



## Short-Term Energy Outlook (STEO)

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### Highlights

- North Sea Brent crude oil prices averaged \$44/barrel (b) in November, a \$4/b decrease from October. Global oil inventories are estimated to have increased by 1.3 million barrels per day (b/d) in November, putting downward pressure on Brent prices.
- EIA forecasts that Brent crude oil prices will average \$53/b in 2015 and \$56/b in 2016. Forecast West Texas Intermediate (WTI) crude oil prices average \$4/b lower than the Brent price in 2015 and \$5/b lower in 2016. The current values of futures and options contracts for March 2016 delivery ([Market Prices and Uncertainty Report](#)) suggest the market expects WTI prices to range from \$30/b to \$63/b (at the 95% confidence interval).
- The monthly average price of U.S. regular retail gasoline was \$2.16/gallon (gal) in November, a decrease of 13 cents/gal from October and 75 cents/gal lower than in November 2014. EIA forecasts U.S. regular gasoline retail prices to average \$2.04/gal in December 2015 and \$2.36/gal for 2016.
- EIA estimates that total U.S. crude oil production declined by about 60,000 b/d in November compared with October. Crude oil production is forecast to decrease through the third quarter of 2016 before growth resumes late in 2016. Projected U.S. crude oil production averages 9.3 million b/d in 2015 and 8.8 million b/d in 2016.
- Natural gas working inventories were a record 4,009 billion cubic feet (Bcf) on November 20. On November 27, inventories were 16% higher than during the same week last year and 7% higher than the previous five-year average (2010-14) for that week. EIA expects the Henry Hub natural gas spot price to average \$2.47/million British thermal units (MMBtu) this winter (October 2015–March 2016) compared with \$3.35/MMBtu last winter.
- Electricity generated from natural gas-fired power plants exceeded generation from coal-fired plants in September for the third month in a row. Before April 2015, the monthly share of total U.S. generation fueled by coal had always been larger than the natural gas share. Natural gas generation in September was 4% higher than the level generated by coal. This increased use of natural gas for electricity generation primarily reflects sustained low prices for the fuel.

## Global Petroleum and Other Liquids

Global petroleum and other liquids production continues to outpace consumption, leading to inventory builds throughout the forecast period. Global oil inventory builds in the third quarter of 2015 averaged 1.8 million b/d, down from 2.0 million b/d in the second quarter, which had the largest inventory builds since the fourth quarter of 2008. The pace of inventory builds is expected to slow in the fourth quarter to roughly 1.4 million b/d. In 2016, inventory builds are expected to slow further to an average of 0.6 million b/d.

**Global Petroleum and Other Liquids Consumption.** EIA estimates global consumption of petroleum and other liquids grew by 1.2 million b/d in 2014, averaging 92.4 million b/d for the year. EIA expects global consumption of petroleum and other liquids to grow by 1.4 million b/d in both 2015 and 2016. Forecast real gross domestic product (GDP) for the world weighted by oil consumption, which increased by 2.7% in 2014, rises by 2.3% in 2015 and by 2.6% in 2016.

Consumption of petroleum and other liquids in countries outside the Organization for Economic Cooperation and Development (OECD) increased by 1.4 million b/d in 2014 and is projected to grow by 0.8 million b/d in 2015 and by 1.1 million b/d in 2016. China continues to be the main driver of non-OECD oil consumption growth, despite the slowdown in the country's economic growth that began in the second half of 2014. China's liquid fuels consumption growth is forecast to average 0.3 million b/d in 2015 and in 2016, below the 0.4 million b/d growth in 2014.

After falling by 0.3 million b/d in 2014, OECD petroleum and other liquids consumption is expected to rise by 0.6 million b/d in 2015 and by 0.3 million b/d in 2016, reaching an average of 46.7 million b/d, the highest annual average level of OECD consumption since 2010. U.S. consumption is expected to grow by an average of 0.3 million b/d in 2015 and by 0.2 million b/d in 2016. In 2015, economic conditions improved in several OECD countries in Europe and Asia as they emerged from recessions, contributing to oil demand growth. Also, colder-than-normal weather in OECD Europe in early 2015 contributed to a forecast 0.3 million b/d increase in 2015 oil consumption. Consumption in OECD Europe is forecast to increase by 0.1 million b/d in 2016.

**Non-OPEC Petroleum and Other Liquids Supply.** EIA estimates that petroleum and other liquids production in countries outside of the Organization of the Petroleum Exporting Countries (OPEC) grew by 2.5 million b/d in 2014, which mainly reflects production growth in the United States. EIA expects non-OPEC production to grow by 1.2 million b/d in 2015, and then to decline by 0.4 million b/d in 2016, which would be the first annual decline in non-OPEC production since 2008. Non-OPEC production growth in 2015 is largely attributable to investments committed to projects before the oil price decline that began in mid-2014. The declines in 2016 are mostly because of declines in U.S. onshore and North Sea production.

Production growth in Canada is expected to average 0.1 million b/d in both 2015 and 2016. Persistently low oil prices are leading to delays or cancellations of projects previously scheduled to come online during the forecast period, including Shell's October cancellation of the 80,000

b/d Carmon Creek project. However, some projects continue as planned, including the Imperial Oil and Cenovus oil sands projects scheduled to come online by the end of 2016.

Unplanned supply disruptions among non-OPEC producers averaged 0.7 million b/d in November, an increase of almost 0.1 million b/d from the previous month. In early November, Brazilian oil workers from several unions began a strike, which lasted for more than three weeks and shut in roughly 0.1 million b/d of oil production. On November 23, Petrobras announced an agreement with the majority of striking unions, and production has resumed.

**OPEC Petroleum and Other Liquids Supply.** At its December 4 meeting, OPEC members announced they “should continue to closely monitor developments in the coming months.” This indicates OPEC producers, led by Saudi Arabia, are continuing the policy of defending market share in a low oil price environment. EIA estimates OPEC production averaged 31.4 million b/d in November 2015, 1.3 million b/d higher than in November 2014. Increased crude oil production in Saudi Arabia and Iraq is the main driver of higher OPEC production.

Also, at the December 4 meeting, OPEC members voted unanimously to reactivate Indonesia’s OPEC membership, despite its remaining a net importer of crude oil. Indonesia had suspended its membership in 2009 after it became a net importer of crude oil. Starting with the January 2016 STEO, EIA will include Indonesia’s output in the OPEC total for both history and the forecast.

EIA estimates that OPEC crude oil production averaged 30.1 million b/d in 2014. EIA forecasts OPEC crude oil production to increase by 0.9 million b/d in 2015, led by production growth in Iraq. Forecast OPEC crude oil production increases by 0.3 million b/d in 2016, with Iran forecast to increase production once international sanctions targeting its oil sector are suspended. Under the [Joint Comprehensive Plan of Action \(JCPOA\)](#) between Iran and the five permanent members of the United Nations Security Council and Germany (P5+1) that was announced on July 14, sanctions relief is contingent on verification by the International Atomic Energy Agency (IAEA) that Iran has complied with key nuclear-related steps.

Although uncertainty remains as to the timing of sanctions relief, EIA assumes the implementation occurs in the second quarter of 2016, clearing the way to ease sanctions at that time. As a result, EIA forecasts Iranian crude oil supplies will increase by more than 0.2 million b/d on average in 2016, reaching roughly 3.3 million b/d by the end of the year.

Iraq is producing at record levels, with estimated crude oil production averaging 4.5 million b/d in November 2015, 0.7 million b/d higher than the 3.8 million b/d average during the first half of 2015. The expansion of onshore pumping and storage infrastructure in the south, improvements in crude quality as Basra Light and Basra Heavy were marketed separately, and an increase to the Kurdistan Regional Government’s (KRG) pipeline capacity in the north have all contributed to production growth in Iraq. EIA expects Iraq’s production growth to slow in 2016 because of budgetary constraints that have prompted the Iraqi government to request international oil companies (IOCs) operating in the south to reduce spending plans. The KRG is also experiencing

budgetary constraints that contribute to payment delays to IOCs, which could also contribute to slowing production growth next year.

OPEC noncrude liquids production, which averaged 6.3 million b/d in 2014, is expected to increase by 0.2 million b/d in 2015 and by 0.3 million b/d in 2016, led by increases in Iran and Qatar.

In November, unplanned crude oil supply disruptions among OPEC producers averaged 2.7 million b/d, 0.2 million b/d lower than the previous month. Iraq's production recovered in November after bad weather in the southern Basra Gulf caused a more than 0.2 million b/d disruption in October. In Libya, the Zueitina export terminal port was shut again in early November, after briefly reopening in October. This closure partially offset the reduction in Iraq's disruptions. Kuwait and Saudi Arabia continue to have a total disruption of 0.5 million b/d at the Wafra and Khafji fields in the Neutral Zone that straddles the two countries.

EIA expects OPEC surplus crude oil production capacity to average 1.5 million b/d in 2015 and 2.0 million b/d in 2016, after averaging 2.0 million b/d in 2014. EIA estimates that Iran's crude oil production capacity is 3.6 million b/d, which is 0.8 million b/d higher than its current estimated production level. EIA currently categorizes that 0.8 million b/d as a disruption because Iran's production is restricted by sanctions that affect the country's ability to sell its oil. However, if sanctions are lifted next year, any difference between its crude oil production capacity and its crude oil production level would henceforth be considered surplus capacity.

Surplus capacity is typically an indicator of market conditions, and surplus capacity below 2.5 million b/d indicates a relatively tight oil market. However, the high current and forecast levels of global inventory builds make the projected low surplus capacity level in 2016 less significant.

**OECD Petroleum Inventories.** EIA estimates that OECD commercial crude oil and other liquids inventories totaled 2.70 billion barrels at the end of 2014, equivalent to roughly 59 days of consumption. Forecast OECD inventories rise to 2.98 billion barrels at the end of 2015 and then to 3.03 billion barrels at the end of 2016.

**Crude Oil Prices.** Brent crude oil spot prices decreased by \$4/b in November to a monthly average of \$44/b, as global oil supply continued to outpace demand. Continuing [increases in global liquids inventories](#) have put significant downward pressure on oil prices. Inventories rose by an estimated 1.8 million b/d through the first three quarters of 2015, compared with an average build of 0.5 million b/d over the same period in 2014. Global liquid fuels inventory builds are expected to slow to an average 1.4 million b/d in the fourth quarter of 2015, and then slow further to an average of 0.6 million b/d in 2016.

The monthly average WTI crude oil spot price averaged \$42/b in November. WTI prices in November were down \$4/b from the average in October, as crude oil inventories at the Cushing, Oklahoma, storage hub increased in November despite rising refinery inputs of crude oil following seasonal maintenance.

EIA forecasts that Brent crude oil prices will average \$53/b in 2015 and \$56/b in 2016. The 2015 forecast is \$1/b lower than last month's STEO, and the 2016 forecast is unchanged. Forecast WTI crude oil prices average \$4/b lower than the Brent price in 2015 and \$5/b lower in 2016.

EIA's crude oil price forecast remains subject to significant uncertainties as the oil market moves toward balance. During this period of price discovery, oil prices could continue to experience periods of heightened volatility. The oil market faces many uncertainties heading into 2016, including the pace and volume at which Iranian oil reenters the market, the strength of oil consumption growth, and the responsiveness of non-OPEC production to low oil prices.

The current values of futures and options contracts continue to suggest high uncertainty in the price outlook (*Market Prices and Uncertainty Report*). WTI futures contracts for March 2016 delivery, traded during the five-day period ending December 3, averaged \$44/b, while implied volatility averaged 42%. These levels established the lower and upper limits of the 95% confidence interval for the market's expectations of monthly average WTI prices in March 2016 at \$30/b and \$63/b, respectively. The 95% confidence interval for market expectations widens over time, with lower and upper limits of \$26/b and \$90/b for prices in December 2016. Last year at this time, WTI for March 2015 delivery averaged \$67/b, and implied volatility averaged 32%. The corresponding lower and upper limits of the 95% confidence interval were \$51/b and \$89/b.

## U.S. Petroleum and Other Liquids

Monthly data show gasoline consumption in the United States increased by 3.0% during the first nine months of 2015 compared with same period in 2014. U.S. gasoline consumption growth reflects increases in employment and lower gasoline prices. Growing domestic consumption and strong gasoline consumption growth globally contributed to [high refinery wholesale gasoline margins](#) (the difference between the wholesale price of gasoline and the price of Brent crude oil) for most of 2015. Average wholesale gasoline margins reached 73 cents/gal in August, which was the highest monthly average since May 2007. Margins returned closer to typical seasonal levels in October but increased in November, a month in which they typically decline.

Despite the increasing wholesale gasoline margins, U.S. average regular gasoline retail prices fell from a monthly average of \$2.29/gal in October to \$2.16/gal in November because of lower crude oil prices. On November 23, the U.S. average regular gasoline retail price was \$2.09/gal, the [lowest price heading into the Thanksgiving holiday since 2008](#). Monthly average regional gasoline retail prices for November ranged from a low of \$1.90/gal in PADD 3 (Gulf Coast) to a high of \$2.62/gal in PADD 5 (West Coast). EIA expects gasoline prices to fall from current levels, with the U.S. regular gasoline price averaging \$2.04/gal in December 2015.

**Liquid Fuels Consumption.** Total U.S. liquid fuels consumption is projected to increase by 290,000 b/d (1.5%) in 2015, higher than the 140,000 b/d (0.8%) increase in 2014. U.S. consumption has been stimulated by continuing [employment and economic growth](#) and lower petroleum product prices. Total liquid fuels consumption growth in 2016 is forecast to average 160,000 b/d (0.8%).

In 2015, liquid fuels consumption growth is led by motor gasoline, which is forecast to increase by 220,000 b/d (2.4%) to an average of 9.1 million b/d, the highest level since the record of 9.3 million b/d in 2007. Although total nonfarm employment and total highway travel have increased by 2.9% and 3.7%, respectively, over the past eight years, improving vehicle fuel economy continues to keep gasoline consumption below its previous peak. Gasoline consumption growth is forecast to slow to 10,000 b/d (0.1%) in 2016, as a long-term trend toward more-fuel-efficient vehicles continues to offset the effects of economic and population growth on highway travel.

Jet fuel consumption, which grew by 40,000 b/d (2.5%) in 2014, is forecast to rise by 60,000 b/d (4.3%) in 2015. Forecast jet fuel consumption is down slightly in 2016, with improvement in average airline fleet fuel economy offsetting growth in freight and passenger travel.

After increasing by 210,000 b/d (5.5%) in 2014, consumption of distillate fuel, which includes diesel fuel and heating oil, is forecast to fall by 30,000 b/d (0.9%) in 2015 and to increase by 40,000 b/d (1.0%) in 2016. The 2016 growth is driven by increases in manufacturing output, foreign trade, and marine fuel use.

Hydrocarbon gas liquids (HGL) consumption, which fell by 50,000 b/d (1.9%) in 2014, is projected to remain flat in 2015. Projected consumption rises by 100,000 b/d (4.1%) in 2016, as a return to more-normal temperatures increases heating consumption of propane and expanded petrochemical plant capacity increases the use of HGL, especially ethane, as a feedstock. [New HGL export terminal capacity](#) contributes to an increase in HGL net exports from an average of 560,000 b/d in 2014 to 1.1 million b/d in 2016.

**Liquid Fuels Supply.** U.S. crude oil production is projected to increase from an average of 8.7 million b/d in 2014 to 9.3 million b/d in 2015 and then decrease to 8.8 million b/d in 2016. This forecast is mostly unchanged from last month's STEO.

According to the latest [survey-based reporting](#) of monthly crude oil production estimates, U.S. production averaged 9.4 million b/d through the first nine months of 2015. This level is 0.1 million b/d higher than the average production during the fourth quarter of 2014, despite a more than 60% decline in the total U.S. oil-directed rig count since October 2014. However, monthly crude oil production started to decrease in the second quarter of 2015. Lower 48 onshore output began declining in April 2015, and it has fallen from 7.6 million b/d in March to an estimated 7.1 million b/d in November. Total U.S. crude oil production began declining in May 2015, and has fallen from 9.6 million b/d in April to an estimated 9.2 million b/d in November.

EIA expects U.S. crude oil production declines to continue through September 2016, when total production is forecast to average 8.5 million b/d. This level of production would be 1.1 million b/d less than the recent monthly peak reached in April 2015. Forecast production begins increasing in late 2016, returning to an average of 8.7 million b/d in the fourth quarter.

Expected crude oil production declines through September 2016 are largely attributable to unattractive returns in some areas of both emerging and mature onshore oil production regions, as well as seasonal factors such as anticipated hurricane-related production disruptions in the Gulf of Mexico. Reductions in 2015 cash flows and capital expenditures have prompted companies to defer or redirect investment away from marginal exploration and research drilling to focus on core areas of major tight oil plays. Reduced investment has resulted in the lowest count of oil-directed rigs in five years and in well completions that are significantly lower than 2014 levels.

Projected oil prices below \$60/b throughout the forecast period are expected to limit onshore drilling activity and well completion totals, despite continued increases in rig and well productivity and falling drilling and completion costs. The forecast remains sensitive to actual wellhead prices and rapidly changing drilling economics that vary across regions and operators.

Projected crude oil production in the Gulf of Mexico rises during the forecast period, and oil production in Alaska falls. Production in these areas is less sensitive to short-term price movements than onshore production in the Lower 48 states and reflects anticipated growth from new projects in the Gulf of Mexico and declines from legacy fields in Alaska. Twelve projects are scheduled to come online in the Gulf of Mexico in 2015 and 2016, pushing up production from an average of 1.4 million b/d in the fourth quarter of 2014 to 1.7 million b/d in the fourth quarter of 2016. It is possible some projects will start production later than expected, shifting some of the anticipated production gains from late 2016 into early 2017.

HGL production at natural gas processing plants reached 3.3 million b/d in September 2015, and it is projected to average 3.3 million b/d in 2015 and 3.5 million b/d in 2016. Expected additions of natural gas processing and distribution infrastructure contribute to forecast HGL production growing at a faster pace than the natural gas streams from which it is produced. Marketed natural gas, which is primarily produced at natural gas wells but also includes associated gas from oil wells, is forecast to increase by 6.3% in 2015 and by 1.9% in 2016, compared with 6.9% growth in 2014. EIA expects higher ethane recovery rates in 2016, following planned increases to petrochemical plant feedstock demand in the United States and abroad. In the forecast, 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.

**Petroleum Product Prices.** Lower crude oil prices contributed to U.S. regular gasoline retail prices declining to an average of \$2.16/gal in November, down from an average of \$2.29/gal in October. EIA projects regular gasoline retail prices to average \$2.04/gal in December 2015 and \$2.14/gal in the first quarter of 2016.

The U.S. regular gasoline retail price, which averaged \$3.36/gal in 2014, is projected to average \$2.43/gal in 2015 and \$2.36/gal in 2016. The diesel fuel retail price, which averaged \$3.83/gal in 2014, is projected to average \$2.71/gal in 2015 and \$2.67/gal in 2016.

Lower projected crude oil prices this winter compared with last winter contribute to a reduction in the forecast residential heating oil price and average household heating oil expenditures. Households that use heating oil as a primary space heating fuel are expected to pay an average of \$2.40/gal this winter, 64 cents/gal lower than last winter. The average household is now expected to spend \$1,282 for heating oil this winter, \$570 less than last winter. The reduction in expenditures also reflects lower forecast consumption because of warmer forecast temperatures this winter compared with last winter.

Propane prices this winter are expected to be 7% lower in the Northeast and 15% lower in the Midwest, contributing to households spending 18% and 25% less on propane in those regions, respectively.

## Natural Gas

Working natural gas inventories on November 20 reached their highest recorded level at 4,009 billion cubic feet (Bcf), according to EIA's [Weekly Natural Gas Storage Report \(WNGSR\)](#). Although the storage injection season is commonly considered to end on October 31, builds often continue into November. Looking to March 2016, EIA projects inventories will end the winter at 1,862 Bcf, which would be a smaller drawdown than typically seen during the winter.

On November 19, EIA [updated the classification of natural gas storage regions in the WNGSR](#). Natural gas inventories are now reported for five new regions instead of the previous three regions. This STEO reflects those changes, and a more detailed discussion of the changes can be found in [a supplemental analysis to this STEO](#).

Strong inventory builds, continuing production growth, and expectations for warmer-than-normal winter temperatures have all contributed to low natural gas prices. Forecast Henry Hub spot prices for 2016 average \$2.88 per million British thermal units (MMBtu), 12 cents/MMBtu lower than last month's forecast.

Based on lower forecast residential natural gas prices than last winter and a forecast of warmer temperatures across much of the United States, EIA expects heating expenditures for households using natural gas as their primary space heating fuel to average 13% lower this winter compared with last winter.

**Natural Gas Consumption.** EIA's forecast of U.S. total natural gas consumption averages 76.5 billion cubic feet/day (Bcf/d) in 2015 and 76.7 Bcf/d in 2016, compared with 73.1 Bcf/d in 2014. Increases in power sector consumption drive total consumption growth in 2015. EIA projects natural gas consumption in the power sector to increase by 18.6% in 2015 and then to decrease by 2.3% in 2016. Despite a projected decrease in 2016, EIA expects consumption of natural gas for power generation will remain more than 3 Bcf/d above 2014 levels. Natural gas spot prices, which are expected to remain below \$3/MMBtu through August 2016, support high consumption of natural gas for electricity next year. Industrial sector consumption of natural gas remains flat in 2015 and increases by 3.9% in 2016, as new industrial projects, particularly in the fertilizer and chemicals sectors, come online. Natural gas consumption in the residential and



commercial sectors is projected to decline in both 2015 and 2016, largely reflecting lower heating demand this winter compared with last winter.

**Natural Gas Production and Trade.** In September, total marketed production hit a record high of 81.1 Bcf/d. EIA expects that marketed natural gas production will average 79.6 Bcf/d in 2015, an increase of 4.7 Bcf/d (6.3%) from 2014. Forecast marketed natural gas production increases by 1.5 Bcf/d (1.9%) in 2016. Increases in drilling efficiency will continue to support growing natural gas production in the forecast despite low natural gas prices and declining rig activity. Most of the growth is expected to come from the Marcellus Shale, as the backlog of uncompleted wells is reduced and as new pipelines come online to deliver Marcellus natural gas to markets in the Northeast. Several major projects have recently come online in the Marcellus, and a few others are set to begin service before the end of the year. In Pennsylvania, where most Marcellus drilling is located, production growth was flat earlier this year, but production reached a record level in September, according to EIA's most recent production data.

Continuing increases in domestic natural gas production are expected to reduce demand for natural gas imports from Canada and to support growth in exports to Mexico. EIA expects natural gas exports to Mexico, particularly from the Eagle Ford Shale in South Texas, to increase because of growing demand from Mexico's electric power sector coupled with flat natural gas production in Mexico. EIA projects LNG gross exports will increase to an average of 0.7 Bcf/d in 2016, with the startup of Cheniere's Sabine Pass LNG liquefaction plant planned for early 2016.

**Natural Gas Inventories.** On November 20, natural gas working inventories reached a record high 4,009 Bcf. [Inventories declined for the first time in this heating season](#) during the week ending November 27, but remained 543 Bcf (16%) above year-ago levels and 247 Bcf (7%) above the five-year (2010-14) average. Forecast end-of-March 2016 inventories are 1,862 Bcf, which would be 240 Bcf above the five-year average.

**Natural Gas Prices.** The Henry Hub natural gas spot price averaged \$2.09/MMBtu in November, a decrease of 25 cents/MMBtu from the October price. Warmer-than-normal temperatures in November, record inventory levels, production growth, and forecasts for a warm winter contributed to spot prices remaining at low levels. Monthly average Henry Hub spot prices are forecast to remain less than \$3/MMBtu through August 2016. The projected Henry Hub natural gas price averages \$2.67/MMBtu in 2015 and \$2.88/MMBtu in 2016.

Natural gas futures contracts for March 2016 delivery traded during the five-day period ending December 3 averaged \$2.29/MMBtu. Current options and futures prices imply market participants place the lower and upper bounds for the 95% confidence interval for March 2016 contracts at \$1.51/MMBtu and \$3.45/MMBtu, respectively. At this time in 2014, the natural gas futures contract for March 2015 delivery averaged \$3.84/MMBtu, and the corresponding lower and upper limits of the 95% confidence interval were \$2.40/MMBtu and \$6.13/MMBtu.

## Coal

**Coal Supply.** Forecast U.S. coal production in 2015 declines by 97 million short tons (MMst) (10%). Forecast production decreases in all coal-producing regions, with the largest percentage decrease occurring in the Appalachian region (13%). Interior region production, which includes the Illinois Basin, declines by 8%, the first annual decline for that region since 2009. Western region production declines by 9%, dropping below 500 MMst for the first time since 1998.

U.S. coal production is expected to decline by an additional 29 MMst (3%) in 2016. Interior region production, which accounted for 16% of coal production in 2011, accounts for 21% of production in 2016. This increase reflects the region's growing competitive advantages compared with the other coal-producing regions. These factors include the higher heat content of the coal, closer proximity to major markets than coal produced in the Western region, and lower mining costs than Appalachian-produced coal.

Electric power sector coal stockpiles were 162 MMst in September, a 4% increase from August, which is similar to the typical seasonal pattern. September coal inventories averaged 147 MMst during the previous 10 years (2005-14). Coal stockpiles are still relatively high because of the loss in market share to natural gas for power generation.

**Coal Consumption.** Forecast coal consumption decreases by 10% in 2015, mainly as a result of a 10% drop in electric power sector consumption. Lower natural gas prices are the primary driver of the decrease in coal consumption. Low natural gas prices make it more economical to increase generation at natural gas-fired units and to decrease generation at coal units. Retirements of coal-fired power plants, stemming from both increased competition with natural gas generation and the implementation of the [Mercury and Air Toxics Standards \(MATS\)](#), also reduce coal-fired capacity in the power sector, but the full effect will not be evident until 2016.

Higher forecast natural gas prices in 2016 are expected to contribute to higher utilization rates among the remaining coal-fired power plants, which mitigates the effect of lower consumption because of coal-plant retirements. Coal consumption in the electric power sector is forecast to increase by 1% in 2016, as electricity demand rises and electricity generation from natural gas and nuclear decline.

**Coal Trade.** Slower growth in world coal demand and lower international coal prices have contributed to a decline in U.S. coal exports. Lower mining costs, cheaper transportation costs, and favorable exchange rates will continue to provide an advantage to mines in other major coal-exporting countries compared with U.S. producers over the next few years. U.S. coal exports for the first nine months of 2015 were down 22% (16 MMst) compared with the same period in 2014. Forecast coal exports fall by 20 MMst (21%) to 77 MMst in 2015. The current global coal market trends are expected to continue, and coal exports are forecast to decline by an additional 6 MMst (8%) in 2016.

U.S. coal imports, which increased by 2 MMst in 2014 to more than 11 MMst, are expected to be largely unchanged in 2015 and 2016. Coal imports, primarily from Latin America, are forecast

to maintain their market share with power generators along the Atlantic and Gulf coasts, as imported coal's delivered price in those markets remains competitive with prices for domestically produced coal.

**Coal Prices.** The annual average coal price to the electric power sector averaged \$2.37/MMBtu in 2014. EIA expects the delivered coal price to average \$2.24/MMBtu in 2015 and 2016.

## Electricity

According to the latest available EIA data, electricity generated from natural gas-fired power plants exceeded generation from coal-fired plants in September for the third month in a row. Before April 2015, the monthly share of total U.S. generation fueled by coal had always been larger than the natural gas share. Natural gas generation in September was 123,248 gigawatthours, 4% higher than the level generated by coal. This increased use of natural gas for electricity generation primarily reflects sustained low prices for the fuel. The average Henry Hub spot price for natural gas was \$2.09/MMBtu in November, the lowest price since April 2012.

**Electricity Consumption.** Retail sales of electricity to the residential sector during the first half of 2015 were 1.7% lower than the same period in 2014, primarily because of milder winter weather earlier this year compared with the previous year. However, residential sales in the third quarter this year were 5.4% higher than in 2014, as cooling degree days during that quarter were 13% higher than in the third quarter of 2014. Forecast annual average retail residential sales rise by 0.5% in 2015 and then decline at the same rate in 2016. Forecast retail electricity sales to the commercial sector rise by 0.6% and by 0.7% in 2015 and 2016, respectively. Forecast industrial sector sales fall by 3.6% in 2015 and then rise by 1.4% in 2016.

**Electricity Generation.** Total U.S. electricity generation in 2015 is expected to average 11.3 terawatthours per day, 0.5% higher than 2014 generation. Total generation grows by an additional 0.1% in 2016. Although EIA projects natural gas prices to begin rising slowly, they are forecast to remain at low levels, with the Henry Hub spot price remaining below \$3/MMBtu through August 2016. These sustained low prices contribute to natural gas accounting for a historically large share of electricity generation. During 2015, EIA expects the share of total generation fueled by natural gas to average 32.4% compared with a share of 27.5% in 2014. Coal's share of total electricity generation is forecast to average 34.1% in 2015 compared with 38.6% last year. In 2016, the natural gas share of generation is forecast to be 31.6%, with the coal share at 34.1%.

**Electricity Retail Prices.** The U.S. retail price of electricity to the residential sector is projected to average 12.6 cents per kilowatthour in 2015, 0.7% higher than the average price in 2014. The largest price increases are in New England, where residential electricity prices are forecast to increase by 9.6% in 2015. In percentage terms, the largest electricity residential sector price decrease in 2015 is expected to be in the West South Central region (1.9%). In 2016, the U.S. retail price of electricity to the residential sector is projected to average 12.7 cents per kilowatthour, a 0.7% increase from 2015.

## Renewables and Carbon Dioxide Emissions

**Electricity and Heat Generation from Renewables.** EIA expects total renewables used in the electric power sector to decrease by 1.8% in 2015. Hydropower generation is forecast to decrease by 8.2%, and nonhydropower renewable power generation is forecast to increase by 4.2%. The 2015 decrease in hydropower generation reflects the effects of the [California drought](#). Forecast hydropower generation in the electric power sector increases by 7.3% in 2016.

EIA expects continued growth in utility-scale solar power generation, which is projected to average 89 gigawatthours per day (GWh/d) in 2016. Because the growth is from a small base, utility-scale solar power averages 0.8% of total U.S. electricity generation in 2016. Although solar growth has historically been concentrated in [customer-sited distributed generation installations](#) (rooftop panels), EIA expects utility-scale solar capacity will increase by 123% (12 GW) between the end of 2014 and the end of 2016, with 4.7 GW of new capacity being built in California. Other states leading in utility-scale solar capacity additions include North Carolina and Nevada, which, combined with California, account for about two-thirds of the projected utility-scale capacity additions for 2015 and 2016.

Wind capacity, which starts from a significantly larger installed capacity base than solar, grew by 8% in 2014, and it is forecast to increase by 13% in 2015 and by 14% in 2016.

**Liquid Biofuels.** On November 30, the U.S. Environmental Protection Agency (EPA) finalized a rule setting Renewable Fuel Standard (RFS) volumes for 2014 through 2016. EIA used these finalized volumes to develop the current STEO forecast. Ethanol production, which averaged 934,000 b/d in 2014, is forecast to average about 960,000 b/d in both 2015 and 2016. Ethanol consumption, which averaged 877,000 b/d in 2014, is forecast to average 905,000 b/d in 2015 and 918,000 in 2016. The 2016 forecast is about 20,000 b/d higher than in last month's STEO. This level of consumption results in the ethanol share of the total gasoline pool averaging 9.9% in 2015 and 10.0% in 2016. EIA does not expect significant increases in E15 or E85 consumption over the forecast period.

EIA expects the largest effect of the proposed RFS targets will be on biodiesel consumption, which helps to meet the RFS targets for use of biomass-based diesel, advanced biofuel, and total renewable fuel. Biodiesel production averaged 83,000 b/d in 2014 and is forecast to average 87,000 b/d in 2015 and 107,000 b/d in 2016, 4,000 b/d lower and 9,000 b/d higher than last month's STEO, respectively. Net imports of biomass-based diesel are also expected to increase from 15,000 b/d in 2014 to 28,000 b/d in 2015, and to 47,000 b/d in 2016, 2,000 b/d higher and 12,000 b/d higher than in last month's STEO, respectively.

**Energy-Related Carbon Dioxide Emissions.** EIA estimates that emissions of CO<sub>2</sub> grew by 0.9% in 2014. Emissions are projected to fall by 1.0% in 2015 and then increase by 0.3% in 2016. These forecasts are sensitive to assumptions about weather and economic growth.

## U.S. Economic Assumptions

**Recent Economic Indicators.** The Bureau of Economic Analysis reported that [real GDP](#) increased at an annual rate of 2.1% in the third quarter of 2015, following growth of 3.9% in the second quarter of 2015. The third-quarter growth reflected positive contributions from personal consumption expenditures, state and local government spending, and residential fixed investment, and it was revised upward from the previous estimate of 1.5%.

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

**Production, Income, and Employment.** Forecast real GDP growth is 2.4% in 2015 and 2.5% in 2016, below the 2.5% and 2.7% forecast last month. Real disposable income grows by 3.2% in 2015 and by 2.9% in 2016. Total industrial production grows by 1.3% in 2015 and by 0.9% in 2016. Projected growth in nonfarm employment averages 2.1% in 2015 and 1.4% in 2016.

**Expenditures.** Forecast private real fixed investment growth averages 4.3% and 6.2% in 2015 and 2016, respectively. Real consumption expenditures grow faster than real GDP, at 3.2% in 2015 and 2.8% in 2016. Durable goods expenditures drive consumption spending in both years. Export growth is 1.6% and 2.8% over the same two years, while import growth is 5.2% in 2015 and 5.1% in 2016. Total government expenditures rise 0.8% in 2015.

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.

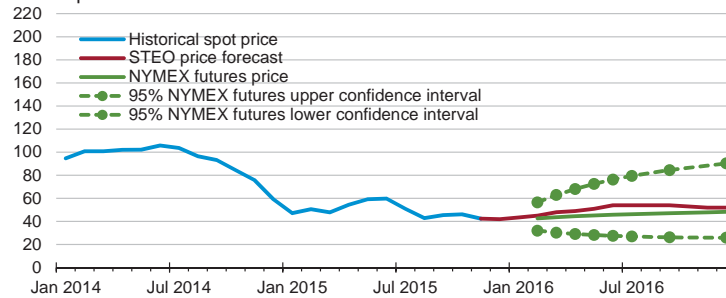


# Short-Term Energy Outlook

## Chart Gallery for December 2015

### West Texas Intermediate (WTI) Crude Oil Price

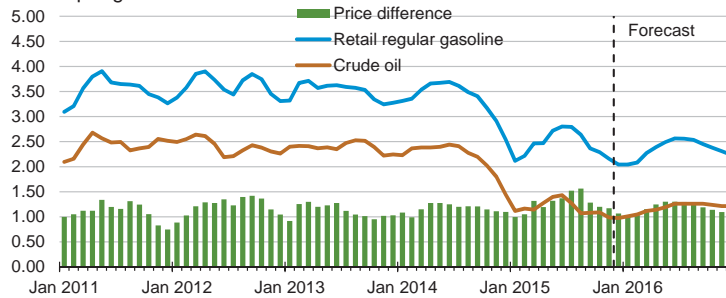
dollars per barrel



Note: Confidence interval derived from options market information for the 5 trading days ending Dec. 3, 2015. Intervals not calculated for months with sparse trading in near-the-money options contracts.  
Source: Short-Term Energy Outlook, December 2015.

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

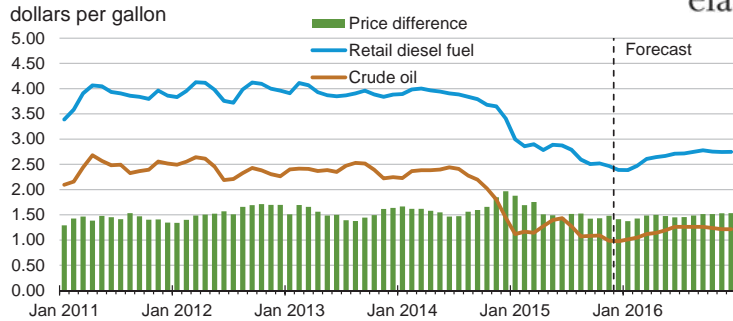
dollars per gallon



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

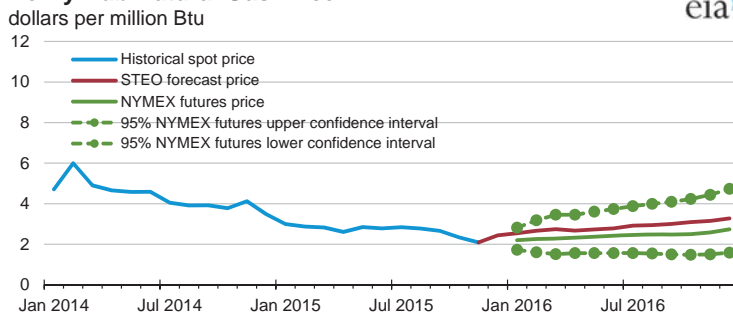
Source: Short-Term Energy Outlook, December 2015.

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



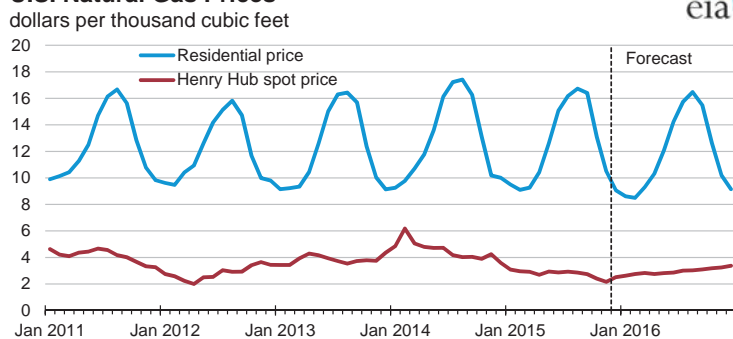
Crude oil price is composite refiner acquisition cost. Retail prices include state and federal taxes.  
Source: Short-Term Energy Outlook, December 2015.

### Henry Hub Natural Gas Price



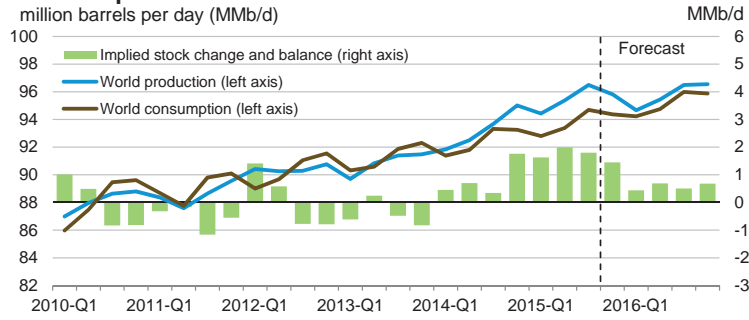
Note: Confidence interval derived from options market information for the 5 trading days ending Dec. 3, 2015. Intervals not calculated for months with sparse trading in near-the-money options contracts.  
Source: Short-Term Energy Outlook, December 2015.

### U.S. Natural Gas Prices



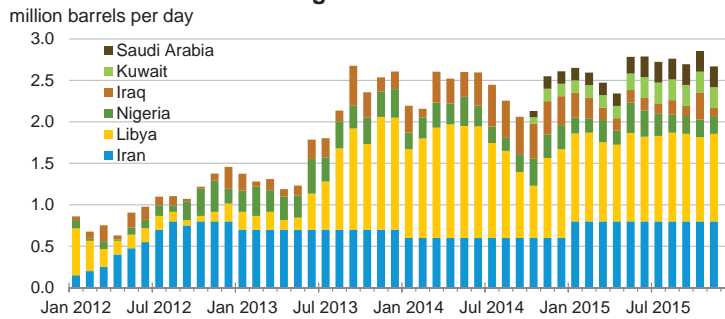
Source: Short-Term Energy Outlook, December 2015.

### World Liquid Fuels Production and Consumption Balance



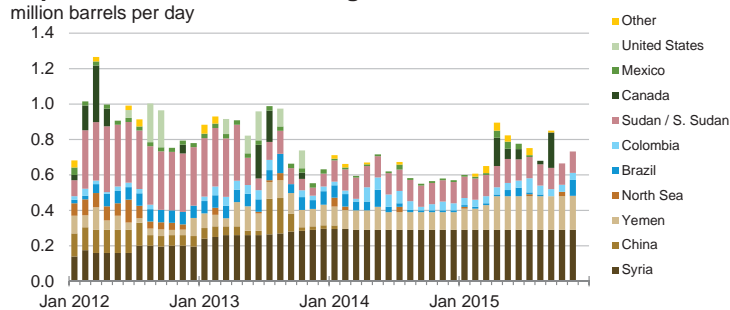
Source: Short-Term Energy Outlook, December 2015.

### Estimated Historical Unplanned OPEC Crude Oil Production Outages



Source: Short-Term Energy Outlook, December 2015.

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



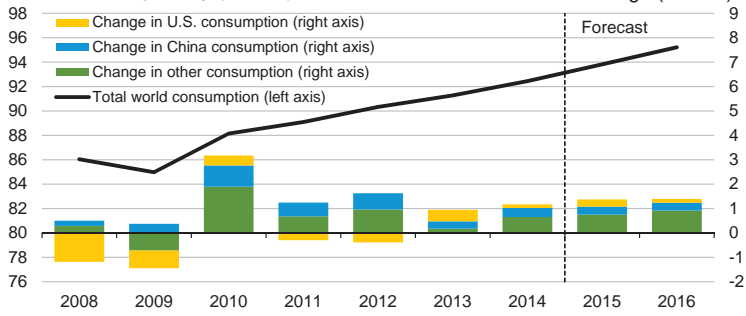
Source: Short-Term Energy Outlook, December 2015.



### World Liquid Fuels Consumption

million barrels per day (MMb/d)

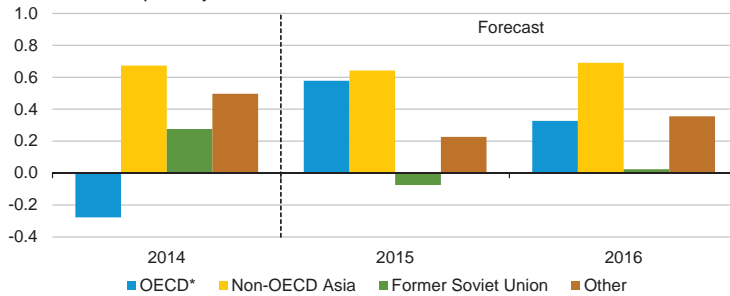
annual change (MMb/d)



Source: Short-Term Energy Outlook, December 2015.

### World Liquid Fuels Consumption Growth

million barrels per day

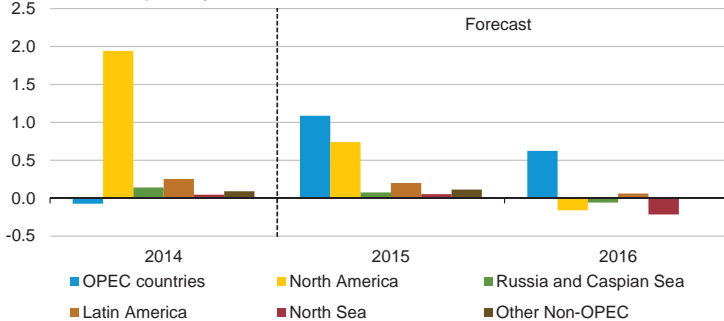


\* Countries belonging to the Organization for Economic Cooperation and Development

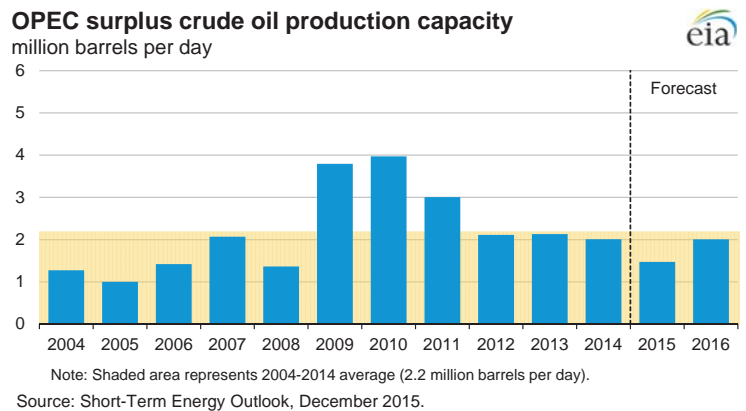
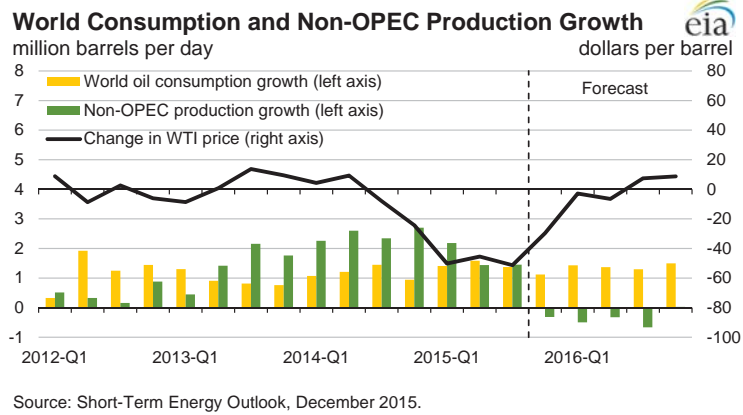
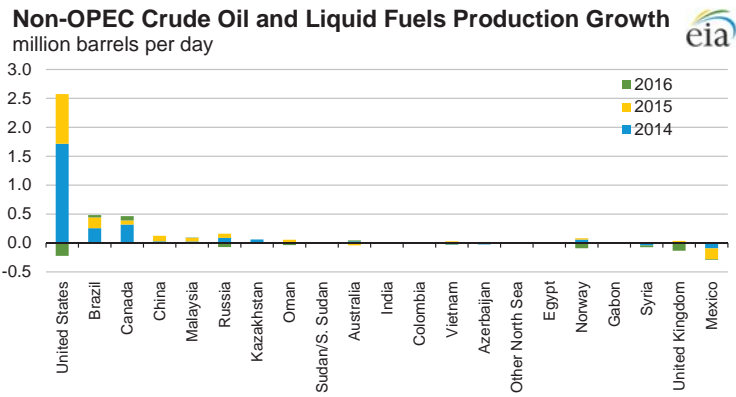
Source: Short-Term Energy Outlook, December 2015.

### World Crude Oil and Liquid Fuels Production Growth

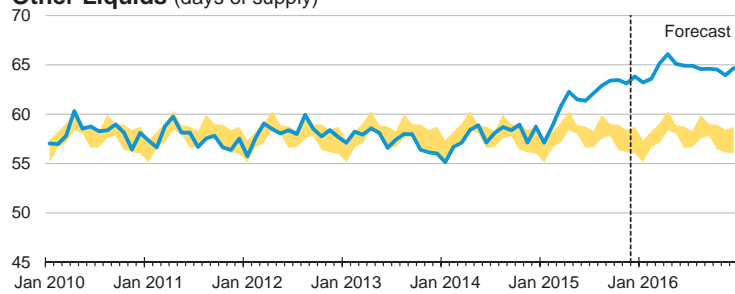
million barrels per day



Source: Short-Term Energy Outlook, December 2015.

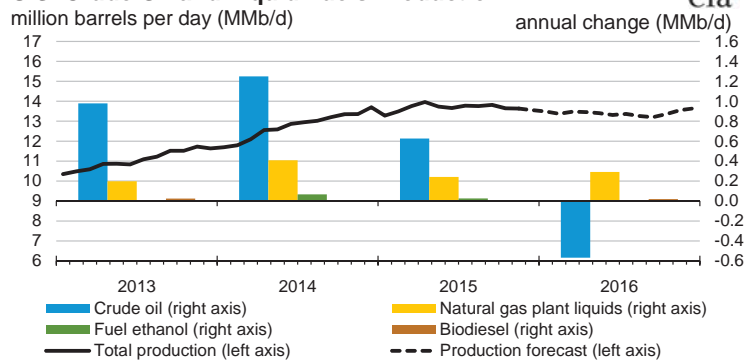


### OECD Commercial Stocks of Crude Oil and Other Liquids (days of supply)



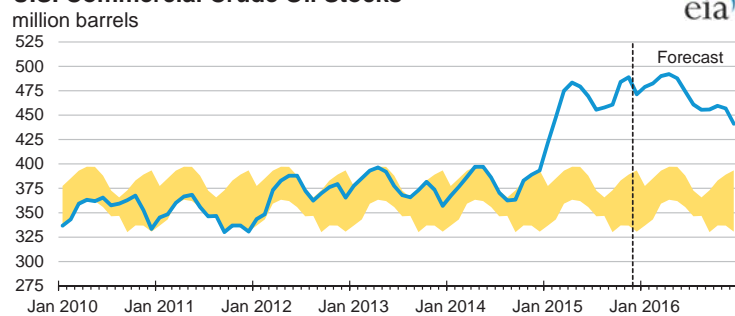
Note: Colored band around days of supply of crude oil and other liquids stocks represents the range between the minimum and maximum from Jan. 2010 - Dec. 2014.  
Source: Short-Term Energy Outlook, December 2015.

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



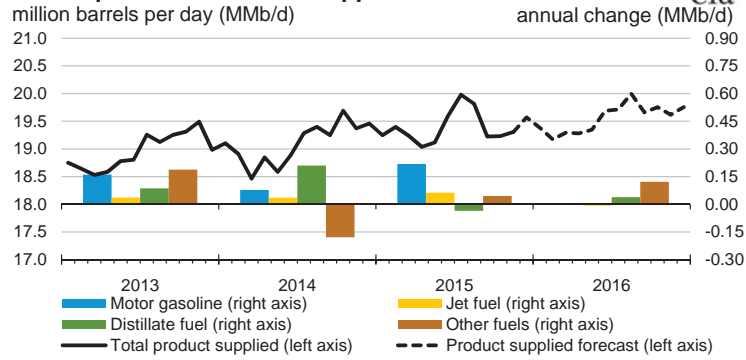
Source: Short-Term Energy Outlook, December 2015.

### U.S. Commercial Crude Oil Stocks



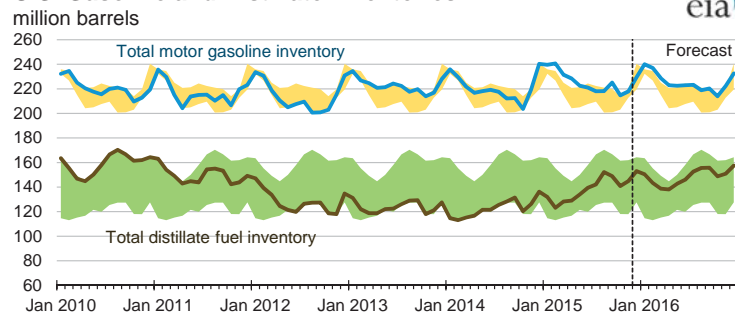
Note: Colored band around storage levels represents the range between the minimum and maximum from Jan. 2010 - Dec. 2014.  
Source: Short-Term Energy Outlook, December 2015.

### U.S. Liquid Fuels Product Supplied



Source: Short-Term Energy Outlook, December 2015.

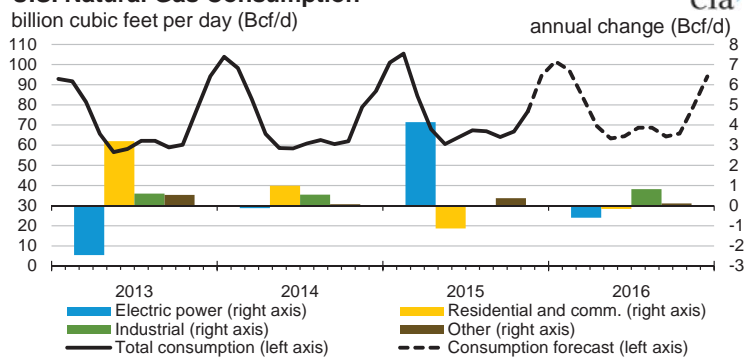
### U.S. Gasoline and Distillate Inventories



Note: Colored bands around storage levels represent the range between the minimum and maximum from Jan. 2010 - Dec. 2014.

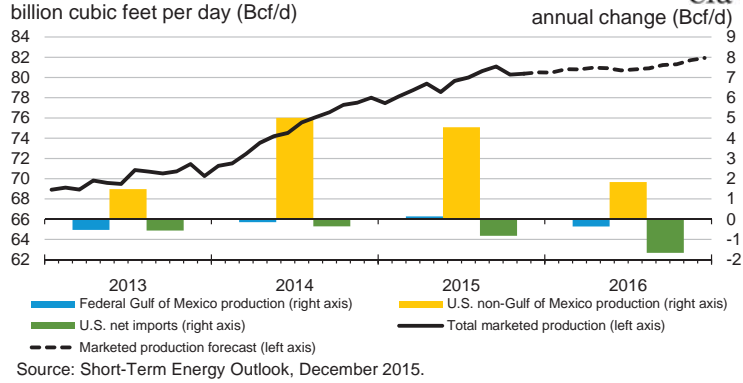
Source: Short-Term Energy Outlook, December 2015.

### U.S. Natural Gas Consumption

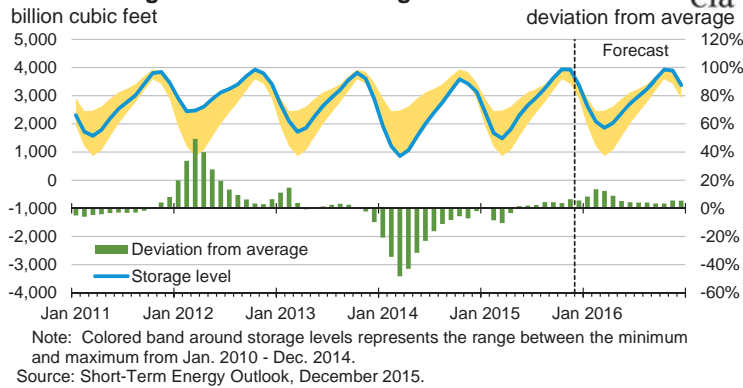


Source: Short-Term Energy Outlook, December 2015.

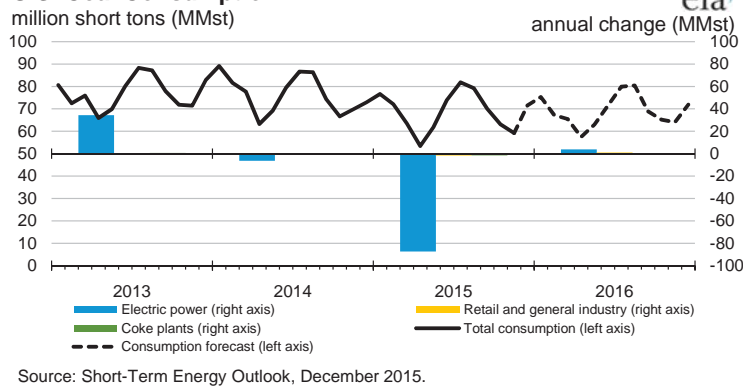
### U.S. Natural Gas Production and Imports



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




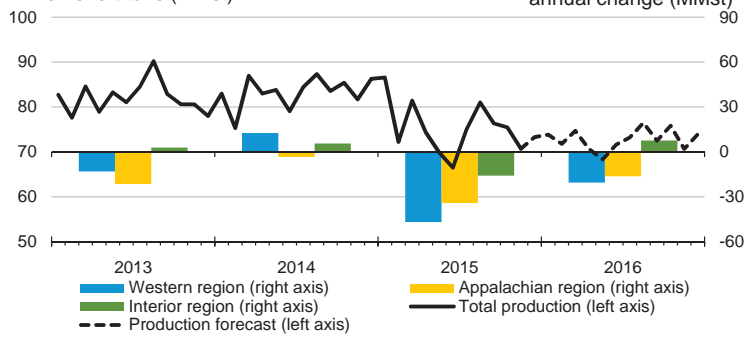
### U.S. Coal Consumption



### U.S. Coal Production

million short tons (MMst)

annual change (MMst) 

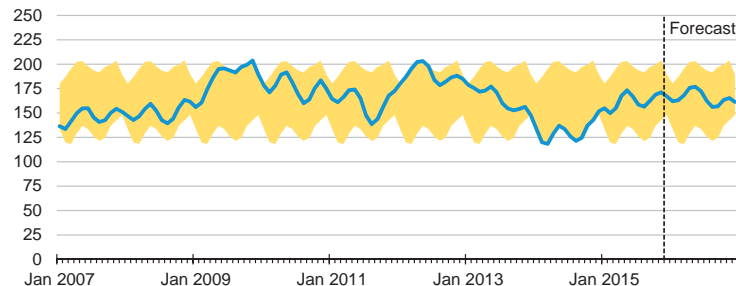


Source: Short-Term Energy Outlook, December 2015.

### U.S. Electric Power Coal Stocks

million short tons






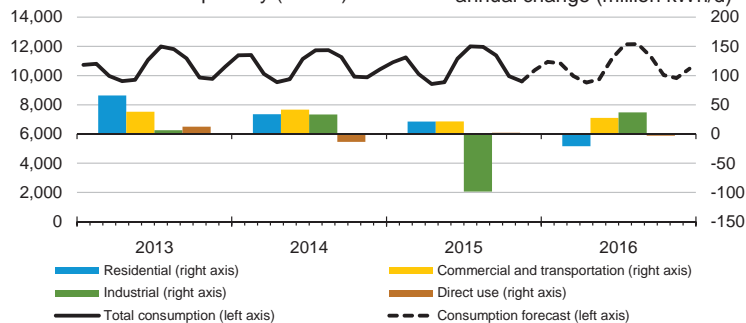
Note: Colored band around stock levels represents the range between the minimum and maximum from Jan. 2007 - Dec. 2014.

Source: Short-Term Energy Outlook, December 2015.

### U.S. Electricity Consumption

million kilowatthours per day (kWh/d)

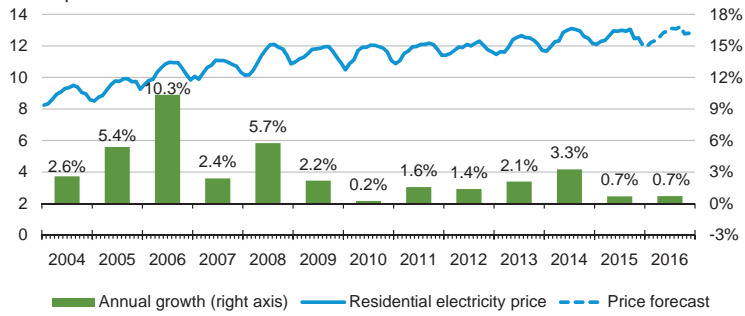
annual change (million kWh/d) 



Source: Short-Term Energy Outlook, December 2015.

### U.S. Residential Electricity Price

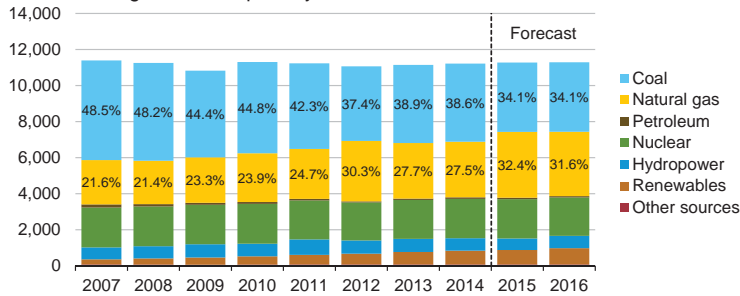
cents per kilowatthour



Source: Short-Term Energy Outlook, December 2015.

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

thousand megawatthours per day

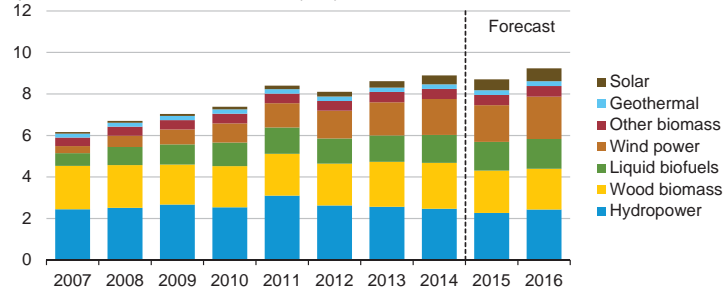


Note: Labels show percentage share of total generation provided by coal and natural gas.

Source: Short-Term Energy Outlook, December 2015.

### U.S. Renewable Energy Supply

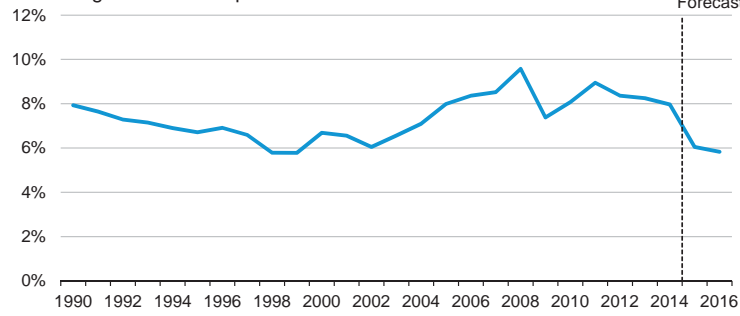
quadrillion British thermal units (Btu)



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

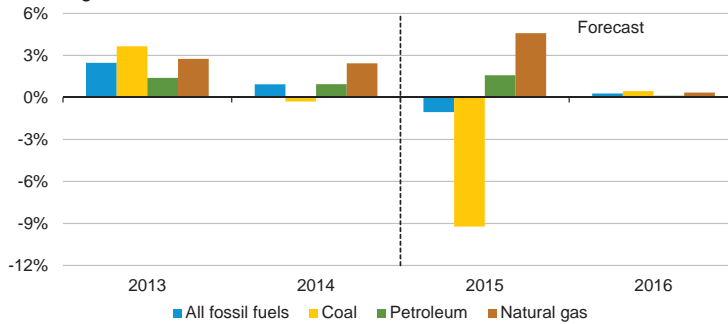
Source: Short-Term Energy Outlook, December 2015.

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



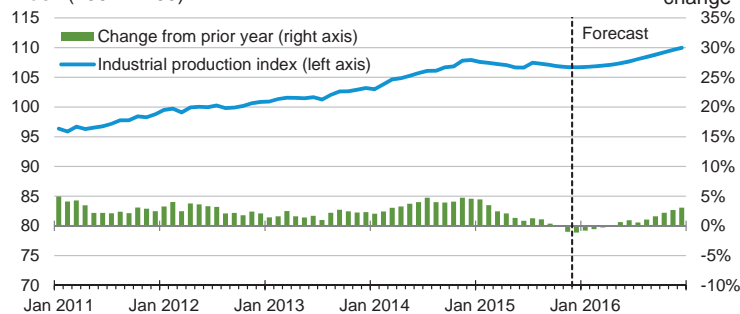
Source: Short-Term Energy Outlook, December 2015.

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



Source: Short-Term Energy Outlook, December 2015.

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

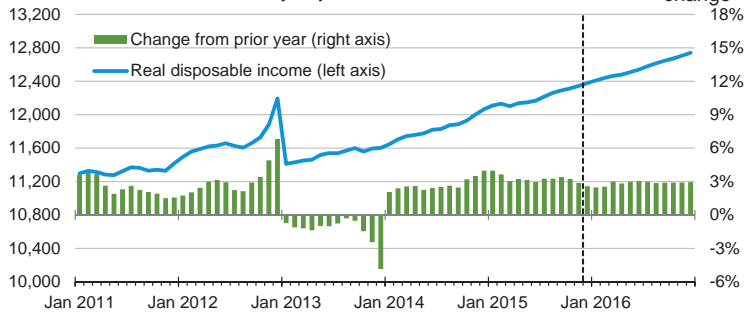


Source: Short-Term Energy Outlook, December 2015.



### U.S. Disposable Income

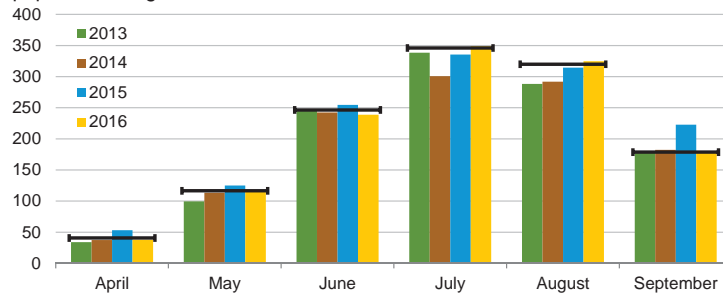
billion 2009 dollars, seasonally adjusted



Source: Short-Term Energy Outlook, December 2015.

### U.S. Summer Cooling Degree Days

population-weighted

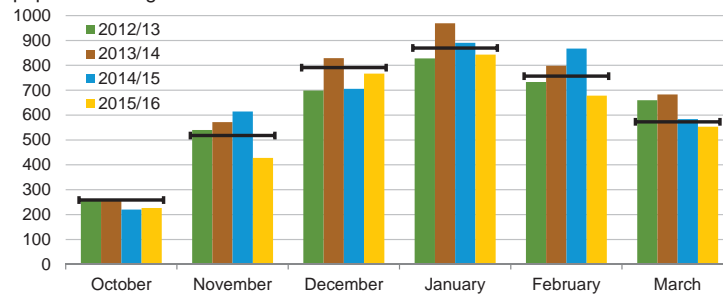


Note: EIA calculations based on from the National Oceanic and Atmospheric Administration data. Horizontal lines indicate each month's prior 10-year average (2006-2015). Projections reflect NOAA's 14-16 month outlook.

Source: Short-Term Energy Outlook, December 2015.

### U.S. Winter Heating Degree Days

population-weighted



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

Source: Short-Term Energy Outlook, December 2015.

## U.S. Census Regions and Divisions



Source: Short-Term Energy Outlook, December 2015.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2015

Fuel / Region	Winter of							Forecast	
	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	% Change
<b>Natural Gas</b>									
<b>Northeast</b>									
Consumption (Mcf**)	80.3	75.7	80.7	66.4	76.1	84.1	84.7	74.1	-12.5
Price (\$/mcf)	15.83	13.31	12.66	12.21	11.71	11.53	10.85	11.11	2.4
Expenditures (\$)	1,272	1,007	1,022	812	891	969	919	823	-10.4
<b>Midwest</b>									
Consumption (Mcf)	80.7	78.6	80.2	65.4	77.6	88.1	83.1	72.9	-12.3
Price (\$/mcf)	11.47	9.44	9.23	8.99	8.36	8.69	8.55	8.02	-6.3
Expenditures (\$)	926	742	740	587	648	766	711	584	-17.8
<b>South</b>									
Consumption (Mcf)	47.3	53.3	49.3	40.9	46.5	52.1	50.5	46.0	-8.9
Price (\$/mcf)	14.07	11.52	11.02	11.45	10.71	10.77	10.83	10.55	-2.6
Expenditures (\$)	665	614	544	468	498	562	547	486	-11.2
<b>West</b>									
Consumption (Mcf)	47.8	49.9	49.4	49.1	48.6	46.3	41.3	44.5	7.7
Price (\$/mcf)	10.86	9.91	9.67	9.35	9.13	9.96	10.67	9.21	-13.7
Expenditures (\$)	519	494	478	459	443	461	441	410	-7.0
<b>U.S. Average</b>									
Consumption (Mcf)	64.2	64.4	65.0	55.7	62.5	68.0	64.7	59.3	-8.3
Price (\$/mcf)	12.87	10.83	10.46	10.25	9.72	9.97	9.91	9.44	-4.7
Expenditures (\$)	826	698	680	571	607	677	641	560	-12.7
<b>Heating Oil</b>									
<b>U.S. Average</b>									
Consumption (gallons)	576.7	544.8	580.7	471.2	545.5	607.0	609.1	533.1	-12.5
Price (\$/gallon)	2.65	2.85	3.38	3.73	3.87	3.88	3.04	2.40	-20.9
Expenditures (\$)	1,530	1,552	1,966	1,757	2,113	2,352	1,852	1,282	-30.8
<b>Electricity</b>									
<b>Northeast</b>									
Consumption (kWh***)	7,063	6,847	7,076	6,436	6,862	7,222	7,252	6,780	-6.5
Price (\$/kwh)	0.152	0.152	0.154	0.154	0.152	0.163	0.168	0.170	1.2
Expenditures (\$)	1,071	1,039	1,091	993	1,046	1,177	1,221	1,155	-5.4
<b>Midwest</b>									
Consumption (kWh)	8,751	8,660	8,733	7,897	8,588	9,169	8,860	8,326	-6.0
Price (\$/kwh)	0.097	0.099	0.105	0.111	0.112	0.113	0.118	0.119	1.0
Expenditures (\$)	851	856	914	875	958	1,032	1,043	989	-5.1
<b>South</b>									
Consumption (kWh)	8,057	8,486	8,224	7,470	7,977	8,385	8,290	7,903	-4.7
Price (\$/kwh)	0.109	0.103	0.104	0.107	0.107	0.109	0.111	0.108	-2.5
Expenditures (\$)	878	873	856	798	851	913	920	855	-7.1
<b>West</b>									
Consumption (kWh)	7,084	7,239	7,216	7,190	7,150	6,975	6,584	6,833	3.8
Price (\$/kwh)	0.107	0.110	0.112	0.115	0.119	0.123	0.126	0.128	1.0
Expenditures (\$)	755	799	809	825	848	860	833	873	4.8
<b>U.S. Average</b>									
Consumption (kWh)	7,725	7,937	7,844	7,253	7,672	7,982	7,804	7,519	-3.6
Price (\$/kwh)	0.112	0.110	0.113	0.116	0.117	0.120	0.123	0.122	-0.6
Expenditures (\$)	866	873	884	843	895	956	960	920	-4.2

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

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2015

Fuel / Region	Winter of							Forecast	
	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	% Change
<b>Propane</b>									
<b>Northeast</b>									
Consumption (gallons)	714.7	672.0	717.5	595.6	675.8	745.3	751.6	663.7	-11.7
Price* (\$/gallon)	2.84	2.98	3.24	3.34	3.00	3.56	3.00	2.78	-7.3
Expenditures (\$)	2,031	2,004	2,321	1,990	2,031	2,653	2,255	1,845	-18.2
<b>Midwest</b>									
Consumption (gallons)	795.0	779.6	791.8	644.3	766.4	868.7	813.6	720.0	-11.5
Price* (\$/gallon)	2.11	1.99	2.11	2.23	1.74	2.61	1.91	1.62	-15.2
Expenditures (\$)	1,678	1,548	1,674	1,437	1,333	2,267	1,554	1,166	-24.9
<b>Number of households by primary space heating fuel (thousands)</b>									
<b>Northeast</b>									
Natural gas	10,889	10,992	11,118	11,236	11,345	11,484	11,612	11,681	0.6
Heating oil	6,280	6,016	5,858	5,701	5,458	5,218	5,084	4,931	-3.0
Propane	713	733	744	761	813	844	839	845	0.8
Electricity	2,563	2,645	2,776	2,894	3,011	3,028	3,064	3,149	2.8
Wood	474	501	512	548	582	579	581	596	2.6
Other/None	307	311	315	324	377	434	432	433	0.3
<b>Midwest</b>									
Natural gas	18,288	18,050	17,977	18,019	18,054	18,098	18,176	18,095	-0.4
Heating oil	491	451	419	393	360	337	316	291	-8.0
Propane	2,131	2,098	2,073	2,037	2,063	2,096	2,056	2,012	-2.2
Electricity	4,570	4,715	4,922	5,119	5,333	5,430	5,516	5,710	3.5
Wood	584	616	618	631	640	630	630	635	0.8
Other/None	264	283	289	282	319	354	348	348	0.0
<b>South</b>									
Natural gas	13,958	13,731	13,657	13,636	13,681	13,775	13,897	13,881	-0.1
Heating oil	956	906	853	790	738	700	662	614	-7.3
Propane	2,220	2,165	2,098	2,024	1,982	1,946	1,887	1,802	-4.5
Electricity	25,258	25,791	26,555	27,283	27,857	28,203	28,655	29,225	2.0
Wood	593	586	599	609	612	611	612	627	2.4
Other/None	314	314	309	304	367	420	395	387	-2.0
<b>West</b>									
Natural gas	15,027	14,939	15,020	15,021	15,008	15,043	15,198	15,251	0.3
Heating oil	294	289	279	261	247	234	226	219	-3.3
Propane	936	940	914	885	909	931	900	879	-2.3
Electricity	7,768	7,877	8,126	8,439	8,671	8,745	8,905	9,180	3.1
Wood	703	721	725	736	728	741	759	757	-0.3
Other/None	837	850	850	829	903	1,023	1,018	985	-3.2
<b>U.S. Totals</b>									
Natural gas	58,162	57,713	57,771	57,912	58,088	58,400	58,882	58,908	0.0
Heating oil	8,021	7,662	7,408	7,145	6,803	6,489	6,288	6,054	-3.7
Propane	5,999	5,936	5,829	5,707	5,766	5,816	5,682	5,538	-2.5
Electricity	40,159	41,029	42,380	43,734	44,872	45,405	46,139	47,264	2.4
Wood	2,353	2,424	2,454	2,524	2,563	2,561	2,583	2,616	1.3
Other/None	1,723	1,758	1,763	1,739	1,965	2,231	2,192	2,153	-1.8
<b>Heating degree days</b>									
Northeast	5,313	4,933	5,337	4,217	4,964	5,595	5,649	4,826	-14.6
Midwest	5,810	5,639	5,773	4,484	5,544	6,452	6,007	5,140	-14.4
South	2,493	2,870	2,632	2,023	2,430	2,787	2,697	2,380	-11.7
West	3,116	3,285	3,258	3,229	3,181	2,983	2,555	2,830	10.8
U.S. Average	3,869	3,937	3,939	3,224	3,721	4,108	3,883	3,496	-10.0

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

\* Prices exclude taxes

\*\* thousand cubic feet

\*\*\* kilowatt-hour

**Table 1. U.S. Energy Markets Summary**

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>Energy Supply</b>															
Crude Oil Production (a) (million barrels per day) .....	<b>8.11</b>	<b>8.61</b>	<b>8.84</b>	<b>9.24</b>	<b>9.37</b>	<b>9.41</b>	<b>9.37</b>	<i>9.17</i>	<i>8.95</i>	<i>8.80</i>	<i>8.56</i>	<i>8.75</i>	<b>8.70</b>	<i>9.33</i>	<i>8.76</i>
Dry Natural Gas Production (billion cubic feet per day) .....	<b>67.53</b>	<b>69.73</b>	<b>71.59</b>	<b>73.04</b>	<b>73.67</b>	<b>74.50</b>	<b>75.81</b>	<i>75.64</i>	<i>75.93</i>	<i>76.09</i>	<i>76.19</i>	<i>76.82</i>	<b>70.49</b>	<i>74.91</i>	<i>76.26</i>
Coal Production (million short tons) .....	<b>245</b>	<b>246</b>	<b>255</b>	<b>253</b>	<b>240</b>	<b>211</b>	<b>232</b>	<i>219</i>	<i>220</i>	<i>211</i>	<i>222</i>	<i>220</i>	<b>1,000</b>	<i>903</i>	<i>873</i>
<b>Energy Consumption</b>															
Liquid Fuels (million barrels per day) .....	<b>18.82</b>	<b>18.77</b>	<b>19.31</b>	<b>19.51</b>	<b>19.29</b>	<b>19.25</b>	<b>19.68</b>	<i>19.37</i>	<i>19.29</i>	<i>19.44</i>	<i>19.79</i>	<i>19.71</i>	<b>19.11</b>	<i>19.40</i>	<i>19.56</i>
Natural Gas (billion cubic feet per day) .....	<b>94.87</b>	<b>60.83</b>	<b>61.32</b>	<b>75.86</b>	<b>96.68</b>	<b>64.09</b>	<b>66.11</b>	<i>79.39</i>	<i>94.04</i>	<i>65.71</i>	<i>67.23</i>	<i>79.71</i>	<b>73.14</b>	<i>76.49</i>	<i>76.66</i>
Coal (b) (million short tons) .....	<b>248</b>	<b>212</b>	<b>247</b>	<b>209</b>	<b>212</b>	<b>189</b>	<b>231</b>	<i>194</i>	<i>208</i>	<i>192</i>	<i>229</i>	<i>201</i>	<b>917</b>	<i>827</i>	<i>830</i>
Electricity (billion kilowatt hours per day) .....	<b>10.95</b>	<b>10.14</b>	<b>11.58</b>	<b>10.08</b>	<b>10.74</b>	<b>10.03</b>	<b>11.78</b>	<i>9.98</i>	<i>10.57</i>	<i>10.14</i>	<i>11.87</i>	<i>10.11</i>	<b>10.69</b>	<i>10.64</i>	<i>10.68</i>
Renewables (c) (quadrillion Btu) .....	<b>2.37</b>	<b>2.57</b>	<b>2.29</b>	<b>2.39</b>	<b>2.42</b>	<b>2.43</b>	<b>2.33</b>	<i>2.28</i>	<i>2.42</i>	<i>2.63</i>	<i>2.51</i>	<i>2.48</i>	<b>9.63</b>	<i>9.46</i>	<i>10.05</i>
Total Energy Consumption (d) (quadrillion Btu) .....	<b>26.56</b>	<b>23.00</b>	<b>24.11</b>	<b>24.78</b>	<b>26.37</b>	<b>22.99</b>	<b>24.46</b>	<i>24.26</i>	<i>25.82</i>	<i>23.07</i>	<i>24.41</i>	<i>24.77</i>	<b>98.45</b>	<i>98.08</i>	<i>98.07</i>
<b>Energy Prices</b>															
Crude Oil West Texas Intermediate Spot (dollars per barrel) .....	<b>98.68</b>	<b>103.35</b>	<b>97.87</b>	<b>73.21</b>	<b>48.48</b>	<b>57.85</b>	<b>46.55</b>	<i>43.59</i>	<i>45.61</i>	<i>51.38</i>	<i>54.00</i>	<i>52.33</i>	<b>93.17</b>	<i>49.08</i>	<i>50.89</i>
Natural Gas Henry Hub Spot (dollars per million Btu) .....	<b>5.21</b>	<b>4.61</b>	<b>3.96</b>	<b>3.80</b>	<b>2.90</b>	<b>2.75</b>	<b>2.76</b>	<i>2.29</i>	<i>2.65</i>	<i>2.73</i>	<i>2.96</i>	<i>3.17</i>	<b>4.39</b>	<i>2.67</i>	<i>2.88</i>
Coal (dollars per million Btu) .....	<b>2.33</b>	<b>2.39</b>	<b>2.38</b>	<b>2.38</b>	<b>2.27</b>	<b>2.25</b>	<b>2.22</b>	<i>2.23</i>	<i>2.22</i>	<i>2.26</i>	<i>2.26</i>	<i>2.22</i>	<b>2.37</b>	<i>2.24</i>	<i>2.24</i>
<b>Macroeconomic</b>															
Real Gross Domestic Product (billion chained 2009 dollars - SAAR) .....	<b>15,725</b>	<b>15,902</b>	<b>16,069</b>	<b>16,151</b>	<b>16,177</b>	<b>16,334</b>	<b>16,394</b>	<i>16,479</i>	<i>16,595</i>	<i>16,695</i>	<i>16,812</i>	<i>16,945</i>	<b>15,962</b>	<i>16,346</i>	<i>16,762</i>
Percent change from prior year .....	<b>1.7</b>	<b>2.6</b>	<b>2.9</b>	<b>2.5</b>	<b>2.9</b>	<b>2.7</b>	<b>2.0</b>	<i>2.0</i>	<i>2.6</i>	<i>2.2</i>	<i>2.5</i>	<i>2.8</i>	<b>2.4</b>	<i>2.4</i>	<i>2.5</i>
GDP Implicit Price Deflator (Index, 2009=100) .....	<b>108.0</b>	<b>108.6</b>	<b>109.0</b>	<b>109.1</b>	<b>109.1</b>	<b>109.7</b>	<b>110.0</b>	<i>110.6</i>	<i>111.3</i>	<i>111.8</i>	<i>112.3</i>	<i>113.0</i>	<b>108.7</b>	<i>109.9</i>	<i>112.1</i>
Percent change from prior year .....	<b>1.6</b>	<b>1.9</b>	<b>1.8</b>	<b>1.3</b>	<b>1.0</b>	<b>1.0</b>	<b>0.9</b>	<i>1.4</i>	<i>2.0</i>	<i>2.0</i>	<i>2.1</i>	<i>2.1</i>	<b>1.6</b>	<i>1.1</i>	<i>2.0</i>
Real Disposable Personal Income (billion chained 2009 dollars - SAAR) .....	<b>11,699</b>	<b>11,785</b>	<b>11,863</b>	<b>11,999</b>	<b>12,115</b>	<b>12,151</b>	<b>12,256</b>	<i>12,346</i>	<i>12,438</i>	<i>12,510</i>	<i>12,614</i>	<i>12,706</i>	<b>11,836</b>	<i>12,217</i>	<i>12,567</i>
Percent change from prior year .....	<b>2.3</b>	<b>2.4</b>	<b>2.5</b>	<b>3.6</b>	<b>3.6</b>	<b>3.1</b>	<b>3.3</b>	<i>2.9</i>	<i>2.7</i>	<i>2.9</i>	<i>2.9</i>	<i>2.9</i>	<b>2.7</b>	<i>3.2</i>	<i>2.9</i>
Manufacturing Production Index (Index, 2012=100) .....	<b>101.9</b>	<b>103.5</b>	<b>104.6</b>	<b>105.6</b>	<b>105.5</b>	<b>105.8</b>	<b>106.5</b>	<i>106.3</i>	<i>106.5</i>	<i>106.6</i>	<i>107.6</i>	<i>108.9</i>	<b>103.9</b>	<i>106.0</i>	<i>107.4</i>
Percent change from prior year .....	<b>1.0</b>	<b>2.6</b>	<b>3.7</b>	<b>3.9</b>	<b>3.5</b>	<b>2.3</b>	<b>1.8</b>	<i>0.7</i>	<i>0.9</i>	<i>0.8</i>	<i>1.0</i>	<i>2.4</i>	<b>2.8</b>	<i>2.1</i>	<i>1.3</i>
<b>Weather</b>															
U.S. Heating Degree-Days .....	<b>2,450</b>	<b>480</b>	<b>80</b>	<b>1,541</b>	<b>2,342</b>	<b>443</b>	<b>50</b>	<i>1,421</i>	<i>2,074</i>	<i>464</i>	<i>74</i>	<i>1,532</i>	<b>4,551</b>	<i>4,256</i>	<i>4,144</i>
U.S. Cooling Degree-Days .....	<b>34</b>	<b>393</b>	<b>775</b>	<b>95</b>	<b>46</b>	<b>433</b>	<b>873</b>	<i>116</i>	<i>39</i>	<i>394</i>	<i>852</i>	<i>96</i>	<b>1,298</b>	<i>1,468</i>	<i>1,381</i>

- = no data available

Prices are not adjusted for inflation.

(a) Includes lease condensate.

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

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

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

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

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

**Historical data:** Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; *Weekly Petroleum Status Report*, DOE/EIA-0208; *Petroleum Marketing Monthly*, DOE/EIA-0380; *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; *Quarterly Coal Report*, DOE/EIA-0121; and *International Petroleum Monthly*, DOE/EIA-0520.

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

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

Weather projections from National Oceanic and Atmospheric Administration.

**Table 2. Energy Prices**

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>Crude Oil</b> (dollars per barrel)															
West Texas Intermediate Spot Average .....	<b>98.68</b>	<b>103.35</b>	<b>97.87</b>	<b>73.21</b>	<b>48.48</b>	<b>57.85</b>	<b>46.55</b>	<i>43.59</i>	<i>45.61</i>	<i>51.38</i>	<i>54.00</i>	<i>52.33</i>	<b>93.17</b>	<i>49.08</i>	<i>50.89</i>
Brent Spot Average .....	<b>108.14</b>	<b>109.70</b>	<b>101.90</b>	<b>76.43</b>	<b>53.91</b>	<b>61.65</b>	<b>50.43</b>	<i>45.95</i>	<i>50.15</i>	<i>56.38</i>	<i>59.00</i>	<i>57.33</i>	<b>98.89</b>	<i>52.93</i>	<i>55.78</i>
U.S. Imported Average .....	<b>94.18</b>	<b>98.64</b>	<b>93.85</b>	<b>71.43</b>	<b>46.40</b>	<b>56.12</b>	<b>46.55</b>	<i>40.21</i>	<i>42.06</i>	<i>47.85</i>	<i>50.50</i>	<i>48.83</i>	<b>89.63</b>	<i>47.28</i>	<i>47.48</i>
U.S. Refiner Average Acquisition Cost .....	<b>97.60</b>	<b>101.08</b>	<b>96.45</b>	<b>73.48</b>	<b>47.98</b>	<b>57.47</b>	<b>48.02</b>	<i>42.67</i>	<i>44.52</i>	<i>50.36</i>	<i>53.00</i>	<i>51.32</i>	<b>92.05</b>	<i>49.06</i>	<i>49.89</i>
<b>U.S. Liquid Fuels</b> (cents per gallon)															
<b>Refiner Prices for Resale</b>															
Gasoline .....	<b>272</b>	<b>298</b>	<b>276</b>	<b>203</b>	<b>159</b>	<b>201</b>	<b>184</b>	<i>141</i>	<i>145</i>	<i>178</i>	<i>180</i>	<i>158</i>	<b>262</b>	<i>172</i>	<i>165</i>
Diesel Fuel .....	<b>303</b>	<b>300</b>	<b>288</b>	<b>240</b>	<b>176</b>	<b>189</b>	<b>161</b>	<i>146</i>	<i>157</i>	<i>172</i>	<i>181</i>	<i>178</i>	<b>282</b>	<i>168</i>	<i>172</i>
Heating Oil .....	<b>303</b>	<b>289</b>	<b>276</b>	<b>228</b>	<b>178</b>	<b>180</b>	<b>150</b>	<i>140</i>	<i>152</i>	<i>160</i>	<i>171</i>	<i>175</i>	<b>274</b>	<i>161</i>	<i>163</i>
<b>Refiner Prices to End Users</b>															
Jet Fuel .....	<b>297</b>	<b>295</b>	<b>289</b>	<b>234</b>	<b>172</b>	<b>186</b>	<b>156</b>	<i>143</i>	<i>154</i>	<i>166</i>	<i>175</i>	<i>173</i>	<b>278</b>	<i>164</i>	<i>167</i>
No. 6 Residual Fuel Oil (a) .....	<b>249</b>	<b>244</b>	<b>243</b>	<b>194</b>	<b>137</b>	<b>154</b>	<b>123</b>	<i>112</i>	<i>111</i>	<i>121</i>	<i>131</i>	<i>128</i>	<b>231</b>	<i>130</i>	<i>122</i>
<b>Retail Prices Including Taxes</b>															
Gasoline Regular Grade (b) .....	<b>340</b>	<b>368</b>	<b>350</b>	<b>288</b>	<b>227</b>	<b>267</b>	<b>260</b>	<i>216</i>	<i>214</i>	<i>248</i>	<i>252</i>	<i>231</i>	<b>336</b>	<i>243</i>	<i>236</i>
Gasoline All Grades (b) .....	<b>348</b>	<b>375</b>	<b>358</b>	<b>296</b>	<b>236</b>	<b>275</b>	<b>269</b>	<i>226</i>	<i>223</i>	<i>257</i>	<i>260</i>	<i>240</i>	<b>344</b>	<i>252</i>	<i>245</i>
On-highway Diesel Fuel .....	<b>396</b>	<b>394</b>	<b>384</b>	<b>358</b>	<b>292</b>	<b>285</b>	<b>263</b>	<i>246</i>	<i>249</i>	<i>267</i>	<i>275</i>	<i>275</i>	<b>383</b>	<i>271</i>	<i>267</i>
Heating Oil .....	<b>397</b>	<b>382</b>	<b>369</b>	<b>330</b>	<b>288</b>	<b>276</b>	<b>247</b>	<i>233</i>	<i>245</i>	<i>251</i>	<i>254</i>	<i>262</i>	<b>372</b>	<i>267</i>	<i>252</i>
<b>Natural Gas</b>															
Henry Hub Spot (dollars per thousand cubic feet) .....	<b>5.36</b>	<b>4.75</b>	<b>4.08</b>	<b>3.91</b>	<b>2.99</b>	<b>2.83</b>	<b>2.84</b>	<i>2.36</i>	<i>2.73</i>	<i>2.81</i>	<i>3.04</i>	<i>3.27</i>	<b>4.52</b>	<i>2.75</i>	<i>2.96</i>
Henry Hub Spot (dollars per million Btu) .....	<b>5.21</b>	<b>4.61</b>	<b>3.96</b>	<b>3.80</b>	<b>2.90</b>	<b>2.75</b>	<b>2.76</b>	<i>2.29</i>	<i>2.65</i>	<i>2.73</i>	<i>2.96</i>	<i>3.17</i>	<b>4.39</b>	<i>2.67</i>	<i>2.88</i>
<b>U.S. End-Use Prices</b> (dollars per thousand cubic feet)															
Industrial Sector .....	<b>6.19</b>	<b>5.64</b>	<b>5.08</b>	<b>5.18</b>	<b>4.57</b>	<b>3.68</b>	<b>3.65</b>	<i>3.55</i>	<i>3.88</i>	<i>3.64</i>	<i>3.94</i>	<i>4.36</i>	<b>5.55</b>	<i>3.88</i>	<i>3.96</i>
Commercial Sector .....	<b>8.65</b>	<b>9.66</b>	<b>9.69</b>	<b>8.51</b>	<b>7.94</b>	<b>8.13</b>	<b>8.41</b>	<i>7.65</i>	<i>7.50</i>	<i>7.96</i>	<i>8.66</i>	<i>8.01</i>	<b>8.87</b>	<i>7.94</i>	<i>7.85</i>
Residential Sector .....	<b>9.82</b>	<b>13.11</b>	<b>16.94</b>	<b>10.52</b>	<b>9.29</b>	<b>11.96</b>	<b>16.43</b>	<i>10.15</i>	<i>8.75</i>	<i>11.60</i>	<i>15.88</i>	<i>10.04</i>	<b>10.94</b>	<i>10.36</i>	<i>10.07</i>
<b>U.S. Electricity</b>															
<b>Power Generation Fuel Costs</b> (dollars per million Btu)															
Coal .....	<b>2.33</b>	<b>2.39</b>	<b>2.38</b>	<b>2.38</b>	<b>2.27</b>	<b>2.25</b>	<b>2.22</b>	<i>2.23</i>	<i>2.22</i>	<i>2.26</i>	<i>2.26</i>	<i>2.22</i>	<b>2.37</b>	<i>2.24</i>	<i>2.24</i>
Natural Gas .....	<b>6.82</b>	<b>4.94</b>	<b>4.25</b>	<b>4.30</b>	<b>4.09</b>	<b>3.12</b>	<b>3.09</b>	<i>3.34</i>	<i>3.79</i>	<i>3.43</i>	<i>3.46</i>	<i>4.20</i>	<b>4.98</b>	<i>3.37</i>	<i>3.69</i>
Residual Fuel Oil (c) .....	<b>19.97</b>	<b>20.44</b>	<b>19.75</b>	<b>14.70</b>	<b>10.82</b>	<b>11.64</b>	<b>11.05</b>	<i>9.67</i>	<i>9.43</i>	<i>11.01</i>	<i>11.43</i>	<i>11.36</i>	<b>19.19</b>	<i>10.79</i>	<i>10.78</i>
Distillate Fuel Oil .....	<b>23.40</b>	<b>22.77</b>	<b>21.89</b>	<b>18.69</b>	<b>15.39</b>	<b>15.18</b>	<b>13.61</b>	<i>13.25</i>	<i>13.99</i>	<i>14.84</i>	<i>15.49</i>	<i>15.95</i>	<b>22.33</b>	<i>14.64</i>	<i>14.99</i>
<b>End-Use Prices</b> (cents per kilowatthour)															
Industrial Sector .....	<b>7.05</b>	<b>7.02</b>	<b>7.51</b>	<b>6.85</b>	<b>6.78</b>	<b>6.81</b>	<b>7.31</b>	<i>6.82</i>	<i>6.84</i>	<i>6.89</i>	<i>7.42</i>	<i>6.89</i>	<b>7.11</b>	<i>6.94</i>	<i>7.02</i>
Commercial Sector .....	<b>10.55</b>	<b>10.67</b>	<b>11.14</b>	<b>10.57</b>	<b>10.47</b>	<b>10.53</b>	<b>10.95</b>	<i>10.45</i>	<i>10.58</i>	<i>10.72</i>	<i>11.18</i>	<i>10.67</i>	<b>10.74</b>	<i>10.62</i>	<i>10.80</i>
Residential Sector .....	<b>11.93</b>	<b>12.75</b>	<b>13.03</b>	<b>12.39</b>	<b>12.23</b>	<b>12.85</b>	<b>12.99</b>	<i>12.32</i>	<i>12.16</i>	<i>12.80</i>	<i>13.13</i>	<i>12.65</i>	<b>12.52</b>	<i>12.61</i>	<i>12.70</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 - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>Supply (million barrels per day) (a)</b>															
OECD .....	25.09	25.52	25.80	26.72	26.57	26.34	26.70	26.50	26.19	26.06	26.02	26.38	25.79	26.53	26.16
U.S. (50 States) .....	13.12	13.97	14.37	14.81	14.70	15.02	15.07	14.93	14.69	14.68	14.60	14.85	14.07	14.93	14.71
Canada .....	4.42	4.27	4.33	4.55	4.68	4.16	4.50	4.51	4.49	4.49	4.57	4.59	4.39	4.46	4.54
Mexico .....	2.89	2.86	2.79	2.74	2.68	2.58	2.62	2.65	2.64	2.63	2.62	2.61	2.82	2.63	2.62
North Sea (b) .....	3.08	2.82	2.71	3.03	3.01	3.08	2.92	2.84	2.82	2.72	2.68	2.77	2.91	2.96	2.75
Other OECD .....	1.58	1.60	1.60	1.58	1.50	1.51	1.58	1.57	1.54	1.54	1.55	1.56	1.59	1.54	1.55
Non-OECD .....	66.75	66.98	67.86	68.29	67.86	69.04	69.79	69.32	68.47	69.38	70.47	70.18	67.48	69.01	69.63
OPEC .....	36.26	35.94	36.52	36.66	36.66	37.38	37.90	37.79	37.40	37.77	38.56	38.49	36.35	37.43	38.06
Crude Oil Portion .....	30.01	29.70	30.28	30.34	30.29	30.96	31.41	31.26	30.74	31.04	31.76	31.63	30.08	30.98	31.29
Other Liquids (c) .....	6.25	6.24	6.24	6.32	6.36	6.42	6.48	6.53	6.65	6.73	6.81	6.86	6.26	6.45	6.76
Eurasia .....	13.90	13.83	13.85	14.01	14.01	13.99	14.02	13.93	13.89	13.91	13.93	13.95	13.90	13.99	13.92
China .....	4.55	4.57	4.51	4.66	4.62	4.70	4.69	4.66	4.64	4.67	4.68	4.68	4.57	4.67	4.67
Other Non-OECD .....	12.05	12.64	12.98	12.96	12.58	12.96	13.19	12.94	12.55	13.04	13.31	13.05	12.66	12.92	12.99
Total World Supply .....	91.84	92.50	93.66	95.01	94.42	95.38	96.49	95.82	94.67	95.45	96.50	96.55	93.26	95.54	95.79
Non-OPEC Supply .....	55.58	56.56	57.15	58.35	57.77	58.00	58.60	58.04	57.27	57.68	57.93	58.06	56.92	58.10	57.74
<b>Consumption (million barrels per day) (d)</b>															
OECD .....	45.75	44.84	45.97	46.44	46.53	45.54	46.51	46.74	46.92	45.82	46.71	47.17	45.75	46.33	46.66
U.S. (50 States) .....	18.82	18.77	19.31	19.51	19.29	19.25	19.68	19.37	19.29	19.44	19.79	19.71	19.11	19.40	19.56
U.S. Territories .....	0.35	0.35	0.35	0.35	0.37	0.37	0.37	0.37	0.40	0.40	0.40	0.40	0.35	0.37	0.40
Canada .....	2.43	2.34	2.46	2.42	2.36	2.32	2.43	2.41	2.38	2.32	2.43	2.41	2.41	2.38	2.38
Europe .....	12.98	13.38	13.86	13.52	13.55	13.46	13.91	13.86	13.74	13.47	13.92	13.87	13.44	13.69	13.75
Japan .....	5.02	3.88	3.88	4.43	4.74	3.88	3.91	4.28	4.58	3.85	3.88	4.25	4.30	4.20	4.14
Other OECD .....	6.14	6.11	6.11	6.21	6.21	6.26	6.21	6.45	6.54	6.34	6.29	6.53	6.14	6.28	6.42
Non-OECD .....	45.63	46.96	47.35	46.81	46.27	47.85	48.19	47.63	47.31	48.93	49.28	48.70	46.69	47.49	48.56
Eurasia .....	4.82	4.76	4.98	4.96	4.71	4.65	4.92	4.90	4.73	4.66	4.93	4.92	4.88	4.80	4.81
Europe .....	0.70	0.71	0.73	0.73	0.71	0.72	0.74	0.74	0.72	0.73	0.75	0.75	0.72	0.73	0.73
China .....	10.45	11.03	10.98	10.94	10.77	11.36	11.32	11.27	11.08	11.69	11.64	11.59	10.85	11.18	11.50
Other Asia .....	11.80	12.01	11.56	11.88	12.11	12.33	11.87	12.19	12.49	12.71	12.23	12.56	11.81	12.13	12.50
Other Non-OECD .....	17.86	18.46	19.10	18.31	17.96	18.79	19.35	18.53	18.30	19.15	19.73	18.89	18.43	18.66	19.02
Total World Consumption .....	91.38	91.80	93.32	93.25	92.80	93.38	94.69	94.37	94.23	94.75	95.99	95.87	92.45	93.82	95.22
<b>Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)</b>															
U.S. (50 States) .....	0.03	-0.66	-0.22	-0.22	-0.54	-0.69	-0.32	0.26	0.10	-0.21	-0.05	0.59	-0.27	-0.32	0.11
Other OECD .....	-0.31	-0.02	-0.50	0.33	-0.19	-0.46	-0.53	-0.62	-0.20	-0.17	-0.16	-0.46	-0.12	-0.45	-0.25
Other Stock Draws and Balance .....	-0.17	-0.02	0.38	-1.88	-0.90	-0.84	-0.95	-1.09	-0.34	-0.32	-0.30	-0.81	-0.43	-0.94	-0.44
Total Stock Draw .....	-0.46	-0.70	-0.35	-1.76	-1.63	-1.99	-1.80	-1.45	-0.44	-0.69	-0.51	-0.68	-0.82	-1.72	-0.58
<b>End-of-period Commercial Crude Oil and Other Liquids Inventories</b>															
U.S. Commercial Inventory .....	1,063	1,128	1,149	1,169	1,217	1,277	1,306	1,282	1,273	1,292	1,296	1,241	1,169	1,282	1,241
OECD Commercial Inventory .....	2,575	2,642	2,711	2,698	2,763	2,865	2,942	2,975	2,984	3,019	3,038	3,025	2,698	2,975	3,025

- = no data available

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

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

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

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

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

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

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

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

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

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

**Projections:** EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration

Short-Term Energy Outlook - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>North America</b> .....	<b>20.43</b>	<b>21.10</b>	<b>21.48</b>	<b>22.11</b>	<b>22.06</b>	<b>21.75</b>	<b>22.20</b>	<i>22.09</i>	<i>21.83</i>	<i>21.80</i>	<i>21.79</i>	<i>22.05</i>	<b>21.29</b>	<i>22.03</i>	<i>21.87</i>
Canada .....	4.42	4.27	4.33	4.55	4.68	4.16	4.50	4.51	4.49	4.49	4.57	4.59	4.39	4.46	4.54
Mexico .....	2.89	2.86	2.79	2.74	2.68	2.58	2.62	2.65	2.64	2.63	2.62	2.61	2.82	2.63	2.62
United States .....	13.12	13.97	14.37	14.81	14.70	15.02	15.07	14.93	14.69	14.68	14.60	14.85	14.07	14.93	14.71
<b>Central and South America</b> .....	<b>4.54</b>	<b>5.16</b>	<b>5.55</b>	<b>5.39</b>	<b>4.95</b>	<b>5.43</b>	<b>5.69</b>	<i>5.38</i>	<i>4.99</i>	<i>5.50</i>	<i>5.75</i>	<i>5.47</i>	<b>5.16</b>	<i>5.36</i>	<i>5.43</i>
Argentina .....	0.70	0.71	0.73	0.73	0.69	0.71	0.75	0.75	0.70	0.72	0.76	0.76	0.72	0.72	0.74
Brazil .....	2.34	2.98	3.32	3.15	2.73	3.21	3.48	3.13	2.75	3.25	3.51	3.19	2.95	3.14	3.18
Colombia .....	1.02	0.99	1.02	1.03	1.06	1.05	0.99	1.03	1.05	1.04	0.99	1.02	1.02	1.03	1.03
Other Central and S. America .....	0.48	0.48	0.48	0.48	0.47	0.46	0.48	0.48	0.48	0.48	0.49	0.50	0.48	0.47	0.49
<b>Europe</b> .....	<b>4.04</b>	<b>3.78</b>	<b>3.68</b>	<b>4.00</b>	<b>3.96</b>	<b>4.03</b>	<b>3.87</b>	<i>3.79</i>	<i>3.76</i>	<i>3.64</i>	<i>3.62</i>	<i>3.70</i>	<b>3.88</b>	<i>3.91</i>	<i>3.68</i>
Norway .....	1.98	1.80	1.87	1.98	1.95	1.95	1.93	1.88	1.88	1.80	1.84	1.84	1.91	1.93	1.84
United Kingdom (offshore) .....	0.93	0.85	0.66	0.84	0.88	0.94	0.81	0.79	0.77	0.74	0.67	0.74	0.82	0.86	0.73
Other North Sea .....	0.18	0.16	0.18	0.20	0.18	0.18	0.17	0.17	0.18	0.18	0.18	0.19	0.18	0.18	0.18
<b>Eurasia</b> .....	<b>13.91</b>	<b>13.85</b>	<b>13.86</b>	<b>14.02</b>	<b>14.02</b>	<b>14.01</b>	<b>14.03</b>	<i>13.95</i>	<i>13.90</i>	<i>13.92</i>	<i>13.94</i>	<i>13.97</i>	<b>13.91</b>	<i>14.00</i>	<i>13.93</i>
Azerbaijan .....	0.85	0.86	0.88	0.84	0.86	0.86	0.88	0.88	0.88	0.88	0.87	0.87	0.86	0.87	0.87
Kazakhstan .....	1.73	1.66	1.71	1.78	1.76	1.71	1.69	1.69	1.70	1.70	1.71	1.74	1.72	1.71	1.71
Russia .....	10.86	10.83	10.79	10.93	10.92	10.94	10.96	10.88	10.83	10.84	10.87	10.87	10.85	10.92	10.85
Turkmenistan .....	0.27	0.28	0.28	0.26	0.27	0.27	0.28	0.27	0.28	0.29	0.29	0.28	0.28	0.28	0.28
Other Eurasia .....	0.20	0.21	0.21	0.21	0.21	0.23	0.23	0.22	0.21	0.21	0.21	0.21	0.21	0.22	0.21
<b>Middle East</b> .....	<b>1.19</b>	<b>1.17</b>	<b>1.20</b>	<b>1.16</b>	<b>1.19</b>	<b>1.15</b>	<b>1.16</b>	<i>1.15</i>	<i>1.15</i>	<i>1.13</i>	<i>1.13</i>	<i>1.12</i>	<b>1.18</b>	<i>1.16</i>	<i>1.13</i>
Oman .....	0.96	0.95	0.96	0.94	0.97	0.99	1.02	1.02	0.97	0.97	0.96	0.96	0.95	1.00	0.97
Syria .....	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.01	0.01	0.00	0.00	0.03	0.04	0.01
Yemen .....	0.13	0.13	0.13	0.12	0.11	0.05	0.03	0.02	0.10	0.08	0.09	0.08	0.13	0.05	0.09
<b>Asia and Oceania</b> .....	<b>9.15</b>	<b>9.18</b>	<b>9.05</b>	<b>9.33</b>	<b>9.29</b>	<b>9.34</b>	<b>9.34</b>	<i>9.38</i>	<i>9.37</i>	<i>9.40</i>	<i>9.43</i>	<i>9.45</i>	<b>9.18</b>	<i>9.34</i>	<i>9.41</i>
Australia .....	0.47	0.48	0.49	0.47	0.40	0.41	0.47	0.47	0.45	0.45	0.45	0.46	0.48	0.44	0.45
China .....	4.55	4.57	4.51	4.66	4.62	4.70	4.69	4.66	4.64	4.67	4.68	4.68	4.57	4.67	4.67
India .....	0.98	0.98	0.96	0.99	0.98	0.97	0.97	0.99	0.98	0.98	0.99	0.99	0.98	0.98	0.99
Indonesia .....	0.92	0.92	0.91	0.90	0.91	0.92	0.91	0.93	0.94	0.96	0.99	0.99	0.91	0.92	0.97
Malaysia .....	0.69	0.69	0.66	0.75	0.80	0.76	0.71	0.75	0.77	0.76	0.75	0.76	0.70	0.75	0.76
Vietnam .....	0.33	0.32	0.31	0.34	0.36	0.34	0.35	0.36	0.35	0.35	0.34	0.34	0.33	0.35	0.35
<b>Africa</b> .....	<b>2.32</b>	<b>2.31</b>	<b>2.31</b>	<b>2.34</b>	<b>2.29</b>	<b>2.30</b>	<b>2.30</b>	<i>2.30</i>	<i>2.28</i>	<i>2.28</i>	<i>2.28</i>	<i>2.31</i>	<b>2.32</b>	<i>2.30</i>	<i>2.29</i>
Egypt .....	0.70	0.70	0.70	0.72	0.71	0.71	0.71	0.70	0.70	0.70	0.70	0.69	0.71	0.71	0.70
Equatorial Guinea .....	0.29	0.29	0.29	0.29	0.27	0.27	0.27	0.27	0.25	0.25	0.25	0.25	0.29	0.27	0.25
Gabon .....	0.22	0.22	0.22	0.22	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.22	0.21	0.21
Sudan and South Sudan .....	0.26	0.26	0.26	0.26	0.26	0.25	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
<b>Total non-OPEC liquids</b> .....	<b>55.58</b>	<b>56.56</b>	<b>57.15</b>	<b>58.35</b>	<b>57.77</b>	<b>58.00</b>	<b>58.60</b>	<i>58.04</i>	<i>57.27</i>	<i>57.68</i>	<i>57.93</i>	<i>58.06</i>	<b>56.92</b>	<i>58.10</i>	<i>57.74</i>
<b>OPEC non-crude liquids</b> .....	<b>6.25</b>	<b>6.24</b>	<b>6.24</b>	<b>6.32</b>	<b>6.36</b>	<b>6.42</b>	<b>6.48</b>	<i>6.53</i>	<i>6.65</i>	<i>6.73</i>	<i>6.81</i>	<i>6.86</i>	<b>6.26</b>	<i>6.45</i>	<i>6.76</i>
<b>Non-OPEC + OPEC non-crude</b> .....	<b>61.83</b>	<b>62.80</b>	<b>63.39</b>	<b>64.67</b>	<b>64.13</b>	<b>64.42</b>	<b>65.08</b>	<i>64.56</i>	<i>63.92</i>	<i>64.41</i>	<i>64.74</i>	<i>64.92</i>	<b>63.18</b>	<i>64.55</i>	<i>64.50</i>
<b>Unplanned non-OPEC Production Outages</b> .....	<b>0.66</b>	<b>0.67</b>	<b>0.60</b>	<b>0.57</b>	<b>0.62</b>	<b>0.83</b>	<b>0.76</b>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<b>0.62</b>	<i>n/a</i>	<i>n/a</i>

- = no data available

OPEC = Organization of Petroleum Exporting Countries: Algeria, Angola, Ecuador, 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 - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>Crude Oil</b>															
Algeria .....	1.15	1.15	1.15	1.15	1.10	1.10	1.10	-	-	-	-	-	1.15	-	-
Angola .....	1.63	1.63	1.72	1.73	1.75	1.78	1.81	-	-	-	-	-	1.68	-	-
Ecuador .....	0.55	0.56	0.56	0.56	0.55	0.54	0.55	-	-	-	-	-	0.56	-	-
Iran .....	2.80	2.80	2.80	2.80	2.80	2.80	2.80	-	-	-	-	-	2.80	-	-
Iraq .....	3.26	3.29	3.28	3.53	3.57	4.03	4.33	-	-	-	-	-	3.34	-	-
Kuwait .....	2.60	2.60	2.60	2.48	2.57	2.53	2.50	-	-	-	-	-	2.57	-	-
Libya .....	0.38	0.23	0.58	0.69	0.40	0.45	0.38	-	-	-	-	-	0.47	-	-
Nigeria .....	2.00	1.97	2.07	1.98	2.03	1.88	1.92	-	-	-	-	-	2.00	-	-
Qatar .....	0.74	0.73	0.72	0.68	0.68	0.68	0.68	-	-	-	-	-	0.72	-	-
Saudi Arabia .....	9.80	9.65	9.70	9.63	9.73	10.07	10.25	-	-	-	-	-	9.70	-	-
United Arab Emirates .....	2.70	2.70	2.70	2.70	2.70	2.70	2.70	-	-	-	-	-	2.70	-	-
Venezuela .....	2.40	2.40	2.40	2.40	2.40	2.40	2.40	-	-	-	-	-	2.40	-	-
OPEC Total .....	30.01	29.70	30.28	30.34	30.29	30.96	31.41	31.26	30.74	31.04	31.76	31.63	30.08	30.98	31.29
<b>Other Liquids (a)</b> .....	6.25	6.24	6.24	6.32	6.36	6.42	6.48	6.53	6.65	6.73	6.81	6.86	6.26	6.45	6.76
<b>Total OPEC Supply</b> .....	36.26	35.94	36.52	36.66	36.66	37.38	37.90	37.79	37.40	37.77	38.56	38.49	36.35	37.43	38.06
<b>Crude Oil Production Capacity</b>															
Africa .....	5.15	4.97	5.51	5.53	5.28	5.18	5.19	5.21	5.17	5.22	5.28	5.35	5.29	5.22	5.26
South America .....	2.95	2.95	2.95	2.95	2.94	2.93	2.94	2.97	2.86	2.85	2.85	2.88	2.95	2.94	2.86
Middle East .....	23.93	23.88	23.85	23.76	23.87	24.21	24.53	24.56	24.64	24.92	25.63	25.53	23.85	24.29	25.18
OPEC Total .....	32.02	31.80	32.31	32.25	32.09	32.33	32.66	32.74	32.68	33.00	33.76	33.75	32.09	32.46	33.30
<b>Surplus Crude Oil Production Capacity</b>															
Africa .....	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	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 .....	2.01	2.09	2.03	1.91	1.78	1.36	1.25	1.48	1.93	1.96	2.00	2.13	2.01	1.47	2.01
OPEC Total .....	2.01	2.09	2.03	1.91	1.80	1.37	1.25	1.48	1.93	1.96	2.00	2.13	2.01	1.47	2.01
<b>Unplanned OPEC Production Outages</b> .....	2.32	2.57	2.26	2.43	2.57	2.64	2.73	n/a	n/a	n/a	n/a	n/a	2.40	n/a	n/a

- = no data available

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

(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 - December 2015

	2014				2015				2016				2014	2015	2016
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
<b>North America</b> .....	<b>23.21</b>	<b>23.09</b>	<b>23.74</b>	<b>23.92</b>	<b>23.53</b>	<b>23.52</b>	<b>24.04</b>	<i>23.72</i>	<i>23.61</i>	<i>23.72</i>	<i>24.15</i>	<i>24.06</i>	<b>23.49</b>	<i>23.71</i>	<i>23.89</i>
Canada .....	<b>2.43</b>	<b>2.34</b>	<b>2.46</b>	<b>2.42</b>	<b>2.36</b>	<b>2.32</b>	<b>2.43</b>	<i>2.41</i>	<i>2.38</i>	<i>2.32</i>	<i>2.43</i>	<i>2.41</i>	<b>2.41</b>	<i>2.38</i>	<i>2.38</i>
Mexico .....	<b>1.95</b>	<b>1.97</b>	<b>1.96</b>	<b>1.98</b>	<b>1.87</b>	<b>1.95</b>	<b>1.92</b>	<i>1.93</i>	<i>1.93</i>	<i>1.95</i>	<i>1.92</i>	<i>1.93</i>	<b>1.97</b>	<i>1.92</i>	<i>1.93</i>
United States .....	<b>18.82</b>	<b>18.77</b>	<b>19.31</b>	<b>19.51</b>	<b>19.29</b>	<b>19.25</b>	<b>19.68</b>	<i>19.37</i>	<i>19.29</i>	<i>19.44</i>	<i>19.79</i>	<i>19.71</i>	<b>19.11</b>	<i>19.40</i>	<i>19.56</i>
<b>Central and South America</b> .....	<b>7.05</b>	<b>7.30</b>	<b>7.33</b>	<b>7.31</b>	<b>7.05</b>	<b>7.37</b>	<b>7.41</b>	<i>7.38</i>	<i>7.17</i>	<i>7.44</i>	<i>7.47</i>	<i>7.45</i>	<b>7.25</b>	<i>7.30</i>	<i>7.38</i>
Brazil .....	<b>3.03</b>	<b>3.14</b>	<b>3.21</b>	<b>3.20</b>	<b>3.03</b>	<b>3.14</b>	<b>3.21</b>	<i>3.20</i>	<i>3.06</i>	<i>3.18</i>	<i>3.24</i>	<i>3.23</i>	<b>3.15</b>	<i>3.15</i>	<i>3.18</i>
<b>Europe</b> .....	<b>13.68</b>	<b>14.09</b>	<b>14.59</b>	<b>14.25</b>	<b>14.26</b>	<b>14.17</b>	<b>14.64</b>	<i>14.59</i>	<i>14.46</i>	<i>14.20</i>	<i>14.67</i>	<i>14.62</i>	<b>14.16</b>	<i>14.42</i>	<i>14.49</i>
<b>Eurasia</b> .....	<b>4.85</b>	<b>4.79</b>	<b>5.01</b>	<b>4.99</b>	<b>4.74</b>	<b>4.67</b>	<b>4.95</b>	<i>4.93</i>	<i>4.76</i>	<i>4.69</i>	<i>4.97</i>	<i>4.95</i>	<b>4.91</b>	<i>4.83</i>	<i>4.84</i>
Russia .....	<b>3.49</b>	<b>3.45</b>	<b>3.65</b>	<b>3.63</b>	<b>3.39</b>	<b>3.34</b>	<b>3.54</b>	<i>3.53</i>	<i>3.35</i>	<i>3.30</i>	<i>3.50</i>	<i>3.48</i>	<b>3.56</b>	<i>3.45</i>	<i>3.41</i>
<b>Middle East</b> .....	<b>7.97</b>	<b>8.33</b>	<b>8.98</b>	<b>8.17</b>	<b>7.93</b>	<b>8.56</b>	<b>9.13</b>	<i>8.29</i>	<i>8.12</i>	<i>8.73</i>	<i>9.33</i>	<i>8.45</i>	<b>8.36</b>	<i>8.48</i>	<i>8.66</i>
<b>Asia and Oceania</b> .....	<b>30.88</b>	<b>30.48</b>	<b>29.99</b>	<b>30.91</b>	<b>31.39</b>	<b>31.20</b>	<b>30.68</b>	<i>31.60</i>	<i>32.07</i>	<i>31.95</i>	<i>31.41</i>	<i>32.33</i>	<b>30.56</b>	<i>31.22</i>	<i>31.94</i>
China .....	<b>10.45</b>	<b>11.03</b>	<b>10.98</b>	<b>10.94</b>	<b>10.77</b>	<b>11.36</b>	<b>11.32</b>	<i>11.27</i>	<i>11.08</i>	<i>11.69</i>	<i>11.64</i>	<i>11.59</i>	<b>10.85</b>	<i>11.18</i>	<i>11.50</i>
Japan .....	<b>5.02</b>	<b>3.88</b>	<b>3.88</b>	<b>4.43</b>	<b>4.74</b>	<b>3.88</b>	<b>3.91</b>	<i>4.28</i>	<i>4.58</i>	<i>3.85</i>	<i>3.88</i>	<i>4.25</i>	<b>4.30</b>	<i>4.20</i>	<i>4.14</i>
India .....	<b>3.88</b>	<b>3.86</b>	<b>3.54</b>	<b>3.83</b>	<b>4.08</b>	<b>4.06</b>	<b>3.72</b>	<i>4.02</i>	<i>4.25</i>	<i>4.23</i>	<i>3.88</i>	<i>4.19</i>	<b>3.78</b>	<i>3.97</i>	<i>4.14</i>
<b>Africa</b> .....	<b>3.73</b>	<b>3.73</b>	<b>3.68</b>	<b>3.70</b>	<b>3.89</b>	<b>3.88</b>	<b>3.84</b>	<i>3.86</i>	<i>4.04</i>	<i>4.03</i>	<i>3.99</i>	<i>4.01</i>	<b>3.71</b>	<i>3.86</i>	<i>4.02</i>
<b>Total OECD Liquid Fuels Consumption</b> .....	<b>45.75</b>	<b>44.84</b>	<b>45.97</b>	<b>46.44</b>	<b>46.53</b>	<b>45.54</b>	<b>46.51</b>	<i>46.74</i>	<i>46.92</i>	<i>45.82</i>	<i>46.71</i>	<i>47.17</i>	<b>45.75</b>	<i>46.33</i>	<i>46.66</i>
<b>Total non-OECD Liquid Fuels Consumption</b> .....	<b>45.63</b>	<b>46.96</b>	<b>47.35</b>	<b>46.81</b>	<b>46.27</b>	<b>47.85</b>	<b>48.19</b>	<i>47.63</i>	<i>47.31</i>	<i>48.93</i>	<i>49.28</i>	<i>48.70</i>	<b>46.69</b>	<i>47.49</i>	<i>48.56</i>
<b>Total World Liquid Fuels Consumption</b> .....	<b>91.38</b>	<b>91.80</b>	<b>93.32</b>	<b>93.25</b>	<b>92.80</b>	<b>93.38</b>	<b>94.69</b>	<i>94.37</i>	<i>94.23</i>	<i>94.75</i>	<i>95.99</i>	<i>95.87</i>	<b>92.45</b>	<i>93.82</i>	<i>95.22</i>
<b>Oil-weighted Real Gross Domestic Product (a)</b>															
World Index, 2010 Q1 = 100 .....	<b>113.2</b>	<b>114.0</b>	<b>114.8</b>	<b>115.7</b>	<b>116.2</b>	<b>116.9</b>	<b>117.4</b>	<i>118.1</i>	<i>118.9</i>	<i>119.8</i>	<i>120.6</i>	<i>121.5</i>	<b>114.4</b>	<i>117.1</i>	<i>120.2</i>
Percent change from prior year .....	<b>2.8</b>	<b>2.7</b>	<b>2.7</b>	<b>2.6</b>	<b>2.6</b>	<b>2.5</b>	<b>2.2</b>	<i>2.1</i>	<i>2.3</i>	<i>2.5</i>	<i>2.7</i>	<i>2.9</i>	<b>2.7</b>	<i>2.3</i>	<i>2.6</i>
OECD Index, 2010 Q1 = 100 .....	<b>107.1</b>	<b>107.6</b>	<b>108.2</b>	<b>108.8</b>	<b>109.3</b>	<b>109.9</b>	<b>110.2</b>	<i>110.7</i>	<i>111.4</i>	<i>112.0</i>	<i>112.6</i>	<i>113.4</i>	<b>107.9</b>	<i>110.0</i>	<i>112.4</i>
Percent change from prior year .....	<b>1.8</b>	<b>1.9</b>	<b>1.9</b>	<b>1.8</b>	<b>2.0</b>	<b>2.2</b>	<b>1.8</b>	<i>1.8</i>	<i>1.9</i>	<i>1.9</i>	<i>2.2</i>	<i>2.4</i>	<b>1.9</b>	<i>2.0</i>	<i>2.1</i>
Non-OECD Index, 2010 Q1 = 100 .....	<b>121.0</b>	<b>122.2</b>	<b>123.2</b>	<b>124.5</b>	<b>125.0</b>	<b>125.8</b>	<b>126.5</b>	<i>127.5</i>	<i>128.5</i>	<i>129.8</i>	<i>130.8</i>	<i>132.0</i>	<b>122.7</b>	<i>126.2</i>	<i>130.3</i>
Percent change from prior year .....	<b>3.9</b>	<b>3.7</b>	<b>3.6</b>	<b>3.6</b>	<b>3.3</b>	<b>2.9</b>	<b>2.7</b>	<i>2.4</i>	<i>2.8</i>	<i>3.2</i>	<i>3.4</i>	<i>3.6</i>	<b>3.7</b>	<i>2.8</i>	<i>3.2</i>
<b>Real U.S. Dollar Exchange Rate (a)</b>															
Index, January 2010 = 100 .....	<b>108.09</b>	<b>107.86</b>	<b>109.04</b>	<b>113.63</b>	<b>119.28</b>	<b>119.52</b>	<b>122.96</b>	<i>124.59</i>	<i>127.17</i>	<i>127.02</i>	<i>126.86</i>	<i>126.75</i>	<b>109.65</b>	<i>121.59</i>	<i>126.95</i>
Percent change from prior year .....	<b>3.8</b>	<b>2.0</b>	<b>1.9</b>	<b>6.7</b>	<b>10.4</b>	<b>10.8</b>	<b>12.8</b>	<i>9.6</i>	<i>6.6</i>	<i>6.3</i>	<i>3.2</i>	<i>1.7</i>	<b>3.6</b>	<i>10.9</i>	<i>4.4</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 4a. U.S. Petroleum and Other Liquids Supply, Consumption, and Inventories**

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>Supply (million barrels per day)</b>															
<b>Crude Oil Supply</b>															
Domestic Production (a) .....	8.11	8.61	8.84	9.24	9.37	9.41	9.37	9.17	8.95	8.80	8.56	8.75	8.70	9.33	8.76
Alaska .....	0.53	0.52	0.43	0.51	0.50	0.48	0.44	0.49	0.49	0.48	0.43	0.47	0.50	0.48	0.47
Federal Gulf of Mexico (b) .....	1.32	1.42	1.43	1.42	1.46	1.47	1.64	1.60	1.62	1.65	1.55	1.67	1.40	1.54	1.62
Lower 48 States (excl GOM) .....	6.26	6.68	6.98	7.30	7.41	7.46	7.29	7.08	6.84	6.67	6.58	6.60	6.81	7.31	6.67
Crude Oil Net Imports (c) .....	7.11	6.93	7.15	6.78	6.84	6.74	6.93	6.78	6.63	7.32	7.70	7.10	6.99	6.82	7.19
SPR Net Withdrawals .....	0.00	0.05	0.00	0.00	0.00	-0.03	-0.01	0.00	0.00	0.00	0.00	0.00	0.01	-0.01	0.00
Commercial Inventory Net Withdrawals .....	-0.33	0.01	0.25	-0.33	-0.91	0.06	0.10	-0.12	-0.21	0.17	0.20	0.16	-0.10	-0.21	0.08
Crude Oil Adjustment (d) .....	0.29	0.27	0.13	0.26	0.22	0.31	0.19	0.31	0.19	0.19	0.21	0.15	0.24	0.26	0.19
Total Crude Oil Input to Refineries .....	15.19	15.88	16.36	15.96	15.53	16.48	16.58	16.14	15.57	16.48	16.67	16.16	15.85	16.18	16.22
<b>Other Supply</b>															
Refinery Processing Gain .....	1.05	1.07	1.10	1.10	0.99	1.02	1.08	1.10	1.03	1.07	1.10	1.11	1.08	1.05	1.08
Natural Gas Plant Liquids Production .....	2.75	3.00	3.15	3.16	3.09	3.27	3.31	3.35	3.40	3.50	3.61	3.68	3.01	3.26	3.55
Renewables and Oxygenate Production (e) .....	1.01	1.06	1.06	1.08	1.05	1.10	1.10	1.10	1.10	1.09	1.11	1.09	1.05	1.09	1.10
Fuel Ethanol Production .....	0.91	0.94	0.93	0.96	0.96	0.96	0.96	0.96	0.97	0.96	0.97	0.95	0.93	0.96	0.96
Petroleum Products Adjustment (f) .....	0.20	0.23	0.22	0.24	0.20	0.21	0.21	0.22	0.21	0.22	0.23	0.23	0.22	0.21	0.22
Product Net Imports (c) .....	-1.73	-1.74	-2.11	-2.13	-1.89	-2.12	-2.20	-2.91	-2.33	-2.55	-2.68	-2.99	-1.93	-2.28	-2.64
Hydrocarbon Gas Liquids .....	-0.36	-0.57	-0.66	-0.64	-0.68	-0.80	-0.93	-0.98	-1.04	-1.12	-1.22	-1.21	-0.56	-0.85	-1.15
Unfinished Oils .....	0.34	0.43	0.34	0.37	0.26	0.28	0.38	0.35	0.36	0.27	0.36	0.38	0.37	0.32	0.34
Other HC/Oxygenates .....	-0.09	-0.09	-0.08	-0.09	-0.08	-0.09	-0.06	-0.07	-0.07	-0.05	-0.03	-0.03	-0.09	-0.07	-0.04
Motor Gasoline Blend Comp. ....	0.30	0.58	0.46	0.39	0.41	0.52	0.60	0.38	0.48	0.63	0.48	0.42	0.44	0.48	0.50
Finished Motor Gasoline .....	-0.40	-0.37	-0.33	-0.47	-0.44	-0.32	-0.40	-0.66	-0.51	-0.50	-0.39	-0.63	-0.39	-0.46	-0.51
Jet Fuel .....	-0.07	-0.02	-0.09	-0.09	-0.06	0.01	-0.05	-0.08	-0.03	-0.05	-0.01	-0.03	-0.07	-0.04	-0.03
Distillate Fuel Oil .....	-0.67	-1.00	-1.07	-0.89	-0.67	-1.05	-1.12	-1.05	-0.75	-0.95	-1.07	-1.07	-0.91	-0.98	-0.96
Residual Fuel Oil .....	-0.23	-0.18	-0.17	-0.18	-0.13	-0.21	-0.11	-0.19	-0.24	-0.26	-0.25	-0.22	-0.19	-0.16	-0.24
Other Oils (g) .....	-0.55	-0.52	-0.50	-0.53	-0.50	-0.46	-0.50	-0.61	-0.54	-0.51	-0.55	-0.60	-0.53	-0.52	-0.55
Product Inventory Net Withdrawals .....	0.35	-0.72	-0.47	0.11	0.36	-0.72	-0.41	0.38	0.30	-0.38	-0.25	0.44	-0.18	-0.10	0.03
Total Supply .....	18.82	18.77	19.31	19.51	19.32	19.25	19.68	19.37	19.29	19.44	19.79	19.71	19.11	19.40	19.56
<b>Consumption (million barrels per day)</b>															
Hydrocarbon Gas Liquids .....	2.70	2.12	2.32	2.66	2.72	2.27	2.29	2.56	2.73	2.33	2.39	2.77	2.45	2.46	2.56
Unfinished Oils .....	-0.07	-0.03	-0.03	-0.02	-0.05	0.05	-0.03	0.04	0.00	0.00	0.01	0.02	-0.04	0.00	0.01
Motor Gasoline .....	8.54	9.01	9.13	9.00	8.81	9.26	9.39	9.08	8.85	9.25	9.38	9.09	8.92	9.14	9.15
Fuel Ethanol blended into Motor Gasoline .....	0.84	0.89	0.89	0.90	0.87	0.92	0.93	0.90	0.89	0.93	0.94	0.92	0.88	0.91	0.92
Jet Fuel .....	1.39	1.47	1.52	1.50	1.45	1.54	1.59	1.55	1.45	1.53	1.58	1.53	1.47	1.53	1.53
Distillate Fuel Oil .....	4.19	3.95	3.89	4.12	4.27	3.88	3.93	3.94	4.13	4.01	3.96	4.07	4.04	4.00	4.04
Residual Fuel Oil .....	0.25	0.25	0.25	0.28	0.24	0.19	0.31	0.20	0.22	0.20	0.21	0.21	0.26	0.24	0.21
Other Oils (g) .....	1.83	2.01	2.24	1.96	1.85	2.06	2.20	1.99	1.90	2.11	2.25	2.01	2.01	2.02	2.07
Total Consumption .....	18.82	18.77	19.31	19.51	19.29	19.25	19.68	19.37	19.29	19.44	19.79	19.71	19.11	19.40	19.56
<b>Total Petroleum and Other Liquids Net Imports</b> ....	<b>5.38</b>	<b>5.20</b>	<b>5.04</b>	<b>4.65</b>	<b>4.95</b>	<b>4.61</b>	<b>4.74</b>	<b>3.87</b>	<b>4.30</b>	<b>4.78</b>	<b>5.02</b>	<b>4.11</b>	<b>5.07</b>	<b>4.54</b>	<b>4.55</b>
<b>End-of-period Inventories (million barrels)</b>															
<b>Commercial Inventory</b>															
Crude Oil (excluding SPR) .....	386.7	386.0	363.3	393.3	474.8	469.5	460.8	471.4	490.0	474.2	455.8	441.2	393.3	471.4	441.2
Hydrocarbon Gas Liquids .....	99.5	166.1	211.7	175.4	138.8	196.3	228.7	191.6	159.5	198.6	223.4	176.3	175.4	191.6	176.3
Unfinished Oils .....	91.9	87.6	84.3	78.3	84.7	86.0	88.8	80.4	91.0	88.5	86.6	81.3	78.3	80.4	81.3
Other HC/Oxygenates .....	22.7	23.3	22.4	23.3	26.7	25.0	23.8	25.7	27.8	26.6	25.8	26.1	23.3	25.7	26.1
Total Motor Gasoline .....	221.6	219.3	212.5	240.4	231.5	221.0	225.1	229.4	228.8	223.0	220.2	232.5	240.4	229.4	232.5
Finished Motor Gasoline .....	34.4	28.8	28.4	31.2	26.9	25.7	29.0	28.6	26.3	26.1	25.6	27.1	31.2	28.6	27.1
Motor Gasoline Blend Comp. ....	187.2	190.5	184.1	209.1	204.6	195.4	196.1	200.8	202.4	196.9	194.6	205.5	209.1	200.8	205.5
Jet Fuel .....	36.4	37.1	39.8	38.3	37.2	43.7	40.4	37.9	38.1	39.2	42.0	38.4	38.3	37.9	38.4
Distillate Fuel Oil .....	115.2	121.6	131.4	136.3	128.3	139.4	148.8	153.0	138.8	146.0	155.8	157.5	136.3	153.0	157.5
Residual Fuel Oil .....	36.0	36.6	36.6	33.7	38.1	41.8	41.3	41.7	40.8	40.1	37.8	38.2	33.7	41.7	38.2
Other Oils (g) .....	52.9	50.6	46.7	49.6	57.3	54.6	48.3	51.0	58.2	55.7	48.7	49.9	49.6	51.0	49.9
Total Commercial Inventory .....	1,063	1,128	1,149	1,169	1,217	1,277	1,306	1,282	1,273	1,292	1,296	1,241	1,169	1,282	1,241
Crude Oil in SPR .....	696	691	691	691	691	694	695	695	695	695	695	695	691	695	695

- = no data available

(a) Includes lease condensate.

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

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

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

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

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

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

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

SPR: Strategic Petroleum Reserve

HC: Hydrocarbons

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

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

**Projections:** EIA Regional Short-Term Energy Model.

**Table 4b. U.S. Hydrocarbon Gas Liquids (HGL) and Petroleum Refinery Balances (million barrels per day, except inventories and utilization factor)**

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>HGL Production</b>															
<b>Natural Gas Processing Plants</b>															
Ethane .....	1.05	1.11	1.11	1.09	1.05	1.10	1.09	1.14	1.22	1.23	1.27	1.32	1.09	1.09	1.26
Propane .....	0.88	0.96	1.03	1.06	1.07	1.12	1.13	1.13	1.13	1.17	1.19	1.24	0.98	1.11	1.18
Butanes .....	0.48	0.53	0.57	0.59	0.58	0.62	0.64	0.63	0.63	0.65	0.66	0.66	0.54	0.62	0.65
Natural Gasoline (Pentanes Plus) .....	0.34	0.39	0.43	0.42	0.39	0.44	0.46	0.44	0.42	0.45	0.48	0.46	0.39	0.43	0.45
<b>Refinery and Blender Net Production</b>															
Ethane/Ethylene .....	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.01
Propane/Propylene .....	0.57	0.60	0.59	0.59	0.54	0.58	0.56	0.58	0.59	0.61	0.60	0.60	0.59	0.57	0.60
Butanes/Butylenes .....	-0.05	0.27	0.21	-0.18	-0.08	0.27	0.19	-0.18	-0.03	0.26	0.18	-0.17	0.06	0.05	0.06
<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 .....	-0.02	-0.02	-0.05	-0.06	-0.06	-0.07	-0.06	-0.07	-0.10	-0.11	-0.15	-0.17	-0.04	-0.07	-0.13
Propane/Propylene .....	-0.17	-0.34	-0.36	-0.39	-0.40	-0.49	-0.56	-0.61	-0.58	-0.65	-0.69	-0.69	-0.32	-0.51	-0.65
Butanes/Butylenes .....	-0.04	-0.06	-0.09	-0.03	-0.06	-0.09	-0.11	-0.10	-0.15	-0.17	-0.17	-0.15	-0.06	-0.09	-0.16
Natural Gasoline (Pentanes Plus) .....	-0.13	-0.16	-0.16	-0.15	-0.17	-0.15	-0.21	-0.20	-0.20	-0.19	-0.21	-0.20	-0.15	-0.18	-0.20
<b>HGL Refinery and Blender Net Inputs</b>															
Butanes/Butylenes .....	0.37	0.28	0.30	0.48	0.40	0.27	0.32	0.44	0.36	0.29	0.30	0.43	0.36	0.35	0.35
Natural Gasoline (Pentanes Plus) .....	0.14	0.16	0.16	0.16	0.15	0.14	0.16	0.16	0.17	0.18	0.18	0.18	0.15	0.15	0.18
<b>HGL Consumption</b>															
Ethane/Ethylene .....	1.04	0.99	1.10	1.06	1.03	1.02	1.02	1.09	1.10	1.09	1.14	1.19	1.05	1.04	1.13
Propane/Propylene .....	1.46	0.91	1.01	1.30	1.43	0.92	0.96	1.18	1.40	0.98	0.99	1.29	1.17	1.12	1.16
Butanes/Butylenes .....	0.15	0.18	0.17	0.22	0.16	0.24	0.22	0.22	0.19	0.22	0.21	0.23	0.18	0.21	0.21
Natural Gasoline (Pentanes Plus) .....	0.05	0.04	0.04	0.08	0.10	0.09	0.09	0.07	0.04	0.05	0.05	0.06	0.05	0.09	0.05
<b>HGL Inventories (million barrels)</b>															
Ethane/Ethylene .....	30.03	37.15	38.95	36.45	31.38	31.65	31.86	32.57	31.99	36.17	36.83	34.16	35.67	31.87	34.79
Propane/Propylene .....	28.81	57.90	81.41	77.95	58.10	84.20	100.20	92.74	68.67	82.25	93.05	79.55	77.95	92.74	79.55
Butanes/Butylenes .....	26.31	52.35	72.40	41.95	32.46	59.42	76.52	48.87	40.12	59.93	73.18	44.09	41.95	48.87	44.09
Natural Gasoline (Pentanes Plus) .....	13.99	15.77	20.39	20.61	17.16	20.51	19.00	18.28	17.59	19.31	20.69	19.85	20.61	18.28	19.85
<b>Refinery and Blender Net Inputs</b>															
Crude Oil .....	15.19	15.88	16.36	15.96	15.53	16.48	16.58	16.14	15.57	16.48	16.67	16.16	15.85	16.18	16.22
Hydrocarbon Gas Liquids .....	0.52	0.43	0.46	0.64	0.54	0.40	0.47	0.60	0.52	0.47	0.48	0.62	0.51	0.51	0.52
Other Hydrocarbons/Oxygenates .....	1.09	1.16	1.16	1.14	1.12	1.18	1.19	1.19	1.18	1.23	1.27	1.24	1.14	1.17	1.23
Unfinished Oils .....	0.26	0.51	0.41	0.45	0.24	0.22	0.38	0.40	0.24	0.30	0.36	0.41	0.41	0.31	0.33
Motor Gasoline Blend Components .....	0.55	1.00	0.80	0.33	0.72	0.91	0.75	0.52	0.66	0.89	0.70	0.49	0.67	0.72	0.68
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 .....	17.60	18.98	19.18	18.51	18.14	19.18	19.38	18.85	18.18	19.36	19.50	18.92	18.57	18.89	18.99
<b>Refinery Processing Gain</b>															
.....	1.05	1.07	1.10	1.10	0.99	1.02	1.08	1.10	1.03	1.07	1.10	1.11	1.08	1.05	1.08
<b>Refinery and Blender Net Production</b>															
Hydrocarbon Gas Liquids .....	0.53	0.87	0.80	0.41	0.47	0.86	0.76	0.41	0.56	0.87	0.78	0.43	0.65	0.62	0.66
Finished Motor Gasoline .....	9.11	9.77	9.71	9.69	9.48	9.83	9.97	9.94	9.53	9.93	9.95	9.91	9.57	9.80	9.83
Jet Fuel .....	1.45	1.50	1.64	1.57	1.50	1.61	1.60	1.60	1.49	1.60	1.62	1.53	1.54	1.58	1.56
Distillate Fuel .....	4.69	4.97	5.00	5.00	4.82	4.99	5.08	4.98	4.67	4.98	5.08	5.10	4.92	4.97	4.96
Residual Fuel .....	0.46	0.44	0.42	0.43	0.43	0.44	0.41	0.40	0.45	0.45	0.44	0.43	0.44	0.42	0.44
Other Oils (a) .....	2.42	2.50	2.70	2.52	2.44	2.48	2.63	2.63	2.51	2.60	2.73	2.62	2.54	2.55	2.62
Total Refinery and Blender Net Production .....	18.65	20.05	20.28	19.62	19.13	20.20	20.45	19.95	19.21	20.43	20.60	20.02	19.65	19.94	20.07
<b>Refinery Distillation Inputs</b>															
.....	15.52	16.18	16.65	16.26	15.78	16.69	16.85	16.41	15.89	16.68	16.94	16.44	16.16	16.43	16.49
<b>Refinery Operable Distillation Capacity</b>															
.....	17.93	17.91	17.83	17.82	17.88	17.98	18.08	18.07	18.10	18.10	18.26	18.34	17.87	18.00	18.20
<b>Refinery Distillation Utilization Factor</b>															
.....	0.87	0.90	0.93	0.91	0.88	0.93	0.93	0.91	0.88	0.92	0.93	0.90	0.90	0.91	0.91

- = 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 - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>Prices (cents per gallon)</b>															
<b>Refiner Wholesale Price</b> .....	<b>272</b>	<b>298</b>	<b>276</b>	<b>203</b>	<b>159</b>	<b>201</b>	<b>184</b>	<b>141</b>	<b>145</b>	<b>178</b>	<b>180</b>	<b>158</b>	<b>262</b>	<b>172</b>	<b>165</b>
<b>Gasoline Regular Grade Retail Prices Including Taxes</b>															
PADD 1 .....	344	365	348	292	228	259	247	212	215	245	249	234	337	237	236
PADD 2 .....	337	365	343	279	216	256	253	211	207	246	248	224	331	234	232
PADD 3 .....	318	345	329	265	204	240	228	191	194	227	229	208	314	216	215
PADD 4 .....	326	351	363	297	207	261	277	218	199	237	251	228	335	241	229
PADD 5 .....	362	401	386	315	271	328	327	260	243	280	284	260	366	297	267
U.S. Average .....	340	368	350	288	227	267	260	216	214	248	252	231	336	243	236
<b>Gasoline All Grades Including Taxes</b>	<b>348</b>	<b>375</b>	<b>358</b>	<b>296</b>	<b>236</b>	<b>275</b>	<b>269</b>	<b>226</b>	<b>223</b>	<b>257</b>	<b>260</b>	<b>240</b>	<b>344</b>	<b>252</b>	<b>245</b>
<b>End-of-period Inventories (million barrels)</b>															
<b>Total Gasoline Inventories</b>															
PADD 1 .....	57.7	63.1	55.7	62.1	64.5	61.3	62.6	60.7	61.0	62.0	57.8	61.0	62.1	60.7	61.0
PADD 2 .....	49.1	49.7	47.1	52.4	52.9	50.4	47.0	51.1	51.4	48.8	49.4	50.6	52.4	51.1	50.6
PADD 3 .....	78.5	73.2	74.9	84.2	78.4	74.6	78.1	79.5	79.5	77.5	78.3	81.6	84.2	79.5	81.6
PADD 4 .....	6.4	6.1	7.4	7.9	6.5	6.8	7.1	7.2	7.1	6.8	6.9	7.6	7.9	7.2	7.6
PADD 5 .....	29.9	27.1	27.3	33.7	29.2	28.0	30.3	30.8	29.9	27.8	27.9	31.7	33.7	30.8	31.7
U.S. Total .....	221.6	219.3	212.5	240.4	231.5	221.0	225.1	229.4	228.8	223.0	220.2	232.5	240.4	229.4	232.5
<b>Finished Gasoline Inventories</b>															
U.S. Total .....	34.4	28.8	28.4	31.2	26.9	25.7	29.0	28.6	26.3	26.1	25.6	27.1	31.2	28.6	27.1
<b>Gasoline Blending Components Inventories</b>															
U.S. Total .....	187.2	190.5	184.1	209.1	204.6	195.4	196.1	200.8	202.4	196.9	194.6	205.5	209.1	200.8	205.5

- = no data available

Prices are not adjusted for inflation.

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

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

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

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

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

**Projections:** EIA Regional Short-Term Energy Model.

**Table 5a. U.S. Natural Gas Supply, Consumption, and Inventories**

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>Supply (billion cubic feet per day)</b>															
Total Marketed Production .....	<b>71.75</b>	<b>74.09</b>	<b>76.06</b>	<b>77.60</b>	<b>78.11</b>	<b>79.20</b>	<b>80.57</b>	<i>80.39</i>	<i>80.70</i>	<i>80.87</i>	<i>80.98</i>	<i>81.65</i>	<b>74.89</b>	<i>79.58</i>	<i>81.05</i>
Alaska .....	<b>0.99</b>	<b>0.93</b>	<b>0.87</b>	<b>0.99</b>	<b>0.99</b>	<b>0.93</b>	<b>0.86</b>	<i>0.94</i>	<i>0.98</i>	<i>0.84</i>	<i>0.76</i>	<i>0.92</i>	<b>0.95</b>	<i>0.93</i>	<i>0.87</i>
Federal GOM (a) .....	<b>3.31</b>	<b>3.52</b>	<b>3.51</b>	<b>3.43</b>	<b>3.37</b>	<b>3.68</b>	<b>3.95</b>	<i>3.30</i>	<i>3.35</i>	<i>3.30</i>	<i>3.13</i>	<i>3.09</i>	<b>3.44</b>	<i>3.58</i>	<i>3.22</i>
Lower 48 States (excl GOM) .....	<b>67.45</b>	<b>69.64</b>	<b>71.68</b>	<b>73.19</b>	<b>73.75</b>	<b>74.58</b>	<b>75.75</b>	<i>76.15</i>	<i>76.36</i>	<i>76.72</i>	<i>77.09</i>	<i>77.64</i>	<b>70.51</b>	<i>75.07</i>	<i>76.96</i>
Total Dry Gas Production .....	<b>67.53</b>	<b>69.73</b>	<b>71.59</b>	<b>73.04</b>	<b>73.67</b>	<b>74.50</b>	<b>75.81</b>	<i>75.64</i>	<i>75.93</i>	<i>76.09</i>	<i>76.19</i>	<i>76.82</i>	<b>70.49</b>	<i>74.91</i>	<i>76.26</i>
LNG Gross Imports .....	<b>0.17</b>	<b>0.17</b>	<b>0.15</b>	<b>0.16</b>	<b>0.43</b>	<b>0.08</b>	<b>0.26</b>	<i>0.17</i>	<i>0.14</i>	<i>0.16</i>	<i>0.17</i>	<i>0.15</i>	<b>0.16</b>	<i>0.23</i>	<i>0.15</i>
LNG Gross Exports .....	<b>0.03</b>	<b>0.02</b>	<b>0.09</b>	<b>0.03</b>	<b>0.06</b>	<b>0.06</b>	<b>0.09</b>	<i>0.00</i>	<i>0.19</i>	<i>0.62</i>	<i>0.72</i>	<i>1.07</i>	<b>0.04</b>	<i>0.05</i>	<i>0.65</i>
Pipeline Gross Imports .....	<b>8.44</b>	<b>6.52</b>	<b>6.47</b>	<b>7.47</b>	<b>8.36</b>	<b>6.69</b>	<b>6.69</b>	<i>6.67</i>	<i>7.03</i>	<i>6.02</i>	<i>6.34</i>	<i>6.52</i>	<b>7.22</b>	<i>7.10</i>	<i>6.48</i>
Pipeline Gross Exports .....	<b>4.67</b>	<b>3.89</b>	<b>3.85</b>	<b>4.02</b>	<b>4.86</b>	<b>4.36</b>	<b>4.81</b>	<i>5.40</i>	<i>5.35</i>	<i>5.06</i>	<i>5.19</i>	<i>5.32</i>	<b>4.10</b>	<i>4.86</i>	<i>5.23</i>
Supplemental Gaseous Fuels .....	<b>0.16</b>	<b>0.16</b>	<b>0.17</b>	<b>0.17</b>	<b>0.17</b>	<b>0.16</b>	<b>0.14</b>	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	<b>0.16</b>	<i>0.16</i>	<i>0.17</i>
Net Inventory Withdrawals .....	<b>22.75</b>	<b>-12.71</b>	<b>-12.96</b>	<b>0.54</b>	<b>18.48</b>	<b>-12.99</b>	<b>-10.50</b>	<i>2.66</i>	<i>16.71</i>	<i>-9.45</i>	<i>-9.50</i>	<i>2.34</i>	<b>-0.69</b>	<i>-0.66</i>	<i>0.01</i>
Total Supply .....	<b>94.35</b>	<b>59.96</b>	<b>61.47</b>	<b>77.33</b>	<b>96.19</b>	<b>64.00</b>	<b>67.50</b>	<i>79.90</i>	<i>94.43</i>	<i>67.30</i>	<i>67.46</i>	<i>79.60</i>	<b>73.20</b>	<i>76.83</i>	<i>77.18</i>
Balancing Item (b) .....	<b>0.52</b>	<b>0.87</b>	<b>-0.15</b>	<b>-1.47</b>	<b>0.49</b>	<b>0.09</b>	<b>-1.39</b>	<i>-0.51</i>	<i>-0.39</i>	<i>-1.59</i>	<i>-0.22</i>	<i>0.11</i>	<b>-0.06</b>	<i>-0.33</i>	<i>-0.52</i>
Total Primary Supply .....	<b>94.87</b>	<b>60.83</b>	<b>61.32</b>	<b>75.86</b>	<b>96.68</b>	<b>64.09</b>	<b>66.11</b>	<i>79.39</i>	<i>94.04</i>	<i>65.71</i>	<i>67.23</i>	<i>79.71</i>	<b>73.14</b>	<i>76.49</i>	<i>76.66</i>
<b>Consumption (billion cubic feet per day)</b>															
Residential .....	<b>28.78</b>	<b>7.53</b>	<b>3.69</b>	<b>16.01</b>	<b>27.53</b>	<b>6.90</b>	<b>3.47</b>	<i>15.22</i>	<i>25.24</i>	<i>7.34</i>	<i>3.81</i>	<i>16.44</i>	<b>13.94</b>	<i>13.22</i>	<i>13.19</i>
Commercial .....	<b>16.48</b>	<b>6.26</b>	<b>4.61</b>	<b>10.77</b>	<b>16.01</b>	<b>5.85</b>	<b>4.45</b>	<i>10.13</i>	<i>14.52</i>	<i>5.99</i>	<i>4.62</i>	<i>10.69</i>	<b>9.50</b>	<i>9.08</i>	<i>8.95</i>
Industrial .....	<b>22.85</b>	<b>19.94</b>	<b>19.55</b>	<b>21.24</b>	<b>22.69</b>	<b>19.62</b>	<b>19.19</b>	<i>21.98</i>	<i>23.08</i>	<i>20.66</i>	<i>20.44</i>	<i>22.54</i>	<b>20.89</b>	<i>20.86</i>	<i>21.68</i>
Electric Power (c) .....	<b>19.72</b>	<b>21.06</b>	<b>27.30</b>	<b>21.11</b>	<b>23.05</b>	<b>25.28</b>	<b>32.41</b>	<i>25.03</i>	<i>23.66</i>	<i>25.12</i>	<i>31.71</i>	<i>22.93</i>	<b>22.32</b>	<i>26.46</i>	<i>25.86</i>
Lease and Plant Fuel .....	<b>3.94</b>	<b>4.07</b>	<b>4.17</b>	<b>4.26</b>	<b>4.29</b>	<b>4.35</b>	<b>4.42</b>	<i>4.41</i>	<i>4.43</i>	<i>4.44</i>	<i>4.44</i>	<i>4.48</i>	<b>4.11</b>	<i>4.37</i>	<i>4.45</i>
Pipeline and Distribution Use .....	<b>3.01</b>	<b>1.88</b>	<b>1.90</b>	<b>2.37</b>	<b>3.03</b>	<b>2.01</b>	<b>2.07</b>	<i>2.52</i>	<i>3.02</i>	<i>2.06</i>	<i>2.11</i>	<i>2.53</i>	<b>2.29</b>	<i>2.40</i>	<i>2.43</i>
Vehicle Use .....	<b>0.10</b>	<b>0.10</b>	<b>0.10</b>	<b>0.10</b>	<b>0.09</b>	<b>0.09</b>	<b>0.10</b>	<i>0.10</i>	<i>0.10</i>	<i>0.10</i>	<i>0.10</i>	<i>0.10</i>	<b>0.10</b>	<i>0.09</i>	<i>0.10</i>
Total Consumption .....	<b>94.87</b>	<b>60.83</b>	<b>61.32</b>	<b>75.86</b>	<b>96.68</b>	<b>64.09</b>	<b>66.11</b>	<i>79.39</i>	<i>94.04</i>	<i>65.71</i>	<i>67.23</i>	<i>79.71</i>	<b>73.14</b>	<i>76.49</i>	<i>76.66</i>
<b>End-of-period Inventories (billion cubic feet)</b>															
Working Gas Inventory .....	<b>857</b>	<b>2,005</b>	<b>3,187</b>	<b>3,141</b>	<b>1,483</b>	<b>2,658</b>	<b>3,626</b>	<i>3,382</i>	<i>1,862</i>	<i>2,721</i>	<i>3,595</i>	<i>3,380</i>	<b>3,141</b>	<i>3,382</i>	<i>3,380</i>
East Region (d) .....	<b>168</b>	<b>475</b>	<b>806</b>	<b>743</b>	<b>243</b>	<b>573</b>	<b>855</b>	<i>764</i>	<i>335</i>	<i>606</i>	<i>862</i>	<i>744</i>	<b>743</b>	<i>764</i>	<i>744</i>
Midwest Region (d) .....	<b>143</b>	<b>472</b>	<b>936</b>	<b>855</b>	<b>252</b>	<b>567</b>	<b>974</b>	<i>921</i>	<i>431</i>	<i>658</i>	<i>1,007</i>	<i>883</i>	<b>855</b>	<i>921</i>	<i>883</i>
South Central Region (d) .....	<b>338</b>	<b>666</b>	<b>929</b>	<b>1,045</b>	<b>575</b>	<b>1,005</b>	<b>1,212</b>	<i>1,158</i>	<i>712</i>	<i>941</i>	<i>1,110</i>	<i>1,179</i>	<b>1,045</b>	<i>1,158</i>	<i>1,179</i>
Mountain Region (d) .....	<b>84</b>	<b>122</b>	<b>175</b>	<b>152</b>	<b>113</b>	<b>155</b>	<b>204</b>	<i>179</i>	<i>109</i>	<i>146</i>	<i>203</i>	<i>183</i>	<b>152</b>	<i>179</i>	<i>183</i>
Pacific Region (d) .....	<b>105</b>	<b>249</b>	<b>318</b>	<b>323</b>	<b>275</b>	<b>334</b>	<b>357</b>	<i>335</i>	<i>251</i>	<i>346</i>	<i>388</i>	<i>366</i>	<b>323</b>	<i>335</i>	<i>366</i>
Alaska .....	<b>21</b>	<b>22</b>	<b>24</b>	<b>25</b>	<b>24</b>	<b>24</b>	<b>25</b>	<i>25</i>	<i>24</i>	<i>24</i>	<i>25</i>	<i>25</i>	<b>25</b>	<i>25</i>	<i>25</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 - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>Wholesale/Spot</b>															
Henry Hub Spot Price .....	<b>5.36</b>	<b>4.75</b>	<b>4.08</b>	<b>3.91</b>	<b>2.99</b>	<b>2.83</b>	<b>2.84</b>	2.36	2.73	2.81	3.04	3.27	<b>4.52</b>	2.75	2.96
<b>Residential</b>															
New England .....	<b>13.67</b>	<b>15.99</b>	<b>18.04</b>	<b>14.41</b>	<b>13.09</b>	<b>13.33</b>	<b>16.09</b>	12.67	11.88	13.62	16.54	13.07	<b>14.53</b>	13.20	12.81
Middle Atlantic .....	<b>10.71</b>	<b>13.08</b>	<b>17.38</b>	<b>11.10</b>	<b>9.53</b>	<b>11.20</b>	<b>16.36</b>	11.52	10.24	12.72	17.18	11.71	<b>11.58</b>	10.67	11.47
E. N. Central .....	<b>8.67</b>	<b>12.89</b>	<b>16.94</b>	<b>8.97</b>	<b>7.78</b>	<b>10.58</b>	<b>16.71</b>	8.57	7.38	10.79	16.47	8.36	<b>9.70</b>	8.81	8.63
W. N. Central .....	<b>9.02</b>	<b>11.78</b>	<b>18.17</b>	<b>10.04</b>	<b>8.66</b>	<b>11.85</b>	<b>17.60</b>	9.23	7.31	9.79	16.64	9.04	<b>10.13</b>	9.68	8.65
S. Atlantic .....	<b>11.25</b>	<b>16.24</b>	<b>22.79</b>	<b>12.70</b>	<b>10.70</b>	<b>16.68</b>	<b>22.69</b>	12.69	10.75	15.88	22.08	12.58	<b>12.91</b>	12.61	12.56
E. S. Central .....	<b>9.63</b>	<b>14.12</b>	<b>19.75</b>	<b>11.14</b>	<b>9.34</b>	<b>14.36</b>	<b>18.75</b>	10.83	8.75	12.83	18.18	10.88	<b>11.02</b>	10.70	10.32
W. S. Central .....	<b>8.60</b>	<b>14.35</b>	<b>20.45</b>	<b>11.69</b>	<b>8.45</b>	<b>13.94</b>	<b>19.88</b>	11.35	8.08	12.72	18.43	10.90	<b>10.92</b>	10.63	10.15
Mountain .....	<b>9.09</b>	<b>11.23</b>	<b>15.15</b>	<b>9.88</b>	<b>9.57</b>	<b>10.87</b>	<b>14.54</b>	9.41	8.40	9.35	13.20	8.59	<b>10.14</b>	10.10	8.97
Pacific .....	<b>10.95</b>	<b>11.69</b>	<b>12.38</b>	<b>11.21</b>	<b>11.46</b>	<b>11.40</b>	<b>12.02</b>	9.65	9.20	9.98	10.66	9.96	<b>11.35</b>	10.93	9.76
U.S. Average .....	<b>9.82</b>	<b>13.11</b>	<b>16.94</b>	<b>10.52</b>	<b>9.29</b>	<b>11.96</b>	<b>16.43</b>	10.15	8.75	11.60	15.88	10.04	<b>10.94</b>	10.36	10.07
<b>Commercial</b>															
New England .....	<b>11.54</b>	<b>12.94</b>	<b>11.86</b>	<b>11.43</b>	<b>10.77</b>	<b>10.11</b>	<b>9.65</b>	10.00	10.25	9.99	10.07	10.37	<b>11.78</b>	10.38	10.23
Middle Atlantic .....	<b>9.31</b>	<b>9.03</b>	<b>8.05</b>	<b>8.05</b>	<b>7.91</b>	<b>7.48</b>	<b>6.65</b>	7.06	7.50	7.28	7.31	8.08	<b>8.78</b>	7.51	7.60
E. N. Central .....	<b>7.96</b>	<b>9.95</b>	<b>10.10</b>	<b>7.55</b>	<b>6.95</b>	<b>7.51</b>	<b>8.80</b>	6.85	6.74	7.93	8.88	7.13	<b>8.26</b>	7.13	7.18
W. N. Central .....	<b>8.24</b>	<b>9.21</b>	<b>10.18</b>	<b>8.31</b>	<b>7.65</b>	<b>7.98</b>	<b>8.99</b>	7.10	6.99	7.45	8.68	7.34	<b>8.53</b>	7.62	7.29
S. Atlantic .....	<b>9.27</b>	<b>10.59</b>	<b>10.94</b>	<b>9.52</b>	<b>8.48</b>	<b>9.21</b>	<b>9.66</b>	8.75	8.61	9.32	10.09	9.24	<b>9.73</b>	8.79	9.09
E. S. Central .....	<b>8.86</b>	<b>10.68</b>	<b>11.15</b>	<b>9.54</b>	<b>8.54</b>	<b>9.62</b>	<b>9.81</b>	8.57	7.86	8.80	9.66	8.94	<b>9.52</b>	8.82	8.51
W. S. Central .....	<b>7.58</b>	<b>9.33</b>	<b>9.35</b>	<b>8.33</b>	<b>7.15</b>	<b>7.21</b>	<b>8.00</b>	7.12	6.59	7.21	7.94	7.36	<b>8.32</b>	7.27	7.08
Mountain .....	<b>7.79</b>	<b>8.72</b>	<b>9.89</b>	<b>8.46</b>	<b>8.27</b>	<b>8.34</b>	<b>9.03</b>	7.70	7.09	7.22	8.43	7.45	<b>8.38</b>	8.17	7.36
Pacific .....	<b>9.29</b>	<b>9.32</b>	<b>9.53</b>	<b>9.26</b>	<b>9.20</b>	<b>8.43</b>	<b>8.69</b>	8.49	8.51	8.49	9.02	8.76	<b>9.32</b>	8.73	8.67
U.S. Average .....	<b>8.65</b>	<b>9.66</b>	<b>9.69</b>	<b>8.51</b>	<b>7.94</b>	<b>8.13</b>	<b>8.41</b>	7.65	7.50	7.96	8.66	8.01	<b>8.87</b>	7.94	7.85
<b>Industrial</b>															
New England .....	<b>10.14</b>	<b>10.05</b>	<b>8.13</b>	<b>9.14</b>	<b>9.10</b>	<b>7.61</b>	<b>6.10</b>	7.54	8.10	7.71	7.76	8.84	<b>9.53</b>	7.95	8.15
Middle Atlantic .....	<b>9.85</b>	<b>9.24</b>	<b>8.73</b>	<b>8.58</b>	<b>8.31</b>	<b>7.56</b>	<b>7.53</b>	7.41	7.54	6.87	7.36	8.10	<b>9.33</b>	7.89	7.53
E. N. Central .....	<b>8.03</b>	<b>8.86</b>	<b>7.75</b>	<b>6.85</b>	<b>6.41</b>	<b>5.65</b>	<b>5.54</b>	5.44	5.89	5.69	6.00	6.17	<b>7.80</b>	5.92	5.95
W. N. Central .....	<b>7.29</b>	<b>6.25</b>	<b>5.91</b>	<b>6.32</b>	<b>5.81</b>	<b>4.59</b>	<b>4.41</b>	4.66	4.79	4.17	4.44	5.02	<b>6.54</b>	4.95	4.64
S. Atlantic .....	<b>6.90</b>	<b>6.37</b>	<b>5.91</b>	<b>6.00</b>	<b>5.46</b>	<b>4.50</b>	<b>4.50</b>	4.59	4.74	4.76	5.04	5.40	<b>6.32</b>	4.79	4.99
E. S. Central .....	<b>6.34</b>	<b>6.11</b>	<b>5.37</b>	<b>5.55</b>	<b>5.15</b>	<b>4.28</b>	<b>4.02</b>	4.20	4.52	4.36	4.64	5.02	<b>5.87</b>	4.45	4.63
W. S. Central .....	<b>5.15</b>	<b>4.92</b>	<b>4.52</b>	<b>4.26</b>	<b>3.21</b>	<b>2.92</b>	<b>3.07</b>	2.60	2.79	2.95	3.34	3.49	<b>4.72</b>	2.94	3.14
Mountain .....	<b>6.66</b>	<b>6.79</b>	<b>6.90</b>	<b>6.76</b>	<b>6.61</b>	<b>6.22</b>	<b>6.11</b>	5.77	5.16	4.90	5.56	5.71	<b>6.76</b>	6.20	5.33
Pacific .....	<b>7.79</b>	<b>7.68</b>	<b>7.63</b>	<b>7.48</b>	<b>7.32</b>	<b>6.57</b>	<b>6.62</b>	6.17	5.64	5.60	6.21	6.43	<b>7.65</b>	6.67	5.97
U.S. Average .....	<b>6.19</b>	<b>5.64</b>	<b>5.08</b>	<b>5.18</b>	<b>4.57</b>	<b>3.68</b>	<b>3.65</b>	3.55	3.88	3.64	3.94	4.36	<b>5.55</b>	3.88	3.96

- = 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 - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>Supply (million short tons)</b>															
Production .....	<b>245.2</b>	<b>245.8</b>	<b>255.3</b>	<b>253.3</b>	<b>240.2</b>	<b>210.7</b>	<b>232.4</b>	<i>219.4</i>	<i>220.3</i>	<i>210.6</i>	<i>222.1</i>	<i>220.4</i>	<b>999.7</b>	<i>902.7</i>	<i>873.4</i>
Appalachia .....	<b>67.5</b>	<b>69.7</b>	<b>67.5</b>	<b>63.5</b>	<b>62.3</b>	<b>57.7</b>	<b>60.3</b>	<i>53.7</i>	<i>56.7</i>	<i>56.3</i>	<i>52.6</i>	<i>52.1</i>	<b>268.2</b>	<i>234.0</i>	<i>217.7</i>
Interior .....	<b>46.3</b>	<b>44.8</b>	<b>49.3</b>	<b>48.3</b>	<b>45.2</b>	<b>39.7</b>	<b>44.8</b>	<i>43.0</i>	<i>44.4</i>	<i>44.4</i>	<i>46.2</i>	<i>45.3</i>	<b>188.7</b>	<i>172.8</i>	<i>180.4</i>
Western .....	<b>131.4</b>	<b>131.4</b>	<b>138.5</b>	<b>141.5</b>	<b>132.7</b>	<b>113.2</b>	<b>127.2</b>	<i>122.7</i>	<i>119.2</i>	<i>109.8</i>	<i>123.4</i>	<i>122.9</i>	<b>542.8</b>	<i>495.9</i>	<i>475.4</i>
Primary Inventory Withdrawals .....	<b>-0.5</b>	<b>0.6</b>	<b>2.4</b>	<b>-1.5</b>	<b>-0.7</b>	<b>0.3</b>	<b>3.1</b>	<i>-1.6</i>	<i>-1.0</i>	<i>0.7</i>	<i>2.9</i>	<i>-1.6</i>	<b>0.9</b>	<i>1.1</i>	<i>1.0</i>
Imports .....	<b>2.4</b>	<b>3.6</b>	<b>3.2</b>	<b>2.2</b>	<b>3.0</b>	<b>2.6</b>	<b>3.0</b>	<i>2.7</i>	<i>2.2</i>	<i>2.4</i>	<i>3.3</i>	<i>2.9</i>	<b>11.3</b>	<i>11.3</i>	<i>10.7</i>
Exports .....	<b>27.6</b>	<b>24.7</b>	<b>22.7</b>	<b>22.3</b>	<b>22.0</b>	<b>19.8</b>	<b>16.9</b>	<i>18.6</i>	<i>16.2</i>	<i>19.4</i>	<i>17.0</i>	<i>18.5</i>	<b>97.3</b>	<i>77.3</i>	<i>71.1</i>
Metallurgical Coal .....	<b>16.0</b>	<b>15.2</b>	<b>14.4</b>	<b>14.5</b>	<b>13.5</b>	<b>12.7</b>	<b>10.3</b>	<i>11.2</i>	<i>11.4</i>	<i>11.7</i>	<i>9.8</i>	<i>11.1</i>	<b>60.1</b>	<i>47.8</i>	<i>43.9</i>
Steam Coal .....	<b>11.6</b>	<b>9.5</b>	<b>8.3</b>	<b>7.8</b>	<b>8.5</b>	<b>7.0</b>	<b>6.6</b>	<i>7.4</i>	<i>4.9</i>	<i>7.8</i>	<i>7.2</i>	<i>7.4</i>	<b>37.2</b>	<i>29.5</i>	<i>27.2</i>
Total Primary Supply .....	<b>219.5</b>	<b>225.3</b>	<b>238.1</b>	<b>231.7</b>	<b>220.5</b>	<b>193.9</b>	<b>221.5</b>	<i>201.9</i>	<i>205.3</i>	<i>194.2</i>	<i>211.3</i>	<i>203.1</i>	<b>914.7</b>	<i>837.7</i>	<i>814.0</i>
Secondary Inventory Withdrawals .....	<b>30.7</b>	<b>-15.5</b>	<b>8.3</b>	<b>-27.7</b>	<b>-2.2</b>	<b>-12.7</b>	<b>3.8</b>	<i>-4.9</i>	<i>0.0</i>	<i>-5.1</i>	<i>15.2</i>	<i>-4.7</i>	<b>-4.2</b>	<i>-15.9</i>	<i>5.3</i>
Waste Coal (a) .....	<b>3.2</b>	<b>2.8</b>	<b>2.6</b>	<b>2.6</b>	<b>2.7</b>	<b>2.7</b>	<b>2.7</b>	<i>2.7</i>	<i>2.8</i>	<i>2.8</i>	<i>2.8</i>	<i>2.8</i>	<b>11.2</b>	<i>10.8</i>	<i>11.1</i>
Total Supply .....	<b>253.4</b>	<b>212.6</b>	<b>249.0</b>	<b>206.6</b>	<b>221.0</b>	<b>183.9</b>	<b>228.0</b>	<i>199.7</i>	<i>208.0</i>	<i>191.9</i>	<i>229.3</i>	<i>201.2</i>	<b>921.6</b>	<i>832.6</i>	<i>830.3</i>
<b>Consumption (million short tons)</b>															
Coke Plants .....	<b>4.8</b>	<b>5.1</b>	<b>5.2</b>	<b>5.2</b>	<b>4.4</b>	<b>4.4</b>	<b>5.1</b>	<i>5.1</i>	<i>4.3</i>	<i>4.0</i>	<i>4.9</i>	<i>4.7</i>	<b>20.4</b>	<i>18.9</i>	<i>17.8</i>
Electric Power Sector (b) .....	<b>231.5</b>	<b>195.9</b>	<b>231.1</b>	<b>193.1</b>	<b>196.4</b>	<b>174.7</b>	<b>215.6</b>	<i>177.6</i>	<i>192.1</i>	<i>177.1</i>	<i>213.7</i>	<i>185.1</i>	<b>851.6</b>	<i>764.3</i>	<i>768.1</i>
Retail and Other Industry .....	<b>12.0</b>	<b>10.9</b>	<b>11.0</b>	<b>11.1</b>	<b>11.4</b>	<b>10.4</b>	<b>10.5</b>	<i>11.2</i>	<i>11.6</i>	<i>10.8</i>	<i>10.7</i>	<i>11.3</i>	<b>45.0</b>	<i>43.4</i>	<i>44.4</i>
Residential and Commercial .....	<b>0.7</b>	<b>0.4</b>	<b>0.4</b>	<b>0.7</b>	<b>0.8</b>	<b>0.6</b>	<b>0.6</b>	<i>0.7</i>	<i>0.8</i>	<i>0.5</i>	<i>0.5</i>	<i>0.6</i>	<b>2.2</b>	<i>2.7</i>	<i>2.5</i>
Other Industrial .....	<b>11.3</b>	<b>10.5</b>	<b>10.6</b>	<b>10.4</b>	<b>10.6</b>	<b>9.8</b>	<b>9.9</b>	<i>10.4</i>	<i>10.8</i>	<i>10.3</i>	<i>10.2</i>	<i>10.7</i>	<b>42.8</b>	<i>40.7</i>	<i>41.9</i>
Total Consumption .....	<b>248.4</b>	<b>212.0</b>	<b>247.3</b>	<b>209.4</b>	<b>212.2</b>	<b>189.4</b>	<b>231.1</b>	<i>193.8</i>	<i>208.0</i>	<i>191.9</i>	<i>229.3</i>	<i>201.2</i>	<b>917.0</b>	<i>826.6</i>	<i>830.3</i>
Discrepancy (c) .....	<b>5.0</b>	<b>0.6</b>	<b>1.8</b>	<b>-2.8</b>	<b>8.8</b>	<b>-5.5</b>	<b>-3.1</b>	<i>5.9</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<b>4.6</b>	<i>6.1</i>	<i>0.0</i>
<b>End-of-period Inventories (million short tons)</b>															
Primary Inventories (d) .....	<b>46.2</b>	<b>45.6</b>	<b>43.2</b>	<b>44.7</b>	<b>45.5</b>	<b>45.2</b>	<b>42.1</b>	<i>43.7</i>	<i>44.7</i>	<i>44.0</i>	<i>41.1</i>	<i>42.7</i>	<b>44.7</b>	<i>43.7</i>	<i>42.7</i>
Secondary Inventories .....	<b>124.0</b>	<b>139.5</b>	<b>131.2</b>	<b>158.9</b>	<b>161.1</b>	<b>173.8</b>	<b>169.9</b>	<i>174.8</i>	<i>174.8</i>	<i>179.9</i>	<i>164.8</i>	<i>169.5</i>	<b>158.9</b>	<i>174.8</i>	<i>169.5</i>
Electric Power Sector .....	<b>118.3</b>	<b>133.5</b>	<b>124.5</b>	<b>151.8</b>	<b>154.9</b>	<b>166.9</b>	<b>162.5</b>	<i>167.0</i>	<i>168.0</i>	<i>172.5</i>	<i>156.8</i>	<i>161.3</i>	<b>151.8</b>	<i>167.0</i>	<i>161.3</i>
Retail and General Industry .....	<b>3.5</b>	<b>3.6</b>	<b>4.4</b>	<b>4.8</b>	<b>4.1</b>	<b>4.5</b>	<b>5.1</b>	<i>5.5</i>	<i>4.8</i>	<i>5.0</i>	<i>5.6</i>	<i>5.9</i>	<b>4.8</b>	<i>5.5</i>	<i>5.9</i>
Coke Plants .....	<b>1.8</b>	<b>1.9</b>	<b>1.8</b>	<b>1.9</b>	<b>1.6</b>	<b>1.9</b>	<b>1.9</b>	<i>1.9</i>	<i>1.6</i>	<i>1.9</i>	<i>1.8</i>	<i>1.8</i>	<b>1.9</b>	<i>1.9</i>	<i>1.8</i>
<b>Coal Market Indicators</b>															
Coal Miner Productivity															
(Tons per hour) .....	<b>5.47</b>	<b>5.47</b>	<b>5.47</b>	<b>5.47</b>	<b>5.61</b>	<b>5.61</b>	<b>5.61</b>	<i>5.61</i>	<i>5.46</i>	<i>5.46</i>	<i>5.46</i>	<i>5.46</i>	<b>5.47</b>	<i>5.61</i>	<i>5.46</i>
Total Raw Steel Production															
(Million short tons per day) .....	<b>0.262</b>	<b>0.263</b>	<b>0.271</b>	<b>0.262</b>	<b>0.247</b>	<b>0.242</b>	<b>0.248</b>	<i>0.232</i>	<i>0.241</i>	<i>0.230</i>	<i>0.230</i>	<i>0.206</i>	<b>0.264</b>	<i>0.242</i>	<i>0.227</i>
Cost of Coal to Electric Utilities															
(Dollars per million Btu) .....	<b>2.33</b>	<b>2.39</b>	<b>2.38</b>	<b>2.38</b>	<b>2.27</b>	<b>2.25</b>	<b>2.22</b>	<i>2.23</i>	<i>2.22</i>	<i>2.26</i>	<i>2.26</i>	<i>2.22</i>	<b>2.37</b>	<i>2.24</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 - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>Electricity Supply (billion kilowatthours per day)</b>															
Electricity Generation .....	<b>11.48</b>	<b>10.77</b>	<b>12.07</b>	<b>10.54</b>	<b>11.36</b>	<b>10.77</b>	<b>12.44</b>	<i>10.53</i>	<i>11.03</i>	<i>10.91</i>	<i>12.48</i>	<i>10.71</i>	<b>11.22</b>	<i>11.27</i>	<i>11.29</i>
Electric Power Sector (a) .....	<b>11.05</b>	<b>10.36</b>	<b>11.62</b>	<b>10.12</b>	<b>10.93</b>	<b>10.36</b>	<b>11.99</b>	<i>10.09</i>	<i>10.61</i>	<i>10.51</i>	<i>12.04</i>	<i>10.27</i>	<b>10.79</b>	<i>10.84</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>0.41</b>	<b>0.45</b>	<i>0.44</i>	<i>0.42</i>	<i>0.41</i>	<i>0.45</i>	<i>0.44</i>	<b>0.43</b>	<i>0.43</i>	<i>0.43</i>
Net Imports .....	<b>0.12</b>	<b>0.14</b>	<b>0.18</b>	<b>0.15</b>	<b>0.17</b>	<b>0.20</b>	<b>0.19</b>	<i>0.15</i>	<i>0.16</i>	<i>0.16</i>	<i>0.19</i>	<i>0.14</i>	<b>0.15</b>	<i>0.18</i>	<i>0.16</i>
Total Supply .....	<b>11.60</b>	<b>10.91</b>	<b>12.24</b>	<b>10.69</b>	<b>11.52</b>	<b>10.96</b>	<b>12.63</b>	<i>10.68</i>	<i>11.19</i>	<i>11.07</i>	<i>12.67</i>	<i>10.85</i>	<b>11.36</b>	<i>11.45</i>	<i>11.45</i>
Losses and Unaccounted for (c) .....	<b>0.65</b>	<b>0.77</b>	<b>0.66</b>	<b>0.61</b>	<b>0.78</b>	<b>0.93</b>	<b>0.85</b>	<i>0.69</i>	<i>0.61</i>	<i>0.93</i>	<i>0.80</i>	<i>0.73</i>	<b>0.67</b>	<i>0.81</i>	<i>0.77</i>
<b>Electricity Consumption (billion kilowatthours per day unless noted)</b>															
Retail Sales .....	<b>10.58</b>	<b>9.78</b>	<b>11.19</b>	<b>9.71</b>	<b>10.36</b>	<b>9.68</b>	<b>11.39</b>	<i>9.60</i>	<i>10.20</i>	<i>9.79</i>	<i>11.48</i>	<i>9.73</i>	<b>10.31</b>	<i>10.26</i>	<i>10.30</i>
Residential Sector .....	<b>4.32</b>	<b>3.36</b>	<b>4.27</b>	<b>3.47</b>	<b>4.20</b>	<b>3.35</b>	<b>4.51</b>	<i>3.45</i>	<i>4.01</i>	<i>3.41</i>	<i>4.50</i>	<i>3.50</i>	<b>3.86</b>	<i>3.88</i>	<i>3.86</i>
Commercial Sector .....	<b>3.61</b>	<b>3.63</b>	<b>4.03</b>	<b>3.54</b>	<b>3.60</b>	<b>3.65</b>	<b>4.11</b>	<i>3.54</i>	<i>3.60</i>	<i>3.67</i>	<i>4.16</i>	<i>3.58</i>	<b>3.70</b>	<i>3.73</i>	<i>3.75</i>
Industrial Sector .....	<b>2.62</b>	<b>2.76</b>	<b>2.87</b>	<b>2.68</b>	<b>2.54</b>	<b>2.66</b>	<b>2.75</b>	<i>2.59</i>	<i>2.56</i>	<i>2.70</i>	<i>2.79</i>	<i>2.64</i>	<b>2.73</b>	<i>2.63</i>	<i>2.67</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>	<b>0.02</b>	<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>0.37</b>	<b>0.36</b>	<b>0.39</b>	<b>0.37</b>	<b>0.37</b>	<b>0.36</b>	<b>0.39</b>	<i>0.38</i>	<i>0.37</i>	<i>0.35</i>	<i>0.39</i>	<i>0.38</i>	<b>0.38</b>	<i>0.38</i>	<i>0.37</i>
Total Consumption .....	<b>10.95</b>	<b>10.14</b>	<b>11.58</b>	<b>10.08</b>	<b>10.74</b>	<b>10.03</b>	<b>11.78</b>	<i>9.98</i>	<i>10.57</i>	<i>10.14</i>	<i>11.87</i>	<i>10.11</i>	<b>10.69</b>	<i>10.64</i>	<i>10.68</i>
Average residential electricity usage per customer (kWh) .....	<b>3,032</b>	<b>2,379</b>	<b>3,054</b>	<b>2,472</b>	<b>2,923</b>	<b>2,349</b>	<b>3,189</b>	<i>2,437</i>	<i>2,796</i>	<i>2,368</i>	<i>3,158</i>	<i>2,446</i>	<b>10,937</b>	<i>10,898</i>	<i>10,768</i>
<b>Prices</b>															
<b>Power Generation Fuel Costs (dollars per million Btu)</b>															
Coal .....	<b>2.33</b>	<b>2.39</b>	<b>2.38</b>	<b>2.38</b>	<b>2.27</b>	<b>2.25</b>	<b>2.22</b>	<i>2.23</i>	<i>2.22</i>	<i>2.26</i>	<i>2.26</i>	<i>2.22</i>	<b>2.37</b>	<i>2.24</i>	<i>2.24</i>
Natural Gas .....	<b>6.82</b>	<b>4.94</b>	<b>4.25</b>	<b>4.30</b>	<b>4.09</b>	<b>3.12</b>	<b>3.09</b>	<i>3.34</i>	<i>3.79</i>	<i>3.43</i>	<i>3.46</i>	<i>4.20</i>	<b>4.98</b>	<i>3.37</i>	<i>3.69</i>
Residual Fuel Oil .....	<b>19.97</b>	<b>20.44</b>	<b>19.75</b>	<b>14.70</b>	<b>10.82</b>	<b>11.64</b>	<b>11.05</b>	<i>9.67</i>	<i>9.43</i>	<i>11.01</i>	<i>11.43</i>	<i>11.36</i>	<b>19.19</b>	<i>10.79</i>	<i>10.78</i>
Distillate Fuel Oil .....	<b>23.40</b>	<b>22.77</b>	<b>21.89</b>	<b>18.69</b>	<b>15.39</b>	<b>15.18</b>	<b>13.61</b>	<i>13.25</i>	<i>13.99</i>	<i>14.84</i>	<i>15.49</i>	<i>15.95</i>	<b>22.33</b>	<i>14.64</i>	<i>14.99</i>
<b>End-Use Prices (cents per kilowatthour)</b>															
Residential Sector .....	<b>11.93</b>	<b>12.75</b>	<b>13.03</b>	<b>12.39</b>	<b>12.23</b>	<b>12.85</b>	<b>12.99</b>	<i>12.32</i>	<i>12.16</i>	<i>12.80</i>	<i>13.13</i>	<i>12.65</i>	<b>12.52</b>	<i>12.61</i>	<i>12.70</i>
Commercial Sector .....	<b>10.55</b>	<b>10.67</b>	<b>11.14</b>	<b>10.57</b>	<b>10.47</b>	<b>10.53</b>	<b>10.95</b>	<i>10.45</i>	<i>10.58</i>	<i>10.72</i>	<i>11.18</i>	<i>10.67</i>	<b>10.74</b>	<i>10.62</i>	<i>10.80</i>
Industrial Sector .....	<b>7.05</b>	<b>7.02</b>	<b>7.51</b>	<b>6.85</b>	<b>6.78</b>	<b>6.81</b>	<b>7.31</b>	<i>6.82</i>	<i>6.84</i>	<i>6.89</i>	<i>7.42</i>	<i>6.89</i>	<b>7.11</b>	<i>6.94</i>	<i>7.02</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 - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>Residential Sector</b>															
New England .....	153	111	136	118	152	112	144	118	142	114	141	120	129	131	129
Middle Atlantic .....	423	315	386	323	423	321	423	321	389	323	420	324	362	372	364
E. N. Central .....	619	447	515	481	587	428	556	466	548	443	575	479	515	509	511
W. N. Central .....	357	250	296	270	325	232	309	264	318	240	315	271	293	283	286
S. Atlantic .....	1,083	860	1,092	864	1,078	889	1,137	863	1,015	879	1,139	874	975	991	977
E. S. Central .....	404	277	364	290	390	275	384	282	358	283	384	286	334	333	328
W. S. Central .....	615	500	731	499	602	503	782	513	574	532	759	505	587	600	593
Mountain .....	237	242	320	228	235	240	333	231	245	244	346	236	257	260	268
Pacific contiguous .....	418	346	421	382	396	337	425	379	409	337	412	387	392	384	386
AK and HI .....	14	12	12	13	13	12	13	14	13	12	13	14	13	13	13
Total .....	4,322	3,361	4,275	3,468	4,202	3,348	4,505	3,452	4,013	3,406	4,504	3,497	3,855	3,877	3,856
<b>Commercial Sector</b>															
New England .....	149	139	155	140	147	139	159	137	144	140	157	138	145	146	145
Middle Atlantic .....	444	414	463	411	443	417	477	404	437	415	477	406	433	435	434
E. N. Central .....	510	490	524	480	509	489	543	478	507	496	557	487	501	505	512
W. N. Central .....	280	267	291	266	281	269	305	269	284	274	312	277	276	281	287
S. Atlantic .....	804	843	921	794	805	859	939	795	800	848	950	800	841	850	850
E. S. Central .....	241	240	274	228	235	239	279	229	236	239	283	232	246	245	247
W. S. Central .....	498	526	617	510	496	530	625	520	504	539	630	523	538	543	549
Mountain .....	239	257	286	247	240	256	289	245	247	262	300	250	257	258	265
Pacific contiguous .....	432	440	484	448	424	433	479	449	428	439	478	448	451	446	448
AK and HI .....	16	16	16	17	16	16	17	17	16	16	17	17	16	16	17
Total .....	3,612	3,631	4,032	3,540	3,598	3,646	4,114	3,543	3,603	3,668	4,161	3,578	3,705	3,726	3,753
<b>Industrial Sector</b>															
New England .....	51	52	55	52	49	50	52	51	48	51	52	51	52	50	50
Middle Atlantic .....	204	201	208	197	198	196	204	195	204	198	204	198	202	198	201
E. N. Central .....	543	550	564	540	520	525	531	504	522	526	536	514	549	520	525
W. N. Central .....	245	256	269	254	237	240	252	245	245	251	261	253	256	243	252
S. Atlantic .....	371	396	403	383	375	406	406	376	370	399	401	382	388	391	388
E. S. Central .....	287	295	304	291	279	287	290	279	279	292	297	288	294	284	289
W. S. Central .....	464	501	509	480	427	456	485	459	439	476	493	462	489	457	468
Mountain .....	212	240	254	221	217	235	251	225	220	241	260	231	232	232	238
Pacific contiguous .....	232	260	285	247	227	251	266	238	223	249	272	243	256	246	247
AK and HI .....	13	14	14	14	13	13	15	14	13	13	15	14	14	14	14
Total .....	2,622	2,764	2,865	2,679	2,541	2,660	2,751	2,585	2,564	2,695	2,791	2,636	2,733	2,635	2,672
<b>Total All Sectors (a)</b>															
New England .....	354	303	347	311	350	302	357	308	337	306	352	310	329	329	326
Middle Atlantic .....	1,082	941	1,068	941	1,076	944	1,115	930	1,042	947	1,113	939	1,008	1,016	1,010
E. N. Central .....	1,674	1,489	1,604	1,502	1,618	1,444	1,632	1,450	1,579	1,466	1,669	1,482	1,567	1,536	1,549
W. N. Central .....	882	772	856	790	843	742	866	779	847	765	888	801	825	807	825
S. Atlantic .....	2,261	2,102	2,420	2,045	2,262	2,158	2,486	2,037	2,189	2,130	2,494	2,059	2,207	2,236	2,218
E. S. Central .....	932	812	943	809	904	801	953	790	874	813	965	806	874	862	864
W. S. Central .....	1,578	1,528	1,858	1,489	1,525	1,490	1,892	1,493	1,518	1,548	1,883	1,491	1,614	1,601	1,610
Mountain .....	688	739	861	696	692	731	874	701	712	748	906	718	746	750	771
Pacific contiguous .....	1,084	1,049	1,193	1,080	1,050	1,023	1,172	1,069	1,063	1,026	1,164	1,081	1,102	1,079	1,084
AK and HI .....	44	41	43	44	43	41	44	44	43	41	44	44	43	43	43
Total .....	10,579	9,777	11,193	9,707	10,364	9,675	11,390	9,601	10,203	9,790	11,477	9,731	10,314	10,258	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 Electricity Prices (Cents per Kilowatt-hour)**

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>Residential Sector</b>															
New England .....	17.44	18.03	17.63	18.35	20.41	20.27	18.34	19.17	19.45	19.12	18.90	20.12	17.82	19.53	19.38
Middle Atlantic .....	16.25	16.55	16.72	16.02	15.76	16.06	16.47	16.20	16.19	16.45	16.99	16.78	16.39	16.12	16.61
E. N. Central .....	11.74	13.14	13.17	12.85	12.22	13.20	13.15	12.85	12.39	13.39	13.50	13.45	12.66	12.83	13.17
W. N. Central .....	9.99	11.75	12.27	10.62	10.25	12.16	12.46	10.83	10.45	12.36	12.77	11.12	11.09	11.39	11.65
S. Atlantic .....	11.29	11.96	12.12	11.59	11.37	11.90	12.14	11.31	11.05	11.60	11.99	11.36	11.74	11.70	11.52
E. S. Central .....	10.30	11.22	10.98	10.66	10.34	11.16	10.90	10.60	10.53	11.39	11.39	11.23	10.76	10.73	11.12
W. S. Central .....	10.46	11.48	11.45	11.11	10.67	11.36	11.04	10.57	10.28	11.03	11.13	10.91	11.13	10.91	10.86
Mountain .....	10.92	11.96	12.30	11.25	11.30	12.21	12.33	11.41	11.53	12.50	12.67	11.76	11.67	11.87	12.17
Pacific .....	12.90	12.75	15.50	13.16	13.69	13.47	15.76	13.38	13.64	13.61	15.49	13.31	13.64	14.14	14.04
U.S. Average .....	11.93	12.75	13.03	12.39	12.23	12.85	12.99	12.32	12.16	12.80	13.13	12.65	12.52	12.61	12.70
<b>Commercial Sector</b>															
New England .....	15.70	14.28	14.45	14.36	16.92	15.18	14.89	14.98	17.69	16.13	15.99	16.12	14.70	15.49	16.48
Middle Atlantic .....	14.29	13.30	13.97	12.96	13.18	12.98	13.70	13.14	13.38	13.26	14.02	13.49	13.65	13.27	13.56
E. N. Central .....	9.81	10.13	10.18	10.04	9.75	9.94	10.04	10.00	9.82	10.03	10.14	10.02	10.04	9.93	10.01
W. N. Central .....	8.69	9.49	9.98	8.80	8.57	9.52	9.95	8.88	8.73	9.76	10.24	9.12	9.25	9.25	9.48
S. Atlantic .....	9.73	9.60	9.83	9.56	9.66	9.45	9.59	9.19	9.54	9.49	9.72	9.29	9.68	9.48	9.52
E. S. Central .....	10.26	10.50	10.39	10.21	10.22	10.35	10.27	10.79	10.82	10.78	10.62	11.02	10.34	10.40	10.80
W. S. Central .....	8.15	8.36	8.34	8.18	8.04	7.89	7.94	7.76	7.93	7.93	8.06	7.90	8.26	7.91	7.96
Mountain .....	9.11	9.87	10.16	9.33	9.37	9.96	10.21	9.48	9.57	10.21	10.47	9.72	9.65	9.78	10.02
Pacific .....	11.73	13.13	15.62	13.63	12.23	13.31	15.60	13.27	12.52	13.59	15.97	13.61	13.60	13.67	13.98
U.S. Average .....	10.55	10.67	11.14	10.57	10.47	10.53	10.95	10.45	10.58	10.72	11.18	10.67	10.74	10.62	10.80
<b>Industrial Sector</b>															
New England .....	13.05	11.58	11.58	11.22	13.18	11.83	11.85	12.09	14.12	12.46	12.36	12.57	11.84	12.22	12.86
Middle Atlantic .....	8.73	7.35	7.30	7.08	7.87	7.20	7.36	7.33	7.90	7.29	7.46	7.49	7.61	7.44	7.54
E. N. Central .....	7.23	7.06	7.26	6.99	6.87	6.77	7.06	6.99	6.96	6.90	7.21	7.09	7.14	6.92	7.04
W. N. Central .....	6.52	6.68	7.36	6.32	6.49	6.88	7.51	6.54	6.67	7.04	7.67	6.64	6.73	6.86	7.01
S. Atlantic .....	6.83	6.70	6.97	6.52	6.55	6.38	6.90	6.46	6.61	6.51	7.05	6.51	6.75	6.58	6.68
E. S. Central .....	6.08	6.14	6.69	5.60	5.78	5.95	6.58	5.87	5.93	6.02	6.66	5.87	6.14	6.05	6.12
W. S. Central .....	5.91	6.08	6.40	5.96	5.66	5.50	5.70	5.32	5.42	5.43	5.72	5.36	6.10	5.54	5.49
Mountain .....	6.21	6.69	7.37	6.30	6.17	6.65	7.17	6.25	6.26	6.78	7.32	6.37	6.68	6.59	6.71
Pacific .....	7.88	8.70	10.29	9.16	8.00	8.94	10.46	9.41	8.26	9.12	10.43	9.40	9.08	9.26	9.36
U.S. Average .....	7.05	7.02	7.51	6.85	6.78	6.81	7.31	6.82	6.84	6.89	7.42	6.89	7.11	6.94	7.02
<b>All Sectors (a)</b>															
New England .....	16.05	15.16	15.22	15.32	17.89	16.49	15.82	16.09	17.88	16.60	16.59	17.05	15.45	16.58	17.03
Middle Atlantic .....	13.99	13.11	13.66	12.76	13.20	12.82	13.58	12.96	13.33	13.08	13.91	13.34	13.41	13.16	13.44
E. N. Central .....	9.68	9.90	10.11	9.84	9.72	9.75	10.13	9.86	9.76	9.92	10.36	10.11	9.88	9.87	10.04
W. N. Central .....	8.61	9.29	9.95	8.62	8.63	9.49	10.14	8.80	8.78	9.68	10.38	9.02	9.12	9.28	9.48
S. Atlantic .....	10.00	10.01	10.38	9.84	9.96	9.88	10.31	9.58	9.74	9.80	10.33	9.65	10.07	9.95	9.90
E. S. Central .....	8.99	9.17	9.42	8.71	8.90	9.05	9.40	8.98	9.14	9.28	9.70	9.25	9.08	9.09	9.36
W. S. Central .....	8.39	8.64	9.03	8.45	8.41	8.33	8.65	7.97	8.09	8.23	8.68	8.13	8.65	8.36	8.31
Mountain .....	8.85	9.53	10.13	9.00	9.02	9.63	10.14	9.08	9.22	9.85	10.41	9.31	9.42	9.51	9.75
Pacific .....	11.35	11.90	14.29	12.43	11.85	12.27	14.48	12.44	12.04	12.50	14.49	12.54	12.55	12.82	12.94
U.S. Average .....	10.25	10.35	10.93	10.20	10.28	10.31	10.88	10.14	10.26	10.39	11.03	10.35	10.45	10.42	10.53

- = 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 - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>United States</b>															
Coal .....	4,854	4,018	4,611	3,859	4,091	3,512	4,276	3,505	3,890	3,592	4,258	3,668	4,333	3,845	3,853
Natural Gas .....	2,724	2,905	3,739	2,968	3,248	3,476	4,378	3,508	3,322	3,423	4,277	3,247	3,087	3,655	3,568
Petroleum (a) .....	145	64	66	58	123	61	72	68	83	71	77	69	83	81	75
Other Gases .....	29	30	36	36	37	33	40	37	38	34	41	38	33	37	38
Nuclear .....	2,202	2,060	2,289	2,184	2,248	2,133	2,286	2,061	2,144	2,005	2,261	2,129	2,184	2,182	2,135
Renewable Energy Sources:															
Conventional Hydropower .....	703	854	655	632	802	690	616	503	649	791	726	616	711	652	695
Wind .....	552	550	368	523	506	532	441	558	608	651	474	613	498	509	586
Wood Biomass .....	117	111	120	116	119	112	122	114	116	109	122	117	116	117	116
Waste Biomass .....	60	60	61	56	58	59	61	59	59	59	61	60	59	59	60
Geothermal .....	43	43	43	44	48	46	45	46	48	47	48	49	43	46	48
Solar .....	32	57	60	45	57	87	86	49	53	106	115	83	48	70	89
Pumped Storage Hydropower .....	-13	-18	-21	-16	-15	-10	-18	-14	-13	-12	-15	-13	-17	-14	-13
Other Nonrenewable Fuels (b) .....	35	36	39	38	33	37	39	38	34	37	39	38	37	37	37
<b>Total Generation .....</b>	<b>11,483</b>	<b>10,771</b>	<b>12,065</b>	<b>10,543</b>	<b>11,355</b>	<b>10,766</b>	<b>12,444</b>	<b>10,531</b>	<b>11,030</b>	<b>10,914</b>	<b>12,484</b>	<b>10,713</b>	<b>11,215</b>	<b>11,275</b>	<b>11,287</b>
<b>Northeast Census Region</b>															
Coal .....	348	242	207	203	292	174	203	187	259	163	186	183	250	214	198
Natural Gas .....	418	491	636	499	483	534	714	549	513	573	717	532	511	571	584
Petroleum (a) .....	55	2	3	3	46	2	5	5	9	4	6	5	15	14	6
Other Gases .....	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Nuclear .....	542	471	539	531	545	499	542	487	505	470	527	496	521	518	500
Hydropower (c) .....	91	108	87	92	93	99	97	74	93	107	100	92	95	91	98
Other Renewables (d) .....	72	62	58	71	76	65	58	69	73	64	60	72	66	67	67
Other Nonrenewable Fuels (b) .....	11	12	13	13	11	12	12	12	11	12	12	12	12	12	12
<b>Total Generation .....</b>	<b>1,539</b>	<b>1,390</b>	<b>1,545</b>	<b>1,414</b>	<b>1,547</b>	<b>1,387</b>	<b>1,633</b>	<b>1,384</b>	<b>1,466</b>	<b>1,395</b>	<b>1,610</b>	<b>1,396</b>	<b>1,472</b>	<b>1,488</b>	<b>1,467</b>
<b>South Census Region</b>															
Coal .....	2,125	1,846	2,096	1,612	1,715	1,539	1,908	1,348	1,534	1,564	1,882	1,443	1,919	1,628	1,606
Natural Gas .....	1,537	1,726	2,088	1,638	1,971	2,074	2,452	1,997	1,942	2,077	2,427	1,824	1,749	2,124	2,068
Petroleum (a) .....	53	28	27	24	42	24	29	26	34	29	31	25	33	30	30
Other Gases .....	11	11	15	15	14	13	15	15	14	13	16	16	13	14	15
Nuclear .....	967	882	994	977	974	956	1,001	886	941	884	1,006	948	955	954	945
Hydropower (c) .....	149	96	72	101	122	108	94	78	126	123	104	99	104	100	113
Other Renewables (d) .....	244	258	203	239	231	265	253	284	301	324	269	322	236	258	304
Other Nonrenewable Fuels (b) .....	14	14	15	16	14	15	16	16	14	16	16	16	15	15	15
<b>Total Generation .....</b>	<b>5,100</b>	<b>4,861</b>	<b>5,510</b>	<b>4,622</b>	<b>5,084</b>	<b>4,995</b>	<b>5,769</b>	<b>4,651</b>	<b>4,906</b>	<b>5,030</b>	<b>5,750</b>	<b>4,693</b>	<b>5,023</b>	<b>5,125</b>	<b>5,095</b>
<b>Midwest Census Region</b>															
Coal .....	1,795	1,435	1,675	1,486	1,579	1,302	1,578	1,405	1,554	1,359	1,627	1,462	1,597	1,466	1,501
Natural Gas .....	195	185	204	195	299	257	340	245	270	247	335	242	195	285	274
Petroleum (a) .....	14	13	13	9	12	11	13	11	12	11	12	11	12	12	12
Other Gases .....	11	12	14	13	15	13	16	14	15	13	16	14	13	14	14
Nuclear .....	533	543	586	525	553	529	570	539	539	502	562	530	547	548	533
Hydropower (c) .....	31	47	49	45	44	47	42	31	42	49	42	39	43	41	43
Other Renewables (d) .....	254	215	148	241	251	218	168	246	260	248	178	265	214	221	238
Other Nonrenewable Fuels (b) .....	4	5	5	4	4	5	5	4	4	5	5	5	4	5	5
<b>Total Generation .....</b>	<b>2,837</b>	<b>2,455</b>	<b>2,693</b>	<b>2,520</b>	<b>2,757</b>	<b>2,381</b>	<b>2,732</b>	<b>2,495</b>	<b>2,696</b>	<b>2,435</b>	<b>2,778</b>	<b>2,568</b>	<b>2,625</b>	<b>2,591</b>	<b>2,620</b>
<b>West Census Region</b>															
Coal .....	586	496	632	558	505	496	587	565	543	506	563	579	568	539	548
Natural Gas .....	574	503	811	636	494	611	873	716	597	525	799	648	632	675	643
Petroleum (a) .....	23	21	23	22	23	23	25	26	27	27	28	28	22	24	27
Other Gases .....	5	5	6	6	7	6	7	7	7	6	7	6	6	7	7
Nuclear .....	160	164	170	150	176	149	172	149	159	148	165	156	161	162	157
Hydropower (c) .....	419	586	426	377	527	425	365	306	375	500	465	373	452	405	428
Other Renewables (d) .....	234	287	243	233	230	287	276	227	249	337	314	261	249	255	290
Other Nonrenewable Fuels (b) .....	6	5	6	5	4	4	5	5	4	5	5	5	6	5	5
<b>Total Generation .....</b>	<b>2,007</b>	<b>2,067</b>	<b>2,319</b>	<b>1,988</b>	<b>1,967</b>	<b>2,002</b>	<b>2,310</b>	<b>2,001</b>	<b>1,962</b>	<b>2,054</b>	<b>2,346</b>	<b>2,056</b>	<b>2,095</b>	<b>2,071</b>	<b>2,105</b>

(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 - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>Fuel Consumption for Electricity Generation, All Sectors</b>															
<b>United States</b>															
Coal (thousand st/d) .....	2,577	2,159	2,518	2,104	2,187	1,923	2,349	1,936	2,115	1,952	2,330	2,019	2,339	2,099	2,105
Natural Gas (million cf/d) .....	20,729	22,128	28,499	22,209	24,028	26,271	33,510	26,145	24,630	26,041	32,718	24,003	23,409	27,511	26,856
Petroleum (thousand b/d) .....	254	113	117	105	215	108	126	122	150	127	135	124	147	143	134
Residual Fuel Oil .....	84	25	29	24	76	26	33	31	37	30	33	31	40	41	33
Distillate Fuel Oil .....	87	24	23	26	66	26	24	28	37	29	29	29	40	36	31
Petroleum Coke (a) .....	68	61	62	51	61	52	65	58	68	63	68	59	60	59	64
Other Petroleum Liquids (b) ....	16	3	3	4	12	4	4	5	8	5	5	5	6	6	6
<b>Northeast Census Region</b>															
Coal (thousand st/d) .....	162	115	105	98	134	82	100	87	118	74	86	84	120	101	90
Natural Gas (million cf/d) .....	3,221	3,736	4,951	3,772	3,638	4,102	5,595	4,174	3,873	4,369	5,563	3,988	3,924	4,382	4,450
Petroleum (thousand b/d) .....	91	4	5	5	75	5	9	9	17	8	11	8	26	24	11
<b>South Census Region</b>															
Coal (thousand st/d) .....	1,084	960	1,113	854	888	819	1,023	731	816	833	1,008	780	1,002	865	859
Natural Gas (million cf/d) .....	11,664	13,117	15,846	12,143	14,410	15,633	18,665	14,819	14,310	15,757	18,461	13,418	13,201	15,891	15,489
Petroleum (thousand b/d) .....	99	51	50	45	79	45	53	51	66	55	58	48	61	57	57
<b>Midwest Census Region</b>															
Coal (thousand st/d) .....	1,002	809	949	838	881	742	896	793	871	762	919	825	899	828	844
Natural Gas (million cf/d) .....	1,614	1,482	1,665	1,568	2,329	2,010	2,725	1,892	2,072	1,953	2,720	1,847	1,582	2,239	2,149
Petroleum (thousand b/d) .....	28	25	25	18	24	23	26	22	23	20	22	22	24	24	22
<b>West Census Region</b>															
Coal (thousand st/d) .....	329	274	352	314	285	280	331	324	310	283	318	330	318	305	310
Natural Gas (million cf/d) .....	4,229	3,793	6,038	4,725	3,650	4,526	6,526	5,260	4,375	3,963	5,973	4,750	4,701	4,999	4,768
Petroleum (thousand b/d) .....	37	33	37	36	37	36	39	41	44	43	45	45	36	38	44
<b>End-of-period U.S. Fuel Inventories Held by Electric Power Sector</b>															
Coal (million short tons) .....	118.3	133.5	124.5	151.8	154.9	166.9	162.5	167.0	168.0	172.5	156.8	161.3	151.8	167.0	161.3
Residual Fuel Oil (mmb) .....	10.6	10.7	10.5	12.8	10.2	10.5	10.6	11.9	12.3	12.1	11.7	11.9	12.8	11.9	11.9
Distillate Fuel Oil (mmb) .....	16.1	16.6	16.9	18.3	16.6	16.7	17.1	17.4	17.4	17.2	17.1	17.3	18.3	17.4	17.3
Petroleum Coke (mmb) .....	1.7	2.0	1.9	4.1	4.1	5.2	5.5	5.4	5.3	5.2	5.1	5.0	4.1	5.4	5.0

(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 - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>Electric Power Sector</b>															
Hydroelectric Power (a) .....	<b>0.596</b>	<b>0.731</b>	<b>0.566</b>	<b>0.549</b>	<b>0.677</b>	<b>0.593</b>	<b>0.537</b>	<i>0.437</i>	<i>0.558</i>	<i>0.681</i>	<i>0.633</i>	<i>0.536</i>	<b>2.443</b>	2.243	2.408
Wood Biomass (b) .....	<b>0.063</b>	<b>0.057</b>	<b>0.066</b>	<b>0.064</b>	<b>0.063</b>	<b>0.058</b>	<b>0.067</b>	<i>0.058</i>	<i>0.060</i>	<i>0.055</i>	<i>0.068</i>	<i>0.061</i>	<b>0.251</b>	0.245	0.244
Waste Biomass (c) .....	<b>0.070</b>	<b>0.070</b>	<b>0.071</b>	<b>0.067</b>	<b>0.067</b>	<b>0.066</b>	<b>0.070</b>	<i>0.069</i>	<i>0.067</i>	<i>0.068</i>	<i>0.071</i>	<i>0.069</i>	<b>0.279</b>	0.272	0.275
Wind .....	<b>0.472</b>	<b>0.476</b>	<b>0.322</b>	<b>0.457</b>	<b>0.433</b>	<b>0.460</b>	<b>0.385</b>	<i>0.488</i>	<i>0.526</i>	<i>0.564</i>	<i>0.415</i>	<i>0.536</i>	<b>1.727</b>	1.767	2.041
Geothermal .....	<b>0.037</b>	<b>0.037</b>	<b>0.038</b>	<b>0.039</b>	<b>0.041</b>	<b>0.040</b>	<b>0.040</b>	<i>0.040</i>	<i>0.042</i>	<i>0.041</i>	<i>0.042</i>	<i>0.043</i>	<b>0.151</b>	0.161	0.168
Solar .....	<b>0.027</b>	<b>0.048</b>	<b>0.051</b>	<b>0.038</b>	<b>0.047</b>	<b>0.073</b>	<b>0.074</b>	<i>0.042</i>	<i>0.045</i>	<i>0.090</i>	<i>0.099</i>	<i>0.071</i>	<b>0.165</b>	0.236	0.305
Subtotal .....	<b>1.266</b>	<b>1.420</b>	<b>1.115</b>	<b>1.215</b>	<b>1.329</b>	<b>1.290</b>	<b>1.172</b>	<i>1.134</i>	<i>1.297</i>	<i>1.499</i>	<i>1.329</i>	<i>1.316</i>	<b>5.015</b>	4.925	5.441
<b>Industrial Sector</b>															
Hydroelectric Power (a) .....	<b>0.008</b>	<b>0.006</b>	<b>0.006</b>	<b>0.007</b>	<b>0.007</b>	<b>0.004</b>	<b>0.004</b>	<i>0.006</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<b>0.026</b>	0.021	0.020
Wood Biomass (b) .....	<b>0.318</b>	<b>0.327</b>	<b>0.335</b>	<b>0.336</b>	<b>0.321</b>	<b>0.316</b>	<b>0.321</b>	<i>0.318</i>	<i>0.305</i>	<i>0.300</i>	<i>0.311</i>	<i>0.313</i>	<b>1.317</b>	1.276	1.230
Waste Biomass (c) .....	<b>0.044</b>	<b>0.046</b>	<b>0.046</b>	<b>0.046</b>	<b>0.045</b>	<b>0.047</b>	<b>0.049</b>	<i>0.050</i>	<i>0.048</i>	<i>0.048</i>	<i>0.050</i>	<i>0.050</i>	<b>0.183</b>	0.190	0.195
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>	<b>0.001</b>	<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>0.181</b>	<b>0.189</b>	<b>0.191</b>	<b>0.196</b>	<b>0.189</b>	<b>0.192</b>	<b>0.195</b>	<i>0.193</i>	<i>0.195</i>	<i>0.192</i>	<i>0.197</i>	<i>0.193</i>	<b>0.757</b>	0.770	0.778
Subtotal .....	<b>0.557</b>	<b>0.574</b>	<b>0.583</b>	<b>0.591</b>	<b>0.567</b>	<b>0.565</b>	<b>0.575</b>	<i>0.573</i>	<i>0.559</i>	<i>0.551</i>	<i>0.569</i>	<i>0.568</i>	<b>2.304</b>	2.280	2.246
<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>0.020</b>	<b>0.019</b>	<i>0.019</i>	<i>0.019</i>	<i>0.019</i>	<i>0.019</i>	<i>0.019</i>	<b>0.071</b>	0.076	0.077
Waste Biomass (c) .....	<b>0.012</b>	<b>0.011</b>	<b>0.011</b>	<b>0.012</b>	<b>0.012</b>	<b>0.010</b>	<b>0.011</b>	<i>0.011</i>	<i>0.011</i>	<i>0.010</i>	<i>0.011</i>	<i>0.011</i>	<b>0.046</b>	0.044	0.043
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>	<b>0.005</b>	<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>0.039</b>	<b>0.037</b>	<b>0.035</b>	<b>0.037</b>	<b>0.039</b>	<b>0.038</b>	<i>0.036</i>	<i>0.035</i>	<i>0.035</i>	<i>0.036</i>	<i>0.036</i>	<b>0.149</b>	0.149	0.142
<b>Residential Sector</b>															
Wood Biomass (b) .....	<b>0.143</b>	<b>0.145</b>	<b>0.146</b>	<b>0.146</b>	<b>0.110</b>	<b>0.111</b>	<b>0.113</b>	<i>0.113</i>	<i>0.103</i>	<i>0.104</i>	<i>0.105</i>	<i>0.105</i>	<b>0.580</b>	0.447	0.418
Geothermal .....	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<i>0.010</i>	<i>0.011</i>	<i>0.011</i>	<i>0.011</i>	<i>0.011</i>	<b>0.040</b>	0.040	0.044
Solar (d) .....	<b>0.062</b>	<b>0.063</b>	<b>0.063</b>	<b>0.063</b>	<b>0.069</b>	<b>0.070</b>	<b>0.071</b>	<i>0.071</i>	<i>0.077</i>	<i>0.077</i>	<i>0.078</i>	<i>0.078</i>	<b>0.252</b>	0.281	0.311
Subtotal .....	<b>0.215</b>	<b>0.217</b>	<b>0.220</b>	<b>0.220</b>	<b>0.189</b>	<b>0.191</b>	<b>0.194</b>	<i>0.194</i>	<i>0.191</i>	<i>0.193</i>	<i>0.195</i>	<i>0.195</i>	<b>0.871</b>	0.768	0.773
<b>Transportation Sector</b>															
Ethanol (e) .....	<b>0.255</b>	<b>0.274</b>	<b>0.278</b>	<b>0.280</b>	<b>0.266</b>	<b>0.284</b>	<b>0.291</b>	<i>0.281</i>	<i>0.274</i>	<i>0.286</i>	<i>0.296</i>	<i>0.286</i>	<b>1.087</b>	1.121	1.142
Biodiesel (e) .....	<b>0.038</b>	<b>0.048</b>	<b>0.058</b>	<b>0.054</b>	<b>0.034</b>	<b>0.058</b>	<b>0.064</b>	<i>0.067</i>	<i>0.068</i>	<i>0.072</i>	<i>0.081</i>	<i>0.081</i>	<b>0.198</b>	0.223	0.302
Subtotal .....	<b>0.293</b>	<b>0.321</b>	<b>0.336</b>	<b>0.334</b>	<b>0.300</b>	<b>0.341</b>	<b>0.351</b>	<i>0.348</i>	<i>0.342</i>	<i>0.358</i>	<i>0.377</i>	<i>0.367</i>	<b>1.285</b>	1.340	1.444
<b>All Sectors Total</b>															
Hydroelectric Power (a) .....	<b>0.604</b>	<b>0.737</b>	<b>0.572</b>	<b>0.555</b>	<b>0.685</b>	<b>0.597</b>	<b>0.540</b>	<i>0.442</i>	<i>0.563</i>	<i>0.686</i>	<i>0.638</i>	<i>0.541</i>	<b>2.469</b>	2.264	2.429
Wood Biomass (b) .....	<b>0.542</b>	<b>0.546</b>	<b>0.563</b>	<b>0.563</b>	<b>0.512</b>	<b>0.503</b>	<b>0.520</b>	<i>0.508</i>	<i>0.487</i>	<i>0.478</i>	<i>0.504</i>	<i>0.499</i>	<b>2.214</b>	2.043	1.969
Waste Biomass (c) .....	<b>0.119</b>	<b>0.121</b>	<b>0.124</b>	<b>0.124</b>	<b>0.120</b>	<b>0.119</b>	<b>0.128</b>	<i>0.130</i>	<i>0.125</i>	<i>0.126</i>	<i>0.132</i>	<i>0.130</i>	<b>0.488</b>	0.497	0.513
Wind .....	<b>0.472</b>	<b>0.476</b>	<b>0.322</b>	<b>0.457</b>	<b>0.433</b>	<b>0.460</b>	<b>0.385</b>	<i>0.488</i>	<i>0.526</i>	<i>0.564</i>	<i>0.415</i>	<i>0.536</i>	<b>1.727</b>	1.767	2.041
Geothermal .....	<b>0.055</b>	<b>0.055</b>	<b>0.055</b>	<b>0.057</b>	<b>0.056</b>	<b>0.056</b>	<b>0.057</b>	<i>0.057</i>	<i>0.059</i>	<i>0.058</i>	<i>0.060</i>	<i>0.060</i>	<b>0.222</b>	0.225	0.236
Solar .....	<b>0.092</b>	<b>0.116</b>	<b>0.117</b>	<b>0.102</b>	<b>0.117</b>	<b>0.146</b>	<b>0.148</b>	<i>0.114</i>	<i>0.123</i>	<i>0.169</i>	<i>0.179</i>	<i>0.151</i>	<b>0.427</b>	0.525	0.621
Ethanol (e) .....	<b>0.260</b>	<b>0.279</b>	<b>0.283</b>	<b>0.285</b>	<b>0.271</b>	<b>0.289</b>	<b>0.298</b>	<i>0.286</i>	<i>0.279</i>	<i>0.292</i>	<i>0.301</i>	<i>0.292</i>	<b>1.107</b>	1.143	1.164
Biodiesel (e) .....	<b>0.038</b>	<b>0.048</b>	<b>0.058</b>	<b>0.054</b>	<b>0.034</b>	<b>0.058</b>	<b>0.064</b>	<i>0.067</i>	<i>0.068</i>	<i>0.072</i>	<i>0.081</i>	<i>0.081</i>	<b>0.198</b>	0.223	0.302
Biofuel Losses and Co-products (f) .....	<b>0.181</b>	<b>0.189</b>	<b>0.191</b>	<b>0.196</b>	<b>0.189</b>	<b>0.192</b>	<b>0.195</b>	<i>0.193</i>	<i>0.195</i>	<i>0.192</i>	<i>0.197</i>	<i>0.193</i>	<b>0.757</b>	0.770	0.778
<b>Total Consumption</b> .....	<b>2.368</b>	<b>2.572</b>	<b>2.291</b>	<b>2.394</b>	<b>2.423</b>	<b>2.426</b>	<b>2.332</b>	<i>2.284</i>	<i>2.424</i>	<i>2.635</i>	<i>2.505</i>	<i>2.482</i>	<b>9.625</b>	9.465	10.046

- = 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 biodiesel consumption in the transportation sector includes production, stock change, and imports less exports. Some biodiesel may be consumed in the residential sector in heating oil.

(f) Losses and co-products from the production of fuel ethanol and biodiesel

**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 - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>Macroeconomic</b>															
Real Gross Domestic Product (billion chained 2009 dollars - SAAR) .....	15,725	15,902	16,069	16,151	16,177	16,334	16,394	16,479	16,595	16,695	16,812	16,945	15,962	16,346	16,762
Real Personal Consumption Expend. (billion chained 2009 dollars - SAAR) .....	10,725	10,826	10,919	11,033	11,081	11,179	11,269	11,347	11,415	11,483	11,564	11,660	10,876	11,219	11,530
Real Fixed Investment (billion chained 2009 dollars - SAAR) .....	2,578	2,613	2,664	2,680	2,701	2,736	2,755	2,797	2,846	2,898	2,940	2,986	2,634	2,747	2,918
Business Inventory Change (billion chained 2009 dollars - SAAR) .....	43	89	88	89	127	128	62	41	35	30	33	45	77	90	36
Real Government Expenditures (billion chained 2009 dollars - SAAR) .....	2,828	2,837	2,849	2,839	2,839	2,857	2,869	2,875	2,913	2,919	2,923	2,921	2,838	2,860	2,919
Real Exports of Goods & Services (billion chained 2009 dollars - SAAR) .....	2,039	2,087	2,096	2,124	2,091	2,118	2,127	2,139	2,145	2,163	2,187	2,214	2,086	2,119	2,177
Real Imports of Goods & Services (billion chained 2009 dollars - SAAR) .....	2,473	2,530	2,525	2,588	2,633	2,652	2,664	2,696	2,737	2,776	2,814	2,860	2,529	2,661	2,797
Real Disposable Personal Income (billion chained 2009 dollars - SAAR) .....	11,699	11,785	11,863	11,999	12,115	12,151	12,256	12,346	12,438	12,510	12,614	12,706	11,836	12,217	12,567
Non-Farm Employment (millions) .....	137.8	138.6	139.4	140.2	141.0	141.6	142.2	142.7	143.2	143.7	144.1	144.6	139.0	141.9	143.9
Civilian Unemployment Rate (percent) .....	6.6	6.2	6.1	5.7	5.6	5.4	5.2	5.1	5.2	5.2	5.2	5.1	6.2	5.3	5.2
Housing Starts (millions - SAAR) .....	0.93	0.98	1.03	1.06	0.98	1.16	1.16	1.16	1.19	1.22	1.27	1.32	1.00	1.11	1.25
<b>Industrial Production Indices (Index, 2012=100)</b>															
Total Industrial Production .....	103.8	105.3	106.3	107.5	107.4	106.8	107.3	106.8	106.9	107.4	108.4	109.6	105.7	107.1	108.1
Manufacturing .....	101.9	103.5	104.6	105.6	105.5	105.8	106.5	106.3	106.5	106.6	107.6	108.9	103.9	106.0	107.4
Food .....	102.6	103.1	102.2	103.9	104.7	104.7	105.8	106.2	106.5	106.9	107.4	108.1	103.0	105.3	107.2
Paper .....	97.3	98.1	97.5	97.9	97.2	97.1	95.7	95.1	94.6	94.2	94.2	94.6	97.7	96.3	94.4
Petroleum and Coal Products .....	107.1	107.3	107.2	106.7	107.9	108.9	108.1	108.3	108.5	108.6	109.1	109.8	107.1	108.3	109.0
Chemicals .....	97.9	99.0	101.0	102.0	102.8	103.1	103.6	103.8	104.1	104.3	105.0	106.2	100.0	103.3	104.9
Nonmetallic Mineral Products .....	105.1	107.8	110.6	110.6	111.3	111.1	112.4	112.9	113.8	114.9	116.2	117.7	108.5	111.9	115.6
Primary Metals .....	103.4	105.6	107.1	105.7	100.7	100.0	100.6	99.1	97.4	96.0	96.0	97.8	105.4	100.1	96.8
Coal-weighted Manufacturing (a) .....	102.6	103.9	104.7	104.6	103.6	103.8	104.2	103.9	103.6	103.3	103.9	105.2	103.9	103.9	104.0
Distillate-weighted Manufacturing (a) .....	103.9	105.5	106.6	107.1	106.6	106.4	107.1	107.1	107.3	107.7	108.5	109.9	105.8	106.8	108.4
Electricity-weighted Manufacturing (a) .....	102.5	104.0	104.9	105.4	104.7	105.0	105.6	105.4	105.1	104.9	105.6	107.2	104.2	105.2	105.7
Natural Gas-weighted Manufacturing (a) .....	103.2	103.7	104.5	104.9	104.5	105.4	105.8	105.6	105.4	105.4	106.2	107.7	104.1	105.3	106.2
<b>Price Indexes</b>															
Consumer Price Index (all urban consumers) (index, 1982-1984=1.00) .....	2.35	2.37	2.38	2.37	2.35	2.37	2.38	2.38	2.39	2.40	2.42	2.43	2.37	2.37	2.41
Producer Price Index: All Commodities (index, 1982=1.00) .....	2.06	2.07	2.06	2.02	1.92	1.92	1.91	1.90	1.92	1.94	1.95	1.96	2.05	1.91	1.94
Producer Price Index: Petroleum (index, 1982=1.00) .....	2.88	2.99	2.90	2.35	1.71	1.95	1.80	1.60	1.62	1.84	1.90	1.79	2.78	1.76	1.79
GDP Implicit Price Deflator (index, 2009=100) .....	108.0	108.6	109.0	109.1	109.1	109.7	110.0	110.6	111.3	111.8	112.3	113.0	108.7	109.9	112.1
<b>Miscellaneous</b>															
Vehicle Miles Traveled (b) (million miles/day) .....	7,708	8,691	8,614	8,300	7,990	8,982	8,922	8,527	8,156	9,055	8,974	8,588	8,331	8,608	8,694
Air Travel Capacity (Available ton-miles/day, thousands) .....	503	548	561	535	517	574	580	549	519	556	572	552	537	555	550
Aircraft Utilization (Revenue ton-miles/day, thousands) .....	310	347	353	332	322	356	364	345	324	346	366	348	336	347	346
Airline Ticket Price Index (index, 1982-1984=100) .....	297.3	334.3	301.0	298.2	286.4	313.0	283.3	289.8	292.9	311.5	299.5	306.8	307.7	293.1	302.7
Raw Steel Production (million short tons per day) .....	0.262	0.263	0.271	0.262	0.247	0.242	0.248	0.232	0.241	0.230	0.230	0.206	0.264	0.242	0.227
<b>Carbon Dioxide (CO<sub>2</sub>) Emissions (million metric tons)</b>															
Petroleum .....	546	557	572	578	562	568	587	572	562	569	582	577	2,252	2,288	2,290
Natural Gas .....	460	297	303	375	469	312	326	392	461	320	331	394	1,434	1,500	1,505
Coal .....	463	397	461	391	397	354	438	367	388	362	432	380	1,713	1,555	1,562
Total Energy (c) .....	1,471	1,252	1,338	1,346	1,429	1,236	1,352	1,332	1,413	1,252	1,347	1,352	5,406	5,349	5,364

- = 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 - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>Real Gross State Product (Billion \$2009)</b>															
New England .....	853	857	860	864	863	871	873	877	883	887	893	899	858	871	890
Middle Atlantic .....	2,387	2,401	2,424	2,425	2,417	2,445	2,453	2,464	2,479	2,492	2,506	2,521	2,409	2,445	2,499
E. N. Central .....	2,174	2,198	2,215	2,223	2,219	2,240	2,247	2,257	2,270	2,280	2,293	2,310	2,202	2,241	2,288
W. N. Central .....	1,007	1,025	1,036	1,041	1,048	1,056	1,060	1,065	1,072	1,078	1,085	1,094	1,027	1,057	1,082
S. Atlantic .....	2,781	2,813	2,830	2,846	2,851	2,884	2,897	2,914	2,938	2,958	2,981	3,006	2,817	2,887	2,971
E. S. Central .....	720	729	732	736	735	741	744	748	753	757	762	768	729	742	760
W. S. Central .....	1,918	1,952	1,992	2,014	2,025	2,036	2,043	2,052	2,067	2,079	2,095	2,113	1,969	2,039	2,089
Mountain .....	1,000	1,007	1,021	1,028	1,033	1,042	1,047	1,054	1,063	1,071	1,080	1,090	1,014	1,044	1,076
Pacific .....	2,798	2,831	2,869	2,884	2,897	2,926	2,939	2,956	2,979	3,000	3,023	3,048	2,845	2,929	3,013
<b>Industrial Output, Manufacturing (Index, Year 2012=100)</b>															
New England .....	99.7	100.7	101.4	102.0	101.7	102.3	103.6	103.2	103.4	103.6	104.4	105.6	101.0	102.7	104.2
Middle Atlantic .....	99.8	101.0	101.6	102.4	102.1	102.7	103.1	102.7	102.7	102.7	103.5	104.6	101.2	102.7	103.4
E. N. Central .....	103.0	104.8	106.0	107.3	107.7	108.5	109.3	109.1	108.9	108.9	109.8	111.4	105.3	108.6	109.8
W. N. Central .....	102.0	103.7	104.7	106.0	105.6	105.7	106.3	106.1	106.2	106.4	107.4	108.7	104.1	105.9	107.2
S. Atlantic .....	101.9	103.8	105.1	106.3	106.3	106.8	107.8	107.8	107.9	108.1	109.0	110.2	104.3	107.2	108.8
E. S. Central .....	103.6	105.1	106.8	107.9	107.9	108.1	109.4	109.4	109.5	109.6	110.4	111.6	105.8	108.7	110.3
W. S. Central .....	101.4	103.3	104.5	105.7	104.7	103.5	103.0	102.4	102.4	102.3	103.1	104.3	103.7	103.4	103.0
Mountain .....	103.1	104.6	105.7	106.6	107.2	107.9	109.0	109.2	109.8	110.3	111.6	113.0	105.0	108.3	111.2
Pacific .....	102.0	103.6	104.5	105.4	105.3	106.0	106.5	106.4	106.6	106.9	108.0	109.5	103.9	106.0	107.7
<b>Real Personal Income (Billion \$2009)</b>															
New England .....	714	717	722	734	740	743	748	753	759	763	768	773	722	746	766
Middle Atlantic .....	1,834	1,840	1,857	1,881	1,896	1,905	1,917	1,931	1,941	1,949	1,962	1,974	1,853	1,913	1,957
E. N. Central .....	1,947	1,956	1,967	1,992	2,010	2,015	2,034	2,048	2,061	2,071	2,084	2,097	1,965	2,027	2,078
W. N. Central .....	943	954	958	969	970	972	981	989	996	1,003	1,009	1,016	956	978	1,006
S. Atlantic .....	2,504	2,525	2,545	2,579	2,622	2,634	2,657	2,681	2,704	2,722	2,746	2,768	2,538	2,648	2,735
E. S. Central .....	729	735	739	749	760	761	765	771	777	781	786	791	738	764	784
W. S. Central .....	1,628	1,643	1,661	1,684	1,710	1,711	1,723	1,733	1,746	1,758	1,772	1,787	1,654	1,719	1,766
Mountain .....	881	888	894	909	922	926	936	944	953	959	968	976	893	932	964
Pacific .....	2,106	2,121	2,145	2,172	2,218	2,233	2,254	2,274	2,296	2,310	2,329	2,347	2,136	2,245	2,320
<b>Households (Thousands)</b>															
New England .....	5,790	5,804	5,814	5,824	5,834	5,843	5,849	5,854	5,862	5,868	5,872	5,878	5,824	5,854	5,878
Middle Atlantic .....	15,895	15,929	15,948	15,969	15,991	16,011	16,022	16,033	16,051	16,064	16,075	16,082	15,969	16,033	16,082
E. N. Central .....	18,531	18,555	18,582	18,606	18,625	18,639	18,655	18,675	18,700	18,721	18,743	18,764	18,606	18,675	18,764
W. N. Central .....	8,377	8,388	8,410	8,431	8,451	8,469	8,483	8,498	8,517	8,535	8,552	8,570	8,431	8,498	8,570
S. Atlantic .....	24,237	24,323	24,410	24,500	24,593	24,675	24,756	24,838	24,935	25,022	25,108	25,193	24,500	24,838	25,193
E. S. Central .....	7,468	7,486	7,498	7,510	7,522	7,532	7,541	7,553	7,568	7,583	7,598	7,612	7,510	7,553	7,612
W. S. Central .....	14,083	14,138	14,196	14,253	14,309	14,360	14,405	14,448	14,502	14,553	14,605	14,654	14,253	14,448	14,654
Mountain .....	8,637	8,676	8,709	8,743	8,778	8,810	8,841	8,872	8,910	8,943	8,980	9,017	8,743	8,872	9,017
Pacific .....	18,150	18,203	18,269	18,335	18,400	18,456	18,503	18,549	18,608	18,663	18,715	18,767	18,335	18,549	18,767
<b>Total Non-farm Employment (Millions)</b>															
New England .....	7.1	7.1	7.1	7.1	7.2	7.2	7.2	7.3	7.3	7.3	7.3	7.3	7.1	7.2	7.3
Middle Atlantic .....	18.7	18.8	18.8	18.9	18.9	19.0	19.1	19.1	19.2	19.2	19.2	19.3	18.8	19.0	19.2
E. N. Central .....	21.0	21.1	21.2	21.3	21.4	21.5	21.5	21.6	21.6	21.6	21.7	21.7	21.1	21.5	21.7
W. N. Central .....	10.3	10.3	10.4	10.4	10.4	10.5	10.5	10.5	10.5	10.6	10.6	10.6	10.3	10.5	10.6
S. Atlantic .....	26.1	26.2	26.4	26.6	26.7	26.9	27.0	27.2	27.3	27.4	27.5	27.6	26.3	27.0	27.5
E. S. Central .....	7.6	7.7	7.7	7.8	7.8	7.8	7.8	7.9	7.9	7.9	7.9	8.0	7.7	7.8	7.9
W. S. Central .....	16.1	16.2	16.4	16.5	16.6	16.6	16.7	16.7	16.8	16.8	16.9	16.9	16.3	16.6	16.8
Mountain .....	9.7	9.7	9.8	9.9	9.9	10.0	10.0	10.1	10.1	10.2	10.2	10.3	9.8	10.0	10.2
Pacific .....	21.1	21.2	21.4	21.6	21.8	21.9	22.1	22.2	22.3	22.4	22.4	22.5	21.3	22.0	22.4

- = 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 - December 2015

	2014				2015				2016				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
<b>Heating Degree Days</b>															
New England .....	3,562	882	146	2,081	3,853	822	58	2,087	3,123	834	135	2,218	6,672	6,820	6,309
Middle Atlantic .....	3,437	704	100	1,966	3,582	613	41	1,848	2,842	655	91	2,016	6,206	6,084	5,603
E. N. Central .....	3,937	729	168	2,366	3,696	661	76	2,021	3,033	717	129	2,259	7,199	6,454	6,138
W. N. Central .....	3,863	755	177	2,512	3,375	652	95	2,189	3,144	679	153	2,434	7,306	6,310	6,410
South Atlantic .....	1,714	196	14	1,039	1,676	156	9	925	1,461	211	17	1,002	2,962	2,766	2,691
E. S. Central .....	2,267	229	17	1,411	2,146	185	14	1,211	1,861	265	22	1,331	3,924	3,556	3,479
W. S. Central .....	1,479	93	4	848	1,400	69	2	775	1,262	96	5	783	2,424	2,246	2,145
Mountain .....	2,121	709	149	1,758	1,895	703	122	1,793	2,187	659	130	1,805	4,736	4,513	4,780
Pacific .....	1,253	468	57	986	1,078	524	77	1,045	1,269	464	75	1,107	2,764	2,723	2,916
U.S. Average .....	2,450	480	80	1,541	2,342	443	50	1,421	2,074	464	74	1,532	4,551	4,256	4,144
<b>Heating Degree Days, Prior 10-year Average</b>															
New England .....	3,152	836	134	2,167	3,166	838	134	2,147	3,212	824	133	2,134	6,289	6,285	6,303
Middle Atlantic .....	2,905	660	88	1,983	2,935	666	90	1,976	2,983	651	90	1,957	5,636	5,667	5,681
E. N. Central .....	3,117	690	120	2,243	3,192	694	123	2,262	3,247	690	125	2,233	6,170	6,272	6,295
W. N. Central .....	3,209	686	149	2,404	3,273	691	150	2,433	3,298	693	150	2,415	6,449	6,546	6,556
South Atlantic .....	1,465	194	14	1,006	1,481	196	14	1,013	1,502	185	14	1,001	2,679	2,704	2,703
E. S. Central .....	1,810	236	19	1,336	1,853	236	19	1,358	1,898	225	19	1,340	3,402	3,465	3,483
W. S. Central .....	1,157	85	5	827	1,188	86	5	834	1,221	83	5	830	2,075	2,113	2,139
Mountain .....	2,267	728	156	1,887	2,258	730	150	1,872	2,230	724	147	1,872	5,038	5,011	4,972
Pacific .....	1,554	625	96	1,236	1,533	621	92	1,205	1,493	609	88	1,196	3,511	3,452	3,387
U.S. Average .....	2,161	492	77	1,569	2,182	493	77	1,567	2,199	483	76	1,551	4,298	4,319	4,310
<b>Cooling Degree Days</b>															
New England .....	0	76	342	0	0	70	486	0	0	92	416	0	419	556	509
Middle Atlantic .....	0	157	434	5	0	184	610	1	0	171	557	5	596	795	733
E. N. Central .....	0	230	377	2	0	220	497	7	0	217	542	8	609	724	767
W. N. Central .....	0	262	538	12	3	266	660	13	3	273	684	11	812	943	971
South Atlantic .....	107	642	1,058	194	136	760	1,154	269	113	619	1,140	228	2,001	2,319	2,101
E. S. Central .....	6	505	924	65	23	579	1,018	77	27	495	1,039	67	1,501	1,697	1,627
W. S. Central .....	34	779	1,441	219	50	856	1,570	257	70	824	1,489	209	2,473	2,733	2,592
Mountain .....	31	439	871	95	47	437	926	88	19	446	989	89	1,436	1,497	1,543
Pacific .....	41	225	692	111	54	227	676	115	31	205	599	75	1,068	1,072	911
U.S. Average .....	34	393	775	95	46	433	873	116	39	394	852	96	1,298	1,468	1,381
<b>Cooling Degree Days, Prior 10-year Average</b>															
New England .....	0	83	417	1	0	85	420	1	0	81	419	1	500	505	501
Middle Atlantic .....	0	167	558	5	0	168	557	5	0	168	548	5	730	731	721
E. N. Central .....	3	230	546	6	3	234	545	6	3	229	528	6	785	787	765
W. N. Central .....	7	277	678	9	7	282	683	9	7	279	674	9	972	981	969
South Atlantic .....	110	636	1,154	213	110	635	1,154	210	113	659	1,143	215	2,112	2,108	2,130
E. S. Central .....	35	528	1,045	57	33	526	1,053	52	32	541	1,038	54	1,666	1,664	1,666
W. S. Central .....	102	882	1,506	190	94	883	1,519	184	90	890	1,518	190	2,680	2,679	2,688
Mountain .....	18	420	922	70	17	424	930	75	21	430	931	76	1,431	1,446	1,458
Pacific .....	26	166	589	58	26	170	601	65	29	180	612	71	839	863	892
U.S. Average .....	41	393	843	83	40	396	849	83	42	404	845	87	1,361	1,369	1,377

- = 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>).