Independent Statistics & Analysis
U.S. Energy Information Administration

March 2018

# Short-Term Energy Outlook (STEO)

## Forecast highlights

### *Global liquid fuels*

- North Sea Brent crude oil spot prices averaged $65 per barrel (b) in February, a decrease of $4/b from the January level and the first month-over-month average decrease since June 2017. EIA forecasts Brent spot prices will average about $62/b in both 2018 and 2019 compared with an average of $54/b in 2017.

- EIA expects West Texas Intermediate (WTI) crude oil prices to average $4/b lower than Brent prices in both 2018 and 2019. NYMEX WTI contract values for May 2018 delivery traded during the five-day period ending March 1, 2018, suggest a range of $51/b to $76/b encompasses the market expectation for June 2018 WTI prices at the 95% confidence level.

- EIA estimates that U.S. crude oil production averaged 10.3 million barrels per day (b/d) in February, up 230,000 b/d from the January level, when there were some well freeze-offs in the Permian and Bakken. EIA has reported that total U.S. crude oil production averaged 9.3 million b/d in 2017, ending the year with production of 9.9 million b/d in December. EIA projects that U.S. crude oil production will average 10.7 million b/d in 2018, which would mark the highest annual average U.S. crude oil production level, surpassing the previous record of 9.6 million b/d set in 1970. EIA forecasts that 2019 crude oil production will average 11.3 million b/d.

- EIA estimates that inventories of global petroleum and other liquid fuels declined by 0.6 million b/d in 2017. In this forecast, global inventories grow by about 0.4 million b/d in 2018 and by another 0.3 million b/d in 2019.

### *Natural gas*

- EIA estimates that U.S. dry natural gas production averaged 73.6 billion cubic feet per day (Bcf/d) in 2017. EIA forecasts that natural gas production will average 81.7 Bcf/d in 2018, establishing a new record. That level would be 8.1 Bcf/d higher than the 2017 level and the highest annual average growth on record. EIA expects natural gas production will also increase in 2019, with forecast growth of 1.0 Bcf/d.

- In February, the U.S. benchmark Henry Hub natural gas spot price averaged $2.66 per million British thermal units (MMBtu), down $1.03/MMBtu from January. Winter

weather moderated in February after extremely cold temperatures in much of the country during the first half of January. U.S. heating degree days were an estimated 17% lower than the 10-year average for February, which contributed to lower consumption and prices.

- EIA expects natural gas prices to moderate in the coming months, based on a forecast of record natural gas production levels. EIA expects Henry Hub spot prices to average $2.72/MMBtu in March and $2.99/MMBtu for all of 2018. In 2019, EIA forecasts prices will average $3.07/MMBtu. NYMEX contract values for June 2018 delivery that traded during the five-day period ending March 1, 2018, suggest that a range of $2.16/MMBtu to $3.49/MMBtu encompasses the market expectation for June Henry Hub natural gas prices at the 95% confidence level.

***Electricity, coal, renewables, and emissions***

- 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 both 2018 and 2019. The forecast generation share from coal in both 2018 and 2019 averages 29%, down from 30% in 2017. The nuclear share of generation was 20% in 2017 and is forecast to average 20% in 2018 and 19% in 2019. Nonhydropower renewables provided slightly less than 10% of electricity generation in 2017 and are expected to provide 10% in 2018 and nearly 11% in 2019. The generation share of hydropower was over 7% in 2017 and is forecast to fall below 7% in both 2018 and 2019.

- EIA forecasts coal production to decline by almost 5% to 736 million short tons (MMst) in 2018 and then increase by 1% to 745 MMst in 2019. Lower expected global demand for U.S. coal exports (down 17% in 2018 and another 5% in 2019) and lower forecasts of coal use in the electric power sector (down 5% in 2018) contribute to the forecast of lower coal production.

- U.S. coal exports were 97 MMst in 2017, a 61% increase from the previous year, but they are expected to decrease in both 2018 and 2019. Exports of metallurgical coal, which are used in the steelmaking process, remain at 55 MMst in 2018 and decline to 54 MMst in 2019. Steam coal exports, which were an estimated 42 MMst in 2017, are expected to decline to 26 MMst and 23 MMst in 2018 and 2019, respectively.

- In 2017, EIA estimates that wind generated on average 697,000 megawatthours per day (MWh/d). EIA projects that generation from wind will rise to 722,000 MWh/d in 2018 and to 778,000 MWh/d in 2019. If factors such as precipitation and snowpack remain as forecast, conventional hydropower is projected to generate 747,000 MWh/d in 2019, which would make it the first year that wind generation exceeds hydropower generation.

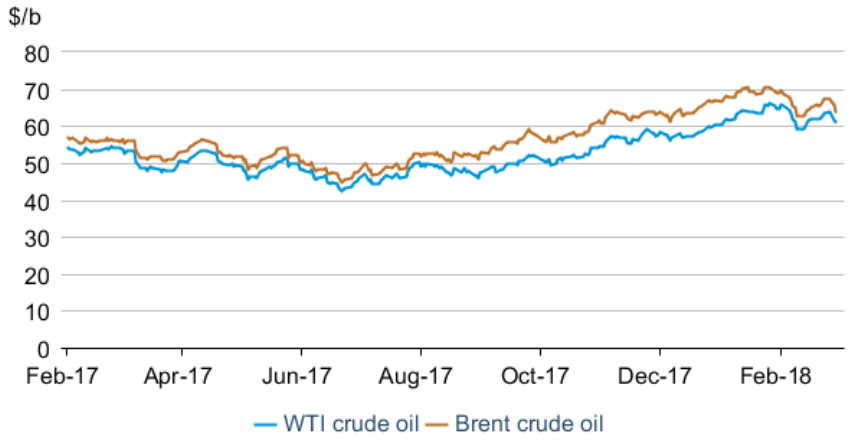
- Total solar electricity generation averaged an estimated 211,000 MWh/d in 2017. EIA projects that it will reach 246,000 MWh/d in 2018 and 294,000 MWh/d in 2019.
- After declining by 0.6% in 2017, EIA projects that energy-related carbon dioxide (CO2) emissions will increase by 1.0% in 2018 and by another 0.8% in 2019. Energy-related CO2 emissions are sensitive to changes in weather, economic growth, and energy prices.

# Petroleum and natural gas markets review

## Crude oil

***Prices:*** The front-month futures price for North Sea Brent crude oil settled at $63.83 per barrel (b) on March 1, a decrease of $5.82/b since February 1. Front-month futures prices for West Texas Intermediate (WTI) crude oil for delivery at Cushing, Oklahoma, decreased $4.81/b over the same period, settling at $60.99/b on March 1 **(Figure 1)**. February Brent and WTI monthly average spot prices were $3.76/b and $1.49/b lower than the January average spot prices, respectively.

**Figure 1. Crude oil front-month futures prices**




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

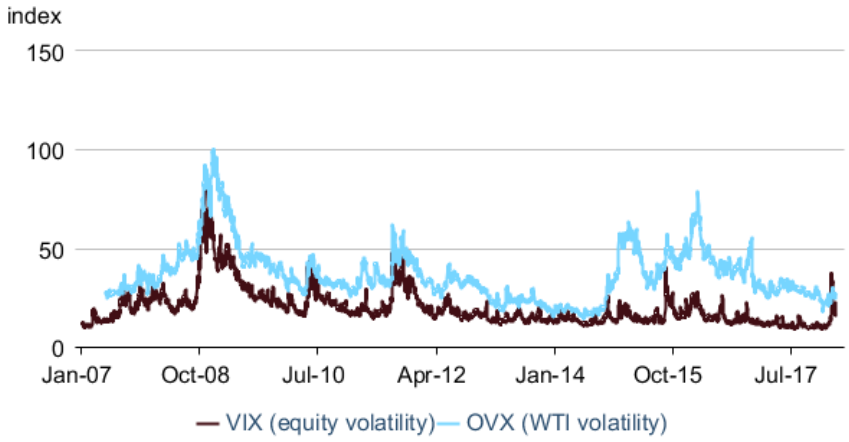
Crude oil prices declined in February after seven consecutive months of increases. Despite the recent price declines, most fundamental crude oil supply and demand indicators suggest global petroleum inventories are declining. EIA estimates that total commercial petroleum inventories in countries in the Organization for Economic Cooperation and Development (OECD) declined to 2.83 billion barrels in February 2018, a decrease of 211 million barrels since February 2017 and the largest annual decrease in inventories since 2003. Inventories are 40 million barrels (1.4%) higher than the five-year average level for February, the narrowest difference to five-year average levels since November 2014, suggesting an increasingly balanced market.

A significant increase in price volatility after prices started declining in equity and bond markets likely affected crude oil prices as well. The rolling 60-day correlation between daily price

changes of WTI crude oil and the S&P 500 index recently increased from near zero at the beginning of January to over 0.3 in late February. The VIX, a measure of implied volatility (the market's expected range of near-term price changes) on S&P 500 index options, closed above the OVX, a measure of implied volatility on crude oil options prices, for four consecutive days in early February. Not only was this the first time since 2008 that the VIX closed above the OVX, but the VIX has only closed above the OVX four other times since the inception of the OVX in 2007 **(Figure 2)**.

Under typical trading conditions, a single commodity would be expected to have higher volatility than an index whose underlying value consists of a basket of 500 large capitalization stocks, representing a variety of U.S. companies. Although the direct causes of increased equity market volatility remain uncertain, increased trading volume of inverse VIX exchange-traded funds (ETF) and exchange-traded notes, as well as direct selling of VIX futures contracts, could have contributed to the increase. A significant increase in volatility may have prompted the inverse VIX ETF to close positions. Several inverse VIX products have ceased trading, having lost more than 80% of their value in one day on the some of the highest trading volume in the many ETFs' history. Both the VIX and the OVX have declined since their early February increases, but remain at higher levels than at the beginning of 2018.

**Figure 2. Equity and crude oil volatility indices**




eia Chicago Board of Options Exchange, as compiled by Bloomberg L.P.

The Brent-WTI price spread narrowed to its lowest level in more than six months, closing at $3.03/b on March 1 **(Figure 3)**. Several factors specific to the crude oil market in the U.S. midcontinent could be contributing to a narrowing spread. Crude oil stocks in Cushing, Oklahoma, the delivery point for the U.S. light sweet crude oil futures contract, continued to decrease in February. Stocks declined to less than 29 million barrels the week ending February 23, 2018, the lowest level in more than three years, and they are being drawn down at the largest rolling 13-week rate since EIA began publishing Cushing stock levels in 2004. Recent trade press reports that the Keystone pipeline, which flows directly into Cushing, is still operating below nameplate capacity. Crude oil inputs to refineries in Petroleum Administration

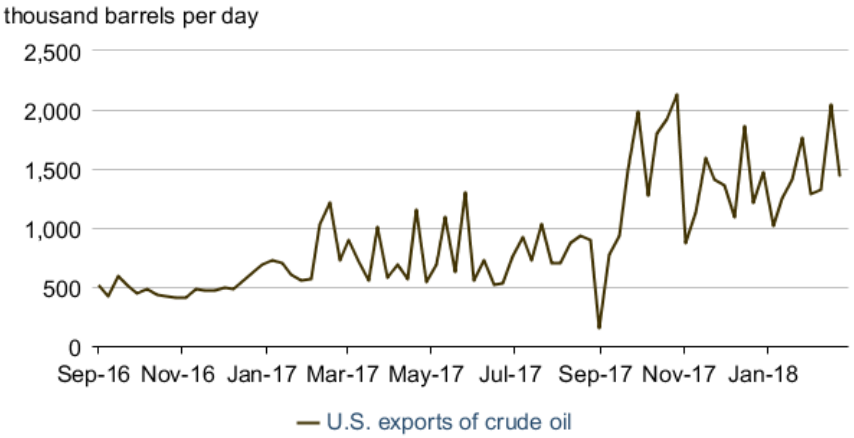
for Defense District (PADD) 2 averaged 3.7 million barrels per day (b/d) for the four weeks ending February 23, 2018, according to EIA's *Weekly Petroleum Supply Report*, which would be an all-time high for the month of February.

**Figure 3. Brent-WTI futures price spread**


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

In addition to high refinery demand in PADD 2, higher export demand could be contributing to near-term price support for U.S. light sweet crude oil. Weekly U.S. crude oil exports were more than 2 million b/d for the week ending February 16, 2018, the second highest level since EIA began publishing weekly export data from U.S. Customs and Border Protection in 2016 **(Figure 4)**. The Louisiana Offshore Oil Port (LOOP) is the largest crude oil import terminal in the United States, but recently the port began to test loading crude oil for export. LOOP loaded a Very Large Crude Carrier (VLCC) on February 18, which can hold approximately 2 million barrels of crude oil. Further infrastructure developments along the U.S. Gulf Coast (PADD 3) could allow more U.S. crude oil exports.

**Figure 4. Weekly U.S. exports of crude oil**



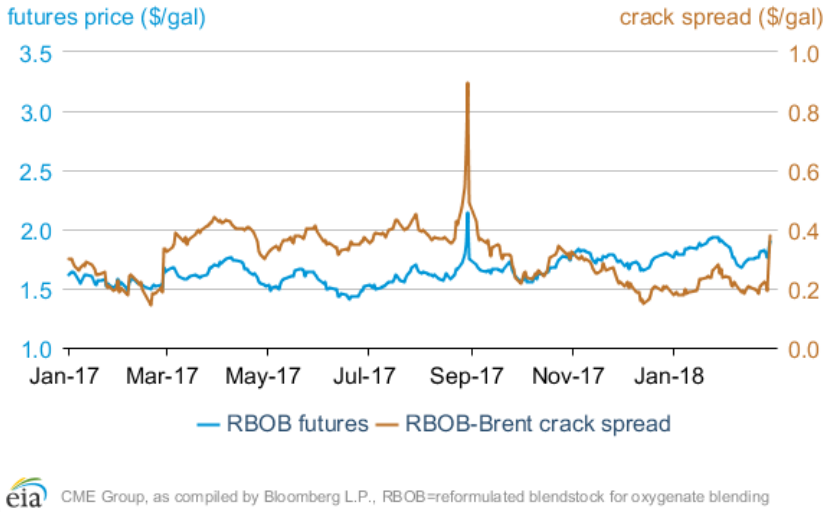

eia U.S. Energy Information Administration, Weekly Petroleum Status Report

## 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 $1.90 per gallon (gal) on March 1 **(Figure 5),** virtually unchanged since February 1. The RBOB-Brent crack spread (the difference between the price of RBOB and the price of Brent crude oil) increased by 14 cents/gal over the same period to settle at 38 cents/gal. The RBOB-Brent crack spread declined 5 cents/gal in February before the contract changed to summer grade gasoline on March 1, causing a significant one day increase in the crack spread.

Gasoline inventories, which typically decline between January and February, rose this year in all regions of the United States. Total U.S. gasoline stocks rose 6.3 million barrels between the weeks ending February 2 and February 23. Total U.S. gasoline stocks have declined between January and February on average by 5.8 million barrels over the past five years, according to EIA's *Petroleum Supply Monthly* (PSM).

**Figure 5. Historical RBOB front-month futures prices and crack spread**

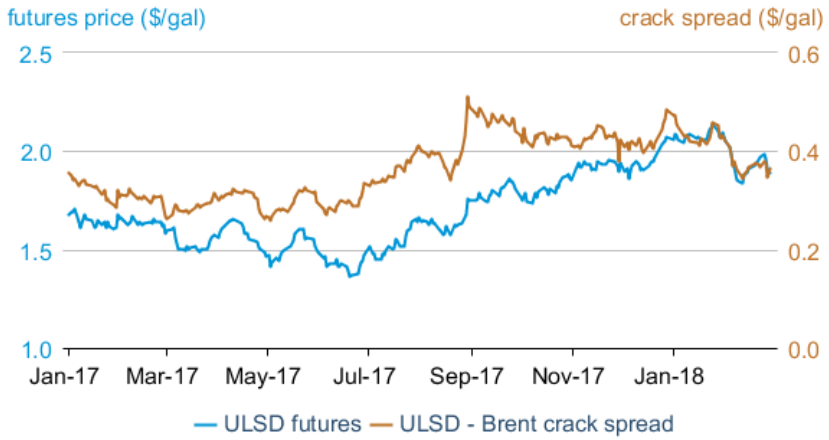



eia CME Group, as compiled by Bloomberg L.P., RBOB=reformulated blendstock for oxygenate blending

***Ultra-low sulfur diesel prices:*** The ultra-low sulfur diesel (ULSD) front-month futures price decreased 20 cents/gal from February 1 to settle at $1.89/gal on March 1. The ULSD-Brent crack spread (the difference between the price of ULSD and the price of Brent crude oil) decreased by 7 cents/gal over the same period, settling at 37 cents/gal **(Figure 6)**.

Similar to the movements seen in the gasoline market, distillate crack spreads fell in February, as distillate inventories rose counter-seasonally. In the Central Atlantic (PADD 1B), which includes the New York Harbor delivery point of the ULSD futures contract, distillate inventories rose 0.7 million barrels between the weeks ending February 2 and February 23. In comparison, distillate inventories in PADD 1B declined 2.7 million barrels on average between January and February in the past five years, according to the PSM. For much of February, the U.S. East Coast and the U.S. Northeast experienced warmer-than-normal temperatures, which likely reduced demand for home heating.

**Figure 6. Historical ULSD front-month futures price and crack spread**

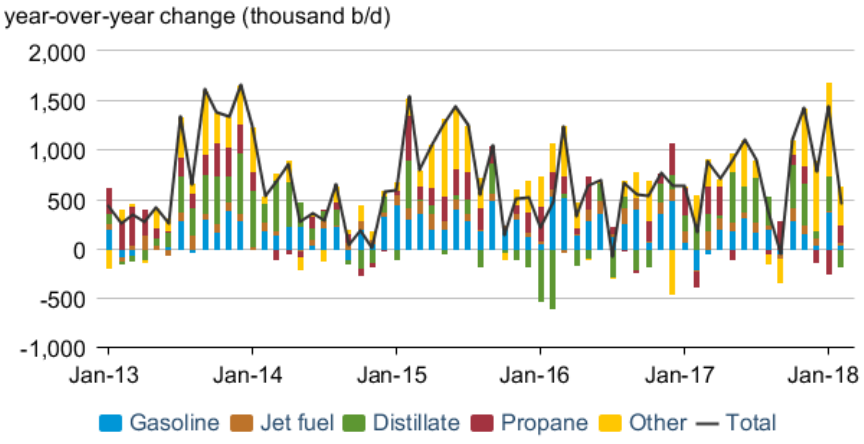



eia CME Group, as compiled by Bloomberg L.P., ULSD=ultra-low sulfur diesel

In recent months, year-over-year growth in total U.S. liquid fuels consumption and exports has accelerated to levels not seen since 2015. Since October 2017, year-over-year growth in total liquid fuels consumption and exports averaged 1.0 million b/d, with an increasing portion of the growth coming from hydrocarbon gas liquids (HGL), which includes propane and ethane **(Figure 7)**.

EIA expects U.S. liquid fuels consumption to grow 0.47 million b/d (2.4%) in 2018, the highest growth rate since 2013. EIA projects that most of the consumption growth will come from natural gas-sourced products. HGL consumption is expected to account for 0.34 million b/d of total liquid fuels consumption growth. Ethane is expected to account for almost 65% of this HGL consumption growth, as new domestic ethylene crackers begin operating.

**Figure 7. Total U.S. liquid fuels consumption plus exports growth**

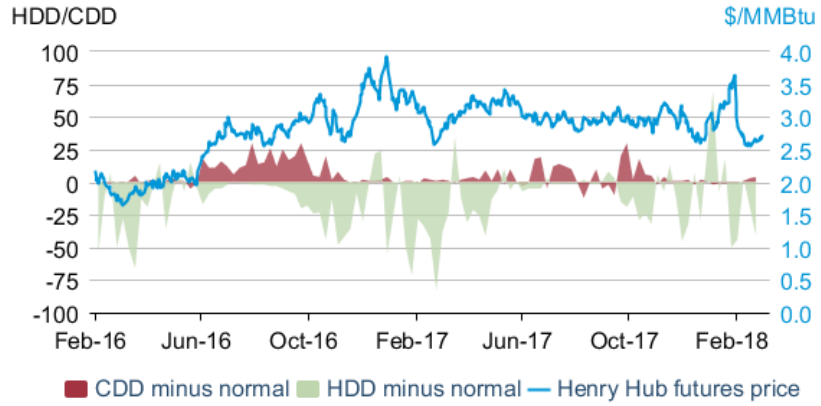



eia U.S. Energy Information Administration

## Natural Gas

The front-month natural gas futures contract for delivery at Henry Hub settled at $2.70/million British thermal units (MMBtu) on March 1, a decrease of 16 cents/MMBtu from February 1 **(Figure 8)**. Warmer weather in the second half of January and in February contributed to the fall in natural gas prices. U.S. population-weighted heating degree days (HDD) averaged 12% below normal for the four weeks ending February 22, which put downward pressure on natural gas prices throughout the month. The Henry Hub natural gas spot price averaged $2.66/MMBtu in February, $1.03/MMBtu lower than January.

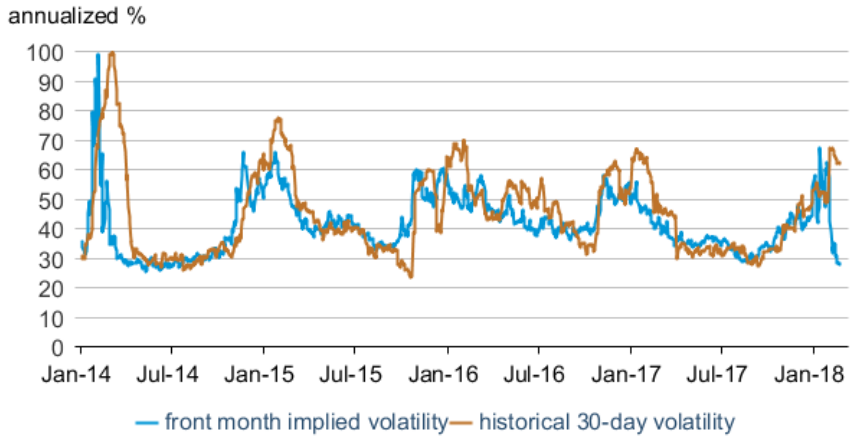
**Figure 8. Natural gas front-month futures prices and actual minus historical average HDD and CDD**




eia CME Group and National Oceanic and Atmospheric Administration, as compiled by Bloomberg L.P.

The historical and implied volatilities of natural gas prices both increased in January, as typically happens each winter **(Figure 9)**. Historical volatility reached 67% on February 5, the highest level since January 2017, reflecting the price spikes at the beginning of January and significant price declines at the end of the month. Implied volatility, however, declined quickly at the end of January and fell to 26% on February 28, the lowest implied volatility since June 2014. Implied volatility represents the market's expectation about near-term price movements; as a result, the low natural gas price implied volatility may indicate that strong production growth will be sufficient to meet demand, despite inventories that are currently below their five-year average.

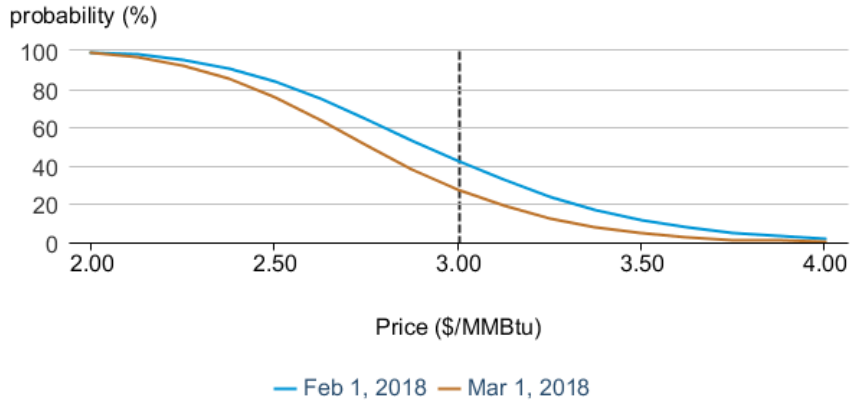
**Figure 9. Natural gas historical and implied volatility**




eia Bloomberg L.P.

Natural gas futures prices fell in the front-month contract, and substantial price decreases occurred in contracts several months into the future. These price declines significantly reduced the market-derived probability of the July 2018 Henry Hub futures contract expiring above $3/MMBtu; the probabilities fell from 42% at the beginning of the month to 28% on March 1 **(Figure 10)**. Natural gas inventory withdrawals for the four weeks ending February 23 were 53 billion cubic feet (9%) below the five-year average, which likely contributed to an improved supply outlook for the next several months.

**Figure 10. Probability of the July 2018 Henry Hub contract expiring above specified price levels**




eia U.S. Energy Information Administration, CME Group

## Notable forecast changes

EIA forecasts U.S. hydrocarbon gas liquids consumption to average 2.94 million barrels per day (b/d) in 2018 and 3.19 million b/d in 2019, which are about 50,000 b/d and 60,000 b/d higher, respectively, than forecast in the February STEO. The March forecast incorporates higher-than-expected monthly ethane consumption data for November and December, which provide a higher starting point for expected growth from new ethane-consuming petrochemical plants.

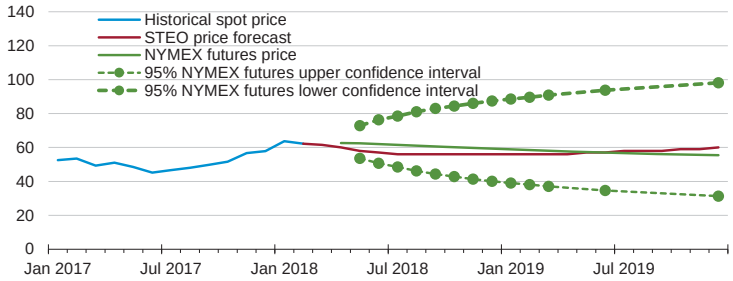
U.S. Energy Information Administration
*Independent Statistics & Analysis*

# Short-Term Energy Outlook

## Chart Gallery for March 2018

### West Texas Intermediate (WTI) crude oil price

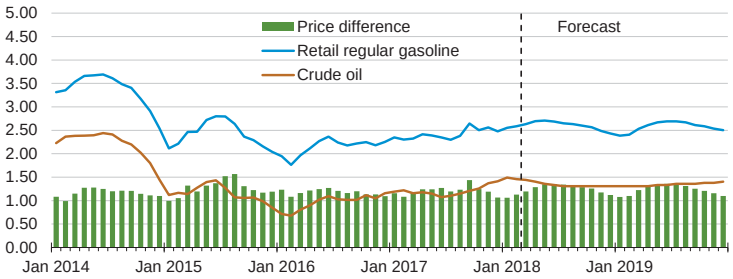
dollars per barrel




Note: Confidence interval derived from options market information for the 5 trading days ending Mar 1, 2018. Intervals not calculated for months with sparse trading in near-the-money options contracts.
Source: Short-Term Energy Outlook, March 2018, and CME Group.

### U.S. gasoline and crude oil prices

dollars per gallon

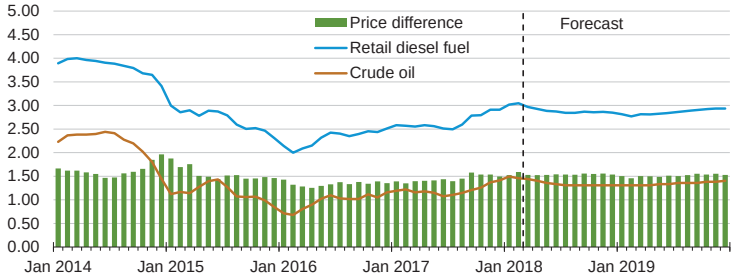



Crude oil price is composite refiner acquisition cost. Retail prices include state and federal taxes.

Source: Short-Term Energy Outlook, March 2018.

## U.S. diesel fuel and crude oil prices

dollars per gallon

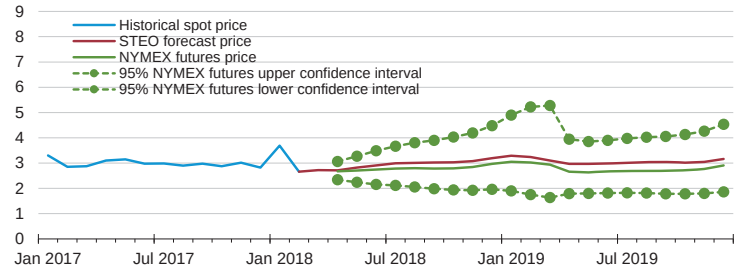



Crude oil price is composite refiner acquisition cost. Retail prices include state and federal taxes.

Source: Short-Term Energy Outlook, March 2018.

## Henry Hub natural gas price

dollars per million Btu

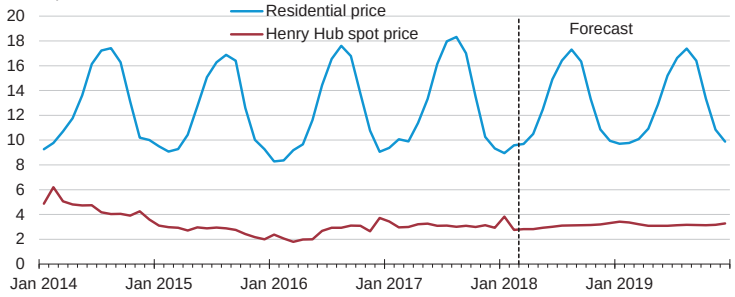



Note: Confidence interval derived from options market information for the 5 trading days ending Mar 1, 2018. Intervals not calculated for months with sparse trading in near-the-money options contracts.

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

## U.S. natural gas prices

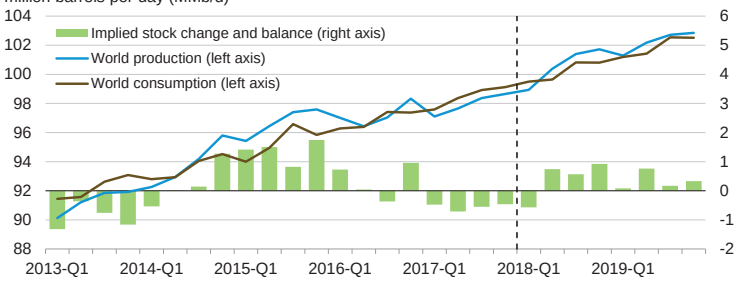
dollars per thousand cubic feet




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

## World liquid fuels production and consumption balance

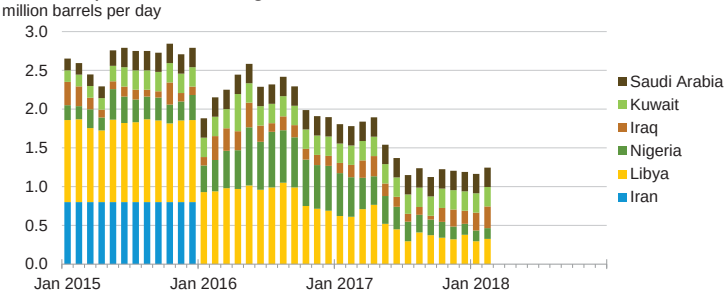
million barrels per day (MMb/d)




Source: Short-Term Energy Outlook, March 2018.

## Estimated historical unplanned OPEC crude oil production outages

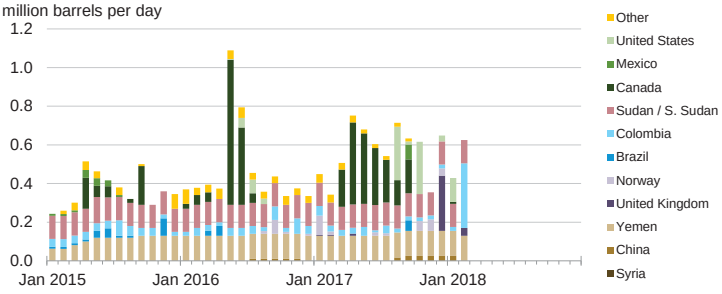
million barrels per day




Source: Short-Term Energy Outlook, March 2018.

## Estimated historical unplanned non-OPEC liquid fuels production outages

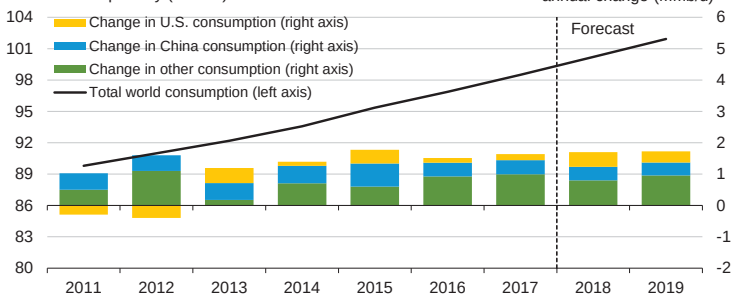
million barrels per day




Source: Short-Term Energy Outlook, March 2018.

## World liquid fuels consumption

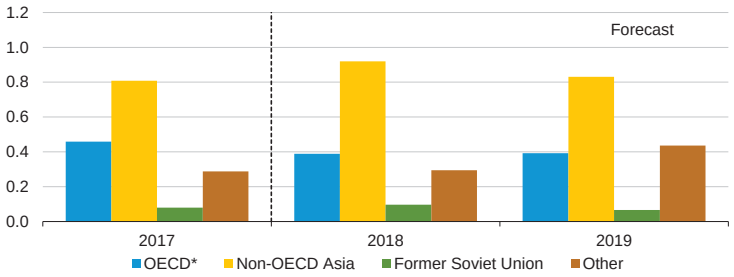
million barrels per day (MMb/d)




Source: Short-Term Energy Outlook, March 2018.

## World liquid fuels consumption growth

million barrels per day

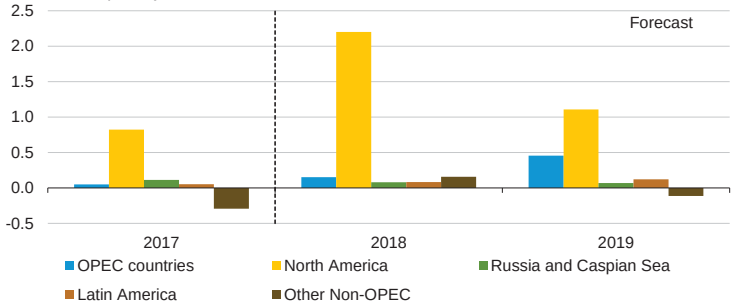



* Countries belonging to the Organization for Economic Cooperation and Development

Source: Short-Term Energy Outlook, March 2018.

## World crude oil and liquid fuels production growth

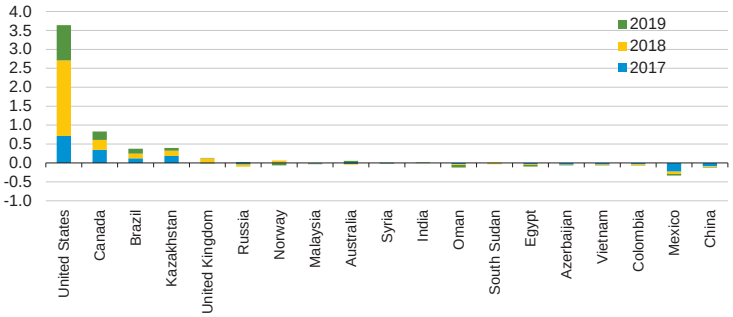
million barrels per day




Source: Short-Term Energy Outlook, March 2018.

## Non-OPEC crude oil and liquid fuels production growth

million barrels per day

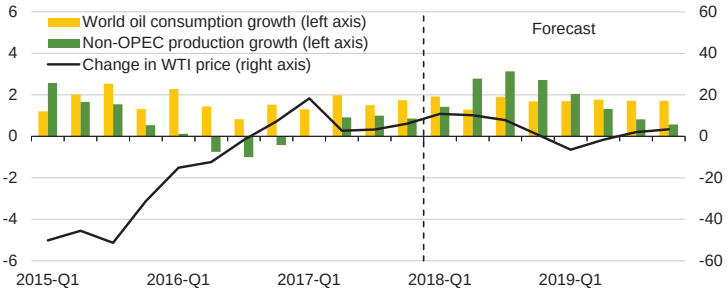



Source: Short-Term Energy Outlook, March 2018.

## World consumption and non-OPEC production growth

million barrels per day

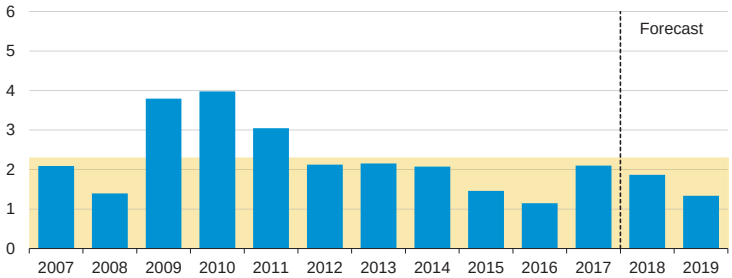
dollars per barrel




Source: Short-Term Energy Outlook, March 2018.

## OPEC surplus crude oil production capacity

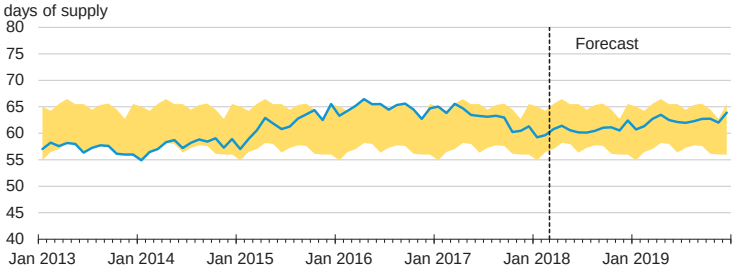
million barrels per day




Note: Shaded area represents 2007-2017 average (2.3 million barrels per day).

Source: Short-Term Energy Outlook, March 2018.

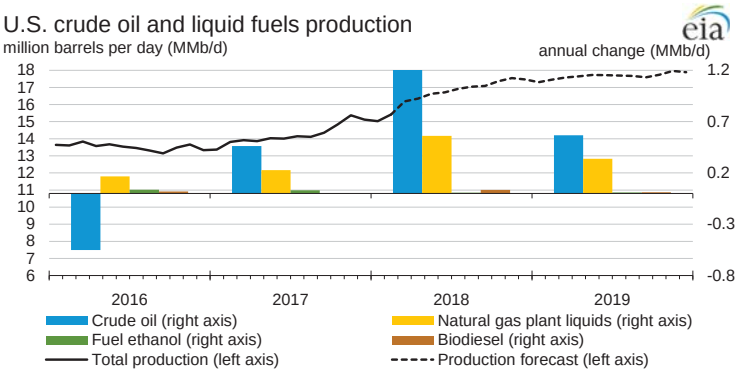
## OECD commercial stocks of crude oil and other liquids




Note: Colored band around days of supply of crude oil and other liquids stocks represents the range between the minimum and maximum from Jan. 2013 - Dec. 2017.

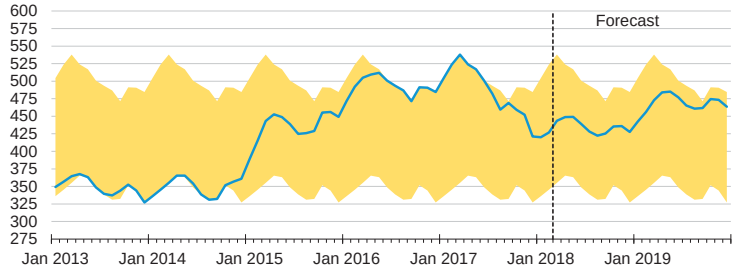
Source: Short-Term Energy Outlook, March 2018.

## U.S. crude oil and liquid fuels production




Source: Short-Term Energy Outlook, March 2018.

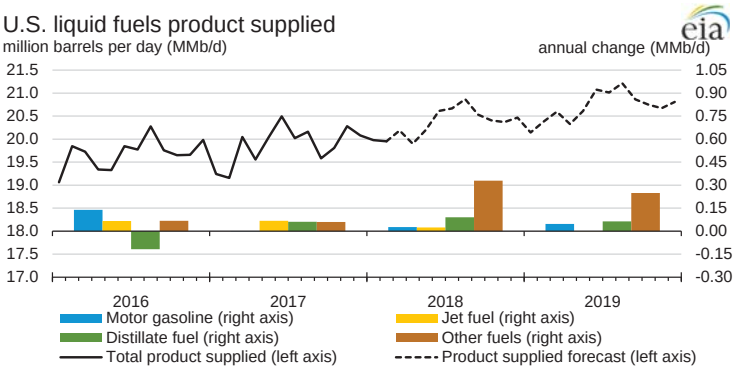
## U.S. commercial crude oil stocks




Note: Colored band around storage levels represents the range between the minimum and maximum from Jan. 2013 - Dec. 2017.

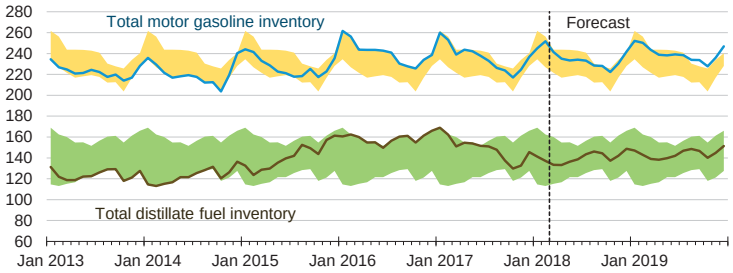
Source: Short-Term Energy Outlook, March 2018.

## U.S. liquid fuels product supplied




Source: Short-Term Energy Outlook, March 2018.

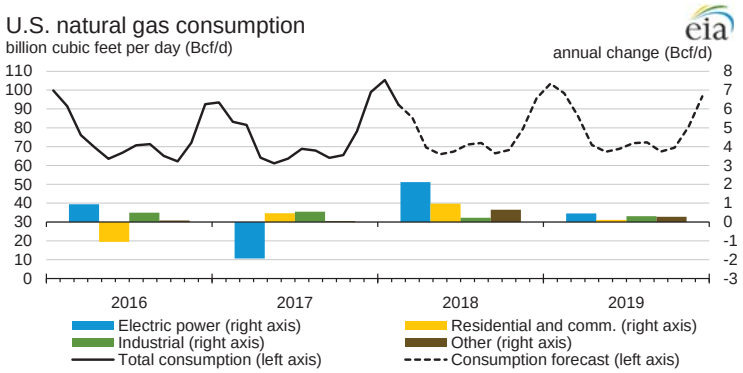
## U.S. gasoline and distillate inventories




Note: Colored bands around storage levels represent the range between the minimum and maximum from Jan. 2013 - Dec. 2017.

Source: Short-Term Energy Outlook, March 2018.

## U.S. natural gas consumption

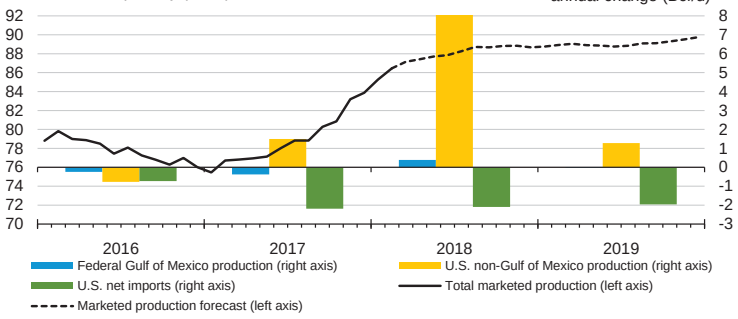



Source: Short-Term Energy Outlook, March 2018.

## U.S. natural gas production and imports

billion cubic feet per day (Bcf/d)

annual change (Bcf/d)

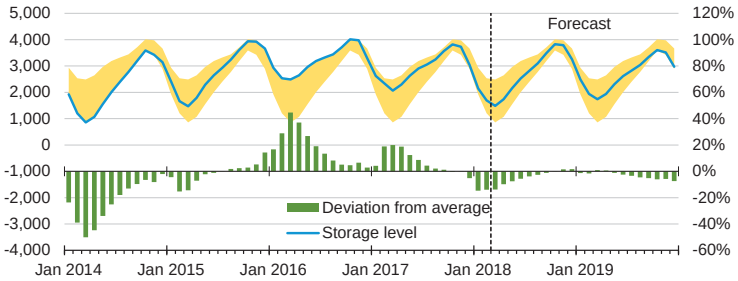



Source: Short-Term Energy Outlook, March 2018.

## U.S. working natural gas in storage

billion cubic feet

deviation from average



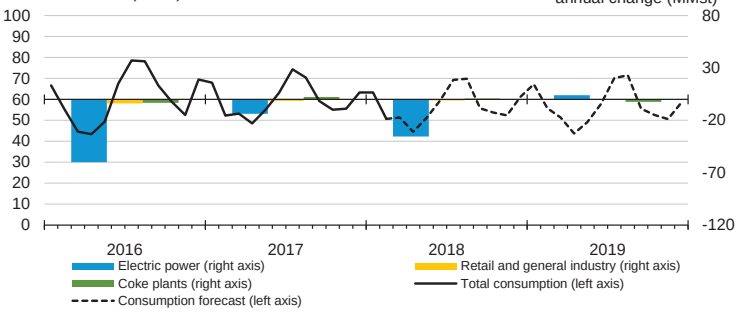

Note: Colored band around storage levels represents the range between the minimum and maximum from Jan. 2013 - Dec. 2017.

Source: Short-Term Energy Outlook, March 2018.

## U.S. coal consumption

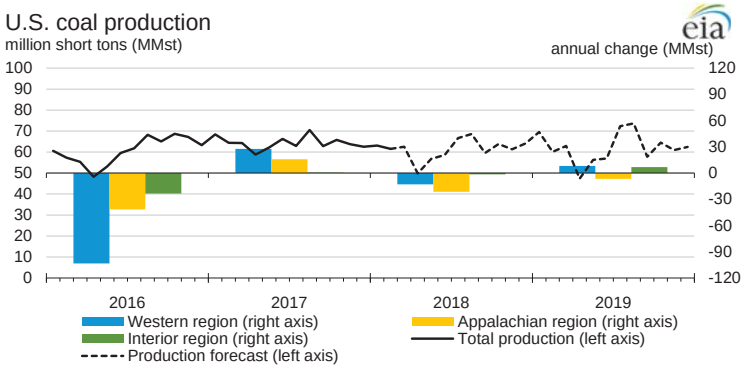
million short tons (MMst)

annual change (MMst)



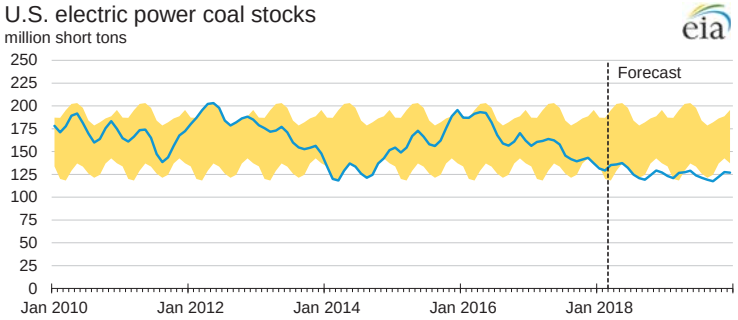

Source: Short-Term Energy Outlook, March 2018.

## U.S. coal production




Source: Short-Term Energy Outlook, March 2018.

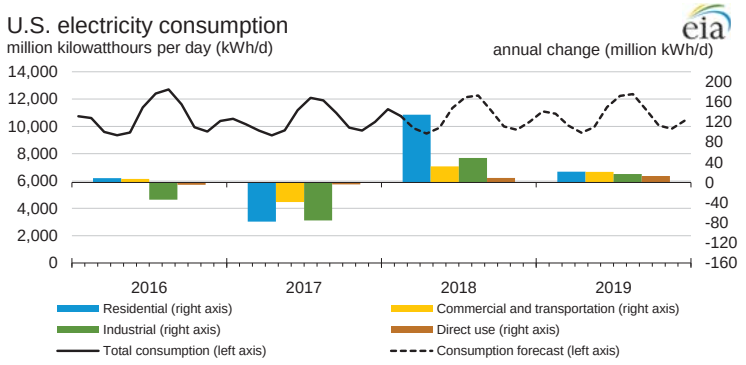
## U.S. electric power coal stocks




Note: Colored band around stock levels represents the range between the minimum and maximum from Jan. 2010 - Dec. 2017.

Source: Short-Term Energy Outlook, March 2018.

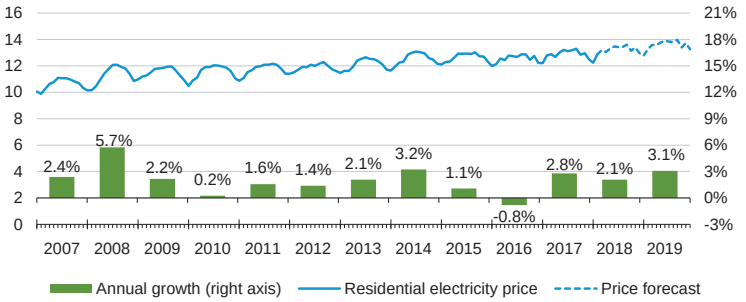
## U.S. electricity consumption




Source: Short-Term Energy Outlook, March 2018.

## U.S. residential electricity price

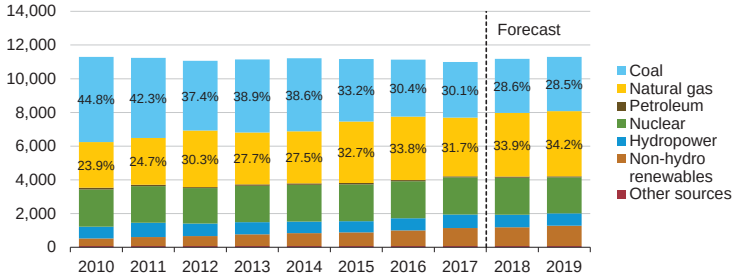
cents per kilowatthour




Source: Short-Term Energy Outlook, March 2018.

## U.S. electricity generation by fuel, all sectors

thousand megawatthours per day

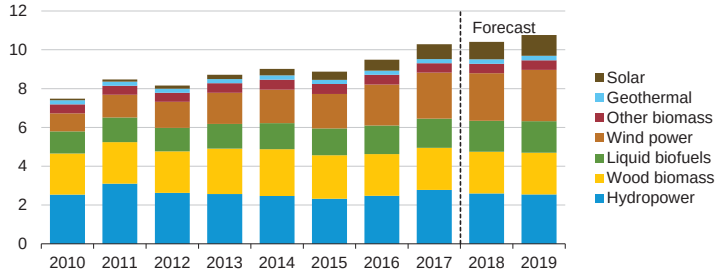



Note: Labels show percentage share of total generation provided by coal and natural gas.

Source: Short-Term Energy Outlook, March 2018.

## U.S. renewable energy supply

quadrillion British thermal units (Btu)

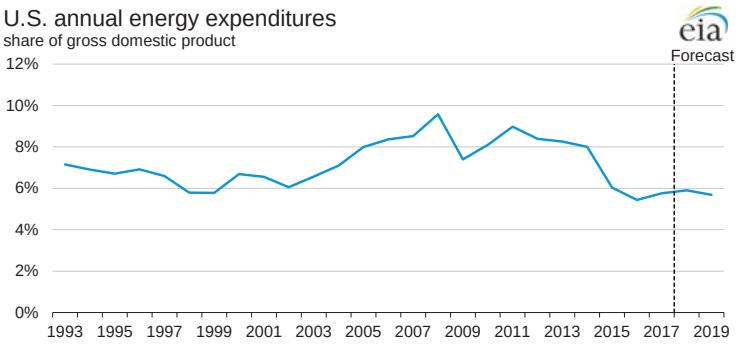



Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol and biodiesel. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste.

Source: Short-Term Energy Outlook, March 2018.

## U.S. annual energy expenditures

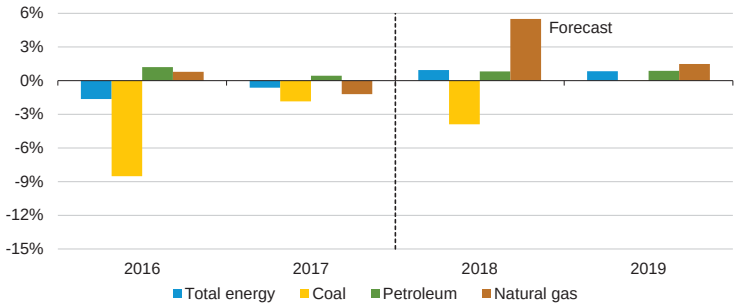
share of gross domestic product




Source: Short-Term Energy Outlook, March 2018.

## U.S. energy-related carbon dioxide emissions

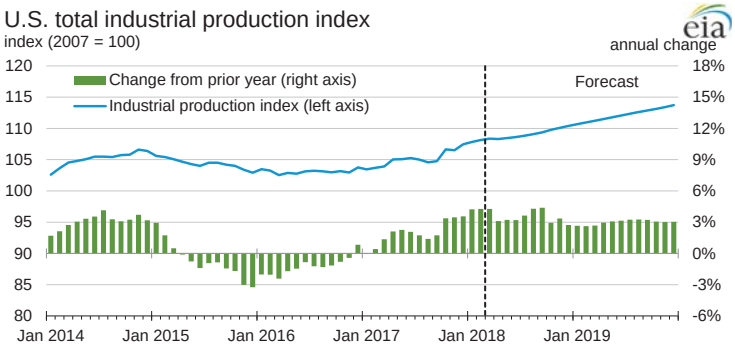
annual growth




Source: Short-Term Energy Outlook, March 2018.

## U.S. total industrial production index

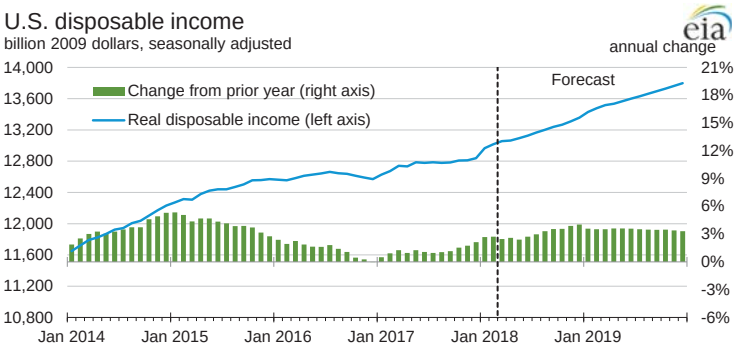
index (2007 = 100)




Source: Short-Term Energy Outlook, March 2018.

## U.S. disposable income

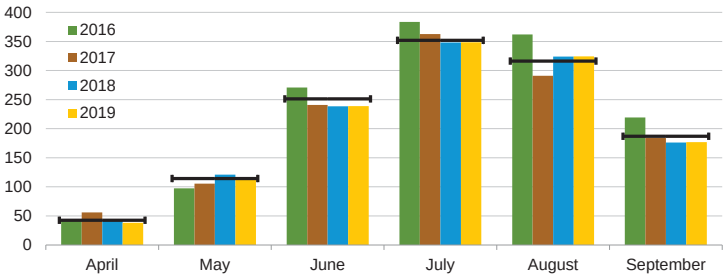
billion 2009 dollars, seasonally adjusted




Source: Short-Term Energy Outlook, March 2018.

## U.S. summer cooling degree days

population-weighted

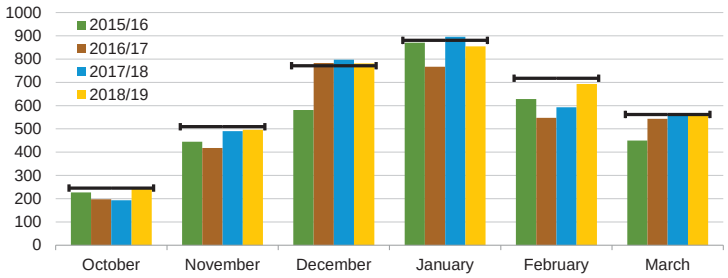



Note: EIA calculations based on from the National Oceanic and Atmospheric Administration data. Horizontal lines indicate each month's prior 10-year average (2008-2017). Projections reflect NOAA's 14-16 month outlook.

Source: Short-Term Energy Outlook, March 2018.

## U.S. winter heating degree days

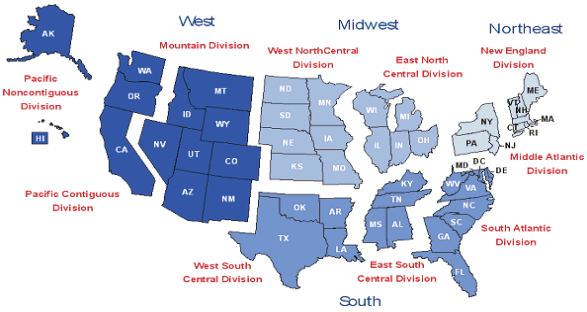
population-weighted




Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Horizontal lines indicate each month's prior 10-year average (Oct 2007 - Mar 2017). Projections reflect NOAA's 14-16 month outlook.

Source: Short-Term Energy Outlook, March 2018.

## U.S. census regions and divisions




Source: Short-Term Energy Outlook, March 2018.

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

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

| Fuel / Region | Winter of | | | | | | | Forecast | |
|---|---|---|---|---|---|---|---|---|---|
| | 10-11 | 11-12 | 12-13 | 13-14 | 14-15 | 15-16 | 16-17 | 17-18 | % Change |
| **Natural Gas** | | | | | | | | | |
| **Northeast** | | | | | | | | | |
| Consumption (Mcf**) | 80.7 | 66.5 | 76.1 | 84.1 | 84.7 | 67.8 | 72.5 | 75.5 | 4.1 |
| Price ($/mcf) | 12.66 | 12.21 | 11.71 | 11.53 | 10.82 | 10.19 | 10.74 | 11.23 | 4.6 |
| Expenditures ($) | 1,022 | 812 | 891 | 969 | 916 | 691 | 778 | 847 | 8.9 |
| **Midwest** | | | | | | | | | |
| Consumption (Mcf) | 80.3 | 65.4 | 77.6 | 88.1 | 83.1 | 67.7 | 68.9 | 76.9 | 11.7 |
| Price ($/mcf) | 9.23 | 8.99 | 8.36 | 8.69 | 8.56 | 7.58 | 8.31 | 8.06 | -3.0 |
| Expenditures ($) | 740 | 587 | 648 | 766 | 711 | 513 | 573 | 620 | 8.3 |
| **South** | | | | | | | | | |
| Consumption (Mcf) | 49.3 | 40.8 | 46.5 | 52.1 | 50.5 | 40.7 | 38.6 | 44.9 | 16.4 |
| Price ($/mcf) | 11.02 | 11.45 | 10.71 | 10.77 | 10.82 | 10.80 | 12.29 | 11.29 | -8.1 |
| Expenditures ($) | 543 | 468 | 498 | 561 | 546 | 440 | 474 | 507 | 6.9 |
| **West** | | | | | | | | | |
| Consumption (Mcf) | 49.4 | 49.1 | 48.6 | 46.4 | 41.5 | 45.9 | 46.8 | 44.0 | -6.0 |
| Price ($/mcf) | 9.67 | 9.35 | 9.13 | 9.96 | 10.72 | 9.93 | 10.69 | 10.51 | -1.7 |
| Expenditures ($) | 478 | 459 | 444 | 462 | 444 | 456 | 500 | 462 | -7.6 |
| **U.S. Average** | | | | | | | | | |
| Consumption (Mcf) | 65.0 | 55.7 | 62.5 | 68.0 | 64.8 | 55.8 | 56.9 | 60.5 | 6.4 |
| Price ($/mcf) | 10.46 | 10.25 | 9.72 | 9.97 | 9.91 | 9.30 | 10.12 | 9.87 | -2.4 |
| Expenditures ($) | 680 | 571 | 607 | 678 | 642 | 519 | 575 | 597 | 3.8 |
| **Heating Oil** | | | | | | | | | |
| **U.S. Average** | | | | | | | | | |
| Consumption (gallons) | 580.8 | 471.2 | 545.6 | 607.3 | 608.1 | 481.5 | 517.3 | 540.1 | 4.4 |
| Price ($/gallon) | 3.38 | 3.73 | 3.87 | 3.88 | 3.04 | 2.06 | 2.41 | 2.77 | 14.9 |
| Expenditures ($) | 1,966 | 1,757 | 2,114 | 2,353 | 1,849 | 992 | 1,247 | 1,495 | 19.9 |
| **Electricity** | | | | | | | | | |
| **Northeast** | | | | | | | | | |
| Consumption (kWh***) | 7,076 | 6,437 | 6,863 | 7,223 | 7,253 | 6,495 | 6,710 | 6,839 | 1.9 |
| Price ($/kwh) | 0.154 | 0.154 | 0.152 | 0.163 | 0.168 | 0.164 | 0.164 | 0.167 | 1.9 |
| Expenditures ($) | 1,091 | 993 | 1,046 | 1,177 | 1,219 | 1,066 | 1,102 | 1,145 | 3.9 |
| **Midwest** | | | | | | | | | |
| Consumption (kWh) | 8,733 | 7,898 | 8,588 | 9,169 | 8,857 | 8,031 | 8,096 | 8,558 | 5.7 |
| Price ($/kwh) | 0.105 | 0.111 | 0.112 | 0.112 | 0.118 | 0.122 | 0.123 | 0.125 | 0.9 |
| Expenditures ($) | 915 | 875 | 958 | 1,031 | 1,045 | 978 | 999 | 1,066 | 6.7 |
| **South** | | | | | | | | | |
| Consumption (kWh) | 8,221 | 7,467 | 7,974 | 8,381 | 8,281 | 7,461 | 7,315 | 7,792 | 6.5 |
| Price ($/kwh) | 0.104 | 0.107 | 0.107 | 0.109 | 0.111 | 0.110 | 0.112 | 0.113 | 1.4 |
| Expenditures ($) | 855 | 798 | 851 | 913 | 919 | 824 | 817 | 883 | 8.1 |
| **West** | | | | | | | | | |
| Consumption (kWh) | 7,217 | 7,192 | 7,151 | 6,982 | 6,602 | 6,955 | 7,027 | 6,812 | -3.1 |
| Price ($/kwh) | 0.112 | 0.115 | 0.119 | 0.123 | 0.127 | 0.130 | 0.132 | 0.136 | 3.3 |
| Expenditures ($) | 809 | 825 | 848 | 861 | 836 | 903 | 925 | 927 | 0.1 |
| **U.S. Average** | | | | | | | | | |
| Consumption (kWh) | 7,843 | 7,252 | 7,671 | 7,981 | 7,801 | 7,242 | 7,227 | 7,519 | 4.0 |
| Price ($/kwh) | 0.113 | 0.116 | 0.117 | 0.120 | 0.123 | 0.124 | 0.125 | 0.127 | 1.6 |
| Expenditures ($) | 884 | 842 | 895 | 955 | 960 | 896 | 906 | 958 | 5.7 |

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

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

| Fuel / Region | Winter of | | | | | | | Forecast | |
|---|---|---|---|---|---|---|---|---|---|
| | 10-11 | 11-12 | 12-13 | 13-14 | 14-15 | 15-16 | 16-17 | 17-18 | % Change |
| **Propane** | | | | | | | | | |
| **Northeast** | | | | | | | | | |
| **Consumption (gallons)** | 717.6 | 595.7 | 676.0 | 745.4 | 751.5 | 607.4 | 650.3 | 672.6 | 3.4 |
| **Price* ($/gallon)** | 3.24 | 3.34 | 3.00 | 3.56 | 3.00 | 2.71 | 3.06 | 3.25 | 6.2 |
| **Expenditures ($)** | 2,322 | 1,991 | 2,031 | 2,654 | 2,254 | 1,646 | 1,990 | 2,186 | 9.8 |
| **Midwest** | | | | | | | | | |
| **Consumption (gallons)** | 791.9 | 644.4 | 766.4 | 868.7 | 813.2 | 667.7 | 679.1 | 760.6 | 12.0 |
| **Price* ($/gallon)** | 2.11 | 2.23 | 1.74 | 2.61 | 1.91 | 1.47 | 1.73 | 1.93 | 11.6 |
| **Expenditures ($)** | 1,674 | 1,437 | 1,334 | 2,267 | 1,553 | 982 | 1,175 | 1,468 | 25.0 |
| **Number of households by primary space heating fuel (thousands)** | | | | | | | | | |
| **Northeast** | | | | | | | | | |
| **Natural gas** | 11,118 | 11,236 | 11,345 | 11,522 | 11,694 | 11,786 | 11,913 | 12,011 | 0.8 |
| **Heating oil** | 5,858 | 5,701 | 5,458 | 5,241 | 5,092 | 4,913 | 4,767 | 4,620 | -3.1 |
| **Propane** | 744 | 761 | 813 | 845 | 855 | 888 | 899 | 901 | 0.2 |
| **Electricity** | 2,776 | 2,894 | 3,011 | 3,036 | 3,090 | 3,243 | 3,356 | 3,421 | 1.9 |
| **Wood** | 512 | 548 | 582 | 585 | 569 | 515 | 442 | 388 | -12.1 |
| **Other/None** | 315 | 324 | 377 | 436 | 437 | 430 | 445 | 468 | 5.1 |
| **Midwest** | | | | | | | | | |
| **Natural gas** | 17,977 | 18,019 | 18,054 | 18,072 | 18,190 | 18,204 | 18,151 | 18,022 | -0.7 |
| **Heating oil** | 419 | 393 | 360 | 336 | 319 | 301 | 283 | 263 | -7.1 |
| **Propane** | 2,073 | 2,037 | 2,063 | 2,088 | 2,083 | 2,074 | 2,061 | 2,050 | -0.5 |
| **Electricity** | 4,922 | 5,119 | 5,333 | 5,422 | 5,509 | 5,726 | 5,926 | 6,111 | 3.1 |
| **Wood** | 618 | 631 | 640 | 632 | 616 | 584 | 566 | 553 | -2.3 |
| **Other/None** | 289 | 282 | 319 | 353 | 350 | 352 | 363 | 375 | 3.3 |
| **South** | | | | | | | | | |
| **Natural gas** | 13,657 | 13,636 | 13,681 | 13,793 | 13,907 | 13,954 | 14,029 | 14,013 | -0.1 |
| **Heating oil** | 853 | 790 | 738 | 698 | 681 | 653 | 624 | 595 | -4.6 |
| **Propane** | 2,098 | 2,024 | 1,982 | 1,943 | 1,923 | 1,900 | 1,875 | 1,831 | -2.3 |
| **Electricity** | 26,555 | 27,283 | 27,857 | 28,230 | 28,817 | 29,521 | 30,111 | 30,619 | 1.7 |
| **Wood** | 599 | 609 | 612 | 616 | 592 | 547 | 545 | 569 | 4.4 |
| **Other/None** | 309 | 304 | 367 | 419 | 407 | 414 | 423 | 429 | 1.5 |
| **West** | | | | | | | | | |
| **Natural gas** | 15,020 | 15,021 | 15,009 | 15,059 | 15,213 | 15,317 | 15,432 | 15,456 | 0.2 |
| **Heating oil** | 279 | 261 | 247 | 234 | 225 | 220 | 212 | 202 | -4.9 |
| **Propane** | 914 | 885 | 909 | 930 | 914 | 926 | 921 | 901 | -2.3 |
| **Electricity** | 8,126 | 8,439 | 8,671 | 8,754 | 8,919 | 9,214 | 9,460 | 9,689 | 2.4 |
| **Wood** | 725 | 736 | 728 | 744 | 748 | 717 | 714 | 718 | 0.7 |
| **Other/None** | 850 | 829 | 903 | 1,015 | 1,074 | 1,082 | 1,097 | 1,156 | 5.4 |
| **U.S. Totals** | | | | | | | | | |
| **Natural gas** | 57,771 | 57,912 | 58,088 | 58,446 | 59,004 | 59,262 | 59,525 | 59,502 | 0.0 |
| **Heating oil** | 7,408 | 7,145 | 6,803 | 6,509 | 6,317 | 6,087 | 5,885 | 5,679 | -3.5 |
| **Propane** | 5,829 | 5,707 | 5,766 | 5,806 | 5,776 | 5,787 | 5,756 | 5,683 | -1.3 |
| **Electricity** | 42,380 | 43,734 | 44,873 | 45,442 | 46,335 | 47,704 | 48,854 | 49,841 | 2.0 |
| **Wood** | 2,454 | 2,524 | 2,563 | 2,576 | 2,526 | 2,362 | 2,266 | 2,229 | -1.7 |
| **Other/None** | 1,763 | 1,739 | 1,965 | 2,222 | 2,269 | 2,278 | 2,328 | 2,428 | 4.3 |
| **Heating degree days** | | | | | | | | | |
| **Northeast** | 5,338 | 4,219 | 4,965 | 5,596 | 5,647 | 4,321 | 4,699 | 4,922 | 4.7 |
| **Midwest** | 5,774 | 4,485 | 5,544 | 6,451 | 6,002 | 4,688 | 4,792 | 5,493 | 14.6 |
| **South** | 2,629 | 2,020 | 2,428 | 2,784 | 2,689 | 2,013 | 1,881 | 2,291 | 21.8 |
| **West** | 3,259 | 3,231 | 3,182 | 2,990 | 2,567 | 2,955 | 3,043 | 2,797 | -8.1 |
| **U.S. Average** | 3,939 | 3,225 | 3,721 | 4,110 | 3,881 | 3,202 | 3,257 | 3,534 | 8.5 |

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

* Prices exclude taxes

** thousand cubic feet

*** kilowatthour

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

U.S. Energy Information Administration | Short-Term Energy Outlook - March 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) | **8.99** | **9.10** | **9.29** | **9.89** | *10.25* | *10.58* | *10.79* | *11.17* | *11.30* | *11.30* | *11.14* | *11.34* | **9.32** | *10.70* | *11.27* |
| Dry Natural Gas Production | | | | | | | | | | | | | | | |
| (billion cubic feet per day) | **71.28** | **72.09** | **74.01** | **76.95** | *80.33* | *81.57* | *82.36* | *82.52* | *82.59* | *82.48* | *82.59* | *83.00* | **73.60** | *81.70* | *82.67* |
| Coal Production | | | | | | | | | | | | | | | |
| (million short tons) | **197** | **187** | **196** | **192** | *187* | *165* | *195* | *189* | *192* | *160* | *204* | *188* | **772** | *736* | *745* |
| **Energy Consumption** | | | | | | | | | | | | | | | |
| Liquid Fuels | | | | | | | | | | | | | | | |
| (million barrels per day) | **19.49** | **20.03** | **19.92** | **20.05** | *20.04* | *20.24* | *20.69* | *20.41* | *20.37* | *20.67* | *21.03* | *20.74* | **19.88** | *20.35* | *20.71* |
| Natural Gas | | | | | | | | | | | | | | | |
| (billion cubic feet per day) | **86.15** | **62.96** | **66.97** | **80.93** | *94.38* | *67.64* | *69.87* | *81.12* | *95.90* | *69.01* | *70.53* | | **74.22** | *78.19* | *79.36* |
| Coal (b) | | | | | | | | | | | | | | | |
| (million short tons) | **173** | **167** | **204** | **174** | *165* | *155* | *195* | *167* | *174* | *151* | *197* | *162* | **718** | *682* | *684* |
| Electricity | | | | | | | | | | | | | | | |
| (billion kilowatt hours per day) | **10.13** | **10.08** | **11.66** | **9.98** | *10.62* | *10.24* | *11.86* | *10.03* | *10.69* | *10.30* | *11.96* | *10.10* | **10.47** | *10.69* | *10.76* |
| Renewables (c) | | | | | | | | | | | | | | | |
| (quadrillion Btu) | **2.80** | **3.00** | **2.58** | **2.67** | *2.76* | *2.96* | *2.71* | *2.72* | *2.79* | *3.08* | *2.82* | *2.84* | **11.05** | *11.15* | *11.52* |
| Total Energy Consumption (d) | | | | | | | | | | | | | | | |
| (quadrillion Btu) | **25.12** | **23.28** | **24.44** | **24.99** | *25.58* | *23.23* | *24.53* | *24.76* | *25.94* | *23.50* | *24.80* | *24.94* | **97.83** | *98.10* | *99.18* |
| **Energy Prices** | | | | | | | | | | | | | | | |
| Crude Oil West Texas Intermediate Spot | | | | | | | | | | | | | | | |
| (dollars per barrel) | **51.64** | **48.15** | **48.16** | **55.27** | *62.46* | *58.33* | *56.00* | *56.00* | *56.00* | *56.66* | *58.00* | *59.33* | **50.79** | *58.17* | *57.51* |
| Natural Gas Henry Hub Spot | | | | | | | | | | | | | | | |
| (dollars per million Btu) | **3.01** | **3.08** | **2.95** | **2.90** | *3.02* | *2.81* | *3.01* | *3.10* | *3.21* | *2.97* | *3.03* | *3.07* | **2.99** | *2.99* | *3.07* |
| Coal | | | | | | | | | | | | | | | |
| (dollars per million Btu) | **2.08** | **2.12** | **2.07** | **2.04** | *2.20* | *2.20* | *2.21* | *2.19* | *2.21* | *2.19* | *2.22* | *2.18* | **2.08** | *2.20* | *2.20* |
| **Macroeconomic** | | | | | | | | | | | | | | | |
| Real Gross Domestic Product | | | | | | | | | | | | | | | |
| (billion chained 2009 dollars - SAAR) | **16,903** | **17,031** | **17,164** | **17,272** | *17,369* | *17,489* | *17,605* | *17,723* | *17,836* | *17,951* | *18,056* | *18,157* | **17,093** | *17,546* | *18,000* |
| Percent change from prior year | **2.0** | **2.2** | **2.3** | **2.5** | *2.8* | *2.7* | *2.6* | *2.6* | *2.7* | *2.6* | *2.6* | *2.5* | **2.3** | *2.7* | *2.6* |
| GDP Implicit Price Deflator | | | | | | | | | | | | | | | |
| (Index, 2009=100) | **112.8** | **113.0** | **113.6** | **114.3** | *115.1* | *115.8* | *116.5* | *117.3* | *118.0* | *118.8* | *119.5* | *120.2* | **113.4** | *116.2* | *119.1* |
| Percent change from prior year | **2.0** | **1.6** | **1.8** | **1.9** | *2.0* | *2.5* | *2.5* | *2.6* | *2.5* | *2.5* | *2.6* | *2.5* | **1.8** | *2.4* | *2.5* |
| Real Disposable Personal Income | | | | | | | | | | | | | | | |
| (billion chained 2009 dollars - SAAR) | **12,680** | **12,766** | **12,783** | **12,819** | *13,013* | *13,095* | *13,202* | *13,311* | *13,475* | *13,568* | *13,663* | *13,762* | **12,762** | *13,155* | *13,617* |
| Percent change from prior year | **0.9** | **1.1** | **1.1** | **1.8** | *2.6* | *2.6* | *3.3* | *3.8* | *3.5* | *3.6* | *3.5* | *3.4* | **1.2** | *3.1* | *3.5* |
| Manufacturing Production Index | | | | | | | | | | | | | | | |
| (Index, 2012=100) | **103.7** | **104.5** | **104.0** | **105.9** | *106.5* | *106.9* | *107.5* | *108.6* | *109.5* | *110.3* | *110.9* | *111.6* | **104.5** | *107.4* | *110.6* |
| Percent change from prior year | **0.8** | **1.8** | **1.3** | **2.7** | *2.7* | *2.3* | *3.4* | *2.6* | *2.9* | *3.2* | *3.2* | *2.7* | **1.7** | *2.7* | *3.0* |
| **Weather** | | | | | | | | | | | | | | | |
| U.S. Heating Degree-Days | **1,858** | **428** | **65** | **1,481** | *2,054* | *490* | *75* | *1,526* | *2,114* | *499* | *75* | *1,524* | **3,831** | *4,145* | *4,212* |
| U.S. Cooling Degree-Days | **70** | **402** | **838** | **114** | *51* | *401* | *848* | *91* | *43* | *392* | *850* | *92* | **1,424** | *1,392* | *1,376* |

- = 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 - March 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** | *62.46* | *58.33* | *56.00* | *56.00* | *56.00* | *56.66* | *58.00* | *59.33* | **50.79** | *58.17* | *57.51* |
| Brent Spot Average | **53.57** | **49.59** | **52.09** | **61.42** | *66.30* | *62.33* | *60.00* | *60.00* | *60.00* | *60.66* | *62.00* | *63.33* | **54.15** | *62.13* | *61.51* |
| U.S. Imported Average | **47.94** | **46.12** | **47.49** | **55.24** | *59.00* | *54.85* | *52.50* | *52.50* | *52.50* | *53.17* | *54.50* | *55.83* | **48.99** | *54.84* | *53.98* |
| U.S. Refiner Average Acquisition Cost | **49.91** | **47.66** | **48.32** | **56.67** | *61.48* | *57.31* | *55.00* | *55.00* | *55.00* | *55.68* | *57.00* | *58.34* | **50.65** | *57.15* | *56.52* |
| **U.S. Liquid Fuels** (cents per gallon) | | | | | | | | | | | | | | | |
| **Refiner Prices for Resale** | | | | | | | | | | | | | | | |
| Gasoline | **163** | **165** | **172** | **175** | *187* | *192* | *184* | *171* | *170* | *188* | *187* | *176* | **169** | *184* | *181* |
| Diesel Fuel | **162** | **155** | **169** | **190** | *203* | *194* | *191* | *190* | *186* | *189* | *195* | *198* | **169** | *194* | *192* |
| Heating Oil | **154** | **144** | **154** | **179** | *200* | *184* | *181* | *182* | *182* | *177* | *188* | *190* | **160** | *189* | *180* |
| **Refiner Prices to End Users** | | | | | | | | | | | | | | | |
| Jet Fuel | **158** | **150** | **162** | **181** | *199* | *188* | *185* | *184* | *184* | *184* | *191* | *194* | **163** | *189* | *188* |
| No. 6 Residual Fuel Oil (a) | **128** | **120** | **124** | **140** | *151* | *142* | *137* | *136* | *137* | *136* | *140* | *143* | **129** | *142* | *139* |
| **Retail Prices Including Taxes** | | | | | | | | | | | | | | | |
| Gasoline Regular Grade (b) | **233** | **238** | **244** | **251** | *259* | *270* | *263* | *249* | *245* | *266* | *266* | *254* | **242** | *260* | *258* |
| Gasoline All Grades (b) | **244** | **250** | **255** | **263** | *271* | *281* | *274* | *261* | *256* | *277* | *278* | *267* | **253** | *272* | *270* |
| On-highway Diesel Fuel | **257** | **255** | **263** | **287** | *301* | *289* | *285* | *286* | *280* | *283* | *288* | *293* | **265** | *290* | *286* |
| Heating Oil | **247** | **238** | **234** | **265** | *285* | *275* | *272* | *278* | *284* | *272* | *275* | *285* | **251** | *280* | *282* |
| **Natural Gas** | | | | | | | | | | | | | | | |
| Henry Hub Spot (dollars per thousand cubic feet) | **3.12** | **3.19** | **3.06** | **3.01** | *3.13* | *2.92* | *3.12* | *3.22* | *3.33* | *3.08* | *3.14* | *3.19* | **3.10** | *3.10* | *3.19* |
| Henry Hub Spot (dollars per million Btu) | **3.01** | **3.08** | **2.95** | **2.90** | *3.02* | *2.81* | *3.01* | *3.10* | *3.21* | *2.97* | *3.03* | *3.07* | **2.99** | *2.99* | *3.07* |
| **U.S. Retail Prices** (dollars per thousand cubic feet) | | | | | | | | | | | | | | | |
| Industrial Sector | **4.50** | **4.11** | **3.89** | **4.00** | *4.46* | *3.80* | *3.97* | *4.36* | *4.69* | *4.02* | *4.02* | *4.36* | **4.14** | *4.17* | *4.29* |
| Commercial Sector | **7.71** | **8.33** | **8.68** | **7.56** | *7.62* | *8.01* | *8.58* | *7.93* | *7.85* | *8.31* | *8.70* | *7.96* | **7.87** | *7.88* | *8.05* |
| Residential Sector | **9.73** | **13.00** | **17.74** | **10.19** | *9.34* | *11.97* | *16.68* | *10.74* | *9.83* | *12.35* | *16.79* | *10.70* | **10.92** | *10.66* | *10.94* |
| **U.S. Electricity** | | | | | | | | | | | | | | | |
| **Power Generation Fuel Costs** (dollars per million Btu) | | | | | | | | | | | | | | | |
| Coal | **2.08** | **2.12** | **2.07** | **2.04** | *2.20* | *2.20* | *2.21* | *2.19* | *2.21* | *2.19* | *2.22* | *2.18* | **2.08** | *2.20* | *2.20* |
| Natural Gas | **3.69** | **3.38** | **3.19** | **3.39** | *3.82* | *3.10* | *3.26* | *3.57* | *3.82* | *3.21* | *3.28* | *3.51* | **3.39** | *3.41* | *3.43* |
| Residual Fuel Oil (c) | **11.16** | **10.60** | **10.03** | **10.95** | *12.26* | *12.73* | *11.63* | *11.25* | *11.49* | *12.14* | *11.68* | *11.64* | **10.68** | *12.00* | *11.71* |
| Distillate Fuel Oil | **12.74** | **12.23** | **13.13** | **14.72** | *16.06* | *15.16* | *14.81* | *14.83* | *14.60* | *14.73* | *15.07* | *15.39* | **13.32** | *15.47* | *14.93* |
| **Retail Prices** (cents per kilowatthour) | | | | | | | | | | | | | | | |
| Industrial Sector | **6.64** | **6.89** | **7.27** | **6.79** | *6.81* | *7.03* | *7.50* | *7.02* | *6.86* | *7.11* | *7.60* | *7.10* | **6.91** | *7.10* | *7.18* |
| Commercial Sector | **10.39** | **10.68** | **11.03** | **10.56** | *10.49* | *10.85* | *11.31* | *10.87* | *10.68* | *10.93* | *11.31* | *10.92* | **10.68** | *10.90* | *10.97* |
| Residential Sector | **12.59** | **12.99** | **13.19** | **12.75** | *12.71* | *13.29* | *13.48* | *13.15* | *13.18* | *13.77* | *13.87* | *13.44* | **12.90** | *13.17* | *13.57* |

- = 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 - March 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 | **27.11** | **26.92** | **27.08** | **28.05** | *28.65* | *29.53* | *29.92* | *30.64* | *30.64* | *30.83* | *30.69* | *31.12* | **27.29** | *29.69* | *30.82* |
| U.S. (50 States) | **15.00** | **15.32** | **15.48** | **16.44** | *16.69* | *17.41* | *17.84* | *18.28* | *18.27* | *18.54* | *18.47* | *18.69* | **15.56** | *17.56* | *18.49* |
| Canada | **5.05** | **4.71** | **4.99** | **4.99** | *4.99* | *5.17* | *5.28* | *5.38* | *5.39* | *5.39* | *5.43* | *5.47* | **4.94** | *5.20* | *5.42* |
| Mexico | **2.35** | **2.34** | **2.19** | **2.16** | *2.21* | *2.20* | *2.19* | *2.18* | *2.17* | *2.16* | *2.15* | *2.14* | **2.26** | *2.20* | *2.15* |
| Other OECD | **4.70** | **4.55** | **4.42** | **4.46** | *4.75* | *4.75* | *4.62* | *4.80* | *4.81* | *4.74* | *4.64* | *4.82* | **4.53** | *4.73* | *4.75* |
| Non-OECD | **69.99** | **70.74** | **71.28** | **70.61** | *70.28* | *70.86* | *71.47* | *71.09* | *70.64* | *71.35* | *72.02* | *71.73* | **70.66** | *70.93* | *71.44* |
| OPEC | **38.84** | **39.32** | **39.68** | **39.29** | *39.25* | *39.27* | *39.58* | *39.64* | *39.56* | *39.74* | *40.08* | *40.19* | **39.28** | *39.44* | *39.89* |
| Crude Oil Portion | **32.08** | **32.32** | **32.89** | **32.48** | *32.35* | *32.32* | *32.60* | *32.62* | *32.50* | *32.62* | *32.89* | *32.92* | **32.44** | *32.47* | *32.73* |
| 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** | **14.31** | **14.23** | **14.33** | *14.44* | *14.42* | *14.41* | *14.38* | *14.48* | *14.43* | *14.48* | *14.50* | **14.32** | *14.42* | *14.47* |
| China | **4.82** | **4.83** | **4.74** | **4.75** | *4.76* | *4.75* | *4.75* | *4.79* | *4.72* | *4.74* | *4.74* | *4.77* | **4.78** | *4.76* | *4.74* |
| Other Non-OECD | **11.90** | **12.29** | **12.63** | **12.24** | *11.83* | *12.42* | *12.73* | *12.27* | *11.88* | *12.45* | *12.72* | *12.26* | **12.27** | *12.32* | *12.33* |
| Total World Supply | **97.10** | **97.66** | **98.36** | **98.65** | *98.93* | *100.39* | *101.39* | *101.72* | *101.28* | *102.18* | *102.71* | *102.85* | **97.95** | *100.62* | *102.26* |
| Non-OPEC Supply | **58.26** | **58.34** | **58.68** | **59.37** | *59.68* | *61.12* | *61.81* | *62.08* | *61.73* | *62.44* | *62.63* | *62.66* | **58.67** | *61.18* | *62.37* |
| **Consumption (million barrels per day) (c)** | | | | | | | | | | | | | | | |
| OECD | **46.79** | **46.90** | **47.44** | **47.66** | *47.38* | *46.85* | *48.08* | *48.05* | *47.78* | *47.29* | *48.46* | *48.39* | **47.20** | *47.59* | *47.99* |
| U.S. (50 States) | **19.49** | **20.03** | **19.92** | **20.05** | *20.04* | *20.24* | *20.69* | *20.41* | *20.37* | *20.67* | *21.03* | *20.74* | **19.88** | *20.35* | *20.71* |
| U.S. Territories | **0.15** | **0.15** | **0.13** | **0.09** | *0.09* | *0.10* | *0.12* | *0.13* | *0.15* | *0.15* | *0.15* | *0.15* | **0.13** | *0.11* | *0.15* |
| Canada | **2.35** | **2.34** | **2.50** | **2.50** | *2.37* | *2.31* | *2.42* | *2.41* | *2.37* | *2.31* | *2.42* | *2.41* | **2.42** | *2.38* | *2.38* |
| Europe | **13.95** | **14.31** | **14.74** | **14.31** | *14.01* | *14.29* | *14.74* | *14.45* | *14.04* | *14.25* | *14.76* | *14.45* | **14.33** | *14.37* | *14.38* |
| Japan | **4.33** | **3.64** | **3.69** | **4.10** | *4.29* | *3.46* | *3.57* | *3.93* | *4.21* | *3.41* | *3.54* | *3.90* | **3.94** | *3.81* | *3.76* |
| Other OECD | **6.52** | **6.44** | **6.46** | **6.62** | *6.57* | *6.46* | *6.53* | *6.72* | *6.63* | *6.50* | *6.56* | *6.75* | **6.51** | *6.57* | *6.61* |
| Non-OECD | **50.79** | **51.46** | **51.47** | **51.46** | *52.12* | *52.80* | *52.74* | *52.75* | *53.42* | *54.13* | *54.08* | *54.13* | **51.30** | *52.61* | *53.94* |
| Eurasia | **4.76** | **4.75** | **5.02** | **4.89** | *4.80* | *4.84* | *5.11* | *4.99* | *4.85* | *4.90* | *5.17* | *5.05* | **4.86** | *4.94* | *4.99* |
| Europe | **0.69** | **0.70** | **0.72** | **0.72** | *0.71* | *0.71* | *0.73* | *0.73* | *0.72* | *0.72* | *0.74* | *0.74* | **0.70** | *0.72* | *0.73* |
| China | **13.48** | **13.29** | **13.01** | **13.27** | *13.98* | *13.74* | *13.40* | *13.64* | *14.42* | *14.15* | *13.80* | *14.04* | **13.26** | *13.69* | *14.10* |
| Other Asia | **12.99** | **13.31** | **13.03** | **13.36** | *13.63* | *13.82* | *13.45* | *13.76* | *14.06* | *14.24* | *13.85* | *14.18* | **13.17** | *13.66* | *14.08* |
| Other Non-OECD | **18.86** | **19.42** | **19.71** | **19.21** | *19.01* | *19.69* | *20.05* | *19.62* | *19.37* | *20.12* | *20.51* | *20.12* | **19.30** | *19.60* | *20.03* |
| Total World Consumption | **97.58** | **98.37** | **98.92** | **99.12** | *99.50* | *99.65* | *100.82* | *100.80* | *101.20* | *101.42* | *102.54* | *102.52* | **98.50** | *100.20* | *101.92* |
| **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** | *0.14* | *-0.50* | *-0.17* | *0.40* | *-0.26* | *-0.49* | *-0.10* | *0.35* | **0.37** | *-0.03* | *-0.12* |
| Other OECD | **-0.49** | **0.02** | **0.28** | **0.25** | *0.15* | *-0.08* | *-0.14* | *-0.46* | *0.06* | *-0.09* | *-0.02* | *-0.23* | **0.02** | *-0.13* | *-0.07* |
| Other Stock Draws and Balance | **0.96** | **0.47** | **-0.06** | **-0.70** | *0.28* | *-0.16* | *-0.26* | *-0.87* | *0.11* | *-0.18* | *-0.05* | *-0.46* | **0.16** | *-0.26* | *-0.14* |
| Total Stock Draw | **0.48** | **0.71** | **0.55** | **0.46** | *0.57* | *-0.74* | *-0.57* | *-0.93* | *-0.08* | *-0.76* | *-0.17* | *-0.33* | **0.55** | *-0.42* | *-0.34* |
| **End-of-period Commercial Crude Oil and Other Liquids Inventories (million barrels)** | | | | | | | | | | | | | | | |
| U.S. Commercial Inventory | **1,338** | **1,330** | **1,305** | **1,232** | *1,218* | *1,266* | *1,284* | *1,251* | *1,278* | *1,327* | *1,340* | *1,309* | **1,232** | *1,251* | *1,309* |
| OECD Commercial Inventory | **3,011** | **3,000** | **2,954** | **2,859** | *2,831* | *2,886* | *2,916* | *2,925* | *2,947* | *3,004* | *3,019* | *3,009* | **2,859** | *2,925* | *3,009* |

- = 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 - March 2018

| | 2017 | | | | 2018 | | | | 2019 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2017 | 2018 | 2019 |
| **North America** | **22.41** | **22.37** | **22.67** | **23.59** | *23.90* | *24.78* | *25.31* | *25.84* | *25.83* | *26.09* | *26.05* | *26.30* | **22.76** | *24.96* | *26.07* |
| Canada | **5.05** | **4.71** | **4.99** | **4.99** | *4.99* | *5.17* | *5.28* | *5.38* | *5.39* | *5.39* | *5.43* | *5.47* | **4.94** | *5.20* | *5.42* |
| Mexico | **2.35** | **2.34** | **2.19** | **2.16** | *2.21* | *2.20* | *2.19* | *2.18* | *2.17* | *2.16* | *2.15* | *2.14* | **2.26** | *2.20* | *2.15* |
| United States | **15.00** | **15.32** | **15.48** | **16.44** | *16.69* | *17.41* | *17.84* | *18.28* | *18.27* | *18.54* | *18.47* | *18.69* | **15.56** | *17.56* | *18.49* |
| **Central and South America** | **4.91** | **5.40** | **5.71** | **5.30** | *4.91* | *5.51* | *5.83* | *5.41* | *5.02* | *5.63* | *5.95* | *5.54* | **5.33** | *5.42* | *5.54* |
| Argentina | **0.67** | **0.67** | **0.68** | **0.69** | *0.66* | *0.66* | *0.67* | *0.68* | *0.65* | *0.65* | *0.66* | *0.67* | **0.68** | *0.67* | *0.66* |
| Brazil | **2.95** | **3.44** | **3.73** | **3.32** | *3.07* | *3.55* | *3.86* | *3.44* | *3.19* | *3.69* | *3.99* | *3.58* | **3.36** | *3.48* | *3.61* |
| Colombia | **0.87** | **0.88** | **0.88** | **0.87** | *0.76* | *0.88* | *0.88* | *0.87* | *0.75* | *0.87* | *0.87* | *0.86* | **0.88** | *0.84* | *0.84* |
| Other Central and S. America | **0.42** | **0.42** | **0.42** | **0.42** | *0.42* | *0.42* | *0.42* | *0.43* | *0.43* | *0.42* | *0.43* | *0.44* | **0.42** | *0.42* | *0.43* |
| **Europe** | **4.22** | **4.05** | **3.91** | **3.96** | *4.25* | *4.25* | *4.11* | *4.27* | *4.26* | *4.17* | *4.05* | *4.23* | **4.04** | *4.22* | *4.18* |
| Norway | **2.09** | **2.01** | **1.90** | **1.93** | *2.05* | *2.03* | *2.04* | *2.07* | *2.05* | *1.98* | *1.96* | *2.03* | **1.98** | *2.05* | *2.00* |
| United Kingdom | **1.10** | **1.07** | **1.00** | **1.02** | *1.19* | *1.22* | *1.07* | *1.20* | *1.20* | *1.20* | *1.11* | *1.21* | **1.05** | *1.17* | *1.18* |
| **Eurasia** | **14.43** | **14.31** | **14.23** | **14.33** | *14.44* | *14.42* | *14.41* | *14.38* | *14.48* | *14.43* | *14.48* | *14.50* | **14.32** | *14.42* | *14.47* |
| Azerbaijan | **0.79** | **0.80** | **0.79** | **0.81** | *0.82* | *0.81* | *0.79* | *0.77* | *0.79* | *0.79* | *0.77* | *0.76* | **0.80** | *0.80* | *0.78* |
| Kazakhstan | **1.87** | **1.87** | **1.86** | **1.92** | *1.99* | *1.99* | *2.03* | *2.07* | *2.10* | *2.04* | *2.09* | *2.13* | **1.88** | *2.02* | *2.09* |
| Russia | **11.32** | **11.18** | **11.14** | **11.15** | *11.18* | *11.16* | *11.13* | *11.08* | *11.15* | *11.16* | *11.17* | *11.16* | **11.20** | *11.14* | *11.16* |
| Turkmenistan | **0.28** | **0.28** | **0.29** | **0.29** | *0.29* | *0.29* | *0.29* | *0.29* | *0.28* | *0.28* | *0.28* | *0.28* | **0.28** | *0.29* | *0.28* |
| Other Eurasia | **0.16** | **0.17** | **0.16** | **0.16** | *0.18* | *0.18* | *0.18* | *0.17* | *0.17* | *0.17* | *0.17* | *0.16* | **0.16** | *0.17* | *0.17* |
| **Middle East** | **1.07** | **1.07** | **1.07** | **1.09** | *1.11* | *1.09* | *1.07* | *1.05* | *1.05* | *1.03* | *1.02* | *1.00* | **1.07** | *1.08* | *1.03* |
| Oman | **0.98** | **0.98** | **0.98** | **0.99** | *0.99* | *0.97* | *0.95* | *0.94* | *0.92* | *0.90* | *0.88* | *0.87* | **0.98** | *0.96* | *0.89* |
| **Asia and Oceania** | **9.35** | **9.28** | **9.19** | **9.20** | *9.25* | *9.24* | *9.23* | *9.27* | *9.25* | *9.26* | *9.25* | *9.25* | **9.25** | *9.25* | *9.25* |
| Australia | **0.35** | **0.36** | **0.37** | **0.35** | *0.34* | *0.34* | *0.34* | *0.35* | *0.37* | *0.39* | *0.40* | *0.41* | **0.36** | *0.34* | *0.39* |
| China | **4.82** | **4.83** | **4.74** | **4.75** | *4.76* | *4.75* | *4.75* | *4.79* | *4.72* | *4.74* | *4.74* | *4.77* | **4.78** | *4.76* | *4.74* |
| India | **1.01** | **1.00** | **1.00** | **0.99** | *0.99* | *1.00* | *0.99* | *0.98* | *1.00* | *1.00* | *1.00* | *0.99* | **1.00** | *0.99* | *1.00* |
| Indonesia | **0.93** | **0.91** | **0.91** | **0.90** | *0.91* | *0.91* | *0.90* | *0.91* | *0.90* | *0.89* | *0.88* | *0.87* | **0.91** | *0.91* | *0.89* |
| Malaysia | **0.74** | **0.72** | **0.71** | **0.72** | *0.73* | *0.73* | *0.72* | *0.71* | *0.72* | *0.71* | *0.70* | *0.69* | **0.72** | *0.72* | *0.71* |
| Vietnam | **0.29** | **0.29** | **0.28** | **0.27** | *0.27* | *0.27* | *0.27* | *0.26* | *0.26* | *0.25* | *0.25* | *0.24* | **0.28** | *0.27* | *0.25* |
| **Africa** | **1.86** | **1.86** | **1.91** | **1.90** | *1.83* | *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** | **58.26** | **58.34** | **58.68** | **59.37** | *59.68* | *61.12* | *61.81* | *62.08* | *61.73* | *62.44* | *62.63* | *62.66* | **58.67** | *61.18* | *62.37* |
| **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** | **65.03** | **65.34** | **65.47** | **66.17** | *66.58* | *68.07* | *68.79* | *69.10* | *68.78* | *69.56* | *69.82* | *69.93* | **65.51** | *68.14* | *69.53* |
| **Unplanned non-OPEC Production Outages** | **0.43** | **0.68** | **0.63** | **0.54** | *n/a* | *n/a* | *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 - March 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** | - | - | - | - | - | - | - | - | **1.03** | - | - |
| Angola | **1.64** | **1.66** | **1.66** | **1.63** | - | - | - | - | - | - | - | - | **1.65** | - | - |
| Ecudaor | **0.53** | **0.53** | **0.54** | **0.53** | - | - | - | - | - | - | - | - | **0.53** | - | - |
| Equatorial Guinea | **0.14** | **0.14** | **0.13** | **0.13** | - | - | - | - | - | - | - | - | **0.13** | - | - |
| Gabon | **0.19** | **0.20** | **0.20** | **0.20** | - | - | - | - | - | - | - | - | **0.20** | - | - |
| Iran | **3.80** | **3.81** | **3.83** | **3.84** | - | - | - | - | - | - | - | - | **3.82** | - | - |
| Iraq | **4.46** | **4.44** | **4.50** | **4.36** | - | - | - | - | - | - | - | - | **4.44** | - | - |
| Kuwait | **2.74** | **2.71** | **2.72** | **2.72** | - | - | - | - | - | - | - | - | **2.72** | - | - |
| Libya | **0.65** | **0.72** | **0.94** | **0.95** | - | - | - | - | - | - | - | - | **0.82** | - | - |
| Nigeria | **1.38** | **1.49** | **1.68** | **1.72** | - | - | - | - | - | - | - | - | **1.57** | - | - |
| Qatar | **0.62** | **0.61** | **0.61** | **0.60** | - | - | - | - | - | - | - | - | **0.61** | - | - |
| Saudi Arabia | **9.98** | **10.09** | **10.18** | **10.11** | - | - | - | - | - | - | - | - | **10.09** | - | - |
| United Arab Emirates | **2.92** | **2.90** | **2.92** | **2.90** | - | - | - | - | - | - | - | - | **2.91** | - | - |
| Venezuela | **1.99** | **1.97** | **1.95** | **1.78** | - | - | - | - | - | - | - | - | **1.92** | - | - |
| OPEC Total | **32.08** | **32.32** | **32.89** | **32.48** | *32.35* | *32.32* | *32.60* | *32.62* | *32.50* | *32.62* | *32.89* | *32.92* | **32.44** | *32.47* | *32.73* |
| **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** | **39.29** | *39.25* | *39.27* | *39.58* | *39.64* | *39.56* | *39.74* | *40.08* | *40.19* | **39.28** | *39.44* | *39.89* |
| **Crude Oil Production Capacity** | | | | | | | | | | | | | | | |
| Africa | **5.04** | **5.24** | **5.64** | **5.64** | *5.67* | *5.57* | *5.55* | *5.54* | *5.51* | *5.53* | *5.56* | *5.63* | **5.39** | *5.58* | *5.56* |
| Middle East | **26.70** | **26.69** | **26.71** | **26.64** | *26.59* | *26.69* | *26.69* | *26.68* | *26.45* | *26.54* | *26.67* | *26.71* | **26.69** | *26.67* | *26.59* |
| South America | **2.53** | **2.51** | **2.49** | **2.32** | *2.15* | *2.12* | *2.09* | *2.04* | *1.99* | *1.95* | *1.90* | *1.85* | **2.46** | *2.10* | *1.92* |
| OPEC Total | **34.27** | **34.44** | **34.84** | **34.60** | *34.41* | *34.38* | *34.33* | *34.26* | *33.95* | *34.02* | *34.13* | *34.19* | **34.54** | *34.34* | *34.07* |
| **Surplus Crude Oil Production Capacity** | | | | | | | | | | | | | | | |
| Africa | **0.00** | **0.00** | **0.00** | **0.00** | *0.00* | *0.00* | *0.00* | *0.00* | *0.02* | *0.02* | *0.00* | *0.00* | **0.00** | *0.00* | *0.01* |
| Middle East | **2.19** | **2.13** | **1.95** | **2.11** | *2.06* | *2.05* | *1.73* | *1.64* | *1.43* | *1.38* | *1.24* | *1.27* | **2.09** | *1.87* | *1.33* |
| South America | **0.00** | **0.00** | **0.00** | **0.01** | *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** | **2.12** | *2.06* | *2.05* | *1.73* | *1.64* | *1.45* | *1.40* | *1.24* | *1.27* | **2.10** | *1.87* | *1.34* |
| **Unplanned OPEC Production Outages** | **1.81** | **1.60** | **1.17** | **1.21** | *n/a* | *n/a* | *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 - March 2018

| | 2017 | | | | 2018 | | | | 2019 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2017 | 2018 | 2019 |
| **North America** | **23.81** | **24.36** | **24.33** | **24.50** | *24.34* | *24.50* | *25.07* | *24.81* | *24.67* | *24.92* | *25.38* | *25.11* | **24.25** | *24.68* | *25.02* |
| Canada | **2.35** | **2.34** | **2.50** | **2.50** | *2.37* | *2.31* | *2.42* | *2.41* | *2.37* | *2.31* | *2.42* | *2.41* | **2.42** | *2.38* | *2.38* |
| Mexico | **1.96** | **1.98** | **1.90** | **1.94** | *1.91* | *1.94* | *1.94* | *1.98* | *1.91* | *1.92* | *1.92* | *1.95* | **1.94** | *1.94* | *1.92* |
| United States | **19.49** | **20.03** | **19.92** | **20.05** | *20.04* | *20.24* | *20.69* | *20.41* | *20.37* | *20.67* | *21.03* | *20.74* | **19.88** | *20.35* | *20.71* |
| **Central and South America** | **6.98** | **7.04** | **7.12** | **7.07** | *6.86* | *7.03* | *7.15* | *7.17* | *7.02* | *7.20* | *7.33* | *7.34* | **7.05** | *7.05* | *7.22* |
| Brazil | **3.02** | **3.01** | **3.09** | **3.10** | *3.00* | *3.08* | *3.17* | *3.19* | *3.11* | *3.20* | *3.30* | *3.34* | **3.06** | *3.11* | *3.24* |
| **Europe** | **14.64** | **15.01** | **15.46** | **15.02** | *14.72* | *15.00* | *15.47* | *15.18* | *14.76* | *14.97* | *15.50* | *15.19* | **15.03** | *15.09* | *15.11* |
| **Eurasia** | **4.76** | **4.75** | **5.02** | **4.89** | *4.80* | *4.84* | *5.11* | *4.99* | *4.85* | *4.90* | *5.17* | *5.05* | **4.86** | *4.94* | *4.99* |
| 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** | **8.21** | **8.74** | **9.07** | **8.46** | *8.33* | *8.88* | *9.22* | *8.62* | *8.48* | *9.04* | *9.40* | *8.79* | **8.62** | *8.76* | *8.93* |
| **Asia and Oceania** | **34.83** | **34.17** | **33.73** | **34.85** | *36.01* | *34.96* | *34.43* | *35.52* | *36.85* | *35.80* | *35.24* | *36.35* | **34.39** | *35.23* | *36.06* |
| China | **13.48** | **13.29** | **13.01** | **13.27** | *13.98* | *13.74* | *13.40* | *13.64* | *14.42* | *14.15* | *13.80* | *14.04* | **13.26** | *13.69* | *14.10* |
| Japan | **4.33** | **3.64** | **3.69** | **4.10** | *4.29* | *3.46* | *3.57* | *3.93* | *4.21* | *3.41* | *3.54* | *3.90* | **3.94** | *3.81* | *3.76* |
| India | **4.40** | **4.64** | **4.42** | **4.75** | *4.83* | *4.93* | *4.63* | *4.92* | *5.12* | *5.20* | *4.87* | *5.18* | **4.55** | *4.83* | *5.09* |
| **Africa** | **4.34** | **4.30** | **4.19** | **4.31** | *4.45* | *4.43* | *4.34* | *4.51* | *4.56* | *4.57* | *4.50* | *4.68* | **4.28** | *4.43* | *4.58* |
| **Total OECD Liquid Fuels Consumption** | **46.79** | **46.90** | **47.44** | **47.66** | *47.38* | *46.85* | *48.08* | *48.05* | *47.78* | *47.29* | *48.46* | *48.39* | **47.20** | *47.59* | *47.99* |
| **Total non-OECD Liquid Fuels Consumption** | **50.79** | **51.46** | **51.47** | **51.46** | *52.12* | *52.80* | *52.74* | *52.75* | *53.42* | *54.13* | *54.08* | *54.13* | **51.30** | *52.61* | *53.94* |
| **Total World Liquid Fuels Consumption** | **97.58** | **98.37** | **98.92** | **99.12** | *99.50* | *99.65* | *100.82* | *100.80* | *101.20* | *101.42* | *102.54* | *102.52* | **98.50** | *100.20* | *101.92* |
| **Oil-weighted Real Gross Domestic Product (a)** | | | | | | | | | | | | | | | |
| World Index, 2015 Q1 = 100 | **105.6** | **106.5** | **107.3** | **108.2** | *109.3* | *110.1* | *110.9* | *111.9* | *112.9* | *113.7* | *114.5* | *115.4* | **106.9** | *110.5* | *114.2* |
| Percent change from prior year | **3.6** | **2.9** | **3.1** | **3.1** | *3.4* | *3.4* | *3.4* | *3.4* | *3.4* | *3.3* | *3.3* | *3.1* | **3.2** | *3.4* | *3.3* |
| OECD Index, 2015 Q1 = 100 | **103.8** | **104.5** | **105.1** | **105.7** | *106.6* | *107.1* | *107.7* | *108.4* | *109.1* | *109.5* | *110.0* | *110.4* | **104.8** | *107.4* | *109.8* |
| Percent change from prior year | **3.0** | **2.1** | **2.4** | **2.3** | *2.6* | *2.5* | *2.5* | *2.5* | *2.4* | *2.3* | *2.1* | *1.8* | **2.4** | *2.5* | *2.2* |
| Non-OECD Index, 2015 Q1 = 100 | **107.3** | **108.4** | **109.4** | **110.6** | *111.9* | *112.9* | *114.1* | *115.3* | *116.6* | *117.8* | *119.0* | *120.3* | **108.9** | *113.5* | *118.4* |
| Percent change from prior year | **4.2** | **3.6** | **3.8** | **3.8** | *4.2* | *4.2* | *4.2* | *4.3* | *4.3* | *4.3* | *4.4* | *4.3* | **3.8** | *4.2* | *4.3* |
| **Real U.S. Dollar Exchange Rate (a)** | | | | | | | | | | | | | | | |
| Index, 2015 Q1 = 100 | **104.91** | **103.23** | **101.36** | **101.70** | *99.66* | *98.80* | *98.36* | *98.00* | *97.86* | *97.86* | *97.85* | *97.74* | **102.80** | *98.71* | *97.83* |
| Percent change from prior year | **-0.7** | **0.2** | **-1.4** | **-3.0** | *-5.0* | *-4.3* | *-3.0* | *-3.6* | *-1.8* | *-1.0* | *-0.5* | *-0.3* | **-1.2** | *-4.0* | *-0.9* |

- = 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 - March 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) | **8.99** | **9.10** | **9.29** | **9.89** | *10.25* | *10.58* | *10.79* | *11.17* | *11.30* | *11.30* | *11.14* | *11.34* | **9.32** | *10.70* | *11.27* |
| Alaska | **0.52** | **0.50** | **0.45** | **0.51** | *0.51* | *0.48* | *0.43* | *0.49* | *0.51* | *0.49* | *0.44* | *0.50* | **0.49** | *0.48* | *0.48* |
| Federal Gulf of Mexico (b) | **1.73** | **1.62** | **1.68** | **1.56** | *1.72* | *1.75* | *1.66* | *1.76* | *1.84* | *1.85* | *1.73* | *1.84* | **1.65** | *1.72* | *1.81* |
| Lower 48 States (excl GOM) | **6.74** | **6.98** | **7.16** | **7.82** | *8.03* | *8.35* | *8.70* | *8.92* | *8.95* | *8.96* | *8.97* | *9.00* | **7.18** | *8.50* | *8.97* |
| Crude Oil Net Imports (c) | **7.24** | **7.24** | **6.63** | **6.08** | *6.34* | *6.41* | *5.99* | *5.10* | *5.26* | *5.82* | *5.63* | *5.09* | **6.79** | *5.96* | *5.45* |
| SPR Net Withdrawals | **0.04** | **0.14** | **0.06** | **0.12** | *-0.02* | *0.02* | *0.02* | *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** | *-0.25* | *0.05* | *0.15* | *-0.02* | *-0.50* | *-0.05* | *0.17* | *-0.02* | **0.17** | *-0.02* | *-0.10* |
| Crude Oil Adjustment (d) | **0.23** | **0.24** | **0.28** | **0.12** | *0.05* | *0.19* | *0.21* | *0.15* | *0.19* | *0.19* | *0.21* | *0.15* | **0.22** | *0.15* | *0.19* |
| Total Crude Oil Input to Refineries | **15.91** | **17.13** | **16.60** | **16.72** | *16.38* | *17.25* | *17.17* | *16.44* | *16.29* | *17.30* | *17.20* | *16.57* | **16.59** | *16.81* | *16.84* |
| Other Supply | | | | | | | | | | | | | | | |
| Refinery Processing Gain | **1.09** | **1.13** | **1.07** | **1.12** | *1.08* | *1.12* | *1.13* | *1.11* | *1.07* | *1.12* | *1.13* | *1.11* | **1.10** | *1.11* | *1.11* |
| Natural Gas Plant Liquids Production | **3.54** | **3.70** | **3.72** | **3.99** | *3.95* | *4.25* | *4.45* | *4.53* | *4.46* | *4.63* | *4.70* | *4.74* | **3.74** | *4.30* | *4.63* |
| Renewables and Oxygenate Production (e) | **1.17** | **1.16** | **1.19** | **1.23** | *1.17* | *1.21* | *1.22* | *1.23* | *1.19* | *1.23* | *1.25* | *1.25* | **1.19** | *1.21* | *1.23* |
| Fuel Ethanol Production | **1.04** | **1.01** | **1.02** | **1.06** | *1.03* | *1.04* | *1.05* | *1.04* | *1.04* | *1.05* | *1.06* | *1.05* | **1.03** | *1.04* | *1.05* |
| Petroleum Products Adjustment (f) | **0.21** | **0.22** | **0.21** | **0.22** | *0.23* | *0.25* | *0.25* | *0.24* | *0.24* | *0.26* | *0.26* | *0.25* | **0.22** | *0.24* | *0.25* |
| Product Net Imports (c) | **-2.96** | **-2.99** | **-2.80** | **-3.49** | *-3.18* | *-3.27* | *-3.19* | *-3.52* | *-3.08* | *-3.38* | *-3.19* | *-3.54* | **-3.06** | *-3.29* | *-3.30* |
| Hydrocarbon Gas Liquids | **-1.20** | **-1.18** | **-1.16** | **-1.29** | *-1.27* | *-1.34* | *-1.39* | *-1.62* | *-1.34* | *-1.46* | *-1.46* | *-1.63* | **-1.21** | *-1.41* | *-1.48* |
| Unfinished Oils | **0.37** | **0.34** | **0.38** | **0.38** | *0.31* | *0.37* | *0.40* | *0.32* | *0.37* | *0.38* | *0.41* | *0.32* | **0.37** | *0.35* | *0.37* |
| Other HC/Oxygenates | **-0.13** | **-0.09** | **-0.09** | **-0.13** | *-0.11* | *-0.10* | *-0.08* | *-0.09* | *-0.12* | *-0.09* | *-0.08* | *-0.08* | **-0.11** | *-0.09* | *-0.09* |
| Motor Gasoline Blend Comp. | **0.43** | **0.68** | **0.64** | **0.36** | *0.24* | *0.63* | *0.49* | *0.43* | *0.48* | *0.66* | *0.49* | *0.45* | **0.53** | *0.45* | *0.52* |
| Finished Motor Gasoline | **-0.66** | **-0.62** | **-0.63** | **-0.94** | *-0.71* | *-0.73* | *-0.56* | *-0.77* | *-0.85* | *-0.73* | *-0.53* | *-0.78* | **-0.71** | *-0.69* | *-0.72* |
| Jet Fuel | **-0.04** | **-0.07** | **-0.01** | **0.02** | *0.00* | *0.01* | *0.02* | *-0.01* | *-0.02* | *0.00* | *0.02* | *-0.02* | **-0.02** | *0.00* | *-0.01* |
| Distillate Fuel Oil | **-1.01** | **-1.36** | **-1.32** | **-1.22** | *-0.93* | *-1.34* | *-1.37* | *-1.09* | *-0.99* | *-1.34* | *-1.33* | *-1.07* | **-1.23** | *-1.18* | *-1.18* |
| Residual Fuel Oil | **-0.10** | **-0.11** | **-0.12** | **-0.09** | *-0.05* | *-0.13* | *-0.10* | *-0.11* | *-0.07* | *-0.14* | *-0.10* | *-0.12* | **-0.10** | *-0.10* | *-0.11* |
| Other Oils (g) | **-0.61** | **-0.60** | **-0.50** | **-0.59** | *-0.65* | *-0.65* | *-0.60* | *-0.57* | *-0.56* | *-0.66* | *-0.60* | *-0.60* | **-0.57** | *-0.62* | *-0.60* |
| Product Inventory Net Withdrawals | **0.56** | **-0.33** | **-0.07** | **0.27** | *0.41* | *-0.57* | *-0.34* | *0.38* | *0.20* | *-0.49* | *-0.31* | *0.36* | **0.11** | *-0.03* | *-0.06* |
| Total Supply | **19.52** | **20.03** | **19.92** | **20.05** | *20.04* | *20.24* | *20.69* | *20.41* | *20.37* | *20.67* | *21.03* | *20.74* | **19.88** | *20.35* | *20.71* |
| **Consumption (million barrels per day)** | | | | | | | | | | | | | | | |
| Hydrocarbon Gas Liquids | **2.79** | **2.45** | **2.33** | **2.81** | *3.07* | *2.67* | *2.88* | *3.14* | *3.36* | *3.01* | *3.09* | *3.30* | **2.60** | *2.94* | *3.19* |
| Unfinished Oils | **0.02** | **0.02** | **-0.01** | **-0.04** | *0.00* | *-0.03* | *-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** | *8.98* | *9.53* | *9.61* | *9.26* | *9.00* | *9.57* | *9.66* | *9.34* | **9.32** | *9.35* | *9.39* |
| Fuel Ethanol blended into Motor Gasoline | **0.90** | **0.96** | **0.96** | **0.95** | *0.94* | *0.98* | *0.98* | *0.96* | *0.93* | *0.99* | *0.99* | *0.96* | **0.94** | *0.96* | *0.97* |
| Jet Fuel | **1.60** | **1.68** | **1.71** | **1.73** | *1.66* | *1.72* | *1.78* | *1.67* | *1.60* | *1.74* | *1.80* | *1.69* | **1.68** | *1.71* | *1.71* |
| Distillate Fuel Oil | **3.95** | **3.91** | **3.87** | **4.02** | *4.09* | *4.00* | *3.95* | *4.07* | *4.16* | *4.05* | *4.02* | *4.14* | **3.94** | *4.03* | *4.09* |
| Residual Fuel Oil | **0.37** | **0.37** | **0.30** | **0.39** | *0.33* | *0.31* | *0.32* | *0.30* | *0.36* | *0.31* | *0.32* | *0.30* | **0.36** | *0.32* | *0.32* |
| Other Oils (g) | **1.83** | **2.06** | **2.15** | **1.91** | *1.90* | *2.03* | *2.18* | *1.98* | *1.90* | *2.03* | *2.17* | *1.98* | **1.99** | *2.02* | *2.02* |
| Total Consumption | **19.49** | **20.03** | **19.92** | **20.05** | *20.04* | *20.24* | *20.69* | *20.41* | *20.37* | *20.67* | *21.03* | *20.74* | **19.88** | *20.35* | *20.71* |
| **Total Petroleum and Other Liquids Net Imports** | **4.28** | **4.25** | **3.83** | **2.59** | *3.16* | *3.14* | *2.81* | *1.58* | *2.17* | *2.44* | *2.44* | *1.54* | **3.73** | *2.67* | *2.15* |
| **End-of-period Inventories (million barrels)** | | | | | | | | | | | | | | | |
| Commercial Inventory | | | | | | | | | | | | | | | |
| Crude Oil (excluding SPR) | **537.9** | **500.4** | **469.1** | **421.1** | *443.5* | *439.0* | *425.3* | *427.5* | *473.0* | *477.1* | *461.7* | *463.5* | **421.1** | *427.5* | *463.5* |
| Hydrocarbon Gas Liquids | **148.1** | **190.6** | **229.7** | **190.9** | *145.9* | *200.7* | *240.6* | *192.7* | *162.9* | *211.3* | *247.9* | *203.2* | **190.9** | *192.7* | *203.2* |
| Unfinished Oils | **89.3** | **88.7** | **89.2** | **86.3** | *90.9* | *89.0* | *86.4* | *79.9* | *90.3* | *88.3* | *86.7* | *80.0* | **86.3** | *79.9* | *80.0* |
| Other HC/Oxygenates | **32.6** | **29.3** | **28.3** | **30.1** | *30.2* | *29.2* | *28.5* | *29.2* | *30.9* | *29.9* | *29.2* | *29.8* | **30.1** | *29.2* | *29.8* |
| Total Motor Gasoline | **239.0** | **237.9** | **223.8** | **236.7** | *241.4* | *234.0* | *228.1* | *241.9* | *243.4* | *239.2* | *233.7* | *246.9* | **236.7** | *241.9* | *246.9* |
| Finished Motor Gasoline | **21.7** | **22.5** | **21.8** | **24.6** | *25.3* | *23.5* | *24.0* | *27.3* | *25.0* | *23.9* | *24.6* | *25.4* | **24.6** | *27.3* | *25.4* |
| Motor Gasoline Blend Comp. | **217.2** | **215.5** | **202.0** | **212.1** | *216.1* | *210.5* | *204.1* | *214.6* | *218.4* | *215.3* | *209.1* | *221.5* | **212.1** | *214.6* | *221.5* |
| Jet Fuel | **42.3** | **41.0** | **43.3** | **41.2** | *42.2* | *43.1* | *44.1* | *41.6* | *41.5* | *43.0* | *44.6* | *42.5* | **41.2** | *41.6* | *42.5* |
| Distillate Fuel Oil | **151.1** | **151.6** | **137.5** | **145.6** | *133.4* | *138.5* | *144.4* | *148.7* | *139.0* | *141.9* | *146.7* | *151.4* | **145.6** | *148.7* | *151.4* |
| Residual Fuel Oil | **40.8** | **35.2** | **35.9** | **29.4** | *34.0* | *36.8* | *36.8* | *37.6* | *39.7* | *40.3* | *39.1* | *39.3* | **29.4** | *37.6* | *39.3* |
| Other Oils (g) | **56.6** | **55.2** | **47.9** | **50.9** | *56.6* | *55.2* | *49.3* | *51.5* | *57.1* | *55.7* | *49.9* | *52.1* | **50.9** | *51.5* | *52.1* |
| Total Commercial Inventory | **1,338** | **1,330** | **1,305** | **1,232** | *1,218* | *1,266* | *1,284* | *1,251* | *1,278* | *1,327* | *1,340* | *1,309* | **1,232** | *1,251* | *1,309* |
| Crude Oil in SPR | **692** | **679** | **674** | **663** | *664* | *662* | *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 - March 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** | *1.56* | *1.66* | *1.77* | *1.86* | *1.87* | *1.94* | *1.96* | *2.00* | **1.41** | *1.71* | *1.94* |
| Propane | **1.16** | **1.21** | **1.23** | **1.28** | *1.27* | *1.35* | *1.40* | *1.41* | *1.38* | *1.41* | *1.43* | *1.44* | **1.22** | *1.36* | *1.41* |
| Butanes | **0.63** | **0.65** | **0.67** | **0.69** | *0.68* | *0.74* | *0.76* | *0.75* | *0.74* | *0.76* | *0.77* | *0.77* | **0.66** | *0.73* | *0.76* |
| Natural Gasoline (Pentanes Plus) | **0.41** | **0.45** | **0.48** | **0.46** | *0.44* | *0.50* | *0.53* | *0.51* | *0.48* | *0.52* | *0.54* | *0.52* | **0.45** | *0.49* | *0.51* |
| **Refinery and Blender Net Production** | | | | | | | | | | | | | | | |
| Ethane/Ethylene | **0.00** | **0.01** | **0.01** | **0.01** | *0.00* | *0.01* | *0.00* | *0.00* | *0.00* | *0.00* | *0.00* | *0.00* | **0.01** | *0.00* | *0.00* |
| Propane | **0.29** | **0.32** | **0.30** | **0.32** | *0.31* | *0.33* | *0.33* | *0.31* | *0.31* | *0.33* | *0.33* | *0.32* | **0.31** | *0.32* | *0.32* |
| Propylene (refinery-grade) | **0.27** | **0.29** | **0.27** | **0.30** | *0.28* | *0.29* | *0.28* | *0.28* | *0.28* | *0.29* | *0.28* | *0.28* | **0.29** | *0.28* | *0.28* |
| Butanes/Butylenes | **-0.09** | **0.27** | **0.16** | **-0.22** | *-0.09* | *0.26* | *0.18* | *-0.19* | *-0.07* | *0.26* | *0.18* | *-0.18* | **0.03** | *0.04* | *0.05* |
| **Renewable Fuels and Oxygenate Plant Net Production** | | | | | | | | | | | | | | | |
| Natural Gasoline (Pentanes Plus) | **-0.02** | **-0.02** | **-0.02** | **-0.02** | *-0.02* | *-0.02* | *-0.02* | *-0.02* | *-0.02* | *-0.02* | *-0.02* | *-0.02* | **-0.02** | *-0.02* | *-0.02* |
| **HGL Net Imports** | | | | | | | | | | | | | | | |
| Ethane | **-0.15** | **-0.16** | **-0.20** | **-0.21** | *-0.28* | *-0.28* | *-0.29* | *-0.30* | *-0.31* | *-0.30* | *-0.31* | *-0.32* | **-0.18** | *-0.29* | *-0.31* |
| Propane/Propylene | **-0.79** | **-0.71** | **-0.68** | **-0.83** | *-0.66* | *-0.71* | *-0.73* | *-0.96* | *-0.68* | *-0.81* | *-0.79* | *-0.94* | **-0.75** | *-0.77* | *-0.81* |
| Butanes/Butylenes | **-0.09** | **-0.12** | **-0.11** | **-0.11** | *-0.14* | *-0.14* | *-0.15* | *-0.15* | *-0.12* | *-0.12* | *-0.12* | *-0.13* | **-0.11** | *-0.15* | *-0.12* |
| Natural Gasoline (Pentanes Plus) | **-0.18** | **-0.18** | **-0.16** | **-0.14** | *-0.20* | *-0.21* | *-0.22* | *-0.21* | *-0.23* | *-0.23* | *-0.24* | *-0.24* | **-0.16** | *-0.21* | *-0.23* |
| **HGL Refinery and Blender Net Inputs** | | | | | | | | | | | | | | | |
| Butanes/Butylenes | **0.43** | **0.30** | **0.33** | **0.50** | *0.42* | *0.32* | *0.34* | *0.50* | *0.42* | *0.32* | *0.35* | *0.50* | **0.39** | *0.39* | *0.40* |
| Natural Gasoline (Pentanes Plus) | **0.16** | **0.18** | **0.18** | **0.19** | *0.17* | *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** | *1.32* | *1.36* | *1.50* | *1.58* | *1.59* | *1.63* | *1.66* | *1.70* | **1.22** | *1.44* | *1.65* |
| Propane | **1.05** | **0.60** | **0.67** | **0.85** | *1.17* | *0.67* | *0.73* | *0.93* | *1.14* | *0.68* | *0.74* | *0.94* | **0.79** | *0.87* | *0.88* |
| Propylene (refinery-grade) | **0.34** | **0.31** | **0.28** | **0.32** | *0.31* | *0.31* | *0.30* | *0.29* | *0.31* | *0.31* | *0.30* | *0.29* | **0.31** | *0.30* | *0.30* |
| Butanes/Butylenes | **0.12** | **0.23** | **0.18** | **0.16** | *0.21* | *0.28* | *0.27* | *0.25* | *0.25* | *0.32* | *0.31* | *0.29* | **0.17** | *0.25* | *0.29* |
| Natural Gasoline (Pentanes Plus) | **0.10** | **0.08** | **0.08** | **0.15** | *0.06* | *0.07* | *0.08* | *0.09* | *0.07* | *0.07* | *0.08* | *0.08* | **0.10** | *0.07* | *0.07* |
| **HGL Inventories (million barrels)** | | | | | | | | | | | | | | | |
| Ethane | **49.65** | **51.89** | **51.77** | **57.73** | *52.64* | *54.97* | *53.89* | *53.56* | *49.50* | *50.95* | *50.33* | *50.02* | **52.78** | *53.77* | *50.20* |
| Propane | **40.23** | **57.06** | **71.59** | **62.37** | *37.48* | *62.93* | *85.48* | *68.71* | *53.85* | *75.12* | *94.16* | *81.05* | **62.37** | *68.71* | *81.05* |
| Propylene (refinery-grade) | **3.75** | **4.01** | **5.21** | **4.82** | *3.96* | *4.56* | *4.57* | *4.81* | *3.55* | *3.85* | *3.95* | *4.61* | **4.82** | *4.81* | *4.61* |
| Butanes/Butylenes | **31.68** | **57.24** | **76.10** | **47.95** | *31.68* | *55.77* | *72.10* | *41.61* | *31.54* | *55.63* | *71.96* | *41.47* | **47.95** | *41.61* | *41.47* |
| Natural Gasoline (Pentanes Plus) | **21.49** | **20.55** | **23.40** | **20.14** | *19.79* | *22.34* | *24.84* | *25.43* | *24.49* | *25.79* | *27.59* | *27.57* | **20.14** | *25.43* | *27.57* |
| **Refinery and Blender Net Inputs** | | | | | | | | | | | | | | | |
| Crude Oil | **15.91** | **17.13** | **16.60** | **16.72** | *16.38* | *17.25* | *17.17* | *16.44* | *16.29* | *17.30* | *17.20* | *16.57* | **16.59** | *16.81* | *16.84* |
| Hydrocarbon Gas Liquids | **0.58** | **0.48** | **0.51** | **0.69** | *0.59* | *0.49* | *0.52* | *0.68* | *0.59* | *0.50* | *0.52* | *0.68* | **0.57** | *0.57* | *0.57* |
| Other Hydrocarbons/Oxygenates | **1.16** | **1.24** | **1.22** | **1.21** | *1.20* | *1.29* | *1.32* | *1.30* | *1.21* | *1.32* | *1.35* | *1.32* | **1.21** | *1.27* | *1.30* |
| Unfinished Oils | **0.25** | **0.33** | **0.38** | **0.45** | *0.25* | *0.43* | *0.45* | *0.38* | *0.25* | *0.43* | *0.45* | *0.38* | **0.36** | *0.38* | *0.38* |
| Motor Gasoline Blend Components | **0.39** | **0.65** | **0.67** | **0.22** | *0.28* | *0.81* | *0.65* | *0.47* | *0.57* | *0.84* | *0.66* | *0.49* | **0.49** | *0.55* | *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** | *18.69* | *20.27* | *20.11* | *19.27* | *18.91* | *20.38* | *20.18* | *19.45* | **19.21** | *19.59* | *19.73* |
| **Refinery Processing Gain** | **1.09** | **1.13** | **1.07** | **1.12** | *1.08* | *1.12* | *1.13* | *1.11* | *1.07* | *1.12* | *1.13* | *1.11* | **1.10** | *1.11* | *1.11* |
| **Refinery and Blender Net Production** | | | | | | | | | | | | | | | |
| Hydrocarbon Gas Liquids | **0.48** | **0.89** | **0.73** | **0.40** | *0.50* | *0.89* | *0.79* | *0.41* | *0.51* | *0.89* | *0.79* | *0.42* | **0.63** | *0.65* | *0.65* |
| Finished Motor Gasoline | **9.57** | **10.10** | **10.04** | **10.13** | *9.74* | *10.34* | *10.24* | *10.19* | *9.92* | *10.41* | *10.27* | *10.27* | **9.96** | *10.13* | *10.22* |
| Jet Fuel | **1.63** | **1.74** | **1.75** | **1.69** | *1.67* | *1.72* | *1.77* | *1.65* | *1.62* | *1.75* | *1.80* | *1.69* | **1.70** | *1.70* | *1.71* |
| Distillate Fuel | **4.75** | **5.18** | **4.94** | **5.25** | *4.80* | *5.30* | *5.30* | *5.13* | *4.95* | *5.33* | *5.32* | *5.17* | **5.03** | *5.14* | *5.20* |
| Residual Fuel | **0.46** | **0.41** | **0.43** | **0.41** | *0.44* | *0.47* | *0.43* | *0.41* | *0.45* | *0.46* | *0.41* | *0.41* | **0.43** | *0.44* | *0.43* |
| Other Oils (a) | **2.50** | **2.64** | **2.56** | **2.53** | *2.61* | *2.67* | *2.71* | *2.58* | *2.53* | *2.67* | *2.71* | *2.60* | **2.56** | *2.64* | *2.63* |
| Total Refinery and Blender Net Production | **19.40** | **20.97** | **20.46** | **20.41** | *19.77* | *21.39* | *21.24* | *20.38* | *19.98* | *21.50* | *21.31* | *20.56* | **20.31** | *20.70* | *20.84* |
| **Refinery Distillation Inputs** | **16.23** | **17.42** | **16.90** | **17.00** | *16.68* | *17.37* | *17.39* | *16.69* | *16.52* | *17.42* | *17.41* | *16.81* | **16.89** | *17.03* | *17.04* |
| **Refinery Operable Distillation Capacity** | **18.62** | **18.58** | **18.55** | **18.52** | *18.55* | *18.59* | *18.59* | *18.59* | *18.60* | *18.60* | *18.63* | *18.64* | **18.57** | *18.58* | *18.61* |
| **Refinery Distillation Utilization Factor** | **0.87** | **0.94** | **0.91** | **0.92** | *0.90* | *0.93* | *0.94* | *0.90* | *0.89* | *0.94* | *0.93* | *0.90* | **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 - March 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** | *187* | *192* | *184* | *171* | *170* | *188* | *187* | *176* | **169** | *184* | *181* |
| **Gasoline Regular Grade Retail Prices Including Taxes** | | | | | | | | | | | | | | | |
| PADD 1 | **231** | **233** | **241** | **249** | *259* | *267* | *259* | *250* | *247* | *263* | *263* | *256* | **239** | *259* | *257* |
| PADD 2 | **223** | **228** | **232** | **242** | *247* | *260* | *255* | *240* | *235* | *259* | *259* | *246* | **231** | *250* | *250* |
| PADD 3 | **210** | **216** | **222** | **225** | *232* | *242* | *233* | *221* | *219* | *238* | *236* | *226* | **218** | *232* | *230* |
| PADD 4 | **227** | **239** | **245** | **252** | *248* | *259* | *261* | *246* | *228* | *254* | *264* | *250* | **241** | *254* | *249* |
| PADD 5 | **276** | **289** | **290** | **299** | *309* | *320* | *312* | *292* | *283* | *313* | *312* | *293* | **288** | *308* | *301* |
| U.S. Average | **233** | **238** | **244** | **251** | *259* | *270* | *263* | *249* | *245* | *266* | *266* | *254* | **242** | *260* | *258* |
| **Gasoline All Grades Including Taxes** | **244** | **250** | **255** | **263** | *271* | *281* | *274* | *261* | *256* | *277* | *278* | *267* | **253** | *272* | *270* |
| | | | | | | | | | | | | | | | |
| **End-of-period Inventories (million barrels)** | | | | | | | | | | | | | | | |
| **Total Gasoline Inventories** | | | | | | | | | | | | | | | |
| PADD 1 | **65.3** | **67.2** | **58.8** | **60.6** | *63.8* | *65.7* | *62.4* | *65.4* | *67.0* | *67.4* | *63.8* | *67.2* | **60.6** | *65.4* | *67.2* |
| PADD 2 | **57.0** | **53.6** | **50.4** | **52.2** | *55.8* | *51.4* | *49.7* | *52.1* | *54.9* | *52.4* | *51.0* | *53.4* | **52.2** | *52.1* | *53.4* |
| PADD 3 | **79.1** | **82.4** | **78.5** | **83.2** | *83.2* | *81.0* | *80.6* | *84.9* | *83.6* | *83.3* | *83.2* | *86.7* | **83.2** | *84.9* | *86.7* |
| PADD 4 | **7.9** | **7.0** | **6.9** | **7.6** | *7.7* | *7.5* | *7.3* | *7.9* | *7.7* | *7.7* | *7.5* | *8.0* | **7.6** | *7.9* | *8.0* |
| PADD 5 | **29.7** | **27.7** | **29.2** | **33.1** | *30.9* | *28.5* | *28.0* | *31.5* | *30.3* | *28.4* | *28.2* | *31.7* | **33.1** | *31.5* | *31.7* |
| U.S. Total | **239.0** | **237.9** | **223.8** | **236.7** | *241.4* | *234.0* | *228.1* | *241.9* | *243.4* | *239.2* | *233.7* | *246.9* | **236.7** | *241.9* | *246.9* |
| **Finished Gasoline Inventories** | | | | | | | | | | | | | | | |
| U.S. Total | **21.7** | **22.5** | **21.8** | **24.6** | *25.3* | *23.5* | *24.0* | *27.3* | *25.0* | *23.9* | *24.6* | *25.4* | **24.6** | *27.3* | *25.4* |
| **Gasoline Blending Components Inventories** | | | | | | | | | | | | | | | |
| U.S. Total | **217.2** | **215.5** | **202.0** | **212.1** | *216.1* | *210.5* | *204.1* | *214.6* | *218.4* | *215.3* | *209.1* | *221.5* | **212.1** | *214.6* | *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 - March 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** | **82.64** | *86.28* | *87.66* | *88.55* | *88.78* | *88.91* | *88.84* | *89.01* | *89.51* | **78.92** | *87.83* | *89.07* |
| Alaska | **1.01** | **0.97** | **0.82** | **0.98** | *1.00* | *0.85* | *0.77* | *0.93* | *1.01* | *0.86* | *0.78* | *0.94* | **0.94** | *0.89* | *0.90* |
| Federal GOM (a) | **3.26** | **2.99** | **2.91** | **2.50** | *3.45* | *3.33* | *3.21* | *3.22* | *3.45* | *3.28* | *3.16* | *3.17* | **2.91** | *3.30* | *3.27* |
| Lower 48 States (excl GOM) | **72.05** | **73.40** | **75.56** | **79.17** | *81.82* | *83.48* | *84.57* | *84.63* | *84.45* | *84.70* | *85.07* | *85.40* | **75.06** | *83.63* | *84.91* |
| Total Dry Gas Production | **71.28** | **72.09** | **74.01** | **76.95** | *80.33* | *81.57* | *82.36* | *82.52* | *82.59* | *82.48* | *82.59* | *83.00* | **73.60** | *81.70* | *82.67* |
| LNG Gross Imports | **0.29** | **0.18** | **0.17** | **0.21** | *0.29* | *0.17* | *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** | *2.57* | *2.78* | *3.00* | *3.44* | *4.00* | *4.22* | *5.14* | *5.94* | **1.94** | *2.95* | *4.83* |
| Pipeline Gross Imports | **8.89** | **7.76** | **7.74** | **8.07** | *8.49* | *7.60* | *7.57* | *7.64* | *8.71* | *8.08* | *7.97* | *8.27* | **8.11** | *7.82* | *8.26* |
| Pipeline Gross Exports | **7.24** | **6.49** | **6.43** | **6.81** | *8.24* | *7.25* | *7.16* | *7.51* | *9.00* | *7.86* | *7.65* | *7.69* | **6.74** | *7.54* | *8.05* |
| Supplemental Gaseous Fuels | **0.16** | **0.13** | **0.16** | **0.16** | *0.17* | *0.17* | *0.17* | *0.17* | *0.17* | *0.17* | *0.17* | *0.17* | **0.15** | *0.17* | *0.17* |
| Net Inventory Withdrawals | **13.72** | **-9.02** | **-7.19** | **5.72** | *17.31* | *-11.48* | *-10.45* | *2.49* | *16.93* | *-9.64* | *-7.98* | *4.08* | **0.76** | *-0.60* | *0.79* |
| Total Supply | **85.47** | **62.84** | **66.79** | **81.68** | *95.77* | *67.99* | *69.67* | *82.13* | *95.72* | *69.18* | *70.13* | *82.11* | **74.16** | *78.83* | *79.22* |
| Balancing Item (b) | **0.68** | **0.12** | **0.18** | **-0.75** | *-1.39* | *-0.35* | *0.20* | *-1.02* | *0.17* | *-0.18* | *0.40* | *0.13* | **0.05** | *-0.64* | *0.14* |
| Total Primary Supply | **86.15** | **62.96** | **66.97** | **80.93** | *94.38* | *67.64* | *69.87* | *81.12* | *95.90* | *69.01* | *70.53* | *82.25* | **74.22** | *78.19* | *79.36* |
| **Consumption (billion cubic feet per day)** | | | | | | | | | | | | | | | |
| Residential | **22.17** | **6.65** | **3.55** | **16.25** | *24.91* | *7.26* | *3.56* | *15.65* | *25.37* | *7.39* | *3.57* | *15.44* | **12.12** | *12.79* | *12.89* |
| Commercial | **13.50** | **5.83** | **4.55** | **11.01** | *14.57* | *6.07* | *4.58* | *10.87* | *14.69* | *6.11* | *4.55* | *10.80* | **8.70** | *9.00* | *9.02* |
| Industrial | **22.96** | **20.45** | **20.34** | **22.85** | *23.51* | *20.83* | *20.61* | *22.59* | *23.68* | *21.27* | *21.04* | *22.79* | **21.65** | *21.88* | *22.19* |
| Electric Power (c) | **20.95** | **24.00** | **32.28** | **24.03** | *24.07* | *26.70* | *34.22* | *24.78* | *24.50* | *27.22* | *34.21* | *25.66* | **25.34** | *27.46* | *27.92* |
| Lease and Plant Fuel | **4.26** | **4.32** | **4.43** | **4.61** | *4.82* | *4.89* | *4.94* | *4.96* | *4.96* | *4.96* | *4.97* | *5.00* | **4.41** | *4.90* | *4.97* |
| Pipeline and Distribution Use | **2.19** | **1.60** | **1.70** | **2.05** | *2.39* | *1.77* | *1.84* | *2.15* | *2.56* | *1.94* | *2.07* | *2.42* | **1.88** | *2.04* | *2.25* |
| Vehicle Use | **0.12** | **0.12** | **0.12** | **0.12** | *0.12* | *0.12* | *0.12* | *0.12* | *0.13* | *0.13* | *0.13* | *0.13* | **0.12** | *0.12* | *0.13* |
| Total Consumption | **86.15** | **62.96** | **66.97** | **80.93** | *94.38* | *67.64* | *69.87* | *81.12* | *95.90* | *69.01* | *70.53* | *82.25* | **74.22** | *78.19* | *79.36* |
| **End-of-period Inventories (billion cubic feet)** | | | | | | | | | | | | | | | |
| Working Gas Inventory | **2,063** | **2,908** | **3,568** | **3,039** | *1,481* | *2,526* | *3,487* | *3,258* | *1,735* | *2,612* | *3,346* | *2,971* | **3,039** | *3,258* | *2,971* |
| East Region (d) | **260** | **563** | **866** | **710** | *258* | *562* | *874* | *765* | *263* | *540* | *795* | *659* | **710** | *765* | *659* |
| Midwest Region (d) | **478** | **702** | **994** | **834** | *301* | *584* | *981* | *874* | *340* | *585* | *927* | *804* | **834** | *874* | *804* |
| South Central Region (d) | **938** | **1,139** | **1,137** | **1,017** | *624* | *932* | *1,089* | *1,125* | *774* | *985* | *1,051* | *1,011* | **1,017** | *1,125* | *1,011* |
| Mountain Region (d) | **142** | **184** | **218** | **178** | *79* | *125* | *187* | *178* | *123* | *163* | *202* | *167* | **178** | *178* | *167* |
| Pacific Region (d) | **219** | **288** | **314** | **264** | *187* | *291* | *323* | *284* | *202* | *306* | *338* | *297* | **264** | *284* | *297* |
| Alaska | **27** | **32** | **39** | **36** | *33* | *33* | *33* | *33* | *33* | *33* | *33* | *33* | **36** | *33* | *33* |

- = 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 - March 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* | *2.92* | *3.12* | *3.22* | *3.33* | *3.08* | *3.14* | *3.19* | **3.10** | *3.10* | *3.19* |
| **Residential Retail** | | | | | | | | | | | | | | | |
| New England | **12.85** | **14.08** | **18.12** | **13.57** | *13.03* | *13.79* | *17.13* | *13.66* | *13.15* | *14.02* | *17.19* | *13.56* | **13.60** | *13.59* | *13.67* |
| Middle Atlantic | **9.92** | **12.18** | **17.11** | **11.33** | *10.09* | *11.83* | *16.59* | *11.23* | *10.28* | *12.04* | *16.53* | *10.84* | **11.17** | *11.12* | *11.14* |
| E. N. Central | **7.77** | **11.52** | **17.80** | **7.81** | *7.43* | *10.52* | *16.47* | *8.96* | *8.09* | *10.98* | *16.65* | *8.95* | **8.86** | *8.80* | *9.27* |
| W. N. Central | **8.32** | **11.85** | **18.79** | **9.56** | *8.79* | *11.58* | *17.56* | *9.65* | *8.78* | *11.70* | *17.67* | *9.90* | **9.80** | *9.94* | *10.07* |
| S. Atlantic | **12.28** | **20.04** | **26.87** | **13.20** | *11.28* | *16.19* | *22.50* | *13.17* | *11.55* | *16.27* | *22.48* | *12.88* | **14.63** | *13.29* | *13.30* |
| E. S. Central | **10.53** | **15.83** | **20.82** | **11.32** | *9.47* | *13.92* | *19.89* | *12.66* | *10.37* | *14.74* | *20.72* | *13.05* | **12.05** | *11.44* | *12.30* |
| W. S. Central | **10.33** | **16.49** | **22.10** | **13.09** | *8.29* | *13.53* | *20.06* | *12.07* | *8.98* | *14.27* | *20.38* | *11.93* | **13.18** | *10.99* | *11.53* |
| Mountain | **8.21** | **10.17** | **13.91** | **8.76** | *8.79* | *9.92* | *13.60* | *9.09* | *8.94* | *10.27* | *13.94* | *9.29* | **9.14** | *9.47* | *9.67* |
| Pacific | **12.02** | **12.64** | **12.90** | **11.30** | *12.02* | *12.01* | *12.94* | *11.72* | *12.54* | *12.63* | *12.93* | *11.77* | **12.01** | *12.03* | *12.36* |
| U.S. Average | **9.73** | **13.00** | **17.74** | **10.19** | *9.34* | *11.97* | *16.68* | *10.74* | *9.83* | *12.35* | *16.79* | *10.70* | **10.92** | *10.66* | *10.94* |
| **Commercial Retail** | | | | | | | | | | | | | | | |
| New England | **9.55** | **9.97** | **10.61** | **9.53** | *10.13* | *10.26* | *10.22* | *9.87* | *10.04* | *10.22* | *10.27* | *10.22* | **9.71** | *10.09* | *10.14* |
| Middle Atlantic | **7.66** | **7.42** | **6.82** | **7.37** | *7.64* | *7.42* | *6.95* | *7.60* | *7.79* | *7.63* | *7.06* | *7.57* | **7.43** | *7.50* | *7.61* |
| E. N. Central | **6.63** | **7.90** | **8.98** | **6.21** | *6.23* | *7.33* | *8.88* | *7.04* | *6.79* | *7.79* | *9.10* | *7.09* | **6.84** | *6.82* | *7.20* |
| W. N. Central | **6.96** | **7.80** | **9.11** | **7.04** | *7.42* | *7.74* | *8.92* | *7.37* | *7.57* | *7.95* | *9.03* | *7.43* | **7.28** | *7.58* | *7.70* |
| S. Atlantic | **8.88** | **9.97** | **9.54** | **8.91** | *8.65* | *9.22* | *9.91* | *9.12* | *8.91* | *9.62* | *9.91* | *8.86* | **9.15** | *9.05* | *9.14* |
| E. S. Central | **9.05** | **10.28** | **10.76** | **9.30** | *8.62* | *9.56* | *10.09* | *9.08* | *8.64* | *9.59* | *10.12* | *9.09* | **9.53** | *9.07* | *9.09* |
| W. S. Central | **7.63** | **8.20** | **8.86** | **8.18** | *7.37* | *7.42* | *8.35* | *7.82* | *7.38* | *7.78* | *8.35* | *7.76* | **8.09** | *7.64* | *7.71* |
| Mountain | **6.88** | **7.37** | **8.27** | **7.21** | *7.70* | *7.82* | *8.52* | *7.43* | *7.60* | *7.83* | *8.54* | *7.45* | **7.22** | *7.73* | *7.70* |
| Pacific | **9.09** | **9.06** | **9.08** | **8.54** | *8.67* | *8.24* | *8.77* | *8.55* | *8.77* | *8.83* | *9.13* | *8.77* | **8.92** | *8.56* | *8.84* |
| U.S. Average | **7.71** | **8.33** | **8.68** | **7.56** | *7.62* | *8.01* | *8.58* | *7.93* | *7.85* | *8.31* | *8.70* | *7.96* | **7.87** | *7.88* | *8.05* |
| **Industrial Retail** | | | | | | | | | | | | | | | |
| New England | **7.81** | **7.04** | **6.39** | **7.05** | *7.85* | *7.33* | *6.99* | *8.17* | *8.57* | *7.74* | *7.05* | *7.96* | **7.19** | *7.67* | *7.96* |
| Middle Atlantic | **7.69** | **7.59** | **7.62** | **7.18** | *8.03* | *7.28* | *7.33* | *7.63* | *8.04* | *7.41* | *7.42* | *7.64* | **7.53** | *7.72* | *7.75* |
| E. N. Central | **5.86** | **5.96** | **5.59** | **5.30** | *6.20* | *5.87* | *5.96* | *5.92* | *6.50* | *6.16* | *6.10* | *6.04* | **5.66** | *6.04* | *6.26* |
| W. N. Central | **5.00** | **4.28** | **4.24** | **4.68** | *5.37* | *4.56* | *4.56* | *5.16* | *5.64* | *4.81* | *4.66* | *5.23* | **4.59** | *4.96* | *5.14* |
| S. Atlantic | **5.35** | **5.00** | **4.88** | **4.93** | *5.34* | *4.66* | *4.91* | *5.27* | *5.55* | *4.92* | *4.89* | *5.19* | **5.05** | *5.06* | *5.16* |
| E. S. Central | **5.06** | **4.59** | **4.40** | **4.56** | *4.79* | *4.26* | *4.44* | *4.90* | *5.09* | *4.57* | *4.52* | *4.87* | **4.67** | *4.61* | *4.78* |
| W. S. Central | **3.42** | **3.42** | **3.30** | **3.14** | *3.39* | *3.09* | *3.36* | *3.47* | *3.56* | *3.26* | *3.40* | *3.46* | **3.32** | *3.33* | *3.42* |
| Mountain | **5.31** | **5.36** | **5.61** | **5.50** | *5.69* | *5.56* | *6.05* | *6.12* | *6.20* | *5.84* | *6.04* | *6.06* | **5.43** | *5.85* | *6.05* |
| Pacific | **7.31** | **6.71** | **6.32** | **6.35** | *6.80* | *6.24* | *6.54* | *6.72* | *7.13* | *6.53* | *6.66* | *6.72* | **6.71** | *6.59* | *6.78* |
| U.S. Average | **4.50** | **4.11** | **3.89** | **4.00** | *4.46* | *3.80* | *3.97* | *4.36* | *4.69* | *4.02* | *4.02* | *4.36* | **4.14** | *4.17* | *4.29* |

- = 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 - March 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** | **192.0** | *187.1* | *165.2* | *194.7* | *189.2* | *192.5* | *160.5* | *203.7* | *187.9* | **772.3** | *736.3* | *744.6* |
| Appalachia | **50.7** | **51.2** | **46.3** | **47.7** | *49.3* | *43.7* | *41.1* | *40.3* | *45.8* | *40.6* | *41.6* | *39.9* | **196.0** | *174.5* | *167.9* |
| Interior | **38.5** | **36.4** | **34.9** | **34.8** | *34.7* | *31.1* | *38.3* | *39.1* | *41.9* | *30.8* | *39.0* | *38.3* | **144.6** | *143.1* | *149.9* |
| Western | **107.8** | **99.4** | **115.0** | **109.5** | *103.1* | *90.4* | *115.3* | *109.8* | *104.8* | *89.1* | *123.1* | *109.8* | **431.7** | *418.7* | *426.8* |
| Primary Inventory Withdrawals | **0.1** | **1.8** | **1.4** | **1.0** | *-2.5* | *2.5* | *1.4* | *-0.1* | *-3.6* | *1.9* | *1.6* | *-2.5* | **4.3** | *1.2* | *-2.6* |
| Imports | **1.9** | **2.2** | **2.3** | **1.4** | *0.9* | *2.1* | *2.9* | *2.6* | *1.4* | *2.3* | *2.9* | *2.6* | **7.8** | *8.5* | *9.3* |
| Exports | **22.3** | **21.8** | **24.6** | **28.2** | *22.8* | *19.7* | *19.3* | *18.9* | *19.3* | *18.5* | *19.7* | *19.5* | **97.0** | *80.6* | *76.9* |
| Metallurgical Coal | **12.2** | **13.5** | **14.8** | **14.8** | *13.8* | *13.7* | *13.8* | *13.7* | *13.7* | *13.3* | *13.6* | *13.3* | **55.3** | *54.9* | *53.8* |
| Steam Coal | **10.1** | **8.3** | **9.8** | **13.4** | *8.9* | *6.0* | *5.6* | *5.2* | *5.6* | *5.3* | *6.1* | *6.2* | **41.7** | *25.7* | *23.1* |
| Total Primary Supply | **176.8** | **169.2** | **175.3** | **166.1** | *162.8* | *150.2* | *179.6* | *172.9* | *171.1* | *146.1* | *188.6* | *168.6* | **687.4** | *665.4* | *674.3* |
| Secondary Inventory Withdrawals | **1.0** | **3.7** | **18.2** | **2.8** | *2.3* | *2.6* | *12.8* | *-8.0* | *0.9* | *2.3* | *6.2* | *-9.3* | **25.7** | *9.7* | *0.1* |
| Waste Coal (a) | **2.5** | **1.8** | **2.3** | **2.5** | *2.4* | *2.4* | *2.4* | *2.4* | *2.4* | *2.4* | *2.4* | *2.4* | **9.2** | *9.6* | *9.6* |
| Total Supply | **180.3** | **174.7** | **195.8** | **171.5** | *167.4* | *155.1* | *194.8* | *167.3* | *174.4* | *150.7* | *197.2* | *161.7* | **722.3** | *684.7* | *684.0* |
| **Consumption (million short tons)** | | | | | | | | | | | | | | | |
| Coke Plants | **4.2** | **4.3** | **4.5** | **5.7** | *4.8* | *4.3* | *4.9* | *5.7* | *4.0* | *3.6* | *4.3* | *5.3* | **18.8** | *19.6* | *17.2* |
| Electric Power Sector (b) | **160.3** | **154.2** | **190.6** | **159.6** | *151.6* | *142.7* | *181.8* | *153.2* | *161.6* | *139.0* | *184.7* | *147.9* | **664.7** | *629.3* | *633.2* |
| Retail and Other Industry | **8.9** | **8.3** | **8.8** | **8.6** | *8.9* | *8.1* | *8.2* | *8.4* | *8.8* | *8.2* | *8.2* | *8.4* | **34.6** | *33.6* | *33.6* |
| Residential and Commercial | **0.4** | **0.2** | **0.2** | **0.2** | *0.3* | *0.1* | *0.1* | *0.2* | *0.2* | *0.1* | *0.1* | *0.1* | **1.0** | *0.7* | *0.5* |
| Other Industrial | **8.5** | **8.1** | **8.6** | **8.4** | *8.6* | *8.0* | *8.0* | *8.3* | *8.6* | *8.1* | *8.1* | *8.3* | **33.6** | *32.9* | *33.1* |
| Total Consumption | **173.5** | **166.8** | **203.9** | **173.9** | *165.2* | *155.1* | *194.8* | *167.3* | *174.4* | *150.7* | *197.2* | *161.7* | **718.1** | *682.5* | *684.0* |
| Discrepancy (c) | **6.8** | **7.9** | **-8.1** | **-2.4** | *2.2* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | **4.2** | *2.2* | *0.0* |
| **End-of-period Inventories (million short tons)** | | | | | | | | | | | | | | | |
| Primary Inventories (d) | **25.2** | **23.4** | **22.0** | **21.0** | *23.6* | *21.1* | *19.7* | *19.8* | *23.4* | *21.5* | *19.9* | *22.4* | **21.0** | *19.8* | *22.4* |
| Secondary Inventories | **166.7** | **163.0** | **144.9** | **142.0** | *139.8* | *137.2* | *124.3* | *132.3* | *131.4* | *129.1* | *122.9* | *132.2* | **142.0** | *132.3* | *132.2* |
| Electric Power Sector | **161.7** | **157.8** | **139.4** | **137.2** | *135.2* | *132.2* | *119.2* | *127.2* | *126.6* | *123.9* | *117.5* | *126.8* | **137.2** | *127.2* | *126.8* |
| Retail and General Industry | **3.2** | **3.3** | **3.5** | **2.9** | *3.0* | *3.0* | *3.1* | *3.0* | *3.2* | *3.2* | *3.4* | *3.3* | **2.9** | *3.0* | *3.3* |
| Coke Plants | **1.4** | **1.6** | **1.7** | **1.8** | *1.4* | *1.8* | *1.9* | *1.9* | *1.4* | *1.8* | *1.8* | *1.9* | **1.8** | *1.9* | *1.9* |
| **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** | *0.254* | *0.260* | *0.241* | *0.208* | *0.263* | *0.262* | *0.240* | *0.205* | **0.248** | *0.240* | *0.243* |
| Cost of Coal to Electric Utilities (Dollars per million Btu) | **2.08** | **2.12** | **2.07** | **2.04** | *2.20* | *2.20* | *2.21* | *2.19* | *2.21* | *2.19* | *2.22* | *2.18* | **2.08** | *2.20* | *2.20* |

- = 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 - March 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** | *10.89* | *10.87* | *12.38* | *10.54* | *11.11* | *10.96* | *12.50* | *10.63* | **11.00** | *11.17* | *11.30* |
| Electric Power Sector (a) | **10.15** | **10.27** | **11.71** | **10.14** | *10.46* | *10.44* | *11.93* | *10.11* | *10.66* | *10.52* | *12.03* | *10.18* | **10.57** | *10.74* | *10.85* |
| Comm. and Indus. Sectors (b) | **0.43** | **0.42** | **0.44** | **0.42** | *0.43* | *0.43* | *0.46* | *0.44* | *0.45* | *0.45* | *0.47* | *0.45* | **0.43** | *0.44* | *0.45* |
| Net Imports | **0.15** | **0.15** | **0.17** | **0.13** | *0.17* | *0.19* | *0.20* | *0.16* | *0.16* | *0.17* | *0.19* | *0.15* | **0.15** | *0.18* | *0.17* |
| Total Supply | **10.73** | **10.84** | **12.32** | **10.70** | *11.06* | *11.06* | *12.59* | *10.70* | *11.27* | *11.13* | *12.69* | *10.78* | **11.15** | *11.35* | *11.47* |
| Losses and Unaccounted for (c) | **0.59** | **0.76** | **0.66** | **0.72** | *0.44* | *0.82* | *0.72* | *0.67* | *0.59* | *0.83* | *0.73* | *0.67* | **0.68** | *0.66* | *0.71* |
| **Electricity Consumption (billion kilowatthours per day unless noted)** | | | | | | | | | | | | | | | |
| Retail Sales | **9.75** | **9.70** | **11.28** | **9.60** | *10.24* | *9.86* | *11.46* | *9.65* | *10.29* | *9.90* | *11.54* | *9.71* | **10.09** | *10.30* | *10.36* |
| Residential Sector | **3.71** | **3.43** | **4.46** | **3.51** | *4.04* | *3.52* | *4.56* | *3.52* | *4.06* | *3.53* | *4.60* | *3.55* | **3.78** | *3.91* | *3.93* |
| Commercial Sector | **3.51** | **3.64** | **4.08** | **3.55** | *3.57* | *3.67* | *4.12* | *3.56* | *3.58* | *3.69* | *4.15* | *3.58* | **3.70** | *3.73* | *3.75* |
| Industrial Sector | **2.50** | **2.62** | **2.72** | **2.53** | *2.61* | *2.65* | *2.76* | *2.55* | *2.63* | *2.67* | *2.78* | *2.56* | **2.59** | *2.64* | *2.66* |
| Transportation Sector | **0.02** | **0.02** | **0.02** | **0.02** | *0.02* | *0.02* | *0.02* | *0.02* | *0.02* | *0.02* | *0.02* | *0.02* | **0.02** | *0.02* | *0.02* |
| Direct Use (d) | **0.38** | **0.37** | **0.38** | **0.37** | *0.38* | *0.38* | *0.40* | *0.38* | *0.39* | *0.39* | *0.42* | *0.40* | **0.38** | *0.39* | *0.40* |
| Total Consumption | **10.13** | **10.08** | **11.66** | **9.98** | *10.62* | *10.24* | *11.86* | *10.03* | *10.69* | *10.30* | *11.96* | *10.10* | **10.47** | *10.69* | *10.76* |
| Average residential electricity usage per customer (kWh) | **2,532** | **2,365** | **3,109** | **2,446** | *2,681* | *2,399* | *3,143* | *2,427* | *2,700* | *2,373* | *3,125* | *2,415* | **10,453** | *10,650* | *10,612* |
| **Prices** | | | | | | | | | | | | | | | |
| **Power Generation Fuel Costs (dollars per million Btu)** | | | | | | | | | | | | | | | |
| Coal | **2.08** | **2.12** | **2.07** | **2.04** | *2.20* | *2.20* | *2.21* | *2.19* | *2.21* | *2.19* | *2.22* | *2.18* | **2.08** | *2.20* | *2.20* |
| Natural Gas | **3.69** | **3.38** | **3.19** | **3.39** | *3.82* | *3.10* | *3.26* | *3.57* | *3.82* | *3.21* | *3.28* | *3.51* | **3.39** | *3.41* | *3.43* |
| Residual Fuel Oil | **11.16** | **10.60** | **10.03** | **10.95** | *12.26* | *12.73* | *11.63* | *11.25* | *11.49* | *12.14* | *11.68* | *11.64* | **10.68** | *12.00* | *11.71* |
| Distillate Fuel Oil | **12.74** | **12.23** | **13.13** | **14.72** | *16.06* | *15.16* | *14.81* | *14.83* | *14.60* | *14.73* | *15.07* | *15.39* | **13.32** | *15.47* | *14.93* |
| **Retail Prices (cents per kilowatthour)** | | | | | | | | | | | | | | | |
| Residential Sector | **12.59** | **12.99** | **13.19** | **12.75** | *12.71* | *13.29* | *13.48* | *13.15* | *13.18* | *13.77* | *13.87* | *13.44* | **12.90** | *13.17* | *13.57* |
| Commercial Sector | **10.39** | **10.68** | **11.03** | **10.56** | *10.49* | *10.85* | *11.31* | *10.87* | *10.68* | *10.93* | *11.31* | *10.92* | **10.68** | *10.90* | *10.97* |
| Industrial Sector | **6.64** | **6.89** | **7.27** | **6.79** | *6.81* | *7.03* | *7.50* | *7.02* | *6.86* | *7.11* | *7.60* | *7.10* | **6.91** | *7.10* | *7.18* |

- = 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 - March 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** | *142* | *121* | *149* | *126* | *142* | *121* | *149* | *126* | **133** | *135* | *135* |
| Middle Atlantic | **368** | **307** | **403** | **327** | *391* | *312* | *414* | *322* | *392* | *312* | *414* | *322* | **351** | *360* | *360* |
| E. N. Central | **507** | **435** | **545** | **475** | *552* | *444* | *566* | *467* | *547* | *443* | *567* | *468* | **491** | *507* | *506* |
| W. N. Central | **298** | **246** | **303** | **261** | *335* | *256* | *319* | *263* | *329* | *258* | *323* | *268* | **277** | *293* | *294* |
| S. Atlantic | **891** | **891** | **1,131** | **889** | *1,025* | *911* | *1,149* | *889* | *1,040* | *913* | *1,157* | *896* | **951** | *993* | *1,001* |
| E. S. Central | **305** | **277** | **368** | **288** | *350* | *291* | *386* | *291* | *351* | *291* | *388* | *292* | **310** | *330* | *331* |
| W. S. Central | **501** | **536** | **760** | **516** | *575* | *567* | *792* | *528* | *558* | *568* | *804* | *537* | **579** | *616* | *617* |
| Mountain | **245** | **259** | **347** | **232** | *245* | *259* | *351* | *234* | *252* | *262* | *356* | *238* | **271** | *272* | *277* |
| Pacific contiguous | **439** | **346** | **447** | **381** | *416* | *349* | *424* | *389* | *433* | *349* | *426* | *391* | **404** | *394* | *400* |
| AK and HI | **14** | **12** | **12** | **13** | *13* | *12* | *12* | *13* | *13* | *12* | *12* | *13* | **13** | *13* | *13* |
| Total | **3,712** | **3,428** | **4,458** | **3,507** | *4,042* | *3,521* | *4,562* | *3,523* | *4,059* | *3,528* | *4,596* | *3,552* | **3,778** | *3,912* | *3,934* |
| **Commercial Sector** | | | | | | | | | | | | | | | |
| New England | **155** | **150** | **168** | **149** | *142* | *147* | *166* | *147* | *141* | *146* | *164* | *144* | **156** | *151* | *149* |
| Middle Atlantic | **423** | **404** | **462** | **412** | *427* | *403* | *464* | *409* | *426* | *402* | *462* | *408* | **425** | *426* | *424* |
| E. N. Central | **489** | **486** | **537** | **482** | *495* | *489* | *545* | *481* | *497* | *490* | *546* | *482* | **498** | *502* | *504* |
| W. N. Central | **272** | **270** | **302** | **269** | *278* | *272* | *307* | *271* | *279* | *274* | *310* | *273* | **278** | *282* | *284* |
| S. Atlantic | **785** | **853** | **941** | **807** | *803* | *855* | *946* | *806* | *805* | *856* | *949* | *807* | **847** | *853* | *855* |
| E. S. Central | **225** | **241** | **275** | **229** | *234* | *245* | *280* | *229* | *236* | *247* | *284* | *231* | **243** | *247* | *250* |
| W. S. Central | **471** | **522** | **598** | **501** | *498* | *545* | *619* | *513* | *507* | *559* | *637* | *524* | **523** | *544* | *557* |
| Mountain | **246** | **265** | **301** | **249** | *245* | *265* | *304* | *251* | *248* | *267* | *307* | *253* | **265** | *266* | *269* |
| Pacific contiguous | **431** | **431** | **480** | **438** | *432* | *430* | *469* | *437* | *431* | *431* | *470* | *438* | **445** | *442* | *443* |
| AK and HI | **16** | **16** | **16** | **16** | *16* | *16* | *16* | *16* | *16* | *15* | *16* | *16* | **16** | *16* | *16* |
| Total | **3,513** | **3,637** | **4,079** | **3,551** | *3,569* | *3,667* | *4,116* | *3,559* | *3,584* | *3,688* | *4,147* | *3,577* | **3,696** | *3,729* | *3,750* |
| **Industrial Sector** | | | | | | | | | | | | | | | |
| New England | **46** | **46** | **49** | **47** | *44* | *44* | *47* | *45* | *42* | *43* | *46* | *44* | **47** | *45* | *44* |
| Middle Atlantic | **192** | **194** | **204** | **195** | *200* | *195* | *207* | *196* | *202* | *197* | *209* | *197* | **196** | *200* | *201* |
| E. N. Central | **495** | **504** | **522** | **489** | *529* | *510* | *528* | *491* | *530* | *511* | *529* | *491* | **502** | *515* | *515* |
| W. N. Central | **228** | **240** | **253** | **235** | *244* | *248* | *261* | *240* | *250* | *255* | *268* | *246* | **239** | *248* | *255* |
| S. Atlantic | **362** | **386** | **390** | **372** | *366* | *380* | *388* | *367* | *362* | *376* | *384* | *362* | **377** | *376* | *371* |
| E. S. Central | **267** | **275** | **280** | **262** | *272* | *278* | *284* | *261* | *271* | *277* | *282* | *258* | **271** | *274* | *272* |
| W. S. Central | **480** | **503** | **511** | **484** | *505* | *515* | *526* | *496* | *517* | *527* | *538* | *506* | **495** | *511* | *522* |
| Mountain | **210** | **228** | **245** | **210** | *217* | *232* | *250* | *214* | *221* | *236* | *253* | *217* | **223** | *228* | *232* |
| Pacific contiguous | **211** | **230** | **253** | **220** | *218* | *232* | *256* | *222* | *220* | *234* | *257* | *222* | **229** | *232* | *233* |
| AK and HI | **13** | **14** | **14** | **13** | *14* | *14* | *14* | *13* | *14* | *14* | *14* | *13* | **14** | *14* | *14* |
| Total | **2,504** | **2,619** | **2,722** | **2,526** | *2,609* | *2,649* | *2,763* | *2,546* | *2,627* | *2,669* | *2,780* | *2,558* | **2,593** | *2,642* | *2,659* |
| **Total All Sectors** (a) | | | | | | | | | | | | | | | |
| New England | **345** | **317** | **362** | **323** | *330* | *314* | *364* | *320* | *327* | *311* | *361* | *316* | **337** | *332* | *329* |
| Middle Atlantic | **994** | **915** | **1,079** | **943** | *1,029* | *921* | *1,095* | *937* | *1,030* | *920* | *1,095* | *937* | **983** | *996* | *996* |
| E. N. Central | **1,493** | **1,427** | **1,605** | **1,447** | *1,578* | *1,444* | *1,641* | *1,441* | *1,576* | *1,445* | *1,644* | *1,442* | **1,493** | *1,526* | *1,527* |
| W. N. Central | **798** | **755** | **857** | **765** | *856* | *776* | *887* | *775* | *858* | *787* | *901* | *787* | **794** | *824* | *833* |
| S. Atlantic | **2,042** | **2,134** | **2,465** | **2,070** | *2,197* | *2,149* | *2,488* | *2,065* | *2,211* | *2,149* | *2,494* | *2,069* | **2,179** | *2,225* | *2,231* |
| E. S. Central | **797** | **793** | **924** | **779** | *856* | *814* | *951* | *781* | *858* | *814* | *954* | *782* | **823** | *851* | *852* |
| W. S. Central | **1,452** | **1,561** | **1,869** | **1,501** | *1,579* | *1,628* | *1,937* | *1,537* | *1,582* | *1,655* | *1,980* | *1,568* | **1,597** | *1,671* | *1,697* |
| Mountain | **701** | **752** | **893** | **691** | *707* | *756* | *905* | *700* | *721* | *766* | *917* | *708* | **760** | *767* | *778* |
| Pacific contiguous | **1,084** | **1,010** | **1,184** | **1,042** | *1,068* | *1,013* | *1,151* | *1,050* | *1,086* | *1,017* | *1,155* | *1,054* | **1,080** | *1,071* | *1,078* |
| AK and HI | **43** | **41** | **43** | **43** | *43* | *41* | *43* | *42* | *42* | *41* | *42* | *42* | **42** | *42* | *42* |
| Total | **9,750** | **9,704** | **11,280** | **9,605** | *10,242* | *9,857* | *11,462* | *9,647* | *10,292* | *9,905* | *11,543* | *9,706* | **10,088** | *10,303* | *10,363* |

- = 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 - March 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** | **18.93** | **18.97** | **19.28** | *19.30* | *19.53* | *19.48* | *20.13* | *20.21* | *20.52* | *20.45* | *21.01* | **18.93** | *19.60* | *20.54* |
| Middle Atlantic | **15.55** | **16.27** | **16.43** | **15.87** | *15.73* | *16.54* | *16.74* | *16.33* | *16.20* | *17.05* | *17.19* | *16.71* | **16.04** | *16.34* | *16.79* |
| E. N. Central | **12.90** | **13.58** | **13.28** | **13.19** | *13.11* | *14.04* | *13.81* | *13.88* | *13.77* | *14.67* | *14.30* | *14.31* | **13.23** | *13.69* | *14.24* |
| W. N. Central | **10.93** | **12.66** | **13.16** | **11.51** | *11.05* | *12.91* | *13.49* | *11.92* | *11.47* | *13.29* | *13.77* | *12.15* | **12.07** | *12.32* | *12.66* |
| S. Atlantic | **11.69** | **12.01** | **12.26** | **11.81** | *11.93* | *12.35* | *12.60* | *12.22* | *12.35* | *12.75* | *12.92* | *12.45* | **11.96** | *12.29* | *12.63* |
| E. S. Central | **11.08** | **11.44** | **11.32** | **11.20** | *10.95* | *11.71* | *11.84* | *11.82* | *11.43* | *12.06* | *11.91* | *11.95* | **11.26** | *11.58* | *11.83* |
| W. S. Central | **10.55** | **10.93** | **10.87** | **10.76** | *10.44* | *10.92* | *10.93* | *10.94* | *10.78* | *11.26* | *11.18* | *11.12* | **10.79** | *10.81* | *11.10* |
| Mountain | **11.28** | **12.15** | **12.31** | **11.82** | *11.58* | *12.40* | *12.61* | *12.17* | *11.95* | *12.78* | *12.94* | *12.43* | **11.94** | *12.24* | *12.57* |
| Pacific | **14.51** | **14.70** | **16.50** | **14.37** | *15.04* | *15.32* | *16.69* | *14.42* | *15.50* | *16.09* | *17.62* | *14.88* | **15.07** | *15.39* | *16.04* |
| U.S. Average | **12.59** | **12.99** | **13.19** | **12.75** | *12.71* | *13.29* | *13.48* | *13.15* | *13.18* | *13.77* | *13.87* | *13.44* | **12.90** | *13.17* | *13.57* |
| **Commercial Sector** | | | | | | | | | | | | | | | |
| New England | **14.64** | **14.65** | **15.30** | **15.20** | *15.06* | *14.70* | *15.44* | *15.46* | *14.88* | *14.16* | *14.89* | *15.16* | **14.96** | *15.17* | *14.77* |
| Middle Atlantic | **12.08** | **12.75** | **13.34** | **12.08** | *11.99* | *12.75* | *13.41* | *12.16* | *11.99* | *12.73* | *13.43* | *12.32* | **12.58** | *12.60* | *12.64* |
| E. N. Central | **10.02** | **10.24** | **10.05** | **10.00** | *10.08* | *10.45* | *10.39* | *10.34* | *10.31* | *10.63* | *10.44* | *10.42* | **10.08** | *10.32* | *10.45* |
| W. N. Central | **9.12** | **10.11** | **10.57** | **9.26** | *9.24* | *10.34* | *10.90* | *9.59* | *9.46* | *10.59* | *11.12* | *9.85* | **9.79** | *10.05* | *10.28* |
| S. Atlantic | **9.44** | **9.38** | **9.55** | **9.54** | *9.70* | *9.60* | *9.83* | *9.88* | *10.16* | *9.85* | *9.92* | *9.94* | **9.48** | *9.75* | *9.96* |
| E. S. Central | **10.57** | **10.56** | **10.62** | **10.57** | *10.72* | *10.94* | *11.25* | *11.24* | *10.81* | *10.97* | *11.04* | *11.17* | **10.58** | *11.05* | *11.00* |
| W. S. Central | **8.37** | **8.40** | **8.38** | **8.28** | *8.21* | *8.27* | *8.32* | *8.29* | *7.95* | *7.93* | *8.03* | *8.24* | **8.36** | *8.28* | *8.04* |
| Mountain | **9.14** | **9.92** | **10.04** | **9.50** | *9.35* | *10.18* | *10.29* | *9.75* | *9.38* | *10.21* | *10.34* | *9.83* | **9.68** | *9.92* | *9.97* |
| Pacific | **12.53** | **13.56** | **15.36** | **13.61** | *12.73* | *14.10* | *16.26* | *14.30* | *13.53* | *14.68* | *16.69* | *14.45* | **13.82** | *14.40* | *14.88* |
| U.S. Average | **10.39** | **10.68** | **11.03** | **10.56** | *10.49* | *10.85* | *11.31* | *10.87* | *10.68* | *10.93* | *11.31* | *10.92* | **10.68** | *10.90* | *10.97* |
| **Industrial Sector** | | | | | | | | | | | | | | | |
| New England | **12.38** | **12.19** | **12.55** | **12.37** | *12.75* | *12.51* | *12.90* | *12.71* | *13.24* | *12.83* | *13.12* | *12.84* | **12.38** | *12.72* | *13.01* |
| Middle Atlantic | **6.94** | **6.94** | **6.88** | **6.81** | *7.06* | *6.94* | *6.97* | *6.93* | *6.91* | *6.86* | *6.95* | *6.89* | **6.89** | *6.98* | *6.90* |
| E. N. Central | **7.03** | **7.05** | **7.04** | **6.96** | *7.20* | *7.22* | *7.30* | *7.23* | *7.26* | *7.30* | *7.37* | *7.29* | **7.02** | *7.24* | *7.31* |
| W. N. Central | **6.89** | **7.35** | **8.08** | **6.86** | *7.03* | *7.55* | *8.34* | *7.09* | *7.15* | *7.67* | *8.46* | *7.20* | **7.31** | *7.52* | *7.64* |
| S. Atlantic | **6.32** | **6.39** | **6.79** | **6.34** | *6.56* | *6.56* | *7.08* | *6.64* | *6.56* | *6.62* | *7.16* | *6.69* | **6.46** | *6.72* | *6.76* |
| E. S. Central | **5.90** | **5.96** | **6.18** | **5.88** | *6.00* | *6.08* | *6.44* | *6.17* | *6.11* | *6.21* | *6.58* | *6.29* | **5.98** | *6.18* | *6.30* |
| W. S. Central | **5.28** | **5.56** | **5.72** | **5.41** | *5.48* | *5.62* | *5.93* | *5.63* | *5.40* | *5.66* | *6.03* | *5.73* | **5.50** | *5.67* | *5.71* |
| Mountain | **6.08** | **6.54** | **7.12** | **6.13** | *6.06* | *6.58* | *7.23* | *6.25* | *6.24* | *6.77* | *7.44* | *6.43* | **6.50** | *6.56* | *6.75* |
| Pacific | **8.23** | **9.35** | **10.74** | **9.73** | *8.45* | *9.59* | *10.90* | *9.85* | *8.56* | *9.67* | *10.96* | *9.90* | **9.58** | *9.75* | *9.83* |
| U.S. Average | **6.64** | **6.89** | **7.27** | **6.79** | *6.81* | *7.03* | *7.50* | *7.02* | *6.86* | *7.11* | *7.60* | *7.10* | **6.91** | *7.10* | *7.18* |
| **All Sectors** (a) | | | | | | | | | | | | | | | |
| New England | **15.94** | **15.88** | **16.35** | **16.35** | *16.54* | *16.22* | *16.74* | *16.89* | *16.96* | *16.42* | *16.94* | *17.15* | **16.13** | *16.61* | *16.87* |
| Middle Atlantic | **12.36** | **12.69** | **13.26** | **12.30** | *12.45* | *12.79* | *13.44* | *12.49* | *12.58* | *12.92* | *13.60* | *12.67* | **12.67** | *12.81* | *12.97* |
| E. N. Central | **10.01** | **10.13** | **10.17** | **10.01** | *10.20* | *10.41* | *10.57* | *10.43* | *10.48* | *10.69* | *10.78* | *10.62* | **10.08** | *10.40* | *10.64* |
| W. N. Central | **9.16** | **10.06** | **10.75** | **9.29** | *9.33* | *10.30* | *11.07* | *9.61* | *9.56* | *10.53* | *11.28* | *9.80* | **9.84** | *10.10* | *10.31* |
| S. Atlantic | **9.86** | **9.94** | **10.35** | **9.93** | *10.19* | *10.23* | *10.68* | *10.31* | *10.60* | *10.52* | *10.88* | *10.45* | **10.04** | *10.37* | *10.62* |
| E. S. Central | **9.21** | **9.27** | **9.55** | **9.23** | *9.32* | *9.55* | *10.05* | *9.76* | *9.58* | *9.74* | *10.08* | *9.85* | **9.33** | *9.69* | *9.82* |
| W. S. Central | **8.10** | **8.35** | **8.67** | **8.21** | *8.16* | *8.35* | *8.74* | *8.34* | *8.11* | *8.35* | *8.77* | *8.42* | **8.35** | *8.42* | *8.43* |
| Mountain | **8.97** | **9.67** | **10.12** | **9.26** | *9.13* | *9.84* | *10.35* | *9.49* | *9.31* | *10.03* | *10.54* | *9.66* | **9.55** | *9.75* | *9.94* |
| Pacific | **12.49** | **12.98** | **14.79** | **13.06** | *12.79* | *13.47* | *15.21* | *13.39* | *13.30* | *14.00* | *15.74* | *13.64* | **13.38** | *13.76* | *14.20* |
| U.S. Average | **10.26** | **10.47** | **10.98** | **10.37** | *10.44* | *10.69* | *11.25* | *10.69* | *10.69* | *10.91* | *11.43* | *10.84* | **10.54** | *10.79* | *10.98* |

- = 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 - March 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** | *3,148* | *2,939* | *3,656* | *3,048* | *3,379* | *2,862* | *3,710* | *2,940* | **3,309** | *3,199* | *3,223* |
| Natural Gas | **2,969** | **3,286** | **4,359** | **3,322** | *3,373* | *3,664* | *4,622* | *3,466* | *3,453* | *3,749* | *4,642* | *3,604* | **3,487** | *3,784* | *3,865* |
| Petroleum (a) | **59** | **54** | **56** | **62** | *95* | *58* | *64* | *56* | *75* | *59* | *64* | *56* | **58** | *68* | *63* |
| Other Gases | **40** | **39** | **40** | **36** | *41* | *40* | *41* | *36* | *42* | *40* | *41* | *36* | **39** | *39* | *40* |
| Nuclear | **2,242** | **2,034** | **2,302** | **2,243** | *2,272* | *2,084* | *2,266* | *2,138* | *2,194* | *2,054* | *2,223* | *2,089* | **2,205** | *2,190* | *2,140* |
| Renewable Energy Sources: | **2,008** | **2,157** | **1,615** | **1,757** | *1,941* | *2,063* | *1,715* | *1,776* | *1,942* | *2,172* | *1,799* | *1,882* | **1,883** | *1,873* | *1,948* |
| Conventional Hydropower | **918** | **1,010** | **717** | **647** | *826* | *860* | *727* | *640* | *758* | *868* | *723* | *642* | **822** | *763* | *747* |
| Wind | **768** | **748** | **501** | **771** | *774* | *781* | *555* | *781* | *825* | *844* | *598* | *845* | **697** | *722* | *778* |
| Wood Biomass | **118** | **115** | **122** | **119** | *119* | *114* | *126* | *119* | *121* | *116* | *128* | *121* | **119** | *120* | *121* |
| Waste Biomass | **59** | **56** | **56** | **57** | *57* | *59* | *60* | *60* | *59* | *59* | *60* | *60* | **57** | *59* | *60* |
| Geothermal | **45** | **43** | **44** | **43** | *45* | *44* | *44* | *45* | *46* | *45* | *45* | *46* | **44** | *45* | *45* |
| Solar | **101** | **185** | **175** | **120** | *120* | *205* | *203* | *131* | *134* | *240* | *245* | *168* | **145** | *165* | *197* |
| 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** | *35* | *37* | *39* | *37* | *35* | *37* | *39* | *37* | **36** | *37* | *37* |
| Total Generation | **10,579** | **10,690** | **12,151** | **10,566** | *10,890* | *10,872* | *12,384* | *10,543* | *11,107* | *10,961* | *12,499* | *10,629* | **10,999** | *11,175* | *11,301* |
| **Northeast Census Region** | | | | | | | | | | | | | | | |
| Coal | **154** | **134** | **136** | **139** | *218* | *198* | *233* | *215* | *273* | *210* | *261* | *221* | **141** | *216* | *241* |
| Natural Gas | **486** | **482** | **637** | **492** | *545* | *562* | *732* | *572* | *554* | *564* | *728* | *594* | **525** | *603* | *610* |
| Petroleum (a) | **4** | **2** | **3** | **11** | *34* | *3* | *4* | *4* | *13* | *3* | *4* | *4* | **5** | *11* | *6* |
| Other Gases | **2** | **2** | **2** | **2** | *2* | *2* | *2* | *2* | *2* | *2* | *2* | *2* | **2** | *2* | *2* |
| Nuclear | **539** | **476** | **549** | **529** | *476* | *431* | *468* | *435* | *442* | *409* | *435* | *395* | **523** | *452* | *420* |
| Hydropower (c) | **102** | **107** | **99** | **99** | *84* | *86* | *88* | *93* | *83* | *89* | *92* | *95* | **102** | *88* | *90* |
| Other Renewables (d) | **72** | **76** | **68** | **74** | *79* | *72* | *66* | *78* | *81* | *73* | *68* | *81* | **73** | *74* | *76* |
| Other Nonrenewable Fuels (b) | **11** | **11** | **12** | **12** | *11* | *12* | *12* | *12* | *11* | *12* | *12* | *12* | **11** | *12* | *12* |
| Total Generation | **1,370** | **1,290** | **1,506** | **1,359** | *1,449* | *1,366* | *1,606* | *1,411* | *1,459* | *1,362* | *1,602* | *1,405* | **1,381** | *1,458* | *1,457* |
| **South Census Region** | | | | | | | | | | | | | | | |
| Coal | **1,330** | **1,416** | **1,681** | **1,293** | *1,310* | *1,327* | *1,659* | *1,291* | *1,421* | *1,266* | *1,614* | *1,214* | **1,431** | *1,397* | *1,379* |
| Natural Gas | **1,763** | **2,087** | **2,565** | **1,922** | *1,970* | *2,244* | *2,660* | *1,950* | *1,984* | *2,296* | *2,736* | *2,036* | **2,086** | *2,207* | *2,264* |
| Petroleum (a) | **25** | **22** | **23** | **21** | *30* | *25* | *28* | *22* | *30* | *26* | *28* | *22* | **23** | *26* | *26* |
| Other Gases | **15** | **15** | **15** | **13** | *15* | *15* | *15* | *12* | *14* | *14* | *14* | *12* | **14** | *14* | *14* |
| Nuclear | **973** | **888** | **1,003** | **1,012** | *996* | *919* | *999* | *946* | *974* | *914* | *993* | *941* | **969** | *965* | *956* |
| Hydropower (c) | **128** | **138** | **99** | **103** | *107* | *113* | *91* | *89* | *107* | *117* | *96* | *91* | **117** | *100* | *102* |
| Other Renewables (d) | **401** | **403** | **323** | **391** | *410* | *443* | *368* | *418* | *448* | *499* | *419* | *471* | **379** | *410* | *459* |
| Other Nonrenewable Fuels (b) | **15** | **15** | **16** | **15** | *15* | *16* | *16* | *15* | *15* | *16* | *16* | *15* | **15** | *15* | *16* |
| Total Generation | **4,650** | **4,984** | **5,726** | **4,769** | *4,851* | *5,101* | *5,836* | *4,744* | *4,992* | *5,147* | *5,916* | *4,803* | **5,034** | *5,135* | *5,216* |
| **Midwest Census Region** | | | | | | | | | | | | | | | |
| Coal | **1,288** | **1,177** | **1,394** | **1,216** | *1,226* | *1,102* | *1,329* | *1,127* | *1,269* | *1,113* | *1,380* | *1,120* | **1,269** | *1,196* | *1,221* |
| Natural Gas | **289** | **272** | **407** | **349** | *383* | *370* | *511* | *401* | *397* | *376* | *476* | *401* | **330** | *417* | *412* |
| Petroleum (a) | **7** | **7** | **7** | **8** | *9* | *9* | *10* | *8* | *10* | *9* | *10* | *8* | **7** | *9* | *9* |
| Other Gases | **17** | **16** | **17** | **15** | *19* | *17* | *18* | *15* | *20* | *17* | *18* | *16* | **16** | *17* | *18* |
| Nuclear | **555** | **543** | **580** | **535** | *580* | *531* | *578* | *548* | *564* | *529* | *575* | *545* | **553** | *559* | *553* |
| Hydropower (c) | **52** | **58** | **37** | **36** | *44* | *48* | *33* | *33* | *43* | *49* | *34* | *34* | **46** | *39* | *40* |
| Other Renewables (d) | **315** | **304** | **198** | **340** | *329* | *303* | *208* | *336* | *341* | *318* | *218* | *366* | **289** | *294* | *311* |
| 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** | *2,593* | *2,385* | *2,691* | *2,473* | *2,648* | *2,416* | *2,717* | *2,493* | **2,514** | *2,535* | *2,568* |
| **West Census Region** | | | | | | | | | | | | | | | |
| Coal | **470** | **373** | **551** | **480** | *395* | *312* | *435* | *415* | *416* | *273* | *455* | *385* | **469** | *389* | *382* |
| Natural Gas | **430** | **446** | **751** | **558** | *476* | *487* | *717* | *543* | *518* | *514* | *703* | *573* | **547** | *557* | *578* |
| Petroleum (a) | **23** | **22** | **23** | **22** | *22* | *21* | *22* | *22* | *22* | *21* | *22* | *21* | **23** | *22* | *22* |
| Other Gases | **6** | **6** | **6** | **6** | *6* | *6* | *6* | *6* | *6* | *6* | *6* | *6* | **6** | *6* | *6* |
| Nuclear | **175** | **127** | **171** | **167** | *220* | *203* | *221* | *209* | *215* | *201* | *219* | *207* | **160** | *213* | *211* |
| Hydropower (c) | **619** | **692** | **460** | **392** | *576* | *600* | *497* | *411* | *511* | *601* | *483* | *408* | **540** | *521* | *501* |
| Other Renewables (d) | **302** | **364** | **308** | **305** | *297* | *386* | *347* | *303* | *315* | *414* | *371* | *322* | **320** | *333* | *355* |
| Other Nonrenewable Fuels (b) | **5** | **5** | **6** | **5** | *6* | *5* | *6* | *5* | *6* | *5* | *6* | *5* | **5** | *5* | *5* |
| Total Generation | **2,031** | **2,035** | **2,277** | **1,934** | *1,997* | *2,021* | *2,252* | *1,916* | *2,009* | *2,036* | *2,265* | *1,928* | **2,069** | *2,047* | *2,060* |

(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 - March 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** | *1,678* | *1,563* | *1,971* | *1,658* | *1,788* | *1,521* | *2,002* | *1,602* | **1,818** | *1,718* | *1,729* |
| Natural Gas (million cf/d) | **21,452** | **24,555** | **32,799** | **24,545** | *24,620* | *27,351* | *34,925* | *25,475* | *25,188* | *27,976* | *35,004* | *26,443* | **25,865** | *28,114* | *28,674* |
| Petroleum (thousand b/d) | **107** | **100** | **105** | **111** | *171* | *105* | *116* | *101* | *136* | *106* | *116* | *101* | **106** | *123* | *115* |
| Residual Fuel Oil | **26** | **27** | **28** | **33** | *44* | *26* | *30* | *26* | *41* | *26* | *29* | *26* | **29** | *31* | *30* |
| Distillate Fuel Oil | **28** | **24** | **23** | **32** | *67* | *24* | *23* | *26* | *32* | *24* | *23* | *26* | **27** | *35* | *26* |
| Petroleum Coke (a) | **49** | **45** | **48** | **42** | *54* | *52* | *59* | *46* | *58* | *53* | *60* | *46* | **46** | *53* | *54* |
| Other Petroleum Liquids (b) | **4** | **4** | **7** | **5** | *5* | *3* | *4* | *4* | *5* | *3* | *4* | *4* | **5** | *4* | *4* |
| **Northeast Census Region** | | | | | | | | | | | | | | | |
| Coal (thousand st/d) | **75** | **63** | **66** | **65** | *104* | *93* | *114* | *104* | *129* | *99* | *127* | *107* | **67** | *104* | *115* |
| Natural Gas (million cf/d) | **3,603** | **3,640** | **4,893** | **3,706** | *4,053* | *4,241* | *5,631* | *4,266* | *4,117* | *4,243* | *5,578* | *4,413* | **3,963** | *4,551* | *4,591* |
| Petroleum (thousand b/d) | **7** | **4** | **7** | **18** | *59* | *4* | *7* | *7* | *24* | *4* | *7* | *7* | **9** | *19* | *11* |
| **South Census Region** | | | | | | | | | | | | | | | |
| Coal (thousand st/d) | **715** | **761** | **902** | **705** | *671* | *684* | *871* | *684* | *721* | *653* | *850* | *646* | **771** | *728* | *718* |
| Natural Gas (million cf/d) | **12,471** | **15,401** | **19,033** | **14,045** | *14,125* | *16,544* | *19,809* | *14,105* | *14,171* | *16,886* | *20,311* | *14,682* | **15,252** | *16,156* | *16,524* |
| Petroleum (thousand b/d) | **47** | **42** | **43** | **40** | *57* | *47* | *52* | *42* | *56* | *48* | *52* | *42* | **43** | *49* | *49* |
| **Midwest Census Region** | | | | | | | | | | | | | | | |
| Coal (thousand st/d) | **717** | **655** | **787** | **688** | *676* | *607* | *737* | *629* | *697* | *613* | *766* | *625* | **712** | *662* | *675* |
| Natural Gas (million cf/d) | **2,186** | **2,134** | **3,249** | **2,676** | *2,903* | *2,874* | *4,091* | *3,069* | *3,031* | *2,937* | *3,822* | *3,083* | **2,564** | *3,237* | *3,220* |
| Petroleum (thousand b/d) | **15** | **16** | **16** | **16** | *18* | *18* | *20* | *17* | *20* | *19* | *20* | *17* | **16** | *18* | *19* |
| **West Census Region** | | | | | | | | | | | | | | | |
| Coal (thousand st/d) | **269** | **213** | **313** | **273** | *227* | *178* | *249* | *240* | *241* | *157* | *260* | *223* | **267** | *224* | *220* |
| Natural Gas (million cf/d) | **3,192** | **3,378** | **5,624** | **4,117** | *3,539* | *3,693* | *5,395* | *4,034* | *3,869* | *3,910* | *5,294* | *4,264* | **4,085** | *4,170* | *4,338* |
| Petroleum (thousand b/d) | **39** | **37** | **39** | **37** | *36* | *35* | *37* | *36* | *37* | *35* | *37* | *35* | **38** | *36* | *36* |
| **End-of-period U.S. Fuel Inventories Held by Electric Power Sector** | | | | | | | | | | | | | | | |
| Coal (million short tons) | **161.7** | **157.8** | **139.4** | **137.2** | *135.2* | *132.2* | *119.2* | *127.2* | *126.6* | *123.9* | *117.5* | *126.8* | **137.2** | *127.2* | *126.8* |
| Residual Fuel Oil (mmb) | **12.5** | **11.9** | **11.4** | **11.0** | *11.5* | *11.5* | *11.4* | *12.0* | *11.9* | *11.8* | *11.8* | *12.3* | **11.0** | *12.0* | *12.3* |
| Distillate Fuel Oil (mmb) | **17.0** | **16.6** | **16.4** | **15.8** | *16.2* | *16.2* | *16.3* | *16.8* | *16.9* | *16.8* | *16.8* | *17.2* | **15.8** | *16.8* | *17.2* |
| Petroleum Coke (mmb) | **4.3** | **4.3** | **4.9** | **5.6** | *5.4* | *5.4* | *5.3* | *5.1* | *5.0* | *5.0* | *4.9* | *4.8* | **5.6** | *5.1* | *4.8* |

(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 - March 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** | *0.037* | *0.037* | *0.038* | *0.039* | *0.038* | *0.038* | *0.038* | *0.039* | **0.147** | *0.151* | *0.153* |
| Hydroelectric Power (a) | **0.759** | **0.844** | **0.605** | **0.548** | *0.689* | *0.725* | *0.620* | *0.545* | *0.631* | *0.732* | *0.616* | *0.547* | **2.757** | *2.579* | *2.526* |
| Solar (b) | **0.084** | **0.155** | **0.148** | **0.101** | *0.099* | *0.172* | *0.172* | *0.110* | *0.111* | *0.201* | *0.207* | *0.141* | **0.488** | *0.553* | *0.660* |
| Waste Biomass (c) | **0.070** | **0.066** | **0.068** | **0.068** | *0.067* | *0.071* | *0.073* | *0.072* | *0.070* | *0.071* | *0.073* | *0.073* | **0.272** | *0.283* | *0.287* |
| Wood Biomass | **0.061** | **0.059** | **0.064** | **0.063** | *0.061* | *0.057* | *0.070* | *0.063* | *0.063* | *0.060* | *0.073* | *0.066* | **0.247** | *0.251* | *0.261* |
| Wind | **0.644** | **0.634** | **0.429** | **0.660** | *0.648* | *0.662* | *0.475* | *0.669* | *0.691* | *0.715* | *0.512* | *0.724* | **2.367** | *2.454* | *2.642* |
| Subtotal | **1.654** | **1.794** | **1.352** | **1.477** | *1.602* | *1.723* | *1.448* | *1.498* | *1.604* | *1.817* | *1.520* | *1.589* | **6.278** | *6.271* | *6.530* |
| **Industrial Sector** | | | | | | | | | | | | | | | |
| Biofuel Losses and Co-products (d) | **0.203** | **0.199** | **0.204** | **0.211** | *0.200* | *0.206* | *0.209* | *0.208* | *0.204* | *0.208* | *0.211* | *0.210* | **0.817** | *0.823* | *0.832* |
| 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* | *0.007* | *0.010* | *0.010* | *0.007* | **0.024** | *0.029* | *0.033* |
| Waste Biomass (c) | **0.044** | **0.040** | **0.038** | **0.044** | *0.042* | *0.040* | *0.040* | *0.042* | *0.042* | *0.040* | *0.040* | *0.042* | **0.166** | *0.164* | *0.164* |
| Wood Biomass | **0.370** | **0.361** | **0.375** | **0.355** | *0.359* | *0.348* | *0.358* | *0.344* | *0.348* | *0.345* | *0.357* | *0.344* | **1.460** | *1.408* | *1.395* |
| Subtotal | **0.625** | **0.609** | **0.625** | **0.619** | *0.609* | *0.603* | *0.615* | *0.604* | *0.602* | *0.603* | *0.617* | *0.605* | **2.479** | *2.431* | *2.428* |
| **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* | *0.029* | *0.029* | *0.021* | *0.024* | *0.034* | *0.035* | *0.025* | **0.077** | *0.098* | *0.119* |
| Waste Biomass (c) | **0.011** | **0.011** | **0.011** | **0.011** | *0.011* | *0.011* | *0.011* | *0.011* | *0.011* | *0.011* | *0.011* | *0.011* | **0.045** | *0.045* | *0.045* |
| Wood Biomass | **0.020** | **0.020** | **0.020** | **0.020** | *0.020* | *0.020* | *0.021* | *0.020* | *0.020* | *0.021* | *0.021* | *0.020* | **0.081** | *0.081* | *0.081* |
| Subtotal | **0.058** | **0.066** | **0.067** | **0.060** | *0.062* | *0.073* | *0.073* | *0.064* | *0.067* | *0.079* | *0.079* | *0.069* | **0.251** | *0.273* | *0.293* |
| **Residential Sector** | | | | | | | | | | | | | | | |
| Geothermal | **0.010** | **0.010** | **0.010** | **0.011** | *0.013* | *0.013* | *0.013* | *0.013* | *0.013* | *0.013* | *0.013* | *0.013* | **0.040** | *0.052* | *0.053* |
| Solar (e) | **0.037** | **0.057** | **0.058** | **0.041** | *0.043* | *0.065* | *0.068* | *0.048* | *0.050* | *0.075* | *0.077* | *0.054* | **0.192** | *0.223* | *0.257* |
| Wood Biomass | **0.094** | **0.095** | **0.096** | **0.097** | *0.103* | *0.103* | *0.104* | *0.104* | *0.105* | *0.105* | *0.105* | *0.105* | **0.382** | *0.413* | *0.420* |
| Subtotal | **0.140** | **0.162** | **0.164** | **0.148** | *0.158* | *0.181* | *0.184* | *0.165* | *0.168* | *0.193* | *0.195* | *0.173* | **0.614** | *0.688* | *0.729* |
| **Transportation Sector** | | | | | | | | | | | | | | | |
| Biomass-based Diesel (f) | **0.054** | **0.079** | **0.080** | **0.066** | *0.057* | *0.081* | *0.092* | *0.095* | *0.069* | *0.088* | *0.100* | *0.104* | **0.279** | *0.325* | *0.361* |
| Ethanol (f) | **0.270** | **0.290** | **0.293** | **0.295** | *0.273* | *0.298* | *0.302* | *0.293* | *0.278* | *0.300* | *0.304* | *0.296* | **1.149** | *1.165* | *1.178* |
| Subtotal | **0.324** | **0.370** | **0.373** | **0.372** | *0.330* | *0.378* | *0.394* | *0.388* | *0.347* | *0.388* | *0.405* | *0.399* | **1.439** | *1.490* | *1.539* |
| **All Sectors Total** | | | | | | | | | | | | | | | |
| Biomass-based Diesel (f) | **0.054** | **0.079** | **0.080** | **0.066** | *0.057* | *0.081* | *0.092* | *0.095* | *0.069* | *0.088* | *0.100* | *0.104* | **0.279** | *0.325* | *0.361* |
| Biofuel Losses and Co-products (d) | **0.203** | **0.199** | **0.204** | **0.211** | *0.200* | *0.206* | *0.209* | *0.208* | *0.204* | *0.208* | *0.211* | *0.210* | **0.817** | *0.823* | *0.832* |
| Ethanol (f) | **0.281** | **0.301** | **0.304** | **0.302** | *0.292* | *0.309* | *0.313* | *0.304* | *0.288* | *0.312* | *0.316* | *0.307* | **1.189** | *1.218* | *1.223* |
| Geothermal | **0.053** | **0.052** | **0.053** | **0.054** | *0.056* | *0.056* | *0.057* | *0.058* | *0.057* | *0.057* | *0.057* | *0.058* | **0.212** | *0.227* | *0.229* |
| Hydroelectric Power (a) | **0.763** | **0.849** | **0.609** | **0.552** | *0.693* | *0.729* | *0.623* | *0.549* | *0.635* | *0.736* | *0.620* | *0.550* | **2.772** | *2.594* | *2.542* |
| Solar (b)(e) | **0.138** | **0.239** | **0.234** | **0.158** | *0.167* | *0.274* | *0.278* | *0.185* | *0.191* | *0.321* | *0.330* | *0.228* | **0.770** | *0.904* | *1.069* |
| Waste Biomass (c) | **0.126** | **0.117** | **0.117** | **0.124** | *0.120* | *0.122* | *0.124* | *0.126* | *0.122* | *0.123* | *0.125* | *0.126* | **0.484** | *0.492* | *0.496* |
| Wood Biomass | **0.546** | **0.535** | **0.555** | **0.536** | *0.542* | *0.528* | *0.552* | *0.531* | *0.537* | *0.531* | *0.556* | *0.535* | **2.172** | *2.154* | *2.158* |
| Wind | **0.644** | **0.634** | **0.429** | **0.660** | *0.648* | *0.662* | *0.475* | *0.669* | *0.691* | *0.715* | *0.512* | *0.724* | **2.367** | *2.454* | *2.642* |
| **Total Consumption** | **2.802** | **3.001** | **2.582** | **2.669** | *2.762* | *2.958* | *2.714* | *2.719* | *2.787* | *3.080* | *2.816* | *2.835* | **11.054** | *11.154* | *11.519* |

- = 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 - March 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 | **7,332** | **7,371** | **7,424** | **7,418** | *7,473* | *7,567* | *7,567* | *7,601* | *7,667* | *7,667* | *7,709* | *7,709* | **7,418** | *7,601* | *7,709* |
| Waste | **4,205** | **4,244** | **4,247** | **4,246** | *4,302* | *4,302* | *4,302* | *4,335* | *4,337* | *4,337* | *4,337* | *4,337* | **4,246** | *4,335* | *4,337* |
| Wood | **3,127** | **3,127** | **3,177** | **3,172** | *3,172* | *3,265* | *3,265* | *3,265* | *3,330* | *3,330* | *3,372* | *3,372* | **3,172** | *3,265* | *3,372* |
| Conventional Hydroelectric | **79,561** | **79,568** | **79,663** | **79,701** | *79,719* | *79,754* | *79,875* | *79,940* | *79,960* | *79,987* | *79,939* | *79,971* | **79,701** | *79,940* | *79,971* |
| Geothermal | **2,456** | **2,456** | **2,456** | **2,493** | *2,493* | *2,493* | *2,493* | *2,499* | *2,507* | *2,507* | *2,507* | *2,542* | **2,493** | *2,499* | *2,542* |
| Large-Scale Solar (b) | **22,542** | **23,572** | **24,066** | **26,311** | *27,897* | *28,767* | *29,233* | *30,850* | *32,488* | *34,601* | *35,876* | *42,173* | **26,311** | *30,850* | *42,173* |
| Wind | **82,903** | **83,365** | **84,086** | **87,452** | *88,486* | *88,813* | *89,776* | *93,989* | *95,305* | *96,044* | *96,909* | *104,154* | **87,452** | *93,989* | *104,154* |
| **Other Sectors (c)** | | | | | | | | | | | | | | | |
| Biomass | **6,766** | **6,779** | **6,780** | **6,780** | *6,780* | *6,781* | *6,790* | *6,790* | *6,802* | *6,779* | *6,779* | *6,793* | **6,780** | *6,790* | *6,793* |
| Waste | **885** | **889** | **890** | **890** | *890* | *890* | *890* | *890* | *902* | *904* | *904* | *918* | **890** | *890* | *918* |
| Wood | **5,882** | **5,891** | **5,891** | **5,891** | *5,891* | *5,892* | *5,900* | *5,900* | *5,900* | *5,875* | *5,875* | *5,875* | **5,891** | *5,900* | *5,875* |
| Conventional Hydroelectric | **357** | **357** | **357** | **357** | *357* | *357* | *357* | *357* | *357* | *357* | *357* | *357* | **357** | *357* | *357* |
| Large-Scale Solar (b) | **322** | **338** | **338** | **343** | *350* | *350* | *350* | *349* | *349* | *349* | *349* | *349* | **343** | *349* | *349* |
| Small-Scale Solar (d) | **13,692** | **14,513** | **15,310** | **16,223** | *17,175* | *17,962* | *18,798* | *19,670* | *20,487* | *21,358* | *22,281* | *23,244* | **16,223** | *19,670* | *23,244* |
| Residential Sector | **8,124** | **8,618** | **9,105** | **9,574** | *10,051* | *10,530* | *11,014* | *11,502* | *11,994* | *12,495* | *13,000* | *13,509* | **9,574** | *11,502* | *13,509* |
| Commercial Sector | **4,256** | **4,525** | **4,767** | **5,145** | *5,539* | *5,785* | *6,071* | *6,385* | *6,647* | *6,948* | *7,292* | *7,666* | **5,145** | *6,385* | *7,666* |
| Industrial Sector | **1,312** | **1,370** | **1,438** | **1,504** | *1,585* | *1,646* | *1,713* | *1,783* | *1,846* | *1,915* | *1,989* | *2,068* | **1,504** | *1,783* | *2,068* |
| Wind | **93** | **91** | **91** | **96** | *104* | *104* | *104* | *104* | *104* | *104* | *104* | *104* | **96** | *104* | *104* |
| **Renewable Electricity Generation (thousand megawatthours per day)** | | | | | | | | | | | | | | | |
| **Electric Power Sector (a)** | | | | | | | | | | | | | | | |
| Biomass | **90** | **86** | **90** | **90** | *89* | *88* | *98* | *93* | *93* | *91* | *100* | *95* | **89** | *92* | *95* |
| Waste | **49** | **47** | **47** | **47** | *48* | *50* | *51* | *50* | *50* | *50* | *51* | *51* | **48** | *50* | *50* |
| Wood | **41** | **39** | **43** | **43** | *41* | *39* | *47* | *43* | *43* | *40* | *49* | *44* | **41** | *42* | *44* |
| Conventional Hydroelectric | **913** | **1,005** | **713** | **643** | *822* | *855* | *723* | *636* | *753* | *863* | *719* | *638* | **818** | *758* | *743* |
| Geothermal | **45** | **43** | **44** | **43** | *45* | *44* | *44* | *45* | *46* | *45* | *45* | *46* | **44** | *45* | *45* |
| Large-Scale Solar (b) | **100** | **182** | **173** | **118** | *118* | *203* | *201* | *128* | *132* | *237* | *242* | *165* | **143** | *163* | *194* |
| Wind | **767** | **748** | **501** | **770** | *773* | *780* | *554* | *780* | *824* | *843* | *597* | *844* | **696** | *721* | *777* |
| **Other Sectors (c)** | | | | | | | | | | | | | | | |
| Biomass | **87** | **84** | **88** | **86** | *87* | *84* | *88* | *86* | *87* | *84* | *88* | *86* | **86** | *86* | *86* |
| Waste | **78** | **75** | **79** | **77** | *78* | *75* | *79* | *77* | *78* | *75* | *79* | *77* | **77** | *77* | *77* |
| Wood | **10** | **9** | **9** | **9** | *10* | *9* | *9* | *9* | *10* | *9* | *9* | *9* | **9** | *9* | *9* |
| Conventional Hydroelectric | **5** | **5** | **4** | **4** | *5* | *5* | *4* | *4* | *5* | *5* | *4* | *4* | **5** | *5* | *5* |
| Large-Scale Solar (b) | **1** | **2** | **2** | **1** | *2* | *2* | *3* | *2* | *3* | *3* | *3* | *3* | **2** | *2* | *3* |
| Small-Scale Solar (d) | **51** | **78** | **79** | **55** | *64* | *96* | *97* | *68* | *77* | *115* | *116* | *81* | **66** | *81* | *97* |
| Residential Sector | **29** | **46** | **46** | **31** | *36* | *55* | *56* | *39* | *43* | *66* | *66* | *46* | **38** | *46* | *56* |
| Commercial Sector | **16** | **25** | **25** | **18** | *21* | *31* | *32* | *22* | *26* | *38* | *38* | *27* | **21** | *27* | *32* |
| Industrial Sector | **5** | **8** | **8** | **6** | *7* | *10* | *10* | *7* | *8* | *11* | *11* | *8* | **7** | *8* | *10* |
| 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 - March 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** | **17,272** | *17,369* | *17,489* | *17,605* | *17,723* | *17,836* | *17,951* | *18,056* | *18,157* | **17,093** | *17,546* | *18,000* |
| Real Personal Consumption Expend. | | | | | | | | | | | | | | | |
| (billion chained 2009 dollars - SAAR) | **11,758** | **11,853** | **11,917** | **12,028** | *12,109* | *12,189* | *12,258* | *12,332* | *12,396* | *12,459* | *12,518* | *12,582* | **11,889** | *12,222* | *12,489* |
| Real Fixed Investment | | | | | | | | | | | | | | | |
| (billion chained 2009 dollars - SAAR) | **2,876** | **2,898** | **2,916** | **2,972** | *2,991* | *3,033* | *3,072* | *3,110* | *3,156* | *3,202* | *3,250* | *3,295* | **2,915** | *3,052* | *3,226* |
| Business Inventory Change | | | | | | | | | | | | | | | |
| (billion chained 2009 dollars - SAAR) | **0** | **5** | **42** | **9** | *45* | *55* | *65* | *67* | *70* | *77* | *81* | *80* | **14** | *58* | *77* |
| Real Government Expenditures | | | | | | | | | | | | | | | |
| (billion chained 2009 dollars - SAAR) | **2,897** | **2,895** | **2,900** | **2,921** | *2,919* | *2,921* | *2,922* | *2,925* | *2,932* | *2,937* | *2,941* | *2,942* | **2,903** | *2,922* | *2,938* |
| Real Exports of Goods & Services | | | | | | | | | | | | | | | |
| (billion chained 2009 dollars - SAAR) | **2,162** | **2,181** | **2,192** | **2,229** | *2,273* | *2,295* | *2,331* | *2,368* | *2,401* | *2,440* | *2,477* | *2,510* | **2,191** | *2,317* | *2,457* |
| Real Imports of Goods & Services | | | | | | | | | | | | | | | |
| (billion chained 2009 dollars - SAAR) | **2,785** | **2,795** | **2,790** | **2,882** | *2,962* | *2,996* | *3,034* | *3,070* | *3,109* | *3,154* | *3,202* | *3,244* | **2,813** | *3,015* | *3,177* |
| Real Disposable Personal Income | | | | | | | | | | | | | | | |
| (billion chained 2009 dollars - SAAR) | **12,680** | **12,766** | **12,783** | **12,819** | *13,013* | *13,095* | *13,202* | *13,311* | *13,475* | *13,568* | *13,663* | *13,762* | **12,762** | *13,155* | *13,617* |
| Non-Farm Employment | | | | | | | | | | | | | | | |
| (millions) | **145.9** | **146.3** | **146.9** | **147.4** | *148.0* | *148.6* | *149.2* | *149.9* | *150.5* | *151.1* | *151.7* | *152.2* | **146.6** | *148.9* | *151.4* |
| Civilian Unemployment Rate | | | | | | | | | | | | | | | |
| (percent) | **4.7** | **4.3** | **4.3** | **4.1** | *4.1* | *4.0* | *3.9* | *3.9* | *3.7* | *3.6* | *3.6* | *3.6* | **4.4** | *4.0* | *3.7* |
| Housing Starts | | | | | | | | | | | | | | | |
| (millions - SAAR) | **1.24** | **1.17** | **1.17** | **1.25** | *1.25* | *1.28* | *1.28* | *1.32* | *1.34* | *1.37* | *1.39* | *1.41* | **1.21** | *1.28* | *1.38* |
| **Industrial Production Indices (Index, 2012=100)** | | | | | | | | | | | | | | | |
| Total Industrial Production | **103.7** | **105.1** | **104.8** | **106.9** | *108.1* | *108.5* | *109.1* | *110.1* | *111.0* | *111.8* | *112.6* | *113.4* | **105.1** | *108.9* | *112.2* |
| Manufacturing | **103.7** | **104.5** | **104.0** | **105.9** | *106.5* | *106.9* | *107.5* | *108.6* | *109.5* | *110.3* | *110.9* | *111.6* | **104.5** | *107.4* | *110.6* |
| Food | **110.1** | **111.2** | **112.9** | **112.8** | *113.2* | *113.7* | *114.2* | *114.8* | *115.4* | *115.9* | *116.4* | *116.9* | **111.8** | *114.0* | *116.1* |
| Paper | **96.3** | **95.5** | **95.1** | **94.8** | *94.8* | *94.7* | *94.7* | *94.7* | *94.8* | *94.9* | *94.9* | *95.0* | **95.4** | *94.7* | *94.9* |
| Petroleum and Coal Products | **102.5** | **106.1** | **101.3** | **103.7** | *103.9* | *104.5* | *105.2* | *105.7* | *106.2* | *106.5* | *106.7* | *107.0* | **103.4** | *104.8* | *106.6* |
| Chemicals | **97.6** | **98.8** | **98.2** | **101.9** | *102.8* | *103.4* | *104.3* | *105.2* | *106.1* | *106.9* | *107.7* | *108.7* | **99.2** | *103.9* | *107.3* |
| Nonmetallic Mineral Products | **116.7** | **115.3** | **115.1** | **118.1** | *119.2* | *119.9* | *121.2* | *122.4* | *123.5* | *124.2* | *124.7* | *125.2* | **116.3** | *120.7* | *124.4* |
| Primary Metals | **96.8** | **95.4** | **95.5** | **97.9** | *98.1* | *98.1* | *98.4* | *99.0* | *99.1* | *99.4* | *99.5* | *99.9* | **96.4** | *98.4* | *99.5* |
| Coal-weighted Manufacturing (a) | **102.6** | **102.7** | **101.5** | **104.0** | *104.5* | *104.8* | *105.4* | *106.2* | *106.8* | *107.3* | *107.7* | *108.4* | **102.7** | *105.2* | *107.5* |
| Distillate-weighted Manufacturing (a) | **108.5** | **108.8** | **108.3** | **110.2** | *110.9* | *111.4* | *112.2* | *113.0* | *113.7* | *114.3* | *114.8* | *115.3* | **108.9** | *111.9* | *114.5* |
| Electricity-weighted Manufacturing (a) | **103.1** | **103.6** | **102.5** | **105.1** | *105.8* | *106.2* | *106.9* | *107.8* | *108.6* | *109.3* | *109.9* | *110.6* | **103.6** | *106.7* | *109.6* |
| Natural Gas-weighted Manufacturing (a) | **103.0** | **104.3** | **102.0** | **105.6** | *106.4* | *107.0* | *107.8* | *108.8* | *109.7* | *110.4* | *111.2* | *112.1* | **103.7** | *107.5* | *110.8* |
| **Price Indexes** | | | | | | | | | | | | | | | |
| Consumer Price Index (all urban consumers) | | | | | | | | | | | | | | | |
| (index, 1982-1984=1.00) | **2.44** | **2.44** | **2.45** | **2.47** | *2.49* | *2.50* | *2.52* | *2.53* | *2.54* | *2.55* | *2.57* | *2.58* | **2.45** | *2.51* | *2.56* |
| Producer Price Index: All Commodities | | | | | | | | | | | | | | | |
| (index, 1982=1.00) | **1.93** | **1.92** | **1.92** | **1.97** | *2.01* | *2.01* | *2.02* | *2.03* | *2.03* | *2.05* | *2.06* | *2.07* | **1.94** | *2.02* | *2.05* |
| Producer Price Index: Petroleum | | | | | | | | | | | | | | | |
| (index, 1982=1.00) | **1.66** | **1.67** | **1.77** | **1.89** | *1.99* | *1.97* | *1.91* | *1.85* | *1.83* | *1.92* | *1.94* | *1.91* | **1.74** | *1.93* | *1.90* |
| GDP Implicit Price Deflator | | | | | | | | | | | | | | | |
| (index, 2009=100) | **112.8** | **113.0** | **113.6** | **114.3** | *115.1* | *115.8* | *116.5* | *117.3* | *118.0* | *118.8* | *119.5* | *120.2* | **113.4** | *116.2* | *119.1* |
| **Miscellaneous** | | | | | | | | | | | | | | | |
| Vehicle Miles Traveled (b) | | | | | | | | | | | | | | | |
| (million miles/day) | **8,301** | **9,164** | **9,015** | **8,676** | *8,329* | *9,276* | *9,156* | *8,810* | *8,461* | *9,405* | *9,275* | *8,936* | **8,791** | *8,895* | *9,021* |
| Air Travel Capacity | | | | | | | | | | | | | | | |
| (Available ton-miles/day, thousands) | **567** | **619** | **668** | **590** | *555* | *623* | *658* | *585* | *558* | *627* | *663* | *590* | **611** | *605* | *610* |
| Aircraft Utilization | | | | | | | | | | | | | | | |
| (Revenue ton-miles/day, thousands) | **344** | **390** | **398** | **365** | *343* | *393* | *403* | *363* | *346* | *397* | *407* | *368* | **374** | *376* | *380* |
| Airline Ticket Price Index | | | | | | | | | | | | | | | |
| (index, 1982-1984=100) | **277.8** | **297.0** | **264.9** | **263.4** | *268.4* | *308.5* | *299.0* | *311.3* | *313.0* | *334.8* | *315.7* | *325.2* | **275.8** | *296.8* | *322.2* |
| Raw Steel Production | | | | | | | | | | | | | | | |
| (million short tons per day) | **0.248** | **0.247** | **0.250** | **0.245** | *0.254* | *0.260* | *0.241* | *0.208* | *0.263* | *0.262* | *0.240* | *0.205* | **0.248** | *0.240* | *0.243* |
| **Carbon Dioxide ($CO_2$) Emissions (million metric tons)** | | | | | | | | | | | | | | | |
| Petroleum | **565** | **588** | **593** | **591** | *576* | *587* | *602* | *592* | *579* | *593* | *607* | *598* | **2,337** | *2,357* | *2,377* |
| Natural Gas | **424** | **312** | **337** | **403** | *465* | *335* | *352* | *406* | *472* | *341* | *355* | *412* | **1,477** | *1,558* | *1,581* |
| Coal | **321** | **309** | **377** | **321** | *310* | *288* | *364* | *316* | *326* | *279* | *367* | *305* | **1,329** | *1,277* | *1,278* |
| Total Energy (c) | **1,314** | **1,211** | **1,311** | **1,319** | *1,354* | *1,212* | *1,320* | *1,317* | *1,380* | *1,216* | *1,333* | *1,318* | **5,155** | *5,204* | *5,248* |

- = 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 - March 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 | **888** | **893** | **901** | **905** | *910* | *915* | *920* | *925* | *929* | *934* | *939* | *943* | **897** | *917* | *936* |
| Middle Atlantic | **2,483** | **2,496** | **2,516** | **2,528** | *2,539* | *2,554* | *2,568* | *2,581* | *2,591* | *2,603* | *2,613* | *2,624* | **2,506** | *2,560* | *2,608* |
| E. N. Central | **2,318** | **2,336** | **2,354** | **2,365** | *2,376* | *2,388* | *2,401* | *2,412* | *2,425* | *2,437* | *2,448* | *2,459* | **2,343** | *2,394* | *2,442* |
| W. N. Central | **1,070** | **1,075** | **1,081** | **1,086** | *1,090* | *1,096* | *1,102* | *1,108* | *1,114* | *1,119* | *1,125* | *1,130* | **1,078** | *1,099* | *1,122* |
| S. Atlantic | **3,008** | **3,029** | **3,050** | **3,069** | *3,088* | *3,110* | *3,131* | *3,154* | *3,176* | *3,197* | *3,217* | *3,237* | **3,039** | *3,121* | *3,207* |
| E. S. Central | **761** | **767** | **771** | **776** | *779* | *784* | *789* | *793* | *798* | *802* | *807* | *811* | **769** | *786* | *805* |
| W. S. Central | **2,021** | **2,050** | **2,071** | **2,090** | *2,107* | *2,128* | *2,147* | *2,167* | *2,186* | *2,203* | *2,219* | *2,233* | **2,058** | *2,137* | *2,210* |
| Mountain | **1,082** | **1,092** | **1,100** | **1,109** | *1,117* | *1,125* | *1,134* | *1,144* | *1,154* | *1,163* | *1,172* | *1,181* | **1,096** | *1,130* | *1,168* |
| Pacific | **3,168** | **3,188** | **3,213** | **3,237** | *3,256* | *3,281* | *3,305* | *3,330* | *3,353* | *3,381* | *3,403* | *3,427* | **3,201** | *3,293* | *3,391* |
| **Industrial Output, Manufacturing (Index, Year 2012=100)** | | | | | | | | | | | | | | | |
| New England | **98.0** | **98.7** | **98.3** | **99.9** | *100.2* | *100.3* | *100.6* | *101.5* | *102.1* | *102.6* | *103.0* | *103.5* | **98.7** | *100.7* | *102.8* |
| Middle Atlantic | **98.2** | **97.9** | **97.3** | **98.3** | *98.9* | *99.1* | *99.6* | *100.5* | *101.1* | *101.7* | *102.1* | *102.6* | **97.9** | *99.5* | *101.9* |
| E. N. Central | **106.2** | **106.9** | **106.4** | **108.1** | *108.9* | *109.4* | *110.0* | *111.0* | *112.1* | *112.9* | *113.6* | *114.3* | **106.9** | *109.8* | *113.2* |
| W. N. Central | **102.3** | **103.3** | **103.2** | **105.4** | *106.0* | *106.4* | *107.1* | *108.1* | *109.0* | *109.9* | *110.5* | *111.2* | **103.6** | *106.9* | *110.1* |
| S. Atlantic | **107.2** | **108.0** | **107.7** | **109.8** | *110.3* | *110.7* | *111.2* | *112.2* | *113.0* | *113.8* | *114.4* | *115.0* | **108.2** | *111.1* | *114.0* |
| E. S. Central | **110.1** | **110.6** | **109.7** | **111.5** | *112.2* | *112.6* | *113.3* | *114.4* | *115.3* | *116.2* | *116.9* | *117.6* | **110.5** | *113.1* | *116.5* |
| W. S. Central | **98.0** | **99.7** | **99.8** | **101.5** | *102.3* | *103.0* | *103.9* | *105.4* | *106.4* | *107.3* | *108.1* | *108.9* | **99.8** | *103.6* | *107.7* |
| Mountain | **108.3** | **109.1** | **108.7** | **111.0** | *111.6* | *112.0* | *112.7* | *113.8* | *114.8* | *115.6* | *116.3* | *117.0* | **109.3** | *112.5* | *115.9* |
| Pacific | **103.7** | **104.3** | **103.6** | **105.5** | *106.1* | *106.5* | *107.2* | *108.4* | *109.2* | *110.0* | *110.6* | *111.2* | **104.3** | *107.0* | *110.3* |
| **Real Personal Income (Billion $2009)** | | | | | | | | | | | | | | | |
| New England | **774** | **776** | **778** | **781** | *785* | *790* | *795* | *801* | *807* | *812* | *817* | *822* | **777** | *792* | *814* |
| Middle Atlantic | **1,965** | **1,976** | **1,984** | **1,989** | *1,996* | *2,008* | *2,022* | *2,035* | *2,050* | *2,060* | *2,071* | *2,083* | **1,978** | *2,015* | *2,066* |
| E. N. Central | **2,107** | **2,109** | **2,115** | **2,124** | *2,133* | *2,145* | *2,160* | *2,175* | *2,193* | *2,205* | *2,218* | *2,231* | **2,114** | *2,153* | *2,212* |
| W. N. Central | **989** | **993** | **994** | **999** | *1,003* | *1,009* | *1,017* | *1,026* | *1,036* | *1,044* | *1,053* | *1,062* | **994** | *1,014* | *1,049* |
| S. Atlantic | **2,776** | **2,787** | **2,796** | **2,806** | *2,823* | *2,844* | *2,869* | *2,894* | *2,924* | *2,947* | *2,970* | *2,993* | **2,791** | *2,857* | *2,958* |
| E. S. Central | **778** | **780** | **782** | **784** | *787* | *792* | *798* | *804* | *812* | *817* | *822* | *827* | **781** | *795* | *819* |
| W. S. Central | **1,703** | **1,711** | **1,719** | **1,727** | *1,738* | *1,754* | *1,772* | *1,789* | *1,809* | *1,824* | *1,840* | *1,856* | **1,715** | *1,763* | *1,832* |
| Mountain | **976** | **981** | **983** | **988** | *994* | *1,002* | *1,012* | *1,022* | *1,034* | *1,043* | *1,052* | *1,061* | **982** | *1,008* | *1,047* |
| Pacific | **2,397** | **2,425** | **2,432** | **2,445** | *2,458* | *2,476* | *2,498* | *2,520* | *2,544* | *2,563* | *2,582* | *2,602* | **2,425** | *2,488* | *2,573* |
| **Households (Thousands)** | | | | | | | | | | | | | | | |
| New England | **5,859** | **5,868** | **5,888** | **5,896** | *5,906* | *5,917* | *5,928* | *5,940* | *5,954* | *5,967* | *5,979* | *5,990* | **5,896** | *5,940* | *5,990* |
| Middle Atlantic | **15,899** | **15,915** | **15,967** | **15,982** | *16,003* | *16,029* | *16,055* | *16,086* | *16,118* | *16,145* | *16,173* | *16,200* | **15,982** | *16,086* | *16,200* |
| E. N. Central | **18,823** | **18,840** | **18,900** | **18,917** | *18,944* | *18,982* | *19,017* | *19,055* | *19,092* | *19,128* | *19,166* | *19,203* | **18,917** | *19,055* | *19,203* |
| W. N. Central | **8,518** | **8,536** | **8,574** | **8,594** | *8,620* | *8,650* | *8,676* | *8,702* | *8,730* | *8,755* | *8,781* | *8,806* | **8,594** | *8,702* | *8,806* |
| S. Atlantic | **25,184** | **25,275** | **25,434** | **25,530** | *25,634* | *25,746* | *25,853* | *25,963* | *26,079* | *26,186* | *26,289* | *26,391* | **25,530** | *25,963* | *26,391* |
| E. S. Central | **7,602** | **7,617** | **7,649** | **7,665** | *7,685* | *7,708* | *7,730* | *7,752* | *7,777* | *7,800* | *7,823* | *7,845* | **7,665** | *7,752* | *7,845* |
| W. S. Central | **14,579** | **14,625** | **14,704** | **14,749** | *14,801* | *14,859* | *14,921* | *14,987* | *15,056* | *15,122* | *15,187* | *15,251* | **14,749** | *14,987* | *15,251* |
| Mountain | **9,036** | **9,074** | **9,132** | **9,172** | *9,217* | *9,265* | *9,312* | *9,360* | *9,409* | *9,455* | *9,501* | *9,547* | **9,172** | *9,360* | *9,547* |
| Pacific | **18,697** | **18,753** | **18,846** | **18,896** | *18,954* | *19,019* | *19,084* | *19,148* | *19,216* | *19,277* | *19,337* | *19,395* | **18,896** | *19,148* | *19,395* |
| **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* | *7.6* | *7.6* | **7.4** | *7.5* | *7.5* |
| Middle Atlantic | **19.5** | **19.5** | **19.6** | **19.6** | *19.6* | *19.7* | *19.7* | *19.8* | *19.9* | *19.9* | *19.9* | *20.0* | **19.5** | *19.7* | *19.9* |
| E. N. Central | **21.9** | **21.9** | **22.0** | **22.0** | *22.1* | *22.2* | *22.2* | *22.3* | *22.4* | *22.5* | *22.5* | *22.6* | **22.0** | *22.2* | *22.5* |
| W. N. Central | **10.6** | **10.7** | **10.7** | **10.7** | *10.7* | *10.8* | *10.8* | *10.9* | *10.9* | *10.9* | *11.0* | *11.0* | **10.7** | *10.8* | *10.9* |
| S. Atlantic | **28.0** | **28.1** | **28.3** | **28.4** | *28.5* | *28.6* | *28.8* | *28.9* | *29.1* | *29.2* | *29.4* | *29.5* | **28.2** | *28.7* | *29.3* |
| 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* | *8.4* | **8.1** | *8.2* | *8.3* |
| W. S. Central | **17.0** | **17.1** | **17.2** | **17.3** | *17.4* | *17.5* | *17.6* | *17.7* | *17.8* | *17.9* | *18.0* | *18.0* | **17.1** | *17.5* | *17.9* |
| Mountain | **10.4** | **10.5** | **10.5** | **10.6** | *10.6* | *10.7* | *10.7* | *10.8* | *10.9* | *10.9* | *11.0* | *11.1* | **10.5** | *10.7* | *11.0* |
| Pacific | **22.7** | **22.8** | **22.9** | **23.1** | *23.2* | *23.3* | *23.4* | *23.5* | *23.6* | *23.7* | *23.8* | *23.9* | **22.9** | *23.3* | *23.7* |

- = no data available

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

Regions refer to U.S. Census divisions.

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

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

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

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

**Table 9c. U.S. Regional Weather Data**

U.S. Energy Information Administration | Short-Term Energy Outlook - March 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 | **2,985** | **806** | **94** | **2,176** | *3,016* | *869* | *129* | *2,162* | *3,135* | *887* | *129* | *2,162* | **6,061** | *6,177* | *6,314* |
| Middle Atlantic | **2,658** | **602** | **73** | **2,004** | *2,823* | *704* | *82* | *1,982* | *2,923* | *717* | *82* | *1,982* | **5,337** | *5,591* | *5,704* |
| E. N. Central | **2,691** | **627** | **106** | **2,263** | *3,122* | *736* | *123* | *2,218* | *3,140* | *742* | *123* | *2,218* | **5,687** | *6,199* | *6,223* |
| W. N. Central | **2,812** | **662** | **138** | **2,385** | *3,345* | *700* | *160* | *2,397* | *3,219* | *706* | *160* | *2,398* | **5,997** | *6,601* | *6,483* |
| South Atlantic | **1,147** | **125** | **15** | **945** | *1,334* | *197* | *12* | *975* | *1,433* | *208* | *12* | *973* | **2,232** | *2,518* | *2,627* |
| E. S. Central | **1,375** | **154** | **25** | **1,280** | *1,759* | *242* | *19* | *1,299* | *1,828* | *261* | *19* | *1,300* | **2,833** | *3,318* | *3,407* |
| W. S. Central | **773** | **65** | **4** | **740** | *1,215* | *69* | *4* | *783* | *1,121* | *82* | *4* | *783* | **1,582** | *2,071* | *1,991* |
| Mountain | **2,052** | **693** | **153** | **1,654** | *2,061* | *669* | *145* | *1,833* | *2,186* | *683* | *144* | *1,832* | **4,552** | *4,708* | *4,846* |
| Pacific | **1,561** | **534** | **68** | **1,033** | *1,345* | *602* | *95* | *1,222* | *1,525* | *597* | *95* | *1,223* | **3,196** | *3,264* | *3,439* |
| U.S. Average | **1,858** | **428** | **65** | **1,481** | *2,054* | *490* | *75* | *1,526* | *2,114* | *499* | *75* | *1,524* | **3,831** | *4,145* | *4,212* |
| **Heating Degree Days, Prior 10-year Average** | | | | | | | | | | | | | | | |
| New England | **3,201** | **831** | **122** | **2,125** | *3,172* | *818* | *119* | *2,121* | *3,162* | *817* | *117* | *2,109* | **6,279** | *6,231* | *6,205* |
| Middle Atlantic | **2,983** | **661** | **81** | **1,941** | *2,947* | *646* | *81* | *1,949* | *2,944* | *645* | *80* | *1,934* | **5,665** | *5,623* | *5,604* |
| E. N. Central | **3,254** | **701** | **114** | **2,197** | *3,209* | *692* | *116* | *2,210* | *3,187* | *688* | *118* | *2,187* | **6,267** | *6,228* | *6,180* |
| W. N. Central | **3,302** | **707** | **142** | **2,380** | *3,264* | *705* | *144* | *2,379* | *3,247* | *690* | *144* | *2,360* | **6,531** | *6,492* | *6,440* |
| South Atlantic | **1,502** | **188** | **12** | **966** | *1,476* | *177* | *12* | *974* | *1,469* | *174* | *12* | *964* | **2,667** | *2,639* | *2,620* |
| E. S. Central | **1,906** | **231** | **16** | **1,287** | *1,868* | *217* | *18* | *1,301* | *1,856* | *213* | *18* | *1,288* | **3,440** | *3,404* | *3,376* |
| W. S. Central | **1,227** | **88** | **4** | **799** | *1,181* | *80* | *4* | *801* | *1,185* | *77* | *4* | *795* | **2,119** | *2,066* | *2,061* |
| Mountain | **2,216** | **734** | **142** | **1,862** | *2,194* | *737* | *144* | *1,840* | *2,158* | *721* | *141* | *1,842* | **4,954** | *4,915* | *4,862* |
| Pacific | **1,462** | **598** | **89** | **1,205** | *1,465* | *593* | *84* | *1,181* | *1,435* | *588* | *84* | *1,186* | **3,354** | *3,322* | *3,292* |
| U.S. Average | **2,192** | **487** | **71** | **1,527** | *2,160* | *478* | *71* | *1,524* | *2,143* | *472* | *71* | *1,513* | **4,277** | *4,233* | *4,198* |
| **Cooling Degree Days** | | | | | | | | | | | | | | | |
| New England | **0** | **74** | **363** | **11** | *0* | *80* | *403* | *1* | *0* | *79* | *403* | *1* | **448** | *485* | *483* |
| Middle Atlantic | **0** | **139** | **500** | **21** | *0* | *147* | *532* | *4* | *0* | *145* | *532* | *4* | **660** | *683* | *681* |
| E. N. Central | **1** | **211** | **479** | **15** | *0* | *213* | *534* | *7* | *0* | *211* | *534* | *7* | **707** | *754* | *752* |
| W. N. Central | **9** | **265** | **623** | **14** | *3* | *265* | *666* | *10* | *3* | *262* | *666* | *10* | **910** | *944* | *941* |
| South Atlantic | **159** | **670** | **1,154** | **262** | *150* | *642* | *1,165* | *228* | *117* | *628* | *1,166* | *228* | **2,245** | *2,185* | *2,139* |
| E. S. Central | **66** | **481** | **964** | **74** | *32* | *517* | *1,059* | *66* | *27* | *499* | *1,059* | *66* | **1,584** | *1,674* | *1,651* |
| W. S. Central | **214** | **829** | **1,460** | **217** | *97* | *919* | *1,505* | *201* | *93* | *876* | *1,505* | *201* | **2,720** | *2,721* | *2,675* |
| Mountain | **37** | **471** | **919** | **122** | *21* | *438* | *930* | *76* | *19* | *430* | *931* | *76* | **1,548** | *1,464* | *1,455* |
| Pacific | **30** | **218** | **701** | **97** | *35* | *167* | *572* | *58* | *28* | *167* | *571* | *58* | **1,047** | *832* | *824* |
| U.S. Average | **70** | **402** | **838** | **114** | *51* | *401* | *848* | *91* | *43* | *392* | *850* | *92* | **1,424** | *1,392* | *1,376* |
| **Cooling Degree Days, Prior 10-year Average** | | | | | | | | | | | | | | | |
| New England | **0** | **81** | **433** | **1** | *0* | *81* | *433* | *1* | *0* | *79* | *437* | *1* | **515** | *515* | *517* |
| Middle Atlantic | **0** | **169** | **566** | **6** | *0* | *166* | *566* | *5* | *0* | *162* | *571* | *6* | **741** | *738* | *739* |
| E. N. Central | **3** | **234** | **542** | **8** | *3* | *228* | *532* | *7* | *3* | *230* | *537* | *7* | **788** | *770* | *777* |
| W. N. Central | **7** | **281** | **672** | **12** | *7* | *277* | *659* | *11* | *7* | *281* | *667* | *12* | **973** | *953* | *966* |
| South Atlantic | **117** | **666** | **1,167** | **230** | *119* | *675* | *1,160* | *227* | *122* | *675* | *1,169* | *234* | **2,179** | *2,181* | *2,200* |
| E. S. Central | **33** | **544** | **1,056** | **65** | *34* | *539* | *1,031* | *63* | *35* | *541* | *1,039* | *66* | **1,698** | *1,667* | *1,681* |
| W. S. Central | **90** | **876** | **1,527** | **205** | *100* | *887* | *1,532* | *204* | *101* | *889* | *1,546* | *208* | **2,698** | *2,722* | *2,744* |
| Mountain | **23** | **424** | **930** | **81** | *24* | *426* | *922* | *84* | *25* | *431* | *925* | *83* | **1,458** | *1,457* | *1,465* |
| Pacific | **30** | **180** | **608** | **74** | *30* | *185* | *621* | *78* | *31* | *183* | *616* | *75* | **892** | *914* | *905* |
| U.S. Average | **43** | **405** | **857** | **94** | *45* | *408* | *855* | *94* | *46* | *410* | *862* | *96* | **1,399** | *1,402* | *1,413* |

- = 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).