



## Short-Term Energy Outlook (STEO)

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### Highlights

- U.S. regular gasoline retail prices this summer are forecast to average \$2.25/gallon (gal), 2 cents/gal lower than forecast in last month's STEO and 39 cents/gal lower than last summer, measured as April through September. U.S. regular gasoline retail prices are forecast to average \$2.12/gal in 2016 and \$2.28/gal in 2017.
- U.S. crude oil production averaged 9.4 million barrels per day (b/d) in 2015. Production is forecast to average 8.6 million b/d in 2016 and 8.2 million b/d in 2017, both unchanged from last month's STEO. EIA estimates that crude oil production for June 2016 averaged 8.6 million b/d, which is 0.2 million b/d below the May 2016 level, and almost 1.1 million b/d below the 9.7 million b/d level reached in April 2015.
- Natural gas working inventories were 3,179 billion cubic feet (Bcf) on July 1. This level is 20% higher than a year earlier, and 23% higher than the previous five-year (2011–15) average for that week. The natural gas storage injection season typically runs from April through October. EIA projects that natural gas inventories will be 4,022 Bcf at the end of October 2016, which would be the highest end-of-October level on record. Henry Hub spot prices are forecast to average \$2.36/million British thermal units (MMBtu) in 2016 and \$2.95/MMBtu in 2017, compared with an average of \$2.63/MMBtu in 2015.
- Benchmark North Sea Brent crude oil spot prices averaged \$48/barrel (b) in June, a \$2/b increase from May and the fifth consecutive monthly increase since reaching a 12-year low of \$31/b in January.
- Brent crude oil prices are forecast to average \$44/b in 2016 and \$52/b in 2017. West Texas Intermediate (WTI) crude oil prices are forecast to be the same as Brent in 2016 and in 2017. However, the current values of futures and options contracts suggest high uncertainty in the price outlook. For example, EIA's forecast for the average WTI price in October 2016 of \$48/b should be considered in the context of Nymex contract values for October 2016 delivery. Contracts traded during the five-day period ending July 7 ([Market Prices and Uncertainty Report](#)) suggest the market expects WTI prices could range from \$35/b to \$67/b (at the 95% confidence interval) in October 2016.

## Global Petroleum and Other Liquid Fuels

EIA estimates that global petroleum and other liquid fuels inventory builds averaged 1.9 million b/d in 2015. The pace of inventory builds is expected to slow to an average of 0.9 million b/d in 2016. The market is expected to reach balance in 2017, with inventory draws during the second half of the year averaging 0.3 million b/d.

**Global Petroleum and Other Liquid Fuels Consumption.** Global consumption of petroleum and other liquid fuels is estimated to have grown by 1.4 million b/d in 2015. EIA expects global consumption of petroleum and other liquid fuels to increase by 1.4 million b/d in 2016 and by 1.5 million b/d in 2017, mostly driven by growth in countries outside of the Organization for Economic Cooperation and Development (OECD). Non-OECD consumption growth was an estimated 1.0 million b/d in 2015, and it is expected to be 1.3 million b/d in 2016 and 1.5 million b/d in 2017.

This forecast reflects an upward adjustment to India's consumption growth in 2016 and 2017 of about 0.1 million b/d, raising the country's growth to 0.4 million b/d annually, mainly as a result of increased use of transportation fuels and of naphtha for new petrochemical projects. China's consumption of petroleum and other liquid fuels is forecast to grow by 0.4 million b/d in both 2016 and 2017, driven by increased use of gasoline, jet fuel, and hydrocarbon gas liquids (HGL), which more than offset decreases in diesel consumption. The significant rise in the use of HGL in China seen in 2015 will continue through the forecast period as new propane dehydrogenation (PDH) plants increase use of propane.

OECD petroleum and other liquid fuels consumption rose by 0.5 million b/d in 2015. OECD consumption is expected to increase by 0.1 million b/d in 2016 and by less than 0.1 million b/d in 2017. Consumption growth in the United States and South Korea more than offsets decreases in consumption in OECD Europe and Japan in 2016 and 2017.

This forecast also includes a slight downward adjustment to petroleum and other liquid fuels consumption in OECD Europe in 2017 as a result of uncertainty related to the United Kingdom's vote to leave the European Union. EIA expects that the effect on oil consumption in the forecast period will be largely limited to Europe. Uncertainty over the United Kingdom's future relationship with the European Union could contribute to a reduction in business investment and consumer spending that would negatively affect oil demand growth. Additionally, there could be implications for emerging economies if credit availability is reduced—particularly if they rely on European banks, although EIA does not expect this to significantly affect oil consumption in the forecast period.

**Non-OPEC Petroleum and Other Liquid Fuels Supply.** EIA estimates that petroleum and other liquid fuels production in countries outside the Organization of the Petroleum Exporting Countries (OPEC) grew by 1.6 million b/d in 2015, with more than half of the growth occurring in North America. EIA expects non-OPEC production to decline by 0.6 million b/d in 2016 and by 0.2 million b/d in 2017.

Changes in non-OPEC production are largely driven by changes in U.S. tight oil production, which has high production decline rates and relatively short investment horizons, making it among the most price-sensitive oil production globally. Forecast total U.S. production of liquid fuels declines by 0.5 million b/d in 2016 and by 0.1 million b/d in 2017, as declining onshore crude oil production is partially offset by expected growth in HGL production, Gulf of Mexico crude oil production, and liquid biofuels production. Outside the United States, forecast non-OPEC production declines by 0.1 million b/d in both 2016 and 2017.

Non-OPEC petroleum and other liquids production, with the exception of output from U.S. tight oil plays, does not decline much through 2017 because of investments that were committed to projects when oil prices were higher. Although oil companies have reduced investments since oil prices fell, most of the cuts have been to capital budgets that largely affect production beyond 2017.

Among non-OPEC producers outside the United States, the largest declines in 2016 are forecast to be in China. EIA expects China's output to fall by 150,000 b/d in 2016 and by an additional 80,000 b/d in 2017 because of continued investment cuts and fewer new offshore developments. In 2017, the largest declines are in the North Sea and in Russia, which are forecast to decline by 170,000 b/d and 150,000 b/d, respectively, following forecast production growth in both areas this year.

Non-OPEC unplanned supply outages in June were 0.7 million b/d, a decrease of 0.4 million b/d from the May level. The decrease in unplanned outages was the result of Canadian oil sands production gradually returning from wildfire-related outages that began in May. Overall, Canada's unplanned outages averaged 0.4 million b/d in June, about half the May level.

**OPEC Petroleum and Other Liquid Fuels Supply.** Gabon rejoined OPEC as of July 1, following a 21-year hiatus from the organization. Gabon currently produces more than 0.2 million b/d of crude oil, and it is the second member to rejoin OPEC over the past seven months, following Indonesia's return to OPEC at the end of 2015. Beginning with this STEO, EIA includes Gabon's crude oil and other liquid fuels production in the OPEC total for both history and the forecast.

OPEC crude oil production averaged 31.8 million b/d in 2015, an increase of 0.8 million b/d from 2014, led by rising production in Iraq and Saudi Arabia. Forecast OPEC crude oil production rises by 0.8 million b/d in 2016, with Iran accounting for most of the increase. Forecast OPEC production rises by an additional 0.5 million b/d in 2017. The forecast does not assume a collaborative production cut among OPEC members and other producers in the forecast period, as major OPEC producers are expected to continue their strategy of maintaining market share.

OPEC noncrude liquids production averaged 6.6 million b/d in 2015, and it is forecast to increase by about 0.3 million b/d in both 2016 and 2017, led by increases in Iran and Qatar.

OPEC unplanned crude oil supply disruptions averaged nearly 2.3 million b/d in June, 0.3 million b/d less than in May because of lower outages in Nigeria, Libya, and Iraq. While Nigeria's outages decreased in June, they still remained high at more than 0.6 million b/d. Further

reductions in Nigeria's disruptions are likely in July as Royal Dutch Shell lifted a force majeure on exports of Bonny Light in early July, following the restoration of production into Bonny Terminal. Nonetheless, Forcados and Brass River, which together account for roughly 0.3 million b/d of the disrupted volume, remain under force majeure. While some restoration of production is expected in the coming months, attacks on oil infrastructure continue, including attacks targeting a well, oil pipelines and three of Chevron's manifolds in early July.

OPEC surplus crude oil production capacity, which averaged 1.6 million b/d in 2015, is expected to be 1.5 million b/d in 2016 and 1.3 million b/d in 2017. 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, high current and forecast levels of global oil inventories make the forecast low surplus capacity less significant.

**OECD Petroleum Inventories.** EIA estimates that OECD commercial crude oil and other liquid fuels inventories were 3.00 billion barrels at the end of 2015, equivalent to roughly 66 days of consumption. Forecast OECD inventories rise to 3.09 billion barrels at the end of 2016 and then fall to 3.07 billion barrels at the end of 2017.

**Crude Oil Prices.** The monthly average spot price of Brent crude oil increased by \$2/b in June to \$48/b, which was the highest monthly average for Brent since October 2015. This was the fifth consecutive increase in the monthly average Brent price, the longest such stretch since May through September 2013. Although monthly average prices increased in June, daily oil prices ended June at slightly lower levels than they began the month. Significant outages of global oil supply contributed to rising oil prices in early June. However, concerns over future economic growth related to the United Kingdom's June 23 vote to exit the European Union and the easing of supply disruptions in Canada contributed to falling oil prices in late June.

EIA expects global oil inventory builds to average 0.6 million b/d in the second half of 2016, limiting upward price pressures in the coming months. Brent prices are forecast to average \$48/b during the second half of 2016, which is relatively unchanged from current levels. However, daily and even monthly price variation could be significant as economic and geopolitical events affect market participants' expectations of oil market balances.

EIA expects global oil inventory draws to begin in the third quarter of 2017. The expectation of inventory draws contributes to forecast rising prices in the first half of 2017, with price increases accelerating later in 2017. Brent prices are forecast to average \$52/b in 2017, unchanged from last month's STEO. Forecast Brent prices reach an average of \$58/b in the fourth quarter of 2017, reflecting the potential for more significant inventory draws beyond the forecast period.

Average West Texas Intermediate (WTI) crude oil prices are forecast to be the same as Brent prices in 2016 and 2017. The relative price parity of WTI with Brent in the forecast period is based on the assumption of competition between the two crudes in the U.S. Gulf Coast refinery market, because transportation price differentials to move the crudes from their respective pricing points to that market are similar.

The current values of futures and options contracts highlight the heightened volatility and high uncertainty in the oil price outlook ([Market Prices and Uncertainty Report](#)). WTI futures contracts for October 2016 delivery that were traded during the five-day period ending July 7 averaged \$49/b, and implied volatility averaged 37%. These levels established the lower and upper limits of the 95% confidence interval for the market's expectations of monthly average WTI prices in October 2016 at \$35/b and \$67/b, respectively. The 95% confidence interval for market expectations widens over time, with lower and upper limits of \$32/b and \$77/b for prices in December 2016. At this time in 2015, WTI for October 2015 delivery averaged \$59/b, and implied volatility averaged 31%, with the corresponding lower and upper limits of the 95% confidence interval at \$45/b and \$79/b.

## U.S. Petroleum and Other Liquid Fuels

Growing domestic and global consumption of gasoline has contributed to high refinery wholesale gasoline margins (the difference between the wholesale price of gasoline and the price of Brent crude oil) for much of the past year. Margins averaged 49 cents/gal in June, higher than the previous five-year average for June of 44 cents/gal but lower than the 66 cents/gal average in June 2015, partly [because of higher U.S. gasoline production and inventory levels](#). Monthly data show gasoline consumption in the United States during the first four months of 2016 averaged 2.5% higher than during the same period last year, and U.S. Department of Transportation data through April of this year show a record amount of vehicle miles traveled during that period.

The U.S. average regular gasoline retail price increased to \$2.37/gal in June, 10 cents/gal higher than in May, reflecting higher crude oil prices. Monthly average retail gasoline prices for June 2016 ranged from a low of \$2.12/gal in the Gulf Coast—[Petroleum Administration for Defense District \(PADD\) 3](#)—to a high of \$2.73/gal in the West Coast (PADD 5). EIA expects the monthly average price of U.S. regular gasoline reached an annual peak in June of \$2.37/gal, with lower prices expected in the second half of 2016.

**Consumption.** Total U.S. liquid fuels consumption increased by an estimated 290,000 b/d (1.5%) in 2015. Liquid fuels consumption is forecast to increase by 170,000 b/d (0.9%) in 2016 and by an additional 120,000 b/d (0.6%) in 2017.

Motor gasoline consumption is forecast to increase by 130,000 b/d (1.5%) to 9.29 million b/d in 2016, which would make it the highest annual average gasoline consumption on record, beating the previous record set in 2007 by 0.1%. The increase in gasoline consumption reflects a forecast 2.5% increase in highway travel (because of employment growth and lower retail gasoline prices) that is partially offset by increases in vehicle fleet fuel economy. EIA forecasts that gasoline consumption in 2017 will be close to the 2016 average.

In 2015, jet fuel consumption increased by an estimated 70,000 b/d (4.7%). Forecast jet fuel consumption is mostly unchanged through the forecast period, with improvements in average airline fleet fuel economy offset by growth in freight and passenger travel.

Consumption of distillate fuel, which includes diesel fuel and heating oil, is expected to fall by 90,000 b/d (2.4%) in 2016, after falling by 60,000 b/d in 2015. Falling distillate consumption in 2016 is the result of relatively warm winter temperatures, reduced oil and natural gas drilling, and declining coal production, which has reduced diesel use in rail shipments of coal. Stronger expected economic growth in 2017 contributes to forecast distillate fuel consumption growth of 80,000 b/d (2.1%).

Hydrocarbon gas liquids (HGL) consumption is forecast to increase by 20,000 b/d in 2016 and by 60,000 b/d in 2017, as increased ethane consumption more than offsets reduced consumption of other HGL. U.S. ethane consumption is forecast to increase by 70,000 b/d (6.3%) in 2016, as expansion projects at ethylene-producing petrochemical plants increase feedstock demand for ethane. In 2017, forecast ethane consumption increases by an additional 80,000 b/d (7.4%), as five new petrochemical plants and a previously deactivated plant begin operations.

**Supply.** U.S. crude oil production is projected to decrease from an average of 9.4 million b/d in 2015 to 8.6 million b/d in 2016 and to 8.2 million b/d in 2017. The forecast reflects declining Lower 48 onshore production that is partly offset by growing production in the federal Gulf of Mexico. EIA estimates that total U.S. crude oil production has fallen by 1.1 million b/d since April 2015 to an average of 8.6 million b/d in June 2016. Almost all of the production decline was in the Lower 48 onshore.

Based on the current oil price forecast, EIA expects oil production to continue declining in most Lower 48 onshore oil production regions through mid-2017. 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 tighter 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 firms that are more financially sound. Lower onshore investment is expected to reduce the count of oil-directed rigs and well completions in 2016 and 2017.

The current price outlook is expected to limit onshore drilling activity and well completions, despite continued increases in rig and well productivity and falling drilling and completion costs. Average rig counts reported by Baker Hughes increased by 10 rigs from May to June, with an average of 417 total rigs in operation during June, down from more than 600 in January. In EIA's forecast, low rig counts continue to limit production through 2017.

EIA expects U.S. crude oil production to decline from 9.2 million b/d in the first quarter of 2016 to an average of 8.1 million b/d in the third quarter of 2017. Production of 8.1 million b/d would be 1.6 million b/d below the April 2015 level, which was the highest monthly production since April 1971. Production is expected to fall most rapidly from April through September 2016, declining by an average of 180,000 b/d each month. Production is then expected to be relatively flat from October 2016 through July 2017, averaging 8.2 million b/d. EIA's assumption of hurricane-related outages lowers the forecast third-quarter 2017 average to 8.1 million b/d, after which production is expected to begin to rise. Increases in production in late 2017 reflect

productivity improvements, lower breakeven costs, and forecast oil price increases. The forecast remains sensitive to actual wellhead prices and rapidly changing drilling economics that vary across regions and operators.

[Projected crude oil production during the forecast period rises in the Gulf of Mexico](#) and falls in Alaska. Production in these areas is less sensitive to short-term price movements than onshore production in the Lower 48 states. These changes reflect anticipated growth from new projects in the Gulf of Mexico and declines from legacy fields in Alaska. Although production in Alaska is expected to decrease in response to BP's recent reduction in drilling rigs in the Alaska North Slope, ConocoPhillips brought two projects online and ExxonMobil brought another project online in the region that could moderate Alaska's production declines. In the Gulf of Mexico, the April 2016 start of the Julia oil field, along with other projects that will begin operations later in 2016 and 2017, is expected to help increase the region's production from an average of 1.5 million b/d in 2015 to 1.9 million b/d in the fourth quarter of 2017. Some projects may start production later than expected, potentially shifting some of the anticipated production gains from late 2017 into early 2018.

EIA projects [HGL production at natural gas processing plants](#) will increase by 0.2 million b/d (6.2%) in 2016 and by 0.3 million b/d (9.0%) in 2017. EIA expects higher ethane recovery rates in 2016 and 2017, following [planned increases in demand for petrochemical plant feedstock](#) 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 1.4 million b/d in 2017.

**Product Prices.** EIA expects the retail price of regular gasoline will average \$2.25/gal during the 2016 summer driving season (April through September), 2 cents/gal lower than projected in last month's STEO and 39 cents/gal lower than the price in summer 2015. EIA expects the U.S. average retail price of regular gasoline to reach a peak of \$2.37/gal in June and then fall to an average of \$2.19/gal in September. The U.S. regular gasoline retail price, which averaged \$2.43/gal in 2015, is projected to average \$2.12/gal in 2016 and \$2.28/gal in 2017.

As refiners have adjusted yields in favor of gasoline because of relatively high gasoline margins over the past year, EIA expects gasoline production to be higher in summer 2016 compared with summer 2015, which should contribute to lower wholesale gasoline margins than last summer. However, gasoline margins are expected to be higher than the previous five-year average level. Any unplanned refinery outages or unexpected growth in demand could result in margins above forecast levels.

The diesel fuel retail price averaged \$2.71/gal in 2015. Diesel prices are forecast to average \$2.36/gal in 2016 and \$2.71/gal in 2017.

## Natural Gas

Henry Hub spot prices rose in June and averaged \$2.59 per million British thermal units (MMBtu) for the month, the highest monthly average since September 2015. The increase in

prices comes as production has declined and as demand for natural gas to fuel electricity generation has increased. April 2016 marketed natural gas production was 78.8 billion cubic feet per day (Bcf/d), a 0.3 Bcf/d decline from its level in March 2016 and in April 2015, according to the most recent [Natural Gas Monthly](#). Recent preliminary data from PointLogic indicate production may have declined further since then. EIA projects increases in the natural gas price will continue through 2016, and will contribute to a reversal in production declines in the second half of the year.

**Natural Gas Consumption.** EIA's forecast of U.S. total natural gas consumption averages 76.5 Bcf/d in 2016 and 77.7 Bcf/d in 2017, compared with 75.3 Bcf/d in 2015. In 2016, increases in total natural gas consumption are mainly attributed to increases in electric power sector use. Forecast electric power sector use of natural gas increases by 4.9% in 2016, then declines by 1.4% in 2017, as rising natural gas prices contribute to increasing coal use for electricity generation. Forecast industrial sector consumption of natural gas increases by 2.7% in 2016 and by 1.5% in 2017, as new fertilizer and chemical projects come online.

**Natural Gas Production and Trade.** EIA's estimated natural gas production in June averaged 79.1 Bcf/d, which is down almost 1.0 Bcf/d from the record-high daily average production in February 2016. EIA expects production to rise through 2016 and 2017 in response to forecast price increases and increases in liquefied natural gas (LNG) exports. Overall, EIA expects natural gas production to rise by 1.0% in 2016 and by 2.4% in 2017.

Natural gas pipeline [exports to Mexico](#) have risen this year, and EIA expects that growth to continue because of growing demand from Mexico's electric power sector and because of flat natural gas production in Mexico. Gross pipeline exports are expected to increase by 0.7 Bcf/d in 2016 before falling by 0.2 Bcf/d in 2017 to an average of 5.3 Bcf/d.

EIA projects LNG gross exports will rise to an average of 0.5 Bcf/d in 2016, with the startup of Cheniere's Sabine Pass LNG liquefaction plant in Louisiana, which [sent out its first cargo](#) in February 2016. EIA projects gross LNG exports will average 1.3 Bcf/d in 2017, as Sabine Pass ramps up capacity.

With expected growth in gross exports, net imports of natural gas decline from 2.6 Bcf/d in 2015 to 0.2 Bcf/d in 2017, and the United States is expected to become a net exporter of natural gas during the second half of 2017.

**Natural Gas Inventories.** Natural gas inventories in March ended at 2,494 Bcf, the highest end-of-withdrawal-season level on record. During May and June, injections have been somewhat lower than the previous five-year (2011–15) average. As of July 1, natural gas inventories were at 3,179 Bcf. Even with lower-than-average storage injections, EIA forecasts natural gas inventories to be 4,022 Bcf at the end of October 2016, which would be the highest level on record for that time of year.

**Natural Gas Prices.** The Henry Hub natural gas spot price averaged \$2.59/MMBtu in June, up 67 cents/MMBtu from the average price in May. EIA expects natural gas prices to gradually rise



throughout the forecast period but remain lower than they were last summer. Forecast Henry Hub natural gas prices average \$2.36/MMBtu in 2016 and \$2.95/MMBtu in 2017.

Natural gas futures contracts for October 2016 delivery that were traded during the five-day period ending July 7 averaged \$2.88/MMBtu. Current options and futures prices imply that market participants place the lower and upper bounds for the 95% confidence interval for October 2016 contracts at \$2.00/MMBtu and \$4.14/MMBtu, respectively. In early July 2015, the natural gas futures contract for October 2015 delivery averaged \$2.85/MMBtu, and the corresponding lower and upper limits of the 95% confidence interval were \$1.92/MMBtu and \$4.24/MMBtu.

## Coal

**Coal Supply.** U.S. coal production in June was 57 million short tons (MMst), a 6 MMst (13%) increase from the previous month and 9 MMst (14%) lower than in June 2015. In 2016, coal production is expected to decrease by more than 100 MMst for the second consecutive year, with a forecast annual decline of 168 MMst (19%), which would be the largest decline in terms of both tons and percentage since data collection began in 1949.

In 2016, forecast coal production in the Appalachian region and in the Western region declines by 18% and by 21%, respectively, while Interior region production declines by 11%. In 2017, total U.S. coal production is expected to increase by 43 MMst (6%), with almost all of the increase coming from the Appalachian region and the Interior region. Coal in these two regions has the advantage of lower transportation costs and a higher heat content per ton compared with Western region coal.

According to the most recent data, [electric power sector coal stockpiles](#) were 196 MMst in April, a 2 MMst (1%) increase from March. The end-of-April coal stocks were 29 MMst (17%) higher than the April 2015 level and 31 MMst (19%) higher than the previous 10-year average for the month. Warmer-than-normal winter temperatures and coal's continuing loss of market share to natural gas for electric power generation contributed to the increase in coal stockpiles. EIA expects that the level of coal stockpiles will decrease over the summer, and power sector inventories will end 2016 at 159 MMst.

**Coal Consumption.** Coal consumption in the electric power sector, which accounts for more than 90% of total U.S. coal consumption, is forecast to decline by 66 MMst (9%) in 2016. The decline is a result of competition with low-priced natural gas and of warmer-than-normal winter weather in the first quarter of 2016 that reduced overall electricity generation. Retirements of [coal-fired power plants](#) reduce coal-fired generation capacity in the forecast period, primarily in 2016. The retirements are the result of increased competition with natural gas generation and the industry response to the implementation of the U.S. Environmental Protection Agency's (EPA) [Mercury and Air Toxics Standards \(MATS\)](#). Coal consumption in the electric power sector is forecast to increase by 23 MMst (3%) in 2017, mostly because of rising natural gas prices coupled with increasing electricity generation.

**Coal Trade.** Slower growth in global coal demand and lower international coal prices have contributed to the recent decline in U.S. coal exports. April 2016 coal exports were 1 MMst (12%) lower than in March, but they were 36% (3 MMst) lower than the amount exported in April 2015. EIA forecasts U.S. coal exports to decline by 15 MMst (20%) in 2016 and by 4 MMst (7%) in 2017.

Atlantic and Gulf Coast power generators are forecast to maintain their current levels of coal imports, which are primarily from Latin America. Imports are projected to be 11 MMst in both 2016 and 2017.

**Coal Prices.** EIA estimates the delivered coal price averaged \$2.23/MMBtu in 2015. Forecast prices are \$2.19/MMBtu in 2016 and \$2.24/MMBtu in 2017.

## Electricity

The North American Electric Reliability Corporation (NERC) summer assessment of the country's bulk power system finds that anticipated reserve margins in all areas of the United States exceed NERC's target levels, indicating that capacity should be sufficient to meet projected peak electricity demand under normal circumstances. However, some regions could be stressed by localized fuel supply constraints. In particular, power generators who receive natural gas supplies from the Aliso Canyon storage facility in Southern California face limits on the amount of fuel that can be withdrawn. In that region, there is a possibility of localized loss of electric service during periods of very high power demand.

**Electricity Consumption.** EIA estimates that retail sales of electricity to the residential sector during the first half of 2016 were 5.4% below the first six months of 2015, primarily as a result of mild temperatures in the first quarter of 2016. Projections of a warmer-than-normal summer, especially in the Midwest, contribute to the forecast of 2.9% year-over-year growth in residential electricity sales in the second half of 2016. For all of 2016, EIA projects residential sales will be 1.1% lower than last year. Forecast residential sales grow by 1.5% in 2017. Sales of electricity to the commercial sector grow by 0.3% in 2016 and by 1.2% in 2017. EIA forecasts that industrial electricity sales will remain relatively flat in 2016, but then rise by 1.2% in 2017.

**Electricity Generation.** Total U.S. generation of electricity is forecast to average 11.15 terawatt-hours per day in 2016, which is 0.5% lower than total generation in 2015. Sustained low natural gas prices have led power generators to significantly expand the share of electricity produced by natural gas. EIA estimates that electricity generation by natural gas during the first half of 2016 was 6.8% higher than the same period last year. In contrast, generation fueled by coal fell 21.1% over the same period. During the second half of 2016, EIA forecasts that natural gas generation will grow year-over-year at rate of 2.5%, and coal generation is projected to increase by 2.9%.

In 2016, natural gas is expected to supply 34.3% of electricity generation, and coal is forecast to supply 30.2% of electricity generation. Nuclear and renewables are forecast to supply 19.4% and 14.9% of generation, respectively. Rising projected costs of natural gas encourage more

generation from coal-fired power plants during 2017. The natural gas share of generation in 2017 is forecast to fall to 33.3%, and the coal share of generation is expected to rise to 31.1%. In 2017, nuclear and renewables are forecast to supply 19.1% and 15.3% of electricity generation, respectively.

**Electricity Retail Prices.** The latest available data (through April) show that the U.S. residential electricity price so far this year averaged 12.3 cents per kilowatthour (kWh), which is slightly below the average price during the same period last year. On an annual basis, EIA expects the U.S. residential electricity price to fall by 0.3% in 2016 and then to rise by 2.9% to an annual average of 13.0 cents/kWh in 2017.

## Renewables and Carbon Dioxide Emissions

**Electricity and Heat Generation from Renewables.** EIA expects total renewables used in the electric power sector to increase by 11.2% in 2016 and by 3.9% in 2017. Forecast hydropower generation in the electric power sector increases by 8.7% in 2016 and then falls by 2.6% in 2017. Generation from renewables other than hydropower is forecast to grow by 13.4% in 2016 and by 9.3% in 2017.

EIA expects that from 2015 to 2017, utility-scale solar photovoltaic (PV) capacity will grow by about 13 gigawatts. States leading in utility-scale solar capacity additions are California, Nevada, North Carolina, Texas, and Georgia. According to EIA's [Electric Power Monthly](#), electricity generation from utility-scale PV in 2015 exceeded generation from wind in California for the first time. Forecast utility-scale solar power generation averages 1.1% of total U.S. electricity generation in 2017.

Wind capacity, which starts from a significantly larger installed capacity base than solar, grew by 12% in 2015, and it is forecast to increase by 10% in 2016 and by 11% in 2017. In 2017, forecast wind generation accounts for almost 6% of total electricity generation.

**Liquid Biofuels.** On November 30, 2015, the U.S. Environmental Protection Agency (EPA) finalized a rule setting Renewable Fuel Standard (RFS) volumes for 2014 through 2016. On May 18, 2016, EPA released the proposed RFS volumes for 2017 along with finalized biomass-based diesel volumes for 2017. EIA used both the final and proposed volumes to develop the current STEO forecast through 2017. Ethanol production averaged almost 970,000 b/d in 2015, and it is forecast to average about 980,000 b/d in 2016 and 2017. Ethanol consumption averaged about 910,000 b/d in 2015, and it is forecast to average about 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 expects the largest effect of the RFS targets will be on biomass-based diesel consumption, which includes both biodiesel and renewable diesel and helps to meet the RFS targets for use of biomass-based diesel, advanced biofuel, and total renewable fuel. Biodiesel production averaged 82,000 b/d in 2015, and it is forecast to average 99,000 b/d in 2016 and 106,000 b/d in 2017. Net imports of biomass-based diesel are expected to rise from 29,000 b/d in 2015 to

41,000 b/d in 2016 and to 47,000 b/d in 2017. EIA assumes about 10,000 b/d of domestic renewable diesel consumption will be used to help meet the biomass-based diesel and advanced biofuels RFS targets in both 2016 and 2017.

**Energy-Related Carbon Dioxide Emissions.** EIA estimates that energy-related emissions of carbon dioxide decreased by 2.8% in 2015. Emissions are forecast to decrease by 1.6% in 2016 and then increase by 1.1% 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 reports that [real gross domestic product \(GDP\)](#) increased at an annual rate of 1.1% in the first quarter of 2016, up from the previous estimate of 0.8%. The increase in real GDP in the first quarter reflected positive contributions from personal consumption expenditures, residential fixed investment, state and local government spending, and exports.

EIA used the June 2016 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 is 1.9% in 2016—above the 1.7% forecast in last month's STEO—and 2.7% in 2017. Real disposable income grows by 3.1% in 2016 and by 2.8% in 2017. Total industrial production falls by 1.4% in 2016, but rises by 2.8% in 2017. Projected growth in nonfarm employment averages 1.7% in 2016 and 1.4% in 2017.

**Expenditures.** Forecast private real fixed investment growth averages 1.9% and 4.8% in 2016 and 2017, respectively. Real consumption expenditures grow faster than real GDP at 2.8% in 2016 and in 2017. Export growth is 0.8% and 4.1% for the same two years, while import growth is 1.1% in 2016 and 5.0% in 2017. Total government expenditures rise by 1.3% in 2016 and by 1.2% in 2017.

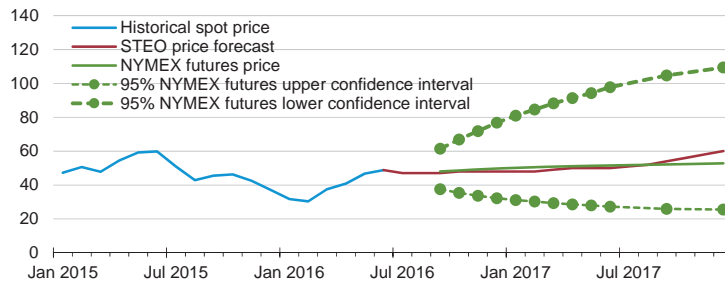
This report was prepared by the U.S. Energy Information Administration (EIA), the statistical and analytical agency within the U.S. Department of Energy. By law, EIA's data, analyses, and forecasts are independent of approval by any other officer or employee of the United States Government. The views 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

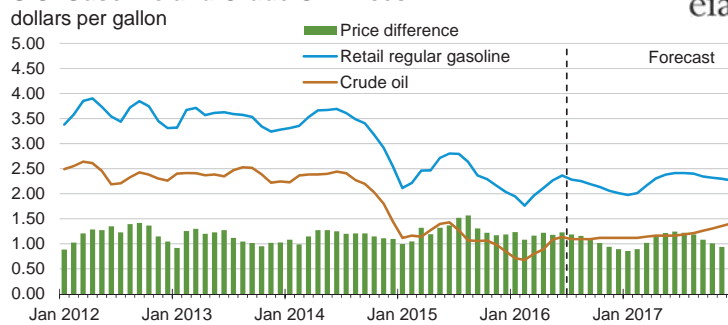
## Chart Gallery for July 2016

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



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

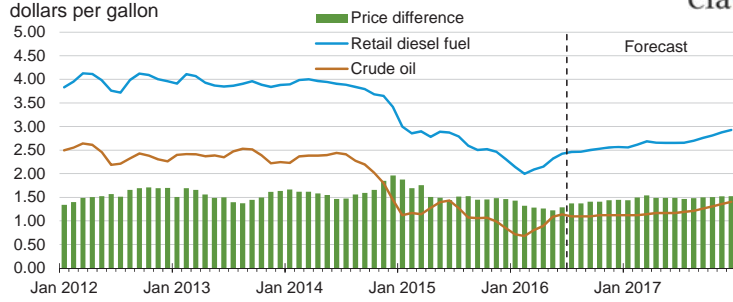
**U.S. Gasoline and Crude Oil Prices**



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

Source: Short-Term Energy Outlook, July 2016.

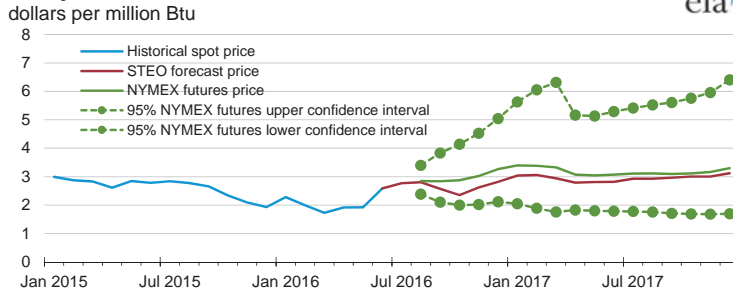
### U.S. Diesel Fuel and Crude Oil Prices



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

Source: Short-Term Energy Outlook, July 2016.

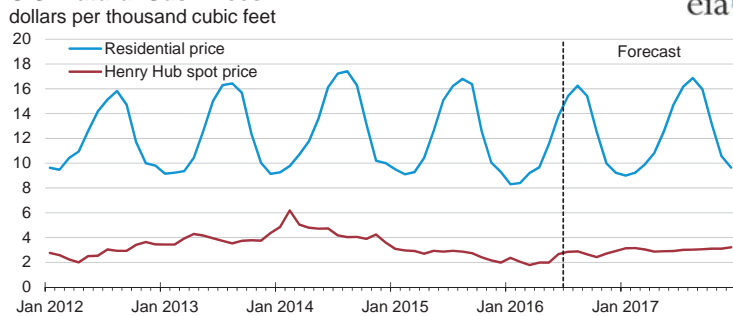
### Henry Hub Natural Gas Price



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

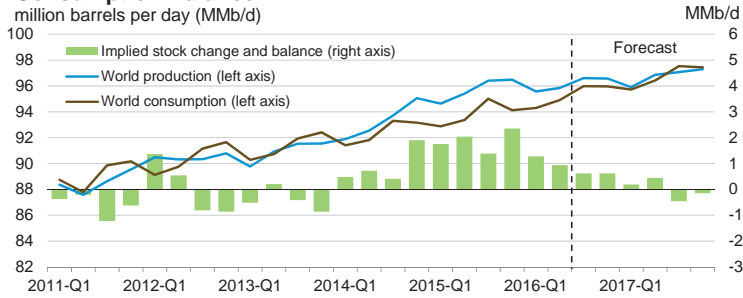
Source: Short-Term Energy Outlook, July 2016.

### U.S. Natural Gas Prices

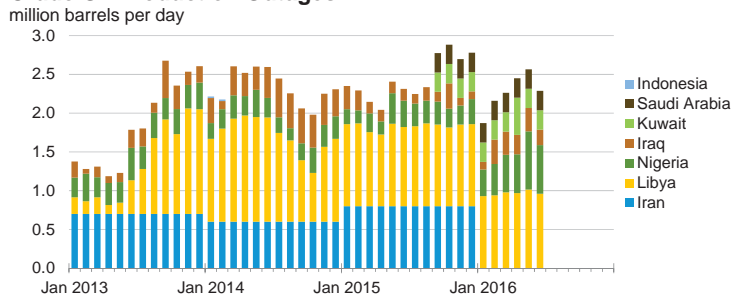


Source: Short-Term Energy Outlook, July 2016.

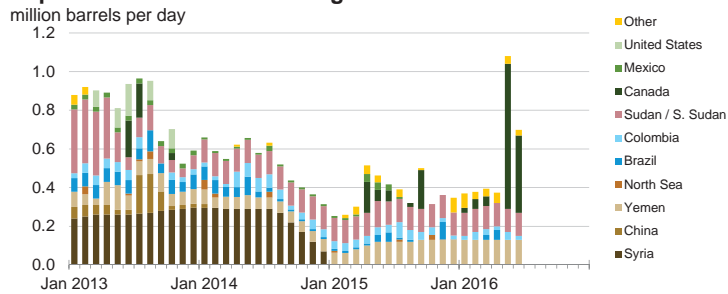
### World Liquid Fuels Production and Consumption Balance



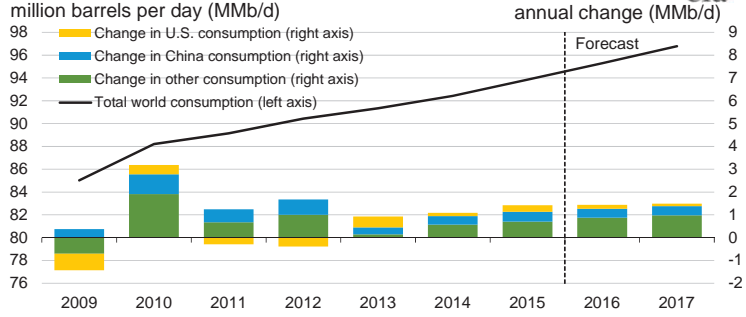
### Estimated Historical Unplanned OPEC Crude Oil Production Outages



### Estimated Historical Unplanned Non-OPEC Liquid Fuels Production Outages

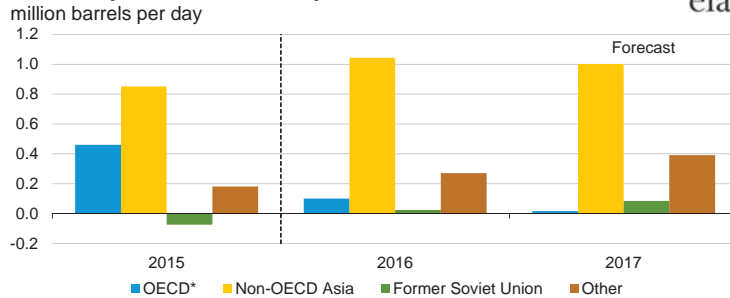


### World Liquid Fuels Consumption



Source: Short-Term Energy Outlook, July 2016.

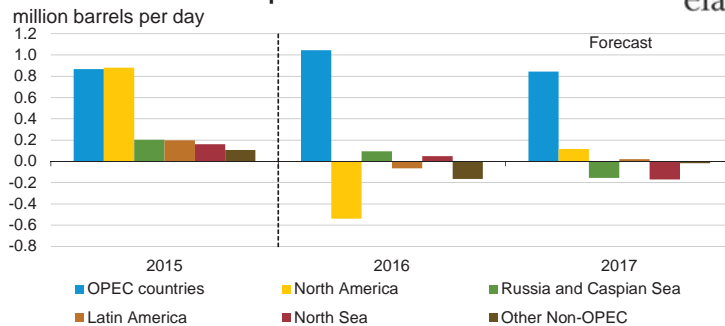
### World Liquid Fuels Consumption Growth



\* Countries belonging to the Organization for Economic Cooperation and Development

Source: Short-Term Energy Outlook, July 2016.

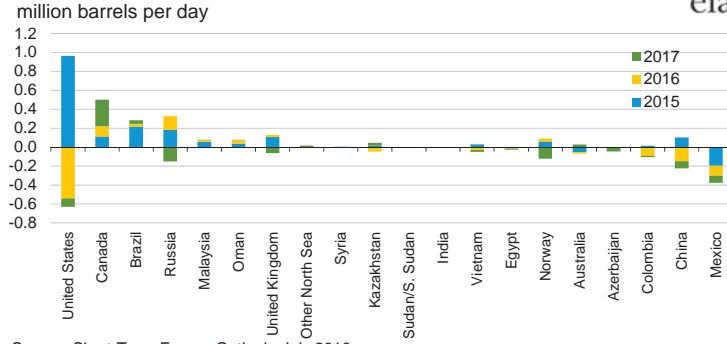
### World Crude Oil and Liquid Fuels Production Growth



Source: Short-Term Energy Outlook, July 2016.

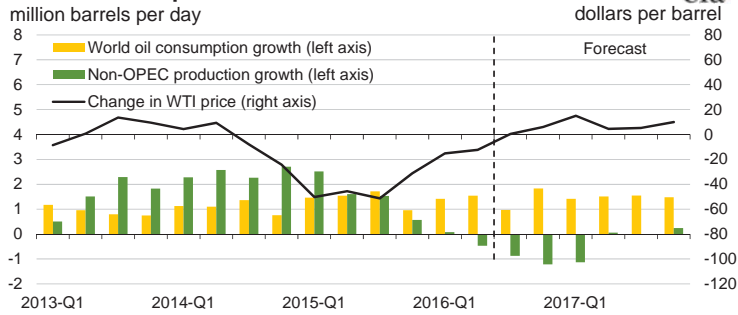


### Non-OPEC Crude Oil and Liquid Fuels Production Growth



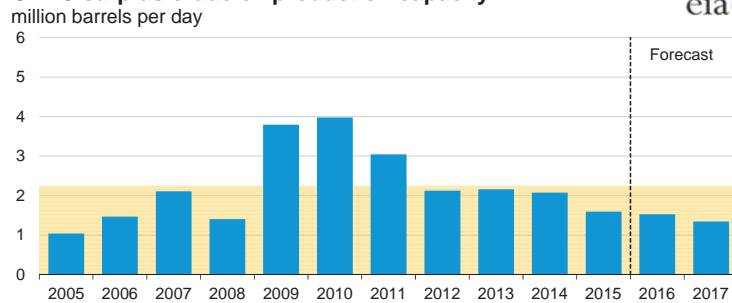
Source: Short-Term Energy Outlook, July 2016.

### World Consumption and Non-OPEC Production Growth



Source: Short-Term Energy Outlook, July 2016.

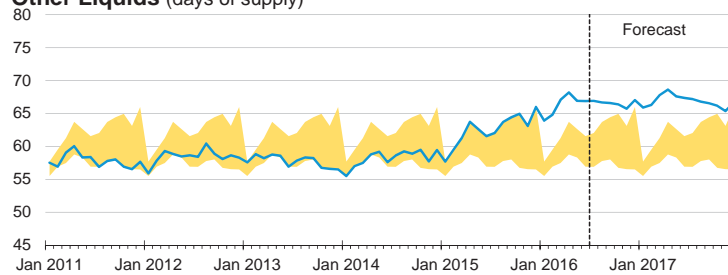
### OPEC surplus crude oil production capacity



Note: Shaded area represents 2005-2015 average (2.3 million barrels per day).

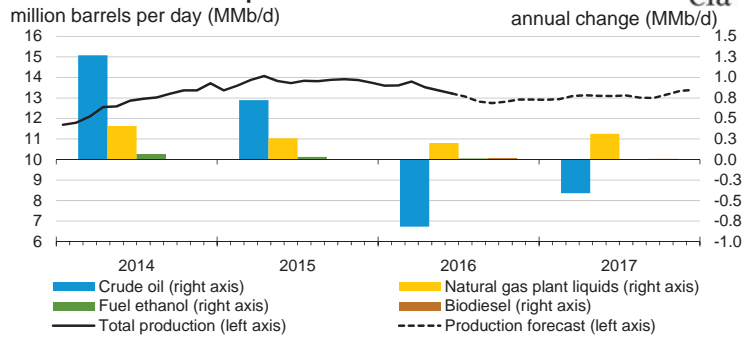
Source: Short-Term Energy Outlook, July 2016.

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



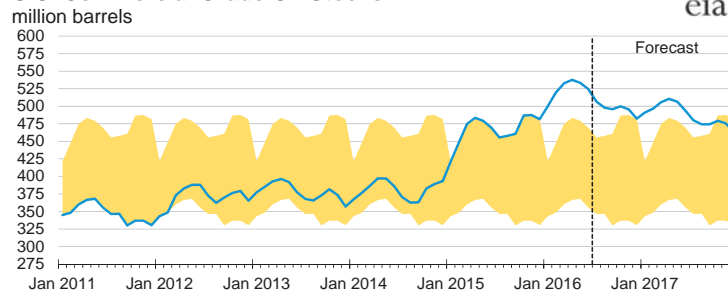
Note: Colored band around days of supply of crude oil and other liquids stocks represents the range between the minimum and maximum from Jan. 2011 - Dec. 2015.  
 Source: Short-Term Energy Outlook, July 2016.

### U.S. Crude Oil and Liquid Fuels Production



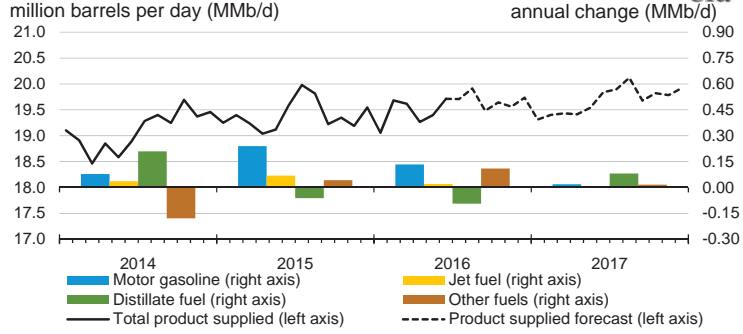
Source: Short-Term Energy Outlook, July 2016.

### U.S. Commercial Crude Oil Stocks



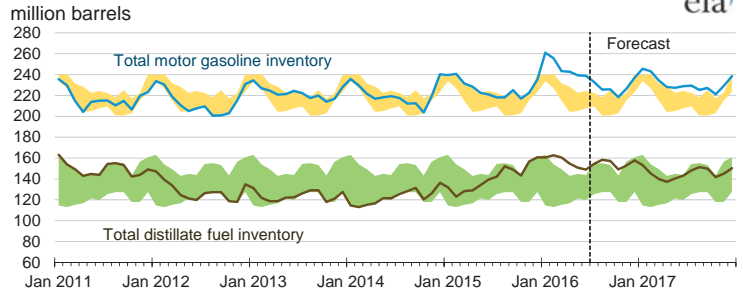
Note: Colored band around storage levels represents the range between the minimum and maximum from Jan. 2011 - Dec. 2015.  
 Source: Short-Term Energy Outlook, July 2016.

### U.S. Liquid Fuels Product Supplied



Source: Short-Term Energy Outlook, July 2016.

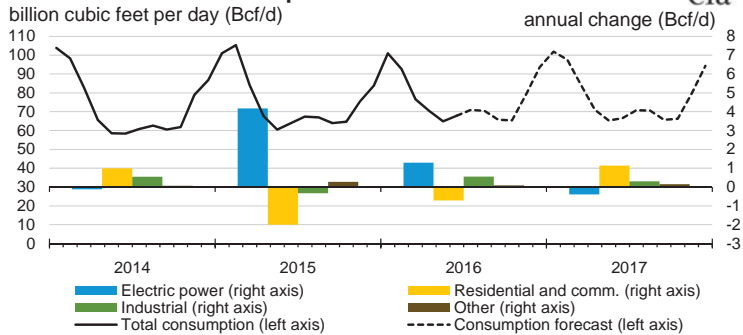
### U.S. Gasoline and Distillate Inventories



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

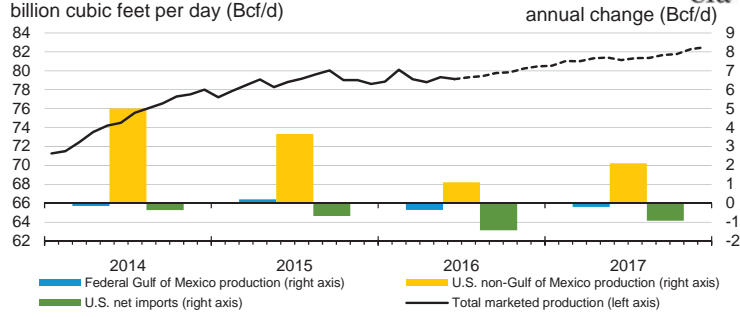
Source: Short-Term Energy Outlook, July 2016.

### U.S. Natural Gas Consumption



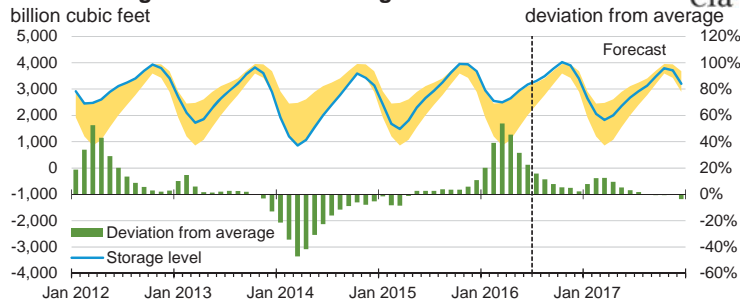
Source: Short-Term Energy Outlook, July 2016.

### U.S. Natural Gas Production and Imports



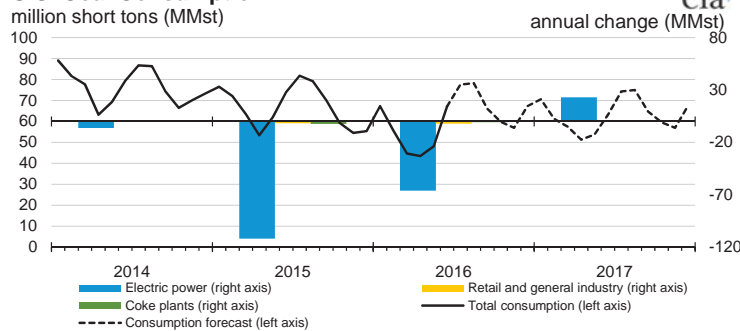
Source: Short-Term Energy Outlook, July 2016.

### U.S. Working Natural Gas in Storage



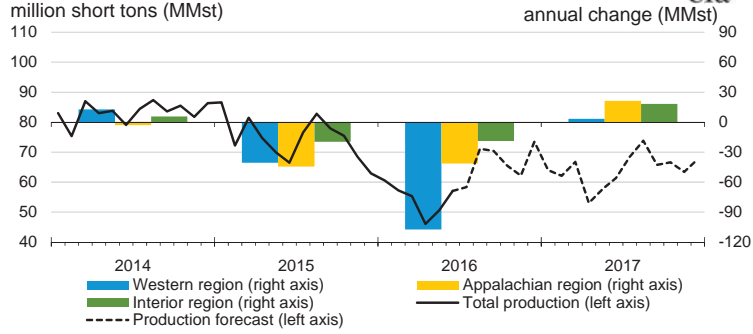
Note: Colored band around storage levels represents the range between the minimum and maximum from Jan. 2011 - Dec. 2015.  
 Source: Short-Term Energy Outlook, July 2016.

### U.S. Coal Consumption

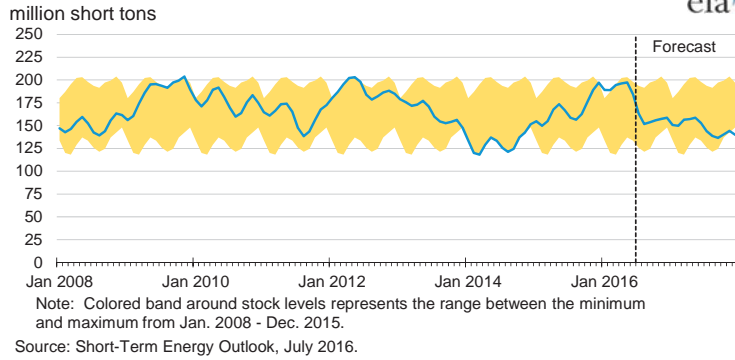


Source: Short-Term Energy Outlook, July 2016.

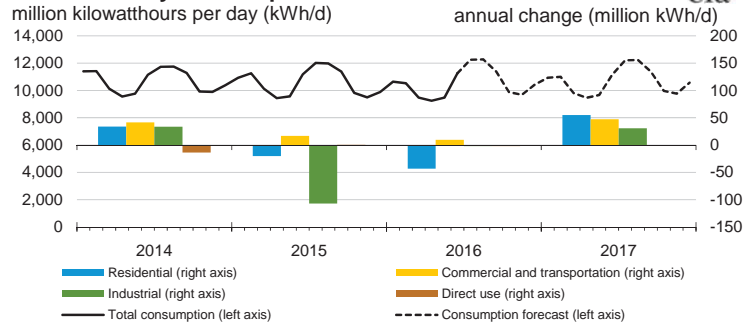
### U.S. Coal Production



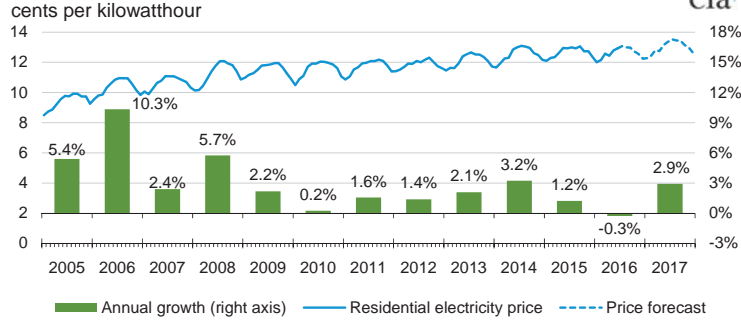
### U.S. Electric Power Coal Stocks



### U.S. Electricity Consumption

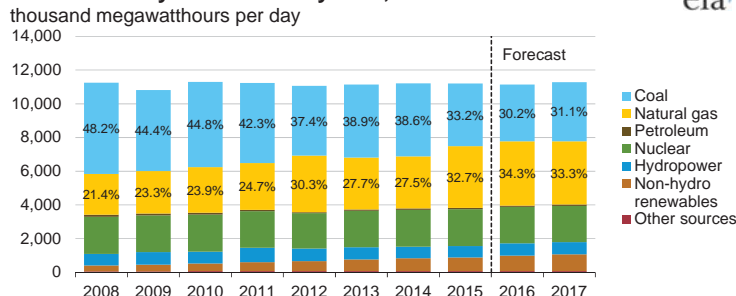


### U.S. Residential Electricity Price



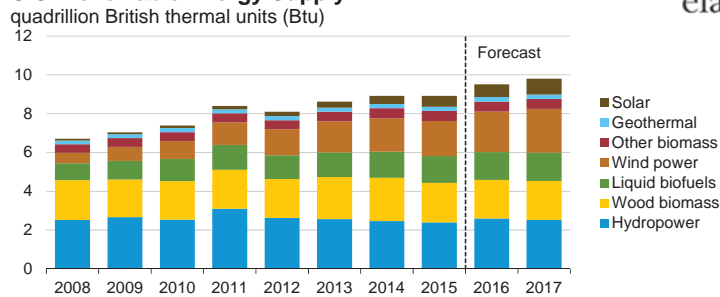
Source: Short-Term Energy Outlook, July 2016.

### U.S. Electricity Generation by Fuel, All Sectors



Source: Short-Term Energy Outlook, July 2016.

### U.S. Renewable Energy Supply

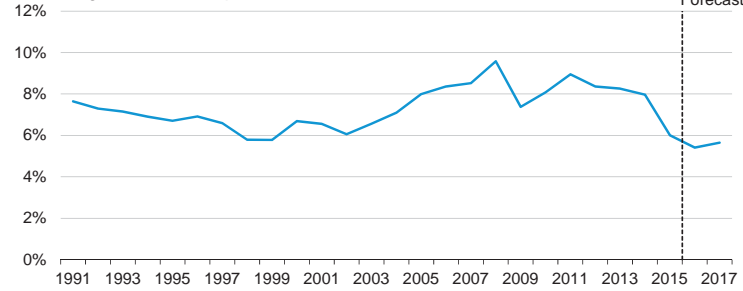


Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol and biodiesel. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste.

Source: Short-Term Energy Outlook, July 2016.

### U.S. Annual Energy Expenditures

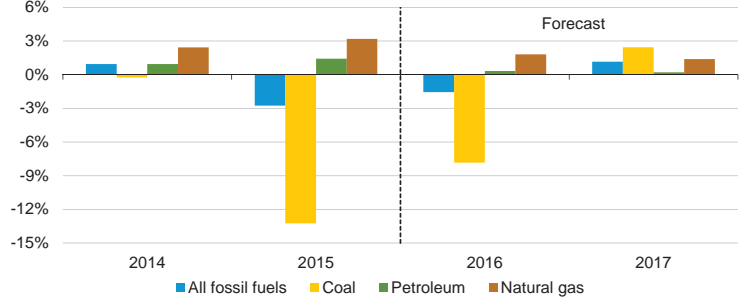
share of gross domestic product



Source: Short-Term Energy Outlook, July 2016.

### U.S. Energy-Related Carbon Dioxide Emissions

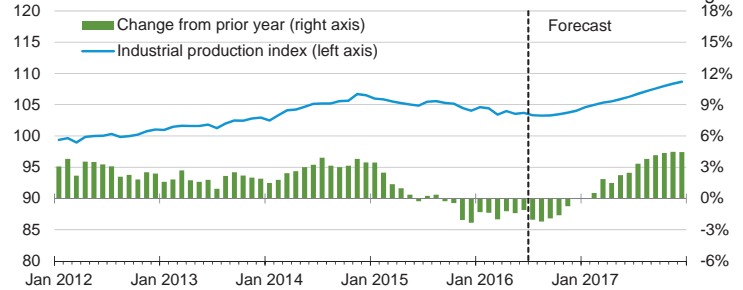
annual growth



Source: Short-Term Energy Outlook, July 2016.

### U.S. Total Industrial Production Index

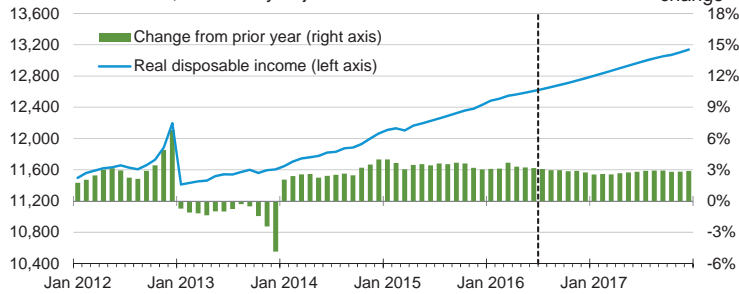
index (2007 = 100)



Source: Short-Term Energy Outlook, July 2016.

### U.S. Disposable Income

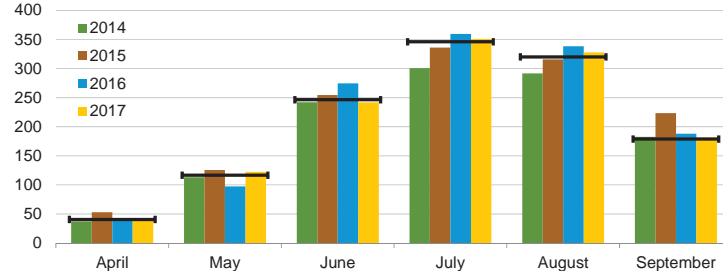
billion 2009 dollars, seasonally adjusted



Source: Short-Term Energy Outlook, July 2016.

### U.S. Summer Cooling Degree Days

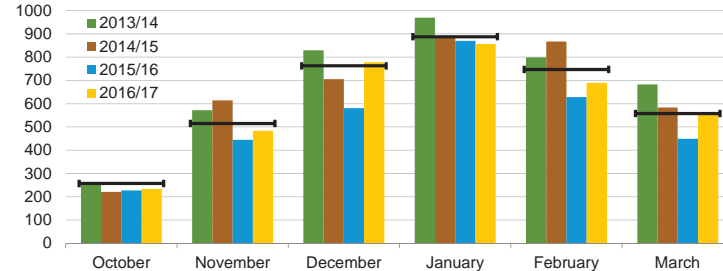
population-weighted



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, July 2016.

### U.S. Winter Heating Degree Days

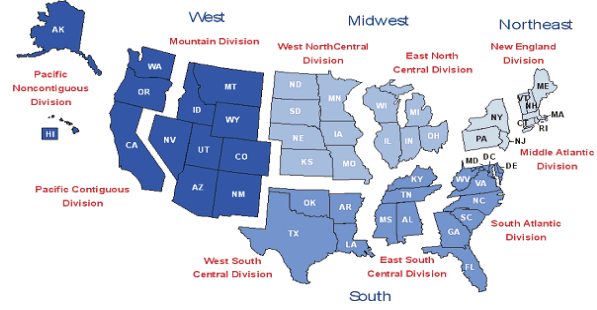
population-weighted



Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Horizontal lines indicate each month's prior 10-year average (Oct 2006 - Mar 2016). Projections reflect NOAA's 14-16 month outlook.  
Source: Short-Term Energy Outlook, July 2016.



## U.S. Census Regions and Divisions



Source: Short-Term Energy Outlook, July 2016.

**Table SF01. U.S. Motor Gasoline Summer Outlook**

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

	2015			2016			Year-over-year Change (percent)		
	Q2	Q3	Season	Q2	Q3	Season	Q2	Q3	Season
<b>Nominal Prices</b> (dollars per gallon)									
WTI Crude Oil (Spot) <sup>a</sup>	<b>1.38</b>	<b>1.11</b>	<b>1.24</b>	<i>1.08</i>	<i>1.12</i>	<i>1.10</i>	-21.4	1.0	-11.3
Brent Crude Oil Price (Spot)	<b>1.47</b>	<b>1.20</b>	<b>1.33</b>	<i>1.08</i>	<i>1.12</i>	<i>1.10</i>	-26.1	-6.8	-17.3
U.S. Refiner Average Crude Oil Cost	<b>1.37</b>	<b>1.14</b>	<b>1.25</b>	<i>1.04</i>	<i>1.10</i>	<i>1.07</i>	-23.9	-3.5	-14.5
Wholesale Gasoline Price <sup>b</sup>	<b>2.01</b>	<b>1.84</b>	<b>1.93</b>	<i>1.57</i>	<i>1.51</i>	<i>1.54</i>	-22.0	-18.1	-20.1
Wholesale Diesel Fuel Price <sup>b</sup>	<b>1.89</b>	<b>1.61</b>	<b>1.75</b>	<i>1.41</i>	<i>1.51</i>	<i>1.46</i>	-25.1	-6.5	-16.4
Regular Gasoline Retail Price <sup>c</sup>	<b>2.67</b>	<b>2.60</b>	<b>2.63</b>	<i>2.25</i>	<i>2.25</i>	<i>2.25</i>	-15.5	-13.7	-14.6
Diesel Fuel Retail Price <sup>c</sup>	<b>2.85</b>	<b>2.63</b>	<b>2.74</b>	<i>2.30</i>	<i>2.48</i>	<i>2.39</i>	-19.3	-5.8	-12.7
<b>Gasoline Consumption/Supply</b> (million barrels per day)									
Total Consumption	<b>9.260</b>	<b>9.395</b>	<b>9.328</b>	<i>9.394</i>	<i>9.472</i>	<i>9.433</i>	1.4	0.8	1.1
Total Refinery and Blender Net Supply <sup>d</sup>	<b>8.022</b>	<b>8.305</b>	<b>8.164</b>	<i>8.292</i>	<i>8.563</i>	<i>8.428</i>	3.4	3.1	3.2
Fuel Ethanol Blending	<b>0.919</b>	<b>0.935</b>	<b>0.927</b>	<i>0.913</i>	<i>0.948</i>	<i>0.931</i>	-0.6	1.5	0.5
Total Stock Withdrawal <sup>e</sup>	<b>0.115</b>	<b>-0.044</b>	<b>0.035</b>	<i>0.049</i>	<i>0.142</i>	<i>0.096</i>			
Net Imports <sup>e</sup>	<b>0.204</b>	<b>0.200</b>	<b>0.202</b>	<i>0.140</i>	<i>-0.182</i>	<i>-0.022</i>	-31.6	-191.3	-110.9
Refinery Utilization (percent)	<b>92.8</b>	<b>93.2</b>	<b>93.0</b>	<i>90.1</i>	<i>92.4</i>	<i>91.3</i>			
<b>Gasoline Stocks, Including Blending Components</b> (million barrels)									
Beginning	<b>231.5</b>	<b>221.0</b>	<b>231.5</b>	<i>243.3</i>	<i>238.9</i>	<i>243.3</i>			
Ending	<b>221.0</b>	<b>225.1</b>	<b>225.1</b>	<i>238.9</i>	<i>225.8</i>	<i>225.8</i>			
<b>Economic Indicators</b> (annualized billion 2000 dollars)									
Real GDP	<b>16,334</b>	<b>16,414</b>	<b>16,374</b>	<i>16,610</i>	<i>16,701</i>	<i>16,655</i>	1.7	1.7	1.7
Real Income	<b>12,194</b>	<b>12,290</b>	<b>12,242</b>	<i>12,587</i>	<i>12,657</i>	<i>12,622</i>	3.2	3.0	3.1

<sup>a</sup> Spot Price of West Texas Intermediate (WTI) crude oil.<sup>b</sup> Price product sold by refiners to resellers.<sup>c</sup> Average pump price including taxes.<sup>d</sup> Finished gasoline net production minus gasoline blend components net inputs minus fuel ethanol blending and supply adjustment.<sup>e</sup> Total stock withdrawal and net imports includes both finished gasoline and gasoline blend components.

GDP = gross domestic product.

Notes: Minor discrepancies with other Energy Information Administration (EIA) published historical data are due to rounding. Historical data are printed in bold. Forecasts are in italic. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: latest data available from: EIA, *Petroleum Supply Monthly*, DOE/EIA-0109; Monthly Energy Review, DOE/EIA-0035; U.S. Department of Commerce, Bureau of Economic Analysis (GDP and income); Reuters News Service (WTI and Brent crude oil spot prices). Macroeconomic projections are based on IHS Global Insight Macroeconomic Forecast Model.

**Table SF02 Average Summer Residential Electricity Usage, Prices and Expenditures**

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

	2011	2012	2013	2014	2015	Forecast 2016	Change from 2015
<b>United States</b>							
Usage (kWh)	3,444	3,354	3,129	3,037	3,153	3,201	1.5%
Price (cents/kWh)	12.06	12.09	12.58	13.04	12.95	13.00	0.4%
Expenditures	\$415	\$405	\$393	\$396	\$408	\$416	1.9%
<b>New England</b>							
Usage (kWh)	2,122	2,188	2,173	1,930	1,993	2,041	2.4%
Price (cents/kWh)	15.85	15.50	16.04	17.63	18.64	18.29	-1.9%
Expenditures	\$336	\$339	\$348	\$340	\$372	\$373	0.5%
<b>Mid-Atlantic</b>							
Usage (kWh)	2,531	2,548	2,447	2,234	2,372	2,414	1.8%
Price (cents/kWh)	16.39	15.63	16.39	16.90	16.52	17.00	2.9%
Expenditures	\$415	\$398	\$401	\$378	\$392	\$410	4.7%
<b>East North Central</b>							
Usage (kWh)	2,975	3,048	2,618	2,505	2,556	2,770	8.4%
Price (cents/kWh)	12.17	12.08	12.57	13.24	13.20	13.57	2.8%
Expenditures	\$362	\$368	\$329	\$332	\$337	\$376	11.4%
<b>West North Central</b>							
Usage (kWh)	3,517	3,547	3,098	3,040	3,054	3,248	6.4%
Price (cents/kWh)	11.16	11.50	12.25	12.42	12.66	12.93	2.1%
Expenditures	\$393	\$408	\$380	\$378	\$387	\$420	8.6%
<b>South Atlantic</b>							
Usage (kWh)	4,277	4,001	3,771	3,776	3,957	3,931	-0.7%
Price (cents/kWh)	11.48	11.65	11.76	12.09	12.10	11.97	-1.1%
Expenditures	\$491	\$466	\$443	\$457	\$479	\$471	-1.7%
<b>East South Central</b>							
Usage (kWh)	4,750	4,467	4,078	4,033	4,296	4,354	1.3%
Price (cents/kWh)	10.28	10.36	10.71	11.09	10.90	10.80	-0.9%
Expenditures	\$488	\$463	\$437	\$447	\$468	\$470	0.4%
<b>West South Central</b>							
Usage (kWh)	5,231	4,781	4,507	4,252	4,518	4,441	-1.7%
Price (cents/kWh)	10.64	10.27	10.94	11.46	11.05	10.94	-1.0%
Expenditures	\$557	\$491	\$493	\$487	\$499	\$486	-2.7%
<b>Mountain</b>							
Usage (kWh)	3,322	3,440	3,380	3,228	3,304	3,412	3.3%
Price (cents/kWh)	11.29	11.55	11.97	12.32	12.36	12.43	0.6%
Expenditures	\$375	\$397	\$405	\$398	\$408	\$424	3.9%
<b>Pacific</b>							
Usage (kWh)	2,022	2,079	2,036	2,090	2,056	2,021	-1.7%
Price (cents/kWh)	13.22	13.78	14.47	15.17	15.34	15.30	-0.3%
Expenditures	\$267	\$286	\$295	\$317	\$315	\$309	-2.0%

Notes: kWh = kilowatthours. All data cover the 3-month period of June-August of each year. Usage amounts represent total residential retail electricity sales per customer. Prices and expenditures are not adjusted for inflation.

Source: EIA Form-861 and Form-826 databases, Short-Term Energy Outlook.

**Table 2. Energy Prices**

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

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Crude Oil</b> (dollars per barrel)															
West Texas Intermediate Spot Average .....	<b>48.48</b>	<b>57.85</b>	<b>46.55</b>	<b>41.94</b>	<b>33.35</b>	<b>45.46</b>	<i>47.00</i>	<i>48.00</i>	<i>48.37</i>	<i>50.00</i>	<i>52.32</i>	<i>57.94</i>	<b>48.67</b>	<i>43.57</i>	<i>52.15</i>
Brent Spot Average .....	<b>53.91</b>	<b>61.65</b>	<b>50.43</b>	<b>43.55</b>	<b>33.89</b>	<b>45.57</b>	<i>47.00</i>	<i>48.00</i>	<i>48.37</i>	<i>50.00</i>	<i>52.32</i>	<i>57.94</i>	<b>52.32</b>	<i>43.73</i>	<i>52.15</i>
U.S. Imported Average .....	<b>46.38</b>	<b>56.07</b>	<b>45.59</b>	<b>37.88</b>	<b>28.84</b>	<b>41.26</b>	<i>43.50</i>	<i>44.50</i>	<i>44.85</i>	<i>46.50</i>	<i>48.83</i>	<i>54.51</i>	<b>46.35</b>	<i>39.67</i>	<i>48.73</i>
U.S. Refiner Average Acquisition Cost .....	<b>47.94</b>	<b>57.46</b>	<b>47.68</b>	<b>40.48</b>	<b>30.84</b>	<b>43.72</b>	<i>46.00</i>	<i>47.00</i>	<i>47.35</i>	<i>49.00</i>	<i>51.30</i>	<i>57.04</i>	<b>48.40</b>	<i>42.00</i>	<i>51.24</i>
<b>U.S. Liquid Fuels</b> (cents per gallon)															
<b>Refiner Prices for Resale</b>															
Gasoline .....	<b>159</b>	<b>201</b>	<b>184</b>	<b>145</b>	<b>119</b>	<b>157</b>	<i>151</i>	<i>133</i>	<i>136</i>	<i>164</i>	<i>164</i>	<i>156</i>	<b>173</b>	<i>140</i>	<i>155</i>
Diesel Fuel .....	<b>176</b>	<b>189</b>	<b>161</b>	<b>141</b>	<b>109</b>	<b>141</b>	<i>151</i>	<i>157</i>	<i>160</i>	<i>164</i>	<i>171</i>	<i>187</i>	<b>167</b>	<i>140</i>	<i>171</i>
Heating Oil .....	<b>178</b>	<b>180</b>	<b>151</b>	<b>129</b>	<b>99</b>	<b>127</b>	<i>142</i>	<i>151</i>	<i>158</i>	<i>155</i>	<i>162</i>	<i>181</i>	<b>157</b>	<i>123</i>	<i>165</i>
<b>Refiner Prices to End Users</b>															
Jet Fuel .....	<b>172</b>	<b>186</b>	<b>156</b>	<b>138</b>	<b>107</b>	<b>134</b>	<i>147</i>	<i>153</i>	<i>157</i>	<i>158</i>	<i>166</i>	<i>183</i>	<b>162</b>	<i>136</i>	<i>166</i>
No. 6 Residual Fuel Oil (a) .....	<b>137</b>	<b>154</b>	<b>123</b>	<b>101</b>	<b>69</b>	<b>92</b>	<i>114</i>	<i>117</i>	<i>118</i>	<i>120</i>	<i>126</i>	<i>138</i>	<b>125</b>	<i>96</i>	<i>126</i>
<b>Retail Prices Including Taxes</b>															
Gasoline Regular Grade (b) .....	<b>227</b>	<b>267</b>	<b>260</b>	<b>216</b>	<b>190</b>	<b>225</b>	<i>225</i>	<i>207</i>	<i>205</i>	<i>237</i>	<i>239</i>	<i>229</i>	<b>243</b>	<i>212</i>	<i>228</i>
Gasoline All Grades (b) .....	<b>236</b>	<b>275</b>	<b>269</b>	<b>226</b>	<b>200</b>	<b>235</b>	<i>235</i>	<i>218</i>	<i>216</i>	<i>247</i>	<i>250</i>	<i>241</i>	<b>252</b>	<i>222</i>	<i>239</i>
On-highway Diesel Fuel .....	<b>292</b>	<b>285</b>	<b>263</b>	<b>243</b>	<b>208</b>	<b>230</b>	<i>248</i>	<i>255</i>	<i>262</i>	<i>265</i>	<i>270</i>	<i>287</i>	<b>271</b>	<i>236</i>	<i>271</i>
Heating Oil .....	<b>288</b>	<b>276</b>	<b>247</b>	<b>224</b>	<b>195</b>	<b>207</b>	<i>230</i>	<i>245</i>	<i>258</i>	<i>253</i>	<i>258</i>	<i>278</i>	<b>265</b>	<i>216</i>	<i>264</i>
<b>Natural Gas</b>															
Henry Hub Spot (dollars per thousand cubic feet) .....	<b>2.99</b>	<b>2.83</b>	<b>2.84</b>	<b>2.18</b>	<b>2.06</b>	<b>2.21</b>	<i>2.80</i>	<i>2.68</i>	<i>3.10</i>	<i>2.89</i>	<i>3.03</i>	<i>3.14</i>	<b>2.71</b>	<i>2.43</i>	<i>3.04</i>
Henry Hub Spot (dollars per million Btu) .....	<b>2.90</b>	<b>2.75</b>	<b>2.76</b>	<b>2.12</b>	<b>2.00</b>	<b>2.14</b>	<i>2.71</i>	<i>2.60</i>	<i>3.01</i>	<i>2.81</i>	<i>2.94</i>	<i>3.05</i>	<b>2.63</b>	<i>2.36</i>	<i>2.95</i>
<b>U.S. Retail Prices</b> (dollars per thousand cubic feet)															
Industrial Sector .....	<b>4.57</b>	<b>3.68</b>	<b>3.66</b>	<b>3.34</b>	<b>3.34</b>	<b>2.91</b>	<i>3.65</i>	<i>3.79</i>	<i>4.35</i>	<i>3.76</i>	<i>3.93</i>	<i>4.26</i>	<b>3.84</b>	<i>3.42</i>	<i>4.09</i>
Commercial Sector .....	<b>7.94</b>	<b>8.13</b>	<b>8.42</b>	<b>7.38</b>	<b>6.84</b>	<b>7.21</b>	<i>8.20</i>	<i>7.56</i>	<i>7.77</i>	<i>8.22</i>	<i>8.75</i>	<i>8.10</i>	<b>7.88</b>	<i>7.28</i>	<i>8.05</i>
Residential Sector .....	<b>9.30</b>	<b>11.97</b>	<b>16.45</b>	<b>10.11</b>	<b>8.53</b>	<b>11.03</b>	<i>15.68</i>	<i>9.96</i>	<i>9.32</i>	<i>12.09</i>	<i>16.32</i>	<i>10.47</i>	<b>10.36</b>	<i>9.89</i>	<i>10.57</i>
<b>U.S. Electricity</b>															
<b>Power Generation Fuel Costs</b> (dollars per million Btu)															
Coal .....	<b>2.27</b>	<b>2.25</b>	<b>2.22</b>	<b>2.15</b>	<b>2.13</b>	<b>2.18</b>	<i>2.23</i>	<i>2.22</i>	<i>2.21</i>	<i>2.24</i>	<i>2.28</i>	<i>2.24</i>	<b>2.23</b>	<i>2.19</i>	<i>2.24</i>
Natural Gas .....	<b>4.09</b>	<b>3.12</b>	<b>3.09</b>	<b>2.72</b>	<b>2.65</b>	<b>2.58</b>	<i>3.06</i>	<i>3.37</i>	<i>3.88</i>	<i>3.28</i>	<i>3.28</i>	<i>3.87</i>	<b>3.22</b>	<i>2.92</i>	<i>3.55</i>
Residual Fuel Oil (c) .....	<b>10.82</b>	<b>11.64</b>	<b>10.48</b>	<b>7.76</b>	<b>6.15</b>	<b>8.04</b>	<i>8.98</i>	<i>9.09</i>	<i>9.04</i>	<i>9.84</i>	<i>9.69</i>	<i>10.15</i>	<b>10.36</b>	<i>8.07</i>	<i>9.67</i>
Distillate Fuel Oil .....	<b>15.61</b>	<b>15.17</b>	<b>13.19</b>	<b>11.74</b>	<b>9.02</b>	<b>12.10</b>	<i>12.71</i>	<i>13.51</i>	<i>13.99</i>	<i>14.12</i>	<i>14.49</i>	<i>15.97</i>	<b>14.43</b>	<i>11.80</i>	<i>14.61</i>
<b>Retail Prices</b> (cents per kilowatthour)															
Industrial Sector .....	<b>6.79</b>	<b>6.81</b>	<b>7.32</b>	<b>6.63</b>	<b>6.42</b>	<b>6.66</b>	<i>7.27</i>	<i>6.68</i>	<i>6.55</i>	<i>6.82</i>	<i>7.40</i>	<i>6.81</i>	<b>6.90</b>	<i>6.77</i>	<i>6.91</i>
Commercial Sector .....	<b>10.46</b>	<b>10.54</b>	<b>10.95</b>	<b>10.36</b>	<b>10.08</b>	<b>10.52</b>	<i>11.07</i>	<i>10.42</i>	<i>10.30</i>	<i>10.78</i>	<i>11.36</i>	<i>10.68</i>	<b>10.59</b>	<i>10.55</i>	<i>10.81</i>
Residential Sector .....	<b>12.24</b>	<b>12.85</b>	<b>12.99</b>	<b>12.59</b>	<b>12.22</b>	<b>12.74</b>	<i>13.02</i>	<i>12.48</i>	<i>12.48</i>	<i>13.11</i>	<i>13.47</i>	<i>12.89</i>	<b>12.67</b>	<i>12.64</i>	<i>13.00</i>

- = 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 - July 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Supply (million barrels per day) (a)</b>															
OECD .....	26.64	26.43	26.81	27.07	26.96	25.95	25.91	26.11	26.19	26.20	26.04	26.43	26.74	26.23	26.21
U.S. (50 States) .....	14.81	15.10	15.13	15.12	14.95	14.68	14.18	14.19	14.24	14.40	14.37	14.62	15.04	14.50	14.41
Canada .....	4.69	4.16	4.56	4.62	4.73	4.15	4.73	4.84	4.90	4.87	4.89	4.92	4.51	4.61	4.90
Mexico .....	2.68	2.58	2.62	2.62	2.57	2.52	2.50	2.49	2.47	2.46	2.43	2.42	2.62	2.52	2.44
North Sea (b) .....	3.00	3.10	2.95	3.20	3.23	3.12	3.00	3.09	3.08	2.96	2.81	2.92	3.06	3.11	2.94
Other OECD .....	1.46	1.49	1.55	1.52	1.47	1.48	1.49	1.50	1.51	1.51	1.53	1.55	1.50	1.49	1.52
Non-OECD .....	68.00	68.97	69.58	69.41	68.61	69.89	70.69	70.47	69.72	70.66	71.04	70.87	69.00	69.92	70.57
OPEC .....	37.60	38.31	38.78	38.61	38.47	39.23	39.86	39.93	39.93	40.18	40.35	40.41	38.33	39.38	40.22
Crude Oil Portion .....	31.06	31.74	32.20	32.03	31.79	32.38	32.96	32.98	32.84	33.05	33.13	33.13	31.76	32.53	33.04
Other Liquids (c) .....	6.54	6.57	6.58	6.59	6.67	6.85	6.90	6.95	7.09	7.14	7.21	7.27	6.57	6.85	7.18
Eurasia .....	14.18	14.00	14.00	14.13	14.28	14.23	14.14	14.07	14.03	14.00	14.01	14.03	14.08	14.18	14.02
China .....	4.68	4.76	4.73	4.72	4.59	4.51	4.59	4.60	4.47	4.50	4.51	4.51	4.72	4.57	4.50
Other Non-OECD .....	11.53	11.91	12.08	11.95	11.28	11.93	12.10	11.87	11.29	11.98	12.18	11.92	11.87	11.79	11.84
Total World Supply .....	94.63	95.40	96.40	96.48	95.57	95.85	96.60	96.58	95.91	96.86	97.08	97.29	95.73	96.15	96.79
Non-OPEC Supply .....	57.03	57.09	57.62	57.86	57.11	56.62	56.74	56.64	55.98	56.68	56.73	56.89	57.40	56.78	56.57
<b>Consumption (million barrels per day) (d)</b>															
OECD .....	46.48	45.38	46.71	46.36	46.59	45.57	46.35	46.82	46.55	45.57	46.41	46.87	46.23	46.33	46.35
U.S. (50 States) .....	19.29	19.25	19.68	19.36	19.45	19.46	19.70	19.65	19.38	19.60	19.90	19.84	19.40	19.56	19.68
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	2.26	2.38	2.34	2.32	2.24	2.35	2.33	2.27	2.22	2.32	2.30	2.34	2.31	2.28
Europe .....	13.42	13.53	14.10	13.65	13.48	13.38	13.84	13.77	13.50	13.27	13.73	13.65	13.68	13.62	13.54
Japan .....	4.79	3.89	3.94	4.23	4.51	3.82	3.85	4.22	4.45	3.75	3.78	4.14	4.21	4.10	4.03
Other OECD .....	6.24	6.08	6.24	6.41	6.44	6.26	6.21	6.45	6.52	6.32	6.26	6.51	6.24	6.34	6.40
Non-OECD .....	46.40	47.98	48.30	47.76	47.71	49.34	49.63	49.14	49.17	50.84	51.12	50.57	47.62	48.95	50.43
Eurasia .....	4.71	4.65	4.92	4.90	4.73	4.66	4.93	4.92	4.80	4.73	5.01	4.99	4.80	4.81	4.88
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 .....	10.87	11.46	11.42	11.37	11.25	11.87	11.82	11.77	11.64	12.28	12.23	12.17	11.28	11.68	12.08
Other Asia .....	12.22	12.44	11.97	12.30	12.87	13.09	12.58	12.99	13.49	13.71	13.16	13.55	12.24	12.88	13.48
Other Non-OECD .....	17.89	18.71	19.26	18.45	18.14	18.99	19.55	18.71	18.51	19.38	19.96	19.09	18.58	18.85	19.24
Total World Consumption .....	92.88	93.36	95.01	94.12	94.30	94.90	95.98	95.96	95.72	96.41	97.53	97.44	93.85	95.29	96.78
<b>Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)</b>															
U.S. (50 States) .....	-0.54	-0.69	-0.32	-0.15	-0.41	-0.15	0.14	0.57	0.19	-0.29	-0.05	0.59	-0.43	0.04	0.11
Other OECD .....	-0.34	-0.35	-0.42	-0.28	-0.24	-0.27	-0.27	-0.42	-0.13	-0.05	0.17	-0.15	-0.34	-0.30	-0.04
Other Stock Draws and Balance .....	-0.87	-1.00	-0.64	-1.93	-0.63	-0.52	-0.50	-0.77	-0.24	-0.10	0.33	-0.29	-1.11	-0.60	-0.08
Total Stock Draw .....	-1.75	-2.04	-1.38	-2.35	-1.28	-0.94	-0.62	-0.62	-0.19	-0.45	0.45	0.15	-1.88	-0.86	-0.01
<b>End-of-period Commercial Crude Oil and Other Liquids Inventories</b>															
U.S. Commercial Inventory .....	1,217	1,277	1,306	1,320	1,357	1,371	1,358	1,306	1,289	1,315	1,320	1,267	1,320	1,306	1,267
OECD Commercial Inventory .....	2,799	2,890	2,965	2,997	3,054	3,093	3,104	3,090	3,086	3,117	3,105	3,067	2,997	3,090	3,067

- = 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, Gabon, 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 - July 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>North America</b> .....	<b>22.17</b>	<b>21.84</b>	<b>22.32</b>	<b>22.36</b>	<b>22.25</b>	<b>21.35</b>	<i>21.42</i>	<i>21.51</i>	<i>21.61</i>	<i>21.73</i>	<i>21.70</i>	<i>21.96</i>	<b>22.17</b>	<i>21.63</i>	<i>21.75</i>
Canada .....	<b>4.69</b>	<b>4.16</b>	<b>4.56</b>	<b>4.62</b>	<b>4.73</b>	<b>4.15</b>	<i>4.73</i>	<i>4.84</i>	<i>4.90</i>	<i>4.87</i>	<i>4.89</i>	<i>4.92</i>	<b>4.51</b>	<i>4.61</i>	<i>4.90</i>
Mexico .....	<b>2.68</b>	<b>2.58</b>	<b>2.62</b>	<b>2.62</b>	<b>2.57</b>	<b>2.52</b>	<i>2.50</i>	<i>2.49</i>	<i>2.47</i>	<i>2.46</i>	<i>2.43</i>	<i>2.42</i>	<b>2.62</b>	<i>2.52</i>	<i>2.44</i>
United States .....	<b>14.81</b>	<b>15.10</b>	<b>15.13</b>	<b>15.12</b>	<b>14.95</b>	<b>14.68</b>	<i>14.18</i>	<i>14.19</i>	<i>14.24</i>	<i>14.40</i>	<i>14.37</i>	<i>14.62</i>	<b>15.04</b>	<i>14.50</i>	<i>14.41</i>
<b>Central and South America</b> .....	<b>4.95</b>	<b>5.42</b>	<b>5.65</b>	<b>5.43</b>	<b>4.76</b>	<b>5.46</b>	<i>5.61</i>	<i>5.37</i>	<i>4.80</i>	<i>5.47</i>	<i>5.63</i>	<i>5.38</i>	<b>5.37</b>	<i>5.30</i>	<i>5.32</i>
Argentina .....	<b>0.70</b>	<b>0.71</b>	<b>0.72</b>	<b>0.72</b>	<b>0.70</b>	<b>0.71</b>	<i>0.73</i>	<i>0.72</i>	<i>0.71</i>	<i>0.72</i>	<i>0.73</i>	<i>0.72</i>	<b>0.71</b>	<i>0.71</i>	<i>0.72</i>
Brazil .....	<b>2.75</b>	<b>3.23</b>	<b>3.50</b>	<b>3.24</b>	<b>2.65</b>	<b>3.37</b>	<i>3.54</i>	<i>3.29</i>	<i>2.73</i>	<i>3.39</i>	<i>3.56</i>	<i>3.31</i>	<b>3.18</b>	<i>3.21</i>	<i>3.25</i>
Colombia .....	<b>1.06</b>	<b>1.05</b>	<b>1.00</b>	<b>1.02</b>	<b>0.99</b>	<b>0.93</b>	<i>0.92</i>	<i>0.92</i>	<i>0.95</i>	<i>0.92</i>	<i>0.92</i>	<i>0.91</i>	<b>1.03</b>	<i>0.94</i>	<i>0.93</i>
Other Central and S. America .....	<b>0.45</b>	<b>0.43</b>	<b>0.43</b>	<b>0.45</b>	<b>0.42</b>	<b>0.44</b>	<i>0.43</i>	<i>0.44</i>	<i>0.41</i>	<i>0.43</i>	<i>0.42</i>	<i>0.44</i>	<b>0.44</b>	<i>0.43</i>	<i>0.43</i>
<b>Europe</b> .....	<b>3.95</b>	<b>4.05</b>	<b>3.91</b>	<b>4.15</b>	<b>4.18</b>	<b>4.06</b>	<i>3.95</i>	<i>4.04</i>	<i>4.02</i>	<i>3.90</i>	<i>3.76</i>	<i>3.86</i>	<b>4.02</b>	<i>4.06</i>	<i>3.88</i>
Norway .....	<b>1.94</b>	<b>1.94</b>	<b>1.92</b>	<b>2.03</b>	<b>2.05</b>	<b>1.97</b>	<i>1.97</i>	<i>1.96</i>	<i>1.93</i>	<i>1.88</i>	<i>1.83</i>	<i>1.83</i>	<b>1.96</b>	<i>1.99</i>	<i>1.86</i>
United Kingdom (offshore) .....	<b>0.88</b>	<b>0.97</b>	<b>0.85</b>	<b>0.99</b>	<b>1.03</b>	<b>0.97</b>	<i>0.86</i>	<i>0.94</i>	<i>0.95</i>	<i>0.89</i>	<i>0.80</i>	<i>0.90</i>	<b>0.93</b>	<i>0.95</i>	<i>0.89</i>
Other North Sea .....	<b>0.18</b>	<b>0.18</b>	<b>0.18</b>	<b>0.17</b>	<b>0.16</b>	<b>0.18</b>	<i>0.18</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<b>0.18</b>	<i>0.17</i>	<i>0.19</i>
<b>Eurasia</b> .....	<b>14.20</b>	<b>14.02</b>	<b>14.01</b>	<b>14.14</b>	<b>14.30</b>	<b>14.24</b>	<i>14.15</i>	<i>14.08</i>	<i>14.05</i>	<i>14.01</i>	<i>14.02</i>	<i>14.04</i>	<b>14.09</b>	<i>14.19</i>	<i>14.03</i>
Azerbaijan .....	<b>0.89</b>	<b>0.85</b>	<b>0.85</b>	<b>0.83</b>	<b>0.87</b>	<b>0.87</b>	<i>0.83</i>	<i>0.83</i>	<i>0.83</i>	<i>0.82</i>	<i>0.81</i>	<i>0.80</i>	<b>0.86</b>	<i>0.85</i>	<i>0.81</i>
Kazakhstan .....	<b>1.80</b>	<b>1.74</b>	<b>1.68</b>	<b>1.72</b>	<b>1.69</b>	<b>1.67</b>	<i>1.70</i>	<i>1.68</i>	<i>1.68</i>	<i>1.68</i>	<i>1.73</i>	<i>1.79</i>	<b>1.73</b>	<i>1.69</i>	<i>1.72</i>
Russia .....	<b>11.00</b>	<b>10.96</b>	<b>11.01</b>	<b>11.14</b>	<b>11.27</b>	<b>11.20</b>	<i>11.13</i>	<i>11.09</i>	<i>11.06</i>	<i>11.04</i>	<i>11.01</i>	<i>10.98</i>	<b>11.03</b>	<i>11.17</i>	<i>11.02</i>
Turkmenistan .....	<b>0.29</b>	<b>0.27</b>	<b>0.28</b>	<b>0.27</b>	<b>0.28</b>	<b>0.29</b>	<i>0.29</i>	<i>0.28</i>	<i>0.29</i>	<i>0.29</i>	<i>0.29</i>	<i>0.29</i>	<b>0.28</b>	<i>0.28</i>	<i>0.29</i>
Other Eurasia .....	<b>0.20</b>	<b>0.19</b>	<b>0.19</b>	<b>0.18</b>	<b>0.19</b>	<b>0.21</b>	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<b>0.19</b>	<i>0.20</i>	<i>0.19</i>
<b>Middle East</b> .....	<b>1.18</b>	<b>1.13</b>	<b>1.13</b>	<b>1.13</b>	<b>1.14</b>	<b>1.14</b>	<i>1.14</i>	<i>1.14</i>	<i>1.14</i>	<i>1.14</i>	<i>1.14</i>	<i>1.14</i>	<b>1.14</b>	<i>1.14</i>	<i>1.14</i>
Oman .....	<b>0.97</b>	<b>0.98</b>	<b>1.00</b>	<b>1.00</b>	<b>1.02</b>	<b>1.03</b>	<i>1.03</i>	<i>1.02</i>	<i>1.03</i>	<i>1.03</i>	<i>1.03</i>	<i>1.02</i>	<b>0.99</b>	<i>1.03</i>	<i>1.03</i>
Syria .....	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	<b>0.03</b>	<i>0.03</i>	<i>0.03</i>
Yemen .....	<b>0.11</b>	<b>0.04</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.01</b>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<b>0.05</b>	<i>0.01</i>	<i>0.01</i>
<b>Asia and Oceania</b> .....	<b>8.45</b>	<b>8.50</b>	<b>8.48</b>	<b>8.53</b>	<b>8.38</b>	<b>8.27</b>	<i>8.37</i>	<i>8.38</i>	<i>8.27</i>	<i>8.30</i>	<i>8.32</i>	<i>8.33</i>	<b>8.49</b>	<i>8.35</i>	<i>8.30</i>
Australia .....	<b>0.39</b>	<b>0.39</b>	<b>0.45</b>	<b>0.43</b>	<b>0.39</b>	<b>0.39</b>	<i>0.40</i>	<i>0.41</i>	<i>0.41</i>	<i>0.42</i>	<i>0.43</i>	<i>0.44</i>	<b>0.42</b>	<i>0.40</i>	<i>0.43</i>
China .....	<b>4.68</b>	<b>4.76</b>	<b>4.73</b>	<b>4.72</b>	<b>4.59</b>	<b>4.51</b>	<i>4.59</i>	<i>4.60</i>	<i>4.47</i>	<i>4.50</i>	<i>4.51</i>	<i>4.51</i>	<b>4.72</b>	<i>4.57</i>	<i>4.50</i>
India .....	<b>1.01</b>	<b>1.00</b>	<b>1.01</b>	<b>1.02</b>	<b>1.00</b>	<b>1.01</b>	<i>1.02</i>	<i>1.00</i>	<i>1.00</i>	<i>1.00</i>	<i>1.02</i>	<i>1.00</i>	<b>1.01</b>	<i>1.01</i>	<i>1.00</i>
Malaysia .....	<b>0.78</b>	<b>0.75</b>	<b>0.70</b>	<b>0.74</b>	<b>0.77</b>	<b>0.75</b>	<i>0.75</i>	<i>0.77</i>	<i>0.77</i>	<i>0.76</i>	<i>0.76</i>	<i>0.76</i>	<b>0.74</b>	<i>0.76</i>	<i>0.76</i>
Vietnam .....	<b>0.36</b>	<b>0.34</b>	<b>0.35</b>	<b>0.37</b>	<b>0.34</b>	<b>0.33</b>	<i>0.32</i>	<i>0.31</i>	<i>0.31</i>	<i>0.31</i>	<i>0.30</i>	<i>0.30</i>	<b>0.36</b>	<i>0.33</i>	<i>0.31</i>
<b>Africa</b> .....	<b>2.12</b>	<b>2.12</b>	<b>2.12</b>	<b>2.12</b>	<b>2.10</b>	<b>2.09</b>	<i>2.09</i>	<i>2.12</i>	<i>2.10</i>	<i>2.13</i>	<i>2.16</i>	<i>2.17</i>	<b>2.12</b>	<i>2.10</i>	<i>2.14</i>
Egypt .....	<b>0.71</b>	<b>0.70</b>	<b>0.71</b>	<b>0.70</b>	<b>0.70</b>	<b>0.69</b>	<i>0.69</i>	<i>0.69</i>	<i>0.68</i>	<i>0.68</i>	<i>0.68</i>	<i>0.67</i>	<b>0.71</b>	<i>0.69</i>	<i>0.68</i>
Equatorial Guinea .....	<b>0.27</b>	<b>0.27</b>	<b>0.27</b>	<b>0.27</b>	<b>0.24</b>	<b>0.25</b>	<i>0.25</i>	<i>0.25</i>	<i>0.23</i>	<i>0.24</i>	<i>0.24</i>	<i>0.24</i>	<b>0.27</b>	<i>0.25</i>	<i>0.24</i>
Sudan and South Sudan .....	<b>0.26</b>	<b>0.26</b>	<b>0.26</b>	<b>0.26</b>	<b>0.26</b>	<b>0.26</b>	<i>0.26</i>	<i>0.26</i>	<i>0.25</i>	<i>0.25</i>	<i>0.25</i>	<i>0.25</i>	<b>0.26</b>	<i>0.26</i>	<i>0.25</i>
<b>Total non-OPEC liquids</b> .....	<b>57.03</b>	<b>57.09</b>	<b>57.62</b>	<b>57.86</b>	<b>57.11</b>	<b>56.62</b>	<i>56.74</i>	<i>56.64</i>	<i>55.98</i>	<i>56.68</i>	<i>56.73</i>	<i>56.89</i>	<b>57.40</b>	<i>56.78</i>	<i>56.57</i>
<b>OPEC non-crude liquids</b> .....	<b>6.54</b>	<b>6.57</b>	<b>6.58</b>	<b>6.59</b>	<b>6.67</b>	<b>6.85</b>	<i>6.90</i>	<i>6.95</i>	<i>7.09</i>	<i>7.14</i>	<i>7.21</i>	<i>7.27</i>	<b>6.57</b>	<i>6.85</i>	<i>7.18</i>
<b>Non-OPEC + OPEC non-crude</b> .....	<b>63.58</b>	<b>63.66</b>	<b>64.20</b>	<b>64.45</b>	<b>63.78</b>	<b>63.47</b>	<i>63.64</i>	<i>63.60</i>	<i>63.06</i>	<i>63.82</i>	<i>63.94</i>	<i>64.16</i>	<b>63.97</b>	<i>63.62</i>	<i>63.75</i>
<b>Unplanned non-OPEC Production Outages</b> .....	<b>0.27</b>	<b>0.46</b>	<b>0.40</b>	<b>0.34</b>	<b>0.38</b>	<b>0.72</b>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<b>0.37</b>	<i>n/a</i>	<i>n/a</i>

- = no data available

OPEC = Organization of Petroleum Exporting Countries: Algeria, Angola, Ecuador, Gabon, 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 - July 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Crude Oil</b>															
Algeria .....	1.10	1.10	1.10	1.10	1.05	1.05	-	-	-	-	-	-	1.10	-	-
Angola .....	1.75	1.77	1.82	1.78	1.78	1.79	-	-	-	-	-	-	1.78	-	-
Ecuador .....	0.55	0.54	0.55	0.57	0.57	0.56	-	-	-	-	-	-	0.55	-	-
Gabon .....	0.22	0.21	0.22	0.22	0.21	0.21	-	-	-	-	-	-	0.21	-	-
Indonesia .....	0.67	0.69	0.69	0.69	0.73	0.74	-	-	-	-	-	-	0.68	-	-
Iran .....	2.80	2.80	2.80	2.80	3.03	3.58	-	-	-	-	-	-	2.80	-	-
Iraq .....	3.49	3.97	4.30	4.35	4.29	4.38	-	-	-	-	-	-	4.03	-	-
Kuwait .....	2.57	2.53	2.50	2.45	2.48	2.42	-	-	-	-	-	-	2.51	-	-
Libya .....	0.40	0.45	0.38	0.39	0.35	0.31	-	-	-	-	-	-	0.40	-	-
Nigeria .....	2.00	1.83	1.86	1.90	1.77	1.56	-	-	-	-	-	-	1.90	-	-
Qatar .....	0.68	0.68	0.68	0.68	0.66	0.68	-	-	-	-	-	-	0.68	-	-
Saudi Arabia .....	9.73	10.07	10.22	10.00	9.98	10.28	-	-	-	-	-	-	10.01	-	-
United Arab Emirates .....	2.70	2.70	2.70	2.70	2.60	2.57	-	-	-	-	-	-	2.70	-	-
Venezuela .....	2.40	2.40	2.40	2.40	2.30	2.23	-	-	-	-	-	-	2.40	-	-
OPEC Total .....	31.06	31.74	32.20	32.03	31.79	32.38	32.96	32.98	32.84	33.05	33.13	33.13	31.76	32.53	33.04
<b>Other Liquids (a)</b> .....	6.54	6.57	6.58	6.59	6.67	6.85	6.90	6.95	7.09	7.14	7.21	7.27	6.57	6.85	7.18
<b>Total OPEC Supply</b> .....	37.60	38.31	38.78	38.61	38.47	39.23	39.86	39.93	39.93	40.18	40.35	40.41	38.33	39.38	40.22
<b>Crude Oil Production Capacity</b>															
Africa .....	5.47	5.36	5.37	5.38	5.16	4.92	5.18	5.35	5.32	5.36	5.40	5.45	5.40	5.15	5.38
South America .....	2.95	2.94	2.95	2.97	2.87	2.78	2.71	2.69	2.57	2.56	2.50	2.50	2.95	2.76	2.53
Middle East .....	23.89	24.28	24.53	24.58	25.00	25.43	25.59	25.63	25.67	25.71	25.76	25.80	24.32	25.41	25.74
Asia .....	0.67	0.69	0.69	0.69	0.73	0.74	0.73	0.73	0.73	0.73	0.73	0.73	0.68	0.73	0.73
OPEC Total .....	32.97	33.27	33.53	33.63	33.75	33.88	34.21	34.40	34.29	34.36	34.40	34.48	33.35	34.06	34.38
<b>Surplus Crude Oil Production Capacity</b>															
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	1.53	1.33	1.60	1.96	1.50	1.25	1.42	1.45	1.32	1.27	1.35	1.59	1.53	1.35
Asia .....	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
OPEC Total .....	1.92	1.53	1.33	1.60	1.96	1.50	1.25	1.42	1.45	1.32	1.27	1.35	1.59	1.53	1.35
<b>Unplanned OPEC Production Outages</b> .....	2.56	2.66	2.79	2.79	2.10	2.44	n/a	n/a	n/a	n/a	n/a	n/a	2.70	n/a	n/a

- = no data available

OPEC = Organization of Petroleum Exporting Countries: Algeria, Angola, Gabon, 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 - July 2016

	2015				2016				2017				2015	2016	2017
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
<b>North America</b> .....	<b>23.57</b>	<b>23.46</b>	<b>24.11</b>	<b>23.73</b>	<b>23.72</b>	<b>23.68</b>	<i>24.01</i>	<i>23.94</i>	<i>23.62</i>	<i>23.79</i>	<i>24.17</i>	<i>24.11</i>	<b>23.72</b>	<i>23.84</i>	<i>23.93</i>
Canada .....	<b>2.36</b>	<b>2.26</b>	<b>2.38</b>	<b>2.34</b>	<b>2.32</b>	<b>2.24</b>	<i>2.35</i>	<i>2.33</i>	<i>2.27</i>	<i>2.22</i>	<i>2.32</i>	<i>2.30</i>	<b>2.34</b>	<i>2.31</i>	<i>2.28</i>
Mexico .....	<b>1.91</b>	<b>1.95</b>	<b>2.04</b>	<b>2.02</b>	<b>1.95</b>	<b>1.97</b>	<i>1.94</i>	<i>1.95</i>	<i>1.95</i>	<i>1.97</i>	<i>1.94</i>	<i>1.95</i>	<b>1.98</b>	<i>1.95</i>	<i>1.95</i>
United States .....	<b>19.29</b>	<b>19.25</b>	<b>19.68</b>	<b>19.36</b>	<b>19.45</b>	<b>19.46</b>	<i>19.70</i>	<i>19.65</i>	<i>19.38</i>	<i>19.60</i>	<i>19.90</i>	<i>19.84</i>	<b>19.40</b>	<i>19.56</i>	<i>19.68</i>
<b>Central and South America</b> .....	<b>7.09</b>	<b>7.34</b>	<b>7.36</b>	<b>7.36</b>	<b>7.08</b>	<b>7.37</b>	<i>7.40</i>	<i>7.38</i>	<i>7.11</i>	<i>7.38</i>	<i>7.41</i>	<i>7.39</i>	<b>7.29</b>	<i>7.31</i>	<i>7.32</i>
Brazil .....	<b>3.00</b>	<b>3.11</b>	<b>3.18</b>	<b>3.17</b>	<b>2.93</b>	<b>3.04</b>	<i>3.11</i>	<i>3.10</i>	<i>2.88</i>	<i>2.99</i>	<i>3.06</i>	<i>3.04</i>	<b>3.12</b>	<i>3.04</i>	<i>3.00</i>
<b>Europe</b> .....	<b>14.13</b>	<b>14.25</b>	<b>14.84</b>	<b>14.39</b>	<b>14.20</b>	<b>14.11</b>	<i>14.58</i>	<i>14.52</i>	<i>14.23</i>	<i>14.00</i>	<i>14.48</i>	<i>14.41</i>	<b>14.40</b>	<i>14.35</i>	<i>14.28</i>
<b>Eurasia</b> .....	<b>4.74</b>	<b>4.68</b>	<b>4.95</b>	<b>4.93</b>	<b>4.76</b>	<b>4.69</b>	<i>4.97</i>	<i>4.95</i>	<i>4.84</i>	<i>4.76</i>	<i>5.04</i>	<i>5.03</i>	<b>4.83</b>	<i>4.84</i>	<i>4.92</i>
Russia .....	<b>3.39</b>	<b>3.34</b>	<b>3.54</b>	<b>3.53</b>	<b>3.35</b>	<b>3.30</b>	<i>3.50</i>	<i>3.48</i>	<i>3.36</i>	<i>3.31</i>	<i>3.51</i>	<i>3.49</i>	<b>3.45</b>	<i>3.41</i>	<i>3.42</i>
<b>Middle East</b> .....	<b>7.84</b>	<b>8.43</b>	<b>8.99</b>	<b>8.15</b>	<b>8.02</b>	<b>8.64</b>	<i>9.22</i>	<i>8.35</i>	<i>8.27</i>	<i>8.90</i>	<i>9.50</i>	<i>8.59</i>	<b>8.36</b>	<i>8.56</i>	<i>8.82</i>
<b>Asia and Oceania</b> .....	<b>31.61</b>	<b>31.33</b>	<b>30.93</b>	<b>31.70</b>	<b>32.47</b>	<b>32.39</b>	<i>31.81</i>	<i>32.81</i>	<i>33.46</i>	<i>33.39</i>	<i>32.77</i>	<i>33.74</i>	<b>31.39</b>	<i>32.37</i>	<i>33.34</i>
China .....	<b>10.87</b>	<b>11.46</b>	<b>11.42</b>	<b>11.37</b>	<b>11.25</b>	<b>11.87</b>	<i>11.82</i>	<i>11.77</i>	<i>11.64</i>	<i>12.28</i>	<i>12.23</i>	<i>12.17</i>	<b>11.28</b>	<i>11.68</i>	<i>12.08</i>
Japan .....	<b>4.79</b>	<b>3.89</b>	<b>3.94</b>	<b>4.23</b>	<b>4.51</b>	<b>3.82</b>	<i>3.85</i>	<i>4.22</i>	<i>4.45</i>	<i>3.75</i>	<i>3.78</i>	<i>4.14</i>	<b>4.21</b>	<i>4.10</i>	<i>4.03</i>
India .....	<b>4.19</b>	<b>4.17</b>	<b>3.82</b>	<b>4.13</b>	<b>4.60</b>	<b>4.58</b>	<i>4.20</i>	<i>4.59</i>	<i>5.01</i>	<i>4.99</i>	<i>4.57</i>	<i>4.94</i>	<b>4.08</b>	<i>4.49</i>	<i>4.88</i>
<b>Africa</b> .....	<b>3.89</b>	<b>3.88</b>	<b>3.84</b>	<b>3.86</b>	<b>4.04</b>	<b>4.03</b>	<i>3.99</i>	<i>4.01</i>	<i>4.20</i>	<i>4.19</i>	<i>4.14</i>	<i>4.17</i>	<b>3.86</b>	<i>4.02</i>	<i>4.17</i>
<b>Total OECD Liquid Fuels Consumption</b> .....	<b>46.48</b>	<b>45.38</b>	<b>46.71</b>	<b>46.36</b>	<b>46.59</b>	<b>45.57</b>	<i>46.35</i>	<i>46.82</i>	<i>46.55</i>	<i>45.57</i>	<i>46.41</i>	<i>46.87</i>	<b>46.23</b>	<i>46.33</i>	<i>46.35</i>
<b>Total non-OECD Liquid Fuels Consumption</b> .....	<b>46.40</b>	<b>47.98</b>	<b>48.30</b>	<b>47.76</b>	<b>47.71</b>	<b>49.34</b>	<i>49.63</i>	<i>49.14</i>	<i>49.17</i>	<i>50.84</i>	<i>51.12</i>	<i>50.57</i>	<b>47.62</b>	<i>48.95</i>	<i>50.43</i>
<b>Total World Liquid Fuels Consumption</b> .....	<b>92.88</b>	<b>93.36</b>	<b>95.01</b>	<b>94.12</b>	<b>94.30</b>	<b>94.90</b>	<i>95.98</i>	<i>95.96</i>	<i>95.72</i>	<i>96.41</i>	<i>97.53</i>	<i>97.44</i>	<b>93.85</b>	<i>95.29</i>	<i>96.78</i>
<b>Oil-weighted Real Gross Domestic Product (a)</b>															
World Index, 2010 Q1 = 100 .....	<b>116.3</b>	<b>116.9</b>	<b>117.6</b>	<b>118.2</b>	<b>118.7</b>	<b>119.5</b>	<i>120.3</i>	<i>121.1</i>	<i>122.0</i>	<i>122.9</i>	<i>123.8</i>	<i>124.8</i>	<b>117.3</b>	<i>119.9</i>	<i>123.4</i>
Percent change from prior year .....	<b>2.7</b>	<b>2.6</b>	<b>2.4</b>	<b>2.2</b>	<b>2.1</b>	<b>2.2</b>	<i>2.3</i>	<i>2.4</i>	<i>2.8</i>	<i>2.9</i>	<i>2.9</i>	<i>3.1</i>	<b>2.5</b>	<i>2.3</i>	<i>2.9</i>
OECD Index, 2010 Q1 = 100 .....	<b>109.3</b>	<b>109.9</b>	<b>110.4</b>	<b>110.8</b>	<b>111.2</b>	<b>111.7</b>	<i>112.2</i>	<i>112.9</i>	<i>113.6</i>	<i>114.3</i>	<i>114.9</i>	<i>115.6</i>	<b>110.1</b>	<i>112.0</i>	<i>114.6</i>
Percent change from prior year .....	<b>2.0</b>	<b>2.1</b>	<b>2.1</b>	<b>1.9</b>	<b>1.8</b>	<b>1.7</b>	<i>1.7</i>	<i>1.9</i>	<i>2.1</i>	<i>2.3</i>	<i>2.4</i>	<i>2.4</i>	<b>2.0</b>	<i>1.8</i>	<i>2.3</i>
Non-OECD Index, 2010 Q1 = 100 .....	<b>125.2</b>	<b>125.9</b>	<b>126.8</b>	<b>127.8</b>	<b>128.3</b>	<b>129.4</b>	<i>130.6</i>	<i>131.6</i>	<i>132.8</i>	<i>134.1</i>	<i>135.3</i>	<i>136.7</i>	<b>126.4</b>	<i>130.0</i>	<i>134.7</i>
Percent change from prior year .....	<b>3.5</b>	<b>3.0</b>	<b>2.8</b>	<b>2.6</b>	<b>2.5</b>	<b>2.7</b>	<i>3.1</i>	<i>3.0</i>	<i>3.5</i>	<i>3.6</i>	<i>3.6</i>	<i>3.9</i>	<b>3.0</b>	<i>2.8</i>	<i>3.7</i>
<b>Real U.S. Dollar Exchange Rate (a)</b>															
Index, January 2010 = 100 .....	<b>119.42</b>	<b>119.72</b>	<b>123.05</b>	<b>124.95</b>	<b>128.77</b>	<b>128.34</b>	<i>129.88</i>	<i>129.94</i>	<i>129.97</i>	<i>129.95</i>	<i>129.87</i>	<i>129.70</i>	<b>121.78</b>	<i>129.23</i>	<i>129.87</i>
Percent change from prior year .....	<b>10.2</b>	<b>10.8</b>	<b>12.7</b>	<b>9.8</b>	<b>7.8</b>	<b>7.2</b>	<i>5.6</i>	<i>4.0</i>	<i>0.9</i>	<i>1.3</i>	<i>0.0</i>	<i>-0.2</i>	<b>10.9</b>	<i>6.1</i>	<i>0.5</i>

- = 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 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 - July 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>HGL Production</b>															
<b>Natural Gas Processing Plants</b>															
Ethane .....	1.05	1.10	1.09	1.20	1.20	1.25	1.25	1.30	1.35	1.41	1.46	1.53	1.11	1.25	1.44
Propane .....	1.07	1.12	1.13	1.15	1.15	1.15	1.15	1.16	1.19	1.23	1.22	1.23	1.12	1.15	1.22
Butanes .....	0.58	0.62	0.64	0.64	0.63	0.64	0.63	0.65	0.65	0.68	0.67	0.69	0.62	0.64	0.67
Natural Gasoline (Pentanes Plus) .....	0.39	0.44	0.46	0.43	0.41	0.44	0.46	0.44	0.43	0.46	0.48	0.46	0.43	0.44	0.46
<b>Refinery and Blender Net Production</b>															
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	0.55	0.58	0.58	0.58	0.56	0.56	0.58	0.57	0.56	0.56	0.58	0.57
Butanes/Butylenes .....	-0.08	0.27	0.19	-0.19	-0.11	0.25	0.19	-0.17	-0.06	0.25	0.19	-0.17	0.05	0.04	0.05
<b>Renewable Fuels and Oxygenate Plant Net Production</b>															
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
<b>HGL Net Imports</b>															
Ethane .....	-0.06	-0.07	-0.06	-0.07	-0.08	-0.11	-0.13	-0.17	-0.22	-0.23	-0.25	-0.28	-0.06	-0.12	-0.24
Propane/Propylene .....	-0.40	-0.49	-0.56	-0.57	-0.65	-0.63	-0.66	-0.62	-0.75	-0.75	-0.71	-0.74	-0.50	-0.64	-0.74
Butanes/Butylenes .....	-0.06	-0.09	-0.11	-0.08	-0.07	-0.13	-0.15	-0.13	-0.14	-0.21	-0.20	-0.17	-0.08	-0.12	-0.18
Natural Gasoline (Pentanes Plus) .....	-0.17	-0.15	-0.21	-0.16	-0.20	-0.20	-0.22	-0.21	-0.22	-0.20	-0.24	-0.22	-0.17	-0.21	-0.22
<b>HGL Refinery and Blender Net Inputs</b>															
Butanes/Butylenes .....	0.40	0.27	0.32	0.50	0.43	0.28	0.31	0.44	0.37	0.28	0.31	0.44	0.37	0.36	0.35
Natural Gasoline (Pentanes Plus) .....	0.15	0.14	0.16	0.15	0.14	0.15	0.16	0.16	0.15	0.16	0.16	0.16	0.15	0.15	0.16
<b>HGL Consumption</b>															
Ethane/Ethylene .....	1.03	1.02	1.02	1.13	1.10	1.07	1.12	1.17	1.14	1.15	1.23	1.29	1.05	1.12	1.20
Propane/Propylene .....	1.43	0.92	0.96	1.17	1.41	0.89	0.93	1.24	1.33	0.90	0.95	1.21	1.12	1.12	1.10
Butanes/Butylenes .....	0.16	0.24	0.22	0.20	0.18	0.22	0.18	0.19	0.16	0.20	0.19	0.20	0.20	0.19	0.19
Natural Gasoline (Pentanes Plus) .....	0.10	0.09	0.09	0.08	0.04	0.05	0.06	0.07	0.05	0.06	0.06	0.07	0.09	0.06	0.06
<b>HGL Inventories (million barrels)</b>															
Ethane/Ethylene .....	31.38	31.65	31.86	33.79	33.76	40.55	42.39	40.41	38.37	41.67	41.82	39.62	32.18	39.29	40.38
Propane/Propylene .....	58.10	84.20	100.20	96.67	66.38	86.04	98.42	84.95	55.21	70.06	83.21	68.19	96.67	84.95	68.19
Butanes/Butylenes .....	32.46	59.42	76.52	46.14	32.39	55.60	72.35	46.09	38.67	61.35	76.36	49.40	46.14	46.09	49.40
Natural Gasoline (Pentanes Plus) .....	17.16	20.51	19.00	20.54	20.40	21.69	21.56	20.07	18.72	21.15	21.80	20.92	20.54	20.07	20.92
<b>Refinery and Blender Net Inputs</b>															
Crude Oil .....	15.53	16.48	16.58	16.24	16.00	16.28	16.74	16.38	15.87	16.52	16.82	16.52	16.21	16.35	16.44
Hydrocarbon Gas Liquids .....	0.54	0.40	0.47	0.64	0.57	0.43	0.47	0.59	0.52	0.43	0.47	0.60	0.52	0.52	0.51
Other Hydrocarbons/Oxygenates .....	1.12	1.18	1.19	1.17	1.15	1.22	1.26	1.24	1.20	1.26	1.28	1.26	1.16	1.22	1.25
Unfinished Oils .....	0.24	0.22	0.38	0.27	0.19	0.39	0.37	0.30	0.19	0.34	0.37	0.32	0.28	0.31	0.31
Motor Gasoline Blend Components .....	0.72	0.91	0.75	0.39	0.31	0.76	0.72	0.48	0.66	0.91	0.74	0.51	0.69	0.57	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	18.71	18.22	19.09	19.57	19.00	18.46	19.47	19.67	19.21	18.86	18.97	19.21
<b>Refinery Processing Gain</b>															
.....	0.99	1.02	1.08	1.06	1.07	1.09	1.08	1.07	1.03	1.06	1.09	1.09	1.04	1.08	1.07
<b>Refinery and Blender Net Production</b>															
Hydrocarbon Gas Liquids .....	0.47	0.86	0.76	0.37	0.47	0.84	0.77	0.39	0.50	0.84	0.76	0.39	0.61	0.62	0.62
Finished Motor Gasoline .....	9.48	9.83	9.97	9.83	9.68	9.98	10.22	10.12	9.82	10.18	10.19	10.16	9.78	10.00	10.09
Jet Fuel .....	1.50	1.61	1.60	1.63	1.57	1.61	1.62	1.59	1.51	1.61	1.66	1.62	1.59	1.60	1.60
Distillate Fuel .....	4.82	4.99	5.08	5.00	4.70	4.75	4.99	5.01	4.77	4.95	5.06	5.10	4.97	4.86	4.97
Residual Fuel .....	0.43	0.44	0.41	0.39	0.40	0.43	0.41	0.40	0.43	0.44	0.41	0.41	0.42	0.41	0.42
Other Oils (a) .....	2.44	2.48	2.63	2.55	2.47	2.57	2.63	2.56	2.46	2.52	2.68	2.61	2.52	2.56	2.57
Total Refinery and Blender Net Production .....	19.13	20.20	20.45	19.77	19.29	20.18	20.65	20.07	19.49	20.54	20.76	20.29	19.89	20.05	20.27
<b>Refinery Distillation Inputs</b>															
.....	15.78	16.69	16.85	16.40	16.27	16.50	17.00	16.63	16.15	16.73	17.07	16.76	16.43	16.60	16.68
<b>Refinery Operable Distillation Capacity</b>															
.....	17.88	17.98	18.08	18.16	18.31	18.31	18.40	18.47	18.51	18.51	18.51	18.51	18.03	18.37	18.51
<b>Refinery Distillation Utilization Factor</b>															
.....	0.88	0.93	0.93	0.90	0.89	0.90	0.92	0.90	0.87	0.90	0.92	0.91	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 - July 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Prices (cents per gallon)</b>															
<b>Refiner Wholesale Price</b> .....	<b>159</b>	<b>201</b>	<b>184</b>	<b>145</b>	<b>119</b>	<b>157</b>	<i>151</i>	<i>133</i>	<i>136</i>	<i>164</i>	<i>164</i>	<i>156</i>	<b>173</b>	<i>140</i>	<i>155</i>
<b>Gasoline Regular Grade Retail Prices Including Taxes</b>															
PADD 1 .....	<b>228</b>	<b>259</b>	<b>247</b>	<b>211</b>	<b>187</b>	<b>220</b>	<i>217</i>	<i>207</i>	<i>208</i>	<i>234</i>	<i>235</i>	<i>231</i>	<b>236</b>	<i>208</i>	<i>227</i>
PADD 2 .....	<b>216</b>	<b>255</b>	<b>253</b>	<b>210</b>	<b>176</b>	<b>221</b>	<i>219</i>	<i>199</i>	<i>199</i>	<i>233</i>	<i>234</i>	<i>223</i>	<b>234</b>	<i>204</i>	<i>222</i>
PADD 3 .....	<b>204</b>	<b>240</b>	<b>228</b>	<b>190</b>	<b>167</b>	<b>201</b>	<i>201</i>	<i>182</i>	<i>185</i>	<i>213</i>	<i>213</i>	<i>205</i>	<b>216</b>	<i>188</i>	<i>205</i>
PADD 4 .....	<b>207</b>	<b>261</b>	<b>276</b>	<b>218</b>	<b>184</b>	<b>220</b>	<i>226</i>	<i>205</i>	<i>192</i>	<i>226</i>	<i>240</i>	<i>228</i>	<b>241</b>	<i>210</i>	<i>222</i>
PADD 5 .....	<b>271</b>	<b>328</b>	<b>327</b>	<b>264</b>	<b>241</b>	<b>265</b>	<i>271</i>	<i>246</i>	<i>234</i>	<i>274</i>	<i>278</i>	<i>260</i>	<b>298</b>	<i>256</i>	<i>262</i>
U.S. Average .....	<b>227</b>	<b>267</b>	<b>260</b>	<b>216</b>	<b>190</b>	<b>225</b>	<i>225</i>	<i>207</i>	<i>205</i>	<i>237</i>	<i>239</i>	<i>229</i>	<b>243</b>	<i>212</i>	<i>228</i>
<b>Gasoline All Grades Including Taxes</b>	<b>236</b>	<b>275</b>	<b>269</b>	<b>226</b>	<b>200</b>	<b>235</b>	<i>235</i>	<i>218</i>	<i>216</i>	<i>247</i>	<i>250</i>	<i>241</i>	<b>252</b>	<i>222</i>	<i>239</i>
<b>End-of-period Inventories (million barrels)</b>															
<b>Total Gasoline Inventories</b>															
PADD 1 .....	<b>64.5</b>	<b>61.3</b>	<b>62.6</b>	<b>60.3</b>	<b>65.9</b>	<b>71.9</b>	<i>62.1</i>	<i>62.3</i>	<i>62.0</i>	<i>63.9</i>	<i>62.1</i>	<i>64.2</i>	<b>60.3</b>	<i>62.3</i>	<i>64.2</i>
PADD 2 .....	<b>52.9</b>	<b>50.4</b>	<b>47.0</b>	<b>53.7</b>	<b>56.7</b>	<b>52.0</b>	<i>49.7</i>	<i>51.8</i>	<i>52.3</i>	<i>49.6</i>	<i>49.6</i>	<i>52.0</i>	<b>53.7</b>	<i>51.8</i>	<i>52.0</i>
PADD 3 .....	<b>78.4</b>	<b>74.6</b>	<b>78.1</b>	<b>84.6</b>	<b>83.0</b>	<b>79.8</b>	<i>78.6</i>	<i>82.9</i>	<i>81.9</i>	<i>79.7</i>	<i>80.1</i>	<i>82.8</i>	<b>84.6</b>	<i>82.9</i>	<i>82.8</i>
PADD 4 .....	<b>6.5</b>	<b>6.8</b>	<b>7.1</b>	<b>7.7</b>	<b>8.4</b>	<b>7.4</b>	<i>7.0</i>	<i>7.7</i>	<i>7.1</i>	<i>7.2</i>	<i>7.3</i>	<i>7.8</i>	<b>7.7</b>	<i>7.7</i>	<i>7.8</i>
PADD 5 .....	<b>29.2</b>	<b>28.0</b>	<b>30.3</b>	<b>28.7</b>	<b>29.4</b>	<b>27.9</b>	<i>28.4</i>	<i>32.2</i>	<i>30.8</i>	<i>28.3</i>	<i>28.1</i>	<i>31.7</i>	<b>28.7</b>	<i>32.2</i>	<i>31.7</i>
U.S. Total .....	<b>231.5</b>	<b>221.0</b>	<b>225.1</b>	<b>235.0</b>	<b>243.3</b>	<b>238.9</b>	<i>225.8</i>	<i>236.9</i>	<i>234.2</i>	<i>228.8</i>	<i>227.2</i>	<i>238.5</i>	<b>235.0</b>	<i>236.9</i>	<i>238.5</i>
<b>Finished Gasoline Inventories</b>															
U.S. Total .....	<b>26.9</b>	<b>25.7</b>	<b>29.0</b>	<b>28.5</b>	<b>26.5</b>	<b>24.8</b>	<i>26.2</i>	<i>27.6</i>	<i>27.1</i>	<i>25.6</i>	<i>26.5</i>	<i>27.9</i>	<b>28.5</b>	<i>27.6</i>	<i>27.9</i>
<b>Gasoline Blending Components Inventories</b>															
U.S. Total .....	<b>204.6</b>	<b>195.4</b>	<b>196.1</b>	<b>206.5</b>	<b>216.9</b>	<b>214.1</b>	<i>199.6</i>	<i>209.3</i>	<i>207.1</i>	<i>203.2</i>	<i>200.7</i>	<i>210.6</i>	<b>206.5</b>	<i>209.3</i>	<i>210.6</i>

- = 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 - July 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Supply (billion cubic feet per day)</b>															
Total Marketed Production .....	<b>77.85</b>	<b>78.73</b>	<b>79.60</b>	<b>78.88</b>	<b>79.34</b>	<b>79.09</b>	<i>79.50</i>	<i>80.19</i>	<i>80.85</i>	<i>81.28</i>	<i>81.46</i>	<i>82.18</i>	<b>78.77</b>	<i>79.53</i>	<i>81.44</i>
Alaska .....	<b>0.99</b>	<b>0.93</b>	<b>0.86</b>	<b>0.98</b>	<b>0.98</b>	<b>0.82</b>	<i>0.75</i>	<i>0.92</i>	<i>0.97</i>	<i>0.81</i>	<i>0.74</i>	<i>0.91</i>	<b>0.94</b>	<i>0.87</i>	<i>0.86</i>
Federal GOM (a) .....	<b>3.37</b>	<b>3.68</b>	<b>3.95</b>	<b>3.58</b>	<b>3.48</b>	<b>3.33</b>	<i>3.21</i>	<i>3.17</i>	<i>3.22</i>	<i>3.17</i>	<i>3.00</i>	<i>3.03</i>	<b>3.65</b>	<i>3.30</i>	<i>3.10</i>
Lower 48 States (excl GOM) .....	<b>73.49</b>	<b>74.11</b>	<b>74.79</b>	<b>74.32</b>	<b>74.88</b>	<b>74.94</b>	<i>75.54</i>	<i>76.09</i>	<i>76.66</i>	<i>77.30</i>	<i>77.72</i>	<i>78.24</i>	<b>74.18</b>	<i>75.36</i>	<i>77.49</i>
Total Dry Gas Production .....	<b>73.41</b>	<b>74.03</b>	<b>74.85</b>	<b>73.96</b>	<b>74.44</b>	<b>74.07</b>	<i>74.46</i>	<i>75.10</i>	<i>75.72</i>	<i>76.13</i>	<i>76.29</i>	<i>76.97</i>	<b>74.06</b>	<i>74.52</i>	<i>76.28</i>
LNG Gross Imports .....	<b>0.43</b>	<b>0.08</b>	<b>0.26</b>	<b>0.24</b>	<b>0.33</b>	<b>0.15</b>	<i>0.17</i>	<i>0.15</i>	<i>0.12</i>	<i>0.12</i>	<i>0.12</i>	<i>0.12</i>	<b>0.25</b>	<i>0.20</i>	<i>0.12</i>
LNG Gross Exports .....	<b>0.06</b>	<b>0.06</b>	<b>0.09</b>	<b>0.10</b>	<b>0.15</b>	<b>0.39</b>	<i>0.66</i>	<i>1.00</i>	<i>1.04</i>	<i>1.10</i>	<i>1.35</i>	<i>1.73</i>	<b>0.08</b>	<i>0.55</i>	<i>1.31</i>
Pipeline Gross Imports .....	<b>8.36</b>	<b>6.69</b>	<b>6.69</b>	<b>7.06</b>	<b>8.06</b>	<b>6.74</b>	<i>6.52</i>	<i>6.76</i>	<i>7.46</i>	<i>6.26</i>	<i>6.50</i>	<i>6.80</i>	<b>7.20</b>	<i>7.02</i>	<i>6.75</i>
Pipeline Gross Exports .....	<b>4.98</b>	<b>4.36</b>	<b>4.81</b>	<b>5.08</b>	<b>5.64</b>	<b>5.35</b>	<i>5.54</i>	<i>5.61</i>	<i>5.31</i>	<i>5.17</i>	<i>5.31</i>	<i>5.58</i>	<b>4.81</b>	<i>5.53</i>	<i>5.35</i>
Supplemental Gaseous Fuels .....	<b>0.17</b>	<b>0.16</b>	<b>0.14</b>	<b>0.18</b>	<b>0.17</b>	<b>0.16</b>	<i>0.16</i>	<i>0.16</i>	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	<b>0.16</b>	<i>0.17</i>	<i>0.17</i>
Net Inventory Withdrawals .....	<b>18.48</b>	<b>-12.99</b>	<b>-10.48</b>	<b>-0.55</b>	<b>13.12</b>	<b>-7.50</b>	<i>-6.52</i>	<i>4.15</i>	<i>17.39</i>	<i>-9.32</i>	<i>-8.71</i>	<i>2.98</i>	<b>-1.46</b>	<i>0.80</i>	<i>0.52</i>
Total Supply .....	<b>95.81</b>	<b>63.53</b>	<b>66.56</b>	<b>75.72</b>	<b>90.35</b>	<b>67.89</b>	<i>68.60</i>	<i>79.73</i>	<i>94.51</i>	<i>67.09</i>	<i>67.71</i>	<i>79.73</i>	<b>75.33</b>	<i>76.63</i>	<i>77.19</i>
Balancing Item (b) .....	<b>0.77</b>	<b>0.48</b>	<b>-0.43</b>	<b>-1.00</b>	<b>-0.33</b>	<b>-0.19</b>	<i>0.44</i>	<i>-0.39</i>	<i>-0.11</i>	<i>0.54</i>	<i>1.37</i>	<i>0.32</i>	<b>-0.05</b>	<i>-0.12</i>	<i>0.53</i>
Total Primary Supply .....	<b>96.58</b>	<b>64.01</b>	<b>66.13</b>	<b>74.71</b>	<b>90.02</b>	<b>67.70</b>	<i>69.04</i>	<i>79.34</i>	<i>94.39</i>	<i>67.63</i>	<i>69.08</i>	<i>80.05</i>	<b>75.27</b>	<i>76.51</i>	<i>77.73</i>
<b>Consumption (billion cubic feet per day)</b>															
Residential .....	<b>27.50</b>	<b>6.90</b>	<b>3.47</b>	<b>12.99</b>	<b>22.45</b>	<b>7.26</b>	<i>3.63</i>	<i>15.19</i>	<i>24.83</i>	<i>7.44</i>	<i>3.65</i>	<i>15.43</i>	<b>12.65</b>	<i>12.12</i>	<i>12.78</i>
Commercial .....	<b>15.99</b>	<b>5.85</b>	<b>4.44</b>	<b>9.01</b>	<b>13.42</b>	<b>5.99</b>	<i>4.64</i>	<i>10.40</i>	<i>14.83</i>	<i>6.22</i>	<i>4.70</i>	<i>10.68</i>	<b>8.79</b>	<i>8.61</i>	<i>9.09</i>
Industrial .....	<b>22.66</b>	<b>19.57</b>	<b>19.19</b>	<b>20.87</b>	<b>22.59</b>	<b>20.22</b>	<i>19.96</i>	<i>21.71</i>	<i>22.93</i>	<i>20.53</i>	<i>20.20</i>	<i>22.08</i>	<b>20.56</b>	<i>21.12</i>	<i>21.43</i>
Electric Power (c) .....	<b>23.05</b>	<b>25.28</b>	<b>32.50</b>	<b>25.07</b>	<b>24.27</b>	<b>27.67</b>	<i>34.18</i>	<i>25.03</i>	<i>24.26</i>	<i>26.77</i>	<i>33.79</i>	<i>24.72</i>	<b>26.50</b>	<i>27.80</i>	<i>27.41</i>
Lease and Plant Fuel .....	<b>4.27</b>	<b>4.32</b>	<b>4.37</b>	<b>4.33</b>	<b>4.35</b>	<b>4.34</b>	<i>4.36</i>	<i>4.40</i>	<i>4.44</i>	<i>4.46</i>	<i>4.47</i>	<i>4.51</i>	<b>4.32</b>	<i>4.36</i>	<i>4.47</i>
Pipeline and Distribution Use .....	<b>3.02</b>	<b>2.00</b>	<b>2.07</b>	<b>2.34</b>	<b>2.82</b>	<b>2.11</b>	<i>2.16</i>	<i>2.50</i>	<i>3.00</i>	<i>2.11</i>	<i>2.15</i>	<i>2.52</i>	<b>2.36</b>	<i>2.40</i>	<i>2.44</i>
Vehicle Use .....	<b>0.09</b>	<b>0.09</b>	<b>0.10</b>	<b>0.10</b>	<b>0.11</b>	<b>0.11</b>	<i>0.11</i>	<i>0.11</i>	<i>0.11</i>	<i>0.11</i>	<i>0.11</i>	<i>0.11</i>	<b>0.09</b>	<i>0.11</i>	<i>0.11</i>
Total Consumption .....	<b>96.58</b>	<b>64.01</b>	<b>66.13</b>	<b>74.71</b>	<b>90.02</b>	<b>67.70</b>	<i>69.04</i>	<i>79.34</i>	<i>94.39</i>	<i>67.63</i>	<i>69.08</i>	<i>80.05</i>	<b>75.27</b>	<i>76.51</i>	<i>77.73</i>
<b>End-of-period Inventories (billion cubic feet)</b>															
Working Gas Inventory .....	<b>1,483</b>	<b>2,658</b>	<b>3,625</b>	<b>3,677</b>	<b>2,494</b>	<b>3,173</b>	<i>3,773</i>	<i>3,391</i>	<i>1,825</i>	<i>2,673</i>	<i>3,475</i>	<i>3,201</i>	<b>3,677</b>	<i>3,391</i>	<i>3,201</i>
East Region (d) .....	<b>242</b>	<b>576</b>	<b>859</b>	<b>856</b>	<b>436</b>	<b>645</b>	<i>862</i>	<i>708</i>	<i>239</i>	<i>505</i>	<i>769</i>	<i>641</i>	<b>856</b>	<i>708</i>	<i>641</i>
Midwest Region (d) .....	<b>252</b>	<b>565</b>	<b>972</b>	<b>987</b>	<b>542</b>	<b>754</b>	<i>1,058</i>	<i>893</i>	<i>377</i>	<i>626</i>	<i>976</i>	<i>837</i>	<b>987</b>	<i>893</i>	<i>837</i>
South Central Region (d) .....	<b>575</b>	<b>1,002</b>	<b>1,206</b>	<b>1,304</b>	<b>1,080</b>	<b>1,236</b>	<i>1,224</i>	<i>1,202</i>	<i>794</i>	<i>992</i>	<i>1,083</i>	<i>1,124</i>	<b>1,304</b>	<i>1,202</i>	<i>1,124</i>
Mountain Region (d) .....	<b>113</b>	<b>155</b>	<b>203</b>	<b>186</b>	<b>145</b>	<b>200</b>	<i>253</i>	<i>226</i>	<i>149</i>	<i>182</i>	<i>233</i>	<i>208</i>	<b>186</b>	<i>226</i>	<i>208</i>
Pacific Region (d) .....	<b>276</b>	<b>336</b>	<b>359</b>	<b>320</b>	<b>266</b>	<b>311</b>	<i>351</i>	<i>337</i>	<i>242</i>	<i>343</i>	<i>388</i>	<i>365</i>	<b>320</b>	<i>337</i>	<i>365</i>
Alaska .....	<b>24</b>	<b>24</b>	<b>25</b>	<b>24</b>	<b>25</b>	<b>27</b>	<i>25</i>	<i>24</i>	<i>25</i>	<i>27</i>	<i>25</i>	<i>24</i>	<b>24</b>	<i>24</i>	<i>24</i>

- = 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 fee)**

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

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Wholesale/Spot</b>															
Henry Hub Spot Price .....	<b>2.99</b>	<b>2.83</b>	<b>2.84</b>	<b>2.18</b>	<b>2.06</b>	<b>2.21</b>	<i>2.80</i>	<i>2.68</i>	<i>3.10</i>	<i>2.89</i>	<i>3.03</i>	<i>3.14</i>	<b>2.71</b>	<i>2.43</i>	<i>3.04</i>
<b>Residential Retail</b>															
New England .....	<b>13.09</b>	<b>13.33</b>	<b>16.17</b>	<b>12.55</b>	<b>11.75</b>	<b>12.88</b>	<i>16.25</i>	<i>12.85</i>	<i>12.63</i>	<i>13.87</i>	<i>16.58</i>	<i>13.23</i>	<b>13.19</b>	<i>12.57</i>	<i>13.27</i>
Middle Atlantic .....	<b>9.53</b>	<b>11.20</b>	<b>16.32</b>	<b>10.99</b>	<b>8.86</b>	<b>11.15</b>	<i>16.52</i>	<i>11.15</i>	<i>9.94</i>	<i>12.40</i>	<i>16.95</i>	<i>11.40</i>	<b>10.52</b>	<i>10.44</i>	<i>11.14</i>
E. N. Central .....	<b>7.78</b>	<b>10.58</b>	<b>16.71</b>	<b>7.96</b>	<b>6.78</b>	<b>9.39</b>	<i>16.14</i>	<i>8.14</i>	<i>7.83</i>	<i>11.09</i>	<i>16.75</i>	<i>8.63</i>	<b>8.67</b>	<i>8.16</i>	<i>8.97</i>
W. N. Central .....	<b>8.66</b>	<b>11.94</b>	<b>17.74</b>	<b>9.38</b>	<b>7.38</b>	<b>10.04</b>	<i>16.37</i>	<i>8.89</i>	<i>8.16</i>	<i>10.93</i>	<i>17.56</i>	<i>9.70</i>	<b>9.79</b>	<i>8.76</i>	<i>9.49</i>
S. Atlantic .....	<b>10.74</b>	<b>16.68</b>	<b>22.48</b>	<b>14.02</b>	<b>10.23</b>	<b>15.48</b>	<i>21.78</i>	<i>12.40</i>	<i>10.85</i>	<i>15.73</i>	<i>21.71</i>	<i>12.47</i>	<b>12.93</b>	<i>12.40</i>	<i>12.58</i>
E. S. Central .....	<b>9.34</b>	<b>14.36</b>	<b>19.42</b>	<b>11.83</b>	<b>8.54</b>	<b>12.67</b>	<i>18.21</i>	<i>10.75</i>	<i>9.25</i>	<i>13.41</i>	<i>18.98</i>	<i>11.37</i>	<b>10.92</b>	<i>10.31</i>	<i>10.80</i>
W. S. Central .....	<b>8.47</b>	<b>13.97</b>	<b>19.94</b>	<b>12.10</b>	<b>8.27</b>	<b>13.06</b>	<i>18.19</i>	<i>11.36</i>	<i>9.32</i>	<i>14.10</i>	<i>19.46</i>	<i>12.01</i>	<b>10.77</b>	<i>10.80</i>	<i>11.52</i>
Mountain .....	<b>9.57</b>	<b>10.87</b>	<b>14.57</b>	<b>8.56</b>	<b>8.19</b>	<b>9.29</b>	<i>13.10</i>	<i>8.93</i>	<i>9.05</i>	<i>10.53</i>	<i>14.16</i>	<i>9.69</i>	<b>9.77</b>	<i>8.98</i>	<i>9.88</i>
Pacific .....	<b>11.46</b>	<b>11.40</b>	<b>12.05</b>	<b>10.88</b>	<b>10.95</b>	<b>10.56</b>	<i>10.82</i>	<i>9.90</i>	<i>10.47</i>	<i>10.86</i>	<i>11.45</i>	<i>10.58</i>	<b>11.32</b>	<i>10.54</i>	<i>10.70</i>
U.S. Average .....	<b>9.30</b>	<b>11.97</b>	<b>16.45</b>	<b>10.11</b>	<b>8.53</b>	<b>11.03</b>	<i>15.68</i>	<i>9.96</i>	<i>9.32</i>	<i>12.09</i>	<i>16.32</i>	<i>10.47</i>	<b>10.36</b>	<i>9.89</i>	<i>10.57</i>
<b>Commercial Retail</b>															
New England .....	<b>10.77</b>	<b>10.13</b>	<b>9.69</b>	<b>9.13</b>	<b>8.75</b>	<b>9.18</b>	<i>9.49</i>	<i>9.97</i>	<i>10.41</i>	<i>10.24</i>	<i>10.39</i>	<i>10.54</i>	<b>10.21</b>	<i>9.25</i>	<i>10.41</i>
Middle Atlantic .....	<b>7.91</b>	<b>7.48</b>	<b>6.62</b>	<b>7.01</b>	<b>6.87</b>	<b>6.55</b>	<i>6.79</i>	<i>7.58</i>	<i>8.13</i>	<i>7.72</i>	<i>7.46</i>	<i>8.17</i>	<b>7.49</b>	<i>7.01</i>	<i>8.00</i>
E. N. Central .....	<b>6.95</b>	<b>7.51</b>	<b>8.80</b>	<b>6.30</b>	<b>5.90</b>	<b>6.61</b>	<i>8.24</i>	<i>6.56</i>	<i>6.78</i>	<i>8.08</i>	<i>8.94</i>	<i>7.08</i>	<b>7.01</b>	<i>6.41</i>	<i>7.20</i>
W. N. Central .....	<b>7.65</b>	<b>8.03</b>	<b>9.10</b>	<b>6.70</b>	<b>6.25</b>	<b>6.59</b>	<i>8.45</i>	<i>6.94</i>	<i>7.22</i>	<i>7.58</i>	<i>8.76</i>	<i>7.36</i>	<b>7.56</b>	<i>6.71</i>	<i>7.43</i>
S. Atlantic .....	<b>8.48</b>	<b>9.21</b>	<b>9.62</b>	<b>8.92</b>	<b>7.53</b>	<b>8.53</b>	<i>9.58</i>	<i>8.76</i>	<i>8.73</i>	<i>9.17</i>	<i>9.80</i>	<i>9.07</i>	<b>8.83</b>	<i>8.33</i>	<i>9.03</i>
E. S. Central .....	<b>8.54</b>	<b>9.62</b>	<b>10.00</b>	<b>8.90</b>	<b>7.47</b>	<b>8.54</b>	<i>9.59</i>	<i>8.68</i>	<i>8.28</i>	<i>9.16</i>	<i>9.95</i>	<i>9.11</i>	<b>8.93</b>	<i>8.24</i>	<i>8.83</i>
W. S. Central .....	<b>7.16</b>	<b>7.17</b>	<b>8.00</b>	<b>7.26</b>	<b>6.23</b>	<b>6.59</b>	<i>7.61</i>	<i>7.06</i>	<i>6.99</i>	<i>7.55</i>	<i>8.05</i>	<i>7.46</i>	<b>7.31</b>	<i>6.73</i>	<i>7.36</i>
Mountain .....	<b>8.28</b>	<b>8.35</b>	<b>9.03</b>	<b>7.23</b>	<b>6.94</b>	<b>6.99</b>	<i>8.08</i>	<i>7.20</i>	<i>7.35</i>	<i>7.89</i>	<i>8.99</i>	<i>8.03</i>	<b>8.02</b>	<i>7.15</i>	<i>7.83</i>
Pacific .....	<b>9.22</b>	<b>8.45</b>	<b>8.71</b>	<b>8.16</b>	<b>8.33</b>	<b>7.91</b>	<i>8.44</i>	<i>8.12</i>	<i>8.55</i>	<i>8.55</i>	<i>9.01</i>	<i>8.79</i>	<b>8.64</b>	<i>8.20</i>	<i>8.70</i>
U.S. Average .....	<b>7.94</b>	<b>8.13</b>	<b>8.42</b>	<b>7.38</b>	<b>6.84</b>	<b>7.21</b>	<i>8.20</i>	<i>7.56</i>	<i>7.77</i>	<i>8.22</i>	<i>8.75</i>	<i>8.10</i>	<b>7.88</b>	<i>7.28</i>	<i>8.05</i>
<b>Industrial Retail</b>															
New England .....	<b>9.10</b>	<b>7.61</b>	<b>6.10</b>	<b>6.77</b>	<b>7.08</b>	<b>6.99</b>	<i>7.15</i>	<i>8.23</i>	<i>8.56</i>	<i>7.75</i>	<i>7.45</i>	<i>8.39</i>	<b>7.77</b>	<i>7.34</i>	<i>8.17</i>
Middle Atlantic .....	<b>8.31</b>	<b>7.58</b>	<b>7.08</b>	<b>7.12</b>	<b>7.04</b>	<b>6.21</b>	<i>6.94</i>	<i>7.55</i>	<i>7.91</i>	<i>7.20</i>	<i>7.44</i>	<i>7.98</i>	<b>7.82</b>	<i>7.00</i>	<i>7.74</i>
E. N. Central .....	<b>6.41</b>	<b>5.65</b>	<b>5.54</b>	<b>5.15</b>	<b>5.08</b>	<b>4.66</b>	<i>5.61</i>	<i>5.70</i>	<i>6.27</i>	<i>6.03</i>	<i>6.22</i>	<i>6.23</i>	<b>5.89</b>	<i>5.27</i>	<i>6.21</i>
W. N. Central .....	<b>5.81</b>	<b>4.53</b>	<b>4.41</b>	<b>4.37</b>	<b>4.33</b>	<b>3.56</b>	<i>3.98</i>	<i>4.63</i>	<i>5.17</i>	<i>4.52</i>	<i>4.60</i>	<i>5.10</i>	<b>4.87</b>	<i>4.18</i>	<i>4.88</i>
S. Atlantic .....	<b>5.46</b>	<b>4.51</b>	<b>4.54</b>	<b>4.26</b>	<b>4.37</b>	<b>3.92</b>	<i>4.81</i>	<i>4.81</i>	<i>5.18</i>	<i>4.79</i>	<i>4.94</i>	<i>5.21</i>	<b>4.73</b>	<i>4.48</i>	<i>5.04</i>
E. S. Central .....	<b>5.15</b>	<b>4.28</b>	<b>4.14</b>	<b>3.84</b>	<b>3.84</b>	<b>3.59</b>	<i>4.39</i>	<i>4.49</i>	<i>4.90</i>	<i>4.46</i>	<i>4.57</i>	<i>4.86</i>	<b>4.39</b>	<i>4.08</i>	<i>4.71</i>
W. S. Central .....	<b>3.21</b>	<b>2.92</b>	<b>3.07</b>	<b>2.49</b>	<b>2.25</b>	<b>2.22</b>	<i>3.07</i>	<i>2.88</i>	<i>3.26</i>	<i>3.06</i>	<i>3.32</i>	<i>3.36</i>	<b>2.92</b>	<i>2.60</i>	<i>3.25</i>
Mountain .....	<b>6.61</b>	<b>6.22</b>	<b>6.12</b>	<b>5.69</b>	<b>5.29</b>	<b>4.91</b>	<i>5.42</i>	<i>5.50</i>	<i>5.70</i>	<i>5.40</i>	<i>5.76</i>	<i>5.80</i>	<b>6.18</b>	<i>5.30</i>	<i>5.67</i>
Pacific .....	<b>7.29</b>	<b>6.54</b>	<b>6.59</b>	<b>6.46</b>	<b>6.68</b>	<b>5.66</b>	<i>6.01</i>	<i>6.23</i>	<i>6.57</i>	<i>6.08</i>	<i>6.45</i>	<i>6.59</i>	<b>6.74</b>	<i>6.18</i>	<i>6.44</i>
U.S. Average .....	<b>4.57</b>	<b>3.68</b>	<b>3.66</b>	<b>3.34</b>	<b>3.34</b>	<b>2.91</b>	<i>3.65</i>	<i>3.79</i>	<i>4.35</i>	<i>3.76</i>	<i>3.93</i>	<i>4.26</i>	<b>3.84</b>	<i>3.42</i>	<i>4.09</i>

- = 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 - July 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Supply (million short tons)</b>															
Production .....	<b>240.2</b>	<b>211.1</b>	<b>237.3</b>	<b>206.8</b>	<b>173.0</b>	<b>153.7</b>	<i>199.8</i>	<i>201.1</i>	<i>192.8</i>	<i>172.0</i>	<i>208.0</i>	<i>197.6</i>	<b>895.4</b>	<i>727.6</i>	<i>770.4</i>
Appalachia .....	<b>62.3</b>	<b>54.6</b>	<b>56.5</b>	<b>50.6</b>	<b>44.3</b>	<b>36.9</b>	<i>50.1</i>	<i>51.4</i>	<i>51.8</i>	<i>48.7</i>	<i>53.3</i>	<i>50.1</i>	<b>224.0</b>	<i>182.7</i>	<i>203.9</i>
Interior .....	<b>45.2</b>	<b>38.9</b>	<b>45.2</b>	<b>39.7</b>	<b>36.9</b>	<b>28.6</b>	<i>43.3</i>	<i>41.3</i>	<i>41.0</i>	<i>37.9</i>	<i>45.3</i>	<i>44.1</i>	<b>169.1</b>	<i>150.1</i>	<i>168.4</i>
Western .....	<b>132.7</b>	<b>117.6</b>	<b>135.5</b>	<b>116.5</b>	<b>91.8</b>	<b>88.2</b>	<i>106.4</i>	<i>108.4</i>	<i>100.0</i>	<i>85.4</i>	<i>109.4</i>	<i>103.3</i>	<b>502.3</b>	<i>394.8</i>	<i>398.1</i>
Primary Inventory Withdrawals .....	<b>-0.7</b>	<b>0.3</b>	<b>3.1</b>	<b>-1.6</b>	<b>-1.0</b>	<b>3.2</b>	<i>0.4</i>	<i>-1.6</i>	<i>0.2</i>	<i>1.9</i>	<i>-1.3</i>	<i>0.2</i>	<b>1.1</b>	<i>1.0</i>	<i>1.1</i>
Imports .....	<b>3.0</b>	<b>2.6</b>	<b>3.0</b>	<b>2.7</b>	<b>2.7</b>	<b>2.2</b>	<i>3.2</i>	<i>2.9</i>	<i>2.2</i>	<i>2.4</i>	<i>3.3</i>	<i>2.9</i>	<b>11.3</b>	<i>11.0</i>	<i>10.8</i>
Exports .....	<b>22.0</b>	<b>19.8</b>	<b>16.9</b>	<b>15.3</b>	<b>14.2</b>	<b>15.2</b>	<i>14.2</i>	<i>15.4</i>	<i>11.7</i>	<i>13.8</i>	<i>14.2</i>	<i>15.2</i>	<b>74.0</b>	<i>59.0</i>	<i>54.9</i>
Metallurgical Coal .....	<b>13.5</b>	<b>12.7</b>	<b>10.3</b>	<b>9.4</b>	<b>10.2</b>	<b>10.4</b>	<i>8.6</i>	<i>9.1</i>	<i>7.8</i>	<i>9.1</i>	<i>8.1</i>	<i>9.3</i>	<b>46.0</b>	<i>38.4</i>	<i>34.3</i>
Steam Coal .....	<b>8.5</b>	<b>7.0</b>	<b>6.6</b>	<b>5.9</b>	<b>4.0</b>	<b>4.8</b>	<i>5.6</i>	<i>6.3</i>	<i>3.9</i>	<i>4.7</i>	<i>6.1</i>	<i>6.0</i>	<b>28.0</b>	<i>20.6</i>	<i>20.7</i>
Total Primary Supply .....	<b>220.5</b>	<b>194.3</b>	<b>226.4</b>	<b>192.6</b>	<b>160.6</b>	<b>143.9</b>	<i>189.2</i>	<i>186.9</i>	<i>183.6</i>	<i>162.6</i>	<i>195.7</i>	<i>185.5</i>	<b>833.8</b>	<i>680.5</i>	<i>727.3</i>
Secondary Inventory Withdrawals .....	<b>-2.3</b>	<b>-12.8</b>	<b>3.8</b>	<b>-34.8</b>	<b>3.7</b>	<b>9.2</b>	<i>30.3</i>	<i>-5.2</i>	<i>3.1</i>	<i>3.2</i>	<i>15.8</i>	<i>-3.7</i>	<b>-46.1</b>	<i>38.0</i>	<i>18.4</i>
Waste Coal (a) .....	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>	<b>2.5</b>	<b>2.5</b>	<i>2.5</i>	<i>2.5</i>	<i>2.5</i>	<i>2.5</i>	<i>2.5</i>	<i>2.5</i>	<b>9.5</b>	<i>10.0</i>	<i>10.0</i>
Total Supply .....	<b>220.5</b>	<b>183.9</b>	<b>232.6</b>	<b>160.2</b>	<b>166.8</b>	<b>155.6</b>	<i>222.0</i>	<i>184.2</i>	<i>189.2</i>	<i>168.3</i>	<i>214.0</i>	<i>184.3</i>	<b>797.2</b>	<i>728.6</i>	<i>755.7</i>
<b>Consumption (million short tons)</b>															
Coke Plants .....	<b>4.4</b>	<b>4.4</b>	<b>5.1</b>	<b>5.0</b>	<b>4.2</b>	<b>4.0</b>	<i>5.1</i>	<i>4.9</i>	<i>4.4</i>	<i>4.3</i>	<i>5.0</i>	<i>4.6</i>	<b>18.9</b>	<i>18.1</i>	<i>18.2</i>
Electric Power Sector (b) .....	<b>196.3</b>	<b>174.6</b>	<b>215.5</b>	<b>153.3</b>	<b>152.4</b>	<b>145.1</b>	<i>207.1</i>	<i>169.0</i>	<i>174.1</i>	<i>154.0</i>	<i>199.1</i>	<i>169.3</i>	<b>739.7</b>	<i>673.6</i>	<i>696.6</i>
Retail and Other Industry .....	<b>11.4</b>	<b>10.4</b>	<b>10.5</b>	<b>10.8</b>	<b>11.0</b>	<b>9.7</b>	<i>9.8</i>	<i>10.3</i>	<i>10.7</i>	<i>10.0</i>	<i>9.9</i>	<i>10.3</i>	<b>43.0</b>	<i>40.8</i>	<i>40.9</i>
Residential and Commercial .....	<b>0.8</b>	<b>0.6</b>	<b>0.6</b>	<b>0.7</b>	<b>0.8</b>	<b>0.6</b>	<i>0.5</i>	<i>0.6</i>	<i>0.7</i>	<i>0.5</i>	<i>0.4</i>	<i>0.5</i>	<b>2.7</b>	<i>2.5</i>	<i>2.1</i>
Other Industrial .....	<b>10.6</b>	<b>9.8</b>	<b>9.9</b>	<b>10.1</b>	<b>10.2</b>	<b>9.1</b>	<i>9.3</i>	<i>9.6</i>	<i>10.0</i>	<i>9.5</i>	<i>9.5</i>	<i>9.8</i>	<b>40.3</b>	<i>38.3</i>	<i>38.7</i>
Total Consumption .....	<b>212.1</b>	<b>189.4</b>	<b>231.0</b>	<b>169.1</b>	<b>167.6</b>	<b>158.7</b>	<i>222.0</i>	<i>184.2</i>	<i>189.2</i>	<i>168.3</i>	<i>214.0</i>	<i>184.3</i>	<b>801.6</b>	<i>732.5</i>	<i>755.7</i>
Discrepancy (c) .....	<b>8.4</b>	<b>-5.4</b>	<b>1.6</b>	<b>-8.9</b>	<b>-0.8</b>	<b>-3.2</b>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<b>-4.4</b>	<i>-3.9</i>	<i>0.0</i>
<b>End-of-period Inventories (million short tons)</b>															
Primary Inventories (d) .....	<b>39.6</b>	<b>39.3</b>	<b>36.2</b>	<b>37.8</b>	<b>38.8</b>	<b>35.6</b>	<i>35.2</i>	<i>36.9</i>	<i>36.7</i>	<i>34.7</i>	<i>36.0</i>	<i>35.8</i>	<b>37.8</b>	<i>36.9</i>	<i>35.8</i>
Secondary Inventories .....	<b>161.2</b>	<b>173.9</b>	<b>170.1</b>	<b>204.9</b>	<b>201.2</b>	<b>192.0</b>	<i>161.7</i>	<i>166.9</i>	<i>163.8</i>	<i>160.6</i>	<i>144.8</i>	<i>148.5</i>	<b>204.9</b>	<i>166.9</i>	<i>148.5</i>
Electric Power Sector .....	<b>155.0</b>	<b>167.0</b>	<b>162.7</b>	<b>197.1</b>	<b>194.4</b>	<b>184.6</b>	<i>153.8</i>	<i>158.6</i>	<i>156.5</i>	<i>152.7</i>	<i>136.5</i>	<i>139.9</i>	<b>197.1</b>	<i>158.6</i>	<i>139.9</i>
Retail and General Industry .....	<b>4.1</b>	<b>4.5</b>	<b>5.1</b>	<b>5.5</b>	<b>4.8</b>	<b>5.1</b>	<i>5.7</i>	<i>6.0</i>	<i>5.2</i>	<i>5.4</i>	<i>6.0</i>	<i>6.3</i>	<b>5.5</b>	<i>6.0</i>	<i>6.3</i>
Coke Plants .....	<b>1.6</b>	<b>1.9</b>	<b>1.9</b>	<b>1.8</b>	<b>1.5</b>	<b>1.9</b>	<i>1.8</i>	<i>1.8</i>	<i>1.5</i>	<i>1.9</i>	<i>1.8</i>	<i>1.8</i>	<b>1.8</b>	<i>1.8</i>	<i>1.8</i>
<b>Coal Market Indicators</b>															
Coal Miner Productivity															
(Tons per hour) .....	<b>5.61</b>	<b>5.61</b>	<b>5.61</b>	<b>5.61</b>	<b>5.46</b>	<b>5.46</b>	<i>5.46</i>	<i>5.46</i>	<i>5.32</i>	<i>5.32</i>	<i>5.32</i>	<i>5.32</i>	<b>5.61</b>	<i>5.46</i>	<i>5.32</i>
Total Raw Steel Production															
(Million short tons per day) .....	<b>0.247</b>	<b>0.242</b>	<b>0.248</b>	<b>0.226</b>	<b>0.238</b>	<b>0.247</b>	<i>0.245</i>	<i>0.216</i>	<i>0.214</i>	<i>0.223</i>	<i>0.203</i>	<i>0.173</i>	<b>0.241</b>	<i>0.237</i>	<i>0.203</i>
Cost of Coal to Electric Utilities															
(Dollars per million Btu) .....	<b>2.27</b>	<b>2.25</b>	<b>2.22</b>	<b>2.15</b>	<b>2.13</b>	<b>2.18</b>	<i>2.23</i>	<i>2.22</i>	<i>2.21</i>	<i>2.24</i>	<i>2.28</i>	<i>2.24</i>	<b>2.23</b>	<i>2.19</i>	<i>2.24</i>

- = 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 - July 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Electricity Supply (billion kilowatthours per day)</b>															
Electricity Generation .....	<b>11.36</b>	<b>10.77</b>	<b>12.46</b>	<b>10.21</b>	<b>10.67</b>	<b>10.77</b>	<i>12.55</i>	<i>10.58</i>	<i>11.02</i>	<i>10.85</i>	<i>12.56</i>	<i>10.70</i>	<b>11.20</b>	<i>11.15</i>	<i>11.29</i>
Electric Power Sector (a) .....	<b>10.93</b>	<b>10.36</b>	<b>12.01</b>	<b>9.78</b>	<b>10.24</b>	<b>10.35</b>	<i>12.11</i>	<i>10.16</i>	<i>10.60</i>	<i>10.44</i>	<i>12.12</i>	<i>10.28</i>	<b>10.77</b>	<i>10.72</i>	<i>10.86</i>
Comm. and Indus. Sectors (b) .....	<b>0.43</b>	<b>0.41</b>	<b>0.45</b>	<b>0.43</b>	<b>0.43</b>	<b>0.42</b>	<i>0.44</i>	<i>0.42</i>	<i>0.42</i>	<i>0.41</i>	<i>0.44</i>	<i>0.43</i>	<b>0.43</b>	<i>0.43</i>	<i>0.43</i>
Net Imports .....	<b>0.17</b>	<b>0.20</b>	<b>0.20</b>	<b>0.16</b>	<b>0.19</b>	<b>0.21</b>	<i>0.22</i>	<i>0.15</i>	<i>0.16</i>	<i>0.15</i>	<i>0.19</i>	<i>0.14</i>	<b>0.18</b>	<i>0.19</i>	<i>0.16</i>
Total Supply .....	<b>11.52</b>	<b>10.97</b>	<b>12.66</b>	<b>10.37</b>	<b>10.87</b>	<b>10.99</b>	<i>12.77</i>	<i>10.72</i>	<i>11.18</i>	<i>11.01</i>	<i>12.75</i>	<i>10.84</i>	<b>11.38</b>	<i>11.34</i>	<i>11.45</i>
Losses and Unaccounted for (c) .....	<b>0.77</b>	<b>0.92</b>	<b>0.86</b>	<b>0.63</b>	<b>0.65</b>	<b>1.00</b>	<i>0.79</i>	<i>0.72</i>	<i>0.61</i>	<i>0.92</i>	<i>0.81</i>	<i>0.73</i>	<b>0.80</b>	<i>0.79</i>	<i>0.77</i>
<b>Electricity Consumption (billion kilowatthours per day unless noted)</b>															
Retail Sales .....	<b>10.37</b>	<b>9.69</b>	<b>11.40</b>	<b>9.35</b>	<b>9.83</b>	<b>9.62</b>	<i>11.59</i>	<i>9.63</i>	<i>10.19</i>	<i>9.72</i>	<i>11.56</i>	<i>9.73</i>	<b>10.20</b>	<i>10.17</i>	<i>10.30</i>
Residential Sector .....	<b>4.20</b>	<b>3.35</b>	<b>4.51</b>	<b>3.29</b>	<b>3.81</b>	<b>3.33</b>	<i>4.58</i>	<i>3.44</i>	<i>4.06</i>	<i>3.35</i>	<i>4.49</i>	<i>3.48</i>	<b>3.84</b>	<i>3.79</i>	<i>3.85</i>
Commercial Sector .....	<b>3.60</b>	<b>3.65</b>	<b>4.12</b>	<b>3.51</b>	<b>3.51</b>	<b>3.64</b>	<i>4.20</i>	<i>3.57</i>	<i>3.57</i>	<i>3.69</i>	<i>4.23</i>	<i>3.62</i>	<b>3.72</b>	<i>3.73</i>	<i>3.78</i>
Industrial Sector .....	<b>2.55</b>	<b>2.67</b>	<b>2.76</b>	<b>2.53</b>	<b>2.49</b>	<b>2.63</b>	<i>2.78</i>	<i>2.59</i>	<i>2.54</i>	<i>2.66</i>	<i>2.81</i>	<i>2.61</i>	<b>2.63</b>	<i>2.62</i>	<i>2.66</i>
Transportation Sector .....	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<b>0.02</b>	<i>0.02</i>	<i>0.02</i>
Direct Use (d) .....	<b>0.38</b>	<b>0.36</b>	<b>0.40</b>	<b>0.38</b>	<b>0.38</b>	<b>0.37</b>	<i>0.39</i>	<i>0.37</i>	<i>0.38</i>	<i>0.37</i>	<i>0.39</i>	<i>0.38</i>	<b>0.38</b>	<i>0.38</i>	<i>0.38</i>
Total Consumption .....	<b>10.75</b>	<b>10.05</b>	<b>11.80</b>	<b>9.73</b>	<b>10.21</b>	<b>9.99</b>	<i>11.98</i>	<i>10.00</i>	<i>10.57</i>	<i>10.09</i>	<i>11.94</i>	<i>10.11</i>	<b>10.58</b>	<i>10.55</i>	<i>10.68</i>
Average residential electricity usage per customer (kWh) .....	<b>2,924</b>	<b>2,350</b>	<b>3,190</b>	<b>2,323</b>	<b>2,657</b>	<b>2,317</b>	<i>3,215</i>	<i>2,409</i>	<i>2,775</i>	<i>2,312</i>	<i>3,122</i>	<i>2,418</i>	<b>10,787</b>	<i>10,598</i>	<i>10,627</i>
<b>Prices</b>															
<b>Power Generation Fuel Costs (dollars per million Btu)</b>															
Coal .....	<b>2.27</b>	<b>2.25</b>	<b>2.22</b>	<b>2.15</b>	<b>2.13</b>	<b>2.18</b>	<i>2.23</i>	<i>2.22</i>	<i>2.21</i>	<i>2.24</i>	<i>2.28</i>	<i>2.24</i>	<b>2.23</b>	<i>2.19</i>	<i>2.24</i>
Natural Gas .....	<b>4.09</b>	<b>3.12</b>	<b>3.09</b>	<b>2.72</b>	<b>2.65</b>	<b>2.58</b>	<i>3.06</i>	<i>3.37</i>	<i>3.88</i>	<i>3.28</i>	<i>3.28</i>	<i>3.87</i>	<b>3.22</b>	<i>2.92</i>	<i>3.55</i>
Residual Fuel Oil .....	<b>10.82</b>	<b>11.64</b>	<b>10.48</b>	<b>7.76</b>	<b>6.15</b>	<b>8.04</b>	<i>8.98</i>	<i>9.09</i>	<i>9.04</i>	<i>9.84</i>	<i>9.69</i>	<i>10.15</i>	<b>10.36</b>	<i>8.07</i>	<i>9.67</i>
Distillate Fuel Oil .....	<b>15.61</b>	<b>15.17</b>	<b>13.19</b>	<b>11.74</b>	<b>9.02</b>	<b>12.10</b>	<i>12.71</i>	<i>13.51</i>	<i>13.99</i>	<i>14.12</i>	<i>14.49</i>	<i>15.97</i>	<b>14.43</b>	<i>11.80</i>	<i>14.61</i>
<b>Retail Prices (cents per kilowatthour)</b>															
Residential Sector .....	<b>12.24</b>	<b>12.85</b>	<b>12.99</b>	<b>12.59</b>	<b>12.22</b>	<b>12.74</b>	<i>13.02</i>	<i>12.48</i>	<i>12.48</i>	<i>13.11</i>	<i>13.47</i>	<i>12.89</i>	<b>12.67</b>	<i>12.64</i>	<i>13.00</i>
Commercial Sector .....	<b>10.46</b>	<b>10.54</b>	<b>10.95</b>	<b>10.36</b>	<b>10.08</b>	<b>10.52</b>	<i>11.07</i>	<i>10.42</i>	<i>10.30</i>	<i>10.78</i>	<i>11.36</i>	<i>10.68</i>	<b>10.59</b>	<i>10.55</i>	<i>10.81</i>
Industrial Sector .....	<b>6.79</b>	<b>6.81</b>	<b>7.32</b>	<b>6.63</b>	<b>6.42</b>	<b>6.66</b>	<i>7.27</i>	<i>6.68</i>	<i>6.55</i>	<i>6.82</i>	<i>7.40</i>	<i>6.81</i>	<b>6.90</b>	<i>6.77</i>	<i>6.91</i>

- = 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 collocated 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 - July 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Residential Sector</b>															
New England .....	152	112	144	112	133	111	142	119	141	112	139	121	130	126	128
Middle Atlantic .....	423	321	423	306	367	305	425	321	392	310	417	325	368	355	361
E. N. Central .....	587	428	556	434	522	440	587	464	558	438	570	470	501	503	509
W. N. Central .....	325	232	309	243	298	240	320	259	322	238	310	263	277	279	283
S. Atlantic .....	1,078	889	1,137	809	969	871	1,159	868	1,042	870	1,142	880	978	967	983
E. S. Central .....	390	275	384	254	337	271	403	281	364	278	388	285	326	323	329
W. S. Central .....	602	503	782	479	525	504	769	491	558	517	759	497	592	572	583
Mountain .....	235	240	333	237	240	245	349	239	250	244	346	242	261	268	270
Pacific contiguous .....	396	337	425	400	406	333	414	387	419	336	407	389	389	385	388
AK and HI .....	13	12	13	14	13	12	13	13	13	11	12	13	13	13	13
Total .....	4,202	3,349	4,505	3,288	3,811	3,331	4,581	3,441	4,060	3,354	4,489	3,485	3,835	3,792	3,847
<b>Commercial Sector</b>															
New England .....	147	139	159	137	141	136	158	138	142	134	156	137	146	143	143
Middle Atlantic .....	444	417	478	404	424	406	477	406	429	410	476	408	436	429	431
E. N. Central .....	509	490	544	471	489	493	566	484	499	503	569	490	503	508	516
W. N. Central .....	281	269	305	265	272	269	314	276	280	272	317	280	280	283	287
S. Atlantic .....	805	859	939	795	792	853	963	810	802	861	970	821	850	855	864
E. S. Central .....	235	239	279	222	226	239	287	227	230	241	288	230	244	245	247
W. S. Central .....	499	534	630	506	485	532	638	513	496	544	649	522	542	542	553
Mountain .....	240	256	289	246	240	259	304	253	248	267	310	259	258	264	271
Pacific contiguous .....	424	433	479	449	418	433	481	452	423	437	483	456	447	446	450
AK and HI .....	16	16	17	17	16	16	17	17	16	16	17	17	16	16	16
Total .....	3,603	3,651	4,119	3,511	3,505	3,637	4,205	3,575	3,566	3,686	4,234	3,619	3,722	3,731	3,778
<b>Industrial Sector</b>															
New England .....	49	50	52	49	46	48	52	49	46	47	52	49	50	49	48
Middle Atlantic .....	198	196	204	188	193	189	203	193	199	197	208	195	197	195	200
E. N. Central .....	520	525	531	493	504	512	525	498	508	515	527	496	517	510	512
W. N. Central .....	237	240	252	231	223	231	257	242	232	236	262	245	240	238	244
S. Atlantic .....	375	406	406	379	362	397	400	378	370	402	405	383	391	384	390
E. S. Central .....	279	287	290	265	266	274	290	274	276	279	296	276	280	276	282
W. S. Central .....	433	462	492	458	456	490	510	476	456	480	502	471	461	483	477
Mountain .....	217	235	251	223	214	234	258	229	222	244	266	236	232	234	242
Pacific contiguous .....	227	251	266	234	215	240	273	239	220	245	277	242	245	242	246
AK and HI .....	13	13	15	14	13	13	15	14	13	14	15	14	14	14	14
Total .....	2,546	2,666	2,757	2,535	2,492	2,630	2,782	2,592	2,541	2,659	2,810	2,608	2,626	2,624	2,655
<b>Total All Sectors (a)</b>															
New England .....	350	302	357	299	322	295	353	307	332	295	348	308	327	319	321
Middle Atlantic .....	1,077	944	1,115	909	995	911	1,117	932	1,032	928	1,112	939	1,011	989	1,003
E. N. Central .....	1,618	1,444	1,632	1,399	1,516	1,447	1,680	1,448	1,568	1,459	1,668	1,458	1,523	1,523	1,538
W. N. Central .....	844	742	866	739	793	741	891	777	834	745	890	789	797	801	815
S. Atlantic .....	2,262	2,158	2,486	1,986	2,127	2,124	2,526	2,059	2,218	2,136	2,520	2,088	2,223	2,209	2,241
E. S. Central .....	904	801	953	741	830	784	980	783	869	798	971	791	850	844	858
W. S. Central .....	1,535	1,499	1,904	1,444	1,467	1,526	1,918	1,480	1,511	1,542	1,910	1,490	1,596	1,598	1,614
Mountain .....	692	731	874	707	695	738	911	721	720	755	922	738	752	767	784
Pacific contiguous .....	1,050	1,023	1,172	1,085	1,042	1,009	1,170	1,080	1,064	1,021	1,169	1,089	1,083	1,076	1,086
AK and HI .....	43	41	44	44	42	41	44	44	43	41	44	44	43	43	43
Total .....	10,374	9,685	11,402	9,354	9,829	9,617	11,590	9,629	10,190	9,721	11,556	9,733	10,204	10,169	10,302

- = 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 Retail Electricity Prices (Cents per Kilowatt-hour)**  
 U.S. Energy Information Administration | Short-Term Energy Outlook - July 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Residential Sector</b>															
New England .....	<b>20.43</b>	<b>20.29</b>	<b>18.35</b>	<b>18.62</b>	<b>19.21</b>	<b>19.23</b>	<i>18.16</i>	<i>18.30</i>	<i>19.21</i>	<i>19.45</i>	<i>18.56</i>	<i>18.68</i>	<b>19.43</b>	<i>18.70</i>	<i>18.96</i>
Middle Atlantic .....	<b>15.77</b>	<b>16.07</b>	<b>16.47</b>	<b>16.04</b>	<b>15.29</b>	<b>16.38</b>	<i>16.95</i>	<i>16.16</i>	<i>15.89</i>	<i>17.05</i>	<i>17.73</i>	<i>16.87</i>	<b>16.09</b>	<i>16.22</i>	<i>16.90</i>
E. N. Central .....	<b>12.22</b>	<b>13.21</b>	<b>13.16</b>	<b>13.09</b>	<b>12.52</b>	<b>13.49</b>	<i>13.52</i>	<i>13.19</i>	<i>13.05</i>	<i>14.15</i>	<i>14.19</i>	<i>13.79</i>	<b>12.88</b>	<i>13.18</i>	<i>13.78</i>
W. N. Central .....	<b>10.24</b>	<b>12.16</b>	<b>12.46</b>	<b>11.22</b>	<b>10.63</b>	<b>12.25</b>	<i>12.84</i>	<i>11.32</i>	<i>10.87</i>	<i>12.62</i>	<i>13.23</i>	<i>11.60</i>	<b>11.48</b>	<i>11.77</i>	<i>12.06</i>
S. Atlantic .....	<b>11.37</b>	<b>11.91</b>	<b>12.14</b>	<b>11.70</b>	<b>11.43</b>	<b>11.81</b>	<i>11.97</i>	<i>11.39</i>	<i>11.60</i>	<i>12.10</i>	<i>12.33</i>	<i>11.73</i>	<b>11.79</b>	<i>11.67</i>	<i>11.96</i>
E. S. Central .....	<b>10.34</b>	<b>11.15</b>	<b>10.89</b>	<b>10.95</b>	<b>10.37</b>	<b>10.93</b>	<i>10.79</i>	<i>10.86</i>	<i>10.63</i>	<i>11.27</i>	<i>11.16</i>	<i>11.11</i>	<b>10.79</b>	<i>10.72</i>	<i>11.03</i>
W. S. Central .....	<b>10.67</b>	<b>11.35</b>	<b>11.03</b>	<b>10.81</b>	<b>10.35</b>	<b>10.93</b>	<i>10.94</i>	<i>10.59</i>	<i>10.52</i>	<i>11.27</i>	<i>11.45</i>	<i>11.04</i>	<b>10.96</b>	<i>10.73</i>	<i>11.10</i>
Mountain .....	<b>11.31</b>	<b>12.21</b>	<b>12.33</b>	<b>11.34</b>	<b>11.04</b>	<b>12.03</b>	<i>12.44</i>	<i>11.52</i>	<i>11.28</i>	<i>12.32</i>	<i>12.76</i>	<i>11.81</i>	<b>11.85</b>	<i>11.83</i>	<i>12.11</i>
Pacific .....	<b>13.69</b>	<b>13.47</b>	<b>15.76</b>	<b>13.89</b>	<b>14.14</b>	<b>13.30</b>	<i>15.67</i>	<i>13.82</i>	<i>14.19</i>	<i>13.37</i>	<i>15.92</i>	<i>14.16</i>	<b>14.26</b>	<i>14.29</i>	<i>14.46</i>
U.S. Average .....	<b>12.24</b>	<b>12.85</b>	<b>12.99</b>	<b>12.59</b>	<b>12.22</b>	<b>12.74</b>	<i>13.02</i>	<i>12.48</i>	<i>12.48</i>	<i>13.11</i>	<i>13.47</i>	<i>12.89</i>	<b>12.67</b>	<i>12.64</i>	<i>13.00</i>
<b>Commercial Sector</b>															
New England .....	<b>16.92</b>	<b>15.21</b>	<b>14.91</b>	<b>14.86</b>	<b>15.30</b>	<b>15.70</b>	<i>16.42</i>	<i>15.61</i>	<i>15.95</i>	<i>16.23</i>	<i>16.96</i>	<i>16.03</i>	<b>15.47</b>	<i>15.78</i>	<i>16.31</i>
Middle Atlantic .....	<b>13.07</b>	<b>13.04</b>	<b>13.72</b>	<b>12.57</b>	<b>11.92</b>	<b>12.70</b>	<i>13.58</i>	<i>12.40</i>	<i>12.12</i>	<i>12.98</i>	<i>13.92</i>	<i>12.73</i>	<b>13.13</b>	<i>12.68</i>	<i>12.97</i>
E. N. Central .....	<b>9.72</b>	<b>9.96</b>	<b>10.04</b>	<b>9.81</b>	<b>9.63</b>	<b>9.94</b>	<i>10.01</i>	<i>9.85</i>	<i>9.85</i>	<i>10.19</i>	<i>10.23</i>	<i>10.03</i>	<b>9.89</b>	<i>9.86</i>	<i>10.08</i>
W. N. Central .....	<b>8.57</b>	<b>9.52</b>	<b>9.95</b>	<b>8.89</b>	<b>8.86</b>	<b>9.60</b>	<i>9.93</i>	<i>8.81</i>	<i>9.09</i>	<i>9.88</i>	<i>10.22</i>	<i>9.05</i>	<b>9.25</b>	<i>9.32</i>	<i>9.58</i>
S. Atlantic .....	<b>9.66</b>	<b>9.45</b>	<b>9.59</b>	<b>9.35</b>	<b>9.38</b>	<b>9.54</b>	<i>9.82</i>	<i>9.43</i>	<i>9.58</i>	<i>9.84</i>	<i>10.17</i>	<i>9.77</i>	<b>9.52</b>	<i>9.56</i>	<i>9.86</i>
E. S. Central .....	<b>10.21</b>	<b>10.38</b>	<b>10.27</b>	<b>10.17</b>	<b>9.98</b>	<b>10.05</b>	<i>10.15</i>	<i>10.31</i>	<i>10.28</i>	<i>10.42</i>	<i>10.45</i>	<i>10.53</i>	<b>10.26</b>	<i>10.13</i>	<i>10.42</i>
W. S. Central .....	<b>8.05</b>	<b>7.89</b>	<b>7.94</b>	<b>7.72</b>	<b>7.65</b>	<b>7.85</b>	<i>8.10</i>	<i>7.80</i>	<i>7.72</i>	<i>7.96</i>	<i>8.29</i>	<i>8.00</i>	<b>7.90</b>	<i>7.87</i>	<i>8.01</i>
Mountain .....	<b>9.37</b>	<b>9.95</b>	<b>10.21</b>	<b>9.37</b>	<b>9.00</b>	<b>9.69</b>	<i>10.09</i>	<i>9.51</i>	<i>9.06</i>	<i>9.80</i>	<i>10.23</i>	<i>9.65</i>	<b>9.75</b>	<i>9.61</i>	<i>9.72</i>
Pacific .....	<b>12.23</b>	<b>13.30</b>	<b>15.61</b>	<b>13.44</b>	<b>12.21</b>	<b>13.63</b>	<i>15.91</i>	<i>13.45</i>	<i>12.48</i>	<i>13.91</i>	<i>16.32</i>	<i>13.77</i>	<b>13.71</b>	<i>13.87</i>	<i>14.20</i>
U.S. Average .....	<b>10.46</b>	<b>10.54</b>	<b>10.95</b>	<b>10.36</b>	<b>10.08</b>	<b>10.52</b>	<i>11.07</i>	<i>10.42</i>	<i>10.30</i>	<i>10.78</i>	<i>11.36</i>	<i>10.68</i>	<b>10.59</b>	<i>10.55</i>	<i>10.81</i>
<b>Industrial Sector</b>															
New England .....	<b>13.18</b>	<b>11.85</b>	<b>11.87</b>	<b>11.85</b>	<b>12.20</b>	<b>12.45</b>	<i>13.73</i>	<i>12.71</i>	<i>13.24</i>	<i>13.18</i>	<i>14.32</i>	<i>13.12</i>	<b>12.17</b>	<i>12.80</i>	<i>13.49</i>
Middle Atlantic .....	<b>7.90</b>	<b>7.22</b>	<b>7.36</b>	<b>7.06</b>	<b>7.05</b>	<b>7.18</b>	<i>7.46</i>	<i>6.98</i>	<i>7.19</i>	<i>7.28</i>	<i>7.52</i>	<i>7.11</i>	<b>7.39</b>	<i>7.17</i>	<i>7.28</i>
E. N. Central .....	<b>6.87</b>	<b>6.77</b>	<b>7.06</b>	<b>6.76</b>	<b>6.75</b>	<b>6.95</b>	<i>7.20</i>	<i>6.92</i>	<i>6.90</i>	<i>7.10</i>	<i>7.31</i>	<i>7.02</i>	<b>6.87</b>	<i>6.96</i>	<i>7.09</i>
W. N. Central .....	<b>6.49</b>	<b>6.88</b>	<b>7.51</b>	<b>6.48</b>	<b>6.65</b>	<b>6.78</b>	<i>7.33</i>	<i>6.49</i>	<i>6.73</i>	<i>6.88</i>	<i>7.44</i>	<i>6.58</i>	<b>6.85</b>	<i>6.82</i>	<i>6.92</i>
S. Atlantic .....	<b>6.55</b>	<b>6.38</b>	<b>6.90</b>	<b>6.26</b>	<b>6.16</b>	<b>6.41</b>	<i>6.95</i>	<i>6.43</i>	<i>6.30</i>	<i>6.60</i>	<i>7.07</i>	<i>6.54</i>	<b>6.53</b>	<i>6.50</i>	<i>6.64</i>
E. S. Central .....	<b>5.78</b>	<b>5.95</b>	<b>6.58</b>	<b>5.74</b>	<b>5.48</b>	<b>6.05</b>	<i>6.91</i>	<i>5.90</i>	<i>5.68</i>	<i>6.27</i>	<i>7.09</i>	<i>6.04</i>	<b>6.02</b>	<i>6.10</i>	<i>6.29</i>
W. S. Central .....	<b>5.69</b>	<b>5.53</b>	<b>5.73</b>	<b>5.27</b>	<b>5.06</b>	<b>4.97</b>	<i>5.62</i>	<i>5.25</i>	<i>5.18</i>	<i>5.13</i>	<i>5.73</i>	<i>5.42</i>	<b>5.56</b>	<i>5.23</i>	<i>5.37</i>
Mountain .....	<b>6.16</b>	<b>6.65</b>	<b>7.17</b>	<b>6.00</b>	<b>5.82</b>	<b>6.23</b>	<i>6.97</i>	<i>6.07</i>	<i>5.91</i>	<i>6.37</i>	<i>7.16</i>	<i>6.24</i>	<b>6.52</b>	<i>6.30</i>	<i>6.45</i>
Pacific .....	<b>8.00</b>	<b>8.94</b>	<b>10.46</b>	<b>9.21</b>	<b>7.99</b>	<b>8.70</b>	<i>9.54</i>	<i>8.93</i>	<i>7.87</i>	<i>8.61</i>	<i>9.51</i>	<i>8.92</i>	<b>9.21</b>	<i>8.84</i>	<i>8.78</i>
U.S. Average .....	<b>6.79</b>	<b>6.81</b>	<b>7.32</b>	<b>6.63</b>	<b>6.42</b>	<b>6.66</b>	<i>7.27</i>	<i>6.68</i>	<i>6.55</i>	<i>6.82</i>	<i>7.40</i>	<i>6.81</i>	<b>6.90</b>	<i>6.77</i>	<i>6.91</i>
<b>All Sectors (a)</b>															
New England .....	<b>17.90</b>	<b>16.51</b>	<b>15.83</b>	<b>15.74</b>	<b>16.44</b>	<b>16.46</b>	<i>16.70</i>	<i>16.15</i>	<i>16.93</i>	<i>16.93</i>	<i>17.18</i>	<i>16.57</i>	<b>16.51</b>	<i>16.45</i>	<i>16.91</i>
Middle Atlantic .....	<b>13.17</b>	<b>12.85</b>	<b>13.58</b>	<b>12.58</b>	<b>12.21</b>	<b>12.77</b>	<i>13.73</i>	<i>12.55</i>	<i>12.58</i>	<i>13.11</i>	<i>14.12</i>	<i>12.97</i>	<b>13.08</b>	<i>12.85</i>	<i>13.23</i>
E. N. Central .....	<b>9.71</b>	<b>9.76</b>	<b>10.13</b>	<b>9.75</b>	<b>9.67</b>	<b>9.96</b>	<i>10.36</i>	<i>9.91</i>	<i>10.03</i>	<i>10.28</i>	<i>10.66</i>	<i>10.21</i>	<b>9.84</b>	<i>9.99</i>	<i>10.31</i>
W. N. Central .....	<b>8.63</b>	<b>9.50</b>	<b>10.14</b>	<b>8.89</b>	<b>8.91</b>	<b>9.57</b>	<i>10.23</i>	<i>8.92</i>	<i>9.12</i>	<i>9.80</i>	<i>10.45</i>	<i>9.13</i>	<b>9.30</b>	<i>9.43</i>	<i>9.65</i>
S. Atlantic .....	<b>9.96</b>	<b>9.89</b>	<b>10.31</b>	<b>9.71</b>	<b>9.77</b>	<b>9.89</b>	<i>10.35</i>	<i>9.70</i>	<i>9.98</i>	<i>10.15</i>	<i>10.65</i>	<i>10.00</i>	<b>9.99</b>	<i>9.95</i>	<i>10.22</i>
E. S. Central .....	<b>8.90</b>	<b>9.06</b>	<b>9.40</b>	<b>8.85</b>	<b>8.70</b>	<b>8.96</b>	<i>9.46</i>	<i>8.96</i>	<i>8.97</i>	<i>9.26</i>	<i>9.71</i>	<i>9.17</i>	<b>9.07</b>	<i>9.04</i>	<i>9.30</i>
W. S. Central .....	<b>8.41</b>	<b>8.33</b>	<b>8.64</b>	<b>7.96</b>	<b>7.81</b>	<b>7.94</b>	<i>8.58</i>	<i>7.90</i>	<i>7.99</i>	<i>8.19</i>	<i>8.87</i>	<i>8.20</i>	<b>8.36</b>	<i>8.10</i>	<i>8.35</i>
Mountain .....	<b>9.02</b>	<b>9.63</b>	<b>10.14</b>	<b>8.96</b>	<b>8.72</b>	<b>9.37</b>	<i>10.11</i>	<i>9.08</i>	<i>8.86</i>	<i>9.51</i>	<i>10.29</i>	<i>9.27</i>	<b>9.48</b>	<i>9.38</i>	<i>9.54</i>
Pacific .....	<b>11.85</b>	<b>12.28</b>	<b>14.48</b>	<b>12.68</b>	<b>12.08</b>	<b>12.33</b>	<i>14.33</i>	<i>12.57</i>	<i>12.19</i>	<i>12.45</i>	<i>14.55</i>	<i>12.82</i>	<b>12.88</b>	<i>12.88</i>	<i>13.05</i>
U.S. Average .....	<b>10.27</b>	<b>10.31</b>	<b>10.88</b>	<b>10.13</b>	<b>9.99</b>	<b>10.23</b>	<i>10.93</i>	<i>10.15</i>	<i>10.23</i>	<i>10.50</i>	<i>11.21</i>	<i>10.43</i>	<b>10.42</b>	<i>10.35</i>	<i>10.62</i>

- = no data available

Prices 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 - July 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>United States</b>															
Coal .....	4,091	3,512	4,276	2,988	3,066	2,932	4,126	3,345	3,594	3,126	3,968	3,353	3,715	3,369	3,511
Natural Gas .....	3,248	3,477	4,392	3,503	3,427	3,756	4,581	3,508	3,396	3,635	4,529	3,468	3,658	3,819	3,759
Petroleum (a) .....	124	61	72	57	69	69	76	66	80	69	77	67	78	70	73
Other Gases .....	38	34	40	30	40	37	42	31	42	38	43	33	36	38	39
Nuclear .....	2,248	2,133	2,286	2,070	2,245	2,159	2,191	2,061	2,219	2,035	2,252	2,110	2,184	2,164	2,154
Renewable Energy Sources:	1,590	1,528	1,373	1,533	1,802	1,794	1,511	1,544	1,670	1,923	1,670	1,651	1,506	1,662	1,728
Conventional Hydropower .....	803	691	617	644	846	830	686	624	688	828	757	641	688	746	729
Wind .....	506	534	442	610	665	644	480	620	675	719	525	683	523	602	650
Wood Biomass .....	118	112	122	112	114	106	120	113	115	109	123	117	116	113	116
Waste Biomass .....	58	59	61	62	59	59	60	59	58	58	60	59	60	59	59
Geothermal .....	48	46	45	45	46	45	47	47	48	47	47	47	46	46	47
Solar .....	57	87	86	60	74	110	119	81	86	162	158	103	73	96	127
Pumped Storage Hydropower .....	-16	-11	-18	-11	-12	-14	-16	-14	-12	-12	-16	-14	-14	-14	-13
Other Nonrenewable Fuels (b) .....	33	37	39	37	35	37	39	36	35	37	39	37	36	37	37
Total Generation .....	11,355	10,770	12,460	10,207	10,671	10,771	12,551	10,578	11,023	10,851	12,562	10,705	11,198	11,145	11,288
<b>Northeast Census Region</b>															
Coal .....	292	175	203	139	163	111	184	189	255	145	189	196	202	162	196
Natural Gas .....	483	534	714	543	515	590	722	562	525	564	701	553	569	597	586
Petroleum (a) .....	46	2	5	2	7	4	6	5	10	5	6	5	14	6	7
Other Gases .....	2	2	2	1	2	2	2	1	2	2	2	1	2	2	2
Nuclear .....	545	499	542	499	543	463	516	484	513	468	522	489	521	502	498
Hydropower (c) .....	93	99	98	102	115	113	106	96	98	114	105	96	98	108	103
Other Renewables (d) .....	76	65	58	73	78	62	61	71	76	67	64	76	68	68	70
Other Nonrenewable Fuels (b) .....	11	12	12	12	11	12	12	12	12	12	12	12	12	12	12
Total Generation .....	1,548	1,388	1,634	1,373	1,436	1,356	1,609	1,422	1,491	1,376	1,600	1,428	1,485	1,456	1,474
<b>South Census Region</b>															
Coal .....	1,716	1,539	1,908	1,167	1,272	1,291	1,792	1,305	1,408	1,349	1,716	1,281	1,582	1,416	1,439
Natural Gas .....	1,971	2,075	2,465	1,975	2,004	2,259	2,623	1,942	1,964	2,217	2,587	1,934	2,122	2,207	2,176
Petroleum (a) .....	42	24	29	22	30	31	33	24	32	28	31	24	29	30	29
Other Gases .....	15	13	15	14	15	14	15	15	15	14	15	15	14	15	15
Nuclear .....	974	956	1,001	872	951	1,001	969	916	996	920	1,025	961	951	959	976
Hydropower (c) .....	122	108	94	145	191	109	110	135	160	110	109	134	117	136	128
Other Renewables (d) .....	231	267	255	287	326	312	270	322	347	375	309	364	260	307	349
Other Nonrenewable Fuels (b) .....	14	15	16	15	15	16	16	14	14	16	16	14	15	15	15
Total Generation .....	5,084	4,999	5,783	4,497	4,804	5,035	5,827	4,672	4,936	5,029	5,809	4,728	5,091	5,086	5,127
<b>Midwest Census Region</b>															
Coal .....	1,578	1,302	1,578	1,166	1,203	1,061	1,481	1,247	1,323	1,159	1,504	1,277	1,405	1,249	1,316
Natural Gas .....	300	257	340	285	361	418	490	352	363	364	460	339	296	405	382
Petroleum (a) .....	12	11	13	9	10	11	13	10	11	11	13	10	11	11	11
Other Gases .....	14	13	16	8	15	15	18	9	17	16	18	10	13	14	15
Nuclear .....	553	529	570	547	573	542	545	511	545	495	536	502	550	543	520
Hydropower (c) .....	44	47	42	37	45	51	45	34	38	52	44	34	43	44	42
Other Renewables (d) .....	251	218	168	277	280	260	184	272	290	275	198	293	228	249	264
Other Nonrenewable Fuels (b) .....	4	5	5	5	4	5	5	5	4	5	5	5	5	5	5
Total Generation .....	2,757	2,382	2,731	2,335	2,493	2,362	2,780	2,440	2,591	2,377	2,777	2,468	2,550	2,519	2,554
<b>West Census Region</b>															
Coal .....	505	496	587	517	427	470	670	604	608	474	559	599	526	543	560
Natural Gas .....	494	611	874	699	546	489	747	652	544	490	781	643	671	609	615
Petroleum (a) .....	23	22	25	23	21	22	25	26	26	25	27	28	23	24	26
Other Gases .....	7	6	7	7	7	7	7	7	8	7	7	7	7	7	7
Nuclear .....	176	149	172	152	178	153	161	150	164	152	169	158	162	160	161
Hydropower (c) .....	527	426	365	348	482	543	410	345	380	539	484	364	416	444	442
Other Renewables (d) .....	230	287	276	252	273	330	311	255	270	377	343	276	261	292	317
Other Nonrenewable Fuels (b) .....	4	5	5	5	5	5	6	5	5	5	6	5	5	5	5
Total Generation .....	1,967	2,002	2,311	2,002	1,938	2,019	2,335	2,044	2,004	2,068	2,375	2,081	2,071	2,085	2,133

(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 - July 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Fuel Consumption for Electricity Generation, All Sectors</b>															
<b>United States</b>															
Coal (thousand st/d) .....	<b>2,185</b>	<b>1,922</b>	<b>2,347</b>	<b>1,667</b>	<b>1,678</b>	<b>1,596</b>	2,255	1,841	1,938	1,697	2,170	1,845	<b>2,030</b>	1,844	1,913
Natural Gas (million cf/d) .....	<b>24,017</b>	<b>26,265</b>	<b>33,602</b>	<b>26,144</b>	<b>25,305</b>	<b>28,724</b>	35,212	26,047	25,221	27,744	34,795	25,756	<b>27,530</b>	28,832	28,398
Petroleum (thousand b/d) .....	<b>215</b>	<b>108</b>	<b>126</b>	<b>100</b>	<b>122</b>	<b>122</b>	135	117	142	122	136	120	<b>137</b>	124	130
Residual Fuel Oil .....	<b>76</b>	<b>26</b>	<b>33</b>	<b>26</b>	<b>30</b>	<b>26</b>	33	29	34	30	34	30	<b>40</b>	29	32
Distillate Fuel Oil .....	<b>66</b>	<b>25</b>	<b>24</b>	<b>25</b>	<b>30</b>	<b>27</b>	30	29	38	28	30	29	<b>35</b>	29	31
Petroleum Coke (a) .....	<b>61</b>	<b>52</b>	<b>65</b>	<b>46</b>	<b>57</b>	<b>66</b>	67	54	62	59	67	56	<b>56</b>	61	61
Other Petroleum Liquids (b) ....	<b>13</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>5</b>	<b>4</b>	5	5	8	4	5	5	<b>6</b>	5	6
<b>Northeast Census Region</b>															
Coal (thousand st/d) .....	<b>133</b>	<b>82</b>	<b>99</b>	<b>68</b>	<b>82</b>	<b>52</b>	89	91	119	68	92	94	<b>95</b>	79	93
Natural Gas (million cf/d) .....	<b>3,638</b>	<b>4,102</b>	<b>5,595</b>	<b>4,107</b>	<b>3,888</b>	<b>4,504</b>	5,607	4,226	3,964	4,300	5,437	4,152	<b>4,365</b>	4,558	4,466
Petroleum (thousand b/d) .....	<b>75</b>	<b>5</b>	<b>9</b>	<b>4</b>	<b>13</b>	<b>7</b>	11	9	19	8	11	10	<b>23</b>	10	12
<b>South Census Region</b>															
Coal (thousand st/d) .....	<b>888</b>	<b>819</b>	<b>1,023</b>	<b>638</b>	<b>672</b>	<b>682</b>	952	700	736	715	918	692	<b>842</b>	752	765
Natural Gas (million cf/d) .....	<b>14,399</b>	<b>15,637</b>	<b>18,741</b>	<b>14,727</b>	<b>14,714</b>	<b>17,247</b>	20,086	14,380	14,505	16,898	19,806	14,317	<b>15,885</b>	16,610	16,390
Petroleum (thousand b/d) .....	<b>79</b>	<b>45</b>	<b>53</b>	<b>41</b>	<b>56</b>	<b>58</b>	62	46	61	54	59	46	<b>54</b>	56	55
<b>Midwest Census Region</b>															
Coal (thousand st/d) .....	<b>880</b>	<b>742</b>	<b>895</b>	<b>668</b>	<b>680</b>	<b>598</b>	839	708	740	651	847	720	<b>796</b>	707	740
Natural Gas (million cf/d) .....	<b>2,329</b>	<b>2,014</b>	<b>2,725</b>	<b>2,211</b>	<b>2,729</b>	<b>3,341</b>	4,008	2,729	2,798	2,899	3,778	2,634	<b>2,320</b>	3,203	3,029
Petroleum (thousand b/d) .....	<b>24</b>	<b>23</b>	<b>26</b>	<b>18</b>	<b>19</b>	<b>21</b>	23	20	21	20	22	20	<b>23</b>	21	21
<b>West Census Region</b>															
Coal (thousand st/d) .....	<b>285</b>	<b>280</b>	<b>331</b>	<b>293</b>	<b>244</b>	<b>264</b>	375	342	342	263	313	339	<b>297</b>	307	314
Natural Gas (million cf/d) .....	<b>3,651</b>	<b>4,513</b>	<b>6,541</b>	<b>5,100</b>	<b>3,973</b>	<b>3,632</b>	5,511	4,712	3,954	3,646	5,774	4,653	<b>4,960</b>	4,461	4,512
Petroleum (thousand b/d) .....	<b>37</b>	<b>36</b>	<b>39</b>	<b>37</b>	<b>34</b>	<b>36</b>	39	42	42	40	43	45	<b>37</b>	38	43
<b>End-of-period U.S. Fuel Inventories Held by Electric Power Sector</b>															
Coal (million short tons) .....	<b>155.0</b>	<b>167.0</b>	<b>162.7</b>	<b>197.1</b>	<b>194.4</b>	<b>184.6</b>	153.8	158.6	156.5	152.7	136.5	139.9	<b>197.1</b>	158.6	139.9
Residual Fuel Oil (mmb) .....	<b>10.2</b>	<b>10.5</b>	<b>10.6</b>	<b>12.4</b>	<b>11.9</b>	<b>12.2</b>	11.9	12.3	12.4	12.1	11.8	12.2	<b>12.4</b>	12.3	12.2
Distillate Fuel Oil (mmb) .....	<b>16.7</b>	<b>16.7</b>	<b>17.2</b>	<b>17.4</b>	<b>16.9</b>	<b>17.1</b>	17.0	17.3	17.3	17.2	17.1	17.3	<b>17.4</b>	17.3	17.3
Petroleum Coke (mmb) .....	<b>4.1</b>	<b>5.2</b>	<b>5.5</b>	<b>6.7</b>	<b>6.2</b>	<b>5.8</b>	5.7	5.6	5.5	5.4	5.3	5.1	<b>6.7</b>	5.6	5.1

(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 - July 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Electric Power Sector</b>															
Hydroelectric Power (a) .....	<b>0.684</b>	<b>0.594</b>	<b>0.538</b>	<b>0.560</b>	<b>0.728</b>	<b>0.715</b>	<i>0.597</i>	<i>0.543</i>	<i>0.585</i>	<i>0.713</i>	<i>0.660</i>	<i>0.558</i>	<b>2.376</b>	2.583	2.516
Wood Biomass (b) .....	<b>0.063</b>	<b>0.057</b>	<b>0.067</b>	<b>0.060</b>	<b>0.062</b>	<b>0.052</b>	<i>0.069</i>	<i>0.063</i>	<i>0.065</i>	<i>0.060</i>	<i>0.073</i>	<i>0.067</i>	<b>0.246</b>	0.246	0.264
Waste Biomass (c) .....	<b>0.067</b>	<b>0.066</b>	<b>0.070</b>	<b>0.071</b>	<b>0.069</b>	<b>0.070</b>	<i>0.071</i>	<i>0.069</i>	<i>0.067</i>	<i>0.068</i>	<i>0.071</i>	<i>0.069</i>	<b>0.274</b>	0.278	0.274
Wind .....	<b>0.433</b>	<b>0.462</b>	<b>0.386</b>	<b>0.533</b>	<b>0.575</b>	<b>0.557</b>	<i>0.420</i>	<i>0.542</i>	<i>0.577</i>	<i>0.622</i>	<i>0.459</i>	<i>0.597</i>	<b>1.814</b>	2.093	2.255
Geothermal .....	<b>0.041</b>	<b>0.040</b>	<b>0.039</b>	<b>0.040</b>	<b>0.040</b>	<b>0.039</b>	<i>0.041</i>	<i>0.041</i>	<i>0.041</i>	<i>0.040</i>	<i>0.041</i>	<i>0.041</i>	<b>0.159</b>	0.161	0.163
Solar .....	<b>0.047</b>	<b>0.073</b>	<b>0.074</b>	<b>0.052</b>	<b>0.062</b>	<b>0.094</b>	<i>0.102</i>	<i>0.069</i>	<i>0.072</i>	<i>0.139</i>	<i>0.137</i>	<i>0.089</i>	<b>0.246</b>	0.328	0.437
Subtotal .....	<b>1.335</b>	<b>1.292</b>	<b>1.174</b>	<b>1.315</b>	<b>1.536</b>	<b>1.527</b>	<i>1.300</i>	<i>1.328</i>	<i>1.407</i>	<i>1.641</i>	<i>1.441</i>	<i>1.421</i>	<b>5.116</b>	5.690	5.910
<b>Industrial Sector</b>															
Hydroelectric Power (a) .....	<b>0.004</b>	<b>0.003</b>	<b>0.002</b>	<b>0.003</b>	<b>0.004</b>	<b>0.003</b>	<i>0.003</i>	<i>0.003</i>	<i>0.003</i>	<i>0.003</i>	<i>0.003</i>	<i>0.003</i>	<b>0.013</b>	0.013	0.013
Wood Biomass (b) .....	<b>0.324</b>	<b>0.320</b>	<b>0.324</b>	<b>0.321</b>	<b>0.316</b>	<b>0.304</b>	<i>0.313</i>	<i>0.315</i>	<i>0.306</i>	<i>0.302</i>	<i>0.313</i>	<i>0.316</i>	<b>1.290</b>	1.248	1.238
Waste Biomass (c) .....	<b>0.046</b>	<b>0.049</b>	<b>0.050</b>	<b>0.049</b>	<b>0.047</b>	<b>0.047</b>	<i>0.049</i>	<i>0.048</i>	<i>0.048</i>	<i>0.048</i>	<i>0.049</i>	<i>0.048</i>	<b>0.195</b>	0.191	0.193
Geothermal .....	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<b>0.004</b>	0.004	0.004
Biofuel Losses and Co-products (f) .....	<b>0.189</b>	<b>0.192</b>	<b>0.195</b>	<b>0.200</b>	<b>0.196</b>	<b>0.199</b>	<i>0.199</i>	<i>0.197</i>	<i>0.197</i>	<i>0.198</i>	<i>0.198</i>	<i>0.196</i>	<b>0.776</b>	0.791	0.789
Subtotal .....	<b>0.568</b>	<b>0.570</b>	<b>0.576</b>	<b>0.578</b>	<b>0.567</b>	<b>0.558</b>	<i>0.570</i>	<i>0.568</i>	<i>0.559</i>	<i>0.556</i>	<i>0.569</i>	<i>0.568</i>	<b>2.292</b>	2.263	2.253
<b>Commercial Sector</b>															
Wood Biomass (b) .....	<b>0.018</b>	<b>0.018</b>	<b>0.018</b>	<b>0.018</b>	<b>0.018</b>	<b>0.019</b>	<i>0.019</i>	<i>0.019</i>	<i>0.020</i>	<i>0.020</i>	<i>0.020</i>	<i>0.020</i>	<b>0.073</b>	0.076	0.078
Waste Biomass (c) .....	<b>0.013</b>	<b>0.010</b>	<b>0.010</b>	<b>0.012</b>	<b>0.012</b>	<b>0.011</b>	<i>0.012</i>	<i>0.012</i>	<i>0.012</i>	<i>0.011</i>	<i>0.012</i>	<i>0.012</i>	<b>0.045</b>	0.047	0.047
Geothermal .....	<b>0.005</b>	<b>0.005</b>	<b>0.005</b>	<b>0.005</b>	<b>0.005</b>	<b>0.005</b>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<b>0.020</b>	0.020	0.020
Subtotal .....	<b>0.038</b>	<b>0.036</b>	<b>0.037</b>	<b>0.038</b>	<b>0.038</b>	<b>0.036</b>	<i>0.038</i>	<i>0.037</i>	<i>0.037</i>	<i>0.037</i>	<i>0.038</i>	<i>0.038</i>	<b>0.148</b>	0.149	0.150
<b>Residential Sector</b>															
Wood Biomass (b) .....	<b>0.106</b>	<b>0.108</b>	<b>0.109</b>	<b>0.109</b>	<b>0.096</b>	<b>0.104</b>	<i>0.105</i>	<i>0.105</i>	<i>0.106</i>	<i>0.106</i>	<i>0.106</i>	<i>0.106</i>	<b>0.432</b>	0.411	0.426
Geothermal .....	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.011</b>	<b>0.011</b>	<i>0.011</i>	<i>0.011</i>	<i>0.011</i>	<i>0.011</i>	<i>0.011</i>	<i>0.011</i>	<b>0.041</b>	0.044	0.045
Solar (d) .....	<b>0.074</b>	<b>0.074</b>	<b>0.075</b>	<b>0.075</b>	<b>0.087</b>	<b>0.077</b>	<i>0.078</i>	<i>0.078</i>	<i>0.102</i>	<i>0.091</i>	<i>0.092</i>	<i>0.092</i>	<b>0.298</b>	0.321	0.376
Subtotal .....	<b>0.190</b>	<b>0.192</b>	<b>0.194</b>	<b>0.194</b>	<b>0.194</b>	<b>0.193</b>	<i>0.195</i>	<i>0.195</i>	<i>0.219</i>	<i>0.208</i>	<i>0.209</i>	<i>0.209</i>	<b>0.770</b>	0.776	0.847
<b>Transportation Sector</b>															
Ethanol (e) .....	<b>0.266</b>	<b>0.284</b>	<b>0.293</b>	<b>0.285</b>	<b>0.282</b>	<b>0.293</b>	<i>0.297</i>	<i>0.290</i>	<i>0.277</i>	<i>0.294</i>	<i>0.296</i>	<i>0.290</i>	<b>1.128</b>	1.163	1.156
Biomass-based Diesel (e) .....	<b>0.034</b>	<b>0.058</b>	<b>0.064</b>	<b>0.058</b>	<b>0.050</b>	<b>0.065</b>	<i>0.079</i>	<i>0.078</i>	<i>0.067</i>	<i>0.071</i>	<i>0.081</i>	<i>0.080</i>	<b>0.214</b>	0.272	0.300
Subtotal .....	<b>0.300</b>	<b>0.342</b>	<b>0.357</b>	<b>0.343</b>	<b>0.332</b>	<b>0.360</b>	<i>0.376</i>	<i>0.368</i>	<i>0.344</i>	<i>0.365</i>	<i>0.377</i>	<i>0.370</i>	<b>1.342</b>	1.437	1.456
<b>All Sectors Total</b>															
Hydroelectric Power (a) .....	<b>0.687</b>	<b>0.598</b>	<b>0.540</b>	<b>0.563</b>	<b>0.732</b>	<b>0.718</b>	<i>0.601</i>	<i>0.546</i>	<i>0.589</i>	<i>0.716</i>	<i>0.664</i>	<i>0.561</i>	<b>2.389</b>	2.597	2.530
Wood Biomass (b) .....	<b>0.512</b>	<b>0.503</b>	<b>0.518</b>	<b>0.508</b>	<b>0.492</b>	<b>0.482</b>	<i>0.507</i>	<i>0.503</i>	<i>0.497</i>	<i>0.488</i>	<i>0.513</i>	<i>0.509</i>	<b>2.040</b>	1.983	2.006
Waste Biomass (c) .....	<b>0.126</b>	<b>0.125</b>	<b>0.130</b>	<b>0.132</b>	<b>0.128</b>	<b>0.126</b>	<i>0.131</i>	<i>0.128</i>	<i>0.126</i>	<i>0.127</i>	<i>0.132</i>	<i>0.129</i>	<b>0.514</b>	0.513	0.514
Wind .....	<b>0.433</b>	<b>0.462</b>	<b>0.386</b>	<b>0.533</b>	<b>0.575</b>	<b>0.557</b>	<i>0.420</i>	<i>0.542</i>	<i>0.577</i>	<i>0.622</i>	<i>0.459</i>	<i>0.597</i>	<b>1.814</b>	2.093	2.255
Geothermal .....	<b>0.057</b>	<b>0.056</b>	<b>0.056</b>	<b>0.056</b>	<b>0.057</b>	<b>0.056</b>	<i>0.058</i>	<i>0.059</i>	<i>0.058</i>	<i>0.057</i>	<i>0.058</i>	<i>0.058</i>	<b>0.224</b>	0.230	0.232
Solar .....	<b>0.122</b>	<b>0.149</b>	<b>0.151</b>	<b>0.128</b>	<b>0.151</b>	<b>0.173</b>	<i>0.182</i>	<i>0.149</i>	<i>0.175</i>	<i>0.230</i>	<i>0.230</i>	<i>0.182</i>	<b>0.550</b>	0.654	0.817
Ethanol (e) .....	<b>0.271</b>	<b>0.289</b>	<b>0.298</b>	<b>0.290</b>	<b>0.287</b>	<b>0.288</b>	<i>0.302</i>	<i>0.295</i>	<i>0.282</i>	<i>0.299</i>	<i>0.301</i>	<i>0.295</i>	<b>1.147</b>	1.172	1.176
Biomass-based Diesel (e) .....	<b>0.034</b>	<b>0.058</b>	<b>0.064</b>	<b>0.058</b>	<b>0.050</b>	<b>0.065</b>	<i>0.079</i>	<i>0.078</i>	<i>0.067</i>	<i>0.071</i>	<i>0.081</i>	<i>0.080</i>	<b>0.214</b>	0.272	0.300
Biofuel Losses and Co-products (f) .....	<b>0.189</b>	<b>0.192</b>	<b>0.195</b>	<b>0.200</b>	<b>0.196</b>	<b>0.199</b>	<i>0.199</i>	<i>0.197</i>	<i>0.197</i>	<i>0.198</i>	<i>0.198</i>	<i>0.196</i>	<b>0.776</b>	0.791	0.789
<b>Total Consumption</b> .....	<b>2.431</b>	<b>2.432</b>	<b>2.337</b>	<b>2.469</b>	<b>2.666</b>	<b>2.685</b>	<i>2.478</i>	<i>2.496</i>	<i>2.567</i>	<i>2.807</i>	<i>2.635</i>	<i>2.607</i>	<b>9.668</b>	10.325	10.615

- = 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 CO<sub>2</sub> Emissions**

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

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Macroeconomic</b>															
Real Gross Domestic Product (billion chained 2009 dollars - SAAR) .....	16,177	16,334	16,414	16,471	16,505	16,610	16,701	16,821	16,940	17,049	17,166	17,279	16,349	16,659	17,108
Real Personal Consumption Expend. (billion chained 2009 dollars - SAAR) .....	11,081	11,179	11,262	11,331	11,384	11,486	11,571	11,652	11,729	11,805	11,886	11,960	11,213	11,523	11,845
Real Fixed Investment (billion chained 2009 dollars - SAAR) .....	2,701	2,736	2,761	2,763	2,753	2,772	2,805	2,839	2,875	2,910	2,943	2,983	2,740	2,792	2,928
Business Inventory Change (billion chained 2009 dollars - SAAR) .....	127	128	95	87	74	32	2	3	10	29	37	45	109	28	30
Real Government Expenditures (billion chained 2009 dollars - SAAR) .....	2,839	2,857	2,870	2,871	2,879	2,888	2,903	2,914	2,923	2,929	2,932	2,933	2,859	2,896	2,929
Real Exports of Goods & Services (billion chained 2009 dollars - SAAR) .....	2,091	2,118	2,121	2,110	2,099	2,121	2,136	2,156	2,178	2,203	2,230	2,254	2,110	2,128	2,216
Real Imports of Goods & Services (billion chained 2009 dollars - SAAR) .....	2,633	2,652	2,667	2,662	2,661	2,656	2,695	2,723	2,754	2,805	2,838	2,873	2,653	2,684	2,817
Real Disposable Personal Income (billion chained 2009 dollars - SAAR) .....	12,115	12,194	12,290	12,390	12,513	12,587	12,657	12,742	12,834	12,933	13,025	13,103	12,247	12,625	12,974
Non-Farm Employment (millions) .....	140.8	141.5	142.2	142.9	143.5	143.9	144.3	145.1	145.6	146.1	146.4	146.8	141.8	144.2	146.2
Civilian Unemployment Rate (percent) .....	5.6	5.4	5.2	5.0	4.9	4.8	4.8	4.7	4.7	4.6	4.6	4.6	5.3	4.8	4.6
Housing Starts (millions - SAAR) .....	0.99	1.16	1.16	1.13	1.15	1.17	1.21	1.27	1.33	1.38	1.42	1.46	1.11	1.20	1.40
<b>Industrial Production Indices (Index, 2012=100)</b>															
Total Industrial Production .....	105.8	105.1	105.5	104.6	104.1	103.7	103.3	103.7	105.0	105.9	107.2	108.3	105.2	103.7	106.6
Manufacturing .....	103.2	103.4	103.9	103.7	103.9	103.8	103.9	104.2	105.2	105.9	107.1	108.3	103.6	103.9	106.6
Food .....	103.1	102.6	103.4	103.2	104.4	104.4	105.0	105.4	106.0	106.5	107.1	107.7	103.1	104.8	106.8
Paper .....	98.9	98.5	97.0	96.6	96.4	95.5	95.6	95.4	95.2	95.2	95.4	95.6	97.7	95.7	95.4
Petroleum and Coal Products .....	102.4	104.7	105.7	106.9	106.5	106.6	108.2	109.1	109.7	110.4	110.8	111.1	104.9	107.6	110.5
Chemicals .....	97.9	97.9	97.7	98.5	99.1	99.1	99.7	100.2	100.8	101.8	102.9	104.1	98.0	99.5	102.4
Nonmetallic Mineral Products .....	111.3	111.7	113.0	116.1	116.7	116.6	117.6	118.5	119.6	120.7	121.9	123.1	113.0	117.3	121.3
Primary Metals .....	98.2	97.1	96.6	95.0	94.8	94.8	93.8	93.3	93.2	93.3	93.8	94.0	96.7	94.2	93.5
Coal-weighted Manufacturing (a) .....	102.0	102.1	102.2	102.5	102.8	102.6	102.9	103.1	103.5	104.1	104.9	105.6	102.2	102.8	104.5
Distillate-weighted Manufacturing (a) .....	104.4	104.5	105.3	106.0	106.1	105.9	106.7	107.2	108.0	108.9	109.8	110.6	105.0	106.5	109.3
Electricity-weighted Manufacturing (a) .....	102.9	103.1	103.3	103.3	103.5	103.3	103.8	104.0	104.6	105.3	106.3	107.2	103.1	103.7	105.9
Natural Gas-weighted Manufacturing (a) .....	102.3	103.4	103.5	104.1	104.4	104.3	105.0	105.4	106.1	107.1	108.4	109.6	103.3	104.8	107.8
<b>Price Indexes</b>															
Consumer Price Index (all urban consumers) (index, 1982-1984=1.00) .....	2.35	2.37	2.38	2.38	2.38	2.39	2.40	2.41	2.43	2.45	2.46	2.48	2.37	2.40	2.45
Producer Price Index: All Commodities (index, 1982=1.00) .....	1.92	1.92	1.90	1.87	1.83	1.85	1.87	1.90	1.92	1.93	1.94	1.97	1.90	1.86	1.94
Producer Price Index: Petroleum (index, 1982=1.00) .....	1.71	1.96	1.85	1.53	1.23	1.53	1.60	1.53	1.55	1.69	1.74	1.77	1.76	1.47	1.69
GDP Implicit Price Deflator (index, 2009=100) .....	109.1	109.7	110.0	110.3	110.5	110.9	111.4	112.0	112.7	113.2	113.8	114.4	109.8	111.2	113.5
<b>Miscellaneous</b>															
Vehicle Miles Traveled (b) (million miles/day) .....	7,957	8,940	8,862	8,538	8,196	9,227	9,036	8,691	8,320	9,293	9,124	8,766	8,577	8,788	8,878
Air Travel Capacity (Available ton-miles/day, thousands) .....	517	574	584	560	548	593	593	541	520	595	596	544	559	569	564
Aircraft Utilization (Revenue ton-miles/day, thousands) .....	322	356	365	343	326	372	379	335	316	376	383	338	347	353	353
Airline Ticket Price Index (index, 1982-1984=100) .....	286.4	313.0	283.3	286.2	281.8	304.1	291.9	299.1	291.6	316.4	305.0	313.6	292.2	294.3	306.6
Raw Steel Production (million short tons per day) .....	0.247	0.242	0.248	0.226	0.238	0.247	0.245	0.216	0.214	0.223	0.203	0.173	0.241	0.237	0.203
<b>Carbon Dioxide (CO<sub>2</sub>) Emissions (million metric tons)</b>															
Petroleum .....	561	567	584	572	571	564	580	576	560	574	583	580	2,284	2,292	2,297
Natural Gas .....	470	314	328	369	442	330	342	392	459	331	342	396	1,480	1,507	1,528
Coal .....	393	351	428	315	312	304	412	342	351	313	397	342	1,486	1,370	1,404
Total Energy (c) .....	1,427	1,235	1,342	1,259	1,328	1,201	1,337	1,314	1,373	1,221	1,325	1,320	5,262	5,180	5,240

- = 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 - July 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Real Gross State Product (Billion \$2009)</b>															
New England .....	854	863	868	868	869	875	879	885	890	894	899	904	863	877	897
Middle Atlantic .....	2,409	2,437	2,446	2,457	2,459	2,476	2,490	2,505	2,513	2,526	2,539	2,551	2,437	2,482	2,532
E. N. Central .....	2,198	2,220	2,234	2,241	2,241	2,253	2,262	2,276	2,289	2,300	2,312	2,323	2,223	2,258	2,306
W. N. Central .....	1,028	1,038	1,049	1,052	1,053	1,060	1,066	1,073	1,079	1,085	1,092	1,098	1,042	1,063	1,088
S. Atlantic .....	2,868	2,899	2,913	2,929	2,940	2,961	2,979	3,004	3,027	3,047	3,068	3,089	2,902	2,971	3,058
E. S. Central .....	736	742	746	749	751	755	759	764	769	774	779	783	743	757	776
W. S. Central .....	2,021	2,025	2,028	2,031	2,033	2,040	2,050	2,064	2,085	2,104	2,126	2,147	2,027	2,047	2,115
Mountain .....	1,043	1,053	1,058	1,062	1,066	1,073	1,080	1,091	1,101	1,110	1,120	1,130	1,054	1,077	1,115
Pacific .....	2,919	2,954	2,969	2,979	2,990	3,013	3,031	3,055	3,081	3,102	3,125	3,146	2,955	3,022	3,114
<b>Industrial Output, Manufacturing (Index, Year 2012=100)</b>															
New England .....	99.4	99.6	99.9	99.6	99.9	99.9	100.0	100.2	101.0	101.7	102.8	103.9	99.6	100.0	102.4
Middle Atlantic .....	99.8	99.9	100.3	99.8	99.9	99.6	99.7	99.9	100.7	101.4	102.6	103.7	100.0	99.8	102.1
E. N. Central .....	105.1	105.4	106.0	106.2	106.1	106.0	106.1	106.4	107.2	107.9	109.0	110.0	105.7	106.2	108.5
W. N. Central .....	103.3	103.2	103.4	103.1	103.1	103.1	103.2	103.5	104.5	105.2	106.4	107.5	103.3	103.2	105.9
S. Atlantic .....	104.3	104.9	105.9	106.2	106.6	106.6	106.8	107.1	108.0	108.7	109.8	110.9	105.3	106.8	109.4
E. S. Central .....	105.5	106.1	107.2	107.6	108.5	108.5	108.6	108.9	109.8	110.6	111.7	112.7	106.6	108.6	111.2
W. S. Central .....	102.9	101.6	101.0	99.7	99.1	98.1	98.0	98.2	99.2	100.0	101.3	102.7	101.3	98.4	100.8
Mountain .....	104.7	105.2	106.2	106.8	107.6	107.6	108.0	108.5	109.8	110.8	112.3	113.7	105.7	107.9	111.7
Pacific .....	103.6	104.1	104.7	104.2	104.2	104.1	104.3	104.7	105.7	106.5	107.9	109.2	104.1	104.3	107.3
<b>Real Personal Income (Billion \$2009)</b>															
New England .....	740	748	751	758	765	770	774	778	784	789	794	798	749	772	791
Middle Atlantic .....	1,895	1,913	1,928	1,943	1,956	1,966	1,977	1,988	1,999	2,012	2,024	2,033	1,920	1,972	2,017
E. N. Central .....	2,011	2,023	2,040	2,063	2,080	2,092	2,102	2,114	2,128	2,142	2,156	2,165	2,034	2,097	2,148
W. N. Central .....	972	974	978	985	993	999	1,004	1,011	1,017	1,024	1,031	1,036	977	1,002	1,027
S. Atlantic .....	2,620	2,642	2,667	2,693	2,719	2,738	2,757	2,779	2,802	2,826	2,847	2,864	2,656	2,748	2,835
E. S. Central .....	759	764	771	779	784	788	792	798	804	810	816	820	768	791	813
W. S. Central .....	1,711	1,706	1,719	1,732	1,745	1,752	1,762	1,776	1,793	1,811	1,828	1,842	1,717	1,759	1,818
Mountain .....	922	930	936	945	955	962	969	977	987	996	1,005	1,012	933	966	1,000
Pacific .....	2,218	2,253	2,271	2,294	2,313	2,330	2,345	2,361	2,381	2,400	2,417	2,432	2,259	2,337	2,407
<b>Households (Thousands)</b>															
New England .....	5,831	5,838	5,843	5,849	5,858	5,865	5,869	5,875	5,882	5,889	5,898	5,907	5,849	5,875	5,907
Middle Atlantic .....	15,986	16,005	16,015	16,028	16,049	16,067	16,075	16,084	16,097	16,111	16,129	16,147	16,028	16,084	16,147
E. N. Central .....	18,606	18,613	18,622	18,639	18,662	18,683	18,694	18,712	18,731	18,750	18,772	18,795	18,639	18,712	18,795
W. N. Central .....	8,448	8,464	8,478	8,493	8,514	8,533	8,549	8,567	8,587	8,607	8,627	8,648	8,493	8,567	8,648
S. Atlantic .....	24,611	24,700	24,787	24,879	24,986	25,087	25,173	25,265	25,357	25,451	25,547	25,644	24,879	25,265	25,644
E. S. Central .....	7,517	7,524	7,532	7,543	7,558	7,574	7,586	7,600	7,614	7,630	7,646	7,662	7,543	7,600	7,662
W. S. Central .....	14,319	14,373	14,421	14,471	14,530	14,588	14,640	14,693	14,746	14,800	14,856	14,913	14,471	14,693	14,913
Mountain .....	8,783	8,817	8,850	8,885	8,926	8,964	9,000	9,039	9,077	9,116	9,158	9,200	8,885	9,039	9,200
Pacific .....	18,402	18,459	18,508	18,560	18,624	18,685	18,734	18,789	18,844	18,900	18,958	19,016	18,560	18,789	19,016
<b>Total Non-farm Employment (Millions)</b>															
New England .....	7.2	7.2	7.2	7.2	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	19.1	19.2	19.2	19.3	19.3	19.4	19.4	19.4	19.4	19.0	19.3	19.4
E. N. Central .....	21.4	21.4	21.5	21.6	21.7	21.7	21.8	21.9	21.9	22.0	22.0	22.0	21.5	21.8	22.0
W. N. Central .....	10.4	10.5	10.5	10.5	10.5	10.5	10.6	10.6	10.6	10.7	10.7	10.7	10.5	10.5	10.7
S. Atlantic .....	26.7	26.9	27.1	27.3	27.4	27.5	27.6	27.8	27.9	28.0	28.1	28.2	27.0	27.6	28.1
E. S. Central .....	7.8	7.8	7.8	7.9	7.9	7.9	8.0	8.0	8.0	8.1	8.1	8.1	7.8	8.0	8.1
W. S. Central .....	16.6	16.6	16.7	16.7	16.8	16.8	16.8	16.9	17.0	17.1	17.1	17.2	16.6	16.8	17.1
Mountain .....	9.9	10.0	10.0	10.1	10.2	10.2	10.3	10.3	10.4	10.5	10.5	10.5	10.0	10.3	10.5
Pacific .....	21.6	21.8	22.0	22.1	22.3	22.4	22.4	22.5	22.6	22.7	22.8	22.8	21.9	22.4	22.7

- = 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 - July 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Heating Degree Days</b>															
New England .....	<b>3,854</b>	<b>821</b>	<b>58</b>	<b>1,793</b>	<b>2,839</b>	<b>909</b>	<i>115</i>	<i>2,170</i>	<i>3,197</i>	<i>877</i>	<i>131</i>	<i>2,170</i>	<b>6,526</b>	<i>6,033</i>	<i>6,374</i>
Middle Atlantic .....	<b>3,581</b>	<b>611</b>	<b>40</b>	<b>1,547</b>	<b>2,666</b>	<b>744</b>	<i>65</i>	<i>1,961</i>	<i>2,931</i>	<i>688</i>	<i>79</i>	<i>1,961</i>	<b>5,779</b>	<i>5,436</i>	<i>5,659</i>
E. N. Central .....	<b>3,693</b>	<b>661</b>	<b>75</b>	<b>1,742</b>	<b>2,867</b>	<b>756</b>	<i>100</i>	<i>2,213</i>	<i>3,149</i>	<i>719</i>	<i>115</i>	<i>2,213</i>	<b>6,171</b>	<i>5,936</i>	<i>6,197</i>
W. N. Central .....	<b>3,375</b>	<b>653</b>	<b>95</b>	<b>1,963</b>	<b>2,891</b>	<b>652</b>	<i>132</i>	<i>2,390</i>	<i>3,235</i>	<i>674</i>	<i>144</i>	<i>2,390</i>	<b>6,086</b>	<i>6,065</i>	<i>6,443</i>
South Atlantic .....	<b>1,672</b>	<b>155</b>	<b>8</b>	<b>662</b>	<b>1,384</b>	<b>211</b>	<i>11</i>	<i>967</i>	<i>1,443</i>	<i>201</i>	<i>16</i>	<i>965</i>	<b>2,498</b>	<i>2,573</i>	<i>2,624</i>
E. S. Central .....	<b>2,146</b>	<b>184</b>	<b>14</b>	<b>882</b>	<b>1,758</b>	<b>235</b>	<i>15</i>	<i>1,293</i>	<i>1,834</i>	<i>245</i>	<i>22</i>	<i>1,294</i>	<b>3,226</b>	<i>3,301</i>	<i>3,396</i>
W. S. Central .....	<b>1,401</b>	<b>70</b>	<b>2</b>	<b>615</b>	<b>1,051</b>	<b>78</b>	<i>4</i>	<i>773</i>	<i>1,144</i>	<i>79</i>	<i>4</i>	<i>772</i>	<b>2,087</b>	<i>1,906</i>	<i>2,000</i>
Mountain .....	<b>1,899</b>	<b>704</b>	<b>123</b>	<b>1,867</b>	<b>2,074</b>	<b>656</b>	<i>121</i>	<i>1,771</i>	<i>2,158</i>	<i>649</i>	<i>131</i>	<i>1,771</i>	<b>4,592</b>	<i>4,622</i>	<i>4,710</i>
Pacific .....	<b>1,085</b>	<b>523</b>	<b>77</b>	<b>1,194</b>	<b>1,300</b>	<b>459</b>	<i>65</i>	<i>1,077</i>	<i>1,376</i>	<i>517</i>	<i>78</i>	<i>1,077</i>	<b>2,879</b>	<i>2,901</i>	<i>3,049</i>
U.S. Average .....	<b>2,342</b>	<b>443</b>	<b>49</b>	<b>1,253</b>	<b>1,947</b>	<b>478</b>	<i>60</i>	<i>1,495</i>	<i>2,104</i>	<i>472</i>	<i>69</i>	<i>1,492</i>	<b>4,086</b>	<i>3,980</i>	<i>4,138</i>
<b>Heating Degree Days, Prior 10-year Average</b>															
New England .....	<b>3,166</b>	<b>838</b>	<b>134</b>	<b>2,147</b>	<b>3,212</b>	<b>824</b>	<i>133</i>	<i>2,105</i>	<i>3,201</i>	<i>831</i>	<i>126</i>	<i>2,130</i>	<b>6,285</b>	<i>6,273</i>	<i>6,288</i>
Middle Atlantic .....	<b>2,935</b>	<b>666</b>	<b>90</b>	<b>1,976</b>	<b>2,983</b>	<b>651</b>	<i>90</i>	<i>1,927</i>	<i>2,982</i>	<i>660</i>	<i>83</i>	<i>1,947</i>	<b>5,667</b>	<i>5,650</i>	<i>5,672</i>
E. N. Central .....	<b>3,192</b>	<b>694</b>	<b>123</b>	<b>2,262</b>	<b>3,247</b>	<b>689</b>	<i>125</i>	<i>2,205</i>	<i>3,254</i>	<i>701</i>	<i>119</i>	<i>2,215</i>	<b>6,272</b>	<i>6,267</i>	<i>6,290</i>
W. N. Central .....	<b>3,273</b>	<b>691</b>	<b>150</b>	<b>2,433</b>	<b>3,298</b>	<b>693</b>	<i>150</i>	<i>2,392</i>	<i>3,302</i>	<i>706</i>	<i>145</i>	<i>2,405</i>	<b>6,546</b>	<i>6,533</i>	<i>6,558</i>
South Atlantic .....	<b>1,481</b>	<b>196</b>	<b>14</b>	<b>1,013</b>	<b>1,502</b>	<b>185</b>	<i>14</i>	<i>975</i>	<i>1,505</i>	<i>189</i>	<i>13</i>	<i>979</i>	<b>2,704</b>	<i>2,676</i>	<i>2,686</i>
E. S. Central .....	<b>1,853</b>	<b>236</b>	<b>19</b>	<b>1,358</b>	<b>1,898</b>	<b>225</b>	<i>19</i>	<i>1,308</i>	<i>1,906</i>	<i>231</i>	<i>17</i>	<i>1,306</i>	<b>3,466</b>	<i>3,451</i>	<i>3,460</i>
W. S. Central .....	<b>1,188</b>	<b>86</b>	<b>5</b>	<b>834</b>	<b>1,221</b>	<b>83</b>	<i>5</i>	<i>814</i>	<i>1,227</i>	<i>88</i>	<i>4</i>	<i>814</i>	<b>2,113</b>	<i>2,123</i>	<i>2,134</i>
Mountain .....	<b>2,258</b>	<b>730</b>	<b>150</b>	<b>1,873</b>	<b>2,230</b>	<b>724</b>	<i>147</i>	<i>1,880</i>	<i>2,215</i>	<i>731</i>	<i>138</i>	<i>1,868</i>	<b>5,012</b>	<i>4,981</i>	<i>4,952</i>
Pacific .....	<b>1,534</b>	<b>621</b>	<b>92</b>	<b>1,205</b>	<b>1,495</b>	<b>609</b>	<i>88</i>	<i>1,211</i>	<i>1,461</i>	<i>596</i>	<i>85</i>	<i>1,196</i>	<b>3,453</b>	<i>3,403</i>	<i>3,338</i>
U.S. Average .....	<b>2,183</b>	<b>493</b>	<b>77</b>	<b>1,567</b>	<b>2,199</b>	<b>483</b>	<i>76</i>	<i>1,535</i>	<i>2,192</i>	<i>487</i>	<i>72</i>	<i>1,536</i>	<b>4,319</b>	<i>4,293</i>	<i>4,287</i>
<b>Cooling Degree Days</b>															
New England .....	<b>0</b>	<b>71</b>	<b>487</b>	<b>0</b>	<b>0</b>	<b>84</b>	<i>449</i>	<i>1</i>	<i>0</i>	<i>85</i>	<i>417</i>	<i>1</i>	<b>558</b>	<i>534</i>	<i>503</i>
Middle Atlantic .....	<b>0</b>	<b>185</b>	<b>613</b>	<b>2</b>	<b>0</b>	<b>167</b>	<i>595</i>	<i>7</i>	<i>0</i>	<i>165</i>	<i>568</i>	<i>7</i>	<b>800</b>	<i>769</i>	<i>741</i>
E. N. Central .....	<b>0</b>	<b>220</b>	<b>498</b>	<b>9</b>	<b>3</b>	<b>228</b>	<i>592</i>	<i>10</i>	<i>0</i>	<i>226</i>	<i>563</i>	<i>10</i>	<b>727</b>	<i>833</i>	<i>799</i>
W. N. Central .....	<b>3</b>	<b>266</b>	<b>662</b>	<b>13</b>	<b>10</b>	<b>324</b>	<i>723</i>	<i>14</i>	<i>3</i>	<i>283</i>	<i>698</i>	<i>14</i>	<b>944</b>	<i>1,070</i>	<i>997</i>
South Atlantic .....	<b>137</b>	<b>763</b>	<b>1,156</b>	<b>335</b>	<b>136</b>	<b>657</b>	<i>1,186</i>	<i>238</i>	<i>120</i>	<i>637</i>	<i>1,146</i>	<i>239</i>	<b>2,392</b>	<i>2,217</i>	<i>2,143</i>
E. S. Central .....	<b>23</b>	<b>580</b>	<b>1,017</b>	<b>98</b>	<b>42</b>	<b>541</b>	<i>1,102</i>	<i>74</i>	<i>29</i>	<i>520</i>	<i>1,048</i>	<i>74</i>	<b>1,718</b>	<i>1,759</i>	<i>1,670</i>
W. S. Central .....	<b>52</b>	<b>855</b>	<b>1,572</b>	<b>268</b>	<b>122</b>	<b>844</b>	<i>1,503</i>	<i>215</i>	<i>88</i>	<i>873</i>	<i>1,507</i>	<i>215</i>	<b>2,747</b>	<i>2,685</i>	<i>2,683</i>
Mountain .....	<b>45</b>	<b>431</b>	<b>920</b>	<b>86</b>	<b>34</b>	<b>445</b>	<i>996</i>	<i>90</i>	<i>23</i>	<i>452</i>	<i>970</i>	<i>90</i>	<b>1,482</b>	<i>1,565</i>	<i>1,534</i>
Pacific .....	<b>51</b>	<b>226</b>	<b>687</b>	<b>123</b>	<b>36</b>	<b>229</b>	<i>610</i>	<i>76</i>	<i>32</i>	<i>197</i>	<i>585</i>	<i>76</i>	<b>1,087</b>	<i>951</i>	<i>890</i>
U.S. Average .....	<b>46</b>	<b>433</b>	<b>876</b>	<b>133</b>	<b>54</b>	<b>414</b>	<i>886</i>	<i>100</i>	<i>43</i>	<i>406</i>	<i>860</i>	<i>101</i>	<b>1,489</b>	<i>1,454</i>	<i>1,410</i>
<b>Cooling Degree Days, Prior 10-year Average</b>															
New England .....	<b>0</b>	<b>85</b>	<b>420</b>	<b>1</b>	<b>0</b>	<b>81</b>	<i>420</i>	<i>1</i>	<i>0</i>	<i>81</i>	<i>424</i>	<i>1</i>	<b>506</b>	<i>501</i>	<i>506</i>
Middle Atlantic .....	<b>0</b>	<b>168</b>	<b>557</b>	<b>5</b>	<b>0</b>	<b>168</b>	<i>548</i>	<i>5</i>	<i>0</i>	<i>171</i>	<i>552</i>	<i>6</i>	<b>731</b>	<i>722</i>	<i>729</i>
E. N. Central .....	<b>3</b>	<b>234</b>	<b>545</b>	<b>6</b>	<b>3</b>	<b>229</b>	<i>528</i>	<i>6</i>	<i>3</i>	<i>234</i>	<i>531</i>	<i>7</i>	<b>787</b>	<i>765</i>	<i>775</i>
W. N. Central .....	<b>7</b>	<b>282</b>	<b>683</b>	<b>9</b>	<b>7</b>	<b>279</b>	<i>674</i>	<i>9</i>	<i>7</i>	<i>281</i>	<i>674</i>	<i>10</i>	<b>981</b>	<i>969</i>	<i>973</i>
South Atlantic .....	<b>110</b>	<b>635</b>	<b>1,154</b>	<b>210</b>	<b>114</b>	<b>659</b>	<i>1,144</i>	<i>221</i>	<i>116</i>	<i>665</i>	<i>1,148</i>	<i>225</i>	<b>2,108</b>	<i>2,138</i>	<i>2,154</i>
E. S. Central .....	<b>33</b>	<b>526</b>	<b>1,053</b>	<b>52</b>	<b>32</b>	<b>541</b>	<i>1,038</i>	<i>56</i>	<i>33</i>	<i>545</i>	<i>1,041</i>	<i>60</i>	<b>1,663</b>	<i>1,667</i>	<i>1,679</i>
W. S. Central .....	<b>94</b>	<b>883</b>	<b>1,519</b>	<b>184</b>	<b>90</b>	<b>890</b>	<i>1,518</i>	<i>191</i>	<i>90</i>	<i>877</i>	<i>1,519</i>	<i>193</i>	<b>2,679</b>	<i>2,689</i>	<i>2,679</i>
Mountain .....	<b>17</b>	<b>423</b>	<b>930</b>	<b>75</b>	<b>21</b>	<b>429</b>	<i>930</i>	<i>76</i>	<i>23</i>	<i>423</i>	<i>942</i>	<i>79</i>	<b>1,445</b>	<i>1,456</i>	<i>1,466</i>
Pacific .....	<b>26</b>	<b>170</b>	<b>601</b>	<b>65</b>	<b>29</b>	<b>180</b>	<i>613</i>	<i>72</i>	<i>30</i>	<i>180</i>	<i>611</i>	<i>75</i>	<b>863</b>	<i>894</i>	<i>897</i>
U.S. Average .....	<b>40</b>	<b>396</b>	<b>849</b>	<b>83</b>	<b>42</b>	<b>404</b>	<i>845</i>	<i>88</i>	<i>43</i>	<i>405</i>	<i>849</i>	<i>91</i>	<b>1,369</b>	<i>1,379</i>	<i>1,388</i>

- = 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](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>).