Short-Term Energy Outlook (STEO)

Highlights

- North Sea Brent crude oil prices averaged \$64/barrel (b) in May, a \$5/b increase from April and the highest monthly average of 2015. Despite estimated global inventories increasing by more than 2 million barrels per day (b/d) for the third consecutive month, several factors contributed to higher prices in May, including continued signals of higher global oil demand growth, expectations for declining U.S. tight oil production in the coming months, and the growing risk of unplanned supply outages in the Middle East and North Africa.
- EIA forecasts Brent crude oil prices will average \$61/b in 2015 and \$67/b in 2016. The 2016 price forecast is \$3/b lower than in last month's STEO. West Texas Intermediate (WTI) prices in both 2015 and 2016 are expected to average \$5/b less than the Brent price. The current values of futures and options contracts for December 2015 delivery suggest (*Market Prices and Uncertainty Report*) the market expects (at the 95% confidence interval) WTI prices in that month to range from \$40/b to \$92/b.
- U.S. regular gasoline monthly average retail prices reached a 2015 high of \$2.72/gallon (gal) in May, an increase of 25¢/gal from April. The higher prices reflect rising crude oil prices and isolated outages at West Coast and Midwest refineries. EIA expects monthly average gasoline prices to decline from their May level through the rest of the year, averaging \$2.43/gal during the second half of 2015. EIA forecasts U.S. regular gasoline retail prices to average \$2.44/gal in 2015, 1¢/gal higher than in last month's STEO, and \$2.55/gal in 2016, 8¢/gal lower than in last month's STEO.
- Total U.S. crude oil production averaged an estimated 9.6 million b/d in May, but it is expected to generally decline from June 2015 through early 2016 before growth resumes. Projected U.S. crude oil production averages 9.4 million b/d in 2015 and 9.3 million b/d in 2016. The forecast is 0.2 million b/d and 0.1 million b/d higher for 2015 and 2016, respectively, than in last month's STEO, primarily because of revisions to actual production data from the first quarter of 2015.
- In every week since the April start of the natural gas storage injection season, weekly inventory builds have surpassed the previous five-year (2010-14) average. The 132 billion cubic feet (Bcf) increase in working gas inventories for the week ending May 29 was the largest injection in more than a decade. EIA forecasts inventories will total 3,912 Bcf at the end of October 2015, which would be 115 Bcf above the previous five-year average.

 The National Oceanic and Atmospheric Administration (NOAA) forecasts warmer summer temperatures this year compared with the mild summer last year. The warmer temperatures are forecast to increase consumption of electricity to run air conditioners, which, combined with higher electricity prices, contributes to EIA's forecast of a 4.8% increase in the typical U.S. residential electricity bill this summer.

Global Petroleum and Other Liquids

Global liquids production continues to exceed consumption, resulting in inventory builds. Global oil inventory builds are projected to average 2.2 million b/d through the first half of 2015 and average 1.6 million b/d during the second half of the year, with the reduction in builds reflecting rising demand and slowing production growth outside of the Organization of the Petroleum Exporting Countries (OPEC), particularly in the United States. The expected inventory builds in 2015 are on top of an estimated average 1.1 million b/d increase in 2014. By 2016, expected inventory builds moderate to 0.8 million b/d as non-OPEC supply growth slows and demand continues to rise.

Global Petroleum and Other Liquids Consumption. EIA estimates global consumption of petroleum and other liquids grew by 0.9 million b/d in 2014, averaging 92.0 million b/d for the year. EIA expects global consumption to grow by 1.3 million b/d in both 2015 and 2016. Forecast global consumption growth was revised modestly upward from last month's STEO, as lower oil prices stimulate global demand growth more than previously expected. Projected real gross domestic product (GDP) weighted for oil consumption, which increased by an estimated 2.8% in 2014, is projected to grow by 2.4% in 2015 and by 3.0% in 2016.

Consumption of petroleum and other liquids outside of the Organization for Economic Cooperation and Development (OECD) countries grew by 1.2 million b/d in 2014 and is projected to grow by 0.8 million b/d in 2015 and by 1.2 million b/d in 2016. Lower forecast growth for non-OECD consumption in 2015 mostly reflects a 0.2 million b/d decline in Russia's consumption as a result of its economic downturn. Russia's oil consumption is expected to decline by a similar amount in 2016, although it is offset by growth elsewhere. China's economic growth slowed in the second half of 2014 and in the beginning of 2015. Nonetheless, China remains the main source of non-OECD oil consumption growth, with a projected annual average increase of 0.3 million b/d in both 2015 and 2016, down from growth of 0.4 million b/d in 2014. India's economic and manufacturing growth continued to rise in the first half of 2015, and projected petroleum and other liquids consumption growth is 0.2 million b/d in 2015 and 2016, compared with 0.1 million b/d in 2014.

OECD petroleum and other liquids consumption, which fell by 0.4 million b/d in 2014, is expected to grow by 0.4 million b/d in 2015 and by 0.2 million b/d in 2016. Japan and Europe accounted for nearly all of the 2014 decline in OECD oil consumption. Japan's consumption is expected to continue declining over the next two years, albeit at a slower rate than in 2014, while Europe's consumption is expected to grow slowly. The United States is the leading

contributor to projected OECD consumption growth in 2015, with U.S. consumption increasing by 0.4 million b/d, while consumption in both the United States and Europe increases by about 0.1 million b/d in 2016. The degree to which global oil demand responds to lower oil prices is only beginning to become apparent in the data, and, if that response deviates from forecast values, it could affect market balances and prices.

Non-OPEC Petroleum and Other Liquids Supply. EIA estimates that non-OPEC production grew by 2.3 million b/d in 2014, mainly as a result of output growth in the United States. EIA expects non-OPEC production to grow by 1.3 million b/d in 2015 and by 0.2 million b/d in 2016. Forecast non-OPEC production growth was revised upward from last month's STEO by an average of 0.5 million b/d in 2015, to account for historical revisions to first quarter U.S. production and increases to forecast Canadian production. After remaining relatively flat in 2015, production in Eurasia is projected to decline by almost 0.2 million b/d in 2016. The projected decline reflects reduced investment in Russia's oil sector stemming from low oil prices and international sanctions.

Unplanned supply disruptions among non-OPEC producers averaged about 0.7 million b/d in May 2015, nearly 0.1 million b/d higher than the previous month because of outages in Canada and Brazil. Wildfires in western Canada that started in the second half of May led to oil sands production outages averaging about 0.1 million b/d for the month. An explosion at the P-56 floating production and storage offloading facility at Brazil's Marlim Sul field at the end of May also increased the non-OPEC outage level. Before the explosion, P-56 produced less than 0.1 million b/d of oil. Recent violence in Yemen continues to interrupt operations at an oil port and refinery. South Sudan, Syria, and Yemen accounted for more than 80% of total non-OPEC supply disruptions in May.

OPEC Petroleum and Other Liquids Supply. EIA estimates that OPEC crude oil production averaged 30.1 million b/d in 2014, unchanged from the previous year. Crude oil production declines in Libya, Angola, Algeria, and Kuwait offset production growth in Iraq and Iran. In EIA's forecast, OPEC crude oil production rises by 0.6 million b/d in 2015 and falls by 0.2 million b/d in 2016. Iraq is expected to be the largest contributor to OPEC production growth in 2015. At the June 5 OPEC meeting, the group did not change its 30 million b/d crude oil production target. EIA forecasts OPEC crude oil production will continue to exceed that target over the forecast period, contributing to the expected global inventory builds.

On April 2, Iran and the five permanent members of the United Nations Security Council plus Germany (P5+1) reached a framework agreement to guide negotiations targeting a comprehensive agreement by June 30. A comprehensive agreement could result in the lifting of oil-related sanctions against Iran and a subsequent increase in Iran's crude oil production and exports, although the timing and details of any suspension of sanctions are uncertain. EIA has not changed its short-term projection for Iranian crude oil production, which assumes that production will stay close to the current level.

Iran produced 3.6 million b/d of crude oil in late 2011, before the recent round of sanctions was enacted, forcing Iran to shut in a substantial portion of its production. Iran's ability to bring online previously shut-in volumes and increase exports depends on several factors, including the current condition of oil fields and infrastructure that were shut in, the pace of sanctions relief, and the ability of Iran to find buyers in the present market. If a comprehensive agreement is reached, EIA estimates that the re-entry of more Iranian barrels could result in a \$5/b-\$15/b lower baseline STEO price forecast for 2016 (see the analysis box on page 5 of the April 2015 STEO for further discussion).

OPEC noncrude liquids production, which averaged 6.3 million b/d in 2014, is expected to increase by 0.1 million b/d in 2015 and by 0.2 million b/d in 2016, led by production increases in Qatar, Iran, and Kuwait.

In May, unplanned crude oil supply disruptions among OPEC producers averaged 2.6 million b/d, almost 0.3 million b/d higher compared with the previous month, resulting from higher disruptions in Kuwait, Saudi Arabia, Libya, and Nigeria. Production at the Wafra field, located in the Neutral Zone that straddles Kuwait and Saudi Arabia, ceased in mid-May as the operators attempt to resolve a contract dispute. Suspension of Wafra's production increased disruptions in May by a total of 0.1 million b/d, split between Kuwait and Saudi Arabia. This suspension came on top of the previous shut-in production at the Khafji field. Protests and labor strikes at the El Feel field and at oil export facilities increased disruptions in Libya by more than 0.1 million b/d in May, while protests in Nigeria led to production disruptions in the Nembe oil field in the Niger Delta region in late May.

EIA expects OPEC surplus crude oil production capacity, which is concentrated in Saudi Arabia, to decrease to an average of 1.8 million b/d in 2015 and increase to 2.1 million b/d in 2016, after averaging 2.0 million b/d in 2014. Surplus capacity is typically an indication of market conditions, and surplus capacity below 2.5 million b/d is an indicator of a relatively tight oil market. However, the current and forecast levels of global inventory builds make the projected low surplus capacity level in 2015 less significant. Nonetheless, low surplus capacity heightens uncertainty about the market's ability to counteract unforeseen supply outages, particularly in the current geopolitical climate with conflicts in or next to major oil-producing countries in the Middle East and North Africa.

OECD Petroleum Inventories. EIA estimates that OECD commercial oil inventories totaled 2.72 billion barrels at the end of 2014, the highest end-of-year level on record and equivalent to roughly 59 days of consumption. Projected OECD oil inventories rise to 3.00 billion barrels at the end of 2015 and then to 3.09 billion barrels at the end of 2016.

Crude Oil Prices. North Sea Brent crude oil spot prices increased by almost \$5/b in May to a monthly average of \$64/b, which was the highest monthly average for Brent so far this year. Several factors put upward pressure on crude oil prices in May. These factors included indications that global oil demand growth is accelerating, evidence that U.S. tight oil production could decline in the coming months, and the growing risk of unplanned supply outages in the

Middle East and North Africa. As of May 29, according to Baker Hughes, the number of rigs drilling for crude oil in the United States had fallen for 25 consecutive weeks and was 60% below its peak in October 2014. Brent crude oil prices increased despite estimated increases in global oil inventories, which rose in May by more than 2.0 million b/d for the third consecutive month, compared with an average build of 1.0 million b/d in March through May of last year. Inventory builds are projected to moderate somewhat in the coming months, but are expected to remain high compared with previous years.

The monthly average WTI crude oil spot price increased to an average of \$59/b in May, up \$5/b from April. After increasing for 20 consecutive weeks to a record 62.2 million barrels on April 17, crude oil inventories at Cushing, Oklahoma, have since fallen for six consecutive weeks by a total of 3.2 million barrels. Along with falling Cushing inventories, increasing U.S. refinery runs and production outages in Canada have put upward pressure on the price of WTI crude oil.

EIA projects the Brent crude oil price will average \$61/b in 2015, unchanged from last month's STEO. The Brent crude oil price is projected to average \$67/b in 2016, \$3/b lower than in last month's STEO, reflecting an increase in forecast non-OPEC crude oil production growth in 2016. However, this price projection remains subject to the uncertainties surrounding the possible lifting of sanctions against Iran and other market events. WTI prices in both 2015 and 2016 are expected to average \$5/b less than Brent.

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 September 2015 delivery traded during the five-day period ending June 4 averaged \$60/b while implied volatility averaged 33%. These levels established the lower and upper limits of the 95% confidence interval for the market's expectations of monthly average WTI prices in September 2015 at \$45/b and \$81/b, respectively. The 95% confidence interval for market expectations widens over time, with lower and upper limits of \$40/b and \$92/b for prices in December 2015. Last year at this time, WTI for September 2014 delivery averaged \$101/b, and implied volatility averaged 14%. The corresponding lower and upper limits of the 95% confidence interval were \$89/b and \$114/b.

U.S. Petroleum and Other Liquids

U.S. weekly regular gasoline retail prices reached a 2015 high of \$2.78/gal on June 1, an increase of 37¢/gal from early April. Rising crude oil prices and ongoing refinery outages in the Midwest and West Coast have pushed gasoline prices higher in the past two months. As a result of outages on the West Coast, gasoline prices in that region have increased by more than the U.S. average, with prices in Petroleum Administration for Defense District (PADD) 5 averaging \$3.44/gal on June 1, an increase of 49¢/gal from the first week in April. In May, monthly average regional gasoline retail prices ranged from a low of \$2.44/gal in PADD 3, the Gulf Coast region, to a high of \$3.47/gal in PADD 5, the West Coast. EIA expects gasoline prices to fall from their current peaks, with the U.S. regular gasoline price averaging \$2.43/gal over the second half of 2015.

Liquid Fuels Consumption. Total U.S. liquid fuels consumption rose by an estimated 70,000 b/d (0.4%) in 2014. In 2015, total liquid fuels consumption is forecast to grow by 370,000 b/d (2.0%). EIA projects liquid fuels consumption growth will slow to 70,000 b/d (0.4%) in 2016. The 2015 and 2016 consumption forecasts are about 40,000 b/d higher than in last month's STEO.

Motor gasoline consumption, which rose by 80,000 b/d in 2014, increases by a projected 130,000 b/d (1.4%) in 2015 as the effects of employment growth and lower gasoline prices outweigh increases in vehicle fleet efficiency. Gasoline consumption is forecast to fall by 20,000 b/d (0.2%) in 2016, driven by higher prices and a long-term trend toward more-efficient vehicles.

Consumption of distillate fuel, which includes diesel fuel and heating oil, is forecast to rise by 90,000 b/d (2.3%) in 2015 and by 50,000 b/d (1.2%) in 2016. This growth is driven by increasing manufacturing output, foreign trade, and marine fuel use.

Hydrocarbon gas liquids (HGL) consumption, which fell by 100,000 b/d (4.0%) in 2014, is projected to increase by 120,000 b/d in 2015 and by 50,000 b/d in 2016, as new petrochemical plant capacity increases the use of HGL as a feedstock. In addition, new HGL export terminal capacity contributes to an increase in HGL net exports from an average of 560,000 b/d in 2014 to 1.0 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 9.4 million b/d in 2015 and then decline to 9.3 million b/d in 2016. The forecast is 0.2 million b/d and 0.1 million b/d higher for 2015 and 2016, respectively, than in last month's STEO. The increase in the crude oil production forecast reflects upward revisions to estimated production in the first guarter of 2015.

EIA estimates that U.S. crude oil production averaged almost 9.6 million b/d in May 2015. This level is almost 0.4 million b/d higher than the average production during the fourth quarter of 2014, despite the 60% decline in the total U.S. oil-directed rig count since October 2014. Production has increased as producers work through the backlog of uncompleted wells (completing more wells than they are drilling) and achieve potentially better completions with higher initial production rates.

EIA expects U.S. crude oil production will begin to decline in June, with continuing declines through early 2016, when total production is forecast to average 9.2 million b/d in the first quarter. Production is forecast to begin rising in the second half of 2016, returning to an average of 9.6 million b/d in December as new projects are scheduled to come online in the Gulf of Mexico.

Projected crude oil production declines from June 2015 through February 2016 are largely attributable to unattractive economic 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 capital expenditures and cash flows have prompted companies to defer investment 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.

Projected 2015 oil prices remain high enough to support continued development drilling in the core areas of the Bakken, Eagle Ford, Niobrara, and Permian basins. Forecast WTI crude oil prices create conditions in which continued increases in rig and well productivity and falling drilling and completion costs make resumption of onshore production growth possible in 2016. The forecast remains particularly sensitive to actual prices available at the wellhead and rapidly changing drilling economics that vary across regions and operators. Projected production in the Gulf of Mexico rises during the forecast period, while Alaska production falls. Production in these areas is less sensitive to short-term price movements than is onshore production in the Lower 48 states.

HGL production at natural gas processing plants is estimated to have reached a record level of 3.2 million b/d in May 2015, and it is projected to average 3.2 million b/d in 2015 and 3.4 million b/d in 2016. EIA expects higher ethane recovery rates following planned increases in petrochemical plant feedstock demand. Export terminal expansions will allow higher quantities of domestically produced ethane, propane, and butanes to reach the international market.

The growth in domestic crude oil and other liquids production has contributed to a significant decline in imports. The share of total U.S. liquid fuels consumption met by net imports fell from 60% in 2005 to an estimated 26% in 2014. EIA expects the net import share to decline to 21% in 2016, which would be the lowest level since 1969.

Petroleum Product Prices. Rising crude oil prices and several refinery outages in the Midwest and West Coast contributed to an increase in U.S. regular gasoline retail prices from a monthly average of \$2.47/gal in April to \$2.72/gal in May. EIA expects monthly average prices to decline through the summer as refineries in the Midwest and West Coast resolve outages and refineries in the rest of the country increase production of gasoline following the spring maintenance season. EIA projects regular gasoline retail prices to average \$2.52/gal during the third quarter of 2015 and \$2.33/gal in the fourth quarter.

The U.S. regular gasoline retail price, which averaged \$3.36/gal in 2014, is projected to average 2.44/gal in 2015, 1¢/gal higher than in last month's STEO, and 2.55/gal in 2016, which is 2¢/gal lower than in last month's STEO.

The diesel fuel retail price, which averaged \$3.83/gal in 2014, is projected to fall to an average of \$2.88/gal in 2015, unchanged from last month's STEO, and then rise to \$3.04/gal in 2016, 9¢/gal lower than in last month's STEO.

As with crude oil, the market's expectation of uncertainty in monthly average gasoline prices is reflected in the pricing and implied volatility of futures and options contracts. New York Harbor reformulated blendstock for oxygenate blending (RBOB) futures contracts for September 2015 delivery traded over the five-day period ending June 4 averaged \$1.97/gal. The probability that

the RBOB futures price will exceed \$2.35/gal (consistent with a U.S. average regular gasoline retail price above \$3.00/gal) in September 2015 is about 10%.

Natural Gas

The spot price of natural gas at Henry Hub averaged \$2.85/ million British thermal units (MMBtu) in May, after averaging \$2.61/MMBtu in April. EIA expects monthly average natural gas prices to rise somewhat through the summer as air-conditioning demand increases, but remain below \$4/MMBtu throughout the forecast period. While freeze-offs hampered some production this past winter, preliminary data sources indicate natural gas production growth resumed in April and May. EIA forecasts July production will exceed the previous monthly record set in December 2014.

Working natural gas inventories increased by 132 Bcf for the week ending May 29. Following last week's build, natural gas inventories exceeded the previous five-year average for only the second time since late 2013.

Natural Gas Consumption. EIA's forecast of U.S. total natural gas consumption averages 76.7 Bcf per day (Bcf/d) in 2015 and 76.6 Bcf/d in 2016, compared with 73.5 Bcf/d in 2014. Consumption growth in 2015 is largely driven by demand in the industrial and electric power sectors. EIA projects natural gas consumption in the power sector to grow by 13.7% in 2015 and then fall by 2.7% in 2016. Low natural gas prices support increased use of natural gas for electricity generation in 2015. Industrial sector consumption increases by 3.6% in both 2015 and 2016, as new industrial projects come online, particularly in the fertilizer and chemicals sectors, and as industrial consumers continue to take advantage of low natural gas prices. Consumption of natural gas in the residential and commercial sectors is projected to decline in 2015 and 2016.

Natural Gas Production and Trade. EIA expects that marketed natural gas production will increase by 4.2 Bcf/d (5.7%) and by 1.6 Bcf/d (2.0%) in 2015 and 2016, respectively. This month's STEO lowers the 2015 production outlook by 0.3 Bcf/d to reflect revisions in historical data. However, production remains high and EIA expects continued growth through 2016, with increases in the Lower 48 states expected to more than offset the long-term declining production in the Gulf of Mexico. Increases in drilling efficiency will continue to support growing natural gas production in the forecast despite relatively low natural gas prices. Most growth is expected to come from the Marcellus Shale, as a backlog of drilled wells is completed and new pipelines come online to deliver Marcellus gas to markets in the Northeast. Preliminary data indicate significant production growth in April and the beginning of May.

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 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 Mexican natural gas production.

EIA projects that LNG gross exports will increase to 0.79 Bcf/d in 2016, with the startup of a major LNG liquefaction plant in the Lower 48 states.

Natural Gas Inventories. On May 29, natural gas working inventories totaled 2,233 Bcf, which was 751 Bcf (51%) above the level at the same time in 2014 and 22 Bcf (1%) above the previous five-year (2010-14) average for that week. So far during the inventory refill season, injections have surpassed the five-year average injections by a wide margin. EIA projects end-of-October 2015 inventories will total 3,912 Bcf, 115 Bcf above the five-year average for that time.

Natural Gas Prices. The Henry Hub natural gas spot price averaged \$2.85/MMBtu in May, an increase of 24¢/MMBtu from the April price. EIA expects monthly average spot prices to remain lower than \$3/MMBtu through June, and lower than \$4/MMBtu through the remainder of the forecast. The projected Henry Hub natural gas price averages \$2.97/MMBtu in 2015 and \$3.32/MMBtu in 2016.

Natural gas futures contracts for September 2015 delivery traded during the five-day period ending June 4 averaged \$2.69/MMBtu. Current options and futures prices imply that market participants place the lower and upper bounds for the 95% confidence interval for September 2015 contracts at \$1.79/MMBtu and \$4.03/MMBtu, respectively. At this time last year, the natural gas futures contract for September 2014 delivery averaged \$4.58/MMBtu and the corresponding lower and upper limits of the 95% confidence interval were \$3.54/MMBtu and \$5.92/MMBtu.

Coal

Coal Supply. EIA projects that lower coal demand for domestic consumption and exports contribute to a 70 million short ton (MMst) decline in production for 2015. Production is expected to decline in all coal-producing regions, with the largest decrease in Appalachia (34 MMst, or 13%). Declines in the Interior region and Western region are projected to be 3% and 6%, respectively. Coal production is projected to remain near 2015 levels in 2016.

In response to weak coal demand, several producers have recently announced cuts in production. The expected production cuts are reflected in announced employee layoffs. Previously announced employee layoffs primarily affected Central Appalachian producers, but the current planned reductions are more widespread, affecting production in Central and Northern Appalachia and in the Illinois Basin. Ohio-based Murray Energy announced it would lay off more than 1,800 miners in Illinois, Ohio, and West Virginia. Alpha Natural Resources (Alpha) stated that it was idling more than 400 employees in West Virginia, Kentucky, and Virginia. Earlier in May, Alpha had announced more than 60 layoffs at a mine in Kentucky. Although it is not reducing its workforce, Consol Energy announced it was switching to a four-day work week at several mines in Pennsylvania.

Coal Consumption. EIA expects a 7% decrease in coal consumption in the electric power sector in 2015, despite a 1% increase in total electric power generation. Lower natural gas prices are the main driver of the decline. Projected low natural gas prices make it more economical to run natural gas-fired generating units at higher utilization rates even in regions of the country (Midwest, South) that typically rely more heavily on coal-fired generation. Increased generation from wind, solar, and biomass is also expected to displace coal-fired generation, as several

biomass facilities have been converted from coal-burning facilities. The retirements of coal power plants in response to the implementation of the Mercury and Air Toxics Standards also reduce coal demand in the power sector in 2015. The full effect of the coal plant retirements on capacity will be felt in 2016, but projected rising electricity demand and higher natural gas prices are expected to contribute to higher utilization rates among the remaining coal-fired fleet. Coal consumption in the electric power sector is forecast to increase slightly in 2016.

Coal Trade. Slower growth in world coal demand, lower international coal prices, and higher coal output in other coal-exporting countries have led to a two-year decline in U.S. coal exports. EIA projects coal exports will fall by 8 MMst, to 89 MMst, in 2015, and then increase by 1 MMst in 2016. U.S. coal imports, which increased by more than 2 MMst in 2014 to 11 MMst, are expected to remain near that level over the next two years.

Coal Prices. The annual average coal price to the electric power sector fell from \$2.39/MMBtu in 2011 to an estimated \$2.36/MMBtu in 2014. EIA expects the delivered coal price to average \$2.30/MMBtu in 2015 and \$2.31/MMBtu in 2016.

Electricity

Summer Residential Electricity Outlook. EIA forecasts that the average U.S. residential electricity customer will spend 4.8% more during the upcoming summer months (June, July, and August) than during the same period last year. This increase in the average residential bill reflects a projected 2.6% increase in average electricity usage and a 2.1% increase in the average retail price of electricity.

There is wide variation in the average electricity usage projections, with the typical residential customer in the Pacific states consuming 1.9% less electricity than last summer, while customers in the East North Central area consume 6.3% more electricity. Electricity prices in all areas of the United States except for the Middle Atlantic and the East South Central are expected to be higher this summer than last summer. Residential customers in New England are expected to see the largest increase in electricity bills because of a 15.4% projected increase in summer retail prices. Customers in the West South Central states are expected to experience the lowest overall increase in average electricity bills this summer (2.1%).

Electricity Consumption. NOAA projects warmer temperatures this summer than during last year's mild summer. U.S. cooling degree days during June, July, and August of 2015 are projected to total 7.3% more than the same period last year. Higher temperatures should lead to increased use of electricity for air conditioning. EIA forecasts U.S. retail sales of electricity to the residential sector in June, July, and August to average 3.5% more than last summer. Forecast annual U.S. residential electricity sales during 2015 average 0.2% higher than in 2014. EIA expects U.S. retail sales of electricity to the commercial and industrial sectors to grow by 1.6% and 0.4%, respectively, during 2015.

Electricity Generation. Total U.S. generation of electricity is forecast to average about 11,309 gigawatt hours per day (GWh/d) in 2015, which is 0.8% higher than total generation last year.

EIA forecasts coal's share of U.S. total generation will average 35.6% in 2015, down from 38.7% in 2014. In contrast, the natural gas fuel share averages 30.9% this year, up from 27.4% in 2014.

Electricity Retail Prices. EIA projects the U.S. retail price of electricity to the residential sector to average 2.3% more than in 2014. Utilities and retail suppliers in the New England states, especially Massachusetts, significantly increased electricity rates for residential customers late last year in anticipation of a repeat of winter price spikes in the regional wholesale power market. However, New England wholesale prices during the first quarter of 2015 averaged about half the level as in the same period last year, and EIA forecasts that these cost savings should be passed on to retail customers by the end of 2015.

Renewables and Carbon Dioxide Emissions

Electricity and Heat Generation from Renewables. EIA expects renewables used in the electric power sector will grow by 2.6% in 2015, as conventional hydropower generation decreases by 1.9%, while nonhydropower renewable power generation increases 6.9%. The 2015 decrease in hydropower generation reflects the effects of the California drought, which are only partially offset by use of hydropower elsewhere. Generation from hydropower is expected to increase by 5.4% in 2016. Total renewables consumption for electric power and heat generation decreases by 1.1% in 2015 but increases by 5.6% in 2016.

EIA expects continued growth in utility-scale solar power generation, which is projected to average 85 GWh/d in 2016. Because the growth is from a small base, utility-scale solar power averages only 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 86% between the end of 2014 and the end of 2016, with more than half of this new capacity being built in California. Other leading states include North Carolina, Nevada, Texas, and Utah, which, combined with California, account for more than 90% of the projected utility-scale capacity additions for 2015 and 2016. According to current law, projects coming online after the end of next year will see a federal investment tax credit of 10%, well below the 30% investment tax credit available for projects that come online before the end of 2016. This impending decline in the tax credit provides a strong incentive for projects to enter service before the end of 2016.

Wind capacity, which grew by 8.2% in 2014, is forecast to increase by 12.9% in 2015 and by 12.0% in 2016. Because wind is starting from a much larger base than solar, even though the growth rate is lower, the absolute increase in wind capacity is almost twice that of solar: 17 GW of wind compared with 9 GW of utility-scale solar between 2014 and 2016.

Liquid Biofuels. On May 29, the U.S. Environmental Protection Agency (EPA) proposed a rule setting Renewable Fuel Standard (RFS) targets for 2014 through 2016. Although these targets could be modified before the final rule is issued, they are used in developing the current STEO. Ethanol production, which averaged 935,000 b/d in 2014, is forecast to remain near current levels, averaging 936,000 b/d in 2015 and 933,000 b/d in 2016. Ethanol consumption, which averaged 878,000 b/d in 2014, is forecast to average 891,000 b/d in 2015 and 896,000 b/d in

2016, resulting in an average 9.9% ethanol share of the total gasoline pool in 2015 and 2016. EIA does not expect measurable increases in E15 or E85 consumption over the forecast period. The proposed RFS targets are expected to encourage imports of Brazilian sugarcane ethanol, which were just 3,000 b/d in 2014. Because of the increase in ethanol gross imports, net exports of ethanol are expected to fall from 51,000 b/d in 2014 to 44,000 b/d in 2015 and 36,000 b/d in 2016.

EIA expects the biggest effect of the proposed RFS targets to be on biomass-based diesel consumption, which contributes to meeting the biomass-based diesel, advanced biofuel, and total renewable fuel RFS targets. Biodiesel production averaged an estimated 81,000 b/d in 2014 and is forecast to average 90,000 b/d in 2015 and 98,000 b/d in 2016, which are 9,000 b/d and 14,000 b/d higher than in last month's STEO, respectively. Net imports of biomass-based diesel are also expected to increase from 16,000 b/d in 2014 to 26,000 b/d in 2015 and 35,000 b/d in 2016, which are 9,000 b/d and 19,000 b/d higher than in last month's STEO, respectively. EIA expects that a combination of higher biomass-based diesel consumption, higher consumption of domestic and imported ethanol, and banked Renewable Identification Numbers (RINs) will help meet the newly proposed RFS targets through 2016.

Energy-Related Carbon Dioxide Emissions. EIA estimates that emissions grew by 1.0% in 2014. Emissions are projected to decrease by 0.4% in 2015 and then rise by 0.2% in 2016. These forecasts are sensitive to both weather and economic assumptions.

U.S. Economic Assumptions

Recent Economic Indicators. The Bureau of Economic Analysis (BEA) reported that real GDP decreased at an annual rate of 0.7% in the first quarter of 2015. This second estimate is below the initial estimate of a 0.2% increase. With the second estimate for the first quarter, imports increased more and private inventory investment increased less than previously estimated.

EIA used the May 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 grows by 2.2% in 2015 and by 2.6% in 2016. The 2015 growth is below the 2.6% forecast last month, while the 2016 growth is higher than the 2.4% forecast last month. Real disposable income grows by 3.3% in 2015 and by 2.2% in 2016. Total industrial production grows at 1.5% in 2015 and 2.8% in 2016. Projected growth in nonfarm employment averages 2.0% in 2015 and 1.3% in 2016.

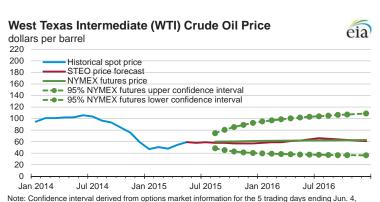
Expenditures. Forecast growth in private real fixed investment averages 3.8% and 7.2% in 2015 and 2016, respectively, led by investment in equipment in 2015 and investment in equipment and structures in 2016. Real consumption expenditures grow faster than real GDP in 2015, at 2.9%, and the same as real GDP in 2016, at 2.6%. Durable goods expenditures drive consumption spending in both years. Export growth is 1.6% in 2015 and 4.7% in 2016, while

import growth is 4.8% in 2015 and 6.1% in 2016. Total government expenditures rise 0.8% in 2015 and 0.5% in 2016.
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.

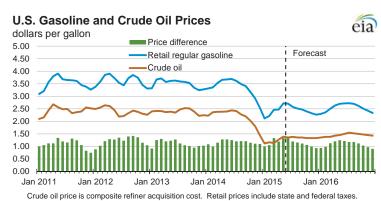


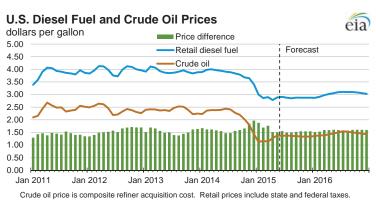
Short-Term Energy Outlook

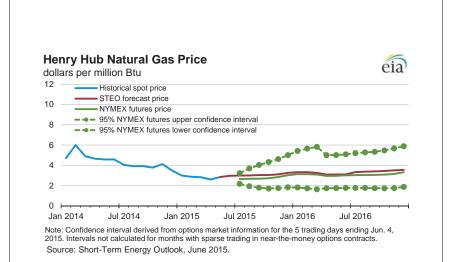
Chart Gallery for June 2015

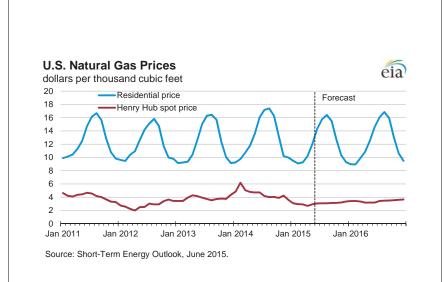


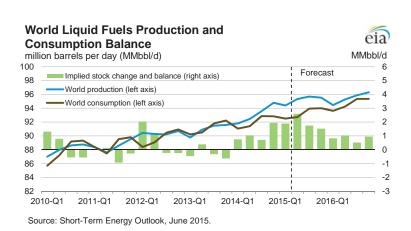
2015. Intervals not calculated for months with sparse trading in near-the-money options contracts. Source: Short-Term Energy Outlook, June 2015.

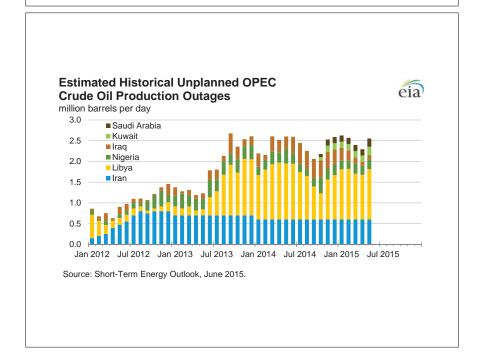


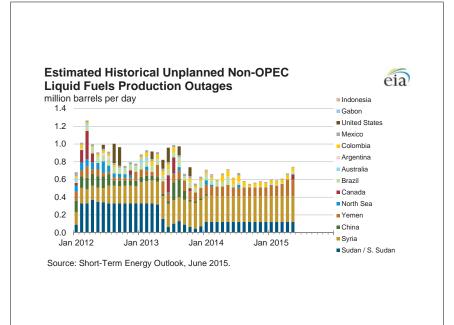


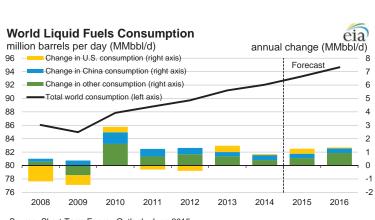


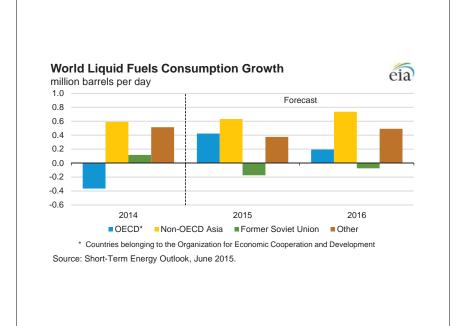


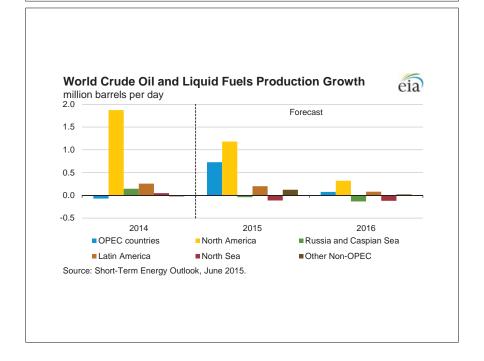


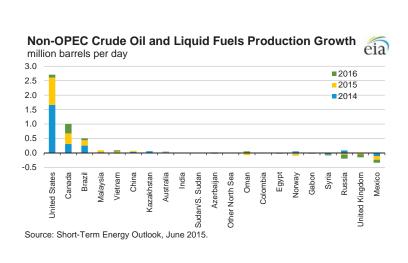


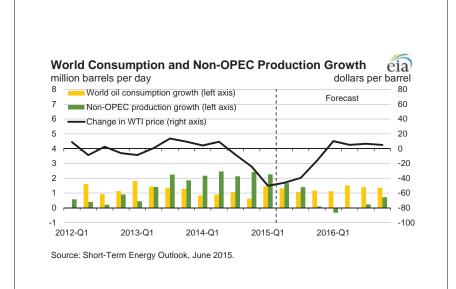


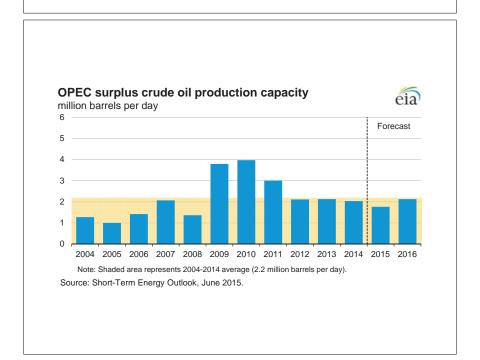


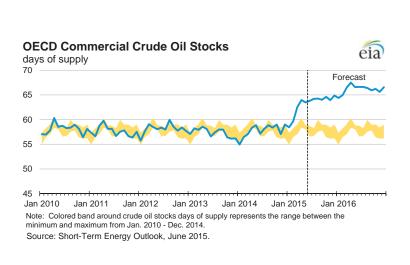


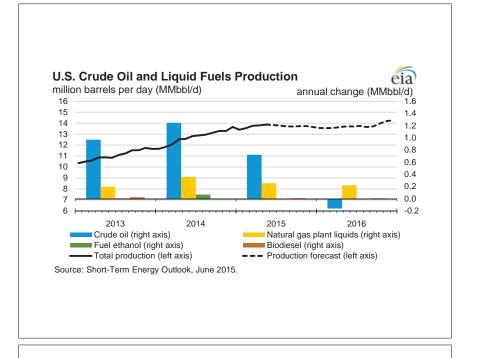


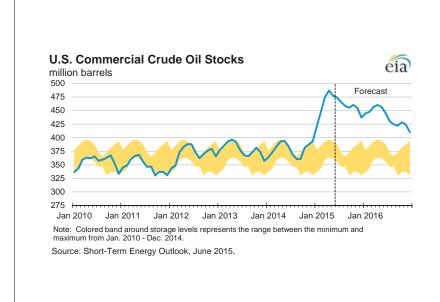


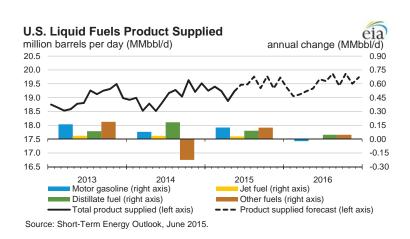


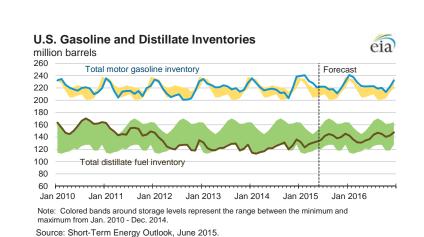


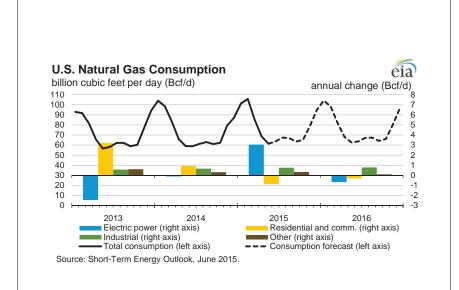


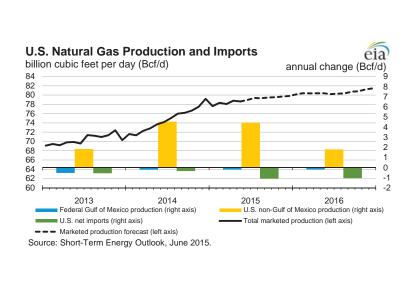


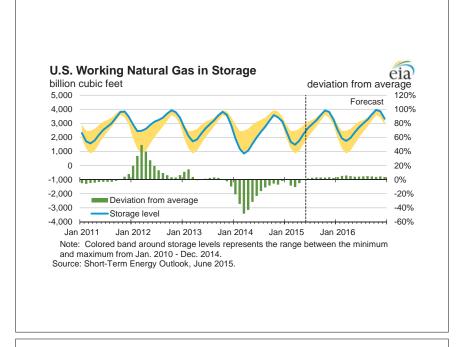


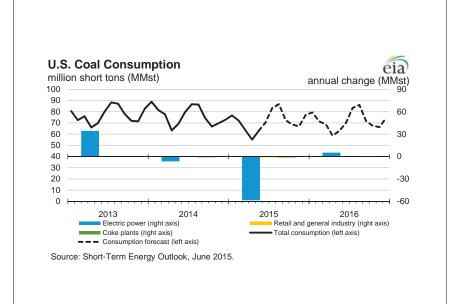


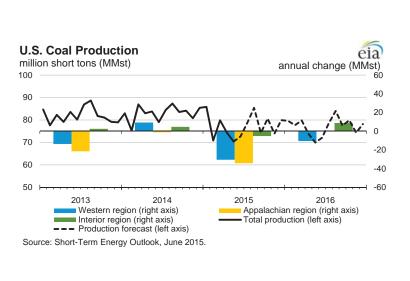


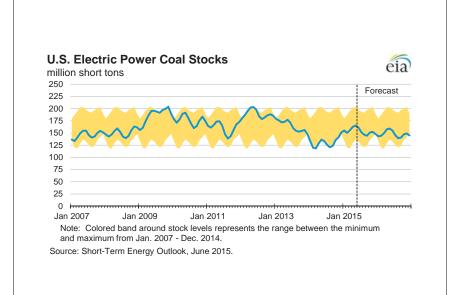


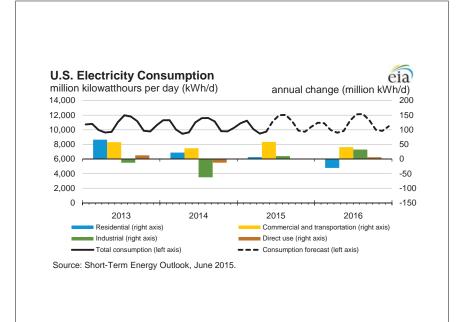


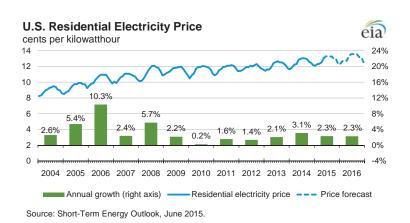


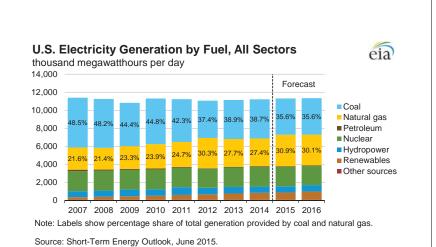


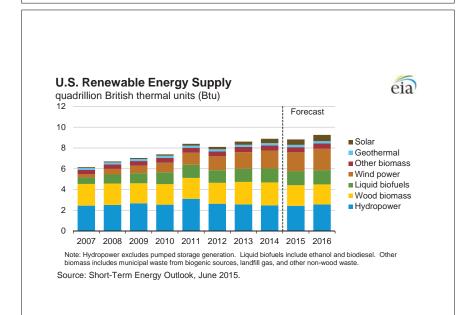


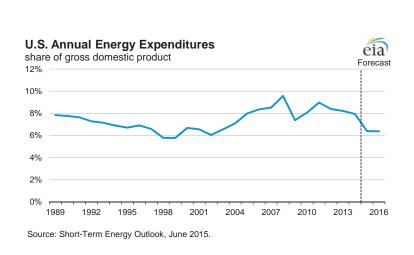


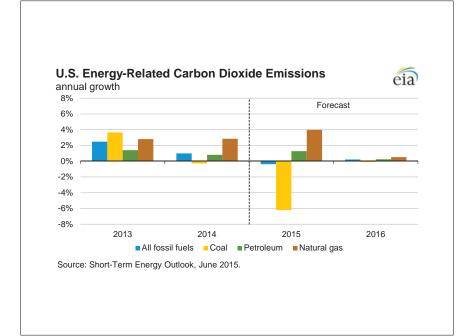


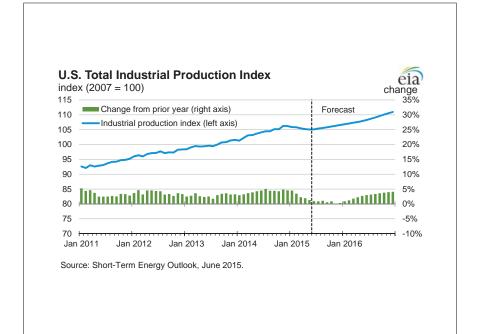


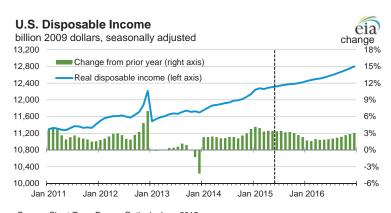




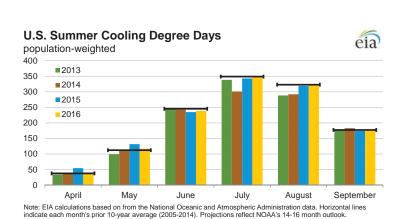




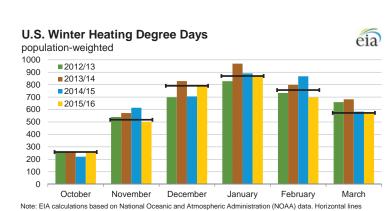




Source: Short-Term Energy Outlook, June 2015.



Source: Short-Term Energy Outlook, June 2015.



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, June 2015.

U.S. Census Regions and Divisions West Midwest Mountain Division West NorthCentral Division Out of the Central State of C

Northeast

South

Table SF01. U.S. Motor Gasoline Summer Outlook

U.S. Energy miormation Administration		2014	Outlook - Ju	3110 2010	2015		Year-o	ver-year ((percent)	•
	Q2	Q3	Season	Q2	Q3	Season	Q2	Q3	Season
Nominal Prices (dollars per gallon)									
WTI Crude Oil (Spot) ^a	2.46	2.33	2.39	1.36	1.39	1.38	-44.6	-40.4	-42.5
Brent Crude oil Price (Spot)	2.61	2.43	2.52	1.49	1.51	1.50	-43.0	-37.8	-40.5
U.S. Refiner Average Crude Oil Cost	2.41	2.30	2.35	1.34	1.37	1.35	-44.3	-40.5	-42.4
Wholesale Gasoline Price ^b	2.98	2.76	2.87	1.99	1.81	1.90	-33.3	-34.6	-33.9
Wholesale Diesel Fuel Price ^b	3.00	2.88	2.94	1.93	1.95	1.94	-35.4	-32.3	-33.9
Regular Gasoline Retail Price ^c	3.68	3.50	3.59	2.63	2.52	2.58	-28.3	-28.0	-28.2
Diesel Fuel Retail Price ^c	3.94	3.84	3.89	2.86	2.87	2.86	-27.3	-25.3	-26.3
Gasoline Consumption/Supply (million	day)								
Total Consumption	9.010	9.098	9.054	9.132	9.178	9.155	1.4	0.9	1.1
Total Refinery and Blender Output ^d	7.872	8.026	7.950	8.056	8.136	8.096	2.3	1.4	1.8
Fuel Ethanol Blending	0.892	0.886	0.889	0.894	0.908	0.901	0.2	2.5	1.4
Total Stock Withdrawal ^e	0.023	0.069	0.046	0.105	0.043	0.074			
Net Imports ^e	0.223	0.116	0.169	0.078	0.091	0.084	-65.1	-21.6	-50.1
Refinery Utilization (percent)	90.4	93.4	91.9	92.2	92.9	92.5			
Gasoline Stocks, Including Blending C	omponents	s (million b	arrels)						
Beginning	220.9	218.8	220.9	231.5	221.9	231.5			
Ending	218.8	212.5	212.5	221.9	218.0	218.0			
Economic Indicators (annualized billion	2000 dollaı	rs)							
Real GDP	16,010	16,206	16,108	16,382	16,487	16,434	2.3	1.7	2.0
Real Income	11,900	11,970	11,935	12,307	12,362	12,334	3.4	3.3	3.3

^a Spot Price of West Texas Intermediate (WTI) crude oil.

GDP = gross domestic product.

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

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

^b Price product sold by refiners to resellers.

^c Average pump price including taxes.

^d Refinery and blender net production plus finished motor gasoline adjustment.

^e Total stock withdrawal and net imports includes both finished gasoline and gasoline blend components.

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

	2010	2011	2012	2013	2014	Forecast 2015	Change from 2014
United States							
Usage (kWh)	3,471	3,444	3,354	3,126	3,021	3,100	2.6%
Price (cents/kWh)	12.00	12.06	12.09	12.57	13.02	13.29	2.1%
Expenditures	\$416	\$415	\$405	\$393	\$393	\$412	4.8%
New England							
Usage (kWh)	2,227	2,122	2,188	2,173	1,931	1,994	3.3%
Price (cents/kWh)	16.14	15.85	15.50	15.91	17.61	20.33	15.4%
Expenditures	\$359	\$336	\$339	\$346	\$340	\$405	19.2%
Mid-Atlantic							
Usage (kWh)	2,644	2,531	2,548	2,447	2,212	2,316	4.7%
Price (cents/kWh)	16.66	16.39	15.63	16.97	16.85	16.71	-0.9%
Expenditures	\$440	\$415	\$398	\$415	\$373	\$387	3.8%
East North Central							
Usage (kWh)	3,073	2,975	3,048	2,618	2,493	2,651	6.3%
Price (cents/kWh)	11.94	12.17	12.08	12.49	13.07	13.34	2.0%
Expenditures	\$367	\$362	\$368	\$327	\$326	\$354	8.5%
West North Central							
Usage (kWh)	3,558	3,517	3,547	3,098	2,996	3,138	4.7%
Price (cents/kWh)	10.74	11.16	11.50	12.54	12.45	12.61	1.2%
Expenditures	\$382	\$393	\$408	\$389	\$373	\$396	6.0%
South Atlantic							
Usage (kWh)	4,411	4,277	4,001	3,771	3,746	3,815	1.8%
Price (cents/kWh)	11.39	11.48	11.65	11.66	12.11	12.25	1.1%
Expenditures	\$502	\$491	\$466	\$440	\$454	\$467	3.0%
East South Central							
Usage (kWh)	4,902	4,750	4,467	4,078	4,001	4,129	3.2%
Price (cents/kWh)	9.90	10.28	10.36	10.63	11.09	11.09	0.0%
Expenditures	\$485	\$488	\$463	\$433	\$444	\$458	3.2%
West South Central							
Usage (kWh)	4,830	5,231	4,781	4,507	4,271	4,288	0.4%
Price (cents/kWh)	10.86	10.64	10.27	10.85	11.41	11.61	1.7%
Expenditures	\$525	\$557	\$491	\$489	\$487	\$498	2.1%
Mountain							
Usage (kWh)	3,340	3,322	3,440	3,380	3,231	3,330	3.1%
Price (cents/kWh)	11.25	11.29	11.55	11.87	12.37	12.70	2.7%
Expenditures	\$376	\$375	\$397	\$401	\$400	\$423	5.8%
Pacific							
Usage (kWh)	2,006	2,022	2,079	2,026	2,076	2,036	-1.9%
Price (cents/kWh)	12.95	13.22	13.78	14.36	15.20	15.98	5.2%
Expenditures	\$260	\$267	\$286	\$291	\$316	\$325	3.1%

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

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

Table 1. U.S. Energy Markets Summary

U.S. Energy Information Administr	ation S	Short-Te	rm Ener	gy Outlo	ook - Jur	ne 2015 20 °	15			20	16			Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
Energy Supply															
Crude Oil Production (a) (million barrels per day)	8.14	8.63	8.84	9.23	9.43	9.58	9.39	9.33	9.20	9.22	9.17	9.50	8.71	9.43	9.27
Dry Natural Gas Production (billion cubic feet per day)	67.84	69.33	71.30	73.31	73.55	74.25	74.81	75.07	75.68	75.71	75.82	76.47	70.46	74.43	75.92
Coal Production (million short tons)	245	246	255	250	237	217	238	235	237	216	240	232	997	927	925
Energy Consumption															
Liquid Fuels (million barrels per day)	18.81	18.71	19.16	19.45	19.29	19.19	19.53	19.61	19.18	19.41	19.63	19.70	19.03	19.41	19.48
Natural Gas (billion cubic feet per day)	95.10	61.20	61.75	76.19	97.12	64.49	65.94	79.68	94.82	64.84	66.26	80.68	73.48	76.73	76.63
Coal (b) (million short tons)	248	212	247	209	212	189	242	213	220	192	241	208	917	856	861
Electricity (billion kilowatt hours per day)	10.87	10.04	11.46	9.95	10.73	10.12	11.75	10.01	10.60	10.22	11.86	10.11	10.58	10.65	10.70
Renewables (c) (quadrillion Btu)	2.37	2.57	2.28	2.40	2.44	2.51	2.30	2.34	2.41	2.74	2.44	2.45	9.61	9.58	10.03
Total Energy Consumption (d) (quadrillion Btu)	26.59	23.01	24.07	24.79	26.28	22.86	24.16	2 <i>4</i> .73	26.04	23.16	24.38	24.92	98.46	98.02	98.51
Energy Prices															
Crude Oil (e) (dollars per barrel)	97.56	101.02	96.43	73.47	47.82	56.26	57.34	56.00	57.66	61.34	64.02	60.99	92.02	54.45	61.06
Natural Gas Henry Hub Spot (dollars per million Btu)	5.21	4.61	3.96	3.80	2.90	2.81	3.01	3.14	3.30	3.10	3.37	3.50	4.39	2.97	3.32
Coal (dollars per million Btu)	2.33	2.39	2.37	2.37	2.27	2.33	2.33	2.30	2.30	2.32	2.33	2.28	2.36	2.30	2.31
Macroeconomic															
Real Gross Domestic Product (billion chained 2009 dollars - SAAR) Percent change from prior year	15,832 1.9	16,010 2.6	16,206 2.7	16,295 2.4	16,305 3.0	16,382 2.3	16,487 1.7	16,584 1.8	16,684 2.3	16,787 2.5	16,911 2.6	17,057 2.9	16,086 2.4	16,439 2.2	16,860 2.6
GDP Implicit Price Deflator (Index, 2009=100) Percent change from prior year	107.7 1.4	108.3 1.7	108.6 1.6	108.7 1.2	108.7 0.9	109.4 1.0	109.8 1.1	110.4 1.6	111.1 2.2	111.6 2.1	112.2 2.1	112.8 2.1	108.3 1.5	109.6 1.2	111.9 2.1
Real Disposable Personal Income (billion chained 2009 dollars - SAAR) Percent change from prior year	11,810 2.4	11,900 2.2	11,970 2.3	12,077 3.1	12,259 3.8	12,307 3.4	12,362 3.3	12,400 2.7	12,474 1.8	12,536 1.9	12,635 2.2	12,755 2.9	11,939 2.5	12,332 3.3	12,600 2.2
Manufacturing Production Index (Index, 2007=100)	99.4 2.4	101.2 3.8	102.4 4.6	103.5 4.5	103.2 3.8	103.4 2.2	103.9 1.5	104.9 1.4	105.7 2.5	106.7 3.2	107.9 3.8	109.4 4.2	101.6 3.8	103.9 2.2	107.4 3.4
Weather															
U.S. Heating Degree-Days	2,449	480	80	1,541	2,341	451	76	1,545	2,130	480	77	1,543	4,550	4,413	4,229
U.S. Cooling Degree-Days	34	394	776	96	47	421	837	91	38	393	846	91	1,301	1,396	1,368

^{- =} 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.

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.

⁽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).

⁽e) Refers to the refiner average acquisition cost (RAC) of crude oil.

Table 2. U.S. Energy Prices

		201	4			201	15			20	16			Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
Crude Oil (dollars per barrel)															
West Texas Intermediate Spot Average	98.68	103.35	97.87	73.21	48.48	57.21	58.35	57.00	58.69	62.36	64.98	61.98	93.17	55.35	62.04
Brent Spot Average	108.14	109.70	101.90	76.43	53.91	62.54	63.35	62.00	63.69	67.36	69.98	66.98	98.89	60.53	67.04
Imported Average	94.10	98.59	93.82	71.27	45.96	53.71	54.84	53.50	55.15	58.80	61.50	58.52	89.57	51.95	58.58
Refiner Average Acquisition Cost	97.56	101.02	96.43	73.47	47.82	56.26	57.34	56.00	57.66	61.34	64.02	60.99	92.02	54.45	61.06
Liquid Fuels (cents per gallon)															
Refiner Prices for Resale															
Gasoline	272	298	276	203	159	199	181	160	171	198	197	170	262	175	184
Diesel Fuel	303	300	288	240	176	193	195	194	198	210	215	209	282	190	208
Heating Oil	303	289	276	228	178	189	186	191	193	195	201	203	274	185	198
Refiner Prices to End Users															
Jet Fuel	297	295	289	234	172	188	188	188	194	205	209	202	278	184	203
No. 6 Residual Fuel Oil (a)	249	244	243	194	135	141	147	144	144	148	157	152	230	141	150
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	340	368	350	288	227	263	252	233	239	268	268	242	336	244	255
Gasoline All Grades (b)	348	375	358	296	236	272	261	242	248	277	277	251	344	253	263
On-highway Diesel Fuel	396	394	384	358	292	286	287	287	292	306	310	306	383	288	304
Heating Oil	397	382	369	330	288	275	275	284	288	286	286	292	372	284	289
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	5.36	4.75	4.08	3.91	2.99	2.90	3.10	3.24	3.40	3.19	3.47	3.61	4.52	3.06	3.42
Henry Hub Spot (dollars per Million Btu)	5.21	4.61	3.96	3.80	2.90	2.81	3.01	3.14	3.30	3.10	3.37	3.50	4.39	2.97	3.32
End-Use Prices (dollars per thousand cubic feet)															
Industrial Sector	6.17	5.62	5.06	5.16	4.57	3.76	3.95	4.29	4.60	4.07	4.34	4.69	5.53	4.15	4.44
Commercial Sector	8.66	9.64	9.69	8.51	7.95	7.84	8.58	7.97	8.08	8.37	9.05	8.45	8.87	8.00	8.34
Residential Sector	9.82	13.11	16.92	10.52	9.29	11.52	15.87	10.15	9.19	12.05	16.26	10.37	10.94	10.23	10.38
Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.33	2.39	2.37	2.37	2.27	2.33	2.33	2.30	2.30	2.32	2.33	2.28	2.36	2.30	2.31
Natural Gas	6.82	4.93	4.25	4.30	4.09	3.54	3.76	4.12	4.24	3.82	4.07	4.43	4.98	3.86	4.13
Residual Fuel Oil (c)	19.97	20.44	19.75	14.72	10.90	11.90	12.22	12.00	11.89	12.83	13.06	12.88	19.18	11.51	12.66
Distillate Fuel Oil	23.40	22.77	21.88	18.72	15.29	15.52	15.26	15.74	15.98	16.39	16.76	17.15	22.34	15.41	16.53
End-Use Prices (cents per kilowatthour)															
Industrial Sector	6.99	6.92	7.36	6.76	6.76	6.78	7.29	6.67	6.82	6.85	7.38	6.78	7.01	6.88	6.96
Commercial Sector	10.55	10.68	11.11	10.59	10.50	10.78	11.21	10.60	10.64	10.93	11.37	10.77	10.75	10.79	10.95
Residential Sector	11.91	12.73	13.01	12.38	12.24	12.98	13.28	12.65	12.59	13.23	13.55	12.93	12.50	12.79	13.09

^{- =} 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.

Table 3a. International Petroleum and Other Liquids Production, Consumption, and Inventories

U.S. Energy Information Admini	ou auon	201		Jigy Out	look - Ju	2013	15	I		201	16	I		Year	
	1st	201 2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
Supply (million barrels per day) (a)	101	Lilu	oru	4611		Ziid	o.u	401	101	2114	oru		2014	20.0	
OECD	25.10	25.49	25.74	26.59	26.70	26.74	26.79	26.92	26.67	26.83	26.97	27.52	25.73	26.79	27.00
U.S. (50 States)		13.94	14.29	14.75	14.77	15.09	15.04	15.01	14.82	14.97	15.03	15.47	14.03	14.98	15.07
Canada		4.27	4.33	4.51	4.72	4.59	4.78	4.92	4.94	5.02	5.11	5.24	4.38	4.75	5.08
Mexico	2.89	2.86	2.79	2.71	2.68	2.71	2.68	2.66	2.61	2.59	2.57	2.54	2.81	2.68	2.58
North Sea (b)		2.82	2.72	3.03	2.98	2.77	2.69	2.75	2.71	2.66	2.64	2.68	2.91	2.80	2.68
Other OECD		1.60	1.61	1.58	1.55	1.59	1.61	1.58	1.59	1.59	1.62	1.59	1.59	1.58	1.60
Non-OECD	66.71	66.95	67.84	68.20	67.70	68.58	68.90	68.60	67.78	68.44	68.90	68.78	67.43	68.45	68.48
OPEC	36.26	35.97	36.55	36.61	36.59	37.18	37.26	37.26	36.98	37.10	37.21	37.32	36.35	37.08	37.15
Crude Oil Portion		29.70	30.28	30.34	30.29	30.84	30.87	30.82	30.45	30.52	30.58	30.65	30.08	30.71	30.55
Other Liquids		6.26	6.27	6.27	6.30	6.35	6.39	6.44	6.53	6.58	6.62	6.67	6.27	6.37	6.60
Eurasia	13.90	13.84	13.85	14.01	14.05	13.90	13.82	13.77	13.73	13.71	13.74	13.73	13.90	13.88	13.73
China		4.58	4.51	4.66	4.62	4.62	4.61	4.61	4.59	4.62	4.62	4.63	4.58	4.61	4.62
Other Non-OECD	11.98	12.57	12.93	12.92	12.45	12.89	13.20	12.96	12.49	13.01	13.32	13.10	12.61	12.88	12.98
Total World Supply	91.81	92.45	93.57	94.78	94.40	95.33	95.69	95.53	94.45	95.27	95.87	96.30	93.16	95.24	95.48
Total World Supply	31.01	32.43	33.31	34.70	34.40	30.33	33.03	90.00	34.40	90.27	33.07	90.30	33.10	33.24	30.40
Non-OPEC Supply	55.55	56.48	57.03	58.17	57.81	58.15	58.43	58.27	57.48	58.18	58.66	58.99	56.82	58.16	58.33
Consumption (million barrels per day) (c)														
OECD	45.73	44.76	45.82	46.34	46.51	45.16	46.02	46.66	46.51	45.49	46.25	46.86	45.66	46.09	46.28
U.S. (50 States)	18.81	18.71	19.16	19.45	19.29	19.19	19.53	19.61	19.18	19.41	19.63	19.70	19.03	19.41	19.48
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	2.45	2.40	2.38	2.32	2.43	2.41	2.38	2.32	2.43	2.41	2.41	2.38	2.38
Europe	12.98	13.37	13.86	13.42	13.50	13.22	13.66	13.62	13.60	13.32	13.77	13.72	13.41	13.50	13.60
Japan	5.02	3.87	3.88	4.40	4.58	3.85	3.88	4.25	4.51	3.80	3.83	4.19	4.29	4.14	4.08
Other OECD	6.14	6.11	6.11	6.31	6.39	6.20	6.15	6.39	6.44	6.25	6.20	6.44	6.17	6.28	6.33
Non-OECD	45.32	46.65	47.04	46.50	46.00	47.57	47.92	47.35	47.12	48.74	49.09	48.50	46.38	47.21	48.36
Eurasia	4.82	4.76	4.98	4.96	4.61	4.55	4.82	4.80	4.53	4.47	4.73	4.71	4.88	4.70	4.61
Europe	0.71	0.71	0.74	0.73	0.72	0.72	0.74	0.74	0.73	0.73	0.75	0.75	0.72	0.73	0.74
China	10.28	10.85	10.80	10.76	10.60	11.18	11.13	11.09	10.93	11.53	11.48	11.43	10.67	11.00	11.34
Other Asia	11.65	11.87	11.43	11.74	11.95	12.17	11.72	12.04	12.35	12.58	12.10	12.43	11.67	11.97	12.36
Other Non-OECD	17.86	18.46	19.11	18.31	18.11	18.95	19.51	18.68	18.58	19.44	20.03	19.17	18.44	18.82	19.31
Total World Consumption	91.05	91.40	92.86	92.84	92.51	92.73	93.94	94.00	93.63	94.24	95.34	95.36	92.05	93.30	94.64
Inventory Net Withdrawals (million ba	rrels per d	ay)													
U.S. (50 States)	0.09	-0.67	-0.23	-0.23	-0.58	-0.51	-0.03	0.57	0.12	-0.24	-0.01	0.52	-0.26	-0.13	0.10
Other OECD	-0.31	-0.05	-0.49	0.10	-0.49	-0.74	-0.61	-0.76	-0.35	-0.28	-0.18	-0.53	-0.19	-0.65	-0.33
Other Stock Draws and Balance	-0.53	-0.33	0.01	-1.81	-0.83	-1.35	-1.11	-1.33	-0.60	-0.52	-0.33	-0.94	-0.67	-1.16	-0.60
Total Stock Draw	-0.75	-1.04	-0.71	-1.95	-1.89	-2.60	-1.75	-1.53	-0.83	-1.04	-0.52	-0.95	-1.12	-1.94	-0.83
End-of-period Inventories (million bar	rels)														
U.S. Commercial Inventory	1,057	1,123	1,144	1,165	1,217	1,262	1,265	1,213	1,202	1,224	1,225	1,177	1,165	1,213	1,177
OECD Commercial Inventory	2,569	2,637	2,705	2,718	2,814	2,926	2,985	3,002	3,023	3,070	3,088	3,089	2,718	3,002	3,089

^{- =} 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.

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.

 $\textbf{Historical data:} \ Latest\ data\ available\ from\ Energy\ Information\ Administration\ international\ energy\ statistics.$

 $\label{thm:minor} \mbox{Minor discrepancies with published historical data are due to independent rounding.}$

 $[\]begin{tabular}{ll} \textbf{(b) Includes offshore supply from Denmark, Germany, the Netherlands, Norway, and the United Kingdom.} \end{tabular}$

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

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

Temper	0.3. Energy information Administration	Onon-	20		.iook - 50	2015					20	16			Year	
Cannada		1st			4th	1st			4th	1st			4th	2014		2016
Cannada																
Mexico 2.89 2.86 2.79 2.71 2.88 2.77 2.58 2.66 2.67 2.59 2.57 2.58 2.68 2.59 2.57 2.58 2.68 2.59 2.57 2.58 2.68 2.59 2.57 2.58 2.68 2.59 2.57 2.58 2.68 2.58 2.68 2.58														-		
Central and South America																
Central and South America																
Argentina	United States	13.13	13.94	14.29	14.75	14.77	15.09	15.04	15.01	14.82	14.97	15.03	15.47	14.03	14.98	15.07
Exercisi	Central and South America	4.55	5.17	5.56	5.39	4.93	5.41	5.70	5.44	4.98	5.50	5.78	5.52	5.17	5.37	5.45
Columbia 1.03 0.99 1.02 1.03 0.49 0.49 0.49 0.49 0.49 0.50 0.50 0.50 0.50 0.51 0.50 0.49 0.49 0.49 0.50 0.5	Argentina	0.70	0.71	0.73	0.73	0.70	0.72	0.74	0.74	0.70	0.73	0.75	0.75	0.72	0.72	0.73
Cher Central and S. America Q.49 Q.49 Q.49 Q.49 Q.49 Q.49 Q.50 Q.50 Q.50 Q.50 Q.51 Q.51 Q.50 Q.49 Q.49 Q.50 Q.50	Brazil	2.34	2.98	3.32	3.15	2.71	3.21	3.44	3.17	2.75	3.28	3.52	3.25	2.95	3.14	3.20
Europe	Colombia	1.03	0.99	1.02	1.03	1.04	0.99	1.01	1.03	1.03	0.98	1.01	1.02	1.02	1.02	1.01
Norway 1.97 1.80 1.87 1.98 1.91 1.77 1.85 1.82 1.80 1.82 1.83 1.90 1.83 1.82 United Kingdom (offshore) 0.93 0.85 0.66 0.84 0.86 0.81 0.75 0.73 0.72 0.88 0.65 0.67 0.82 0.79 0.88 0.86 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.86 0.87 0.87 0.86 0.87	Other Central and S. America	0.49	0.49	0.49	0.49	0.48	0.49	0.50	0.50	0.50	0.51	0.51	0.50	0.49	0.49	0.50
United Kingdom (offshore)	Europe	4.06	3.81	3.70	4.02	3.95	3.73	3.65	3.71	3.67	3.61	3.60	3.64	3.90	3.76	3.63
Cher North Sea	Norway	1.97	1.80	1.87	1.98	1.91	1.79	1.77	1.85	1.82	1.80	1.82	1.83	1.90	1.83	1.82
Burasia	United Kingdom (offshore)	0.93	0.85	0.66	0.84	0.86	0.81	0.75	0.73	0.72	0.68	0.65	0.67	0.82	0.79	0.68
Azerbajian	Other North Sea	0.18	0.16	0.19	0.21	0.20	0.18	0.17	0.17	0.18	0.18	0.17	0.18	0.19	0.18	0.18
Azerbaijan	Eurasia	13.91	13.85	13.87	14.02	14.06	13.91	13.83	13.78	13.75	13.72	13.75	13.75	13.91	13.90	13.74
Razakhstan 1.73 1.66 1.71 1.78 1.76 1.73 1.69 1.69 1.70 1.71 1.71 1.74 1.72 1.72 1.72 Russia 10.86 10.83 10.79 10.93 10.92 10.80 10.76 10.71 10.67 10.64 10.68 10.64 10.85 10.80 10.66 10.85 10.80 10.66 10.85 10.80 10.66 10.85 10.80 10.66 10.85 10.80 10.66 10.85 10.80 10.66 10.85 10.80 10.66 10.85 10.80 10.66 10.85 10.80 10.66 10.85 10.80 10.66 10.85 10.80 10.66 10.85 10.80 10.66 10.85 10.80 10.66 10.85 10.80 10.66 10.85 10.80 10.66 10.85 10.80 10.85 10.80 10.66 10.85 10.80 10.85																
Russia	•															
Turkmenistan	Russia	10.86	10.83	10.79	10.93	10.92	10.80	10.76	10.71	10.67	10.64	10.68	10.64	10.85	10.80	10.66
Other Eurasia 0.20 0.21 0.21 0.20 0.24 0.24 0.23 0.22 0.22 0.21 0.21 0.23 0.21 Middle East 1.19 1.17 1.20 1.16 1.12 1.13 1.13 1.13 1.12 1.10 1.10 1.09 1.18 1.13 1.10 Oman 0.96 0.95 0.96 0.94 0.87 0.88 0.88 0.80 0.94 0.93 0.93 0.93 0.95 0.88 0.93 Syria 0.03 0.03 0.03 0.03 0.03 0.05 0.05 0.05 0.01 0.01 0.00 0.03 0.05 0.09 Asia and Oceania 9.09 9.10 8.98 9.28 9.29 9.30 9.35 9.36 9.37 9.43 9.48 9.41 9.43 9.48 9.48 9.41 9.33 9.44 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.49		0.27		0.28	0.26				0.28	0.28		0.28	0.28		0.28	0.28
Oman 0.96 0.95 0.96 0.94 0.87 0.88 0.88 0.94 0.93 0.93 0.93 0.95 0.88 0.93 Syria 0.03 0.03 0.03 0.03 0.05 0.05 0.05 0.05 0.01 0.01 0.01 0.00 0.03 0.05 0.01 Yemen 0.13 0.13 0.13 0.12 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.01 0.01 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.9		0.20	0.21	0.21	0.20	0.24	0.24	0.23	0.22	0.22	0.22	0.21	0.21	0.21	0.23	0.21
Oman 0.96 0.95 0.96 0.94 0.87 0.88 0.88 0.94 0.93 0.93 0.93 0.95 0.88 0.93 Syria 0.03 0.03 0.03 0.03 0.05 0.05 0.05 0.05 0.01 0.01 0.01 0.00 0.03 0.05 0.01 Yemen 0.13 0.13 0.13 0.12 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.01 0.01 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.9	Middle East	1.19	1.17	1.20	1.16	1.12	1.13	1.13	1.13	1.12	1.10	1.10	1.09	1.18	1.13	1.10
Yemen 0.13 0.13 0.13 0.13 0.12 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.09 0.09 0.09 0.09 0.09 0.13 0.13 0.00 Asia and Oceania 9.09 9.10 8.98 9.28 9.29 9.30 9.35 9.36 9.37 9.43 9.48 9.11 9.33 9.44 Australia 0.47 0.48 0.49 0.44 0.49 0.51 0.48 0.49 0.48 0.49 0.48 0.49 0.48 0.49 0.40 0.51 0.49 0.48 0.49 0.49 0.48 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99		0.96	0.95	0.96			0.88	0.88		0.94	0.93		0.93	0.95		0.93
Asia and Oceania 9.09 9.10 8.98 9.28 9.29 9.30 9.35 9.36 9.37 9.43 9.48 9.48 9.11 9.33 9.44 Australia 0.47 0.48 0.49 0.47 0.44 0.49 0.51 0.48 0.49 0.49 0.51 0.49 0.49 0.51 0.49 0.48 0.49 0.49 0.51 0.49 0.49 0.51 0.49 0.48 0.49 0.49 0.51 0.49 0.49 0.51 0.49 0.48 0.49 0.49 0.51 0.49 0.48 0.49 0.49 0.51 0.49 0.48 0.49 0.49 0.51 0.49 0.48 0.49 0.49 0.51 0.49 0.48 0.49 0.49 0.51 0.49 0.48 0.49 0.49 0.51 0.49 0.48 0.49 0.49 0.51 0.49 0.49 0.51 0.49 0.48 0.49 0.49 0.51 0.49 0.48 0.49 0.49 0.51 0.49 0.49 0.51 0.49 0.48 0.49 0.49 0.51 0.49 0.49 0.51 0.49 0.49 0.51 0.49 0.59 0.59 0.59 0.59 0.59 0.59 0.59 0.5	Syria	0.03	0.03	0.03	0.03	0.05	0.05	0.05	0.05	0.01	0.01	0.01	0.00	0.03	0.05	0.01
Australia	Yemen	0.13	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.10	0.09	0.09	0.09	0.13	0.13	0.09
Australia 0.47 0.48 0.49 0.47 0.44 0.49 0.51 0.48 0.49 0.51 0.48 0.49 0.51 0.49 0.48 0.49 0.48 0.49 0.51 0.49 0.48 0.48 0.49 China 4.57 4.58 4.51 4.66 4.62 4.61 4.61 4.59 4.62 4.62 4.63 4.58 4.61 4.62 India 0.98 0.98 0.99	Asia and Oceania	9.09	9.10	8.98	9.28	9.29	9.30	9.35	9.36	9.37	9.43	9.48	9.48	9.11	9.33	9.44
India		0.47	0.48	0.49	0.47	0.44	0.49		0.48	0.49	0.49	0.51	0.49	0.48		0.49
Indonesia	China	4.57	4.58	4.51	4.66	4.62	4.62	4.61	4.61	4.59	4.62	4.62	4.63	4.58	4.61	4.62
Malaysia 0.69 0.69 0.66 0.75 0.80 0.73 0.75 0.76 0.75 0.76 0.77 0.77 0.70 0.76 0.76 Vietnam 0.33 0.32 0.32 0.35 0.36 0.38 0.39 0.40 0.41 0.42 0.43 0.44 0.33 0.38 0.43 Africa 2.32 2.31 2.31 2.33 2.29 2.28 2.27 2.25 2.22 2.23 2.25 2.32 2.27 2.23 Egypt 0.70 0.70 0.70 0.70 0.72 0.71 0.71 0.70 0.70 0.68 0.68 0.68 0.67 0.71 0.71 0.68 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 0.29 0.29 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21	India	0.98	0.98	0.96	0.99	0.98	0.98	0.99	0.99	0.99	0.99	0.99	0.99	0.98	0.98	0.99
Africa 2.32 2.31 2.31 2.33 2.29 2.28 2.27 2.25 2.22 2.23 2.32 2.32 2.31 2.31 2.33 2.29 2.28 2.27 2.25 2.22 2.23 2.23 2.27 2.23 Egypt 0.70 0.70 0.70 0.72 0.71 0.71 0.70 0.69 0.68 0.68 0.67 0.71 0.71 0.68 Equatorial Guinea 0.29 0.29 0.29 0.29 0.27 0.27 0.27 0.27 0.25 0.25 0.25 0.29 0.29 0.29 0.21	Indonesia	0.92	0.92	0.91	0.90	0.93	0.94	0.94	0.95	0.96	0.97	0.97	0.98	0.91	0.94	0.97
Africa 2.32 2.31 2.31 2.33 2.29 2.28 2.27 2.25 2.22 2.23 2.23 2.27 2.23 Egypt 0.70 0.70 0.70 0.72 0.71 0.71 0.70 0.69 0.68 0.68 0.67 0.71 0.71 0.68 Equatorial Guinea 0.29 0.29 0.29 0.29 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	Malaysia	0.69	0.69	0.66	0.75	0.80	0.73	0.75	0.76	0.75	0.76	0.77	0.77	0.70	0.76	0.76
Egypt 0.70 0.70 0.70 0.72 0.71 0.71 0.70 0.69 0.68 0.68 0.67 0.71 0.71 0.68 Equatorial Guinea 0.29 0.29 0.29 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 0.26	Vietnam	0.33	0.32	0.32	0.35	0.36	0.38	0.39	0.40	0.41	0.42	0.43	0.44	0.33	0.38	0.43
Egypt 0.70 0.70 0.70 0.72 0.71 0.71 0.70 0.70 0.69 0.68 0.68 0.67 0.71 0.71 0.68 Equatorial Guinea 0.29 0.29 0.29 0.29 0.27 0.27 0.27 0.27 0.27 0.25 0.25 0.25 0.25 0.29 0.29 0.27 0.25 Gabon 0.22 0.22 0.22 0.22 0.21 0.21 0.21	Africa	2.32	2.31	2.31	2.33	2.29	2.28	2.27	2.25	2.22	2.23	2.23	2.25	2.32	2.27	2.23
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 0.25 0.29 0.27 0.27 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25		0.70	0.70	0.70	0.72	0.71	0.71	0.70	0.70	0.69	0.68	0.68	0.67	0.71	0.71	0.68
Gabon 0.22 0.22 0.22 0.22 0.21 0.26 0.28 0.28 0.28 0.28 <t< td=""><td></td><td>0.29</td><td>0.29</td><td>0.29</td><td>0.29</td><td></td><td>0.27</td><td></td><td>0.27</td><td>0.25</td><td></td><td></td><td>0.25</td><td></td><td>0.27</td><td>0.25</td></t<>		0.29	0.29	0.29	0.29		0.27		0.27	0.25			0.25		0.27	0.25
Total non-OPEC liquids	•	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
OPEC non-crude liquids	Sudan	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
·	Total non-OPEC liquids	55.55	56.48	57.03	58.17	57.81	58.15	58.43	58.27	57.48	58.18	58.66	58.99	56.82	58.16	58.33
·	OPEC non-crude liquids	6.25	6.26	6.27	6.27	6.30	6.35	6.39	6.44	6.53	6.58	6.62	6.67	6.27	6.37	6.60
	•															64.93
Unplanned non-OPEC Production Outages 0.66 0.67 0.60 0.57 0.60 n/a	Unplanned non-OPEC Production Outages	0.66	0.67	0.60	0.57	0.60	n/a	0.62	n/a	n/a						

^{- =} 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.

Sudan production represents total production from both north and south.

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

C.C. Energy information / Grinning ratio	2014				ouric 20)15			20	16			Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
Crude Oil															
Algeria	1.15	1.15	1.15	1.15	1.10	-	-	-	-	-	-	-	1.15	-	-
Angola	1.63	1.63	1.72	1.73	1.75	-	-	-	-	-	-	-	1.68	-	-
Ecudaor	0.55	0.56	0.56	0.56	0.55	-	-	-	-	-	-	-	0.56	-	-
Iran	2.80	2.80	2.80	2.80	2.80	-	-	-	-	-	-	-	2.80	-	-
Iraq	3.26	3.29	3.28	3.53	3.57	-	-	-	-	-	-	-	3.34	-	-
Kuwait	2.60	2.60	2.60	2.48	2.57	-	-	-	-	-	-	-	2.57	-	-
Libya	0.38	0.23	0.58	0.69	0.40	-	-	-	-	-	-	-	0.47	-	-
Nigeria	2.00	1.97	2.07	1.98	2.03	-	-	-	-	-	-	-	2.00	-	-
Qatar	0.74	0.73	0.72	0.68	0.68	-	-	-	-	-	-	-	0.72	-	-
Saudi Arabia	9.80	9.65	9.70	9.63	9.73	-	-	-	-	-	-	-	9.70	-	-
United Arab Emirates	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	-	-
OPEC Total	30.01	29.70	30.28	30.34	30.29	30.84	30.87	30.82	30.45	30.52	30.58	30.65	30.08	30.71	30.55
Other Liquids	6.25	6.26	6.27	6.27	6.30	6.35	6.39	6.44	6.53	6.58	6.62	6.67	6.27	6.37	6.60
Total OPEC Supply	36.26	35.97	36.55	36.61	36.59	37.18	37.26	37.26	36.98	37.10	37.21	37.32	36.35	37.08	37.15
Crude Oil Production Capacity															
Africa	5.15	4.97	5.51	5.55	5.31	5.27	5.26	5.35	5.40	5.41	5.43	5.44	5.29	5.30	5.42
South America	2.95	2.95	2.95	2.95	2.95	2.96	2.96	2.96	2.86	2.88	2.87	2.88	2.95	2.96	2.87
Middle East	23.93	23.88	23.86	23.82	23.93	24.26	24.33	24.35	24.32	24.36	24.41	24.45	23.87	24.22	24.38
OPEC Total	32.02	31.80	32.32	32.32	32.19	32.48	32.55	32.66	32.58	32.65	32.71	32.77	32.12	32.47	32.68
Surplus Crude Oil Production Capacity															
Africa	0.00	0.00	0.00	0.00	0.03	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	2.04	1.98	1.86	1.65	1.68	1.84	2.13	2.12	2.13	2.13	2.03	1.76	2.13
OPEC Total	2.01	2.09	2.04	1.98	1.90	1.65	1.68	1.84	2.13	2.12	2.13	2.13	2.03	1.77	2.13
Unplanned OPEC Production Outages	2.32	2.57	2.26	2.43	2.53	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 Fast)

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

 $\textbf{Historical data:} \ Latest \ data \ available \ from \ Energy \ Information \ Administration \ international \ energy \ statistics.$

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

 $\textbf{Projections:} \ \mathsf{EIA} \ \mathsf{Regional} \ \mathsf{Short}\text{-}\mathsf{Term} \ \mathsf{Energy} \ \mathsf{Model}.$

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

U.S. Energy Information Administration S	Short-Ter		,,	ok - June	2015		4.5				40				
	Q1	Q2	14 Q3	Q4	Q1	20 Q2	15 Q3	Q4	Q1	Q2	16 Q3	Q4	2014	2015	2016
_	ŲΙ	Q2	ųз	Q4	QΙ	Ų2	ųз	Q4	Ų I	Q2	ųз	Q4	2014	2015	2016
North America	. 23.20	23.03	23.58	23.88	23.61	23.47	23.89	23.97	23.48	23.66	23.97	24.04	23.43	23.74	23.79
Canada		2.34	2.45	2.40	2.38	2.32	2.43	2.41	2.38	2.32	2.43	2.41	2.41	2.38	2.38
Mexico		1.97	1.96	2.02	1.93	1.95	1.92	1.93	1.91	1.93	1.90	1.91	1.98	1.93	1.91
United States		18.71	19.16	19.45	19.29	19.19	19.53	19.61	19.18	19.41	19.63	19.70	19.03	19.41	19.48
Central and South America	. 7.05	7.30	7.33	7.33	7.10	7.37	7.41	7.38	7.17	7.44	7.47	7.45	7.25	7.32	7.38
Brazil	3.03	3.14	3.21	3.20	3.03	3.14	3.21	3.20	3.06	3.18	3.24	3.23	3.15	3.15	3.18
Europe	13.69	14.08	14.60	14.15	14.21	13.94	14.40	14.36	14.32	14.06	14.52	14.47	14.13	14.23	14.34
Eurasia		4.79	5.01	4.99	4.65	4.58	4.85	4.83	4.56	4.50	4.76	4.75	4.91	4.73	4.64
Russia	3.49	3.45	3.65	3.63	3.29	3.25	3.44	3.42	3.14	3.10	3.28	3.26	3.56	3.35	3.20
Middle East	7.98	8.33	8.98	8.19	8.13	8.72	9.29	8.44	8.41	9.02	9.63	8.74	8.37	8.65	8.95
Asia and Oceania		30.15	29.67	30.59	30.91	30.78	30.27	31.16	31.64	31.53	31.00	31.91	30.24	30.78	31.52
China		10.85	10.80	10.76	10.60	11.18	11.13	11.09	10.93	11.53	11.48	11.43	10.67	11.00	11.34
Japan		3.87	3.88	4.40	4.58	3.85	3.88	4.25	4.51	3.80	3.83	4.19	4.29	4.14	4.08
India	3.73	3.72	3.41	3.68	3.93	3.91	3.59	3.88	4.12	4.10	3.76	4.07	3.63	3.82	4.01
Africa	3.73	3.73	3.68	3.70	3.89	3.88	3.84	3.86	4.04	4.03	3.99	4.01	3.71	3.86	4.02
Total OECD Liquid Fuels Consumption	45.73	44.76	45.82	46.34	46.51	45.16	46.02	46.66	46.51	45.49	46.25	46.86	45.66	46.09	46.28
Total non-OECD Liquid Fuels Consumption	45.32	46.65	47.04	46.50	46.00	47.57	47.92	47.35	47.12	48.74	49.09	48.50	46.38	47.21	48.36
Total World Liquid Fuels Consumption	91.05	91.40	92.86	92.84	92.51	92.73	93.94	94.00	93.63	94.24	95.34	95.36	92.05	93.30	94.64
Oil-weighted Real Gross Domestic Product (a)															
World Index, 2010 Q1 = 100		114.1	115.0	115.8	116.1	116.9	117.7	118.6	119.4	120.4	121.4	122.4	114.5	117.3	120.9
Percent change from prior year		2.8	2.7	2.6	2.4	2.5	2.4	2.5	2.9	3.0	3.1	3.2	2.8	2.4	3.0
OECD Index, 2010 Q1 = 100		110.6	111.3	111.9	112.2	112.8	113.5	114.1	114.8	115.5	116.2	117.1	111.0	113.2	115.9
Percent change from prior year		1.9	1.9	1.8	2.0	2.0	1.9	2.0	2.3	2.4	2.5	2.6	1.9	2.0	2.4
Non-OECD Index, 2010 Q1 = 100		118.5	119.5	120.6	120.8	122.1	123.1	124.3	125.1	126.5	127.9	129.2	119.0	122.6	127.2
Percent change from prior year	. 3.9	3.9	3.8	3.6	3.0	3.0	3.0	3.1	3.5	3.6	3.9	4.0	3.8	3.0	3.8
Real U.S. Dollar Exchange Rate (a)															
Index, January 2010 = 100		108.08	109.20	113.83	119.41	119.58	120.53	121.57	121.83	121.79	121.68	121.67	109.86	120.27	121.74
Percent change from prior year	. 3.9	2.1	1.9	6.7	10.2	10.6	10.4	6.8	2.0	1.8	1.0	0.1	3.7	9.5	1.2

^{- =} no data available

OECD = Organisation for Economic Co-operation and Development: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Finland,

France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal,

 $Slovakia,\,Slovenia,\,South\,Korea,\,Spain,\,Sweden,\,Switzerland,\,Turkey,\,the\,\,United\,\,Kingdom,\,and\,\,the\,\,United\,\,States.$

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

 $\textbf{Historical data:} \ Latest\ data\ available\ from\ Energy\ Information\ Administration\ international\ energy\ statistics.$

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

 $\begin{picture}(100,0)\put(0,0){\line(1,0){100}} \put(0,0){\line(1,0){100}} \put(0,0){\line(1,0){100$

⁽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.

Table 4a. U.S. Petroleum and Other Liquids Supply, Consumption, and Inventories

O.O. Energy information Administration O.	2014				2010	20	15			20	16			Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
Supply (million barrels per day)															
Crude Oil Supply															
Domestic Production (a)	8.14	8.63	8.84	9.23	9.43	9.58	9.39	9.33	9.20	9.22	9.17	9.50	8.71	9.43	9.27
Alaska	0.53	0.52	0.43	0.51	0.50	0.49	0.42	0.49	0.47	0.46	0.42	0.47	0.50	0.48	0.45
Federal Gulf of Mexico (b)	1.31	1.42	1.43	1.43	1.43	1.46	1.49	1.57	1.61	1.60	1.48	1.58	1.40	1.49	1.57
Lower 48 States (excl GOM)	6.30	6.70	6.97	7.29	7.51	7.63	7.48	7.27	7.12	7.15	7.28	7.45	6.82	7.47	7.25
Crude Oil Net Imports (c)	7.11	6.94	7.15	6.76	6.84	6.54	6.56	6.22	6.25	6.52	6.86	6.18	6.99	6.54	6.45
SPR Net Withdrawals	0.00	0.05	0.00	0.00	0.00	-0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Commercial Inventory Net Withdrawals	-0.30	0.00	0.25	-0.36	-0.90	0.01	0.20	0.19	-0.21	0.13	0.25	0.13	-0.10	-0.12	0.07
Crude Oil Adjustment (d)	0.23	0.26	0.11	0.31	0.15	0.07	0.20	0.13	0.19	0.19	0.20	0.13	0.23	0.14	0.18
Total Crude Oil Input to Refineries	15.18	15.88	16.35	15.95	15.53	16.18	16.35	15.88	15.43	16.05	16.48	15.94	15.84	15.99	15.98
Other Supply															
Refinery Processing Gain	1.07	1.08	1.09	1.10	0.99	1.05	1.09	1.09	1.05	1.07	1.10	1.09	1.09	1.05	1.08
Natural Gas Plant Liquids Production	2.71	2.95	3.09	3.11	3.09	3.20	3.27	3.31	3.31	3.41	3.46	3.58	2.96	3.22	3.44
Renewables and Oxygenate Production (e)	1.01	1.06	1.06	1.07	1.05	1.05	1.06	1.06	1.05	1.06	1.07	1.07	1.05	1.06	1.06
Fuel Ethanol Production	0.91	0.94	0.93	0.96	0.96	0.94	0.93	0.92	0.92	0.93	0.94	0.94	0.94	0.94	0.93
Petroleum Products Adjustment (f)	0.20	0.22	0.22	0.24	0.20	0.21	0.22	0.22	0.21	0.23	0.23	0.23	0.22	0.21	0.22
Product Net Imports (c)	-1.73	-1.76	-2.17	-2.14	-1.89	-2.00	-2.23	-2.32	-2.20	-2.03	-2.44	-2.60	-1.95	-2.11	-2.32
Hydrocarbon Gas Liquids	-0.37	-0.58	-0.66	-0.64	-0.68	-0.79	-0.88	-0.86	-0.92	-1.01	-1.02	-1.12	-0.56	-0.80	-1.02
Unfinished Oils	0.46	0.49	0.32	0.35	0.26	0.51	0.48	0.41	0.39	0.50	0.46	0.41	0.40	0.41	0.44
Other HC/Oxygenates	-0.09	-0.09	-0.08	-0.09	-0.08	-0.08	-0.05	-0.04	-0.08	-0.06	-0.03	-0.03	-0.09	-0.06	-0.05
Motor Gasoline Blend Comp	0.29	0.58	0.45	0.42	0.41	0.50	0.45	0.41	0.42	0.61	0.45	0.37	0.44	0.44	0.46
Finished Motor Gasoline		-0.36	-0.34	-0.47	-0.44	-0.43	-0.36	-0.43	-0.45	-0.42	-0.43	-0.42	-0.39	-0.41	-0.43
Jet Fuel	-0.07	-0.02	-0.09	-0.09	-0.06	-0.01	-0.05	-0.08	-0.05	0.01	-0.05	-0.09	-0.07	-0.05	-0.04
Distillate Fuel Oil	-0.67	-1.01	-1.08	-0.92	-0.67	-0.90	-1.00	-0.95	-0.72	-0.85	-0.99	-0.95	-0.92	-0.88	-0.88
Residual Fuel Oil	-0.24	-0.18	-0.18	-0.16	-0.13	-0.21	-0.25	-0.21	-0.24	-0.26	-0.25	-0.21	-0.19	-0.20	-0.24
Other Oils (g)	-0.64	-0.58	-0.51	-0.53	-0.50	-0.59	-0.57	-0.56	-0.54	-0.56	-0.58	-0.57	-0.57	-0.56	-0.56
Product Inventory Net Withdrawals	0.39	-0.72	-0.48	0.12	0.32	-0.50	-0.23	0.37	0.33	-0.36	-0.26	0.39	-0.17	-0.01	0.02
Total Supply	18.84	18.71	19.16	19.45	19.29	19.19	19.53	19.61	19.18	19.41	19.63	19.70	19.04	19.41	19.48
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	2.66	2.06	2.26	2.60	2.72	2.22	2.39	2.73	2.75	2.34	2.41	2.75	2.40	2.52	2.56
Unfinished Oils	0.08	0.02	-0.06	-0.04	-0.05	0.01	0.02	0.04	0.00	0.00	0.02	0.03	0.00	0.01	0.01
Motor Gasoline	8.52		9.10	9.05	8.81	9.13	9.18	9.07	8.72	9.13	9.19	9.07	8.92	9.05	9.03
Fuel Ethanol blended into Motor Gasoline	0.84	0.89	0.89	0.90	0.87	0.89	0.91	0.89	0.84	0.90	0.93	0.91	0.88	0.89	0.90
Jet Fuel		1.47	1.51	1.50	1.45	1.58	1.53	1.44	1.42	1.58	1.55	1.45	1.47	1.50	1.50
Distillate Fuel Oil	4.17	3.93	3.86	4.09	4.27	3.98	4.01	4.16	4.21	4.11	4.06	4.22	4.01	4.10	4.15
Residual Fuel Oil	0.23	0.26	0.24	0.30	0.24	0.22	0.20	0.21	0.21	0.19	0.19 2.22	0.20	0.26	0.22	0.20
Other Oils (g)		1.96	2.25	1.96	1.85	2.04	2.20	1.98	1.87	2.05		1.98 19.70	1.98	2.02	2.03
Total Consumption	18.81	18.71	19.16	19.45	19.29	19.19	19.53	19.61	19.18	19.41	19.63	19.70	19.03	19.41	19.48
Total Petroleum and Other Liquids Net Imports	. 5.38	5.18	4.98	4.62	4.95	4.54	4.32	3.90	4.05	4.49	4.42	3.58	5.04	4.42	4.13
Total Fetroleum and Other Liquids Net Imports	. 5.50	3.10	4.30	4.02	4.33	4.54	4.32	3.90	4.00	4.43	4.42	3.30	3.04	4.42	4.13
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	383.7	383.9	360.9	393.7	474.8	473.9	455.3	437.4	456.7	445.3	422.1	410.0	393.7	437.4	410.0
Hydrocarbon Gas Liquids	98.1	164.1	209.8	175.4	138.8	190.3	215.4	171.2	137.0	175.7	203.0	159.0	175.4	171.2	159.0
Unfinished Oils	91.3	87.3	84.5	78.5	84.7	81.9	82.0	78.1	88.7	86.2	83.8	78.8	78.5	78.1	78.8
Other HC/Oxygenates		23.0	22.4	23.2	26.7	25.6	24.9	25.1	27.2	26.0	25.3	25.5	23.2	25.1	25.5
Total Motor Gasoline	220.9	218.8	212.5	238.5	231.5	221.9	218.0	230.5	228.8	222.7	220.2	232.1	238.5	230.5	232.1
Finished Motor Gasoline		28.9	28.8	30.6	26.9	27.7	26.8	29.1	26.8	26.1	25.3	27.3	30.6	29.1	27.3
Motor Gasoline Blend Comp.	186.6		183.7	207.9	204.6	194.2	191.1	201.4	202.0	196.7	194.9	204.8	207.9	201.4	204.8
Jet Fuel		36.3	39.6	37.5	37.2	38.1	40.3	38.1	38.1	39.0	41.0	38.1	37.5	38.1	38.1
Distillate Fuel Oil	115.3		131.3	136.1	128.3	135.3	142.8	145.3	131.2	136.6	145.1	147.6	136.1	145.3	147.6
Residual Fuel Oil	36.4	36.7	36.6	33.7	38.1	39.6	37.3	36.9	37.0	36.6	35.6	35.9	33.7	36.9	35.9
Other Oils (g)	52.8	50.9	46.4	49.0	57.3	55.7	48.9	50.0	57.2	55.5	48.5	49.8	49.0	50.0	49.8
Total Commercial Inventory		1,123	1,144	1,165	1,217	1,262	1,265	1,213	1,202	1,224	1,225	1,177	1,165	1,213	1,177
															.,

^{- =} 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.

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.

⁽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" inludes 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.

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	ration Snort-Term Energy Outlook - June 2015							001	6			Vac-			
	1st	201 2nd	4 3rd	4th	1st	20 ²	3rd	4th	1st	201 2nd	6 3rd	4th	2014	Year 2015	2016
HGL Production	131	Z IIU	Jiu	701	131	Liiu	Jiu	701	131	ZIIU	Jiu	7(11	2014	2013	2010
Natural Gas Processing Plants															
Ethane	1.03	1.09	1.09	1.08	1.05	1.14	1.19	1.22	1.24	1.28	1.30	1.41	1.07	1.15	1.31
Propane	0.87	0.95	1.02	1.04	1.07	1.06	1.06	1.08	1.09	1.10	1.10	1.13	0.97	1.07	1.11
Butanes	0.48	0.52	0.56	0.58	0.58	0.59	0.59	0.61	0.59	0.61	0.62	0.63	0.54	0.59	0.61
Natural Gasoline (Pentanes Plus)	0.33	0.39	0.42	0.41	0.39	0.41	0.43	0.40	0.39	0.42	0.43	0.41	0.39	0.41	0.41
Refinery and Blender Net Production															
Ethane/Ethylene	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Propane/Propylene	0.57	0.60	0.59	0.59	0.54	0.58	0.58	0.59	0.57	0.59	0.59	0.59	0.59	0.57	0.59
Butanes/Butylenes	-0.04	0.27	0.21	-0.18	-0.08	0.25	0.18	-0.15	-0.03	0.25	0.18	-0.15	0.07	0.05	0.06
Renewable Fuels and Oxygenate Plant Net Pr	oduction														
Natural Gasoline (Pentanes Plus)	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
HGL Net Imports															
•	0.04	0.00	0.05	0.00	0.00	0.00	0.00	0.11	0.10	0.15	0.10	0.00	0.04	0.00	0.40
Ethane	-0.01 -0.17	-0.02	-0.05	-0.06	-0.06	-0.09	-0.09	-0.11	-0.12	-0.15	-0.18	-0.28	-0.04	-0.09	-0.19
Propane/Propylene	-0.17	-0.34 -0.06	-0.36 -0.09	-0.39 -0.03	-0.40 -0.06	-0.41 -0.11	-0.47 -0.15	-0.50 -0.09	-0.52 -0.10	-0.54 -0.16	-0.51 -0.15	-0.54 -0.10	-0.32 -0.05	-0.45 -0.10	-0.53 -0.13
Natural Gasoline (Pentanes Plus)	-0.03	-0.06 -0.16	-0.09	-0.03 -0.15	-0.00	-0.17	-0.13 -0.17	-0.09	-0.10	-0.16 -0.16	-0.13	-0.10	-0.05	-0.10	-0.13
Natural Gasoline (Feritalies Flus)	-0.13	-0.10	-0.16	-0.15	-0.17	-0.17	-0.17	-0.10	-0.16	-0.10	-0.16	-0.19	-0.16	-0.17	-0.16
HGL Refinery and Blender Net Inputs															
Butanes/Butylenes	0.37	0.28	0.30	0.48	0.40	0.28	0.30	0.44	0.37	0.29	0.31	0.44	0.36	0.35	0.35
Natural Gasoline (Pentanes Plus)	0.14	0.15	0.16	0.16	0.15	0.16	0.18	0.19	0.17	0.18	0.18	0.18	0.15	0.17	0.18
HGL Consumption															
Ethane/Ethylene	1.01	0.97	1.08	1.05	1.03	1.05	1.11	1.13	1.12	1.10	1.14	1.17	1.03	1.08	1.13
Propane/Propylene	1.46	0.89	0.97	1.29	1.43	0.95	1.05	1.35	1.43	1.00	1.04	1.33	1.15	1.19	1.20
Butanes/Butylenes	0.16	0.17	0.16	0.22	0.16	0.18	0.18	0.21	0.17	0.20	0.19	0.21	0.18	0.18	0.19
Natural Gasoline (Pentanes Plus)	0.03	0.03	0.05	0.05	0.10	0.04	0.05	0.05	0.03	0.04	0.05	0.04	0.04	0.06	0.04
readral Gasonine (Fortanos Fias)	0.00	0.00	0.00	0.00	0.10	0.07	0.00	0.00	0.00	0.07	0.00	0.07	0.04	0.00	0.07
HGL Inventories (million barrels)															
Ethane/Ethylene	29.90	37.06	38.70	36.37	31.38	31.70	31.18	31.27	30.72	33.64	32.76	30.67	35.53	31.38	31.95
Propane/Propylene	28.32	57.12	82.37	77.95	58.10	83.24	94.99	77.86	51.18	65.11	78.81	65.23	77.95	77.86	65.23
Butanes/Butylenes	25.95	52.24	72.22	41.96	32.46	56.73	69.78	44.57	36.99	57.36	71.73	46.73	41.96	44.57	46.73
Natural Gasoline (Pentanes Plus)	13.04	14.82	17.92	20.59	17.16	18.32	19.53	18.06	17.57	19.10	19.96	18.37	20.59	18.06	18.37
Refinery and Blender Net Inputs															
Crude OII	. 15.18	15.88	16.35	15.95	15.53	16.18	16.35	15.88	15.43	16.05	16.48	15.94	15.84	15.99	15.98
Hydrocarbon Gas Liquids		0.43	0.46	0.64	0.54	0.44	0.48	0.62	0.55	0.47	0.49	0.62	0.51	0.52	0.53
Other Hydrocarbons/Oxygenates		1.16	1.16	1.14	1.12	1.14	1.21	1.20	1.14	1.20	1.25	1.23	1.14	1.17	1.21
Unfinished Oils		0.51	0.41	0.45	0.24	0.52	0.46	0.41	0.27	0.53	0.47	0.43	0.40	0.41	0.43
Motor Gasoline Blend Components		1.06	0.83	0.32	0.72	0.89	0.65	0.46	0.60	0.85	0.63	0.43	0.73	0.68	0.63
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	. 17.73	19.04	19.21	18.51	18.14	19.18	19.14	18.58	17.99	19.09	19.32	18.66	18.62	18.76	18.76
Refinery Processing Gain	1.07	1.08	1.09	1.10	0.99	1.05	1.09	1.09	1.05	1.07	1.10	1.09	1.09	1.05	1.08
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	0.54	0.87	0.81	0.41	0.47	0.84	0.77	0.44	0.55	0.86	0.78	0.45	0.66	0.63	0.66
,															
Finished Motor Gasoline		9.82	9.74	9.68	9.48	9.83	9.69	9.67	9.33	9.71	9.77	9.67	9.63	9.67	9.62
Jet Fuel		1.49	1.64	1.57	1.50	1.60	1.60	1.50	1.48	1.58	1.62	1.51	1.54	1.55	1.54
Distillate Fuel		4.96	4.99	5.00	4.82	4.91	5.04	5.09	4.74	4.97	5.09	5.15	4.90	4.97	4.99
Residual Fuel	0.46	0.44	0.42	0.43	0.43	0.44	0.43	0.41	0.46	0.45	0.43	0.41	0.44	0.43	0.44
Other Oils (a)	. 2.43	2.52	2.71	2.52	2.44	2.61	2.70	2.55	2.49	2.59	2.72	2.56	2.55	2.58	2.59
Total Refinery and Blender Net Production	18.80	20.11	20.30	19.61	19.13	20.23	20.23	19.67	19.04	20.16	20.42	19.75	19.71	19.82	19.84
B. Co Bradhata I	4	46	46.51	46.55	45	46 **	46.55	46.55	45	46.55	46 = 5		40.5	10.55	4
Refinery Distillation Inputs		16.17	16.64	16.25	15.78	16.49	16.66	16.20	15.77	16.33	16.78	16.26	16.15	16.28	16.28
Refinery Operable Distillation Capacity	17.93	17.89	17.81	17.80	17.88	17.88	17.95	17.99	18.02	18.02	18.18	18.26	17.86	17.92	18.12
Refinery Distillation Utilization Factor	0.87	0.90	0.93	0.91	0.88	0.92	0.93	0.90	0.88	0.91	0.92	0.89	0.90	0.91	0.90

^{- =} no data available

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.

⁽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.

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

C.C. Energy Information / turning at at		20		, Galleel		20	15			20	16			Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
Prices (cents per gallon)				•											
Refiner Wholesale Price	272	298	276	203	159	199	181	160	171	198	197	170	262	175	184
Gasoline Regular Grade Retail Prices In	cluding Ta	axes													
PADD 1	344	365	348	292	228	256	249	236	242	266	266	246	337	242	255
PADD 2	337	365	343	278	216	251	248	225	234	267	266	235	331	235	250
PADD 3	318	345	329	265	204	238	232	211	219	247	246	219	314	221	233
PADD 4	326	350	363	297	207	257	254	232	223	258	267	241	335	238	248
PADD 5	362	401	386	315	271	324	284	262	265	297	298	271	366	285	283
U.S. Average	340	368	350	288	227	263	252	233	239	268	268	242	336	244	255
Gasoline All Grades Including Taxes	348	375	358	296	236	272	261	242	248	277	277	251	344	253	263
End-of-period Inventories (million barrels)														
Total Gasoline Inventories	,														
PADD 1	57.7	63.1	55.6	61.1	64.5	62.1	56.2	59.3	60.5	62.1	57.8	60.1	61.1	59.3	60.1
PADD 2	49.0	49.7	47.2	52.4	52.9	49.3	49.3	50.5	51.1	48.7	49.3	50.4	52.4	50.5	50.4
PADD 3	77.7	72.8	74.9	83.5	78.4	75.2	77.1	81.1	79.7	77.2	78.1	82.1	83.5	81.1	82.1
PADD 4	6.5	6.1	7.4	7.9	6.5	7.0	6.9	7.7	7.2	6.9	6.9	7.8	7.9	7.7	7.8
PADD 5	30.0	27.1	27.3	33.6	29.2	28.3	28.4	31.9	30.3	27.9	28.1	31.7	33.6	31.9	31.7
U.S. Total	220.9	218.8	212.5	238.5	231.5	221.9	218.0	230.5	228.8	222.7	220.2	232.1	238.5	230.5	232.1
Finished Gasoline Inventories															
U.S. Total	34.3	28.9	28.8	30.6	26.9	27.7	26.8	29.1	26.8	26.1	25.3	27.3	30.6	29.1	27.3
Gasoline Blending Components Invento	ries														
U.S. Total	186.6	190.0	183.7	207.9	204.6	194.2	191.1	201.4	202.0	196.7	194.9	204.8	207.9	201.4	204.8

^{- =} no data available

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

Regions refer to 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.

Prices are not adjusted for inflation.

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

		201	14			20	15			201	16			Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
Supply (billion cubic feet per day)															
Total Marketed Production	71.74	73.55	75.72	77.77	77.99	78.78	79.38	79.66	80.30	80.33	80.46	81.14	74.72	78.96	80.56
Alaska	0.99	0.93	0.85	0.98	0.99	0.85	0.77	0.93	0.96	0.82	0.75	0.91	0.94	0.88	0.86
Federal GOM (a)	3.29	3.42	3.41	3.38	3.32	3.11	3.18	3.05	3.10	3.05	2.87	2.84	3.37	3.17	2.97
Lower 48 States (excl GOM)	67.47	69.21	71.46	73.41	73.68	74.82	75.43	75.68	76.23	76.45	76.84	77.39	70.41	74.91	76.73
Total Dry Gas Production	67.84	69.33	71.30	73.31	73.55	74.25	74.81	75.07	75.68	75.71	75.82	76.47	70.46	74.43	75.92
LNG Gross Imports	0.17	0.17	0.15	0.16	0.43	0.17	0.18	0.17	0.14	0.16	0.17	0.15	0.16	0.23	0.15
LNG Gross Exports	0.03	0.02	0.09	0.03	0.06	0.00	0.16	0.59	0.68	0.69	0.72	1.07	0.04	0.21	0.79
Pipeline Gross Imports	8.44	6.52	6.47	7.47	8.36	6.40	6.56	6.86	7.28	6.23	6.54	6.73	7.22	7.04	6.69
Pipeline Gross Exports	4.67	3.89	3.85	3.96	4.87	5.06	4.77	4.95	4.95	4.76	4.94	5.10	4.09	4.91	4.94
Supplemental Gaseous Fuels	0.17	0.16	0.13	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.15	0.16	0.16
Net Inventory Withdrawals	22.75	-12.71	-12.96	0.55	18.44	-12.86	-10.12	3.26	16.80	-10.62	-9.90	3.29	-0.69	-0.39	-0.13
Total Supply	94.67	59.56	61.15	77.65	96.01	63.06	66.65	79.98	94.41	66.19	67.14	80.63	73.18	76.36	77.07
Balancing Item (b)	0.43	1.64	0.59	-1.46	1.11	1.43	-0.71	-0.31	0.40	-1.35	-0.88	0.05	0.30	0.37	-0.44
Total Primary Supply	95.10	61.20	61.75	76.19	97.12	64.49	65.94	79.68	94.82	64.84	66.26	80.68	73.48	76.73	76.63
Consumption (billion cubic feet per	day)											I			
Residential	28.70	7.48	3.68	15.97	27.55	6.43	3.33	16.49	26.26	6.90	3.36	16.64	13.89	13.39	13.27
Commercial	16.46	6.24	4.59	10.74	15.98	5.54	4.30	10.68	14.77	5.71	4.35	10.84	9.48	9.10	8.91
Industrial	22.92	20.03	19.66	21.32	22.71	20.66	20.60	22.94	24.07	21.38	21.23	23.38	20.97	21.73	22.52
Electric Power (c)	19.68	21.12	27.34	21.09	23.10	25.15	30.93	22.28	21.87	24.04	30.45	22.42	22.33	25.38	24.70
Lease and Plant Fuel	4.12	4.22	4.35	4.47	4.48	4.52	4.56	4.57	4.61	4.61	4.62	4.66	4.29	4.53	4.63
Pipeline and Distribution Use	3.14	2.02	2.04	2.51	3.20	2.09	2.14	2.61	3.14	2.10	2.14	2.65	2.42	2.51	2.51
Vehicle Use	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.09	0.09	0.10
Total Consumption	95.10	61.20	61.75	76.19	97.12	64.49	65.94	79.68	94.82	64.84	66.26	80.68	73.48	76.73	76.63
End-of-period Inventories (billion c	ubic feet))													
Working Gas Inventory	857	2,005	3,187	3,141	1,482	2,653	3,584	3,284	1,755	2,721	3,632	3,330	3,141	3,284	3,330
Producing Region (d)	358	691	953	1,070	614	1,050	1,218	1,183	761	1,038	1,211	1,186	1,070	1,183	1,186
East Consuming Region (d)	315	952	1,752	1,607	509	1,134	1,819	1,600	658	1,212	1,860	1,622	1,607	1,600	1,622
West Consuming Region (d)	184	362	483	464	359	468	546	500	336	472	561	521	464	500	521

^{- =} no data available

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.

⁽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 Methodology for EIA Weekly Underground Natural Gas Storage Estimates (http://tonto.eia.doe.gov/oog/info/ngs/methodology.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.

Table 5b. U.S. Regional Natural Gas Prices (dollars per thousand cubic fee

U.S. Effergy information	7 (011111110	201		10	lergy Oc	20				20	16			Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
Wholesale/Spot															
Henry Hub Spot Price	5.36	4.75	4.08	3.91	2.99	2.90	3.10	3.24	3.40	3.19	3.47	3.61	4.52	3.06	3.42
Residential															
New England	13.65	15.98	18.01	14.41	13.08	13.42	16.57	13.27	12.66	14.26	16.98	13.53	14.52	13.41	13.46
Middle Atlantic	10.71	13.04	17.25	11.15	9.50	11.80	17.31	12.04	10.91	13.45	17.80	12.24	11.58	10.93	12.10
E. N. Central	8.67	12.96	16.85	8.96	7.79	10.59	16.55	8.75	7.88	11.22	16.84	8.79	9.70	8.93	9.10
W. N. Central	9.10	11.76	18.16	9.83	8.65	10.57	16.43	8.72	7.81	10.75	17.31	9.43	10.10	9.34	9.18
S. Atlantic	11.34	16.37	22.98	12.85	10.68	15.54	22.11	12.81	11.29	16.26	22.45	12.95	13.03	12.50	13.08
E. S. Central	9.63	14.08	19.70	11.14	9.33	12.55	17.82	10.62	9.09	13.35	18.57	11.26	11.02	10.53	10.73
W. S. Central	8.53	14.22	20.25	11.62	8.42	12.09	17.74	9.91	7.54	12.78	18.54	10.54	10.83	9.92	9.81
Mountain	9.07	11.22	15.15	9.86	9.58	10.23	13.83	9.12	8.49	9.62	13.43	8.86	10.13	9.85	9.15
Pacific	10.97	11.66	12.41	11.25	11.47	10.73	10.66	9.64	9.72	10.40	10.83	10.00	11.37	10.62	10.06
U.S. Average	9.82	13.11	16.92	10.52	9.29	11.52	15.87	10.15	9.19	12.05	16.26	10.37	10.94	10.23	10.38
Commercial															
New England	11.35	12.82	11.77	11.36	10.70	9.55	9.88	10.13	10.55	10.24	10.41	10.75	11.64	10.33	10.55
Middle Atlantic	9.30	9.06	8.04	8.05	7.90	7.37	7.56	8.29	8.65	8.21	8.20	8.94	8.78	7.87	8.60
E. N. Central	8.02	9.96	10.18	7.71	6.96	7.77	8.82	7.29	7.45	8.44	9.26	7.67	8.33	7.30	7.79
W. N. Central	8.35	9.10	10.19	8.22	7.65	7.29	8.51	7.16	7.46	7.67	8.92	7.65	8.54	7.51	7.66
S. Atlantic	9.23	10.56	10.90	9.47	8.44	8.97	10.02	9.18	9.21	9.79	10.47	9.63	9.69	8.92	9.58
E. S. Central	8.90	10.71	11.17	9.58	8.57	8.59	9.42	8.76	8.37	9.24	10.01	9.28	9.57	8.72	8.95
W. S. Central	7.49	9.24	9.26	8.25	7.14	6.97	7.85	7.24	7.13	7.70	8.28	7.66	8.23	7.23	7.53
Mountain	7.81	8.74	9.90	8.47	8.29	7.69	8.37	7.32	7.08	7.29	8.62	7.70	8.40	7.87	7.47
Pacific	9.29	9.26	9.56	9.28	9.21	8.09	8.57	8.51	8.43	8.18	8.95	8.92	9.32	8.65	8.61
U.S. Average	8.66	9.64	9.69	8.51	7.95	7.84	8.58	7.97	8.08	8.37	9.05	8.45	8.87	8.00	8.34
Industrial															
New England	10.03	9.97	8.04	9.09	9.04	7.72	7.78	8.75	9.07	8.36	8.22	9.27	9.45	8.55	8.85
Middle Atlantic	9.28	8.87	8.15	8.05	8.15	6.93	7.44	8.09	8.23	7.47	7.83	8.50	8.80	7.84	8.11
E. N. Central	8.03	8.87	7.89	6.94	6.49	5.85	5.99	6.07	6.59	6.23	6.44	6.54	7.84	6.21	6.50
W. N. Central	7.34	6.28	5.91	6.38	5.90	4.78	4.88	5.30	5.52	4.79	4.94	5.45	6.57	5.25	5.21
S. Atlantic	6.91	6.42	5.92	5.99	5.50	4.79	4.98	5.34	5.49	5.20	5.44	5.77	6.34	5.17	5.49
E. S. Central	6.37	6.14	5.31	5.50	5.13	4.45	4.67	4.95	5.27	4.83	5.07	5.40	5.86	4.82	5.16
W. S. Central	5.15	4.91	4.52	4.26	3.21	3.04	3.33	3.40	3.50	3.35	3.75	3.80	4.71	3.25	3.60
Mountain	6.55	6.68	6.95	6.65	6.55	5.71	6.00	6.03	5.64	5.35	6.00	6.10	6.69	6.12	5.78
Pacific	7.84	7.63	7.70	7.54	7.36	6.08	6.31	6.38	6.28	6.10	6.63	6.83	7.68	6.58	6.46
U.S. Average	6.17	5.62	5.06	5.16	4.57	3.76	3.95	4.29	4.60	4.07	4.34	4.69	5.53	4.15	4.44

^{- =} 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.

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

		201	14			201	15			201	16			Year	·
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
Supply (million short tons)					•	•	•								
Production	245.2	245.8	255.3	250.3	236.5	217.4	238.3	234.5	237.1	215.9	240.2	232.4	996.7	926.7	925.5
Appalachia	67.5	69.7	67.5	65.6	64.7	58.7	55.7	56.9	63.3	59.0	57.3	56.9	270.3	236.1	236.5
Interior	46.3	44.8	49.3	47.0	44.3	41.7	48.5	47.8	48.0	45.7	49.4	48.0	187.4	182.3	191.1
Western	131.4	131.4	138.5	137.7	127.5	116.9	134.1	129.8	125.7	111.2	133.5	127.5	538.9	508.4	497.9
Primary Inventory Withdrawals	-0.5	0.6	2.4	-1.5	-0.7	0.3	3.1	-1.6	-1.0	0.7	2.9	-1.6	0.9	1.1	1.0
Imports	2.4	3.5	3.2	2.1	3.0	2.2	3.2	2.9	2.2	2.4	3.3	2.9	11.3	11.3	10.8
Exports	27.7	24.6	22.7	22.3	22.0	24.0	21.3	21.7	21.0	24.0	21.8	23.3	97.3	89.0	90.1
Metallurgical Coal	16.9	15.8	15.2	15.2	15.0	13.8	11.6	12.2	13.4	13.7	12.1	13.5	63.0	52.6	52.7
Steam Coal	10.9	8.8	7.5	7.1	7.2	10.1	9.7	9.6	7.6	10.3	9.7	9.9	34.3	36.6	37.4
Total Primary Supply	219.4	225.4	238.2	228.6	216.8	196.0	223.3	214.1	217.3	195.0	224.6	210.3	911.6	850.2	847.1
Secondary Inventory Withdrawals	30.6	-14.8	8.4	-28.0	-3.4	-6.4	16.4	-4.1	-0.5	-6.1	13.9	-4.7	-3.8	2.6	2.6
Waste Coal (a)	3.2	2.8	2.6	2.6	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.8	11.2	10.8	11.1
Total Supply	253.2	213.3	249.2	203.2	216.1	192.3	242.5	212.7	219.6	191.6	241.2	208.4	919.0	863.6	860.8
Consumption (million short tons)															
Coke Plants	4.8	5.1	5.2	5.2	4.4	4.3	5.2	5.2	4.4	4.3	5.0	4.9	20.4	19.2	18.6
Electric Power Sector (b)	231.3	196.0	231.2	193.0	196.5	173.5	226.6	196.3	203.6	176.7	225.5	192.3	851.4	792.9	798.1
Retail and Other Industry	12.0	10.9	11.0	11.1	11.4	10.7	10.6	11.2	11.6	10.6	10.6	11.2	45.0	43.9	44.1
Residential and Commercial	0.7	0.4	0.4	0.7	8.0	0.5	0.5	0.7	0.8	0.5	0.4	0.6	2.2	2.5	2.4
Other Industrial	11.3	10.5	10.6	10.4	10.6	10.1	10.2	10.5	10.9	10.2	10.2	10.6	42.8	41.4	41.8
Total Consumption	248.2	212.0	247.4	209.3	212.3	188.5	242.5	212.7	219.6	191.6	241.2	208.4	916.9	855.9	860.8
Discrepancy (c)	5.0	1.3	1.9	-6.1	3.9	3.8	0.0	0.0	0.0	0.0	0.0	0.0	2.1	7.7	0.0
End-of-period Inventories (million shor	t tons)														
Primary Inventories (d)	46.2	45.6	43.2	44.7	45.5	45.2	42.1	43.7	44.7	44.0	41.1	42.7	44.7	43.7	42.7
Secondary Inventories	124.0	138.9	130.5	158.4	161.9	168.2	151.8	155.8	156.3	162.4	148.6	153.2	158.4	155.8	153.2
Electric Power Sector	118.3	132.9	123.8	151.4	155.7	161.3	144.3	148.0	149.5	155.0	140.6	145.0	151.4	148.0	145.0
Retail and General Industry	3.5	3.6	4.4	4.8	4.1	4.5	5.1	5.5	4.8	5.0	5.6	5.9	4.8	5.5	5.9
Coke Plants	1.8	1.9	1.8	1.9	1.6	1.9	1.9	1.9	1.6	1.9	1.8	1.8	1.9	1.9	1.8
Coal Market Indicators															
Coal Miner Productivity															
(Tons per hour)	5.47	5.47	5.47	5.47	5.61	5.61	5.61	5.61	5.46	5.46	5.46	5.46	5.47	5.61	5.46
Total Raw Steel Production															
(Million short tons per day) Cost of Coal to Electric Utilities	0.262	0.263	0.271	0.262	0.247	0.241	0.241	0.235	0.241	0.248	0.233	0.221	0.264	0.241	0.236
(Dollars per million Btu)	2.33	2.39	2.37	2.37	2.27	2.33	2.33	2.30	2.30	2.32	2.33	2.28	2.36	2.30	2.31

^{- =} 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.

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.

 $\textbf{Projections:} \ \mathsf{EIA} \ \mathsf{Regional} \ \mathsf{Short}\text{-}\mathsf{Term} \ \mathsf{Energy} \ \mathsf{Model}.$

⁽a) Waste coal includes waste coal and cloal 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.

Table 7a. U.S. Electricity Industry Overview

		201	4			201	15			201	16			Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
Electricity Supply (billion kilowatthou	rs per day	()													
Electricity Generation	11.49	10.77	12.06	10.54	11.33	10.88	12.38	10.63	11.08	11.03	12.50	10.74	11.21	11.31	11.34
Electric Power Sector (a)	11.04	10.36	11.62	10.11	10.91	10.47	11.94	10.20	10.66	10.61	12.05	10.29	10.78	10.88	10.90
Comm. and Indus. Sectors (b)	0.44	0.41	0.44	0.42	0.42	0.41	0.45	0.43	0.43	0.42	0.46	0.45	0.43	0.43	0.44
Net Imports	0.11	0.12	0.16	0.14	0.14	0.12	0.15	0.10	0.11	0.11	0.14	0.09	0.13	0.13	0.11
Total Supply	11.59	10.89	12.22	10.68	11.48	11.01	12.53	10.73	11.19	11.13	12.64	10.83	11.35	11.44	11.45
Losses and Unaccounted for (c)	0.72	0.86	0.76	0.73	0.75	0.89	0.78	0.72	0.59	0.91	0.78	0.72	0.77	0.78	0.75
Electricity Consumption (billion kilow	atthours	oer day un	less note	ed)											
Retail Sales	10.48	9.67	11.07	9.58	10.36	9.76	11.36	9.63	10.23	9.86	11.46	9.72	10.20	10.28	10.32
Residential Sector	4.31	3.36	4.26	3.45	4.19	3.38	4.39	3.44	4.00	3.39	4.42	3.47	3.84	3.85	3.82
Commercial Sector	3.62	3.65	4.06	3.54	3.61	3.71	4.19	3.59	3.63	3.76	4.25	3.63	3.72	3.78	3.82
Industrial Sector	2.52	2.65	2.73	2.57	2.53	2.64	2.75	2.58	2.58	2.69	2.78	2.60	2.62	2.63	2.66
Transportation Sector	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Direct Use (d)	0.39	0.36	0.39	0.37	0.37	0.36	0.39	0.38	0.37	0.37	0.40	0.39	0.38	0.38	0.38
Total Consumption	10.87	10.04	11.46	9.95	10.73	10.12	11.75	10.01	10.60	10.22	11.86	10.11	10.58	10.65	10.70
Average residential electricity															
usage per customer (kWh)	3,023	2,372	3,040	2,456	2,916	2,368	3,107	2,430	2,786	2,357	3,099	2,426	10,892	10,822	10,668
Prices															
Power Generation Fuel Costs (dolla	rs per mil	lion Btu)													
Coal	2.33	2.39	2.37	2.37	2.27	2.33	2.33	2.30	2.30	2.32	2.33	2.28	2.36	2.30	2.31
Natural Gas	6.82	4.93	4.25	4.30	4.09	3.54	3.76	4.12	4.24	3.82	4.07	4.43	4.98	3.86	4.13
Residual Fuel Oil	19.97	20.44	19.75	14.72	10.90	11.90	12.22	12.00	11.89	12.83	13.06	12.88	19.18	11.51	12.66
Distillate Fuel Oil	23.40	22.77	21.88	18.72	15.29	15.52	15.26	15.74	15.98	16.39	16.76	17.15	22.34	15.41	16.53
End-Use Prices (cents per kilowatth	our)														
Residential Sector	11.91	12.73	13.01	12.38	12.24	12.98	13.28	12.65	12.59	13.23	13.55	12.93	12.50	12.79	13.09
Commercial Sector	10.55	10.68	11.11	10.59	10.50	10.78	11.21	10.60	10.64	10.93	11.37	10.77	10.75	10.79	10.95
Industrial Sector	6.99	6.92	7.36	6.76	6.76	6.78	7.29	6.67	6.82	6.85	7.38	6.78	7.01	6.88	6.96

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

Prices are not adjusted for inflation.

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.

 $\textbf{Projections:} \ \mathsf{EIA} \ \mathsf{Regional} \ \mathsf{Short}\text{-}\mathsf{Term} \ \mathsf{Energy} \ \mathsf{Model}.$

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

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

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

⁽d) Direct Use represents commercial and industrial facility use of onsite net electricity generation; and electrical sales or transfers to adjacent or colocated facilities

Table 7b. U.S. Regional Electricity Retail Sales (Million Kilowatthours per Day)

O.S. Lifelgy illioilla		201		1-1-61111		201	15			201	16			Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
Residential Sector															
New England	153	111	136	118	152	112	137	120	140	112	139	120	129	130	128
Middle Atlantic		315	383	323	423	318	402	325	389	317	404	325	361	367	359
E. N. Central	616	446	513	479	588	441	555	475	552	440	550	476	513	515	505
W. N. Central	352	246	293	265	325	241	312	263	321	247	313	268	289	285	287
S. Atlantic	1,080	858	1,088	861	1,072	878	1,121	861	998	861	1,132	866	971	983	965
E. S. Central	404	278	363	288	390	277	374	283	357	280	373	283	333	331	324
W. S. Central	617	501	731	498	602	521	726	498	574	537	740	505	587	587	589
Mountain	238	242	321	226	234	238	341	231	246	247	349	237	257	261	270
Pacific contiguous	419	347	422	378	394	340	412	372	406	340	407	374	391	380	382
AK and HI	14	11	12	13	13	12	12	13	13	12	12	13	13	12	12
Total	4,315	3,355	4,260	3,449	4,194	3,377	4,390	3,442	3,998	3,391	4,419	3,467	3,844	3,850	3,819
Commercial Sector															
New England	148	138	154	139	148	139	157	139	145	138	156	139	145	146	145
Middle Atlantic	442	413	461	409	444	416	475	411	440	415	477	413	431	437	436
E. N. Central	511	490	526	480	510	495	553	488	512	506	561	494	502	511	518
W. N. Central	287	273	298	272	281	276	312	276	286	283	318	281	282	287	292
S. Atlantic	803	842	920	793	805	859	957	810	813	869	969	820	840	858	868
E. S. Central	239	237	271	226	235	243	283	228	234	244	286	230	243	247	249
W. S. Central	494	521	610	504	496	541	623	509	497	546	637	518	532	543	550
Mountain	239	259	287	243	239	262	299	249	247	271	306	254	257	262	269
Pacific contiguous	442	463	514	461	434	465	517	463	439	470	519	466	470	470	474
AK and HI	. 17	16	17	17	16	16	17	17	16	16	17	17	16	16	16
Total	3,621	3,652	4,056	3,544	3,609	3,713	4,193	3,589	3,629	3,759	4,247	3,632	3,719	3,777	3,817
Industrial Sector															
New England	49	50	52	50	49	49	53	48	48	49	52	48	50	50	49
Middle Atlantic	201	198	205	194	198	201	209	197	203	203	210	198	199	202	204
E. N. Central	525	532	544	519	520	524	536	508	519	527	537	509	530	522	523
W. N. Central	231	240	253	238	237	253	268	250	245	256	270	252	241	252	256
S. Atlantic	372	397	404	383	376	385	398	375	373	400	405	381	389	384	390
E. S. Central	279	287	296	283	279	286	289	284	296	292	290	285	286	285	291
W. S. Central	431	465	471	444	428	464	483	449	440	470	488	453	453	456	463
Mountain	210	235	250	220	217	240	256	227	223	246	263	234	229	235	241
Pacific contiguous	213	228	244	223	216	229	245	227	216	229	245	227	227	229	229
AK and HI	. 13	14	14	14	13	14	14	14	13	14	14	14	14	14	14
Total	2,522	2,646	2,734	2,567	2,531	2,645	2,753	2,580	2,577	2,686	2,775	2,601	2,618	2,628	2,660
Total All Sectors (a)															
New England	352	300	344	308	350	301	348	309	335	300	349	309	326	327	323
Middle Atlantic	1,078	936	1,059	936	1,077	947	1,098	946	1,045	947	1,103	948	1,002	1,017	1,011
E. N. Central	1,654	1,469	1,584	1,480	1,620	1,461	1,647	1,473	1,585	1,474	1,650	1,481	1,547	1,550	1,548
W. N. Central	870	760	843	776	843	770	892	790	853	786	901	801	812	824	835
S. Atlantic	2,259	2,100	2,415	2,041	2,256	2,126	2,480	2,050	2,188	2,134	2,509	2,071	2,204	2,228	2,226
E. S. Central	922	803	931	797	904	805	946	795	888	817	950	798	863	862	863
W. S. Central	1,542	1,487	1,812	1,446	1,527	1,527	1,832	1,455	1,511	1,553	1,866	1,476	1,572	1,586	1,602
Mountain	687	737	858	689	690	741	897	708	716	763	918	725	743	759	781
Pacific contiguous	1,076	1,040	1,182	1,064	1,046	1,036	1,177	1,064	1,064	1,042	1,174	1,069	1,091	1,081	1,087
AK and HI	44	41	43	43	42	41	43	44	43	41	43	44	43	42	43
Total	10,481	9,674	11,072	9,581	10,356	9,756	11,359	9,633	10,227	9,857	11,463	9,722	10,202	10,277	10,319

^{- =} 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.

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.

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

Table 7c. U.S. Regional Electricity Prices (Cents per Kilowatthour)

U.S. Energy Informa	orr / turi	201		10111	Energy	20		1		201	16			Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
Residential Sector		1			I .										
New England	17.53	18.03	17.60	18.24	20.42	20.56	20.17	19.46	19.60	19.79	19.93	19.95	17.82	20.16	19.81
Middle Atlantic	16.26	16.58	16.66	16.02	15.76	16.29	16.60	16.19	16.22	16.68	17.01	16.61	16.38	16.20	16.63
E. N. Central	11.56	12.96	12.98	12.73	12.22	13.34	13.20	12.96	12.57	13.60	13.47	13.20	12.50	12.90	13.19
W. N. Central	10.04	11.80	12.31	10.65	10.25	11.94	12.47	10.89	10.55	12.20	12.78	11.14	11.14	11.37	11.65
S. Atlantic	11.31	11.98	12.13	11.61	11.39	12.08	12.27	11.78	11.82	12.40	12.54	12.05	11.75	11.88	12.21
E. S. Central	10.30	11.21	10.97	10.66	10.34	11.18	11.00	10.80	10.78	11.43	11.30	11.08	10.75	10.81	11.14
W. S. Central	10.40	11.43	11.39	11.06	10.67	11.54	11.62	11.15	11.02	11.67	11.75	11.24	11.07	11.26	11.44
Mountain	10.93	12.02	12.33	11.31	11.31	12.38	12.64	11.57	11.63	12.71	12.99	11.88	11.71	12.05	12.37
Pacific	12.93	12.78	15.53	13.15	13.68	13.58	16.27	13.78	14.19	14.01	16.78	14.25	13.65	14.39	14.86
U.S. Average	11.91	12.73	13.01	12.38	12.24	12.98	13.28	12.65	12.59	13.23	13.55	12.93	12.50	12.79	13.09
Commercial Sector															
New England	15.62	14.32	14.43	14.33	16.93	16.02	15.61	14.74	17.27	16.26	15.76	14.81	14.68	15.83	16.03
Middle Atlantic	14.29	13.32	13.94	12.94	13.18	13.19	14.11	13.11	13.32	13.38	14.35	13.35	13.64	13.42	13.62
E. N. Central	9.69	9.96	10.00	9.88	9.75	10.01	10.01	9.92	9.85	10.08	10.08	10.01	9.88	9.93	10.01
W. N. Central	8.60	9.39	9.86	8.69	8.57	9.35	9.98	8.81	8.75	9.54	10.20	9.01	9.15	9.20	9.40
S. Atlantic	9.83	9.68	9.70	9.65	9.68	9.66	9.83	9.75	9.80	9.77	9.97	9.90	9.72	9.73	9.87
E. S. Central	10.26	10.51	10.40	10.22	10.22	9.97	10.14	10.31	10.48	10.18	10.39	10.66	10.35	10.16	10.42
W. S. Central	8.13	8.34	8.30	8.15	8.04	7.75	7.71	7.53	7.90	7.73	7.70	7.53	8.24	7.75	7.71
Mountain	9.12	9.89	10.19	9.42	9.38	10.18	10.37	9.56	9.57	10.38	10.60	9.77	9.69	9.91	10.11
Pacific	11.73	13.21	15.67	13.79	12.30	14.59	16.61	13.87	12.70	14.98	17.05	14.33	13.68	14.45	14.87
U.S. Average	10.55	10.68	11.11	10.59	10.50	10.78	11.21	10.60	10.64	10.93	11.37	10.77	10.75	10.79	10.95
Industrial Sector															
New England	12.97	11.47	11.43	11.18	13.18	11.34	11.37	10.66	12.97	11.22	11.30	10.63	11.74	11.63	11.52
Middle Atlantic	8.74	7.36	7.28	7.07	7.87	7.42	7.59	7.14	7.87	7.42	7.62	7.19	7.61	7.50	7.53
E. N. Central	7.01	6.84	7.01	6.85	6.87	6.93	7.09	6.91	6.87	6.90	7.06	6.89	6.93	6.95	6.93
W. N. Central	6.52	6.68	7.32	6.32	6.49	6.61	7.33	6.37	6.54	6.68	7.40	6.45	6.72	6.72	6.78
S. Atlantic	6.80	6.68	6.96	6.49	6.55	6.50	6.90	6.37	6.53	6.50	6.90	6.41	6.73	6.59	6.59
E. S. Central	6.16	6.23	6.76	5.68	5.78	5.90	6.56	5.71	5.88	5.96	6.67	5.87	6.22	5.99	6.09
W. S. Central	5.87	6.04	6.34	5.92	5.65	5.66	6.01	5.58	5.87	5.93	6.35	5.94	6.05	5.73	6.03
Mountain	6.15	6.73	7.38	6.25	6.18	6.59	7.37	6.20	6.22	6.72	7.54	6.34	6.66	6.62	6.73
Pacific	7.70	8.11	9.59	8.63	7.83	8.13	9.42	8.35	7.82	8.15	9.51	8.45	8.54	8.46	8.51
U.S. Average	6.99	6.92	7.36	6.76	6.76	6.78	7.29	6.67	6.82	6.85	7.38	6.78	7.01	6.88	6.96
All Sectors (a)															
New England	16.05	15.19	15.20	15.29	17.90	16.92	16.75	15.90	17.59	16.72	16.72	16.13	15.45	16.89	16.80
Middle Atlantic	14.00	13.15	13.63	12.78	13.20	12.98	13.76	12.90	13.32	13.18	14.02	13.15	13.42	13.23	13.44
E. N. Central	9.53	9.73	9.93	9.74	9.72	9.91	10.13	9.86	9.82	9.99	10.23	9.96	9.73	9.91	10.00
W. N. Central	8.63	9.31	9.95	8.64	8.63	9.27	10.05	8.73	8.79	9.44	10.26	8.92	9.14	9.19	9.37
S. Atlantic	10.04	10.05	10.34	9.88	9.97	10.08	10.46	9.98	10.16	10.22	10.64	10.15	10.09	10.14	10.31
E. S. Central	9.04	9.22	9.47	8.77	8.90	8.94	9.39	8.84	9.07	9.10	9.61	9.10	9.13	9.03	9.23
W. S. Central	8.41	8.66	9.04	8.47	8.41	8.41	8.81	8.17	8.50	8.54	8.95	8.31	8.66	8.47	8.60
Mountain	8.84	9.58	10.17	9.03	9.03	9.72	10.37	9.14	9.23	9.95	10.63	9.35	9.46	9.62	9.85
Pacific	11.39	11.93	14.35	12.47	11.89	12.82	14.98	12.65	12.27	13.15	15.36	13.04	12.59	13.15	13.51
U.S. Average	10.25	10.36	10.92	10.21	10.29	10.46	11.06	10.28	10.44	10.60	11.24	10.47	10.45	10.54	10.71

^{- =} 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 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.

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

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

0.5. Energy information Admi	otratior	20		I	Juliook -	201				201	16			Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
United States											<u> </u>				
Coal	4,864	4,029	4,624	3,869	4,094	3,536	4,536	3,930	4,189	3,617	4,516	3,846	4,344	4,025	4,042
Natural Gas	2,715	2,898	3,725	2,948	3,236	3,420	4,163	3,146	3,073	3,283	4,109	3,173	3,074	3,493	3,411
Petroleum (a)	148	64	66	58	124	65	74	69	82	70	77	68	84	83	74
Other Gases	28	29	35	34	34	32	38	35	34	33	38	36	32	35	36
Nuclear	2,201	2,060	2,289	2,184	2,248	2,134	2,174	2,016	2,115	2,078	2,226	2,065	2,184	2,142	2,121
Renewable Energy Sources:															
Conventional Hydropower	703	849	652	633	797	789	624	581	684	940	689	617	709	697	732
Wind	553	549	367	525	506	577	437	563	611	658	479	615	498	521	591
Wood Biomass	119	114	121	118	117	114	125	119	119	117	128	122	118	119	122
Waste Biomass	56	59	60	59	55	57	61	59	58	60	62	60	58	58	60
Geothermal	45	45	45	46	47	44	45	44	45	43	44	44	46	45	44
Solar	35	61	61	44	56	90	86	50	53	105	112	72	50	70	85
Pumped Storage Hydropower	-13	-18	-21	-16	-14	-11	-16	-14	-13	-12	-15	-13	-17	-14	-13
Other Nonrenewable Fuels (b)	32	34	36	35	33	34	36	35	34	36	37	36	34	35	36
Total Generation	11,486	10,773	12,060	10,536	11,333	10,882	12,381	10,634	11,083	11,027	12,503	10,741	11,214	11,309	11,340
Northeast Census Region															
Coal	353	244	210	207	293	162	228	236	299	153	188	205	253	230	211
Natural Gas	413	485	632	493	479	543	675	533	495	550	698	545	506	558	572
Petroleum (a)	55	2	3	3	47	4	6	5	9	4	6	5	16	15	6
Other Gases	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Nuclear	542	471	539	531	545	490	505	469	493	482	513	476	521	502	491
Hydropower (c)	94	100	84	91	91	106	93	94	98	112	99	97	92	96	102
Other Renewables (d)	73	64	60	72	76	64	60	70	73	66	62	72	67	67	68
Other Nonrenewable Fuels (b)	11	12	13	12	11	12	12	12	12	12	12	12	12	12	12
Total Generation	1,542	1,381	1,543	1,411	1,543	1,383	1,582	1,420	1,481	1,381	1,580	1,414	1,469	1,482	1,464
South Census Region															
Coal	2,122	1,849	2,100	1,614	1,713	1,478	1,892	1,528	1,690	1,608	1,939	1,523	1,920	1,653	1,690
Natural Gas	1,544	1,729	2,088	1,637	1,976	2,113	2,401	1,797	1,793	2,013	2,337	1,774	1,751	2,072	1,980
Petroleum (a)	53	28	26	24	42	26	29	26	33	29	31	25	33	31	29
Other Gases	11	11	14	14	13	13	16	15	13	14	17	16	13	14	15
Nuclear	966	882	994	977	974	959	963	893	942	930	1,006	933	955	947	953
Hydropower (c)	150	107	80	107	127	108	83	105	137	113	89	109	111	106	112
Other Renewables (d)	241	257	204	240	228	277	240	287	305	331	274	323	235	258	308
Other Nonrenewable Fuels (b)	13	13	14	14	14	13	14	14	14	14	14	14	13	13	14
Total Generation	5,100	4,875	5,520	4,627	5,089	4,986	5,637	4,664	4,926	5,052	5,707	4,716	5,031	5,094	5,101
Midwest Census Region															
Coal	1,801	1,439	1,682	1,492	1,581	1,377	1,747	1,511	1,593	1,405	1,745	1,514	1,603	1,555	1,565
Natural Gas	194	184	203	189	295	231	287	207	255	232	292	212	193	255	248
Petroleum (a)	14	13	12	9	12	11	13	11	12	11	12	11	12	11	12
Other Gases	11	12	14	12	13	12	14	12	13	12	14	12	12	13	13
Nuclear	533	543	586	525	553	527	542	503	521	509	542	503	547	531	519
Hydropower (c)	33	45	44	41	42	45	44	39	44	47	48	40	41	43	45
Other Renewables (d)	253	214	148	244	250	230	166	248	262	252	181	267	214	223	241
Other Nonrenewable Fuels (b)	4	5	5	4	4	5	5	5	4	5	5	5	4	5	5
Total Generation	2,843	2,454	2,693	2,516	2,749	2,439	2,819	2,536	2,704	2,474	2,839	2,565	2,626	2,636	2,646
West Census Region															
Coal	588	497	632	556	506	519	669	655	607	451	643	603	568	588	576
Natural Gas	564	500	802	628	486	533	801	610	530	488	782	642	624	608	611
Petroleum (a)	25	21	24	23	23	24	27	27	27	26	28	28	23	25	27
Other Gases	5	5	6	6	6	5	6	6	7	5	6	6	5	6	6
Nuclear	160	164	170	150	176	157	163	151	159	156	166	154	161	162	159
Hydropower (c)	414	579	423	378	522	518	387	329	392	656	438	357	448	439	460
Other Renewables (d)	240	293	243	236	228	312	286	231	246	334	309	251	253	264	285
Other Nonrenewable Fuels (b)	5	5	5	4	4	5	5	4	4	5	5	5	5	5	5
Total Generation	2,001	2,063	2,304	1,982	1,953	2,074	2,343	2,013	1,972	2,120	2,377	2,046	2,088	2,097	2,129

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

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.

⁽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.

Table 7e. U.S. Regional Fuel Consumption for Electricity Generation, All Sectors

		20	14			20	15			20 ⁻	16			Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
Fuel Consumption for Electricity Ge	neration,	All Secto	rs												
United States															
Coal (thousand st/d)	2,579	2,161	2,522	2,105	2,190	1,914	2,471	2,140	2,243	1,949	2,459	2,097	2,341	2,180	2,187
Natural Gas (million cf/d)	20,666	22,042	28,356	22,049	23,991	26,066	31,904	23,291	22,815	24,998	31,467	23,482	23,296	26,326	25,700
Petroleum (thousand b/d)	262	111	115	103	216	115	129	123	145	124	134	121	147	145	131
Residual Fuel Oil	86	24	29	24	77	26	29	30	34	30	33	29	41	40	31
Distillate Fuel Oil	87	24	24	25	66	28	29	29	36	27	29	28	40	38	30
Petroleum Coke (a)	69	60	59	50	59	57	65	58	67	63	67	58	59	60	64
Other Petroleum Liquids (b)	20	3	3	4	13	4	6	5	8	4	6	5	7	7	6
Northeast Census Region															
Coal (thousand st/d)	161	113	102	96	132	76	109	111	139	72	90	97	118	107	99
Natural Gas (million cf/d)	3,191	3,701	4,921	3,729	3,614	4,139	5,229	3,978	3,703	4,156	5,358	4,036	3,890	4,244	4,315
Petroleum (thousand b/d)	92	4	6	5	76	7	10	9	17	8	10	9	26	26	11
South Census Region															
Coal (thousand st/d)	1,084	963	1,116	855	889	781	1,006	813	873	842	1,028	810	1,004	873	889
Natural Gas (million cf/d)	11,736	13,138	15,819	12,131	14,453	16,014	18,249	13,182	13,181	15,244	17,740	13,006	13,214	15,479	14,796
Petroleum (thousand b/d)	101	51	49	45	79	49	54	48	63	55	57	46	61	57	55
Midwest Census Region															
Coal (thousand st/d)	1,005	811	952	842	884	769	983	849	891	785	982	851	902	871	877
Natural Gas (million cf/d)	1,574	1,436	1,638	1,513	2,275	1,854	2,382	1,616	1,990	1,862	2,424	1,654	1,540	2,031	1,983
Petroleum (thousand b/d)	28	23	22	17	23	20	22	21	22	20	22	21	23	21	21
West Census Region															
Coal (thousand st/d)	329	274	351	313	286	287	373	368	339	250	359	339	317	329	322
Natural Gas (million cf/d)	4,165	3,767	5,979	4,675	3,649	4,059	6,044	4,515	3,941	3,735	5,945	4,787	4,651	4,573	4,606
Petroleum (thousand b/d)	41	33	38	36	38	39	43	43	44	41	45	45	37	41	44
End-of-period U.S. Fuel Inventories	Held by E	Electric Po	wer Sect	or											
Coal (million short tons)	118.3	132.9	123.8	151.4	155.7	161.3	144.3	148.0	149.5	155.0	140.6	145.0	151.4	148.0	145.0
Residual Fuel Oil (mmb)	10.5	10.6	10.4	12.7	10.2	11.0	11.2	11.5	11.4	11.2	11.0	11.2	12.7	11.5	11.2
Distillate Fuel Oil (mmb)	15.5	15.5	15.5	16.9	15.8	15.7	15.7	16.0	16.0	15.9	15.8	16.0	16.9	16.0	16.0
Petroleum Coke (mmb)	1.7	2.0	1.9	4.2	4.1	4.1	4.0	4.0	4.0	4.0	4.0	4.0	4.2	4.0	4.0

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

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.

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

Table 8. U.S. Renewable Energy Consumption (Quadrillion Btu)

		201	14			20	15			201	16			Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
Electric Power Sector					•										
Hydroelectric Power (a)	0.596	0.731	0.566	0.549	0.677	0.677	0.540	0.502	0.585	0.808	0.597	0.533	2.443	2.396	2.524
Wood Biomass (b)	0.063	0.056	0.064	0.063	0.063	0.056	0.068	0.062	0.064	0.058	0.071	0.064	0.247	0.248	0.256
Waste Biomass (c)	0.063	0.065	0.066	0.066	0.063	0.064	0.069	0.068	0.066	0.068	0.071	0.069	0.260	0.264	0.273
Wind	0.473	0.475	0.321	0.459	0.433	0.500	0.382	0.492	0.529	0.570	0.419	0.538	1.729	1.807	2.056
Geothermal	0.039	0.039	0.039	0.041	0.040	0.038	0.039	0.039	0.039	0.038	0.039	0.039	0.158	0.157	0.154
Solar	0.029	0.051	0.052	0.037	0.047	0.076	0.074	0.043	0.044	0.089	0.097	0.062	0.170	0.240	0.293
Subtotal	1.263	1.418	1.109	1.215	1.348	1.411	1.173	1.205	1.327	1.630	1.294	1.304	5.006	5.137	5.556
Industrial Sector															
Hydroelectric Power (a)	0.008	0.006	0.006	0.007	0.007	0.006	0.007	0.007	0.007	0.006	0.007	0.007	0.026	0.026	0.027
Wood Biomass (b)		0.327	0.335	0.336	0.319	0.297	0.301	0.303	0.294	0.290	0.301	0.305	1.317	1.220	1.189
Waste Biomass (c)	0.044	0.046	0.046	0.046	0.045	0.046	0.047	0.047	0.046	0.046	0.048	0.047	0.183	0.185	0.186
Geothermal	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.004	0.004	0.004
Biofuel Losses and Co-products (f)	0.182	0.190	0.190	0.196	0.187	0.189	0.190	0.188	0.186	0.188	0.192	0.191	0.758	0.754	0.758
Subtotal	0.557	0.574	0.582	0.591	0.563	0.543	0.551	0.551	0.538	0.536	0.554	0.556	2.305	2.207	2.183
Commercial Sector															
Wood Biomass (b)	0.018	0.018	0.018	0.018	0.018	0.018	0.019	0.019	0.018	0.019	0.019	0.019	0.071	0.074	0.075
Waste Biomass (c)	0.012	0.011	0.011	0.012	0.012	0.011	0.012	0.012	0.012	0.011	0.013	0.012	0.046	0.047	0.048
Geothermal	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.020	0.020	0.020
Subtotal	0.036	0.036	0.036	0.036	0.036	0.035	0.037	0.037	0.036	0.036	0.037	0.037	0.144	0.145	0.146
Residential Sector															
Wood Biomass (b)	0.143	0.145	0.146	0.146	0.110	0.112	0.113	0.113	0.103	0.104	0.105	0.105	0.580	0.447	0.418
Geothermal	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.011	0.011	0.011	0.011	0.040	0.040	0.044
Solar (d)	0.062	0.063	0.063	0.063	0.069	0.070	0.071	0.071	0.077	0.077	0.078	0.078	0.252	0.281	0.311
Subtotal	0.215	0.217	0.220	0.220	0.189	0.192	0.194	0.194	0.191	0.193	0.195	0.195	0.871	0.768	0.773
Transportation Sector															
Ethanol (e)	0.256	0.276	0.277	0.281	0.262	0.277	0.284	0.279	0.261	0.279	0.290	0.284	1.089	1.103	1.115
Biodiesel (e)	0.040	0.048	0.055	0.053	0.034	0.052	0.063	0.070	0.059	0.063	0.069	0.071	0.196	0.219	0.261
Subtotal	0.296	0.324	0.332	0.334	0.300	0.330	0.347	0.349	0.319	0.342	0.359	0.355	1.285	1.326	1.376
All Sectors Total															
Hydroelectric Power (a)	0.604	0.737	0.572	0.555	0.684	0.683	0.547	0.509	0.592	0.815	0.605	0.540	2.469	2.423	2.552
Wood Biomass (b)		0.546	0.563	0.563	0.511	0.483	0.501	0.496	0.479	0.470	0.497	0.492	2.214	1.991	1.939
Waste Biomass (c)	0.119	0.121	0.124	0.124	0.120	0.121	0.129	0.127	0.123	0.125	0.131	0.128	0.488	0.497	0.508
Wind	0.473	0.475	0.321	0.459	0.433	0.500	0.382	0.492	0.529	0.570	0.419	0.538	1.729	1.807	2.056
Geothermal	0.055	0.055	0.055	0.057	0.056	0.055	0.055	0.055	0.055	0.054	0.056	0.056	0.222	0.221	0.222
Solar	0.092	0.116	0.117	0.102	0.117	0.147	0.145	0.115	0.122	0.168	0.176	0.141	0.427	0.524	0.607
Ethanol (e)	0.260	0.281	0.282	0.286	0.271	0.282	0.290	0.284	0.266	0.285	0.296	0.290	1.109	1.126	1.136
Biodiesel (e)		0.048	0.055	0.053	0.034	0.052	0.063	0.070	0.059	0.063	0.069	0.071	0.196	0.219	0.261
Biofuel Losses and Co-products (f)	0.182	0.190	0.190	0.196	0.187	0.189	0.190	0.188	0.186	0.188	0.192	0.191	0.758	0.754	0.758
Total Consumption	2.367	2.570	2.279	2.396	2.436	2.511	2.301	2.335	2.411	2.736	2.439	2.447	9.612	9.583	10.033
no data available															

^{- =} 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.

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.

⁽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

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

Table 9a. U.S. Macroeconomic Indicators and CC₂ Emissions

U.S. Energy Information Administration	on Snor	t-Term E 201		outlook -	June 20	20	15			201	16			Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
Macroeconomic															
Real Gross Domestic Product															
(billion chained 2009 dollars - SAAR)	15,832	16,010	16,206	16,295	16,305	16,382	16,487	16,584	16,684	16,787	16,911	17,057	16,086	16,439	16,860
Real Personal Consumption Expend.	,,,,,	,-	,	,	,	-,	-, -	-,	-,	-, -	-,-	,	,,,,,,	-,	-,
(billion chained 2009 dollars - SAAR)	10,844	10,913	11,000	11,120	11.173	11,250	11,332	11,412	11,474	11,543	11,619	11,709	10,969	11,292	11,586
Real Fixed Investment	.,-	,-	,	,	,	,	,	,		,	,	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, -	,
(billion chained 2009 dollars - SAAR)	2,536	2,595	2,643	2,673	2,656	2,684	2,729	2,775	2.833	2,881	2,924	2,984	2,612	2,711	2,905
Business Inventory Change	2,000	2,000	2,040	2,010	2,000	2,007	2,720	2,770	2,000	2,001	2,02 1	2,001	2,012	2,1 11	2,000
(billion chained 2009 dollars - SAAR)	40	100	95	93	122	70	58	56	49	49	51	66	82	76	54
Real Government Expenditures	40	100	33	33	122	70	30	50	43	43	31	00	02	70	54
· ·	2,869	2 004	2.042	2,898	2,892	2,909	2,926	2,928	2.927	2,927	2,933	2,928	2,890	2,914	2,929
(billion chained 2009 dollars - SAAR)	2,009	2,881	2,912	2,090	2,092	2,909	2,920	2,920	2,921	2,921	2,933	2,920	2,090	2,914	2,929
Real Exports of Goods & Services	0.007	0.004	0.404	0.407	0.000	0.405	0.407	0.440	0.470	0.000	0.000	0.050	0.005	0.447	0.047
(billion chained 2009 dollars - SAAR)	2,027	2,081	2,104	2,127	2,088	2,105	2,127	2,148	2,176	2,203	2,230	2,259	2,085	2,117	2,217
Real Imports of Goods & Services															
(billion chained 2009 dollars - SAAR)	2,474	2,541	2,535	2,599	2,610	2,623	2,674	2,726	2,767	2,806	2,835	2,876	2,537	2,658	2,821
Real Disposable Personal Income															
(billion chained 2009 dollars - SAAR)	11,810	11,900	11,970	12,077	12,259	12,307	12,362	12,400	12,474	12,536	12,635	12,755	11,939	12,332	12,600
Non-Farm Employment															
(millions)	137.8	138.6	139.4	140.2	141.0	141.6	142.1	142.5	142.9	143.4	143.8	144.3	139.0	141.8	143.6
Civilian Unemployment Rate															
(percent)	6.6	6.2	6.1	5.7	5.6	5.4	5.4	5.3	5.3	5.2	5.2	5.2	6.2	5.4	5.2
Housing Starts															
(millions - SAAR)	0.93	0.98	1.03	1.06	0.97	1.08	1.12	1.17	1.21	1.23	1.28	1.36	1.00	1.09	1.27
Industrial Production Indices (Index, 2007:	=100)														
Total Industrial Production	102.2	103.7	104.7	105.9	105.7	105.1	105.6	106.3	107.1	107.9	109.1	110.5	104.1	105.7	108.7
Manufacturing	99.4	101.2	102.4	103.5	103.2	103.4	103.9	104.9	105.7	106.7	107.9	109.4	101.6	103.9	107.4
Food	106.1	106.5	105.6	107.7	108.8	109.3	109.8	110.5	111.2	111.8	112.6	113.5	106.5	109.6	112.3
Paper	82.4	83.3	82.6	83.1	82.1	82.2	82.1	82.3	82.3	82.3	82.7	83.2	82.9	82.2	82.6
Petroleum and Coal Products	97.7	98.2	98.9	98.7	99.7	101.1	101.7	101.7	101.7	101.8	102.3	102.7	98.4	101.0	102.1
Chemicals	87.7	88.4	90.1	91.3	91.9	92.3	92.7	93.4	94.0	94.7	95.6	96.7	89.4	92.6	95.2
Nonmetallic Mineral Products	75.5	77.4	79.9	80.2	80.5	81.2	82.2	83.1	84.2	85.3	86.5	87.9	78.3	81.8	85.9
Primary Metals	101.9	106.2	108.2	105.6	99.8	99.4	100.5	101.6	101.5	102.0	104.2	106.9	105.5	100.3	103.6
Coal-weighted Manufacturing (a)	91.8	93.7	94.6	94.4	93.0	93.3	93.9	94.6	94.9	95.4	96.6	98.1	93.6	93.7	96.3
Distillate-weighted Manufacturing (a)	92.3	93.9	95.0	95.6	95.0	95.5	96.1	96.8	97.4	98.1	99.1	100.3	94.2	95.9	98.7
Electricity-weighted Manufacturing (a)		99.1	100.1	100.6	99.6	100.0	100.6	101.5	102.0	102.6	104.0	105.6	99.2	100.4	103.5
Natural Gas-weighted Manufacturing (a)	93.6	94.6	95.6	96.2	95.5	96.0	96.4	97.0	97.5	98.0	99.3	100.8	95.0	96.2	98.9
Tracarar Gao morginios manaractaring (a) in	00.0	••	00.0		00.0	00.0	00.7	07.10	07.10	00.0	00.0	700.0	00.0	00.2	00.0
Price Indexes															
Consumer Price Index (all urban consumers)															
(index, 1982-1984=1.00)	2.35	2.37	2.38	2.37	2.35	2.36	2.37	2.39	2.41	2.42	2.43	2.45	2.37	2.37	2.43
Producer Price Index: All Commodities						2.00	2.0.	2.00			20	20		2.0.	2.70
(index, 1982=1.00)	2.06	2.07	2.06	2.02	1.92	1.92	1.92	1.93	1.96	1.97	1.99	1.99	2.05	1.92	1.98
Producer Price Index: Petroleum	2.00	2.0.	2.00	2.02		7.02	7.02	7.00	1.00	7.07	7.00	1.00	2.00	1.02	7.00
(index, 1982=1.00)	2.88	2.99	2.90	2.35	1.72	1.97	1.98	1.88	1.92	2.09	2.13	1.98	2.78	1.89	2.03
GDP Implicit Price Deflator	2.00	2.55	2.50	2.00	12	1.51	1.50	7.00	1.52	2.00	2.75	1.50	2.70	1.00	2.00
(index, 2009=100)	107.7	108.3	108.6	108.7	108.7	109.4	109.8	110.4	111.1	111.6	112.2	112.8	108.3	109.6	111.9
(Index, 2009–100)	107.7	100.5	100.0	100.7	100.7	103.4	103.0	110.4	111.1	111.0	112.2	112.0	100.5	103.0	111.9
Miscellaneous															
Vehicle Miles Traveled (b)															
()	7 702	0.604	0.604	8,292	0.004	0.040	0 000	0.400	0.105	0.070	0.044	0 555	0 222	0.527	0.604
(million miles/day)	7,702	8,684	8,604	8,292	8,001	8,849	8,800	<i>8,4</i> 89	8,125	8,972	8,844	8,555	8,323	8,537	8,624
Air Travel Capacity	500	540	504	504		570	505	500	507	570	500	500	507	- 44	5.40
(Available ton-miles/day, thousands)	503	548	561	534	517	570	565	523	507	572	568	526	537	544	543
Aircraft Utilization		-							a :=			~			
(Revenue ton-miles/day, thousands)	310	347	353	332	321	361	360	322	317	365	363	326	336	341	343
Airline Ticket Price Index															
(index, 1982-1984=100)	297.3	334.3	301.0	298.2	286.4	303.2	299.1	299.5	301.1	324.6	315.4	312.8	307.7	297.1	313.5
Raw Steel Production															
(million short tons per day)	0.262	0.263	0.271	0.262	0.247	0.241	0.241	0.235	0.241	0.248	0.233	0.221	0.264	0.241	0.236
Order Divide (OC.) T. (
Carbon Dioxide (CO ₂) Emissions (million															
Petroleum	547	556	568	577	559	568	575	576	560	569	577	578	2,249	2,278	2,283
Petroleum Natural Gas	547 461		305	377	465	314	325	576 394	560 464	316	327	399	1,441	1,498	1,506
Petroleum	547	556													,

^{- =} no data available

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.

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.

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

Table 9b. U.S. Regional Macroeconomic Data

U.S. Energy Informati	OH AUHIII	201	•	t-Tellii E	nergy C	201		15		201	6			Year	
	1st	201 2nd	4 3rd	4th	1st	201 2nd	3rd	4th	1st	201 2nd	3rd	4th	2014	2015	2016
Real Gross State Product															
New England	858	865	875	879	879	883	888	892	897	902	908	915	869	886	905
Middle Atlantic	2,365	2,386	2,410	2,414	2,414	2,426	2,442	2,456	2,469	2,482	2,497	2,515	2,394	2,434	2,491
E. N. Central	2,186	2,207	2,229	2,238	2,238	2,246	2,259	2,271	2,282	2,293	2,308	2,324	2,215	2,253	2,302
W. N. Central	1,031	1,042	1,055	1,060	1,060	1,065	1,072	1,078	1,083	1,089	1,097	1,106	1,047	1,069	1,094
S. Atlantic	2,807	2,841	2,872	2,892	2,899	2,917	2,939	2,959	2,979	2,999	3,024	3,052	2,853	2,928	3,013
E. S. Central	724	732	742	746	747	750	755	759	763	767	772	778	736	753	770
W. S. Central	1,936	1,966	1,998	2,013	2,011	2,016	2,026	2,039	2,051	2,066	2,082	2,103	1,978	2,023	2,075
Mountain	1,028	1,041	1,055	1,062	1,064	1,069	1,075	1,081	1,088	1,097	1,107	1,117	1,046	1,072	1,102
Pacific	2,821	2,855	2,894	2,913	2,915	2,932	2,953	2,972	2,993	3,013	3,038	3,066	2,871	2,943	3,027
Industrial Output, Manufa	-		2007=100))	*							*	,		
New England	96.1	97.3	98.0	98.7	98.2	98.3	98.8	99.6	100.3	101.0	102.1	103.3	97.5	98.7	101.7
Middle Atlantic	94.4	95.6	96.4	97.2	96.8	96.8	97.3	98.1	98.7	99.4	100.5	101.7	95.9	97.2	100.1
E. N. Central	101.4	103.4	104.7	106.2	106.3	106.5	107.2	108.3	109.1	110.0	111.3	112.7	103.9	107.1	110.8
W. N. Central	102.5	104.4	105.6	106.9	106.5	106.7	107.2	108.3	109.2	110.2	111.5	113.0	104.8	107.2	111.0
S. Atlantic	95.0	96.9	98.3	99.4	99.3	99.5	100.1	101.1	101.9	102.7	103.8	105.1	97.4	100.0	103.4
E. S. Central	97.5	99.2	100.9	102.1	101.9	102.2	102.9	103.9	104.8	105.7	106.8	108.2	99.9	102.7	106.4
W. S. Central	104.0	106.2	107.6	108.9	108.2	107.9	108.3	109.2	109.9	110.8	112.0	113.6	106.7	108.4	111.6
Mountain	101.5	103.2	104.5	105.5	105.5	106.0	106.9	108.1	109.2	110.4	112.0	113.8	103.7	106.6	111.3
Pacific	100.6	102.4	103.4	104.4	104.1	104.2	104.6	105.5	106.3	107.3	108.6	110.1	102.7	104.6	108.1
Real Personal Income (Bi		9)													
New England	760	, 761	766	774	786	789	793	796	801	805	810	817	765	791	808
Middle Atlantic	2,035	2,039	2,055	2,074	2,104	2,109	2,121	2,129	2,142	2,151	2,164	2,182	2,051	2,116	2,160
E. N. Central	1,855	1,864	1,871	1,891	1,920	1,928	1,936	1,943	1,955	1,964	1,976	1,991	1,870	1,932	1,971
W. N. Central	872	881	885	894	906	910	914	919	925	929	935	943	883	912	933
S. Atlantic	2,475	2,494	2,509	2,537	2,575	2,591	2,606	2,620	2,641	2,660	2,680	2,707	2,504	2,598	2,672
E. S. Central	653	658	661	668	677	680	683	686	691	695	699	705	660	682	697
W. S. Central	1,542	1,556	1,570	1,591	1,612	1,618	1,626	1,632	1,644	1,656	1,670	1,687	1,565	1,622	1,664
Mountain	869	874	880	891	903	909	914	919	927	933	941	951	878	911	938
Pacific	2,327	2,345	2,373	2,397	2,440	2,453	2,468	2,483	2,501	2,517	2,536	2,561	2,360	2,461	2,529
Households (Thousands)	-	,-	,-	,	, -	,	,	,	,	,-	,	,	,	, -	,
New England	5,764	5,765	5,762	5,767	5,771	5,771	5,777	5,781	5,784	5,788	5,792	5,797	5,767	5,781	5,797
Middle Atlantic	15,836	15,838	15,829	15,843	15,849	15,849	15,861	15,869	15,873	15,883	15,894	15,906	15,843	15,869	15,906
E. N. Central	18,576	18,587	18,582	18,596	18,598	18,595	18,607	18,619	18,627	18,640	18,653	18,669	18,596	18,619	18,669
W. N. Central	8,410	8,423	8,429	8,447	8,460	8.469	8,484	8,499	8,510	8,524	8,540	8,557	8,447	8,499	8,557
S. Atlantic	24,217	24,276	24,320	24,398	24,468	24,527	24,606	24,683	24,754	24,833	24,913	24,997	24,398	24,683	24,997
E. S. Central	7,450	7,453	7,452	7,461	7,466	7,468	7,477	7,485	7,493	7,505	7,516	7,529	7,461	7,485	7,529
W. S. Central	14,103	14,148	14,182	14,232	14,274	14,311	14,357	14,400	14,440	14,484	14,531	14,577	14,232	14,400	14,577
Mountain	8,604	8,625	8,642	8,672	8,698	8,721	8,751	8,780	8,807	8,839	8,873	8,908	8,672	8,780	8,908
Pacific	18,186	18,232	18,267	18,323	18,371	18,411	18,460	18,504	18,550	18,599	18,648	18,699	18,323	18,504	18,699
Total Non-farm Employm	•	-	,	•	*	*	*	,	,	,	•	*	,	,	
New England	7.1	7.1	7.1	7.1	7.2	7.2	7.2	7.2	7.2	7.2	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	19.1	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	21.4	21.5	21.6	21.6	21.7	21.7	21.8	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	10.6	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	27.1	27.2	27.3	27.5	27.6	26.3	26.9	27.4
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	7.9	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	16.7	16.8
Mountain	9.7	9.7	9.8	9.9	9.9	10.0	10.1	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	22.0	22.0	22.1	22.2	22.3	22.3	21.3	21.9	22.2
			7									0			

^{- =} 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 Informat	ion Admi	on Administration Short-Term			n Energy Outlook - June 2015										
		201			2015			2016				Year			
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2014	2015	2016
Heating Degree Days															
New England	-	885	148	2,088	3,862	823	150	2,208	3,197	862	142	2,208	6,684	7,042	6,409
Middle Atlantic	,	703	100	1,966	3,585	631	101	2,015	2,930	681	96	2,015	6,206	6,332	5,722
E. N. Central	3,929	726	167	2,364	3,690	660	131	2,258	3,133	735	130	2,258	7,186	6,739	6,257
W. N. Central	-	755	177	2,511	3,375	664	158	2,435	3,197	686	157	2,435	7,304	6,631	6,475
South Atlantic		196	14	1,039	1,672	166	17	1,009	1,488	209	17	1,008	2,960	2,864	2,722
E. S. Central	2,269	230	18	1,413	2,148	190	23	1,340	1,881	266	23	1,340	3,931	3,700	3,510
W. S. Central	1,480	92	4	848	1,397	72	5	873	1,278	97	5	872	2,424	2,348	2,253
Mountain	2,126	714	152	1,763	1,905	721	144	1,859	2,205	662	141	1,858	4,755	4,629	4,867
Pacific	1,252	468	57	985	1,074	533	66	1,074	1,347	514	79	1,074	2,762	2,747	3,014
U.S. Average	2,449	480	80	1,541	2,341	451	76	1,545	2,130	480	77	1,543	4,550	4,413	4,229
Heating Degree Days, Pri	ior 10-year	Average													
New England	3,152	836	134	2,167	3,166	838	134	2,148	3,213	824	142	2,147	6,289	6,286	6,326
Middle Atlantic	2,905	660	88	1,983	2,935	666	90	1,976	2,983	653	96	1,974	5,636	5,667	5,705
E. N. Central	3,117	690	120	2,243	3,192	694	123	2,262	3,246	689	131	2,257	6,170	6,271	6,323
W. N. Central	3,209	686	149	2,404	3,272	691	150	2,433	3,298	694	157	2,439	6,449	6,546	6,588
South Atlantic	1,465	194	14	1,006	1,481	196	14	1,013	1,501	186	15	1,010	2,679	2,703	2,712
E. S. Central	1,810	236	19	1,336	1,853	236	19	1,358	1,899	226	20	1,354	3,402	3,466	3,498
W. S. Central	1,157	85	5	827	1,188	86	5	834	1,221	83	5	840	2,075	2,113	2,149
Mountain	2,267	728	156	1,887	2,259	730	150	1,873	2,231	727	149	1,879	5,038	5,013	4,986
Pacific	1,554	625	96	1,236	1,533	621	92	1,205	1,493	610	87	1,199	3,511	3,452	3,389
U.S. Average	2,161	492	77	1,569	2,182	493	77	1,567	2,199	484	79	1,564	4,298	4,319	4,326
Cooling Degree Days															
New England	0	75	342	0	0	115	385	0	0	90	414	0	417	500	504
Middle Atlantic	0	155	432	6	0	210	536	5	0	168	559	5	593	751	732
E. N. Central	. 0	231	378	2	0	233	537	7	0	214	541	7	611	778	763
W. N. Central	. 0	262	539	12	3	253	664	10	3	273	679	10	813	930	965
South Atlantic	109	647	1,064	197	139	748	1,131	224	108	622	1,140	225	2,016	2,241	2,095
E. S. Central	6	504	922	66	23	563	1,031	65	25	494	1,035	65	1,498	1,682	1,619
W. S. Central	34	779	1,440	220	52	848	1,445	184	68	829	1,478	184	2,473	2,528	2,560
Mountain	. 31	437	869	94	45	368	949	79	19	452	963	79	1,432	1,441	1,513
Pacific	. 39	226	695	114	55	174	610	76	31	197	578	76	1,074	914	883
U.S. Average	34	394	776	96	47	421	837	91	38	393	846	91	1,301	1,396	1,368
Cooling Degree Days, Pr	ior 10-year	Average													
New England	0	83	417	1	0	85	42 0	1	0	85	409	1	500	505	495
Middle Atlantic	0	167	558	5	0	168	557	5	0	170	541	6	730	731	717
E. N. Central	. 3	230	546	6	3	234	545	6	3	230	532	6	785	787	771
W. N. Central	. 7	277	678	9	7	282	683	9	7	277	674	9	972	981	968
South Atlantic	110	636	1,154	213	110	635	1,155	210	114	658	1,142	211	2,112	2,110	2,124
E. S. Central	35	528	1,045	57	33	526	1,053	52	32	540	1,039	53	1,666	1,664	1,664
W. S. Central	102	882	1,506	190	94	883	1,519	184	90	889	1,505	183	2,680	2,679	2,667
Mountain	. 18	420	922	70	17	423	930	75	21	423	933	75	1,431	1,446	1,452
Pacific		166	589	58	26	170	602	65	29	175	605	67	839	863	877
U.S. Average		393	843	83	40	396	849	84	42	403	841	84	1,361	1,369	1,370

^{- =} no data available

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

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

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

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

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

 $\textbf{Projections:} \ \textbf{Based on forecasts by the NOAA Climate Prediction Center (http://www.cpc.ncep.noaa.gov/pacdir/DDdir/NHOME3.shtml)}.$