



Short-Term Energy Outlook (STEO)

Forecast highlights

Global liquid fuels

- Brent crude oil spot prices averaged \$71 per barrel (b) in April, up \$5/b from March 2019 and just below the price in April of last year. EIA forecasts Brent spot prices will average \$70/b in 2019 and \$67/b in 2020, both about \$5/b higher than in last month's STEO, compared with an average of \$71/b in 2018. EIA's higher Brent crude oil price forecast reflects tighter expected global oil market balances in mid-2019 and increasing supply disruption risks globally.
- EIA forecasts that crude oil production in the Organization of the Petroleum Exporting Countries (OPEC) will average 30.3 million barrels per day (b/d) in 2019, down by 1.7 million b/d from 2018. In 2020, EIA expects OPEC crude oil production to fall by 0.4 million b/d to an average of 29.8 million b/d. Production in Venezuela and Iran account for most of the OPEC output declines in 2019 and in 2020, but EIA expects these declines to be partially offset by production increases from other OPEC members.
- EIA forecasts global oil inventories will decline by 0.2 million b/d in 2019 and then increase by 0.1 million b/d in 2020. Global demand outpaces supply in 2019 in EIA's forecast, but global liquid fuels supply then rises by 1.9 million b/d in 2020, with 1.5 million of that growth coming from the United States. Global oil demand rises by 1.5 million b/d in 2020 in the forecast, up from expected growth of 1.4 million b/d in 2019.
- For the 2019 summer driving season, which runs from April through September, EIA forecasts that U.S. regular gasoline retail prices will average \$2.92 per gallon (gal), up from an average of \$2.85/gal last summer. The higher forecast gasoline prices primarily reflect EIA's expectation of higher gasoline refining margins this summer, despite slightly lower crude oil prices.

Natural gas

- The Henry Hub natural gas spot price averaged \$2.64/million British thermal units (MMBtu) in April, down 31 cents/MMBtu from March. Prices fell as a result of warmer-than-normal temperatures across much of the United States, which reduced the use of natural gas for space heating and contributed to above-average inventory injections during the month. EIA expects strong growth in U.S. natural gas production to put downward pressure on prices in 2019 and in 2020. EIA expects Henry Hub natural gas

spot prices will average \$2.79/MMBtu in 2019, down 36 cents/MMBtu from 2018. The forecasted 2020 average Henry Hub spot price is \$2.78/MMBtu.

- EIA forecasts that dry natural gas production will average 90.3 billion cubic feet per day (Bcf/d) in 2019, up 6.9 Bcf/d from 2018. EIA expects natural gas production will continue to grow in 2020 to an average of 92.2 Bcf/d.
- EIA estimates that natural gas inventories ended March at 1.2 trillion cubic feet (Tcf), 16% lower than levels from a year earlier and 29% lower than the five-year (2014–18) average. EIA forecasts that natural gas storage injections will outpace the previous five-year average during the April-through-October injection season and that inventories will reach 3.7 Tcf at the end of October, which would be 15% higher than October 2018 levels and about equal to the five-year average.

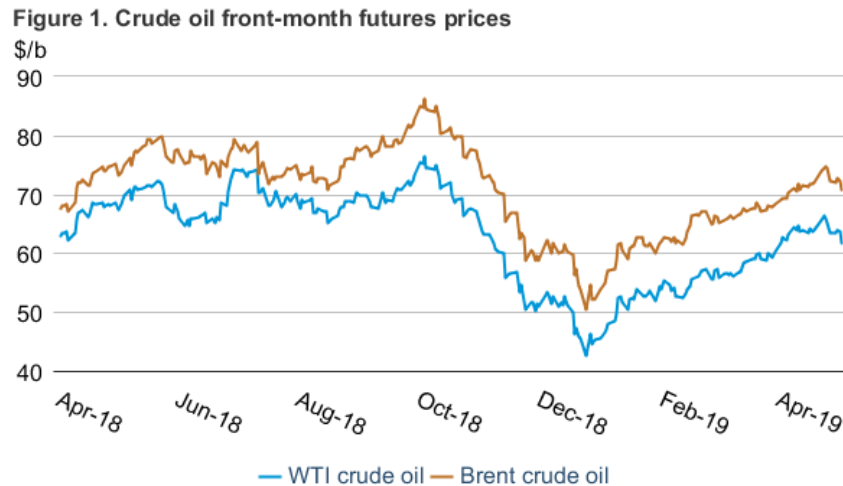
Electricity, coal, renewables, and emissions

- EIA expects the share of U.S. total utility-scale electricity generation from natural gas-fired power plants to rise from 35% in 2018 to 37% in 2019 and to 38% in 2020. EIA forecasts that the share of electricity generation from coal will average 24% in 2019 and 22% in 2020, down from 27% in 2018. The nuclear share of generation was 19% in 2018, and EIA forecasts that it will stay near that level in 2019 and in 2020. The generation share of hydropower averages 7% of total generation in EIA's forecast for 2019 and 2020, similar to 2018. Wind, solar, and other nonhydropower renewables together provided about 10% of electricity generation in 2018. EIA expects they will provide 11% in 2019 and 13% in 2020.
- EIA forecasts that all renewable fuels, including wind, solar, and hydropower, will produce 18% of U.S. electricity in 2019 and almost 20% in 2020. EIA expects that wind generation will surpass hydropower generation for the first time to become the leading source of renewable electricity generation in 2019 and maintain that position in 2020.
- EIA estimates that U.S. coal production in the first quarter of 2019 was 170 million short tons (MMst), 22 MMst (12%) lower than the previous quarter and 17 MMst (9%) lower than production in the first quarter of 2018. EIA expects that coal production will fall during the forecast period as demand for coal (domestic consumption and exports) declines. EIA forecasts that coal production will total 700 MMst in 2019 and 638 MMst in 2020 (declining by 7% and 9%, respectively).
- After rising by 2.7% in 2018, EIA forecasts that U.S. energy-related carbon dioxide (CO₂) emissions will decline by 2.1% in 2019 and by 0.8% in 2020. EIA expects emissions to fall in 2019 and in 2020 as forecast temperatures return to near normal after a warm summer and cold winter in 2018 and because the forecast share of electricity generated from natural gas and renewables increases while the forecast share generated from coal, which produces more CO₂ emissions, decreases. Energy-related CO₂ emissions are sensitive to weather, economic growth, energy prices, and fuel mix.

Petroleum and natural gas markets review

Crude oil

Prices: The front-month futures price for Brent crude oil settled at \$70.75 per barrel (b) on May 2, 2019, an increase of \$1.74/b from April 1. The front-month futures price for West Texas Intermediate (WTI) crude oil for delivery at Cushing, Oklahoma, increased by 22 cents/b during the same period, settling at \$61.81/b on May 2 (**Figure 1**).



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

Crude oil prices increased for the fourth consecutive month in April, approaching six-month highs near the end of the month. Price increases have generally reflected a decline in global oil inventories during the first four months of the year, more recently occurring amid a backdrop of heightened market perceptions of oil supply risk. On April 22, 2019, the United States notified the eight countries that were initially granted sanction waivers allowing them to continue to import Iranian crude oil and condensate that the waivers will not be extended past their May 2 expiration. Front-month Brent crude oil prices increased by \$2/b on April 22, but as of the time of writing, prices had declined to levels from before the announcement.

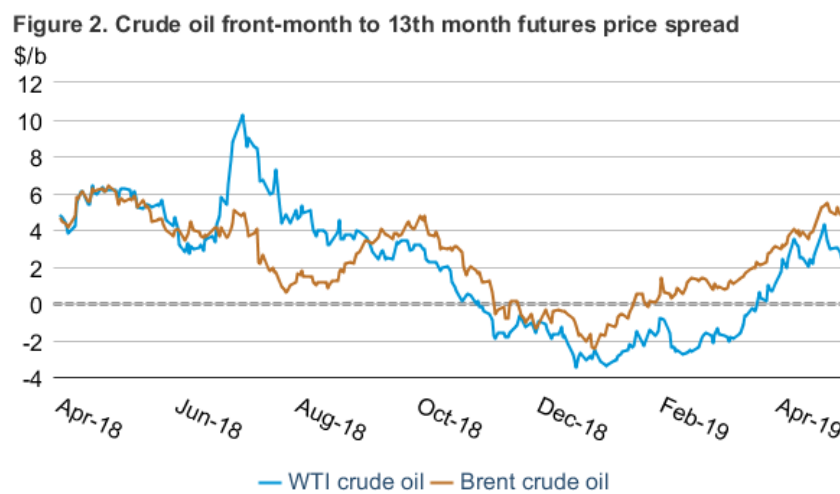
Although EIA forecasts Iranian crude oil production and exports to decline, crude oil supply from other countries—including some from the Organization of the Petroleum Exporting Countries (OPEC)—are expected to mostly offset the lost Iranian barrels in the coming months. EIA expects increases in crude oil production in Saudi Arabia, the United Arab Emirates, Kuwait, and Russia to largely backfill the lower Iranian production, though these countries will likely wait until their June meeting to make any decisions regarding production increases. In addition, EIA expects recent crude oil price increases, and expected higher oil prices through the forecast period, to contribute to an increase in drilling activity in the United States. The expected increase in drilling activity led EIA to revise the U.S. crude oil production forecast to 13.4 million barrels per day (b/d) in 2020, 0.3 million b/d higher than in the April STEO. These crude oil supply responses,

however, will take several months to materialize completely, whereas the disruption from Iran is likely to occur within weeks.

Given the expected delayed response of global crude oil production to current oil market fundamentals, EIA now expects average net global oil inventory withdrawals of about 0.4 million b/d during the second and third quarters of 2019. As a result of near-term market tightness, EIA expects second and third quarter Brent prices to average \$73/b, which is \$5/b higher than previously forecast. EIA forecasts prices to decline to an average of \$67/b in 2020 as the market moves to slight inventory builds.

The higher forecast prices in this STEO also reflects increased geopolitical risk. Unrest within Venezuela contributes to a highly uncertain situation that could immediately disrupt the [remaining oil production](#) there. Even if the ongoing unrest does not cause additional disruptions, EIA forecasts that Venezuela’s production will continue to see significant declines through 2020. Similarly, although recent fighting in Libya had not affected any crude oil production or export infrastructure as of the time of writing, the civil unrest has increased the disruption risk significantly.

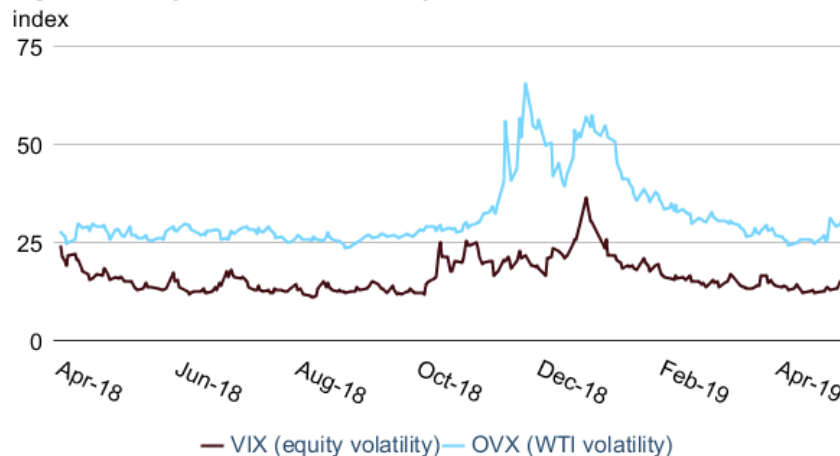
With the timing of any backfill of lost crude oil production and the risk of oil supply disruptions remaining uncertain, the shape of the crude oil futures curve reflects recent calls on available inventory to meet global oil demand. The Brent and WTI 1st–13th spread increased by \$1.97/b and 78 cents/b since April 1, respectively, settling at \$4.88/b and \$2.46/b on May 2, respectively **(Figure 2)**. EIA estimates that liquid fuels inventories for countries in the Organization for Economic Cooperation and Development (OECD), on a days-of-supply basis, ended April slightly below their five-year (2014–18) average level. The price increases in the futures market have been primarily concentrated in the near-month contracts, indicating current market prices are accounting for potential effects for near-term crude oil supply disruptions and inventory withdrawals without as large a price increase on longer-dated crude oil contracts.



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

Volatility: Implied volatility for both WTI crude oil and the S&P 500 Index reached the lowest levels since late 2018 in April (**Figure 3**). Both crude oil and equity prices have exhibited high [price correlation](#) since 2018, indicating the two assets may be responding to similar fundamental economic information, such as economic growth. U.S. GDP increased 3.2% in the first quarter of 2019, which was higher than market expectations. In addition, both the [U.S. Federal Reserve](#) and the [European Central Bank](#) made announcements that they will remain generally accommodative and less restrictive in their monetary policy decisions. Stable macroeconomic growth can reduce uncertainty in expectations for crude oil demand and contribute to lower price volatility. These same factors are also likely contributing to lower volatility in the S&P 500 index. Crude oil implied volatility increased by six percentage points from April 18 through May 2, when concerns about crude oil supply availability emerged after Iranian import waivers were not extended.

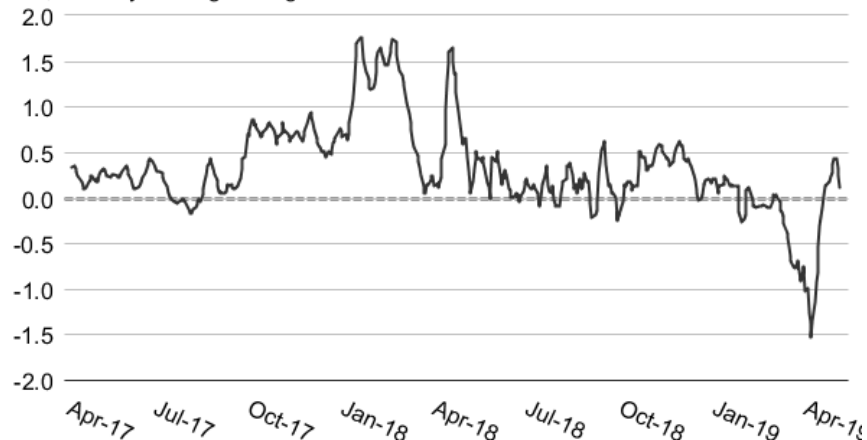
Figure 3. Equity and crude oil volatility indices



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

Crude oil price spreads: Light, sweet crude oil prices in the Midland hub, the area where crude oil produced from the Permian region is traded, developed a rare and significant discount to light, sour crude oil prices in the region in April. The five-day moving average of the differential between WTI Midland and West Texas Sour (WTS) crude oil prices neared a four-year low of -\$1.54/b on April 4, 2019. The spread increased \$1.65/b since then to settle at 11 cents/b on May 2 (**Figure 4**). [Trade press reports from Reuters](#) indicate that new WTI Midland production has been lighter than the WTI Cushing specifications, which may have been reflected in the discount. The price spread reached 42 cents/b in the last week of April, near the 2018 average premium of 47 cents/b, likely because producers and marketers began offering a separate stream of higher [API gravity crude oil](#), called West Texas Light, for delivery. This segregation appears to have successfully amended the specification problems with WTI Midland spot deliveries.

Figure 4. WTI Midland minus West Texas Sour
 \$/b, five-day moving average

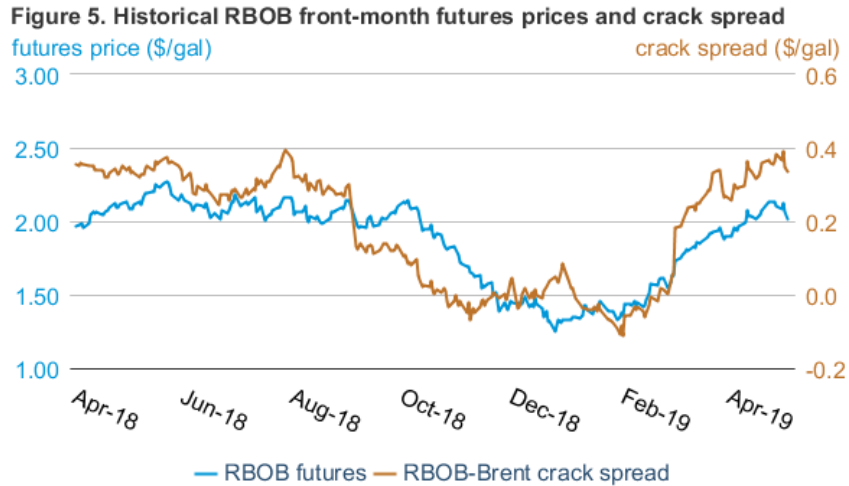


eia Bloomberg L.P.

Petroleum products

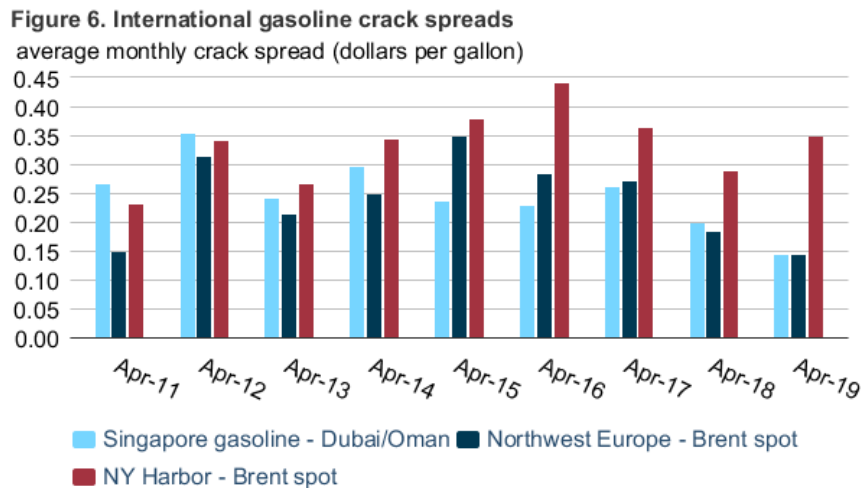
Gasoline prices: The front-month futures price of reformulated blendstock for oxygenate blending (RBOB, the petroleum component of gasoline used in many parts of the country) settled at \$2.02 per gallon (gal) on May 2, 2019, an increase of 12 cents/gal since April 1 (**Figure 5**). The RBOB–Brent crack spread (the difference between the price of RBOB and the price of Brent crude oil) increased by 8 cents/gal to settle at 33 cents/gal during the same period.

The RBOB–Brent crack spread averaged 33 cents/gal in April, the lowest for April since 2010. However, the average crack spread increased by seven cents/gal from March, more than the five-year (2014–18) average increase of one cent/gal for this time period. The higher-than-normal increase signals that the RBOB crack spread may be returning to average seasonal levels after a record-low first quarter of 2019. EIA estimates that U.S. gasoline consumption averaged 9.35 million barrels per day (b/d) in April, an increase of 0.16 million b/d from the same period last year. In addition, April gasoline stocks ended 8.1 million barrels lower than the five-year average for that month, declining for the third consecutive month after ending January 2019 at 261.3 million barrels, which was 11.2 million barrels higher than the five-year average for that month.



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

Historically low gasoline crack spreads have recovered less quickly in other regions of the world. The Northwest Europe gasoline–Brent spot price crack spread averaged 14 cents/gal in April. Each month in 2019 has been the lowest crack spread for that month since at least 2011 (**Figure 6**). The Singapore gasoline–Dubai/Oman spot price crack spread also averaged 14 cents/gal in April, the lowest since at least 2011 and 10 cents/gal less than the five-year average for the month.

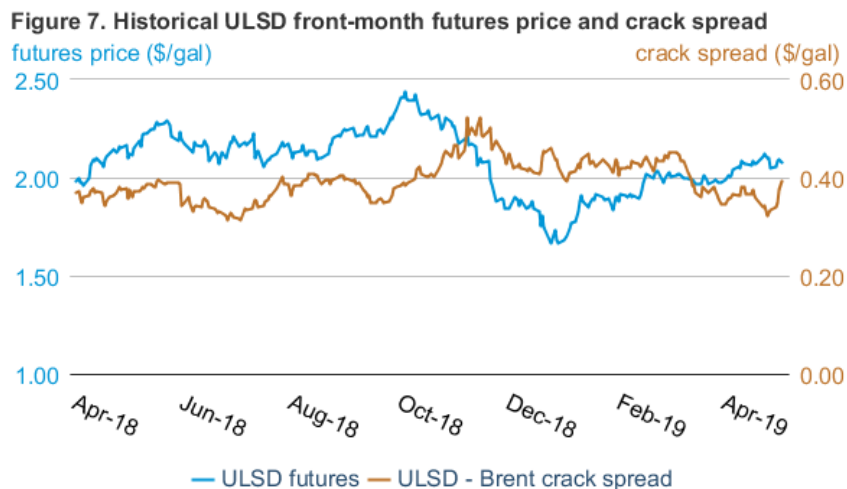


eia Bloomberg, L.P.

Light distillate stocks (which include gasoline) in Singapore have declined since reaching record inventory levels in February, yet remain higher than the five-year average. Gasoline stocks in the Amsterdam-Rotterdam-Antwerp trade hub in Europe were below the five-year average in April, after remaining above the five-year range for the first two months. Economic indicators signaling slower economic growth in the region could have contributed to lower consumption levels and slower stock draws. In addition, [trade press](#) indicates that low water levels on the

Rhine River in Germany slowed the transport of gasoline from storage hubs to regional distribution centers in late April. Previously high gasoline inventories in Europe may be tempered in the coming weeks by the potential for increased exports to the United States, as U.S. gasoline consumption reaches its seasonal high and if shippers take advantage of the opportunity to sell European gasoline at higher prices in the United States.

Ultra-low sulfur diesel prices: The ultra-low sulfur diesel (ULSD) front-month futures price increased 9 cents/gal from April 1 to settle at \$2.08/gal on May 2. The ULSD–Brent crack spread (the difference between the price of ULSD and the price of Brent crude oil) increased by 5 cent/gal to settle at 39 cents/gal during the same period (**Figure 7**).

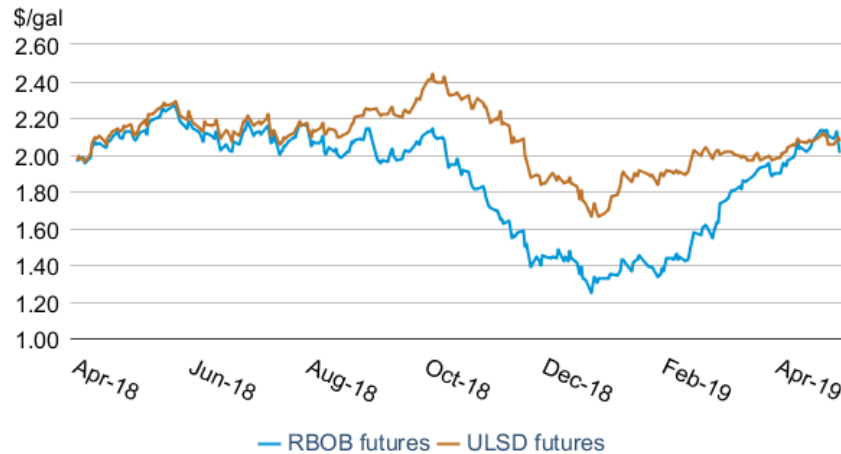


eia CME Group, as compiled by Bloomberg L.P., ULSD=ultra-low sulfur diesel

EIA estimates that U.S. distillate consumption—measured as product supplied—was 3.93 million b/d in April, a decrease of 0.18 million b/d from March 2019 and a decrease of 0.22 million b/d from April 2018, which possibly contributed to lower distillate crack spreads. U.S. distillate stocks in April ended 5.1 million barrels higher than in April 2018 but still 9.7 million barrels lower than the five-year average. Initial estimates for distillate exports indicate exports averaged 1.45 million b/d for the four weeks ending April 26, 2019, which if confirmed in the monthly data, would be close to the record high for the month of April set last year.

The monthly average ULSD front-month futures price had remained at a premium to RBOB front-month futures prices since April 2018, but narrowed during April 2019. The daily ULSD front-month futures price began trading at a discount to RBOB front-month futures prices beginning on April 18, 2019, for the first time since July 27, 2018 (**Figure 8**). Gasoline prices generally start trading at a premium to ULSD prices in March, when the RBOB futures contract represents the more expensive summer grade of gasoline. Historically low gasoline prices during the winter had delayed this seasonal pattern, however, as prices had to recover a greater differential to ULSD.

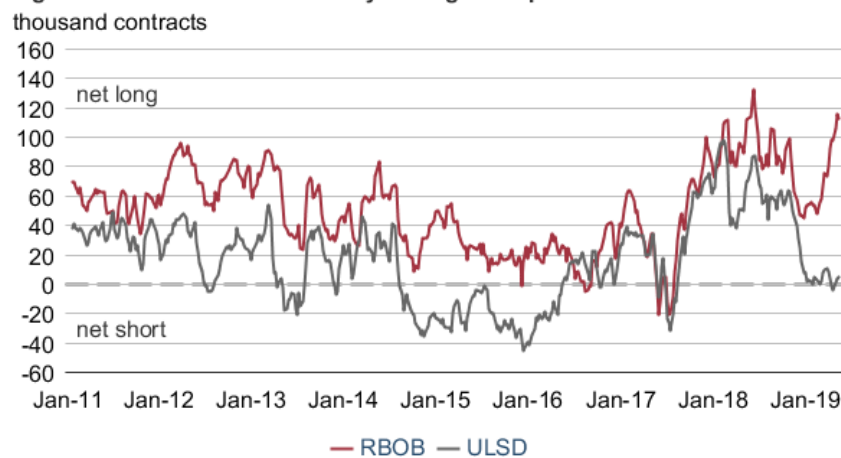
Figure 8. Historical RBOB and ULSD front-month futures prices



eia CME Group, as compiled by Bloomberg L.P.

Money manager positions: Futures and options positions held by money managers for RBOB and ULSD contracts have moved in opposite directions since the beginning of March. The money manager category of the [Commitments of Traders](#) report, published weekly by the Commodity Futures Trading Commission, includes fund managers that conduct organized futures trading on behalf of clients, and they are not involved in physical oil trading as their business activity. The ULSD money manager positions were briefly net short in April, whereas net long positions for RBOB significantly increased (**Figure 9**). The movements in money manager positions reflect recent price changes noted above, where ULSD futures prices, which had been at a substantial premium to RBOB futures prices for several months, briefly fell below RBOB prices in late April.

Figure 9. RBOB and ULSD money manager net positions

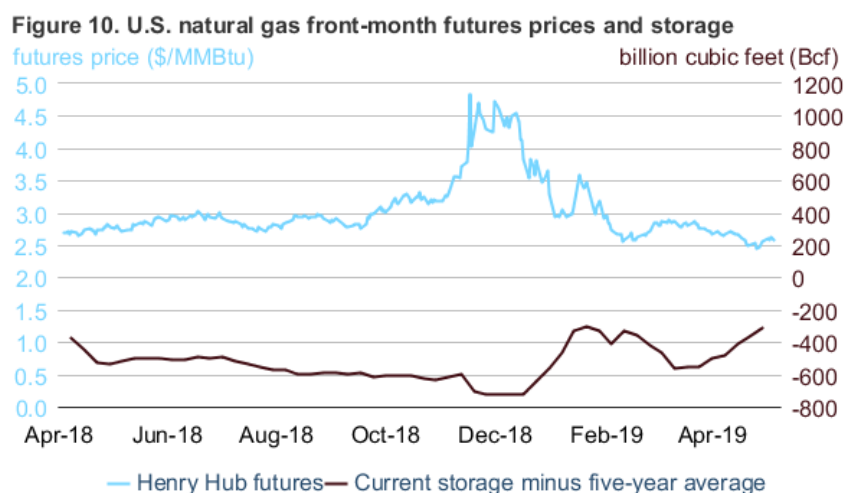


eia Commodity Futures Trading Commission, Bloomberg, L.P.

Natural Gas

Prices: The front-month natural gas futures contract for delivery at Henry Hub settled at \$2.59 per million British thermal units (MMBtu) on May 2, a decrease of 12 cents/MMBtu from April 1 (**Figure 10**). April 2019 was the second-warmest April in the past 23 years. EIA estimates that relatively warm temperatures, combined with ongoing increases in natural gas production, contributed to the largest injection of natural gas into U.S. working storage in April based on historical data going back to 1976.

The larger-than-normal April injections brought U.S. storage levels closer to the five-year (2014–18) average. EIA estimates that working natural gas inventories in the United States at the end of April were 314 billion cubic feet (Bcf) (17%) lower than the five-year average, compared with 486 Bcf (29%) lower at the end of March. If this estimate is confirmed in monthly data, April 2019 would be the first month since November 2016 to show a year-on-year increase in natural gas working inventories. Above-average inventory builds contributed to downward natural gas price movements throughout April. EIA forecasts that higher natural gas production during the injection season will continue to reduce the storage deficit relative to the five-year average and contribute to Henry Hub spot prices remaining lower than \$2.70/MMBtu on average in the second and third quarters of this year.

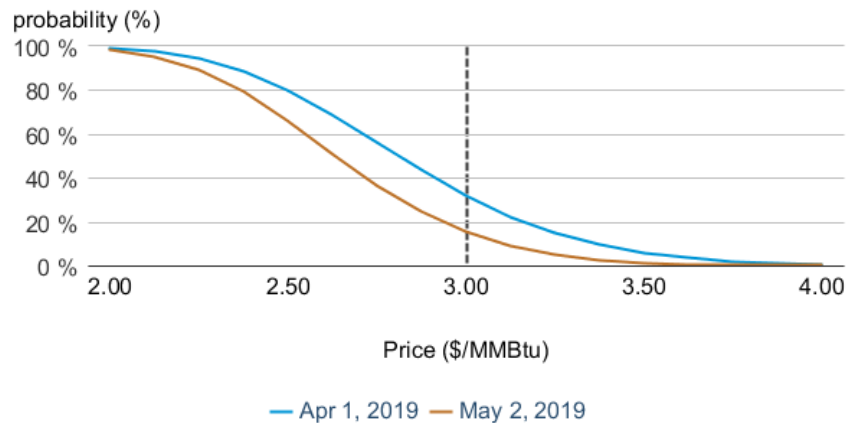


eia U.S. Energy Information Administration, CME Group, as compiled by Bloomberg L.P.

Market-derived probability: At the beginning of April, the [market-derived probability](#) of the August 2019 Henry Hub futures contract expiring at more than \$3/MMBtu was 32% (**Figure 11**). The probability—calculated using futures and options data—of the contract expiring at more than \$3/MMBtu decreased significantly throughout the month, reaching 15% on May 2. The lower probability was driven by the declining futures price amid relatively low implied volatility, which indicates lower expectations by market participants that prices will change significantly in the near future. Implied volatility has remained lower than the five-year range for three

consecutive months. Lower natural gas consumption contributed to higher rates of injection into storage, which has helped to reduce supply concerns and put downward pressure on prices.

Figure 11. Probability of the August 2019 Henry Hub contract expiring higher than specified price levels

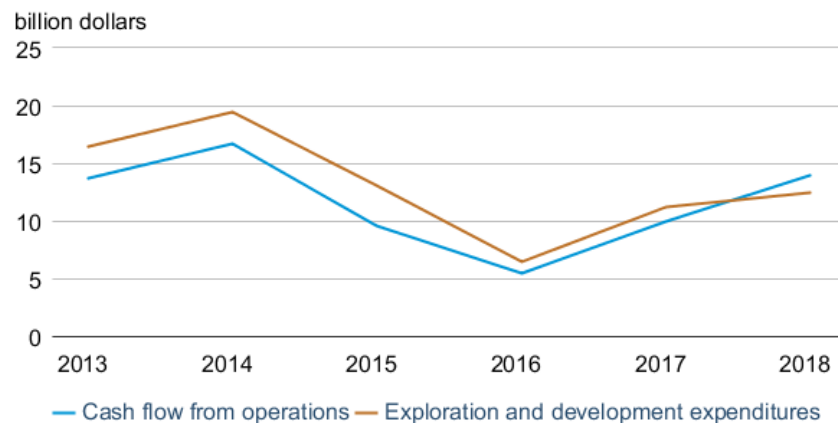


 U.S. Energy Information Administration, CME Group

Annual 2018 financials: A review of annual financial reports for 25 U.S. natural gas producers shows that cash flow from operations in 2018 for this group exceeded expenditures for exploration and development for the first time in the past six years (**Figure 12**). However, because these companies were not selected as a statistically representative sample, their results cannot be considered representative of the U.S. natural gas production industry as a whole. The group consists of producers that report their financial results publicly, that EIA has followed for some time, and that have natural gas production that is at least 60% of their total output and at least 75% of their production is in the United States. EIA published a similar analysis for a different set of companies that are primarily oil producers in a recent [This Week in Petroleum](#).

Cash flow from operations for these 25 natural gas-focused companies rose for the past two years with increases in both natural gas prices and production. Exploration and development expenditures for this set of companies also rose in 2018 but by less than the increase in cash flow from operations. The larger increase in cash flow from operations reduced the net amount of funds that this group of producers needed from other funding sources, such as equity or debt. Even though spending on exploration and development was less than cash flow from operations, this group of producers added more than twice the amount of proved natural gas reserves than the natural gas they produced in 2018, which increased their resource base for future production. This analysis supports EIA’s forecast of rising U.S. dry natural gas production, which is forecast to increase by 6.9 billion cubic feet per day (Bcf/d) in 2019 and by 1.9 Bcf/d in 2020.

Figure 12. Cash flow from operations and exploration and development expenditures for 25 U.S. natural gas producers



 U.S. Energy Information Administration, based on Evaluate Energy

Notable forecast changes

- EIA forecasts Brent crude oil prices to average \$70 per barrel (b) in 2019 and \$67/b in 2020, both up about \$5/b from last month's STEO forecast. Global oil inventories are expected to fall by 0.2 million barrels per day (b/d) in 2019, compared with a build of 0.1 million b/d forecast in the April STEO. Inventories are then forecast to increase by 0.1 million b/d in 2020, compared with a build of 0.4 million b/d forecast in the April STEO. The tighter balances largely reflect updated assumptions about Iranian crude oil and condensate production and exports following the U.S. announcement that it would not renew waivers granted to eight countries in November 2018 to import Iranian crude oil. Although EIA's previous forecasts had assumed no waivers would be granted to import Iranian oil after existing exemptions expired on May 2, EIA lowered its forecast of Iranian production in the May STEO to reflect increased certainty regarding waiver policy and enforcement. Partly offsetting the lower Iranian production compared with the last forecast is higher forecast crude oil supply from other OPEC members and Russia once the Vienna agreement expires in June and higher crude oil production in the United States as result of higher expected crude oil prices. Oil price outcomes are highly dependent on global levels of crude oil production disruptions, OPEC's response to any disruptions, and the price responsiveness of U.S. tight oil production.
- EIA forecast U.S. crude oil production will average 13.4 million b/d in 2020, which is 0.3 million b/d higher than the 2020 forecast in the April STEO. The higher crude oil production is the result of higher forecast prices in 2019 that have a lagged effect on production.
- For more information, see the [detailed table of STEO forecast changes](#)

This report was prepared by the U.S. Energy Information Administration (EIA), the statistical and analytical agency within the U.S. Department of Energy. By law, EIA's data, analyses, and forecasts are independent of approval by any other officer or employee of the United States Government. The views in this report therefore should not be construed as representing those of the U.S. Department of Energy or other federal agencies.

Short-Term Energy Outlook Chart Gallery



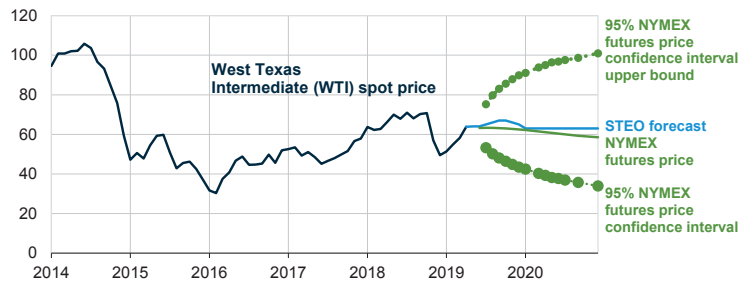
May 7, 2019



U.S. Energy Information Administration

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

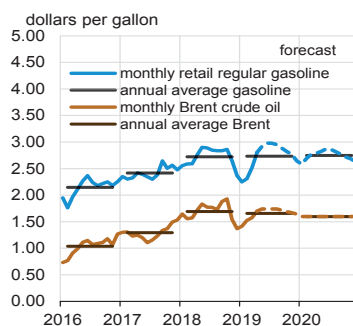


Note: Confidence interval derived from options market information for the five trading days ending May 2, 2019. Intervals not calculated for months with sparse trading in near-the-money options contracts.

Sources: Short-Term Energy Outlook, May 2019, and CME Group

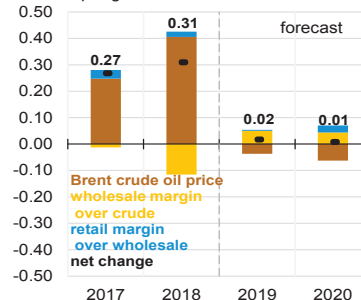


U.S. gasoline and crude oil prices

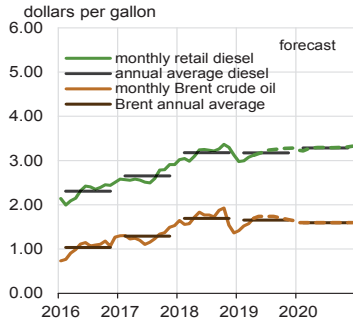


Source: Short-Term Energy Outlook, May 2019

Components of annual gasoline price changes
dollars per gallon

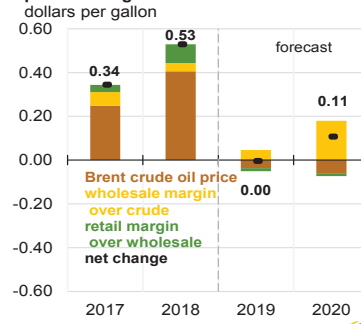


U.S. diesel and crude oil prices



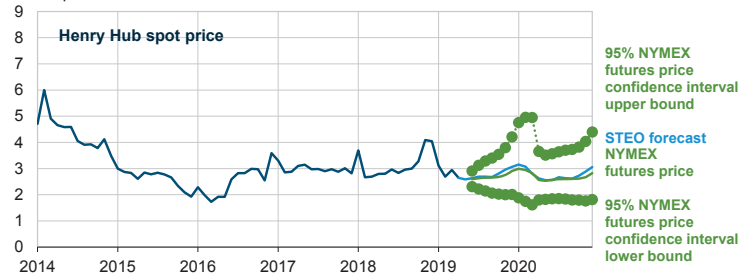
Source: Short-Term Energy Outlook, May 2019

Components of annual diesel prices changes



Henry Hub natural gas price and NYMEX confidence intervals

dollars per million Btu



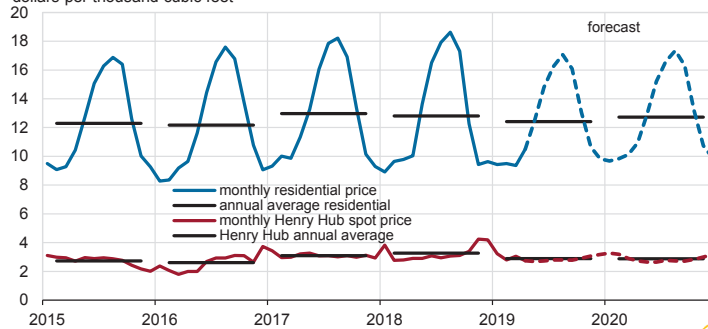
Note: Confidence interval derived from options market information for the five trading days ending May 2, 2019. Intervals not calculated for months with sparse trading in near-the-money options contracts.

Sources: Short-Term Energy Outlook, May 2019, and CME Group



U.S. natural gas prices

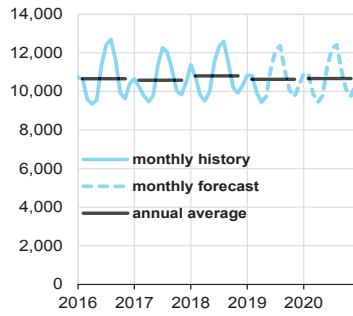
dollars per thousand cubic feet



Sources: Short-Term Energy Outlook, May 2019, and Refinitiv

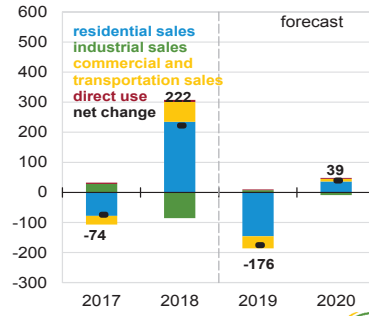


U.S. electricity consumption
million kilowatthours per day

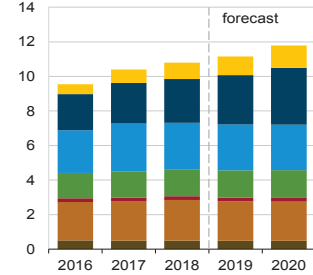


Source: Short-Term Energy Outlook, May 2019

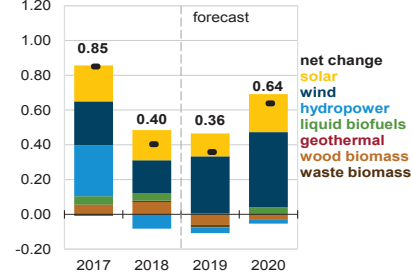
Components of annual change
million kilowatthours per day



U.S. renewable energy supply
quadrillion British thermal units



Components of annual change
quadrillion British thermal units

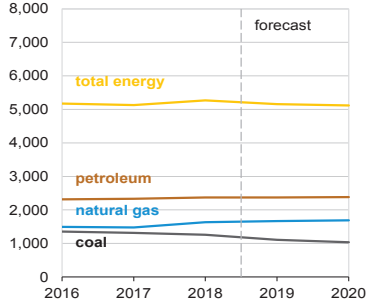


Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol and biodiesel. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste.

Source: Short-Term Energy Outlook, May 2019

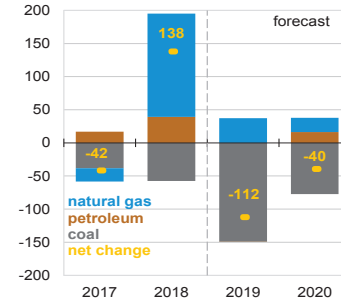


U.S. annual carbon emissions by source
million metric tons



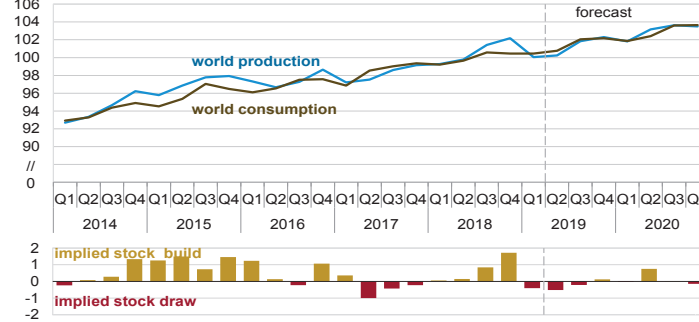
Source: Short-Term Energy Outlook, May 2019

Components of annual change
million metric tons



World liquid fuels production and consumption balance

million barrels per day

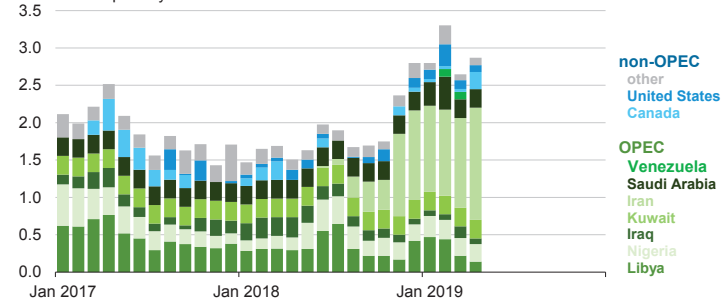


Source: Short-Term Energy Outlook, May 2019



Estimated unplanned liquid fuels production outages

million barrels per day

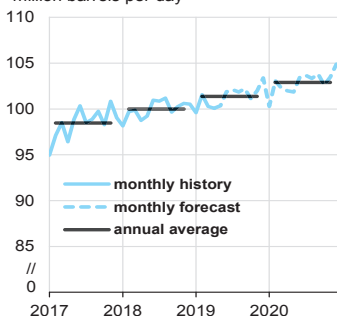


Source: Short-Term Energy Outlook, May 2019



World liquid fuels consumption

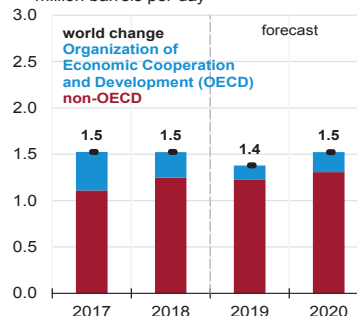
million barrels per day



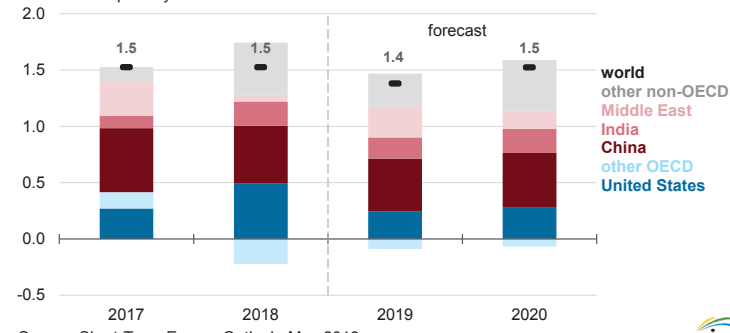
Source: Short-Term Energy Outlook, May 2019

Components of annual change

million barrels per day



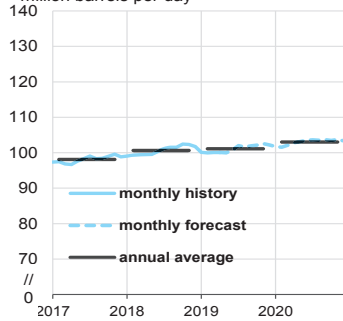
Annual change in world liquid fuels consumption
million barrels per day



Source: Short-Term Energy Outlook, May 2019

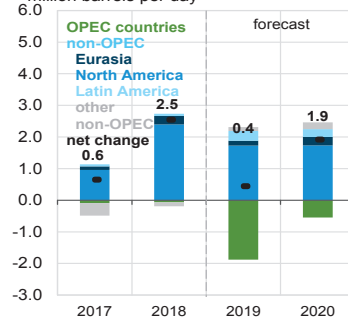


World crude oil and liquid fuels production
million barrels per day

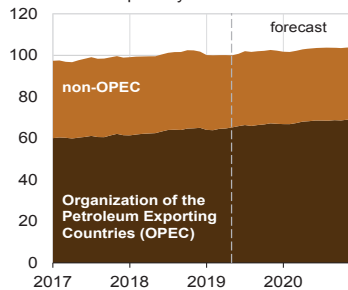


Source: Short-Term Energy Outlook, May 2019

Components of annual change
million barrels per day

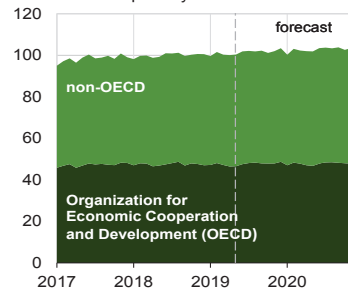


World liquid fuels production
million barrels per day

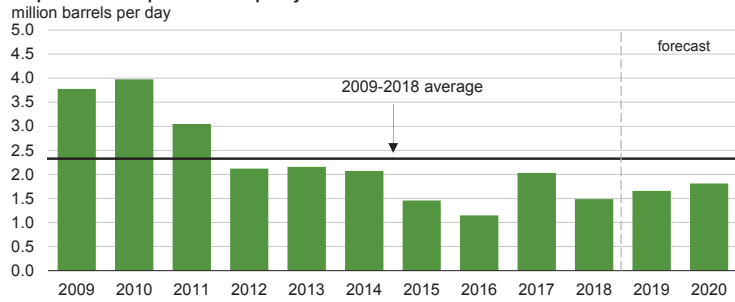


Source: Short-Term Energy Outlook, May 2019

World liquid fuels consumption
million barrels per day



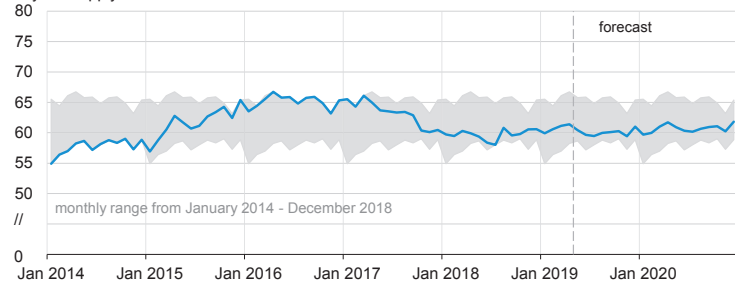
**Organization of the Petroleum Exporting Countries (OPEC)
surplus crude oil production capacity**



Note: Black line represents 2009-2018 average (2.3 million barrels per day).
Source: Short-Term Energy Outlook, May 2019



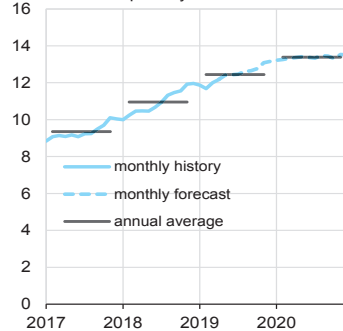
**Organization for Economic Cooperation and Development (OECD)
commercial inventories of crude oil and other liquids**



Source: Short-Term Energy Outlook, May 2019

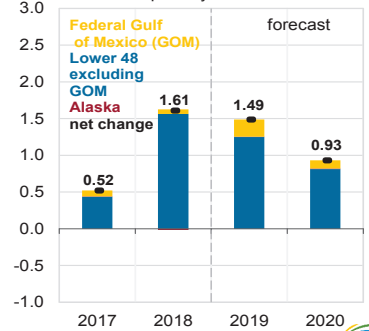


U.S. crude oil production

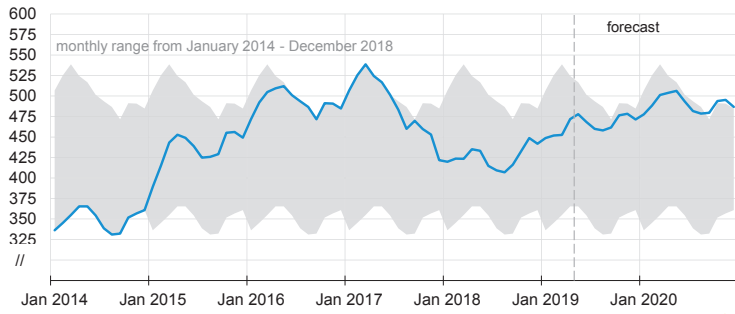


Source: Short-Term Energy Outlook, May 2019

Components of annual change



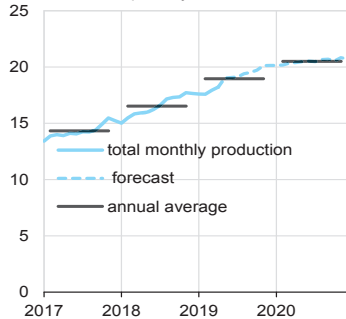
U.S. commercial crude oil inventories
million barrels



Source: Short-Term Energy Outlook, May 2019

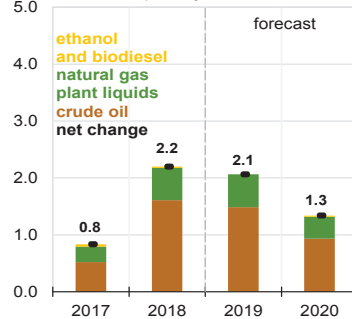


U.S. crude oil and liquid fuels production
million barrels per day

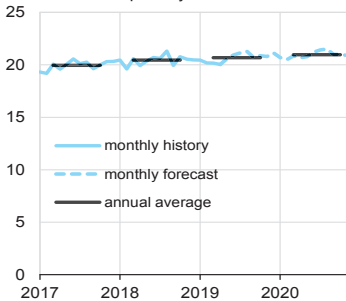


Source: Short-Term Energy Outlook, May 2019

Components of annual change
million barrels per day

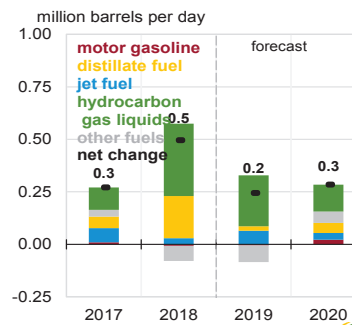


U.S. liquid fuels product supplied (consumption)
million barrels per day

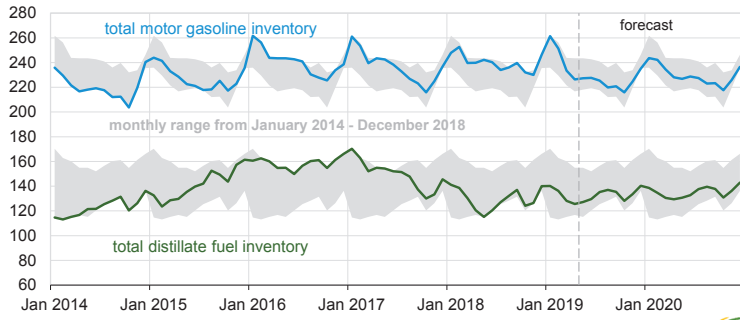


Source: Short-Term Energy Outlook, May 2019

Components of annual change
million barrels per day



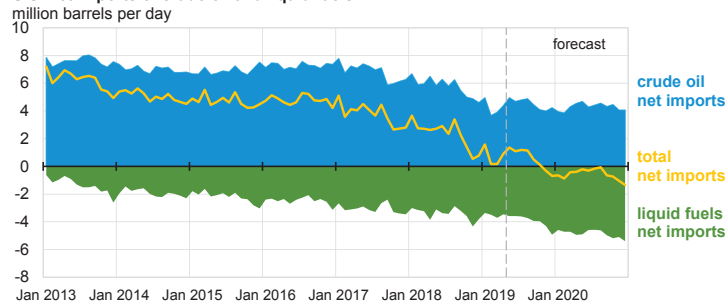
U.S. gasoline and distillate inventories
million barrels



Source: Short-Term Energy Outlook, May 2019



U.S. net imports of crude oil and liquid fuels

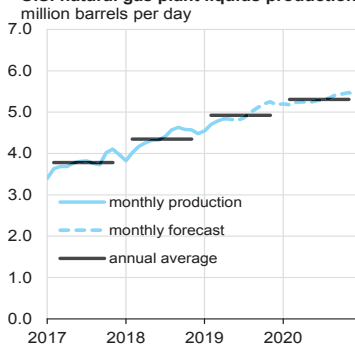


Note: Liquids fuels include: gasoline, distillate fuels, hydrocarbon gas liquids, jet fuel, residual fuel oil, unfinished oils, other hydrocarbons/oxygenates, and other oils.

Source: Short-Term Energy Outlook, May 2019

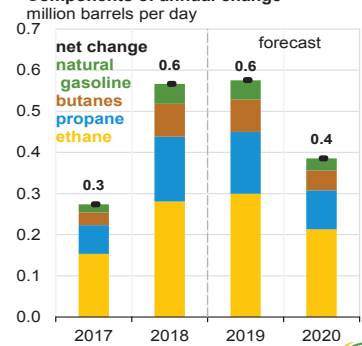


U.S. natural gas plant liquids production

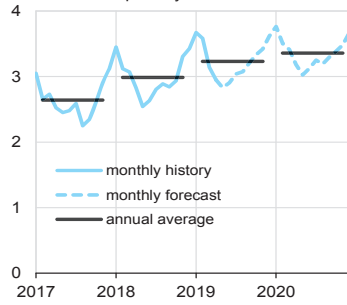


Source: Short-Term Energy Outlook, May 2019

Components of annual change

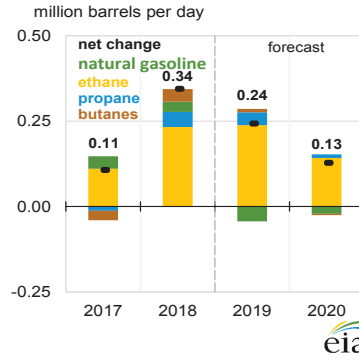


U.S. hydrocarbon gas liquids product supplied (consumption)
million barrels per day

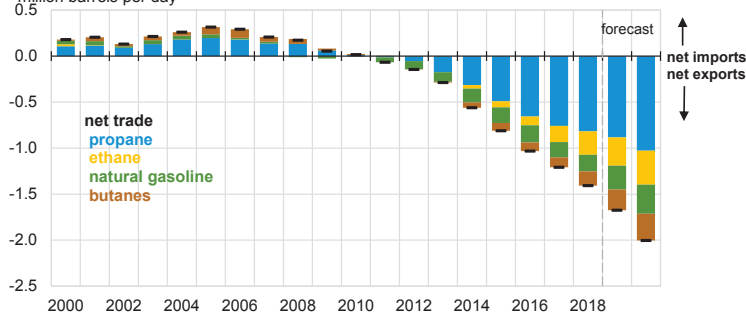


Source: Short-Term Energy Outlook, May 2019

Components of annual change

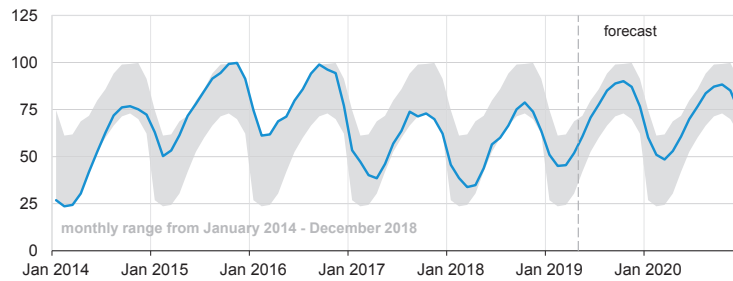


U.S. net trade of hydrocarbon gas liquids (HGL)
million barrels per day



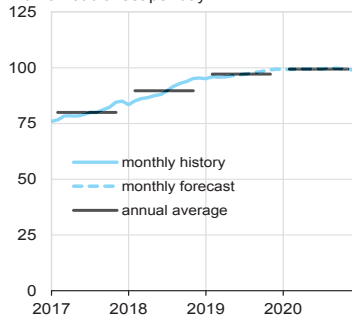
Source: Short-Term Energy Outlook, May 2019

U.S. commercial propane inventories
million barrels



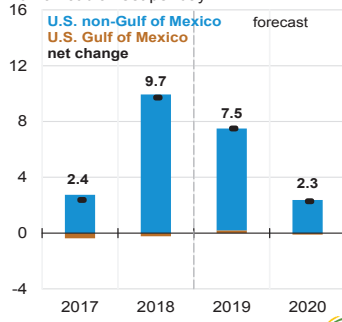
Source: Short-Term Energy Outlook, May 2019

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

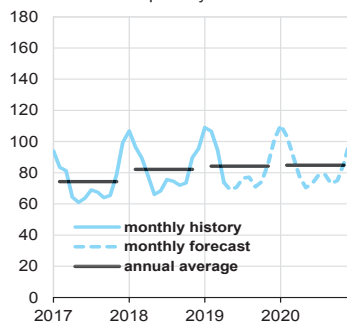


Source: Short-Term Energy Outlook, May 2019

Components of annual change
billion cubic feet per day

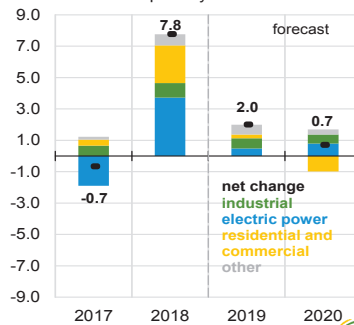


U.S. natural gas consumption
billion cubic feet per day

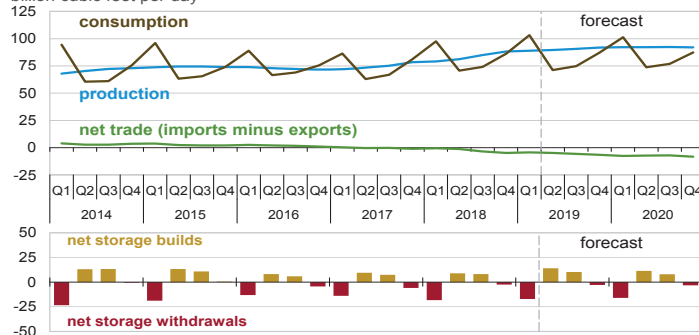


Source: Short-Term Energy Outlook, May 2019

Components of annual change
billion cubic feet per day



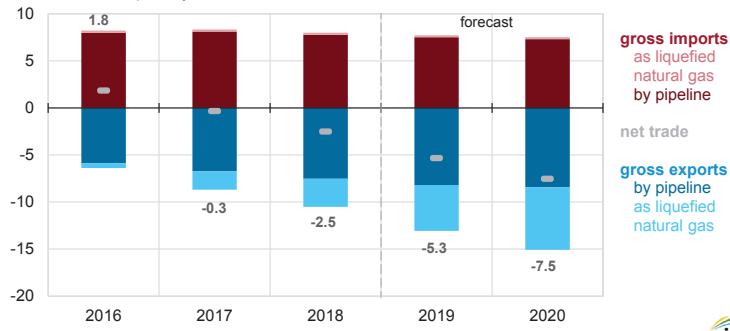
U.S. natural gas production, consumption, and net imports
billion cubic feet per day



Source: Short-Term Energy Outlook, May 2019



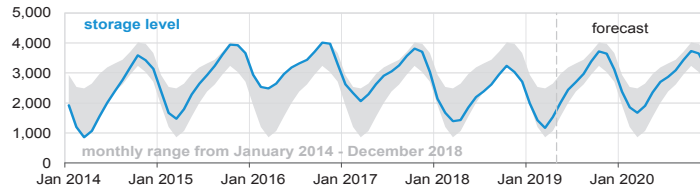
Annual natural gas trade
billion cubic feet per day



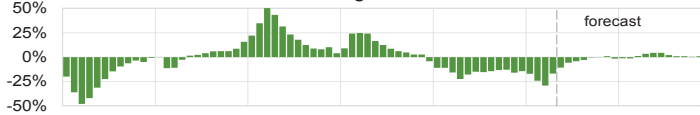
Source: Short-Term Energy Outlook, May 2019



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



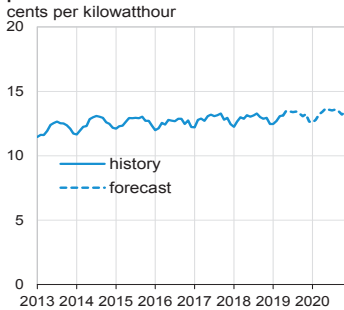
Percent deviation from 2014 - 2018 average



Source: Short-Term Energy Outlook, May 2019

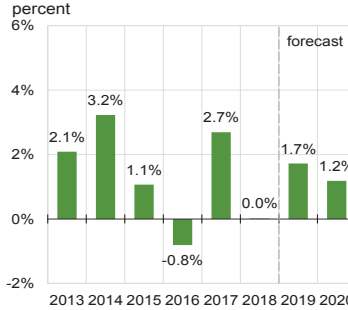


U.S. monthly residential electricity price
cents per kilowatthour

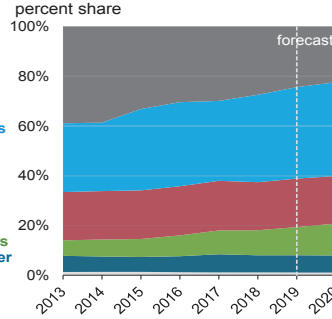
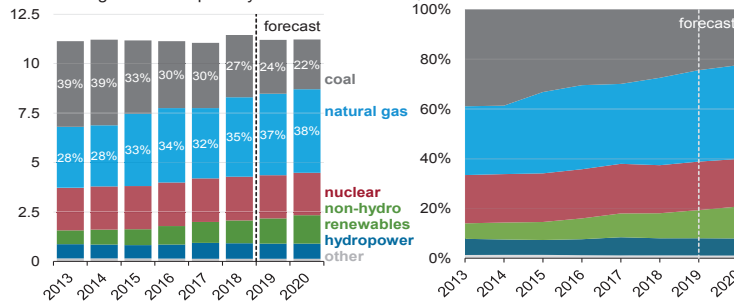


Source: Short-Term Energy Outlook, May 2019

Annual growth in residential electricity prices
percent



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

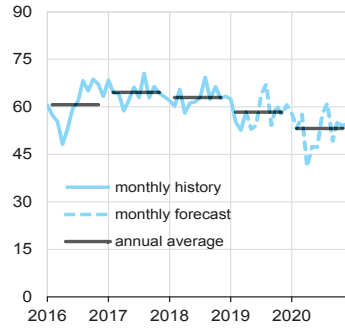


Note: Labels show percentage share of total generation provided by coal and natural gas.

Source: Short-Term Energy Outlook, May 2019

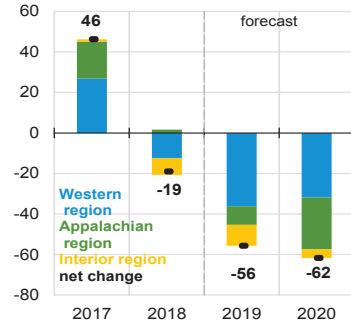


U.S. coal production
million short tons

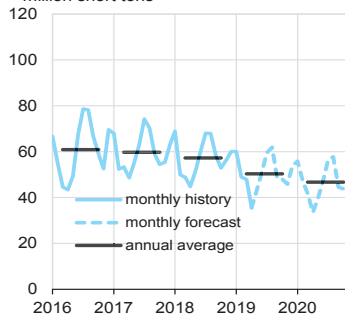


Source: Short-Term Energy Outlook, May 2019

Components of annual change
million short tons

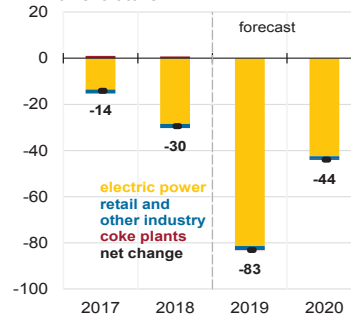


U.S. coal consumption
million short tons

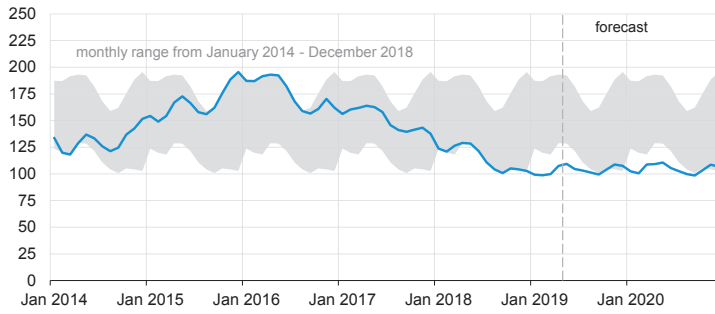


Source: Short-Term Energy Outlook, May 2019

Components of annual change
million short tons



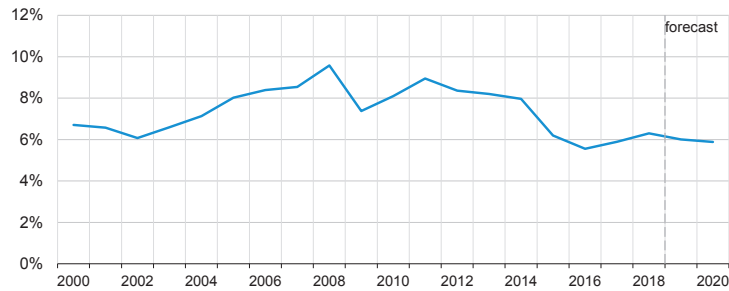
U.S. electric power coal inventories
million short tons



Source: Short-Term Energy Outlook, February 2019



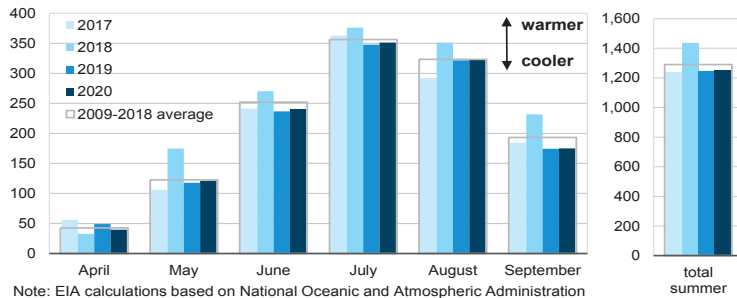
U.S. annual energy expenditures
share of gross domestic product



Source: Short-Term Energy Outlook, May 2019



U.S. summer cooling degree days
population-weighted

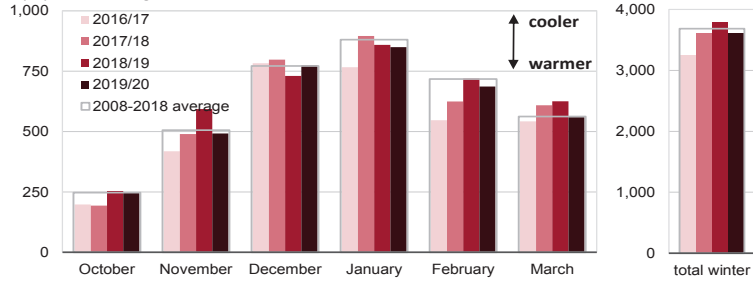


Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

Source: Short-Term Energy Outlook, May 2019



U.S. winter heating degree days
population-weighted

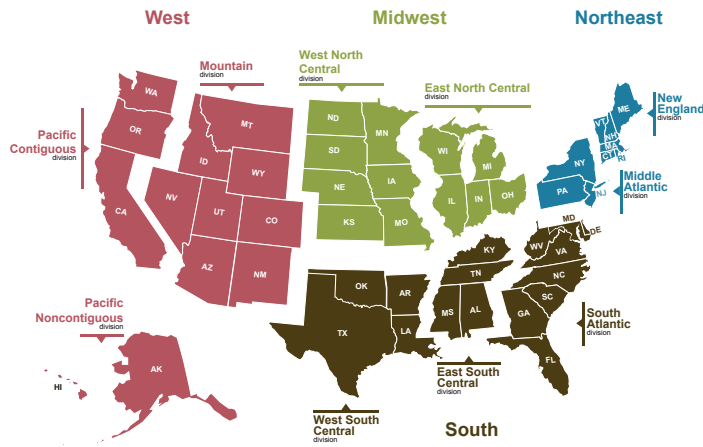


Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

Source: Short-Term Energy Outlook, May 2019



U.S. Census regions and divisions



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



Table 1. U.S. Energy Markets Summary

U.S. Energy Information Administration | Short-Term Energy Outlook - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
Energy Supply															
Crude Oil Production (a) (million barrels per day)	10.23	10.54	11.24	11.81	11.86	<i>12.35</i>	<i>12.58</i>	<i>13.00</i>	<i>13.27</i>	<i>13.39</i>	<i>13.42</i>	<i>13.45</i>	10.96	<i>12.45</i>	<i>13.38</i>
Dry Natural Gas Production (billion cubic feet per day)	79.13	81.17	84.96	88.22	88.92	<i>89.58</i>	<i>90.65</i>	<i>91.88</i>	<i>92.13</i>	<i>92.26</i>	<i>92.39</i>	<i>91.98</i>	83.40	<i>90.27</i>	<i>92.19</i>
Coal Production (million short tons)	188	181	195	192	170	<i>165</i>	<i>185</i>	<i>179</i>	<i>169</i>	<i>136</i>	<i>168</i>	<i>166</i>	756	<i>700</i>	<i>638</i>
Energy Consumption															
Liquid Fuels (million barrels per day)	20.24	20.33	20.63	20.60	20.27	<i>20.51</i>	<i>21.05</i>	<i>20.94</i>	<i>20.69</i>	<i>20.88</i>	<i>21.31</i>	<i>21.03</i>	20.45	<i>20.70</i>	<i>20.98</i>
Natural Gas (billion cubic feet per day)	97.61	70.71	74.09	86.12	103.25	<i>71.17</i>	<i>74.89</i>	<i>87.26</i>	<i>101.28</i>	<i>73.71</i>	<i>76.88</i>		82.08	<i>84.07</i>	<i>84.78</i>
Coal (b) (million short tons)	168	157	194	169	157	<i>130</i>	<i>170</i>	<i>148</i>	<i>145</i>	<i>120</i>	<i>159</i>	<i>136</i>	687	<i>604</i>	<i>560</i>
Electricity (billion kilowatt hours per day)	10.62	10.33	12.14	10.14	10.52	<i>10.11</i>	<i>11.86</i>	<i>10.04</i>	<i>10.56</i>	<i>10.15</i>	<i>11.92</i>	<i>10.06</i>	10.81	<i>10.63</i>	<i>10.67</i>
Renewables (c) (quadrillion Btu)	2.92	3.10	2.72	2.74	2.89	<i>3.19</i>	<i>2.85</i>	<i>2.95</i>	<i>3.06</i>	<i>3.32</i>	<i>3.01</i>	<i>3.10</i>	11.48	<i>11.88</i>	<i>12.49</i>
Total Energy Consumption (d) (quadrillion Btu)	26.42	24.05	25.16	25.63	26.42	<i>23.43</i>	<i>24.73</i>	<i>25.31</i>	<i>26.47</i>	<i>23.65</i>	<i>24.91</i>	<i>25.26</i>	101.25	<i>99.90</i>	<i>100.29</i>
Energy Prices															
Crude Oil West Texas Intermediate Spot (dollars per barrel)	62.90	68.07	69.69	59.59	54.82	<i>63.95</i>	<i>65.97</i>	<i>66.03</i>	<i>63.00</i>	<i>63.00</i>	<i>63.00</i>	<i>63.00</i>	65.06	<i>62.79</i>	<i>63.00</i>
Natural Gas Henry Hub Spot (dollars per million Btu)	3.02	2.85	2.93	3.80	2.92	<i>2.62</i>	<i>2.69</i>	<i>2.94</i>	<i>3.01</i>	<i>2.58</i>	<i>2.64</i>	<i>2.89</i>	3.15	<i>2.79</i>	<i>2.78</i>
Coal (dollars per million Btu)	2.06	2.06	2.06	2.08	2.10	<i>2.14</i>	<i>2.12</i>	<i>2.12</i>	<i>2.13</i>	<i>2.14</i>	<i>2.12</i>	<i>2.12</i>	2.06	<i>2.12</i>	<i>2.12</i>
Macroeconomic															
Real Gross Domestic Product (billion chained 2012 dollars - SAAR)	18,324	18,512	18,665	18,765	18,856	<i>18,939</i>	<i>19,054</i>	<i>19,164</i>	<i>19,267</i>	<i>19,368</i>	<i>19,458</i>	<i>19,543</i>	18,566	<i>19,003</i>	<i>19,409</i>
Percent change from prior year	2.6	2.9	3.0	3.0	2.9	<i>2.3</i>	<i>2.1</i>	<i>2.1</i>	<i>2.2</i>	<i>2.3</i>	<i>2.1</i>	<i>2.0</i>	2.9	<i>2.4</i>	<i>2.1</i>
GDP Implicit Price Deflator (Index, 2012=100)	109.3	110.2	110.7	111.1	111.6	<i>112.1</i>	<i>112.6</i>	<i>113.2</i>	<i>113.9</i>	<i>114.6</i>	<i>115.2</i>	<i>116.0</i>	110.3	<i>112.4</i>	<i>114.9</i>
Percent change from prior year	2.0	2.4	2.3	2.1	2.1	<i>1.8</i>	<i>1.8</i>	<i>1.9</i>	<i>2.1</i>	<i>2.2</i>	<i>2.3</i>	<i>2.4</i>	2.2	<i>1.9</i>	<i>2.3</i>
Real Disposable Personal Income (billion chained 2012 dollars - SAAR)	14,220	14,282	14,375	14,527	14,623	<i>14,654</i>	<i>14,744</i>	<i>14,841</i>	<i>14,930</i>	<i>15,035</i>	<i>15,125</i>	<i>15,207</i>	14,351	<i>14,715</i>	<i>15,074</i>
Percent change from prior year	2.8	2.7	2.8	3.3	2.8	<i>2.6</i>	<i>2.6</i>	<i>2.2</i>	<i>2.1</i>	<i>2.6</i>	<i>2.6</i>	<i>2.5</i>	2.9	<i>2.5</i>	<i>2.4</i>
Manufacturing Production Index (Index, 2012=100)	104.8	105.5	106.6	107.0	107.0	<i>107.4</i>	<i>108.0</i>	<i>108.6</i>	<i>109.1</i>	<i>109.2</i>	<i>109.5</i>	<i>109.7</i>	106.0	<i>107.8</i>	<i>109.4</i>
Percent change from prior year	2.4	2.2	3.6	2.5	2.1	<i>1.8</i>	<i>1.3</i>	<i>1.6</i>	<i>1.9</i>	<i>1.7</i>	<i>1.4</i>	<i>0.9</i>	2.7	<i>1.7</i>	<i>1.5</i>
Weather															
U.S. Heating Degree-Days	2,129	522	48	1,577	2,204	<i>425</i>	<i>74</i>	<i>1,513</i>	<i>2,096</i>	<i>479</i>	<i>74</i>	<i>1,511</i>	4,276	<i>4,217</i>	<i>4,159</i>
U.S. Cooling Degree-Days	52	478	959	99	46	<i>404</i>	<i>844</i>	<i>90</i>	<i>43</i>	<i>401</i>	<i>849</i>	<i>90</i>	1,587	<i>1,383</i>	<i>1,383</i>

- = no data available

Prices are not adjusted for inflation.

(a) Includes lease condensate.

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

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

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

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

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

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109;

Petroleum Supply Annual, DOE/EIA-0340/2; *Weekly Petroleum Status Report*, DOE/EIA-0208; *Petroleum Marketing Monthly*, DOE/EIA-0380; *Natural Gas Monthly*, DOE/EIA-0130;

Electric Power Monthly, DOE/EIA-0226; *Quarterly Coal Report*, DOE/EIA-0121; and *International Petroleum Monthly*, DOE/EIA-0520.

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

Projections: EIA Regional Short-Term Energy Model. 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 - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
Crude Oil (dollars per barrel)															
West Texas Intermediate Spot Average	62.90	68.07	69.69	59.59	54.82	63.95	65.97	66.03	63.00	63.00	63.00	63.00	65.06	62.79	63.00
Brent Spot Average	66.84	74.53	75.02	68.29	63.14	72.39	72.69	70.03	67.00	67.00	67.00	67.00	71.19	69.64	67.00
U.S. Imported Average	58.08	64.67	66.20	55.33	53.55	64.00	63.98	61.71	57.56	57.56	57.56	57.56	61.35	61.02	57.56
U.S. Refiner Average Acquisition Cost	61.89	67.29	69.03	59.39	54.79	62.52	64.35	63.81	60.36	60.36	60.36	60.36	64.45	61.51	60.36
U.S. Liquid Fuels (cents per gallon)															
Refiner Prices for Resale															
Gasoline	186	213	213	178	168	217	215	194	194	206	202	187	198	199	197
Diesel Fuel	199	219	222	212	192	216	224	224	222	228	227	227	213	214	226
Heating Oil	193	205	214	201	190	203	215	216	218	217	218	219	200	205	218
Refiner Prices to End Users															
Jet Fuel	197	217	220	212	193	212	222	221	220	224	223	222	212	212	222
No. 6 Residual Fuel Oil (a)	149	162	176	175	149	151	157	145	113	116	118	117	166	150	116
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	258	285	284	262	236	290	294	275	268	283	281	267	273	274	275
Gasoline All Grades (b)	270	294	292	271	245	299	305	286	281	295	293	280	282	284	287
On-highway Diesel Fuel	302	320	324	327	302	316	325	328	324	329	329	331	318	318	329
Heating Oil	287	298	325	316	300	296	302	311	317	308	307	315	301	303	314
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	3.13	2.96	3.04	3.94	3.02	2.72	2.79	3.05	3.12	2.67	2.74	3.00	3.27	2.89	2.88
Henry Hub Spot (dollars per million Btu)	3.02	2.85	2.93	3.80	2.92	2.62	2.69	2.94	3.01	2.58	2.64	2.89	3.15	2.79	2.78
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	4.44	3.83	3.73	4.71	4.58	3.73	3.67	4.16	4.52	3.67	3.61	4.10	4.20	4.05	4.00
Commercial Sector	7.64	8.08	8.77	7.61	7.71	8.11	8.42	7.71	7.70	8.10	8.43	7.68	7.82	7.85	7.84
Residential Sector	9.37	11.93	17.93	9.97	9.43	11.85	16.44	10.63	9.85	12.24	16.73	10.71	10.49	10.58	10.93
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.06	2.06	2.06	2.08	2.10	2.14	2.12	2.12	2.13	2.14	2.12	2.12	2.06	2.12	2.12
Natural Gas	3.96	3.09	3.23	4.05	3.70	2.83	2.76	3.30	3.49	2.71	2.66	3.21	3.54	3.10	2.98
Residual Fuel Oil (c)	11.47	13.02	14.02	14.49	11.63	13.80	13.83	13.26	13.19	13.73	13.02	12.79	12.95	13.14	13.17
Distillate Fuel Oil	15.77	16.61	16.82	16.01	14.80	16.54	17.23	17.34	17.22	17.59	17.49	17.57	16.13	16.45	17.45
Retail Prices (cents per kilowatthour)															
Industrial Sector	6.81	6.87	7.22	6.82	6.65	6.89	7.22	6.79	6.69	6.93	7.27	6.84	6.93	6.90	6.94
Commercial Sector	10.54	10.60	10.89	10.55	10.44	10.75	10.98	10.60	10.46	10.77	11.02	10.67	10.66	10.71	10.74
Residential Sector	12.59	13.03	13.15	12.75	12.73	13.37	13.37	12.95	12.84	13.56	13.52	13.13	12.89	13.11	13.27

- = 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 - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
Supply (million barrels per day) (a)															
OECD	29.14	29.32	30.46	31.20	30.73	<i>31.29</i>	<i>31.89</i>	<i>32.84</i>	<i>33.32</i>	<i>33.61</i>	<i>33.73</i>	<i>34.16</i>	30.04	<i>31.70</i>	<i>33.70</i>
U.S. (50 States)	16.77	17.39	18.40	18.96	19.00	<i>19.74</i>	<i>20.13</i>	<i>20.83</i>	<i>21.09</i>	<i>21.37</i>	<i>21.50</i>	<i>21.61</i>	17.89	<i>19.93</i>	<i>21.39</i>
Canada	5.32	5.10	5.33	5.42	5.01	<i>4.86</i>	<i>5.17</i>	<i>5.22</i>	<i>5.36</i>	<i>5.36</i>	<i>5.40</i>	<i>5.46</i>	5.30	<i>5.06</i>	<i>5.40</i>
Mexico	2.17	2.13	2.09	1.95	1.96	<i>2.03</i>	<i>2.01</i>	<i>1.99</i>	<i>1.97</i>	<i>1.95</i>	<i>1.93</i>	<i>1.91</i>	2.08	<i>2.00</i>	<i>1.94</i>
Other OECD	4.88	4.69	4.64	4.87	4.77	<i>4.65</i>	<i>4.58</i>	<i>4.81</i>	<i>4.90</i>	<i>4.93</i>	<i>4.90</i>	<i>5.18</i>	4.77	<i>4.70</i>	<i>4.98</i>
Non-OECD	70.14	70.47	70.96	70.97	69.31	<i>68.96</i>	<i>69.94</i>	<i>69.45</i>	<i>68.49</i>	<i>69.56</i>	<i>69.89</i>	<i>69.35</i>	70.64	<i>69.42</i>	<i>69.33</i>
OPEC	37.46	37.07	37.35	37.31	35.84	<i>34.94</i>	<i>35.58</i>	<i>35.33</i>	<i>34.80</i>	<i>34.87</i>	<i>35.03</i>	<i>34.79</i>	37.30	<i>35.42</i>	<i>34.87</i>
Crude Oil Portion	32.10	31.78	32.02	31.94	30.44	<i>29.85</i>	<i>30.58</i>	<i>30.31</i>	<i>29.79</i>	<i>29.86</i>	<i>30.01</i>	<i>29.74</i>	31.96	<i>30.29</i>	<i>29.85</i>
Other Liquids (b)	5.37	5.29	5.33	5.36	5.40	<i>5.09</i>	<i>5.00</i>	<i>5.02</i>	<i>5.01</i>	<i>5.01</i>	<i>5.02</i>	<i>5.05</i>	5.34	<i>5.13</i>	<i>5.02</i>
Eurasia	14.44	14.44	14.63	14.89	14.84	<i>14.59</i>	<i>14.75</i>	<i>14.87</i>	<i>14.93</i>	<i>15.01</i>	<i>15.03</i>	<i>15.10</i>	14.60	<i>14.76</i>	<i>15.02</i>
China	4.79	4.84	4.78	4.86	4.92	<i>4.85</i>	<i>4.85</i>	<i>4.89</i>	<i>4.84</i>	<i>4.87</i>	<i>4.87</i>	<i>4.91</i>	4.82	<i>4.88</i>	<i>4.87</i>
Other Non-OECD	13.44	14.12	14.19	13.92	13.71	<i>14.58</i>	<i>14.77</i>	<i>14.37</i>	<i>13.92</i>	<i>14.80</i>	<i>14.97</i>	<i>14.55</i>	13.92	<i>14.36</i>	<i>14.56</i>
Total World Supply	99.27	99.79	101.42	102.17	100.05	<i>100.24</i>	<i>101.84</i>	<i>102.30</i>	<i>101.81</i>	<i>103.16</i>	<i>103.62</i>	<i>103.51</i>	100.67	<i>101.11</i>	<i>103.03</i>
Non-OPEC Supply	61.81	62.71	64.07	64.87	64.20	<i>65.30</i>	<i>66.26</i>	<i>66.97</i>	<i>67.01</i>	<i>68.29</i>	<i>68.59</i>	<i>68.72</i>	63.38	<i>65.69</i>	<i>68.16</i>
Consumption (million barrels per day) (c)															
OECD	47.61	46.97	47.91	47.54	47.48	<i>46.87</i>	<i>48.12</i>	<i>48.17</i>	<i>47.71</i>	<i>47.20</i>	<i>48.35</i>	<i>48.24</i>	47.51	<i>47.66</i>	<i>47.88</i>
U.S. (50 States)	20.24	20.33	20.63	20.60	20.27	<i>20.51</i>	<i>21.05</i>	<i>20.94</i>	<i>20.69</i>	<i>20.88</i>	<i>21.31</i>	<i>21.03</i>	20.45	<i>20.70</i>	<i>20.98</i>
U.S. Territories	0.10	0.08	0.09	0.11	0.12	<i>0.11</i>	<i>0.12</i>	<i>0.13</i>	<i>0.12</i>	<i>0.11</i>	<i>0.12</i>	<i>0.13</i>	0.10	<i>0.12</i>	<i>0.12</i>
Canada	2.32	2.34	2.56	2.49	2.35	<i>2.37</i>	<i>2.48</i>	<i>2.45</i>	<i>2.43</i>	<i>2.37</i>	<i>2.47</i>	<i>2.45</i>	2.43	<i>2.41</i>	<i>2.43</i>
Europe	14.08	14.21	14.67	14.13	14.07	<i>14.14</i>	<i>14.64</i>	<i>14.34</i>	<i>13.98</i>	<i>14.19</i>	<i>14.69</i>	<i>14.39</i>	14.27	<i>14.30</i>	<i>14.31</i>
Japan	4.27	3.43	3.53	3.89	4.12	<i>3.37</i>	<i>3.44</i>	<i>3.76</i>	<i>3.98</i>	<i>3.26</i>	<i>3.34</i>	<i>3.67</i>	3.78	<i>3.67</i>	<i>3.56</i>
Other OECD	6.60	6.57	6.42	6.32	6.56	<i>6.37</i>	<i>6.40</i>	<i>6.55</i>	<i>6.52</i>	<i>6.39</i>	<i>6.42</i>	<i>6.57</i>	6.48	<i>6.47</i>	<i>6.48</i>
Non-OECD	51.61	52.68	52.68	52.93	52.97	<i>53.89</i>	<i>53.93</i>	<i>54.00</i>	<i>54.14</i>	<i>55.21</i>	<i>55.26</i>	<i>55.41</i>	52.48	<i>53.70</i>	<i>55.01</i>
Eurasia	4.78	4.83	5.11	4.98	4.80	<i>4.87</i>	<i>5.24</i>	<i>5.09</i>	<i>4.90</i>	<i>4.99</i>	<i>5.37</i>	<i>5.27</i>	4.93	<i>5.00</i>	<i>5.13</i>
Europe	0.75	0.74	0.76	0.76	0.75	<i>0.75</i>	<i>0.77</i>	<i>0.77</i>	<i>0.76</i>	<i>0.76</i>	<i>0.78</i>	<i>0.78</i>	0.75	<i>0.76</i>	<i>0.77</i>
China	13.80	14.00	13.73	13.95	14.28	<i>14.47</i>	<i>14.20</i>	<i>14.41</i>	<i>14.76</i>	<i>14.95</i>	<i>14.67</i>	<i>14.90</i>	13.87	<i>14.34</i>	<i>14.82</i>
Other Asia	13.54	13.78	13.38	13.73	13.94	<i>14.12</i>	<i>13.71</i>	<i>14.03</i>	<i>14.33</i>	<i>14.50</i>	<i>14.07</i>	<i>14.41</i>	13.61	<i>13.95</i>	<i>14.33</i>
Other Non-OECD	18.74	19.32	19.69	19.50	19.20	<i>19.68</i>	<i>20.02</i>	<i>19.69</i>	<i>19.40</i>	<i>20.01</i>	<i>20.36</i>	<i>20.06</i>	19.32	<i>19.65</i>	<i>19.96</i>
Total World Consumption	99.22	99.65	100.58	100.46	100.45	<i>100.76</i>	<i>102.05</i>	<i>102.17</i>	<i>101.85</i>	<i>102.41</i>	<i>103.61</i>	<i>103.66</i>	99.98	<i>101.36</i>	<i>102.89</i>
Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)															
U.S. (50 States)	0.36	-0.06	-0.70	0.22	0.32	<i>-0.66</i>	<i>-0.23</i>	<i>0.25</i>	<i>0.04</i>	<i>-0.36</i>	<i>-0.11</i>	<i>0.31</i>	-0.05	<i>-0.08</i>	<i>-0.03</i>
Other OECD	-0.02	0.11	0.20	-0.07	-0.12	<i>0.39</i>	<i>0.15</i>	<i>-0.13</i>	<i>0.00</i>	<i>-0.13</i>	<i>0.03</i>	<i>-0.05</i>	0.06	<i>0.07</i>	<i>-0.04</i>
Other Stock Draws and Balance	-0.39	-0.19	-0.34	-1.86	0.20	<i>0.79</i>	<i>0.30</i>	<i>-0.25</i>	<i>-0.01</i>	<i>-0.27</i>	<i>0.06</i>	<i>-0.11</i>	-0.70	<i>0.26</i>	<i>-0.08</i>
Total Stock Draw	-0.05	-0.14	-0.84	-1.71	0.40	<i>0.52</i>	<i>0.21</i>	<i>-0.13</i>	<i>0.04</i>	<i>-0.75</i>	<i>-0.01</i>	<i>0.15</i>	-0.69	<i>0.25</i>	<i>-0.14</i>
End-of-period Commercial Crude Oil and Other Liquids Inventories (million barrels)															
U.S. Commercial Inventory	1,196	1,207	1,272	1,262	1,233	<i>1,299</i>	<i>1,320</i>	<i>1,301</i>	<i>1,300</i>	<i>1,336</i>	<i>1,347</i>	<i>1,322</i>	1,262	<i>1,301</i>	<i>1,322</i>
OECD Commercial Inventory	2,806	2,806	2,856	2,860	2,840	<i>2,870</i>	<i>2,878</i>	<i>2,870</i>	<i>2,870</i>	<i>2,917</i>	<i>2,925</i>	<i>2,905</i>	2,860	<i>2,870</i>	<i>2,905</i>

- = 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, Congo (Brazzaville), Ecuador, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, 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 - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
North America	24.25	24.63	25.82	26.33	<i>25.96</i>	<i>26.64</i>	<i>27.31</i>	<i>28.03</i>	<i>28.42</i>	<i>28.67</i>	<i>28.83</i>	<i>28.98</i>	25.27	<i>26.99</i>	<i>28.73</i>
Canada	5.32	5.10	5.33	5.42	<i>5.01</i>	<i>4.86</i>	<i>5.17</i>	<i>5.22</i>	<i>5.36</i>	<i>5.36</i>	<i>5.40</i>	<i>5.46</i>	5.30	<i>5.06</i>	<i>5.40</i>
Mexico	2.17	2.13	2.09	1.95	<i>1.96</i>	<i>2.03</i>	<i>2.01</i>	<i>1.99</i>	<i>1.97</i>	<i>1.95</i>	<i>1.93</i>	<i>1.91</i>	2.08	<i>2.00</i>	<i>1.94</i>
United States	16.77	17.39	18.40	18.96	<i>19.00</i>	<i>19.74</i>	<i>20.13</i>	<i>20.83</i>	<i>21.09</i>	<i>21.37</i>	<i>21.50</i>	<i>21.61</i>	17.89	<i>19.93</i>	<i>21.39</i>
Central and South America	4.90	5.65	5.72	5.39	<i>5.09</i>	<i>5.91</i>	<i>6.14</i>	<i>5.75</i>	<i>5.29</i>	<i>6.20</i>	<i>6.40</i>	<i>6.00</i>	5.42	<i>5.73</i>	<i>5.97</i>
Argentina	0.67	0.69	0.68	0.70	<i>0.67</i>	<i>0.68</i>	<i>0.67</i>	<i>0.67</i>	<i>0.68</i>	<i>0.69</i>	<i>0.69</i>	<i>0.69</i>	0.68	<i>0.67</i>	<i>0.69</i>
Brazil	2.95	3.64	3.75	3.36	<i>3.09</i>	<i>3.94</i>	<i>4.19</i>	<i>3.77</i>	<i>3.30</i>	<i>4.22</i>	<i>4.44</i>	<i>4.01</i>	3.43	<i>3.75</i>	<i>3.99</i>
Colombia	0.86	0.89	0.89	0.91	<i>0.91</i>	<i>0.89</i>	<i>0.89</i>	<i>0.90</i>	<i>0.90</i>	<i>0.88</i>	<i>0.88</i>	<i>0.90</i>	0.89	<i>0.90</i>	<i>0.89</i>
Other Central and S. America	0.42	0.43	0.40	0.41	<i>0.42</i>	<i>0.41</i>	<i>0.39</i>	<i>0.40</i>	<i>0.41</i>	<i>0.41</i>	<i>0.39</i>	<i>0.40</i>	0.41	<i>0.41</i>	<i>0.40</i>
Europe	4.37	4.20	4.12	4.32	<i>4.28</i>	<i>4.18</i>	<i>4.09</i>	<i>4.29</i>	<i>4.36</i>	<i>4.37</i>	<i>4.32</i>	<i>4.61</i>	4.25	<i>4.21</i>	<i>4.42</i>
Norway	1.97	1.80	1.81	1.87	<i>1.79</i>	<i>1.71</i>	<i>1.72</i>	<i>1.76</i>	<i>1.82</i>	<i>1.84</i>	<i>1.91</i>	<i>2.09</i>	1.86	<i>1.74</i>	<i>1.92</i>
United Kingdom	1.16	1.17	1.10	1.22	<i>1.28</i>	<i>1.28</i>	<i>1.18</i>	<i>1.30</i>	<i>1.32</i>	<i>1.32</i>	<i>1.21</i>	<i>1.30</i>	1.16	<i>1.26</i>	<i>1.29</i>
Eurasia	14.44	14.44	14.63	14.89	<i>14.84</i>	<i>14.59</i>	<i>14.75</i>	<i>14.87</i>	<i>14.93</i>	<i>15.01</i>	<i>15.03</i>	<i>15.10</i>	14.60	<i>14.76</i>	<i>15.02</i>
Azerbaijan	0.81	0.81	0.80	0.81	<i>0.82</i>	<i>0.81</i>	<i>0.78</i>	<i>0.79</i>	<i>0.78</i>	<i>0.78</i>	<i>0.76</i>	<i>0.77</i>	0.81	<i>0.80</i>	<i>0.77</i>
Kazakhstan	1.98	1.96	1.90	2.00	<i>2.04</i>	<i>1.88</i>	<i>1.97</i>	<i>2.11</i>	<i>2.13</i>	<i>2.06</i>	<i>2.06</i>	<i>2.11</i>	1.96	<i>2.00</i>	<i>2.09</i>
Russia	11.20	11.24	11.50	11.66	<i>11.57</i>	<i>11.49</i>	<i>11.58</i>	<i>11.55</i>	<i>11.63</i>	<i>11.78</i>	<i>11.81</i>	<i>11.84</i>	11.40	<i>11.54</i>	<i>11.77</i>
Turkmenistan	0.30	0.28	0.28	0.27	<i>0.25</i>	<i>0.26</i>	<i>0.26</i>	<i>0.26</i>	<i>0.24</i>	<i>0.24</i>	<i>0.24</i>	<i>0.24</i>	0.28	<i>0.26</i>	<i>0.24</i>
Other Eurasia	0.15	0.15	0.15	0.15	<i>0.16</i>	<i>0.16</i>	<i>0.16</i>	<i>0.16</i>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	0.15	<i>0.16</i>	<i>0.15</i>
Middle East	3.02	3.03	3.04	3.05	<i>3.11</i>	<i>3.13</i>	<i>3.13</i>	<i>3.13</i>	<i>3.18</i>	<i>3.19</i>	<i>3.19</i>	<i>3.19</i>	3.04	<i>3.13</i>	<i>3.19</i>
Oman	0.98	0.98	0.99	1.01	<i>0.99</i>	<i>0.99</i>	<i>1.00</i>	<i>1.00</i>	<i>1.00</i>	<i>1.01</i>	<i>1.01</i>	<i>1.01</i>	0.99	<i>0.99</i>	<i>1.01</i>
Qatar	1.94	1.94	1.95	1.94	<i>2.00</i>	<i>2.00</i>	<i>2.00</i>	<i>2.00</i>	<i>2.06</i>	<i>2.06</i>	<i>2.06</i>	<i>2.06</i>	1.94	<i>2.00</i>	<i>2.06</i>
Asia and Oceania	9.31	9.26	9.19	9.34	<i>9.38</i>	<i>9.31</i>	<i>9.30</i>	<i>9.35</i>	<i>9.32</i>	<i>9.35</i>	<i>9.32</i>	<i>9.33</i>	9.27	<i>9.33</i>	<i>9.33</i>
Australia	0.36	0.34	0.37	0.40	<i>0.41</i>	<i>0.42</i>	<i>0.45</i>	<i>0.47</i>	<i>0.49</i>	<i>0.51</i>	<i>0.52</i>	<i>0.52</i>	0.37	<i>0.44</i>	<i>0.51</i>
China	4.79	4.84	4.78	4.86	<i>4.92</i>	<i>4.85</i>	<i>4.85</i>	<i>4.89</i>	<i>4.84</i>	<i>4.87</i>	<i>4.87</i>	<i>4.91</i>	4.82	<i>4.88</i>	<i>4.87</i>
India	1.03	1.02	1.01	1.00	<i>0.98</i>	<i>0.99</i>	<i>0.97</i>	<i>0.97</i>	<i>0.98</i>	<i>0.99</i>	<i>0.98</i>	<i>0.98</i>	1.01	<i>0.98</i>	<i>0.98</i>
Indonesia	0.90	0.90	0.88	0.89	<i>0.88</i>	<i>0.87</i>	<i>0.86</i>	<i>0.85</i>	<i>0.83</i>	<i>0.82</i>	<i>0.81</i>	<i>0.79</i>	0.89	<i>0.86</i>	<i>0.81</i>
Malaysia	0.77	0.75	0.73	0.75	<i>0.74</i>	<i>0.73</i>	<i>0.72</i>	<i>0.71</i>	<i>0.71</i>	<i>0.70</i>	<i>0.69</i>	<i>0.68</i>	0.75	<i>0.73</i>	<i>0.70</i>
Vietnam	0.27	0.25	0.25	0.25	<i>0.24</i>	<i>0.24</i>	<i>0.24</i>	<i>0.25</i>	<i>0.24</i>	<i>0.24</i>	<i>0.24</i>	<i>0.24</i>	0.25	<i>0.24</i>	<i>0.24</i>
Africa	1.52	1.51	1.54	1.55	<i>1.54</i>	<i>1.54</i>	<i>1.54</i>	<i>1.55</i>	<i>1.51</i>	<i>1.51</i>	<i>1.51</i>	<i>1.51</i>	1.53	<i>1.54</i>	<i>1.51</i>
Egypt	0.67	0.66	0.67	0.67	<i>0.62</i>	<i>0.62</i>	<i>0.62</i>	<i>0.62</i>	<i>0.59</i>	<i>0.59</i>	<i>0.59</i>	<i>0.59</i>	0.67	<i>0.62</i>	<i>0.59</i>
South Sudan	0.12	0.12	0.12	0.14	<i>0.17</i>	<i>0.18</i>	<i>0.18</i>	<i>0.18</i>	<i>0.18</i>	<i>0.18</i>	<i>0.18</i>	<i>0.18</i>	0.13	<i>0.18</i>	<i>0.18</i>
Total non-OPEC liquids	61.81	62.71	64.07	64.87	<i>64.20</i>	<i>65.30</i>	<i>66.26</i>	<i>66.97</i>	<i>67.01</i>	<i>68.29</i>	<i>68.59</i>	<i>68.72</i>	63.38	<i>65.69</i>	<i>68.16</i>
OPEC non-crude liquids	5.37	5.29	5.33	5.36	<i>5.40</i>	<i>5.09</i>	<i>5.00</i>	<i>5.02</i>	<i>5.01</i>	<i>5.01</i>	<i>5.02</i>	<i>5.05</i>	5.34	<i>5.13</i>	<i>5.02</i>
Non-OPEC + OPEC non-crude	67.18	68.01	69.40	70.23	<i>69.60</i>	<i>70.39</i>	<i>71.26</i>	<i>71.99</i>	<i>72.02</i>	<i>73.30</i>	<i>73.62</i>	<i>73.77</i>	68.71	<i>70.82</i>	<i>73.18</i>
Unplanned non-OPEC Production Outages	0.40	0.27	0.17	0.31	<i>0.35</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	0.29	<i>n/a</i>	<i>n/a</i>

- = no data available

OPEC = Organization of the Petroleum Exporting Countries: Algeria, Angola, Congo (Brazzaville), Ecuador, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, 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 - May 2019

	2018				2019				2020				Year			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020	
Crude Oil																
Algeria	1.02	1.02	1.03	1.00	1.00	-	-	-	-	-	-	-	-	1.02	-	-
Angola	1.59	1.56	1.56	1.57	1.49	-	-	-	-	-	-	-	-	1.57	-	-
Congo (Brazzaville)	0.34	0.35	0.33	0.31	0.33	-	-	-	-	-	-	-	-	0.33	-	-
Ecuador	0.51	0.52	0.52	0.52	0.53	-	-	-	-	-	-	-	-	0.52	-	-
Equatorial Guinea	0.14	0.13	0.14	0.12	0.11	-	-	-	-	-	-	-	-	0.13	-	-
Gabon	0.20	0.20	0.19	0.19	0.20	-	-	-	-	-	-	-	-	0.20	-	-
Iran	3.83	3.80	3.55	2.90	2.63	-	-	-	-	-	-	-	-	3.52	-	-
Iraq	4.46	4.50	4.66	4.77	4.75	-	-	-	-	-	-	-	-	4.60	-	-
Kuwait	2.71	2.71	2.80	2.80	2.74	-	-	-	-	-	-	-	-	2.76	-	-
Libya	1.00	0.92	0.91	1.04	0.93	-	-	-	-	-	-	-	-	0.96	-	-
Nigeria	1.72	1.53	1.55	1.61	1.58	-	-	-	-	-	-	-	-	1.60	-	-
Saudi Arabia	10.10	10.20	10.47	10.74	10.00	-	-	-	-	-	-	-	-	10.38	-	-
United Arab Emirates	2.88	2.86	2.94	3.11	3.12	-	-	-	-	-	-	-	-	2.95	-	-
Venezuela	1.60	1.49	1.36	1.27	1.05	-	-	-	-	-	-	-	-	1.43	-	-
OPEC Total	32.10	31.78	32.02	31.94	30.44	29.85	30.58	30.31	29.79	29.86	30.01	29.74	31.96	30.29	29.85	
Other Liquids (a)	5.37	5.29	5.33	5.36	5.40	5.09	5.00	5.02	5.01	5.01	5.02	5.05	5.34	5.13	5.02	
Total OPEC Supply	37.46	37.07	37.35	37.31	35.84	34.94	35.58	35.33	34.80	34.87	35.03	34.79	37.30	35.42	34.87	
Crude Oil Production Capacity																
Africa	6.00	5.70	5.72	5.85	5.64	5.86	5.86	5.91	5.96	5.98	6.00	6.00	5.81	5.82	5.99	
Middle East	25.84	25.85	25.76	25.29	25.28	24.77	24.70	24.70	24.72	24.76	24.77	24.78	25.68	24.86	24.76	
South America	2.11	2.01	1.89	1.79	1.58	1.31	1.16	1.07	1.00	0.94	0.89	0.84	1.95	1.27	0.91	
OPEC Total	33.95	33.56	33.36	32.92	32.50	31.93	31.71	31.68	31.68	31.68	31.66	31.62	33.45	31.95	31.66	
Surplus Crude Oil Production Capacity																
Africa	0.00	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	
Middle East	1.86	1.78	1.34	0.97	2.05	2.08	1.14	1.37	1.89	1.82	1.65	1.89	1.48	1.66	1.81	
South America	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
OPEC Total	1.86	1.78	1.34	0.98	2.06	2.08	1.14	1.37	1.89	1.82	1.65	1.89	1.49	1.66	1.81	
Unplanned OPEC Production Outages	1.21	1.43	1.59	2.00	2.55	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	1.56	<i>n/a</i>	<i>n/a</i>	

- = no data available

OPEC = Organization of the Petroleum Exporting Countries: Algeria, Angola, Congo (Brazzaville), Equatorial Guinea, Gabon, Libya, and Nigeria (Africa); Ecuador and Venezuela (South America); Iran, Iraq, Kuwait, 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 - May 2019

	2018				2019				2020				2018	2019	2020
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
North America	24.56	24.71	25.17	24.98	<i>24.58</i>	<i>24.86</i>	<i>25.50</i>	<i>25.39</i>	<i>25.07</i>	<i>25.25</i>	<i>25.78</i>	<i>25.48</i>	24.86	<i>25.09</i>	<i>25.39</i>
Canada	2.32	2.34	2.56	2.49	<i>2.35</i>	<i>2.37</i>	<i>2.48</i>	<i>2.45</i>	<i>2.43</i>	<i>2.37</i>	<i>2.47</i>	<i>2.45</i>	2.43	<i>2.41</i>	<i>2.43</i>
Mexico	1.99	2.02	1.97	1.88	<i>1.95</i>	<i>1.96</i>	<i>1.96</i>	<i>1.99</i>	<i>1.95</i>	<i>1.98</i>	<i>1.98</i>	<i>1.99</i>	1.97	<i>1.97</i>	<i>1.97</i>
United States	20.24	20.33	20.63	20.60	<i>20.27</i>	<i>20.51</i>	<i>21.05</i>	<i>20.94</i>	<i>20.69</i>	<i>20.88</i>	<i>21.31</i>	<i>21.03</i>	20.45	<i>20.70</i>	<i>20.98</i>
Central and South America	6.72	6.76	6.94	6.95	<i>6.73</i>	<i>6.79</i>	<i>6.91</i>	<i>6.90</i>	<i>6.69</i>	<i>6.83</i>	<i>6.96</i>	<i>6.98</i>	6.84	<i>6.83</i>	<i>6.87</i>
Brazil	2.98	2.95	3.11	3.11	<i>3.02</i>	<i>3.03</i>	<i>3.11</i>	<i>3.10</i>	<i>3.01</i>	<i>3.08</i>	<i>3.17</i>	<i>3.17</i>	3.04	<i>3.07</i>	<i>3.11</i>
Europe	14.83	14.95	15.42	14.89	<i>14.82</i>	<i>14.89</i>	<i>15.41</i>	<i>15.12</i>	<i>14.74</i>	<i>14.95</i>	<i>15.47</i>	<i>15.18</i>	15.03	<i>15.06</i>	<i>15.09</i>
Eurasia	4.78	4.83	5.11	4.98	<i>4.80</i>	<i>4.87</i>	<i>5.24</i>	<i>5.09</i>	<i>4.90</i>	<i>4.99</i>	<i>5.37</i>	<i>5.27</i>	4.93	<i>5.00</i>	<i>5.13</i>
Russia	3.63	3.70	3.91	3.78	<i>3.64</i>	<i>3.73</i>	<i>4.04</i>	<i>3.88</i>	<i>3.72</i>	<i>3.84</i>	<i>4.16</i>	<i>4.05</i>	3.75	<i>3.82</i>	<i>3.95</i>
Middle East	8.24	8.79	9.07	8.68	<i>8.64</i>	<i>9.03</i>	<i>9.35</i>	<i>8.84</i>	<i>8.75</i>	<i>9.21</i>	<i>9.54</i>	<i>9.03</i>	8.70	<i>8.97</i>	<i>9.13</i>
Asia and Oceania	35.65	35.17	34.53	35.44	<i>36.36</i>	<i>35.80</i>	<i>35.19</i>	<i>36.21</i>	<i>37.07</i>	<i>36.54</i>	<i>35.93</i>	<i>36.98</i>	35.19	<i>35.89</i>	<i>36.63</i>
China	13.80	14.00	13.73	13.95	<i>14.28</i>	<i>14.47</i>	<i>14.20</i>	<i>14.41</i>	<i>14.76</i>	<i>14.95</i>	<i>14.67</i>	<i>14.90</i>	13.87	<i>14.34</i>	<i>14.82</i>
Japan	4.27	3.43	3.53	3.89	<i>4.12</i>	<i>3.37</i>	<i>3.44</i>	<i>3.76</i>	<i>3.98</i>	<i>3.26</i>	<i>3.34</i>	<i>3.67</i>	3.78	<i>3.67</i>	<i>3.56</i>
India	4.73	4.89	4.57	4.89	<i>4.99</i>	<i>5.07</i>	<i>4.74</i>	<i>5.03</i>	<i>5.22</i>	<i>5.29</i>	<i>4.94</i>	<i>5.25</i>	4.77	<i>4.96</i>	<i>5.17</i>
Africa	4.43	4.44	4.34	4.54	<i>4.51</i>	<i>4.52</i>	<i>4.44</i>	<i>4.63</i>	<i>4.64</i>	<i>4.64</i>	<i>4.56</i>	<i>4.75</i>	4.44	<i>4.52</i>	<i>4.64</i>
Total OECD Liquid Fuels Consumption	47.61	46.97	47.91	47.54	<i>47.48</i>	<i>46.87</i>	<i>48.12</i>	<i>48.17</i>	<i>47.71</i>	<i>47.20</i>	<i>48.35</i>	<i>48.24</i>	47.51	<i>47.66</i>	<i>47.88</i>
Total non-OECD Liquid Fuels Consumption	51.61	52.68	52.68	52.93	<i>52.97</i>	<i>53.89</i>	<i>53.93</i>	<i>54.00</i>	<i>54.14</i>	<i>55.21</i>	<i>55.26</i>	<i>55.41</i>	52.48	<i>53.70</i>	<i>55.01</i>
Total World Liquid Fuels Consumption	99.22	99.65	100.58	100.46	<i>100.45</i>	<i>100.76</i>	<i>102.05</i>	<i>102.17</i>	<i>101.85</i>	<i>102.41</i>	<i>103.61</i>	<i>103.66</i>	99.98	<i>101.36</i>	<i>102.89</i>
Oil-weighted Real Gross Domestic Product (a)															
World Index, 2015 Q1 = 100	109.3	110.0	110.6	111.3	<i>112.0</i>	<i>112.5</i>	<i>113.2</i>	<i>113.8</i>	<i>114.3</i>	<i>116.0</i>	<i>116.7</i>	<i>117.7</i>	110.3	<i>112.9</i>	<i>116.2</i>
Percent change from prior year	3.3	3.2	3.0	2.8	<i>2.4</i>	<i>2.3</i>	<i>2.4</i>	<i>2.3</i>	<i>2.1</i>	<i>3.1</i>	<i>3.1</i>	<i>3.4</i>	3.1	<i>2.3</i>	<i>2.9</i>
OECD Index, 2015 Q1 = 100	106.6	107.1	107.5	108.0	<i>108.5</i>	<i>108.9</i>	<i>109.4</i>	<i>109.9</i>	<i>109.5</i>	<i>111.1</i>	<i>111.5</i>	<i>112.0</i>	107.3	<i>109.2</i>	<i>111.0</i>
Percent change from prior year	2.5	2.5	2.3	2.1	<i>1.8</i>	<i>1.7</i>	<i>1.8</i>	<i>1.7</i>	<i>1.0</i>	<i>2.0</i>	<i>1.9</i>	<i>1.9</i>	2.3	<i>1.7</i>	<i>1.7</i>
Non-OECD Index, 2015 Q1 = 100	112.0	112.8	113.6	114.5	<i>115.3</i>	<i>116.0</i>	<i>117.0</i>	<i>117.7</i>	<i>118.8</i>	<i>120.7</i>	<i>121.9</i>	<i>123.4</i>	113.2	<i>116.5</i>	<i>121.2</i>
Percent change from prior year	4.1	3.9	3.6	3.5	<i>3.0</i>	<i>2.9</i>	<i>3.0</i>	<i>2.8</i>	<i>3.1</i>	<i>4.1</i>	<i>4.2</i>	<i>4.8</i>	3.8	<i>2.9</i>	<i>4.1</i>
Real U.S. Dollar Exchange Rate (a)															
Index, 2015 Q1 = 100	100.68	102.78	105.57	106.30	<i>105.32</i>	<i>105.45</i>	<i>104.56</i>	<i>103.82</i>	<i>103.22</i>	<i>102.67</i>	<i>102.03</i>	<i>101.55</i>	103.84	<i>104.79</i>	<i>102.37</i>
Percent change from prior year	-4.0	-0.7	3.5	3.8	<i>4.6</i>	<i>2.6</i>	<i>-1.0</i>	<i>-2.3</i>	<i>-2.0</i>	<i>-2.6</i>	<i>-2.4</i>	<i>-2.2</i>	0.6	<i>0.9</i>	<i>-2.3</i>

- = 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 - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
Supply (million barrels per day)															
Crude Oil Supply															
Domestic Production (a)	10.23	10.54	11.24	11.81	11.86	12.35	12.58	13.00	13.27	13.39	13.42	13.45	10.96	12.45	13.38
Alaska	0.51	0.48	0.43	0.49	0.50	0.49	0.45	0.49	0.52	0.50	0.46	0.49	0.48	0.48	0.49
Federal Gulf of Mexico (b)	1.67	1.58	1.85	1.86	1.86	2.00	1.97	2.05	2.17	2.13	2.05	1.99	1.74	1.97	2.08
Lower 48 States (excl GOM)	8.05	8.47	8.96	9.46	9.49	9.85	10.16	10.46	10.59	10.76	10.91	10.96	8.74	9.99	10.80
Crude Oil Net Imports (c)	6.18	6.19	5.84	4.82	4.18	4.67	4.70	4.10	4.03	4.50	4.43	4.19	5.75	4.41	4.29
SPR Net Withdrawals	-0.03	0.06	0.00	0.12	0.00	0.05	0.00	0.04	0.04	0.04	0.01	0.03	0.04	0.02	0.03
Commercial Inventory Net Withdrawals	-0.02	0.09	-0.01	-0.28	-0.12	-0.17	0.07	-0.11	-0.33	0.09	0.15	-0.08	-0.06	-0.08	-0.04
Crude Oil Adjustment (d)	0.05	0.26	0.25	0.52	0.29	0.31	0.21	0.15	0.19	0.19	0.21	0.15	0.27	0.24	0.19
Total Crude Oil Input to Refineries	16.41	17.14	17.32	16.99	16.22	17.21	17.57	17.18	17.20	18.20	18.22	17.74	16.97	17.05	17.84
Other Supply															
Refinery Processing Gain	1.11	1.12	1.17	1.16	1.07	1.13	1.15	1.19	1.20	1.26	1.27	1.28	1.14	1.13	1.25
Natural Gas Plant Liquids Production	4.01	4.30	4.54	4.54	4.68	4.82	4.98	5.21	5.21	5.25	5.35	5.43	4.35	4.92	5.31
Renewables and Oxygenate Production (e)	1.21	1.22	1.25	1.22	1.18	1.22	1.20	1.21	1.19	1.24	1.22	1.22	1.23	1.20	1.22
Fuel Ethanol Production	1.05	1.04	1.06	1.04	1.01	1.05	1.03	1.04	1.03	1.05	1.05	1.04	1.05	1.03	1.04
Petroleum Products Adjustment (f)	0.21	0.21	0.21	0.22	0.21	0.22	0.22	0.23	0.22	0.24	0.24	0.24	0.21	0.22	0.23
Product Net Imports (c)	-3.13	-3.44	-3.17	-3.91	-3.52	-3.55	-3.76	-4.39	-4.67	-4.81	-4.72	-5.23	-3.41	-3.81	-4.86
Hydrocarbon Gas Liquids	-1.22	-1.53	-1.49	-1.38	-1.39	-1.69	-1.72	-1.89	-1.99	-1.97	-1.97	-2.08	-1.41	-1.67	-2.00
Unfinished Oils	0.39	0.32	0.35	0.28	0.26	0.37	0.42	0.36	0.50	0.61	0.61	0.52	0.33	0.35	0.56
Other HC/Oxygenates	-0.18	-0.15	-0.13	-0.15	-0.13	-0.12	-0.12	-0.10	-0.13	-0.12	-0.12	-0.12	-0.15	-0.12	-0.12
Motor Gasoline Blend Comp.	0.50	0.78	0.66	0.37	0.42	0.70	0.48	0.46	0.44	0.65	0.49	0.45	0.58	0.52	0.51
Finished Motor Gasoline	-0.94	-0.71	-0.72	-1.00	-0.87	-0.71	-0.73	-1.08	-1.16	-1.04	-0.88	-1.31	-0.84	-0.85	-1.10
Jet Fuel	-0.10	-0.10	-0.06	-0.13	-0.06	0.00	-0.04	-0.03	-0.03	-0.09	-0.09	-0.08	-0.10	-0.03	-0.07
Distillate Fuel Oil	-0.87	-1.30	-1.14	-1.19	-0.94	-1.33	-1.34	-1.29	-1.46	-1.91	-1.89	-1.65	-1.13	-1.23	-1.73
Residual Fuel Oil	-0.10	-0.14	-0.10	-0.09	-0.06	-0.07	-0.03	-0.03	0.01	-0.06	-0.02	-0.05	-0.11	-0.05	-0.03
Other Oils (g)	-0.62	-0.61	-0.53	-0.61	-0.74	-0.70	-0.69	-0.79	-0.85	-0.88	-0.84	-0.91	-0.59	-0.73	-0.87
Product Inventory Net Withdrawals	0.41	-0.21	-0.69	0.38	0.43	-0.54	-0.31	0.32	0.33	-0.48	-0.27	0.35	-0.03	-0.03	-0.02
Total Supply	20.23	20.33	20.63	20.60	20.41	20.51	21.05	20.94	20.69	20.88	21.31	21.03	20.45	20.73	20.98
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	3.22	2.67	2.85	3.22	3.46	2.89	3.11	3.46	3.56	3.11	3.24	3.51	2.99	3.23	3.36
Unfinished Oils	0.13	-0.04	-0.10	0.00	-0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00
Motor Gasoline	9.01	9.51	9.51	9.25	8.98	9.55	9.50	9.22	9.00	9.54	9.59	9.21	9.32	9.31	9.34
Fuel Ethanol blended into Motor Gasoline	0.91	0.94	0.96	0.94	0.91	0.98	0.96	0.94	0.91	0.97	0.97	0.94	0.94	0.95	0.95
Jet Fuel	1.64	1.73	1.78	1.70	1.68	1.79	1.84	1.80	1.74	1.81	1.86	1.83	1.71	1.78	1.81
Distillate Fuel Oil	4.18	4.13	4.05	4.18	4.26	4.02	4.11	4.22	4.28	4.13	4.16	4.25	4.13	4.16	4.20
Residual Fuel Oil	0.28	0.32	0.34	0.34	0.27	0.30	0.34	0.31	0.31	0.30	0.32	0.28	0.32	0.31	0.30
Other Oils (g)	1.78	2.01	2.22	1.91	1.67	1.96	2.15	1.93	1.80	2.00	2.15	1.95	1.98	1.93	1.97
Total Consumption	20.24	20.33	20.63	20.60	20.27	20.51	21.05	20.94	20.69	20.88	21.31	21.03	20.45	20.70	20.98
Total Petroleum and Other Liquids Net Imports	3.05	2.75	2.67	0.91	0.66	1.12	0.95	-0.30	-0.64	-0.31	-0.29	-1.04	2.34	0.61	-0.57
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	423.4	414.8	416.1	441.8	452.5	468.4	461.6	471.4	501.2	493.3	479.4	486.6	441.8	471.4	486.6
Hydrocarbon Gas Liquids	139.3	180.8	224.8	188.5	160.2	214.6	250.9	207.3	167.0	216.2	251.5	206.8	188.5	207.3	206.8
Unfinished Oils	98.3	92.6	92.0	85.9	92.5	91.2	88.4	81.7	92.4	91.8	88.6	82.1	85.9	81.7	82.1
Other HC/Oxygenates	30.5	28.8	30.5	31.4	33.7	32.2	31.4	32.1	33.8	32.8	32.1	32.7	31.4	32.1	32.7
Total Motor Gasoline	239.6	240.3	239.7	246.3	233.5	227.6	220.8	235.0	234.4	228.8	223.3	236.5	246.3	235.0	236.5
Finished Motor Gasoline	23.1	24.7	24.8	25.7	21.4	22.8	23.4	24.3	23.9	22.7	23.5	23.9	25.7	24.3	23.9
Motor Gasoline Blend Comp.	216.5	215.6	214.9	220.5	212.2	204.8	197.3	210.7	210.4	206.1	199.8	212.6	220.5	210.7	212.6
Jet Fuel	40.4	40.8	46.9	41.6	41.0	41.8	43.6	41.6	41.7	43.1	44.5	42.6	41.6	41.6	42.6
Distillate Fuel Oil	130.4	120.4	137.1	140.0	128.1	129.6	135.4	140.3	130.6	132.7	137.8	142.9	140.0	140.3	142.9
Residual Fuel Oil	35.0	30.0	28.6	28.3	29.3	32.8	33.7	35.1	37.5	37.5	35.7	35.5	28.3	35.1	35.5
Other Oils (g)	59.3	58.8	56.1	58.7	62.5	60.7	54.5	56.5	61.8	60.2	54.2	56.3	58.7	56.5	56.3
Total Commercial Inventory	1,196	1,207	1,272	1,262	1,233	1,299	1,320	1,301	1,300	1,336	1,347	1,322	1,262	1,301	1,322
Crude Oil in SPR	665	660	660	649	649	644	644	641	637	634	633	630	649	641	630

- = no data available

(a) Includes lease condensate.

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

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

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

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

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

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

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

SPR: Strategic Petroleum Reserve

HC: Hydrocarbons

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
HGL Production															
Natural Gas Processing Plants															
Ethane	1.59	1.70	1.76	1.77	1.90	1.94	2.01	2.17	2.21	2.17	2.21	2.29	1.71	2.01	2.22
Propane	1.29	1.37	1.44	1.47	1.49	1.52	1.56	1.61	1.60	1.63	1.66	1.66	1.39	1.54	1.64
Butanes	0.69	0.74	0.78	0.79	0.79	0.82	0.84	0.86	0.85	0.87	0.89	0.89	0.75	0.83	0.87
Natural Gasoline (Pentanes Plus)	0.44	0.50	0.55	0.51	0.50	0.55	0.58	0.57	0.54	0.58	0.60	0.58	0.50	0.55	0.58
Refinery and Blender Net Production															
Ethane/Ethylene	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Propane	0.30	0.31	0.31	0.29	0.28	0.31	0.30	0.29	0.29	0.32	0.30	0.30	0.30	0.30	0.30
Propylene (refinery-grade)	0.28	0.29	0.29	0.31	0.29	0.29	0.28	0.29	0.29	0.29	0.29	0.30	0.29	0.29	0.29
Butanes/Butylenes	-0.11	0.24	0.19	-0.20	-0.09	0.26	0.19	-0.20	-0.08	0.26	0.19	-0.20	0.03	0.04	0.04
Renewable Fuels and Oxygenate Plant Net Production															
Natural Gasoline (Pentanes Plus)	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
HGL Net Imports															
Ethane	-0.22	-0.29	-0.26	-0.25	-0.28	-0.31	-0.30	-0.33	-0.36	-0.36	-0.36	-0.40	-0.26	-0.31	-0.37
Propane/Propylene	-0.72	-0.81	-0.87	-0.86	-0.78	-0.87	-0.87	-1.01	-1.02	-1.00	-0.99	-1.09	-0.82	-0.88	-1.03
Butanes/Butylenes	-0.10	-0.20	-0.19	-0.13	-0.14	-0.25	-0.25	-0.26	-0.30	-0.30	-0.29	-0.27	-0.15	-0.22	-0.29
Natural Gasoline (Pentanes Plus)	-0.18	-0.23	-0.17	-0.14	-0.18	-0.26	-0.29	-0.29	-0.30	-0.31	-0.33	-0.32	-0.18	-0.26	-0.32
HGL Refinery and Blender Net Inputs															
Butanes/Butylenes	0.45	0.30	0.32	0.55	0.45	0.31	0.33	0.52	0.42	0.32	0.34	0.53	0.41	0.40	0.40
Natural Gasoline (Pentanes Plus)	0.15	0.16	0.18	0.17	0.15	0.18	0.18	0.18	0.16	0.17	0.17	0.17	0.17	0.17	0.17
HGL Consumption															
Ethane/Ethylene	1.44	1.45	1.51	1.50	1.64	1.61	1.74	1.86	1.83	1.79	1.87	1.92	1.47	1.71	1.85
Propane	1.16	0.60	0.65	1.01	1.17	0.65	0.77	1.01	1.16	0.68	0.76	0.99	0.86	0.90	0.90
Propylene (refinery-grade)	0.32	0.31	0.31	0.29	0.29	0.31	0.30	0.29	0.31	0.32	0.31	0.30	0.30	0.30	0.31
Butanes/Butylenes	0.20	0.21	0.21	0.25	0.20	0.26	0.24	0.22	0.18	0.26	0.24	0.22	0.22	0.23	0.23
Natural Gasoline (Pentanes Plus)	0.10	0.09	0.16	0.18	0.17	0.06	0.06	0.07	0.08	0.06	0.06	0.08	0.13	0.09	0.07
HGL Inventories (million barrels)															
Ethane	51.41	47.90	46.07	50.15	47.57	50.46	48.60	48.15	46.59	49.75	47.87	47.42	48.87	48.70	47.91
Propane	33.83	56.51	75.16	63.67	45.53	70.76	88.86	76.73	48.49	69.94	87.23	74.53	63.67	76.73	74.53
Propylene (refinery-grade)	3.82	3.64	3.86	6.93	8.17	8.27	8.27	9.39	9.45	9.17	9.28	10.08	6.93	9.39	10.08
Butanes/Butylenes	32.02	55.37	78.52	47.44	39.53	63.74	82.18	51.56	39.76	63.44	81.88	51.25	47.44	51.56	51.25
Natural Gasoline (Pentanes Plus)	19.36	18.59	20.34	20.84	18.68	21.26	23.02	23.03	21.70	23.85	25.23	25.00	20.84	23.03	25.00
Refinery and Blender Net Inputs															
Crude Oil	16.41	17.14	17.32	16.99	16.22	17.21	17.57	17.18	17.20	18.20	18.22	17.74	16.97	17.05	17.84
Hydrocarbon Gas Liquids	0.61	0.47	0.50	0.72	0.60	0.48	0.52	0.69	0.58	0.49	0.52	0.70	0.57	0.57	0.57
Other Hydrocarbons/Oxygenates	1.16	1.23	1.22	1.20	1.17	1.26	1.23	1.25	1.22	1.29	1.27	1.25	1.20	1.23	1.26
Unfinished Oils	0.12	0.42	0.45	0.34	0.23	0.38	0.45	0.43	0.39	0.62	0.65	0.59	0.33	0.37	0.56
Motor Gasoline Blend Components	0.34	0.70	0.58	0.26	0.57	0.92	0.67	0.49	0.57	0.84	0.66	0.49	0.47	0.66	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	18.63	19.96	20.08	19.51	18.79	20.26	20.44	20.05	19.96	21.43	21.31	20.77	19.55	19.89	20.87
Refinery Processing Gain															
.....	1.11	1.12	1.17	1.16	1.07	1.13	1.15	1.19	1.20	1.26	1.27	1.28	1.14	1.13	1.25
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	0.48	0.84	0.80	0.41	0.48	0.86	0.77	0.39	0.50	0.88	0.78	0.40	0.63	0.63	0.64
Finished Motor Gasoline	9.79	10.14	10.11	10.19	9.84	10.39	10.32	10.45	10.25	10.68	10.56	10.67	10.06	10.25	10.54
Jet Fuel	1.72	1.83	1.90	1.77	1.73	1.79	1.89	1.81	1.77	1.91	1.97	1.89	1.81	1.81	1.88
Distillate Fuel	4.81	5.25	5.29	5.32	5.02	5.30	5.44	5.49	5.60	5.99	6.04	5.88	5.17	5.31	5.88
Residual Fuel	0.44	0.40	0.42	0.43	0.35	0.41	0.39	0.36	0.33	0.36	0.32	0.33	0.42	0.37	0.33
Other Oils (a)	2.49	2.61	2.72	2.55	2.45	2.64	2.78	2.74	2.71	2.86	2.92	2.88	2.59	2.65	2.84
Total Refinery and Blender Net Production	19.74	21.08	21.25	20.67	19.86	21.39	21.58	21.23	21.16	22.68	22.58	22.04	20.69	21.02	22.12
Refinery Distillation Inputs															
.....	16.76	17.50	17.69	17.33	16.50	17.36	17.73	17.35	17.20	18.09	18.19	17.74	17.32	17.24	17.80
Refinery Operable Distillation Capacity															
.....	18.57	18.60	18.60	18.60	18.76	18.77	18.77	18.78	18.79	18.79	18.79	18.81	18.59	18.77	18.79
Refinery Distillation Utilization Factor															
.....	0.90	0.94	0.95	0.93	0.88	0.93	0.94	0.92	0.92	0.96	0.97	0.94	0.93	0.92	0.95

- = 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 - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
Prices (cents per gallon)															
Refiner Wholesale Price	186	213	213	178	168	<i>217</i>	<i>215</i>	<i>194</i>	<i>194</i>	<i>206</i>	<i>202</i>	<i>187</i>	198	<i>199</i>	<i>197</i>
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	255	279	278	257	233	<i>283</i>	<i>290</i>	<i>276</i>	<i>268</i>	<i>278</i>	<i>277</i>	<i>268</i>	268	<i>271</i>	<i>273</i>
PADD 2	246	274	276	245	223	<i>281</i>	<i>286</i>	<i>266</i>	<i>261</i>	<i>275</i>	<i>273</i>	<i>259</i>	261	<i>265</i>	<i>267</i>
PADD 3	230	261	258	231	208	<i>261</i>	<i>265</i>	<i>245</i>	<i>243</i>	<i>256</i>	<i>251</i>	<i>237</i>	245	<i>246</i>	<i>247</i>
PADD 4	247	288	297	281	226	<i>278</i>	<i>293</i>	<i>272</i>	<i>253</i>	<i>275</i>	<i>281</i>	<i>264</i>	279	<i>268</i>	<i>269</i>
PADD 5	312	342	335	333	297	<i>351</i>	<i>343</i>	<i>314</i>	<i>307</i>	<i>335</i>	<i>330</i>	<i>306</i>	330	<i>327</i>	<i>320</i>
U.S. Average	258	285	284	262	236	<i>290</i>	<i>294</i>	<i>275</i>	<i>268</i>	<i>283</i>	<i>281</i>	<i>267</i>	273	<i>274</i>	<i>275</i>
Gasoline All Grades Including Taxes	270	294	292	271	245	<i>299</i>	<i>305</i>	<i>286</i>	<i>281</i>	<i>295</i>	<i>293</i>	<i>280</i>	282	<i>284</i>	<i>287</i>
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	58.4	66.5	70.2	62.9	62.2	<i>61.5</i>	<i>56.7</i>	<i>60.9</i>	<i>60.3</i>	<i>60.6</i>	<i>58.1</i>	<i>61.9</i>	62.9	<i>60.9</i>	<i>61.9</i>
PADD 2	57.3	53.5	53.1	56.1	53.2	<i>48.7</i>	<i>48.1</i>	<i>50.3</i>	<i>53.0</i>	<i>50.0</i>	<i>48.8</i>	<i>50.9</i>	56.1	<i>50.3</i>	<i>50.9</i>
PADD 3	84.2	82.3	80.5	90.6	81.1	<i>82.2</i>	<i>80.8</i>	<i>84.7</i>	<i>83.5</i>	<i>82.3</i>	<i>81.0</i>	<i>84.8</i>	90.6	<i>84.7</i>	<i>84.8</i>
PADD 4	7.7	7.3	7.0	7.3	6.9	<i>7.4</i>	<i>7.0</i>	<i>7.5</i>	<i>7.3</i>	<i>7.3</i>	<i>6.8</i>	<i>7.2</i>	7.3	<i>7.5</i>	<i>7.2</i>
PADD 5	32.0	30.7	28.8	29.4	30.1	<i>27.8</i>	<i>28.3</i>	<i>31.6</i>	<i>30.2</i>	<i>28.5</i>	<i>28.7</i>	<i>31.7</i>	29.4	<i>31.6</i>	<i>31.7</i>
U.S. Total	239.6	240.3	239.7	246.3	233.5	<i>227.6</i>	<i>220.8</i>	<i>235.0</i>	<i>234.4</i>	<i>228.8</i>	<i>223.3</i>	<i>236.5</i>	246.3	<i>235.0</i>	<i>236.5</i>
Finished Gasoline Inventories															
U.S. Total	23.1	24.7	24.8	25.7	21.4	<i>22.8</i>	<i>23.4</i>	<i>24.3</i>	<i>23.9</i>	<i>22.7</i>	<i>23.5</i>	<i>23.9</i>	25.7	<i>24.3</i>	<i>23.9</i>
Gasoline Blending Components Inventories															
U.S. Total	216.5	215.6	214.9	220.5	212.2	<i>204.8</i>	<i>197.3</i>	<i>210.7</i>	<i>210.4</i>	<i>206.1</i>	<i>199.8</i>	<i>212.6</i>	220.5	<i>210.7</i>	<i>212.6</i>

- = no data available

Prices are not adjusted for inflation.

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

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

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

Historical data: Latest data available from Energy Information Administration databases supporting the following reports *Petroleum Marketing Monthly*, DOE/EIA-0380;

Petroleum Supply Monthly, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; and *Weekly Petroleum Status Report*, DOE/EIA-0208.

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
Supply (billion cubic feet per day)															
Total Marketed Production	84.93	87.39	91.50	94.79	95.60	<i>96.37</i>	<i>97.58</i>	<i>98.95</i>	<i>99.27</i>	<i>99.47</i>	<i>99.67</i>	<i>99.27</i>	89.69	<i>97.14</i>	<i>99.42</i>
Alaska	1.00	0.92	0.86	0.96	0.98	<i>0.86</i>	<i>0.78</i>	<i>0.95</i>	<i>1.01</i>	<i>0.87</i>	<i>0.79</i>	<i>0.95</i>	0.94	<i>0.89</i>	<i>0.90</i>
Federal GOM (a)	2.57	2.48	2.86	2.77	2.85	<i>2.92</i>	<i>2.86</i>	<i>2.82</i>	<i>2.85</i>	<i>2.80</i>	<i>2.72</i>	<i>2.66</i>	2.67	<i>2.86</i>	<i>2.76</i>
Lower 48 States (excl GOM)	81.37	83.98	87.79	91.05	91.78	<i>92.58</i>	<i>93.93</i>	<i>95.18</i>	<i>95.41</i>	<i>95.80</i>	<i>96.15</i>	<i>95.66</i>	86.08	<i>93.38</i>	<i>95.76</i>
Total Dry Gas Production	79.13	81.17	84.96	88.22	88.92	<i>89.58</i>	<i>90.65</i>	<i>91.88</i>	<i>92.13</i>	<i>92.26</i>	<i>92.39</i>	<i>91.98</i>	83.40	<i>90.27</i>	<i>92.19</i>
LNG Gross Imports	0.33	0.10	0.15	0.26	0.30	<i>0.17</i>	<i>0.17</i>	<i>0.21</i>	<i>0.32</i>	<i>0.18</i>	<i>0.18</i>	<i>0.20</i>	0.21	<i>0.21</i>	<i>0.22</i>
LNG Gross Exports	2.64	2.79	2.95	3.48	4.02	<i>4.10</i>	<i>5.19</i>	<i>6.12</i>	<i>6.69</i>	<i>6.13</i>	<i>6.47</i>	<i>7.23</i>	2.97	<i>4.86</i>	<i>6.63</i>
Pipeline Gross Imports	8.76	7.63	7.50	7.22	8.50	<i>7.11</i>	<i>6.93</i>	<i>7.53</i>	<i>8.35</i>	<i>6.85</i>	<i>6.96</i>	<i>7.05</i>	7.77	<i>7.51</i>	<i>7.30</i>
Pipeline Gross Exports	7.02	6.15	8.18	8.76	9.11	<i>8.03</i>	<i>7.55</i>	<i>8.11</i>	<i>9.54</i>	<i>8.18</i>	<i>7.76</i>	<i>8.27</i>	7.53	<i>8.19</i>	<i>8.44</i>
Supplemental Gaseous Fuels	0.21	0.17	0.19	0.18	0.19	<i>0.19</i>	<i>0.19</i>	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	0.19	<i>0.19</i>	<i>0.20</i>
Net Inventory Withdrawals	18.31	-8.85	-8.23	2.58	17.07	<i>-13.97</i>	<i>-10.30</i>	<i>2.88</i>	<i>15.92</i>	<i>-11.34</i>	<i>-7.96</i>	<i>3.28</i>	0.88	<i>-1.14</i>	<i>-0.04</i>
Total Supply	97.09	71.27	73.44	86.21	101.84	<i>70.96</i>	<i>74.91</i>	<i>88.47</i>	<i>100.69</i>	<i>73.85</i>	<i>77.54</i>	<i>87.21</i>	81.95	<i>83.98</i>	<i>84.81</i>
Balancing Item (b)	0.52	-0.57	0.65	-0.10	1.41	<i>0.21</i>	<i>-0.02</i>	<i>-1.21</i>	<i>0.59</i>	<i>-0.13</i>	<i>-0.66</i>	<i>0.09</i>	0.13	<i>0.09</i>	<i>-0.03</i>
Total Primary Supply	97.61	70.71	74.09	86.12	103.25	<i>71.17</i>	<i>74.89</i>	<i>87.26</i>	<i>101.28</i>	<i>73.71</i>	<i>76.88</i>	<i>87.30</i>	82.08	<i>84.07</i>	<i>84.78</i>
Consumption (billion cubic feet per day)															
Residential	25.77	7.98	3.45	17.53	27.57	<i>7.26</i>	<i>3.61</i>	<i>17.14</i>	<i>25.64</i>	<i>7.51</i>	<i>3.65</i>	<i>16.43</i>	13.63	<i>13.84</i>	<i>13.29</i>
Commercial	15.36	6.61	4.58	11.65	16.16	<i>6.43</i>	<i>4.74</i>	<i>11.03</i>	<i>14.94</i>	<i>6.44</i>	<i>4.69</i>	<i>10.48</i>	9.53	<i>9.56</i>	<i>9.13</i>
Industrial	24.30	21.82	21.30	23.41	25.03	<i>22.19</i>	<i>21.55</i>	<i>24.64</i>	<i>25.55</i>	<i>22.88</i>	<i>22.12</i>	<i>25.18</i>	22.70	<i>23.35</i>	<i>23.93</i>
Electric Power (c)	24.91	27.62	37.78	26.04	26.46	<i>27.98</i>	<i>37.43</i>	<i>26.41</i>	<i>26.70</i>	<i>29.15</i>	<i>38.57</i>	<i>27.05</i>	29.11	<i>29.59</i>	<i>30.38</i>
Lease and Plant Fuel	4.55	4.68	4.90	5.08	5.12	<i>5.16</i>	<i>5.23</i>	<i>5.30</i>	<i>5.32</i>	<i>5.33</i>	<i>5.34</i>	<i>5.32</i>	4.81	<i>5.20</i>	<i>5.33</i>
Pipeline and Distribution Use	2.60	1.88	1.97	2.29	2.78	<i>2.01</i>	<i>2.21</i>	<i>2.60</i>	<i>3.00</i>	<i>2.27</i>	<i>2.38</i>	<i>2.71</i>	2.18	<i>2.40</i>	<i>2.59</i>
Vehicle Use	0.12	0.12	0.12	0.12	0.13	<i>0.13</i>	<i>0.13</i>	<i>0.13</i>	<i>0.14</i>	<i>0.14</i>	<i>0.14</i>	<i>0.14</i>	0.12	<i>0.13</i>	<i>0.14</i>
Total Consumption	97.61	70.71	74.09	86.12	103.25	<i>71.17</i>	<i>74.89</i>	<i>87.26</i>	<i>101.28</i>	<i>73.71</i>	<i>76.88</i>	<i>87.30</i>	82.08	<i>84.07</i>	<i>84.78</i>
End-of-period Inventories (billion cubic feet)															
Working Gas Inventory	1,391	2,196	2,951	2,709	1,167	<i>2,438</i>	<i>3,386</i>	<i>3,120</i>	<i>1,671</i>	<i>2,703</i>	<i>3,435</i>	<i>3,133</i>	2,709	<i>3,120</i>	<i>3,133</i>
East Region (d)	229	465	778	659	210	<i>567</i>	<i>894</i>	<i>800</i>	<i>314</i>	<i>637</i>	<i>887</i>	<i>800</i>	659	<i>800</i>	<i>800</i>
Midwest Region (d)	261	459	846	777	241	<i>569</i>	<i>961</i>	<i>822</i>	<i>294</i>	<i>567</i>	<i>892</i>	<i>772</i>	777	<i>822</i>	<i>772</i>
South Central Region (d)	614	846	846	880	508	<i>937</i>	<i>1,068</i>	<i>1,079</i>	<i>758</i>	<i>1,041</i>	<i>1,125</i>	<i>1,103</i>	880	<i>1,079</i>	<i>1,103</i>
Mountain Region (d)	87	140	179	141	64	<i>124</i>	<i>178</i>	<i>152</i>	<i>109</i>	<i>153</i>	<i>194</i>	<i>159</i>	141	<i>152</i>	<i>159</i>
Pacific Region (d)	169	253	263	214	115	<i>211</i>	<i>254</i>	<i>237</i>	<i>166</i>	<i>276</i>	<i>307</i>	<i>269</i>	214	<i>237</i>	<i>269</i>
Alaska	31	33	38	37	30	<i>30</i>	<i>30</i>	<i>30</i>	<i>30</i>	<i>30</i>	<i>30</i>	<i>30</i>	37	<i>30</i>	<i>30</i>

- = no data available

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

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

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

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

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

LNG: liquefied natural gas.

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
Wholesale/Spot															
Henry Hub Spot Price	3.13	2.96	3.04	3.94	3.02	<i>2.72</i>	<i>2.79</i>	<i>3.05</i>	<i>3.12</i>	<i>2.67</i>	<i>2.74</i>	<i>3.00</i>	3.27	<i>2.89</i>	<i>2.88</i>
Residential Retail															
New England	14.38	16.60	19.08	14.42	14.19	<i>14.07</i>	<i>16.98</i>	<i>13.51</i>	<i>13.09</i>	<i>13.88</i>	<i>16.97</i>	<i>13.43</i>	15.00	<i>14.15</i>	<i>13.57</i>
Middle Atlantic	10.17	11.92	18.30	11.39	10.66	<i>11.97</i>	<i>16.45</i>	<i>11.38</i>	<i>10.53</i>	<i>12.32</i>	<i>16.72</i>	<i>11.28</i>	11.30	<i>11.36</i>	<i>11.45</i>
E. N. Central	7.20	9.77	18.40	8.02	7.32	<i>10.44</i>	<i>16.27</i>	<i>8.74</i>	<i>7.93</i>	<i>10.69</i>	<i>16.35</i>	<i>8.69</i>	8.42	<i>8.59</i>	<i>9.09</i>
W. N. Central	8.15	10.48	18.55	9.06	8.28	<i>11.27</i>	<i>17.25</i>	<i>9.37</i>	<i>8.52</i>	<i>11.25</i>	<i>16.99</i>	<i>9.31</i>	9.29	<i>9.41</i>	<i>9.67</i>
S. Atlantic	11.07	15.63	24.88	12.47	11.56	<i>16.18</i>	<i>22.32</i>	<i>13.15</i>	<i>11.72</i>	<i>16.54</i>	<i>22.55</i>	<i>13.06</i>	12.98	<i>13.43</i>	<i>13.57</i>
E. S. Central	9.61	12.70	21.52	10.58	9.59	<i>13.81</i>	<i>20.29</i>	<i>12.99</i>	<i>10.77</i>	<i>15.34</i>	<i>21.43</i>	<i>13.64</i>	10.90	<i>11.55</i>	<i>12.85</i>
W. S. Central	9.27	14.25	22.03	10.19	8.13	<i>13.13</i>	<i>20.00</i>	<i>12.09</i>	<i>9.07</i>	<i>14.57</i>	<i>20.63</i>	<i>12.30</i>	10.98	<i>11.03</i>	<i>11.70</i>
Mountain	8.22	10.38	14.03	7.69	7.69	<i>9.52</i>	<i>13.26</i>	<i>8.77</i>	<i>8.67</i>	<i>10.00</i>	<i>13.61</i>	<i>8.97</i>	8.74	<i>8.68</i>	<i>9.38</i>
Pacific	11.62	12.02	12.88	11.75	12.28	<i>12.19</i>	<i>12.34</i>	<i>11.28</i>	<i>12.44</i>	<i>12.67</i>	<i>12.95</i>	<i>11.85</i>	11.87	<i>11.98</i>	<i>12.36</i>
U.S. Average	9.37	11.93	17.93	9.97	9.43	<i>11.85</i>	<i>16.44</i>	<i>10.63</i>	<i>9.85</i>	<i>12.24</i>	<i>16.73</i>	<i>10.71</i>	10.49	<i>10.58</i>	<i>10.93</i>
Commercial Retail															
New England	11.05	11.73	10.85	10.56	10.89	<i>10.54</i>	<i>10.01</i>	<i>9.54</i>	<i>9.57</i>	<i>9.45</i>	<i>9.28</i>	<i>9.29</i>	10.99	<i>10.35</i>	<i>9.44</i>
Middle Atlantic	8.13	7.67	7.47	7.86	8.55	<i>7.86</i>	<i>7.05</i>	<i>7.61</i>	<i>7.81</i>	<i>7.61</i>	<i>6.99</i>	<i>7.54</i>	7.89	<i>7.99</i>	<i>7.60</i>
E. N. Central	6.19	6.95	9.01	6.55	6.37	<i>7.49</i>	<i>8.75</i>	<i>6.83</i>	<i>6.61</i>	<i>7.53</i>	<i>8.77</i>	<i>6.78</i>	6.62	<i>6.83</i>	<i>6.96</i>
W. N. Central	6.96	7.30	8.91	7.11	7.14	<i>7.71</i>	<i>8.69</i>	<i>7.16</i>	<i>7.38</i>	<i>7.64</i>	<i>8.61</i>	<i>7.10</i>	7.20	<i>7.34</i>	<i>7.43</i>
S. Atlantic	8.29	9.35	9.73	8.70	8.92	<i>9.36</i>	<i>9.73</i>	<i>9.03</i>	<i>9.03</i>	<i>9.78</i>	<i>10.03</i>	<i>9.03</i>	8.75	<i>9.12</i>	<i>9.28</i>
E. S. Central	8.62	9.32	10.51	8.84	8.57	<i>9.40</i>	<i>9.83</i>	<i>8.77</i>	<i>8.39</i>	<i>9.29</i>	<i>9.68</i>	<i>8.63</i>	8.98	<i>8.89</i>	<i>8.74</i>
W. S. Central	7.21	7.90	8.55	6.99	6.41	<i>7.26</i>	<i>7.97</i>	<i>7.42</i>	<i>7.12</i>	<i>7.45</i>	<i>7.92</i>	<i>7.33</i>	7.44	<i>7.04</i>	<i>7.36</i>
Mountain	6.99	7.48	7.92	6.24	6.36	<i>6.86</i>	<i>7.83</i>	<i>6.92</i>	<i>7.19</i>	<i>7.44</i>	<i>8.14</i>	<i>7.07</i>	6.91	<i>6.76</i>	<i>7.30</i>
Pacific	8.90	8.58	9.11	8.68	8.93	<i>8.72</i>	<i>8.70</i>	<i>8.35</i>	<i>8.62</i>	<i>8.65</i>	<i>8.85</i>	<i>8.52</i>	8.80	<i>8.69</i>	<i>8.63</i>
U.S. Average	7.64	8.08	8.77	7.61	7.71	<i>8.11</i>	<i>8.42</i>	<i>7.71</i>	<i>7.70</i>	<i>8.10</i>	<i>8.43</i>	<i>7.68</i>	7.82	<i>7.85</i>	<i>7.84</i>
Industrial Retail															
New England	8.95	8.62	6.49	7.91	8.84	<i>7.47</i>	<i>6.84</i>	<i>8.04</i>	<i>8.66</i>	<i>7.84</i>	<i>7.12</i>	<i>8.03</i>	8.17	<i>7.97</i>	<i>8.05</i>
Middle Atlantic	8.33	8.07	7.73	7.89	8.80	<i>7.46</i>	<i>7.22</i>	<i>7.44</i>	<i>7.87</i>	<i>7.18</i>	<i>7.11</i>	<i>7.36</i>	8.11	<i>7.98</i>	<i>7.53</i>
E. N. Central	5.69	5.02	5.20	5.74	5.71	<i>5.71</i>	<i>5.65</i>	<i>5.62</i>	<i>6.22</i>	<i>5.72</i>	<i>5.52</i>	<i>5.55</i>	5.53	<i>5.68</i>	<i>5.85</i>
W. N. Central	5.05	4.23	4.21	5.05	5.22	<i>4.46</i>	<i>4.28</i>	<i>4.94</i>	<i>5.44</i>	<i>4.42</i>	<i>4.17</i>	<i>4.90</i>	4.69	<i>4.79</i>	<i>4.80</i>
S. Atlantic	5.34	4.67	4.68	5.42	5.43	<i>4.59</i>	<i>4.60</i>	<i>5.11</i>	<i>5.47</i>	<i>4.67</i>	<i>4.60</i>	<i>5.03</i>	5.06	<i>4.96</i>	<i>4.97</i>
E. S. Central	4.93	4.21	4.14	4.90	4.92	<i>4.14</i>	<i>4.16</i>	<i>4.75</i>	<i>4.98</i>	<i>4.32</i>	<i>4.22</i>	<i>4.74</i>	4.59	<i>4.52</i>	<i>4.59</i>
W. S. Central	3.32	3.09	3.12	4.02	3.40	<i>2.97</i>	<i>3.04</i>	<i>3.24</i>	<i>3.34</i>	<i>2.83</i>	<i>2.95</i>	<i>3.16</i>	3.38	<i>3.15</i>	<i>3.07</i>
Mountain	5.43	5.36	4.72	4.79	5.43	<i>5.44</i>	<i>5.77</i>	<i>5.85</i>	<i>5.99</i>	<i>5.55</i>	<i>5.66</i>	<i>5.68</i>	5.09	<i>5.61</i>	<i>5.74</i>
Pacific	6.97	6.03	6.72	6.65	7.42	<i>6.39</i>	<i>6.24</i>	<i>6.33</i>	<i>6.89</i>	<i>6.28</i>	<i>6.33</i>	<i>6.43</i>	6.61	<i>6.60</i>	<i>6.51</i>
U.S. Average	4.44	3.83	3.73	4.71	4.58	<i>3.73</i>	<i>3.67</i>	<i>4.16</i>	<i>4.52</i>	<i>3.67</i>	<i>3.61</i>	<i>4.10</i>	4.20	<i>4.05</i>	<i>4.00</i>

- = no data available

Prices are not adjusted for inflation.

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

Regions refer to U.S. Census divisions.

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
Supply (million short tons)															
Production	187.6	180.8	194.7	192.4	170.3	165.5	185.3	178.7	168.6	135.8	168.1	165.6	755.5	699.8	638.1
Appalachia	50.0	51.6	49.0	49.5	47.4	45.1	49.9	48.5	43.5	39.0	42.0	40.8	200.1	190.9	165.3
Interior	34.0	34.6	34.7	33.9	31.0	30.4	32.9	32.5	31.9	25.3	32.2	33.2	137.1	126.7	122.5
Western	103.7	94.6	111.0	109.0	91.9	90.0	102.5	97.8	93.2	71.5	94.0	91.6	418.3	382.2	350.3
Primary Inventory Withdrawals	-2.8	2.3	1.1	-0.6	1.1	0.3	0.6	-2.0	-0.1	0.9	2.3	-2.8	0.0	0.1	0.3
Imports	1.4	1.5	1.4	1.6	1.4	1.3	1.6	1.5	1.2	1.3	1.5	1.4	6.0	5.7	5.4
Exports	27.2	30.9	29.1	28.5	23.6	24.6	24.8	24.9	26.4	22.7	22.3	22.0	115.6	97.9	93.3
Metallurgical Coal	14.9	16.9	14.5	15.2	12.3	12.8	13.0	13.2	14.0	12.4	12.6	12.3	61.5	51.3	51.3
Steam Coal	12.3	13.9	14.5	13.3	11.3	11.7	11.9	11.7	12.4	10.3	9.7	9.7	54.1	46.6	42.1
Total Primary Supply	159.0	153.7	168.1	165.0	149.2	142.5	162.7	153.3	143.4	115.2	149.7	142.2	645.9	607.6	550.4
Secondary Inventory Withdrawals	11.8	4.9	20.4	-2.3	3.1	-5.0	4.8	-7.8	-1.1	3.0	6.8	-8.0	34.8	-4.9	0.7
Waste Coal (a)	2.8	2.3	2.6	2.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	10.1	9.3	9.2
Total Supply	173.5	160.9	191.2	165.2	154.6	139.9	169.8	147.8	144.6	120.5	158.8	136.4	690.8	612.1	560.2
Consumption (million short tons)															
Coke Plants	4.2	4.6	4.7	4.7	3.9	4.5	4.6	5.3	3.9	4.2	4.5	5.3	18.3	18.3	18.0
Electric Power Sector (b)	154.8	144.2	181.6	155.9	144.8	117.6	157.8	134.9	132.9	108.9	147.1	123.7	636.5	555.1	512.6
Retail and Other Industry	8.5	7.9	7.7	8.4	8.2	7.6	7.4	7.6	7.8	7.3	7.2	7.3	32.5	30.8	29.7
Residential and Commercial	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	1.0	0.7	0.7
Other Industrial	8.2	7.7	7.5	8.2	8.0	7.5	7.3	7.4	7.6	7.2	7.0	7.1	31.6	30.1	29.0
Total Consumption	167.6	156.6	194.1	169.1	156.9	129.7	169.8	147.8	144.6	120.5	158.8	136.4	687.3	604.2	560.2
Discrepancy (c)	5.9	4.3	-2.9	-3.8	-2.3	10.1	0.0	0.0	0.0	0.0	0.0	0.0	3.5	7.9	0.0
End-of-period Inventories (million short tons)															
Primary Inventories (d)	26.8	24.5	23.4	24.0	22.9	22.5	21.9	23.9	24.0	23.1	20.8	23.6	24.0	23.9	23.6
Secondary Inventories	131.2	126.3	105.9	108.1	105.0	110.0	105.2	113.0	114.1	111.1	104.3	112.3	108.1	113.0	112.3
Electric Power Sector	126.5	121.5	100.8	102.8	99.9	104.5	99.5	107.5	108.8	105.5	98.5	106.8	102.8	107.5	106.8
Retail and General Industry	2.9	2.9	3.0	3.3	3.6	3.5	3.6	3.4	3.7	3.6	3.7	3.5	3.3	3.4	3.5
Coke Plants	1.5	1.6	1.8	1.8	1.3	1.8	1.9	1.9	1.4	1.8	1.9	1.9	1.8	1.9	1.9
Coal Market Indicators															
Coal Miner Productivity															
(Tons per hour)	6.10	6.10	6.10	6.10	6.02	6.02	6.02	6.02	6.01	6.01	6.01	6.01	6.10	6.02	6.01
Total Raw Steel Production															
(Million short tons per day)	0.251	0.253	0.263	0.270	0.273	0.272	0.255	0.227	0.269	0.269	0.250	0.217	0.259	0.257	0.251
Cost of Coal to Electric Utilities															
(Dollars per million Btu)	2.06	2.06	2.06	2.08	2.10	2.14	2.12	2.12	2.13	2.14	2.12	2.12	2.06	2.12	2.12

- = no data available

(a) Waste coal includes waste coal and coal slurry reprocessed into briquettes.

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

(c) The discrepancy reflects an unaccounted-for shipper and receiver reporting difference, assumed to be zero in the forecast period.

(d) Primary stocks are held at the mines and distribution points.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.**Historical data:** Latest data available from Energy Information Administration databases supporting the following reports: *Quarterly Coal Report*, DOE/EIA-0121; and *Electric Power Monthly*, DOE/EIA-0226.

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

Projections: EIA Regional Short-Term Energy Model.

Table 7a. U.S. Electricity Industry Overview

U.S. Energy Information Administration | Short-Term Energy Outlook - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
Electricity Supply (billion kilowatthours per day)															
Electricity Generation	11.13	11.14	12.80	10.71	11.06	<i>10.76</i>	<i>12.43</i>	<i>10.58</i>	<i>10.99</i>	<i>10.83</i>	<i>12.48</i>	<i>10.60</i>	11.45	<i>11.21</i>	<i>11.22</i>
Electric Power Sector (a)	10.69	10.71	12.35	10.27	10.62	<i>10.32</i>	<i>11.98</i>	<i>10.15</i>	<i>10.55</i>	<i>10.39</i>	<i>12.02</i>	<i>10.16</i>	11.01	<i>10.77</i>	<i>10.78</i>
Comm. and Indus. Sectors (b)	0.43	0.43	0.45	0.44	0.44	<i>0.44</i>	<i>0.45</i>	<i>0.43</i>	<i>0.44</i>	<i>0.44</i>	<i>0.45</i>	<i>0.44</i>	0.44	<i>0.44</i>	<i>0.44</i>
Net Imports	0.13	0.12	0.14	0.09	0.14	<i>0.14</i>	<i>0.17</i>	<i>0.13</i>	<i>0.15</i>	<i>0.15</i>	<i>0.17</i>	<i>0.13</i>	0.12	<i>0.14</i>	<i>0.15</i>
Total Supply	11.26	11.26	12.93	10.80	11.20	<i>10.90</i>	<i>12.59</i>	<i>10.71</i>	<i>11.14</i>	<i>10.98</i>	<i>12.65</i>	<i>10.73</i>	11.57	<i>11.35</i>	<i>11.38</i>
Losses and Unaccounted for (c)	0.64	0.93	0.80	0.66	0.68	<i>0.79</i>	<i>0.73</i>	<i>0.67</i>	<i>0.58</i>	<i>0.83</i>	<i>0.73</i>	<i>0.67</i>	0.76	<i>0.72</i>	<i>0.70</i>
Electricity Consumption (billion kilowatthours per day unless noted)															
Retail Sales	10.23	9.95	11.73	9.75	10.12	<i>9.72</i>	<i>11.46</i>	<i>9.65</i>	<i>10.16</i>	<i>9.76</i>	<i>11.51</i>	<i>9.66</i>	10.42	<i>10.24</i>	<i>10.27</i>
Residential Sector	4.10	3.60	4.72	3.62	3.99	<i>3.42</i>	<i>4.52</i>	<i>3.53</i>	<i>4.02</i>	<i>3.45</i>	<i>4.57</i>	<i>3.56</i>	4.01	<i>3.87</i>	<i>3.90</i>
Commercial Sector	3.61	3.70	4.21	3.57	3.58	<i>3.65</i>	<i>4.14</i>	<i>3.55</i>	<i>3.59</i>	<i>3.67</i>	<i>4.15</i>	<i>3.56</i>	3.77	<i>3.73</i>	<i>3.74</i>
Industrial Sector	2.50	2.62	2.78	2.55	2.52	<i>2.63</i>	<i>2.78</i>	<i>2.54</i>	<i>2.53</i>	<i>2.62</i>	<i>2.77</i>	<i>2.52</i>	2.61	<i>2.62</i>	<i>2.61</i>
Transportation Sector	0.02	0.02	0.02	0.02	0.02	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	0.02	<i>0.02</i>	<i>0.02</i>
Direct Use (d)	0.39	0.38	0.41	0.39	0.40	<i>0.39</i>	<i>0.40</i>	<i>0.39</i>	<i>0.40</i>	<i>0.39</i>	<i>0.41</i>	<i>0.40</i>	0.39	<i>0.40</i>	<i>0.40</i>
Total Consumption	10.62	10.33	12.14	10.14	10.52	<i>10.11</i>	<i>11.86</i>	<i>10.04</i>	<i>10.56</i>	<i>10.15</i>	<i>11.92</i>	<i>10.06</i>	10.81	<i>10.63</i>	<i>10.67</i>
Average residential electricity usage per customer (kWh)	2,754	2,446	3,240	2,481	2,652	<i>2,293</i>	<i>3,065</i>	<i>2,397</i>	<i>2,672</i>	<i>2,290</i>	<i>3,067</i>	<i>2,388</i>	10,920	<i>10,407</i>	<i>10,418</i>
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.06	2.06	2.06	2.08	2.10	<i>2.14</i>	<i>2.12</i>	<i>2.12</i>	<i>2.13</i>	<i>2.14</i>	<i>2.12</i>	<i>2.12</i>	2.06	<i>2.12</i>	<i>2.12</i>
Natural Gas	3.96	3.09	3.23	4.05	3.70	<i>2.83</i>	<i>2.76</i>	<i>3.30</i>	<i>3.49</i>	<i>2.71</i>	<i>2.66</i>	<i>3.21</i>	3.54	<i>3.10</i>	<i>2.98</i>
Residual Fuel Oil	11.47	13.02	14.02	14.49	11.63	<i>13.80</i>	<i>13.83</i>	<i>13.26</i>	<i>13.19</i>	<i>13.73</i>	<i>13.02</i>	<i>12.79</i>	12.95	<i>13.14</i>	<i>13.17</i>
Distillate Fuel Oil	15.77	16.61	16.82	16.01	14.80	<i>16.54</i>	<i>17.23</i>	<i>17.34</i>	<i>17.22</i>	<i>17.59</i>	<i>17.49</i>	<i>17.57</i>	16.13	<i>16.45</i>	<i>17.45</i>
Retail Prices (cents per kilowatthour)															
Residential Sector	12.59	13.03	13.15	12.75	12.73	<i>13.37</i>	<i>13.37</i>	<i>12.95</i>	<i>12.84</i>	<i>13.56</i>	<i>13.52</i>	<i>13.13</i>	12.89	<i>13.11</i>	<i>13.27</i>
Commercial Sector	10.54	10.60	10.89	10.55	10.44	<i>10.75</i>	<i>10.98</i>	<i>10.60</i>	<i>10.46</i>	<i>10.77</i>	<i>11.02</i>	<i>10.67</i>	10.66	<i>10.71</i>	<i>10.74</i>
Industrial Sector	6.81	6.87	7.22	6.82	6.65	<i>6.89</i>	<i>7.22</i>	<i>6.79</i>	<i>6.69</i>	<i>6.93</i>	<i>7.27</i>	<i>6.84</i>	6.93	<i>6.90</i>	<i>6.94</i>

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

Prices are not adjusted for inflation.

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

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
Residential Sector															
New England	140	111	153	120	138	111	140	118	138	112	140	119	131	127	127
Middle Atlantic	394	323	453	338	391	310	420	330	391	314	418	330	377	363	364
E. N. Central	552	480	603	482	549	441	572	472	540	445	577	474	530	508	509
W. N. Central	327	274	318	272	330	243	313	266	318	246	318	268	297	288	288
S. Atlantic	1,040	920	1,184	939	980	887	1,148	899	1,015	886	1,162	906	1,021	979	993
E. S. Central	368	301	396	307	332	278	379	291	352	280	386	292	343	320	327
W. S. Central	608	582	803	534	558	544	772	526	569	552	791	535	632	600	612
Mountain	239	263	360	235	256	258	350	237	255	262	354	240	274	275	278
Pacific contiguous	422	339	439	376	443	336	412	381	433	341	412	382	394	393	392
AK and HI	14	12	13	13	13	12	12	13	13	12	12	13	13	13	13
Total	4,103	3,604	4,722	3,616	3,990	3,421	4,518	3,533	4,025	3,450	4,571	3,559	4,012	3,866	3,902
Commercial Sector															
New England	141	136	159	136	140	136	153	134	137	132	147	129	143	140	136
Middle Atlantic	431	412	479	410	429	405	461	404	425	402	458	402	433	425	422
E. N. Central	499	501	556	484	495	488	546	483	492	490	547	482	510	503	503
W. N. Central	282	282	307	272	285	272	308	272	284	275	311	274	286	284	286
S. Atlantic	811	862	975	819	804	858	958	808	803	856	961	809	867	857	857
E. S. Central	242	253	296	240	233	250	291	237	236	252	294	238	258	253	255
W. S. Central	501	549	637	517	502	537	635	523	513	547	649	533	551	549	561
Mountain	248	269	309	252	253	268	306	255	255	270	309	257	270	271	273
Pacific contiguous	434	424	472	423	427	426	462	423	428	427	462	424	439	435	435
AK and HI	16	15	16	16	15	15	16	15	15	15	16	15	16	15	15
Total	3,606	3,704	4,206	3,567	3,582	3,654	4,136	3,555	3,587	3,666	4,152	3,562	3,772	3,733	3,742
Industrial Sector															
New England	42	43	47	44	41	44	46	43	40	43	45	43	44	43	43
Middle Atlantic	196	194	214	195	196	194	214	195	196	194	212	193	200	200	199
E. N. Central	499	517	530	493	501	517	528	488	499	512	521	481	510	509	503
W. N. Central	232	242	257	239	237	245	260	242	241	248	263	243	242	246	249
S. Atlantic	366	388	404	370	368	383	395	362	361	375	385	351	382	377	368
E. S. Central	257	261	286	261	260	263	285	258	257	259	279	252	266	267	262
W. S. Central	467	500	520	486	484	501	526	490	492	508	533	495	493	500	507
Mountain	209	229	251	219	212	232	256	223	215	234	257	224	227	231	232
Pacific contiguous	216	231	258	226	213	233	258	226	213	234	259	227	233	233	233
AK and HI	13	13	14	14	12	13	14	14	12	13	14	14	13	13	13
Total	2,498	2,618	2,781	2,545	2,525	2,625	2,782	2,540	2,527	2,620	2,769	2,523	2,611	2,619	2,610
Total All Sectors (a)															
New England	325	292	361	301	320	292	340	296	317	288	333	291	320	312	307
Middle Atlantic	1,033	939	1,157	954	1,028	919	1,105	939	1,023	919	1,098	935	1,021	998	994
E. N. Central	1,552	1,500	1,691	1,461	1,546	1,447	1,646	1,445	1,533	1,448	1,647	1,439	1,551	1,521	1,517
W. N. Central	841	798	882	782	852	760	881	780	843	769	891	786	826	818	822
S. Atlantic	2,220	2,173	2,567	2,131	2,155	2,132	2,505	2,072	2,183	2,120	2,512	2,070	2,273	2,216	2,222
E. S. Central	867	815	979	808	825	792	956	786	844	791	959	781	867	840	844
W. S. Central	1,577	1,632	1,961	1,537	1,544	1,583	1,933	1,540	1,575	1,608	1,974	1,563	1,677	1,651	1,680
Mountain	697	762	920	706	721	758	912	715	724	767	921	721	772	777	783
Pacific contiguous	1,075	996	1,172	1,028	1,086	997	1,135	1,032	1,077	1,005	1,136	1,035	1,068	1,063	1,063
AK and HI	42	41	42	42	41	40	42	42	41	40	42	42	42	41	41
Total	10,229	9,947	11,731	9,749	10,119	9,720	11,457	9,648	10,160	9,756	11,512	9,663	10,416	10,238	10,274

- = 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 - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
Residential Sector															
New England	20.56	20.57	20.39	20.64	21.13	<i>21.22</i>	<i>21.29</i>	<i>21.36</i>	<i>21.68</i>	<i>21.60</i>	<i>21.64</i>	<i>21.72</i>	20.53	<i>21.25</i>	<i>21.66</i>
Middle Atlantic	15.62	16.21	16.34	15.80	15.24	<i>16.25</i>	<i>16.36</i>	<i>15.65</i>	<i>15.13</i>	<i>16.22</i>	<i>16.45</i>	<i>15.81</i>	16.00	<i>15.88</i>	<i>15.90</i>
E. N. Central	12.94	13.48	13.09	13.19	13.01	<i>13.91</i>	<i>13.52</i>	<i>13.56</i>	<i>13.37</i>	<i>14.26</i>	<i>13.85</i>	<i>13.89</i>	13.16	<i>13.48</i>	<i>13.82</i>
W. N. Central	10.90	12.63	13.10	11.39	10.84	<i>13.24</i>	<i>13.56</i>	<i>11.78</i>	<i>11.27</i>	<i>13.67</i>	<i>13.98</i>	<i>12.15</i>	12.00	<i>12.31</i>	<i>12.74</i>
S. Atlantic	11.66	11.90	11.82	11.62	11.66	<i>12.01</i>	<i>11.94</i>	<i>11.73</i>	<i>11.63</i>	<i>12.04</i>	<i>11.97</i>	<i>11.78</i>	11.75	<i>11.84</i>	<i>11.86</i>
E. S. Central	10.86	11.40	11.16	11.17	11.22	<i>11.91</i>	<i>11.58</i>	<i>11.58</i>	<i>11.34</i>	<i>12.06</i>	<i>11.69</i>	<i>11.76</i>	11.14	<i>11.56</i>	<i>11.69</i>
W. S. Central	10.52	11.01	10.97	10.83	10.90	<i>11.29</i>	<i>11.11</i>	<i>10.81</i>	<i>10.77</i>	<i>11.19</i>	<i>11.04</i>	<i>10.81</i>	10.85	<i>11.04</i>	<i>10.96</i>
Mountain	11.58	12.24	12.26	11.76	11.54	<i>12.38</i>	<i>12.46</i>	<i>11.98</i>	<i>11.76</i>	<i>12.64</i>	<i>12.72</i>	<i>12.23</i>	12.00	<i>12.12</i>	<i>12.38</i>
Pacific	14.88	15.27	17.07	14.77	14.98	<i>15.84</i>	<i>17.39</i>	<i>15.03</i>	<i>15.38</i>	<i>16.59</i>	<i>17.96</i>	<i>15.38</i>	15.55	<i>15.81</i>	<i>16.33</i>
U.S. Average	12.59	13.03	13.15	12.75	12.73	<i>13.37</i>	<i>13.37</i>	<i>12.95</i>	<i>12.84</i>	<i>13.56</i>	<i>13.52</i>	<i>13.13</i>	12.89	<i>13.11</i>	<i>13.27</i>
Commercial Sector															
New England	16.59	15.92	16.19	16.44	16.54	<i>15.98</i>	<i>16.44</i>	<i>16.68</i>	<i>16.75</i>	<i>16.14</i>	<i>16.63</i>	<i>16.91</i>	16.28	<i>16.41</i>	<i>16.61</i>
Middle Atlantic	12.10	12.22	13.17	12.08	11.52	<i>12.10</i>	<i>12.92</i>	<i>11.78</i>	<i>11.26</i>	<i>11.89</i>	<i>12.78</i>	<i>11.71</i>	12.42	<i>12.10</i>	<i>11.93</i>
E. N. Central	10.10	10.15	10.08	10.10	10.16	<i>10.34</i>	<i>10.22</i>	<i>10.18</i>	<i>10.23</i>	<i>10.42</i>	<i>10.33</i>	<i>10.31</i>	10.11	<i>10.22</i>	<i>10.32</i>
W. N. Central	9.18	10.03	10.38	9.23	8.99	<i>10.24</i>	<i>10.61</i>	<i>9.45</i>	<i>9.26</i>	<i>10.54</i>	<i>10.94</i>	<i>9.75</i>	9.73	<i>9.84</i>	<i>10.15</i>
S. Atlantic	9.61	9.30	9.18	9.41	9.44	<i>9.38</i>	<i>9.24</i>	<i>9.42</i>	<i>9.39</i>	<i>9.30</i>	<i>9.19</i>	<i>9.40</i>	9.36	<i>9.37</i>	<i>9.31</i>
E. S. Central	10.51	10.48	10.34	10.54	10.81	<i>10.94</i>	<i>10.74</i>	<i>10.88</i>	<i>11.03</i>	<i>11.07</i>	<i>10.85</i>	<i>11.05</i>	10.46	<i>10.84</i>	<i>10.99</i>
W. S. Central	8.37	8.17	8.12	7.94	8.16	<i>8.12</i>	<i>8.02</i>	<i>7.77</i>	<i>7.99</i>	<i>8.00</i>	<i>7.93</i>	<i>7.71</i>	8.15	<i>8.02</i>	<i>7.91</i>
Mountain	9.27	9.88	10.01	9.36	9.25	<i>9.97</i>	<i>10.10</i>	<i>9.42</i>	<i>9.32</i>	<i>10.07</i>	<i>10.22</i>	<i>9.55</i>	9.66	<i>9.71</i>	<i>9.81</i>
Pacific	12.91	14.02	15.81	14.10	13.19	<i>14.52</i>	<i>16.31</i>	<i>14.54</i>	<i>13.53</i>	<i>14.83</i>	<i>16.64</i>	<i>14.87</i>	14.25	<i>14.68</i>	<i>15.00</i>
U.S. Average	10.54	10.60	10.89	10.55	10.44	<i>10.75</i>	<i>10.98</i>	<i>10.60</i>	<i>10.46</i>	<i>10.77</i>	<i>11.02</i>	<i>10.67</i>	10.66	<i>10.71</i>	<i>10.74</i>
Industrial Sector															
New England	13.46	12.60	12.83	12.98	13.35	<i>12.50</i>	<i>12.67</i>	<i>12.81</i>	<i>13.31</i>	<i>12.49</i>	<i>12.67</i>	<i>12.82</i>	12.96	<i>12.82</i>	<i>12.81</i>
Middle Atlantic	7.26	6.82	6.86	6.79	6.59	<i>6.49</i>	<i>6.60</i>	<i>6.53</i>	<i>6.46</i>	<i>6.37</i>	<i>6.49</i>	<i>6.43</i>	6.93	<i>6.55</i>	<i>6.44</i>
E. N. Central	7.10	6.96	6.99	7.01	6.99	<i>6.99</i>	<i>7.00</i>	<i>7.00</i>	<i>7.05</i>	<i>7.04</i>	<i>7.06</i>	<i>7.06</i>	7.01	<i>7.00</i>	<i>7.05</i>
W. N. Central	7.04	7.38	7.99	6.93	7.11	<i>7.59</i>	<i>8.22</i>	<i>7.12</i>	<i>7.31</i>	<i>7.81</i>	<i>8.46</i>	<i>7.33</i>	7.35	<i>7.53</i>	<i>7.74</i>
S. Atlantic	6.54	6.40	6.60	6.39	6.18	<i>6.33</i>	<i>6.50</i>	<i>6.28</i>	<i>6.14</i>	<i>6.29</i>	<i>6.46</i>	<i>6.25</i>	6.48	<i>6.33</i>	<i>6.29</i>
E. S. Central	5.74	5.92	5.87	5.88	5.71	<i>5.90</i>	<i>5.83</i>	<i>5.82</i>	<i>5.71</i>	<i>5.91</i>	<i>5.84</i>	<i>5.83</i>	5.86	<i>5.82</i>	<i>5.82</i>
W. S. Central	5.42	5.41	5.65	5.27	5.23	<i>5.35</i>	<i>5.56</i>	<i>5.16</i>	<i>5.21</i>	<i>5.31</i>	<i>5.51</i>	<i>5.13</i>	5.44	<i>5.33</i>	<i>5.29</i>
Mountain	6.10	6.48	6.93	6.05	6.13	<i>6.52</i>	<i>6.95</i>	<i>6.04</i>	<i>6.16</i>	<i>6.55</i>	<i>6.97</i>	<i>6.07</i>	6.41	<i>6.43</i>	<i>6.46</i>
Pacific	8.63	9.52	11.17	9.89	8.86	<i>9.90</i>	<i>11.53</i>	<i>10.16</i>	<i>9.12</i>	<i>10.17</i>	<i>11.83</i>	<i>10.42</i>	9.87	<i>10.18</i>	<i>10.45</i>
U.S. Average	6.81	6.87	7.22	6.82	6.65	<i>6.89</i>	<i>7.22</i>	<i>6.79</i>	<i>6.69</i>	<i>6.93</i>	<i>7.27</i>	<i>6.84</i>	6.93	<i>6.90</i>	<i>6.94</i>
All Sectors (a)															
New England	17.86	17.16	17.49	17.58	18.10	<i>17.42</i>	<i>17.90</i>	<i>17.95</i>	<i>18.43</i>	<i>17.69</i>	<i>18.15</i>	<i>18.23</i>	17.53	<i>17.85</i>	<i>18.14</i>
Middle Atlantic	12.50	12.47	13.23	12.30	12.00	<i>12.31</i>	<i>13.00</i>	<i>12.05</i>	<i>11.82</i>	<i>12.21</i>	<i>12.96</i>	<i>12.06</i>	12.65	<i>12.36</i>	<i>12.28</i>
E. N. Central	10.14	10.11	10.18	10.07	10.14	<i>10.23</i>	<i>10.33</i>	<i>10.21</i>	<i>10.30</i>	<i>10.40</i>	<i>10.52</i>	<i>10.40</i>	10.13	<i>10.23</i>	<i>10.41</i>
W. N. Central	9.26	10.12	10.66	9.27	9.19	<i>10.35</i>	<i>10.95</i>	<i>9.52</i>	<i>9.46</i>	<i>10.66</i>	<i>11.29</i>	<i>9.82</i>	9.85	<i>10.01</i>	<i>10.33</i>
S. Atlantic	10.06	9.88	9.99	9.86	9.89	<i>9.93</i>	<i>10.05</i>	<i>9.87</i>	<i>9.89</i>	<i>9.92</i>	<i>10.05</i>	<i>9.90</i>	9.95	<i>9.94</i>	<i>9.95</i>
E. S. Central	9.25	9.36	9.36	9.27	9.36	<i>9.61</i>	<i>9.61</i>	<i>9.48</i>	<i>9.54</i>	<i>9.73</i>	<i>9.73</i>	<i>9.63</i>	9.31	<i>9.52</i>	<i>9.66</i>
W. S. Central	8.33	8.34	8.63	8.10	8.22	<i>8.33</i>	<i>8.58</i>	<i>7.98</i>	<i>8.13</i>	<i>8.24</i>	<i>8.52</i>	<i>7.95</i>	8.37	<i>8.30</i>	<i>8.23</i>
Mountain	9.12	9.68	10.05	9.13	9.14	<i>9.74</i>	<i>10.12</i>	<i>9.21</i>	<i>9.24</i>	<i>9.87</i>	<i>10.28</i>	<i>9.36</i>	9.54	<i>9.59</i>	<i>9.73</i>
Pacific	12.81	13.39	15.25	13.40	13.07	<i>13.88</i>	<i>15.60</i>	<i>13.75</i>	<i>13.39</i>	<i>14.33</i>	<i>16.01</i>	<i>14.07</i>	13.76	<i>14.10</i>	<i>14.48</i>
U.S. Average	10.45	10.50	10.93	10.39	10.39	<i>10.63</i>	<i>11.01</i>	<i>10.46</i>	<i>10.47</i>	<i>10.72</i>	<i>11.11</i>	<i>10.58</i>	10.58	<i>10.64</i>	<i>10.73</i>

- = no data available

Prices are not adjusted for inflation.

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

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

Regions refer to U.S. Census divisions.

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
United States															
Coal	3,127	2,859	3,559	3,014	2,886	2,330	3,083	2,620	2,642	2,153	2,863	2,391	3,141	2,730	2,513
Natural Gas	3,455	3,806	5,135	3,677	3,765	3,884	5,098	3,728	3,780	4,052	5,264	3,833	4,022	4,122	4,234
Petroleum (a)	102	53	62	53	60	55	63	55	67	55	62	55	67	58	60
Other Gases	34	32	36	31	34	32	36	31	34	33	37	31	33	33	34
Nuclear	2,294	2,155	2,277	2,120	2,262	2,122	2,254	2,108	2,229	2,070	2,203	2,076	2,211	2,186	2,144
Renewable Energy Sources:	2,093	2,212	1,718	1,794	2,029	2,314	1,871	2,017	2,219	2,439	2,029	2,190	1,953	2,057	2,219
Conventional Hydropower	856	944	697	703	800	943	730	681	795	892	742	689	799	788	779
Wind	869	822	582	744	862	914	676	949	1,027	1,040	765	1,072	753	850	976
Wood Biomass	119	112	115	108	113	112	120	113	114	113	120	114	113	115	115
Waste Biomass	61	58	57	58	56	56	57	57	56	57	57	57	59	57	57
Geothermal	46	44	46	47	47	44	44	44	44	43	44	46	46	45	44
Solar	141	232	222	134	150	244	245	173	183	294	302	214	182	203	248
Pumped Storage Hydropower	-15	-13	-22	-15	-12	-12	-18	-14	-14	-12	-18	-14	-16	-14	-15
Other Nonrenewable Fuels (b)	36	35	32	36	35	36	36	36	35	36	36	36	35	36	36
Total Generation	11,127	11,141	12,796	10,710	11,060	10,762	12,425	10,580	10,992	10,825	12,476	10,597	11,446	11,209	11,224
Northeast Census Region															
Coal	149	120	132	115	133	59	69	103	142	50	55	76	129	91	81
Natural Gas	500	527	783	562	601	611	792	602	617	656	823	628	594	652	681
Petroleum (a)	32	3	3	2	7	2	4	4	9	2	4	5	10	4	5
Other Gases	2	1	2	2	2	1	2	2	2	1	2	2	2	2	2
Nuclear	552	507	525	497	535	474	502	456	483	438	463	437	520	492	455
Hydropower (c)	108	114	106	121	121	119	107	106	107	106	102	103	112	113	105
Other Renewables (d)	80	76	71	72	78	77	70	84	87	80	72	86	75	77	81
Other Nonrenewable Fuels (b)	11	10	11	11	11	11	12	12	11	11	12	12	11	11	11
Total Generation	1,435	1,359	1,634	1,381	1,488	1,354	1,559	1,368	1,458	1,345	1,533	1,348	1,452	1,442	1,421
South Census Region															
Coal	1,262	1,260	1,529	1,213	1,058	1,032	1,327	1,038	1,005	919	1,212	924	1,316	1,114	1,015
Natural Gas	2,049	2,345	2,932	2,081	2,114	2,337	2,924	2,098	2,122	2,425	3,020	2,168	2,353	2,370	2,435
Petroleum (a)	39	21	26	20	23	24	27	22	28	24	27	21	26	24	25
Other Gases	13	12	14	12	13	13	14	12	13	12	13	12	13	13	13
Nuclear	1,008	952	1,010	936	997	969	1,026	967	1,023	960	1,031	971	976	990	996
Hydropower (c)	114	127	112	165	159	132	113	143	140	118	107	139	130	137	126
Other Renewables (d)	451	494	375	402	468	519	431	493	544	610	512	566	430	478	558
Other Nonrenewable Fuels (b)	16	16	11	15	16	15	15	15	15	15	14	15	15	15	15
Total Generation	4,952	5,227	6,008	4,844	4,848	5,041	5,876	4,789	4,889	5,083	5,936	4,816	5,260	5,140	5,182
Midwest Census Region															
Coal	1,303	1,140	1,386	1,188	1,224	935	1,224	1,015	1,091	896	1,180	963	1,255	1,099	1,033
Natural Gas	403	441	549	389	454	447	585	400	442	454	613	403	446	472	478
Petroleum (a)	10	7	9	8	9	9	10	8	9	9	10	7	8	9	9
Other Gases	13	12	14	12	14	12	14	12	14	12	15	12	13	13	13
Nuclear	571	539	569	535	564	521	558	526	556	515	540	509	553	542	530
Hydropower (c)	57	58	36	40	51	62	38	35	44	55	36	34	48	46	42
Other Renewables (d)	367	303	234	320	365	374	273	442	466	436	319	511	306	364	433
Other Nonrenewable Fuels (b)	4	3	4	4	3	4	4	4	4	4	4	4	4	4	4
Total Generation	2,727	2,505	2,802	2,495	2,684	2,364	2,706	2,441	2,628	2,381	2,717	2,444	2,632	2,549	2,543
West Census Region															
Coal	413	339	512	497	471	304	463	464	403	289	416	427	441	426	384
Natural Gas	503	493	870	644	595	489	797	627	599	516	809	633	629	628	640
Petroleum (a)	21	21	24	24	21	20	22	22	21	20	21	21	23	21	21
Other Gases	7	7	7	6	5	6	6	6	5	6	7	6	6	6	6
Nuclear	164	158	173	152	167	158	168	158	167	157	169	159	162	163	163
Hydropower (c)	562	632	420	363	458	618	454	383	490	600	478	399	493	478	491
Other Renewables (d)	338	395	340	297	317	402	366	317	327	422	385	338	343	351	368
Other Nonrenewable Fuels (b)	6	6	6	6	5	6	6	6	6	6	6	6	6	6	6
Total Generation	2,013	2,050	2,352	1,990	2,041	2,003	2,283	1,983	2,017	2,016	2,290	1,989	2,102	2,078	2,078

(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 - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
Fuel Consumption for Electricity Generation, All Sectors															
United States															
Coal (thousand st/d)	1,717	1,583	1,972	1,693	1,606	1,289	1,711	1,460	1,455	1,192	1,593	1,339	1,742	1,517	1,395
Natural Gas (million cf/d)	25,476	28,253	38,432	26,691	27,104	<i>28,715</i>	<i>38,124</i>	<i>27,096</i>	<i>27,415</i>	<i>29,895</i>	<i>39,280</i>	<i>27,765</i>	29,740	<i>30,281</i>	<i>31,102</i>
Petroleum (thousand b/d)	180	96	111	94	108	99	113	100	121	99	112	100	120	105	108
Residual Fuel Oil	51	27	31	26	26	25	29	26	30	23	27	26	33	26	27
Distillate Fuel Oil	71	26	22	24	27	23	24	26	32	23	24	26	36	25	26
Petroleum Coke (a)	48	40	54	40	49	48	57	44	53	49	58	43	45	50	51
Other Petroleum Liquids (b)	9	4	5	5	6	3	4	4	5	3	4	4	6	4	4
Northeast Census Region															
Coal (thousand st/d)	77	63	69	60	68	31	37	54	74	26	30	40	67	47	43
Natural Gas (million cf/d)	3,815	3,894	5,824	4,051	4,296	<i>4,523</i>	<i>5,979</i>	<i>4,405</i>	<i>4,548</i>	<i>4,866</i>	<i>6,216</i>	<i>4,593</i>	4,400	<i>4,805</i>	<i>5,058</i>
Petroleum (thousand b/d)	53	6	6	4	11	4	7	6	15	4	7	8	17	7	9
South Census Region															
Coal (thousand st/d)	659	670	821	658	571	549	707	558	527	487	648	499	702	596	540
Natural Gas (million cf/d)	14,737	17,259	21,766	15,053	15,050	<i>17,133</i>	<i>21,623</i>	<i>15,099</i>	<i>15,141</i>	<i>17,739</i>	<i>22,285</i>	<i>15,550</i>	17,217	<i>17,238</i>	<i>17,685</i>
Petroleum (thousand b/d)	72	39	48	37	43	44	50	41	52	45	50	40	49	44	47
Midwest Census Region															
Coal (thousand st/d)	743	654	793	693	701	536	701	581	620	511	675	551	721	630	590
Natural Gas (million cf/d)	3,135	3,415	4,307	2,910	3,347	<i>3,378</i>	<i>4,538</i>	<i>2,966</i>	<i>3,283</i>	<i>3,421</i>	<i>4,741</i>	<i>2,975</i>	3,443	<i>3,559</i>	<i>3,606</i>
Petroleum (thousand b/d)	19	15	17	14	17	17	20	16	18	17	20	15	16	17	18
West Census Region															
Coal (thousand st/d)	239	195	290	281	267	174	266	268	234	167	240	248	252	244	222
Natural Gas (million cf/d)	3,789	3,685	6,535	4,678	4,411	<i>3,680</i>	<i>5,984</i>	<i>4,626</i>	<i>4,443</i>	<i>3,870</i>	<i>6,037</i>	<i>4,646</i>	4,679	<i>4,679</i>	<i>4,752</i>
Petroleum (thousand b/d)	36	36	40	39	36	33	37	37	35	33	36	36	38	36	35
End-of-period U.S. Fuel Inventories Held by Electric Power Sector															
Coal (million short tons)	126.5	121.5	100.8	102.8	99.9	104.5	99.5	107.5	108.8	105.5	98.5	106.8	102.8	107.5	106.8
Residual Fuel Oil (mmb)	10.1	9.9	8.4	8.6	9.0	9.8	10.0	10.6	10.5	10.4	10.3	10.7	8.6	10.6	10.7
Distillate Fuel Oil (mmb)	15.1	14.9	14.4	14.9	14.7	14.8	14.9	15.3	15.5	15.4	15.3	15.5	14.9	15.3	15.5
Petroleum Coke (mmb)	3.6	2.9	2.9	2.7	2.6	2.6	2.7	2.7	2.8	2.9	2.9	3.0	2.7	2.7	3.0

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 8a. U.S. Renewable Energy Consumption (Quadrillion Btu)
 U.S. Energy Information Administration | Short-Term Energy Outlook - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
Electric Power Sector															
Geothermal	0.038	0.037	0.039	0.039	0.038	<i>0.037</i>	<i>0.037</i>	<i>0.037</i>	<i>0.037</i>	<i>0.036</i>	<i>0.037</i>	<i>0.039</i>	0.154	<i>0.149</i>	<i>0.149</i>
Hydroelectric Power (a)	0.706	0.787	0.587	0.592	0.661	<i>0.788</i>	<i>0.616</i>	<i>0.574</i>	<i>0.664</i>	<i>0.745</i>	<i>0.626</i>	<i>0.581</i>	2.673	<i>2.640</i>	<i>2.618</i>
Solar (b)	0.116	0.193	0.186	0.113	0.123	<i>0.203</i>	<i>0.205</i>	<i>0.144</i>	<i>0.151</i>	<i>0.245</i>	<i>0.254</i>	<i>0.179</i>	0.608	<i>0.676</i>	<i>0.829</i>
Waste Biomass (c)	0.073	0.070	0.067	0.069	0.065	<i>0.066</i>	<i>0.068</i>	<i>0.068</i>	<i>0.066</i>	<i>0.067</i>	<i>0.068</i>	<i>0.067</i>	0.280	<i>0.268</i>	<i>0.268</i>
Wood Biomass	0.057	0.052	0.055	0.051	0.056	<i>0.052</i>	<i>0.064</i>	<i>0.057</i>	<i>0.057</i>	<i>0.053</i>	<i>0.064</i>	<i>0.058</i>	0.215	<i>0.230</i>	<i>0.232</i>
Wind	0.722	0.689	0.494	0.631	0.716	<i>0.767</i>	<i>0.574</i>	<i>0.805</i>	<i>0.862</i>	<i>0.873</i>	<i>0.649</i>	<i>0.909</i>	2.536	<i>2.862</i>	<i>3.293</i>
Subtotal	1.712	1.830	1.428	1.495	1.659	<i>1.914</i>	<i>1.565</i>	<i>1.686</i>	<i>1.838</i>	<i>2.019</i>	<i>1.698</i>	<i>1.833</i>	6.465	<i>6.824</i>	<i>7.388</i>
Industrial Sector															
Biofuel Losses and Co-products (d)	0.202	0.204	0.211	0.206	0.198	<i>0.204</i>	<i>0.205</i>	<i>0.205</i>	<i>0.202</i>	<i>0.205</i>	<i>0.207</i>	<i>0.206</i>	0.823	<i>0.813</i>	<i>0.820</i>
Geothermal	0.001	0.001	0.001	0.001	0.001	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	0.004	<i>0.004</i>	<i>0.004</i>
Hydroelectric Power (a)	0.003	0.003	0.003	0.003	0.003	<i>0.003</i>	<i>0.003</i>	<i>0.003</i>	<i>0.003</i>	<i>0.003</i>	<i>0.003</i>	<i>0.003</i>	0.013	<i>0.013</i>	<i>0.013</i>
Solar (b)	0.005	0.007	0.008	0.005	0.006	<i>0.008</i>	<i>0.009</i>	<i>0.006</i>	<i>0.007</i>	<i>0.010</i>	<i>0.010</i>	<i>0.007</i>	0.025	<i>0.029</i>	<i>0.033</i>
Waste Biomass (c)	0.044	0.041	0.039	0.044	0.043	<i>0.041</i>	<i>0.041</i>	<i>0.043</i>	<i>0.043</i>	<i>0.042</i>	<i>0.041</i>	<i>0.043</i>	0.168	<i>0.169</i>	<i>0.169</i>
Wood Biomass	0.382	0.382	0.389	0.388	0.368	<i>0.353</i>	<i>0.360</i>	<i>0.361</i>	<i>0.349</i>	<i>0.346</i>	<i>0.357</i>	<i>0.358</i>	1.540	<i>1.441</i>	<i>1.410</i>
Subtotal	0.637	0.635	0.648	0.648	0.617	<i>0.608</i>	<i>0.614</i>	<i>0.619</i>	<i>0.602</i>	<i>0.602</i>	<i>0.614</i>	<i>0.617</i>	2.567	<i>2.458</i>	<i>2.435</i>
Commercial Sector															
Geothermal	0.005	0.005	0.005	0.005	0.005	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	0.020	<i>0.021</i>	<i>0.021</i>
Solar (b)	0.019	0.029	0.029	0.020	0.022	<i>0.033</i>	<i>0.034</i>	<i>0.024</i>	<i>0.028</i>	<i>0.040</i>	<i>0.041</i>	<i>0.029</i>	0.096	<i>0.113</i>	<i>0.139</i>
Waste Biomass (c)	0.011	0.011	0.010	0.011	0.011	<i>0.011</i>	<i>0.011</i>	<i>0.011</i>	<i>0.011</i>	<i>0.011</i>	<i>0.011</i>	<i>0.011</i>	0.044	<i>0.044</i>	<i>0.044</i>
Wood Biomass	0.021	0.021	0.021	0.021	0.021	<i>0.021</i>	<i>0.022</i>	<i>0.021</i>	<i>0.021</i>	<i>0.021</i>	<i>0.022</i>	<i>0.021</i>	0.084	<i>0.084</i>	<i>0.084</i>
Subtotal	0.063	0.072	0.072	0.064	0.066	<i>0.077</i>	<i>0.079</i>	<i>0.068</i>	<i>0.072</i>	<i>0.084</i>	<i>0.086</i>	<i>0.073</i>	0.271	<i>0.290</i>	<i>0.316</i>
Residential Sector															
Geothermal	0.010	0.010	0.010	0.010	0.010	<i>0.010</i>	<i>0.010</i>	<i>0.010</i>	<i>0.010</i>	<i>0.010</i>	<i>0.010</i>	<i>0.010</i>	0.040	<i>0.040</i>	<i>0.040</i>
Solar (e)	0.044	0.067	0.067	0.046	0.051	<i>0.077</i>	<i>0.078</i>	<i>0.054</i>	<i>0.059</i>	<i>0.089</i>	<i>0.090</i>	<i>0.063</i>	0.224	<i>0.260</i>	<i>0.300</i>
Wood Biomass	0.128	0.129	0.130	0.130	0.135	<i>0.135</i>	<i>0.135</i>	<i>0.135</i>	<i>0.135</i>	<i>0.135</i>	<i>0.135</i>	<i>0.135</i>	0.517	<i>0.540</i>	<i>0.540</i>
Subtotal	0.181	0.206	0.207	0.186	0.196	<i>0.222</i>	<i>0.223</i>	<i>0.199</i>	<i>0.204</i>	<i>0.234</i>	<i>0.235</i>	<i>0.208</i>	0.780	<i>0.841</i>	<i>0.881</i>
Transportation Sector															
Biomass-based Diesel (f)	0.054	0.068	0.071	0.063	0.059	<i>0.077</i>	<i>0.072</i>	<i>0.085</i>	<i>0.072</i>	<i>0.085</i>	<i>0.078</i>	<i>0.082</i>	0.256	<i>0.293</i>	<i>0.317</i>
Ethanol (f)	0.273	0.287	0.294	0.289	0.273	<i>0.294</i>	<i>0.295</i>	<i>0.290</i>	<i>0.276</i>	<i>0.295</i>	<i>0.298</i>	<i>0.289</i>	1.142	<i>1.152</i>	<i>1.159</i>
Subtotal	0.327	0.355	0.365	0.351	0.333	<i>0.371</i>	<i>0.368</i>	<i>0.374</i>	<i>0.348</i>	<i>0.380</i>	<i>0.376</i>	<i>0.372</i>	1.398	<i>1.447</i>	<i>1.476</i>
All Sectors Total															
Biomass-based Diesel (f)	0.054	0.068	0.071	0.063	0.059	<i>0.077</i>	<i>0.072</i>	<i>0.085</i>	<i>0.072</i>	<i>0.085</i>	<i>0.078</i>	<i>0.082</i>	0.256	<i>0.293</i>	<i>0.317</i>
Biofuel Losses and Co-products (d)	0.202	0.204	0.211	0.206	0.198	<i>0.204</i>	<i>0.205</i>	<i>0.205</i>	<i>0.202</i>	<i>0.205</i>	<i>0.207</i>	<i>0.206</i>	0.823	<i>0.813</i>	<i>0.820</i>
Ethanol (f)	0.283	0.297	0.305	0.300	0.282	<i>0.308</i>	<i>0.306</i>	<i>0.300</i>	<i>0.286</i>	<i>0.307</i>	<i>0.309</i>	<i>0.300</i>	1.185	<i>1.197</i>	<i>1.202</i>
Geothermal	0.054	0.053	0.055	0.055	0.054	<i>0.053</i>	<i>0.053</i>	<i>0.054</i>	<i>0.053</i>	<i>0.053</i>	<i>0.053</i>	<i>0.055</i>	0.218	<i>0.215</i>	<i>0.214</i>
Hydroelectric Power (a)	0.710	0.791	0.590	0.596	0.665	<i>0.792</i>	<i>0.620</i>	<i>0.578</i>	<i>0.668</i>	<i>0.749</i>	<i>0.630</i>	<i>0.585</i>	2.688	<i>2.655</i>	<i>2.632</i>
Solar (b)(e)	0.184	0.295	0.289	0.184	0.206	<i>0.321</i>	<i>0.326</i>	<i>0.229</i>	<i>0.245</i>	<i>0.383</i>	<i>0.395</i>	<i>0.278</i>	0.951	<i>1.083</i>	<i>1.301</i>
Waste Biomass (c)	0.128	0.122	0.117	0.125	0.119	<i>0.119</i>	<i>0.120</i>	<i>0.122</i>	<i>0.120</i>	<i>0.120</i>	<i>0.120</i>	<i>0.122</i>	0.492	<i>0.481</i>	<i>0.481</i>
Wood Biomass	0.587	0.584	0.596	0.590	0.580	<i>0.561</i>	<i>0.581</i>	<i>0.574</i>	<i>0.562</i>	<i>0.554</i>	<i>0.577</i>	<i>0.572</i>	2.357	<i>2.296</i>	<i>2.265</i>
Wind	0.722	0.689	0.494	0.631	0.716	<i>0.767</i>	<i>0.574</i>	<i>0.805</i>	<i>0.862</i>	<i>0.873</i>	<i>0.649</i>	<i>0.909</i>	2.536	<i>2.862</i>	<i>3.293</i>
Total Consumption	2.920	3.097	2.721	2.745	2.893	<i>3.193</i>	<i>2.848</i>	<i>2.947</i>	<i>3.064</i>	<i>3.319</i>	<i>3.009</i>	<i>3.103</i>	11.482	<i>11.882</i>	<i>12.494</i>

- = 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 - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
Renewable Energy Electric Generating Capacity (megawatts, end of period)															
Electric Power Sector (a)															
Biomass	7,244	7,217	7,210	7,151	6,986	7,133	7,044	7,071	7,071	7,009	7,009	7,052	7,151	7,071	7,052
Waste	4,198	4,170	4,163	4,160	4,125	4,114	4,114	4,141	4,141	4,078	4,078	4,080	4,160	4,141	4,080
Wood	3,046	3,046	3,046	2,991	2,861	3,020	2,930	2,930	2,930	2,930	2,930	2,972	2,991	2,930	2,972
Conventional Hydroelectric	79,507	79,468	79,476	79,595	79,618	79,637	79,540	79,559	79,642	79,660	79,782	79,834	79,595	79,559	79,834
Geothermal	2,396	2,396	2,396	2,398	2,395	2,403	2,403	2,403	2,403	2,403	2,493	2,518	2,398	2,403	2,518
Large-Scale Solar (b)	28,024	28,876	29,390	31,489	32,493	33,443	34,112	36,966	38,178	41,671	42,201	45,316	31,489	36,966	45,316
Wind	88,661	88,793	89,702	93,683	95,928	97,567	99,832	106,151	107,558	108,807	110,041	117,021	93,683	106,151	117,021
Other Sectors (c)															
Biomass	6,657	6,635	6,622	6,622	6,622	6,635	6,635	6,657	6,657	6,657	6,657	6,649	6,622	6,657	6,649
Waste	855	854	850	850	850	850	850	866	866	866	866	866	850	866	866
Wood	5,802	5,781	5,772	5,772	5,772	5,785	5,785	5,791	5,791	5,791	5,791	5,784	5,772	5,791	5,784
Conventional Hydroelectric	284	284	284	284	290	290	290	290	290	289	289	289	284	290	289
Large-Scale Solar (b)	354	360	368	373	375	381	381	383	383	385	385	385	373	383	385
Small-Scale Solar (d)	17,048	17,887	18,712	19,521	20,422	21,340	22,299	23,313	24,386	25,517	26,717	27,985	19,521	23,313	27,985
Residential Sector	10,155	10,660	11,179	11,664	12,341	12,885	13,452	14,057	14,701	15,383	16,114	16,890	11,664	14,057	16,890
Commercial Sector	5,501	5,778	6,026	6,286	6,471	6,784	7,113	7,459	7,822	8,202	8,602	9,022	6,286	7,459	9,022
Industrial Sector	1,391	1,449	1,507	1,571	1,610	1,671	1,734	1,798	1,864	1,931	2,001	2,073	1,571	1,798	2,073
Wind	113	110	116	116	116	116	116	116	116	116	116	116	116	116	116
Renewable Electricity Generation (thousand megawatthours per day)															
Electric Power Sector (a)															
Biomass	92	85	86	82	85	83	91	86	86	83	91	86	86	86	87
Waste	52	49	48	49	47	47	48	48	47	48	48	48	50	48	48
Wood	40	35	37	33	38	35	43	38	39	36	42	39	37	39	39
Conventional Hydroelectric	852	939	692	698	796	938	726	676	791	887	738	684	795	784	775
Geothermal	46	44	46	46	46	44	44	44	44	43	44	46	46	44	44
Large-Scale Solar (b)	140	230	219	133	149	242	242	170	180	291	299	211	180	201	245
Wind	868	821	581	743	861	913	675	948	1,026	1,039	764	1,071	752	849	975
Other Sectors (c)															
Biomass	87	86	86	84	84	86	86	84	84	86	86	84	86	85	85
Waste	78	77	77	75	75	77	77	75	75	77	77	75	77	76	76
Wood	9	9	8	9	9	9	8	9	9	9	8	9	9	9	9
Conventional Hydroelectric	5	5	4	5	4	5	4	5	4	5	4	5	5	4	4
Large-Scale Solar (b)	1	3	3	1	1	2	3	3	3	3	3	3	2	2	3
Small-Scale Solar (d)	64	97	96	66	77	115	116	81	93	138	139	97	81	97	117
Residential Sector	37	57	56	38	45	68	69	48	54	82	82	57	47	57	69
Commercial Sector	22	32	32	22	25	37	37	26	31	45	45	32	27	31	38
Industrial Sector	6	8	9	6	7	10	10	7	8	11	11	8	7	8	10
Wind	1	1	1	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 CO2 Emissions

U.S. Energy Information Administration | Short-Term Energy Outlook - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
Macroeconomic															
Real Gross Domestic Product (billion chained 2012 dollars - SAAR)	18,324	18,512	18,665	18,765	18,856	<i>18,939</i>	<i>19,054</i>	<i>19,164</i>	<i>19,267</i>	<i>19,368</i>	<i>19,458</i>	<i>19,543</i>	18,566	<i>19,003</i>	<i>19,409</i>
Real Personal Consumption Expend. (billion chained 2012 dollars - SAAR)	12,723	12,842	12,953	13,032	13,049	<i>13,136</i>	<i>13,224</i>	<i>13,319</i>	<i>13,410</i>	<i>13,498</i>	<i>13,588</i>	<i>13,676</i>	12,888	<i>13,182</i>	<i>13,543</i>
Real Private Fixed Investment (billion chained 2012 dollars - SAAR)	3,271	3,322	3,332	3,357	3,382	<i>3,386</i>	<i>3,413</i>	<i>3,447</i>	<i>3,474</i>	<i>3,495</i>	<i>3,522</i>	<i>3,546</i>	3,321	<i>3,407</i>	<i>3,509</i>
Business Inventory Change (billion chained 2012 dollars - SAAR)	36	-10	93	107	109	<i>99</i>	<i>92</i>	<i>78</i>	<i>75</i>	<i>74</i>	<i>67</i>	<i>61</i>	57	<i>95</i>	<i>69</i>
Real Government Expenditures (billion chained 2012 dollars - SAAR)	3,152	3,172	3,192	3,189	3,218	<i>3,236</i>	<i>3,246</i>	<i>3,254</i>	<i>3,262</i>	<i>3,279</i>	<i>3,278</i>	<i>3,280</i>	3,176	<i>3,238</i>	<i>3,275</i>
Real Exports of Goods & Services (billion chained 2012 dollars - SAAR)	2,518	2,574	2,542	2,553	2,566	<i>2,598</i>	<i>2,638</i>	<i>2,675</i>	<i>2,711</i>	<i>2,741</i>	<i>2,772</i>	<i>2,800</i>	2,547	<i>2,619</i>	<i>2,756</i>
Real Imports of Goods & Services (billion chained 2012 dollars - SAAR)	3,420	3,415	3,492	3,509	3,523	<i>3,567</i>	<i>3,611</i>	<i>3,665</i>	<i>3,726</i>	<i>3,787</i>	<i>3,844</i>	<i>3,900</i>	3,459	<i>3,592</i>	<i>3,814</i>
Real Disposable Personal Income (billion chained 2012 dollars - SAAR)	14,220	14,282	14,375	14,527	14,623	<i>14,654</i>	<i>14,744</i>	<i>14,841</i>	<i>14,930</i>	<i>15,035</i>	<i>15,125</i>	<i>15,207</i>	14,351	<i>14,715</i>	<i>15,074</i>
Non-Farm Employment (millions)	148.0	148.7	149.4	150.1	150.7	<i>151.2</i>	<i>151.7</i>	<i>152.1</i>	<i>152.5</i>	<i>153.0</i>	<i>153.1</i>	<i>153.2</i>	149.1	<i>151.4</i>	<i>152.9</i>
Civilian Unemployment Rate (percent)	4.1	3.9	3.8	3.8	3.9	<i>3.7</i>	<i>3.5</i>	<i>3.5</i>	<i>3.5</i>	<i>3.5</i>	<i>3.6</i>	<i>3.6</i>	3.9	<i>3.6</i>	<i>3.6</i>
Housing Starts (millions - SAAR)	1.32	1.26	1.23	1.19	1.22	<i>1.21</i>	<i>1.24</i>	<i>1.26</i>	<i>1.27</i>	<i>1.29</i>	<i>1.30</i>	<i>1.30</i>	1.25	<i>1.23</i>	<i>1.29</i>
Industrial Production Indices (Index, 2012=100)															
Total Industrial Production	106.7	107.9	109.3	110.3	110.5	<i>110.8</i>	<i>111.1</i>	<i>111.6</i>	<i>111.9</i>	<i>112.0</i>	<i>112.2</i>	<i>112.5</i>	108.6	<i>111.0</i>	<i>112.1</i>
Manufacturing	104.8	105.5	106.6	107.0	107.0	<i>107.4</i>	<i>108.0</i>	<i>108.6</i>	<i>109.1</i>	<i>109.2</i>	<i>109.5</i>	<i>109.7</i>	106.0	<i>107.8</i>	<i>109.4</i>
Food	113.3	114.3	114.9	113.1	114.8	<i>115.5</i>	<i>116.0</i>	<i>116.5</i>	<i>117.0</i>	<i>117.5</i>	<i>118.0</i>	<i>118.5</i>	113.9	<i>115.7</i>	<i>117.8</i>
Paper	96.0	95.9	96.0	96.0	95.9	<i>95.7</i>	<i>95.7</i>	<i>95.6</i>	<i>95.2</i>	<i>94.8</i>	<i>94.5</i>	<i>94.2</i>	96.0	<i>95.7</i>	<i>94.7</i>
Petroleum and Coal Products	106.7	106.8	107.5	106.8	107.3	<i>107.1</i>	<i>107.5</i>	<i>108.0</i>	<i>108.3</i>	<i>108.5</i>	<i>108.6</i>	<i>108.6</i>	106.9	<i>107.5</i>	<i>108.5</i>
Chemicals	98.4	100.2	101.3	101.9	101.0	<i>102.1</i>	<i>103.0</i>	<i>103.8</i>	<i>104.4</i>	<i>105.0</i>	<i>105.6</i>	<i>106.2</i>	100.4	<i>102.5</i>	<i>105.3</i>
Nonmetallic Mineral Products	119.1	120.4	119.0	119.3	120.6	<i>119.4</i>	<i>119.2</i>	<i>119.4</i>	<i>119.6</i>	<i>119.9</i>	<i>120.2</i>	<i>120.5</i>	119.5	<i>119.7</i>	<i>120.1</i>
Primary Metals	95.8	96.2	97.5	100.9	98.7	<i>99.2</i>	<i>99.7</i>	<i>99.8</i>	<i>99.2</i>	<i>98.0</i>	<i>96.9</i>	<i>95.5</i>	97.6	<i>99.3</i>	<i>97.4</i>
Coal-weighted Manufacturing (a)	103.6	104.7	105.3	106.0	105.7	<i>106.0</i>	<i>106.4</i>	<i>106.8</i>	<i>106.8</i>	<i>106.5</i>	<i>106.4</i>	<i>106.2</i>	104.9	<i>106.2</i>	<i>106.5</i>
Distillate-weighted Manufacturing (a)	111.3	111.8	112.2	111.9	112.2	<i>112.0</i>	<i>112.3</i>	<i>112.6</i>	<i>112.8</i>	<i>112.9</i>	<i>113.0</i>	<i>113.1</i>	111.8	<i>112.3</i>	<i>112.9</i>
Electricity-weighted Manufacturing (a)	104.5	105.4	106.5	107.1	107.0	<i>107.2</i>	<i>107.9</i>	<i>108.4</i>	<i>108.6</i>	<i>108.5</i>	<i>108.5</i>	<i>108.4</i>	105.9	<i>107.6</i>	<i>108.5</i>
Natural Gas-weighted Manufacturing (a) ...	104.3	105.8	106.8	107.2	106.8	<i>107.4</i>	<i>108.2</i>	<i>108.8</i>	<i>109.0</i>	<i>109.1</i>	<i>109.3</i>	<i>109.3</i>	106.0	<i>107.8</i>	<i>109.2</i>
Price Indexes															
Consumer Price Index (all urban consumers) (index, 1982-1984=1.00)	2.49	2.51	2.52	2.53	2.53	<i>2.55</i>	<i>2.57</i>	<i>2.58</i>	<i>2.59</i>	<i>2.60</i>	<i>2.61</i>	<i>2.63</i>	2.51	<i>2.56</i>	<i>2.61</i>
Producer Price Index: All Commodities (index, 1982=1.00)	2.00	2.01	2.03	2.04	2.01	<i>2.03</i>	<i>2.02</i>	<i>2.03</i>	<i>2.03</i>	<i>2.02</i>	<i>2.02</i>	<i>2.03</i>	2.02	<i>2.02</i>	<i>2.03</i>
Producer Price Index: Petroleum (index, 1982=1.00)	1.98	2.22	2.26	2.10	1.84	<i>2.15</i>	<i>2.19</i>	<i>2.07</i>	<i>1.98</i>	<i>2.05</i>	<i>2.04</i>	<i>1.97</i>	2.14	<i>2.07</i>	<i>2.01</i>
GDP Implicit Price Deflator (index, 2012=100)	109.3	110.2	110.7	111.1	111.6	<i>112.1</i>	<i>112.6</i>	<i>113.2</i>	<i>113.9</i>	<i>114.6</i>	<i>115.2</i>	<i>116.0</i>	110.3	<i>112.4</i>	<i>114.9</i>
Miscellaneous															
Vehicle Miles Traveled (b) (million miles/day)	8,227	9,225	9,080	8,794	8,309	<i>9,317</i>	<i>9,176</i>	<i>8,890</i>	<i>8,454</i>	<i>9,453</i>	<i>9,324</i>	<i>8,992</i>	8,834	<i>8,925</i>	<i>9,056</i>
Air Travel Capacity (Available ton-miles/day, thousands)	603	664	667	661	625	<i>660</i>	<i>668</i>	<i>643</i>	<i>622</i>	<i>655</i>	<i>665</i>	<i>643</i>	649	<i>649</i>	<i>646</i>
Aircraft Utilization (Revenue ton-miles/day, thousands)	368	414	418	394	383	<i>422</i>	<i>425</i>	<i>403</i>	<i>383</i>	<i>418</i>	<i>425</i>	<i>405</i>	398	<i>408</i>	<i>408</i>
Airline Ticket Price Index (index, 1982-1984=100)	262.8	277.9	259.7	259.3	259.8	<i>305.4</i>	<i>309.8</i>	<i>331.4</i>	<i>333.5</i>	<i>348.8</i>	<i>333.8</i>	<i>348.1</i>	264.9	<i>301.6</i>	<i>341.1</i>
Raw Steel Production (million short tons per day)	0.251	0.253	0.263	0.270	0.273	<i>0.272</i>	<i>0.255</i>	<i>0.227</i>	<i>0.269</i>	<i>0.269</i>	<i>0.250</i>	<i>0.217</i>	0.259	<i>0.257</i>	<i>0.251</i>
Carbon Dioxide (CO2) Emissions (million metric tons)															
Petroleum	578	591	601	599	576	<i>591</i>	<i>604</i>	<i>598</i>	<i>584</i>	<i>592</i>	<i>608</i>	<i>600</i>	2,369	<i>2,368</i>	<i>2,385</i>
Natural Gas	478	349	370	432	504	<i>352</i>	<i>374</i>	<i>437</i>	<i>502</i>	<i>364</i>	<i>384</i>	<i>438</i>	1,630	<i>1,667</i>	<i>1,689</i>
Coal	307	287	355	310	285	<i>239</i>	<i>312</i>	<i>273</i>	<i>266</i>	<i>222</i>	<i>292</i>	<i>253</i>	1,259	<i>1,109</i>	<i>1,032</i>
Total Energy (c)	1,366	1,231	1,329	1,343	1,368	<i>1,184</i>	<i>1,293</i>	<i>1,312</i>	<i>1,355</i>	<i>1,181</i>	<i>1,287</i>	<i>1,293</i>	5,268	<i>5,156</i>	<i>5,116</i>

- = 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 - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
Real Gross State Product (Billion \$2009)															
New England	971	980	988	992	996	1,000	1,004	1,009	1,014	1,019	1,023	1,027	983	1,002	1,021
Middle Atlantic	2,735	2,759	2,780	2,795	2,807	2,815	2,828	2,842	2,854	2,868	2,879	2,889	2,767	2,823	2,873
E. N. Central	2,480	2,504	2,522	2,533	2,542	2,549	2,561	2,573	2,582	2,588	2,594	2,601	2,510	2,556	2,591
W. N. Central	1,145	1,159	1,168	1,172	1,176	1,180	1,186	1,191	1,196	1,201	1,206	1,211	1,161	1,183	1,204
S. Atlantic	3,263	3,295	3,321	3,340	3,357	3,376	3,398	3,418	3,438	3,459	3,478	3,498	3,305	3,387	3,469
E. S. Central	815	823	829	832	835	839	844	848	852	855	858	862	825	841	857
W. S. Central	2,214	2,246	2,265	2,281	2,294	2,305	2,320	2,338	2,355	2,372	2,386	2,400	2,251	2,314	2,378
Mountain	1,197	1,210	1,222	1,229	1,237	1,245	1,254	1,263	1,271	1,280	1,288	1,295	1,215	1,250	1,284
Pacific	3,536	3,569	3,603	3,625	3,646	3,665	3,693	3,717	3,739	3,760	3,779	3,796	3,583	3,680	3,768
Industrial Output, Manufacturing (Index, Year 2012=100)															
New England	98.8	99.2	99.8	99.6	98.8	99.0	99.2	99.6	99.8	99.9	100.1	100.2	99.3	99.2	100.0
Middle Atlantic	98.6	99.0	99.7	99.8	99.0	99.2	99.6	100.1	100.5	100.6	100.7	100.8	99.3	99.5	100.7
E. N. Central	107.6	108.2	109.2	109.3	109.1	109.3	109.9	110.7	111.0	110.7	110.6	110.6	108.6	109.7	110.7
W. N. Central	104.2	104.9	106.3	106.7	106.8	107.2	107.8	108.6	109.1	109.2	109.5	109.8	105.5	107.6	109.4
S. Atlantic	108.8	109.7	110.7	110.9	111.4	111.9	112.5	113.1	113.5	113.6	113.8	114.0	110.0	112.2	113.7
E. S. Central	109.8	110.2	111.2	111.8	111.7	112.2	113.0	113.7	114.2	114.2	114.4	114.4	110.7	112.7	114.3
W. S. Central	98.7	99.7	100.9	101.6	102.5	103.2	103.9	104.6	105.2	105.5	105.9	106.2	100.2	103.5	105.7
Mountain	112.2	113.5	115.3	116.4	116.8	117.4	118.0	118.9	119.5	119.9	120.3	120.7	114.3	117.8	120.1
Pacific	104.4	105.1	105.7	106.5	106.6	107.1	107.6	108.1	108.6	108.8	109.2	109.5	105.4	107.4	109.1
Real Personal Income (Billion \$2009)															
New England	858	856	861	868	874	875	879	884	889	895	900	904	861	878	897
Middle Atlantic	2,216	2,226	2,239	2,252	2,266	2,269	2,280	2,292	2,303	2,316	2,326	2,336	2,233	2,277	2,320
E. N. Central	2,342	2,341	2,358	2,380	2,399	2,403	2,416	2,431	2,443	2,457	2,467	2,476	2,355	2,412	2,461
W. N. Central	1,084	1,092	1,094	1,111	1,116	1,119	1,126	1,135	1,142	1,150	1,157	1,163	1,095	1,124	1,153
S. Atlantic	3,079	3,086	3,118	3,146	3,171	3,182	3,205	3,230	3,254	3,281	3,304	3,326	3,107	3,197	3,291
E. S. Central	861	865	870	877	884	886	890	895	900	906	911	914	868	889	908
W. S. Central	1,876	1,886	1,897	1,919	1,933	1,939	1,952	1,966	1,981	1,996	2,010	2,022	1,894	1,948	2,002
Mountain	1,102	1,105	1,117	1,129	1,138	1,142	1,150	1,159	1,168	1,179	1,188	1,197	1,113	1,147	1,183
Pacific	2,671	2,690	2,704	2,728	2,743	2,749	2,767	2,786	2,804	2,826	2,845	2,861	2,698	2,761	2,834
Households (Thousands)															
New England	5,914	5,926	5,944	5,955	5,965	5,974	5,985	5,995	6,005	6,017	6,024	6,032	5,955	5,995	6,032
Middle Atlantic	16,210	16,249	16,300	16,330	16,355	16,372	16,399	16,425	16,451	16,481	16,500	16,519	16,330	16,425	16,519
E. N. Central	19,003	19,037	19,090	19,121	19,149	19,171	19,204	19,236	19,267	19,310	19,341	19,373	19,121	19,236	19,373
W. N. Central	8,604	8,627	8,658	8,680	8,701	8,720	8,742	8,764	8,786	8,810	8,829	8,848	8,680	8,764	8,848
S. Atlantic	25,469	25,561	25,679	25,771	25,862	25,947	26,041	26,133	26,227	26,327	26,412	26,497	25,771	26,133	26,497
E. S. Central	7,626	7,641	7,665	7,682	7,699	7,715	7,735	7,753	7,772	7,792	7,808	7,825	7,682	7,753	7,825
W. S. Central	14,686	14,731	14,793	14,843	14,891	14,939	14,992	15,045	15,100	15,159	15,210	15,262	14,843	15,045	15,262
Mountain	9,244	9,292	9,349	9,394	9,437	9,476	9,519	9,560	9,601	9,645	9,684	9,722	9,394	9,560	9,722
Pacific	18,859	18,903	18,966	19,010	19,055	19,097	19,151	19,204	19,259	19,317	19,367	19,416	19,010	19,204	19,416
Total Non-farm Employment (Millions)															
New England	7.4	7.4	7.5	7.5	7.5	7.5	7.5	7.6	7.6	7.6	7.6	7.6	7.5	7.5	7.6
Middle Atlantic	19.7	19.8	19.9	19.9	20.0	20.0	20.1	20.1	20.1	20.2	20.2	20.2	19.8	20.1	20.2
E. N. Central	22.1	22.2	22.2	22.3	22.4	22.5	22.5	22.5	22.6	22.6	22.6	22.6	22.2	22.5	22.6
W. N. Central	10.7	10.7	10.8	10.8	10.8	10.8	10.8	10.9	10.9	10.9	10.9	10.9	10.7	10.8	10.9
S. Atlantic	28.5	28.6	28.7	28.9	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.7	28.7	29.2	29.6
E. S. Central	8.1	8.2	8.2	8.2	8.3	8.3	8.3	8.4	8.4	8.4	8.4	8.4	8.2	8.3	8.4
W. S. Central	17.3	17.4	17.5	17.6	17.6	17.7	17.8	17.9	17.9	18.0	18.0	18.1	17.4	17.8	18.0
Mountain	10.7	10.8	10.9	10.9	11.0	11.1	11.1	11.2	11.2	11.3	11.3	11.3	10.8	11.1	11.3
Pacific	23.3	23.4	23.5	23.6	23.7	23.8	23.9	24.0	24.0	24.1	24.1	24.2	23.5	23.9	24.1

- = 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.

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 - May 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
Heating Degree Days															
New England	3,048	902	69	2,300	3,220	<i>751</i>	<i>125</i>	<i>2,124</i>	<i>3,151</i>	<i>862</i>	<i>127</i>	<i>2,124</i>	6,319	<i>6,220</i>	<i>6,263</i>
Middle Atlantic	2,936	754	37	2,048	2,977	<i>560</i>	<i>80</i>	<i>1,946</i>	<i>2,907</i>	<i>684</i>	<i>77</i>	<i>1,946</i>	5,775	<i>5,562</i>	<i>5,614</i>
E. N. Central	3,212	826	61	2,336	3,319	<i>676</i>	<i>129</i>	<i>2,204</i>	<i>3,114</i>	<i>714</i>	<i>127</i>	<i>2,204</i>	6,434	<i>6,328</i>	<i>6,159</i>
W. N. Central	3,420	827	121	2,600	3,615	<i>683</i>	<i>164</i>	<i>2,385</i>	<i>3,196</i>	<i>691</i>	<i>162</i>	<i>2,386</i>	6,968	<i>6,847</i>	<i>6,435</i>
South Atlantic	1,443	219	2	967	1,336	<i>162</i>	<i>13</i>	<i>965</i>	<i>1,405</i>	<i>189</i>	<i>13</i>	<i>964</i>	2,630	<i>2,476</i>	<i>2,571</i>
E. S. Central	1,814	325	2	1,338	1,713	<i>231</i>	<i>21</i>	<i>1,299</i>	<i>1,805</i>	<i>235</i>	<i>21</i>	<i>1,300</i>	3,479	<i>3,264</i>	<i>3,361</i>
W. S. Central	1,192	142	3	909	1,199	<i>110</i>	<i>4</i>	<i>819</i>	<i>1,152</i>	<i>80</i>	<i>4</i>	<i>819</i>	2,244	<i>2,132</i>	<i>2,055</i>
Mountain	2,122	600	124	1,957	2,423	<i>617</i>	<i>147</i>	<i>1,840</i>	<i>2,195</i>	<i>693</i>	<i>148</i>	<i>1,839</i>	4,802	<i>5,028</i>	<i>4,875</i>
Pacific	1,441	540	84	1,103	1,688	<i>452</i>	<i>84</i>	<i>1,189</i>	<i>1,481</i>	<i>574</i>	<i>86</i>	<i>1,189</i>	3,168	<i>3,413</i>	<i>3,331</i>
U.S. Average	2,129	522	48	1,577	2,204	<i>425</i>	<i>74</i>	<i>1,513</i>	<i>2,096</i>	<i>479</i>	<i>74</i>	<i>1,511</i>	4,276	<i>4,217</i>	<i>4,159</i>
Heating Degree Days, Prior 10-year Average															
New England	3,172	817	119	2,121	3,165	<i>819</i>	<i>111</i>	<i>2,122</i>	<i>3,152</i>	<i>808</i>	<i>104</i>	<i>2,112</i>	6,229	<i>6,217</i>	<i>6,175</i>
Middle Atlantic	2,947	646	81	1,949	2,956	<i>650</i>	<i>76</i>	<i>1,941</i>	<i>2,947</i>	<i>636</i>	<i>70</i>	<i>1,932</i>	5,623	<i>5,622</i>	<i>5,586</i>
E. N. Central	3,209	692	116	2,210	3,196	<i>697</i>	<i>112</i>	<i>2,198</i>	<i>3,197</i>	<i>689</i>	<i>109</i>	<i>2,190</i>	6,228	<i>6,203</i>	<i>6,185</i>
W. N. Central	3,264	705	144	2,379	3,255	<i>702</i>	<i>140</i>	<i>2,380</i>	<i>3,284</i>	<i>693</i>	<i>137</i>	<i>2,363</i>	6,492	<i>6,477</i>	<i>6,477</i>
South Atlantic	1,476	177	12	974	1,480	<i>176</i>	<i>11</i>	<i>964</i>	<i>1,459</i>	<i>172</i>	<i>11</i>	<i>956</i>	2,639	<i>2,631</i>	<i>2,598</i>
E. S. Central	1,868	217	18	1,301	1,862	<i>222</i>	<i>17</i>	<i>1,292</i>	<i>1,850</i>	<i>218</i>	<i>17</i>	<i>1,280</i>	3,404	<i>3,392</i>	<i>3,365</i>
W. S. Central	1,181	80	4	801	1,183	<i>85</i>	<i>4</i>	<i>807</i>	<i>1,198</i>	<i>85</i>	<i>3</i>	<i>790</i>	2,066	<i>2,078</i>	<i>2,076</i>
Mountain	2,194	737	144	1,841	2,164	<i>714</i>	<i>139</i>	<i>1,855</i>	<i>2,192</i>	<i>701</i>	<i>138</i>	<i>1,831</i>	4,916	<i>4,873</i>	<i>4,862</i>
Pacific	1,465	592	84	1,182	1,444	<i>582</i>	<i>83</i>	<i>1,174</i>	<i>1,456</i>	<i>568</i>	<i>84</i>	<i>1,162</i>	3,322	<i>3,283</i>	<i>3,270</i>
U.S. Average	2,160	478	71	1,524	2,150	<i>475</i>	<i>68</i>	<i>1,518</i>	<i>2,148</i>	<i>466</i>	<i>66</i>	<i>1,504</i>	4,233	<i>4,211</i>	<i>4,185</i>
Cooling Degree Days															
New England	0	81	583	0	0	<i>94</i>	<i>421</i>	<i>2</i>	<i>0</i>	<i>82</i>	<i>406</i>	<i>2</i>	664	<i>518</i>	<i>491</i>
Middle Atlantic	0	177	707	4	0	<i>163</i>	<i>545</i>	<i>5</i>	<i>0</i>	<i>154</i>	<i>538</i>	<i>5</i>	888	<i>713</i>	<i>697</i>
E. N. Central	0	332	636	4	0	<i>215</i>	<i>523</i>	<i>7</i>	<i>0</i>	<i>226</i>	<i>534</i>	<i>7</i>	973	<i>745</i>	<i>768</i>
W. N. Central	2	440	685	6	0	<i>254</i>	<i>652</i>	<i>10</i>	<i>3</i>	<i>273</i>	<i>666</i>	<i>10</i>	1,133	<i>916</i>	<i>952</i>
South Atlantic	137	729	1,267	282	153	<i>680</i>	<i>1,149</i>	<i>224</i>	<i>121</i>	<i>649</i>	<i>1,155</i>	<i>224</i>	2,414	<i>2,207</i>	<i>2,150</i>
E. S. Central	37	651	1,162	82	28	<i>504</i>	<i>1,028</i>	<i>64</i>	<i>28</i>	<i>531</i>	<i>1,047</i>	<i>64</i>	1,932	<i>1,624</i>	<i>1,670</i>
W. S. Central	126	1,009	1,567	167	75	<i>845</i>	<i>1,481</i>	<i>191</i>	<i>89</i>	<i>868</i>	<i>1,493</i>	<i>191</i>	2,869	<i>2,591</i>	<i>2,640</i>
Mountain	22	509	1,003	51	10	<i>429</i>	<i>920</i>	<i>72</i>	<i>18</i>	<i>422</i>	<i>921</i>	<i>73</i>	1,585	<i>1,431</i>	<i>1,433</i>
Pacific	31	181	720	71	21	<i>177</i>	<i>589</i>	<i>58</i>	<i>27</i>	<i>167</i>	<i>581</i>	<i>58</i>	1,004	<i>845</i>	<i>833</i>
U.S. Average	52	478	959	99	46	<i>404</i>	<i>844</i>	<i>90</i>	<i>43</i>	<i>401</i>	<i>849</i>	<i>90</i>	1,587	<i>1,383</i>	<i>1,383</i>
Cooling Degree Days, Prior 10-year Average															
New England	0	81	433	1	0	<i>79</i>	<i>455</i>	<i>1</i>	<i>0</i>	<i>85</i>	<i>466</i>	<i>1</i>	515	<i>535</i>	<i>552</i>
Middle Atlantic	0	166	566	5	0	<i>165</i>	<i>589</i>	<i>6</i>	<i>0</i>	<i>172</i>	<i>600</i>	<i>6</i>	738	<i>760</i>	<i>779</i>
E. N. Central	3	228	533	7	3	<i>242</i>	<i>548</i>	<i>7</i>	<i>3</i>	<i>244</i>	<i>566</i>	<i>8</i>	771	<i>800</i>	<i>821</i>
W. N. Central	7	277	659	11	7	<i>298</i>	<i>668</i>	<i>11</i>	<i>7</i>	<i>299</i>	<i>689</i>	<i>12</i>	953	<i>985</i>	<i>1,007</i>
South Atlantic	119	675	1,161	227	120	<i>684</i>	<i>1,180</i>	<i>239</i>	<i>127</i>	<i>689</i>	<i>1,187</i>	<i>239</i>	2,182	<i>2,224</i>	<i>2,241</i>
E. S. Central	34	539	1,031	63	36	<i>554</i>	<i>1,049</i>	<i>67</i>	<i>36</i>	<i>552</i>	<i>1,063</i>	<i>70</i>	1,667	<i>1,707</i>	<i>1,721</i>
W. S. Central	100	887	1,532	204	103	<i>898</i>	<i>1,553</i>	<i>205</i>	<i>100</i>	<i>895</i>	<i>1,555</i>	<i>210</i>	2,722	<i>2,759</i>	<i>2,759</i>
Mountain	24	426	923	84	25	<i>438</i>	<i>933</i>	<i>81</i>	<i>24</i>	<i>442</i>	<i>933</i>	<i>83</i>	1,457	<i>1,477</i>	<i>1,481</i>
Pacific	30	185	621	78	31	<i>185</i>	<i>631</i>	<i>76</i>	<i>31</i>	<i>186</i>	<i>624</i>	<i>77</i>	914	<i>923</i>	<i>918</i>
U.S. Average	45	408	856	94	46	<i>417</i>	<i>873</i>	<i>97</i>	<i>47</i>	<i>421</i>	<i>882</i>	<i>98</i>	1,403	<i>1,433</i>	<i>1,447</i>

- = no data available

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

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