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Short-Term Energy Outlook (STEO)

Forecast highlights

- Brent crude oil spot prices averaged $74 per barrel (b) in June, a decrease of almost $3/b from the May average. EIA forecasts Brent spot prices will average $73/b in the second half of 2018 and will average $69/b in 2019. EIA expects West Texas Intermediate (WTI) crude oil prices will average $6/b lower than Brent prices in the second half of 2018 and $7/b lower in 2019. NYMEX WTI futures and options contract values for October 2018 delivery that traded during the five-day period ending July 5, 2018, suggest a range of $56/b to $87/b encompasses the market expectation for October WTI prices at the 95% confidence level.

- U.S. regular gasoline retail prices averaged $2.89 gallon (gal) in June, down 1 cent/gal from the average in May. EIA expects that 2018 monthly average gasoline prices peaked in May and forecasts prices to decline gradually in the coming months to an average of $2.83/gal in September. EIA expects regular gasoline retail prices to average $2.76/gal in 2018 and $2.77/gal in 2019.

- EIA estimates that U.S. crude oil production averaged 10.9 million barrels per day (b/d) in June, up 0.1 million b/d from the May level. EIA forecasts U.S. crude oil production to average 10.8 million b/d in 2018, up from 9.4 million b/d in 2017, and to average 11.8 million b/d in 2019. If realized, both of these forecast levels would surpass the previous record of 9.6 million b/d set in 1970.

- EIA forecasts that total U.S. crude oil and petroleum product net imports will fall from an annual average of 3.7 million b/d in 2017 to an average of 2.4 million b/d in 2018 and to an average of 1.6 million b/d in 2019, which would be the lowest level of net imports since 1958.

- EIA forecasts total global liquid fuels end-of-year inventories to be unchanged in 2018 compared with 2017, followed by a rise of 0.6 million b/d in 2019.

- U.S. dry natural gas production averaged 73.6 billion cubic feet per day (Bcf/d) in 2017. EIA forecasts dry natural gas production will average 81.3 Bcf/d in 2018, which would establish a new record. EIA expects natural gas production will rise by an additional 3.1 Bcf/d in 2019 to 84.5 Bcf/d.

- The Henry Hub natural gas spot price averaged $2.97/million British thermal units (MMBtu) in June. EIA expects Henry Hub natural gas spot prices to average

$2.99/MMBtu in 2018 and $3.04/MMBtu in 2019. NYMEX futures and options contract values for October 2018 delivery that traded during the five-day period ending July 5, 2018, suggest a range of $2.37/MMBtu to $3.59/MMBtu encompasses the market expectation for October Henry Hub natural gas prices at the 95% confidence level.

- EIA expects the share of U.S. total utility-scale electricity generation from natural gas-fired power plants to rise from 32% in 2017 to 34% in 2018 and to 35% in 2019. In this outlook, coal's forecast share of electricity generation falls from 30% in 2017 to 28% in 2018 and to 27% in 2019. The nuclear share of generation was 20% in 2017 and is forecast to be slightly less than that share in 2018 and in 2019. Nonhydropower renewables provided slightly less than 10% of electricity generation in 2017 and are expected to provide more than 10% in 2018 and nearly 11% in 2019. The generation share of hydropower was 7% in 2017 and is forecast to be slightly less than that share in 2018 and in 2019.

- After declining by 0.9% in 2017, EIA forecasts that energy-related carbon dioxide (CO2) emissions will increase by 1.8% in 2018 and decrease by 0.5% in 2019. Energy-related CO2 emissions are sensitive to changes in weather, economic growth, energy prices, and fuel mix.

Global Liquid Fuels

Forecast global liquid fuels balances indicate a looser oil market in the second half of 2018 and through the end of 2019 compared with the tight oil market conditions that prevailed for 2017 and the first half of 2018. Although global petroleum and other liquid fuels inventories declined by an average of 0.5 million barrels per day (b/d) in 2017, EIA expects inventories to be relatively unchanged in 2018 and to increase by 0.6 million b/d in 2019.

As a result of the decline in global oil inventories in 2017, the Brent crude oil spot price averaged $54 per barrel (b) last year, $10/b higher than in 2016. EIA's estimated global inventory draw of 0.2 million b/d in the first half of 2018 put additional upward pressure on Brent prices, pushing them to an average of $75/b in the second quarter. EIA expects that inventory builds forecast for the second half of 2018 through 2019 will put modest downward pressure on oil prices and contribute to Brent crude oil prices averaging $73/b for the second half of 2018 and $69/b in 2019.

The forecast inventory builds in 2019 are mainly the result of expected liquid fuels production growth in the United States, Brazil, Canada, and Russia. EIA forecasts that these countries will provide 2.2 million b/d out of the 2.4 million b/d of total global supply growth in 2019. Supply growth of this magnitude outpaces EIA's forecast for global liquid fuels consumption growth of 1.7 million b/d for 2019. However, inventory levels that have fallen below the five-year (2013–17) average and a forecast of low spare capacity among members of the Organization of the Petroleum Exporting Countries (OPEC) create conditions for possible price increases if additional supply disruptions occur or if forecast supply growth does not materialize.

Global Petroleum and Other Liquid Fuels Consumption. Global consumption of petroleum and other liquid fuels grew by 1.6 million b/d in 2017, reaching an average of 98.5 million b/d for the year. EIA expects consumption growth to average 1.7 million b/d in 2018 and in 2019, driven by the countries outside of the Organization for Economic Cooperation and Development (OECD). Non-OECD liquid fuels consumption growth accounts for 1.3 million b/d of the global growth in 2018 and in 2019. The non-OECD liquid fuels consumption growth is driven by forecast growth in non-OECD gross domestic product (GDP) that averages 4.1% in 2018 and in 2019.

EIA expects China and India to be the largest contributors to growth in non-OECD petroleum and other liquid fuels consumption in 2018 and in 2019. China's liquid fuels consumption is expected to increase by almost 0.5 million b/d in both years, led by growth in gasoline and jet fuel consumption. EIA also expects increased consumption in China's petrochemical sector to contribute to liquid fuels consumption growth. China is set to add a number of propane-consuming petrochemical plants, with the consumption boost from the sector assumed to add 55,000 b/d in 2018 and an additional 75,000 b/d in 2019. Forecast liquid fuels consumption in India grows by almost 0.3 million b/d in 2018 and in 2019. This growth would be higher than the 2017 growth of 0.1 million b/d, which was limited, partly because of monetary and fiscal policy changes.

EIA forecasts that liquids consumption in the Middle East will increase by almost 0.2 million b/d in 2018 and in 2019. Saudi Arabia's oil consumption is forecast to continue to increase despite expanding natural gas use for electric power generation that offsets direct crude oil burn for power generation. EIA expects that Saudi Arabia's direct crude oil burn for electric power generation will remain at about the 2017 level throughout the forecast period.

EIA expects that liquid fuels consumption in Central and South America will fall by 50,000 b/d in 2018 compared with 2017, mainly as a result of continued economic contraction in Venezuela. However, the region's consumption is expected to grow by 70,000 b/d in 2019. EIA expects Brazil to be the main driver of the region's growth in 2019, with liquid fuels consumption forecast to rise by 80,000 b/d next year.

OECD petroleum and other liquid fuels consumption is forecast to grow by almost 0.5 million b/d in 2018 and by 0.4 million b/d in 2019, with the United States accounting for most of the OECD growth. EIA forecasts that Europe's liquid fuels consumption will grow by an average of 0.1 million b/d in 2018 and in 2019. Japan is expected to see liquid fuels consumption decline by an average of 0.1 million b/d in 2018 and in 2019.

Non-OPEC Petroleum and Other Liquid Fuels Supply. EIA forecasts that non-OPEC petroleum and other liquid fuels supply will increase by 2.6 million b/d in 2018. Combined production growth of 2.4 million b/d in the United States and Canada accounts for most of the 2018 supply growth. EIA expects non-OPEC petroleum and other liquid fuels production to rise by another 2.3 million b/d in 2019. Combined production growth of 1.7 million b/d in the United States and Canada is again forecast to contribute most of this growth, and Brazil's production is expected to grow by 0.3 million b/d in 2019.

EIA forecasts that Canada's petroleum and other liquid fuels production will grow by 0.3 million b/d in 2018 and by 0.2 million b/d in 2019. In Canada, oil sands projects continue to drive production growth during the forecast period, and new phases of the Horizon oil sands project, Fort Hills project, and Hebron project add production. Various project phases, including expansions and debottlenecking efforts, are scheduled to come online in 2018.

Brazil's petroleum and other liquid fuels production is expected to grow by 0.2 million b/d in 2018 and by 0.3 million b/d in 2019, accounting for the third-highest source of non-OPEC production growth in 2018 and the second-highest source in 2019, resource development and recent regulatory changes in the Brazilian oil industry are the main drivers of the growth. Continued implementation of reforms, including those to local content rules, are expected to result in higher production growth during the forecast period. Much of the growth in Brazil is expected to come from the Lula field, which started producing in November 2017 and reached 0.9 million b/d of output in April 2018. In addition to Lula, production in the Buzios field is also rising. The April 2018 production start-up at the Buzios field, with the P-74 floating production, storage, and offloading (FPSO) facility, came online at 0.15 million b/d.

Other sources of growth for non-OPEC petroleum and other liquid fuels production in 2018 and 2019 include Russia and Kazakhstan. EIA expects production increases in these two countries as a result of the recent production agreement between OPEC and some non-OPEC countries to raise output. Although no official production targets were allocated to any of the signatories of the OPEC/non-OPEC production agreement following the June 2018 meeting, EIA expects Russia's liquid fuels production to grow by less than 0.1 million b/d in 2018 and by 0.2 million b/d in 2019. Russia's oil companies reportedly have about 0.3 million b/d of available production capacity that could be brought online within a relatively short period of time. Kazakhstan, where the Kashagan field is expected to provide much of the production increase, is forecast to see liquid fuels supply grow by 0.1 million b/d 2018 and by less than 0.1 million b/d in 2019.

EIA expects non-OPEC supply growth in the United States, Canada, Brazil, and Russia to be partially offset by declines in several other non-OPEC producers in 2018 and in 2019. Among the countries in which EIA is forecasting supply to fall the most in 2019 are Egypt, Indonesia, Norway, and Mexico.

Non-OPEC unplanned supply outages in June 2018 were 0.4 million b/d, up about 0.1 million b/d from the May level. The increase largely reflects rising outages in Canada, where an average of 0.1 million b/d of production was shut in. Production at Syncrude Canada's 350,000 b/d oil sands facility near Fort McMurray, Alberta, is expected to remain offline through at least the end of July because of a power outage that occurred on June 20, 2018. So far in 2018, non-OPEC unplanned supply outages averaged about 0.5 million b/d, about 0.1 million b/d lower than the 2017 annual average.

OPEC Petroleum and Other Liquid Fuels Supply. OPEC crude oil production is expected to average 31.9 million b/d in 2018, a decrease of 0.6 million b/d compared with the 2017 level. The forecast decline is mainly the result of rapidly decreasing crude oil production in Venezuela,

which has fallen to less than 1.4 million b/d as of June 2018, a 0.6 million b/d decrease compared with June 2017. OPEC output during the first half of 2018 was also lower as a result of the production caps placed on the group's members as agreed upon in the November 2016 OPEC production agreement that aimed to limit OPEC crude oil output to 32.5 million b/d.

OPEC crude oil production averaged 31.9 million b/d in June. Although the OPEC and non-OPEC participants agreed on November 30, 2017, to extend the production cuts through the end of 2018 in order to reduce global oil inventories, tightening market conditions led the group to relax the production cuts starting in July 2018. EIA expects that OPEC crude oil output will decrease by less than 0.1 million b/d on average in 2019. The small decline in forecast OPEC production in 2019 reflects crude oil production increases from some producers that mostly make up for expected declines of more than 1.0 million b/d in Iran and Venezuela combined.

The July STEO reflects the U.S. withdrawal from the Joint Comprehensive Plan of Action (JCPOA) and the plan to reinstitute sanctions on companies doing business with Iran. Even though no U.S. companies are directly involved with Iranian companies, many European and Asian banks, insurers, and oil companies announced they might reduce commercial activity with Iran in light of potential U.S. sanctions. Sanctions will likely have a direct effect on the Iranian oil sector, which would limit crude oil exports and production from the country by the end of 2018.

EIA also expects Venezuela's production to continue to fall through the forecast period as the financial situation of the state-owned Petróleos de Venezuela (PdVSA) and the Venezuelan government becomes more precarious. Venezuela, which relies heavily on oil revenues, has seen its cash income severely constricted because only about half of the exports generate cash revenues. The country's midstream, downstream, and export facilities are also experiencing difficulties. In a recent legal setback for PdVSA, ConocoPhillips successfully seized PdVSA Caribbean assets following a $2 billion award the company received in April 2018 as compensation for the seizure of its assets in Venezuela. PdVSA depends on its Caribbean assets to export extra-heavy crude oil to Asia. This latest action will severely hamper Venezuela's ability to prevent production from declining further. Recent news reports indicate that loadings from Venezuela's Jose terminal are experiencing delays, and the country's terminals are unable to make up for the lost export capacity in the Caribbean, leading to further declines in production. Meanwhile, the remaining operating upgraders in the country have been taken out of service for maintenance, raising serious concerns as to whether they will be able to restart any time soon.

After averaging 6.8 million b/d in 2017, OPEC noncrude oil liquids production, mostly condensate related to natural gas production, is expected to rise to 7.0 million b/d in 2018 and to 7.2 million b/d in 2019, led by increases in Iran and Qatar.

OPEC unplanned crude oil supply disruptions averaged 1.7 million b/d in June, which increased by 0.3 million b/d compared with May. The increase in outages reflects higher production shut-ins in Nigeria where the Trans Forcados pipeline was shut in May, and remains out of service, affecting production of the Forcados crude oil stream. In addition, Shell declared force majeure

on Bonny Light exports following the shutdown of the Nembe Creek Trunk Line. In Libya, outages also increased during June as two of the country's ports, Es Sider and Ras Lanuf, closed. The closure of these two ports initially affected about 0.4 million b/d of Libya's production, which was more than 1.0 million b/d before the most recent outages. The outages occurred when the Petroleum Facilities Guards attacked and occupied the ports in mid-June 2018. Since then, the ports have been taken over by the Libyan National Army (LNA). LNA has turned over the facilities to the National Oil Company in the East, which is not an internationally recognized entity and is not permitted to export crude oil from Libya. Production at the fields that export crude oil through Es Sider and Ras Lanuf remains shut in. In early July, Libya's National Oil Corporation issued a force majeure at the Hariga and Zuetinia terminals as a result of LNA's decision to prevent tankers from entering the two ports to load crude. This latest action has resulted in additional disruptions of 0.2 million b/d, leaving crude oil production in the country at 0.4 million b/d at the time of writing.

EIA expects OPEC surplus production capacity to average 1.7 million b/d in 2018 and to fall to 1.3 million b/d in 2019, a relatively low level compared with the 2008–17 average of 2.3 million b/d. Low OPEC crude oil surplus production capacity can be an indicator of tight oil market conditions. All of OPEC's surplus production capacity currently available is in Saudi Arabia, Kuwait, the United Arab Emirates, and Qatar.

Republic of Congo (Congo Brazzaville) joined OPEC effective July 1, 2018, becoming the seventh African state to join the organization. Starting with the August 2018 STEO, EIA will include Congo's production in the OPEC total in the historical data and in the forecast. During the first six months of 2018, EIA estimates that Congo's crude oil production averaged about 340,000 b/d, with approximately an additional 10,000 b/d in noncrude liquids.

OECD Petroleum Inventories. EIA forecasts that OECD commercial crude oil and other liquid fuels inventories will be 2.84 billion barrels at the end of 2018, equivalent to 60 days of consumption. In terms of days of supply, this level is expected to be 1% below the five-year average for the end of the year. OECD inventories are forecast to rise to 2.98 billion barrels at the end of 2019.

Crude Oil Prices. The monthly average spot price of Brent crude oil decreased by $3/b in June to $74/b. Despite the decline, June marked the third consecutive month in which Brent crude oil spot prices averaged more than $70/b. The price decline in June largely reflected market expectations in the early part of the month that OPEC, along with certain non-OPEC producers including Russia, would announce a production increase at the June 22–23 meetings.

Although OPEC/non-OPEC producers did announce plans to increase production starting on July 1, Brent crude oil prices increased after the announcement. The price increases possibly reflected expectations by market participants that announced production increases would not be enough to offset falling production levels in Venezuela and Libya, along with the potential for reduced volumes from Iran following the U.S. withdrawal from the JCPOA.

Brent crude oil spot prices have risen from an average of $50/b in the second quarter of 2017 to an average of $75/b in the second quarter of 2018. The rising prices largely reflect continuing draws in global oil inventory levels. EIA estimates that global petroleum and other liquid fuels inventories fell by an average of 0.5 million b/d in 2017 and by 0.2 million b/d in the first half of 2018. EIA expects strong growth in U.S. and other non-OPEC liquid fuels production will contribute to global oil inventories rising by 0.1 million b/d in the second half of 2018 and by 0.6 million b/d in 2019. EIA forecasts the inventory builds in the second half of 2018 through 2019 will contribute to Brent crude oil prices declining from current levels to an average of $72/b in the fourth quarter of 2018. Prices are then expected to fall further to an average of $69/b in 2019.

The forecast for Brent crude oil spot prices for the second half of 2018 and all of 2019 is $1/b higher than in last month's STEO. Although forecast global oil inventories builds in 2019 are expected to be higher than the forecast in the June STEO, these builds will help raise OECD oil inventories that have fallen below five-year average levels on a days-of-supply basis. For much of the second half of 2018 and 2019, total OECD inventories are forecast to be lower than the five-year average on a days-of-supply basis, and OPEC spare crude oil production capacity is expected to be low compared with historical levels. This combination of relatively low inventory and spare capacity levels elevates the risk of upward price movements in the event of a supply disruption or if forecast production growth does not materialize.

Daily and monthly average crude oil prices could vary significantly from annual average forecasts because global economic developments and geopolitical events in the coming months have the potential to push oil prices higher or lower than the current STEO price forecast. Uncertainty remains regarding the effect of U.S. sanctions on Iran and the degree to which sanctions will take oil off the market. Additionally, the path of Venezuela's production declines and Libya's ability to bring back disrupted volumes is highly uncertain, as is the exact degree of the production response from other OPEC members and Russia. Developments regarding these and other variables, particularly the rate of economic growth and its effect on global oil demand growth, could influence prices in either direction. Also, the U.S. tight oil sector continues to be dynamic, and quickly evolving trends in this sector could affect both current crude oil prices and expectations for future prices.

Despite averaging nearly $7/b during June, the discount of West Texas Intermediate (WTI) crude oil prices to Brent fell to an average of $1/b during the final week of the month. The narrowing price spread was driven primarily by a crude oil production outage at a major Canadian oil sands facility, limiting crude oil volumes that could be sent to the Cushing, Oklahoma storage hub for delivery in the short term, putting upward pressure on WTI prices.

Average WTI crude oil prices are forecast to be $6/b lower than Brent prices in 2018 and $7/b lower than Brent prices in 2019. The price discount of WTI to Brent in the forecast is based on the assumption that increasing crude oil production in the Permian basin and current constraints on the capacity to transport crude oil from production areas in West Texas and from Cushing to refineries and export terminals along the U.S. Gulf Coast will persist until mid-2019.

At that point, new takeaway capacity is expected to come online from West Texas to the Gulf Coast that will reduce current distribution bottlenecks throughout Texas and Oklahoma.

The current values of futures and options contracts suggest significant uncertainty in the oil price outlook. WTI futures contracts for October 2018 delivery that were traded during the five-day period ending July 5 averaged $70/b, and implied volatility averaged 25%. These levels established the lower and upper limits of the 95% confidence interval for the market's expectations of monthly average WTI prices in October 2018 at $56/b and $87/b, respectively. The 95% confidence interval for market expectations widens slightly over time, with lower and upper limits of $50/b and $92/b, respectively, for prices in December 2018.

U.S. Liquid Fuels

Consumption. Total U.S. petroleum and other liquid fuels consumption is forecast to average 20.4 million barrels per day (b/d) in 2018, an increase of 470,000 b/d (2.4%) from the 2017 level. Consumption is forecast to grow by 330,000 b/d (1.6%) in 2019. Higher consumption of hydrocarbon gas liquids (HGL) is the primary reason for the growth. In addition, distillate fuel and jet fuel consumption are forecast to increase in 2018 and in 2019, while motor gasoline consumption is forecast to decline slightly in 2018 and to grow in 2019.

HGL consumption is expected to increase by 330,000 b/d (12.8%) in 2018 and by 160,000 b/d (5.5%) in 2019. Most of this consumption growth is expected to stem from increased use of ethane by the petrochemical industry. Ethane consumption increased by 250,000 b/d between the first quarter of 2017 and the first quarter of 2018 as new ethylene-producing petrochemical plants that use ethane as their feedstock began operating. Several more ethylene plants that are under construction are expected start in the second half of 2018 and in 2019, resulting in ethane consumption increasing by 270,000 b/d in 2018 and by 160,000 b/d in 2019.

EIA expects distillate fuel consumption growth to accelerate in 2018, with expected annual average growth of 140,000 b/d (3.6%) resulting in an average consumption of 4.1 million b/d, followed by an additional growth of 70,000 b/d (1.7%) in 2019. U.S. economic activity and industrial output are expected to grow strongly in 2018 and in 2019, contributing to higher distillate use.

Motor gasoline consumption is forecast to decline slightly in 2018 and is forecast to grow in 2019, increasing by 50,000 b/d (0.5%) from 2018 levels. If EIA's forecast growth in 2019 is realized, motor gasoline consumption would average almost 9.4 million b/d, the highest level of annual average gasoline consumption on record, slightly surpassing the previous record set in 2017. Expectations of growth in disposable personal income and rising levels of employment contribute to modest increases in forecast vehicle miles traveled through 2019.

Jet fuel consumption is expected to grow by 30,000 b/d (1.8%) in 2018 and by more than 30,000 b/d (2.0%) in 2019. Growth in the demand for air travel is the result, in part, of expectations of rising disposable income.

Supply. EIA forecasts total U.S. crude oil production to average 10.8 million b/d in 2018, up 1.4 million b/d from 2017. In 2019, crude oil production is forecast to average 11.8 million b/d. If realized, the forecast for both years would surpass the previous record of 9.6 million b/d set in 1970. Crude oil production at these forecast levels would probably make the United States the world's leading crude oil producer in both years.

Increased production from tight rock formations within the Permian region in Texas and New Mexico accounts for 0.6 million b/d of the expected 1.2 million b/d of crude oil production growth from June 2018 to December 2019. The remaining increase comes from the Bakken, Eagle Ford, other regions in the Lower 48 states, and the Federal Gulf of Mexico (GOM), which are collectively expected to account for production growth of about 0.6 million b/d.

EIA expects the Permian region to produce 4.0 million b/d by the end of 2019, which is about 0.6 million b/d more than estimated June 2018 levels and would represent about one-third of total U.S. crude oil production at the end of 2019. Favorable geology along with technological and operational improvements have allowed the Permian to become one of the most economic regions for oil production. However, the forecast annual average growth in 2019 is 0.4 million b/d lower than in 2018. The slower growth reflects increasing pipeline capacity constraints in the Permian region, which are expected to lower wellhead prices for the region's oil producers and to have a dampening effect on Permian's full production potential in the near term. The widening spread between WTI-Cushing and WTI-Midland crude oil prices signals the expectation for reduced drilling activity growth through the forecast period, which in turn is expected to slow the rate of crude oil production growth through 2019.

Production in the Eagle Ford region is expected to increase by about 0.2 million b/d to 1.4 million b/d in 2018, and then to increase further to 1.5 million b/d in 2019. The Eagle Ford region covers a significantly smaller geographic area with fewer prolific formations and fewer opportunities to drill compared with the Permian region. However, the Eagle Ford region does not have the same pipeline capacity constraints as the Permian region. Some producers could potentially target the Eagle Ford region and move away from the Permian in 2018 and in 2019, because the Permian region continues to experiences constraints.

EIA expects the Bakken region, contained mostly in North Dakota, to produce 1.2 million b/d in 2018 and 1.4 million b/d in 2019, surpassing the previous record of 1.2 million b/d set in 2015. Much of the recent growth in the region reflects the removal of pipeline capacity constraints that affected the region before 2017. However, the Bakken region contains fewer identified prolific formations than the Permian region and is more significantly affected by winter weather.

EIA expects GOM to produce 1.7 million b/d in 2018 and 1.9 million b/d in 2019. In 2018, 10 new projects are expected to come online, with 7 more expected to come online in 2019. If realized, forecast GOM production in both years would be the highest on record.

Elsewhere, growth from June 2018 through December 2019 is expected to occur in the Niobrara and Anadarko regions, which are both forecast to grow by 0.1 million b/d. Crude oil production in Alaska is expected to remain flat at 0.5 million b/d in 2018 and in 2019.

EIA forecasts HGL production at natural gas processing plants will increase from 3.7 million b/d in 2017 to 4.3 million b/d in 2018 and to 4.8 million b/d in 2019. HGLs produced at natural gas plants—butanes, ethane, propane, and natural gasoline—are expected to increase along with growth in natural gas production and natural gas processing plant capacity. However, EIA expects more than half of the 1.0 million b/d increase in HGL production between 2017 and 2019 will stem from increased ethane production, as planned increases in demand for petrochemical plant feedstock in the United States and abroad lead to higher ethane recovery rates.

Product Prices. EIA expects the retail price of regular gasoline to average $2.85 per gallon (gal) during the 2018 summer driving season (April through September), 44 cents/gal higher than last summer. EIA expects the retail price of regular gasoline to average $2.85/gal during the third quarter of 2018, 42 cents/gal higher than at the same time last year, primarily reflecting higher crude oil prices. EIA expects the U.S. monthly average retail price of regular gasoline will fall from a 2018 monthly peak of $2.90/gal in May to $2.83/gal in September before falling further to $2.70/gal in December. The U.S. regular gasoline retail price averaged $2.42/gal in 2017 and is forecast to average $2.76/gal in 2018 and $2.77/gal in 2019.

Regional annual average forecast prices for 2018 range from a low of $2.50/gal in the Gulf Coast—Petroleum Administration for Defense District (PADD) 3—to a high of $3.27/gal in the West Coast (PADD 5).

Refinery wholesale gasoline margins (the difference between the wholesale price of gasoline and the price of Brent crude oil) averaged 38 cents/gal in June. This level was lower than the 47 cents/gal average in June 2017 and the five-year (2013–17) average for June (48 cents/gal). Refinery wholesale gasoline margins averaged 40 cents/gal in 2017, which was relatively unchanged from the 2016 level but 7 cents/gal higher than the five-year average. Refinery wholesale gasoline margins are expected to average 31 cents/gal in 2018 and 35 cents/gal in 2019.

The diesel fuel retail price averaged $2.65/gal in 2017, which was 34 cents/gal higher than the average in 2016. The diesel price is forecast to average $3.14/gal in 2018 and $3.07/gal in 2019, driven higher primarily by higher crude oil prices and growing global diesel demand. Rising diesel consumption is expected to contribute to gradually increasing diesel refinery margins. Diesel refinery margins based on Brent crude oil are expected to average 44 cents/gal in 2018 and 49 cents/gal in 2019, compared with an average of 40 cents/gal in 2017.

Natural Gas

Natural Gas Consumption. Total U.S. natural gas consumption averaged 74.2 billion cubic feet per day (Bcf/d) in 2017 and is forecast to increase by 7% to 79.7 Bcf/d in 2018 before slightly decreasing to 79.6 Bcf/d in 2019. In 2018, increases in total natural gas consumption are mainly attributable to higher electric power sector use, which is forecast to increase by 2.4 Bcf/d (10%) from 2017 levels. The 2018 increase also reflects higher residential and commercial demand because the first quarter of 2018 was colder than the first quarter of 2017.

Based on forecasts by the National Oceanic and Atmospheric Administration (NOAA), EIA forecasts 2018 heating degree days (HDD) to be 11% higher in 2018 compared with 2017. The cold weather in the first quarter of 2018 increased natural gas consumption in the residential and commercial sectors in U.S. Northeast. In 2018, EIA expects residential and commercial natural gas consumption to increase by 10% and by 4%, respectively, compared with 2017 levels. Natural gas consumption in the residential and commercial sectors is then expected to decline by 2% and by 4%, respectively, in 2019. The forecast decline in 2019 reflects NOAA's outlook for a return to more typical temperatures in the upcoming winter.

Industrial sector consumption of natural gas is forecast to increase by almost 4% in 2018 and then remain flat in 2019. Most of the increase in the forecast is attributable to new chemical projects expected to come online. Low natural gas prices in recent years have made it economical to increase the use of natural gas as feedstock in ammonia for nitrogenous fertilizer and methanol manufacturers.

Natural Gas Production and Trade. EIA estimates that dry natural gas production will average 81.3 Bcf/d in 2018, an 11% increase from 2017 levels. In 2019, production is expected to rise by another 4%, averaging 84.5 Bcf/d for the year. The expected growth in natural gas production is largely in response to improved drilling efficiency and cost reductions, as well as higher crude oil prices that contribute to higher associated gas production from oil-directed rigs. Forecast natural gas production growth is supported by planned expansions in liquefied natural gas (LNG) and pipeline exports.

The United States was a net exporter of natural gas in the first quarter of 2018, with net exports averaging 0.5 Bcf/d. Rising LNG exports and pipeline exports have contributed to a shift from the United States being a net importer of natural gas as recently as the first quarter of 2017. U.S. exports of natural gas, including exports via pipeline and as LNG, averaged 9.6 Bcf/d in the first quarter of this year, according to EIA's most recent *Natural Gas Monthly* report. This level of exports is 0.8 Bcf/d (9%) more than in the first quarter of 2017 and 3.9 Bcf/d (67%) more than in the first quarter of 2016.

Since the beginning of 2016, four trains at the Sabine Pass liquefaction terminal in Louisiana have come online (total peak nameplate liquefaction capacity of 2.8 Bcf/d), as has the Cove Point liquefaction terminal's train in Maryland (0.8 Bcf/d peak nameplate capacity). The amount of U.S. natural gas exported as LNG averaged 2.6 Bcf/d in the first quarter of 2018, 1.0 Bcf/d (62%) more than in the same period last year. EIA expects the United States to have a total liquefaction capacity of 9.6 Bcf/d by the end of 2020.

U.S. exports to Mexico via pipeline have also increased as more infrastructure has been built to transport natural gas both to and within Mexico. Pipeline exports to Mexico averaged 4.4 Bcf/d in the first quarter of 2018, compared with 4.1 Bcf/d in the first quarter of 2017 and 3.3 Bcf/d in the first quarter of 2016. Exports to Mexico are expected to continue to increase as more natural gas-fired power plants come online in Mexico and more pipeline infrastructure within Mexico is developed.

U.S. net natural gas pipeline imports from Canada decreased from 2016 to 2017, in part because of the increasing U.S. exports to Canada, particularly from the U.S. Northeast. This decrease in net imports is expected to continue as the Rover and NEXUS pipelines begin to deliver additional supplies of low-cost natural gas from the Appalachia basin to the markets in the U.S. Midwest (previously served by Canadian natural gas) and eastern Canada.

Natural Gas Inventories. Natural gas inventories were 3.8 trillion cubic feet (Tcf) at the end of October 2017, and inventories ended March (typically considered the end of the winter season) at just below 1.4 Tcf, which was 19% lower than the five-year (2013–17) average for that time of year. However, colder temperatures this year contributed to further inventory withdrawals through the first three weeks of April. This April marked the first time EIA's *Weekly Natural Gas Storage Report*, which began in 1994, reported that net withdrawals from storage continued into the third week of April. Supported by EIA's forecast of rising production, natural gas inventories are expected to increase at the five-year average rate of growth during the current injection season (April–October) to reach 3.5 Tcf on October 31, which would be 9% lower than the five-year average for the end of October.

Natural Gas Prices. Despite inventories falling 0.5 Tcf below the five-year average at the end of April, monthly average Henry Hub natural gas prices have remained below $3 per million British thermal units (MMBtu) since January. EIA expects that higher natural gas production during the injection season will offset current and forecast low storage levels and will moderate significant upward price pressures in 2018. The Henry Hub natural gas spot price averaged $2.97/MMBtu in June, 16 cents/MMBtu higher than in May.

Natural gas futures contracts for October 2018 delivery that were traded during the five-day period ending July 5, 2018, averaged $2.87/MMBtu. Current options and futures prices indicate that market participants place the lower and upper bounds for the 95% confidence interval for October 2018 contracts at $2.37/MMBtu and $3.49/MMBtu, respectively.

Coal

Coal Supply. EIA estimates that coal production declined by 9 million short tons (MMst) (2%) in the first half of 2018 compared with the same period in 2017, despite an increase in U.S. coal exports over the same period. Overall in 2018, U.S. coal production is expected to total 773 MMst, nearly unchanged from 2017 levels. Western region coal production is expected to rise by 3 MMst to 433 MMst, and Interior region coal production is forecast to rise by 7 MMst to 153 MMst. Growth in those regions is offset by a forecast decline of 11 MMst (to 187 MMst) in Appalachia region coal production in 2018. In 2019, total U.S. coal production is expected to decline by 27 MMst (3%), as both exports and domestic consumption are expected to decline.

Coal Consumption. EIA estimates that coal consumption in the electric power sector for the first half of 2018 declined by 13 MMst (4%) compared with the same period in 2017, despite increases in overall electricity generation. Coal consumption in the electric power sector is forecast to decrease by 24 MMst (4%) for all of 2018 and by 30 MMst (5%) in 2019. The

decrease in power sector consumption reflects increased electricity generation from natural gas and renewable energy sources and the recent closure of coal-fired power plants.

Coal Trade. The United States, with excess coal production and export terminal capacity, is a swing supplier of coal in the global market. When market conditions are favorable (high global coal prices, low shipping costs, disruptions in supply from other exporters, and/or increased demand from major consumers), U.S. coal exports often expand. However, exports often contract with a reversal of these market factors. U.S. coal exports through the first four months of 2018 were 30% higher than in the same period of 2017, and the 11 MMst exported in April was the most exported in any month since in March 2013 when almost 14 MMst were exported. EIA forecasts total coal exports to be 104 MMst in 2018 and 99 MMst in 2019.

U.S. coal exports to Asia, particularly to India, remain strong. Exports to India for the first four months of 2018 were almost 7 MMst, up from 3 MMst in the first quarter of 2017. In 2016, exports to India for the whole year totaled 6 MMst.

Several factors could keep exports to India high in the near term. Increased electricity demand, combined with lower hydro generation, has led India's power ministry to recommend that state governments and private power companies import coal. India's domestic coal production is currently unable to meet the growing demand in the power sector. India is also proposing a national ban on using petroleum coke as a fuel. The proposal follows a ban ordered by India's Supreme Court last October on burning petroleum coke in the region around New Delhi. The new ban would still allow petroleum coke to be used in the limestone and cement industries. However, these factors supporting coal exports are expected to diminish.

Coal Prices. EIA estimates the delivered coal price to U.S. electricity generators averaged $2.08 per million British thermal units (MMBtu) in 2017, which was 4 cents/MMBtu lower than the 2016 price. EIA forecasts that coal prices will be $2.10/MMBtu in 2018 and $2.09/MMBtu in 2019.

Electricity

Electricity Consumption. For the first half of 2018, EIA estimates average residential retail sales of electricity were 7.5% higher than sales in the first half of 2017. Much of this higher electricity usage occurred in the first quarter, when U.S. temperatures were much colder than the mild winter of 2016–17. This trend was especially true in the West South Central states where first-quarter 2018 residential electricity sales were 21% higher than the same period in 2017, and in the South Atlantic states where first-quarter sales were 17% higher.

Warmer expected temperatures during the summer of 2018 compared with the summer of 2017 contribute to EIA's forecast of 2.1% year-over-year growth in residential electricity sales during the second half of 2018. Forecast annual 2018 average electricity sales to the residential sector are 4.7% higher than the 2017 level. Residential electricity sales are forecast to decline 1.1% in 2019, based on a forecast of temperatures being closer to normal.

The relatively cold weather experienced earlier this year did not affect electricity consumption in the commercial sector as much as in the residential sector. In the first half of 2018, retail electricity sales to the commercial sector were 1.6% higher than in the first half of 2017. EIA expects commercial electricity sales during the second half of 2018 to be 0.4% higher than in the same period last year. Forecast annual electricity sales to the commercial sector grow by 1.0% in 2018 and fall by 0.1% in 2019.

Annual industrial electricity use, which declined in 2017, is forecast to grow by 0.5% in 2018 and by 0.6% in 2019. Retail sales of electricity to the industrial sector remained flat in the first half of 2018 compared with the same period last year, despite a 2.0% increase in manufacturing output by electricity-intensive industries compared with the first half of 2017. With manufacturing output by electricity-intensive industries expected to increase at a more rapid pace of 3.7% in the second half of 2018, EIA forecasts growth of 1.1% in industrial retail electricity sales during the second half of this year compared with the same period in 2017.

Electricity Generation. EIA expects total U.S. electricity generation across all sectors to average 11.3 gigawatthours per day in 2018, which would be the highest level of generation since 2010. From 1980 through 2005, U.S. electricity generation grew by an average of 2.3% per year. However, power generation has grown relatively little on average since then, with year-to-year fluctuations related to weather. EIA forecasts U.S. electricity generation in 2018 will be 2.7% higher than last year but fall by 0.9% in 2019 as forecast temperatures return to normal levels.

The share of electricity generation supplied by natural gas-fired power plants has increased significantly over the past decade, rising from 24% of total U.S. generation in 2010 to nearly 32% last year. This increase in the share of generation has been offset by reduced generation from coal-fired power plants. Coal supplied 30% of U.S. generation in 2017, compared with nearly 45% in 2010. Much of this change in the mix of generation is a result of sustained low prices for natural gas, which have made that fuel competitive with coal.

EIA expects this trend in the U.S. generation mix to continue over the forecast period. The natural gas-fired share of generation is forecast to rise to 34% in 2018 and to 35% in 2019. In contrast, the forecast share of generation from coal-fired power plants falls to 28% this year and to 27% in 2019.

According to EIA's *Preliminary Monthly Electric Generator Inventory*, power plant operators added 5 gigawatts (GW) of new natural gas-fired generating capacity during the first four months of 2018, with an additional 15 GW scheduled to come online through the end of the year. This addition would be the largest annual increase in natural gas capacity since 2004.

Most of the new natural gas capacity uses combined-cycle technology, which can be efficiently run for long periods of time. At current fuel costs, combined-cycle generating units are relatively competitive with coal-fired power plants. EIA forecasts the price of natural gas supplied to electric generators to rise by 1% in 2018 and the price of coal to rise at a similar rate.

The nuclear share of generation was 20% in 2017 and is forecast to be slightly less than 20% in 2018 and in 2019. Nonhydropower renewables provided slightly less than 10% of electricity generation in 2017 and are expected to provide more than 10% in 2018 and nearly 11% in 2019. The generation share of hydropower was 7% in 2017 and is forecast to be slightly less than that share in 2018 and in 2019.

Electricity Retail Prices. The forecast U.S. retail electricity price for the residential sector averages 13 cents/kilowatthour in 2018, which is 0.5% higher than the average retail price last year. Forecast residential prices increase by an additional 2.7% in 2019. EIA expects commercial sector electricity prices to increase by 1.1% in 2018 and by 0.6% in 2019, while forecast industrial prices increase by 1.6% and 0.9% over the next two years, respectively.

Renewables and Carbon Dioxide Emissions

Electricity Renewables Generation and Capacity. Renewable generation provided 17.1% of total electricity generation in 2017, and EIA expects the share of generation from renewable sources to decrease slightly in 2018 and to increase to 17.4% in 2019. Within the renewables category, hydropower was 7.5% of total generation in 2017 and is forecasted to decline slightly to 6.8% in 2018 and to 6.6% in 2019. The share of total generation for renewables other than hydropower, which was 9.6% in 2017, is forecast to rise to 10.1% in 2018 and to 10.8% in 2019.

EIA forecasts 6 gigawatts (GW) of utility-scale solar photovoltaic (PV) capacity will be added in 2018 and 11 GW will be added in 2019. In addition, nearly 8 GW of small-scale solar PV capacity is expected to be installed in 2018 and 2019.

Domestic PV markets have been affected by a number of factors over the past six months, including: tariffs on PV modules imported into the United States (announced in late January 2018) starting at 30% and phasing out over four years; revision of PV installation targets in China, which may produce a near-term surplus of PV modules on the international market; and recent publication by the Internal Revenue Service of a safe-harbor provision for PV installations to qualify for a 30% investment tax credit, which allows for a four-year construction period upon project initiation (start of physical construction or expenditure of 5% of project value).

Although the above factors may, in some respects, counteract each other, EIA expects that the main effect of each factor will be felt over the next four years and may, on net, tend to extend project development activity or delay construction completions until after 2019. Regardless of the cause, EIA has seen fewer reports of PV projects slated to come online in 2019 than expected at the beginning of this year. EIA will continue to adjust the forecast to reflect observed market conditions.

EIA expects wind capacity to increase from 88 GW at the end of 2017 to 94 GW at the end of 2018 and to 104 GW by the end of 2019. The 11% increase in capacity in 2019 is expected to yield only a 4% annual increase in generation because much of that capacity is coming online in the last quarter of the year.

Liquid Biofuels. On June 26, 2018, the U.S. Environmental Protection Agency (EPA) released a proposed rulemaking that set Renewable Fuel Standard (RFS) volumes for 2019 and biomass-based diesel volumes for 2020. EIA used these final volumes to develop the forecasts for 2018 and 2019. EIA expects that the largest effect of the current RFS targets, along with recent duties placed on biodiesel imports, will be on biomass-based diesel production and net imports, which help to meet the RFS targets for use of biomass-based diesel, advanced biofuel, and total renewable fuel. Biodiesel production averaged an estimated 104,000 barrels per day (b/d) in 2017 and is forecast to increase to an average of 131,000 b/d in 2018 and to 144,000 b/d in 2019. Largely because of recent duties imposed on foreign biodiesel imports from Argentina and Indonesia, net imports of biomass-based diesel are expected to fall from an estimated 33,000 b/d in 2017 to 30,000 b/d in 2018 and then rise to 35,000 b/d in 2019.

Ethanol production averaged an estimated 1.0 million b/d in 2017 and is forecast to average about the same in 2018 and in 2019. Ethanol consumption averaged about 940,000 b/d in 2017 and is forecast to be about 940,000 b/d again in 2018 and then rise to 950,000 b/d in 2019. This level of consumption results in the ethanol share of the total gasoline pool increasing slightly from an average of 10.1% in 2017 to an average approaching 10.2% by 2019. This increase in the ethanol share assumes that recent marginal growth in higher-level ethanol blends continues during the forecast period.

Energy-Related Carbon Dioxide Emissions. After declining by 0.9% in 2017, energy-related carbon dioxide (CO2) emissions are expected to increase by 1.8% in 2018, driven by a 7.2% increase in natural gas emissions. CO2 emission are expected to decline by 0.5% in 2019, as natural gas consumption is forecast to increase modestly and coal consumption is forecast to decline by 4.3%. Energy-related CO2 emissions are sensitive to changes in weather, economic growth, energy prices, and fuel mix.

U.S. Economic Assumptions

Recent Economic Indicators. Real gross domestic product (GDP) increased at an annual rate of 2.9% in the fourth quarter of 2017 and 2.0% in the first quarter of 2018, according to recent estimates released by the Bureau of Economic Analysis.

Production, Income, and Employment. EIA used the June 2018 version of the IHS Markit macroeconomic model with EIA's energy price forecasts as model inputs to develop the economic forecasts in STEO.

Real GDP, which grew by 2.3% in 2017, is forecast to grow by 3.0% in 2018 and by 2.6% in 2019. Total industrial production is forecast to increase by 3.6% in 2018 and 2.7% in 2019—up from 1.6% growth in 2017. Growth in nonfarm employment averaged 1.6% in 2017 and is forecast to grow at the same rate in 2018 and slow to 1.4% in 2019.

Expenditures. Private real fixed investment is forecast to grow by 5.1% in 2018 and 5.0% in 2019, compared with 4.0% growth in 2017. Real consumption expenditures are forecast to grow by 2.5% in 2018 and in 2019, compared with a 2.8% increase in 2017.

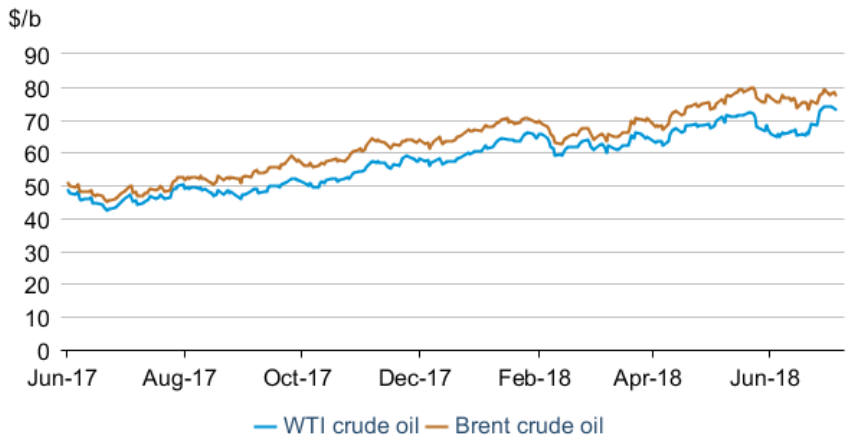
Total U.S. exports are forecast to grow by 5.5% in 2018 and by 6.0% in 2019, compared with 3.4% growth in 2017. Imports are forecast to grow by 5.2% in 2018 and by 8.4% in 2019, compared with 4.0% growth in 2017. Total government expenditures are forecast to increase by 1.9% in 2018 and by 2.3% in 2019, compared with an increase of 0.1% in 2017.

Petroleum and natural gas markets review

Crude oil

Prices: The front-month futures price for North Sea Brent crude oil settled at $77.39 per barrel (b) on July 5, an increase of 60 cents/b from June 1. Front-month futures prices for West Texas Intermediate (WTI) crude oil for delivery at Cushing, Oklahoma, increased by $7.13/b during the same period, settling at $72.94/b on July 5 **(Figure 1)**. June Brent and WTI monthly average spot prices were $2.58/b and $2.11/b lower than the May average spot prices.

Figure 1. Crude oil front-month futures prices



eia CME Group and Intercontinental Exchange, as compiled by Bloomberg L.P.

Uncertainty related to the outcome of the June meeting of the Organization of the Petroleum Exporting Countries (OPEC) and several unplanned supply disruptions contributed to increased crude oil price volatility and higher prices in recent weeks. On June 22–23, OPEC and the non-OPEC countries subject to voluntary supply reductions agreed to increase crude oil production back to the target levels. The surplus production reductions were primarily the result of accelerated declines in Venezuela. Uncertainty also remains as to when and how much of Iran's crude oil production and exports could decline because of the U.S. withdrawal from the Joint Comprehensive Plan of Action (JCPOA). An oil sands outage in Alberta, Canada, could last through the end of July, removing about 350,000 barrels per day (b/d) of production from the market. In addition, conflict in Libya led to disruptions at crude oil export and storage facilities and could have an indefinite effect on Libyan crude oil production going forward. Global unplanned supply outages totaled 2 million b/d in June, the highest level since May 2017.

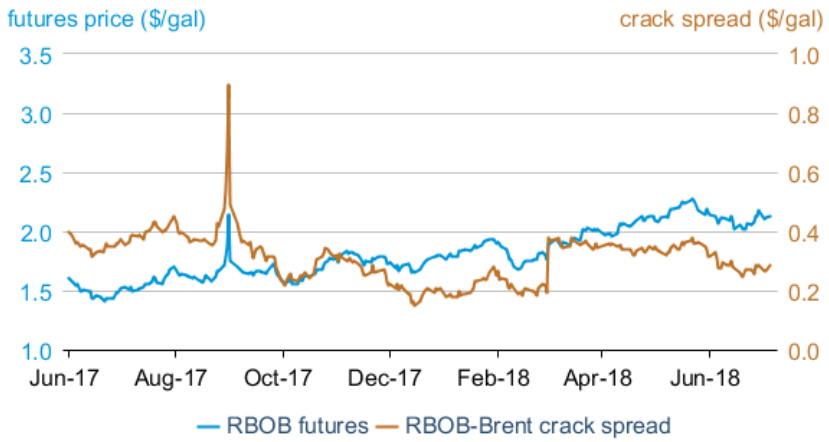
Petroleum products

Gasoline prices: The front-month futures price of reformulated blendstock for oxygenate blending (RBOB, the petroleum component of gasoline used in many parts of the country) settled at $2.13 per gallon (gal) on July 5 **(Figure 2)**, a decrease of 1 cent/gal from June 1. The RBOB–Brent crack spread (the difference between the price of RBOB and the price of Brent crude oil) declined by 3 cents/gal to settle at 29 cents/gal over the same period.

The RBOB–Brent crack spread averaged 28 cents/gal in June, the lowest for the month of June since 2011, as high gasoline inventories pressured crack spreads lower. EIA estimates that U.S. gasoline inventories in June were 240 million barrels, close to the five-year (2013-17) high for the month of June.

Lower gasoline consumption and record-high refinery runs compared with last year are likely causing gasoline stocks to rise. EIA estimates that U.S. gasoline consumption in June was 0.14 million barrels per day (b/d) lower than in June 2017. Further, U.S. gross inputs into refineries as of the four weeks ending June 29 were 18 million b/d, which would be a record high if confirmed in monthly data. Refineries in all five Petroleum Administration for Defense Districts (PADDs) ran at similar high utilization levels towards the end of June.

Figure 2. Historical RBOB front-month futures prices and crack spread



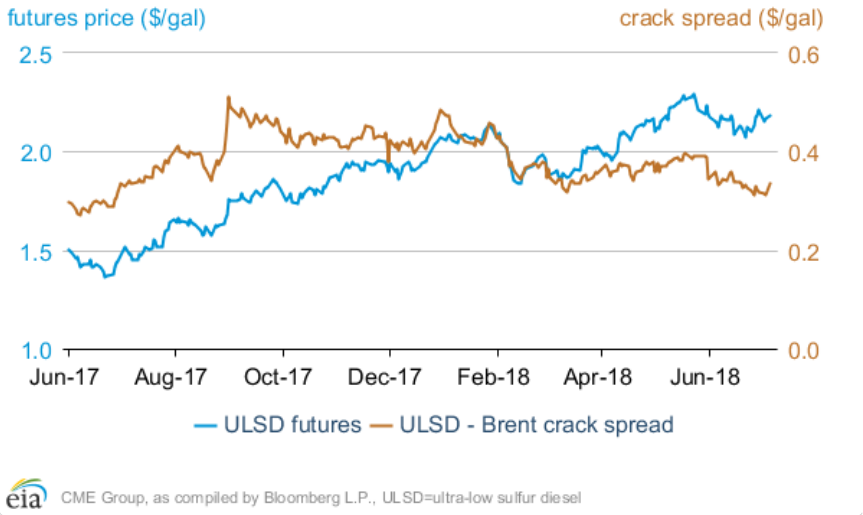
eia CME Group, as compiled by Bloomberg L.P., RBOB=reformulated blendstock for oxygenate blending

Ultra-low sulfur diesel prices: The ultra-low sulfur diesel (ULSD) front-month futures price was unchanged from June 1 to settle at $2.18/gal on July 5. The ULSD–Brent crack spread (the difference between the price of ULSD and the price of Brent crude oil) declined 1 cent/gal to settle at 34 cents/gal over the same period **(Figure 3)**.

The ULSD–Brent crack spread may have also been affected by record-high U.S. refinery runs. EIA estimates that distillate stocks rose to 118 million barrels from the end of May to the end of June, the first monthly increase in 2018. However, distillate stocks remain low compared with typical June levels, which might be putting upward pressure on ULSD prices and crack spreads.

Also, EIA forecasts distillate consumption to continue to be higher year-over-year through October 2018, which could contribute to a continuation of recent distillate price trends.

Figure 3. Historical ULSD front-month futures price and crack spread



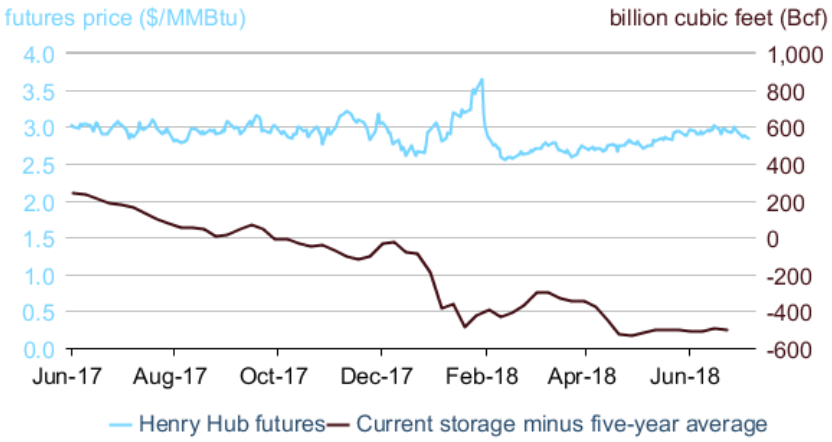
eia CME Group, as compiled by Bloomberg L.P., ULSD=ultra-low sulfur diesel

Natural Gas

Prices: The front-month natural gas futures contract for delivery at the Henry Hub settled at $2.84/million British thermal units (MMBtu) on July 5, a decrease of 13 cents/MMBtu from June 1 **(Figure 4)**. Record-high natural gas production continues to moderate upward price pressures. EIA estimates that natural gas production reached 81.8 billion cubic feet per day (Bcf/d) in June, 9.2 Bcf/d higher than in June 2017.

However, for the four weeks ending June 28, cooling degree days were 23% higher than normal, putting some upward pressure on natural gas prices. Futures prices increased to $3.02/MMBtu on June 15, the first time prices were more than $3/MMBtu since January. Additional natural gas consumption for power generation helped to keep natural gas inventories about 500 Bcf below the five-year (2013–17) average through June, despite rising production. The Henry Hub natural gas spot price averaged $2.97/MMBtu in June, 16 cents/MMBtu higher than May.

Figure 4. U.S. natural gas front-month futures prices and storage



eia U.S. Energy Information Administration, CME Group, as compiled by Bloomberg L.P.

Notable forecast changes

- For more information, see the detailed table of forecast changes

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Short-Term Energy Outlook
Chart Gallery

July 10, 2018

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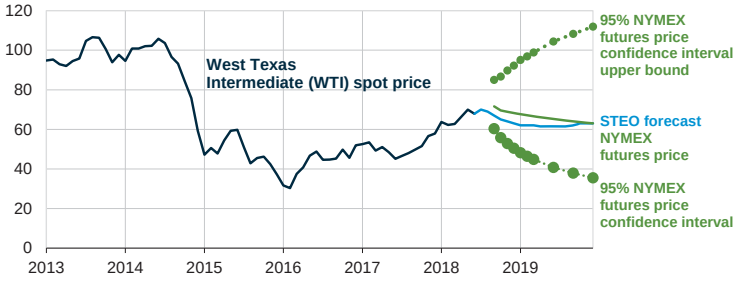
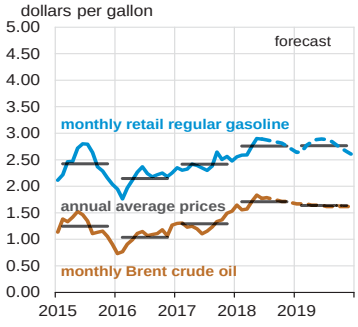
West Texas Intermediate (WTI) crude oil price and NYMEX confidence intervals
dollars per barrel



Note: Confidence interval derived from options market information for the five trading days ending Jul 5, 2018. Intervals not calculated for months with sparse trading in near-the-money options contracts.

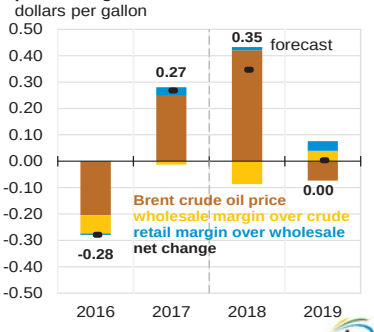
Source: Short-Term Energy Outlook, July 2018, and CME Group

U.S. gasoline and crude oil prices
dollars per gallon

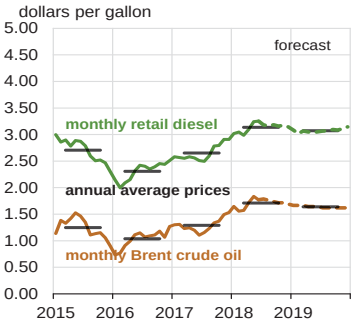


Source: Short-Term Energy Outlook, July 2018

Components of annual gasoline price changes
dollars per gallon

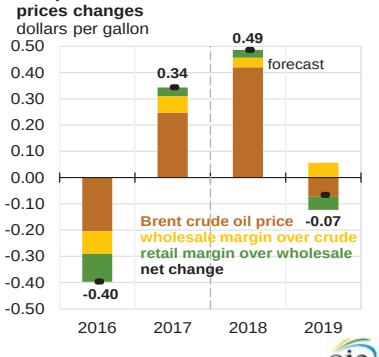


U.S. diesel and crude oil prices



Source: Short-Term Energy Outlook, July 2018

Components of annual diesel prices changes



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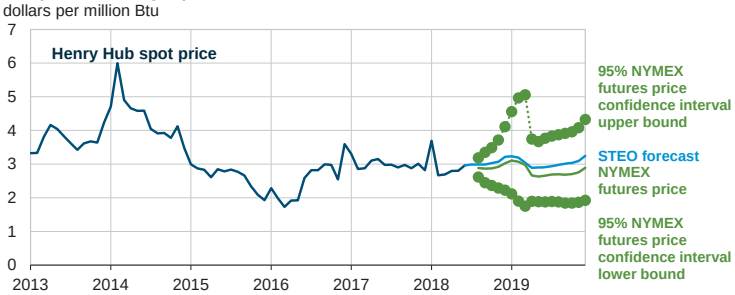
Henry Hub natural gas price and NYMEX confidence intervals

dollars per million Btu



Note: Confidence interval derived from options market information for the five trading days ending Jul 5, 2018. Intervals not calculated for months with sparse trading in near-the-money options contracts.

Source: Short-Term Energy Outlook, July 2018, and CME Group

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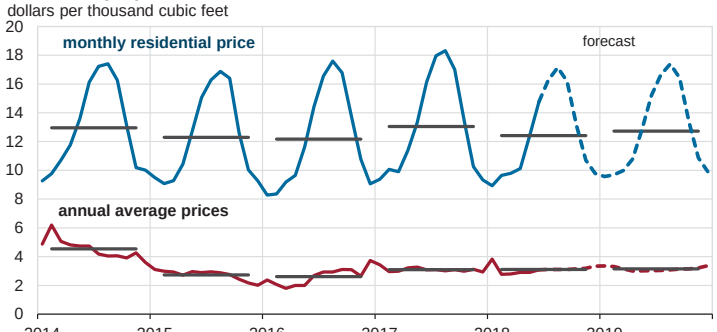
U.S. natural gas prices

dollars per thousand cubic feet



Source: Short-Term Energy Outlook, July 2018, and Thomson Reuters

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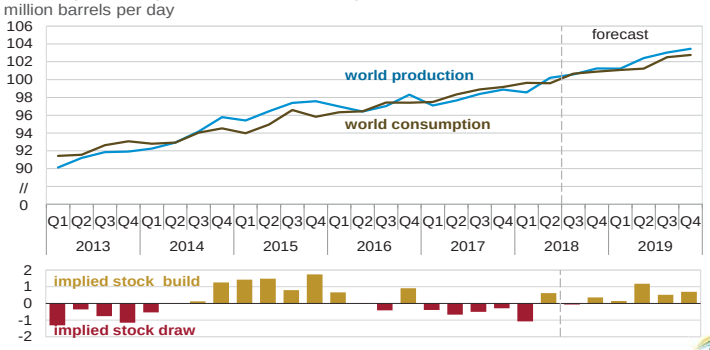
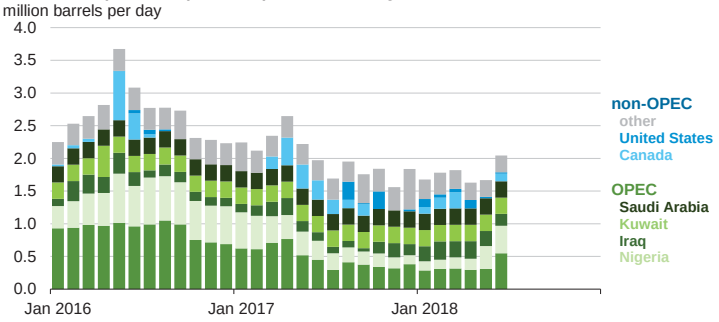
World liquid fuels production and consumption balance
million barrels per day



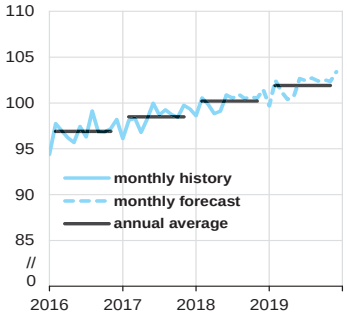
Source: Short-Term Energy Outlook, July 2018

Estimated unplanned liquid fuels production outages
million barrels per day

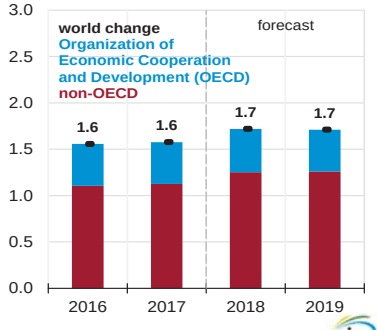


Source: Short-Term Energy Outlook, July 2018

World liquid fuels consumption
million barrels per day

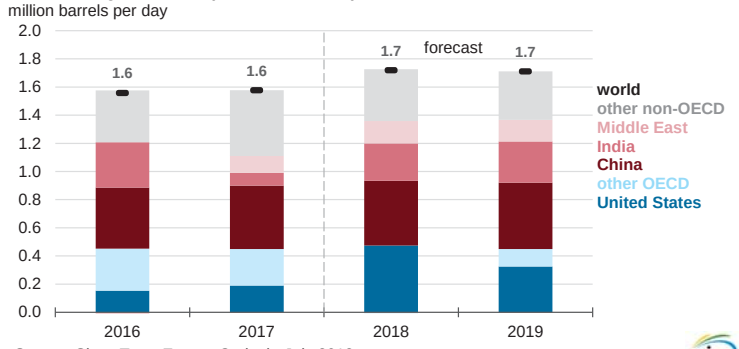


Components of annual change
million barrels per day



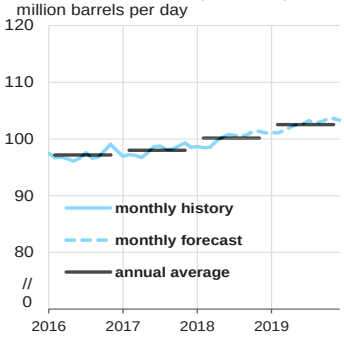
Source: Short-Term Energy Outlook, July 2018

Annual change in world liquid fuels consumption
million barrels per day

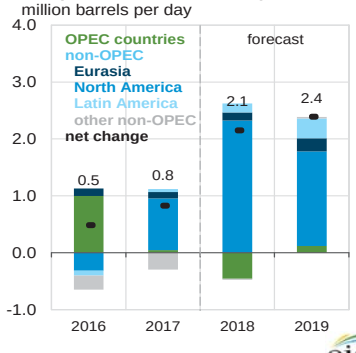


Source: Short-Term Energy Outlook, July 2018

World crude oil and liquid fuels production
million barrels per day

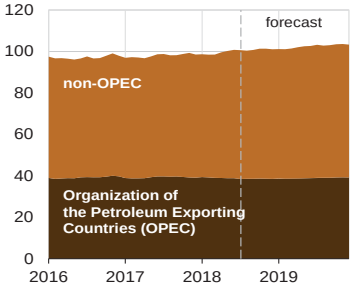


Components of annual change
million barrels per day

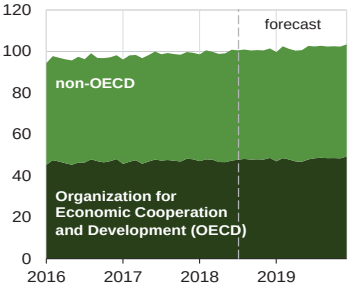


Source: Short-Term Energy Outlook, July 2018

World liquid fuels production
million barrels per day



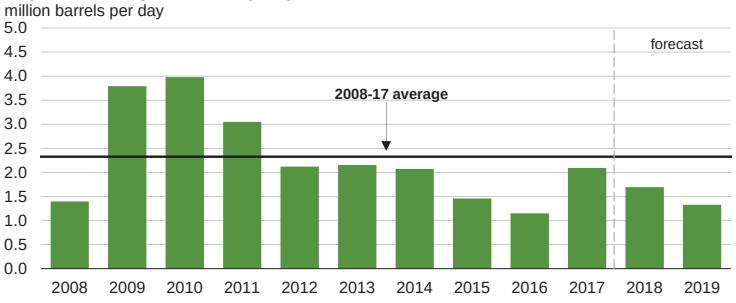
World liquid fuels consumption
million barrels per day



Source: Short-Term Energy Outlook, July 2018

Organization of the Petroleum Exporting Countries (OPEC) surplus crude oil production capacity

million barrels per day

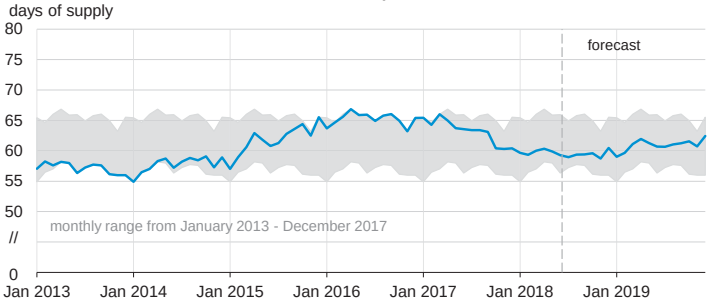


Note: Black line represents 2008-2017 average (2.3 million barrels per day).

Source: Short-Term Energy Outlook, July 2018

Organization for Economic Cooperation and Development (OECD) commercial inventories of crude oil and other liquids

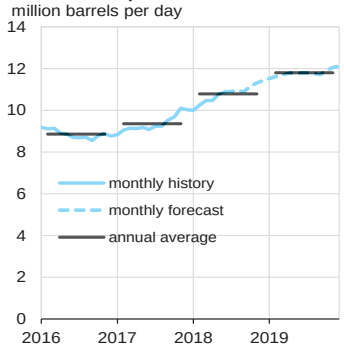
days of supply



Source: Short-Term Energy Outlook, July 2018

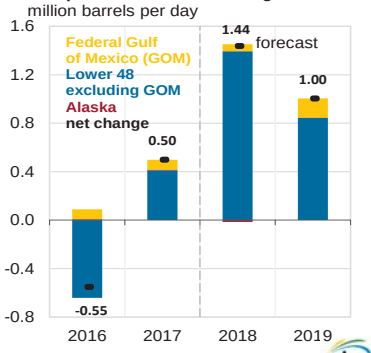
U.S. crude oil production

million barrels per day



Components of annual change

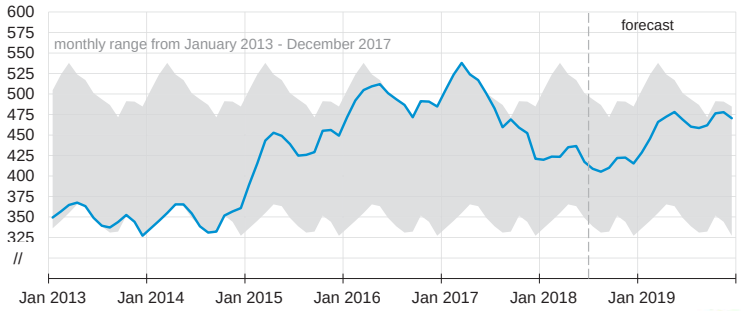
million barrels per day



Source: Short-Term Energy Outlook, July 2018

U.S. commercial crude oil inventories

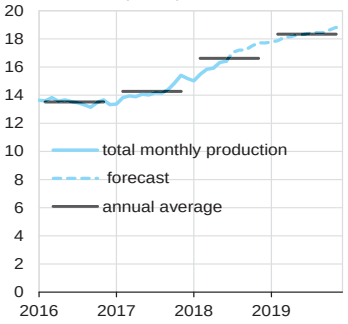
million barrels



Source: Short-Term Energy Outlook, July 2018

U.S. crude oil and liquid fuels production

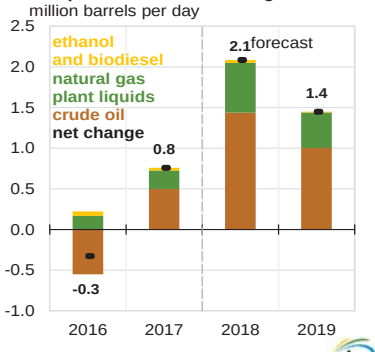
million barrels per day



Source: Short-Term Energy Outlook, July 2018

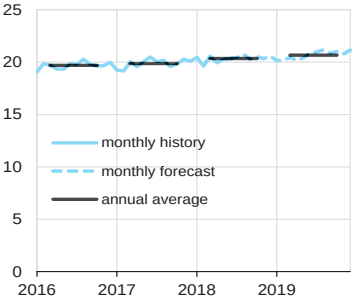
Components of annual change

million barrels per day



U.S. liquid fuels product supplied (consumption)

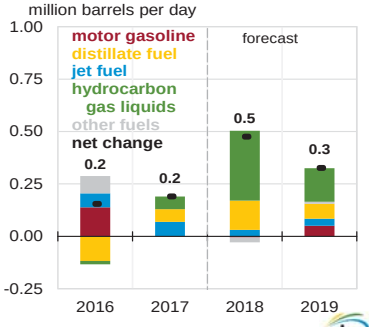
million barrels per day



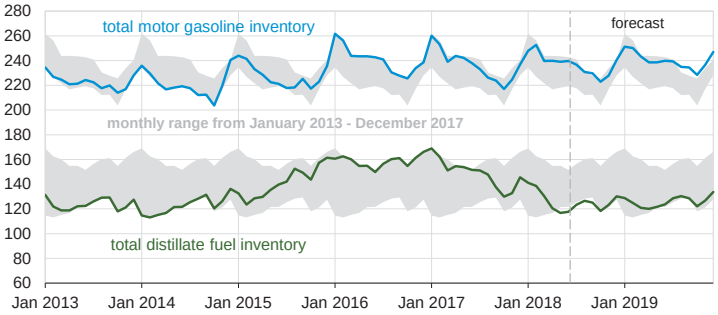
Source: Short-Term Energy Outlook, July 2018

Components of annual change

million barrels per day

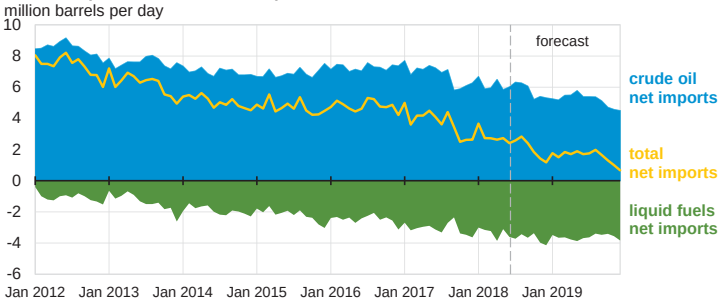


U.S. gasoline and distillate inventories
million barrels



Source: Short-Term Energy Outlook, July 2018

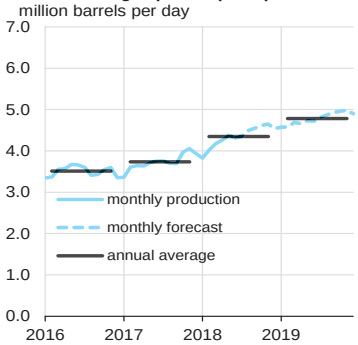
U.S. net imports of crude oil and liquid fuels
million barrels per day



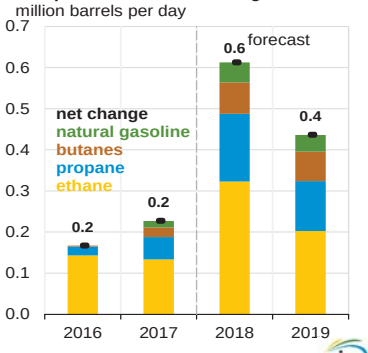
Note: Liquids fuels include: gasoline, distillate fuels, hydrocarbon gas liquids, jet fuel, residual fuel oil, unfinished oils, other hydrocarbons/oxygenates, and other oils.

Source: Short-Term Energy Outlook, July 2018

U.S. natural gas plant liquids production
million barrels per day

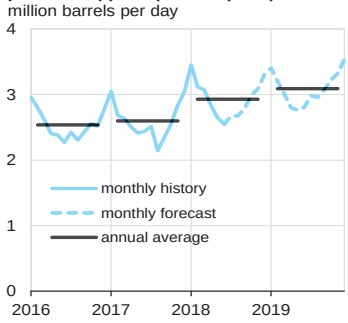


Components of annual change
million barrels per day

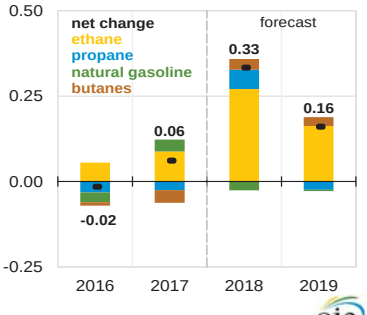


Source: Short-Term Energy Outlook, July 2018

U.S. hydrocarbon gas liquids product supplied (consumption)
million barrels per day

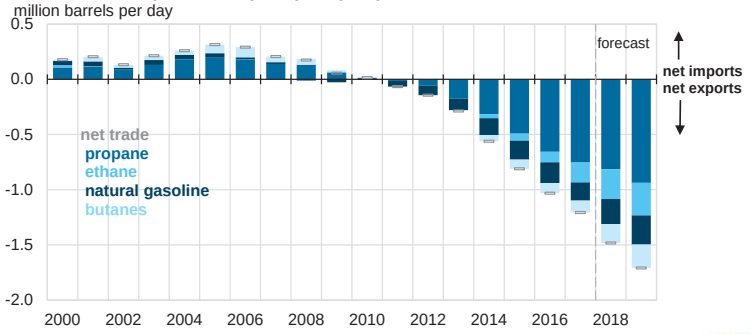


Components of annual change
million barrels per day



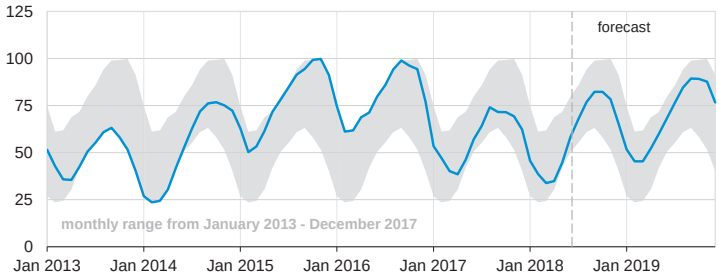
Source: Short-Term Energy Outlook, July 2018

U.S. net trade of hydrocarbon gas liquids (HGL)
million barrels per day



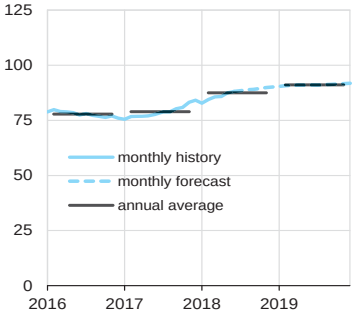
Source: Short-Term Energy Outlook, July 2018

U.S. commercial propane inventories
million barrels

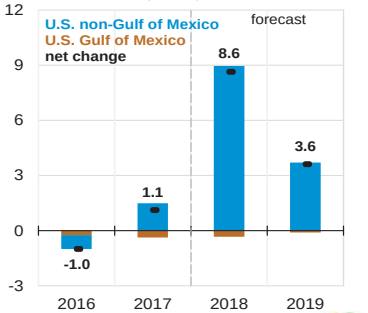


Source: Short-Term Energy Outlook, July 2018

U.S. marketed natural gas production
billion cubic feet per day

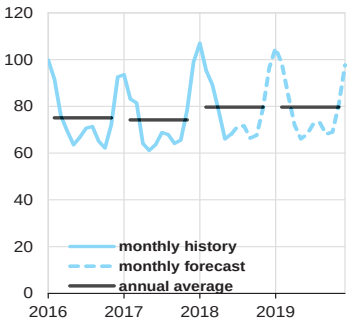


Components of annual change
billion cubic feet per day

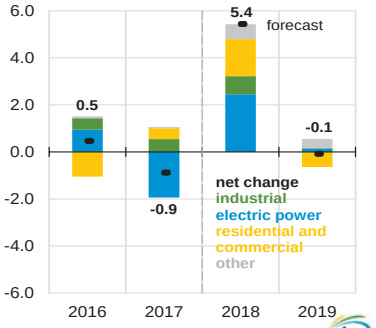


Source: Short-Term Energy Outlook, July 2018

U.S. natural gas consumption
billion cubic feet per day

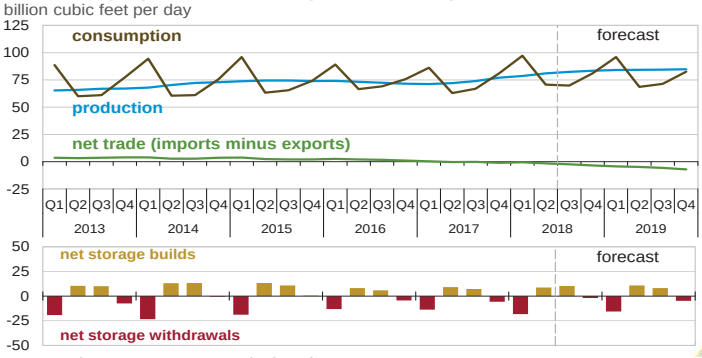


Components of annual change
billion cubic feet per day



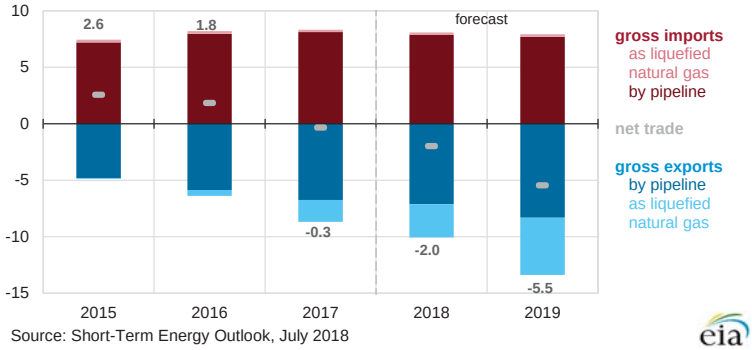
Source: Short-Term Energy Outlook, July 2018

U.S. natural gas production, consumption, and net imports
billion cubic feet per day



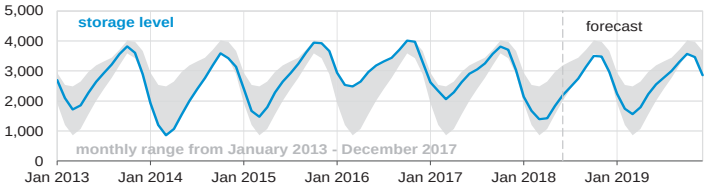
Source: Short-Term Energy Outlook, July 2018

Annual natural gas trade
billion cubic feet per day

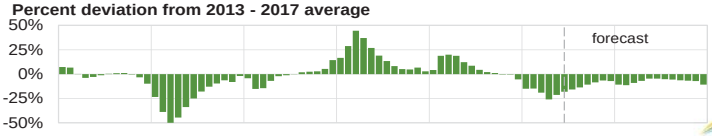


Source: Short-Term Energy Outlook, July 2018

U.S. working natural gas in storage
billion cubic feet

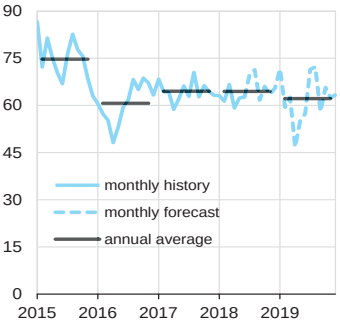


Percent deviation from 2013 - 2017 average

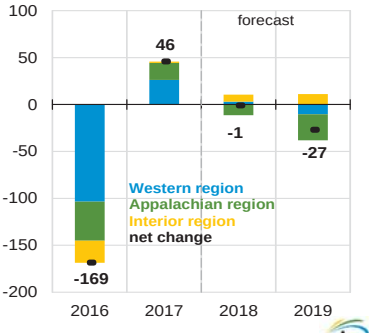


Source: Short-Term Energy Outlook, July 2018

U.S. coal production
million short tons

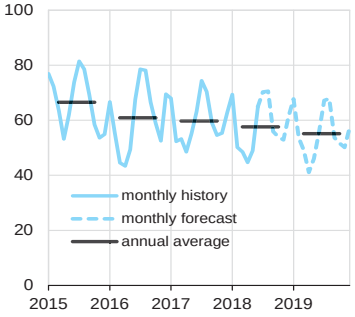


Components of annual change
million short tons

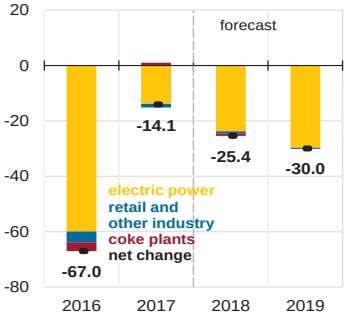


Source: Short-Term Energy Outlook, July 2018

U.S. coal consumption
million short tons

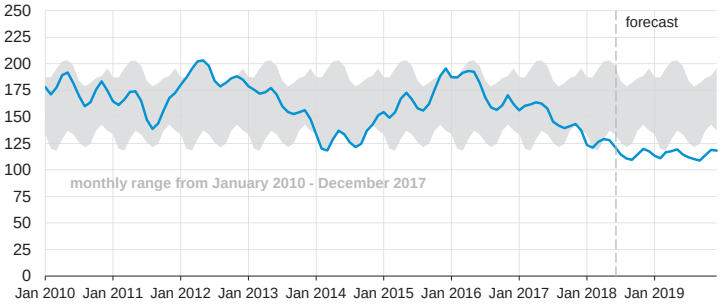


Components of annual change
million short tons



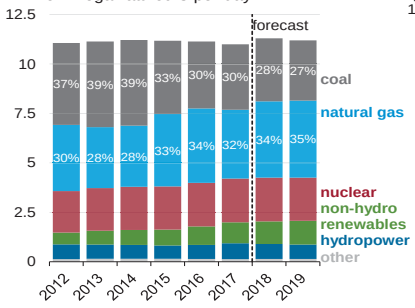
Source: Short-Term Energy Outlook, July 2018

U.S. electric power coal inventories
million short tons

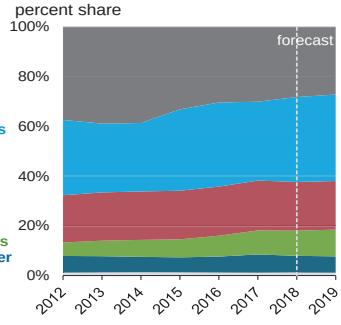


Source: Short-Term Energy Outlook, July 2018

U.S. electricity generation by fuel, all sectors
million megawatthours per day

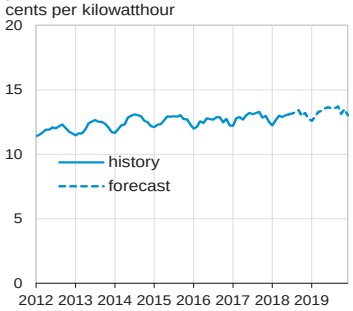


percent share

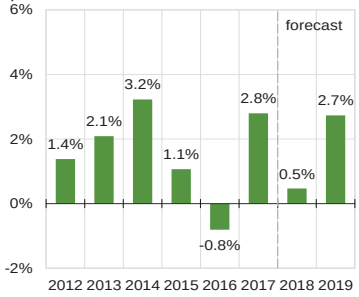


Note: Labels show percentage share of total generation provided by coal and natural gas.
Source: Short-Term Energy Outlook, July 2018

U.S. monthly residential electricity price
cents per kilowatthour

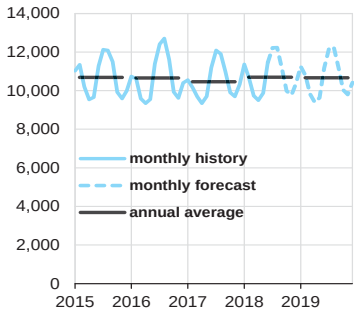


Annual growth in residential electricity prices
percent

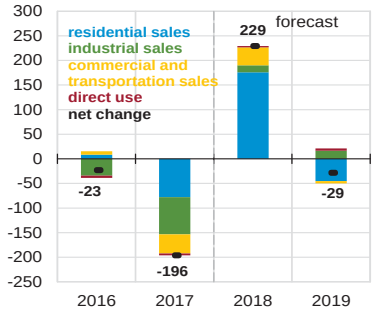


Source: Short-Term Energy Outlook, July 2018

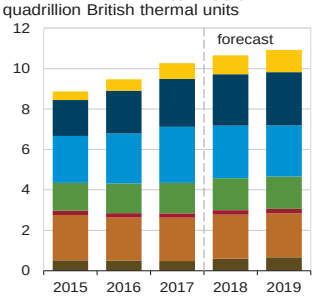
U.S. electricity consumption
million kilowatthours per day



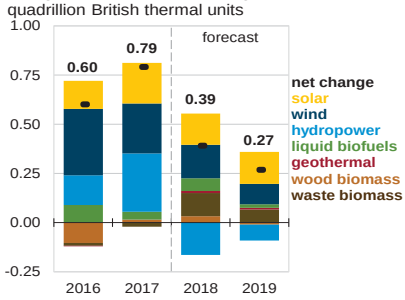
Components of annual change
million kilowatthours per day



U.S. renewable energy supply
quadrillion British thermal units

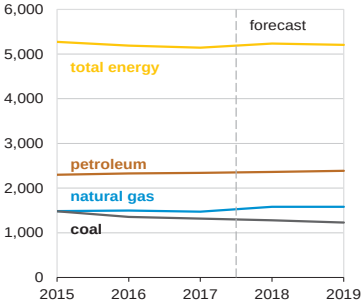


Components of annual change
quadrillion British thermal units

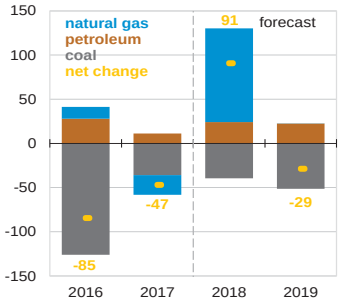


Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol and biodiesel. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste.
Source: Short-Term Energy Outlook, July 2018

U.S. annual carbon emissions by source
million metric tons

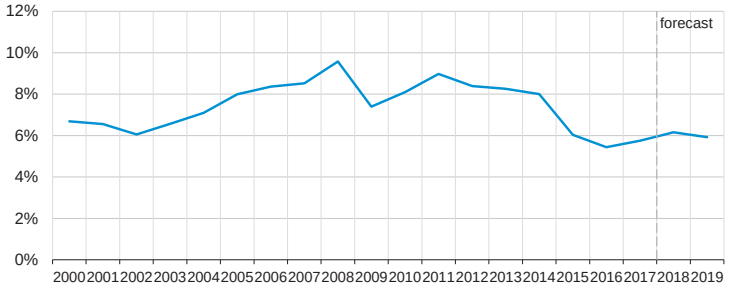


Components of annual change
million metric tons



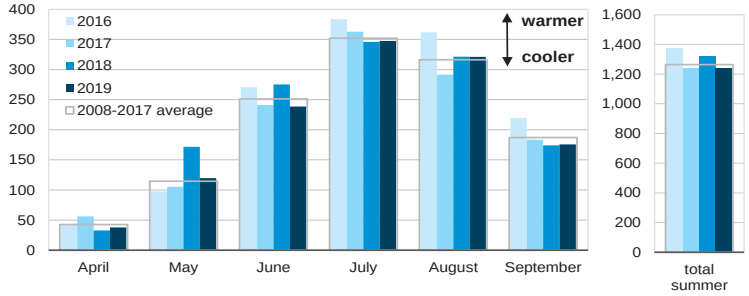
Source: Short-Term Energy Outlook, July 2018

U.S. annual energy expenditures
share of gross domestic product

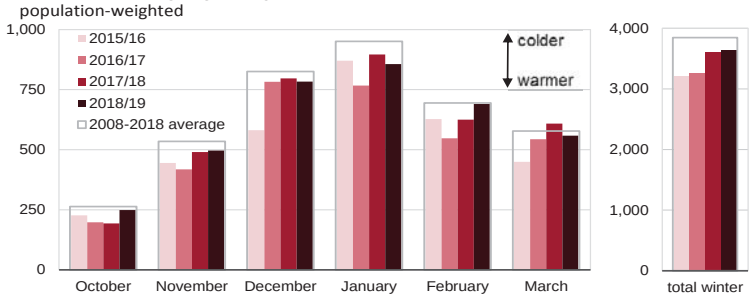


Source: Short-Term Energy Outlook, July 2018

U.S. summer cooling degree days
population-weighted



U.S. winter heating degree days
population-weighted



Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

Source: Short-Term Energy Outlook, July 2018

U.S. Census regions and divisions

Source: U.S. Energy Information Administration, *Short-Tem Energy Outlook*

Table 1. U.S. Energy Markets Summary

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Energy Supply															
Crude Oil Production (a)															
(million barrels per day)	**9.01**	**9.13**	**9.33**	**9.93**	**10.24**	**10.71**	*10.91*	*11.29*	*11.61*	*11.78*	*11.76*	*12.02*	**9.35**	*10.79*	*11.80*
Dry Natural Gas Production															
(billion cubic feet per day)	**71.24**	**72.04**	**73.97**	**76.98**	**78.53**	**80.95**	*82.44*	*83.37*	*84.11*	*84.37*	*84.46*	*84.87*	**73.57**	*81.34*	*84.46*
Coal Production															
(million short tons)	**197**	**187**	**196**	**194**	**191**	**184**	*203*	*195*	*194*	*159*	*202*	*192*	**774**	*773*	*746*
Energy Consumption															
Liquid Fuels															
(million barrels per day)	**19.49**	**20.03**	**19.92**	**20.05**	**20.24**	**20.19**	*20.49*	*20.48*	*20.26*	*20.47*	*20.99*	*20.98*	**19.88**	*20.35*	*20.68*
Natural Gas															
(billion cubic feet per day)	**86.15**	**62.96**	**66.96**	**80.94**	**97.24**	**70.70**	*69.90*	*81.06*	*96.01*	*68.69*	*71.30*		**74.22**	*79.65*	*79.57*
Coal (b)															
(million short tons)	**173**	**167**	**204**	**173**	**168**	**159**	*197*	*168*	*170*	*143*	*189*	*159*	**717**	*692*	*662*
Electricity															
(billion kilowatt hours per day)	**10.13**	**10.08**	**11.66**	**9.98**	**10.59**	**10.28**	*11.87*	*10.04*	*10.61*	*10.06*	*11.90*	*10.09*	**10.47**	*10.69*	*10.67*
Renewables (c)															
(quadrillion Btu)	**2.79**	**2.99**	**2.57**	**2.66**	**2.89**	**3.03**	*2.70*	*2.76*	*2.82*	*3.11*	*2.85*	*2.89*	**11.02**	*11.38*	*11.66*
Total Energy Consumption (d)															
(quadrillion Btu)	**25.04**	**23.24**	**24.34**	**25.09**	**26.39**	**23.62**	*24.46*	*24.85*	*25.91*	*23.33*	*24.78*	*25.12*	**97.72**	*99.32*	*99.14*
Energy Prices															
Crude Oil West Texas Intermediate Spot															
(dollars per barrel)	**51.64**	**48.15**	**48.16**	**55.27**	**62.90**	**68.07**	*68.73*	*64.05*	*62.00*	*61.50*	*61.66*	*63.00*	**50.79**	*65.95*	*62.04*
Natural Gas Henry Hub Spot															
(dollars per million Btu)	**3.01**	**3.08**	**2.95**	**2.90**	**3.02**	**2.86**	*2.99*	*3.11*	*3.15*	*2.90*	*2.97*	*3.13*	**2.99**	*2.99*	*3.04*
Coal															
(dollars per million Btu)	**2.08**	**2.12**	**2.07**	**2.04**	**2.06**	**2.09**	*2.12*	*2.11*	*2.09*	*2.08*	*2.09*	*2.08*	**2.08**	*2.10*	*2.09*
Macroeconomic															
Real Gross Domestic Product															
(billion chained 2009 dollars - SAAR)	**16,903**	**17,031**	**17,164**	**17,286**	**17,380**	**17,553**	*17,685*	*17,806*	*17,920*	*18,017*	*18,103*	*18,182*	**17,096**	*17,606*	*18,055*
Percent change from prior year	**2.0**	**2.2**	**2.3**	**2.6**	**2.8**	**3.1**	*3.0*	*3.0*	*3.1*	*2.6*	*2.4*	*2.1*	**2.3**	*3.0*	*2.6*
GDP Implicit Price Deflator															
(Index, 2009=100)	**112.8**	**113.0**	**113.6**	**114.3**	**114.8**	**115.5**	*116.2*	*116.9*	*117.7*	*118.5*	*119.3*	*120.0*	**113.4**	*115.8*	*118.9*
Percent change from prior year	**2.0**	**1.6**	**1.8**	**1.9**	**1.8**	**2.2**	*2.2*	*2.3*	*2.5*	*2.6*	*2.7*	*2.7*	**1.8**	*2.1*	*2.6*
Real Disposable Personal Income															
(billion chained 2009 dollars - SAAR)	**12,680**	**12,766**	**12,788**	**12,827**	**12,931**	**13,003**	*13,068*	*13,178*	*13,309*	*13,389*	*13,473*	*13,564*	**12,765**	*13,045*	*13,434*
Percent change from prior year	**0.9**	**1.1**	**1.1**	**1.9**	**2.0**	**1.9**	*2.2*	*2.7*	*2.9*	*3.0*	*3.1*	*2.9*	**1.2**	*2.2*	*3.0*
Manufacturing Production Index															
(Index, 2012=100)	**102.0**	**102.7**	**102.2**	**103.6**	**104.1**	**104.9**	*105.7*	*106.6*	*107.2*	*107.6*	*107.9*	*108.3*	**102.6**	*105.3*	*107.8*
Percent change from prior year	**0.6**	**1.9**	**1.2**	**2.1**	**2.1**	**2.2**	*3.4*	*2.9*	*3.0*	*2.5*	*2.1*	*1.6*	**1.5**	*2.6*	*2.3*
Weather															
U.S. Heating Degree-Days	**1,859**	**427**	**65**	**1,480**	**2,130**	**519**	*74*	*1,529*	*2,107*	*477*	*77*	*1,527*	**3,832**	*4,252*	*4,188*
U.S. Cooling Degree-Days	**70**	**402**	**838**	**115**	**51**	**479**	*842*	*89*	*40*	*396*	*845*	*90*	**1,425**	*1,461*	*1,370*

- = no data available

Prices are not adjusted for inflation.

(a) Includes lease condensate.

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

(c) Renewable energy includes minor components of non-marketed renewable energy that is neither bought nor sold, either directly or indirectly, as inputs to marketed energy. EIA does not estimate or project end-use consumption of non-marketed renewable energy.

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

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

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

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

Projections: EIA Regional Short-Term Energy Model. U.S. macroeconomic projections are based on the IHS Markit model of the U.S. Economy.

Weather projections from National Oceanic and Atmospheric Administration.

Table 2. Energy Prices

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Crude Oil (dollars per barrel)															
West Texas Intermediate Spot Average	**51.64**	**48.15**	**48.16**	**55.27**	**62.90**	**68.07**	*68.73*	*64.05*	*62.00*	*61.50*	*61.66*	*63.00*	**50.79**	*65.95*	*62.04*
Brent Spot Average	**53.57**	**49.59**	**52.09**	**61.42**	**66.84**	**74.53**	*74.03*	*71.69*	*70.00*	*69.00*	*68.00*	*68.00*	**54.15**	*71.80*	*68.74*
U.S. Imported Average	**47.94**	**46.25**	**47.42**	**55.10**	**58.09**	**64.49**	*65.21*	*60.49*	*58.50*	*58.00*	*58.16*	*59.50*	**48.98**	*62.14*	*58.50*
U.S. Refiner Average Acquisition Cost	**49.91**	**47.73**	**48.31**	**56.73**	**61.86**	**67.06**	*67.71*	*62.98*	*61.00*	*60.50*	*60.66*	*62.00*	**50.68**	*64.97*	*61.03*
U.S. Liquid Fuels (cents per gallon)															
Refiner Prices for Resale															
Gasoline	**163**	**165**	**172**	**175**	**186**	**214**	*210*	*198*	*194*	*209*	*204*	*187*	**169**	*202*	*199*
Diesel Fuel	**162**	**155**	**169**	**190**	**199**	**216**	*223*	*219*	*211*	*210*	*214*	*216*	**169**	*215*	*213*
Heating Oil	**154**	**144**	**154**	**179**	**193**	**208**	*213*	*212*	*208*	*200*	*205*	*209*	**160**	*205*	*206*
Refiner Prices to End Users															
Jet Fuel	**158**	**150**	**162**	**181**	**197**	**215**	*220*	*216*	*209*	*207*	*211*	*213*	**163**	*212*	*210*
No. 6 Residual Fuel Oil (a)	**128**	**120**	**124**	**140**	**149**	**163**	*166*	*157*	*152*	*148*	*149*	*152*	**129**	*159*	*150*
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	**233**	**238**	**244**	**251**	**258**	**285**	*285*	*276*	*269*	*287*	*284*	*266*	**242**	*276*	*277*
Gasoline All Grades (b)	**244**	**250**	**255**	**263**	**270**	**294**	*295*	*287*	*281*	*298*	*295*	*278*	**253**	*287*	*288*
On-highway Diesel Fuel	**257**	**255**	**263**	**287**	**302**	**320**	*318*	*316*	*306*	*305*	*308*	*311*	**265**	*314*	*307*
Heating Oil	**247**	**238**	**234**	**265**	**287**	**297**	*304*	*307*	*308*	*291*	*292*	*302*	**251**	*296*	*302*
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	**3.12**	**3.19**	**3.06**	**3.01**	**3.13**	**2.96**	*3.10*	*3.22*	*3.27*	*3.01*	*3.08*	*3.24*	**3.10**	*3.10*	*3.15*
Henry Hub Spot (dollars per million Btu)	**3.01**	**3.08**	**2.95**	**2.90**	**3.02**	**2.86**	*2.99*	*3.11*	*3.15*	*2.90*	*2.97*	*3.13*	**2.99**	*2.99*	*3.04*
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	**4.50**	**4.11**	**3.89**	**4.00**	**4.48**	**3.86**	*3.96*	*4.33*	*4.62*	*3.95*	*3.93*	*4.36*	**4.14**	*4.17*	*4.23*
Commercial Sector	**7.71**	**8.33**	**8.69**	**7.56**	**7.66**	**7.98**	*8.56*	*7.87*	*7.79*	*8.23*	*8.64*	*7.95*	**7.87**	*7.87*	*8.00*
Residential Sector	**9.73**	**13.00**	**17.74**	**10.19**	**9.39**	**11.47**	*16.52*	*10.57*	*9.72*	*12.26*	*16.80*	*10.74*	**10.92**	*10.56*	*10.90*
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	**2.08**	**2.12**	**2.07**	**2.04**	**2.06**	**2.09**	*2.12*	*2.11*	*2.09*	*2.08*	*2.09*	*2.08*	**2.08**	*2.10*	*2.09*
Natural Gas	**3.69**	**3.38**	**3.19**	**3.38**	**3.98**	**3.07**	*3.20*	*3.54*	*3.70*	*3.13*	*3.15*	*3.50*	**3.38**	*3.41*	*3.35*
Residual Fuel Oil (c)	**11.16**	**10.60**	**10.03**	**11.93**	**11.47**	**13.77**	*13.83*	*13.57*	*13.63*	*13.98*	*13.15*	*12.77*	**10.97**	*12.88*	*13.40*
Distillate Fuel Oil	**12.74**	**12.23**	**13.13**	**14.54**	**15.77**	**16.56**	*17.09*	*17.00*	*16.46*	*16.31*	*16.48*	*16.77*	**13.26**	*16.35*	*16.51*
Retail Prices (cents per kilowatthour)															
Industrial Sector	**6.64**	**6.89**	**7.27**	**6.79**	**6.79**	**6.90**	*7.41*	*6.95*	*6.82*	*6.99*	*7.48*	*7.01*	**6.91**	*7.02*	*7.09*
Commercial Sector	**10.39**	**10.68**	**11.03**	**10.56**	**10.51**	**10.71**	*11.15*	*10.75*	*10.66*	*10.81*	*11.14*	*10.78*	**10.68**	*10.79*	*10.86*
Residential Sector	**12.59**	**12.99**	**13.19**	**12.75**	**12.57**	**13.01**	*13.27*	*12.95*	*12.89*	*13.54*	*13.60*	*13.21*	**12.90**	*12.96*	*13.31*

- = no data available

Prices are not adjusted for inflation.

(a) Average for all sulfur contents.

(b) Average self-service cash price.

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

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

Prices exclude taxes unless otherwise noted.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Marketing Monthly* , DOE/EIA-0380; *Weekly Petroleum Status Report* , DOE/EIA-0208; *Natural Gas Monthly* , DOE/EIA-0130; *Electric Power Monthly* , DOE/EIA-0226; and *Monthly Energy Review* , DOE/EIA-0035.

WTI and Brent crude oils, and Henry Hub natural gas spot prices from Reuter's News Service (http://www.reuters.com).

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Supply (million barrels per day) (a)															
OECD	**27.12**	**26.94**	**27.12**	**28.28**	**28.55**	**29.49**	*29.99*	*30.76*	*31.02*	*31.29*	*31.42*	*31.96*	**27.37**	*29.71*	*31.43*
U.S. (50 States)	**15.02**	**15.35**	**15.53**	**16.49**	**16.77**	**17.58**	*17.97*	*18.45*	*18.70*	*19.05*	*19.21*	*19.54*	**15.60**	*17.70*	*19.13*
Canada	**5.05**	**4.71**	**4.99**	**5.19**	**5.01**	**5.24**	*5.39*	*5.50*	*5.51*	*5.50*	*5.55*	*5.59*	**4.99**	*5.29*	*5.54*
Mexico	**2.35**	**2.34**	**2.19**	**2.16**	**2.18**	**2.17**	*2.20*	*2.20*	*2.19*	*2.17*	*2.16*	*2.15*	**2.26**	*2.19*	*2.17*
Other OECD	**4.69**	**4.54**	**4.42**	**4.44**	**4.60**	**4.50**	*4.43*	*4.62*	*4.63*	*4.56*	*4.50*	*4.68*	**4.52**	*4.54*	*4.59*
Non-OECD	**69.98**	**70.73**	**71.26**	**70.59**	**70.00**	**70.71**	*70.59*	*70.49*	*70.21*	*71.13*	*71.61*	*71.50*	**70.64**	*70.45*	*71.12*
OPEC	**38.84**	**39.32**	**39.68**	**39.28**	**39.24**	**38.90**	*38.56*	*38.62*	*38.66*	*38.80*	*39.07*	*39.25*	**39.28**	*38.83*	*38.95*
Crude Oil Portion	**32.08**	**32.32**	**32.89**	**32.48**	**32.34**	**31.96**	*31.57*	*31.60*	*31.60*	*31.68*	*31.88*	*31.98*	**32.44**	*31.87*	*31.79*
Other Liquids (b)	**6.77**	**7.00**	**6.79**	**6.81**	**6.90**	**6.94**	*6.98*	*7.02*	*7.05*	*7.12*	*7.19*	*7.27*	**6.84**	*6.96*	*7.16*
Eurasia	**14.43**	**14.30**	**14.22**	**14.32**	**14.27**	**14.47**	*14.48*	*14.66*	*14.72*	*14.64*	*14.67*	*14.75*	**14.32**	*14.47*	*14.69*
China	**4.81**	**4.82**	**4.74**	**4.75**	**4.76**	**4.78**	*4.77*	*4.81*	*4.76*	*4.79*	*4.79*	*4.84*	**4.78**	*4.78*	*4.79*
Other Non-OECD	**11.89**	**12.29**	**12.62**	**12.24**	**11.74**	**12.56**	*12.79*	*12.39*	*12.09*	*12.90*	*13.07*	*12.66*	**12.26**	*12.37*	*12.68*
Total World Supply	**97.09**	**97.66**	**98.38**	**98.87**	**98.55**	**100.20**	*100.58*	*101.25*	*101.24*	*102.41*	*103.03*	*103.46*	**98.01**	*100.16*	*102.54*
Non-OPEC Supply	**58.25**	**58.35**	**58.70**	**59.58**	**59.32**	**61.30**	*62.03*	*62.63*	*62.58*	*63.61*	*63.96*	*64.21*	**58.73**	*61.33*	*63.60*
Consumption (million barrels per day) (c)															
OECD	**46.71**	**46.88**	**47.44**	**47.72**	**47.62**	**46.88**	*47.95*	*48.18*	*47.80*	*47.24*	*48.59*	*48.79*	**47.19**	*47.66*	*48.11*
U.S. (50 States)	**19.49**	**20.03**	**19.92**	**20.05**	**20.24**	**20.19**	*20.49*	*20.48*	*20.26*	*20.47*	*20.99*	*20.98*	**19.88**	*20.35*	*20.68*
U.S. Territories	**0.15**	**0.15**	**0.13**	**0.09**	**0.09**	**0.09**	*0.10*	*0.10*	*0.11*	*0.11*	*0.12*	*0.13*	**0.13**	*0.10*	*0.12*
Canada	**2.35**	**2.34**	**2.50**	**2.50**	**2.31**	**2.33**	*2.45*	*2.43*	*2.39*	*2.33*	*2.45*	*2.43*	**2.42**	*2.38*	*2.40*
Europe	**13.86**	**14.29**	**14.74**	**14.44**	**14.09**	**14.34**	*14.80*	*14.50*	*14.17*	*14.39*	*14.91*	*14.60*	**14.33**	*14.44*	*14.52*
Japan	**4.33**	**3.64**	**3.69**	**4.12**	**4.33**	**3.50**	*3.62*	*3.98*	*4.24*	*3.42*	*3.56*	*3.92*	**3.94**	*3.86*	*3.78*
Other OECD	**6.52**	**6.44**	**6.46**	**6.53**	**6.56**	**6.43**	*6.50*	*6.68*	*6.63*	*6.51*	*6.57*	*6.75*	**6.49**	*6.54*	*6.62*
Non-OECD	**50.79**	**51.46**	**51.45**	**51.44**	**52.02**	**52.71**	*52.70*	*52.72*	*53.29*	*53.99*	*53.93*	*53.98*	**51.29**	*52.54*	*53.80*
Eurasia	**4.73**	**4.72**	**4.99**	**4.86**	**4.76**	**4.81**	*5.08*	*4.96*	*4.82*	*4.87*	*5.14*	*5.02*	**4.83**	*4.91*	*4.96*
Europe	**0.72**	**0.71**	**0.73**	**0.73**	**0.73**	**0.73**	*0.75*	*0.75*	*0.74*	*0.74*	*0.76*	*0.76*	**0.72**	*0.74*	*0.75*
China	**13.48**	**13.29**	**13.01**	**13.27**	**14.01**	**13.77**	*13.43*	*13.67*	*14.52*	*14.24*	*13.88*	*14.13*	**13.26**	*13.72*	*14.19*
Other Asia	**13.05**	**13.37**	**13.08**	**13.42**	**13.62**	**13.82**	*13.51*	*13.83*	*14.13*	*14.30*	*13.91*	*14.24*	**13.23**	*13.69*	*14.14*
Other Non-OECD	**18.80**	**19.36**	**19.65**	**19.15**	**18.89**	**19.58**	*19.93*	*19.51*	*19.09*	*19.84*	*20.24*	*19.83*	**19.24**	*19.48*	*19.75*
Total World Consumption	**97.49**	**98.34**	**98.89**	**99.17**	**99.63**	**99.59**	*100.65*	*100.89*	*101.09*	*101.23*	*102.52*	*102.77*	**98.48**	*100.20*	*101.91*
Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)															
U.S. (50 States)	**0.00**	**0.22**	**0.34**	**0.91**	**0.37**	**-0.14**	*-0.30*	*0.39*	*-0.34*	*-0.54*	*-0.22*	*0.30*	**0.37**	*0.08*	*-0.20*
Other OECD	**-0.38**	**0.08**	**0.34**	**0.48**	**0.02**	**-0.16**	*0.13*	*-0.26*	*0.07*	*-0.21*	*-0.10*	*-0.34*	**0.13**	*-0.07*	*-0.15*
Other Stock Draws and Balance	**0.77**	**0.38**	**-0.16**	**-1.09**	**0.69**	**-0.32**	*0.24*	*-0.49*	*0.12*	*-0.43*	*-0.19*	*-0.65*	**-0.03**	*0.03*	*-0.29*
Total Stock Draw	**0.40**	**0.67**	**0.51**	**0.30**	**1.08**	**-0.61**	*0.07*	*-0.36*	*-0.15*	*-1.18*	*-0.51*	*-0.70*	**0.47**	*0.04*	*-0.64*
End-of-period Commercial Crude Oil and Other Liquids Inventories (million barrels)															
U.S. Commercial Inventory	**1,338**	**1,330**	**1,305**	**1,232**	**1,196**	**1,214**	*1,242*	*1,209*	*1,244*	*1,297*	*1,321*	*1,296*	**1,232**	*1,209*	*1,296*
OECD Commercial Inventory	**3,028**	**3,012**	**2,961**	**2,844**	**2,802**	**2,834**	*2,850*	*2,842*	*2,870*	*2,942*	*2,976*	*2,981*	**2,844**	*2,842*	*2,981*

- = 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, Latvia, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, the United States.

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

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

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

(c) Consumption of petroleum by the OECD countries is synonymous with "petroleum product supplied," defined in the glossary of the EIA *Petroleum Supply Monthly* , DOE/EIA-0109. Consumption of petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel and loss, and bunkering.

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
North America	**22.43**	**22.40**	**22.71**	**23.84**	**23.95**	**24.99**	*25.56*	*26.15*	*26.40*	*26.72*	*26.92*	*27.28*	**22.85**	*25.17*	*26.83*
Canada	**5.05**	**4.71**	**4.99**	**5.19**	**5.01**	**5.24**	*5.39*	*5.50*	*5.51*	*5.50*	*5.55*	*5.59*	**4.99**	*5.29*	*5.54*
Mexico	**2.35**	**2.34**	**2.19**	**2.16**	**2.18**	**2.17**	*2.20*	*2.20*	*2.19*	*2.17*	*2.16*	*2.15*	**2.26**	*2.19*	*2.17*
United States	**15.02**	**15.35**	**15.53**	**16.49**	**16.77**	**17.58**	*17.97*	*18.45*	*18.70*	*19.05*	*19.21*	*19.54*	**15.60**	*17.70*	*19.13*
Central and South America	**4.91**	**5.40**	**5.70**	**5.31**	**4.86**	**5.71**	*5.88*	*5.50*	*5.21*	*6.05*	*6.23*	*5.85*	**5.33**	*5.49*	*5.84*
Argentina	**0.67**	**0.67**	**0.67**	**0.70**	**0.67**	**0.68**	*0.67*	*0.69*	*0.65*	*0.67*	*0.66*	*0.68*	**0.68**	*0.68*	*0.67*
Brazil	**2.95**	**3.44**	**3.73**	**3.32**	**2.94**	**3.71**	*3.92*	*3.50*	*3.27*	*4.07*	*4.27*	*3.86*	**3.36**	*3.52*	*3.87*
Colombia	**0.87**	**0.88**	**0.88**	**0.87**	**0.84**	**0.89**	*0.88*	*0.88*	*0.87*	*0.88*	*0.87*	*0.88*	**0.87**	*0.87*	*0.87*
Other Central and S. America	**0.42**	**0.41**	**0.42**	**0.42**	**0.40**	**0.43**	*0.42*	*0.43*	*0.42*	*0.43*	*0.43*	*0.44*	**0.42**	*0.42*	*0.43*
Europe	**4.21**	**4.05**	**3.92**	**3.96**	**4.09**	**3.96**	*3.89*	*4.07*	*4.06*	*3.98*	*3.90*	*4.05*	**4.04**	*4.00*	*4.00*
Norway	**2.08**	**2.00**	**1.91**	**1.92**	**1.97**	**1.81**	*1.88*	*1.90*	*1.89*	*1.82*	*1.84*	*1.88*	**1.98**	*1.89*	*1.86*
United Kingdom	**1.09**	**1.07**	**1.00**	**1.02**	**1.11**	**1.18**	*1.04*	*1.18*	*1.18*	*1.18*	*1.09*	*1.19*	**1.05**	*1.13*	*1.16*
Eurasia	**14.43**	**14.30**	**14.22**	**14.32**	**14.27**	**14.47**	*14.48*	*14.66*	*14.72*	*14.64*	*14.67*	*14.75*	**14.32**	*14.47*	*14.69*
Azerbaijan	**0.79**	**0.80**	**0.79**	**0.81**	**0.79**	**0.81**	*0.79*	*0.77*	*0.79*	*0.79*	*0.78*	*0.76*	**0.80**	*0.79*	*0.78*
Kazakhstan	**1.87**	**1.87**	**1.86**	**1.92**	**1.87**	**1.98**	*1.99*	*2.06*	*2.07*	*1.96*	*2.00*	*2.07*	**1.88**	*1.98*	*2.02*
Russia	**11.32**	**11.18**	**11.14**	**11.16**	**11.17**	**11.22**	*11.24*	*11.37*	*11.42*	*11.45*	*11.46*	*11.48*	**11.20**	*11.25*	*11.45*
Turkmenistan	**0.28**	**0.28**	**0.28**	**0.28**	**0.27**	**0.29**	*0.29*	*0.29*	*0.28*	*0.28*	*0.28*	*0.28*	**0.28**	*0.28*	*0.28*
Other Eurasia	**0.16**	**0.17**	**0.16**	**0.16**	**0.15**	**0.18**	*0.17*	*0.17*	*0.17*	*0.17*	*0.17*	*0.16*	**0.16**	*0.17*	*0.16*
Middle East	**1.07**	**1.07**	**1.07**	**1.08**	**1.08**	**1.10**	*1.10*	*1.10*	*1.13*	*1.13*	*1.13*	*1.13*	**1.08**	*1.09*	*1.13*
Oman	**0.98**	**0.98**	**0.98**	**0.98**	**0.98**	**0.98**	*0.99*	*0.99*	*0.99*	*0.99*	*1.00*	*1.00*	**0.98**	*0.98*	*1.00*
Asia and Oceania	**9.34**	**9.26**	**9.17**	**9.16**	**9.23**	**9.23**	*9.26*	*9.29*	*9.24*	*9.26*	*9.28*	*9.31*	**9.23**	*9.25*	*9.28*
Australia	**0.34**	**0.35**	**0.36**	**0.34**	**0.38**	**0.37**	*0.37*	*0.38*	*0.39*	*0.41*	*0.42*	*0.45*	**0.35**	*0.37*	*0.42*
China	**4.81**	**4.82**	**4.74**	**4.75**	**4.76**	**4.78**	*4.77*	*4.81*	*4.76*	*4.79*	*4.79*	*4.84*	**4.78**	*4.78*	*4.79*
India	**1.01**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	*1.01*	*1.00*	*1.00*	*1.00*	*1.01*	*1.00*	**1.00**	*1.00*	*1.00*
Indonesia	**0.93**	**0.91**	**0.91**	**0.90**	**0.90**	**0.90**	*0.90*	*0.90*	*0.88*	*0.87*	*0.85*	*0.84*	**0.91**	*0.90*	*0.86*
Malaysia	**0.74**	**0.72**	**0.71**	**0.72**	**0.74**	**0.72**	*0.73*	*0.73*	*0.73*	*0.72*	*0.71*	*0.70*	**0.72**	*0.73*	*0.71*
Vietnam	**0.29**	**0.29**	**0.28**	**0.27**	**0.27**	**0.26**	*0.27*	*0.26*	*0.26*	*0.26*	*0.26*	*0.26*	**0.28**	*0.27*	*0.26*
Africa	**1.86**	**1.86**	**1.91**	**1.91**	**1.85**	**1.85**	*1.85*	*1.85*	*1.83*	*1.83*	*1.83*	*1.83*	**1.88**	*1.85*	*1.83*
Egypt	**0.64**	**0.65**	**0.66**	**0.66**	**0.63**	**0.63**	*0.63*	*0.63*	*0.58*	*0.58*	*0.58*	*0.58*	**0.65**	*0.63*	*0.58*
South Sudan	**0.15**	**0.15**	**0.15**	**0.15**	**0.12**	**0.12**	*0.12*	*0.12*	*0.12*	*0.12*	*0.12*	*0.12*	**0.15**	*0.12*	*0.12*
Total non-OPEC liquids	**58.25**	**58.35**	**58.70**	**59.58**	**59.32**	**61.30**	*62.03*	*62.63*	*62.58*	*63.61*	*63.96*	*64.21*	**58.73**	*61.33*	*63.60*
OPEC non-crude liquids	**6.77**	**7.00**	**6.79**	**6.81**	**6.90**	**6.94**	*6.98*	*7.02*	*7.05*	*7.12*	*7.19*	*7.27*	**6.84**	*6.96*	*7.16*
Non-OPEC + OPEC non-crude	**65.02**	**65.35**	**65.49**	**66.39**	**66.21**	**68.24**	*69.01*	*69.65*	*69.63*	*70.73*	*71.15*	*71.48*	**65.57**	*68.29*	*70.75*
Unplanned non-OPEC Production Outages	**0.43**	**0.68**	**0.63**	**0.54**	**0.55**	**0.35**	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	**0.57**	*n/a*	*n/a*

- = no data available

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Crude Oil															
Algeria	**1.04**	**1.03**	**1.03**	**1.00**	**1.02**	**1.02**	-	-	-	-	-	-	**1.03**	-	-
Angola	**1.64**	**1.66**	**1.66**	**1.63**	**1.59**	**1.54**	-	-	-	-	-	-	**1.65**	-	-
Ecudaor	**0.53**	**0.53**	**0.54**	**0.52**	**0.51**	**0.52**	-	-	-	-	-	-	**0.53**	-	-
Equatorial Guinea	**0.14**	**0.14**	**0.13**	**0.13**	**0.14**	**0.13**	-	-	-	-	-	-	**0.13**	-	-
Gabon	**0.19**	**0.20**	**0.20**	**0.20**	**0.20**	**0.20**	-	-	-	-	-	-	**0.20**	-	-
Iran	**3.80**	**3.81**	**3.83**	**3.84**	**3.83**	**3.80**	-	-	-	-	-	-	**3.82**	-	-
Iraq	**4.46**	**4.44**	**4.50**	**4.36**	**4.46**	**4.49**	-	-	-	-	-	-	**4.44**	-	-
Kuwait	**2.74**	**2.71**	**2.72**	**2.72**	**2.71**	**2.71**	-	-	-	-	-	-	**2.72**	-	-
Libya	**0.65**	**0.72**	**0.94**	**0.95**	**1.00**	**0.92**	-	-	-	-	-	-	**0.82**	-	-
Nigeria	**1.38**	**1.49**	**1.68**	**1.72**	**1.72**	**1.53**	-	-	-	-	-	-	**1.57**	-	-
Qatar	**0.62**	**0.61**	**0.61**	**0.60**	**0.61**	**0.61**	-	-	-	-	-	-	**0.61**	-	-
Saudi Arabia	**9.98**	**10.09**	**10.18**	**10.12**	**10.10**	**10.22**	-	-	-	-	-	-	**10.09**	-	-
United Arab Emirates	**2.92**	**2.90**	**2.92**	**2.90**	**2.88**	**2.86**	-	-	-	-	-	-	**2.91**	-	-
Venezuela	**1.99**	**1.97**	**1.95**	**1.78**	**1.57**	**1.42**	-	-	-	-	-	-	**1.92**	-	-
OPEC Total	**32.08**	**32.32**	**32.89**	**32.48**	**32.34**	**31.96**	*31.57*	*31.60*	*31.60*	*31.68*	*31.88*	*31.98*	**32.44**	*31.87*	*31.79*
Other Liquids (a)	**6.77**	**7.00**	**6.79**	**6.81**	**6.90**	**6.94**	*6.98*	*7.02*	*7.05*	*7.12*	*7.19*	*7.27*	**6.84**	*6.96*	*7.16*
Total OPEC Supply	**38.84**	**39.32**	**39.68**	**39.28**	**39.24**	**38.90**	*38.56*	*38.62*	*38.66*	*38.80*	*39.07*	*39.25*	**39.28**	*38.83*	*38.95*
Crude Oil Production Capacity															
Africa	**5.04**	**5.24**	**5.64**	**5.64**	**5.66**	**5.33**	*4.83*	*5.17*	*5.29*	*5.31*	*5.36*	*5.43*	**5.39**	*5.25*	*5.35*
Middle East	**26.70**	**26.69**	**26.71**	**26.64**	**26.51**	**26.52**	*26.60*	*26.51*	*26.44*	*26.33*	*26.36*	*26.40*	**26.69**	*26.53*	*26.38*
South America	**2.53**	**2.51**	**2.49**	**2.31**	**2.08**	**1.94**	*1.61*	*1.49*	*1.42*	*1.39*	*1.37*	*1.34*	**2.46**	*1.78*	*1.38*
OPEC Total	**34.27**	**34.44**	**34.84**	**34.58**	**34.25**	**33.78**	*33.04*	*33.18*	*33.16*	*33.04*	*33.09*	*33.17*	**34.54**	*33.56*	*33.12*
Surplus Crude Oil Production Capacity															
Africa	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	**0.00**	*0.00*	*0.00*
Middle East	**2.19**	**2.13**	**1.95**	**2.10**	**1.91**	**1.82**	*1.47*	*1.58*	*1.56*	*1.36*	*1.21*	*1.19*	**2.09**	*1.69*	*1.33*
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*
OPEC Total	**2.19**	**2.13**	**1.95**	**2.10**	**1.91**	**1.82**	*1.47*	*1.58*	*1.56*	*1.36*	*1.21*	*1.19*	**2.09**	*1.69*	*1.33*
Unplanned OPEC Production Outages	**1.81**	**1.60**	**1.17**	**1.21**	**1.21**	**1.42**	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	**1.45**	*n/a*	*n/a*

- = no data available

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
North America	**23.81**	**24.35**	**24.33**	**24.44**	**24.49**	**24.44**	*24.85*	*24.85*	*24.57*	*24.74*	*25.37*	*25.36*	**24.23**	*24.66*	*25.01*
Canada	**2.35**	**2.34**	**2.50**	**2.50**	**2.31**	**2.33**	*2.45*	*2.43*	*2.39*	*2.33*	*2.45*	*2.43*	**2.42**	*2.38*	*2.40*
Mexico	**1.96**	**1.98**	**1.90**	**1.88**	**1.93**	**1.90**	*1.90*	*1.94*	*1.91*	*1.92*	*1.92*	*1.95*	**1.93**	*1.92*	*1.92*
United States	**19.49**	**20.03**	**19.92**	**20.05**	**20.24**	**20.19**	*20.49*	*20.48*	*20.26*	*20.47*	*20.99*	*20.98*	**19.88**	*20.35*	*20.68*
Central and South America	**6.95**	**7.01**	**7.09**	**7.02**	**6.80**	**6.95**	*7.06*	*7.07*	*6.82*	*7.01*	*7.14*	*7.16*	**7.02**	*6.97*	*7.04*
Brazil	**3.02**	**3.01**	**3.09**	**3.10**	**3.00**	**3.08**	*3.17*	*3.19*	*3.06*	*3.15*	*3.25*	*3.29*	**3.06**	*3.11*	*3.19*
Europe	**14.54**	**14.96**	**15.43**	**15.13**	**14.80**	**15.03**	*15.50*	*15.21*	*14.87*	*15.09*	*15.62*	*15.32*	**15.02**	*15.14*	*15.23*
Eurasia	**4.77**	**4.76**	**5.03**	**4.90**	**4.80**	**4.85**	*5.13*	*5.00*	*4.86*	*4.91*	*5.19*	*5.06*	**4.86**	*4.95*	*5.00*
Russia	**3.61**	**3.62**	**3.82**	**3.69**	**3.61**	**3.68**	*3.89*	*3.76*	*3.66*	*3.73*	*3.94*	*3.81*	**3.68**	*3.73*	*3.78*
Middle East	**8.20**	**8.74**	**9.07**	**8.45**	**8.32**	**8.90**	*9.25*	*8.63*	*8.48*	*9.05*	*9.40*	*8.78*	**8.62**	*8.78*	*8.93*
Asia and Oceania	**34.91**	**34.24**	**33.79**	**34.94**	**36.06**	**35.06**	*34.59*	*35.69*	*37.05*	*35.99*	*35.42*	*36.54*	**34.47**	*35.34*	*36.25*
China	**13.48**	**13.29**	**13.01**	**13.27**	**14.01**	**13.77**	*13.43*	*13.67*	*14.52*	*14.24*	*13.88*	*14.13*	**13.26**	*13.72*	*14.19*
Japan	**4.33**	**3.64**	**3.69**	**4.12**	**4.33**	**3.50**	*3.62*	*3.98*	*4.24*	*3.42*	*3.56*	*3.92*	**3.94**	*3.86*	*3.78*
India	**4.40**	**4.64**	**4.42**	**4.75**	**4.77**	**4.89**	*4.66*	*4.95*	*5.14*	*5.22*	*4.89*	*5.20*	**4.55**	*4.82*	*5.11*
Africa	**4.31**	**4.27**	**4.16**	**4.28**	**4.38**	**4.36**	*4.28*	*4.44*	*4.44*	*4.45*	*4.38*	*4.55*	**4.26**	*4.37*	*4.45*
Total OECD Liquid Fuels Consumption	**46.71**	**46.88**	**47.44**	**47.72**	**47.62**	**46.88**	*47.95*	*48.18*	*47.80*	*47.24*	*48.59*	*48.79*	**47.19**	*47.66*	*48.11*
Total non-OECD Liquid Fuels Consumption	**50.79**	**51.46**	**51.45**	**51.44**	**52.02**	**52.71**	*52.70*	*52.72*	*53.29*	*53.99*	*53.93*	*53.98*	**51.29**	*52.54*	*53.80*
Total World Liquid Fuels Consumption	**97.49**	**98.34**	**98.89**	**99.17**	**99.63**	**99.59**	*100.65*	*100.89*	*101.09*	*101.23*	*102.52*	*102.77*	**98.48**	*100.20*	*101.91*
Oil-weighted Real Gross Domestic Product (a)															
World Index, 2015 Q1 = 100	**105.7**	**106.5**	**107.4**	**108.2**	**109.3**	**110.0**	*110.9*	*111.7*	*112.8*	*113.5*	*114.3*	*115.2*	**107.0**	*110.5*	*113.9*
Percent change from prior year	**3.6**	**2.9**	**3.1**	**3.1**	**3.4**	**3.3**	*3.3*	*3.2*	*3.2*	*3.1*	*3.1*	*3.1*	**3.2**	*3.3*	*3.1*
OECD Index, 2015 Q1 = 100	**103.9**	**104.4**	**105.1**	**105.8**	**106.6**	**107.2**	*107.7*	*108.3*	*109.0*	*109.4*	*109.9*	*110.3*	**104.8**	*107.4*	*109.7*
Percent change from prior year	**3.0**	**2.2**	**2.4**	**2.4**	**2.6**	**2.6**	*2.4*	*2.4*	*2.3*	*2.1*	*2.1*	*1.8*	**2.5**	*2.5*	*2.1*
Non-OECD Index, 2015 Q1 = 100	**107.5**	**108.5**	**109.5**	**110.6**	**111.9**	**112.8**	*114.0*	*115.1*	*116.4*	*117.5*	*118.7*	*120.0*	**109.0**	*113.4*	*118.1*
Percent change from prior year	**4.2**	**3.6**	**3.8**	**3.8**	**4.1**	**4.0**	*4.0*	*4.1*	*4.0*	*4.1*	*4.1*	*4.2*	**3.8**	*4.1*	*4.1*
Real U.S. Dollar Exchange Rate (a)															
Index, 2015 Q1 = 100	**104.95**	**103.52**	**101.99**	**102.37**	**100.64**	**101.93**	*102.84*	*102.25*	*101.67*	*101.06*	*100.52*	*100.06*	**103.21**	*101.92*	*100.83*
Percent change from prior year	**-0.2**	**0.3**	**-1.0**	**-2.4**	**-4.1**	**-1.5**	*0.8*	*-0.1*	*1.0*	*-0.9*	*-2.3*	*-2.2*	**-0.8**	*-1.2*	*-1.1*

- = 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, Latvia, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, the United States.

(a) Weighted geometric mean of real indices for various countries with weights equal to each country's share of world oil consumption in the base period. Exchange rate is measured in foreign currency per U.S. dollar. GDP and exchange rate data are from Oxford Economics, and oil consumption data are from EIA.

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Supply (million barrels per day)															
Crude Oil Supply															
Domestic Production (a)	**9.01**	**9.13**	**9.33**	**9.93**	**10.24**	**10.71**	*10.91*	*11.29*	*11.61*	*11.78*	*11.76*	*12.02*	**9.35**	*10.79*	*11.80*
Alaska	**0.52**	**0.50**	**0.45**	**0.51**	**0.51**	**0.48**	*0.43*	*0.49*	*0.51*	*0.48*	*0.44*	*0.50*	**0.49**	*0.48*	*0.48*
Federal Gulf of Mexico (b)	**1.75**	**1.66**	**1.72**	**1.59**	**1.67**	**1.72**	*1.72*	*1.83*	*1.92*	*1.93*	*1.81*	*1.92*	**1.68**	*1.74*	*1.89*
Lower 48 States (excl GOM)	**6.74**	**6.98**	**7.16**	**7.84**	**8.06**	**8.50**	*8.76*	*8.97*	*9.19*	*9.37*	*9.50*	*9.61*	**7.18**	*8.58*	*9.42*
Crude Oil Net Imports (c)	**7.24**	**7.24**	**6.63**	**6.08**	**6.18**	**6.11**	*6.21*	*5.31*	*5.30*	*5.55*	*5.29*	*4.59*	**6.79**	*5.95*	*5.18*
SPR Net Withdrawals	**0.04**	**0.14**	**0.06**	**0.12**	**-0.03**	**0.06**	*0.00*	*0.04*	*0.04*	*0.04*	*0.04*	*0.02*	**0.09**	*0.02*	*0.04*
Commercial Inventory Net Withdrawals	**-0.59**	**0.41**	**0.34**	**0.52**	**-0.03**	**0.07**	*0.08*	*-0.06*	*-0.56*	*-0.03*	*0.08*	*-0.09*	**0.17**	*0.02*	*-0.15*
Crude Oil Adjustment (d)	**0.22**	**0.21**	**0.24**	**0.07**	**0.05**	**0.16**	*0.21*	*0.15*	*0.19*	*0.19*	*0.21*	*0.15*	**0.18**	*0.15*	*0.19*
Total Crude Oil Input to Refineries	**15.91**	**17.13**	**16.60**	**16.72**	**16.41**	**17.11**	*17.42*	*16.74*	*16.58*	*17.53*	*17.38*	*16.69*	**16.59**	*16.92*	*17.05*
Other Supply															
Refinery Processing Gain	**1.09**	**1.13**	**1.07**	**1.12**	**1.11**	**1.13**	*1.14*	*1.12*	*1.09*	*1.13*	*1.13*	*1.12*	**1.10**	*1.13*	*1.12*
Natural Gas Plant Liquids Production	**3.54**	**3.70**	**3.72**	**3.99**	**4.01**	**4.32**	*4.46*	*4.60*	*4.61*	*4.70*	*4.87*	*4.95*	**3.74**	*4.35*	*4.78*
Renewables and Oxygenate Production (e)	**1.17**	**1.16**	**1.19**	**1.23**	**1.21**	**1.20**	*1.22*	*1.22*	*1.17*	*1.21*	*1.23*	*1.23*	**1.19**	*1.21*	*1.21*
Fuel Ethanol Production	**1.04**	**1.01**	**1.02**	**1.06**	**1.05**	**1.03**	*1.05*	*1.04*	*1.03*	*1.04*	*1.04*	*1.04*	**1.03**	*1.04*	*1.04*
Petroleum Products Adjustment (f)	**0.21**	**0.22**	**0.21**	**0.22**	**0.21**	**0.22**	*0.22*	*0.22*	*0.21*	*0.23*	*0.22*	*0.22*	**0.22**	*0.22*	*0.22*
Product Net Imports (c)	**-2.96**	**-2.99**	**-2.80**	**-3.49**	**-3.13**	**-3.52**	*-3.60*	*-3.82*	*-3.59*	*-3.78*	*-3.50*	*-3.60*	**-3.06**	*-3.52*	*-3.62*
Hydrocarbon Gas Liquids	**-1.20**	**-1.18**	**-1.16**	**-1.29**	**-1.22**	**-1.48**	*-1.53*	*-1.70*	*-1.66*	*-1.72*	*-1.68*	*-1.77*	**-1.21**	*-1.48*	*-1.71*
Unfinished Oils	**0.37**	**0.34**	**0.38**	**0.38**	**0.39**	**0.32**	*0.36*	*0.31*	*0.38*	*0.39*	*0.41*	*0.31*	**0.37**	*0.35*	*0.37*
Other HC/Oxygenates	**-0.13**	**-0.09**	**-0.09**	**-0.13**	**-0.18**	**-0.13**	*-0.09*	*-0.09*	*-0.12*	*-0.10*	*-0.08*	*-0.09*	**-0.11**	*-0.12*	*-0.10*
Motor Gasoline Blend Comp.	**0.43**	**0.68**	**0.64**	**0.36**	**0.50**	**0.73**	*0.43*	*0.40*	*0.50*	*0.67*	*0.49*	*0.44*	**0.53**	*0.51*	*0.53*
Finished Motor Gasoline	**-0.66**	**-0.62**	**-0.63**	**-0.94**	**-0.94**	**-0.71**	*-0.59*	*-0.82*	*-0.91*	*-0.79*	*-0.57*	*-0.75*	**-0.71**	*-0.77*	*-0.75*
Jet Fuel	**-0.04**	**-0.07**	**-0.01**	**0.02**	**-0.10**	**-0.12**	*-0.08*	*-0.04*	*-0.02*	*-0.05*	*-0.06*	*-0.01*	**-0.02**	*-0.08*	*-0.04*
Distillate Fuel Oil	**-1.01**	**-1.36**	**-1.32**	**-1.22**	**-0.87**	**-1.35**	*-1.40*	*-1.17*	*-1.05*	*-1.34*	*-1.30*	*-1.02*	**-1.23**	*-1.20*	*-1.18*
Residual Fuel Oil	**-0.10**	**-0.11**	**-0.12**	**-0.09**	**-0.10**	**-0.09**	*-0.06*	*-0.09*	*-0.06*	*-0.13*	*-0.09*	*-0.11*	**-0.10**	*-0.08*	*-0.10*
Other Oils (g)	**-0.61**	**-0.60**	**-0.50**	**-0.59**	**-0.62**	**-0.68**	*-0.64*	*-0.63*	*-0.64*	*-0.69*	*-0.62*	*-0.62*	**-0.57**	*-0.64*	*-0.64*
Product Inventory Net Withdrawals	**0.56**	**-0.33**	**-0.07**	**0.27**	**0.42**	**-0.26**	*-0.38*	*0.41*	*0.18*	*-0.55*	*-0.34*	*0.37*	**0.11**	*0.05*	*-0.09*
Total Supply	**19.52**	**20.03**	**19.92**	**20.05**	**20.24**	**20.19**	*20.49*	*20.48*	*20.26*	*20.47*	*20.99*	*20.98*	**19.88**	*20.35*	*20.68*
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	**2.79**	**2.45**	**2.33**	**2.81**	**3.22**	**2.67**	*2.71*	*3.12*	*3.20*	*2.79*	*3.01*	*3.36*	**2.60**	*2.93*	*3.09*
Unfinished Oils	**0.02**	**0.02**	**-0.01**	**-0.04**	**0.13**	**-0.07**	*-0.03*	*0.01*	*0.00*	*-0.03*	*-0.03*	*0.01*	**0.00**	*0.01*	*-0.01*
Motor Gasoline	**8.95**	**9.54**	**9.56**	**9.23**	**9.01**	**9.46**	*9.54*	*9.24*	*8.99*	*9.52*	*9.60*	*9.33*	**9.32**	*9.31*	*9.36*
Fuel Ethanol blended into Motor Gasoline	**0.90**	**0.96**	**0.96**	**0.95**	**0.91**	**0.93**	*0.98*	*0.95*	*0.91*	*0.97*	*0.97*	*0.95*	**0.94**	*0.94*	*0.95*
Jet Fuel	**1.60**	**1.68**	**1.71**	**1.73**	**1.64**	**1.71**	*1.77*	*1.73*	*1.67*	*1.75*	*1.80*	*1.77*	**1.68**	*1.71*	*1.75*
Distillate Fuel Oil	**3.95**	**3.91**	**3.87**	**4.02**	**4.18**	**4.05**	*3.98*	*4.10*	*4.15*	*4.10*	*4.11*	*4.23*	**3.94**	*4.08*	*4.15*
Residual Fuel Oil	**0.37**	**0.37**	**0.30**	**0.39**	**0.28**	**0.39**	*0.34*	*0.32*	*0.37*	*0.32*	*0.34*	*0.31*	**0.36**	*0.33*	*0.33*
Other Oils (g)	**1.83**	**2.06**	**2.15**	**1.91**	**1.78**	**1.98**	*2.17*	*1.97*	*1.87*	*2.02*	*2.17*	*1.97*	**1.99**	*1.98*	*2.01*
Total Consumption	**19.49**	**20.03**	**19.92**	**20.05**	**20.24**	**20.19**	*20.49*	*20.48*	*20.26*	*20.47*	*20.99*	*20.98*	**19.88**	*20.35*	*20.68*
Total Petroleum and Other Liquids Net Imports	**4.28**	**4.25**	**3.83**	**2.59**	**3.05**	**2.59**	*2.61*	*1.48*	*1.71*	*1.77*	*1.79*	*0.99*	**3.73**	*2.43*	*1.56*
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	**537.9**	**500.4**	**469.1**	**421.1**	**423.4**	**417.3**	*410.0*	*415.3*	*465.9*	*468.7*	*461.8*	*470.4*	**421.1**	*415.3*	*470.4*
Hydrocarbon Gas Liquids	**148.1**	**190.6**	**229.7**	**190.9**	**139.3**	**187.9**	*232.6*	*183.6*	*153.2*	*205.2*	*245.4*	*199.9*	**190.9**	*183.6*	*199.9*
Unfinished Oils	**89.3**	**88.7**	**89.2**	**86.3**	**98.3**	**92.2**	*87.2*	*80.1*	*90.6*	*89.1*	*87.2*	*80.2*	**86.3**	*80.1*	*80.2*
Other HC/Oxygenates	**32.6**	**29.3**	**28.3**	**30.1**	**30.5**	**29.5**	*28.8*	*29.4*	*31.2*	*30.2*	*29.4*	*30.1*	**30.1**	*29.4*	*30.1*
Total Motor Gasoline	**239.0**	**237.9**	**223.8**	**236.7**	**239.6**	**239.6**	*229.6*	*240.4*	*243.4*	*239.8*	*234.5*	*246.9*	**236.7**	*240.4*	*246.9*
Finished Motor Gasoline	**21.7**	**22.5**	**21.8**	**24.6**	**23.1**	**23.4**	*24.2*	*27.5*	*25.2*	*24.1*	*24.8*	*25.5*	**24.6**	*27.5*	*25.5*
Motor Gasoline Blend Comp.	**217.2**	**215.5**	**202.0**	**212.1**	**216.5**	**216.2**	*205.4*	*212.9*	*218.1*	*215.7*	*209.6*	*221.5*	**212.1**	*212.9*	*221.5*
Jet Fuel	**42.3**	**41.0**	**43.3**	**41.2**	**40.4**	**40.9**	*42.4*	*40.3*	*40.5*	*42.1*	*43.8*	*41.7*	**41.2**	*40.3*	*41.7*
Distillate Fuel Oil	**151.1**	**151.6**	**137.5**	**145.6**	**130.4**	**117.7**	*125.2*	*130.2*	*120.8*	*123.6*	*128.6*	*133.7*	**145.6**	*130.2*	*133.7*
Residual Fuel Oil	**40.8**	**35.2**	**35.9**	**29.4**	**35.0**	**29.7**	*32.7*	*35.2*	*38.4*	*39.4*	*37.9*	*38.2*	**29.4**	*35.2*	*38.2*
Other Oils (g)	**56.6**	**55.2**	**47.9**	**50.9**	**59.3**	**59.3**	*53.1*	*54.9*	*60.2*	*58.7*	*52.7*	*54.7*	**50.9**	*54.9*	*54.7*
Total Commercial Inventory	**1,338**	**1,330**	**1,305**	**1,232**	**1,196**	**1,214**	*1,242*	*1,209*	*1,244*	*1,297*	*1,321*	*1,296*	**1,232**	*1,209*	*1,296*
Crude Oil in SPR	**692**	**679**	**674**	**663**	**665**	**660**	*660*	*656*	*652*	*648*	*644*	*642*	**663**	*656*	*642*

- = no data available

(a) Includes lease condensate.

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

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

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

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

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

(g) "Other Oils" 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.

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

SPR: Strategic Petroleum Reserve

HC: Hydrocarbons

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
HGL Production															
Natural Gas Processing Plants															
Ethane	**1.33**	**1.39**	**1.34**	**1.56**	**1.59**	**1.73**	*1.75*	*1.85*	*1.83*	*1.86*	*1.98*	*2.06*	**1.41**	*1.73*	*1.93*
Propane	**1.16**	**1.21**	**1.23**	**1.28**	**1.29**	**1.38**	*1.42*	*1.45*	*1.49*	*1.50*	*1.51*	*1.53*	**1.22**	*1.38*	*1.51*
Butanes	**0.63**	**0.65**	**0.67**	**0.69**	**0.69**	**0.72**	*0.76*	*0.78*	*0.79*	*0.81*	*0.81*	*0.82*	**0.66**	*0.74*	*0.81*
Natural Gasoline (Pentanes Plus)	**0.41**	**0.45**	**0.48**	**0.46**	**0.44**	**0.49**	*0.54*	*0.52*	*0.51*	*0.54*	*0.56*	*0.54*	**0.45**	*0.50*	*0.54*
Refinery and Blender Net Production															
Ethane/Ethylene	**0.00**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	**0.01**	*0.01*	*0.00*
Propane	**0.29**	**0.32**	**0.30**	**0.32**	**0.30**	**0.33**	*0.32*	*0.31*	*0.30*	*0.33*	*0.32*	*0.32*	**0.31**	*0.31*	*0.32*
Propylene (refinery-grade)	**0.27**	**0.29**	**0.27**	**0.30**	**0.28**	**0.29**	*0.28*	*0.29*	*0.28*	*0.29*	*0.28*	*0.28*	**0.29**	*0.28*	*0.28*
Butanes/Butylenes	**-0.09**	**0.27**	**0.16**	**-0.22**	**-0.11**	**0.25**	*0.19*	*-0.20*	*-0.08*	*0.26*	*0.19*	*-0.20*	**0.03**	*0.03*	*0.04*
Renewable Fuels and Oxygenate Plant Net Production															
Natural Gasoline (Pentanes Plus)	**-0.02**	**-0.02**	**-0.02**	**-0.02**	**-0.02**	**-0.02**	*-0.02*	*-0.02*	*-0.02*	*-0.02*	*-0.02*	*-0.02*	**-0.02**	*-0.02*	*-0.02*
HGL Net Imports															
Ethane	**-0.15**	**-0.16**	**-0.20**	**-0.21**	**-0.22**	**-0.30**	*-0.28*	*-0.29*	*-0.29*	*-0.29*	*-0.29*	*-0.31*	**-0.18**	*-0.27*	*-0.29*
Propane/Propylene	**-0.79**	**-0.71**	**-0.68**	**-0.83**	**-0.72**	**-0.78**	*-0.79*	*-0.97*	*-0.91*	*-0.95*	*-0.91*	*-0.98*	**-0.75**	*-0.81*	*-0.94*
Butanes/Butylenes	**-0.09**	**-0.12**	**-0.11**	**-0.11**	**-0.10**	**-0.19**	*-0.21*	*-0.19*	*-0.20*	*-0.23*	*-0.21*	*-0.21*	**-0.11**	*-0.17*	*-0.21*
Natural Gasoline (Pentanes Plus)	**-0.18**	**-0.18**	**-0.16**	**-0.14**	**-0.18**	**-0.22**	*-0.25*	*-0.25*	*-0.26*	*-0.25*	*-0.27*	*-0.27*	**-0.16**	*-0.23*	*-0.26*
HGL Refinery and Blender Net Inputs															
Butanes/Butylenes	**0.43**	**0.30**	**0.33**	**0.50**	**0.45**	**0.31**	*0.33*	*0.51*	*0.41*	*0.31*	*0.33*	*0.51*	**0.39**	*0.40*	*0.39*
Natural Gasoline (Pentanes Plus)	**0.16**	**0.18**	**0.18**	**0.19**	**0.15**	**0.17**	*0.18*	*0.18*	*0.17*	*0.18*	*0.18*	*0.18*	**0.18**	*0.17*	*0.18*
HGL Consumption															
Ethane/Ethylene	**1.19**	**1.23**	**1.13**	**1.33**	**1.44**	**1.46**	*1.48*	*1.58*	*1.56*	*1.55*	*1.72*	*1.78*	**1.22**	*1.49*	*1.65*
Propane	**1.05**	**0.60**	**0.67**	**0.85**	**1.16**	**0.64**	*0.67*	*0.97*	*1.08*	*0.60*	*0.67*	*0.99*	**0.79**	*0.86*	*0.83*
Propylene (refinery-grade)	**0.34**	**0.31**	**0.28**	**0.32**	**0.32**	**0.30**	*0.30*	*0.30*	*0.31*	*0.31*	*0.30*	*0.29*	**0.31**	*0.30*	*0.30*
Butanes/Butylenes	**0.12**	**0.23**	**0.18**	**0.16**	**0.20**	**0.21**	*0.20*	*0.20*	*0.19*	*0.26*	*0.25*	*0.22*	**0.17**	*0.20*	*0.23*
Natural Gasoline (Pentanes Plus)	**0.10**	**0.08**	**0.08**	**0.15**	**0.10**	**0.06**	*0.06*	*0.08*	*0.07*	*0.06*	*0.07*	*0.08*	**0.10**	*0.08*	*0.07*
HGL Inventories (million barrels)															
Ethane	**49.65**	**51.89**	**51.77**	**57.73**	**51.41**	**48.38**	*47.33*	*47.66*	*44.35*	*47.10*	*45.38*	*44.51*	**52.78**	*48.68*	*45.34*
Propane	**40.23**	**57.06**	**71.59**	**62.37**	**33.83**	**58.32**	*82.32*	*65.30*	*45.40*	*68.21*	*89.41*	*76.69*	**62.37**	*65.30*	*76.69*
Propylene (refinery-grade)	**3.75**	**4.01**	**5.21**	**4.82**	**3.82**	**4.64**	*4.88*	*5.14*	*4.24*	*4.08*	*4.39*	*5.04*	**4.82**	*5.14*	*5.04*
Butanes/Butylenes	**31.68**	**57.24**	**76.10**	**47.95**	**32.02**	**56.00**	*74.97*	*45.24*	*37.95*	*62.78*	*81.75*	*52.02*	**47.95**	*45.24*	*52.02*
Natural Gasoline (Pentanes Plus)	**21.49**	**20.55**	**23.40**	**20.14**	**19.36**	**20.80**	*22.56*	*21.72*	*20.63*	*22.95*	*24.51*	*23.39*	**20.14**	*21.72*	*23.39*
Refinery and Blender Net Inputs															
Crude Oil	**15.91**	**17.13**	**16.60**	**16.72**	**16.41**	**17.11**	*17.42*	*16.74*	*16.58*	*17.53*	*17.38*	*16.69*	**16.59**	*16.92*	*17.05*
Hydrocarbon Gas Liquids	**0.58**	**0.48**	**0.51**	**0.69**	**0.61**	**0.48**	*0.51*	*0.69*	*0.58*	*0.48*	*0.51*	*0.69*	**0.57**	*0.57*	*0.57*
Other Hydrocarbons/Oxygenates	**1.16**	**1.24**	**1.22**	**1.21**	**1.16**	**1.23**	*1.28*	*1.26*	*1.20*	*1.28*	*1.30*	*1.29*	**1.21**	*1.23*	*1.27*
Unfinished Oils	**0.25**	**0.33**	**0.38**	**0.45**	**0.12**	**0.45**	*0.45*	*0.39*	*0.26*	*0.43*	*0.46*	*0.38*	**0.36**	*0.35*	*0.38*
Motor Gasoline Blend Components	**0.39**	**0.65**	**0.67**	**0.22**	**0.34**	**0.63**	*0.63*	*0.47*	*0.57*	*0.84*	*0.66*	*0.49*	**0.49**	*0.52*	*0.64*
Aviation Gasoline Blend Components	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	**0.00**	*0.00*	*0.00*
Total Refinery and Blender Net Inputs	**18.30**	**19.83**	**19.38**	**19.30**	**18.63**	**19.90**	*20.29*	*19.54*	*19.18*	*20.56*	*20.32*	*19.53*	**19.21**	*19.60*	*19.90*
Refinery Processing Gain	**1.09**	**1.13**	**1.07**	**1.12**	**1.11**	**1.13**	*1.14*	*1.12*	*1.09*	*1.13*	*1.13*	*1.12*	**1.10**	*1.13*	*1.12*
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	**0.48**	**0.89**	**0.73**	**0.40**	**0.48**	**0.87**	*0.79*	*0.40*	*0.51*	*0.88*	*0.79*	*0.40*	**0.63**	*0.64*	*0.65*
Finished Motor Gasoline	**9.57**	**10.10**	**10.04**	**10.13**	**9.79**	**10.07**	*10.21*	*10.23*	*9.98*	*10.41*	*10.26*	*10.23*	**9.96**	*10.07*	*10.22*
Jet Fuel	**1.63**	**1.74**	**1.75**	**1.69**	**1.72**	**1.83**	*1.87*	*1.75*	*1.70*	*1.82*	*1.87*	*1.75*	**1.70**	*1.79*	*1.79*
Distillate Fuel	**4.75**	**5.18**	**4.94**	**5.25**	**4.81**	**5.18**	*5.38*	*5.24*	*5.06*	*5.41*	*5.38*	*5.24*	**5.03**	*5.16*	*5.27*
Residual Fuel	**0.46**	**0.41**	**0.43**	**0.41**	**0.44**	**0.41**	*0.43*	*0.43*	*0.46*	*0.47*	*0.42*	*0.42*	**0.43**	*0.43*	*0.44*
Other Oils (a)	**2.50**	**2.64**	**2.56**	**2.53**	**2.49**	**2.66**	*2.75*	*2.62*	*2.57*	*2.70*	*2.73*	*2.60*	**2.56**	*2.63*	*2.65*
Total Refinery and Blender Net Production	**19.40**	**20.97**	**20.46**	**20.41**	**19.74**	**21.03**	*21.43*	*20.67*	*20.27*	*21.69*	*21.45*	*20.65*	**20.31**	*20.72*	*21.02*
Refinery Distillation Inputs	**16.23**	**17.42**	**16.90**	**17.00**	**16.76**	**17.43**	*17.60*	*16.95*	*16.78*	*17.62*	*17.57*	*16.91*	**16.89**	*17.19*	*17.22*
Refinery Operable Distillation Capacity	**18.62**	**18.58**	**18.55**	**18.52**	**18.57**	**18.60**	*18.60*	*18.60*	*18.61*	*18.61*	*18.64*	*18.65*	**18.57**	*18.59*	*18.63*
Refinery Distillation Utilization Factor	**0.87**	**0.94**	**0.91**	**0.92**	**0.90**	**0.94**	*0.95*	*0.91*	*0.90*	*0.95*	*0.94*	*0.91*	**0.91**	*0.92*	*0.92*

- = no data available

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Prices (cents per gallon)															
Refiner Wholesale Price	**163**	**165**	**172**	**175**	**186**	**214**	*210*	*198*	*194*	*209*	*204*	*187*	**169**	*202*	*199*
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	**231**	**233**	**241**	**249**	**255**	**279**	*280*	*276*	*272*	*284*	*281*	*268*	**239**	*273*	*276*
PADD 2	**223**	**228**	**232**	**242**	**246**	**274**	*277*	*267*	*259*	*279*	*276*	*257*	**231**	*266*	*268*
PADD 3	**210**	**216**	**222**	**225**	**230**	**261**	*260*	*248*	*244*	*259*	*254*	*237*	**218**	*250*	*248*
PADD 4	**227**	**239**	**245**	**252**	**247**	**288**	*290*	*273*	*254*	*275*	*282*	*263*	**241**	*275*	*269*
PADD 5	**276**	**289**	**290**	**299**	**312**	**342**	*334*	*317*	*308*	*335*	*330*	*305*	**288**	*327*	*320*
U.S. Average	**233**	**238**	**244**	**251**	**258**	**285**	*285*	*276*	*269*	*287*	*284*	*266*	**242**	*276*	*277*
Gasoline All Grades Including Taxes	**244**	**250**	**255**	**263**	**270**	**294**	*295*	*287*	*281*	*298*	*295*	*278*	**253**	*287*	*288*
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	**65.3**	**67.2**	**58.8**	**60.6**	**58.4**	**65.5**	*62.3*	*65.2*	*66.7*	*67.4*	*63.8*	*67.1*	**60.6**	*65.2*	*67.1*
PADD 2	**57.0**	**53.6**	**50.4**	**52.2**	**57.3**	**53.7**	*50.2*	*52.0*	*54.9*	*52.9*	*51.3*	*53.5*	**52.2**	*52.0*	*53.5*
PADD 3	**79.1**	**82.4**	**78.5**	**83.2**	**84.2**	**82.6**	*80.9*	*83.9*	*83.8*	*83.2*	*83.3*	*86.5*	**83.2**	*83.9*	*86.5*
PADD 4	**7.9**	**7.0**	**6.9**	**7.6**	**7.7**	**7.4**	*7.3*	*7.8*	*7.7*	*7.6*	*7.5*	*8.0*	**7.6**	*7.8*	*8.0*
PADD 5	**29.7**	**27.7**	**29.2**	**33.1**	**32.0**	**30.5**	*28.8*	*31.5*	*30.3*	*28.7*	*28.5*	*31.8*	**33.1**	*31.5*	*31.8*
U.S. Total	**239.0**	**237.9**	**223.8**	**236.7**	**239.6**	**239.6**	*229.6*	*240.4*	*243.4*	*239.8*	*234.5*	*246.9*	**236.7**	*240.4*	*246.9*
Finished Gasoline Inventories															
U.S. Total	**21.7**	**22.5**	**21.8**	**24.6**	**23.1**	**23.4**	*24.2*	*27.5*	*25.2*	*24.1*	*24.8*	*25.5*	**24.6**	*27.5*	*25.5*
Gasoline Blending Components Inventories															
U.S. Total	**217.2**	**215.5**	**202.0**	**212.1**	**216.5**	**216.2**	*205.4*	*212.9*	*218.1*	*215.7*	*209.6*	*221.5*	**212.1**	*212.9*	*221.5*

- = no data available

Prices are not adjusted for inflation.

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Supply (billion cubic feet per day)															
Total Marketed Production	**76.32**	**77.36**	**79.30**	**82.72**	**84.28**	**87.13**	*88.77*	*89.83*	*90.68*	*91.01*	*91.16*	*91.66*	**78.94**	*87.52*	*91.13*
Alaska	**1.01**	**0.97**	**0.82**	**0.98**	**1.00**	**0.87**	*0.77*	*0.93*	*1.00*	*0.85*	*0.78*	*0.94*	**0.94**	*0.89*	*0.89*
Federal GOM (a)	**3.26**	**2.99**	**2.91**	**2.52**	**2.57**	**2.61**	*2.56*	*2.60*	*2.58*	*2.53*	*2.42*	*2.41*	**2.92**	*2.59*	*2.48*
Lower 48 States (excl GOM)	**72.05**	**73.40**	**75.56**	**79.22**	**80.72**	**83.65**	*85.44*	*86.29*	*87.09*	*87.63*	*87.97*	*88.31*	**75.08**	*84.04*	*87.75*
Total Dry Gas Production	**71.24**	**72.04**	**73.97**	**76.98**	**78.53**	**80.95**	*82.44*	*83.37*	*84.11*	*84.37*	*84.46*	*84.87*	**73.57**	*81.34*	*84.46*
LNG Gross Imports	**0.29**	**0.18**	**0.17**	**0.21**	**0.33**	**0.15**	*0.18*	*0.26*	*0.32*	*0.17*	*0.17*	*0.21*	**0.21**	*0.23*	*0.22*
LNG Gross Exports	**1.63**	**1.80**	**1.67**	**2.64**	**2.64**	**2.90**	*2.94*	*3.31*	*3.99*	*4.40*	*5.24*	*6.60*	**1.94**	*2.95*	*5.07*
Pipeline Gross Imports	**8.89**	**7.76**	**7.74**	**8.10**	**8.76**	**7.85**	*7.28*	*7.57*	*8.34*	*7.36*	*7.32*	*7.81*	**8.12**	*7.86*	*7.70*
Pipeline Gross Exports	**7.24**	**6.49**	**6.43**	**6.81**	**6.99**	**6.61**	*6.97*	*7.89*	*8.97*	*7.91*	*7.85*	*8.53*	**6.74**	*7.12*	*8.31*
Supplemental Gaseous Fuels	**0.16**	**0.13**	**0.16**	**0.16**	**0.17**	**0.16**	*0.17*	*0.17*	*0.17*	*0.17*	*0.17*	*0.17*	**0.15**	*0.17*	*0.17*
Net Inventory Withdrawals	**13.74**	**-9.02**	**-7.20**	**5.77**	**18.28**	**-8.77**	*-10.32*	*1.85*	*15.65*	*-10.84*	*-8.19*	*4.83*	**0.78**	*0.19*	*0.31*
Total Supply	**85.45**	**62.80**	**66.74**	**81.78**	**96.45**	**70.82**	*69.84*	*82.02*	*95.62*	*68.92*	*70.84*	*82.78*	**74.16**	*79.71*	*79.48*
Balancing Item (b)	**0.70**	**0.16**	**0.22**	**-0.84**	**0.79**	**-0.13**	*0.06*	*-0.96*	*0.39*	*-0.23*	*0.46*	*-0.28*	**0.06**	*-0.06*	*0.08*
Total Primary Supply	**86.15**	**62.96**	**66.96**	**80.94**	**97.24**	**70.70**	*69.90*	*81.06*	*96.01*	*68.69*	*71.30*	*82.50*	**74.22**	*79.65*	*79.57*
Consumption (billion cubic feet per day)															
Residential	**22.17**	**6.65**	**3.55**	**16.26**	**25.74**	**8.24**	*3.68*	*15.75*	*25.35*	*7.60*	*3.68*	*15.62*	**12.12**	*13.30*	*13.01*
Commercial	**13.50**	**5.83**	**4.55**	**11.01**	**15.35**	**6.74**	*4.51*	*9.88*	*14.58*	*6.14*	*4.52*	*9.86*	**8.70**	*9.10*	*8.75*
Industrial	**22.96**	**20.45**	**20.34**	**22.85**	**24.32**	**21.32**	*20.73*	*23.34*	*23.80*	*21.32*	*21.03*	*23.66*	**21.65**	*22.42*	*22.45*
Electric Power (c)	**20.95**	**24.00**	**32.28**	**24.03**	**24.53**	**27.60**	*34.11*	*24.86*	*24.59*	*26.52*	*34.82*	*25.68*	**25.34**	*27.79*	*27.92*
Lease and Plant Fuel	**4.26**	**4.32**	**4.43**	**4.62**	**4.71**	**4.86**	*4.96*	*5.01*	*5.06*	*5.08*	*5.09*	*5.12*	**4.41**	*4.89*	*5.09*
Pipeline and Distribution Use	**2.19**	**1.60**	**1.70**	**2.05**	**2.47**	**1.81**	*1.79*	*2.09*	*2.50*	*1.91*	*2.05*	*2.44*	**1.88**	*2.04*	*2.22*
Vehicle Use	**0.12**	**0.12**	**0.12**	**0.12**	**0.12**	**0.12**	*0.12*	*0.12*	*0.12*	*0.12*	*0.12*	*0.12*	**0.12**	*0.12*	*0.12*
Total Consumption	**86.15**	**62.96**	**66.96**	**80.94**	**97.24**	**70.70**	*69.90*	*81.06*	*96.01*	*68.69*	*71.30*	*82.50*	**74.22**	*79.65*	*79.57*
End-of-period Inventories (billion cubic feet)															
Working Gas Inventory	**2,063**	**2,907**	**3,567**	**3,032**	**1,391**	**2,193**	*3,143*	*2,972*	*1,564*	*2,550*	*3,304*	*2,859*	**3,032**	*2,972*	*2,859*
East Region (d)	**260**	**563**	**866**	**710**	**229**	**459**	*774*	*711*	*247*	*540*	*820*	*648*	**710**	*711*	*648*
Midwest Region (d)	**477**	**701**	**993**	**829**	**261**	**456**	*858*	*763*	*292*	*565*	*902*	*775*	**829**	*763*	*775*
South Central Region (d)	**938**	**1,139**	**1,137**	**1,016**	**614**	**850**	*996*	*1,023*	*678*	*949*	*1,015*	*942*	**1,016**	*1,023*	*942*
Mountain Region (d)	**142**	**184**	**218**	**177**	**87**	**138**	*191*	*179*	*123*	*164*	*202*	*168*	**177**	*179*	*168*
Pacific Region (d)	**219**	**288**	**314**	**264**	**169**	**256**	*290*	*262*	*190*	*298*	*331*	*291*	**264**	*262*	*291*
Alaska	**27**	**32**	**39**	**36**	**31**	**34**	*34*	*34*	*34*	*34*	*34*	*34*	**36**	*34*	*34*

- = no data available

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

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

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

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

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

LNG: liquefied natural gas.

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Wholesale/Spot															
Henry Hub Spot Price	**3.12**	**3.19**	**3.06**	**3.01**	**3.13**	**2.96**	*3.10*	*3.22*	*3.27*	*3.01*	*3.08*	*3.24*	**3.10**	*3.10*	*3.15*
Residential Retail															
New England	**12.85**	**14.08**	**18.12**	**13.57**	**14.56**	**16.66**	*17.45*	*13.60*	*13.07*	*13.96*	*17.17*	*13.63*	**13.60**	*14.84*	*13.65*
Middle Atlantic	**9.92**	**12.18**	**17.11**	**11.33**	**10.15**	**11.71**	*16.22*	*10.81*	*10.06*	*12.00*	*16.62*	*11.08*	**11.17**	*10.99*	*11.11*
E. N. Central	**7.77**	**11.52**	**17.80**	**7.81**	**7.20**	**9.33**	*16.24*	*8.79*	*7.98*	*10.70*	*16.56*	*8.94*	**8.86**	*8.54*	*9.24*
W. N. Central	**8.32**	**11.85**	**18.79**	**9.56**	**8.17**	**9.93**	*17.59*	*10.10*	*9.36*	*12.12*	*17.72*	*9.89*	**9.80**	*9.53*	*10.46*
S. Atlantic	**12.29**	**20.05**	**26.86**	**13.20**	**11.09**	**14.83**	*22.12*	*12.75*	*11.22*	*16.16*	*22.51*	*12.98*	**14.63**	*12.89*	*13.17*
E. S. Central	**10.53**	**15.83**	**20.82**	**11.32**	**9.71**	**12.58**	*19.59*	*12.30*	*10.00*	*14.41*	*20.59*	*12.91*	**12.05**	*11.42*	*11.95*
W. S. Central	**10.33**	**16.49**	**22.10**	**13.09**	**9.34**	**13.94**	*19.82*	*11.62*	*8.39*	*13.86*	*20.25*	*11.76*	**13.18**	*11.58*	*11.06*
Mountain	**8.21**	**10.17**	**13.91**	**8.76**	**8.22**	**9.74**	*13.66*	*9.11*	*8.96*	*10.27*	*13.89*	*9.23*	**9.14**	*9.15*	*9.66*
Pacific	**12.02**	**12.64**	**12.90**	**11.30**	**11.63**	**11.82**	*12.81*	*11.59*	*12.46*	*12.57*	*12.88*	*11.78*	**12.01**	*11.79*	*12.32*
U.S. Average	**9.73**	**13.00**	**17.74**	**10.19**	**9.39**	**11.47**	*16.52*	*10.57*	*9.72*	*12.26*	*16.80*	*10.74*	**10.92**	*10.56*	*10.90*
Commercial Retail															
New England	**9.55**	**9.97**	**10.61**	**9.53**	**11.09**	**12.18**	*11.17*	*10.50*	*10.43*	*10.37*	*10.17*	*9.99*	**9.71**	*11.12*	*10.27*
Middle Atlantic	**7.66**	**7.42**	**6.82**	**7.38**	**8.10**	**7.58**	*6.94*	*7.50*	*7.68*	*7.55*	*7.01*	*7.61*	**7.43**	*7.69*	*7.55*
E. N. Central	**6.63**	**7.90**	**8.98**	**6.21**	**6.19**	**6.85**	*8.72*	*6.92*	*6.66*	*7.59*	*8.99*	*7.06*	**6.84**	*6.70*	*7.11*
W. N. Central	**6.96**	**7.80**	**9.11**	**7.04**	**7.00**	**6.90**	*8.81*	*7.40*	*7.63*	*7.94*	*8.96*	*7.43*	**7.28**	*7.23*	*7.73*
S. Atlantic	**8.89**	**10.00**	**9.56**	**8.91**	**8.32**	**9.10**	*9.62*	*8.76*	*8.63*	*9.51*	*9.93*	*9.01*	**9.16**	*8.73*	*9.05*
E. S. Central	**9.05**	**10.28**	**10.76**	**9.30**	**8.69**	**9.11**	*10.00*	*9.05*	*8.61*	*9.58*	*10.08*	*9.05*	**9.53**	*9.01*	*9.05*
W. S. Central	**7.63**	**8.20**	**8.86**	**8.18**	**7.24**	**7.74**	*8.45*	*7.80*	*7.30*	*7.71*	*8.28*	*7.71*	**8.09**	*7.65*	*7.63*
Mountain	**6.88**	**7.37**	**8.27**	**7.21**	**6.99**	**7.26**	*8.28*	*7.28*	*7.50*	*7.76*	*8.48*	*7.40*	**7.22**	*7.26*	*7.62*
Pacific	**9.09**	**9.06**	**9.08**	**8.54**	**8.91**	**8.66**	*8.89*	*8.55*	*8.77*	*8.81*	*9.09*	*8.78*	**8.92**	*8.75*	*8.83*
U.S. Average	**7.71**	**8.33**	**8.69**	**7.56**	**7.66**	**7.98**	*8.56*	*7.87*	*7.79*	*8.23*	*8.64*	*7.95*	**7.87**	*7.87*	*8.00*
Industrial Retail															
New England	**7.81**	**7.04**	**6.39**	**7.05**	**9.05**	**8.91**	*7.10*	*7.94*	*8.37*	*7.61*	*7.06*	*8.11*	**7.19**	*8.38*	*7.91*
Middle Atlantic	**7.69**	**7.59**	**7.62**	**7.18**	**8.29**	**7.76**	*7.47*	*7.65*	*8.00*	*7.33*	*7.35*	*7.63*	**7.53**	*7.94*	*7.72*
E. N. Central	**5.86**	**5.96**	**5.59**	**5.30**	**5.74**	**5.12**	*5.94*	*6.02*	*6.58*	*6.16*	*6.00*	*5.97*	**5.66**	*5.73*	*6.26*
W. N. Central	**5.01**	**4.29**	**4.25**	**4.68**	**5.04**	**4.40**	*4.68*	*5.31*	*5.78*	*4.82*	*4.59*	*5.23*	**4.60**	*4.89*	*5.16*
S. Atlantic	**5.35**	**5.00**	**4.88**	**4.93**	**5.39**	**4.75**	*4.83*	*5.18*	*5.48*	*4.85*	*4.86*	*5.26*	**5.05**	*5.06*	*5.14*
E. S. Central	**5.06**	**4.59**	**4.40**	**4.56**	**4.99**	**4.30**	*4.39*	*4.84*	*4.99*	*4.46*	*4.45*	*4.89*	**4.67**	*4.65*	*4.71*
W. S. Central	**3.42**	**3.42**	**3.30**	**3.14**	**3.34**	**3.14**	*3.38*	*3.47*	*3.51*	*3.20*	*3.33*	*3.48*	**3.32**	*3.33*	*3.38*
Mountain	**5.31**	**5.36**	**5.61**	**5.50**	**5.41**	**5.23**	*5.88*	*6.02*	*6.13*	*5.78*	*5.98*	*6.04*	**5.43**	*5.64*	*6.00*
Pacific	**7.31**	**6.71**	**6.32**	**6.35**	**7.05**	**6.28**	*6.52*	*6.66*	*7.07*	*6.47*	*6.60*	*6.72*	**6.71**	*6.65*	*6.74*
U.S. Average	**4.50**	**4.11**	**3.89**	**4.00**	**4.48**	**3.86**	*3.96*	*4.33*	*4.62*	*3.95*	*3.93*	*4.36*	**4.14**	*4.17*	*4.23*

- = no data available

Prices are not adjusted for inflation.

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

Regions refer to U.S. Census divisions.

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Supply (million short tons)															
Production	**197.0**	**187.1**	**196.2**	**193.8**	**191.1**	**184.3**	*202.8*	*195.0*	*193.7*	*159.2*	*201.7*	*191.6*	**774.1**	*773.2*	*746.2*
Appalachia	**50.7**	**51.2**	**46.3**	**50.2**	**50.5**	**49.4**	*45.4*	*41.8*	*44.7*	*37.7*	*38.5*	*38.3*	**198.5**	*187.1*	*159.3*
Interior	**38.5**	**36.4**	**34.9**	**35.6**	**35.3**	**34.1**	*41.0*	*42.3*	*44.8*	*34.0*	*42.5*	*42.5*	**145.4**	*152.7*	*163.8*
Western	**107.8**	**99.4**	**115.0**	**108.0**	**105.2**	**100.8**	*116.5*	*110.9*	*104.2*	*87.5*	*120.7*	*110.8*	**430.2**	*433.4*	*423.2*
Primary Inventory Withdrawals	**0.1**	**1.8**	**1.4**	**0.9**	**-2.8**	**2.2**	*0.9*	*-0.5*	*-3.9*	*1.6*	*1.3*	*-3.0*	**4.2**	*-0.1*	*-4.0*
Imports	**1.9**	**2.2**	**2.3**	**1.4**	**1.4**	**1.8**	*2.6*	*2.4*	*1.4*	*2.3*	*2.9*	*2.6*	**7.8**	*8.1*	*9.3*
Exports	**22.3**	**21.8**	**24.6**	**28.2**	**27.2**	**30.0**	*23.8*	*23.0*	*24.5*	*24.3*	*25.1*	*24.9*	**97.0**	*104.0*	*98.7*
Metallurgical Coal	**12.2**	**13.5**	**14.8**	**14.8**	**14.9**	**16.3**	*13.6*	*13.1*	*14.0*	*13.6*	*14.1*	*13.9*	**55.3**	*57.9*	*55.6*
Steam Coal	**10.1**	**8.3**	**9.8**	**13.4**	**12.3**	**13.7**	*10.2*	*9.9*	*10.5*	*10.6*	*11.0*	*11.1*	**41.7**	*46.1*	*43.1*
Total Primary Supply	**176.8**	**169.2**	**175.3**	**167.9**	**162.5**	**158.3**	*182.6*	*173.8*	*166.7*	*138.8*	*180.9*	*166.3*	**689.1**	*677.2*	*652.7*
Secondary Inventory Withdrawals	**1.0**	**3.7**	**18.2**	**2.4**	**11.1**	**4.7**	*11.8*	*-8.0*	*1.3*	*1.9*	*5.4*	*-9.3*	**25.2**	*19.5*	*-0.7*
Waste Coal (a)	**2.5**	**1.8**	**2.3**	**2.1**	**2.4**	**2.4**	*2.4*	*2.4*	*2.4*	*2.4*	*2.4*	*2.4*	**8.7**	*9.6*	*9.6*
Total Supply	**180.3**	**174.8**	**195.8**	**172.3**	**175.9**	**165.4**	*196.7*	*168.2*	*170.4*	*143.1*	*188.7*	*159.4*	**723.1**	*706.2*	*661.6*
Consumption (million short tons)															
Coke Plants	**4.2**	**4.3**	**4.5**	**4.5**	**4.2**	**3.3**	*4.1*	*5.0*	*3.7*	*3.5*	*4.2*	*5.3*	**17.5**	*16.6*	*16.8*
Electric Power Sector (b)	**160.3**	**154.2**	**190.6**	**159.6**	**155.0**	**147.0**	*184.4*	*154.6*	*157.8*	*131.5*	*176.3*	*145.7*	**664.7**	*641.0*	*611.3*
Retail and Other Industry	**8.9**	**8.3**	**8.8**	**8.7**	**8.8**	**8.3**	*8.2*	*8.5*	*8.8*	*8.2*	*8.1*	*8.4*	**34.7**	*33.9*	*33.5*
Residential and Commercial	**0.4**	**0.2**	**0.2**	**0.3**	**0.3**	**0.1**	*0.1*	*0.2*	*0.2*	*0.1*	*0.1*	*0.2*	**1.1**	*0.7*	*0.5*
Other Industrial	**8.5**	**8.1**	**8.6**	**8.4**	**8.6**	**8.1**	*8.1*	*8.3*	*8.6*	*8.1*	*8.1*	*8.2*	**33.6**	*33.2*	*33.0*
Total Consumption	**173.5**	**166.8**	**203.9**	**172.7**	**168.0**	**158.6**	*196.7*	*168.2*	*170.4*	*143.1*	*188.7*	*159.4*	**717.0**	*691.6*	*661.6*
Discrepancy (c)	**6.8**	**7.9**	**-8.1**	**-0.4**	**7.9**	**6.8**	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	**6.2**	*14.7*	*0.0*
End-of-period Inventories (million short tons)															
Primary Inventories (d)	**25.2**	**23.4**	**22.0**	**21.1**	**23.9**	**21.6**	*20.7*	*21.2*	*25.1*	*23.5*	*22.3*	*25.3*	**21.1**	*21.2*	*25.3*
Secondary Inventories	**166.6**	**163.0**	**144.8**	**142.4**	**131.4**	**126.7**	*114.9*	*123.0*	*121.7*	*119.7*	*114.3*	*123.6*	**142.4**	*123.0*	*123.6*
Electric Power Sector	**161.7**	**157.7**	**139.3**	**137.2**	**126.4**	**121.5**	*109.5*	*117.6*	*116.7*	*114.4*	*108.8*	*118.1*	**137.2**	*117.6*	*118.1*
Retail and General Industry	**3.2**	**3.3**	**3.5**	**3.2**	**3.4**	**3.4**	*3.5*	*3.4*	*3.5*	*3.5*	*3.6*	*3.6*	**3.2**	*3.4*	*3.6*
Coke Plants	**1.4**	**1.6**	**1.7**	**1.7**	**1.3**	**1.6**	*1.6*	*1.7*	*1.2*	*1.5*	*1.6*	*1.6*	**1.7**	*1.7*	*1.6*
Coal Market Indicators															
Coal Miner Productivity															
(Tons per hour)	**6.19**	**6.19**	**6.19**	**6.19**	**6.10**	**6.10**	*6.10*	*6.10*	*6.02*	*6.02*	*6.02*	*6.02*	**6.19**	*6.10*	*6.02*
Total Raw Steel Production															
(Million short tons per day)	**0.248**	**0.247**	**0.250**	**0.245**	**0.251**	**0.253**	*0.241*	*0.212*	*0.268*	*0.262*	*0.242*	*0.209*	**0.248**	*0.239*	*0.245*
Cost of Coal to Electric Utilities															
(Dollars per million Btu)	**2.08**	**2.12**	**2.07**	**2.04**	**2.06**	**2.09**	*2.12*	*2.11*	*2.09*	*2.08*	*2.09*	*2.08*	**2.08**	*2.10*	*2.09*

- = no data available

(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.

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 7a. U.S. Electricity Industry Overview

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Electricity Supply (billion kilowatthours per day)															
Electricity Generation	**10.58**	**10.69**	**12.15**	**10.57**	**11.11**	**11.18**	*12.34*	*10.55*	*11.02*	*10.70*	*12.43*	*10.62*	**11.00**	*11.30*	*11.20*
Electric Power Sector (a)	**10.15**	**10.27**	**11.71**	**10.14**	**10.67**	**10.75**	*11.90*	*10.13*	*10.58*	*10.27*	*11.98*	*10.18*	**10.57**	*10.86*	*10.76*
Comm. and Indus. Sectors (b)	**0.43**	**0.42**	**0.44**	**0.42**	**0.43**	**0.42**	*0.44*	*0.43*	*0.44*	*0.43*	*0.45*	*0.43*	**0.43**	*0.43*	*0.44*
Net Imports	**0.13**	**0.14**	**0.15**	**0.13**	**0.14**	**0.17**	*0.21*	*0.16*	*0.17*	*0.17*	*0.19*	*0.15*	**0.14**	*0.17*	*0.17*
Total Supply	**10.71**	**10.83**	**12.30**	**10.70**	**11.25**	**11.34**	*12.55*	*10.72*	*11.19*	*10.87*	*12.62*	*10.76*	**11.14**	*11.47*	*11.36*
Losses and Unaccounted for (c)	**0.58**	**0.76**	**0.63**	**0.72**	**0.66**	**1.06**	*0.69*	*0.67*	*0.58*	*0.81*	*0.73*	*0.68*	**0.67**	*0.77*	*0.70*
Electricity Consumption (billion kilowatthours per day unless noted)															
Retail Sales	**9.75**	**9.70**	**11.28**	**9.60**	**10.20**	**9.90**	*11.48*	*9.67*	*10.23*	*9.68*	*11.50*	*9.71*	**10.09**	*10.31*	*10.28*
Residential Sector	**3.71**	**3.43**	**4.46**	**3.51**	**4.09**	**3.58**	*4.59*	*3.54*	*4.08*	*3.39*	*4.59*	*3.57*	**3.78**	*3.95*	*3.91*
Commercial Sector	**3.51**	**3.64**	**4.08**	**3.55**	**3.59**	**3.67**	*4.11*	*3.56*	*3.60*	*3.62*	*4.12*	*3.57*	**3.70**	*3.73*	*3.73*
Industrial Sector	**2.50**	**2.62**	**2.72**	**2.53**	**2.50**	**2.63**	*2.76*	*2.55*	*2.52*	*2.65*	*2.77*	*2.55*	**2.59**	*2.61*	*2.62*
Transportation Sector	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	*0.02*	*0.02*	*0.02*	*0.02*	*0.02*	*0.02*	**0.02**	*0.02*	*0.02*
Direct Use (d)	**0.38**	**0.37**	**0.38**	**0.37**	**0.38**	**0.37**	*0.39*	*0.38*	*0.38*	*0.38*	*0.40*	*0.38*	**0.38**	*0.38*	*0.39*
Total Consumption	**10.13**	**10.08**	**11.66**	**9.98**	**10.59**	**10.28**	*11.87*	*10.04*	*10.61*	*10.06*	*11.90*	*10.09*	**10.47**	*10.69*	*10.67*
Average residential electricity usage per customer (kWh)	**2,532**	**2,365**	**3,109**	**2,446**	**2,759**	**2,525**	*3,165*	*2,441*	*2,724*	*2,286*	*3,131*	*2,431*	**10,453**	*10,890*	*10,571*
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	**2.08**	**2.12**	**2.07**	**2.04**	**2.06**	**2.09**	*2.12*	*2.11*	*2.09*	*2.08*	*2.09*	*2.08*	**2.08**	*2.10*	*2.09*
Natural Gas	**3.69**	**3.38**	**3.19**	**3.38**	**3.98**	**3.07**	*3.20*	*3.54*	*3.70*	*3.13*	*3.15*	*3.50*	**3.38**	*3.41*	*3.35*
Residual Fuel Oil	**11.16**	**10.60**	**10.03**	**11.93**	**11.47**	**13.77**	*13.83*	*13.57*	*13.63*	*13.98*	*13.15*	*12.77*	**10.97**	*12.88*	*13.40*
Distillate Fuel Oil	**12.74**	**12.23**	**13.13**	**14.54**	**15.77**	**16.56**	*17.09*	*17.00*	*16.46*	*16.31*	*16.48*	*16.77*	**13.26**	*16.35*	*16.51*
Retail Prices (cents per kilowatthour)															
Residential Sector	**12.59**	**12.99**	**13.19**	**12.75**	**12.57**	**13.01**	*13.27*	*12.95*	*12.89*	*13.54*	*13.60*	*13.21*	**12.90**	*12.96*	*13.31*
Commercial Sector	**10.39**	**10.68**	**11.03**	**10.56**	**10.51**	**10.71**	*11.15*	*10.75*	*10.66*	*10.81*	*11.14*	*10.78*	**10.68**	*10.79*	*10.86*
Industrial Sector	**6.64**	**6.89**	**7.27**	**6.79**	**6.79**	**6.90**	*7.41*	*6.95*	*6.82*	*6.99*	*7.48*	*7.01*	**6.91**	*7.02*	*7.09*

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

Prices are not adjusted for inflation.

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

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Residential Sector															
New England	**142**	**119**	**143**	**126**	**141**	**111**	*151*	*127*	*141*	*110*	*150*	*127*	**133**	*133*	*132*
Middle Atlantic	**368**	**307**	**403**	**327**	**394**	**323**	*415*	*322*	*389*	*310*	*412*	*322*	**351**	*364*	*358*
E. N. Central	**507**	**435**	**545**	**475**	**552**	**484**	*570*	*469*	*540*	*441*	*563*	*469*	**491**	*519*	*503*
W. N. Central	**298**	**246**	**303**	**261**	**327**	**275**	*324*	*265*	*316*	*244*	*322*	*269*	**277**	*298*	*288*
S. Atlantic	**891**	**891**	**1,131**	**889**	**1,040**	**932**	*1,153*	*896*	*1,046*	*883*	*1,153*	*902*	**951**	*1,005*	*996*
E. S. Central	**305**	**277**	**368**	**288**	**368**	**294**	*392*	*294*	*368*	*270*	*386*	*294*	**310**	*337*	*330*
W. S. Central	**501**	**536**	**760**	**516**	**608**	**557**	*799*	*534*	*606*	*526*	*812*	*544*	**579**	*625*	*622*
Mountain	**245**	**259**	**347**	**232**	**239**	**263**	*351*	*235*	*244*	*259*	*356*	*238*	**271**	*272*	*274*
Pacific contiguous	**439**	**346**	**447**	**381**	**411**	**333**	*426*	*387*	*419*	*334*	*425*	*389*	**404**	*389*	*392*
AK and HI	**14**	**12**	**12**	**13**	**14**	**12**	*12*	*13*	*14*	*11*	*12*	*13*	**13**	*13*	*13*
Total	**3,712**	**3,428**	**4,458**	**3,507**	**4,093**	**3,584**	*4,593*	*3,542*	*4,084*	*3,390*	*4,592*	*3,566*	**3,778**	*3,953*	*3,908*
Commercial Sector															
New England	**155**	**150**	**168**	**149**	**142**	**134**	*164*	*146*	*139*	*131*	*159*	*140*	**156**	*147*	*142*
Middle Atlantic	**423**	**404**	**462**	**412**	**431**	**416**	*464*	*408*	*428*	*409*	*461*	*407*	**425**	*430*	*426*
E. N. Central	**489**	**486**	**537**	**482**	**499**	**501**	*544*	*480*	*497*	*486*	*543*	*480*	**498**	*506*	*501*
W. N. Central	**272**	**270**	**302**	**269**	**282**	**274**	*302*	*271*	*282*	*265*	*304*	*272*	**278**	*282*	*281*
S. Atlantic	**785**	**853**	**941**	**807**	**811**	**853**	*942*	*805*	*808*	*840*	*943*	*805*	**847**	*853*	*849*
E. S. Central	**225**	**241**	**275**	**229**	**241**	**247**	*279*	*229*	*243*	*241*	*279*	*231*	**243**	*249*	*248*
W. S. Central	**471**	**522**	**598**	**501**	**498**	**534**	*618*	*517*	*512*	*537*	*640*	*529*	**523**	*542*	*555*
Mountain	**246**	**265**	**301**	**249**	**249**	**268**	*303*	*250*	*251*	*266*	*306*	*252*	**265**	*268*	*269*
Pacific contiguous	**431**	**431**	**480**	**438**	**423**	**429**	*472*	*437*	*422*	*431*	*471*	*438*	**445**	*441*	*441*
AK and HI	**16**	**16**	**16**	**16**	**16**	**15**	*16*	*16*	*16*	*15*	*16*	*16*	**16**	*16*	*16*
Total	**3,513**	**3,637**	**4,079**	**3,551**	**3,592**	**3,673**	*4,105*	*3,559*	*3,598*	*3,622*	*4,122*	*3,570*	**3,696**	*3,733*	*3,729*
Industrial Sector															
New England	**46**	**46**	**49**	**47**	**42**	**45**	*48*	*45*	*41*	*45*	*47*	*44*	**47**	*45*	*44*
Middle Atlantic	**192**	**194**	**204**	**195**	**196**	**197**	*208*	*197*	*198*	*198*	*209*	*197*	**196**	*199*	*201*
E. N. Central	**495**	**504**	**522**	**489**	**499**	**520**	*535*	*493*	*504*	*524*	*534*	*491*	**502**	*512*	*513*
W. N. Central	**228**	**240**	**253**	**235**	**232**	**241**	*259*	*241*	*240*	*248*	*265*	*246*	**239**	*243*	*250*
S. Atlantic	**362**	**386**	**390**	**372**	**366**	**375**	*389*	*368*	*364*	*371*	*383*	*363*	**377**	*375*	*370*
E. S. Central	**267**	**275**	**280**	**262**	**260**	**266**	*278*	*258*	*258*	*263*	*274*	*254*	**271**	*266*	*263*
W. S. Central	**480**	**503**	**511**	**484**	**466**	**496**	*514*	*495*	*478*	*508*	*524*	*504*	**495**	*493*	*504*
Mountain	**210**	**228**	**245**	**210**	**209**	**236**	*253*	*214*	*214*	*241*	*256*	*217*	**223**	*228*	*232*
Pacific contiguous	**211**	**230**	**253**	**220**	**213**	**236**	*260*	*223*	*214*	*238*	*261*	*223*	**229**	*233*	*234*
AK and HI	**13**	**14**	**14**	**13**	**13**	**14**	*14*	*13*	*13*	*14*	*14*	*13*	**14**	*14*	*14*
Total	**2,504**	**2,619**	**2,722**	**2,526**	**2,497**	**2,626**	*2,757*	*2,547*	*2,524*	*2,648*	*2,767*	*2,553*	**2,593**	*2,607*	*2,624*
Total All Sectors (a)															
New England	**345**	**317**	**362**	**323**	**327**	**293**	*364*	*319*	*323*	*287*	*357*	*312*	**337**	*326*	*320*
Middle Atlantic	**994**	**915**	**1,079**	**943**	**1,033**	**946**	*1,098*	*937*	*1,027*	*927*	*1,092*	*936*	**983**	*1,003*	*995*
E. N. Central	**1,493**	**1,427**	**1,605**	**1,447**	**1,552**	**1,507**	*1,650*	*1,444*	*1,543*	*1,452*	*1,642*	*1,441*	**1,493**	*1,538*	*1,520*
W. N. Central	**798**	**755**	**857**	**765**	**842**	**791**	*886*	*777*	*838*	*758*	*892*	*787*	**794**	*824*	*819*
S. Atlantic	**2,042**	**2,134**	**2,465**	**2,070**	**2,220**	**2,163**	*2,488*	*2,073*	*2,221*	*2,098*	*2,483*	*2,073*	**2,179**	*2,236*	*2,219*
E. S. Central	**797**	**793**	**924**	**779**	**870**	**807**	*948*	*781*	*870*	*774*	*939*	*779*	**823**	*852*	*841*
W. S. Central	**1,452**	**1,561**	**1,869**	**1,501**	**1,572**	**1,588**	*1,931*	*1,546*	*1,597*	*1,572*	*1,976*	*1,577*	**1,597**	*1,660*	*1,681*
Mountain	**701**	**752**	**893**	**691**	**697**	**767**	*907*	*700*	*709*	*766*	*918*	*707*	**760**	*768*	*776*
Pacific contiguous	**1,084**	**1,010**	**1,184**	**1,042**	**1,049**	**1,001**	*1,160*	*1,049*	*1,058*	*1,005*	*1,160*	*1,052*	**1,080**	*1,065*	*1,069*
AK and HI	**43**	**41**	**43**	**43**	**42**	**41**	*43*	*42*	*42*	*40*	*42*	*42*	**42**	*42*	*42*
Total	**9,750**	**9,704**	**11,280**	**9,605**	**10,205**	**9,902**	*11,476*	*9,668*	*10,227*	*9,680*	*11,501*	*9,708*	**10,088**	*10,314*	*10,281*

- = no data available

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

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

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

Regions refer to U.S. Census divisions.

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Residential Sector															
New England	**18.57**	**18.92**	**18.97**	**19.28**	**20.42**	**20.03**	*19.22*	*19.85*	*21.12*	*20.87*	*20.05*	*20.59*	**18.93**	*19.86*	*20.63*
Middle Atlantic	**15.55**	**16.27**	**16.43**	**15.87**	**15.62**	**16.35**	*16.61*	*16.19*	*15.98*	*16.83*	*17.00*	*16.54*	**16.04**	*16.19*	*16.59*
E. N. Central	**12.90**	**13.58**	**13.28**	**13.19**	**12.94**	**13.66**	*13.57*	*13.65*	*13.46*	*14.32*	*14.05*	*14.05*	**13.23**	*13.44*	*13.95*
W. N. Central	**10.94**	**12.66**	**13.16**	**11.51**	**10.91**	**12.39**	*13.26*	*11.78*	*11.30*	*13.00*	*13.61*	*12.02*	**12.07**	*12.09*	*12.48*
S. Atlantic	**11.69**	**12.01**	**12.26**	**11.81**	**11.61**	**11.86**	*12.26*	*11.95*	*11.82*	*12.23*	*12.51*	*12.12*	**11.96**	*11.93*	*12.18*
E. S. Central	**11.08**	**11.44**	**11.32**	**11.20**	**10.86**	**11.26**	*11.26*	*11.43*	*11.27*	*11.83*	*11.49*	*11.56*	**11.26**	*11.19*	*11.51*
W. S. Central	**10.54**	**10.93**	**10.87**	**10.76**	**10.54**	**10.86**	*10.72*	*10.72*	*10.64*	*11.16*	*10.86*	*10.82*	**10.79**	*10.71*	*10.86*
Mountain	**11.28**	**12.16**	**12.31**	**11.82**	**11.57**	**12.39**	*12.53*	*12.06*	*11.84*	*12.70*	*12.82*	*12.31*	**11.94**	*12.19*	*12.46*
Pacific	**14.51**	**14.69**	**16.50**	**14.37**	**14.86**	**15.52**	*16.99*	*14.53*	*15.17*	*16.11*	*17.70*	*14.92*	**15.07**	*15.51*	*16.00*
U.S. Average	**12.59**	**12.99**	**13.19**	**12.75**	**12.57**	**13.01**	*13.27*	*12.95*	*12.89*	*13.54*	*13.60*	*13.21*	**12.90**	*12.96*	*13.31*
Commercial Sector															
New England	**14.64**	**14.65**	**15.30**	**15.20**	**16.55**	**15.73**	*15.70*	*15.60*	*16.42*	*15.18*	*15.18*	*15.34*	**14.95**	*15.88*	*15.52*
Middle Atlantic	**12.07**	**12.75**	**13.34**	**12.08**	**12.07**	**12.43**	*13.25*	*12.09*	*12.00*	*12.36*	*13.23*	*12.23*	**12.58**	*12.48*	*12.48*
E. N. Central	**10.02**	**10.24**	**10.05**	**9.99**	**10.09**	**10.28**	*10.19*	*10.19*	*10.31*	*10.50*	*10.31*	*10.27*	**10.08**	*10.19*	*10.35*
W. N. Central	**9.12**	**10.11**	**10.57**	**9.26**	**9.17**	**10.03**	*10.75*	*9.50*	*9.36*	*10.31*	*10.99*	*9.76*	**9.79**	*9.88*	*10.12*
S. Atlantic	**9.44**	**9.38**	**9.55**	**9.53**	**9.55**	**9.35**	*9.60*	*9.66*	*9.87*	*9.53*	*9.67*	*9.68*	**9.48**	*9.54*	*9.68*
E. S. Central	**10.58**	**10.56**	**10.62**	**10.57**	**10.51**	**10.58**	*10.83*	*10.94*	*10.62*	*10.77*	*10.81*	*10.90*	**10.58**	*10.72*	*10.78*
W. S. Central	**8.37**	**8.40**	**8.38**	**8.28**	**8.38**	**8.12**	*8.15*	*8.17*	*8.00*	*7.74*	*7.80*	*8.08*	**8.36**	*8.20*	*7.90*
Mountain	**9.14**	**9.92**	**10.04**	**9.49**	**9.25**	**10.04**	*10.24*	*9.73*	*9.27*	*10.07*	*10.28*	*9.81*	**9.67**	*9.84*	*9.88*
Pacific	**12.53**	**13.56**	**15.36**	**13.61**	**12.86**	**14.42**	*16.22*	*14.30*	*13.67*	*15.00*	*16.65*	*14.43*	**13.82**	*14.51*	*14.99*
U.S. Average	**10.39**	**10.68**	**11.03**	**10.56**	**10.51**	**10.71**	*11.15*	*10.75*	*10.66*	*10.81*	*11.14*	*10.78*	**10.68**	*10.79*	*10.86*
Industrial Sector															
New England	**12.38**	**12.19**	**12.55**	**12.37**	**13.49**	**12.75**	*13.07*	*12.83*	*14.11*	*13.14*	*13.34*	*13.00*	**12.37**	*13.03*	*13.38*
Middle Atlantic	**6.94**	**6.94**	**6.88**	**6.81**	**7.20**	**6.71**	*6.87*	*6.87*	*7.00*	*6.62*	*6.82*	*6.82*	**6.89**	*6.91*	*6.82*
E. N. Central	**7.03**	**7.05**	**7.04**	**6.96**	**7.08**	**7.09**	*7.19*	*7.15*	*7.14*	*7.16*	*7.24*	*7.20*	**7.02**	*7.13*	*7.18*
W. N. Central	**6.89**	**7.35**	**8.07**	**6.87**	**7.05**	**7.26**	*8.19*	*7.03*	*7.17*	*7.37*	*8.30*	*7.12*	**7.31**	*7.40*	*7.51*
S. Atlantic	**6.31**	**6.39**	**6.79**	**6.34**	**6.45**	**6.39**	*6.92*	*6.53*	*6.44*	*6.44*	*6.95*	*6.55*	**6.46**	*6.58*	*6.60*
E. S. Central	**5.90**	**5.96**	**6.18**	**5.89**	**5.74**	**5.85**	*6.28*	*6.06*	*5.85*	*5.98*	*6.36*	*6.14*	**5.98**	*5.99*	*6.09*
W. S. Central	**5.28**	**5.55**	**5.72**	**5.41**	**5.43**	**5.35**	*5.70*	*5.46*	*5.31*	*5.35*	*5.70*	*5.51*	**5.50**	*5.49*	*5.47*
Mountain	**6.08**	**6.54**	**7.12**	**6.13**	**6.10**	**6.62**	*7.23*	*6.25*	*6.28*	*6.81*	*7.44*	*6.42*	**6.50**	*6.59*	*6.77*
Pacific	**8.23**	**9.35**	**10.73**	**9.73**	**8.63**	**9.94**	*11.09*	*9.95*	*8.78*	*10.04*	*11.18*	*10.02*	**9.57**	*9.97*	*10.07*
U.S. Average	**6.64**	**6.89**	**7.27**	**6.79**	**6.79**	**6.90**	*7.41*	*6.95*	*6.82*	*6.99*	*7.48*	*7.01*	**6.91**	*7.02*	*7.09*
All Sectors (a)															
New England	**15.93**	**15.87**	**16.35**	**16.35**	**17.80**	**16.94**	*16.79*	*16.87*	*18.14*	*17.01*	*16.97*	*17.11*	**16.13**	*17.09*	*17.30*
Middle Atlantic	**12.35**	**12.68**	**13.26**	**12.29**	**12.48**	**12.59**	*13.30*	*12.39*	*12.53*	*12.62*	*13.41*	*12.56*	**12.67**	*12.71*	*12.80*
E. N. Central	**10.00**	**10.13**	**10.16**	**10.01**	**10.13**	**10.30**	*10.38*	*10.27*	*10.37*	*10.45*	*10.59*	*10.45*	**10.08**	*10.27*	*10.47*
W. N. Central	**9.15**	**10.06**	**10.75**	**9.29**	**9.26**	**10.04**	*10.92*	*9.51*	*9.46*	*10.22*	*11.13*	*9.71*	**9.84**	*9.96*	*10.15*
S. Atlantic	**9.86**	**9.93**	**10.35**	**9.93**	**10.00**	**9.93**	*10.41*	*10.09*	*10.23*	*10.12*	*10.57*	*10.19*	**10.04**	*10.12*	*10.29*
E. S. Central	**9.20**	**9.27**	**9.55**	**9.23**	**9.23**	**9.31**	*9.67*	*9.51*	*9.48*	*9.51*	*9.79*	*9.59*	**9.32**	*9.44*	*9.60*
W. S. Central	**8.10**	**8.35**	**8.67**	**8.21**	**8.34**	**8.25**	*8.56*	*8.18*	*8.20*	*8.11*	*8.50*	*8.20*	**8.35**	*8.35*	*8.27*
Mountain	**8.97**	**9.67**	**10.12**	**9.25**	**9.11**	**9.82**	*10.29*	*9.45*	*9.26*	*9.93*	*10.47*	*9.61*	**9.55**	*9.71*	*9.87*
Pacific	**12.48**	**12.98**	**14.79**	**13.06**	**12.78**	**13.77**	*15.34*	*13.45*	*13.26*	*14.18*	*15.79*	*13.66*	**13.38**	*13.88*	*14.27*
U.S. Average	**10.26**	**10.47**	**10.98**	**10.37**	**10.42**	**10.57**	*11.10*	*10.55*	*10.60*	*10.72*	*11.24*	*10.68*	**10.54**	*10.68*	*10.83*

- = no data available

Prices are not adjusted for inflation.

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

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

Regions refer to U.S. Census divisions.

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
United States															
Coal	**3,242**	**3,100**	**3,762**	**3,128**	**3,127**	**2,939**	*3,643*	*3,028*	*3,206*	*2,631*	*3,484*	*2,856*	**3,309**	*3,185*	*3,045*
Natural Gas	**2,969**	**3,286**	**4,359**	**3,322**	**3,442**	**3,824**	*4,641*	*3,511*	*3,497*	*3,685*	*4,752*	*3,631*	**3,487**	*3,857*	*3,894*
Petroleum (a)	**59**	**54**	**56**	**62**	**101**	**59**	*65*	*57*	*75*	*58*	*65*	*57*	**58**	*70*	*64*
Other Gases	**40**	**39**	**40**	**36**	**37**	**38**	*41*	*37*	*38*	*38*	*41*	*37*	**39**	*38*	*38*
Nuclear	**2,242**	**2,034**	**2,302**	**2,243**	**2,294**	**2,157**	*2,267*	*2,136*	*2,240*	*2,097*	*2,272*	*2,135*	**2,205**	*2,213*	*2,186*
Renewable Energy Sources:	**2,008**	**2,157**	**1,615**	**1,757**	**2,084**	**2,135**	*1,664*	*1,763*	*1,943*	*2,168*	*1,800*	*1,878*	**1,883**	*1,910*	*1,947*
Conventional Hydropower	**918**	**1,010**	**717**	**647**	**854**	**917**	*676*	*628*	*755*	*865*	*723*	*628*	**822**	*768*	*742*
Wind	**768**	**748**	**501**	**771**	**867**	**788**	*555*	*780*	*824*	*838*	*595*	*853*	**697**	*747*	*777*
Wood Biomass	**118**	**115**	**122**	**119**	**122**	**110**	*122*	*117*	*120*	*114*	*125*	*119*	**119**	*117*	*119*
Waste Biomass	**59**	**56**	**56**	**57**	**58**	**58**	*59*	*59*	*58*	*59*	*60*	*59*	**57**	*59*	*59*
Geothermal	**45**	**43**	**44**	**43**	**45**	**42**	*43*	*45*	*45*	*45*	*45*	*46*	**44**	*44*	*45*
Solar	**101**	**185**	**175**	**120**	**138**	**221**	*207*	*135*	*140*	*248*	*252*	*173*	**145**	*175*	*204*
Pumped Storage Hydropower	**-16**	**-16**	**-22**	**-17**	**-15**	**-13**	*-18*	*-14*	*-13*	*-12*	*-18*	*-14*	**-18**	*-15*	*-14*
Other Nonrenewable Fuels (b)	**35**	**35**	**38**	**35**	**36**	**37**	*39*	*37*	*35*	*36*	*39*	*37*	**36**	*37*	*37*
Total Generation	**10,579**	**10,690**	**12,151**	**10,566**	**11,107**	**11,176**	*12,341*	*10,554*	*11,020*	*10,700*	*12,435*	*10,616*	**10,999**	*11,296*	*11,195*
Northeast Census Region															
Coal	**154**	**134**	**136**	**139**	**149**	**135**	*202*	*164*	*163*	*106*	*174*	*159*	**141**	*163*	*151*
Natural Gas	**486**	**482**	**637**	**492**	**500**	**548**	*688*	*548*	*519*	*560*	*711*	*566*	**525**	*572*	*589*
Petroleum (a)	**4**	**2**	**3**	**11**	**32**	**3**	*4*	*4*	*12*	*2*	*4*	*4*	**5**	*11*	*5*
Other Gases	**2**	**2**	**2**	**2**	**2**	**2**	*2*	*2*	*2*	*2*	*2*	*2*	**2**	*2*	*2*
Nuclear	**539**	**476**	**549**	**529**	**552**	**508**	*531*	*490*	*512*	*476*	*507*	*463*	**523**	*520*	*489*
Hydropower (c)	**102**	**107**	**99**	**99**	**103**	**98**	*88*	*94*	*100*	*93*	*92*	*94*	**102**	*96*	*95*
Other Renewables (d)	**72**	**76**	**68**	**74**	**80**	**72**	*66*	*78*	*80*	*72*	*66*	*80*	**73**	*74*	*74*
Other Nonrenewable Fuels (b)	**11**	**11**	**12**	**12**	**11**	**11**	*12*	*12*	*11*	*11*	*12*	*12*	**11**	*12*	*12*
Total Generation	**1,370**	**1,290**	**1,506**	**1,359**	**1,430**	**1,376**	*1,592*	*1,392*	*1,399*	*1,322*	*1,568*	*1,380*	**1,381**	*1,448*	*1,418*
South Census Region															
Coal	**1,330**	**1,416**	**1,681**	**1,293**	**1,261**	**1,315**	*1,597*	*1,230*	*1,309*	*1,111*	*1,512*	*1,136*	**1,431**	*1,351*	*1,267*
Natural Gas	**1,763**	**2,087**	**2,565**	**1,922**	**2,052**	**2,347**	*2,679*	*2,005*	*2,027*	*2,236*	*2,780*	*2,072*	**2,086**	*2,272*	*2,280*
Petroleum (a)	**25**	**22**	**23**	**21**	**38**	**26**	*28*	*22*	*30*	*24*	*28*	*22*	**23**	*29*	*26*
Other Gases	**15**	**15**	**15**	**13**	**13**	**14**	*15*	*13*	*13*	*14*	*14*	*12*	**14**	*14*	*13*
Nuclear	**973**	**888**	**1,003**	**1,012**	**1,008**	**951**	*1,014*	*962*	*1,009*	*948*	*1,032*	*978*	**969**	*984*	*992*
Hydropower (c)	**128**	**138**	**99**	**103**	**126**	**129**	*91*	*100*	*122*	*121*	*96*	*99*	**117**	*111*	*109*
Other Renewables (d)	**401**	**403**	**323**	**391**	**453**	**458**	*365*	*414*	*444*	*491*	*415*	*471*	**379**	*422*	*455*
Other Nonrenewable Fuels (b)	**15**	**15**	**16**	**15**	**16**	**17**	*17*	*16*	*15*	*16*	*17*	*15*	**15**	*16*	*16*
Total Generation	**4,650**	**4,984**	**5,726**	**4,769**	**4,968**	**5,258**	*5,805*	*4,761*	*4,969*	*4,960*	*5,894*	*4,806*	**5,034**	*5,199*	*5,159*
Midwest Census Region															
Coal	**1,288**	**1,177**	**1,394**	**1,216**	**1,302**	**1,120**	*1,317*	*1,144*	*1,240*	*1,055*	*1,322*	*1,089*	**1,269**	*1,221*	*1,176*
Natural Gas	**289**	**272**	**407**	**349**	**400**	**461**	*542*	*409*	*444*	*415*	*525*	*435*	**330**	*453*	*455*
Petroleum (a)	**7**	**7**	**7**	**8**	**9**	**8**	*10*	*9*	*11*	*10*	*10*	*9*	**7**	*9*	*10*
Other Gases	**17**	**16**	**17**	**15**	**15**	**15**	*17*	*15*	*16*	*16*	*18*	*16*	**16**	*16*	*16*
Nuclear	**555**	**543**	**580**	**535**	**571**	**539**	*555*	*526*	*553*	*519*	*564*	*534*	**553**	*548*	*542*
Hydropower (c)	**52**	**58**	**37**	**36**	**54**	**52**	*33*	*35*	*53*	*50*	*34*	*35*	**46**	*44*	*43*
Other Renewables (d)	**315**	**304**	**198**	**340**	**360**	**297**	*209*	*340*	*350*	*327*	*225*	*380*	**289**	*301*	*320*
Other Nonrenewable Fuels (b)	**3**	**4**	**4**	**4**	**4**	**4**	*4*	*4*	*4*	*4*	*4*	*4*	**4**	*4*	*4*
Total Generation	**2,528**	**2,381**	**2,643**	**2,503**	**2,714**	**2,497**	*2,688*	*2,482*	*2,670*	*2,394*	*2,703*	*2,501*	**2,514**	*2,595*	*2,567*
West Census Region															
Coal	**470**	**373**	**551**	**480**	**415**	**370**	*528*	*489*	*494*	*360*	*477*	*472*	**469**	*451*	*451*
Natural Gas	**430**	**446**	**751**	**558**	**490**	**467**	*731*	*548*	*507*	*475*	*736*	*558*	**547**	*560*	*570*
Petroleum (a)	**23**	**22**	**23**	**22**	**21**	**22**	*23*	*22*	*23*	*22*	*23*	*22*	**23**	*22*	*22*
Other Gases	**6**	**6**	**6**	**6**	**7**	**6**	*6*	*7*	*7*	*6*	*6*	*7*	**6**	*6*	*6*
Nuclear	**175**	**127**	**171**	**167**	**164**	**159**	*167*	*158*	*165*	*155*	*169*	*160*	**160**	*162*	*162*
Hydropower (c)	**619**	**692**	**460**	**392**	**557**	**625**	*447*	*384*	*466*	*588*	*483*	*386*	**540**	*502*	*481*
Other Renewables (d)	**302**	**364**	**308**	**305**	**337**	**392**	*348*	*305*	*315*	*413*	*371*	*319*	**320**	*345*	*355*
Other Nonrenewable Fuels (b)	**5**	**5**	**6**	**5**	**5**	**5**	*6*	*5*	*5*	*5*	*6*	*5*	**5**	*5*	*5*
Total Generation	**2,031**	**2,035**	**2,277**	**1,934**	**1,995**	**2,045**	*2,257*	*1,919*	*1,983*	*2,025*	*2,271*	*1,929*	**2,069**	*2,054*	*2,052*

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

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

(c) Conventional hydroelectric and pumped storage generation.

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Fuel Consumption for Electricity Generation, All Sectors															
United States															
Coal (thousand st/d)	**1,777**	**1,692**	**2,068**	**1,731**	**1,719**	**1,613**	*2,001*	*1,675*	*1,747*	*1,439*	*1,912*	*1,578*	**1,818**	*1,752*	*1,669*
Natural Gas (million cf/d)	**21,452**	**24,555**	**32,799**	**24,545**	**25,006**	**28,199**	*34,737*	*25,531*	*25,254*	*27,223*	*35,492*	*26,364*	**25,865**	*28,387*	*28,605*
Petroleum (thousand b/d)	**107**	**100**	**105**	**111**	**178**	**108**	*117*	*103*	*136*	*104*	*117*	*103*	**106**	*126*	*115*
Residual Fuel Oil	**26**	**27**	**28**	**33**	**51**	**26**	*30*	*26*	*39*	*26*	*29*	*26*	**29**	*33*	*30*
Distillate Fuel Oil	**28**	**24**	**23**	**32**	**71**	**27**	*24*	*27*	*34*	*25*	*25*	*28*	**27**	*37*	*28*
Petroleum Coke (a)	**49**	**45**	**48**	**42**	**47**	**51**	*59*	*46*	*57*	*50*	*59*	*46*	**46**	*51*	*53*
Other Petroleum Liquids (b)	**4**	**4**	**7**	**5**	**9**	**3**	*4*	*4*	*5*	*3*	*4*	*4*	**5**	*5*	*4*
Northeast Census Region															
Coal (thousand st/d)	**75**	**63**	**66**	**65**	**76**	**68**	*101*	*82*	*82*	*52*	*87*	*80*	**67**	*82*	*75*
Natural Gas (million cf/d)	**3,603**	**3,640**	**4,893**	**3,706**	**3,635**	**3,978**	*5,113*	*3,946*	*3,732*	*4,079*	*5,278*	*4,072*	**3,963**	*4,172*	*4,294*
Petroleum (thousand b/d)	**7**	**4**	**7**	**18**	**53**	**5**	*7*	*6*	*21*	*4*	*7*	*6*	**9**	*18*	*9*
South Census Region															
Coal (thousand st/d)	**715**	**761**	**902**	**705**	**659**	**698**	*851*	*662*	*683*	*586*	*801*	*608*	**771**	*718*	*670*
Natural Gas (million cf/d)	**12,471**	**15,401**	**19,033**	**14,045**	**14,832**	**17,293**	*19,959*	*14,517*	*14,506*	*16,447*	*20,650*	*14,950*	**15,252**	*16,658*	*16,650*
Petroleum (thousand b/d)	**47**	**42**	**43**	**40**	**70**	**49**	*51*	*42*	*57*	*45*	*52*	*43*	**43**	*53*	*49*
Midwest Census Region															
Coal (thousand st/d)	**717**	**655**	**787**	**688**	**745**	**636**	*747*	*649*	*698*	*597*	*752*	*619*	**712**	*694*	*666*
Natural Gas (million cf/d)	**2,186**	**2,134**	**3,249**	**2,676**	**2,915**	**3,430**	*4,204*	*3,028*	*3,261*	*3,113*	*4,055*	*3,219*	**2,564**	*3,397*	*3,414*
Petroleum (thousand b/d)	**15**	**16**	**16**	**16**	**19**	**17**	*20*	*17*	*20*	*19*	*21*	*17*	**16**	*18*	*19*
West Census Region															
Coal (thousand st/d)	**269**	**213**	**313**	**273**	**240**	**211**	*302*	*282*	*284*	*205*	*271*	*271*	**267**	*259*	*258*
Natural Gas (million cf/d)	**3,192**	**3,378**	**5,624**	**4,117**	**3,625**	**3,498**	*5,461*	*4,041*	*3,755*	*3,584*	*5,508*	*4,123*	**4,085**	*4,161*	*4,247*
Petroleum (thousand b/d)	**39**	**37**	**39**	**37**	**36**	**37**	*39*	*37*	*38*	*36*	*38*	*37*	**38**	*37*	*37*
End-of-period U.S. Fuel Inventories Held by Electric Power Sector															
Coal (million short tons)	**161.7**	**157.7**	**139.3**	**137.2**	**126.4**	**121.5**	*109.5*	*117.6*	*116.7*	*114.4*	*108.8*	*118.1*	**137.2**	*117.6*	*118.1*
Residual Fuel Oil (mmb)	**12.5**	**11.9**	**11.4**	**11.0**	**10.3**	**10.7**	*10.8*	*11.4*	*11.4*	*11.3*	*11.3*	*11.8*	**11.0**	*11.4*	*11.8*
Distillate Fuel Oil (mmb)	**17.0**	**16.6**	**16.4**	**15.8**	**15.0**	**15.0**	*15.2*	*15.7*	*15.9*	*15.8*	*15.8*	*16.1*	**15.8**	*15.7*	*16.1*
Petroleum Coke (mmb)	**4.3**	**4.3**	**4.9**	**5.6**	**5.3**	**5.4**	*5.3*	*5.2*	*5.1*	*5.1*	*5.0*	*4.9*	**5.6**	*5.2*	*4.9*

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

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

Notes: Data reflect generation supplied by electricity-only and combined-heat-and-power (CHP) plants operated by electric utilities, independent power producers, and the commercial and industrial sectors. Data include fuel consumed only for generation of electricity. Values do not include consumption by CHP plants for useful thermal output.

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Electric Power Sector															
Geothermal	**0.037**	**0.036**	**0.037**	**0.037**	**0.038**	**0.035**	*0.037*	*0.038*	*0.038*	*0.038*	*0.038*	*0.039*	**0.147**	*0.148*	*0.153*
Hydroelectric Power (a)	**0.759**	**0.844**	**0.605**	**0.546**	**0.706**	**0.773**	*0.576*	*0.535*	*0.629*	*0.729*	*0.616*	*0.535*	**2.755**	*2.590*	*2.509*
Solar (b)	**0.084**	**0.155**	**0.148**	**0.101**	**0.114**	**0.185**	*0.175*	*0.114*	*0.116*	*0.208*	*0.213*	*0.146*	**0.488**	*0.589*	*0.683*
Waste Biomass (c)	**0.070**	**0.066**	**0.068**	**0.068**	**0.081**	**0.072**	*0.076*	*0.076*	*0.075*	*0.075*	*0.078*	*0.077*	**0.272**	*0.305*	*0.304*
Wood Biomass	**0.061**	**0.059**	**0.064**	**0.063**	**0.061**	**0.052**	*0.064*	*0.059*	*0.060*	*0.058*	*0.069*	*0.062*	**0.247**	*0.237*	*0.249*
Wind	**0.644**	**0.634**	**0.429**	**0.660**	**0.727**	**0.668**	*0.475*	*0.668*	*0.691*	*0.710*	*0.509*	*0.731*	**2.367**	*2.538*	*2.640*
Subtotal	**1.654**	**1.794**	**1.352**	**1.475**	**1.726**	**1.785**	*1.405*	*1.490*	*1.608*	*1.817*	*1.524*	*1.590*	**6.276**	*6.406*	*6.538*
Industrial Sector															
Biofuel Losses and Co-products (d)	**0.203**	**0.199**	**0.204**	**0.211**	**0.202**	**0.203**	*0.209*	*0.207*	*0.201*	*0.204*	*0.207*	*0.207*	**0.817**	*0.821*	*0.819*
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*
Hydroelectric Power (a)	**0.003**	**0.004**	**0.003**	**0.003**	**0.003**	**0.004**	*0.003*	*0.003*	*0.003*	*0.004*	*0.003*	*0.003*	**0.013**	*0.013*	*0.013*
Solar (b)	**0.005**	**0.007**	**0.007**	**0.005**	**0.006**	**0.008**	*0.008*	*0.006*	*0.006*	*0.009*	*0.010*	*0.007*	**0.024**	*0.028*	*0.032*
Waste Biomass (c)	**0.044**	**0.040**	**0.038**	**0.044**	**0.044**	**0.043**	*0.044*	*0.048*	*0.038*	*0.045*	*0.045*	*0.048*	**0.165**	*0.179*	*0.176*
Wood Biomass	**0.370**	**0.361**	**0.375**	**0.374**	**0.368**	**0.358**	*0.362*	*0.361*	*0.349*	*0.346*	*0.358*	*0.360*	**1.480**	*1.450*	*1.413*
Subtotal	**0.625**	**0.609**	**0.625**	**0.638**	**0.624**	**0.614**	*0.623*	*0.625*	*0.597*	*0.604*	*0.618*	*0.624*	**2.498**	*2.485*	*2.444*
Commercial Sector															
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*
Solar (b)	**0.015**	**0.023**	**0.023**	**0.016**	**0.019**	**0.028**	*0.029*	*0.021*	*0.024*	*0.034*	*0.035*	*0.025*	**0.077**	*0.097*	*0.119*
Waste Biomass (c)	**0.012**	**0.011**	**0.011**	**0.011**	**0.011**	**0.032**	*0.038*	*0.045*	*0.051*	*0.042*	*0.046*	*0.047*	**0.045**	*0.126*	*0.187*
Wood Biomass	**0.021**	**0.021**	**0.021**	**0.021**	**0.021**	**0.021**	*0.021*	*0.021*	*0.021*	*0.021*	*0.021*	*0.021*	**0.084**	*0.084*	*0.084*
Subtotal	**0.059**	**0.067**	**0.068**	**0.061**	**0.063**	**0.093**	*0.100*	*0.099*	*0.108*	*0.110*	*0.114*	*0.106*	**0.254**	*0.355*	*0.438*
Residential Sector															
Geothermal	**0.010**	**0.010**	**0.010**	**0.010**	**0.010**	**0.013**	*0.013*	*0.013*	*0.013*	*0.013*	*0.013*	*0.013*	**0.040**	*0.049*	*0.053*
Solar (e)	**0.036**	**0.057**	**0.058**	**0.040**	**0.043**	**0.067**	*0.069*	*0.048*	*0.050*	*0.077*	*0.079*	*0.055*	**0.191**	*0.226*	*0.262*
Wood Biomass	**0.082**	**0.083**	**0.084**	**0.084**	**0.095**	**0.103**	*0.104*	*0.104*	*0.105*	*0.105*	*0.105*	*0.105*	**0.334**	*0.405*	*0.420*
Subtotal	**0.128**	**0.150**	**0.152**	**0.134**	**0.148**	**0.182**	*0.185*	*0.165*	*0.169*	*0.196*	*0.197*	*0.173*	**0.565**	*0.680*	*0.735*
Transportation Sector															
Biomass-based Diesel (f)	**0.054**	**0.079**	**0.080**	**0.066**	**0.057**	**0.072**	*0.089*	*0.093*	*0.066*	*0.085*	*0.098*	*0.101*	**0.279**	*0.311*	*0.350*
Ethanol (f)	**0.270**	**0.290**	**0.293**	**0.291**	**0.273**	**0.288**	*0.300*	*0.290*	*0.273*	*0.294*	*0.299*	*0.292*	**1.145**	*1.151*	*1.158*
Subtotal	**0.324**	**0.370**	**0.373**	**0.357**	**0.329**	**0.363**	*0.390*	*0.383*	*0.339*	*0.379*	*0.396*	*0.393*	**1.423**	*1.465*	*1.509*
All Sectors Total															
Biomass-based Diesel (f)	**0.054**	**0.079**	**0.080**	**0.066**	**0.057**	**0.072**	*0.089*	*0.093*	*0.066*	*0.085*	*0.098*	*0.101*	**0.279**	*0.311*	*0.350*
Biofuel Losses and Co-products (d)	**0.203**	**0.199**	**0.204**	**0.211**	**0.202**	**0.203**	*0.209*	*0.207*	*0.201*	*0.204*	*0.207*	*0.207*	**0.817**	*0.821*	*0.819*
Ethanol (f)	**0.281**	**0.301**	**0.304**	**0.302**	**0.283**	**0.294**	*0.312*	*0.301*	*0.283*	*0.305*	*0.310*	*0.304*	**1.189**	*1.190*	*1.203*
Geothermal	**0.053**	**0.052**	**0.053**	**0.053**	**0.053**	**0.055**	*0.056*	*0.057*	*0.057*	*0.057*	*0.057*	*0.058*	**0.211**	*0.221*	*0.229*
Hydroelectric Power (a)	**0.763**	**0.849**	**0.609**	**0.550**	**0.710**	**0.778**	*0.580*	*0.538*	*0.633*	*0.733*	*0.620*	*0.539*	**2.770**	*2.606*	*2.525*
Solar (b)(e)	**0.138**	**0.240**	**0.235**	**0.161**	**0.180**	**0.283**	*0.281*	*0.189*	*0.196*	*0.329*	*0.337*	*0.233*	**0.774**	*0.933*	*1.096*
Waste Biomass (c)	**0.126**	**0.117**	**0.117**	**0.122**	**0.125**	**0.148**	*0.158*	*0.169*	*0.165*	*0.162*	*0.168*	*0.172*	**0.482**	*0.601*	*0.667*
Wood Biomass	**0.534**	**0.524**	**0.543**	**0.543**	**0.545**	**0.535**	*0.551*	*0.545*	*0.535*	*0.530*	*0.553*	*0.548*	**2.145**	*2.177*	*2.166*
Wind	**0.644**	**0.634**	**0.429**	**0.660**	**0.727**	**0.668**	*0.475*	*0.668*	*0.691*	*0.710*	*0.509*	*0.731*	**2.367**	*2.538*	*2.640*
Total Consumption	**2.791**	**2.990**	**2.571**	**2.665**	**2.889**	**3.029**	*2.703*	*2.761*	*2.821*	*3.106*	*2.850*	*2.886*	**11.016**	*11.383*	*11.664*

- = no data available

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

(b) Solar consumption in the electric power, commercial, and industrial sectors includes energy produced from large scale (>1 MW) solar thermal and photovoltaic generators and small-scale (<1 MW) distributed solar photovoltaic systems.

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

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

(e) Solar consumption in the residential sector includes energy from small-scale (<1 MW) solar photovoltaic systems. Also includes solar heating consumption in all sectors.

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 8b. U.S. Renewable Electricity Generation and Capacity

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Renewable Energy Electric Generating Capacity (megawatts, end of period)															
Electric Power Sector (a)															
Biomass	**7,233**	**7,269**	**7,326**	**7,318**	**7,294**	**7,331**	*7,330*	*7,364*	*7,526*	*7,526*	*7,526*	*7,526*	**7,318**	*7,364*	*7,526*
Waste	**4,202**	**4,238**	**4,241**	**4,239**	**4,215**	**4,252**	*4,251*	*4,284*	*4,288*	*4,288*	*4,288*	*4,288*	**4,239**	*4,284*	*4,288*
Wood	**3,031**	**3,031**	**3,085**	**3,079**	**3,079**	**3,079**	*3,079*	*3,079*	*3,238*	*3,238*	*3,238*	*3,238*	**3,079**	*3,079*	*3,238*
Conventional Hydroelectric	**79,486**	**79,494**	**79,588**	**79,585**	**79,597**	**79,565**	*79,705*	*79,720*	*79,764*	*79,791*	*79,752*	*79,786*	**79,585**	*79,720*	*79,786*
Geothermal	**2,449**	**2,449**	**2,449**	**2,486**	**2,502**	**2,502**	*2,502*	*2,502*	*2,510*	*2,510*	*2,510*	*2,545*	**2,486**	*2,502*	*2,545*
Large-Scale Solar (b)	**22,601**	**23,635**	**24,148**	**26,573**	**27,876**	**28,823**	*29,427*	*32,096*	*33,818*	*35,680*	*36,970*	*43,540*	**26,573**	*32,096*	*43,540*
Wind	**82,923**	**83,382**	**84,113**	**87,492**	**88,523**	**89,202**	*89,977*	*94,028*	*94,903*	*95,634*	*96,792*	*104,344*	**87,492**	*94,028*	*104,344*
Other Sectors (c)															
Biomass	**6,690**	**6,694**	**6,692**	**6,661**	**6,655**	**6,636**	*6,645*	*6,645*	*6,645*	*6,623*	*6,623*	*6,637*	**6,661**	*6,645*	*6,637*
Waste	**885**	**889**	**887**	**876**	**876**	**876**	*876*	*876*	*876*	*878*	*878*	*892*	**876**	*876*	*892*
Wood	**5,805**	**5,805**	**5,805**	**5,785**	**5,779**	**5,760**	*5,769*	*5,769*	*5,769*	*5,745*	*5,745*	*5,745*	**5,785**	*5,769*	*5,745*
Conventional Hydroelectric	**357**	**357**	**357**	**357**	**357**	**357**	*357*	*364*	*364*	*364*	*364*	*364*	**357**	*364*	*364*
Large-Scale Solar (b)	**324**	**342**	**342**	**352**	**352**	**361**	*361*	*361*	*360*	*360*	*360*	*360*	**352**	*361*	*360*
Small-Scale Solar (d)	**13,722**	**14,543**	**15,341**	**16,224**	**16,972**	**17,961**	*18,854*	*19,795*	*20,695*	*21,664*	*22,698*	*23,785*	**16,224**	*19,795*	*23,785*
Residential Sector	**8,124**	**8,618**	**9,105**	**9,574**	**10,170**	**10,673**	*11,200*	*11,742*	*12,301*	*12,880*	*13,475*	*14,087*	**9,574**	*11,742*	*14,087*
Commercial Sector	**4,286**	**4,555**	**4,797**	**5,146**	**5,290**	**5,696**	*6,000*	*6,334*	*6,616*	*6,941*	*7,310*	*7,713*	**5,146**	*6,334*	*7,713*
Industrial Sector	**1,312**	**1,370**	**1,438**	**1,504**	**1,512**	**1,592**	*1,654*	*1,719*	*1,779*	*1,843*	*1,912*	*1,985*	**1,504**	*1,719*	*1,985*
Wind	**94**	**93**	**93**	**97**	**100**	**104**	*104*	*104*	*104*	*104*	*104*	*104*	**97**	*104*	*104*
Renewable Electricity Generation (thousand megawatthours per day)															
Electric Power Sector (a)															
Biomass	**90**	**86**	**90**	**90**	**92**	**84**	*93*	*90*	*90*	*89*	*97*	*92*	**89**	*90*	*92*
Waste	**49**	**47**	**47**	**47**	**49**	**49**	*50*	*50*	*49*	*50*	*51*	*50*	**48**	*50*	*50*
Wood	**41**	**39**	**43**	**43**	**43**	**35**	*43*	*40*	*41*	*39*	*46*	*42*	**41**	*40*	*42*
Conventional Hydroelectric	**913**	**1,005**	**713**	**643**	**850**	**912**	*672*	*623*	*750*	*860*	*719*	*624*	**818**	*764*	*738*
Geothermal	**45**	**43**	**44**	**43**	**45**	**42**	*43*	*45*	*45*	*45*	*45*	*46*	**44**	*44*	*45*
Large-Scale Solar (b)	**100**	**182**	**173**	**118**	**136**	**218**	*205*	*133*	*138*	*245*	*249*	*170*	**143**	*173*	*201*
Wind	**767**	**748**	**501**	**770**	**866**	**787**	*554*	*779*	*824*	*837*	*594*	*852*	**696**	*746*	*776*
Other Sectors (c)															
Biomass	**87**	**84**	**88**	**86**	**88**	**84**	*88*	*86*	*88*	*84*	*88*	*86*	**86**	*87*	*87*
Waste	**78**	**75**	**79**	**77**	**79**	**75**	*79*	*77*	*79*	*75*	*79*	*77*	**77**	*77*	*77*
Wood	**10**	**9**	**9**	**9**	**9**	**9**	*9*	*9*	*9*	*9*	*9*	*9*	**9**	*9*	*9*
Conventional Hydroelectric	**5**	**5**	**4**	**4**	**5**	**5**	*4*	*4*	*5*	*5*	*4*	*4*	**5**	*4*	*4*
Large-Scale Solar (b)	**1**	**2**	**2**	**1**	**1**	**2**	*3*	*2*	*3*	*3*	*3*	*3*	**2**	*2*	*3*
Small-Scale Solar (d)	**51**	**79**	**80**	**55**	**65**	**97**	*98*	*69*	*79*	*118*	*119*	*83*	**66**	*82*	*100*
Residential Sector	**29**	**46**	**46**	**31**	**37**	**57**	*57*	*40*	*45*	*69*	*70*	*49*	**38**	*48*	*58*
Commercial Sector	**17**	**25**	**25**	**18**	**21**	**31**	*31*	*22*	*26*	*38*	*38*	*27*	**21**	*26*	*32*
Industrial Sector	**5**	**8**	**8**	**6**	**6**	**9**	*9*	*7*	*8*	*11*	*11*	*8*	**7**	*8*	*9*
Wind	**1**	**1**	**0**	**1**	**1**	**1**	*1*	*1*	*1*	*1*	*1*	*1*	**1**	*1*	*1*

-- = 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.

(a) Power plants larger than or equal to one megawatt in size that are operated by electric utilities or independent power producers.

(b) Solar thermal and photovoltaic generating units at power plants larger than or equal to one megawatt.

(c) Businesses or individual households not primarily engaged in electric power production for sale to the public, whose generating capacity is at least one megawatt (except for small-scale solar photovoltaic data, which consists of systems smaller than one megawatt).

(d) Solar photovoltaic systems smaller than one megawatt, as measured in alternating current.

Historical data: Latest data available from EIA databases supporting the Electric Power Monthly, DOE/EIA-0226.

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

Projections: EIA-860M database, EIA-826 Solar PV database, and EIA Regional Short-Term Energy Model.

Table 9a. U.S. Macroeconomic Indicators and CC_2 Emissions

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Macroeconomic															
Real Gross Domestic Product															
(billion chained 2009 dollars - SAAR)	**16,903**	**17,031**	**17,164**	**17,286**	**17,380**	**17,553**	*17,685*	*17,806*	*17,920*	*18,017*	*18,103*	*18,182*	**17,096**	*17,606*	*18,055*
Real Personal Consumption Expend.															
(billion chained 2009 dollars - SAAR)	**11,758**	**11,853**	**11,917**	**12,035**	**12,066**	**12,165**	*12,232*	*12,305*	*12,381*	*12,456*	*12,527*	*12,601*	**11,891**	*12,192*	*12,491*
Real Fixed Investment															
(billion chained 2009 dollars - SAAR)	**2,876**	**2,898**	**2,916**	**2,974**	**3,021**	**3,036**	*3,081*	*3,117*	*3,158*	*3,198*	*3,235*	*3,270*	**2,916**	*3,064*	*3,215*
Business Inventory Change															
(billion chained 2009 dollars - SAAR)	**0**	**5**	**42**	**16**	**22**	**47**	*71*	*86*	*91*	*92*	*90*	*83*	**16**	*57*	*89*
Real Government Expenditures															
(billion chained 2009 dollars - SAAR)	**2,897**	**2,895**	**2,900**	**2,922**	**2,930**	**2,944**	*2,965*	*2,990*	*3,010*	*3,023*	*3,031*	*3,035*	**2,903**	*2,957*	*3,025*
Real Exports of Goods & Services															
(billion chained 2009 dollars - SAAR)	**2,162**	**2,181**	**2,192**	**2,230**	**2,253**	**2,295**	*2,331*	*2,365*	*2,394*	*2,429*	*2,467*	*2,509*	**2,191**	*2,311*	*2,450*
Real Imports of Goods & Services															
(billion chained 2009 dollars - SAAR)	**2,785**	**2,795**	**2,790**	**2,884**	**2,904**	**2,916**	*2,979*	*3,042*	*3,102*	*3,171*	*3,242*	*3,317*	**2,813**	*2,960*	*3,208*
Real Disposable Personal Income															
(billion chained 2009 dollars - SAAR)	**12,680**	**12,766**	**12,788**	**12,827**	**12,931**	**13,003**	*13,068*	*13,178*	*13,309*	*13,389*	*13,473*	*13,564*	**12,765**	*13,045*	*13,434*
Non-Farm Employment															
(millions)	**145.9**	**146.3**	**146.9**	**147.4**	**148.1**	**148.7**	*149.3*	*149.9*	*150.4*	*150.9*	*151.2*	*151.5*	**146.6**	*149.0*	*151.0*
Civilian Unemployment Rate															
(percent)	**4.7**	**4.3**	**4.3**	**4.1**	**4.1**	**3.8**	*3.7*	*3.6*	*3.5*	*3.5*	*3.5*	*3.6*	**4.4**	*3.8*	*3.5*
Housing Starts															
(millions - SAAR)	**1.23**	**1.17**	**1.17**	**1.26**	**1.32**	**1.30**	*1.32*	*1.35*	*1.37*	*1.37*	*1.38*	*1.39*	**1.21**	*1.32*	*1.38*
Industrial Production Indices (Index, 2012=100)															
Total Industrial Production	**102.5**	**103.7**	**103.3**	**105.3**	**105.9**	**107.4**	*107.8*	*108.7*	*109.5*	*110.1*	*110.6*	*111.1*	**103.7**	*107.4*	*110.3*
Manufacturing	**102.0**	**102.7**	**102.2**	**103.6**	**104.1**	**104.9**	*105.7*	*106.6*	*107.2*	*107.6*	*107.9*	*108.3*	**102.6**	*105.3*	*107.8*
Food	**109.2**	**110.1**	**112.1**	**112.5**	**114.1**	**114.8**	*114.7*	*115.3*	*115.9*	*116.4*	*116.9*	*117.4*	**111.0**	*114.7*	*116.6*
Paper	**97.8**	**96.9**	**96.4**	**96.1**	**95.6**	**96.4**	*95.7*	*95.7*	*95.5*	*95.3*	*95.2*	*95.2*	**96.8**	*95.8*	*95.3*
Petroleum and Coal Products	**105.5**	**108.9**	**104.7**	**107.4**	**106.4**	**106.7**	*108.1*	*108.5*	*108.8*	*109.0*	*109.2*	*109.5*	**106.6**	*107.4*	*109.1*
Chemicals	**94.2**	**95.9**	**94.7**	**97.7**	**96.7**	**98.4**	*99.6*	*100.5*	*101.3*	*101.9*	*102.8*	*103.6*	**95.6**	*98.8*	*102.4*
Nonmetallic Mineral Products	**114.0**	**113.2**	**113.6**	**117.1**	**119.2**	**120.9**	*121.2*	*122.1*	*123.0*	*123.9*	*124.8*	*125.7*	**114.5**	*120.9*	*124.3*
Primary Metals	**94.0**	**92.9**	**93.6**	**95.2**	**96.2**	**96.6**	*99.4*	*100.3*	*100.4*	*100.2*	*100.2*	*100.2*	**93.9**	*98.1*	*100.2*
Coal-weighted Manufacturing (a)	**101.7**	**102.1**	**101.1**	**103.3**	**103.4**	**104.3**	*105.5*	*106.2*	*106.6*	*106.9*	*107.4*	*107.9*	**102.0**	*104.9*	*107.2*
Distillate-weighted Manufacturing (a)	**107.8**	**108.2**	**108.2**	**110.1**	**111.0**	**111.6**	*112.8*	*113.5*	*114.1*	*114.6*	*115.1*	*115.6*	**108.6**	*112.2*	*114.8*
Electricity-weighted Manufacturing (a)	**102.1**	**102.8**	**101.9**	**103.9**	**104.1**	**105.0**	*106.3*	*107.2*	*107.8*	*108.2*	*108.8*	*109.4*	**102.7**	*105.6*	*108.5*
Natural Gas-weighted Manufacturing (a)	**101.7**	**103.5**	**101.6**	**104.5**	**103.6**	**105.0**	*106.2*	*107.1*	*107.8*	*108.3*	*109.0*	*109.7*	**102.9**	*105.5*	*108.7*
Price Indexes															
Consumer Price Index (all urban consumers)															
(index, 1982-1984=1.00)	**2.44**	**2.44**	**2.45**	**2.47**	**2.49**	**2.51**	*2.52*	*2.54*	*2.55*	*2.56*	*2.58*	*2.59*	**2.45**	*2.52*	*2.57*
Producer Price Index: All Commodities															
(index, 1982=1.00)	**1.93**	**1.92**	**1.92**	**1.97**	**2.01**	**2.03**	*2.04*	*2.05*	*2.06*	*2.06*	*2.07*	*2.08*	**1.94**	*2.03*	*2.07*
Producer Price Index: Petroleum															
(index, 1982=1.00)	**1.66**	**1.67**	**1.75**	**1.91**	**2.00**	**2.17**	*2.19*	*2.11*	*2.05*	*2.10*	*2.10*	*2.03*	**1.75**	*2.12*	*2.07*
GDP Implicit Price Deflator															
(index, 2009=100)	**112.8**	**113.0**	**113.6**	**114.3**	**114.8**	**115.5**	*116.2*	*116.9*	*117.7*	*118.5*	*119.3*	*120.0*	**113.4**	*115.8*	*118.9*
Miscellaneous															
Vehicle Miles Traveled (b)															
(million miles/day)	**8,210**	**9,202**	**9,056**	**8,730**	**8,237**	**9,229**	*9,157*	*8,832*	*8,444*	*9,404*	*9,269*	*8,951*	**8,802**	*8,866*	*9,019*
Air Travel Capacity															
(Available ton-miles/day, thousands)	**567**	**619**	**661**	**631**	**603**	**639**	*645*	*618*	*599*	*636*	*646*	*624*	**620**	*626*	*627*
Aircraft Utilization															
(Revenue ton-miles/day, thousands)	**344**	**390**	**398**	**382**	**368**	**403**	*408*	*383*	*364*	*401*	*407*	*387*	**378**	*391*	*390*
Airline Ticket Price Index															
(index, 1982-1984=100)	**277.8**	**297.0**	**264.9**	**263.4**	**262.8**	**279.9**	*278.8*	*304.4*	*322.6*	*343.8*	*310.1*	*321.4*	**275.8**	*281.5*	*324.5*
Raw Steel Production															
(million short tons per day)	**0.248**	**0.247**	**0.250**	**0.245**	**0.251**	**0.253**	*0.241*	*0.212*	*0.268*	*0.262*	*0.242*	*0.209*	**0.248**	*0.239*	*0.245*
Carbon Dioxide (CO_2) Emissions (million metric tons)															
Petroleum	**565**	**588**	**593**	**592**	**581**	**587**	*600*	*595*	*578*	*592*	*609*	*605*	**2,338**	*2,363*	*2,385*
Natural Gas	**422**	**311**	**335**	**405**	**477**	**348**	*350*	*406*	*471*	*340*	*357*	*413*	**1,474**	*1,580*	*1,580*
Coal	**319**	**307**	**375**	**317**	**309**	**293**	*364*	*313*	*316*	*265*	*349*	*297*	**1,318**	*1,279*	*1,227*
Total Energy (c)	**1,309**	**1,209**	**1,305**	**1,318**	**1,369**	**1,231**	*1,316*	*1,317*	*1,368*	*1,200*	*1,318*	*1,319*	**5,142**	*5,233*	*5,204*

- = no data available

SAAR = Seasonally-adjusted annual rate

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model. U.S. macroeconomic projections are based on the IHS Markit model of the U.S. Economy.

Table 9b. U.S. Regional Macroeconomic Data

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Real Gross State Product (Billion $2009)															
New England	**889**	**892**	**903**	**909**	**912**	**921**	*927*	*931*	*936*	*940*	*944*	*947*	**898**	*923*	*942*
Middle Atlantic	**2,492**	**2,499**	**2,519**	**2,527**	**2,538**	**2,560**	*2,576*	*2,589*	*2,600*	*2,611*	*2,620*	*2,629*	**2,509**	*2,566*	*2,615*
E. N. Central	**2,317**	**2,324**	**2,346**	**2,362**	**2,372**	**2,391**	*2,406*	*2,419*	*2,432*	*2,442*	*2,451*	*2,459*	**2,337**	*2,397*	*2,446*
W. N. Central	**1,078**	**1,089**	**1,084**	**1,088**	**1,092**	**1,101**	*1,108*	*1,115*	*1,120*	*1,125*	*1,129*	*1,133*	**1,085**	*1,104*	*1,127*
S. Atlantic	**3,007**	**3,020**	**3,047**	**3,069**	**3,088**	**3,118**	*3,143*	*3,165*	*3,187*	*3,204*	*3,220*	*3,234*	**3,036**	*3,129*	*3,211*
E. S. Central	**759**	**762**	**767**	**773**	**776**	**783**	*788*	*792*	*797*	*801*	*804*	*807*	**765**	*785*	*802*
W. S. Central	**2,019**	**2,040**	**2,052**	**2,076**	**2,092**	**2,122**	*2,144*	*2,163*	*2,182*	*2,197*	*2,210*	*2,222*	**2,047**	*2,130*	*2,203*
Mountain	**1,082**	**1,092**	**1,110**	**1,118**	**1,126**	**1,139**	*1,149*	*1,159*	*1,168*	*1,177*	*1,184*	*1,190*	**1,101**	*1,143*	*1,180*
Pacific	**3,157**	**3,209**	**3,229**	**3,258**	**3,276**	**3,311**	*3,337*	*3,362*	*3,386*	*3,410*	*3,429*	*3,448*	**3,213**	*3,321*	*3,419*
Industrial Output, Manufacturing (Index, Year 2012=100)															
New England	**96.8**	**97.2**	**96.8**	**98.5**	**98.2**	**98.9**	*99.4*	*100.0*	*100.4*	*100.6*	*100.6*	*100.8*	**97.3**	*99.1*	*100.6*
Middle Atlantic	**97.0**	**97.5**	**96.9**	**97.6**	**97.6**	**98.2**	*98.8*	*99.5*	*99.9*	*100.1*	*100.2*	*100.4*	**97.2**	*98.5*	*100.1*
E. N. Central	**104.3**	**105.2**	**104.4**	**106.0**	**106.0**	**107.0**	*107.9*	*108.8*	*109.5*	*110.0*	*110.4*	*110.8*	**105.0**	*107.4*	*110.2*
W. N. Central	**101.1**	**101.8**	**101.5**	**103.0**	**103.8**	**104.7**	*105.5*	*106.3*	*107.0*	*107.4*	*107.8*	*108.2*	**101.8**	*105.1*	*107.6*
S. Atlantic	**105.6**	**106.4**	**105.8**	**107.1**	**107.8**	**108.6**	*109.3*	*110.1*	*110.7*	*111.0*	*111.3*	*111.6*	**106.2**	*108.9*	*111.1*
E. S. Central	**107.8**	**108.3**	**107.4**	**108.5**	**108.7**	**109.7**	*110.6*	*111.5*	*112.2*	*112.6*	*113.0*	*113.4*	**108.0**	*110.1*	*112.8*
W. S. Central	**95.1**	**96.0**	**95.9**	**96.8**	**97.4**	**98.4**	*99.4*	*100.4*	*101.2*	*101.8*	*102.2*	*102.6*	**95.9**	*98.9*	*102.0*
Mountain	**106.5**	**107.8**	**108.1**	**110.0**	**111.4**	**112.3**	*113.1*	*114.0*	*114.8*	*115.2*	*115.6*	*116.0*	**108.1**	*112.7*	*115.4*
Pacific	**102.2**	**102.7**	**101.7**	**103.0**	**104.0**	**104.8**	*105.6*	*106.5*	*107.1*	*107.5*	*107.8*	*108.1*	**102.4**	*105.2*	*107.6*
Real Personal Income (Billion $2009)															
New England	**772**	**774**	**779**	**784**	**787**	**790**	*794*	*800*	*806*	*810*	*814*	*818*	**777**	*793*	*812*
Middle Atlantic	**1,965**	**1,977**	**1,986**	**1,994**	**2,000**	**2,007**	*2,016*	*2,029*	*2,046*	*2,054*	*2,064*	*2,074*	**1,981**	*2,013*	*2,059*
E. N. Central	**2,110**	**2,113**	**2,124**	**2,135**	**2,145**	**2,152**	*2,162*	*2,178*	*2,196*	*2,206*	*2,217*	*2,230*	**2,120**	*2,159*	*2,212*
W. N. Central	**989**	**992**	**988**	**991**	**996**	**1,001**	*1,007*	*1,015*	*1,025*	*1,032*	*1,039*	*1,047*	**990**	*1,005*	*1,035*
S. Atlantic	**2,775**	**2,786**	**2,799**	**2,812**	**2,825**	**2,838**	*2,855*	*2,879*	*2,909*	*2,927*	*2,946*	*2,967*	**2,793**	*2,849*	*2,937*
E. S. Central	**779**	**781**	**783**	**787**	**789**	**792**	*795*	*801*	*810*	*814*	*818*	*823*	**783**	*795*	*816*
W. S. Central	**1,704**	**1,712**	**1,716**	**1,727**	**1,737**	**1,748**	*1,760*	*1,778*	*1,798*	*1,812*	*1,826*	*1,842*	**1,715**	*1,756*	*1,820*
Mountain	**979**	**983**	**994**	**1,000**	**1,005**	**1,011**	*1,018*	*1,028*	*1,040*	*1,047*	*1,055*	*1,064*	**989**	*1,016*	*1,052*
Pacific	**2,391**	**2,419**	**2,428**	**2,441**	**2,450**	**2,462**	*2,477*	*2,500*	*2,523*	*2,539*	*2,556*	*2,574*	**2,420**	*2,472*	*2,548*
Households (Thousands)															
New England	**5,859**	**5,868**	**5,888**	**5,896**	**5,906**	**5,916**	*5,924*	*5,933*	*5,941*	*5,950*	*5,959*	*5,968*	**5,896**	*5,933*	*5,968*
Middle Atlantic	**15,899**	**15,915**	**15,967**	**15,982**	**16,003**	**16,026**	*16,046*	*16,065*	*16,084*	*16,102*	*16,122*	*16,146*	**15,982**	*16,065*	*16,146*
E. N. Central	**18,823**	**18,840**	**18,900**	**18,917**	**18,944**	**18,979**	*19,006*	*19,031*	*19,051*	*19,075*	*19,102*	*19,134*	**18,917**	*19,031*	*19,134*
W. N. Central	**8,518**	**8,536**	**8,574**	**8,594**	**8,620**	**8,649**	*8,671*	*8,692*	*8,711*	*8,731*	*8,752*	*8,774*	**8,594**	*8,692*	*8,774*
S. Atlantic	**25,184**	**25,275**	**25,434**	**25,530**	**25,633**	**25,741**	*25,838*	*25,931*	*26,022*	*26,111*	*26,200*	*26,293*	**25,530**	*25,931*	*26,293*
E. S. Central	**7,602**	**7,617**	**7,649**	**7,665**	**7,685**	**7,707**	*7,726*	*7,742*	*7,760*	*7,778*	*7,797*	*7,817*	**7,665**	*7,742*	*7,817*
W. S. Central	**14,579**	**14,625**	**14,704**	**14,749**	**14,800**	**14,856**	*14,912*	*14,969*	*15,024*	*15,081*	*15,139*	*15,200*	**14,749**	*14,969*	*15,200*
Mountain	**9,036**	**9,074**	**9,132**	**9,172**	**9,216**	**9,263**	*9,307*	*9,348*	*9,388*	*9,429*	*9,469*	*9,512*	**9,172**	*9,348*	*9,512*
Pacific	**18,697**	**18,753**	**18,846**	**18,896**	**18,954**	**19,015**	*19,072*	*19,124*	*19,176*	*19,229*	*19,284*	*19,341*	**18,896**	*19,124*	*19,341*
Total Non-farm Employment (Millions)															
New England	**7.4**	**7.4**	**7.4**	**7.4**	**7.4**	**7.5**	*7.5*	*7.5*	*7.5*	*7.5*	*7.5*	*7.5*	**7.4**	*7.5*	*7.5*
Middle Atlantic	**19.5**	**19.5**	**19.6**	**19.7**	**19.7**	**19.8**	*19.8*	*19.9*	*19.9*	*20.0*	*20.0*	*20.0*	**19.6**	*19.8*	*20.0*
E. N. Central	**21.9**	**22.0**	**22.0**	**22.0**	**22.1**	**22.2**	*22.2*	*22.3*	*22.4*	*22.4*	*22.5*	*22.5*	**22.0**	*22.2*	*22.4*
W. N. Central	**10.6**	**10.6**	**10.7**	**10.7**	**10.7**	**10.7**	*10.8*	*10.8*	*10.8*	*10.9*	*10.9*	*10.9*	**10.6**	*10.8*	*10.9*
S. Atlantic	**28.0**	**28.1**	**28.2**	**28.3**	**28.4**	**28.6**	*28.7*	*28.8*	*29.0*	*29.1*	*29.1*	*29.2*	**28.2**	*28.6*	*29.1*
E. S. Central	**8.1**	**8.1**	**8.1**	**8.1**	**8.1**	**8.2**	*8.2*	*8.2*	*8.3*	*8.3*	*8.3*	*8.3*	**8.1**	*8.2*	*8.3*
W. S. Central	**17.0**	**17.0**	**17.1**	**17.2**	**17.3**	**17.4**	*17.5*	*17.6*	*17.7*	*17.7*	*17.8*	*17.9*	**17.1**	*17.4*	*17.8*
Mountain	**10.4**	**10.5**	**10.6**	**10.6**	**10.7**	**10.8**	*10.8*	*10.9*	*10.9*	*11.0*	*11.0*	*11.1*	**10.5**	*10.8*	*11.0*
Pacific	**22.8**	**22.9**	**23.0**	**23.2**	**23.3**	**23.4**	*23.5*	*23.6*	*23.7*	*23.8*	*23.8*	*23.9*	**23.0**	*23.4*	*23.8*

- = no data available

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

Regions refer to U.S. Census divisions.

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

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

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

Projections: Macroeconomic projections are based on the IHS Markit model of the U.S. Economy.

Table 9c. U.S. Regional Weather Data

U.S. Energy Information Administration | Short-Term Energy Outlook - July 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Heating Degree Days															
New England	**2,984**	**805**	**93**	**2,171**	**3,056**	**934**	*129*	*2,156*	*3,136*	*852*	*135*	*2,156*	**6,053**	*6,274*	*6,279*
Middle Atlantic	**2,656**	**599**	**74**	**2,000**	**2,937**	**761**	*82*	*1,977*	*2,897*	*677*	*90*	*1,977*	**5,329**	*5,757*	*5,641*
E. N. Central	**2,691**	**627**	**105**	**2,263**	**3,209**	**829**	*127*	*2,209*	*3,083*	*713*	*133*	*2,209*	**5,687**	*6,373*	*6,138*
W. N. Central	**2,812**	**661**	**137**	**2,386**	**3,420**	**816**	*159*	*2,375*	*3,130*	*687*	*167*	*2,376*	**5,997**	*6,770*	*6,360*
South Atlantic	**1,147**	**125**	**15**	**946**	**1,444**	**220**	*14*	*995*	*1,462*	*194*	*14*	*994*	**2,234**	*2,673*	*2,664*
E. S. Central	**1,376**	**154**	**25**	**1,280**	**1,816**	**327**	*20*	*1,322*	*1,862*	*244*	*21*	*1,322*	**2,834**	*3,485*	*3,450*
W. S. Central	**775**	**66**	**4**	**740**	**1,193**	**142**	*4*	*821*	*1,220*	*88*	*4*	*820*	**1,583**	*2,161*	*2,132*
Mountain	**2,058**	**698**	**154**	**1,665**	**2,124**	**570**	*143*	*1,840*	*2,178*	*674*	*143*	*1,839*	**4,575**	*4,677*	*4,833*
Pacific	**1,561**	**532**	**68**	**1,029**	**1,440**	**522**	*83*	*1,196*	*1,467*	*564*	*87*	*1,197*	**3,191**	*3,241*	*3,314*
U.S. Average	**1,859**	**427**	**65**	**1,480**	**2,130**	**519**	*74*	*1,529*	*2,107*	*477*	*77*	*1,527*	**3,832**	*4,252*	*4,188*
Heating Degree Days, Prior 10-year Average															
New England	**3,201**	**831**	**122**	**2,125**	**3,172**	**818**	*119*	*2,121*	*3,166*	*823*	*117*	*2,108*	**6,279**	*6,230*	*6,214*
Middle Atlantic	**2,983**	**661**	**81**	**1,941**	**2,947**	**646**	*81*	*1,949*	*2,955*	*651*	*80*	*1,933*	**5,665**	*5,623*	*5,620*
E. N. Central	**3,255**	**701**	**114**	**2,198**	**3,209**	**692**	*116*	*2,211*	*3,196*	*698*	*118*	*2,186*	**6,267**	*6,228*	*6,198*
W. N. Central	**3,302**	**707**	**142**	**2,380**	**3,264**	**705**	*144*	*2,379*	*3,255*	*701*	*144*	*2,358*	**6,531**	*6,492*	*6,457*
South Atlantic	**1,502**	**188**	**12**	**966**	**1,476**	**177**	*12*	*974*	*1,480*	*177*	*13*	*966*	**2,667**	*2,639*	*2,636*
E. S. Central	**1,906**	**231**	**16**	**1,287**	**1,868**	**217**	*18*	*1,301*	*1,862*	*222*	*19*	*1,291*	**3,440**	*3,404*	*3,393*
W. S. Central	**1,228**	**88**	**4**	**799**	**1,181**	**80**	*4*	*801*	*1,183*	*85*	*4*	*798*	**2,119**	*2,067*	*2,070*
Mountain	**2,216**	**734**	**142**	**1,862**	**2,195**	**737**	*144*	*1,842*	*2,165*	*712*	*141*	*1,844*	**4,954**	*4,917*	*4,862*
Pacific	**1,462**	**598**	**89**	**1,205**	**1,465**	**593**	*84*	*1,181*	*1,444*	*580*	*82*	*1,183*	**3,354**	*3,322*	*3,289*
U.S. Average	**2,193**	**487**	**71**	**1,527**	**2,160**	**478**	*71*	*1,524*	*2,151*	*475*	*70*	*1,513*	**4,277**	*4,233*	*4,209*
Cooling Degree Days															
New England	**0**	**73**	**362**	**11**	**0**	**92**	*412*	*1*	*0*	*86*	*403*	*1*	**446**	*505*	*490*
Middle Atlantic	**0**	**138**	**501**	**22**	**0**	**190**	*533*	*4*	*0*	*155*	*523*	*4*	**661**	*726*	*682*
E. N. Central	**1**	**211**	**481**	**16**	**0**	**343**	*526*	*7*	*0*	*219*	*518*	*7*	**709**	*875*	*744*
W. N. Central	**9**	**265**	**623**	**14**	**2**	**455**	*665*	*10*	*3*	*268*	*655*	*10*	**910**	*1,132*	*936*
South Atlantic	**159**	**670**	**1,156**	**262**	**135**	**727**	*1,143*	*221*	*111*	*643*	*1,146*	*222*	**2,248**	*2,226*	*2,122*
E. S. Central	**66**	**481**	**965**	**74**	**36**	**659**	*1,037*	*63*	*26*	*517*	*1,034*	*63*	**1,585**	*1,795*	*1,639*
W. S. Central	**213**	**828**	**1,459**	**216**	**125**	**992**	*1,486*	*195*	*80*	*853*	*1,530*	*195*	**2,717**	*2,798*	*2,658*
Mountain	**36**	**468**	**920**	**121**	**21**	**499**	*924*	*74*	*17*	*427*	*934*	*75*	**1,546**	*1,519*	*1,453*
Pacific	**30**	**219**	**698**	**100**	**31**	**180**	*587*	*58*	*28*	*167*	*578*	*58*	**1,047**	*857*	*831*
U.S. Average	**70**	**402**	**838**	**115**	**51**	**479**	*842*	*89*	*40*	*396*	*845*	*90*	**1,425**	*1,461*	*1,370*
Cooling Degree Days, Prior 10-year Average															
New England	**0**	**81**	**433**	**1**	**0**	**81**	*433*	*1*	*0*	*80*	*438*	*1*	**515**	*515*	*519*
Middle Atlantic	**0**	**169**	**566**	**6**	**0**	**166**	*567*	*5*	*0*	*167*	*571*	*6*	**741**	*738*	*744*
E. N. Central	**3**	**234**	**542**	**8**	**3**	**228**	*533*	*7*	*3*	*243*	*537*	*7*	**788**	*771*	*790*
W. N. Central	**7**	**281**	**672**	**12**	**7**	**277**	*659*	*11*	*7*	*300*	*666*	*12*	**973**	*953*	*985*
South Atlantic	**117**	**666**	**1,167**	**230**	**119**	**675**	*1,161*	*227*	*120*	*684*	*1,167*	*233*	**2,179**	*2,182*	*2,205*
E. S. Central	**33**	**544**	**1,056**	**65**	**34**	**539**	*1,031*	*63*	*36*	*555*	*1,037*	*65*	**1,698**	*1,667*	*1,693*
W. S. Central	**90**	**876**	**1,528**	**205**	**100**	**887**	*1,532*	*204*	*103*	*896*	*1,545*	*208*	**2,698**	*2,722*	*2,752*
Mountain	**23**	**424**	**930**	**81**	**24**	**426**	*922*	*84*	*25*	*437*	*925*	*83*	**1,458**	*1,457*	*1,470*
Pacific	**30**	**180**	**608**	**74**	**30**	**185**	*621*	*78*	*31*	*185*	*617*	*75*	**892**	*914*	*908*
U.S. Average	**43**	**405**	**857**	**94**	**45**	**408**	*855*	*94*	*46*	*417*	*861*	*96*	**1,399**	*1,402*	*1,420*

- = no data available

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

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

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

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

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

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