



## Short-Term Energy Outlook (STEO)

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### Forecast highlights

#### *Global liquid fuels*

- Brent crude oil spot prices averaged \$59 per barrel (b) in August, down \$5/b from July and \$13/b lower than the average from August of last year. EIA forecasts Brent spot prices will average \$60/b in the fourth quarter of 2019 and \$62/b in 2020. EIA forecasts that West Texas Intermediate (WTI) prices will average \$5.50/b less than Brent prices in 2020.
- EIA forecasts that global liquid fuels consumption will increase by 0.9 million barrels per day (b/d) in 2019, down from year-over-year growth of 1.3 million b/d in 2018. The slowing liquid fuels demand growth reflects EIA's assumption (based on forecasts from Oxford Economics) of decelerating growth in global oil-weighted gross domestic product (GDP). EIA expects that global liquid fuels demand will increase by 1.4 million b/d in 2020 as a result of an expected increase in global GDP growth.
- EIA forecasts U.S. crude oil production will average 12.2 million b/d in 2019, up by 1.2 million from the 2018 level. Forecast crude oil production then rises by 1.0 million b/d in 2020 to an annual average of 13.2 million b/d. The slowing rate of crude oil production growth reflects relatively flat crude oil price levels and slowing growth in well-level productivity.

#### *Natural gas*

- The Henry Hub natural gas spot price averaged \$2.22 per million British thermal units (MMBtu) in August, down 15 cents/MMBtu from July. This summer, prices have declined amid rising natural gas production, despite [high levels of both natural gas exports](#) and [consumption in the electricity generation sector](#). Based on recent price movements and EIA's assessment that natural gas production will be sufficient to meet expected demand and export levels at a lower price than previously forecasted, EIA lowered its Henry Hub spot price forecast for 2020 to an average of \$2.55/MMBtu, 20 cents/MMBtu lower than the August forecast.
- EIA forecasts that U.S. dry natural gas production will average 91.4 billion cubic feet per day (Bcf/d) in 2019, up 8.0 Bcf/d [from 2018](#). EIA expects monthly average natural gas production to grow in late 2019 and then decline slightly during the first quarter of 2020 as the lagged effect of low prices in the second half of 2019 reduces

natural gas-directed drilling. However, EIA forecasts that growth will resume in the second quarter of 2020, and natural gas production in 2020 will average 93.2 Bcf/d.

- Natural gas storage injections have outpaced the five-year (2014–18) average so far during the 2019 injection season as a result of rising natural gas production. At the beginning of April, the natural gas inventory [injection season started](#) with working inventories 28% lower than the five-year average for the same period. By the week ending August 30, [working gas inventories](#) were 82 billion cubic feet (Bcf), or 3%, lower than the five-year average of 3,023 Bcf. EIA [forecasts](#) that natural gas storage levels will be 3,769 Bcf by the end of October, which is slightly higher than the five-year average and 16% higher than October 2018 levels.

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

- EIA expects the share of U.S. total [utility-scale electricity generation](#) from natural gas-fired power plants will rise from 34% in 2018 to 37% in 2019 and 38% in 2020. EIA forecasts that the share of U.S. generation from coal will average 25% in 2019 and 22% in 2020, down from 28% in 2018. EIA's forecast nuclear share of U.S. generation remains at about 20% in 2019 and in 2020. Hydropower averages a 7% share of total U.S. generation in the forecast for 2019 and 2020, similar to 2018. Wind, solar, and other nonhydropower renewables together provided 10% of U.S. total utility-scale generation in 2018. EIA expects they will provide 10% in 2019 and 12% in 2020.
- EIA forecasts generally lower wholesale electricity prices in 2019 compared with 2018. The lower forecast prices reflect lower natural gas fuel costs. In the first half of 2019, the average U.S. cost of natural gas delivered to power generators was 9% lower than the same period in 2018. EIA expects the delivered cost of natural gas during the second half of 2019 to be 31% lower than last year. Forecast electricity prices in the southeast are less than 1% lower than 2018, while prices in New England are 28% lower.
- EIA forecasts that U.S. coal production in the second half of 2019 will be 328 million short tons (MMst), or 59 MMst (15%) less than in the second half of 2018. EIA expects that coal exports will continue to fall during the projection period as international demand for U.S. coal is dampened by high Atlantic freight costs in the near term and increased uncertainty in the metallurgical coal market in the longer term. EIA forecasts that U.S. coal consumption will total 593 MMst in 2019 and 548 MMst in 2020, a decline of 14% in 2019 and 8% in 2020.
- EIA forecasts that utility-scale renewable fuels, [including wind](#), solar, and hydropower, will collectively produce 18% of U.S. electricity in 2019 and 19% in 2020. EIA expects that annual generation from wind will surpass hydropower generation for the first time in 2019 to become the leading source of renewable electricity generation and that it will maintain that position in 2020.

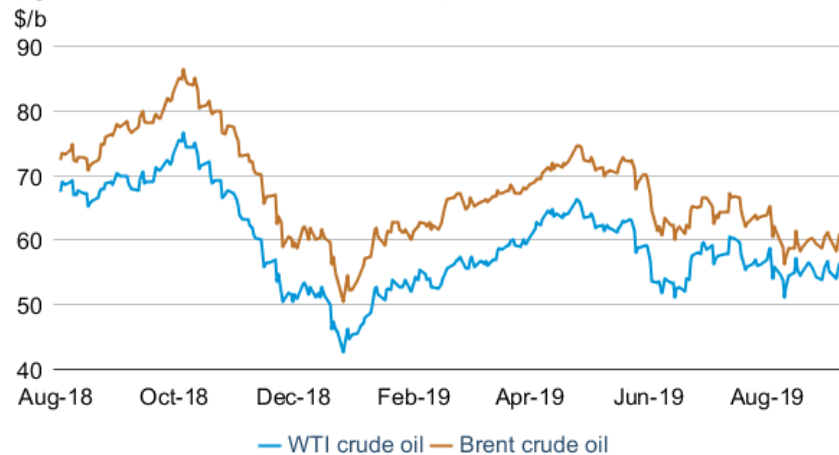
- EIA expects electric power sector generation from renewables other than hydropower—principally wind and solar—to grow from 409 billion kilowatthours (kWh) in 2019 to 467 billion kWh in 2020. In EIA’s forecast, Texas accounts for 19% of the U.S. nonhydro renewables generation in 2019 and 21% in 2020. California has a share of 15% in 2019 and 14% in 2020. Regionally, the Midwest and Central power regions each have shares in the 16% to 17% range of the U.S. generation total from renewables other than hydropower.
- EIA forecasts that, after rising by 2.7% in 2018, U.S. energy-related carbon dioxide (CO<sub>2</sub>) emissions will decline by 2.5% in 2019 and by 1.0% in 2020. In 2019, EIA forecasts that space cooling demand (as measured in cooling degree days) will be lower than in 2018, when it was 13% higher than the previous 10-year (2008–17) average. In addition, EIA expects U.S. CO<sub>2</sub> emissions in 2019 to decline because the forecast share of electricity generated from natural gas and renewables is increasing while the forecast share generated from coal, which is a more carbon-intensive energy source, is decreasing.

# Petroleum and natural gas markets review

## Crude oil

**Prices:** The front-month futures price for Brent crude oil settled at \$60.95 per barrel (b) on September 5, 2019, an increase of \$0.45/b from August 1. The front-month futures price for West Texas Intermediate (WTI) crude oil for delivery at Cushing, Oklahoma, increased by \$2.35/b during the same period, settling at \$56.30/b on September 5 (**Figure 1**).

Figure 1. Crude oil front-month futures prices



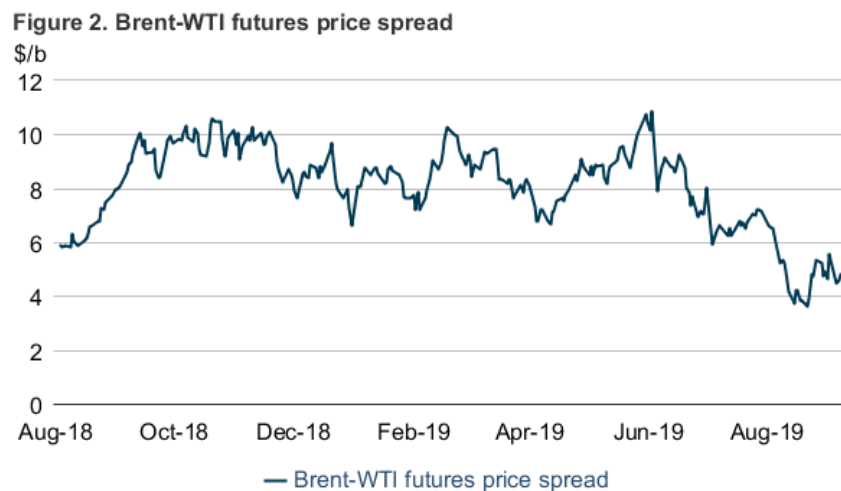
eia CME Group and Intercontinental Exchange, as compiled by Bloomberg L.P.

Global economic indicators continued to decline, contributing to oil price declines and volatility. Manufacturing Purchasing Managers' Indices (PMIs)—which can serve as a leading indicator for economic growth—from several countries for August showed a contraction in manufacturing activity. PMI reports remained mixed for the United States, with the [IHS Markit PMI](#) still showing slight expansion, although at the lowest level since September 2009, while the U.S. Institute for Supply Management's [PMI](#) showed contraction for the first time since 2016. Reports on trade negotiations between the United States and China also contributed to daily movements in global crude oil prices. On August 23, WTI prices fell by 2% when China announced a 5% tariff on its imports of U.S. crude oil, the first time U.S. crude oil was included in Chinese tariffs. However, Chinese imports of [U.S. crude oil](#) have decreased in 2019 year-to-date compared with 2018, and China has imported more from other countries, including [Saudi Arabia](#).

EIA is reducing its 2019 Brent crude oil price forecast to \$63/b, which is \$2/b lower than in the August STEO. The lower 2019 price forecast largely reflects recent global crude oil price fluctuations and lower forecast [global oil demand growth](#). EIA has revised its expected global oil demand growth down to 0.9 million barrels per day (b/d) in 2019, 0.1 million b/d lower than the August forecast. Lower expected oil demand growth mainly reflects lower forecast gross domestic product growth and lower forecast demand from countries in the Organization for Economic Cooperation and Development. If realized, 2019 would be the first year when demand

growth is less than 1.0 million b/d since 2011. EIA expects that annual average Brent prices will slightly decrease in 2020 to \$62/b, which is \$3/b lower than EIA’s August STEO forecast.

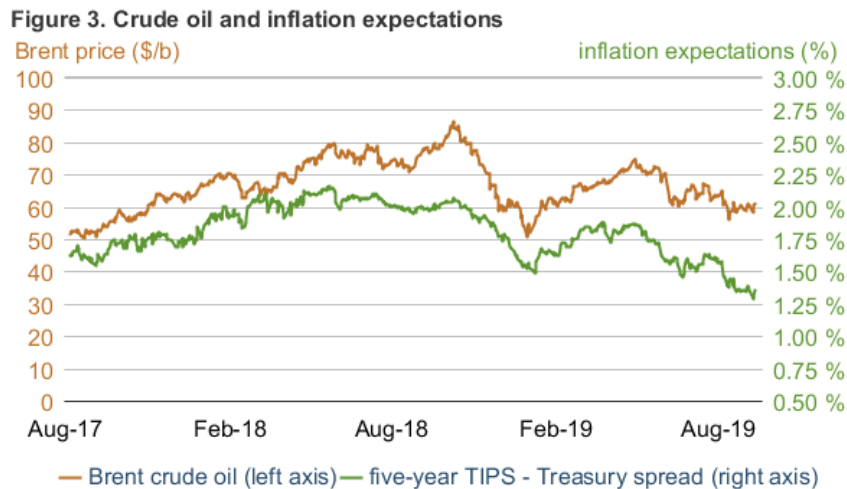
Notwithstanding the decline in overall price levels in August, several factors specific to the WTI market contributed to a narrowing of the Brent–WTI futures price spread since late July 2019. The Brent–WTI futures price spread settled at \$4.79/b on September 5, a decrease of \$1.70/b since August 1 (**Figure 2**). On August 19, the price spread decreased to \$3.60/b, the narrowest spread since March 2018. Crude oil prices in the Permian region increased during this period with the addition of two pipelines mid-month that reduced takeaway constraints to the U.S. Gulf Coast. The Cactus II crude oil pipeline added an estimated 670,000 b/d, and the EPIC Midstream natural gas liquids pipeline—repurposed to deliver crude oil—added about 400,000 b/d of capacity. The pipeline additions between the Permian and the U.S. Gulf Coast reduced the need for crude oil to first transit through Cushing, lowering the cost of transportation to refineries and export terminals on the U.S. Gulf Coast. Cushing crude oil stocks decreased by 10 million barrels from the third week in July through August 23, likely as a result of less crude oil flowing to the storage hub from the Permian region. EIA expects the spread to widen slightly from the lows seen in mid-August, as regional markets rebalance and the spread settles closer to the new pipelines’ tariff from the Permian Basin to the Gulf Coast.



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

**Crude oil and inflation expectations:** Changes in crude oil prices affect market participants’ expectations of future rates of inflation because energy is a significant input into other areas of the economy. Lower crude oil prices have a deflationary effect because petroleum products are a primary variable cost for businesses and consumers. Recent decreases in Brent crude oil prices have coincided with a decrease in inflation expectations, as measured by the difference in yield between the five-year Treasury rate and five-year Treasury Inflation-Protected Securities (TIPS). The five-year TIPS-Treasury spread decreased from 1.47% on August 1 to 1.35% as of September 5, and crude oil prices remained relatively flat during the same time (**Figure 3**). Relatively flat inflation growth was an important factor in the Federal Reserve Board’s decision to decrease

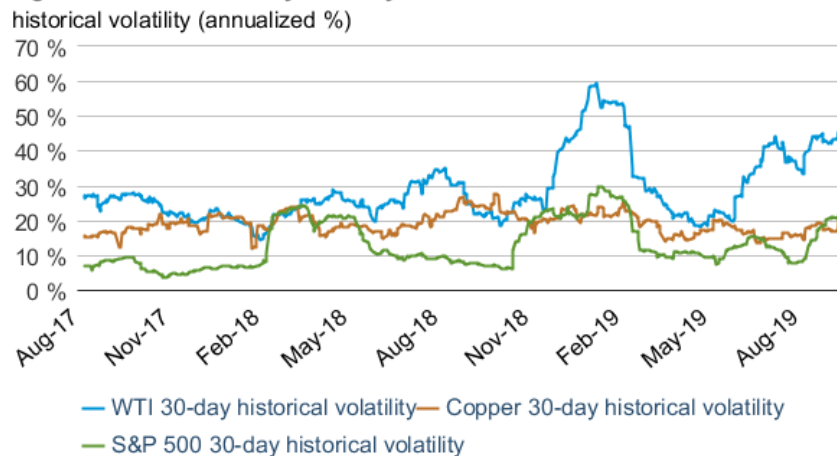
interest rates, which the Board decided to do for the first time since 2008 in the Federal Open Market Committee meetings in July. Since the Board’s meeting, the market has continued to price in inflation expectations lower than 2%, which is the Board’s inflation target.



eia Bloomberg, Federal Reserve Bank of St. Louis

**Historical 30-day volatility:** Unlike implied volatility, which is a calculated measure derived from options prices, historical volatility measures the magnitude of daily changes in closing prices for a commodity during a given time in the past. WTI 30-day historical volatility increased from August 1 to September 5, increasing from 38.7% to 45.1% (**Figure 4**). In 2019, historical volatility peaked at 59.4% in January, as WTI crude oil prices increased from large price declines in December because of supply-side uncertainty following an extension of the production agreement by producers in the Organization of the Petroleum Exporting Countries (OPEC) and several non-OPEC producers (OPEC+). The mid-August increase in volatility is likely related to demand-side uncertainty as well as the addition of two pipelines out of the Permian Basin. The volatility of copper futures prices has been lower than volatility of WTI prices because copper futures prices almost solely respond to demand-side concerns rather than supply-side uncertainty. In general, the industrial metal is used in many economically sensitive sectors, such as construction and industrial production, and lower prices may indicate expectations of a slowdown in industrial and economic activity. The volatility in the S&P 500 Index, which includes a basket of companies across many industries, was greater than the volatility of copper in late August, possibly in response to global trade concerns and slowing demand.

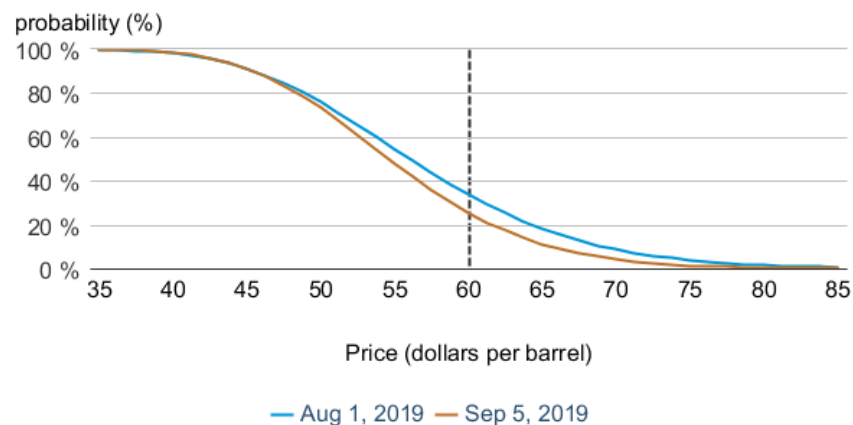
**Figure 4. Historical 30-day volatility**



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

**Market-derived probability:** From the beginning of August to the first week of September, the probability that the December 2019 WTI crude oil futures contract will expire above \$60/b decreased slightly. The probability that was calculated using futures and options data indicates WTI futures prices have a 25% chance of reaching \$60/b at expiration as of September 5 (**Figure 5**). The probability of reaching \$60/b was at 34% on August 1.

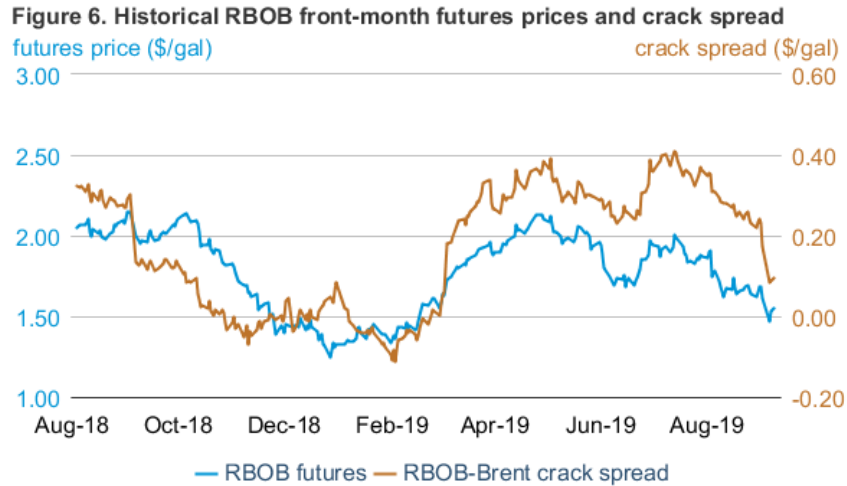
**Figure 5. Probability of the December 2019 WTI contract expiring higher than price levels**



eia U.S. Energy Information Administration, CME Group

## Petroleum products

**Gasoline prices:** The front-month futures price of reformulated blendstock for oxygenate blending (RBOB, the petroleum component of gasoline used in many parts of the country) settled at \$1.55 per gallon (gal) on September 5, down 20 cents/gal since August 1 (**Figure 6**). The RBOB–Brent crack spread (the difference between the price of RBOB and the price of Brent crude oil) decreased by 21 cents/gal to settle at 9 cents/gal during the same period.

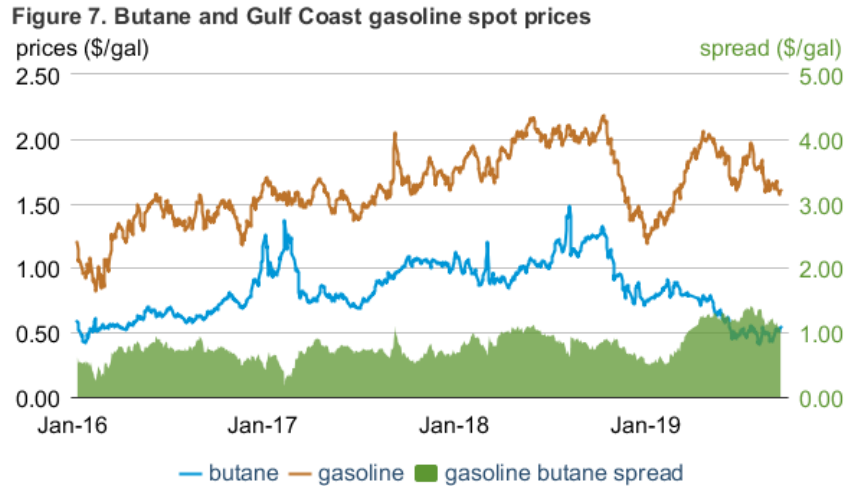


eia CME Group, as compiled by Bloomberg L.P., RBOB=reformulated blendstock for oxygenate blending

The crack spread declined throughout August and then fell further at the beginning of September, when the front-month contract rolled to October delivery, which reflects winter grade gasoline that is cheaper for refineries to produce. The August monthly average gasoline crack spread declined to lower than the five-year (2014–18) range after increasing to the five-year average in July for the first time this year. U.S. gasoline inventories decreased in August despite what EIA estimates would be record high gasoline production if confirmed by monthly data. In addition, gasoline imports into the East Coast increased after the Philadelphia Energy Solutions refinery closed in June, reaching 0.8 million barrels per day (b/d) for the four weeks ending August 30, 22% higher than the five-year average.

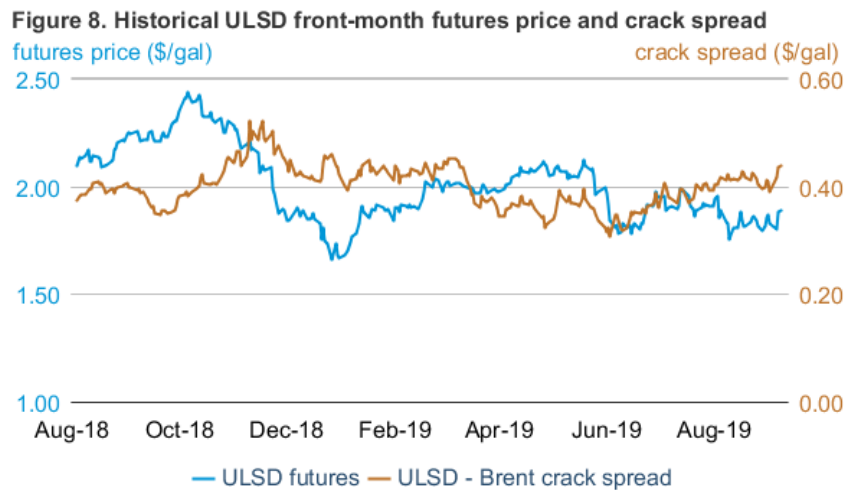
**Butane prices:** In each of the past three months, butane spot prices averaged 49 cents/gal (**Figure 7**), the lowest monthly average prices in 17 years. U.S. [butane inventories](#) in May 2019 (the latest data available) reached 48 million barrels, 12 million barrels higher than the five-year average. [Butane produced](#) through natural gas processing was 418,000 b/d in April and May 2019, the highest level ever recorded. Lower prices have provided incentives to export butane as well as input more butane into refinery processing. In April, the United States [exported](#) 331,000 b/d of butane, the highest amount ever. In November and December 2018, [butane refinery inputs](#) of 363,000 b/d were also the highest on record. Blending butane into gasoline is one of its major uses. During the summer months, however, the amount that can be blended is limited by lower vapor pressure specifications. The limited refinery use contributed to the rising inventory levels and low prices during this past summer.





eia Bloomberg L.P.

**Ultra-low sulfur diesel prices:** The ultra-low sulfur diesel (ULSD) front-month futures price increased 4 cents/gal from August 1 to settle at \$1.89/gal on September 5. The ULSD–Brent crack spread (the difference between the price of ULSD and the price of Brent crude oil) increased 2 cents/gal to settle at 44 cents/gal during the same period (**Figure 8**).



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

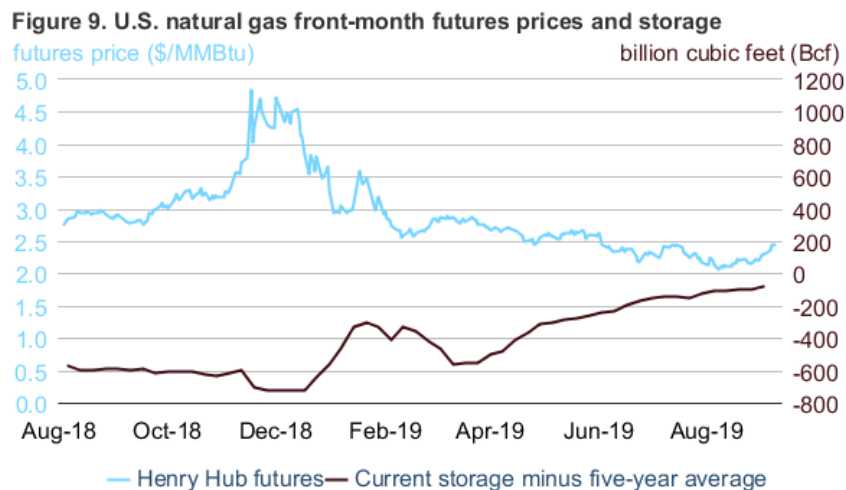
ULSD prices remained higher than RBOB from May to August for the second consecutive year. Even though [distillate consumption declined](#) in August to below the five-year range, exports increased and production declined, helping to keep inventories lower than the five-year average. Distillate exports increased to 1.5 million b/d for the four weeks ending August 30, which, if confirmed by monthly data, would be the highest monthly amount in 2019 and the third-largest on record. EIA estimates that production declined in August compared with July 2019. The production decline was also the largest year-on-year decrease since September 2017.

EIA estimates that distillate inventories ended August 11 million barrels lower than the five-year average.

## Natural Gas

**Prices:** The front-month natural gas futures contract for delivery at the Henry Hub settled at \$2.44 per million British thermal units (MMBtu) on September 5, an increase of 23 cents/MMBtu from August 1 (**Figure 9**). Natural gas futures prices declined early in August, reaching \$2.07/MMBtu on August 5, the lowest price since May 26, 2016, as continued increases in production contributed to inventory gains. As of September 5, natural gas storage injections equaled or exceeded the five-year (2014–18) average in all but two weeks in the 2019 injection season that began in April.

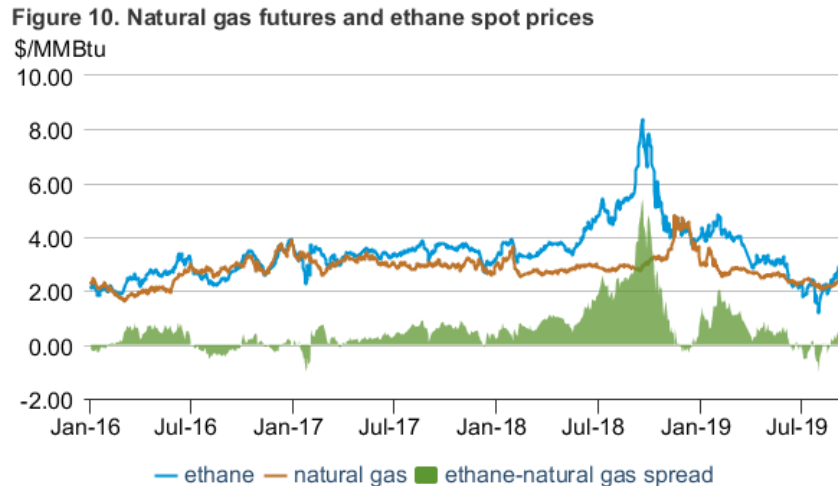
Henry Hub spot prices increased in the second half of August, and EIA forecasts that prices will average \$2.44/MMBtu in the fourth quarter of 2019 and \$2.55/MMBtu in 2020. EIA estimates that natural gas production increased to a record-high 92.2 billion cubic feet per day (Bcf/d) in August but expects that production will level off, averaging 93.2 Bcf/d in 2020. However, EIA forecasts that liquefied natural gas (LNG) exports, estimated at 3.9 Bcf/d in August, will continue to rise through the forecast, averaging 6.4 Bcf/d in 2020. EIA expects that continued growth of LNG exports combined with flattening production will provide support for natural gas prices through the forecast.



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

**Ethane prices:** On July 31, 2019, ethane spot prices declined to the lowest point on record (**Figure 10**). Although prices increased in August, the monthly average prices for June through August were the lowest recorded for those months. Ethane inventories rose to 56 million barrels in May 2019 (the latest data available), 14 million barrels more than the five-year average and less than 3 million barrels lower than the November 2017 record high in EIA’s data series, which starts in 2010. The low prices during the summer months indicate that inventories likely have remained high. Ethane produced through natural gas processing continues to increase. Every

month since September 2016 has set a production record for that month. Consumption and exports have also increased, but ethane production grew at a faster rate in the first five months of 2019. Although ethane is usually more expensive than natural gas, ethane prices have been lower than natural gas futures prices for more than half of the days from June 1 to September 5. Low ethane prices could make extraction from the natural gas stream cost prohibitive for natural gas processors. Processors will likely leave ethane in the natural gas stream—behavior known as “ethane rejection”—to the extent possible while still meeting the specifications for dry natural gas distribution.



eia Bloomberg L.P.

## Notable forecast changes

- EIA forecasts that global liquid fuels consumption will increase by 0.9 million barrels per day (b/d) in 2019, which is 0.1 million b/d lower than forecast in the August STEO. It also marks the seventh consecutive month in which EIA has lowered its 2019 consumption outlook, after EIA had forecast growth of 1.5 million b/d for the year in the January 2019 STEO. The downward revisions reflect successive reductions in EIA’s assumption (based on forecasts from Oxford Economics) of global gross domestic product growth for 2019.
- EIA forecasts natural gas spot prices at Henry Hub to average \$2.55 per million British thermal units (MMBtu) in 2020, which is 20 cents/MMBtu lower than expected in the August STEO.
- Because of the [delayed release](#) of EIA’s *Petroleum Supply Monthly* (PSM) data for June 2019, historical monthly petroleum data in this STEO end one month earlier than standard, in May 2019. This delay does not materially affect the September STEO forecast. The June data will be incorporated into the October STEO.

- For more information, see the [detailed table of STEO forecast changes](#).

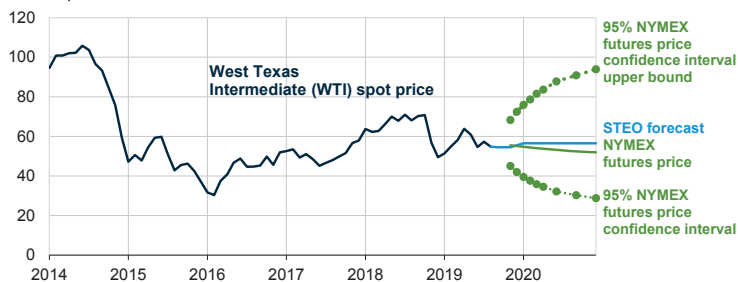
This report was prepared by the U.S. Energy Information Administration (EIA), the statistical and analytical agency within the U.S. Department of Energy. By law, EIA's data, analyses, and forecasts are independent of approval by any other officer or employee of the United States Government. The views 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 for September 2019

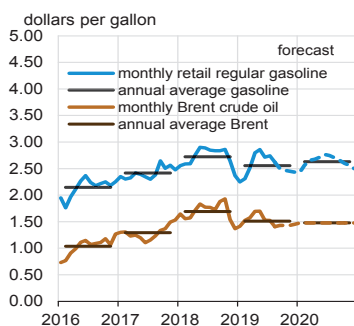
**West Texas Intermediate (WTI) crude oil price and NYMEX confidence intervals**  
dollars per barrel



Note: Confidence interval derived from options market information for the five trading days ending Sep 5, 2019. Intervals not calculated for months with sparse trading in near-the-money options contracts.  
Sources: Short-Term Energy Outlook, September 2019, and CME Group

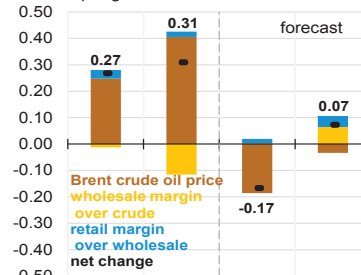


**U.S. gasoline and crude oil prices**

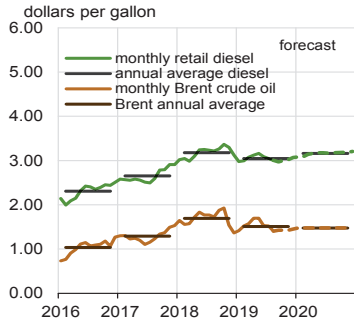


Source: Short-Term Energy Outlook, September 2019

**Components of annual gasoline price changes**  
dollars per gallon

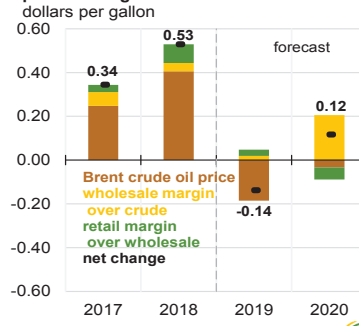


### U.S. diesel and crude oil prices



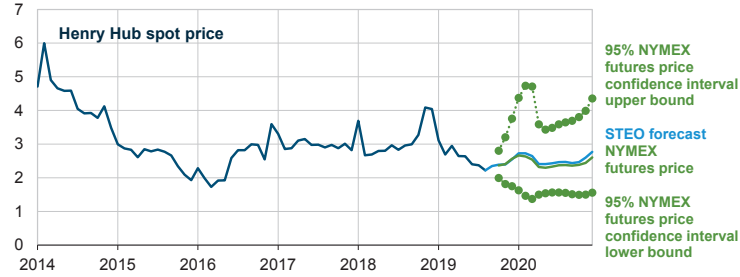
Source: Short-Term Energy Outlook, September 2019

### Components of annual diesel prices changes



### Henry Hub natural gas price and NYMEX confidence intervals

dollars per million Btu



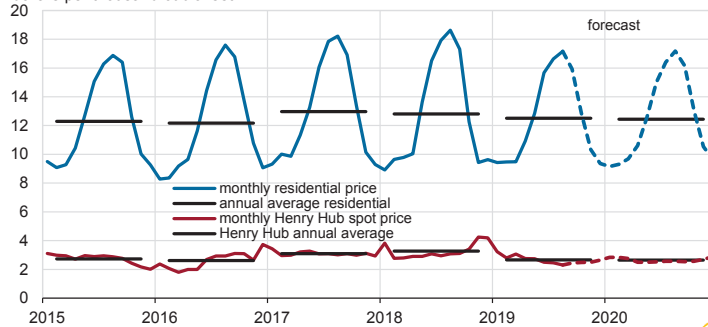
Note: Confidence interval derived from options market information for the five trading days ending Sep 5, 2019. Intervals not calculated for months with sparse trading in near-the-money options contracts.

Sources: Short-Term Energy Outlook, September 2019, and CME



### U.S. natural gas prices

dollars per thousand cubic feet

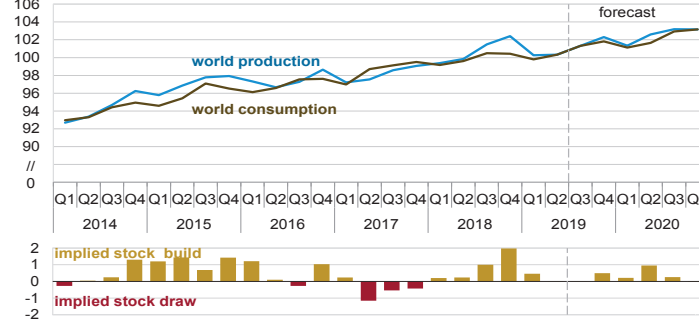


Sources: Short-Term Energy Outlook, September 2019, and Refinitiv



**World liquid fuels production and consumption balance**

million barrels per day

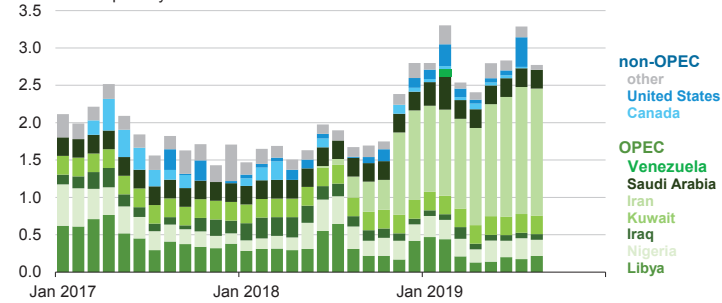


Source: Short-Term Energy Outlook, September 2019



**Estimated unplanned liquid fuels production outages**

million barrels per day

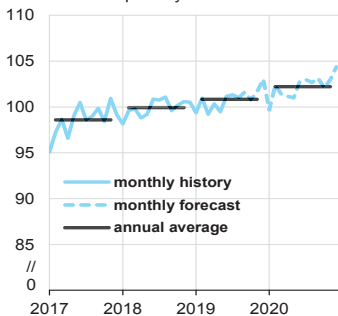


Source: Short-Term Energy Outlook, September 2019



**World liquid fuels consumption**

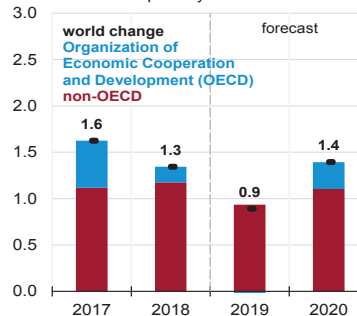
million barrels per day



Source: Short-Term Energy Outlook, September 2019

**Components of annual change**

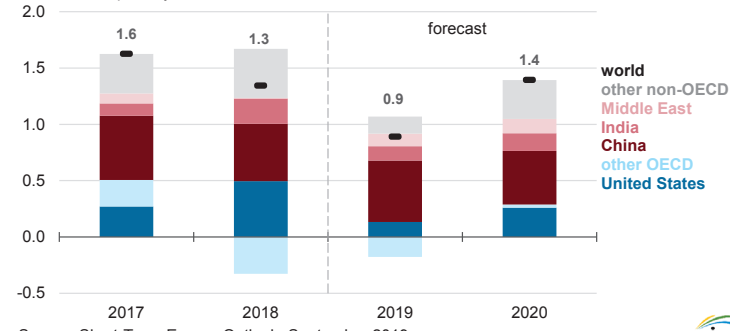
million barrels per day



Source: Short-Term Energy Outlook, September 2019



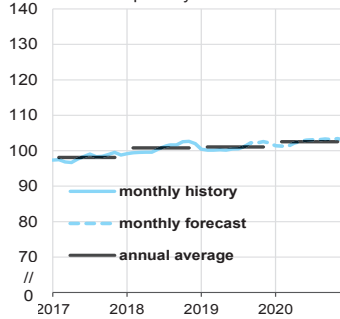
**Annual change in world liquid fuels consumption**  
million barrels per day



Source: Short-Term Energy Outlook, September 2019

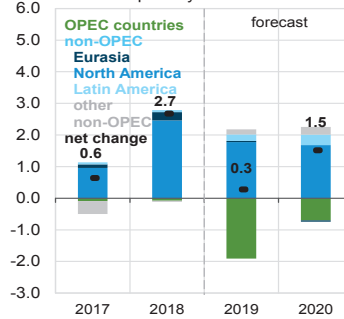


**World crude oil and liquid fuels production**  
million barrels per day

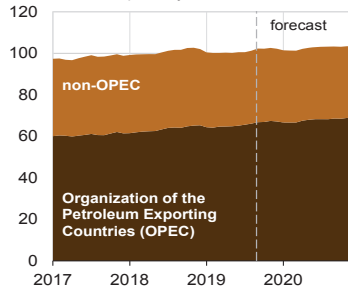


Source: Short-Term Energy Outlook, September 2019

**Components of annual change**  
million barrels per day

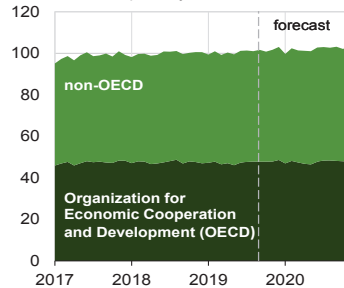


**World liquid fuels production**  
million barrels per day



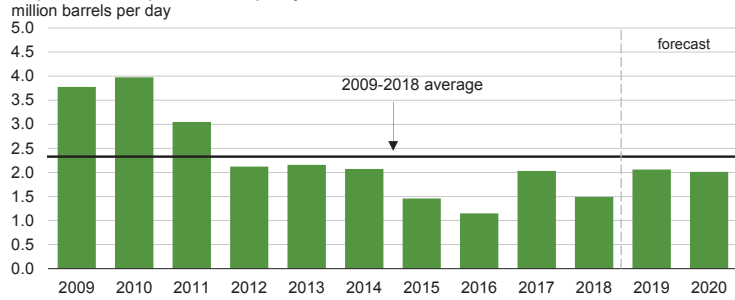
Source: Short-Term Energy Outlook, September 2019

**World liquid fuels consumption**  
million barrels per day





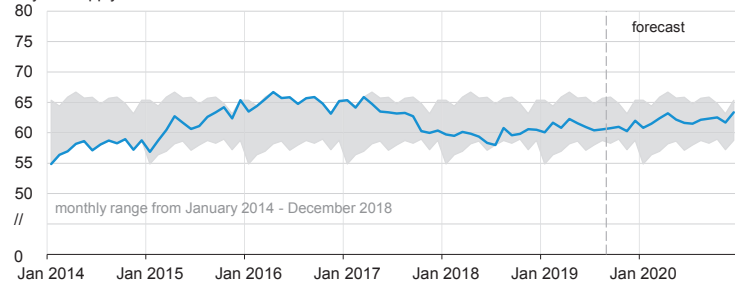
**Organization of the Petroleum Exporting Countries (OPEC)  
surplus crude oil production capacity**



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



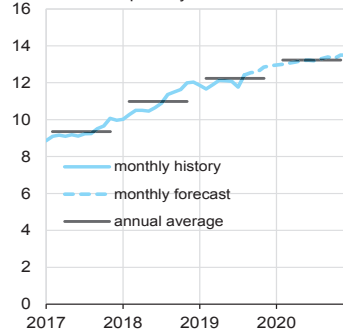
**Organization for Economic Cooperation and Development (OECD)  
commercial inventories of crude oil and other liquids**



Source: Short-Term Energy Outlook, September 2019

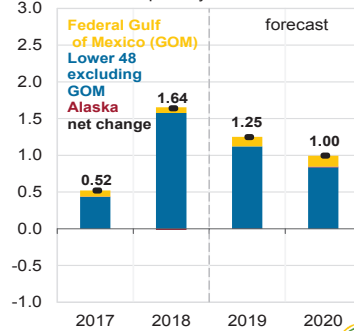


**U.S. crude oil production**

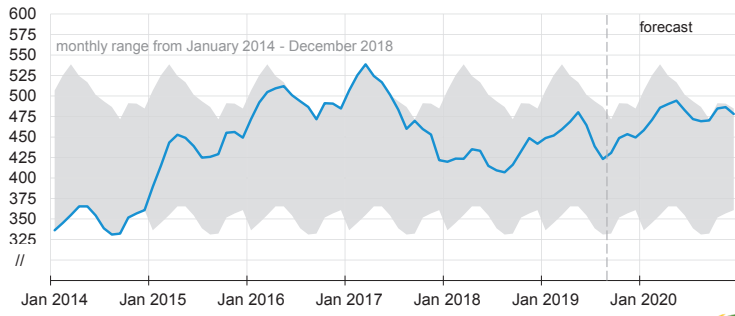


Source: Short-Term Energy Outlook, September 2019

**Components of annual change**



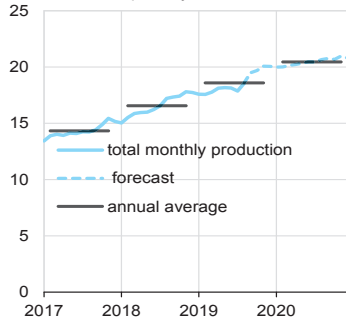
**U.S. commercial crude oil inventories**  
million barrels



Source: Short-Term Energy Outlook, September 2019

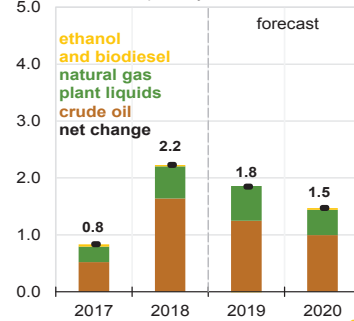


**U.S. crude oil and liquid fuels production**  
million barrels per day

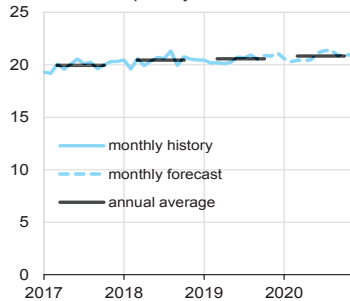


Source: Short-Term Energy Outlook, September 2019

**Components of annual change**  
million barrels per day

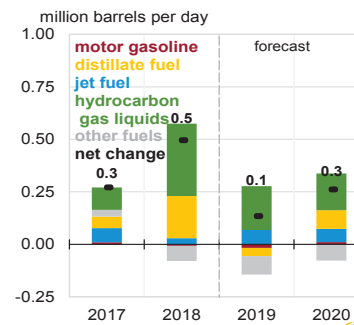


**U.S. liquid fuels product supplied (consumption)**  
million barrels per day

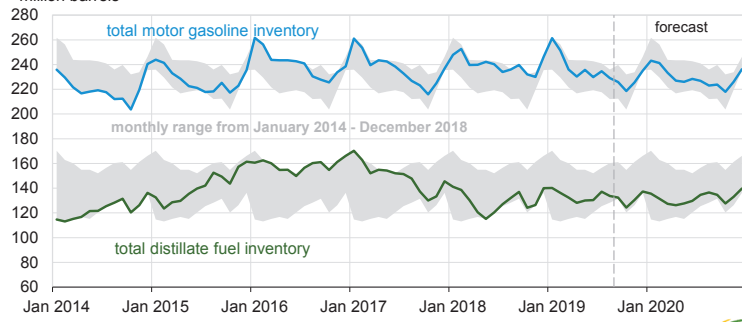


Source: Short-Term Energy Outlook, September 2019

**Components of annual change**  
million barrels per day



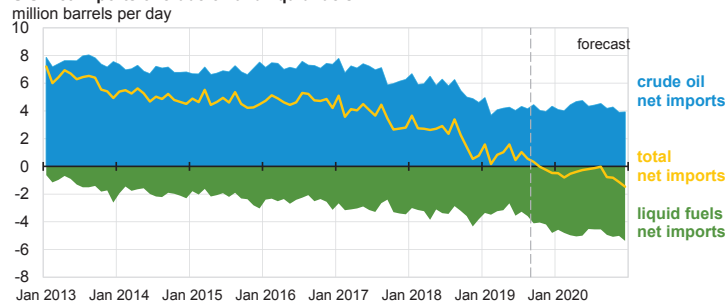
**U.S. gasoline and distillate inventories**  
million barrels



Source: Short-Term Energy Outlook, September 2019



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

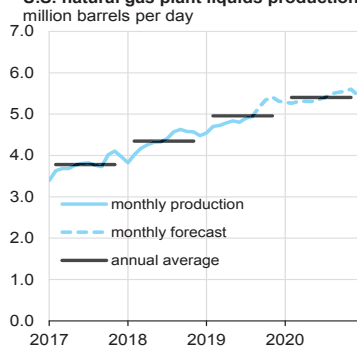


Note: Liquids fuels include: gasoline, distillate fuels, hydrocarbon gas liquids, jet fuel, residual fuel oil, unfinished oils, other hydrocarbons/oxygenates, and other oils.

Source: Short-Term Energy Outlook, September 2019

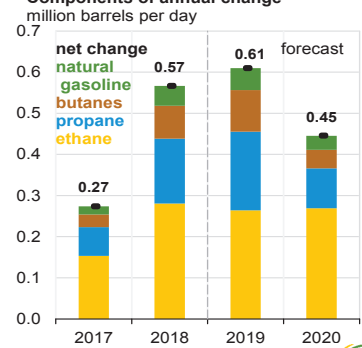


**U.S. natural gas plant liquids production**

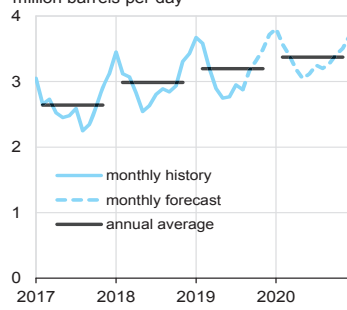


Source: Short-Term Energy Outlook, September 2019

**Components of annual change**

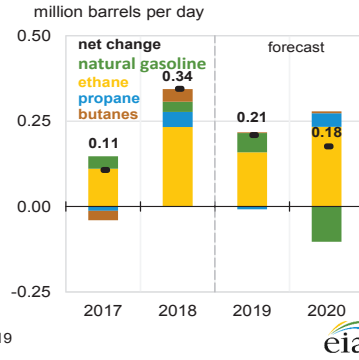


**U.S. hydrocarbon gas liquids product supplied (consumption)**  
million barrels per day

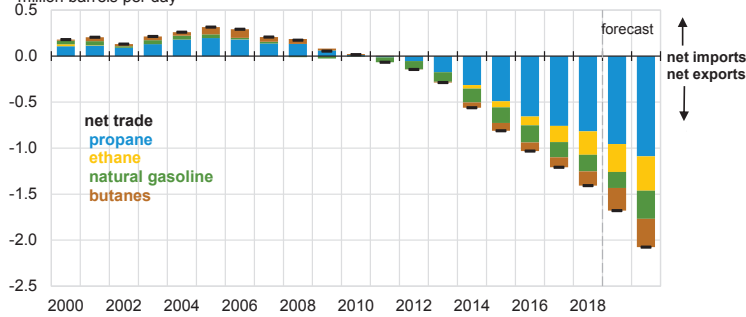


Source: Short-Term Energy Outlook, September 2019

**Components of annual change**



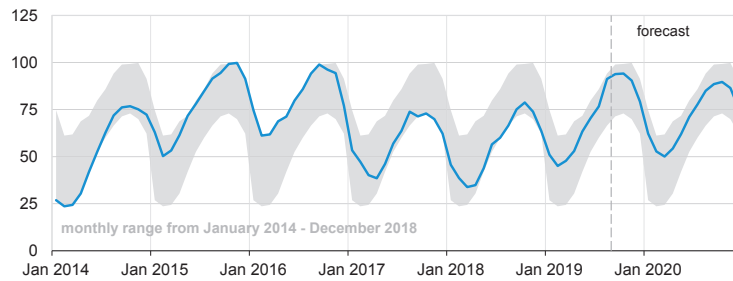
**U.S. net trade of hydrocarbon gas liquids (HGL)**  
million barrels per day



Source: Short-Term Energy Outlook, September 2019



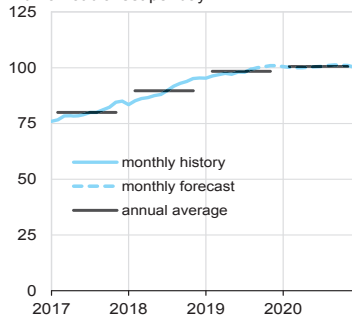
**U.S. commercial propane inventories**  
million barrels



Source: Short-Term Energy Outlook, September 2019

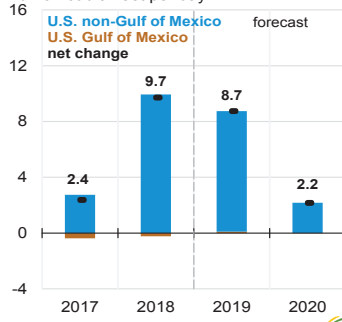


**U.S. marketed natural gas production**  
billion cubic feet per day

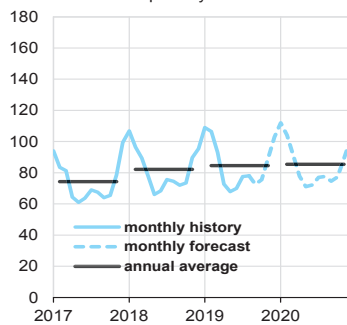


Source: Short-Term Energy Outlook, September 2019

**Components of annual change**  
billion cubic feet per day

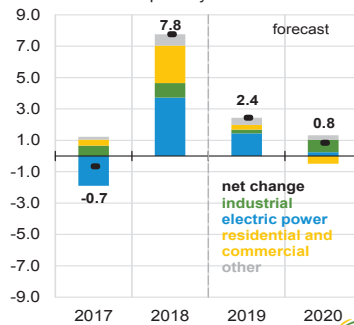


**U.S. natural gas consumption**  
billion cubic feet per day

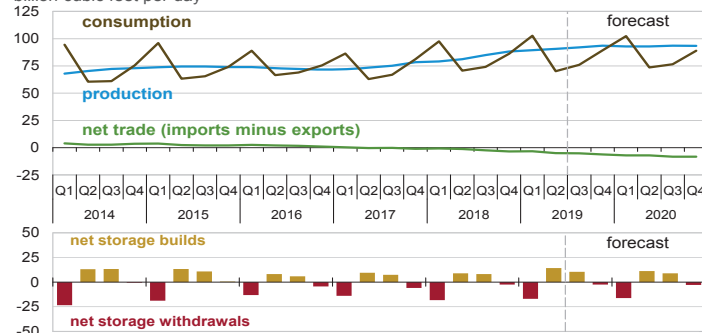


Source: Short-Term Energy Outlook, September 2019

**Components of annual change**  
billion cubic feet per day



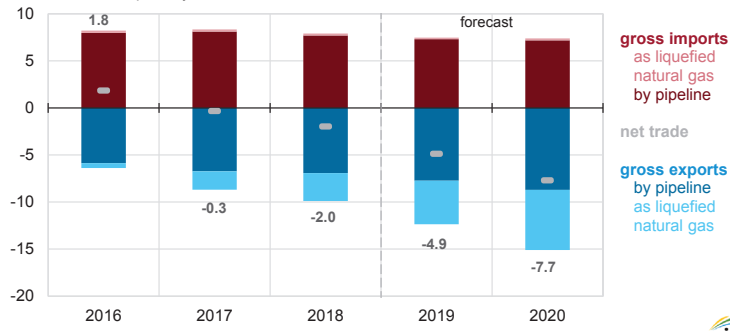
**U.S. natural gas production, consumption, and net imports**  
billion cubic feet per day



Source: Short-Term Energy Outlook, September 2019



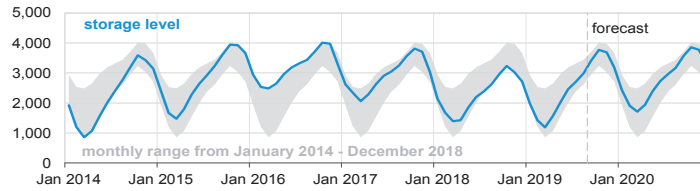
**Annual natural gas trade**  
billion cubic feet per day



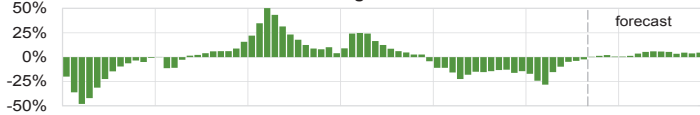
Source: Short-Term Energy Outlook, September 2019



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



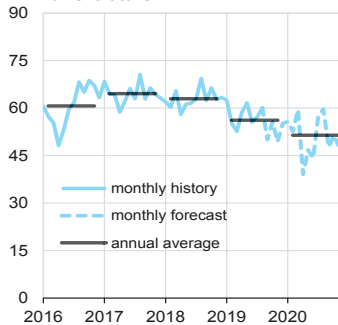
**Percent deviation from 2014 - 2018 average**



Source: Short-Term Energy Outlook, September 2019

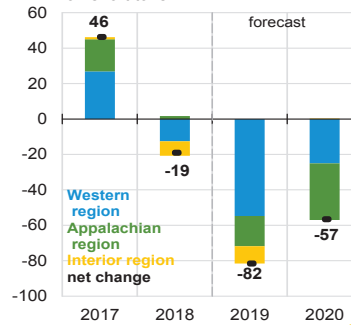


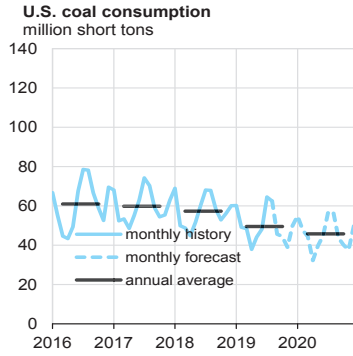
**U.S. coal production**  
million short tons



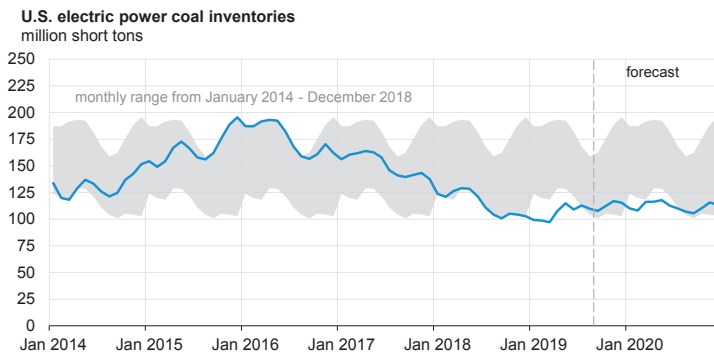
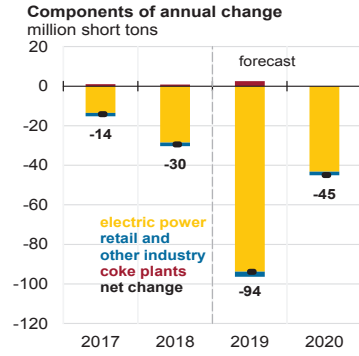
Source: Short-Term Energy Outlook, September 2019

**Components of annual change**  
million short tons

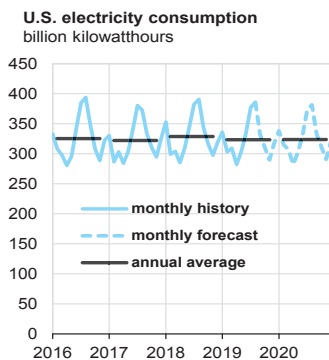




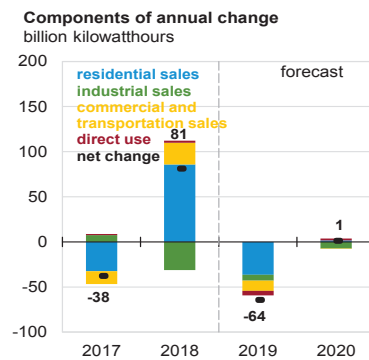
Source: Short-Term Energy Outlook, September 2019



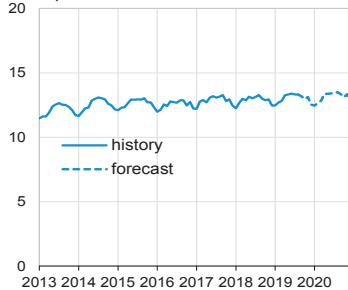
Source: Short-Term Energy Outlook, September 2019



Source: Short-Term Energy Outlook, September 2019

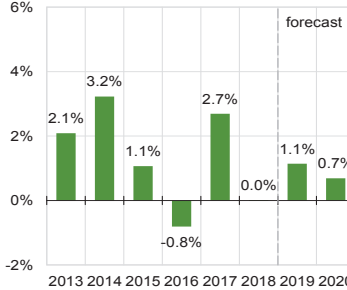


**U.S. monthly residential electricity price**  
cents per kilowatt-hour

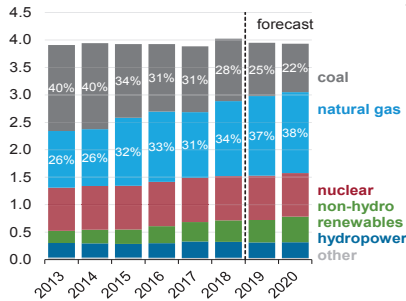


Source: Short-Term Energy Outlook, September 2019

**Annual growth in residential electricity prices**  
percent



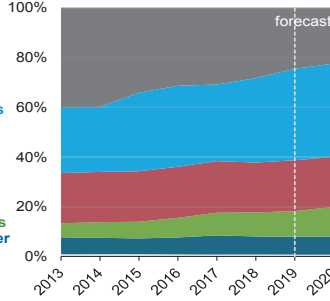
**U.S. electricity generation by fuel, all sectors**  
billion kilowatt-hours



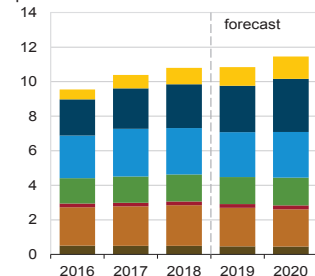
Note: Labels show percentage share of total generation provided by coal and natural gas.

Source: Short-Term Energy Outlook, September 2019

percent share



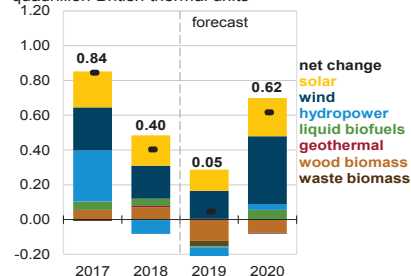
**U.S. renewable energy supply**  
quadrillion British thermal units



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.

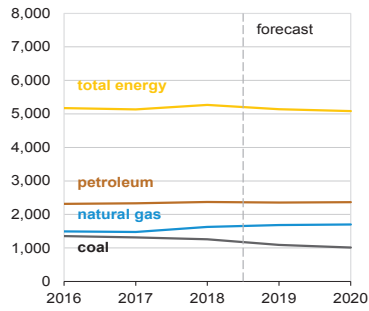
Source: Short-Term Energy Outlook, September 2019

**Components of annual change**  
quadrillion British thermal units



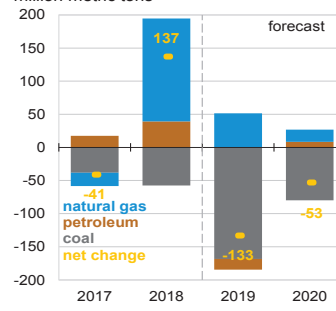


**U.S. annual carbon emissions by source**  
million metric tons

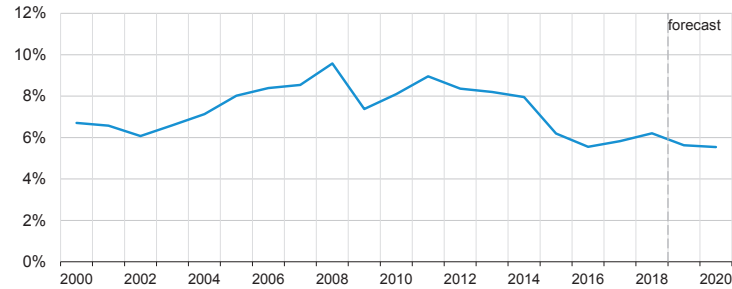


Source: Short-Term Energy Outlook, September 2019

**Components of annual change**  
million metric tons



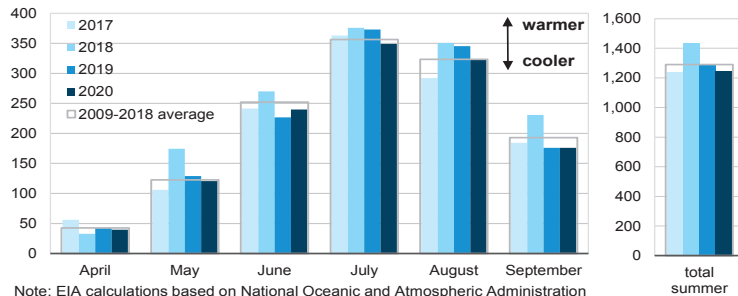
**U.S. annual energy expenditures**  
share of gross domestic product



Source: Short-Term Energy Outlook, September 2019



**U.S. summer cooling degree days**  
population-weighted

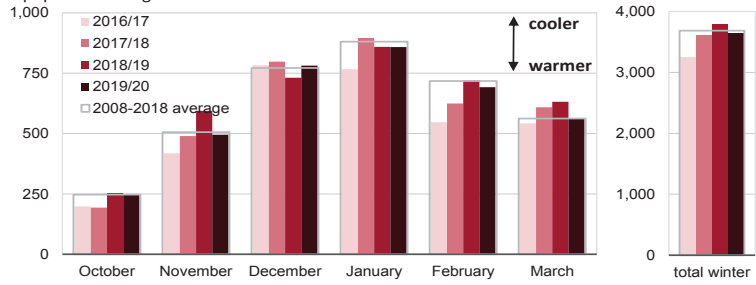


Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

Source: Short-Term Energy Outlook, September 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, September 2019



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

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

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>Energy Supply</b>															
Crude Oil Production (a) (million barrels per day) .....	<b>10.27</b>	<b>10.54</b>	<b>11.25</b>	<b>11.89</b>	<b>11.81</b>	<b>12.11</b>	12.24	12.78	13.01	13.19	13.30	13.44	<b>10.99</b>	12.24	13.23
Dry Natural Gas Production (billion cubic feet per day) .....	<b>79.13</b>	<b>81.17</b>	<b>84.95</b>	<b>88.21</b>	<b>89.42</b>	<b>90.60</b>	91.98	93.52	92.97	92.92	93.54	93.32	<b>83.39</b>	91.39	93.19
Coal Production (million short tons) .....	<b>188</b>	<b>181</b>	<b>195</b>	<b>192</b>	<b>170</b>	<b>176</b>	167	160	168	130	165	154	<b>756</b>	674	617
<b>Energy Consumption</b>															
Liquid Fuels (million barrels per day) .....	<b>20.24</b>	<b>20.33</b>	<b>20.63</b>	<b>20.60</b>	<b>20.29</b>	<b>20.37</b>	20.72	20.95	20.45	20.67	21.22	21.04	<b>20.45</b>	20.59	20.85
Natural Gas (billion cubic feet per day) .....	<b>97.60</b>	<b>70.70</b>	<b>74.09</b>	<b>86.12</b>	<b>102.71</b>	<b>70.21</b>	76.08	89.28	102.34	73.64	76.46		<b>82.07</b>	84.51	85.34
Coal (b) (million short tons) .....	<b>168</b>	<b>157</b>	<b>194</b>	<b>169</b>	<b>158</b>	<b>130</b>	173	133	147	117	158	127	<b>687</b>	593	548
Electricity (billion kilowatt hours per day) .....	<b>10.62</b>	<b>10.33</b>	<b>12.14</b>	<b>10.14</b>	<b>10.54</b>	<b>10.10</b>	11.90	9.98	10.55	10.04	11.81	10.02	<b>10.81</b>	10.63	10.61
Renewables (c) (quadrillion Btu) .....	<b>2.92</b>	<b>3.10</b>	<b>2.72</b>	<b>2.74</b>	<b>2.83</b>	<b>3.15</b>	2.77	2.81	2.97	3.28	2.94	2.97	<b>11.48</b>	11.56	12.15
Total Energy Consumption (d) (quadrillion Btu) .....	<b>26.41</b>	<b>24.05</b>	<b>25.16</b>	<b>25.61</b>	<b>26.54</b>	<b>23.44</b>	24.70	25.13	26.34	23.34	24.66	25.12	<b>101.24</b>	99.81	99.46
<b>Energy Prices</b>															
Crude Oil West Texas Intermediate Spot (dollars per barrel) .....	<b>62.90</b>	<b>68.07</b>	<b>69.69</b>	<b>59.59</b>	<b>54.82</b>	<b>59.94</b>	55.59	54.83	56.50	56.50	56.50	56.50	<b>65.06</b>	56.31	56.50
Natural Gas Henry Hub Spot (dollars per million Btu) .....	<b>3.02</b>	<b>2.85</b>	<b>2.93</b>	<b>3.80</b>	<b>2.92</b>	<b>2.56</b>	2.31	2.44	2.70	2.41	2.46	2.61	<b>3.15</b>	2.56	2.55
Coal (dollars per million Btu) .....	<b>2.06</b>	<b>2.06</b>	<b>2.06</b>	<b>2.08</b>	<b>2.08</b>	<b>2.08</b>	2.09	2.09	2.11	2.12	2.10	2.10	<b>2.06</b>	2.09	2.11
<b>Macroeconomic</b>															
Real Gross Domestic Product (billion chained 2012 dollars - SAAR) .....	<b>18,438</b>	<b>18,598</b>	<b>18,733</b>	<b>18,784</b>	<b>18,927</b>	<b>19,024</b>	19,115	19,229	19,346	19,458	19,562	19,660	<b>18,638</b>	19,074	19,507
Percent change from prior year .....	<b>2.9</b>	<b>3.2</b>	<b>3.1</b>	<b>2.5</b>	<b>2.7</b>	<b>2.3</b>	2.0	2.4	2.2	2.3	2.3	2.2	<b>2.9</b>	2.3	2.3
GDP Implicit Price Deflator (Index, 2012=100) .....	<b>109.3</b>	<b>110.2</b>	<b>110.8</b>	<b>111.2</b>	<b>111.5</b>	<b>112.2</b>	112.8	113.5	114.2	114.9	115.7	116.5	<b>110.4</b>	112.5	115.3
Percent change from prior year .....	<b>2.1</b>	<b>2.6</b>	<b>2.5</b>	<b>2.3</b>	<b>2.0</b>	<b>1.8</b>	1.8	2.0	2.4	2.5	2.6	2.6	<b>2.4</b>	1.9	2.5
Real Disposable Personal Income (billion chained 2012 dollars - SAAR) .....	<b>14,400</b>	<b>14,496</b>	<b>14,613</b>	<b>14,715</b>	<b>14,876</b>	<b>14,967</b>	15,053	15,119	15,215	15,322	15,422	15,523	<b>14,556</b>	15,003	15,371
Percent change from prior year .....	<b>3.9</b>	<b>3.9</b>	<b>4.1</b>	<b>3.9</b>	<b>3.3</b>	<b>3.2</b>	3.0	2.7	2.3	2.4	2.5	2.7	<b>4.0</b>	3.1	2.4
Manufacturing Production Index (Index, 2012=100) .....	<b>104.8</b>	<b>105.5</b>	<b>106.6</b>	<b>107.0</b>	<b>106.5</b>	<b>105.7</b>	105.9	105.6	106.0	106.3	106.8	107.3	<b>106.0</b>	105.9	106.6
Percent change from prior year .....	<b>2.4</b>	<b>2.2</b>	<b>3.6</b>	<b>2.5</b>	<b>1.6</b>	<b>0.2</b>	-0.6	-1.3	-0.4	0.6	0.9	1.6	<b>2.7</b>	0.0	0.7
<b>Weather</b>															
U.S. Heating Degree-Days .....	<b>2,130</b>	<b>522</b>	<b>48</b>	<b>1,579</b>	<b>2,211</b>	<b>480</b>	70	1,526	2,112	477	74	1,513	<b>4,279</b>	4,288	4,177
U.S. Cooling Degree-Days .....	<b>52</b>	<b>477</b>	<b>958</b>	<b>98</b>	<b>45</b>	<b>398</b>	894	92	43	400	849	93	<b>1,584</b>	1,429	1,384

- = 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 (MER). 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 - September 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>Crude Oil</b> (dollars per barrel)															
West Texas Intermediate Spot Average .....	<b>62.90</b>	<b>68.07</b>	<b>69.69</b>	<b>59.59</b>	<b>54.82</b>	<b>59.94</b>	<i>55.59</i>	<i>54.83</i>	<i>56.50</i>	<i>56.50</i>	<i>56.50</i>	<i>56.50</i>	<b>65.06</b>	<i>56.31</i>	<i>56.50</i>
Brent Spot Average .....	<b>66.84</b>	<b>74.53</b>	<b>75.02</b>	<b>68.29</b>	<b>63.14</b>	<b>69.07</b>	<i>61.02</i>	<i>60.33</i>	<i>62.00</i>	<i>62.00</i>	<i>62.00</i>	<i>62.00</i>	<b>71.19</b>	<i>63.39</i>	<i>62.00</i>
U.S. Imported Average .....	<b>58.25</b>	<b>64.59</b>	<b>66.23</b>	<b>55.35</b>	<b>55.25</b>	<b>61.66</b>	<i>53.59</i>	<i>50.58</i>	<i>51.06</i>	<i>51.06</i>	<i>51.06</i>	<i>51.06</i>	<b>61.38</b>	<i>55.25</i>	<i>51.06</i>
U.S. Refiner Average Acquisition Cost .....	<b>61.94</b>	<b>67.27</b>	<b>69.08</b>	<b>59.39</b>	<b>56.93</b>	<b>61.19</b>	<i>53.95</i>	<i>52.68</i>	<i>53.86</i>	<i>53.86</i>	<i>53.86</i>	<i>53.86</i>	<b>64.48</b>	<i>56.14</i>	<i>53.86</i>
<b>U.S. Liquid Fuels</b> (cents per gallon)															
<b>Refiner Prices for Resale</b>															
Gasoline .....	<b>186</b>	<b>213</b>	<b>213</b>	<b>178</b>	<b>167</b>	<b>205</b>	<i>180</i>	<i>165</i>	<i>179</i>	<i>191</i>	<i>187</i>	<i>173</i>	<b>198</b>	<i>180</i>	<i>183</i>
Diesel Fuel .....	<b>199</b>	<b>219</b>	<b>222</b>	<b>212</b>	<b>192</b>	<b>203</b>	<i>192</i>	<i>200</i>	<i>210</i>	<i>216</i>	<i>215</i>	<i>215</i>	<b>213</b>	<i>197</i>	<i>214</i>
Heating Oil .....	<b>193</b>	<b>205</b>	<b>214</b>	<b>201</b>	<b>189</b>	<b>194</b>	<i>184</i>	<i>193</i>	<i>205</i>	<i>205</i>	<i>206</i>	<i>207</i>	<b>200</b>	<i>190</i>	<i>206</i>
<b>Refiner Prices to End Users</b>															
Jet Fuel .....	<b>197</b>	<b>217</b>	<b>220</b>	<b>212</b>	<b>193</b>	<b>204</b>	<i>191</i>	<i>197</i>	<i>208</i>	<i>212</i>	<i>212</i>	<i>210</i>	<b>212</b>	<i>196</i>	<i>210</i>
No. 6 Residual Fuel Oil (a) .....	<b>149</b>	<b>162</b>	<b>176</b>	<b>175</b>	<b>153</b>	<b>164</b>	<i>139</i>	<i>118</i>	<i>97</i>	<i>100</i>	<i>103</i>	<i>102</i>	<b>166</b>	<i>141</i>	<i>101</i>
<b>Retail Prices Including Taxes</b>															
Gasoline Regular Grade (b) .....	<b>258</b>	<b>285</b>	<b>284</b>	<b>262</b>	<b>236</b>	<b>279</b>	<i>262</i>	<i>245</i>	<i>255</i>	<i>272</i>	<i>270</i>	<i>255</i>	<b>273</b>	<i>256</i>	<i>263</i>
Gasoline All Grades (b) .....	<b>270</b>	<b>294</b>	<b>292</b>	<b>271</b>	<b>245</b>	<b>288</b>	<i>271</i>	<i>256</i>	<i>267</i>	<i>284</i>	<i>283</i>	<i>268</i>	<b>282</b>	<i>265</i>	<i>276</i>
On-highway Diesel Fuel .....	<b>302</b>	<b>320</b>	<b>324</b>	<b>327</b>	<b>302</b>	<b>312</b>	<i>301</i>	<i>303</i>	<i>310</i>	<i>317</i>	<i>317</i>	<i>319</i>	<b>318</b>	<i>305</i>	<i>316</i>
Heating Oil .....	<b>287</b>	<b>298</b>	<b>325</b>	<b>316</b>	<b>300</b>	<b>305</b>	<i>283</i>	<i>289</i>	<i>303</i>	<i>294</i>	<i>294</i>	<i>302</i>	<b>301</b>	<i>295</i>	<i>300</i>
<b>Natural Gas</b>															
Henry Hub Spot (dollars per thousand cubic feet) .....	<b>3.13</b>	<b>2.96</b>	<b>3.04</b>	<b>3.95</b>	<b>3.03</b>	<b>2.66</b>	<i>2.40</i>	<i>2.54</i>	<i>2.80</i>	<i>2.51</i>	<i>2.55</i>	<i>2.71</i>	<b>3.27</b>	<i>2.66</i>	<i>2.64</i>
Henry Hub Spot (dollars per million Btu) .....	<b>3.02</b>	<b>2.85</b>	<b>2.93</b>	<b>3.80</b>	<b>2.92</b>	<b>2.56</b>	<i>2.31</i>	<i>2.44</i>	<i>2.70</i>	<i>2.41</i>	<i>2.46</i>	<i>2.61</i>	<b>3.15</b>	<i>2.56</i>	<i>2.55</i>
<b>U.S. Retail Prices</b> (dollars per thousand cubic feet)															
Industrial Sector .....	<b>4.44</b>	<b>3.83</b>	<b>3.73</b>	<b>4.71</b>	<b>4.68</b>	<b>3.75</b>	<i>3.30</i>	<i>3.68</i>	<i>4.13</i>	<i>3.50</i>	<i>3.43</i>	<i>3.83</i>	<b>4.20</b>	<i>3.87</i>	<i>3.75</i>
Commercial Sector .....	<b>7.64</b>	<b>8.08</b>	<b>8.77</b>	<b>7.61</b>	<b>7.62</b>	<b>8.00</b>	<i>8.22</i>	<i>7.35</i>	<i>7.28</i>	<i>7.80</i>	<i>8.21</i>	<i>7.46</i>	<b>7.82</b>	<i>7.67</i>	<i>7.53</i>
Residential Sector .....	<b>9.37</b>	<b>11.93</b>	<b>17.93</b>	<b>9.97</b>	<b>9.46</b>	<b>12.45</b>	<i>16.53</i>	<i>10.27</i>	<i>9.34</i>	<i>11.95</i>	<i>16.55</i>	<i>10.49</i>	<b>10.49</b>	<i>10.57</i>	<i>10.55</i>
<b>U.S. Electricity</b>															
<b>Power Generation Fuel Costs</b> (dollars per million Btu)															
Coal .....	<b>2.06</b>	<b>2.06</b>	<b>2.06</b>	<b>2.08</b>	<b>2.08</b>	<b>2.08</b>	<i>2.09</i>	<i>2.09</i>	<i>2.11</i>	<i>2.12</i>	<i>2.10</i>	<i>2.10</i>	<b>2.06</b>	<i>2.09</i>	<i>2.11</i>
Natural Gas .....	<b>3.96</b>	<b>3.09</b>	<b>3.23</b>	<b>4.05</b>	<b>3.71</b>	<b>2.67</b>	<i>2.32</i>	<i>2.69</i>	<i>3.14</i>	<i>2.53</i>	<i>2.50</i>	<i>2.84</i>	<b>3.54</b>	<i>2.79</i>	<i>2.73</i>
Residual Fuel Oil (c) .....	<b>11.47</b>	<b>13.02</b>	<b>14.02</b>	<b>14.49</b>	<b>12.22</b>	<b>13.79</b>	<i>12.36</i>	<i>11.58</i>	<i>12.17</i>	<i>13.04</i>	<i>12.38</i>	<i>12.13</i>	<b>12.95</b>	<i>12.48</i>	<i>12.41</i>
Distillate Fuel Oil .....	<b>15.77</b>	<b>16.61</b>	<b>16.82</b>	<b>16.01</b>	<b>14.85</b>	<b>15.83</b>	<i>14.90</i>	<i>15.58</i>	<i>16.26</i>	<i>16.71</i>	<i>16.63</i>	<i>16.68</i>	<b>16.13</b>	<i>15.28</i>	<i>16.55</i>
<b>Retail Prices</b> (cents per kilowatthour)															
Industrial Sector .....	<b>6.81</b>	<b>6.87</b>	<b>7.22</b>	<b>6.82</b>	<b>6.66</b>	<b>6.77</b>	<i>7.09</i>	<i>6.69</i>	<i>6.65</i>	<i>6.81</i>	<i>7.21</i>	<i>6.78</i>	<b>6.93</b>	<i>6.81</i>	<i>6.87</i>
Commercial Sector .....	<b>10.54</b>	<b>10.60</b>	<b>10.89</b>	<b>10.55</b>	<b>10.41</b>	<b>10.66</b>	<i>10.90</i>	<i>10.51</i>	<i>10.31</i>	<i>10.58</i>	<i>10.93</i>	<i>10.61</i>	<b>10.66</b>	<i>10.63</i>	<i>10.62</i>
Residential Sector .....	<b>12.59</b>	<b>13.03</b>	<b>13.15</b>	<b>12.75</b>	<b>12.66</b>	<b>13.33</b>	<i>13.28</i>	<i>12.85</i>	<i>12.64</i>	<i>13.38</i>	<i>13.42</i>	<i>13.06</i>	<b>12.89</b>	<i>13.04</i>	<i>13.13</i>

- = no data available

Prices are not adjusted for inflation.

(a) Average for all sulfur contents.

(b) Average self-service cash price.

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

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

Prices exclude taxes unless otherwise noted.

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

*Weekly Petroleum Status Report*, DOE/EIA-0208; *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; and *Monthly Energy Review*, DOE/EIA-0035.

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

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

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

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

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

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>Supply (million barrels per day) (a)</b>															
OECD .....	29.17	29.32	30.47	31.41	31.03	31.20	31.87	33.05	33.19	33.53	33.77	34.31	<b>30.10</b>	31.79	33.70
U.S. (50 States) .....	16.80	17.39	18.41	19.03	18.91	19.43	19.79	20.73	20.89	21.22	21.48	21.71	<b>17.91</b>	19.72	21.33
Canada .....	5.32	5.10	5.33	5.55	5.38	5.35	5.44	5.50	5.45	5.44	5.49	5.54	<b>5.33</b>	5.42	5.48
Mexico .....	2.17	2.13	2.09	1.95	1.91	1.91	2.01	2.03	2.01	1.98	1.96	1.94	<b>2.08</b>	1.96	1.97
Other OECD .....	4.88	4.69	4.64	4.87	4.82	4.52	4.63	4.78	4.85	4.88	4.83	5.10	<b>4.77</b>	4.69	4.92
Non-OECD .....	70.20	70.53	71.02	70.99	69.23	69.12	69.45	69.27	68.13	69.07	69.42	68.87	<b>70.69</b>	69.27	68.87
OPEC .....	37.46	37.07	37.34	37.29	35.83	35.41	35.15	35.15	34.66	34.66	34.82	34.58	<b>37.29</b>	35.38	34.68
Crude Oil Portion .....	32.10	31.78	32.02	31.93	30.47	30.02	29.75	29.90	29.57	29.59	29.75	29.48	<b>31.96</b>	30.03	29.60
Other Liquids (b) .....	5.36	5.29	5.33	5.36	5.36	5.39	5.40	5.25	5.09	5.06	5.07	5.10	<b>5.33</b>	5.35	5.08
Eurasia .....	14.44	14.44	14.63	14.89	14.88	14.45	14.55	14.68	14.60	14.55	14.57	14.62	<b>14.60</b>	14.64	14.59
China .....	4.78	4.83	4.77	4.86	4.93	4.97	4.94	4.95	4.93	4.96	4.96	5.01	<b>4.81</b>	4.95	4.97
Other Non-OECD .....	13.52	14.19	14.27	13.96	13.59	14.30	14.82	14.49	13.94	14.89	15.06	14.66	<b>13.99</b>	14.30	14.64
Total World Supply .....	99.37	99.85	101.49	102.40	100.26	100.32	101.33	102.31	101.33	102.59	103.18	103.17	<b>100.79</b>	101.06	102.57
Non-OPEC Supply .....	61.91	62.78	64.15	65.11	64.43	64.91	66.17	67.17	66.67	67.94	68.36	68.59	<b>63.50</b>	65.68	67.89
<b>Consumption (million barrels per day) (c)</b>															
OECD .....	47.62	47.01	47.92	47.52	47.19	46.82	47.78	48.10	47.51	47.00	48.27	48.27	<b>47.52</b>	47.47	47.76
U.S. (50 States) .....	20.24	20.33	20.63	20.60	20.29	20.37	20.72	20.95	20.45	20.67	21.22	21.04	<b>20.45</b>	20.59	20.85
U.S. Territories .....	0.10	0.08	0.09	0.11	0.12	0.11	0.12	0.13	0.12	0.11	0.12	0.13	<b>0.10</b>	0.12	0.12
Canada .....	2.34	2.37	2.58	2.51	2.37	2.34	2.53	2.50	2.46	2.40	2.50	2.48	<b>2.45</b>	2.44	2.46
Europe .....	14.00	14.18	14.61	14.04	13.85	14.13	14.57	14.27	13.93	14.13	14.64	14.34	<b>14.21</b>	14.21	14.26
Japan .....	4.31	3.46	3.56	3.92	4.09	3.40	3.46	3.82	4.08	3.34	3.42	3.76	<b>3.81</b>	3.69	3.65
Other OECD .....	6.63	6.59	6.44	6.34	6.48	6.47	6.39	6.42	6.47	6.34	6.37	6.52	<b>6.50</b>	6.44	6.43
Non-OECD .....	51.56	52.60	52.57	52.91	52.62	53.50	53.54	53.72	53.61	54.64	54.66	54.89	<b>52.41</b>	53.35	54.45
Eurasia .....	4.80	4.84	5.11	4.99	4.79	4.86	5.13	5.08	4.84	4.93	5.31	5.21	<b>4.94</b>	4.97	5.07
Europe .....	0.75	0.74	0.76	0.76	0.75	0.75	0.77	0.77	0.76	0.76	0.78	0.78	<b>0.75</b>	0.76	0.77
China .....	13.80	14.00	13.73	13.95	14.28	14.57	14.30	14.51	14.83	15.03	14.74	14.97	<b>13.87</b>	14.42	14.89
Other Asia .....	13.77	14.02	13.60	14.00	14.13	14.18	13.87	14.20	14.36	14.53	14.11	14.46	<b>13.85</b>	14.09	14.37
Other Non-OECD .....	18.44	19.00	19.36	19.20	18.66	19.13	19.47	19.16	18.82	19.39	19.72	19.47	<b>19.00</b>	19.11	19.35
Total World Consumption .....	99.17	99.62	100.49	100.43	99.81	100.32	101.32	101.83	101.12	101.64	102.93	103.16	<b>99.93</b>	100.82	102.22
<b>Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)</b>															
U.S. (50 States) .....	0.36	-0.06	-0.70	0.22	0.15	-0.60	-0.02	0.32	-0.02	-0.45	-0.16	0.31	<b>-0.05</b>	-0.04	-0.08
Other OECD .....	-0.01	0.12	0.18	-0.08	-0.21	0.24	0.00	-0.27	-0.06	-0.16	-0.03	-0.11	<b>0.05</b>	-0.06	-0.09
Other Stock Draws and Balance .....	-0.55	-0.29	-0.49	-2.11	-0.39	0.36	0.01	-0.53	-0.12	-0.34	-0.06	-0.22	<b>-0.86</b>	-0.14	-0.19
Total Stock Draw .....	-0.20	-0.23	-1.00	-1.97	-0.45	-0.01	-0.01	-0.49	-0.21	-0.95	-0.25	-0.02	<b>-0.86</b>	-0.24	-0.36
<b>End-of-period Commercial Crude Oil and Other Liquids Inventories (million barrels)</b>															
U.S. Commercial Inventory .....	1,196	1,207	1,272	1,262	1,249	1,308	1,310	1,291	1,294	1,336	1,351	1,326	<b>1,262</b>	1,291	1,326
OECD Commercial Inventory .....	2,805	2,805	2,856	2,861	2,863	2,903	2,905	2,911	2,919	2,976	2,994	2,978	<b>2,861</b>	2,911	2,978

- = 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 - September 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>North America</b> .....	<b>24.29</b>	<b>24.63</b>	<b>25.83</b>	<b>26.54</b>	<b>26.21</b>	<b>26.69</b>	<i>27.24</i>	<i>28.26</i>	<i>28.34</i>	<i>28.65</i>	<i>28.93</i>	<i>29.20</i>	<b>25.33</b>	<i>27.10</i>	<i>28.78</i>
Canada .....	<b>5.32</b>	<b>5.10</b>	<b>5.33</b>	<b>5.55</b>	<b>5.38</b>	<b>5.35</b>	<i>5.44</i>	<i>5.50</i>	<i>5.45</i>	<i>5.44</i>	<i>5.49</i>	<i>5.54</i>	<b>5.33</b>	<i>5.42</i>	<i>5.48</i>
Mexico .....	<b>2.17</b>	<b>2.13</b>	<b>2.09</b>	<b>1.95</b>	<b>1.91</b>	<b>1.91</b>	<i>2.01</i>	<i>2.03</i>	<i>2.01</i>	<i>1.98</i>	<i>1.96</i>	<i>1.94</i>	<b>2.08</b>	<i>1.96</i>	<i>1.97</i>
United States .....	<b>16.80</b>	<b>17.39</b>	<b>18.41</b>	<b>19.03</b>	<b>18.91</b>	<b>19.43</b>	<i>19.79</i>	<i>20.73</i>	<i>20.89</i>	<i>21.22</i>	<i>21.48</i>	<i>21.71</i>	<b>17.91</b>	<i>19.72</i>	<i>21.33</i>
<b>Central and South America</b> .....	<b>4.90</b>	<b>5.65</b>	<b>5.72</b>	<b>5.36</b>	<b>4.90</b>	<b>5.67</b>	<i>6.14</i>	<i>5.75</i>	<i>5.23</i>	<i>6.21</i>	<i>6.38</i>	<i>6.00</i>	<b>5.41</b>	<i>5.62</i>	<i>5.95</i>
Argentina .....	<b>0.67</b>	<b>0.69</b>	<b>0.68</b>	<b>0.68</b>	<b>0.66</b>	<b>0.70</b>	<i>0.67</i>	<i>0.67</i>	<i>0.69</i>	<i>0.71</i>	<i>0.69</i>	<i>0.69</i>	<b>0.68</b>	<i>0.68</i>	<i>0.69</i>
Brazil .....	<b>2.95</b>	<b>3.64</b>	<b>3.75</b>	<b>3.36</b>	<b>2.91</b>	<b>3.64</b>	<i>4.19</i>	<i>3.77</i>	<i>3.22</i>	<i>4.19</i>	<i>4.42</i>	<i>4.01</i>	<b>3.43</b>	<i>3.63</i>	<i>3.96</i>
Colombia .....	<b>0.86</b>	<b>0.89</b>	<b>0.89</b>	<b>0.91</b>	<b>0.92</b>	<b>0.92</b>	<i>0.89</i>	<i>0.90</i>	<i>0.91</i>	<i>0.91</i>	<i>0.88</i>	<i>0.90</i>	<b>0.89</b>	<i>0.91</i>	<i>0.90</i>
Other Central and S. America .....	<b>0.42</b>	<b>0.43</b>	<b>0.40</b>	<b>0.41</b>	<b>0.41</b>	<b>0.41</b>	<i>0.39</i>	<i>0.40</i>	<i>0.40</i>	<i>0.39</i>	<i>0.39</i>	<i>0.40</i>	<b>0.41</b>	<i>0.40</i>	<i>0.40</i>
<b>Europe</b> .....	<b>4.37</b>	<b>4.20</b>	<b>4.12</b>	<b>4.32</b>	<b>4.27</b>	<b>3.96</b>	<i>4.14</i>	<i>4.27</i>	<i>4.32</i>	<i>4.34</i>	<i>4.29</i>	<i>4.56</i>	<b>4.25</b>	<i>4.16</i>	<i>4.38</i>
Norway .....	<b>1.97</b>	<b>1.80</b>	<b>1.81</b>	<b>1.87</b>	<b>1.79</b>	<b>1.58</b>	<i>1.76</i>	<i>1.79</i>	<i>1.85</i>	<i>1.87</i>	<i>1.93</i>	<i>2.10</i>	<b>1.86</b>	<i>1.73</i>	<i>1.94</i>
United Kingdom .....	<b>1.16</b>	<b>1.17</b>	<b>1.10</b>	<b>1.22</b>	<b>1.26</b>	<b>1.18</b>	<i>1.18</i>	<i>1.25</i>	<i>1.26</i>	<i>1.26</i>	<i>1.15</i>	<i>1.24</i>	<b>1.16</b>	<i>1.22</i>	<i>1.22</i>
<b>Eurasia</b> .....	<b>14.44</b>	<b>14.44</b>	<b>14.63</b>	<b>14.89</b>	<b>14.88</b>	<b>14.45</b>	<i>14.55</i>	<i>14.68</i>	<i>14.60</i>	<i>14.55</i>	<i>14.57</i>	<i>14.62</i>	<b>14.60</b>	<i>14.64</i>	<i>14.59</i>
Azerbaijan .....	<b>0.81</b>	<b>0.81</b>	<b>0.80</b>	<b>0.81</b>	<b>0.82</b>	<b>0.79</b>	<i>0.77</i>	<i>0.79</i>	<i>0.77</i>	<i>0.77</i>	<i>0.76</i>	<i>0.76</i>	<b>0.81</b>	<i>0.79</i>	<i>0.76</i>
Kazakhstan .....	<b>1.98</b>	<b>1.96</b>	<b>1.90</b>	<b>2.00</b>	<b>2.03</b>	<b>1.86</b>	<i>1.91</i>	<i>2.06</i>	<i>2.01</i>	<i>1.97</i>	<i>2.00</i>	<i>2.05</i>	<b>1.96</b>	<i>1.96</i>	<i>2.01</i>
Russia .....	<b>11.20</b>	<b>11.24</b>	<b>11.50</b>	<b>11.66</b>	<b>11.58</b>	<b>11.41</b>	<i>11.45</i>	<i>11.43</i>	<i>11.43</i>	<i>11.43</i>	<i>11.43</i>	<i>11.43</i>	<b>11.40</b>	<i>11.47</i>	<i>11.43</i>
Turkmenistan .....	<b>0.30</b>	<b>0.28</b>	<b>0.28</b>	<b>0.27</b>	<b>0.30</b>	<b>0.24</b>	<i>0.25</i>	<i>0.25</i>	<i>0.24</i>	<i>0.24</i>	<i>0.24</i>	<i>0.24</i>	<b>0.28</b>	<i>0.26</i>	<i>0.24</i>
Other Eurasia .....	<b>0.15</b>	<b>0.15</b>	<b>0.15</b>	<b>0.16</b>	<b>0.16</b>	<b>0.16</b>	<i>0.16</i>	<i>0.16</i>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	<b>0.15</b>	<i>0.16</i>	<i>0.15</i>
<b>Middle East</b> .....	<b>3.07</b>	<b>3.07</b>	<b>3.09</b>	<b>3.10</b>	<b>3.12</b>	<b>3.13</b>	<i>3.14</i>	<i>3.14</i>	<i>3.21</i>	<i>3.21</i>	<i>3.21</i>	<i>3.21</i>	<b>3.08</b>	<i>3.13</i>	<i>3.21</i>
Oman .....	<b>0.98</b>	<b>0.98</b>	<b>0.99</b>	<b>1.01</b>	<b>0.98</b>	<b>0.98</b>	<i>0.98</i>	<i>0.98</i>	<i>0.98</i>	<i>0.99</i>	<i>0.99</i>	<i>0.99</i>	<b>0.99</b>	<i>0.98</i>	<i>0.99</i>
Qatar .....	<b>1.94</b>	<b>1.94</b>	<b>1.95</b>	<b>1.94</b>	<b>1.99</b>	<b>1.99</b>	<i>2.00</i>	<i>2.00</i>	<i>2.06</i>	<i>2.06</i>	<i>2.06</i>	<i>2.06</i>	<b>1.94</b>	<i>1.99</i>	<i>2.06</i>
<b>Asia and Oceania</b> .....	<b>9.36</b>	<b>9.30</b>	<b>9.24</b>	<b>9.37</b>	<b>9.50</b>	<b>9.49</b>	<i>9.41</i>	<i>9.51</i>	<i>9.45</i>	<i>9.46</i>	<i>9.47</i>	<i>9.49</i>	<b>9.32</b>	<i>9.48</i>	<i>9.47</i>
Australia .....	<b>0.36</b>	<b>0.34</b>	<b>0.37</b>	<b>0.40</b>	<b>0.40</b>	<b>0.43</b>	<i>0.45</i>	<i>0.46</i>	<i>0.48</i>	<i>0.49</i>	<i>0.49</i>	<i>0.49</i>	<b>0.37</b>	<i>0.43</i>	<i>0.49</i>
China .....	<b>4.78</b>	<b>4.83</b>	<b>4.77</b>	<b>4.86</b>	<b>4.93</b>	<b>4.97</b>	<i>4.94</i>	<i>4.95</i>	<i>4.93</i>	<i>4.96</i>	<i>4.96</i>	<i>5.01</i>	<b>4.81</b>	<i>4.95</i>	<i>4.97</i>
India .....	<b>1.03</b>	<b>1.03</b>	<b>1.01</b>	<b>1.00</b>	<b>1.01</b>	<b>0.98</b>	<i>0.96</i>	<i>0.96</i>	<i>0.96</i>	<i>0.95</i>	<i>0.96</i>	<i>0.96</i>	<b>1.02</b>	<i>0.98</i>	<i>0.96</i>
Indonesia .....	<b>0.92</b>	<b>0.92</b>	<b>0.91</b>	<b>0.90</b>	<b>0.95</b>	<b>0.92</b>	<i>0.92</i>	<i>0.91</i>	<i>0.90</i>	<i>0.90</i>	<i>0.89</i>	<i>0.89</i>	<b>0.91</b>	<i>0.92</i>	<i>0.90</i>
Malaysia .....	<b>0.77</b>	<b>0.75</b>	<b>0.73</b>	<b>0.75</b>	<b>0.75</b>	<b>0.73</b>	<i>0.69</i>	<i>0.74</i>	<i>0.71</i>	<i>0.71</i>	<i>0.70</i>	<i>0.69</i>	<b>0.75</b>	<i>0.73</i>	<i>0.70</i>
Vietnam .....	<b>0.27</b>	<b>0.25</b>	<b>0.25</b>	<b>0.25</b>	<b>0.25</b>	<b>0.25</b>	<i>0.23</i>	<i>0.24</i>	<i>0.24</i>	<i>0.24</i>	<i>0.23</i>	<i>0.23</i>	<b>0.25</b>	<i>0.24</i>	<i>0.23</i>
<b>Africa</b> .....	<b>1.49</b>	<b>1.48</b>	<b>1.52</b>	<b>1.53</b>	<b>1.55</b>	<b>1.53</b>	<i>1.55</i>	<i>1.55</i>	<i>1.51</i>	<i>1.51</i>	<i>1.51</i>	<i>1.51</i>	<b>1.51</b>	<i>1.54</i>	<i>1.51</i>
Egypt .....	<b>0.67</b>	<b>0.66</b>	<b>0.67</b>	<b>0.67</b>	<b>0.66</b>	<b>0.63</b>	<i>0.62</i>	<i>0.62</i>	<i>0.59</i>	<i>0.59</i>	<i>0.59</i>	<i>0.59</i>	<b>0.67</b>	<i>0.63</i>	<i>0.59</i>
South Sudan .....	<b>0.12</b>	<b>0.12</b>	<b>0.12</b>	<b>0.14</b>	<b>0.17</b>	<b>0.18</b>	<i>0.18</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<b>0.13</b>	<i>0.18</i>	<i>0.19</i>
<b>Total non-OPEC liquids</b> .....	<b>61.91</b>	<b>62.78</b>	<b>64.15</b>	<b>65.11</b>	<b>64.43</b>	<b>64.91</b>	<i>66.17</i>	<i>67.17</i>	<i>66.67</i>	<i>67.94</i>	<i>68.36</i>	<i>68.59</i>	<b>63.50</b>	<i>65.68</i>	<i>67.89</i>
<b>OPEC non-crude liquids</b> .....	<b>5.36</b>	<b>5.29</b>	<b>5.33</b>	<b>5.36</b>	<b>5.36</b>	<b>5.39</b>	<i>5.40</i>	<i>5.25</i>	<i>5.09</i>	<i>5.06</i>	<i>5.07</i>	<i>5.10</i>	<b>5.33</b>	<i>5.35</i>	<i>5.08</i>
<b>Non-OPEC + OPEC non-crude</b> .....	<b>67.27</b>	<b>68.07</b>	<b>69.48</b>	<b>70.47</b>	<b>69.79</b>	<b>70.31</b>	<i>71.57</i>	<i>72.42</i>	<i>71.76</i>	<i>73.00</i>	<i>73.43</i>	<i>73.69</i>	<b>68.83</b>	<i>71.03</i>	<i>72.97</i>
<b>Unplanned non-OPEC Production Outages</b> .....	<b>0.40</b>	<b>0.27</b>	<b>0.17</b>	<b>0.31</b>	<b>0.35</b>	<b>0.26</b>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<b>0.29</b>	<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 - September 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>Crude Oil</b>															
Algeria .....	1.02	1.02	1.03	1.00	1.01	1.02	-	-	-	-	-	-	1.02	-	-
Angola .....	1.59	1.56	1.56	1.57	1.50	1.43	-	-	-	-	-	-	1.57	-	-
Congo (Brazzaville) .....	0.34	0.35	0.33	0.31	0.33	0.33	-	-	-	-	-	-	0.33	-	-
Ecuador .....	0.51	0.52	0.52	0.52	0.53	0.53	-	-	-	-	-	-	0.52	-	-
Equatorial Guinea .....	0.14	0.13	0.14	0.12	0.11	0.11	-	-	-	-	-	-	0.13	-	-
Gabon .....	0.20	0.20	0.19	0.19	0.20	0.20	-	-	-	-	-	-	0.20	-	-
Iran .....	3.83	3.80	3.55	2.90	2.63	2.33	-	-	-	-	-	-	3.52	-	-
Iraq .....	4.46	4.50	4.66	4.77	4.75	4.73	-	-	-	-	-	-	4.60	-	-
Kuwait .....	2.71	2.71	2.80	2.80	2.74	2.72	-	-	-	-	-	-	2.76	-	-
Libya .....	1.00	0.92	0.91	1.03	0.93	1.14	-	-	-	-	-	-	0.96	-	-
Nigeria .....	1.72	1.53	1.55	1.60	1.58	1.64	-	-	-	-	-	-	1.60	-	-
Saudi Arabia .....	10.10	10.20	10.47	10.74	10.00	9.92	-	-	-	-	-	-	10.38	-	-
United Arab Emirates .....	2.88	2.86	2.94	3.11	3.12	3.12	-	-	-	-	-	-	2.95	-	-
Venezuela .....	1.60	1.49	1.36	1.27	1.05	0.79	-	-	-	-	-	-	1.43	-	-
OPEC Total .....	32.10	31.78	32.02	31.93	30.47	30.02	29.75	29.90	29.57	29.59	29.75	29.48	31.96	30.03	29.60
<b>Other Liquids (a)</b> .....	5.36	5.29	5.33	5.36	5.36	5.39	5.40	5.25	5.09	5.06	5.07	5.10	5.33	5.35	5.08
<b>Total OPEC Supply</b> .....	37.46	37.07	37.34	37.29	35.83	35.41	35.15	35.15	34.66	34.66	34.82	34.58	37.29	35.38	34.68
<b>Crude Oil Production Capacity</b>															
Africa .....	6.00	5.70	5.71	5.83	5.66	5.87	5.84	5.87	5.90	5.92	5.96	5.97	5.81	5.81	5.94
Middle East .....	25.84	25.85	25.76	25.31	25.31	25.00	24.80	24.78	24.78	24.78	24.78	24.78	25.69	24.97	24.78
South America .....	2.11	2.01	1.89	1.79	1.58	1.32	1.27	1.08	0.98	0.92	0.87	0.82	1.95	1.31	0.89
OPEC Total .....	33.95	33.56	33.36	32.93	32.55	32.20	31.90	31.73	31.65	31.61	31.60	31.57	33.45	32.09	31.61
<b>Surplus Crude Oil Production Capacity</b>															
Africa .....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Middle East .....	1.86	1.78	1.34	1.00	2.08	2.18	2.15	1.83	2.09	2.02	1.85	2.09	1.49	2.06	2.01
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	1.00	2.08	2.18	2.15	1.83	2.09	2.02	1.85	2.09	1.49	2.06	2.01
<b>Unplanned OPEC Production Outages</b> .....	1.21	1.43	1.59	2.01	2.51	2.43	n/a	n/a	n/a	n/a	n/a	n/a	1.56	n/a	n/a

- = 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 - September 2019

	2018				2019				2020				2018	2019	2020
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
<b>North America</b> .....	<b>24.51</b>	<b>24.65</b>	<b>25.12</b>	<b>24.92</b>	<b>24.53</b>	<b>24.73</b>	<i>25.15</i>	<i>25.33</i>	<i>24.80</i>	<i>25.00</i>	<i>25.66</i>	<i>25.46</i>	<b>24.80</b>	<i>24.94</i>	<i>25.23</i>
Canada .....	<b>2.34</b>	<b>2.37</b>	<b>2.58</b>	<b>2.51</b>	<b>2.37</b>	<b>2.34</b>	<i>2.53</i>	<i>2.50</i>	<i>2.46</i>	<i>2.40</i>	<i>2.50</i>	<i>2.48</i>	<b>2.45</b>	<i>2.44</i>	<i>2.46</i>
Mexico .....	<b>1.91</b>	<b>1.94</b>	<b>1.89</b>	<b>1.80</b>	<b>1.86</b>	<b>2.00</b>	<i>1.89</i>	<i>1.86</i>	<i>1.89</i>	<i>1.92</i>	<i>1.92</i>	<i>1.93</i>	<b>1.89</b>	<i>1.90</i>	<i>1.91</i>
United States .....	<b>20.24</b>	<b>20.33</b>	<b>20.63</b>	<b>20.60</b>	<b>20.29</b>	<b>20.37</b>	<i>20.72</i>	<i>20.95</i>	<i>20.45</i>	<i>20.67</i>	<i>21.22</i>	<i>21.04</i>	<b>20.45</b>	<i>20.59</i>	<i>20.85</i>
<b>Central and South America</b> .....	<b>6.72</b>	<b>6.76</b>	<b>6.94</b>	<b>6.95</b>	<b>6.65</b>	<b>6.78</b>	<i>6.83</i>	<i>6.82</i>	<i>6.61</i>	<i>6.75</i>	<i>6.88</i>	<i>6.90</i>	<b>6.84</b>	<i>6.77</i>	<i>6.79</i>
Brazil .....	<b>2.98</b>	<b>2.95</b>	<b>3.11</b>	<b>3.11</b>	<b>3.02</b>	<b>3.06</b>	<i>3.10</i>	<i>3.09</i>	<i>3.00</i>	<i>3.07</i>	<i>3.16</i>	<i>3.16</i>	<b>3.04</b>	<i>3.07</i>	<i>3.10</i>
<b>Europe</b> .....	<b>14.75</b>	<b>14.92</b>	<b>15.37</b>	<b>14.81</b>	<b>14.61</b>	<b>14.88</b>	<i>15.33</i>	<i>15.04</i>	<i>14.70</i>	<i>14.90</i>	<i>15.42</i>	<i>15.13</i>	<b>14.96</b>	<i>14.97</i>	<i>15.04</i>
<b>Eurasia</b> .....	<b>4.80</b>	<b>4.84</b>	<b>5.11</b>	<b>4.99</b>	<b>4.79</b>	<b>4.86</b>	<i>5.13</i>	<i>5.08</i>	<i>4.84</i>	<i>4.93</i>	<i>5.31</i>	<i>5.21</i>	<b>4.94</b>	<i>4.97</i>	<i>5.07</i>
Russia .....	<b>3.63</b>	<b>3.70</b>	<b>3.91</b>	<b>3.78</b>	<b>3.63</b>	<b>3.72</b>	<i>3.93</i>	<i>3.87</i>	<i>3.67</i>	<i>3.78</i>	<i>4.10</i>	<i>3.99</i>	<b>3.75</b>	<i>3.79</i>	<i>3.89</i>
<b>Middle East</b> .....	<b>8.02</b>	<b>8.54</b>	<b>8.81</b>	<b>8.45</b>	<b>8.26</b>	<b>8.61</b>	<i>8.95</i>	<i>8.45</i>	<i>8.34</i>	<i>8.77</i>	<i>9.07</i>	<i>8.60</i>	<b>8.46</b>	<i>8.57</i>	<i>8.70</i>
<b>Asia and Oceania</b> .....	<b>36.01</b>	<b>35.51</b>	<b>34.86</b>	<b>35.83</b>	<b>36.51</b>	<b>36.01</b>	<i>35.54</i>	<i>36.53</i>	<i>37.29</i>	<i>36.74</i>	<i>36.12</i>	<i>37.20</i>	<b>35.55</b>	<i>36.15</i>	<i>36.84</i>
China .....	<b>13.80</b>	<b>14.00</b>	<b>13.73</b>	<b>13.95</b>	<b>14.28</b>	<b>14.57</b>	<i>14.30</i>	<i>14.51</i>	<i>14.83</i>	<i>15.03</i>	<i>14.74</i>	<i>14.97</i>	<b>13.87</b>	<i>14.42</i>	<i>14.89</i>
Japan .....	<b>4.31</b>	<b>3.46</b>	<b>3.56</b>	<b>3.92</b>	<b>4.09</b>	<b>3.40</b>	<i>3.46</i>	<i>3.82</i>	<i>4.08</i>	<i>3.34</i>	<i>3.42</i>	<i>3.76</i>	<b>3.81</b>	<i>3.69</i>	<i>3.65</i>
India .....	<b>4.73</b>	<b>4.89</b>	<b>4.57</b>	<b>4.92</b>	<b>4.99</b>	<b>4.93</b>	<i>4.71</i>	<i>4.98</i>	<i>5.11</i>	<i>5.17</i>	<i>4.83</i>	<i>5.14</i>	<b>4.78</b>	<i>4.90</i>	<i>5.06</i>
<b>Africa</b> .....	<b>4.38</b>	<b>4.38</b>	<b>4.28</b>	<b>4.49</b>	<b>4.45</b>	<b>4.45</b>	<i>4.38</i>	<i>4.57</i>	<i>4.55</i>	<i>4.55</i>	<i>4.47</i>	<i>4.66</i>	<b>4.38</b>	<i>4.46</i>	<i>4.56</i>
<b>Total OECD Liquid Fuels Consumption</b> .....	<b>47.62</b>	<b>47.01</b>	<b>47.92</b>	<b>47.52</b>	<b>47.19</b>	<b>46.82</b>	<i>47.78</i>	<i>48.10</i>	<i>47.51</i>	<i>47.00</i>	<i>48.27</i>	<i>48.27</i>	<b>47.52</b>	<i>47.47</i>	<i>47.76</i>
<b>Total non-OECD Liquid Fuels Consumption</b> .....	<b>51.56</b>	<b>52.60</b>	<b>52.57</b>	<b>52.91</b>	<b>52.62</b>	<b>53.50</b>	<i>53.54</i>	<i>53.72</i>	<i>53.61</i>	<i>54.64</i>	<i>54.66</i>	<i>54.89</i>	<b>52.41</b>	<i>53.35</i>	<i>54.45</i>
<b>Total World Liquid Fuels Consumption</b> .....	<b>99.17</b>	<b>99.62</b>	<b>100.49</b>	<b>100.43</b>	<b>99.81</b>	<b>100.32</b>	<i>101.32</i>	<i>101.83</i>	<i>101.12</i>	<i>101.64</i>	<i>102.93</i>	<i>103.16</i>	<b>99.93</b>	<i>100.82</i>	<i>102.22</i>
<b>Oil-weighted Real Gross Domestic Product (a)</b>															
World Index, 2015 Q1 = 100 .....	<b>109.3</b>	<b>109.9</b>	<b>110.5</b>	<b>111.0</b>	<b>111.7</b>	<b>112.1</b>	<i>112.6</i>	<i>113.4</i>	<i>113.6</i>	<i>115.2</i>	<i>115.9</i>	<i>116.8</i>	<b>110.2</b>	<i>112.5</i>	<i>115.4</i>
Percent change from prior year .....	<b>3.3</b>	<b>3.2</b>	<b>2.9</b>	<b>2.6</b>	<b>2.2</b>	<b>2.0</b>	<i>2.0</i>	<i>2.1</i>	<i>1.7</i>	<i>2.8</i>	<i>2.9</i>	<i>3.0</i>	<b>3.0</b>	<i>2.1</i>	<i>2.6</i>
OECD Index, 2015 Q1 = 100 .....	<b>106.8</b>	<b>107.3</b>	<b>107.7</b>	<b>108.1</b>	<b>108.8</b>	<b>109.1</b>	<i>109.4</i>	<i>109.9</i>	<i>109.5</i>	<i>111.1</i>	<i>111.5</i>	<i>112.0</i>	<b>107.5</b>	<i>109.3</i>	<i>111.0</i>
Percent change from prior year .....	<b>2.7</b>	<b>2.7</b>	<b>2.3</b>	<b>1.9</b>	<b>1.9</b>	<b>1.7</b>	<i>1.6</i>	<i>1.7</i>	<i>0.7</i>	<i>1.8</i>	<i>1.9</i>	<i>2.0</i>	<b>2.4</b>	<i>1.7</i>	<i>1.6</i>
Non-OECD Index, 2015 Q1 = 100 .....	<b>111.7</b>	<b>112.4</b>	<b>113.2</b>	<b>113.9</b>	<b>114.5</b>	<b>115.0</b>	<i>115.7</i>	<i>116.8</i>	<i>117.5</i>	<i>119.2</i>	<i>120.2</i>	<i>121.5</i>	<b>112.8</b>	<i>115.5</i>	<i>119.6</i>
Percent change from prior year .....	<b>3.9</b>	<b>3.8</b>	<b>3.4</b>	<b>3.2</b>	<b>2.5</b>	<b>2.3</b>	<i>2.3</i>	<i>2.6</i>	<i>2.7</i>	<i>3.7</i>	<i>3.9</i>	<i>4.0</i>	<b>3.6</b>	<i>2.4</i>	<i>3.6</i>
<b>Real U.S. Dollar Exchange Rate (a)</b>															
Index, 2015 Q1 = 100 .....	<b>100.74</b>	<b>102.81</b>	<b>105.54</b>	<b>106.19</b>	<b>105.15</b>	<b>105.68</b>	<i>105.28</i>	<i>105.25</i>	<i>104.59</i>	<i>103.89</i>	<i>103.35</i>	<i>102.93</i>	<b>103.82</b>	<i>105.34</i>	<i>103.69</i>
Percent change from prior year .....	<b>-4.0</b>	<b>-0.7</b>	<b>3.4</b>	<b>3.7</b>	<b>4.4</b>	<b>2.8</b>	<i>-0.2</i>	<i>-0.9</i>	<i>-0.5</i>	<i>-1.7</i>	<i>-1.8</i>	<i>-2.2</i>	<b>0.6</b>	<i>1.5</i>	<i>-1.6</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 - September 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>Supply (million barrels per day)</b>															
<b>Crude Oil Supply</b>															
Domestic Production (a) .....	10.27	10.54	11.25	11.89	11.81	12.11	12.24	12.78	13.01	13.19	13.30	13.44	10.99	12.24	13.23
Alaska .....	0.51	0.48	0.43	0.49	0.49	0.47	0.45	0.49	0.51	0.49	0.46	0.49	0.48	0.47	0.49
Federal Gulf of Mexico (b) .....	1.68	1.60	1.87	1.87	1.85	1.93	1.82	1.95	2.05	2.06	2.00	2.02	1.76	1.89	2.04
Lower 48 States (excl GOM) .....	8.07	8.46	8.94	9.53	9.47	9.71	9.97	10.34	10.45	10.64	10.83	10.92	8.75	9.88	10.71
Crude Oil Net Imports (c) .....	6.18	6.19	5.84	4.82	4.25	4.15	4.29	4.10	4.17	4.58	4.37	4.02	5.75	4.20	4.29
SPR Net Withdrawals .....	-0.03	0.06	0.00	0.12	0.00	0.05	0.00	0.11	0.01	0.01	0.00	0.03	0.04	0.04	0.01
Commercial Inventory Net Withdrawals .....	-0.02	0.09	-0.01	-0.28	-0.19	-0.06	0.37	-0.21	-0.40	0.04	0.13	-0.09	-0.06	-0.02	-0.08
Crude Oil Adjustment (d) .....	0.02	0.25	0.25	0.44	0.34	0.52	0.32	0.15	0.19	0.19	0.21	0.15	0.24	0.33	0.19
Total Crude Oil Input to Refineries .....	16.41	17.14	17.32	16.99	16.20	16.77	17.23	16.94	16.98	17.99	18.02	17.56	16.97	16.79	17.64
<b>Other Supply</b>															
Refinery Processing Gain .....	1.11	1.12	1.17	1.16	1.06	1.09	1.12	1.17	1.19	1.24	1.26	1.27	1.14	1.11	1.24
Natural Gas Plant Liquids Production .....	4.01	4.30	4.54	4.54	4.66	4.81	5.00	5.36	5.28	5.32	5.47	5.54	4.35	4.96	5.40
Renewables and Oxygenate Production (e) .....	1.21	1.22	1.25	1.22	1.18	1.23	1.19	1.20	1.19	1.24	1.22	1.23	1.23	1.20	1.22
Fuel Ethanol Production .....	1.05	1.04	1.06	1.04	1.01	1.05	1.03	1.03	1.03	1.05	1.05	1.05	1.05	1.03	1.04
Petroleum Products Adjustment (f) .....	0.21	0.21	0.21	0.22	0.20	0.19	0.23	0.23	0.22	0.24	0.23	0.24	0.21	0.21	0.23
Product Net Imports (c) .....	-3.13	-3.44	-3.17	-3.91	-3.35	-3.13	-3.66	-4.35	-4.78	-4.86	-4.67	-5.16	-3.41	-3.62	-4.87
Hydrocarbon Gas Liquids .....	-1.22	-1.53	-1.49	-1.38	-1.33	-1.65	-1.76	-1.98	-2.03	-2.04	-2.07	-2.17	-1.41	-1.68	-2.08
Unfinished Oils .....	0.39	0.32	0.35	0.28	0.21	0.45	0.29	0.30	0.49	0.61	0.62	0.51	0.33	0.31	0.56
Other HC/Oxygenates .....	-0.18	-0.15	-0.13	-0.15	-0.13	-0.13	-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	0.43	0.85	0.61	0.41	0.43	0.65	0.50	0.45	0.58	0.58	0.51
Finished Motor Gasoline .....	-0.94	-0.71	-0.72	-1.00	-0.82	-0.61	-0.66	-0.89	-1.13	-1.01	-0.84	-1.19	-0.84	-0.75	-1.04
Jet Fuel .....	-0.10	-0.10	-0.06	-0.13	-0.08	-0.02	-0.01	0.02	0.02	-0.03	-0.04	-0.03	-0.10	-0.02	-0.02
Distillate Fuel Oil .....	-0.87	-1.30	-1.14	-1.19	-0.91	-1.31	-1.36	-1.24	-1.45	-1.87	-1.80	-1.57	-1.13	-1.21	-1.67
Residual Fuel Oil .....	-0.10	-0.14	-0.10	-0.09	-0.08	-0.15	-0.03	-0.06	-0.04	-0.13	-0.04	-0.08	-0.11	-0.08	-0.07
Other Oils (g) .....	-0.62	-0.61	-0.53	-0.61	-0.64	-0.57	-0.62	-0.81	-0.95	-0.91	-0.88	-0.97	-0.59	-0.66	-0.93
Product Inventory Net Withdrawals .....	0.41	-0.21	-0.69	0.38	0.34	-0.59	-0.39	0.41	0.37	-0.49	-0.30	0.36	-0.03	-0.06	-0.01
Total Supply .....	20.23	20.33	20.63	20.60	20.29	20.37	20.72	20.95	20.45	20.67	21.22	21.04	20.45	20.59	20.85
<b>Consumption (million barrels per day)</b>															
Hydrocarbon Gas Liquids .....	3.22	2.67	2.85	3.22	3.48	2.80	3.00	3.51	3.59	3.12	3.24	3.54	2.99	3.20	3.37
Unfinished Oils .....	0.13	-0.04	-0.10	0.00	-0.03	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
Motor Gasoline .....	9.01	9.51	9.51	9.25	8.96	9.48	9.49	9.27	8.94	9.49	9.55	9.27	9.32	9.30	9.31
Fuel Ethanol blended into Motor Gasoline .....	0.91	0.94	0.96	0.94	0.91	0.97	0.94	0.93	0.91	0.97	0.97	0.95	0.94	0.94	0.95
Jet Fuel .....	1.64	1.73	1.78	1.70	1.65	1.78	1.85	1.83	1.77	1.84	1.89	1.86	1.71	1.78	1.84
Distillate Fuel Oil .....	4.18	4.13	4.05	4.18	4.28	4.01	3.91	4.18	4.21	4.08	4.18	4.26	4.13	4.09	4.18
Residual Fuel Oil .....	0.28	0.32	0.34	0.34	0.27	0.23	0.35	0.31	0.28	0.23	0.31	0.28	0.32	0.29	0.27
Other Oils (g) .....	1.78	2.01	2.22	1.91	1.68	1.95	2.12	1.85	1.65	1.92	2.05	1.84	1.98	1.90	1.86
Total Consumption .....	20.24	20.33	20.63	20.60	20.29	20.37	20.72	20.95	20.45	20.67	21.22	21.04	20.45	20.59	20.85
<b>Total Petroleum and Other Liquids Net Imports .....</b>	<b>3.05</b>	<b>2.75</b>	<b>2.67</b>	<b>0.91</b>	<b>0.89</b>	<b>1.02</b>	<b>0.64</b>	<b>-0.25</b>	<b>-0.61</b>	<b>-0.28</b>	<b>-0.30</b>	<b>-1.14</b>	<b>2.34</b>	<b>0.57</b>	<b>-0.58</b>
<b>End-of-period Inventories (million barrels)</b>															
<b>Commercial Inventory</b>															
Crude Oil (excluding SPR) .....	423.4	414.8	416.1	441.8	459.3	464.4	430.4	449.5	485.8	482.6	470.3	478.1	441.8	449.5	478.1
Hydrocarbon Gas Liquids .....	139.3	180.8	224.8	188.5	163.0	227.0	269.7	228.0	186.7	235.4	272.4	227.8	188.5	228.0	227.8
Unfinished Oils .....	98.3	92.6	92.0	85.9	92.0	96.5	93.6	83.0	92.7	92.4	89.9	83.0	85.9	83.0	83.0
Other HC/Oxygenates .....	30.5	28.8	30.5	31.4	32.8	31.6	33.4	34.7	36.5	35.5	34.3	35.3	31.4	34.7	35.3
Total Motor Gasoline .....	239.6	240.3	239.7	246.3	236.1	229.8	225.9	235.1	233.3	228.4	223.8	236.2	246.3	235.1	236.2
Finished Motor Gasoline .....	23.1	24.7	24.8	25.7	21.7	22.4	24.1	24.5	23.7	22.5	23.5	23.8	25.7	24.5	23.8
Motor Gasoline Blend Comp. ....	216.5	215.6	214.9	220.5	214.4	207.6	201.8	210.6	209.5	205.9	200.3	212.4	220.5	210.6	212.4
Jet Fuel .....	40.4	40.8	46.9	41.6	41.6	40.1	43.9	41.9	41.9	43.2	44.6	42.6	41.6	41.9	42.6
Distillate Fuel Oil .....	130.4	120.4	137.1	140.0	132.4	130.4	132.5	137.3	127.4	129.7	134.7	139.7	140.0	137.3	139.7
Residual Fuel Oil .....	35.0	30.0	28.6	28.3	28.7	30.3	30.0	28.9	31.1	31.3	29.5	28.9	28.3	28.9	28.9
Other Oils (g) .....	59.3	58.8	56.1	58.7	63.2	57.7	50.8	53.1	58.7	57.4	51.6	53.8	58.7	53.1	53.8
Total Commercial Inventory .....	1,196	1,207	1,272	1,262	1,249	1,308	1,310	1,291	1,294	1,336	1,351	1,326	1,262	1,291	1,326
Crude Oil in SPR .....	665	660	660	649	649	645	645	635	634	634	633	630	649	635	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 - September 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>HGL Production</b>															
<b>Natural Gas Processing Plants</b>															
Ethane .....	1.59	1.70	1.76	1.77	1.87	1.86	1.95	2.20	2.22	2.18	2.24	2.31	1.71	1.97	2.24
Propane .....	1.29	1.37	1.44	1.47	1.50	1.55	1.61	1.68	1.65	1.66	1.70	1.72	1.39	1.58	1.68
Butanes .....	0.69	0.74	0.78	0.79	0.79	0.84	0.87	0.89	0.86	0.89	0.91	0.91	0.75	0.85	0.89
Natural Gasoline (Pentanes Plus) .....	0.44	0.50	0.55	0.51	0.49	0.55	0.59	0.59	0.55	0.59	0.62	0.60	0.50	0.55	0.59
<b>Refinery and Blender Net Production</b>															
Ethane/Ethylene .....	0.01	0.01	0.01	0.01	0.00	0.00	0.01	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	0.29	0.29	0.29	0.29	0.31	0.30	0.30	0.30	0.29	0.30
Propylene (refinery-grade) .....	0.28	0.29	0.29	0.31	0.28	0.28	0.28	0.29	0.28	0.29	0.29	0.29	0.29	0.28	0.29
Butanes/Butylenes .....	-0.11	0.24	0.19	-0.20	-0.09	0.27	0.19	-0.20	-0.08	0.26	0.19	-0.20	0.03	0.04	0.04
<b>Renewable Fuels and Oxygenate Plant Net Production</b>															
Natural Gasoline (Pentanes Plus) .....	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
<b>HGL Net Imports</b>															
Ethane .....	-0.22	-0.29	-0.26	-0.25	-0.27	-0.27	-0.31	-0.36	-0.37	-0.37	-0.37	-0.40	-0.26	-0.30	-0.38
Propane/Propylene .....	-0.72	-0.81	-0.87	-0.86	-0.75	-0.98	-0.96	-1.13	-1.06	-1.06	-1.08	-1.16	-0.82	-0.96	-1.09
Butanes/Butylenes .....	-0.10	-0.20	-0.19	-0.13	-0.14	-0.26	-0.29	-0.30	-0.30	-0.32	-0.31	-0.30	-0.15	-0.25	-0.31
Natural Gasoline (Pentanes Plus) .....	-0.18	-0.23	-0.17	-0.14	-0.17	-0.14	-0.20	-0.18	-0.31	-0.29	-0.32	-0.30	-0.18	-0.17	-0.31
<b>HGL Refinery and Blender Net Inputs</b>															
Butanes/Butylenes .....	0.45	0.30	0.32	0.55	0.46	0.30	0.33	0.51	0.43	0.31	0.34	0.52	0.41	0.40	0.40
Natural Gasoline (Pentanes Plus) .....	0.15	0.16	0.18	0.17	0.14	0.18	0.19	0.18	0.16	0.17	0.18	0.17	0.17	0.17	0.17
<b>HGL Consumption</b>															
Ethane/Ethylene .....	1.44	1.45	1.51	1.50	1.61	1.50	1.61	1.82	1.85	1.80	1.88	1.93	1.47	1.63	1.87
Propane .....	1.16	0.60	0.65	1.01	1.20	0.59	0.66	0.98	1.17	0.66	0.72	0.98	0.86	0.86	0.88
Propylene (refinery-grade) .....	0.32	0.31	0.31	0.29	0.28	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	0.21	0.27	0.22	0.19	0.26	0.25	0.22	0.22	0.22	0.23
Natural Gasoline (Pentanes Plus) .....	0.10	0.09	0.16	0.18	0.20	0.19	0.17	0.20	0.08	0.08	0.09	0.10	0.13	0.19	0.09
<b>HGL Inventories (million barrels)</b>															
Ethane .....	51.41	47.90	46.07	50.15	48.14	55.92	61.04	64.70	64.29	67.42	66.63	67.04	48.87	57.50	66.35
Propane .....	33.83	56.51	75.16	63.67	47.77	70.49	93.83	79.32	50.02	71.11	88.57	75.62	63.67	79.32	75.62
Propylene (refinery-grade) .....	3.82	3.64	3.86	6.93	7.82	6.58	6.34	7.43	7.48	6.90	6.74	7.48	6.93	7.43	7.48
Butanes/Butylenes .....	32.02	55.37	78.52	47.44	39.30	70.50	85.88	55.26	43.46	67.13	85.57	54.95	47.44	55.26	54.95
Natural Gasoline (Pentanes Plus) .....	19.36	18.59	20.34	20.84	18.12	19.98	21.21	21.55	20.49	22.82	24.31	24.17	20.84	21.55	24.17
<b>Refinery and Blender Net Inputs</b>															
Crude Oil .....	16.41	17.14	17.32	16.99	16.20	16.77	17.23	16.94	16.98	17.99	18.02	17.56	16.97	16.79	17.64
Hydrocarbon Gas Liquids .....	0.61	0.47	0.50	0.72	0.59	0.48	0.52	0.69	0.59	0.48	0.52	0.70	0.57	0.57	0.57
Other Hydrocarbons/Oxygenates .....	1.16	1.23	1.22	1.20	1.16	1.22	1.22	1.23	1.21	1.29	1.26	1.26	1.20	1.21	1.26
Unfinished Oils .....	0.12	0.42	0.45	0.34	0.18	0.28	0.32	0.41	0.38	0.61	0.65	0.59	0.33	0.30	0.56
Motor Gasoline Blend Components .....	0.34	0.70	0.58	0.26	0.63	1.02	0.70	0.49	0.57	0.84	0.66	0.49	0.47	0.71	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	18.76	19.77	19.98	19.76	19.74	21.22	21.11	20.59	19.55	19.57	20.66
<b>Refinery Processing Gain</b> .....	1.11	1.12	1.17	1.16	1.06	1.09	1.12	1.17	1.19	1.24	1.26	1.27	1.14	1.11	1.24
<b>Refinery and Blender Net Production</b>															
Hydrocarbon Gas Liquids .....	0.48	0.84	0.80	0.41	0.48	0.84	0.76	0.38	0.50	0.87	0.78	0.40	0.63	0.61	0.64
Finished Motor Gasoline .....	9.79	10.14	10.11	10.19	9.84	10.16	10.18	10.31	10.16	10.60	10.48	10.60	10.06	10.13	10.46
Jet Fuel .....	1.72	1.83	1.90	1.77	1.73	1.78	1.91	1.79	1.75	1.89	1.95	1.87	1.81	1.80	1.86
Distillate Fuel .....	4.81	5.25	5.29	5.32	5.05	5.22	5.21	5.40	5.52	5.91	5.96	5.81	5.17	5.22	5.80
Residual Fuel .....	0.44	0.40	0.42	0.43	0.36	0.39	0.38	0.36	0.34	0.36	0.33	0.35	0.42	0.37	0.34
Other Oils (a) .....	2.49	2.61	2.72	2.55	2.37	2.46	2.66	2.69	2.66	2.82	2.87	2.83	2.59	2.54	2.80
Total Refinery and Blender Net Production .....	19.74	21.08	21.25	20.67	19.82	20.86	21.10	20.93	20.92	22.46	22.37	21.85	20.69	20.68	21.90
<b>Refinery Distillation Inputs</b> .....	16.76	17.50	17.69	17.33	16.48	17.14	17.59	17.13	17.01	17.91	18.01	17.57	17.32	17.09	17.62
<b>Refinery Operable Distillation Capacity</b> .....	18.57	18.60	18.60	18.60	18.78	18.80	18.81	18.82	18.82	18.82	18.82	18.85	18.59	18.80	18.83
<b>Refinery Distillation Utilization Factor</b> .....	0.90	0.94	0.95	0.93	0.88	0.91	0.94	0.91	0.90	0.95	0.96	0.93	0.93	0.91	0.94

- = 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 - September 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>Prices (cents per gallon)</b>															
Refiner Wholesale Price .....	186	213	213	178	167	205	180	165	179	191	187	173	198	180	183
<b>Gasoline Regular Grade Retail Prices Including Taxes</b>															
PADD 1 .....	255	279	278	257	233	268	254	245	255	268	267	257	268	250	262
PADD 2 .....	246	274	276	245	223	269	256	239	250	264	263	248	261	247	257
PADD 3 .....	230	261	258	231	206	246	231	215	228	241	237	223	245	225	232
PADD 4 .....	247	288	297	281	226	285	267	239	236	260	267	250	279	255	254
PADD 5 .....	312	342	335	333	297	356	321	285	294	324	320	294	330	315	309
U.S. Average .....	258	285	284	262	236	279	262	245	255	272	270	255	273	256	263
<b>Gasoline All Grades Including Taxes</b>	<b>270</b>	<b>294</b>	<b>292</b>	<b>271</b>	<b>245</b>	<b>288</b>	<b>271</b>	<b>256</b>	<b>267</b>	<b>284</b>	<b>283</b>	<b>268</b>	<b>282</b>	<b>265</b>	<b>276</b>
<b>End-of-period Inventories (million barrels)</b>															
<b>Total Gasoline Inventories</b>															
PADD 1 .....	58.4	66.5	70.2	62.9	62.4	58.7	60.7	60.7	59.1	59.6	57.7	61.2	62.9	60.7	61.2
PADD 2 .....	57.3	53.5	53.1	56.1	53.9	49.5	50.2	50.8	53.1	50.0	49.3	51.2	56.1	50.8	51.2
PADD 3 .....	84.2	82.3	80.5	90.6	82.5	83.4	79.1	84.4	83.5	82.7	80.9	84.7	90.6	84.4	84.7
PADD 4 .....	7.7	7.3	7.0	7.3	6.9	7.5	7.3	7.5	7.3	7.3	6.8	7.3	7.3	7.5	7.3
PADD 5 .....	32.0	30.7	28.8	29.4	30.4	30.7	28.6	31.8	30.3	28.9	29.1	31.9	29.4	31.8	31.9
U.S. Total .....	239.6	240.3	239.7	246.3	236.1	229.8	225.9	235.1	233.3	228.4	223.8	236.2	246.3	235.1	236.2
<b>Finished Gasoline Inventories</b>															
U.S. Total .....	23.1	24.7	24.8	25.7	21.7	22.4	24.1	24.5	23.7	22.5	23.5	23.8	25.7	24.5	23.8
<b>Gasoline Blending Components Inventories</b>															
U.S. Total .....	216.5	215.6	214.9	220.5	214.4	207.6	201.8	210.6	209.5	205.9	200.3	212.4	220.5	210.6	212.4

- = 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 - September 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>Supply (billion cubic feet per day)</b>															
Total Marketed Production .....	<b>84.93</b>	<b>87.39</b>	<b>91.50</b>	<b>94.79</b>	<b>96.18</b>	<b>97.53</b>	<i>99.07</i>	<i>100.77</i>	<i>100.23</i>	<i>100.23</i>	<i>100.95</i>	<i>100.77</i>	<b>89.69</b>	<i>98.40</i>	<i>100.55</i>
Alaska .....	<b>1.00</b>	<b>0.92</b>	<b>0.86</b>	<b>0.96</b>	<b>0.96</b>	<b>0.93</b>	<i>0.80</i>	<i>0.95</i>	<i>1.00</i>	<i>0.85</i>	<i>0.79</i>	<i>0.95</i>	<b>0.94</b>	<i>0.91</i>	<i>0.90</i>
Federal GOM (a) .....	<b>2.57</b>	<b>2.48</b>	<b>2.86</b>	<b>2.77</b>	<b>2.80</b>	<b>2.76</b>	<i>2.75</i>	<i>2.78</i>	<i>2.86</i>	<i>2.81</i>	<i>2.68</i>	<i>2.65</i>	<b>2.67</b>	<i>2.77</i>	<i>2.75</i>
Lower 48 States (excl GOM) .....	<b>81.37</b>	<b>83.98</b>	<b>87.79</b>	<b>91.05</b>	<b>92.42</b>	<b>93.85</b>	<i>95.52</i>	<i>97.04</i>	<i>96.37</i>	<i>96.57</i>	<i>97.48</i>	<i>97.17</i>	<b>86.08</b>	<i>94.72</i>	<i>96.90</i>
Total Dry Gas Production .....	<b>79.13</b>	<b>81.17</b>	<b>84.95</b>	<b>88.21</b>	<b>89.42</b>	<b>90.60</b>	<i>91.98</i>	<i>93.52</i>	<i>92.97</i>	<i>92.92</i>	<i>93.54</i>	<i>93.32</i>	<b>83.39</b>	<i>91.39</i>	<i>93.19</i>
LNG Gross Imports .....	<b>0.33</b>	<b>0.10</b>	<b>0.15</b>	<b>0.26</b>	<b>0.28</b>	<b>0.03</b>	<i>0.17</i>	<i>0.21</i>	<i>0.32</i>	<i>0.18</i>	<i>0.18</i>	<i>0.20</i>	<b>0.21</b>	<i>0.17</i>	<i>0.22</i>
LNG Gross Exports .....	<b>2.64</b>	<b>2.79</b>	<b>2.95</b>	<b>3.48</b>	<b>4.01</b>	<b>4.55</b>	<i>4.56</i>	<i>5.35</i>	<i>5.88</i>	<i>5.71</i>	<i>6.58</i>	<i>7.35</i>	<b>2.97</b>	<i>4.62</i>	<i>6.38</i>
Pipeline Gross Imports .....	<b>8.65</b>	<b>7.57</b>	<b>7.43</b>	<b>7.19</b>	<b>8.35</b>	<b>6.73</b>	<i>6.77</i>	<i>7.36</i>	<i>7.96</i>	<i>6.48</i>	<i>6.77</i>	<i>7.51</i>	<b>7.70</b>	<i>7.30</i>	<i>7.18</i>
Pipeline Gross Exports .....	<b>7.00</b>	<b>6.14</b>	<b>7.04</b>	<b>7.47</b>	<b>7.86</b>	<b>7.15</b>	<i>7.50</i>	<i>8.45</i>	<i>9.53</i>	<i>8.02</i>	<i>8.62</i>	<i>8.65</i>	<b>6.92</b>	<i>7.74</i>	<i>8.70</i>
Supplemental Gaseous Fuels .....	<b>0.21</b>	<b>0.17</b>	<b>0.19</b>	<b>0.18</b>	<b>0.19</b>	<b>0.16</b>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<b>0.19</b>	<i>0.18</i>	<i>0.19</i>
Net Inventory Withdrawals .....	<b>18.32</b>	<b>-8.85</b>	<b>-8.23</b>	<b>2.58</b>	<b>16.94</b>	<b>-14.18</b>	<i>-10.38</i>	<i>2.53</i>	<i>16.16</i>	<i>-11.26</i>	<i>-8.96</i>	<i>2.84</i>	<b>0.89</b>	<i>-1.34</i>	<i>-0.32</i>
Total Supply .....	<b>97.00</b>	<b>71.22</b>	<b>74.50</b>	<b>87.46</b>	<b>103.32</b>	<b>71.64</b>	<i>76.66</i>	<i>90.01</i>	<i>102.18</i>	<i>74.78</i>	<i>76.53</i>	<i>88.05</i>	<b>82.50</b>	<i>85.35</i>	<i>85.37</i>
Balancing Item (b) .....	<b>0.60</b>	<b>-0.52</b>	<b>-0.41</b>	<b>-1.34</b>	<b>-0.61</b>	<b>-1.43</b>	<i>-0.58</i>	<i>-0.73</i>	<i>0.16</i>	<i>-1.14</i>	<i>-0.07</i>	<i>0.93</i>	<b>-0.42</b>	<i>-0.84</i>	<i>-0.03</i>
Total Primary Supply .....	<b>97.60</b>	<b>70.70</b>	<b>74.09</b>	<b>86.12</b>	<b>102.71</b>	<b>70.21</b>	<i>76.08</i>	<i>89.28</i>	<i>102.34</i>	<i>73.64</i>	<i>76.46</i>	<i>88.98</i>	<b>82.07</b>	<i>84.51</i>	<i>85.34</i>
<b>Consumption (billion cubic feet per day)</b>															
Residential .....	<b>25.77</b>	<b>7.97</b>	<b>3.44</b>	<b>17.53</b>	<b>27.11</b>	<b>7.34</b>	<i>3.58</i>	<i>17.47</i>	<i>26.40</i>	<i>7.57</i>	<i>3.65</i>	<i>16.80</i>	<b>13.63</b>	<i>13.82</i>	<i>13.59</i>
Commercial .....	<b>15.36</b>	<b>6.60</b>	<b>4.58</b>	<b>11.65</b>	<b>16.06</b>	<b>6.32</b>	<i>4.94</i>	<i>11.32</i>	<i>15.39</i>	<i>6.61</i>	<i>4.91</i>	<i>10.64</i>	<b>9.52</b>	<i>9.63</i>	<i>9.38</i>
Industrial .....	<b>24.30</b>	<b>21.82</b>	<b>21.30</b>	<b>23.41</b>	<b>24.90</b>	<b>21.53</b>	<i>21.39</i>	<i>23.98</i>	<i>25.54</i>	<i>22.58</i>	<i>21.85</i>	<i>24.92</i>	<b>22.70</b>	<i>22.94</i>	<i>23.72</i>
Electric Power (c) .....	<b>24.91</b>	<b>27.62</b>	<b>37.78</b>	<b>26.04</b>	<b>26.62</b>	<b>27.79</b>	<i>39.03</i>	<i>28.66</i>	<i>26.84</i>	<i>29.35</i>	<i>38.35</i>	<i>28.58</i>	<b>29.11</b>	<i>30.55</i>	<i>30.79</i>
Lease and Plant Fuel .....	<b>4.55</b>	<b>4.68</b>	<b>4.90</b>	<b>5.08</b>	<b>5.15</b>	<b>5.23</b>	<i>5.31</i>	<i>5.40</i>	<i>5.37</i>	<i>5.37</i>	<i>5.41</i>	<i>5.40</i>	<b>4.81</b>	<i>5.27</i>	<i>5.39</i>
Pipeline and Distribution Use .....	<b>2.60</b>	<b>1.88</b>	<b>1.97</b>	<b>2.29</b>	<b>2.73</b>	<b>1.87</b>	<i>1.97</i>	<i>2.32</i>	<i>2.65</i>	<i>2.02</i>	<i>2.16</i>	<i>2.51</i>	<b>2.18</b>	<i>2.22</i>	<i>2.34</i>
Vehicle Use .....	<b>0.12</b>	<b>0.12</b>	<b>0.12</b>	<b>0.12</b>	<b>0.13</b>	<b>0.13</b>	<i>0.13</i>	<i>0.13</i>	<i>0.14</i>	<i>0.14</i>	<i>0.14</i>	<i>0.14</i>	<b>0.12</b>	<i>0.13</i>	<i>0.14</i>
Total Consumption .....	<b>97.60</b>	<b>70.70</b>	<b>74.09</b>	<b>86.12</b>	<b>102.71</b>	<b>70.21</b>	<i>76.08</i>	<i>89.28</i>	<i>102.34</i>	<i>73.64</i>	<i>76.46</i>	<i>88.98</i>	<b>82.07</b>	<i>84.51</i>	<i>85.34</i>
<b>End-of-period Inventories (billion cubic feet)</b>															
Working Gas Inventory .....	<b>1,390</b>	<b>2,195</b>	<b>2,950</b>	<b>2,708</b>	<b>1,185</b>	<b>2,460</b>	<i>3,415</i>	<i>3,183</i>	<i>1,713</i>	<i>2,737</i>	<i>3,561</i>	<i>3,300</i>	<b>2,708</b>	<i>3,183</i>	<i>3,300</i>
East Region (d) .....	<b>229</b>	<b>465</b>	<b>778</b>	<b>659</b>	<b>216</b>	<b>537</b>	<i>847</i>	<i>778</i>	<i>301</i>	<i>630</i>	<i>912</i>	<i>799</i>	<b>659</b>	<i>778</i>	<i>799</i>
Midwest Region (d) .....	<b>261</b>	<b>459</b>	<b>846</b>	<b>777</b>	<b>242</b>	<b>579</b>	<i>993</i>	<i>876</i>	<i>350</i>	<i>609</i>	<i>965</i>	<i>864</i>	<b>777</b>	<i>876</i>	<i>864</i>
South Central Region (d) .....	<b>613</b>	<b>845</b>	<b>845</b>	<b>879</b>	<b>519</b>	<b>917</b>	<i>1,061</i>	<i>1,079</i>	<i>737</i>	<i>1,024</i>	<i>1,140</i>	<i>1,167</i>	<b>879</b>	<i>1,079</i>	<i>1,167</i>
Mountain Region (d) .....	<b>87</b>	<b>140</b>	<b>179</b>	<b>141</b>	<b>63</b>	<b>135</b>	<i>190</i>	<i>154</i>	<i>108</i>	<i>151</i>	<i>193</i>	<i>159</i>	<b>141</b>	<i>154</i>	<i>159</i>
Pacific Region (d) .....	<b>169</b>	<b>253</b>	<b>263</b>	<b>214</b>	<b>115</b>	<b>259</b>	<i>288</i>	<i>259</i>	<i>181</i>	<i>286</i>	<i>315</i>	<i>276</i>	<b>214</b>	<i>259</i>	<i>276</i>
Alaska .....	<b>31</b>	<b>33</b>	<b>38</b>	<b>37</b>	<b>30</b>	<b>33</b>	<i>37</i>	<i>37</i>	<i>37</i>	<i>37</i>	<i>37</i>	<i>37</i>	<b>37</b>	<i>37</i>	<i>37</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/hgs/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 - September 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>Wholesale/Spot</b>															
Henry Hub Spot Price .....	3.13	2.96	3.04	3.95	3.03	2.66	2.40	2.54	2.80	2.51	2.55	2.71	3.27	2.66	2.64
<b>Residential Retail</b>															
New England .....	14.38	16.60	19.08	14.42	14.43	15.56	17.39	13.11	12.61	13.61	16.81	13.22	15.00	14.45	13.21
Middle Atlantic .....	10.17	11.92	18.30	11.39	10.77	13.03	16.26	10.69	9.94	12.04	16.61	11.10	11.30	11.41	11.03
E. N. Central .....	7.20	9.77	18.40	8.02	7.27	10.48	16.77	8.54	7.59	10.51	16.20	8.49	8.42	8.57	8.81
W. N. Central .....	8.15	10.48	18.55	9.06	7.92	10.56	16.52	8.62	7.72	10.57	16.48	8.74	9.29	8.89	8.92
S. Atlantic .....	11.07	15.63	24.88	12.47	11.60	18.43	23.11	12.69	11.16	16.25	22.41	12.93	12.98	13.55	13.17
E. S. Central .....	9.62	12.77	21.53	10.58	9.58	14.76	20.92	12.64	10.24	14.95	21.25	13.44	10.90	11.53	12.37
W. S. Central .....	9.27	14.25	22.03	10.19	8.26	13.34	19.95	11.64	8.51	14.08	20.48	12.17	10.98	10.85	11.26
Mountain .....	8.22	10.38	14.03	7.69	7.72	9.47	13.33	8.62	8.32	9.66	13.37	8.77	8.74	8.61	9.08
Pacific .....	11.62	12.02	12.88	11.75	12.43	12.73	12.49	11.12	12.14	12.44	12.76	11.63	11.87	12.12	12.11
U.S. Average .....	9.37	11.93	17.93	9.97	9.46	12.45	16.53	10.27	9.34	11.95	16.55	10.49	10.49	10.57	10.55
<b>Commercial Retail</b>															
New England .....	11.05	11.73	10.85	10.56	11.07	11.26	10.43	9.50	9.35	9.27	9.07	8.94	10.99	10.55	9.19
Middle Atlantic .....	8.13	7.67	7.47	7.86	8.46	7.70	6.81	7.20	7.38	7.27	6.74	7.32	7.89	7.78	7.26
E. N. Central .....	6.19	6.95	9.01	6.55	6.27	7.12	8.52	6.49	6.24	7.29	8.60	6.59	6.62	6.62	6.68
W. N. Central .....	6.96	7.30	8.91	7.11	6.80	7.08	8.26	6.65	6.90	7.31	8.38	6.81	7.20	6.91	7.05
S. Atlantic .....	8.29	9.35	9.73	8.70	8.82	9.53	9.51	8.51	8.48	9.45	9.86	8.90	8.75	8.92	8.93
E. S. Central .....	8.62	9.34	10.51	8.84	8.52	9.72	10.06	8.56	8.01	8.99	9.47	8.40	8.99	8.87	8.43
W. S. Central .....	7.21	7.90	8.55	6.99	6.40	7.04	7.72	7.03	6.65	7.17	7.74	7.12	7.44	6.86	7.03
Mountain .....	6.99	7.48	7.92	6.24	6.38	6.74	7.69	6.68	6.87	7.13	7.89	6.84	6.91	6.66	7.02
Pacific .....	8.90	8.58	9.11	8.68	9.06	8.81	8.37	8.00	8.24	8.38	8.64	8.29	8.80	8.61	8.34
U.S. Average .....	7.64	8.08	8.77	7.61	7.62	8.00	8.22	7.35	7.28	7.80	8.21	7.46	7.82	7.67	7.53
<b>Industrial Retail</b>															
New England .....	8.95	8.62	6.49	7.91	9.03	8.16	6.79	7.59	8.15	7.50	6.95	7.91	8.17	8.04	7.74
Middle Atlantic .....	8.33	8.07	7.73	7.89	8.75	7.66	7.05	7.09	7.48	6.88	6.89	7.15	8.11	7.88	7.22
E. N. Central .....	5.69	5.02	5.20	5.74	5.69	5.34	5.51	5.26	5.81	5.47	5.31	5.27	5.53	5.48	5.53
W. N. Central .....	5.05	4.23	4.21	5.05	5.09	3.91	3.79	4.41	4.93	4.11	3.93	4.58	4.69	4.40	4.45
S. Atlantic .....	5.34	4.67	4.68	5.42	5.48	4.56	4.22	4.61	5.03	4.47	4.44	4.79	5.06	4.76	4.71
E. S. Central .....	4.93	4.21	4.14	4.90	4.92	4.06	3.80	4.28	4.56	4.12	4.05	4.49	4.59	4.30	4.33
W. S. Central .....	3.32	3.09	3.12	4.02	3.48	2.88	2.66	2.76	2.97	2.67	2.77	2.88	3.38	2.92	2.82
Mountain .....	5.43	5.36	4.72	4.79	5.33	4.83	5.16	5.30	5.49	5.20	5.42	5.45	5.09	5.18	5.40
Pacific .....	6.97	6.03	6.72	6.65	7.61	6.59	6.13	6.04	6.51	6.03	6.13	6.20	6.61	6.60	6.23
U.S. Average .....	4.44	3.83	3.73	4.71	4.68	3.75	3.30	3.68	4.13	3.50	3.43	3.83	4.20	3.87	3.75

- = 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 - September 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>Supply (million short tons)</b>															
Production .....	<b>187.6</b>	<b>180.8</b>	<b>194.7</b>	<b>192.4</b>	<b>170.3</b>	<b>175.9</b>	<i>167.5</i>	<i>160.3</i>	<i>167.9</i>	<i>130.1</i>	<i>164.9</i>	<i>154.4</i>	<b>755.5</b>	<i>673.9</i>	<i>617.3</i>
Appalachia .....	<b>50.0</b>	<b>51.6</b>	<b>49.0</b>	<b>49.5</b>	<b>47.4</b>	<b>48.7</b>	<i>44.7</i>	<i>42.3</i>	<i>41.1</i>	<i>35.4</i>	<i>38.8</i>	<i>35.8</i>	<b>200.1</b>	<i>183.0</i>	<i>151.1</i>
Interior .....	<b>34.0</b>	<b>34.6</b>	<b>34.7</b>	<b>33.9</b>	<b>31.0</b>	<b>32.8</b>	<i>31.6</i>	<i>32.0</i>	<i>34.5</i>	<i>26.3</i>	<i>33.7</i>	<i>33.2</i>	<b>137.1</b>	<i>127.4</i>	<i>127.7</i>
Western .....	<b>103.7</b>	<b>94.6</b>	<b>111.0</b>	<b>109.0</b>	<b>91.9</b>	<b>94.5</b>	<i>91.2</i>	<i>86.0</i>	<i>92.3</i>	<i>68.4</i>	<i>92.5</i>	<i>85.4</i>	<b>418.3</b>	<i>363.6</i>	<i>338.6</i>
Primary Inventory Withdrawals .....	<b>-2.8</b>	<b>2.3</b>	<b>1.1</b>	<b>-0.6</b>	<b>0.8</b>	<b>1.3</b>	<i>0.6</i>	<i>-1.8</i>	<i>-0.1</i>	<i>1.0</i>	<i>2.4</i>	<i>-2.7</i>	<b>0.0</b>	<i>0.9</i>	<i>0.6</i>
Imports .....	<b>1.4</b>	<b>1.5</b>	<b>1.4</b>	<b>1.6</b>	<b>1.7</b>	<b>1.6</b>	<i>1.8</i>	<i>1.6</i>	<i>1.3</i>	<i>1.3</i>	<i>1.5</i>	<i>1.4</i>	<b>6.0</b>	<i>6.7</i>	<i>5.5</i>
Exports .....	<b>27.2</b>	<b>30.9</b>	<b>29.1</b>	<b>28.5</b>	<b>25.2</b>	<b>25.3</b>	<i>22.0</i>	<i>21.7</i>	<i>24.1</i>	<i>20.8</i>	<i>20.6</i>	<i>20.2</i>	<b>115.6</b>	<i>94.2</i>	<i>85.7</i>
Metallurgical Coal .....	<b>14.9</b>	<b>16.9</b>	<b>14.5</b>	<b>15.2</b>	<b>13.9</b>	<b>15.1</b>	<i>13.1</i>	<i>12.1</i>	<i>13.3</i>	<i>11.8</i>	<i>12.1</i>	<i>11.8</i>	<b>61.5</b>	<i>54.3</i>	<i>49.0</i>
Steam Coal .....	<b>12.3</b>	<b>13.9</b>	<b>14.5</b>	<b>13.3</b>	<b>11.3</b>	<b>10.2</b>	<i>8.8</i>	<i>9.6</i>	<i>10.7</i>	<i>9.0</i>	<i>8.5</i>	<i>8.5</i>	<b>54.1</b>	<i>39.9</i>	<i>36.7</i>
Total Primary Supply .....	<b>159.0</b>	<b>153.7</b>	<b>168.1</b>	<b>165.0</b>	<b>147.6</b>	<b>153.5</b>	<i>147.9</i>	<i>138.4</i>	<i>145.0</i>	<i>111.5</i>	<i>148.2</i>	<i>132.9</i>	<b>645.9</b>	<i>587.4</i>	<i>537.7</i>
Secondary Inventory Withdrawals .....	<b>11.8</b>	<b>4.9</b>	<b>20.4</b>	<b>-2.3</b>	<b>5.9</b>	<b>-12.4</b>	<i>1.1</i>	<i>-7.5</i>	<i>-0.6</i>	<i>3.1</i>	<i>7.0</i>	<i>-7.9</i>	<b>34.8</b>	<i>-12.9</i>	<i>1.6</i>
Waste Coal (a) .....	<b>2.8</b>	<b>2.3</b>	<b>2.6</b>	<b>2.5</b>	<b>2.3</b>	<b>2.3</b>	<i>2.3</i>	<i>2.3</i>	<i>2.3</i>	<i>2.3</i>	<i>2.3</i>	<i>2.3</i>	<b>10.2</b>	<i>9.3</i>	<i>9.2</i>
Total Supply .....	<b>173.6</b>	<b>160.9</b>	<b>191.2</b>	<b>165.2</b>	<b>155.8</b>	<b>143.4</b>	<i>151.4</i>	<i>133.2</i>	<i>146.7</i>	<i>116.9</i>	<i>157.5</i>	<i>127.3</i>	<b>690.9</b>	<i>583.8</i>	<i>548.4</i>
<b>Consumption (million short tons)</b>															
Coke Plants .....	<b>4.2</b>	<b>4.6</b>	<b>4.7</b>	<b>4.7</b>	<b>4.5</b>	<b>4.8</b>	<i>5.5</i>	<i>6.0</i>	<i>5.0</i>	<i>4.9</i>	<i>4.9</i>	<i>6.0</i>	<b>18.3</b>	<i>20.8</i>	<i>20.9</i>
Electric Power Sector (b) .....	<b>154.8</b>	<b>144.2</b>	<b>181.6</b>	<b>155.9</b>	<b>145.0</b>	<b>117.7</b>	<i>160.0</i>	<i>120.0</i>	<i>134.3</i>	<i>105.0</i>	<i>145.9</i>	<i>114.3</i>	<b>636.5</b>	<i>542.7</i>	<i>499.5</i>
Retail and Other Industry .....	<b>8.5</b>	<b>7.9</b>	<b>7.7</b>	<b>8.4</b>	<b>8.1</b>	<b>7.5</b>	<i>7.1</i>	<i>7.1</i>	<i>7.4</i>	<i>7.0</i>	<i>6.8</i>	<i>6.9</i>	<b>32.5</b>	<i>29.9</i>	<i>28.1</i>
Residential and Commercial .....	<b>0.4</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.2</b>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.1</i>	<i>0.1</i>	<i>0.2</i>	<b>1.0</b>	<i>0.9</i>	<i>0.7</i>
Other Industrial .....	<b>8.1</b>	<b>7.7</b>	<b>7.5</b>	<b>8.2</b>	<b>7.8</b>	<b>7.4</b>	<i>6.9</i>	<i>6.9</i>	<i>7.2</i>	<i>6.8</i>	<i>6.6</i>	<i>6.7</i>	<b>31.5</b>	<i>29.0</i>	<i>27.4</i>
Total Consumption .....	<b>167.5</b>	<b>156.6</b>	<b>194.1</b>	<b>169.1</b>	<b>157.6</b>	<b>130.1</b>	<i>172.5</i>	<i>133.2</i>	<i>146.7</i>	<i>116.9</i>	<i>157.5</i>	<i>127.3</i>	<b>687.3</b>	<i>593.4</i>	<i>548.4</i>
Discrepancy (c) .....	<b>6.0</b>	<b>4.3</b>	<b>-2.9</b>	<b>-3.8</b>	<b>-1.7</b>	<b>13.3</b>	<i>-21.1</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<b>3.6</b>	<i>-9.6</i>	<i>0.0</i>
<b>End-of-period Inventories (million short tons)</b>															
Primary Inventories (d) .....	<b>26.8</b>	<b>24.5</b>	<b>23.4</b>	<b>24.0</b>	<b>23.2</b>	<b>21.9</b>	<i>21.3</i>	<i>23.1</i>	<i>23.2</i>	<i>22.2</i>	<i>19.8</i>	<i>22.5</i>	<b>24.0</b>	<i>23.1</i>	<i>22.5</i>
Secondary Inventories .....	<b>131.2</b>	<b>126.3</b>	<b>105.9</b>	<b>108.1</b>	<b>102.2</b>	<b>114.6</b>	<i>113.5</i>	<i>121.0</i>	<i>121.6</i>	<i>118.5</i>	<i>111.5</i>	<i>119.4</i>	<b>108.1</b>	<i>121.0</i>	<i>119.4</i>
Electric Power Sector .....	<b>126.5</b>	<b>121.5</b>	<b>100.8</b>	<b>102.8</b>	<b>97.1</b>	<b>109.1</b>	<i>107.7</i>	<i>115.3</i>	<i>116.1</i>	<i>112.7</i>	<i>105.5</i>	<i>113.6</i>	<b>102.8</b>	<i>115.3</i>	<i>113.6</i>
Retail and General Industry .....	<b>2.9</b>	<b>2.9</b>	<b>3.0</b>	<b>3.3</b>	<b>2.8</b>	<b>3.5</b>	<i>3.6</i>	<i>3.4</i>	<i>3.7</i>	<i>3.6</i>	<i>3.7</i>	<i>3.5</i>	<b>3.3</b>	<i>3.4</i>	<i>3.5</i>
Coke Plants .....	<b>1.5</b>	<b>1.6</b>	<b>1.8</b>	<b>1.8</b>	<b>2.0</b>	<b>1.8</b>	<i>2.0</i>	<i>2.1</i>	<i>1.6</i>	<i>2.0</i>	<i>2.1</i>	<i>2.1</i>	<b>1.8</b>	<i>2.1</i>	<i>2.1</i>
<b>Coal Market Indicators</b>															
Coal Miner Productivity															
(Tons per hour) .....	<b>6.45</b>	<b>6.45</b>	<b>6.45</b>	<b>6.45</b>	<b>6.37</b>	<b>6.37</b>	<i>6.37</i>	<i>6.37</i>	<i>6.37</i>	<i>6.37</i>	<i>6.37</i>	<i>6.37</i>	<b>6.45</b>	<i>6.37</i>	<i>6.37</i>
Total Raw Steel Production															
(Million short tons per day) .....	<b>0.251</b>	<b>0.253</b>	<b>0.263</b>	<b>0.270</b>	<b>0.273</b>	<b>0.271</b>	<i>0.266</i>	<i>0.258</i>	<i>0.260</i>	<i>0.260</i>	<i>0.250</i>	<i>0.252</i>	<b>0.259</b>	<i>0.267</i>	<i>0.256</i>
Cost of Coal to Electric Utilities															
(Dollars per million Btu) .....	<b>2.06</b>	<b>2.06</b>	<b>2.06</b>	<b>2.08</b>	<b>2.1</b>	<b>2.1</b>	<i>2.09</i>	<i>2.09</i>	<i>2.11</i>	<i>2.12</i>	<i>2.10</i>	<i>2.10</i>	<b>2.06</b>	<i>2.09</i>	<i>2.11</i>

- = no data available

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

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

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

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

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

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

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

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

**Table 7a. U.S. Electricity Industry Overview**

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

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>Electricity Supply (billion kilowatthours)</b>															
Electricity Generation .....	<b>1,001</b>	<b>1,014</b>	<b>1,177</b>	<b>985</b>	<b>994</b>	<b>979</b>	<i>1,154</i>	<i>968</i>	<i>999</i>	<i>974</i>	<i>1,137</i>	<i>971</i>	<b>4,178</b>	<i>4,094</i>	<i>4,082</i>
Electric Power Sector (a) .....	<b>962</b>	<b>975</b>	<b>1,136</b>	<b>945</b>	<b>955</b>	<b>941</b>	<i>1,115</i>	<i>931</i>	<i>961</i>	<i>936</i>	<i>1,097</i>	<i>932</i>	<b>4,018</b>	<i>3,940</i>	<i>3,925</i>
Industrial Sector (b) .....	<b>36</b>	<b>36</b>	<b>38</b>	<b>37</b>	<b>36</b>	<b>35</b>	<i>36</i>	<i>34</i>	<i>35</i>	<i>35</i>	<i>37</i>	<i>36</i>	<b>146</b>	<i>141</i>	<i>143</i>
Commercial Sector (b) .....	<b>3</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>3</b>	<i>3</i>	<i>3</i>	<i>3</i>	<i>3</i>	<i>4</i>	<i>3</i>	<b>13</b>	<i>13</i>	<i>13</i>
Net Imports .....	<b>12</b>	<b>11</b>	<b>13</b>	<b>9</b>	<b>9</b>	<b>13</b>	<i>16</i>	<i>12</i>	<i>13</i>	<i>14</i>	<i>16</i>	<i>13</i>	<b>44</b>	<i>50</i>	<i>56</i>
Total Supply .....	<b>1,013</b>	<b>1,025</b>	<b>1,190</b>	<b>994</b>	<b>1,003</b>	<b>992</b>	<i>1,169</i>	<i>980</i>	<i>1,013</i>	<i>988</i>	<i>1,153</i>	<i>984</i>	<b>4,222</b>	<i>4,144</i>	<i>4,138</i>
Losses and Unaccounted for (c) .....	<b>58</b>	<b>85</b>	<b>73</b>	<b>61</b>	<b>55</b>	<b>72</b>	<i>74</i>	<i>62</i>	<i>53</i>	<i>74</i>	<i>67</i>	<i>62</i>	<b>277</b>	<i>263</i>	<i>255</i>
<b>Electricity Consumption (billion kilowatthours unless noted)</b>															
Retail Sales .....	<b>921</b>	<b>905</b>	<b>1079</b>	<b>897</b>	<b>913</b>	<b>885</b>	<i>1065</i>	<i>885</i>	<i>925</i>	<i>880</i>	<i>1050</i>	<i>886</i>	<b>3802</b>	<i>3748</i>	<i>3741</i>
Residential Sector .....	<b>369</b>	<b>328</b>	<b>434</b>	<b>333</b>	<b>362</b>	<b>313</b>	<i>427</i>	<i>326</i>	<i>371</i>	<i>312</i>	<i>419</i>	<i>328</i>	<b>1464</b>	<i>1428</i>	<i>1430</i>
Commercial Sector .....	<b>325</b>	<b>337</b>	<b>387</b>	<b>328</b>	<b>322</b>	<b>332</b>	<i>384</i>	<i>327</i>	<i>326</i>	<i>330</i>	<i>381</i>	<i>329</i>	<b>1377</b>	<i>1366</i>	<i>1366</i>
Industrial Sector .....	<b>225</b>	<b>238</b>	<b>256</b>	<b>234</b>	<b>227</b>	<b>238</b>	<i>252</i>	<i>229</i>	<i>227</i>	<i>235</i>	<i>249</i>	<i>228</i>	<b>953</b>	<i>946</i>	<i>939</i>
Transportation Sector .....	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<b>8</b>	<i>8</i>	<i>7</i>
Direct Use (d) .....	<b>35</b>	<b>35</b>	<b>37</b>	<b>36</b>	<b>36</b>	<b>34</b>	<i>35</i>	<i>34</i>	<i>35</i>	<i>34</i>	<i>37</i>	<i>36</i>	<b>144</b>	<i>139</i>	<i>141</i>
Total Consumption .....	<b>956</b>	<b>940</b>	<b>1117</b>	<b>933</b>	<b>948</b>	<b>919</b>	<i>1095</i>	<i>918</i>	<i>960</i>	<i>914</i>	<i>1087</i>	<i>922</i>	<b>3946</b>	<i>3881</i>	<i>3882</i>
Average residential electricity usage per customer (kWh) .....	<b>2,755</b>	<b>2,447</b>	<b>3,240</b>	<b>2,481</b>	<b>2,668</b>	<b>2,288</b>	<i>3,151</i>	<i>2,407</i>	<i>2,706</i>	<i>2,277</i>	<i>3,054</i>	<i>2,392</i>	<b>10,923</b>	<i>10,513</i>	<i>10,429</i>
<b>Prices</b>															
<b>Power Generation Fuel Costs (dollars per million Btu)</b>															
Coal .....	<b>2.06</b>	<b>2.06</b>	<b>2.06</b>	<b>2.08</b>	<b>2.08</b>	<b>2.08</b>	<i>2.09</i>	<i>2.09</i>	<i>2.11</i>	<i>2.12</i>	<i>2.10</i>	<i>2.10</i>	<b>2.06</b>	<i>2.09</i>	<i>2.11</i>
Natural Gas .....	<b>3.96</b>	<b>3.09</b>	<b>3.23</b>	<b>4.05</b>	<b>3.71</b>	<b>2.67</b>	<i>2.32</i>	<i>2.69</i>	<i>3.14</i>	<i>2.53</i>	<i>2.50</i>	<i>2.84</i>	<b>3.54</b>	<i>2.79</i>	<i>2.73</i>
Residual Fuel Oil .....	<b>11.47</b>	<b>13.02</b>	<b>14.02</b>	<b>14.49</b>	<b>12.22</b>	<b>13.79</b>	<i>12.36</i>	<i>11.58</i>	<i>12.17</i>	<i>13.04</i>	<i>12.38</i>	<i>12.13</i>	<b>12.95</b>	<i>12.48</i>	<i>12.41</i>
Distillate Fuel Oil .....	<b>15.77</b>	<b>16.61</b>	<b>16.82</b>	<b>16.01</b>	<b>14.85</b>	<b>15.83</b>	<i>14.90</i>	<i>15.58</i>	<i>16.26</i>	<i>16.71</i>	<i>16.63</i>	<i>16.68</i>	<b>16.13</b>	<i>15.28</i>	<i>16.55</i>
<b>Retail Prices (cents per kilowatthour)</b>															
Residential Sector .....	<b>12.59</b>	<b>13.03</b>	<b>13.15</b>	<b>12.75</b>	<b>12.66</b>	<b>13.33</b>	<i>13.28</i>	<i>12.85</i>	<i>12.64</i>	<i>13.38</i>	<i>13.42</i>	<i>13.06</i>	<b>12.89</b>	<i>13.04</i>	<i>13.13</i>
Commercial Sector .....	<b>10.54</b>	<b>10.60</b>	<b>10.89</b>	<b>10.55</b>	<b>10.41</b>	<b>10.66</b>	<i>10.90</i>	<i>10.51</i>	<i>10.31</i>	<i>10.58</i>	<i>10.93</i>	<i>10.61</i>	<b>10.66</b>	<i>10.63</i>	<i>10.62</i>
Industrial Sector .....	<b>6.81</b>	<b>6.87</b>	<b>7.22</b>	<b>6.82</b>	<b>6.66</b>	<b>6.77</b>	<i>7.09</i>	<i>6.69</i>	<i>6.65</i>	<i>6.81</i>	<i>7.21</i>	<i>6.78</i>	<b>6.93</b>	<i>6.81</i>	<i>6.87</i>
<b>Wholesale Electricity Prices (dollars per megawatthour)</b>															
ERCOT North hub .....	<b>33.26</b>	<b>37.01</b>	<b>61.04</b>	<b>34.39</b>	<b>28.41</b>	<b>28.34</b>	<i>99.15</i>	<i>28.40</i>	<i>29.05</i>	<i>29.04</i>	<i>32.15</i>	<i>28.98</i>	<b>41.43</b>	<i>46.07</i>	<i>29.81</i>
CAISO SP15 zone .....	<b>35.44</b>	<b>27.75</b>	<b>74.86</b>	<b>51.29</b>	<b>50.42</b>	<b>23.30</b>	<i>34.45</i>	<i>36.63</i>	<i>38.26</i>	<i>32.73</i>	<i>35.27</i>	<i>37.69</i>	<b>47.33</b>	<i>36.20</i>	<i>35.99</i>
ISO-NE Internal hub .....	<b>65.86</b>	<b>36.28</b>	<b>43.53</b>	<b>54.18</b>	<b>47.40</b>	<b>27.15</b>	<i>32.85</i>	<i>35.71</i>	<i>45.72</i>	<i>30.97</i>	<i>30.84</i>	<i>36.18</i>	<b>49.96</b>	<i>35.78</i>	<i>35.93</i>
NYISO Hudson Valley zone .....	<b>51.52</b>	<b>34.24</b>	<b>41.86</b>	<b>41.95</b>	<b>41.77</b>	<b>25.68</b>	<i>31.30</i>	<i>31.75</i>	<i>34.25</i>	<i>29.39</i>	<i>30.05</i>	<i>30.31</i>	<b>42.39</b>	<i>32.62</i>	<i>31.00</i>
PJM Western hub .....	<b>47.43</b>	<b>39.73</b>	<b>40.06</b>	<b>39.40</b>	<b>33.79</b>	<b>28.54</b>	<i>31.42</i>	<i>30.53</i>	<i>31.85</i>	<i>29.71</i>	<i>31.68</i>	<i>30.01</i>	<b>41.66</b>	<i>31.07</i>	<i>30.81</i>
Midcontinent ISO Illinois hub .....	<b>31.22</b>	<b>35.88</b>	<b>37.23</b>	<b>38.30</b>	<b>31.44</b>	<b>27.81</b>	<i>30.90</i>	<i>30.39</i>	<i>30.91</i>	<i>30.27</i>	<i>32.18</i>	<i>30.27</i>	<b>35.66</b>	<i>30.14</i>	<i>30.91</i>
SPP ISO South hub .....	<b>26.54</b>	<b>28.49</b>	<b>29.97</b>	<b>36.45</b>	<b>29.15</b>	<b>27.14</b>	<i>31.66</i>	<i>31.05</i>	<i>30.58</i>	<i>30.32</i>	<i>34.77</i>	<i>30.76</i>	<b>30.36</b>	<i>29.75</i>	<i>31.61</i>
SERC index, Into Southern .....	<b>30.84</b>	<b>29.30</b>	<b>31.80</b>	<b>31.18</b>	<b>30.74</b>	<b>29.87</b>	<i>30.84</i>	<i>30.63</i>	<i>30.03</i>	<i>29.90</i>	<i>31.64</i>	<i>29.51</i>	<b>30.78</b>	<i>30.52</i>	<i>30.27</i>
FRCC index, Florida Reliability .....	<b>30.31</b>	<b>30.19</b>	<b>31.70</b>	<b>31.09</b>	<b>30.71</b>	<b>29.57</b>	<i>29.83</i>	<i>32.73</i>	<i>30.88</i>	<i>28.58</i>	<i>29.20</i>	<i>30.97</i>	<b>30.82</b>	<i>30.71</i>	<i>29.91</i>
Northwest index, Mid-Columbia .....	<b>21.80</b>	<b>18.37</b>	<b>59.99</b>	<b>50.93</b>	<b>55.74</b>	<b>18.55</b>	<i>31.62</i>	<i>34.60</i>	<i>35.70</i>	<i>28.66</i>	<i>32.57</i>	<i>35.03</i>	<b>37.77</b>	<i>35.13</i>	<i>32.99</i>
Southwest index, Palo Verde .....	<b>26.39</b>	<b>25.76</b>	<b>67.78</b>	<b>42.71</b>	<b>44.23</b>	<b>18.45</b>	<i>41.03</i>	<i>35.01</i>	<i>36.09</i>	<i>33.92</i>	<i>36.61</i>	<i>36.61</i>	<b>40.66</b>	<i>34.68</i>	<i>35.80</i>

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

kWh = kilowatthours. Btu = British thermal units.

Prices are not adjusted for inflation.

- (a) Generation supplied by power plants with capacity of at least 1 megawatt operated by electric utilities and independent power producers.
- (b) Generation supplied by power plants with capacity of at least 1 megawatt 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*.

**Historical data sources:**

- (1) Electricity supply, consumption, fuel costs, and retail electricity prices: Latest data available from U.S. Energy Information Administration databases supporting the following reports: Electric Power Monthly, DOE/EIA-0226; and Electric Power Annual, DOE/EIA-0348
  - (2) Wholesale electricity prices (except for PJM RTO price): S&P Global Market Intelligence, SNL Energy Data
  - (3) PJM ISO Western Hub wholesale electricity prices: PJM Data Miner website
- 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 (billion kilowatthours)**

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

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>Residential Sector</b>															
New England .....	12.6	10.1	14.1	11.1	12.5	9.8	13.4	10.8	12.7	9.9	12.9	10.9	47.8	46.6	46.5
Middle Atlantic .....	35.4	29.4	41.6	31.1	35.3	27.7	40.7	30.5	35.8	28.0	38.4	30.4	137.5	134.2	132.6
E. N. Central .....	49.7	43.7	55.5	44.4	50.0	38.1	54.7	43.7	50.2	38.9	52.1	43.6	193.3	186.6	184.8
W. N. Central .....	29.4	24.9	29.2	25.0	29.9	21.6	28.5	24.7	29.5	22.0	28.9	24.7	108.5	104.7	105.1
S. Atlantic .....	93.6	83.7	109.0	86.4	88.3	84.4	109.0	83.1	93.1	82.3	104.9	83.7	372.6	364.9	364.1
E. S. Central .....	33.1	27.4	36.5	28.2	30.6	25.9	35.3	26.8	32.9	25.7	35.3	26.8	125.1	118.6	120.7
W. S. Central .....	54.8	53.0	73.9	49.1	51.8	49.9	72.6	48.5	53.5	51.3	73.7	49.2	230.7	222.8	227.7
Mountain .....	21.5	23.9	33.1	21.6	23.1	22.0	33.4	21.8	23.3	23.2	32.7	22.1	100.2	100.4	101.3
Pacific contiguous .....	38.0	30.8	40.4	34.6	39.0	29.6	38.3	35.1	38.7	29.8	38.5	35.2	143.8	142.0	142.1
AK and HI .....	1.2	1.1	1.2	1.2	1.2	1.1	1.2	1.2	1.2	1.1	1.1	1.2	4.7	4.6	4.6
Total .....	369.3	328.0	434.4	332.6	361.7	310.2	427.2	326.3	370.9	312.1	418.6	327.9	1,464.4	1,425.3	1,429.5
<b>Commercial Sector</b>															
New England .....	12.7	12.4	14.7	12.5	12.8	12.2	14.1	12.4	12.7	12.0	13.7	12.2	52.3	51.3	50.6
Middle Atlantic .....	38.8	37.4	44.1	37.7	38.6	36.3	43.0	37.1	38.6	36.0	42.0	37.0	158.1	155.0	153.5
E. N. Central .....	44.9	45.6	51.1	44.5	44.6	43.1	50.9	44.4	44.8	43.5	49.5	44.5	186.1	182.9	182.3
W. N. Central .....	25.4	25.7	28.3	25.0	25.6	24.2	28.1	25.1	25.8	24.5	28.3	25.2	104.4	103.0	103.8
S. Atlantic .....	73.0	78.4	89.7	75.3	72.1	79.4	89.3	74.4	72.8	78.1	86.7	74.6	316.4	315.2	312.2
E. S. Central .....	21.7	23.0	27.2	22.1	21.0	22.5	26.8	21.7	21.5	22.5	26.8	21.8	94.0	92.1	92.6
W. S. Central .....	45.1	50.0	58.6	47.5	45.0	48.5	59.2	48.4	46.8	49.8	60.5	49.1	201.2	201.1	206.2
Mountain .....	22.4	24.5	28.4	23.2	22.7	23.9	28.6	23.4	23.0	24.6	28.5	23.7	98.5	98.5	99.8
Pacific contiguous .....	39.1	38.6	43.5	38.9	38.0	37.9	42.9	38.9	38.6	38.2	43.1	39.1	160.1	157.8	159.0
AK and HI .....	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	5.7	5.6	5.6
Total .....	324.5	337.1	387.0	328.2	321.7	329.2	384.3	327.3	326.0	330.5	380.5	328.6	1,376.7	1,362.5	1,365.5
<b>Industrial Sector</b>															
New England .....	3.8	3.9	4.3	4.0	3.8	3.8	4.2	4.1	3.9	3.8	4.3	4.0	16.0	15.9	16.0
Middle Atlantic .....	17.7	17.7	19.7	18.0	17.7	17.5	19.4	17.6	17.6	17.3	19.1	17.5	73.0	72.2	71.5
E. N. Central .....	44.9	47.1	48.8	45.4	44.8	45.3	47.0	44.1	44.4	44.6	46.3	43.4	186.1	181.2	178.7
W. N. Central .....	20.9	22.0	23.6	22.0	21.1	22.0	23.3	21.8	21.4	22.1	23.5	21.9	88.5	88.2	88.9
S. Atlantic .....	33.0	35.3	37.1	34.0	33.0	34.7	35.7	32.6	32.1	33.6	34.1	31.6	139.4	136.0	131.5
E. S. Central .....	23.1	23.8	26.4	24.0	23.4	23.9	25.6	22.9	22.8	23.1	24.6	22.2	97.3	95.8	92.8
W. S. Central .....	42.0	45.5	47.8	44.7	44.2	47.7	48.6	44.4	44.8	48.0	49.0	44.9	180.0	185.0	186.8
Mountain .....	18.8	20.8	23.1	20.2	19.2	21.1	23.3	20.1	19.5	21.3	23.2	20.3	82.8	83.8	84.2
Pacific contiguous .....	19.5	21.0	23.7	20.8	19.0	20.4	23.3	20.6	19.0	20.3	23.9	20.7	85.0	83.2	83.8
AK and HI .....	1.2	1.2	1.3	1.2	1.1	1.2	1.3	1.3	1.1	1.2	1.3	1.3	4.9	4.8	4.8
Total .....	224.8	238.2	255.9	234.2	227.4	237.7	251.8	229.3	226.5	235.4	249.3	227.9	953.1	946.2	939.1
<b>Total All Sectors (a)</b>															
New England .....	29.3	26.6	33.2	27.7	29.2	25.9	31.8	27.4	29.4	25.9	31.0	27.3	116.7	114.3	113.6
Middle Atlantic .....	93.0	85.4	106.4	87.7	92.6	82.4	104.0	86.1	92.9	82.2	100.4	85.8	372.6	365.2	361.3
E. N. Central .....	139.7	136.5	155.6	134.4	139.6	126.7	152.7	132.3	139.6	127.1	148.1	131.7	566.1	551.3	546.4
W. N. Central .....	75.7	72.6	81.2	72.0	76.7	67.7	80.0	71.5	76.7	68.6	80.8	71.8	301.4	295.9	297.9
S. Atlantic .....	199.8	197.8	236.1	196.0	193.7	198.9	234.4	190.4	198.4	194.3	226.0	190.3	829.8	817.4	809.0
E. S. Central .....	78.0	74.1	90.0	74.3	75.0	72.3	87.8	71.5	77.2	71.2	86.7	70.9	316.4	306.5	306.0
W. S. Central .....	141.9	148.5	180.4	141.4	141.1	146.1	180.5	141.3	145.2	149.2	183.2	143.3	612.2	609.1	620.9
Mountain .....	62.7	69.3	84.7	65.0	65.1	67.1	85.3	65.4	65.8	69.1	84.4	66.1	281.7	282.9	285.5
Pacific contiguous .....	96.7	90.6	107.8	94.5	96.2	88.1	104.7	94.8	96.4	88.4	105.8	95.2	389.7	383.9	385.8
AK and HI .....	3.8	3.7	3.9	3.9	3.7	3.6	3.9	3.9	3.7	3.6	3.9	3.9	15.3	15.1	15.0
Total .....	920.6	905.2	1,079.3	896.9	912.8	878.9	1,065.1	884.7	925.4	879.7	1,050.3	886.1	3,801.9	3,741.6	3,741.5

- = 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 U.S. 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 - September 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>Residential Sector</b>															
New England .....	<b>20.56</b>	<b>20.57</b>	<b>20.39</b>	<b>20.64</b>	<b>21.05</b>	<b>21.53</b>	<i>21.14</i>	<i>21.18</i>	<i>21.26</i>	<i>21.44</i>	<i>21.09</i>	<i>21.17</i>	<b>20.53</b>	<i>21.21</i>	<i>21.23</i>
Middle Atlantic .....	<b>15.62</b>	<b>16.21</b>	<b>16.34</b>	<b>15.80</b>	<b>15.20</b>	<b>16.08</b>	<i>16.09</i>	<i>15.41</i>	<i>14.81</i>	<i>15.86</i>	<i>16.23</i>	<i>15.72</i>	<b>16.00</b>	<i>15.70</i>	<i>15.65</i>
E. N. Central .....	<b>12.94</b>	<b>13.48</b>	<b>13.09</b>	<b>13.19</b>	<b>12.93</b>	<b>13.84</b>	<i>13.31</i>	<i>13.39</i>	<i>13.14</i>	<i>14.12</i>	<i>13.74</i>	<i>13.85</i>	<b>13.16</b>	<i>13.33</i>	<i>13.68</i>
W. N. Central .....	<b>10.90</b>	<b>12.63</b>	<b>13.10</b>	<b>11.39</b>	<b>10.71</b>	<b>12.93</b>	<i>13.41</i>	<i>11.68</i>	<i>11.05</i>	<i>13.34</i>	<i>13.89</i>	<i>12.16</i>	<b>12.00</b>	<i>12.13</i>	<i>12.57</i>
S. Atlantic .....	<b>11.66</b>	<b>11.90</b>	<b>11.82</b>	<b>11.62</b>	<b>11.71</b>	<b>12.12</b>	<i>11.89</i>	<i>11.68</i>	<i>11.57</i>	<i>12.02</i>	<i>11.85</i>	<i>11.69</i>	<b>11.75</b>	<i>11.85</i>	<i>11.78</i>
E. S. Central .....	<b>10.86</b>	<b>11.40</b>	<b>11.16</b>	<b>11.17</b>	<b>11.11</b>	<b>11.74</b>	<i>11.44</i>	<i>11.46</i>	<i>11.18</i>	<i>11.97</i>	<i>11.68</i>	<i>11.74</i>	<b>11.14</b>	<i>11.42</i>	<i>11.62</i>
W. S. Central .....	<b>10.52</b>	<b>11.01</b>	<b>10.97</b>	<b>10.83</b>	<b>10.79</b>	<b>11.46</b>	<i>11.14</i>	<i>10.77</i>	<i>10.54</i>	<i>11.20</i>	<i>11.06</i>	<i>10.79</i>	<b>10.85</b>	<i>11.05</i>	<i>10.91</i>
Mountain .....	<b>11.58</b>	<b>12.24</b>	<b>12.26</b>	<b>11.76</b>	<b>11.52</b>	<b>12.19</b>	<i>12.32</i>	<i>11.85</i>	<i>11.62</i>	<i>12.37</i>	<i>12.58</i>	<i>12.16</i>	<b>12.00</b>	<i>12.00</i>	<i>12.22</i>
Pacific .....	<b>14.88</b>	<b>15.27</b>	<b>17.07</b>	<b>14.77</b>	<b>14.86</b>	<b>15.79</b>	<i>17.47</i>	<i>15.05</i>	<i>15.21</i>	<i>16.34</i>	<i>17.87</i>	<i>15.30</i>	<b>15.55</b>	<i>15.81</i>	<i>16.19</i>
U.S. Average .....	<b>12.59</b>	<b>13.03</b>	<b>13.15</b>	<b>12.75</b>	<b>12.66</b>	<b>13.33</b>	<i>13.28</i>	<i>12.85</i>	<i>12.64</i>	<i>13.38</i>	<i>13.42</i>	<i>13.06</i>	<b>12.89</b>	<i>13.04</i>	<i>13.13</i>
<b>Commercial Sector</b>															
New England .....	<b>16.59</b>	<b>15.92</b>	<b>16.19</b>	<b>16.44</b>	<b>16.72</b>	<b>16.16</b>	<i>16.44</i>	<i>16.61</i>	<i>16.76</i>	<i>16.10</i>	<i>16.41</i>	<i>16.69</i>	<b>16.28</b>	<i>16.48</i>	<i>16.49</i>
Middle Atlantic .....	<b>12.10</b>	<b>12.22</b>	<b>13.17</b>	<b>12.08</b>	<b>11.56</b>	<b>12.19</b>	<i>12.94</i>	<i>11.64</i>	<i>11.09</i>	<i>11.83</i>	<i>12.76</i>	<i>11.69</i>	<b>12.42</b>	<i>12.11</i>	<i>11.86</i>
E. N. Central .....	<b>10.10</b>	<b>10.15</b>	<b>10.08</b>	<b>10.10</b>	<b>10.14</b>	<b>10.26</b>	<i>10.16</i>	<i>10.10</i>	<i>10.12</i>	<i>10.28</i>	<i>10.28</i>	<i>10.29</i>	<b>10.11</b>	<i>10.16</i>	<i>10.24</i>
W. N. Central .....	<b>9.18</b>	<b>10.03</b>	<b>10.38</b>	<b>9.23</b>	<b>8.97</b>	<b>10.07</b>	<i>10.45</i>	<i>9.33</i>	<i>9.15</i>	<i>10.35</i>	<i>10.86</i>	<i>9.74</i>	<b>9.73</b>	<i>9.72</i>	<i>10.04</i>
S. Atlantic .....	<b>9.61</b>	<b>9.30</b>	<b>9.18</b>	<b>9.41</b>	<b>9.44</b>	<b>9.38</b>	<i>9.21</i>	<i>9.36</i>	<i>9.30</i>	<i>9.21</i>	<i>9.08</i>	<i>9.31</i>	<b>9.36</b>	<i>9.34</i>	<i>9.22</i>
E. S. Central .....	<b>10.51</b>	<b>10.48</b>	<b>10.34</b>	<b>10.54</b>	<b>10.70</b>	<b>10.71</b>	<i>10.53</i>	<i>10.70</i>	<i>10.83</i>	<i>10.90</i>	<i>10.76</i>	<i>10.99</i>	<b>10.46</b>	<i>10.66</i>	<i>10.86</i>
W. S. Central .....	<b>8.37</b>	<b>8.17</b>	<b>8.12</b>	<b>7.94</b>	<b>8.15</b>	<b>8.15</b>	<i>7.93</i>	<i>7.68</i>	<i>7.86</i>	<i>7.94</i>	<i>7.86</i>	<i>7.70</i>	<b>8.15</b>	<i>7.97</i>	<i>7.84</i>
Mountain .....	<b>9.27</b>	<b>9.88</b>	<b>10.01</b>	<b>9.36</b>	<b>9.20</b>	<b>9.64</b>	<i>9.92</i>	<i>9.32</i>	<i>9.19</i>	<i>9.68</i>	<i>10.04</i>	<i>9.48</i>	<b>9.66</b>	<i>9.54</i>	<i>9.62</i>
Pacific .....	<b>12.91</b>	<b>14.02</b>	<b>15.81</b>	<b>14.10</b>	<b>12.98</b>	<b>14.11</b>	<i>16.25</i>	<i>14.45</i>	<i>13.18</i>	<i>14.22</i>	<i>16.37</i>	<i>14.66</i>	<b>14.25</b>	<i>14.51</i>	<i>14.66</i>
U.S. Average .....	<b>10.54</b>	<b>10.60</b>	<b>10.89</b>	<b>10.55</b>	<b>10.41</b>	<b>10.66</b>	<i>10.90</i>	<i>10.51</i>	<i>10.31</i>	<i>10.58</i>	<i>10.93</i>	<i>10.61</i>	<b>10.66</b>	<i>10.63</i>	<i>10.62</i>
<b>Industrial Sector</b>															
New England .....	<b>13.46</b>	<b>12.60</b>	<b>12.83</b>	<b>12.98</b>	<b>13.31</b>	<b>12.63</b>	<i>12.57</i>	<i>12.68</i>	<i>13.21</i>	<i>12.59</i>	<i>12.66</i>	<i>12.76</i>	<b>12.96</b>	<i>12.79</i>	<i>12.80</i>
Middle Atlantic .....	<b>7.26</b>	<b>6.82</b>	<b>6.86</b>	<b>6.79</b>	<b>6.73</b>	<b>6.58</b>	<i>6.48</i>	<i>6.37</i>	<i>6.52</i>	<i>6.46</i>	<i>6.47</i>	<i>6.35</i>	<b>6.93</b>	<i>6.54</i>	<i>6.45</i>
E. N. Central .....	<b>7.10</b>	<b>6.96</b>	<b>6.99</b>	<b>7.01</b>	<b>7.02</b>	<b>6.90</b>	<i>6.89</i>	<i>6.90</i>	<i>7.03</i>	<i>6.97</i>	<i>7.00</i>	<i>7.01</i>	<b>7.01</b>	<i>6.93</i>	<i>7.00</i>
W. N. Central .....	<b>7.04</b>	<b>7.38</b>	<b>7.99</b>	<b>6.93</b>	<b>7.13</b>	<b>7.38</b>	<i>8.17</i>	<i>7.11</i>	<i>7.34</i>	<i>7.61</i>	<i>8.43</i>	<i>7.33</i>	<b>7.35</b>	<i>7.46</i>	<i>7.70</i>
S. Atlantic .....	<b>6.54</b>	<b>6.40</b>	<b>6.60</b>	<b>6.39</b>	<b>6.22</b>	<b>6.30</b>	<i>6.42</i>	<i>6.18</i>	<i>6.12</i>	<i>6.25</i>	<i>6.43</i>	<i>6.19</i>	<b>6.48</b>	<i>6.28</i>	<i>6.25</i>
E. S. Central .....	<b>5.74</b>	<b>5.92</b>	<b>5.87</b>	<b>5.88</b>	<b>5.71</b>	<b>5.86</b>	<i>5.74</i>	<i>5.74</i>	<i>5.68</i>	<i>5.87</i>	<i>5.80</i>	<i>5.80</i>	<b>5.86</b>	<i>5.77</i>	<i>5.79</i>
W. S. Central .....	<b>5.42</b>	<b>5.41</b>	<b>5.65</b>	<b>5.27</b>	<b>5.25</b>	<b>5.30</b>	<i>5.45</i>	<i>5.03</i>	<i>5.18</i>	<i>5.32</i>	<i>5.49</i>	<i>5.06</i>	<b>5.44</b>	<i>5.26</i>	<i>5.27</i>
Mountain .....	<b>6.10</b>	<b>6.48</b>	<b>6.93</b>	<b>6.05</b>	<b>6.13</b>	<b>6.24</b>	<i>6.69</i>	<i>5.91</i>	<i>6.10</i>	<i>6.26</i>	<i>6.76</i>	<i>5.96</i>	<b>6.41</b>	<i>6.26</i>	<i>6.29</i>
Pacific .....	<b>8.63</b>	<b>9.52</b>	<b>11.17</b>	<b>9.89</b>	<b>8.68</b>	<b>9.53</b>	<i>11.29</i>	<i>10.00</i>	<i>8.88</i>	<i>9.80</i>	<i>11.63</i>	<i>10.30</i>	<b>9.87</b>	<i>9.95</i>	<i>10.23</i>
U.S. Average .....	<b>6.81</b>	<b>6.87</b>	<b>7.22</b>	<b>6.82</b>	<b>6.66</b>	<b>6.77</b>	<i>7.09</i>	<i>6.69</i>	<i>6.65</i>	<i>6.81</i>	<i>7.21</i>	<i>6.78</i>	<b>6.93</b>	<i>6.81</i>	<i>6.87</i>
<b>All Sectors (a)</b>															
New England .....	<b>17.86</b>	<b>17.16</b>	<b>17.49</b>	<b>17.58</b>	<b>18.11</b>	<b>17.65</b>	<i>17.87</i>	<i>17.81</i>	<i>18.21</i>	<i>17.59</i>	<i>17.81</i>	<i>17.87</i>	<b>17.53</b>	<i>17.87</i>	<i>17.88</i>
Middle Atlantic .....	<b>12.50</b>	<b>12.47</b>	<b>13.23</b>	<b>12.30</b>	<b>12.01</b>	<b>12.34</b>	<i>12.96</i>	<i>11.89</i>	<i>11.65</i>	<i>12.07</i>	<i>12.88</i>	<i>12.03</i>	<b>12.65</b>	<i>12.33</i>	<i>12.18</i>
E. N. Central .....	<b>10.14</b>	<b>10.11</b>	<b>10.18</b>	<b>10.07</b>	<b>10.13</b>	<b>10.14</b>	<i>10.28</i>	<i>10.12</i>	<i>10.22</i>	<i>10.29</i>	<i>10.47</i>	<i>10.38</i>	<b>10.13</b>	<i>10.17</i>	<i>10.34</i>
W. N. Central .....	<b>9.26</b>	<b>10.12</b>	<b>10.66</b>	<b>9.27</b>	<b>9.14</b>	<b>10.12</b>	<i>10.84</i>	<i>9.46</i>	<i>9.38</i>	<i>10.43</i>	<i>11.24</i>	<i>9.83</i>	<b>9.85</b>	<i>9.90</i>	<i>10.23</i>
S. Atlantic .....	<b>10.06</b>	<b>9.88</b>	<b>9.99</b>	<b>9.86</b>	<b>9.92</b>	<b>10.00</b>	<i>10.03</i>	<i>9.83</i>	<i>9.85</i>	<i>9.88</i>	<i>9.97</i>	<i>9.84</i>	<b>9.95</b>	<i>9.95</i>	<i>9.89</i>
E. S. Central .....	<b>9.25</b>	<b>9.36</b>	<b>9.36</b>	<b>9.27</b>	<b>9.31</b>	<b>9.47</b>	<i>9.50</i>	<i>9.40</i>	<i>9.46</i>	<i>9.66</i>	<i>9.73</i>	<i>9.64</i>	<b>9.31</b>	<i>9.42</i>	<i>9.62</i>
W. S. Central .....	<b>8.33</b>	<b>8.34</b>	<b>8.63</b>	<b>8.10</b>	<b>8.21</b>	<b>8.36</b>	<i>8.55</i>	<i>7.91</i>	<i>8.02</i>	<i>8.22</i>	<i>8.51</i>	<i>7.93</i>	<b>8.37</b>	<i>8.28</i>	<i>8.19</i>
Mountain .....	<b>9.12</b>	<b>9.68</b>	<b>10.05</b>	<b>9.13</b>	<b>9.12</b>	<b>9.43</b>	<i>9.98</i>	<i>9.12</i>	<i>9.14</i>	<i>9.53</i>	<i>10.12</i>	<i>9.30</i>	<b>9.54</b>	<i>9.45</i>	<i>9.56</i>
Pacific .....	<b>12.81</b>	<b>13.39</b>	<b>15.25</b>	<b>13.40</b>	<b>12.88</b>	<b>13.59</b>	<i>15.58</i>	<i>13.69</i>	<i>13.14</i>	<i>13.91</i>	<i>15.83</i>	<i>13.94</i>	<b>13.76</b>	<i>13.99</i>	<i>14.25</i>
U.S. Average .....	<b>10.45</b>	<b>10.50</b>	<b>10.93</b>	<b>10.39</b>	<b>10.36</b>	<b>10.56</b>	<i>10.95</i>	<i>10.38</i>	<i>10.35</i>	<i>10.56</i>	<i>11.04</i>	<i>10.53</i>	<b>10.58</b>	<i>10.58</i>	<i>10.63</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 part 1. U.S. Regional Electricity Generation, Electric Power Sector (billion kilowatthours), continues on Table 7d part 2**

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

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>United States</b>															
Natural Gas .....	286.4	321.7	445.4	312.1	316.1	330.2	462.1	343.2	322.1	351.7	457.8	344.1	<b>1,365.7</b>	1,451.5	1,475.7
Coal .....	279.3	258.3	325.5	275.5	257.7	209.0	288.1	214.2	239.4	182.3	256.9	202.1	<b>1,138.5</b>	969.0	880.7
Nuclear .....	206.5	196.1	209.5	195.0	203.5	196.5	205.8	200.7	205.9	185.0	202.5	198.0	<b>807.1</b>	806.5	791.5
Renewable Energy Sources: .....	179.9	192.8	149.5	156.7	170.9	195.0	158.2	166.4	186.5	211.1	173.5	181.3	<b>678.7</b>	690.5	752.5
Conventional Hydropower .....	76.7	85.4	63.7	64.3	71.6	81.5	64.6	63.9	72.7	81.4	67.0	63.9	<b>290.1</b>	281.6	285.0
Wind .....	78.2	74.7	53.5	68.4	74.2	80.0	60.6	77.5	86.1	91.7	67.6	89.0	<b>274.7</b>	292.3	334.4
Solar (a) .....	12.6	20.9	20.2	12.2	13.4	22.3	22.3	14.5	16.6	26.7	28.4	18.2	<b>65.9</b>	72.5	89.9
Biomass .....	8.3	7.7	7.9	7.6	7.5	7.3	6.5	6.0	6.8	7.5	6.4	5.9	<b>31.4</b>	27.3	26.5
Geothermal .....	4.1	4.0	4.3	4.2	4.1	4.0	4.1	4.5	4.4	3.8	4.1	4.3	<b>16.7</b>	16.7	16.6
Pumped Storage Hydropower .....	-1.4	-1.2	-2.0	-1.4	-1.1	-0.9	-2.2	-1.3	-1.1	-0.7	-2.0	-1.3	<b>-5.9</b>	-5.5	-5.1
Petroleum (b) .....	8.8	4.5	5.3	4.5	4.8	4.1	5.5	4.6	4.9	4.0	5.6	4.5	<b>23.1</b>	19.0	19.0
Other Gases .....	1.0	1.0	1.1	0.9	1.1	1.0	1.1	0.9	1.2	1.1	1.1	0.8	<b>4.0</b>	4.2	4.2
Other Nonrenewable Fuels (c) .....	1.8	1.8	1.5	1.9	1.7	1.8	1.5	1.9	1.7	1.8	1.5	1.9	<b>7.0</b>	6.9	6.9
Total Generation .....	<b>962.3</b>	<b>975.0</b>	<b>1,135.7</b>	<b>945.2</b>	<b>954.6</b>	<b>936.8</b>	<b>1,120.1</b>	<b>930.5</b>	<b>960.6</b>	<b>936.4</b>	<b>1,096.8</b>	<b>931.5</b>	<b>4,018.3</b>	<b>3,942.0</b>	<b>3,925.3</b>
<b>New England (ISO-NE)</b>															
Natural Gas .....	10.4	10.0	16.3	11.4	10.7	10.1	16.8	12.9	12.9	14.0	16.9	12.6	<b>48.1</b>	50.6	56.5
Coal .....	0.6	0.2	0.1	0.2	0.3	0.0	0.1	0.1	0.3	0.0	0.1	0.1	<b>1.1</b>	0.5	0.5
Nuclear .....	8.2	8.3	8.4	6.5	8.6	6.8	7.3	7.3	7.1	5.4	7.3	6.4	<b>31.4</b>	30.0	26.2
Conventional hydropower .....	1.8	1.9	1.8	2.2	2.3	2.0	1.8	2.1	2.1	1.9	1.7	2.0	<b>7.8</b>	8.2	7.6
Nonhydro renewables (d) .....	2.8	2.6	2.6	2.6	2.7	2.8	2.6	2.7	2.8	3.1	2.6	2.8	<b>10.6</b>	10.8	11.3
Other energy sources (e) .....	1.3	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.4	<b>2.3</b>	1.3	1.3
Total generation .....	<b>25.1</b>	<b>23.4</b>	<b>29.6</b>	<b>23.2</b>	<b>24.8</b>	<b>22.1</b>	<b>28.9</b>	<b>25.5</b>	<b>25.5</b>	<b>24.8</b>	<b>29.0</b>	<b>24.2</b>	<b>101.3</b>	<b>101.3</b>	<b>103.4</b>
Net energy for load (f) .....	<b>30.2</b>	<b>27.3</b>	<b>34.5</b>	<b>29.0</b>	<b>29.7</b>	<b>26.1</b>	<b>32.9</b>	<b>28.6</b>	<b>30.5</b>	<b>27.3</b>	<b>32.2</b>	<b>28.6</b>	<b>120.9</b>	<b>117.4</b>	<b>118.5</b>
<b>New York (NYISO)</b>															
Natural Gas .....	10.8	12.6	19.3	12.7	11.9	11.2	14.7	11.3	10.7	17.3	20.2	14.3	<b>55.4</b>	49.2	62.5
Coal .....	0.4	0.0	0.2	0.1	0.3	0.0	0.2	0.1	0.2	0.0	0.1	0.1	<b>0.7</b>	0.7	0.5
Nuclear .....	10.9	10.0	10.5	11.4	10.4	10.8	11.3	11.6	11.3	8.3	8.7	9.2	<b>42.9</b>	44.1	37.5
Conventional hydropower .....	7.4	7.8	7.6	8.1	7.7	7.6	7.5	7.1	7.1	6.8	7.2	6.9	<b>30.8</b>	29.8	28.0
Nonhydro renewables (d) .....	1.8	1.7	1.5	1.6	1.7	1.9	1.6	1.7	1.7	2.0	1.7	1.9	<b>6.6</b>	6.9	7.5
Other energy sources (e) .....	1.3	0.2	0.1	0.1	0.4	0.1	0.1	0.1	0.4	0.1	0.1	0.1	<b>1.8</b>	0.7	0.7
Total generation .....	<b>32.6</b>	<b>32.3</b>	<b>39.3</b>	<b>34.0</b>	<b>32.5</b>	<b>31.6</b>	<b>35.4</b>	<b>31.9</b>	<b>31.5</b>	<b>34.6</b>	<b>38.0</b>	<b>32.6</b>	<b>138.2</b>	<b>131.4</b>	<b>136.6</b>
Net energy for load (f) .....	<b>38.2</b>	<b>36.5</b>	<b>46.1</b>	<b>36.9</b>	<b>37.8</b>	<b>34.9</b>	<b>44.6</b>	<b>36.7</b>	<b>38.2</b>	<b>36.2</b>	<b>43.2</b>	<b>36.7</b>	<b>157.7</b>	<b>153.9</b>	<b>154.3</b>
<b>Mid-Atlantic (PJM)</b>															
Natural Gas .....	54.6	56.6	78.4	60.3	68.5	63.9	89.1	72.3	69.8	76.3	91.7	74.2	<b>249.9</b>	293.8	312.0
Coal .....	61.8	51.6	62.4	50.7	53.3	40.1	57.5	42.4	54.8	26.2	37.9	38.6	<b>226.6</b>	193.3	157.5
Nuclear .....	71.7	69.2	73.2	71.3	69.6	68.5	69.7	67.7	70.0	65.3	67.7	68.0	<b>285.4</b>	275.6	271.0
Conventional hydropower .....	2.4	2.7	2.6	3.4	3.3	2.8	2.6	3.0	3.0	2.5	2.4	3.0	<b>11.2</b>	11.8	11.0
Nonhydro renewables (d) .....	9.7	8.3	6.9	8.6	9.2	9.5	7.4	9.1	9.7	10.3	7.9	10.0	<b>33.6</b>	35.3	37.8
Other energy sources (e) .....	1.9	0.5	0.4	0.7	0.6	0.6	0.3	0.8	0.9	0.7	0.3	0.7	<b>3.4</b>	2.3	2.6
Total generation .....	<b>202.1</b>	<b>189.0</b>	<b>223.9</b>	<b>195.1</b>	<b>204.6</b>	<b>189.2</b>	<b>221.2</b>	<b>195.4</b>	<b>208.2</b>	<b>181.3</b>	<b>207.9</b>	<b>194.6</b>	<b>810.1</b>	<b>810.4</b>	<b>792.0</b>
Net energy for load (f) .....	<b>200.0</b>	<b>184.4</b>	<b>217.2</b>	<b>188.1</b>	<b>197.0</b>	<b>175.8</b>	<b>212.9</b>	<b>182.5</b>	<b>198.9</b>	<b>174.4</b>	<b>205.5</b>	<b>182.1</b>	<b>789.6</b>	<b>768.2</b>	<b>760.9</b>
<b>Southeast (SERC)</b>															
Natural Gas .....	55.7	59.0	76.1	55.7	56.0	59.4	78.8	59.7	62.7	64.3	76.2	63.2	<b>246.5</b>	253.9	266.3
Coal .....	44.3	45.0	53.9	42.3	35.1	38.0	46.0	36.3	38.6	35.4	43.8	32.9	<b>185.5</b>	155.5	150.7
Nuclear .....	52.0	50.7	53.5	48.5	52.3	52.8	53.8	53.2	52.0	49.5	54.1	53.0	<b>204.8</b>	212.2	208.6
Conventional hydropower .....	7.4	8.2	7.6	10.5	10.5	8.4	7.7	9.1	9.5	7.4	7.1	8.8	<b>33.7</b>	35.6	32.7
Nonhydro renewables (d) .....	2.7	3.8	3.7	2.5	2.8	4.0	4.0	2.4	3.2	5.4	5.6	3.3	<b>12.7</b>	13.2	17.4
Other energy sources (e) .....	0.4	-0.1	-0.5	-0.1	0.0	-0.2	-0.4	-0.1	0.0	-0.1	-0.4	-0.1	<b>-0.3</b>	-0.8	-0.6
Total generation .....	<b>162.5</b>	<b>166.6</b>	<b>194.3</b>	<b>159.4</b>	<b>156.7</b>	<b>162.3</b>	<b>189.9</b>	<b>160.7</b>	<b>165.9</b>	<b>161.9</b>	<b>186.3</b>	<b>161.0</b>	<b>682.9</b>	<b>669.6</b>	<b>675.1</b>
Net energy for load (f) .....	<b>165.2</b>	<b>165.5</b>	<b>192.0</b>	<b>158.9</b>	<b>160.1</b>	<b>161.2</b>	<b>188.1</b>	<b>157.3</b>	<b>166.8</b>	<b>158.3</b>	<b>183.7</b>	<b>156.1</b>	<b>681.6</b>	<b>666.7</b>	<b>664.9</b>
<b>Florida (FRCC)</b>															
Natural Gas .....	34.0	41.8	50.6	39.2	35.5	45.8	53.0	35.4	35.3	44.1	51.0	36.7	<b>165.5</b>	169.6	167.1
Coal .....	6.3	6.7	7.8	6.1	3.7	4.8	4.7	6.5	4.6	1.7	4.5	4.9	<b>26.9</b>	19.8	15.7
Nuclear .....	7.5	7.7	7.0	7.1	7.6	6.4	7.3	7.5	7.2	6.7	7.4	7.8	<b>29.3</b>	28.8	29.1
Conventional hydropower .....	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	<b>0.2</b>	0.2	0.2
Nonhydro renewables (d) .....	1.3	1.3	1.3	1.3	1.5	1.7	1.5	1.4	1.8	2.3	2.1	1.7	<b>5.2</b>	6.1	7.9
Other energy sources (e) .....	1.0	0.8	1.1	0.7	0.8	0.8	1.1	0.6	0.8	0.8	1.1	0.6	<b>3.5</b>	3.3	3.3
Total generation .....	<b>50.2</b>	<b>58.4</b>	<b>67.9</b>	<b>54.3</b>	<b>49.2</b>	<b>59.6</b>	<b>67.7</b>	<b>51.4</b>	<b>49.8</b>	<b>55.6</b>	<b>66.1</b>	<b>51.9</b>	<b>230.7</b>	<b>227.9</b>	<b>223.4</b>
Net energy for load (f) .....	<b>49.4</b>	<b>58.8</b>	<b>68.3</b>	<b>53.8</b>	<b>48.4</b>	<b>61.5</b>	<b>67.2</b>	<b>51.8</b>	<b>48.9</b>	<b>57.5</b>	<b>65.9</b>	<b>51.8</b>	<b>230.3</b>	<b>228.9</b>	<b>224.2</b>

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

Data reflect generation supplied by power plants with a combined capacity of at least 1 megawatt operated by electric utilities and independent power producers.

(a) Solar generation from large-scale power plants with more than 1 megawatt of capacity. Excludes generation from small-scale solar photovoltaic systems.

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

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

(d) Wind, large-scale solar, biomass, and geothermal

(e) Pumped storage hydroelectric, petroleum, other gases, batteries, and other nonrenewable fuels. See notes (b) and (c).

(f) Regional generation from generating units operated by electric power sector, plus energy receipts from minus energy deliveries to U.S. balancing authorities outside region.

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

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

**Table 7d part 2. U.S. Regional Electricity Generation, Electric Power Sector (billion kilowatthours), continued from Table 7d part 1**  
 U.S. Energy Information Administration | Short-Term Energy Outlook - September 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>Midwest (MISO)</b>															
Natural Gas .....	34.0	41.7	49.4	30.7	35.1	40.8	51.7	40.6	36.5	44.4	52.9	40.2	155.8	168.2	174.0
Coal .....	82.5	77.8	93.6	80.7	77.5	61.1	81.9	53.9	66.4	54.7	75.2	51.3	334.6	274.4	247.6
Nuclear .....	26.4	22.9	25.7	23.3	25.3	23.2	26.1	25.8	26.9	22.2	26.8	24.9	98.3	100.3	100.7
Conventional hydropower .....	2.7	2.8	2.1	2.3	2.5	2.5	2.2	2.1	2.3	2.3	2.0	2.0	10.0	9.2	8.5
Nonhydro renewables (d) .....	18.1	15.0	11.9	16.0	17.3	17.5	13.4	17.8	20.5	20.7	16.4	21.3	61.0	65.9	78.9
Other energy sources (e) .....	2.0	1.7	1.9	1.7	1.9	1.4	2.1	1.9	2.2	1.6	2.2	1.8	7.2	7.4	7.7
Total generation .....	165.8	161.8	184.6	154.7	159.6	146.5	177.2	142.0	154.7	145.9	175.5	141.5	666.9	625.3	617.5
Net energy for load (f) .....	162.0	163.5	184.8	158.9	161.1	154.0	178.4	155.1	160.1	153.2	176.2	155.6	669.3	648.6	645.1
<b>Central (Southwest Power Pool)</b>															
Natural Gas .....	11.9	18.1	22.5	12.6	13.3	15.3	22.1	16.0	14.7	15.6	22.1	15.2	65.0	66.7	67.7
Coal .....	27.9	24.5	34.2	27.3	27.3	19.1	31.3	22.4	25.3	17.9	30.5	20.6	113.8	100.0	94.3
Nuclear .....	4.2	2.8	4.3	3.5	4.4	4.4	4.3	2.5	4.1	4.2	4.4	3.6	14.8	15.6	16.3
Conventional hydropower .....	4.0	4.3	3.1	3.6	3.8	3.8	3.2	3.1	3.4	3.3	2.9	3.0	14.9	13.9	12.6
Nonhydro renewables (d) .....	18.7	18.5	13.1	16.6	18.1	18.4	15.4	19.4	20.8	20.9	16.5	21.4	66.9	71.3	79.5
Other energy sources (e) .....	0.2	0.2	0.1	0.2	0.2	0.3	0.1	0.2	0.3	0.3	0.1	0.2	0.8	0.9	0.9
Total generation .....	66.9	68.3	77.3	63.7	67.1	61.3	76.4	63.5	68.5	62.2	76.5	64.0	276.1	268.4	271.2
Net energy for load (f) .....	60.1	63.9	74.0	58.9	60.4	59.1	72.7	58.4	60.8	59.4	72.5	58.7	256.8	250.7	251.4
<b>Texas (ERCOT)</b>															
Natural Gas .....	33.6	41.2	56.9	34.3	34.0	42.6	61.8	37.3	29.1	39.9	53.8	31.2	166.1	175.7	154.1
Coal .....	18.6	22.0	26.4	22.6	18.1	18.3	21.8	16.2	17.8	17.1	23.6	18.1	89.6	74.4	76.6
Nuclear .....	10.8	10.2	10.9	9.3	10.4	9.8	10.8	10.4	11.2	8.8	11.0	10.4	41.2	41.4	41.5
Conventional hydropower .....	0.2	0.3	0.2	0.4	0.4	0.3	0.2	0.4	0.4	0.2	0.2	0.3	1.1	1.3	1.2
Nonhydro renewables (d) .....	19.4	21.9	15.0	17.5	19.5	21.9	17.3	20.4	24.6	28.2	22.0	25.4	73.7	79.1	100.2
Other energy sources (e) .....	0.3	0.4	0.0	0.3	0.4	0.4	0.0	0.3	0.4	0.4	0.0	0.3	1.0	1.1	1.1
Total generation .....	83.0	95.9	109.5	84.4	82.8	93.3	111.9	84.9	83.6	94.6	110.7	85.9	372.8	373.0	374.7
Net energy for load (f) .....	83.0	95.9	109.5	84.4	82.8	93.3	111.9	84.9	83.6	94.6	110.7	85.9	372.8	373.0	374.7
<b>Northwest</b>															
Natural Gas .....	17.4	16.2	28.7	19.4	20.9	17.0	31.0	21.4	19.4	15.0	28.0	20.3	81.7	90.3	82.7
Coal .....	25.2	20.0	30.8	30.5	29.7	18.0	29.3	22.4	22.4	20.8	29.5	24.4	106.6	99.4	97.1
Nuclear .....	2.5	2.1	2.5	2.5	2.5	1.3	2.3	2.5	2.5	2.3	2.3	2.5	9.7	8.6	9.6
Conventional hydropower .....	43.6	45.2	27.9	27.6	30.9	37.0	28.6	31.5	34.9	41.7	33.4	32.4	144.3	128.0	142.4
Nonhydro renewables (d) .....	12.5	12.7	10.7	10.6	10.6	13.5	11.2	11.5	11.6	13.8	11.7	13.1	46.5	46.8	50.1
Other energy sources (e) .....	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.1	0.3	0.3	0.3	1.0	0.9	1.0
Total generation .....	101.5	96.5	101.0	90.9	94.7	87.1	102.8	89.5	90.8	93.9	105.3	93.0	389.8	374.0	383.0
Net energy for load (f) .....	88.9	82.7	91.6	86.3	90.9	81.2	90.5	85.8	87.5	81.3	91.3	86.2	349.5	348.5	346.2
<b>Southwest</b>															
Natural Gas .....	6.1	10.9	18.2	12.2	10.5	12.6	16.6	8.8	8.9	10.4	19.6	10.3	47.4	48.6	49.3
Coal .....	9.3	8.9	12.9	11.7	9.7	7.9	12.8	10.9	6.5	6.9	8.9	8.3	42.9	41.2	30.6
Nuclear .....	8.5	7.3	8.5	6.8	8.6	7.6	8.4	7.8	8.7	7.4	8.6	7.7	31.1	32.4	32.4
Conventional hydropower .....	2.9	4.0	3.6	2.4	3.0	4.3	3.7	2.1	2.8	3.8	3.4	2.0	13.0	13.1	12.0
Nonhydro renewables (d) .....	2.1	2.8	2.3	2.0	2.1	2.9	2.5	2.2	2.4	3.1	2.6	2.3	9.1	9.7	10.4
Other energy sources (e) .....	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	-0.1	-0.1	0.0	0.0	-0.1	0.0	0.0	0.0
Total generation .....	28.9	34.0	45.6	35.1	33.9	35.3	44.0	31.8	29.3	31.6	43.1	30.6	143.5	145.0	134.6
Net energy for load (f) .....	22.5	28.9	35.3	23.6	23.2	26.4	35.5	23.6	22.8	27.4	35.0	23.7	110.2	108.7	108.9
<b>California</b>															
Natural Gas .....	17.1	13.1	27.9	23.0	18.6	10.9	25.8	26.6	21.2	9.5	24.7	25.0	81.0	81.9	80.5
Coal .....	1.9	1.3	2.5	2.8	2.2	1.2	2.1	2.4	2.0	1.3	2.2	2.4	8.5	7.9	7.9
Nuclear .....	3.7	4.9	4.9	4.7	3.8	4.9	4.4	4.4	4.8	4.9	4.3	4.4	18.2	17.5	18.5
Conventional hydropower .....	3.8	7.6	6.7	3.3	7.0	12.2	6.6	3.2	6.8	11.0	6.3	3.1	21.4	29.0	27.2
Nonhydro renewables (d) .....	13.8	18.3	16.4	12.8	13.6	19.1	16.2	13.5	14.4	19.5	16.9	13.8	61.3	62.3	64.7
Other energy sources (e) .....	0.0	0.1	0.1	-0.1	-0.2	0.2	0.1	-0.1	-0.2	0.2	0.1	-0.1	0.1	0.1	0.0
Total generation .....	40.2	45.3	58.6	46.6	45.0	48.6	55.2	50.0	49.2	46.4	54.6	48.6	190.6	198.8	198.8
Net energy for load (f) .....	59.1	64.1	78.2	62.7	59.5	63.3	76.1	61.8	58.9	63.2	76.8	62.3	264.2	260.6	261.3

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

Data reflect generation supplied by power plants with a combined capacity of at least 1 megawatt operated by electric utilities and independent power producers.

(a) Large-scale solar generation from power plants with more than 1 megawatt of capacity. Excludes generation from small-scale solar photovoltaic systems.

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

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

(d) Wind, large-scale solar, biomass, and geothermal

(e) Pumped storage hydroelectric, petroleum, other gases, batteries, and other nonrenewable fuels. See notes (b) and (c).

(f) Regional generation from generating units operated by electric power sector, plus energy receipts from minus energy deliveries to U.S. balancing authorities outside region.

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

**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 - September 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>Electric Power Sector</b>															
Geothermal .....	<b>0.038</b>	<b>0.037</b>	<b>0.039</b>	<b>0.039</b>	<b>0.038</b>	<b>0.037</b>	<i>0.038</i>	<i>0.041</i>	<i>0.040</i>	<i>0.035</i>	<i>0.038</i>	<i>0.039</i>	<b>0.154</b>	<i>0.154</i>	<i>0.153</i>
Hydroelectric Power (a) .....	<b>0.706</b>	<b>0.787</b>	<b>0.587</b>	<b>0.592</b>	<b>0.660</b>	<b>0.750</b>	<i>0.594</i>	<i>0.589</i>	<i>0.669</i>	<i>0.750</i>	<i>0.617</i>	<i>0.589</i>	<b>2.673</b>	<i>2.592</i>	<i>2.626</i>
Solar (b) .....	<b>0.116</b>	<b>0.192</b>	<b>0.186</b>	<b>0.113</b>	<b>0.124</b>	<b>0.205</b>	<i>0.205</i>	<i>0.133</i>	<i>0.153</i>	<i>0.246</i>	<i>0.261</i>	<i>0.168</i>	<b>0.607</b>	<i>0.667</i>	<i>0.828</i>
Waste Biomass (c) .....	<b>0.073</b>	<b>0.070</b>	<b>0.067</b>	<b>0.069</b>	<b>0.066</b>	<b>0.064</b>	<i>0.061</i>	<i>0.061</i>	<i>0.061</i>	<i>0.065</i>	<i>0.060</i>	<i>0.060</i>	<b>0.280</b>	<i>0.252</i>	<i>0.246</i>
Wood Biomass .....	<b>0.057</b>	<b>0.052</b>	<b>0.055</b>	<b>0.051</b>	<b>0.054</b>	<b>0.051</b>	<i>0.042</i>	<i>0.032</i>	<i>0.047</i>	<i>0.052</i>	<i>0.040</i>	<i>0.032</i>	<b>0.215</b>	<i>0.179</i>	<i>0.171</i>
Wind .....	<b>0.720</b>	<b>0.688</b>	<b>0.493</b>	<b>0.630</b>	<b>0.683</b>	<b>0.737</b>	<i>0.557</i>	<i>0.714</i>	<i>0.793</i>	<i>0.845</i>	<i>0.623</i>	<i>0.820</i>	<b>2.530</b>	<i>2.691</i>	<i>3.081</i>
Subtotal .....	<b>1.711</b>	<b>1.828</b>	<b>1.427</b>	<b>1.494</b>	<b>1.625</b>	<b>1.843</b>	<i>1.496</i>	<i>1.571</i>	<i>1.763</i>	<i>1.993</i>	<i>1.640</i>	<i>1.709</i>	<b>6.459</b>	<i>6.536</i>	<i>7.105</i>
<b>Industrial Sector</b>															
Biofuel Losses and Co-products (d) .....	<b>0.202</b>	<b>0.204</b>	<b>0.211</b>	<b>0.206</b>	<b>0.194</b>	<b>0.203</b>	<i>0.201</i>	<i>0.203</i>	<i>0.201</i>	<i>0.204</i>	<i>0.206</i>	<i>0.207</i>	<b>0.823</b>	<i>0.801</i>	<i>0.819</i>
Geothermal .....	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<b>0.004</b>	<i>0.004</i>	<i>0.004</i>
Hydroelectric Power (a) .....	<b>0.003</b>	<b>0.003</b>	<b>0.003</b>	<b>0.003</b>	<b>0.002</b>	<b>0.003</b>	<i>0.003</i>	<i>0.003</i>	<i>0.002</i>	<i>0.002</i>	<i>0.003</i>	<i>0.003</i>	<b>0.013</b>	<i>0.012</i>	<i>0.011</i>
Solar (b) .....	<b>0.005</b>	<b>0.007</b>	<b>0.008</b>	<b>0.005</b>	<b>0.006</b>	<b>0.009</b>	<i>0.009</i>	<i>0.006</i>	<i>0.007</i>	<i>0.010</i>	<i>0.010</i>	<i>0.007</i>	<b>0.025</b>	<i>0.029</i>	<i>0.034</i>
Waste Biomass (c) .....	<b>0.044</b>	<b>0.041</b>	<b>0.039</b>	<b>0.044</b>	<b>0.043</b>	<b>0.039</b>	<i>0.041</i>	<i>0.043</i>	<i>0.042</i>	<i>0.041</i>	<i>0.041</i>	<i>0.042</i>	<b>0.168</b>	<i>0.166</i>	<i>0.165</i>
Wood Biomass .....	<b>0.382</b>	<b>0.382</b>	<b>0.389</b>	<b>0.388</b>	<b>0.371</b>	<b>0.364</b>	<i>0.359</i>	<i>0.355</i>	<i>0.342</i>	<i>0.339</i>	<i>0.350</i>	<i>0.351</i>	<b>1.540</b>	<i>1.449</i>	<i>1.383</i>
Subtotal .....	<b>0.637</b>	<b>0.635</b>	<b>0.648</b>	<b>0.648</b>	<b>0.616</b>	<b>0.615</b>	<i>0.609</i>	<i>0.609</i>	<i>0.593</i>	<i>0.592</i>	<i>0.605</i>	<i>0.610</i>	<b>2.567</b>	<i>2.450</i>	<i>2.401</i>
<b>Commercial Sector</b>															
Geothermal .....	<b>0.005</b>	<b>0.005</b>	<b>0.005</b>	<b>0.005</b>	<b>0.006</b>	<b>0.006</b>	<i>0.006</i>	<i>0.006</i>	<i>0.006</i>	<i>0.006</i>	<i>0.006</i>	<i>0.006</i>	<b>0.020</b>	<i>0.023</i>	<i>0.023</i>
Solar (b) .....	<b>0.019</b>	<b>0.028</b>	<b>0.029</b>	<b>0.019</b>	<b>0.022</b>	<b>0.033</b>	<i>0.033</i>	<i>0.024</i>	<i>0.028</i>	<i>0.040</i>	<i>0.040</i>	<i>0.029</i>	<b>0.096</b>	<i>0.112</i>	<i>0.137</i>
Waste Biomass (c) .....	<b>0.011</b>	<b>0.011</b>	<b>0.010</b>	<b>0.011</b>	<b>0.011</b>	<b>0.010</b>	<i>0.011</i>	<i>0.011</i>	<i>0.011</i>	<i>0.010</i>	<i>0.011</i>	<i>0.011</i>	<b>0.044</b>	<i>0.043</i>	<i>0.043</i>
Wood Biomass .....	<b>0.021</b>	<b>0.021</b>	<b>0.021</b>	<b>0.021</b>	<b>0.021</b>	<b>0.021</b>	<i>0.022</i>	<i>0.021</i>	<i>0.022</i>	<i>0.020</i>	<i>0.022</i>	<i>0.021</i>	<b>0.084</b>	<i>0.085</i>	<i>0.085</i>
Subtotal .....	<b>0.063</b>	<b>0.072</b>	<b>0.072</b>	<b>0.064</b>	<b>0.067</b>	<b>0.076</b>	<i>0.078</i>	<i>0.069</i>	<i>0.072</i>	<i>0.083</i>	<i>0.086</i>	<i>0.074</i>	<b>0.271</b>	<i>0.290</i>	<i>0.315</i>
<b>Residential Sector</b>															
Geothermal .....	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<i>0.010</i>	<i>0.010</i>	<i>0.010</i>	<i>0.010</i>	<i>0.010</i>	<i>0.010</i>	<b>0.040</b>	<i>0.040</i>	<i>0.040</i>
Solar (e) .....	<b>0.044</b>	<b>0.067</b>	<b>0.067</b>	<b>0.046</b>	<b>0.051</b>	<b>0.077</b>	<i>0.078</i>	<i>0.054</i>	<i>0.057</i>	<i>0.087</i>	<i>0.088</i>	<i>0.061</i>	<b>0.224</b>	<i>0.260</i>	<i>0.294</i>
Wood Biomass .....	<b>0.128</b>	<b>0.129</b>	<b>0.130</b>	<b>0.130</b>	<b>0.131</b>	<b>0.131</b>	<i>0.130</i>	<i>0.130</i>	<i>0.131</i>	<i>0.131</i>	<i>0.130</i>	<i>0.130</i>	<b>0.517</b>	<i>0.522</i>	<i>0.522</i>
Subtotal .....	<b>0.181</b>	<b>0.206</b>	<b>0.207</b>	<b>0.186</b>	<b>0.191</b>	<b>0.218</b>	<i>0.219</i>	<i>0.194</i>	<i>0.198</i>	<i>0.228</i>	<i>0.229</i>	<i>0.201</i>	<b>0.780</b>	<i>0.822</i>	<i>0.856</i>
<b>Transportation Sector</b>															
Biomass-based Diesel (f) .....	<b>0.054</b>	<b>0.068</b>	<b>0.071</b>	<b>0.063</b>	<b>0.058</b>	<b>0.071</b>	<i>0.072</i>	<i>0.085</i>	<i>0.072</i>	<i>0.085</i>	<i>0.078</i>	<i>0.082</i>	<b>0.256</b>	<i>0.286</i>	<i>0.317</i>
Ethanol (f) .....	<b>0.273</b>	<b>0.287</b>	<b>0.294</b>	<b>0.289</b>	<b>0.274</b>	<b>0.294</b>	<i>0.291</i>	<i>0.286</i>	<i>0.275</i>	<i>0.295</i>	<i>0.298</i>	<i>0.292</i>	<b>1.142</b>	<i>1.145</i>	<i>1.161</i>
Subtotal .....	<b>0.327</b>	<b>0.355</b>	<b>0.365</b>	<b>0.351</b>	<b>0.333</b>	<b>0.365</b>	<i>0.364</i>	<i>0.371</i>	<i>0.347</i>	<i>0.380</i>	<i>0.376</i>	<i>0.374</i>	<b>1.398</b>	<i>1.432</i>	<i>1.478</i>
<b>All Sectors Total</b>															
Biomass-based Diesel (f) .....	<b>0.054</b>	<b>0.068</b>	<b>0.071</b>	<b>0.063</b>	<b>0.058</b>	<b>0.071</b>	<i>0.072</i>	<i>0.085</i>	<i>0.072</i>	<i>0.085</i>	<i>0.078</i>	<i>0.082</i>	<b>0.256</b>	<i>0.286</i>	<i>0.317</i>
Biofuel Losses and Co-products (d) .....	<b>0.202</b>	<b>0.204</b>	<b>0.211</b>	<b>0.206</b>	<b>0.194</b>	<b>0.203</b>	<i>0.201</i>	<i>0.203</i>	<i>0.201</i>	<i>0.204</i>	<i>0.206</i>	<i>0.207</i>	<b>0.823</b>	<i>0.801</i>	<i>0.819</i>
Ethanol (f) .....	<b>0.283</b>	<b>0.297</b>	<b>0.305</b>	<b>0.300</b>	<b>0.285</b>	<b>0.305</b>	<i>0.299</i>	<i>0.297</i>	<i>0.286</i>	<i>0.306</i>	<i>0.310</i>	<i>0.303</i>	<b>1.185</b>	<i>1.185</i>	<i>1.205</i>
Geothermal .....	<b>0.054</b>	<b>0.053</b>	<b>0.055</b>	<b>0.055</b>	<b>0.055</b>	<b>0.054</b>	<i>0.055</i>	<i>0.058</i>	<i>0.057</i>	<i>0.052</i>	<i>0.055</i>	<i>0.056</i>	<b>0.218</b>	<i>0.222</i>	<i>0.220</i>
Hydroelectric Power (a) .....	<b>0.710</b>	<b>0.791</b>	<b>0.590</b>	<b>0.596</b>	<b>0.663</b>	<b>0.753</b>	<i>0.597</i>	<i>0.593</i>	<i>0.672</i>	<i>0.753</i>	<i>0.621</i>	<i>0.593</i>	<b>2.688</b>	<i>2.606</i>	<i>2.639</i>
Solar (b)(e) .....	<b>0.184</b>	<b>0.295</b>	<b>0.289</b>	<b>0.184</b>	<b>0.202</b>	<b>0.328</b>	<i>0.325</i>	<i>0.217</i>	<i>0.245</i>	<i>0.383</i>	<i>0.400</i>	<i>0.265</i>	<b>0.951</b>	<i>1.073</i>	<i>1.293</i>
Waste Biomass (c) .....	<b>0.128</b>	<b>0.122</b>	<b>0.117</b>	<b>0.125</b>	<b>0.120</b>	<b>0.113</b>	<i>0.112</i>	<i>0.115</i>	<i>0.113</i>	<i>0.116</i>	<i>0.112</i>	<i>0.114</i>	<b>0.492</b>	<i>0.460</i>	<i>0.455</i>
Wood Biomass .....	<b>0.587</b>	<b>0.584</b>	<b>0.596</b>	<b>0.590</b>	<b>0.577</b>	<b>0.566</b>	<i>0.553</i>	<i>0.539</i>	<i>0.541</i>	<i>0.542</i>	<i>0.542</i>	<i>0.535</i>	<b>2.357</b>	<i>2.235</i>	<i>2.160</i>
Wind .....	<b>0.720</b>	<b>0.688</b>	<b>0.493</b>	<b>0.630</b>	<b>0.683</b>	<b>0.737</b>	<i>0.557</i>	<i>0.714</i>	<i>0.793</i>	<i>0.845</i>	<i>0.623</i>	<i>0.820</i>	<b>2.530</b>	<i>2.691</i>	<i>3.081</i>
<b>Total Consumption</b> .....	<b>2.918</b>	<b>3.096</b>	<b>2.719</b>	<b>2.743</b>	<b>2.831</b>	<b>3.151</b>	<i>2.766</i>	<i>2.815</i>	<i>2.973</i>	<i>3.276</i>	<i>2.936</i>	<i>2.968</i>	<b>11.476</b>	<i>11.563</i>	<i>12.154</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 - September 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>Renewable Energy Electric Generating Capacity (megawatts, end of period)</b>															
<b>Electric Power Sector (a)</b>															
Biomass .....	7,248	7,221	7,192	7,133	6,968	6,934	6,949	6,978	6,978	6,912	6,912	6,956	7,133	6,978	6,956
Waste .....	4,210	4,182	4,171	4,168	4,133	4,114	4,102	4,131	4,131	4,065	4,065	4,067	4,168	4,131	4,067
Wood .....	3,039	3,039	3,020	2,965	2,835	2,820	2,847	2,847	2,847	2,847	2,847	2,889	2,965	2,847	2,889
Conventional Hydroelectric .....	79,506	79,467	79,465	79,583	79,471	79,587	79,458	79,413	79,571	79,580	79,695	79,790	79,583	79,413	79,790
Geothermal .....	2,560	2,560	2,560	2,563	2,559	2,567	2,567	2,567	2,567	2,567	2,657	2,682	2,563	2,567	2,682
Large-Scale Solar (b) .....	27,989	28,846	29,377	31,502	32,567	32,981	34,483	37,491	39,120	42,639	43,688	48,456	31,502	37,491	48,456
Wind .....	88,643	89,092	89,801	94,273	96,442	97,993	99,832	106,395	107,992	109,041	111,128	120,716	94,273	106,395	120,716
<b>Other Sectors (c)</b>															
Biomass .....	6,682	6,676	6,664	6,663	6,596	6,545	6,553	6,537	6,575	6,575	6,575	6,567	6,663	6,537	6,567
Waste .....	850	849	845	845	845	846	846	862	862	862	862	862	845	862	862
Wood .....	5,832	5,827	5,819	5,819	5,751	5,699	5,707	5,675	5,713	5,713	5,713	5,705	5,819	5,675	5,705
Conventional Hydroelectric .....	284	284	284	284	290	290	290	290	290	290	290	290	284	290	290
Large-Scale Solar (b) .....	358	365	372	378	381	387	397	403	403	405	405	406	378	403	406
Small-Scale Solar (d) .....	17,048	17,887	18,712	19,521	20,585	21,286	22,122	23,034	23,991	25,007	26,088	27,232	19,521	23,034	27,232
Residential Sector .....	10,155	10,660	11,179	11,664	12,440	12,865	13,312	13,818	14,350	14,921	15,537	16,195	11,664	13,818	16,195
Commercial Sector .....	5,501	5,778	6,026	6,286	6,533	6,707	7,031	7,371	7,728	8,103	8,497	8,909	6,286	7,371	8,909
Industrial Sector .....	1,391	1,449	1,507	1,571	1,612	1,714	1,778	1,844	1,912	1,982	2,054	2,127	1,571	1,844	2,127
Wind .....	115	112	118	118	118	118	127	127	127	127	127	127	118	127	127
<b>Renewable Electricity Generation (billion kilowatthours)</b>															
<b>Electric Power Sector (a)</b>															
Biomass .....	8.3	7.7	7.9	7.6	7.5	7.3	6.5	6.0	6.8	7.5	6.4	5.9	31.4	27.3	26.5
Waste .....	4.6	4.5	4.4	4.5	4.2	4.3	4.0	4.0	4.0	4.3	3.9	3.9	18.1	16.5	16.2
Wood .....	3.6	3.2	3.4	3.1	3.3	3.1	2.5	2.0	2.8	3.2	2.4	2.0	13.3	10.8	10.4
Conventional Hydroelectric .....	76.7	85.4	63.7	64.3	71.6	81.5	64.6	63.9	72.7	81.4	67.0	63.9	290.1	281.6	285.0
Geothermal .....	4.1	4.0	4.3	4.2	4.1	4.0	4.1	4.5	4.4	3.8	4.1	4.3	16.7	16.7	16.6
Large-Scale Solar (b) .....	12.6	20.9	20.2	12.2	13.4	22.3	22.3	14.5	16.6	26.7	28.4	18.2	65.9	72.5	89.9
Wind .....	78.2	74.7	53.5	68.4	74.2	80.0	60.6	77.5	86.1	91.7	67.6	89.0	274.7	292.3	334.4
<b>Other Sectors (c)</b>															
Biomass .....	7.9	7.8	7.9	7.7	7.5	7.2	7.9	7.7	7.5	7.2	7.9	7.7	31.3	30.4	30.4
Waste .....	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.7	0.8	0.8	3.3	3.1	3.1
Wood .....	7.0	7.0	7.1	6.9	6.7	6.5	7.1	6.9	6.7	6.5	7.1	6.9	28.1	27.2	27.3
Conventional Hydroelectric .....	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.4	0.4	1.6	1.5	1.5
Large-Scale Solar (b) .....	0.1	0.2	0.2	0.1	0.1	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.7	0.8	1.1
Small-Scale Solar (d) .....	5.8	8.8	8.8	6.1	7.0	10.5	10.6	7.4	8.3	12.4	12.5	8.8	29.5	35.6	41.9
Residential Sector .....	3.3	5.1	5.1	3.5	4.1	6.3	6.3	4.4	4.8	7.3	7.4	5.1	17.1	21.1	24.5
Commercial Sector .....	2.0	2.9	2.9	2.0	2.3	3.4	3.4	2.4	2.8	4.0	4.1	2.9	9.8	11.4	13.8
Industrial Sector .....	0.5	0.8	0.8	0.6	0.6	0.9	0.9	0.7	0.7	1.1	1.1	0.8	2.6	3.1	3.6
Wind .....	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.4

-- = no data available

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

(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 - September 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>Macroeconomic</b>															
Real Gross Domestic Product (billion chained 2012 dollars - SAAR) .....	18,438	18,598	18,733	18,784	18,927	19,024	19,115	19,229	19,346	19,458	19,562	19,660	18,638	19,074	19,507
Real Personal Consumption Expend. (billion chained 2012 dollars - SAAR) .....	12,783	12,909	13,020	13,066	13,103	13,241	13,328	13,429	13,520	13,613	13,701	13,791	12,945	13,275	13,656
Real Private Fixed Investment (billion chained 2012 dollars - SAAR) .....	3,254	3,295	3,301	3,323	3,349	3,343	3,355	3,380	3,412	3,421	3,434	3,455	3,293	3,357	3,430
Business Inventory Change (billion chained 2012 dollars - SAAR) .....	41	-10	87	100	113	76	65	39	-23	8	51	53	55	73	22
Real Government Expenditures (billion chained 2012 dollars - SAAR) .....	3,201	3,221	3,238	3,235	3,258	3,298	3,293	3,302	3,322	3,350	3,357	3,361	3,224	3,288	3,347
Real Exports of Goods & Services (billion chained 2012 dollars - SAAR) .....	2,524	2,560	2,519	2,529	2,554	2,520	2,547	2,566	2,645	2,645	2,644	2,664	2,533	2,547	2,650
Real Imports of Goods & Services (billion chained 2012 dollars - SAAR) .....	3,408	3,410	3,482	3,512	3,498	3,499	3,521	3,537	3,585	3,639	3,687	3,731	3,453	3,514	3,661
Real Disposable Personal Income (billion chained 2012 dollars - SAAR) .....	14,400	14,496	14,613	14,715	14,876	14,967	15,053	15,119	15,215	15,322	15,422	15,523	14,556	15,003	15,371
Non-Farm Employment (millions) .....	148.0	148.7	149.4	150.1	150.7	151.1	151.6	152.0	152.5	153.2	153.5	153.8	149.1	151.4	153.3
Civilian Unemployment Rate (percent) .....	4.1	3.9	3.8	3.8	3.9	3.6	3.6	3.5	3.5	3.5	3.4	3.4	3.9	3.7	3.4
Housing Starts (millions - SAAR) .....	1.32	1.26	1.23	1.19	1.21	1.26	1.22	1.24	1.22	1.22	1.23	1.23	1.25	1.23	1.23
<b>Industrial Production Indices (Index, 2012=100)</b>															
Total Industrial Production .....	106.7	107.9	109.3	110.3	109.8	109.2	109.4	109.3	110.0	110.2	110.6	110.9	108.6	109.4	110.4
Manufacturing .....	104.8	105.5	106.6	107.0	106.5	105.7	105.9	105.6	106.0	106.3	106.8	107.3	106.0	105.9	106.6
Food .....	113.3	114.3	114.9	113.2	115.2	115.6	116.0	116.2	116.6	117.0	117.5	118.0	113.9	115.8	117.3
Paper .....	96.0	95.9	96.0	96.0	94.1	91.8	91.3	91.0	90.6	90.1	89.7	89.4	96.0	92.0	89.9
Petroleum and Coal Products .....	106.7	106.8	107.5	106.7	106.4	106.2	106.6	105.9	105.7	105.6	105.6	105.6	106.9	106.3	105.6
Chemicals .....	98.4	100.2	101.3	101.8	101.4	99.5	99.4	100.3	100.7	101.0	101.7	102.3	100.4	100.1	101.4
Nonmetallic Mineral Products .....	119.1	120.4	119.0	119.9	119.6	118.6	118.5	118.9	118.6	118.2	118.2	118.0	119.6	118.9	118.3
Primary Metals .....	95.8	96.2	97.5	100.7	97.9	96.7	95.3	95.2	94.3	92.9	92.2	91.0	97.6	96.3	92.6
Coal-weighted Manufacturing (a) .....	103.6	104.7	105.3	106.0	105.0	103.7	103.3	103.4	103.1	102.6	102.5	102.3	104.9	103.8	102.6
Distillate-weighted Manufacturing (a) .....	111.3	111.8	112.2	112.0	111.7	111.2	111.2	111.1	110.9	110.6	110.5	110.4	111.8	111.3	110.6
Electricity-weighted Manufacturing (a) .....	104.5	105.4	106.5	107.1	106.3	105.3	105.0	104.9	104.9	104.8	104.9	104.9	105.9	105.4	104.9
Natural Gas-weighted Manufacturing (a) .....	104.3	105.8	106.8	107.0	106.0	104.8	104.6	104.7	104.7	104.5	104.7	104.9	106.0	105.0	104.7
<b>Price Indexes</b>															
Consumer Price Index (all urban consumers) (index, 1982-1984=1.00) .....	2.49	2.51	2.52	2.53	2.53	2.55	2.56	2.58	2.60	2.61	2.62	2.64	2.51	2.56	2.62
Producer Price Index: All Commodities (index, 1982=1.00) .....	2.00	2.01	2.03	2.04	2.01	2.00	2.00	2.00	2.02	2.02	2.03	2.04	2.02	2.00	2.03
Producer Price Index: Petroleum (index, 1982=1.00) .....	1.98	2.22	2.26	2.10	1.81	2.08	1.94	1.80	1.83	1.91	1.90	1.83	2.14	1.91	1.87
GDP Implicit Price Deflator (index, 2012=100) .....	109.3	110.2	110.8	111.2	111.5	112.2	112.8	113.5	114.2	114.9	115.7	116.5	110.4	112.5	115.3
<b>Miscellaneous</b>															
Vehicle Miles Traveled (b) (million miles/day) .....	8,198	9,192	9,115	8,810	8,238	9,288	9,193	8,916	8,372	9,368	9,311	9,002	8,831	8,912	9,014
Air Travel Capacity (Available ton-miles/day, thousands) .....	603	664	667	661	643	684	686	660	641	675	684	661	649	668	665
Aircraft Utilization (Revenue ton-miles/day, thousands) .....	368	414	418	394	380	427	436	417	398	433	440	420	398	415	423
Airline Ticket Price Index (index, 1982-1984=100) .....	262.8	277.9	259.7	259.3	255.7	278.3	255.7	257.4	273.9	304.0	279.5	280.5	264.9	261.8	284.5
Raw Steel Production (million short tons per day) .....	0.251	0.253	0.263	0.270	0.273	0.271	0.266	0.258	0.260	0.260	0.250	0.252	0.259	0.267	0.256
<b>Carbon Dioxide (CO2) Emissions (million metric tons)</b>															
Petroleum .....	578	592	602	599	573	585	601	597	577	585	605	598	2,372	2,356	2,364
Natural Gas .....	478	349	370	431	504	350	380	447	507	364	382	445	1,629	1,681	1,699
Coal .....	307	287	355	310	289	238	317	246	270	216	289	236	1,259	1,090	1,010
Total Energy (c) .....	1,366	1,232	1,330	1,343	1,368	1,175	1,301	1,293	1,357	1,167	1,278	1,282	5,271	5,137	5,084

- = 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 - September 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>Real Gross State Product (Billion \$2009)</b>															
New England .....	977	977	985	986	992	997	1,002	1,007	1,012	1,017	1,022	1,027	981	999	1,019
Middle Atlantic .....	2,737	2,761	2,778	2,778	2,800	2,815	2,828	2,846	2,860	2,873	2,883	2,893	2,764	2,822	2,877
E. N. Central .....	2,498	2,506	2,529	2,531	2,549	2,557	2,566	2,578	2,590	2,600	2,608	2,617	2,516	2,563	2,604
W. N. Central .....	1,157	1,174	1,177	1,178	1,186	1,190	1,195	1,201	1,205	1,211	1,217	1,222	1,172	1,193	1,214
S. Atlantic .....	3,279	3,301	3,337	3,342	3,365	3,382	3,400	3,420	3,442	3,466	3,489	3,512	3,315	3,392	3,477
E. S. Central .....	817	825	830	831	836	839	843	847	851	855	859	863	826	842	857
W. S. Central .....	2,239	2,259	2,272	2,296	2,323	2,337	2,351	2,370	2,386	2,404	2,422	2,436	2,267	2,345	2,412
Mountain .....	1,205	1,215	1,229	1,235	1,246	1,255	1,263	1,272	1,281	1,290	1,299	1,308	1,221	1,259	1,295
Pacific .....	3,562	3,613	3,629	3,639	3,664	3,686	3,703	3,721	3,755	3,777	3,799	3,818	3,611	3,694	3,787
<b>Industrial Output, Manufacturing (Index, Year 2012=100)</b>															
New England .....	98.8	99.2	99.7	99.5	98.9	97.2	97.3	97.0	97.2	97.3	97.7	98.0	99.3	97.6	97.5
Middle Atlantic .....	98.6	99.0	99.6	99.8	98.8	97.3	97.4	97.0	97.4	97.5	97.8	98.1	99.3	97.6	97.7
E. N. Central .....	107.6	108.2	109.2	109.3	108.7	107.2	107.1	106.6	107.2	107.3	107.6	108.0	108.6	107.4	107.5
W. N. Central .....	104.2	104.9	106.2	106.7	106.1	105.2	105.4	105.1	105.6	105.9	106.4	106.9	105.5	105.4	106.2
S. Atlantic .....	108.8	109.7	110.7	110.9	110.6	110.2	110.5	110.2	110.6	110.8	111.3	111.7	110.0	110.3	111.1
E. S. Central .....	109.8	110.2	111.2	111.7	111.4	110.2	110.4	110.0	110.5	110.7	111.2	111.7	110.7	110.5	111.0
W. S. Central .....	98.7	99.7	100.9	101.6	101.5	101.2	101.5	101.4	102.0	102.4	103.0	103.5	100.2	101.4	102.7
Mountain .....	112.2	113.5	115.3	116.4	116.1	116.4	116.9	116.7	117.3	117.9	118.6	119.2	114.3	116.5	118.3
Pacific .....	104.5	105.1	105.7	106.4	105.9	105.6	105.9	105.6	106.0	106.3	106.8	107.3	105.4	105.7	106.6
<b>Real Personal Income (Billion \$2009)</b>															
New England .....	873	872	878	879	890	897	902	905	910	916	921	926	875	898	918
Middle Atlantic .....	2,255	2,267	2,282	2,279	2,306	2,322	2,334	2,342	2,354	2,368	2,379	2,391	2,271	2,326	2,373
E. N. Central .....	2,382	2,384	2,402	2,411	2,444	2,459	2,470	2,478	2,493	2,507	2,519	2,532	2,395	2,463	2,513
W. N. Central .....	1,103	1,113	1,115	1,127	1,139	1,145	1,151	1,155	1,163	1,171	1,179	1,188	1,114	1,148	1,175
S. Atlantic .....	3,111	3,123	3,157	3,174	3,225	3,250	3,272	3,289	3,314	3,342	3,368	3,394	3,141	3,259	3,354
E. S. Central .....	873	877	883	887	900	905	909	912	918	924	929	934	880	907	926
W. S. Central .....	1,901	1,913	1,927	1,938	1,966	1,981	1,995	2,006	2,022	2,038	2,053	2,068	1,920	1,987	2,045
Mountain .....	1,115	1,120	1,133	1,145	1,164	1,174	1,183	1,189	1,199	1,210	1,220	1,230	1,128	1,177	1,215
Pacific .....	2,701	2,724	2,741	2,765	2,804	2,830	2,850	2,863	2,881	2,904	2,925	2,945	2,733	2,837	2,913
<b>Households (Thousands)</b>															
New England .....	5,909	5,920	5,937	5,950	5,961	5,966	5,977	5,987	5,997	6,009	6,018	6,027	5,950	5,987	6,027
Middle Atlantic .....	16,195	16,231	16,282	16,315	16,342	16,354	16,380	16,406	16,432	16,463	16,486	16,509	16,315	16,406	16,509
E. N. Central .....	18,986	19,017	19,069	19,103	19,133	19,153	19,184	19,216	19,247	19,292	19,328	19,364	19,103	19,216	19,364
W. N. Central .....	8,597	8,618	8,649	8,672	8,694	8,711	8,733	8,755	8,777	8,802	8,823	8,845	8,672	8,755	8,845
S. Atlantic .....	25,446	25,533	25,651	25,747	25,841	25,923	26,015	26,107	26,202	26,307	26,399	26,491	25,747	26,107	26,491
E. S. Central .....	7,619	7,633	7,657	7,675	7,693	7,708	7,727	7,745	7,764	7,785	7,803	7,822	7,675	7,745	7,822
W. S. Central .....	14,673	14,715	14,777	14,829	14,879	14,924	14,976	15,029	15,084	15,144	15,198	15,252	14,829	15,029	15,252
Mountain .....	9,236	9,282	9,338	9,385	9,430	9,467	9,510	9,551	9,592	9,637	9,678	9,719	9,385	9,551	9,719
Pacific .....	18,842	18,882	18,946	18,992	19,040	19,078	19,131	19,184	19,239	19,298	19,351	19,403	18,992	19,184	19,403
<b>Total Non-farm Employment (Millions)</b>															
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	20.2	20.3	20.3	20.3	19.8	20.1	20.2
E. N. Central .....	22.1	22.2	22.2	22.3	22.4	22.4	22.4	22.5	22.5	22.6	22.6	22.6	22.2	22.4	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	29.1	29.2	29.3	29.4	29.6	29.7	29.8	28.7	29.2	29.6
E. S. Central .....	8.1	8.2	8.2	8.2	8.3	8.3	8.3	8.3	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	18.0	18.1	18.1	18.2	17.4	17.8	18.1
Mountain .....	10.7	10.8	10.9	10.9	11.0	11.1	11.1	11.2	11.2	11.3	11.3	11.4	10.8	11.1	11.3
Pacific .....	23.3	23.4	23.5	23.6	23.7	23.9	24.0	24.0	24.1	24.2	24.3	24.3	23.5	23.9	24.2

- = 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 - September 2019

	2018				2019				2020				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2018	2019	2020
<b>Heating Degree Days</b>															
New England .....	3,052	906	70	2,305	3,226	896	127	2,141	3,153	852	131	2,134	6,333	6,390	6,269
Middle Atlantic .....	2,937	754	37	2,051	2,985	628	83	1,979	2,923	678	81	1,965	5,780	5,675	5,648
E. N. Central .....	3,212	826	60	2,339	3,331	764	119	2,236	3,148	720	123	2,220	6,437	6,451	6,210
W. N. Central .....	3,422	828	121	2,600	3,645	772	150	2,421	3,231	698	160	2,403	6,972	6,989	6,492
South Atlantic .....	1,443	219	2	967	1,336	128	13	968	1,413	186	13	957	2,631	2,444	2,569
E. S. Central .....	1,818	325	3	1,340	1,717	195	19	1,308	1,825	238	20	1,298	3,485	3,239	3,380
W. S. Central .....	1,192	142	3	912	1,210	90	4	800	1,163	82	4	802	2,249	2,104	2,051
Mountain .....	2,121	599	124	1,958	2,427	788	126	1,826	2,207	692	150	1,821	4,801	5,167	4,870
Pacific .....	1,442	541	83	1,102	1,688	576	83	1,211	1,497	566	89	1,192	3,169	3,558	3,344
U.S. Average .....	2,130	522	48	1,579	2,211	480	70	1,526	2,112	477	74	1,513	4,279	4,288	4,177
<b>Heating Degree Days, Prior 10-year Average</b>															
New England .....	3,172	817	119	2,121	3,166	820	111	2,122	3,152	823	104	2,114	6,229	6,219	6,193
Middle Atlantic .....	2,947	646	81	1,949	2,956	650	76	1,941	2,948	643	71	1,936	5,623	5,623	5,598
E. N. Central .....	3,209	692	116	2,210	3,196	697	112	2,199	3,198	698	108	2,194	6,228	6,204	6,197
W. N. Central .....	3,264	705	144	2,379	3,255	702	140	2,380	3,287	703	136	2,366	6,492	6,477	6,492
South Atlantic .....	1,476	177	12	974	1,480	176	11	964	1,459	169	11	956	2,639	2,631	2,595
E. S. Central .....	1,868	217	18	1,301	1,862	222	17	1,293	1,850	215	17	1,281	3,404	3,393	3,363
W. S. Central .....	1,181	80	4	801	1,183	85	4	807	1,199	83	3	789	2,066	2,079	2,074
Mountain .....	2,194	737	144	1,841	2,164	714	139	1,855	2,192	718	135	1,830	4,916	4,873	4,875
Pacific .....	1,465	592	84	1,182	1,444	582	82	1,174	1,456	580	84	1,164	3,322	3,283	3,284
U.S. Average .....	2,160	478	71	1,524	2,150	475	68	1,518	2,149	472	66	1,505	4,233	4,212	4,192
<b>Cooling Degree Days</b>															
New England .....	0	80	582	0	0	68	481	1	0	88	412	2	662	550	501
Middle Atlantic .....	0	176	706	4	0	148	624	4	0	157	539	4	886	777	701
E. N. Central .....	0	332	637	4	0	174	585	7	0	220	532	7	972	765	759
W. N. Central .....	2	440	686	6	0	223	649	10	3	265	659	10	1,133	881	938
South Atlantic .....	136	726	1,267	278	152	757	1,209	230	122	649	1,153	233	2,406	2,348	2,156
E. S. Central .....	36	652	1,161	81	28	547	1,062	64	27	517	1,041	66	1,930	1,701	1,650
W. S. Central .....	126	1,005	1,564	165	72	817	1,534	198	87	862	1,488	197	2,860	2,622	2,634
Mountain .....	21	510	1,000	50	10	340	992	76	17	426	929	79	1,582	1,418	1,451
Pacific .....	31	181	718	72	21	163	607	58	27	170	588	59	1,002	849	844
U.S. Average .....	52	477	958	98	45	398	894	92	43	400	849	93	1,584	1,429	1,384
<b>Cooling Degree Days, Prior 10-year Average</b>															
New England .....	0	81	433	1	0	79	455	1	0	83	472	1	515	535	555
Middle Atlantic .....	0	166	566	5	0	165	589	6	0	171	608	6	738	760	785
E. N. Central .....	3	228	533	7	3	242	548	7	3	240	572	8	771	799	823
W. N. Central .....	7	277	659	11	7	298	668	11	7	296	688	12	953	985	1,003
South Atlantic .....	119	675	1,161	227	120	684	1,180	239	127	696	1,193	239	2,182	2,223	2,255
E. S. Central .....	34	539	1,031	63	36	555	1,049	67	36	557	1,067	70	1,667	1,706	1,729
W. S. Central .....	100	887	1,532	204	104	897	1,552	205	100	892	1,560	210	2,722	2,758	2,762
Mountain .....	24	426	923	84	25	439	933	81	24	433	940	83	1,457	1,477	1,479
Pacific .....	30	185	621	78	31	185	631	76	31	185	626	77	914	923	918
U.S. Average .....	45	408	856	94	46	417	873	97	47	420	887	98	1,403	1,433	1,452

- = no data available

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

See *Change in Regional and U.S. Degree-Day Calculations* ([http://www.eia.gov/forecasts/steo/special/pdf/2012\\_sp\\_04.pdf](http://www.eia.gov/forecasts/steo/special/pdf/2012_sp_04.pdf)) for more information.

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

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

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

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