	
NET INTERNAL DEMAND						
% NET	161,796	163,131	164,081	165,445	166,950	1.2%
	0.8%	0.8%	0.6%	0.8%	0.9%	

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

Table B-12

PJM CONTROL AREA - JANUARY 2015
WINTER TOTAL INTERNAL DEMAND FORECAST (MW) FOR EACH NERC REGION
2014/15 - 2024/25

	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	Annual Growth Rate (10 yr)
PJM - RELIABILITY FIRST												
TOTAL INTERNAL DEMAND	109,683	111,256	112,672	113,572	114,289	115,007	115,942	116,933	117,753	118,477	119,221	0.8%
% TOTAL		1.4%	1.3%	0.8%	0.6%	0.6%	0.8%	0.9%	0.7%	0.6%	0.6%	
CONTRACTUALLY INTERRUPTIBLE	703	525	1,402	1,402	1,402	1,402	1,402	1,402	1,402	1,402	1,402	
DIRECT CONTROL	0	0	0	0	0	0	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	703	525	1,402	1,402	1,402	1,402	1,402	1,402	1,402	1,402	1,402	
NET INTERNAL DEMAND	108,980	110,731	111,270	112,170	112,887	113,605	114,540	115,531	116,351	117,075	117,819	0.8%
% NET		1.6%	0.5%	0.8%	0.6%	0.6%	0.8%	0.9%	0.7%	0.6%	0.6%	
PJM - SERC												
TOTAL INTERNAL DEMAND	20,028	20,465	20,770	21,198	21,524	21,781	22,076	22,386	22,726	23,039	23,340	1.5%
% TOTAL		2.2%	1.5%	2.1%	1.5%	1.2%	1.4%	1.4%	1.5%	1.4%	1.3%	
CONTRACTUALLY INTERRUPTIBLE	0	0	30	30	30	30	30	30	30	30	30	
DIRECT CONTROL	0	0	0	0	0	0	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	0	0	30	30	30	30	30	30	30	30	30	
NET INTERNAL DEMAND	20,028	20,465	20,740	21,168	21,494	21,751	22,046	22,356	22,696	23,009	23,310	1.5%
% NET		2.2%	1.3%	2.1%	1.5%	1.2%	1.4%	1.4%	1.5%	1.4%	1.3%	
PJM RTO												
TOTAL INTERNAL DEMAND	129,711	131,721	133,442	134,770	135,813	136,788	138,018	139,319	140,479	141,516	142,561	0.9%
% TOTAL		1.5%	1.3%	1.0%	0.8%	0.7%	0.9%	0.9%	0.8%	0.7%	0.7%	
CONTRACTUALLY INTERRUPTIBLE	703	525	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432	
DIRECT CONTROL	0	0	0	0	0	0	0	0	0	0	0	
TOTAL LOAD MANAGEMENT	703	525	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432	1,432	
NET INTERNAL DEMAND	129,008	131,196	132,010	133,338	134,381	135,356	136,586	137,887	139,047	140,084	141,129	0.9%
% NET		1.7%	0.6%	1.0%	0.8%	0.7%	0.9%	1.0%	0.8%	0.7%	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 growth rates are calculated from the first year of the forecast.

Table B-12 (Continued)

PJM CONTROL AREA - JANUARY 2015
WINTER TOTAL INTERNAL DEMAND FORECAST (MW) FOR EACH NERC REGION
2025/26 - 2029/30

	25/26	26/27	27/28	28/29	29/30	Annual Growth Rate (15 yr)
PJM - RELIABILITY FIRST						
TOTAL INTERNAL DEMAND	120,081	120,995	121,979	122,599	123,510	0.8%
% TOTAL	0.7%	0.8%	0.8%	0.5%	0.7%	
CONTRACTUALLY INTERRUPTIBLE						
DIRECT CONTROL	1,402	1,402	1,402	1,402	1,402	
TOTAL LOAD MANAGEMENT	0	0	0	0	0	
NET INTERNAL DEMAND	1,402	1,402	1,402	1,402	1,402	
% NET	118,679	119,593	120,577	121,197	122,108	0.8%
	0.7%	0.8%	0.8%	0.5%	0.8%	
PJM - SERC						
TOTAL INTERNAL DEMAND	23,529	23,764	23,993	24,193	24,471	1.3%
% TOTAL	0.8%	1.0%	1.0%	0.8%	1.1%	
CONTRACTUALLY INTERRUPTIBLE						
DIRECT CONTROL	30	30	30	30	30	
TOTAL LOAD MANAGEMENT	0	0	0	0	0	
NET INTERNAL DEMAND	30	30	30	30	30	
% NET	23,499	23,734	23,963	24,163	24,441	1.3%
	0.8%	1.0%	1.0%	0.8%	1.2%	
PJM RTO						
TOTAL INTERNAL DEMAND	143,610	144,759	145,972	146,792	147,981	0.9%
% TOTAL	0.7%	0.8%	0.8%	0.6%	0.8%	
CONTRACTUALLY INTERRUPTIBLE						
DIRECT CONTROL	1,432	1,432	1,432	1,432	1,432	
TOTAL LOAD MANAGEMENT	0	0	0	0	0	
NET INTERNAL DEMAND	1,432	1,432	1,432	1,432	1,432	
% NET	142,178	143,327	144,540	145,360	146,549	0.9%
	0.7%	0.8%	0.8%	0.6%	0.8%	

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

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 (WK 14-19)	SUMMER (WK 20-39)	FALL (WK 40-45)	WINTER (WK 46-13)
2015	16,704	23,797	16,038	20,960
2016	16,752	24,112	16,245	21,292
2017	16,805	24,353	16,464	21,548
2018	17,045	24,532	16,650	21,720
2019	17,183	24,716	16,754	21,831
2020	17,540	24,893	16,784	21,946
2021	17,763	25,063	16,823	22,137
2022	17,672	25,258	17,087	22,299
2023	17,649	25,448	17,314	22,456
2024	17,957	25,630	17,518	22,603
2025	18,206	25,811	17,577	22,720
2026	18,403	25,996	17,646	22,829
2027	18,609	26,172	17,604	23,034
2028	18,321	26,356	17,960	23,194
2029	18,520	26,543	18,177	23,329
2030	18,751	26,741	18,311	23,482

EXTREME WEATHER (90/10) FORECAST

YEAR	SPRING (WK 14-19)	SUMMER (WK 20-39)	FALL (WK 40-45)	WINTER (WK 46-13)
2015	18,008	25,078	17,792	22,312
2016	18,192	25,370	18,064	22,588
2017	18,290	25,616	18,263	22,868
2018	18,557	25,765	18,548	23,037
2019	18,690	26,001	18,637	23,158
2020	18,956	26,238	18,618	23,243
2021	19,075	26,407	18,760	23,472
2022	19,128	26,596	18,956	23,652
2023	19,142	26,770	19,127	23,824
2024	19,516	26,968	19,418	23,972
2025	19,631	27,222	19,464	24,022
2026	19,889	27,405	19,514	24,243
2027	20,008	27,579	19,619	24,401
2028	19,869	27,732	19,850	24,596
2029	20,210	27,871	20,180	24,680
2030	20,407	28,143	20,297	24,849

Table C-2

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

BASE (50/50) FORECAST

YEAR	SPRING (WK 14-19)	SUMMER (WK 20-39)	FALL (WK 40-45)	WINTER (WK 46-13)
2015	10,278	13,118	10,231	12,800
2016	10,441	13,330	10,383	13,036
2017	10,592	13,496	10,524	13,250
2018	10,756	13,583	10,651	13,385
2019	10,875	13,732	10,723	13,498
2020	10,949	13,852	10,809	13,565
2021	11,010	13,962	10,856	13,681
2022	11,092	14,088	11,033	13,825
2023	11,192	14,207	11,142	13,947
2024	11,398	14,319	11,265	14,056
2025	11,486	14,443	11,339	14,135
2026	11,559	14,559	11,443	14,245
2027	11,649	14,672	11,480	14,367
2028	11,697	14,780	11,625	14,505
2029	11,840	14,861	11,754	14,582
2030	12,007	15,014	11,853	14,711

EXTREME WEATHER (90/10) FORECAST

YEAR	SPRING (WK 14-19)	SUMMER (WK 20-39)	FALL (WK 40-45)	WINTER (WK 46-13)
2015	10,598	13,698	10,254	13,472
2016	10,785	13,893	10,467	13,706
2017	10,937	14,052	10,614	13,939
2018	11,060	14,163	10,814	14,070
2019	11,167	14,319	10,882	14,170
2020	11,294	14,467	10,853	14,224
2021	11,369	14,570	10,936	14,382
2022	11,470	14,689	11,106	14,534
2023	11,588	14,798	11,234	14,660
2024	11,706	14,936	11,442	14,768
2025	11,789	15,101	11,463	14,804
2026	11,949	15,213	11,488	14,956
2027	12,027	15,319	11,539	15,071
2028	12,079	15,405	11,733	15,234
2029	12,199	15,493	11,950	15,284
2030	12,350	15,669	12,040	15,413

Table C-3

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

BASE (\$0/50) FORECAST

YEAR	SPRING (WK 14-19)	SUMMER (WK 20-39)	FALL (WK 40-45)	WINTER (WK 46-13)
2015	18,191	32,194	19,267	22,001
2016	18,500	32,655	19,176	22,348
2017	18,651	32,980	19,761	22,665
2018	18,846	33,191	20,109	22,841
2019	19,096	33,474	20,243	22,986
2020	19,227	33,701	20,219	23,073
2021	19,672	33,909	20,114	23,249
2022	19,580	34,148	20,177	23,435
2023	19,565	34,373	20,690	23,623
2024	20,294	34,579	21,023	23,754
2025	20,418	34,812	21,121	23,842
2026	20,478	35,036	21,135	24,009
2027	20,609	35,251	21,066	24,161
2028	20,255	35,471	21,456	24,350
2029	20,503	35,578	21,815	24,475
2030	21,151	35,956	21,977	24,665

EXTREME WEATHER (90/10) FORECAST

YEAR	SPRING (WK 14-19)	SUMMER (WK 20-39)	FALL (WK 40-45)	WINTER (WK 46-13)
2015	21,886	34,263	22,258	23,122
2016	21,919	34,707	22,549	23,458
2017	22,121	35,038	22,920	23,777
2018	22,614	35,161	23,267	23,938
2019	22,788	35,526	23,374	24,091
2020	23,113	35,798	23,344	24,223
2021	23,246	36,006	23,470	24,375
2022	23,086	36,261	23,654	24,543
2023	23,279	36,477	23,947	24,761
2024	23,717	36,703	24,251	24,871
2025	23,847	37,011	24,332	25,007
2026	24,211	37,215	24,398	25,165
2027	24,350	37,425	24,504	25,313
2028	24,121	37,643	24,809	25,476
2029	24,539	37,764	25,180	25,629
2030	24,781	38,162	25,327	25,808

Table C-4

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

BASE (50/50) FORECAST

YEAR	SPRING (WK 14-19)	SUMMER (WK 20-39)	FALL (WK 40-45)	WINTER (WK 46-13)
2015	8,675	13,721	8,665	11,047
2016	8,711	13,852	8,691	11,186
2017	8,784	13,964	8,866	11,309
2018	8,878	14,046	8,974	11,393
2019	8,970	14,160	9,019	11,455
2020	9,075	14,259	9,019	11,512
2021	9,156	14,342	9,055	11,574
2022	9,133	14,423	9,142	11,666
2023	9,172	14,517	9,263	11,741
2024	9,318	14,626	9,356	11,816
2025	9,363	14,728	9,403	11,867
2026	9,495	14,822	9,453	11,919
2027	9,560	14,903	9,418	11,995
2028	9,495	14,996	9,579	12,088
2029	9,618	15,062	9,687	12,162
2030	9,707	15,197	9,750	12,221

EXTREME WEATHER (90/10) FORECAST

YEAR	SPRING (WK 14-19)	SUMMER (WK 20-39)	FALL (WK 40-45)	WINTER (WK 46-13)
2015	9,864	14,383	9,974	11,791
2016	9,992	14,536	10,114	11,936
2017	10,087	14,659	10,193	12,042
2018	10,141	14,732	10,323	12,121
2019	10,200	14,848	10,370	12,184
2020	10,327	14,983	10,384	12,229
2021	10,393	15,075	10,471	12,348
2022	10,453	15,174	10,541	12,436
2023	10,551	15,261	10,614	12,490
2024	10,592	15,356	10,741	12,564
2025	10,647	15,503	10,783	12,597
2026	10,789	15,593	10,820	12,696
2027	10,855	15,685	10,900	12,778
2028	10,909	15,764	10,978	12,875
2029	10,956	15,842	11,134	12,908
2030	11,070	15,977	11,187	12,987

Table C-5

PJM LOCATIONAL DELIVERABILITY AREAS
MID-ATLANTIC and APS: AE, APS, BGE, DPL, JCPL, METED, PECO, PENLC, PEPCO, PL, PS, RECO and UGI
SEASONAL PEAKS - MW

BASE (50/50) FORECAST

YEAR	SPRING (WK 14-19)	SUMMER (WK 20-39)	FALL (WK 40-45)	WINTER (WK 46-13)
2015	43,422	67,414	43,516	54,017
2016	44,038	68,359	43,929	54,916
2017	44,448	69,074	44,679	55,652
2018	45,102	69,617	45,249	56,142
2019	45,435	70,131	45,564	56,571
2020	45,997	70,593	45,689	56,849
2021	46,506	71,090	45,772	57,375
2022	46,767	71,651	46,632	57,874
2023	46,953	72,186	47,251	58,338
2024	47,861	72,703	47,927	58,741
2025	48,292	73,197	48,148	59,034
2026	48,540	73,713	48,274	59,449
2027	48,940	74,224	48,001	59,989
2028	48,831	74,747	49,107	60,457
2029	49,360	75,273	49,815	60,823
2030	50,150	75,871	50,210	61,292

EXTREME WEATHER (90/10) FORECAST

YEAR	SPRING (WK 14-19)	SUMMER (WK 20-39)	FALL (WK 40-45)	WINTER (WK 46-13)
2015	48,775	71,061	49,181	56,942
2016	49,352	72,040	49,902	57,803
2017	49,577	72,809	50,652	58,748
2018	50,541	73,195	51,427	59,183
2019	50,962	73,935	51,734	59,487
2020	51,380	74,408	51,690	59,871
2021	51,794	74,936	52,061	60,296
2022	51,915	75,507	52,607	60,881
2023	52,357	76,088	53,208	61,499
2024	53,156	76,642	53,801	61,850
2025	53,746	77,346	54,117	62,123
2026	54,159	77,688	54,306	62,562
2027	54,444	78,214	54,564	62,986
2028	54,406	78,773	55,303	63,546
2029	55,282	79,261	55,849	63,915
2030	55,823	79,965	56,299	64,397

Table D-1
SUMMER EXTREME WEATHER (90/10) PEAK LOAD FOR
EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION
2015 - 2030

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
AE	2,806	2,843	2,867	2,886	2,898	2,911	2,923	2,939	2,951	2,966	2,985	2,997	3,011	3,025	3,042	3,062
BGE	7,435	7,535	7,619	7,660	7,735	7,800	7,859	7,916	7,987	8,048	8,123	8,183	8,247	8,310	8,367	8,447
DPL	4,329	4,398	4,436	4,463	4,505	4,555	4,588	4,630	4,652	4,686	4,740	4,771	4,803	4,830	4,855	4,902
JCPL	6,677	6,779	6,846	6,838	6,964	7,023	7,072	7,133	7,185	7,240	7,308	7,356	7,408	7,461	7,448	7,589
METED	3,071	3,118	3,163	3,189	3,233	3,272	3,300	3,335	3,370	3,406	3,451	3,484	3,515	3,549	3,569	3,622
PECO	9,111	9,236	9,352	9,407	9,508	9,586	9,649	9,726	9,799	9,863	9,949	10,010	10,073	10,145	10,207	10,296
PENLC	3,004	3,059	3,095	3,130	3,166	3,212	3,239	3,268	3,289	3,324	3,372	3,401	3,426	3,438	3,465	3,502
PEPCO	6,948	7,001	7,040	7,072	7,113	7,184	7,216	7,258	7,274	7,308	7,380	7,410	7,439	7,455	7,475	7,530
PL	7,417	7,507	7,583	7,632	7,706	7,767	7,815	7,869	7,920	7,985	8,056	8,105	8,154	8,193	8,233	8,316
PS	10,887	10,995	11,079	11,111	11,190	11,259	11,309	11,366	11,422	11,479	11,555	11,606	11,654	11,705	11,739	11,834
RBCO	453	456	459	456	461	464	465	467	469	469	475	475	476	477	473	479
UGI	207	209	211	213	214	216	217	218	219	221	223	224	225	226	227	229
DIVERSITY - MID-ATLANTIC(-)	104	41	6	50	11	175	138	122	56	55	183	214	182	93	91	106
PJM MID-ATLANTIC	62,241	63,095	63,744	64,007	64,682	65,074	65,514	66,003	66,481	66,940	67,434	67,808	68,249	68,721	69,009	69,702
FE-EAST	12,751	12,956	13,104	13,157	13,363	13,507	13,611	13,736	13,844	13,970	14,130	14,240	14,348	14,448	14,481	14,713
PLGRP	7,623	7,716	7,794	7,844	7,920	7,983	8,032	8,087	8,139	8,206	8,278	8,328	8,379	8,419	8,460	8,545

Table D-1

**SUMMER EXTREME WEATHER (90/10) PEAK LOAD FOR
EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO
2015 - 2030**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
AEP	24,464	24,780	25,025	25,181	25,352	25,533	25,709	25,917	26,090	26,261	26,478	26,653	26,859	27,057	27,243	27,485
APS	9,051	9,187	9,306	9,391	9,487	9,593	9,683	9,777	9,878	9,965	10,064	10,154	10,244	10,343	10,444	10,554
ATSI	13,779	13,879	13,967	14,021	14,078	14,137	14,183	14,246	14,297	14,362	14,439	14,491	14,544	14,608	14,658	14,748
COMED	24,506	24,984	25,355	25,626	25,932	26,191	26,453	26,767	27,054	27,357	27,689	27,965	28,241	28,532	28,783	29,121
DAYTON	3,626	3,709	3,772	3,811	3,847	3,886	3,926	3,979	4,022	4,064	4,112	4,154	4,198	4,251	4,297	4,349
DEOK	5,741	5,822	5,886	5,929	5,966	6,019	6,071	6,132	6,179	6,222	6,269	6,330	6,381	6,433	6,483	6,530
DLCO	3,129	3,170	3,200	3,219	3,237	3,256	3,271	3,292	3,311	3,329	3,350	3,368	3,385	3,404	3,422	3,446
EKPC	2,104	2,135	2,158	2,178	2,196	2,217	2,233	2,257	2,277	2,293	2,319	2,337	2,350	2,379	2,399	2,416
DIVERSITY - WESTERN(-)	563	551	587	483	478	598	592	626	592	554	633	712	655	662	568	663
PJM WESTERN	85,837	87,115	88,082	88,873	89,617	90,234	90,937	91,741	92,516	93,299	94,087	94,740	95,547	96,345	97,161	97,986
DOM	20,537	21,139	21,567	21,917	22,262	22,621	22,973	23,367	23,731	23,992	24,288	24,541	24,801	25,067	25,325	25,620
DIVERSITY - INTERREGIONAL(-)	2,658	2,822	3,045	2,787	2,995	2,825	2,865	2,943	3,113	3,044	3,051	2,945	3,047	3,221	3,077	3,157
PJM RTO	165,957	168,527	170,348	172,010	173,566	175,104	176,559	178,168	179,615	181,187	182,758	184,144	185,550	186,912	188,418	190,151

Table D-2

**WINTER EXTREME WEATHER (90/10) PEAK LOAD FOR
EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION
2014/15 - 2029/30**

	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
AE	1,753	1,773	1,793	1,797	1,805	1,801	1,813	1,823	1,829	1,834	1,832	1,843	1,849	1,860	1,856	1,871
BGE	6,117	6,177	6,216	6,240	6,262	6,281	6,336	6,369	6,391	6,418	6,430	6,477	6,514	6,556	6,567	6,597
DPL	3,631	3,684	3,749	3,751	3,771	3,792	3,834	3,860	3,907	3,905	3,920	3,957	3,985	4,016	4,028	4,051
JCPL	3,959	4,025	4,078	4,113	4,135	4,145	4,201	4,235	4,264	4,286	4,294	4,338	4,375	4,415	4,424	4,472
METED	2,705	2,755	2,798	2,833	2,863	2,884	2,920	2,955	2,981	3,013	3,036	3,074	3,102	3,143	3,159	3,199
PECO	6,853	6,970	7,070	7,150	7,211	7,238	7,322	7,396	7,440	7,502	7,522	7,597	7,653	7,735	7,769	7,834
PENLC	2,971	3,046	3,111	3,154	3,196	3,210	3,252	3,289	3,326	3,360	3,379	3,417	3,451	3,492	3,511	3,551
PEPCO	5,674	5,759	5,827	5,881	5,922	5,948	6,012	6,067	6,099	6,146	6,167	6,219	6,264	6,319	6,341	6,390
PL	7,607	7,719	7,816	7,868	7,895	7,913	8,008	8,081	8,132	8,173	8,167	8,249	8,305	8,388	8,387	8,435
PS	6,773	6,865	6,924	6,976	6,998	7,019	7,081	7,123	7,152	7,200	7,206	7,258	7,299	7,348	7,365	7,411
RECO	236	239	240	240	242	239	242	243	243	243	241	242	244	245	243	247
UGI	210	212	214	215	216	217	219	220	221	222	223	224	225	227	227	228
DIVERSITY - MID-ATLANTIC()	614	654	582	519	525	475	705	684	580	540	480	631	670	692	576	506
PJM MID-ATLANTIC	47,875	48,570	49,254	49,699	49,991	50,212	50,535	50,977	51,405	51,762	51,937	52,264	52,596	53,052	53,301	53,780
FE-EAST	9,598	9,793	9,958	10,081	10,170	10,227	10,339	10,440	10,548	10,642	10,699	10,813	10,910	11,013	11,081	11,188
PLGRP	7,816	7,931	8,030	8,083	8,111	8,130	8,227	8,301	8,353	8,395	8,389	8,473	8,530	8,615	8,614	8,663

Table D-2

**WINTER EXTREME WEATHER (90/10) PEAK LOAD FOR
EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO
2014/15 - 2029/30**

	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
AEP	24,322	24,667	24,875	25,093	25,249	25,368	25,643	25,799	25,924	26,122	26,251	26,490	26,701	26,910	27,008	27,276
APS	9,268	9,444	9,570	9,692	9,792	9,873	10,018	10,129	10,211	10,327	10,396	10,532	10,635	10,759	10,830	10,951
ATSI	10,985	11,045	11,077	11,110	11,133	11,140	11,197	11,226	11,234	11,266	11,272	11,321	11,348	11,394	11,371	11,437
COMED	16,300	16,597	16,812	17,024	17,188	17,289	17,521	17,707	17,843	18,009	18,124	18,342	18,523	18,703	18,815	19,046
DAYTON	3,078	3,139	3,174	3,210	3,234	3,251	3,297	3,320	3,343	3,375	3,398	3,439	3,472	3,502	3,520	3,563
DEOK	4,698	4,735	4,760	4,792	4,813	4,830	4,882	4,905	4,920	4,950	4,967	5,022	5,043	5,074	5,082	5,113
DLCO	2,261	2,285	2,299	2,312	2,321	2,326	2,342	2,351	2,356	2,367	2,372	2,386	2,394	2,406	2,409	2,423
EKPC	2,767	2,797	2,818	2,839	2,849	2,855	2,888	2,906	2,921	2,941	2,936	2,968	2,989	3,011	3,018	3,038
DIVERSITY - WESTERN(-)	1,001	999	960	1,056	1,099	1,083	1,147	1,290	1,042	1,139	1,105	1,130	1,129	1,345	1,178	1,249
PJM WESTERN	72,678	73,710	74,425	75,016	75,480	75,849	76,641	77,053	77,710	78,218	78,611	79,370	79,976	80,414	80,875	81,598
DOM	19,031	19,438	19,785	20,144	20,419	20,644	21,008	21,326	21,654	21,930	22,170	22,421	22,650	22,900	23,054	23,292
DIVERSITY - INTERREGIONAL(-)	1,419	1,497	1,561	1,513	1,591	1,421	1,549	1,357	1,641	1,598	1,469	1,501	1,589	1,464	1,503	1,757
PJM RTO	138,165	140,221	141,903	143,346	144,299	145,284	146,635	147,999	149,128	150,312	151,249	152,554	153,633	154,902	155,727	156,913

Table E-1

**ANNUAL NET ENERGY (GWh) AND GROWTH RATES FOR
EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION
2015 - 2025**

	ESTIMATED 2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Annual Growth Rate (10 yr)
AE	10,492	10,625	10,800	10,866	10,932	10,966	11,037	11,079	11,133	11,187	11,270	11,287	0.6%
BGE	32,666	33,025	33,536	33,753	34,002	34,201	34,524	34,712	34,981	35,236	35,582	35,725	0.8%
DPL	19,103	19,367	19,692	19,854	20,026	20,151	20,348	20,472	20,627	20,775	20,984	21,072	0.8%
JCPL	23,189	23,620	24,148	24,419	24,683	24,870	25,157	25,379	25,634	25,873	26,160	26,314	1.1%
METED	15,648	15,945	16,317	16,520	16,740	16,893	17,139	17,283	17,497	17,692	17,929	18,079	1.3%
PECO	40,667	41,306	42,160	42,680	43,189	43,565	44,062	44,331	44,756	45,154	45,650	45,904	1.1%
PENLC	18,176	18,671	19,256	19,598	19,919	20,138	20,448	20,644	20,925	21,188	21,491	21,674	1.5%
PEPCO	30,784	31,066	31,508	31,708	31,950	32,134	32,430	32,570	32,796	32,999	33,295	33,399	0.7%
PL	40,744	41,349	42,124	42,495	42,902	43,172	43,650	43,870	44,253	44,596	45,050	45,250	0.9%
PS	44,220	44,791	45,516	45,807	46,102	46,310	46,733	46,948	47,288	47,555	47,905	48,067	0.7%
RECO	1,547	1,559	1,572	1,575	1,581	1,582	1,592	1,595	1,600	1,604	1,612	1,612	0.3%
UGI	1,068	1,086	1,105	1,116	1,126	1,133	1,144	1,150	1,160	1,166	1,179	1,183	0.9%
		1.7%	1.7%	1.0%	0.9%	0.6%	1.0%	0.5%	0.9%	0.5%	1.1%	0.3%	
PJM MID-ATLANTIC	278,304	282,410	287,734	290,391	293,152	295,115	298,264	300,033	302,650	305,025	308,107	309,566	0.9%
		1.5%	1.9%	0.9%	1.0%	0.7%	1.1%	0.6%	0.9%	0.8%	1.0%	0.5%	
FE-EAST	57,013	58,236	59,721	60,537	61,342	61,901	62,744	63,306	64,056	64,753	65,580	66,067	1.3%
		2.1%	2.5%	1.4%	1.3%	0.9%	1.4%	0.9%	1.2%	1.1%	0.7%	0%	
PLGRP	41,812	42,435	43,229	43,611	44,028	44,305	44,794	45,020	45,413	45,762	46,229	46,433	0.9%
		1.5%	1.9%	0.9%	1.0%	0.6%	1.1%	0.5%	0.9%	0.8%	1.0%	0.4%	

Table E-1 (Continued)

**ANNUAL NET ENERGY (GWh) AND GROWTH RATES FOR
EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION
2026 - 2030**

	2026	2027	2028	2029	2030	Annual Growth Rate (15 yr)
AE	11,336 0.4%	11,383 0.4%	11,468 0.7%	11,503 0.3%	11,569 0.6%	0.6%
BGE	35,969 0.7%	36,217 0.7%	36,591 1.0%	36,765 0.5%	37,028 0.7%	0.8%
DPL	21,213 0.7%	21,341 0.6%	21,549 1.0%	21,638 0.4%	21,781 0.7%	0.8%
JCPL	26,545 0.9%	26,771 0.9%	27,092 1.2%	27,279 0.7%	27,537 0.9%	1.0%
METED	18,281 1.1%	18,478 1.1%	18,729 1.4%	18,885 0.8%	19,070 1.0%	1.2%
PECO	46,262 0.8%	46,625 0.8%	47,152 1.1%	47,435 0.6%	47,839 0.9%	1.0%
PENLC	21,920 1.1%	22,161 1.1%	22,458 1.3%	22,641 0.8%	22,858 1.0%	1.4%
PEPCO	33,571 0.5%	33,748 0.5%	34,039 0.9%	34,158 0.3%	34,355 0.6%	0.7%
PL	45,597 0.8%	45,927 0.7%	46,396 1.0%	46,611 0.5%	46,924 0.7%	0.8%
PS	48,342 0.6%	48,608 0.6%	49,032 0.9%	49,191 0.3%	49,479 0.6%	0.7%
RECO	1,617 0.3%	1,622 0.3%	1,632 0.6%	1,630 -0.1%	1,633 0.2%	0.3%
UGI	1,192 0.8%	1,198 0.5%	1,213 1.3%	1,217 0.3%	1,225 0.7%	0.8%
PJM MID-ATLANTIC	311,845 0.7%	314,079 0.7%	317,351 1.0%	318,953 0.5%	321,298 0.7%	0.9%
FE-EAST	66,746 1.0%	67,410 1.0%	68,279 1.3%	68,805 0.8%	69,465 1.0%	1.2%
PLGRP	46,789 0.8%	47,125 0.7%	47,609 1.0%	47,828 0.5%	48,149 0.7%	0.8%

Notes:

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

Table E-1
ANNUAL NET ENERGY (GW/h) AND GROWTH RATES FOR
EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO
2015 - 2025

	ESTIMATED 2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Annual Growth Rate (10 yr)
AEP	133,479	134,974	136,923	137,755	138,745	139,370	140,724	141,169	142,149	143,003	144,259	144,800	0.7%
		1.1%	1.4%	0.6%	0.7%	0.5%	1.0%	0.3%	0.7%	0.6%	0.9%	0.4%	
APS	49,375	50,180	51,155	51,658	52,227	52,678	53,390	53,800	54,354	54,880	55,542	55,890	1.1%
		1.6%	1.9%	1.0%	1.1%	0.9%	1.4%	0.8%	1.0%	1.0%	1.2%	0.6%	
ATSI	69,662	70,125	70,819	70,937	71,190	71,259	71,813	71,945	72,231	72,416	72,765	72,844	0.4%
		0.7%	1.0%	0.2%	0.4%	0.1%	0.8%	0.2%	0.4%	0.3%	0.5%	0.1%	
COMED	102,200	104,416	107,210	108,869	110,590	111,904	113,681	114,888	116,553	118,083	119,891	121,130	1.5%
		2.2%	2.7%	1.5%	1.6%	1.2%	1.6%	1.1%	1.4%	1.3%	1.5%	1.0%	
DAYTON	17,650	18,057	18,590	18,910	19,186	19,343	19,646	19,846	20,122	20,377	20,667	20,874	1.5%
		2.3%	3.0%	1.7%	1.5%	0.8%	1.6%	1.0%	1.4%	1.3%	1.4%	1.0%	
DEOK	27,317	27,584	27,990	28,190	28,405	28,545	28,834	28,994	29,227	29,427	29,706	29,842	0.8%
		1.0%	1.5%	0.7%	0.8%	0.5%	1.0%	0.6%	0.8%	0.7%	0.9%	0.5%	
DLCO	14,866	15,059	15,329	15,441	15,560	15,628	15,767	15,820	15,929	16,024	16,147	16,201	0.7%
		1.3%	1.8%	0.7%	0.8%	0.4%	0.9%	0.3%	0.7%	0.6%	0.8%	0.3%	
EKPC	10,803	10,906	11,055	11,120	11,209	11,270	11,378	11,432	11,517	11,599	11,713	11,756	0.8%
		1.0%	1.4%	0.6%	0.8%	0.5%	1.0%	0.5%	0.7%	0.7%	1.0%	0.4%	
PJM WESTERN	425,352	431,301	439,071	442,880	447,112	449,997	455,233	457,894	462,082	465,809	470,690	473,337	0.9%
		1.4%	1.8%	0.9%	1.0%	0.6%	1.2%	0.6%	0.9%	0.8%	1.0%	0.6%	
DOM	96,539	98,579	101,701	103,788	105,693	107,283	109,288	110,835	112,792	114,656	116,524	117,558	1.8%
		2.1%	3.2%	2.1%	1.8%	1.5%	1.9%	1.4%	1.8%	1.7%	1.6%	0.9%	
PJM RTO	800,195	812,290	828,506	837,059	845,957	852,395	862,785	868,762	877,524	885,490	895,321	900,461	1.0%
		1.5%	2.0%	1.0%	1.1%	0.8%	1.2%	0.7%	1.0%	0.9%	1.1%	0.6%	

Table E-1 (Continued)

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

2026 - 2030

	2026	2027	2028	2029	2030	Annual Growth Rate (15 yr)
AEP	145,747 0.7%	146,711 0.7%	148,109 1.0%	148,834 0.5%	149,762 0.6%	0.7%
APS	56,406 0.9%	56,916 0.9%	57,616 1.2%	58,030 0.7%	58,571 0.9%	1.0%
ATSI	73,142 0.4%	73,415 0.4%	73,833 0.6%	73,925 0.1%	74,084 0.2%	0.4%
COMED	122,671 1.3%	124,146 1.2%	125,951 1.5%	127,187 1.0%	128,581 1.1%	1.4%
DAYTON	21,147 1.3%	21,417 1.3%	21,752 1.6%	21,995 1.1%	22,251 1.2%	1.4%
DEOK	30,055 0.7%	30,260 0.7%	30,556 1.0%	30,705 0.5%	30,902 0.6%	0.8%
DLCO	16,301 0.6%	16,395 0.6%	16,542 0.9%	16,609 0.4%	16,704 0.6%	0.7%
EKPC	11,831 0.6%	11,904 0.6%	12,021 1.0%	12,073 0.4%	12,150 0.6%	0.7%
PJM WESTERN	477,300 0.8%	481,164 0.8%	486,380 1.1%	489,358 0.6%	493,005 0.7%	0.9%
DOM	118,877 1.1%	120,222 1.1%	122,005 1.5%	123,131 0.9%	124,513 1.1%	1.6%
PJM RTO	908,022 0.8%	915,465 0.8%	925,736 1.1%	931,442 0.6%	938,816 0.8%	1.0%

Notes:

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

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 2015	904	3,098	1,805	2,056	1,478	3,710	1,723	2,842	4,012	3,792	128	109	25,657
Feb 2015	795	2,700	1,582	1,802	1,312	3,264	1,537	2,484	3,531	3,359	112	95	22,573
Mar 2015	799	2,634	1,533	1,826	1,333	3,319	1,600	2,425	3,532	3,485	118	95	22,699
Apr 2015	736	2,319	1,357	1,683	1,196	3,020	1,451	2,191	3,099	3,272	112	81	20,517
May 2015	782	2,414	1,413	1,769	1,227	3,118	1,474	2,305	3,130	3,440	121	80	21,273
Jun 2015	941	2,884	1,675	2,088	1,311	3,547	1,472	2,785	3,278	4,006	143	83	24,213
Jul 2015	1,204	3,352	1,976	2,553	1,472	4,142	1,598	3,205	3,664	4,723	169	95	28,153
Aug 2015	1,164	3,240	1,901	2,413	1,431	3,981	1,583	3,066	3,567	4,506	159	91	27,102
Sep 2015	854	2,576	1,531	1,855	1,226	3,237	1,470	2,494	3,140	3,606	129	79	22,197
Oct 2015	785	2,402	1,424	1,780	1,252	3,172	1,530	2,269	3,200	3,467	123	83	21,487
Nov 2015	773	2,462	1,451	1,760	1,254	3,165	1,523	2,291	3,305	3,380	117	89	21,570
Dec 2015	888	2,944	1,719	2,035	1,453	3,631	1,710	2,709	3,891	3,755	128	106	24,969
Jan 2016	915	3,131	1,829	2,093	1,509	3,774	1,774	2,877	4,072	3,840	128	110	26,052
Feb 2016	835	2,831	1,662	1,904	1,388	3,446	1,642	2,609	3,719	3,534	117	100	23,787
Mar 2016	818	2,683	1,565	1,880	1,367	3,394	1,654	2,469	3,606	3,558	120	97	23,211
Apr 2016	747	2,347	1,377	1,718	1,220	3,074	1,492	2,214	3,143	3,318	112	82	20,844
May 2016	796	2,452	1,438	1,810	1,255	3,184	1,521	2,338	3,191	3,495	122	82	21,684
Jun 2016	956	2,926	1,701	2,132	1,339	3,615	1,517	2,813	3,335	4,065	144	84	24,627
Jul 2016	1,216	3,372	1,987	2,581	1,483	4,172	1,621	3,207	3,676	4,736	169	96	28,316
Aug 2016	1,181	3,296	1,933	2,471	1,474	4,073	1,642	3,114	3,658	4,599	162	93	27,696
Sep 2016	865	2,606	1,550	1,891	1,249	3,291	1,508	2,518	3,183	3,649	129	80	22,519
Oct 2016	795	2,427	1,440	1,810	1,272	3,222	1,565	2,290	3,237	3,504	123	84	21,769
Nov 2016	778	2,490	1,467	1,786	1,283	3,226	1,569	2,319	3,365	3,414	117	90	21,904
Dec 2016	898	2,975	1,743	2,072	1,478	3,689	1,751	2,740	3,939	3,804	129	107	25,325
Jan 2017	925	3,175	1,858	2,133	1,543	3,854	1,823	2,928	4,147	3,907	130	112	26,535
Feb 2017	814	2,762	1,626	1,867	1,364	3,383	1,622	2,550	3,638	3,447	113	98	23,284
Mar 2017	827	2,713	1,587	1,912	1,394	3,457	1,695	2,499	3,662	3,601	120	98	23,565
Apr 2017	753	2,367	1,390	1,741	1,232	3,117	1,516	2,231	3,166	3,342	113	83	21,051
May 2017	805	2,479	1,458	1,840	1,278	3,241	1,559	2,364	3,239	3,533	122	83	22,001
Jun 2017	966	2,956	1,719	2,166	1,361	3,673	1,550	2,837	3,378	4,106	145	86	24,943
Jul 2017	1,224	3,395	2,003	2,604	1,498	4,218	1,647	3,220	3,701	4,738	169	97	28,534
Aug 2017	1,190	3,324	1,951	2,501	1,496	4,126	1,675	3,134	3,698	4,636	163	94	27,988
Sep 2017	872	2,626	1,563	1,913	1,264	3,331	1,535	2,531	3,211	3,670	129	81	22,726
Oct 2017	802	2,451	1,458	1,836	1,294	3,275	1,600	2,314	3,283	3,539	124	85	22,061
Nov 2017	786	2,514	1,485	1,814	1,304	3,275	1,601	2,343	3,407	3,451	118	91	22,189
Dec 2017	902	2,991	1,756	2,092	1,492	3,730	1,775	2,757	3,965	3,817	129	108	25,514
Jan 2018	925	3,175	1,858	2,133	1,543	3,854	1,823	2,928	4,147	3,907	130	112	26,535
Feb 2018	814	2,762	1,626	1,867	1,364	3,383	1,622	2,550	3,638	3,447	113	98	23,284
Mar 2018	827	2,713	1,587	1,912	1,394	3,457	1,695	2,499	3,662	3,601	120	98	23,565
Apr 2018	753	2,367	1,390	1,741	1,232	3,117	1,516	2,231	3,166	3,342	113	83	21,051
May 2018	805	2,479	1,458	1,840	1,278	3,241	1,559	2,364	3,239	3,533	122	83	22,001
Jun 2018	966	2,956	1,719	2,166	1,361	3,673	1,550	2,837	3,378	4,106	145	86	24,943
Jul 2018	1,224	3,395	2,003	2,604	1,498	4,218	1,647	3,220	3,701	4,738	169	97	28,534
Aug 2018	1,190	3,324	1,951	2,501	1,496	4,126	1,675	3,134	3,698	4,636	163	94	27,988
Sep 2018	872	2,626	1,563	1,913	1,264	3,331	1,535	2,531	3,211	3,670	129	81	22,726
Oct 2018	802	2,451	1,458	1,836	1,294	3,275	1,600	2,314	3,283	3,539	124	85	22,061
Nov 2018	786	2,514	1,485	1,814	1,304	3,275	1,601	2,343	3,407	3,451	118	91	22,189
Dec 2018	902	2,991	1,756	2,092	1,492	3,730	1,775	2,757	3,965	3,817	129	108	25,514

Table E-2

**MONTHLY NET ENERGY FORECAST (GW/h) FOR
EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO**

	AEP	APS	ATSI	COMED	DAYTON	DEOK	DLCO	PJM		DOM	PJM RTO
								WESTERN	EKPC		
Jan 2015	12,904	4,911	6,301	9,093	1,628	2,478	1,311	39,780	1,154	9,272	74,709
Feb 2015	11,313	4,322	5,644	8,051	1,436	2,167	1,164	35,077	980	8,049	65,699
Mar 2015	11,357	4,291	5,838	8,362	1,457	2,169	1,219	35,595	902	7,777	66,071
Apr 2015	10,084	3,749	5,392	7,774	1,346	2,002	1,134	32,233	752	6,917	59,667
May 2015	10,339	3,795	5,565	8,078	1,397	2,104	1,192	33,239	769	7,284	61,796
Jun 2015	10,951	3,983	5,780	8,865	1,528	2,443	1,292	35,718	876	8,643	68,574
Jul 2015	12,089	4,398	6,425	10,453	1,725	2,756	1,461	40,281	974	9,744	78,178
Aug 2015	11,916	4,326	6,301	9,991	1,687	2,683	1,420	39,286	962	9,434	75,822
Sep 2015	10,315	3,765	5,500	8,214	1,409	2,157	1,197	33,341	784	7,809	63,347
Oct 2015	10,496	3,859	5,632	8,257	1,429	2,110	1,196	33,750	771	7,267	62,504
Nov 2015	10,716	4,025	5,560	8,137	1,414	2,098	1,174	34,000	876	7,465	63,035
Dec 2015	12,494	4,756	6,187	9,141	1,601	2,417	1,299	39,001	1,106	8,918	72,888
	AEP	APS	ATSI	COMED	DAYTON	DEOK	DLCO	WESTERN		DOM	PJM RTO
								WESTERN	EKPC		
Jan 2016	13,060	4,996	6,345	9,293	1,668	2,505	1,330	40,363	1,166	9,487	75,902
Feb 2016	11,882	4,561	5,896	8,542	1,528	2,274	1,226	36,935	1,026	8,544	69,266
Mar 2016	11,525	4,386	5,902	8,600	1,505	2,206	1,243	36,282	915	8,027	67,520
Apr 2016	10,181	3,803	5,423	7,980	1,382	2,023	1,151	32,702	759	7,102	60,648
May 2016	10,482	3,868	5,616	8,309	1,443	2,134	1,213	33,844	779	7,502	63,030
Jun 2016	11,081	4,050	5,827	9,097	1,572	2,474	1,314	36,300	885	8,913	69,840
Jul 2016	12,095	4,423	6,396	10,594	1,747	2,764	1,470	40,469	980	9,962	78,747
Aug 2016	12,134	4,420	6,409	10,291	1,748	2,734	1,449	40,159	974	9,759	77,614
Sep 2016	10,416	3,818	5,529	8,411	1,446	2,182	1,213	33,807	792	8,049	64,375
Oct 2016	10,576	3,907	5,656	8,435	1,464	2,130	1,210	34,156	778	7,488	63,413
Nov 2016	10,883	4,098	5,604	8,334	1,456	2,124	1,194	34,577	884	7,696	64,177
Dec 2016	12,608	4,825	6,216	9,324	1,631	2,440	1,316	39,477	1,117	9,172	73,974
	AEP	APS	ATSI	COMED	DAYTON	DEOK	DLCO	WESTERN		DOM	PJM RTO
								WESTERN	EKPC		
Jan 2017	13,263	5,093	6,410	9,506	1,710	2,542	1,352	41,058	1,182	9,774	77,367
Feb 2017	11,598	4,471	5,720	8,404	1,504	2,218	1,197	36,114	1,002	8,475	67,873
Mar 2017	11,672	4,458	5,943	8,787	1,542	2,234	1,259	36,820	925	8,264	68,649
Apr 2017	10,230	3,835	5,424	8,113	1,410	2,039	1,160	32,975	764	7,292	61,318
May 2017	10,594	3,927	5,653	8,490	1,478	2,159	1,228	34,316	787	7,725	64,042
Jun 2017	11,186	4,101	5,861	9,270	1,606	2,501	1,328	36,745	892	9,103	70,791
Jul 2017	12,154	4,459	6,401	10,725	1,772	2,784	1,480	40,760	985	10,138	79,432
Aug 2017	12,235	4,471	6,441	10,473	1,781	2,761	1,463	40,607	982	9,944	78,539
Sep 2017	10,479	3,855	5,547	8,557	1,473	2,198	1,223	34,129	797	8,208	65,063
Oct 2017	10,685	3,963	5,693	8,607	1,496	2,154	1,223	34,607	786	7,665	64,333
Nov 2017	10,984	4,153	5,638	8,497	1,486	2,147	1,206	35,004	893	7,868	65,061
Dec 2017	12,675	4,872	6,206	9,440	1,652	2,453	1,322	39,745	1,125	9,332	74,591

Table E-3

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

FE EAST PLGRP	
Jan 2015	5,257 4,121
Feb 2015	4,651 3,626
Mar 2015	4,759 3,627
Apr 2015	4,330 3,180
May 2015	4,470 3,210
Jun 2015	4,871 3,361
Jul 2015	5,623 3,759
Aug 2015	5,427 3,658
Sep 2015	4,551 3,219
Oct 2015	4,562 3,283
Nov 2015	4,537 3,394
Dec 2015	5,198 3,997
FE EAST PLGRP	
Jan 2016	5,376 4,182
Feb 2016	4,934 3,819
Mar 2016	4,901 3,703
Apr 2016	4,430 3,225
May 2016	4,586 3,273
Jun 2016	4,988 3,419
Jul 2016	5,685 3,772
Aug 2016	5,587 3,751
Sep 2016	4,648 3,263
Oct 2016	4,647 3,321
Nov 2016	4,638 3,455
Dec 2016	5,301 4,046
FE EAST PLGRP	
Jan 2017	5,499 4,259
Feb 2017	4,853 3,736
Mar 2017	5,001 3,760
Apr 2017	4,489 3,249
May 2017	4,677 3,322
Jun 2017	5,077 3,464
Jul 2017	5,749 3,798
Aug 2017	5,672 3,792
Sep 2017	4,712 3,292
Oct 2017	4,730 3,368
Nov 2017	4,719 3,498
Dec 2017	5,359 4,073

Table E-1a

**ANNUAL NET ENERGY (GWb) AND GROWTH RATES FOR
EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION
2015-2025**

	ESTIMATED 2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Annual Growth Rate (10 yr)
AE	10,531	10,601	10,711	10,777	10,811	10,818	10,752	10,769	10,807	10,852	10,895	10,912	0.3%
	%	0.7%	1.0%	0.6%	0.3%	0.1%	-0.6%	0.2%	0.3%	0.4%	0.4%	0.2%	
BGE	32,863	33,212	33,607	33,963	34,182	34,368	34,263	34,461	34,775	35,128	35,470	35,838	0.8%
	%	1.1%	1.2%	1.1%	0.6%	0.5%	-0.3%	0.6%	0.9%	1.0%	1.0%	1.0%	
DPL	18,753	19,002	19,239	19,470	19,622	19,726	19,708	19,834	19,986	20,157	20,327	20,514	0.8%
	%	1.3%	1.3%	1.2%	0.8%	0.5%	-0.1%	0.6%	0.8%	0.9%	0.8%	0.9%	
JCPL	23,172	23,492	23,873	24,197	24,420	24,572	24,516	24,682	24,915	25,161	25,363	25,563	0.8%
	%	1.4%	1.6%	1.4%	0.9%	0.6%	-0.2%	0.7%	0.9%	1.0%	0.8%	0.8%	
METED	15,606	15,834	16,135	16,363	16,558	16,708	16,780	16,896	17,092	17,300	17,507	17,665	1.1%
	%	1.5%	1.9%	1.4%	1.2%	0.9%	0.4%	0.7%	1.2%	1.2%	1.2%	0.9%	
PECO	40,910	41,351	41,973	42,504	42,933	43,231	43,286	43,452	43,813	44,192	44,534	44,802	0.8%
	%	1.1%	1.5%	1.3%	1.0%	0.7%	0.1%	0.4%	0.8%	0.9%	0.8%	0.6%	
PENLC	18,057	18,520	19,050	19,436	19,747	19,972	20,158	20,345	20,622	20,902	21,169	21,381	1.4%
	%	2.6%	2.9%	2.0%	1.6%	1.1%	0.9%	0.9%	1.4%	1.4%	1.3%	1.0%	
PEPCO	31,100	31,388	31,763	32,141	32,394	32,593	32,601	32,813	33,121	33,448	33,746	34,084	0.8%
	%	0.9%	1.2%	1.2%	0.8%	0.6%	0.0%	0.6%	0.9%	1.0%	0.9%	1.0%	
PL	40,639	41,088	41,684	42,137	42,491	42,733	42,779	42,911	43,263	43,638	43,965	44,230	0.7%
	%	1.1%	1.5%	1.1%	0.8%	0.6%	0.1%	0.3%	0.8%	0.9%	0.7%	0.6%	
PS	44,118	44,554	45,069	45,459	45,717	45,875	45,762	45,883	46,188	46,519	46,776	47,003	0.5%
	%	1.0%	1.2%	0.9%	0.6%	0.3%	-0.2%	0.3%	0.7%	0.7%	0.6%	0.5%	
RECO	1,512	1,521	1,532	1,537	1,541	1,544	1,543	1,543	1,548	1,554	1,560	1,562	0.3%
	%	0.5%	0.7%	0.3%	0.3%	0.2%	0.0%	0.0%	0.3%	0.4%	0.4%	0.1%	
UGI	1,055	1,071	1,091	1,105	1,115	1,122	1,125	1,131	1,141	1,151	1,161	1,168	0.9%
	%	1.5%	1.9%	1.2%	1.0%	0.6%	0.2%	0.6%	0.9%	0.9%	0.8%	0.6%	
PJM MID-ATLANTIC	278,318	281,632	285,727	289,089	291,531	293,262	293,275	294,721	297,269	300,001	302,472	304,720	0.8%
	%	1.2%	1.5%	1.2%	0.8%	0.6%	0.0%	0.5%	0.9%	0.9%	0.8%	0.7%	
FE/GPU	56,835	57,845	59,058	59,996	60,725	61,252	61,454	61,923	62,629	63,363	64,039	64,608	1.1%
	%	1.8%	2.1%	1.6%	1.2%	0.9%	0.3%	0.8%	1.1%	1.2%	1.1%	0.9%	
PLGRP	41,694	42,159	42,775	43,242	43,606	43,855	43,904	44,042	44,404	44,789	45,126	45,398	0.7%
	%	1.1%	1.5%	1.1%	0.8%	0.6%	0.1%	0.3%	0.8%	0.9%	0.8%	0.6%	

Note: Forecast values based on specification described in Executive Summary
All average growth rates are calculated from the first year of the forecast.

Table E-1a (Continued)

ANNUAL NET ENERGY (GWh) AND GROWTH RATES FOR
EACH PJM MID-ATLANTIC ZONE AND GEOGRAPHIC REGION
2026-2030

		2026	2027	2028	2029	2030	Annual Growth Rate (15 yr)
AE		10,942	10,977	11,033	11,089	11,130	0.3%
	%	0.3%	0.3%	0.5%	0.5%	0.4%	
BGE		36,226	36,656	37,101	37,609	37,981	0.9%
	%	1.1%	1.2%	1.2%	1.4%	1.0%	
DPL		20,693	20,877	21,066	21,291	21,463	0.8%
	%	0.9%	0.9%	0.9%	1.1%	0.8%	
JCPL		25,774	26,002	26,245	26,548	26,778	0.9%
	%	0.8%	0.9%	0.9%	1.2%	0.9%	
METED		17,847	18,040	18,265	18,463	18,647	1.1%
	%	1.0%	1.1%	1.2%	1.1%	1.0%	
PECO		45,106	45,446	45,850	46,230	46,552	0.8%
	%	0.7%	0.8%	0.9%	0.8%	0.7%	
PENLC		21,608	21,847	22,116	22,342	22,564	1.3%
	%	1.1%	1.1%	1.2%	1.0%	1.0%	
PEPCO		34,413	34,769	35,139	35,570	35,874	0.9%
	%	1.0%	1.0%	1.1%	1.2%	0.9%	
PL		44,528	44,865	45,235	45,580	45,859	0.7%
	%	0.7%	0.8%	0.8%	0.8%	0.6%	
PS		47,269	47,565	47,896	48,273	48,526	0.6%
	%	0.6%	0.6%	0.7%	0.8%	0.5%	
RECO		1,566	1,571	1,578	1,582	1,586	0.3%
	%	0.3%	0.3%	0.4%	0.3%	0.2%	
UGI		1,176	1,185	1,196	1,205	1,213	0.8%
	%	0.7%	0.8%	0.9%	0.8%	0.7%	
PJM MID-ATLANTIC		307,149	309,799	312,719	315,783	318,173	0.8%
	%	0.8%	0.9%	0.9%	1.0%	0.8%	
FE/GPU		65,228	65,890	66,626	67,353	67,989	1.1%
	%	1.0%	1.0%	1.1%	1.1%	0.9%	
PLGRP		45,705	46,050	46,430	46,785	47,072	0.7%
	%	0.7%	0.8%	0.8%	0.8%	0.6%	

Note: Forecast values based on specification described in Executive Summary

Table E-1a

**ANNUAL NET ENERGY (GWh) AND GROWTH RATES FOR
EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO
2015-2025**

	ESTIMATED 2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Annual Growth Rate (10 yr)
AEP	132,874	133,144	133,604	133,822	134,034	134,077	133,342	133,052	133,477	134,034	134,687	135,082	0.1%
%		0.2%	0.3%	0.2%	0.2%	0.0%	-0.5%	-0.2%	0.3%	0.4%	0.5%	0.3%	
APS	48,439	48,972	49,509	49,964	50,314	50,620	50,609	50,832	51,228	51,668	52,128	52,525	0.7%
%		1.1%	1.1%	0.9%	0.7%	0.6%	0.0%	0.4%	0.8%	0.9%	0.9%	0.8%	
ATSI	67,414	67,989	68,783	69,275	69,659	69,867	69,764	69,908	70,375	70,905	71,496	71,887	0.6%
%		0.9%	1.2%	0.7%	0.6%	0.3%	-0.1%	0.2%	0.7%	0.8%	0.8%	0.5%	
COMED	101,300	102,704	104,477	105,723	106,900	107,823	108,339	109,115	110,358	111,675	113,076	114,182	1.1%
%		1.4%	1.7%	1.2%	1.1%	0.9%	0.5%	0.7%	1.1%	1.2%	1.3%	1.0%	
DAYTON	17,271	17,566	17,979	18,246	18,458	18,593	18,683	18,773	19,007	19,256	19,527	19,716	1.2%
%		1.7%	2.3%	1.5%	1.2%	0.7%	0.5%	0.5%	1.2%	1.3%	1.4%	1.0%	
DEOK	26,970	27,202	27,520	27,817	28,034	28,181	28,166	28,302	28,577	28,883	29,177	29,452	0.8%
%		0.9%	1.2%	1.1%	0.8%	0.5%	-0.1%	0.5%	1.0%	1.1%	1.0%	0.9%	
DLCO	14,816	15,009	15,282	15,427	15,552	15,633	15,698	15,744	15,863	15,984	16,114	16,180	0.8%
%		1.3%	1.8%	0.9%	0.8%	0.5%	0.4%	0.3%	0.8%	0.8%	0.8%	0.4%	
EKPC	10,748	10,886	11,058	11,212	11,339	11,444	11,579	11,718	11,847	11,972	12,082	12,203	1.1%
%		1.3%	1.6%	1.4%	1.1%	0.9%	1.2%	1.2%	1.1%	1.1%	0.9%	1.0%	
PJM WESTERN	419,834	423,472	428,213	431,486	434,290	436,238	436,180	437,445	440,733	444,376	448,287	451,227	0.6%
%		0.9%	1.1%	0.8%	0.6%	0.4%	0.0%	0.3%	0.8%	0.8%	0.9%	0.7%	
DOM	97,085	99,018	101,861	104,063	105,857	107,424	108,908	110,490	112,391	114,280	115,983	117,219	1.7%
%		2.0%	2.9%	2.2%	1.7%	1.5%	1.4%	1.5%	1.7%	1.7%	1.5%	1.1%	
PJM RTO	795,237	804,122	815,801	824,638	831,678	836,924	838,363	842,656	850,394	858,658	866,743	873,165	0.8%
%		1.1%	1.5%	1.1%	0.9%	0.6%	0.2%	0.5%	0.9%	1.0%	0.9%	0.7%	

Note: Forecast values based on specification described in Executive Summary
All average growth rates are calculated from the first year of the forecast.

Table E-1a (Continued)

**ANNUAL NET ENERGY (GWh) AND GROWTH RATES FOR
EACH PJM WESTERN AND PJM SOUTHERN ZONE, GEOGRAPHIC REGION AND RTO
2026-2030**

		2026	2027	2028	2029	2030	Annual Growth Rate (15 yr)
AEP		135,733	136,471	137,440	138,277	138,897	0.3%
	%	0.5%	0.5%	0.7%	0.6%	0.4%	
APS		52,975	53,474	54,036	54,603	55,082	0.8%
	%	0.9%	0.9%	1.1%	1.1%	0.9%	
ATSI		72,425	73,002	73,754	74,402	74,975	0.7%
	%	0.7%	0.8%	1.0%	0.9%	0.8%	
COMED		115,447	116,716	118,181	119,483	120,691	1.1%
	%	1.1%	1.1%	1.3%	1.1%	1.0%	
DAY		19,959	20,226	20,551	20,819	21,077	1.2%
	%	1.2%	1.3%	1.6%	1.3%	1.2%	
DEOK		29,755	30,079	30,435	30,807	31,107	0.9%
	%	1.0%	1.1%	1.2%	1.2%	1.0%	
DLCO		16,281	16,391	16,541	16,643	16,760	0.7%
	%	0.6%	0.7%	0.9%	0.6%	0.7%	
EKPC		12,316	12,429	12,540	12,667	12,794	1.1%
	%	0.9%	0.9%	0.9%	1.0%	1.0%	
PJM WESTERN		454,892	458,788	463,478	467,702	471,383	0.7%
	%	0.8%	0.9%	1.0%	0.9%	0.8%	
DOM		118,586	120,006	121,623	123,048	124,524	1.5%
	%	1.2%	1.2%	1.3%	1.2%	1.2%	
PJM RTO		880,627	888,593	897,820	906,532	914,080	0.9%
	%	0.9%	0.9%	1.0%	1.0%	0.8%	

Note: Forecast values based on specification described in Executive Summary

Table E-2a

**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 2015	902	3,091	1,769	2,026	1,445	3,680	1,694	2,818	3,906	3,747	124	106	25,307
Feb 2015	796	2,710	1,552	1,795	1,299	3,271	1,537	2,485	3,497	3,345	109	94	22,489
Mar 2015	796	2,664	1,512	1,823	1,317	3,327	1,577	2,468	3,519	3,478	115	92	22,689
Apr 2015	734	2,372	1,344	1,658	1,184	3,020	1,433	2,237	3,073	3,194	106	79	20,434
May 2015	790	2,488	1,412	1,783	1,211	3,162	1,447	2,414	3,095	3,471	120	78	21,471
Jun 2015	953	2,892	1,629	2,119	1,335	3,602	1,487	2,796	3,330	4,056	143	84	24,426
Jul 2015	1,174	3,256	1,908	2,481	1,453	4,075	1,592	3,177	3,642	4,606	163	94	27,620
Aug 2015	1,132	3,191	1,856	2,379	1,443	3,948	1,599	3,087	3,624	4,477	157	92	26,983
Sep 2015	883	2,674	1,516	1,915	1,254	3,349	1,469	2,576	3,185	3,724	131	80	22,756
Oct 2015	786	2,455	1,410	1,763	1,239	3,178	1,509	2,329	3,179	3,420	118	82	21,467
Nov 2015	775	2,507	1,438	1,755	1,248	3,174	1,512	2,335	3,274	3,344	112	87	21,562
Dec 2015	880	2,914	1,656	1,995	1,405	3,564	1,664	2,667	3,765	3,690	124	103	24,426
	AE	BGE	DPL	JCPL	METED	PECO	PENLC	PEPCO	PL	PS	RECO	UGI	MID-ATLANTIC
Jan 2016	910	3,116	1,785	2,056	1,467	3,725	1,737	2,843	3,947	3,787	125	107	25,606
Feb 2016	827	2,821	1,597	1,860	1,360	3,392	1,611	2,579	3,614	3,472	112	97	23,343
Mar 2016	808	2,693	1,533	1,857	1,339	3,366	1,618	2,493	3,551	3,514	116	94	22,981
Apr 2016	743	2,403	1,364	1,690	1,207	3,068	1,476	2,267	3,120	3,237	107	81	20,764
May 2016	798	2,518	1,432	1,816	1,235	3,211	1,491	2,443	3,144	3,512	121	80	21,801
Jun 2016	961	2,920	1,648	2,150	1,359	3,650	1,531	2,822	3,379	4,094	144	86	24,744
Jul 2016	1,180	3,279	1,924	2,507	1,475	4,120	1,633	3,198	3,687	4,634	163	95	27,895
Aug 2016	1,138	3,214	1,872	2,405	1,465	3,993	1,641	3,108	3,669	4,506	157	94	27,263
Sep 2016	891	2,702	1,535	1,945	1,276	3,396	1,511	2,603	3,231	3,759	131	82	23,062
Oct 2016	792	2,478	1,427	1,788	1,259	3,222	1,547	2,355	3,219	3,452	119	83	21,742
Nov 2016	777	2,530	1,452	1,779	1,269	3,226	1,554	2,363	3,325	3,381	113	88	21,857
Dec 2016	885	2,932	1,670	2,019	1,424	3,603	1,701	2,689	3,798	3,718	124	104	24,667
	AE	BGE	DPL	JCPL	METED	PECO	PENLC	PEPCO	PL	PS	RECO	UGI	MID-ATLANTIC
Jan 2017	918	3,155	1,807	2,088	1,489	3,774	1,774	2,882	3,990	3,831	126	108	25,944
Feb 2017	813	2,779	1,593	1,859	1,345	3,370	1,618	2,553	3,586	3,433	111	97	23,156
Mar 2017	816	2,734	1,556	1,890	1,362	3,420	1,656	2,535	3,600	3,562	116	95	23,344
Apr 2017	751	2,443	1,388	1,721	1,231	3,121	1,512	2,308	3,166	3,281	107	82	21,112
May 2017	807	2,559	1,456	1,848	1,259	3,265	1,527	2,483	3,192	3,555	122	81	22,155
Jun 2017	970	2,957	1,670	2,182	1,382	3,704	1,568	2,859	3,427	4,135	144	87	25,086
Jul 2017	1,187	3,311	1,943	2,535	1,497	4,170	1,667	3,229	3,731	4,668	164	97	28,200
Aug 2017	1,145	3,247	1,892	2,434	1,487	4,043	1,675	3,140	3,714	4,541	158	95	27,570
Sep 2017	898	2,738	1,556	1,974	1,299	3,447	1,545	2,639	3,276	3,797	132	83	23,385
Oct 2017	799	2,513	1,448	1,816	1,280	3,270	1,579	2,391	3,260	3,488	119	84	22,047
Nov 2017	783	2,563	1,472	1,806	1,289	3,270	1,584	2,398	3,361	3,415	113	89	22,145
Dec 2017	890	2,963	1,689	2,044	1,443	3,647	1,731	2,722	3,833	3,752	125	105	24,944

Note: Forecast values based on specification described in Executive Summary

Table E-2a

**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 2015	12,503	4,670	6,063	8,932	1,581	2,421	1,299	1,140	38,609	9,166	73,082
Feb 2015	11,116	4,164	5,480	7,989	1,395	2,143	1,164	970	34,421	8,080	64,990
Mar 2015	11,207	4,146	5,640	8,153	1,432	2,161	1,211	888	34,837	7,865	65,391
Apr 2015	9,981	3,681	5,158	7,569	1,295	1,975	1,122	761	31,543	7,121	59,098
May 2015	10,190	3,745	5,302	7,913	1,343	2,106	1,183	776	32,557	7,546	61,574
Jun 2015	11,048	3,983	5,773	8,933	1,513	2,413	1,307	874	35,844	8,541	68,811
Jul 2015	11,796	4,291	6,257	10,144	1,677	2,646	1,440	964	39,216	9,478	76,314
Aug 2015	11,842	4,316	6,252	9,941	1,658	2,625	1,426	958	39,019	9,391	75,393
Sep 2015	10,448	3,785	5,457	8,356	1,407	2,204	1,232	809	33,697	7,912	64,366
Oct 2015	10,403	3,795	5,377	7,971	1,366	2,085	1,177	790	32,965	7,484	61,916
Nov 2015	10,627	3,925	5,347	7,968	1,370	2,093	1,169	883	33,383	7,635	62,579
Dec 2015	11,986	4,471	5,881	8,832	1,529	2,330	1,279	1,074	37,383	8,800	70,609
	AEP	APS	ATSI	COMED	DAYTON	DEOK	DLCO	EKPC	WESTERN	DOM	PJM RTO
Jan 2016	12,493	4,702	6,112	9,054	1,609	2,440	1,320	1,154	38,885	9,360	73,850
Feb 2016	11,519	4,325	5,739	8,381	1,490	2,226	1,225	978	35,883	8,446	67,672
Mar 2016	11,185	4,177	5,692	8,280	1,456	2,177	1,231	911	35,110	8,071	66,162
Apr 2016	9,994	3,720	5,212	7,705	1,326	1,999	1,143	783	31,882	7,327	59,972
May 2016	10,206	3,784	5,356	8,050	1,374	2,129	1,204	796	32,900	7,752	62,453
Jun 2016	11,066	4,022	5,829	9,071	1,544	2,437	1,327	891	36,187	8,793	69,723
Jul 2016	11,808	4,325	6,307	10,270	1,706	2,668	1,458	977	39,520	9,716	77,131
Aug 2016	11,854	4,350	6,302	10,068	1,688	2,647	1,444	969	39,323	9,630	76,216
Sep 2016	10,462	3,822	5,509	8,488	1,436	2,227	1,252	819	34,015	8,159	65,237
Oct 2016	10,404	3,827	5,420	8,088	1,393	2,105	1,195	799	33,230	7,721	62,692
Nov 2016	10,648	3,959	5,388	8,082	1,402	2,117	1,188	893	33,679	7,863	63,399
Dec 2016	11,968	4,496	5,917	8,938	1,553	2,347	1,295	1,087	37,602	9,024	71,293
	AEP	APS	ATSI	COMED	DAYTON	DEOK	DLCO	EKPC	WESTERN	DOM	PJM RTO
Jan 2017	12,535	4,750	6,172	9,182	1,638	2,469	1,337	1,168	39,249	9,583	74,776
Feb 2017	11,166	4,250	5,595	8,248	1,454	2,195	1,203	1,000	35,111	8,501	66,769
Mar 2017	11,244	4,229	5,756	8,414	1,487	2,210	1,249	921	35,510	8,302	67,156
Apr 2017	10,053	3,771	5,274	7,836	1,355	2,031	1,159	793	32,272	7,551	60,935
May 2017	10,270	3,837	5,420	8,182	1,404	2,162	1,220	808	33,304	7,979	63,438
Jun 2017	11,127	4,073	5,892	9,200	1,574	2,469	1,343	903	36,581	8,981	70,648
Jul 2017	11,862	4,372	6,363	10,388	1,734	2,697	1,472	990	39,879	9,889	77,968
Aug 2017	11,908	4,398	6,359	10,188	1,715	2,677	1,458	983	39,686	9,803	77,059
Sep 2017	10,520	3,871	5,567	8,616	1,464	2,257	1,267	834	34,396	8,342	66,122
Oct 2017	10,454	3,874	5,473	8,212	1,418	2,134	1,208	812	33,585	7,901	63,533
Nov 2017	10,685	4,003	5,439	8,202	1,426	2,143	1,201	905	34,004	8,039	64,188
Dec 2017	12,001	4,537	5,964	9,052	1,577	2,372	1,308	1,097	37,910	9,193	72,046

Note: Forecast values based on specification described in Executive Summary

Table E-3a

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

	FE-EAST	PLGRP
Jan 2015	5,165	4,012
Feb 2015	4,631	3,591
Mar 2015	4,717	3,612
Apr 2015	4,274	3,152
May 2015	4,442	3,173
Jun 2015	4,942	3,414
Jul 2015	5,526	3,736
Aug 2015	5,421	3,716
Sep 2015	4,638	3,265
Oct 2015	4,510	3,261
Nov 2015	4,515	3,362
Dec 2015	5,064	3,868

	FE-EAST	PLGRP
Jan 2016	5,260	4,054
Feb 2016	4,832	3,711
Mar 2016	4,813	3,645
Apr 2016	4,373	3,201
May 2016	4,541	3,224
Jun 2016	5,040	3,464
Jul 2016	5,616	3,782
Aug 2016	5,511	3,763
Sep 2016	4,732	3,313
Oct 2016	4,595	3,302
Nov 2016	4,601	3,414
Dec 2016	5,143	3,902

	FE-EAST	PLGRP
Jan 2017	5,351	4,099
Feb 2017	4,823	3,682
Mar 2017	4,908	3,696
Apr 2017	4,464	3,249
May 2017	4,634	3,274
Jun 2017	5,132	3,514
Jul 2017	5,700	3,828
Aug 2017	5,595	3,809
Sep 2017	4,818	3,360
Oct 2017	4,674	3,344
Nov 2017	4,678	3,451
Dec 2017	5,218	3,939

Note: FE-EAST contains JCPL, METED, and PENLC zones; PLGRP contains PL and UGI zones.
Note: Forecast values based on specification described in Executive Summary

Table F-1
PJM RTO HISTORICAL PEAKS
(MW)

SUMMER					
YEAR	NORMALIZED BASE	NORMALIZED COOLING	NORMALIZED TOTAL	UNRESTRICTED PEAK	PEAK DATE TIME
1998				133,189	Tuesday, July 21, 1998 17:00
1999	88,992			141,321	Friday, July 30, 1999 17:00
2000	90,984			131,803	Wednesday, August 9, 2000 17:00
2001	92,064			150,929	Thursday, August 9, 2001 16:00
2002	92,661			150,830	Thursday, August 1, 2002 17:00
2003	93,576			145,233	Thursday, August 21, 2003 17:00
2004	94,997			139,219	Thursday, August 3, 2004 17:00
2005	95,670	56,590	152,260	155,209	Tuesday, July 26, 2005 16:00
2006	95,228	58,652	153,880	166,866	Wednesday, August 2, 2006 17:00
2007	96,618	59,302	155,920	161,988	Wednesday, August 8, 2007 16:00
2008	96,904	59,526	156,430	150,560	Monday, June 9, 2008 17:00
2009	94,438	58,352	152,790	145,056	Monday, August 10, 2009 16:00
2010	92,994	60,666	153,660	157,188	Wednesday, July 7, 2010 17:00
2011	93,265	60,255	153,520	165,466	Thursday, July 21, 2011 17:00
2012	92,960	61,275	154,235	158,128	Thursday, July 17, 2012 18:00
2013	92,414	62,771	155,185	159,039	Thursday, July 18, 2013 17:00
2014	91,727	64,413	156,140	141,402	Tuesday, June 17, 2014 18:00
WINTER					
YEAR	NORMALIZED BASE	NORMALIZED HEATING	NORMALIZED TOTAL	UNRESTRICTED PEAK	PEAK DATE TIME
97/98				103,235	Wednesday, January 14, 1998 19:00
98/99	87,604			116,078	Tuesday, January 5, 1999 19:00
99/00	89,317			118,438	Thursday, January 27, 2000 20:00
00/01	91,279			118,051	Wednesday, December 20, 2000 19:00
01/02	92,270			112,221	Wednesday, January 2, 2002 19:00
02/03	92,491			129,972	Thursday, January 23, 2003 19:00
03/04	93,706			122,357	Friday, January 23, 2004 9:00
04/05	94,378	32,512	126,890	131,164	Monday, December 20, 2004 19:00
05/06	94,699	32,951	127,650	126,703	Wednesday, December 14, 2005 19:00
06/07	96,184	33,466	129,650	136,739	Monday, February 5, 2007 20:00
07/08	97,276	33,294	130,570	128,313	Wednesday, January 2, 2008 19:00
08/09	96,410	32,300	128,710	134,021	Friday, January 16, 2009 19:00
09/10	93,524	35,516	129,040	125,276	Monday, January 4, 2010 19:00
10/11	91,868	38,212	130,080	132,228	Tuesday, December 14, 2010 19:00
11/12	92,248	38,132	130,380	124,420	Tuesday, January 3, 2012 19:00
12/13	92,036	38,804	130,840	128,724	Tuesday, January 22, 2013 19:00
13/14	91,082	39,743	130,825	141,746	Tuesday, January 7, 2014 19:00

Notes:
Normalized values for 2005 - 2014 are calculated by PJM staff using a methodology consistent with the PJM Load Forecast Model.
Normalized base values are calculated by PJM staff using a two-period average of peak loads on non-heating/non-cooling 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	756,244	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%

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

Table G-1

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

	5-Year (2015-20)	10-Year (2015-25)	15-Year (2015-30)
AE	0.9%	0.7%	0.7%
BGE	1.6%	1.4%	1.4%
DPL	1.6%	1.3%	1.2%
JCPL	1.2%	1.1%	1.0%
METED	1.5%	1.4%	1.3%
PECO	1.5%	1.2%	1.1%
PENLC	1.4%	1.2%	1.1%
PERCO	1.5%	1.3%	1.2%
PL	1.3%	1.1%	1.1%
PS	1.2%	1.0%	1.0%
RECO	1.0%	0.8%	0.8%
UGI	1.0%	0.8%	0.8%
AEP	1.4%	1.2%	1.2%
APS	1.7%	1.5%	1.5%
ATSI	1.3%	1.1%	1.1%
COMED	1.5%	1.4%	1.3%
DAYTON	1.1%	1.0%	1.0%
DEOK	1.5%	1.3%	1.3%
DLCO	1.2%	1.0%	1.0%
EKPC	1.5%	1.4%	1.3%
DOM	1.4%	1.2%	1.2%
PJM RTO	1.4%	1.2%	1.2%

Source: Moody's Analytics, October, 2014