



Short-Term Energy Outlook (STEO)

Forecast highlights

Global liquid fuels

- Brent crude oil spot prices averaged \$81 per barrel (b) in October, up \$2/b from September. Despite the increase in monthly average prices, Brent spot prices declined from \$85/b on October 1 to \$75/b on October 31.
- EIA expects Brent spot prices will average \$72 in 2019 and that West Texas Intermediate (WTI) crude oil prices will average about \$7/b lower than Brent prices next year. NYMEX WTI futures and options contract values for February 2019 delivery that traded during the five-day period ending November 1, 2018, suggest a range of \$53/b to \$83/b encompasses the market expectation for February WTI prices at the 95% confidence level.
- EIA estimates that U.S. crude oil production averaged 11.4 million barrels per day (b/d) in October, down slightly from September levels because of hurricane-related outages in the Gulf of Mexico. EIA expects that U.S. crude oil production will average 10.9 million b/d in 2018, up from 9.4 million b/d in 2017, and will average 12.1 million b/d in 2019.
- U.S. regular gasoline retail prices averaged \$2.86 per gallon (gal) in October, an increase of 2 cents/gal from the average in September, marking the sixth consecutive month that U.S. prices averaged between \$2.85/gal and \$2.90/gal. EIA forecasts the average U.S. regular gasoline retail price will fall to \$2.57/gal in December 2018. EIA forecasts that regular gasoline retail prices will average \$2.75/gal in 2018 and in 2019.
- EIA forecasts total global liquid fuels inventories will remain flat in 2018, followed by an increase of 0.6 million b/d in 2019.

Natural gas

- EIA estimates dry natural gas production in the United States averaged 86.9 billion cubic feet per day (Bcf/d) in October, up 0.7 Bcf/d from September. EIA forecasts that dry natural gas production will average 83.2 Bcf/d in 2018, up 8.5 Bcf/d from 2017. Both the level and growth of natural gas production in 2018 would establish new records. EIA expects natural gas production will continue to rise in 2019 to an average of 89.6 Bcf/d.

- EIA estimates that U.S. natural gas storage inventories were 3.2 trillion cubic feet (Tcf) at the end of October. This level was 16% lower than both the 2017 end-of-October level and the five-year (2013–17) average for the end of October and was the lowest end-of-October level since 2005.
- Despite low storage levels, EIA expects strong growth in U.S. natural gas production to put downward pressure on prices in 2019. EIA expects Henry Hub natural gas spot prices to average \$2.98/million British thermal units (MMBtu) in 2019, down 4 cents from the 2018 average and down from a forecast average price of \$3.25/MMBtu in the fourth quarter of 2018. NYMEX futures and options contract values for February 2019 delivery traded during the five-day period ending November 1, 2018, suggest a range of \$2.06/MMBtu to \$4.94/MMBtu encompasses the market expectation for February Henry Hub natural gas prices at the 95% confidence level.

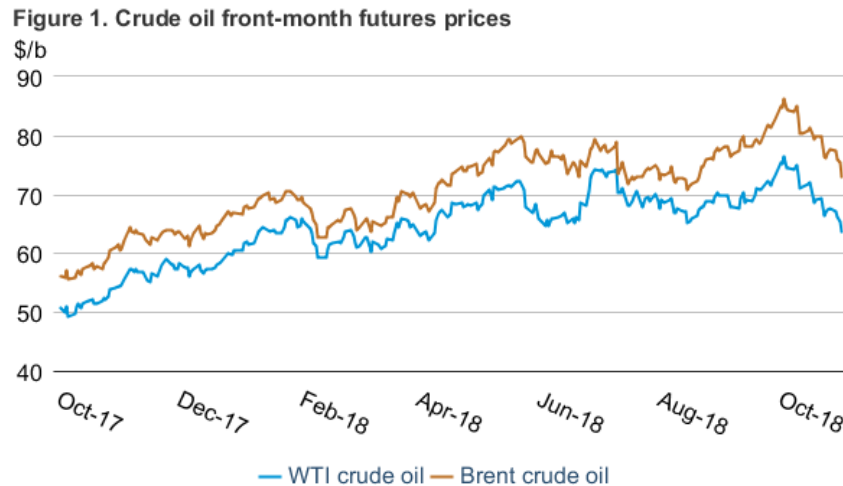
Electricity, coal, renewables, and emissions

- EIA expects the share of U.S. total utility-scale electricity generation from natural gas-fired power plants to rise from 32% in 2017 to 35% in 2018 and to 36% in 2019. EIA forecasts that the electricity generation share from coal will average 28% in 2018 and 26% in 2019, down from 30% in 2017. The nuclear share of generation was 20% in 2017 and EIA forecasts that it will average about 19% in 2018 and in 2019. Wind, solar, and other nonhydropower renewables provided slightly less than 10% of electricity generation in 2017. EIA expects them to provide more than 10% in 2018, and nearly 11% in 2019. The generation share of hydropower was 7% in 2017, and EIA forecasts that it will be about the same in 2018 and in 2019.
- EIA expects total U.S. solar generation will rise from 212,000 Megawatt hours per day (MWh/d) in 2017 to 268,000 MWh/d in 2018 (an increase of 27%) and to 303,000 MWh/d in 2019 (an increase of 13%). In recent years, the industry has seen a shift from [fixed-tilt solar PV systems to tracking systems](#). Although tracking systems are more expensive than fixed-tilt systems, revenue from the additional electricity generated by following the path of the sun across the sky often exceeds the increased cost.
- U.S. coal exports for the first eight months of 2018 totaled 78 million short tons (MMst), compared with 60 MMst exported during the same period in 2017. EIA expects coal exports to total 110 MMst in 2018 and 100 MMst in 2019, and EIA expects coal production will total 756 MMst in 2018 (down 2% from 2017) and 729 MMst in 2019 (down 4% from 2018).
- After declining by 0.8% in 2017, EIA forecasts that U.S. energy-related carbon dioxide (CO₂) emissions will rise by 2.5% in 2018. This increase largely reflects higher natural gas consumption in 2018 because of a colder winter and a warmer summer than in 2017. EIA expects emissions to decline by 1.3% in 2019 because temperatures are forecast to return to normal. Energy-related CO₂ emissions are sensitive to changes in weather, economic growth, energy prices, and fuel mix.

Petroleum and natural gas markets review

Crude oil

Prices: The front-month futures price for Brent crude oil settled at \$72.89 per barrel (b) on November 1, a decrease of \$12.09/b from October 1. The front-month futures price for West Texas Intermediate (WTI) crude oil for delivery at Cushing, Oklahoma, decreased by \$11.61/b during the same period, settling at \$63.69/b on November 1 (**Figure 1**).



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

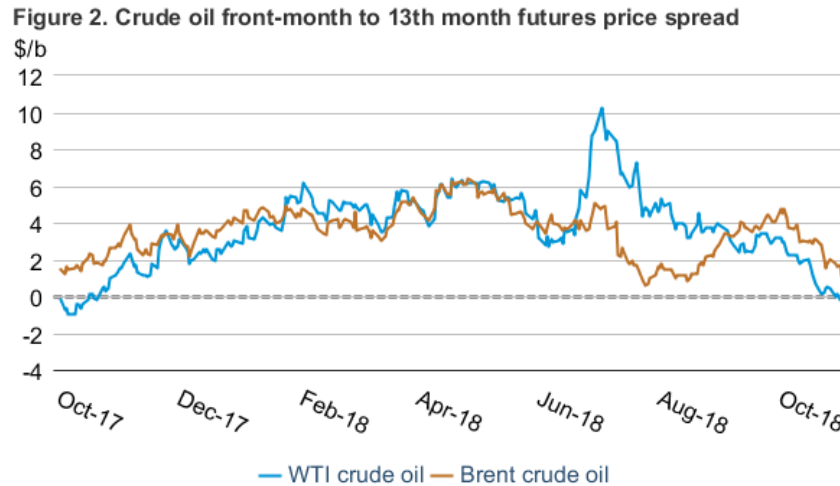
Crude oil prices declined from the end of September to the end of October at a faster percentage rate than in any month since July 2016. Prices approached four-year highs in early October given the uncertainty about the amount of Iranian crude oil supply coming off the market and whether or not other producers could make up for the shortfall. However, increased indications of a global economic slowdown, as well as higher than expected global petroleum supply, contributed to rapid price declines later in the month.

Similar to early 2018, financial markets exhibited significant price volatility in October, contributing to selloffs in risk assets such as equities and commodities. Chinese economic growth was lower than expectations, and leading economic indicators for several countries have slowed, leading to market concerns over the pace of oil demand growth in the coming months. Continued depreciation in emerging market countries' currencies—which makes the cost of crude oil imports more expensive—have also put downward pressure on the petroleum demand outlook. EIA is forecasting global petroleum and other liquid fuels consumption growth to average 1.4 million barrels per day (b/d) in 2019, which is 0.1 million b/d lower than forecast in the October STEO.

In addition to lower expectations for oil demand, higher oil supply estimates for October led to a large increase in global oil inventories. U.S. crude oil production increased at a faster rate than EIA previously anticipated. [Crude oil production reached a new monthly record](#) of 11.3 million

b/d in August 2018, according to EIA’s latest *Petroleum Supply Monthly*, which was 0.3 million b/d higher than EIA expected in the October STEO. EIA now estimates that October U.S. crude oil production averaged 11.4 million b/d, compared with a forecast of 11.0 million b/d in the previous STEO. Crude oil production in Saudi Arabia and Russia reached some of the highest levels in history last month, helping to offset the months of supply losses from Iran and Venezuela. Venezuela’s crude oil production declines have slowed, and estimates of its crude oil exports have increased as its domestic refining system is operating at low utilization rates. Libyan production has resumed at a faster than expected rate because of improved security, and Libya has produced more than 1 million b/d for two consecutive months.

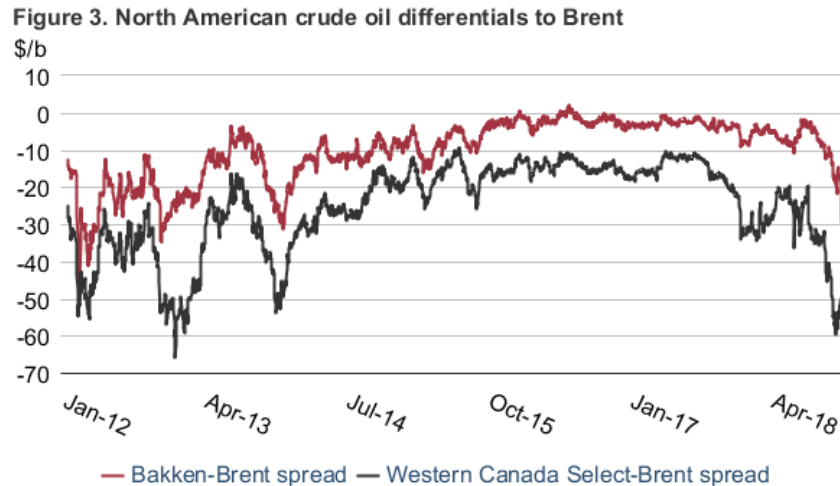
These supply developments have occurred when global refinery maintenance is typically at its highest for the year, contributing to an estimated global petroleum inventory build of 2.0 million b/d in October. The loosening global petroleum balance is also evident in both the Brent and WTI futures curves (**Figure 2**). The Brent and WTI 1st –13th futures price spread declined \$3.60/b and \$3.34/b, since October 1, respectively, settling at \$1.13/b and -18 cents/b on November 1, respectively. Refinery utilization in the United States in October averaged 89% and commercial crude oil inventories increased by 22 million barrels from the end of September, the largest monthly increase since January 2017. The WTI futures curve is now exhibiting slight contango (when near-term futures prices are lower than longer-dated ones), and the entire curve has flattened considerably in recent months. The rapid flattening of the futures curve reflects the recent petroleum oversupply and lower demand.



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

Even though total U.S. refinery utilization was about average for this time of year, it was particularly low in the Midwest, *Petroleum Administration for Defense District* (PADD) 2. Four-week average refinery utilization for the week ending **October 26** was **73%**, which, if confirmed in EIA’s monthly data, would be the **lowest utilization** rate in the region for any month in EIA data back to 1985. Several large refineries planned month-long **maintenance**, which lowered the demand for and the prices of major crude oils that are typically processed in these refineries,

including Western Canada Select (WCS) and Bakken. In October, the WCS–Brent spread traded at the lowest level since 2012, settling at $-\$53.88/\text{b}$ on November 1, and the Bakken–Brent spread hit its lowest level since 2013, settling at $-\$29.38/\text{b}$ on November 1 (**Figure 3**). Transportation constraints in Western Canada have resulted in more crude oil that must be delivered by rail, a more expensive option than pipelines, which further affects the crude oil discounts at a time of low refinery demand. In the Bakken region, available pipeline capacity could begin to face constraints as production in the region is estimated to approach 1.4 million b/d in **November**, an all-time high.



eia Bloomberg L.P.

Correlations: Front-month Brent crude oil’s rolling 60-day correlation between both the daily percentage changes of the S&P 500 and Brent implied volatility increased in October. The correlation between Brent prices and Brent implied volatility tends to be negative and typically turns positive during periods of supply disruptions. Disruptions can occur quickly, and given the price sensitivity of oil to relatively small production outages, the resulting price movements tend to be volatile. The 60-day correlation represents about three months of trading activity, and the increased correlation between the two suggests that disruptions in supply from Venezuela and Iran have contributed to higher prices during the past quarter. Alternatively, Brent’s correlation with the S&P 500 index has been positively correlated for all of 2018 (**Figure 4**). Because underlying economic factors can drive both equity prices and crude oil demand, a positive correlation between these two assets suggests trends in economic growth are influencing both sets of prices. The recent volatility and price declines in equity markets could be contributing to some of the recent downward price pressure in crude oil markets.

Figure 4. Rolling 60-day correlations with Brent crude oil prices

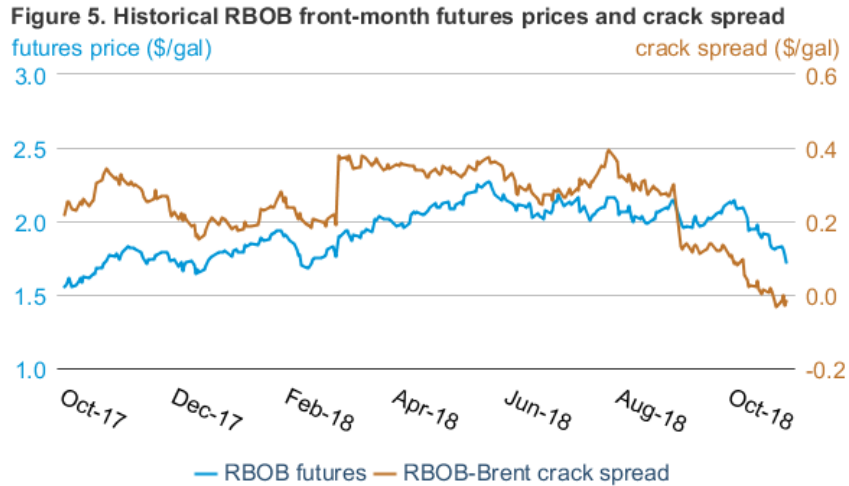


eia IntercontinentalExchange, Bloomberg L.P.

Petroleum products

Gasoline prices: The front-month futures price of reformulated blendstock for oxygenate blending (RBOB, the petroleum component of gasoline used in many parts of the country) for delivery in New York Harbor settled at \$1.72 per gallon (gal) on November 1 (**Figure 5**), a decrease of 41 cents/gal from October 1. The RBOB–Brent crack spread (the difference between the price of RBOB and the price of Brent crude oil) decreased by 12 cents/gal to settle at -2 cents/gal during the same period.

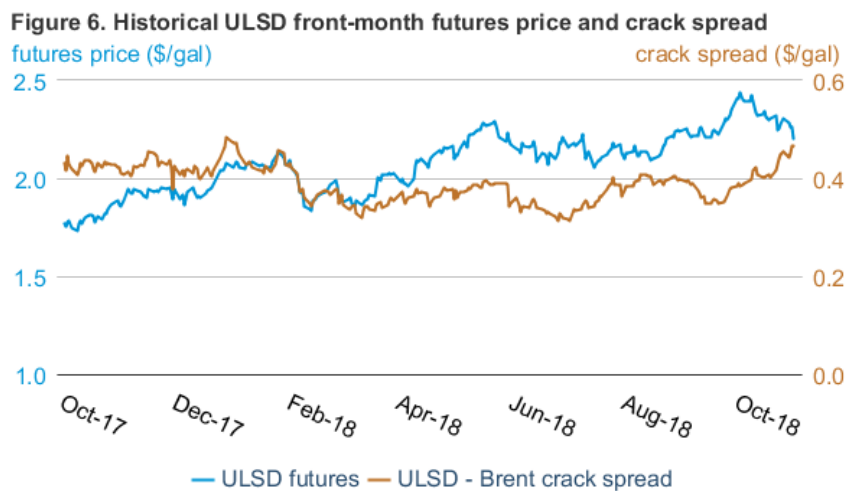
The RBOB–Brent crack spread turned negative in late October for the first time in five years. Flat or declining gasoline consumption for much of 2018 has contributed to lower crack spreads and increased inventories, settling at the top of the five-year (2013–17) range in October. After a slight decline in U.S. gasoline inventories from August through September, gasoline stocks declined by 11.2 million barrels in October but are estimated to remain 4% higher than the five-year average. STEO estimates that U.S. gasoline consumption declined by 1.3% compared with October 2017, the sixth month this year with year-over-year declines.



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

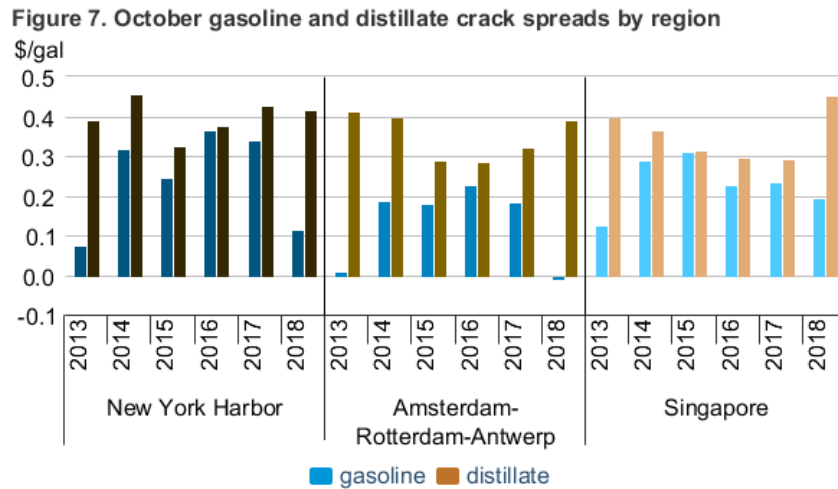
Ultra-low sulfur diesel prices: The ultra-low sulfur diesel (ULSD) front-month futures price for delivery in New York Harbor settled at \$2.20/gal on November 1 (**Figure 6**), a decrease of 21 cents/gal from October 1. The ULSD–Brent crack spread (the difference between the price of ULSD and the price of Brent crude oil) increased by 8 cents/gal to settle at 47 cents/gal during the same period.

Distillate inventories declined from September to October, which was the first monthly decline since May. U.S. refiners produced a record level of distillate from June through September 2018, which helped to rebuild inventory levels after they fell in May to the lowest level in four years. However, distillate production declined in October, and consumption combined with exports increased, leading to the September to October decline in inventories. ULSD crack spreads were also supported by a tight international market for distillate fuel.



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

Global crack spreads: Gasoline and distillate crack spreads in October showed some of the widest disparities in several years across major refining regions. Gasoline crack spreads in New York Harbor, the Amsterdam-Rotterdam-Antwerp (ARA) hub in Europe, and Singapore traded at the lowest levels in years. In contrast, distillate crack spreads in all regions remained at relatively high levels (**Figure 7**).



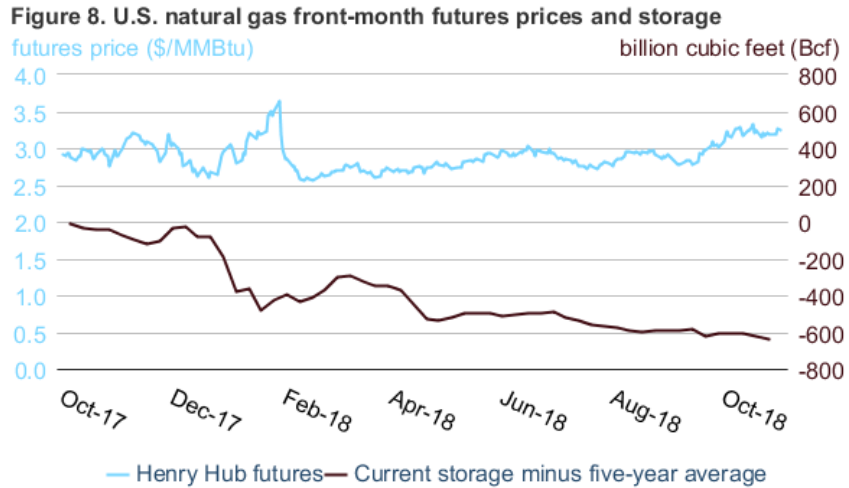
eia IntercontinentalExchange, CME Group, Bloomberg L.P.

Retail gasoline prices in some emerging market countries reached all-time highs in September and October, partially because of higher crude oil prices, but also because currency depreciation with the U.S. dollar in 2018 has made the cost of imported petroleum effectively higher in many countries. The combined effects could be contributing to a slowdown in demand growth globally and to lower gasoline crack spreads because gasoline consumption tends to be more price sensitive than distillate consumption. On the other hand, distillate margins in October remained between 39 and 46 cents/gal in the three regions, which is higher than their five-year averages. In Asia, refinery outages in Japan as well as low inventories in Singapore contributed to the highest distillate crack spreads in October since 2012. Inventories in the ARA region and in the United States also remain lower than their respective five-year averages. Given that certain regions typically build heating oil inventories ahead of winter, higher crack spreads likely reflect a call on refiners to increase production as a result of the current low stock levels.

Natural Gas

Prices: The front-month natural gas futures contract for delivery at the Henry Hub settled at \$3.24/million British thermal units (MMBtu) on November 1, 2018, an increase of 14 cents/MMBtu from October 1 (**Figure 8**). Several factors have contributed to higher Henry Hub prices. Warmer-than-normal temperatures persisted into early October, helping to maintain high power demand for natural gas in some parts of the country, while an early round of colder temperatures in other parts of the country resulted in increased residential and commercial heating demand. In addition, [nuclear outages](#) further contributed to demand for natural gas in

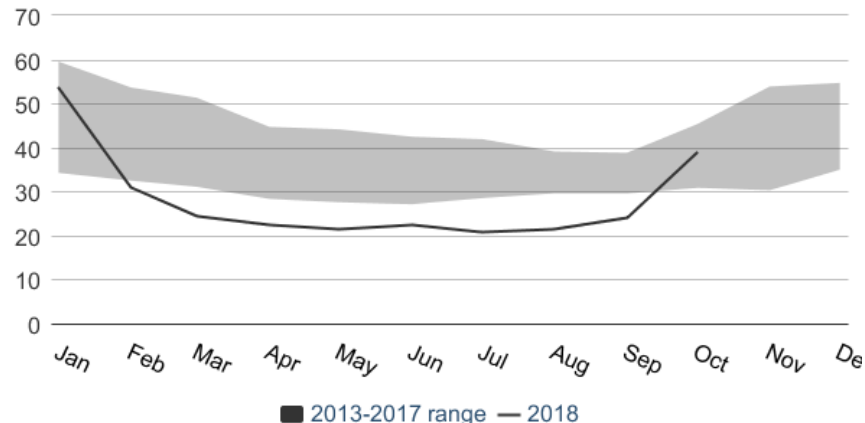
power generation. The higher demand helped to **keep storage levels low** heading into winter, which put upward pressure on prices. Working gas in underground storage remained 638 billion cubic feet (Bcf) (16.9%) lower than the five-year (2013–17) average for the week ending October 26 and 623 Bcf (16.5%) lower than last year at this time.



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

Implied volatility: Concerns about low storage levels as winter approaches contributed to an increase in volatility in natural gas futures. Natural gas implied volatility averaged 38.7% in October, near the five-year average (**Figure 9**). In February 2018, implied volatility fell lower than the five-year range, and, during the summer, it reached the lowest levels ever recorded for the natural gas front-month contract. Record natural gas production growth and production levels helped to reduce concerns about supply availability and kept prices in a narrow trading range. Record natural gas demand for power generation and increased exports, however, countered some of the production growth and prevented inventories from reducing the storage deficit from last winter. Volatility re-emerged as the end of the injection period approached with inventories still lower than historical levels.

Figure 9. Natural gas implied volatility, monthly averages
annualized %



eia Bloomberg L.P.

Notable forecast changes

- U.S. crude oil production is rising at a faster rate than EIA previously anticipated. [Crude oil production reached a new monthly record](#) of 11.3 million barrels per day (b/d) in August 2018, according to EIA’s latest [Petroleum Supply Monthly](#), and surpassed 11 million b/d for the first time. August 2018 crude oil production was 290,000 b/d higher than expected in the October STEO. This higher level of production raised the baseline for EIA’s forecast for 2019 crude oil production, and EIA now expects U.S. crude oil production to average 12.1 million b/d in 2019, compared with a forecast of 11.8 million b/d in the October STEO.
- EIA forecasts Brent crude oil prices to average \$72 per barrel (b) in 2019, which is \$3/b lower than previously forecast. EIA expects West Texas Intermediate crude oil prices to average \$65/b in 2019, which is \$5/b lower than previously forecast. The lower crude oil price forecasts are partly the result of higher expected crude oil production in the United States in the second half of 2018 and in 2019, which is expected to contribute to growth in global oil inventory and put downward pressure on crude oil prices.
- Canadian oil production in July and August was higher than previously estimated, as updated analysis indicates that crude oil volumes EIA previously assumed were disrupted were online during those months. As a result, Canada’s total liquid fuels production for the third quarter of 2018 is more than 0.3 million b/d higher than estimated in the October STEO.
- For more information, see the [detailed table of STEO forecast changes](#).

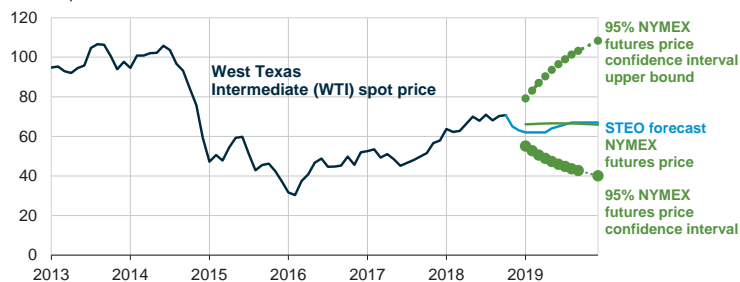
This report was prepared by the U.S. Energy Information Administration (EIA), the statistical and analytical agency within the U.S. Department of Energy. By law, EIA's data, analyses, and forecasts are independent of approval by any other officer or employee of the United States Government. The views 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 November 2018

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

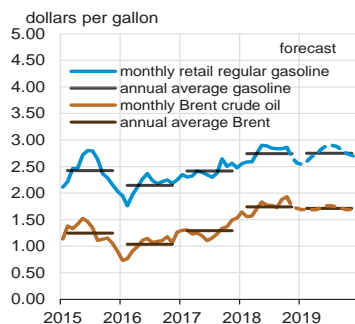


Note: Confidence interval derived from options market information for the five trading days ending Nov 1, 2018. Intervals not calculated for months with sparse trading in near-the-money options contracts.

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

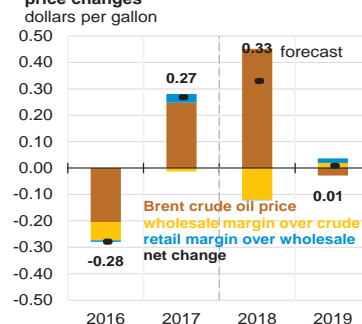


U.S. gasoline and crude oil prices

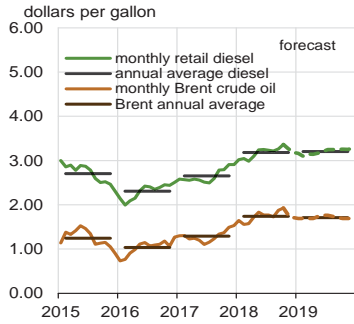


Source: Short-Term Energy Outlook, November 2018

Components of annual gasoline price changes

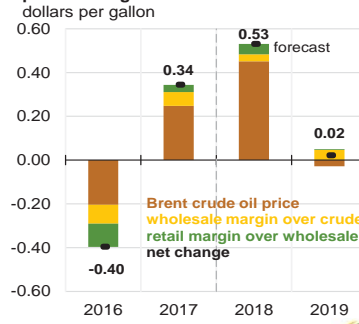


U.S. diesel and crude oil prices



Source: Short-Term Energy Outlook, November 2018

Components of annual diesel prices changes



Henry Hub natural gas price and NYMEX confidence intervals

dollars per million Btu



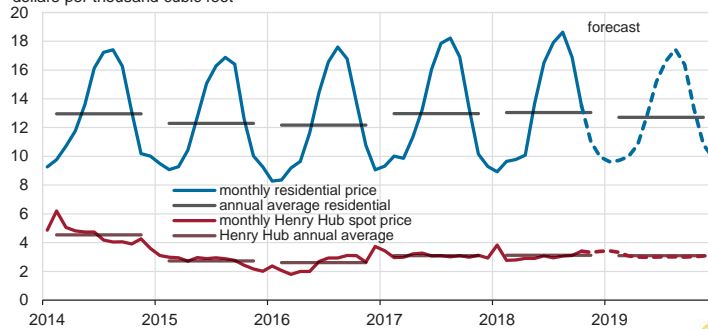
Note: Confidence interval derived from options market information for the five trading days ending Nov 1, 2018. Intervals not calculated for months with sparse trading in near-the-money options contracts.

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



U.S. natural gas prices

dollars per thousand cubic feet

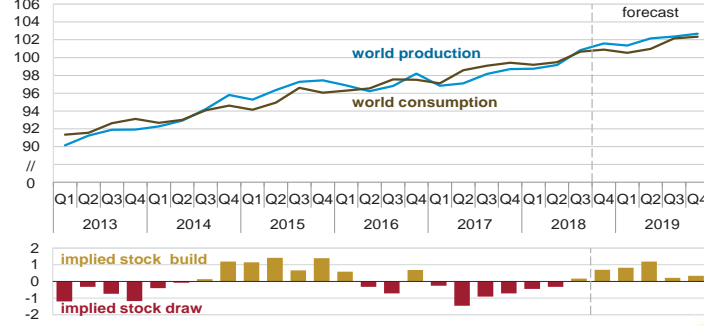


Source: Short-Term Energy Outlook, November 2018, and Thomson Reuters



World liquid fuels production and consumption balance

million barrels per day

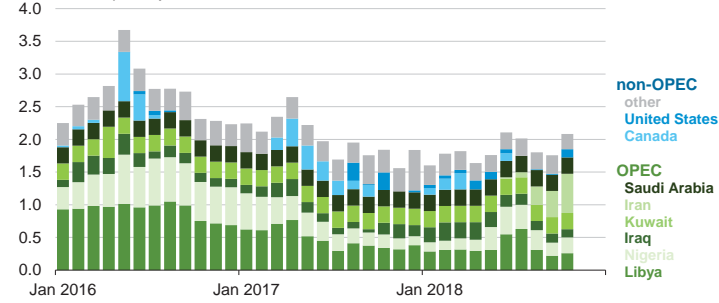


Source: Short-Term Energy Outlook, November 2018



Estimated unplanned liquid fuels production outages

million barrels per day

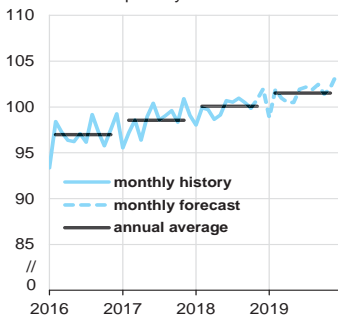


Source: Short-Term Energy Outlook, November 2018



World liquid fuels consumption

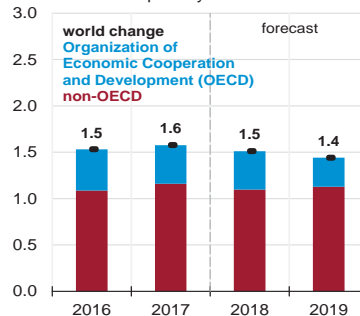
million barrels per day



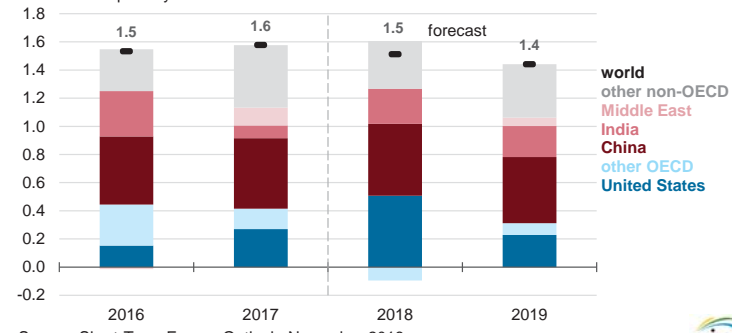
Source: Short-Term Energy Outlook, November 21

Components of annual change

million barrels per day



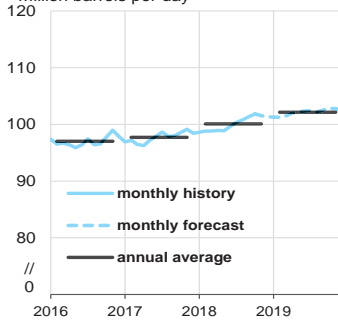
Annual change in world liquid fuels consumption
million barrels per day



Source: Short-Term Energy Outlook, November 2018

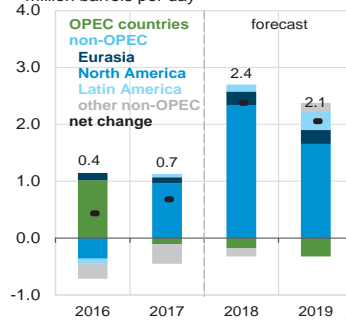


World crude oil and liquid fuels production
million barrels per day

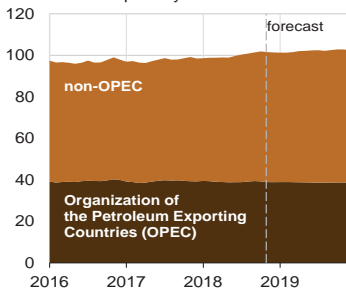


Source: Short-Term Energy Outlook, November 2018

Components of annual change
million barrels per day

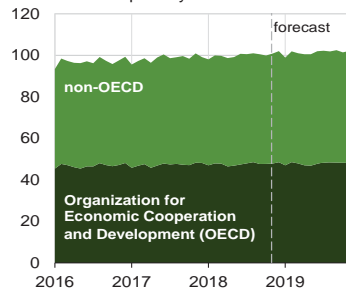


World liquid fuels production
million barrels per day

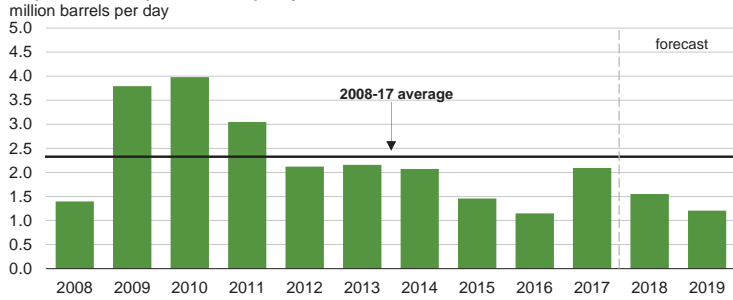


Source: Short-Term Energy Outlook, November 2018

World liquid fuels consumption
million barrels per day



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

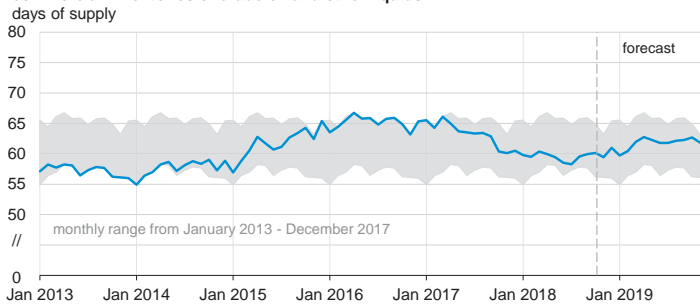


Note: Black line represents 2008-2017 average (2.3 million barrels per day).

Source: Short-Term Energy Outlook, November 2018



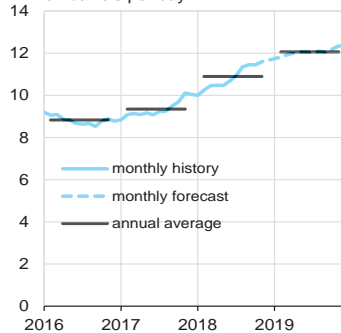
**Organization for Economic Cooperation and Development (OECD)
commercial inventories of crude oil and other liquids**



Source: Short-Term Energy Outlook, November 2018

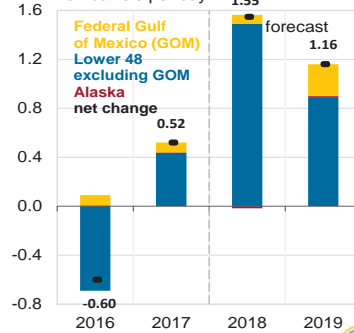


U.S. crude oil production

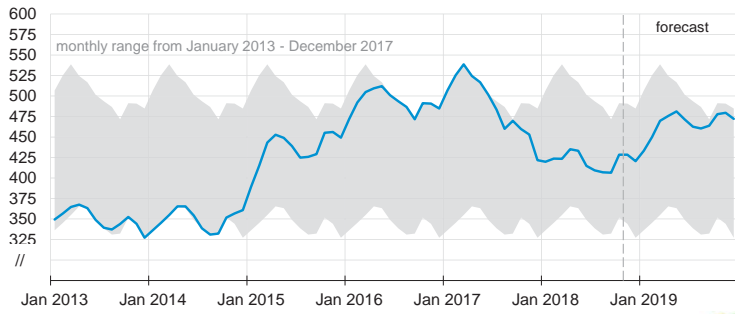


Source: Short-Term Energy Outlook, November 2018

Components of annual change



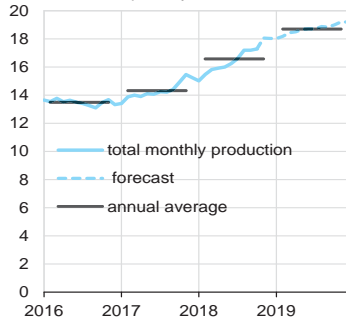
U.S. commercial crude oil inventories
million barrels



Source: Short-Term Energy Outlook, November 2018

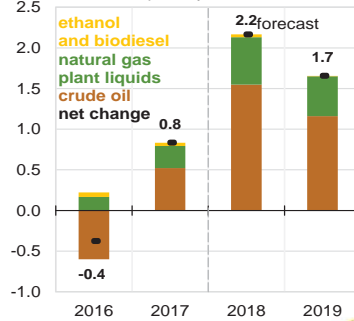


U.S. crude oil and liquid fuels production
million barrels per day

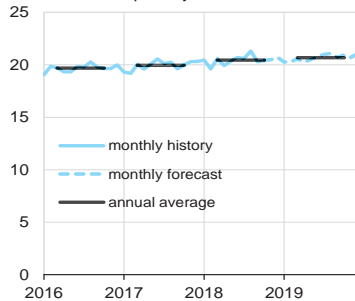


Source: Short-Term Energy Outlook, November 2018

Components of annual change
million barrels per day

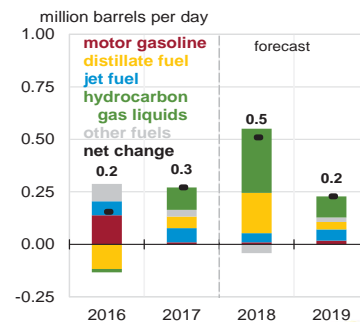


U.S. liquid fuels product supplied (consumption)
million barrels per day

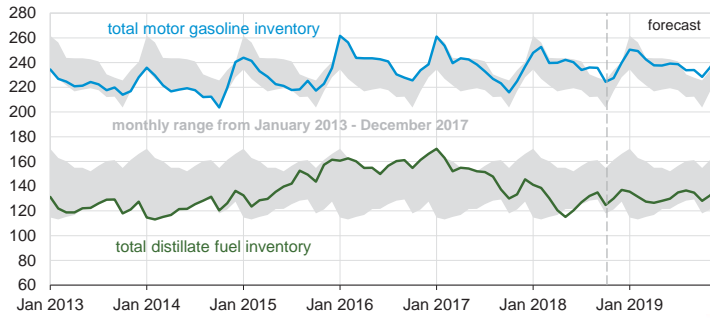


Source: Short-Term Energy Outlook, November 2018

Components of annual change
million barrels per day



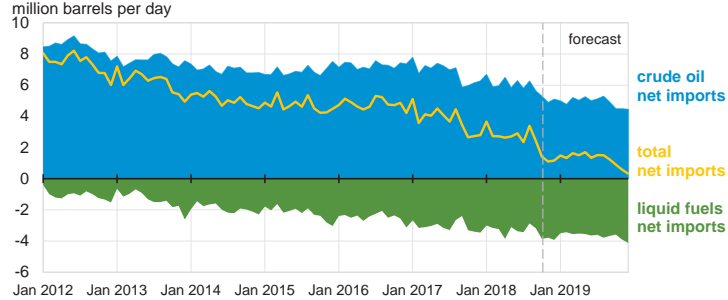
U.S. gasoline and distillate inventories
million barrels



Source: Short-Term Energy Outlook, November 2018



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

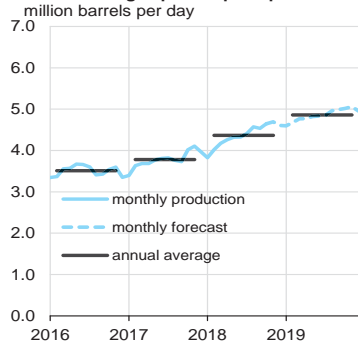


Note: Liquids fuels include: gasoline, distillate fuels, hydrocarbon gas liquids, jet fuel, residual fuel oil, unfinished oils, other hydrocarbons/oxygenates, and other oils.

Source: Short-Term Energy Outlook, November 2018

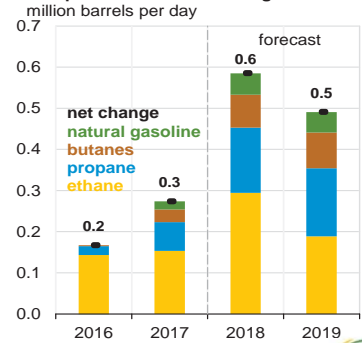


U.S. natural gas plant liquids production
million barrels per day

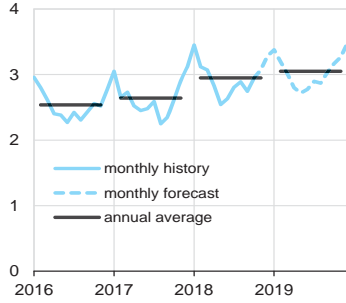


Source: Short-Term Energy Outlook, November 2018

Components of annual change
million barrels per day

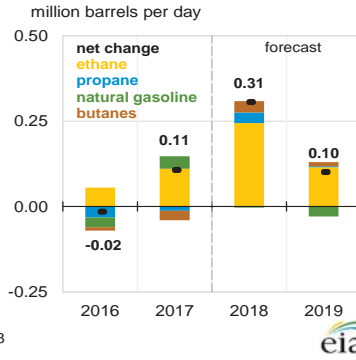


U.S. hydrocarbon gas liquids product supplied (consumption)
million barrels per day

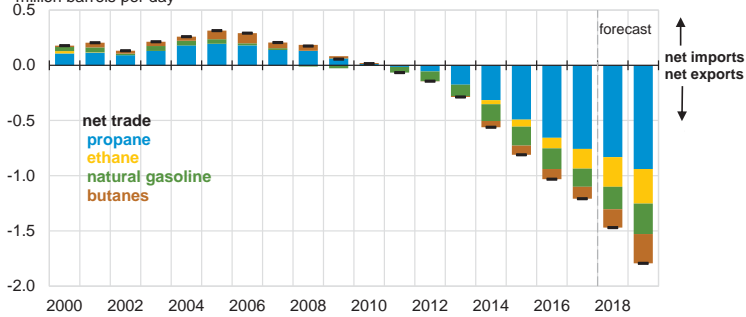


Source: Short-Term Energy Outlook, November 2018

Components of annual change



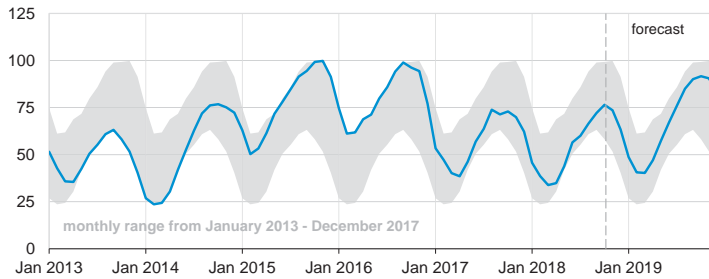
U.S. net trade of hydrocarbon gas liquids (HGL)
million barrels per day



Source: Short-Term Energy Outlook, November 2018



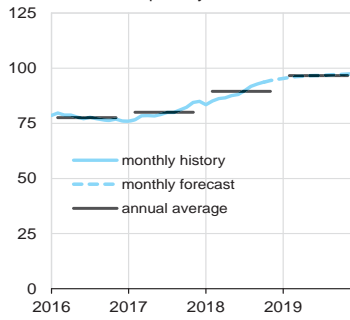
U.S. commercial propane inventories
million barrels



Source: Short-Term Energy Outlook, November 2018

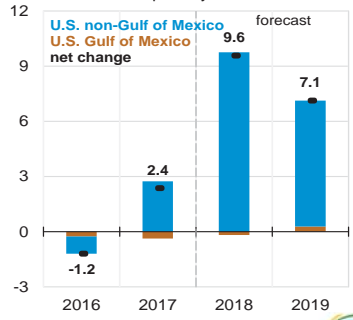


U.S. marketed natural gas production
billion cubic feet per day

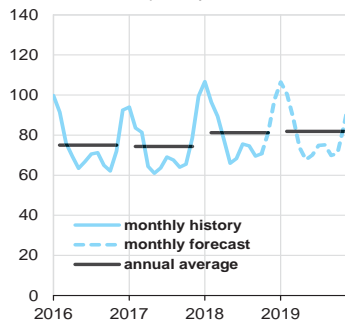


Source: Short-Term Energy Outlook, November 2018

Components of annual change
billion cubic feet per day

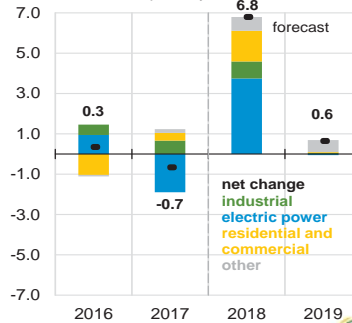


U.S. natural gas consumption
billion cubic feet per day

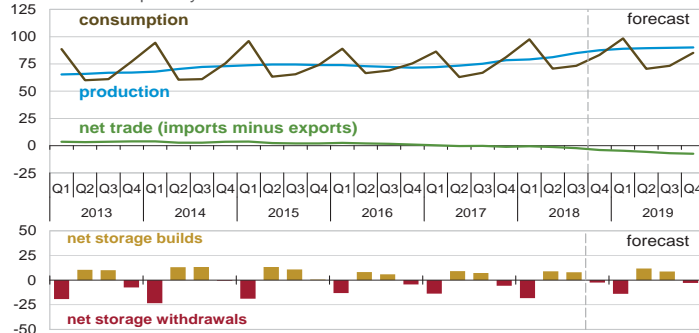


Source: Short-Term Energy Outlook, November 2018

Components of annual change
billion cubic feet per day



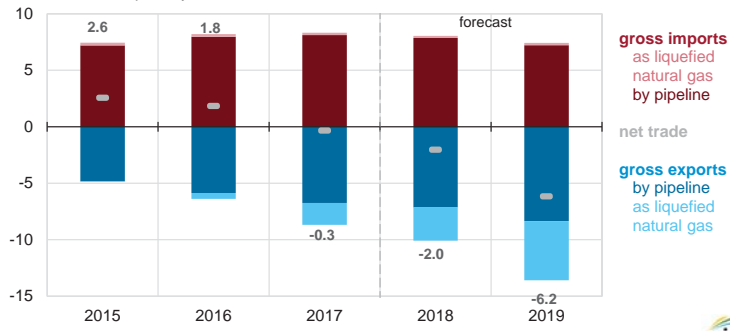
U.S. natural gas production, consumption, and net imports
billion cubic feet per day



Source: Short-Term Energy Outlook, November 2018



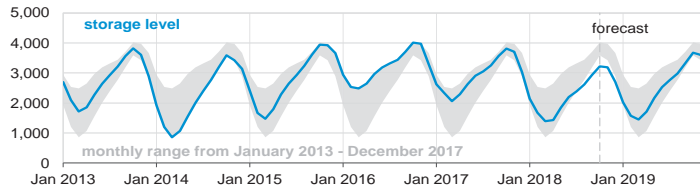
Annual natural gas trade
billion cubic feet per day



Source: Short-Term Energy Outlook, November 2018



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



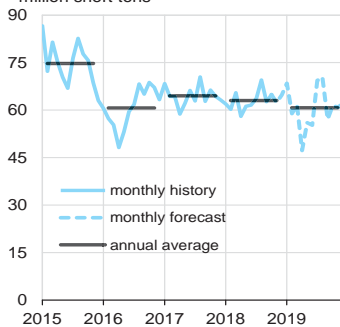
Percent deviation from 2013 - 2017 average



Source: Short-Term Energy Outlook, November 2018

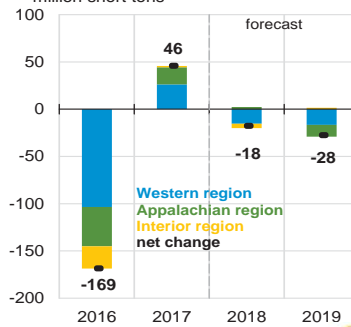


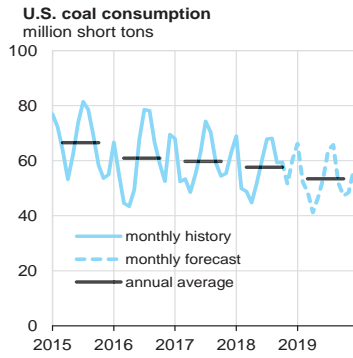
U.S. coal production
million short tons



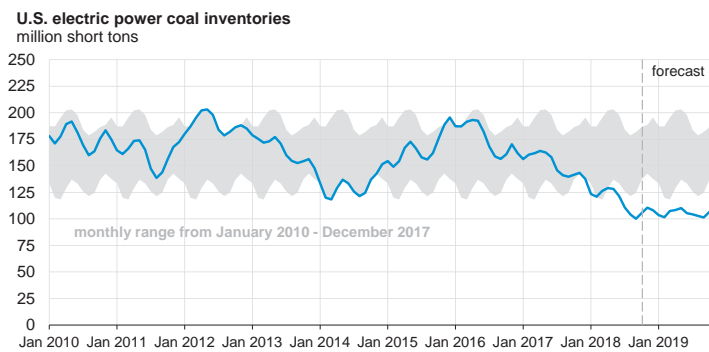
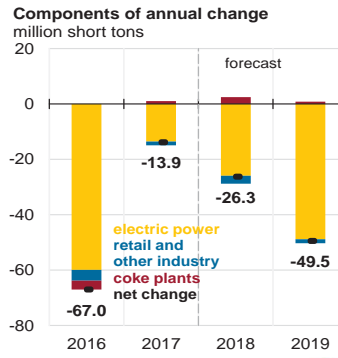
Source: Short-Term Energy Outlook, November 2018

Components of annual change
million short tons

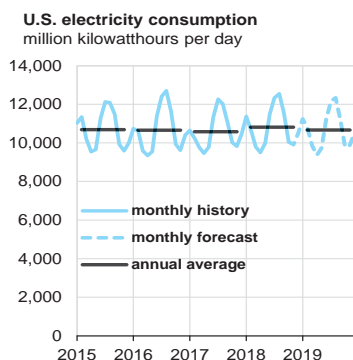




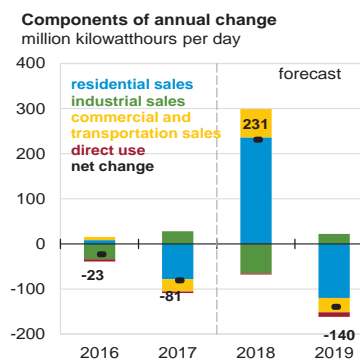
Source: Short-Term Energy Outlook, November 2018



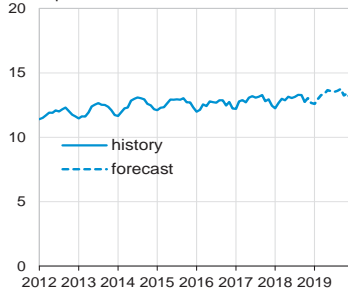
Source: Short-Term Energy Outlook, November 2018



Source: Short-Term Energy Outlook, November 2018

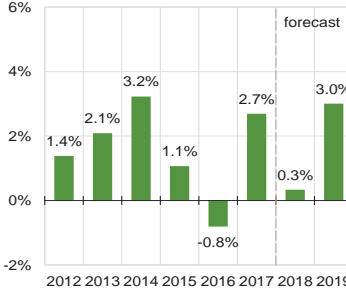


U.S. monthly residential electricity price
cents per kilowatthour

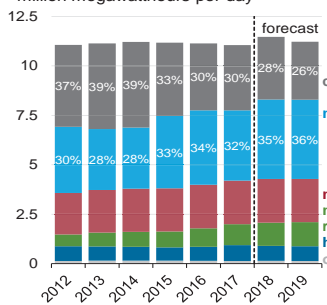


Source: Short-Term Energy Outlook, November 2018

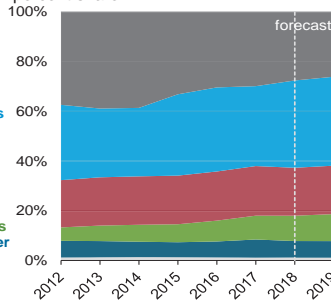
Annual growth in residential electricity prices
percent



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



percent share

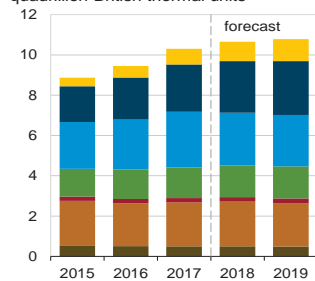


Note: Labels show percentage share of total generation provided by coal and natural gas.

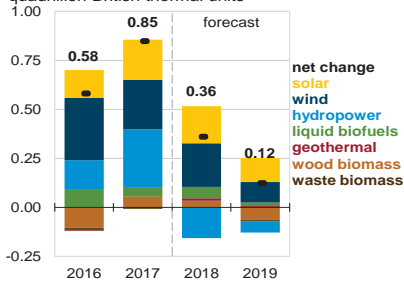
Source: Short-Term Energy Outlook, November 2018



U.S. renewable energy supply
quadrillion British thermal units



Components of annual change
quadrillion British thermal units

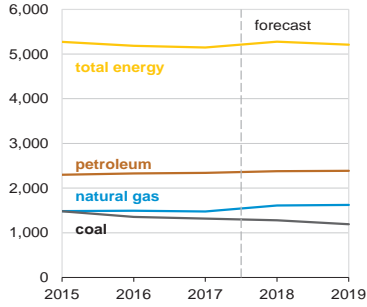


Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol and biodiesel. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste.

Source: Short-Term Energy Outlook, November 2018

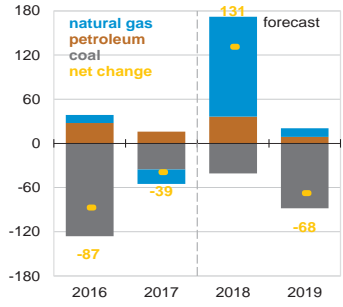


U.S. annual carbon emissions by source
million metric tons

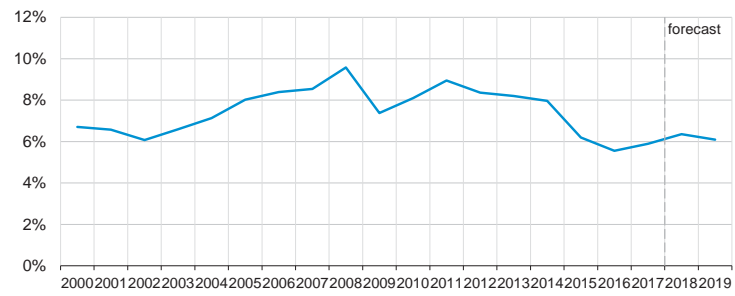


Source: Short-Term Energy Outlook, November 2018

Components of annual change
million metric tons



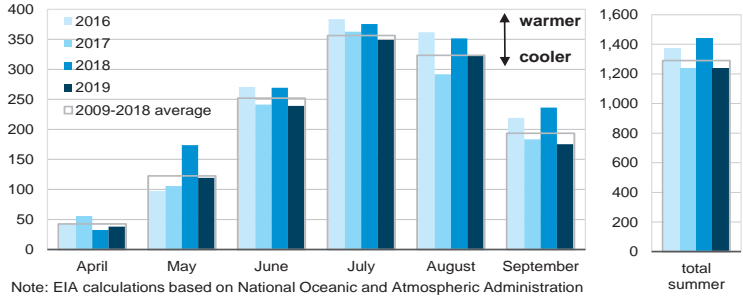
U.S. annual energy expenditures
share of gross domestic product



Source: Short-Term Energy Outlook, November 2018



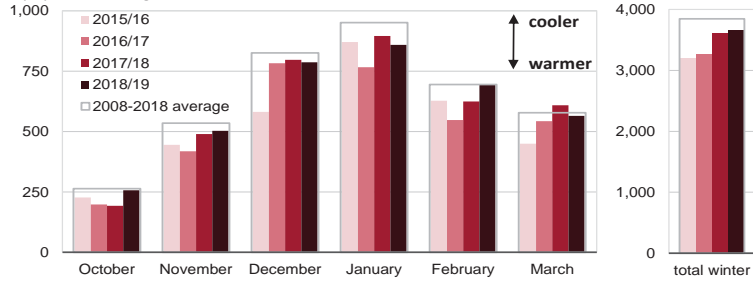
U.S. summer cooling degree days
population-weighted



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, November 2018



U.S. winter heating degree days
population-weighted

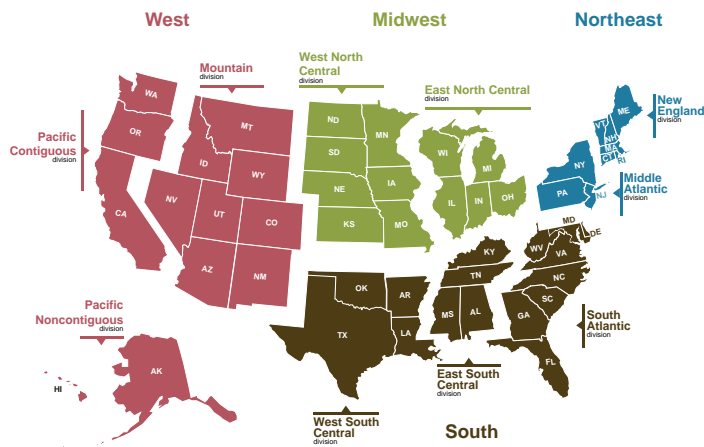


Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

Source: Short-Term Energy Outlook, November 2018



U.S. Census regions and divisions



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



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

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

Fuel / Region	Winter of							Forecast	
	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	% Change
Natural Gas									
Northeast									
Consumption (Mcf**)	56.2	64.7	71.7	72.2	57.4	61.6	65.2	65.5	0.5
Price (\$/mcf)	12.20	11.71	11.52	10.80	10.18	10.70	11.39	11.10	-2.6
Expenditures (\$)	686	757	826	780	584	659	743	727	-2.1
Midwest									
Consumption (Mcf)	61.2	73.5	84.2	79.1	63.6	64.8	73.9	73.2	-0.9
Price (\$/mcf)	8.96	8.34	8.68	8.54	7.55	8.28	7.83	9.05	15.5
Expenditures (\$)	549	614	731	676	480	536	579	663	14.5
South									
Consumption (Mcf)	40.4	46.6	52.7	50.9	40.3	37.9	45.6	47.2	3.5
Price (\$/mcf)	11.41	10.67	10.71	10.75	10.72	12.04	11.27	11.04	-2.1
Expenditures (\$)	461	497	564	547	432	457	514	521	1.3
West									
Consumption (Mcf)	48.0	47.4	45.2	40.1	44.7	45.6	43.7	45.3	3.6
Price (\$/mcf)	9.34	9.13	9.96	10.71	9.92	10.68	10.24	10.90	6.4
Expenditures (\$)	448	433	450	430	443	487	447	493	10.3
U.S. Average									
Consumption (Mcf)	51.7	58.4	63.9	60.7	51.8	52.9	57.5	58.0	1.0
Price (\$/mcf)	10.23	9.71	9.95	9.89	9.28	10.06	9.82	10.31	4.9
Expenditures (\$)	529	567	636	600	481	532	564	598	5.9
Heating Oil									
U.S. Average									
Consumption (gallons)	427.4	493.0	547.5	548.2	436.6	468.2	495.4	501.9	1.3
Price (\$/gallon)	3.73	3.87	3.87	3.04	2.06	2.41	2.78	3.17	14.0
Expenditures (\$)	1,594	1,910	2,121	1,668	900	1,128	1,376	1,589	15.5
Electricity									
Northeast									
Consumption (kWh***)	7,610	8,299	8,879	8,927	7,705	8,051	8,342	8,375	0.4
Price (\$/kwh)	0.154	0.152	0.163	0.168	0.164	0.165	0.169	0.174	3.1
Expenditures (\$)	1,173	1,264	1,448	1,501	1,263	1,325	1,406	1,456	3.5
Midwest									
Consumption (kWh)	9,132	10,344	11,363	10,816	9,365	9,479	10,384	10,312	-0.7
Price (\$/kwh)	0.111	0.111	0.112	0.118	0.122	0.124	0.124	0.128	3.2
Expenditures (\$)	1,009	1,152	1,275	1,274	1,138	1,173	1,286	1,318	2.5
South									
Consumption (kWh)	8,793	9,731	10,487	10,300	8,781	8,511	9,545	9,746	2.1
Price (\$/kwh)	0.107	0.107	0.109	0.111	0.110	0.111	0.112	0.113	0.7
Expenditures (\$)	938	1,037	1,140	1,141	967	948	1,069	1,099	2.8
West									
Consumption (kWh)	8,848	8,778	8,487	7,830	8,441	8,563	8,313	8,523	2.5
Price (\$/kwh)	0.115	0.119	0.123	0.127	0.130	0.132	0.136	0.139	2.2
Expenditures (\$)	1,015	1,041	1,045	993	1,095	1,129	1,127	1,181	4.8
U.S. Average									
Consumption (kWh)	8,470	9,193	9,728	9,417	8,456	8,420	9,046	9,186	1.5
Price (\$/kwh)	0.116	0.117	0.120	0.123	0.124	0.125	0.126	0.129	1.8
Expenditures (\$)	983	1,071	1,163	1,158	1,044	1,055	1,143	1,182	3.4

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

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

Fuel / Region	Winter of							Forecast	
	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	% Change
Propane									
Northeast									
Consumption (gallons)	495.6	564.7	624.4	629.7	505.7	542.7	569.2	574.8	1.0
Price* (\$/gallon)	3.34	3.00	3.56	3.00	2.71	3.06	3.26	3.37	3.4
Expenditures (\$)	1,656	1,697	2,223	1,889	1,370	1,661	1,856	1,937	4.4
Midwest									
Consumption (gallons)	596.2	711.7	808.5	755.9	618.3	628.9	715.0	708.1	-1.0
Price* (\$/gallon)	2.23	1.74	2.61	1.91	1.47	1.73	1.95	2.05	5.1
Expenditures (\$)	1,330	1,238	2,110	1,444	909	1,088	1,394	1,452	4.1
Number of households by primary space heating fuel (thousands)									
Northeast									
Natural gas	11,245	11,356	11,529	11,705	11,802	11,858	12,020	12,184	1.4
Heating oil	5,705	5,464	5,244	5,097	4,923	4,763	4,661	4,519	-3.1
Propane	761	814	846	856	884	933	953	951	-0.2
Electricity	2,896	3,014	3,038	3,093	3,253	3,311	3,369	3,492	3.7
Wood	548	583	585	569	511	474	435	369	-15.2
Other/None	324	377	436	437	433	429	446	481	7.8
Midwest									
Natural gas	18,033	18,072	18,083	18,206	18,241	18,230	18,225	18,182	-0.2
Heating oil	393	360	336	319	301	287	271	251	-7.4
Propane	2,039	2,065	2,089	2,085	2,077	2,062	2,078	2,078	0.0
Electricity	5,123	5,338	5,425	5,514	5,747	5,853	6,049	6,314	4.4
Wood	631	641	632	617	587	551	532	511	-4.0
Other/None	282	319	353	351	354	357	368	388	5.2
South									
Natural gas	13,647	13,694	13,802	13,919	13,948	13,948	14,029	14,109	0.6
Heating oil	790	739	699	681	653	621	603	575	-4.6
Propane	2,025	1,983	1,944	1,925	1,899	1,864	1,854	1,822	-1.7
Electricity	27,305	27,884	28,247	28,843	29,509	29,928	30,544	31,172	2.1
Wood	609	613	616	593	552	507	507	523	3.1
Other/None	305	367	419	407	413	427	441	456	3.4
West									
Natural gas	15,033	15,023	15,068	15,227	15,312	15,436	15,588	15,623	0.2
Heating oil	262	247	235	225	219	215	207	194	-5.9
Propane	886	910	930	915	923	940	934	913	-2.3
Electricity	8,446	8,680	8,759	8,927	9,228	9,345	9,560	9,850	3.0
Wood	737	729	744	749	719	699	696	703	1.1
Other/None	830	903	1,016	1,075	1,087	1,056	1,102	1,196	8.5
U.S. Totals									
Natural gas	57,959	58,145	58,481	59,057	59,303	59,472	59,862	60,098	0.4
Heating oil	7,150	6,810	6,513	6,322	6,095	5,886	5,742	5,539	-3.5
Propane	5,712	5,772	5,810	5,781	5,783	5,799	5,819	5,764	-1.0
Electricity	43,770	44,916	45,470	46,377	47,737	48,436	49,521	50,828	2.6
Wood	2,526	2,565	2,578	2,528	2,369	2,231	2,170	2,106	-3.0
Other/None	1,740	1,967	2,223	2,271	2,287	2,270	2,359	2,521	6.9
Heating degree days									
Northeast	4,219	4,965	5,596	5,647	4,321	4,701	5,011	5,049	0.8
Midwest	4,486	5,545	6,452	6,002	4,688	4,792	5,577	5,519	-1.0
South	2,020	2,428	2,784	2,689	2,013	1,880	2,351	2,444	4.0
West	3,231	3,182	2,990	2,568	2,955	3,042	2,876	3,004	4.5
U.S. Average	3,225	3,721	4,110	3,882	3,202	3,256	3,609	3,665	1.5

Note: Winter covers the period October 1 through March 31. Fuel prices are nominal prices. Fuel consumption per household is based only on households that use that fuel as the primary space-heating fuel. Included in fuel consumption is consumption for water heating, appliances, electronics, and lighting (electricity). Per-household consumption based on EIA's 2015 Residential Energy Consumption Surveys corrected for actual and projected heating degree days. Number of households using heating oil includes kerosene.

* Prices exclude taxes

** thousand cubic feet

*** kilowatthour

Table 1. U.S. Energy Markets Summary

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Energy Supply															
Crude Oil Production (a) (million barrels per day)	9.02	9.11	9.32	9.95	10.23	10.54	11.24	11.57	11.83	12.04	12.05	12.31	9.35	10.90	12.06
Dry Natural Gas Production (billion cubic feet per day)	71.99	73.49	75.09	78.44	79.14	81.19	84.92	87.54	88.85	89.49	89.78	90.17	74.77	83.23	89.58
Coal Production (million short tons)	197	187	196	194	188	181	196	192	189	159	197	184	774	756	729
Energy Consumption															
Liquid Fuels (million barrels per day)	19.54	20.07	20.01	20.21	20.24	20.33	20.74	20.54	20.38	20.53	20.94	20.91	19.96	20.47	20.69
Natural Gas (billion cubic feet per day)	86.39	62.98	66.88	81.16	97.54	70.66	73.26	83.22	98.34	70.50	73.30		74.32	81.11	81.75
Coal (b) (million short tons)	174	167	204	173	168	157	195	171	167	141	181	152	717	691	641
Electricity (billion kilowatt hours per day)	10.22	10.19	11.80	10.11	10.61	10.32	12.15	10.15	10.62	10.10	11.90	10.06	10.58	10.81	10.67
Renewables (c) (quadrillion Btu)	2.73	2.98	2.61	2.73	2.89	3.06	2.65	2.73	2.79	3.08	2.81	2.85	11.05	11.33	11.53
Total Energy Consumption (d) (quadrillion Btu)	25.04	23.25	24.40	25.22	26.42	24.06	24.87	25.12	26.07	23.44	24.76	25.15	97.91	100.48	99.41
Energy Prices															
Crude Oil West Texas Intermediate Spot (dollars per barrel)	51.64	48.15	48.16	55.27	62.90	68.07	69.69	66.44	62.00	63.63	66.66	67.00	50.79	66.79	64.85
Natural Gas Henry Hub Spot (dollars per million Btu)	3.01	3.08	2.95	2.90	3.02	2.85	2.93	3.25	3.16	2.88	2.90	2.97	2.99	3.01	2.98
Coal (dollars per million Btu)	2.07	2.08	2.04	2.04	2.06	2.05	2.08	2.13	2.10	2.10	2.10	2.09	2.06	2.08	2.10
Macroeconomic															
Real Gross Domestic Product (billion chained 2012 dollars - SAAR)	17,863	17,995	18,121	18,224	18,324	18,512	18,667	18,792	18,912	19,039	19,155	19,260	18,051	18,574	19,092
Percent change from prior year	1.9	2.1	2.3	2.5	2.6	2.9	3.0	3.1	3.2	2.9	2.6	2.5	2.2	2.9	2.8
GDP Implicit Price Deflator (Index, 2012=100)	107.2	107.6	108.1	108.8	109.3	110.2	110.6	111.3	112.1	112.8	113.5	114.1	107.9	110.4	113.1
Percent change from prior year	2.1	1.7	1.9	2.0	2.0	2.4	2.3	2.3	2.5	2.3	2.5	2.5	1.9	2.3	2.5
Real Disposable Personal Income (billion chained 2012 dollars - SAAR)	13,835	13,910	13,986	14,066	14,220	14,307	14,391	14,432	14,540	14,648	14,750	14,855	13,949	14,337	14,698
Percent change from prior year	2.0	2.7	2.9	2.8	2.8	2.9	2.9	2.6	2.3	2.4	2.5	2.9	2.6	2.8	2.5
Manufacturing Production Index (Index, 2012=100)	102.0	102.7	102.2	103.6	104.1	104.8	105.7	106.3	107.0	107.9	108.6	109.1	102.6	105.2	108.2
Percent change from prior year	0.6	1.9	1.2	2.1	2.1	2.0	3.4	2.6	2.8	3.0	2.8	2.6	1.5	2.6	2.8
Weather															
U.S. Heating Degree-Days	1,857	427	65	1,480	2,129	522	46	1,547	2,118	480	74	1,526	3,829	4,244	4,199
U.S. Cooling Degree-Days	70	403	838	115	51	476	963	119	40	397	847	90	1,426	1,609	1,374

- = no data available

Prices are not adjusted for inflation.

(a) Includes lease condensate.

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

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

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

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

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.**Historical data:** Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109;*Petroleum Supply Annual*, DOE/EIA-0340/2; *Weekly Petroleum Status Report*, DOE/EIA-0208; *Petroleum Marketing Monthly*, DOE/EIA-0380; *Natural Gas Monthly*, DOE/EIA-0130;*Electric Power Monthly*, DOE/EIA-0226; *Quarterly Coal Report*, DOE/EIA-0121; and *International Petroleum Monthly*, DOE/EIA-0520.

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

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

Weather projections from National Oceanic and Atmospheric Administration.

Table 2. Energy Prices

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Crude Oil (dollars per barrel)															
West Texas Intermediate Spot Average	51.64	48.15	48.16	55.27	62.90	68.07	69.69	66.44	62.00	63.63	66.66	67.00	50.79	66.79	64.85
Brent Spot Average	53.57	49.59	52.09	61.42	66.84	74.53	75.02	75.90	71.00	72.63	73.03	71.00	54.15	73.12	71.92
U.S. Imported Average	47.94	46.25	47.43	55.08	58.08	64.67	65.97	62.84	58.50	60.17	63.16	63.50	48.98	62.88	61.30
U.S. Refiner Average Acquisition Cost	49.90	47.73	48.31	56.73	61.89	67.29	68.84	65.19	61.00	62.69	65.66	66.00	50.68	65.87	63.88
U.S. Liquid Fuels (cents per gallon)															
Refiner Prices for Resale															
Gasoline	163	165	172	175	186	213	214	193	189	209	211	194	169	202	201
Diesel Fuel	162	155	169	190	199	219	223	227	212	217	224	222	169	217	219
Heating Oil	154	144	154	179	193	205	215	217	209	206	215	215	160	207	211
Refiner Prices to End Users															
Jet Fuel	158	151	162	181	197	217	221	223	210	214	222	219	163	215	216
No. 6 Residual Fuel Oil (a)	128	120	124	140	149	162	174	164	152	151	160	149	128	163	153
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	233	238	244	251	258	285	284	270	261	282	287	271	242	275	275
Gasoline All Grades (b)	244	250	255	263	270	294	292	280	272	294	298	283	253	284	287
On-highway Diesel Fuel	257	255	263	287	302	320	324	328	314	317	325	326	265	319	321
Heating Oil	247	238	234	265	287	299	325	321	314	298	302	309	251	303	308
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	3.12	3.19	3.06	3.01	3.13	2.96	3.04	3.37	3.28	2.99	3.01	3.08	3.10	3.12	3.09
Henry Hub Spot (dollars per million Btu)	3.01	3.08	2.95	2.90	3.02	2.85	2.93	3.25	3.16	2.88	2.90	2.97	2.99	3.01	2.98
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	4.46	4.07	3.85	3.97	4.45	3.84	3.82	4.44	4.64	3.92	3.87	4.20	4.10	4.16	4.18
Commercial Sector	7.70	8.30	8.69	7.55	7.64	8.08	8.75	7.95	7.88	8.25	8.62	7.87	7.86	7.92	8.02
Residential Sector	9.68	12.95	17.64	10.12	9.38	11.96	17.81	10.88	9.75	12.18	16.78	10.76	10.86	10.76	10.91
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.07	2.08	2.04	2.04	2.06	2.05	2.08	2.13	2.10	2.10	2.10	2.09	2.06	2.08	2.10
Natural Gas	3.68	3.37	3.17	3.37	3.96	3.09	3.24	3.63	3.66	3.07	3.01	3.31	3.37	3.45	3.24
Residual Fuel Oil (c)	11.15	10.60	10.03	12.04	11.47	13.02	13.60	14.35	13.98	14.41	13.93	13.25	11.01	12.80	13.90
Distillate Fuel Oil	12.79	12.24	13.11	14.50	15.77	16.61	16.80	17.49	16.56	16.76	17.24	17.21	13.27	16.41	16.92
Retail Prices (cents per kilowatthour)															
Industrial Sector	6.64	6.86	7.23	6.73	6.81	6.87	7.30	6.90	6.85	6.98	7.39	6.95	6.88	6.98	7.05
Commercial Sector	10.38	10.68	11.00	10.52	10.54	10.59	11.02	10.67	10.69	10.71	11.07	10.73	10.66	10.72	10.81
Residential Sector	12.60	13.02	13.16	12.71	12.59	13.03	13.23	12.81	12.91	13.55	13.62	13.18	12.89	12.93	13.32

- = 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 - November 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Supply (million barrels per day) (a)															
OECD	27.17	26.87	27.19	28.33	28.85	28.97	30.01	30.91	31.11	31.41	31.50	32.00	27.39	29.69	31.51
U.S. (50 States)	15.08	15.40	15.58	16.55	16.77	17.39	18.37	18.78	18.98	19.40	19.57	19.91	15.65	17.83	19.47
Canada	5.05	4.60	5.00	5.18	5.32	5.09	5.17	5.26	5.25	5.21	5.21	5.22	4.96	5.21	5.22
Mexico	2.35	2.34	2.19	2.16	2.18	2.14	2.13	2.20	2.19	2.17	2.16	2.15	2.26	2.16	2.17
Other OECD	4.69	4.54	4.42	4.44	4.59	4.34	4.34	4.68	4.69	4.63	4.55	4.72	4.52	4.49	4.65
Non-OECD	69.68	70.24	70.97	70.37	69.89	70.20	70.82	70.67	70.25	70.75	70.87	70.68	70.32	70.39	70.64
OPEC	38.87	39.15	39.74	39.38	39.32	38.89	39.18	39.04	38.95	38.78	38.72	38.70	39.29	39.11	38.79
Crude Oil Portion	32.25	32.52	33.16	32.78	32.68	32.32	32.54	32.47	32.36	32.20	32.13	32.11	32.68	32.50	32.20
Other Liquids (b)	6.61	6.63	6.59	6.60	6.65	6.57	6.64	6.57	6.58	6.58	6.59	6.59	6.61	6.61	6.59
Eurasia	14.43	14.30	14.22	14.32	14.40	14.42	14.60	14.83	14.84	14.75	14.76	14.88	14.32	14.56	14.81
China	4.81	4.82	4.74	4.75	4.76	4.80	4.75	4.82	4.76	4.80	4.80	4.85	4.78	4.78	4.80
Other Non-OECD	11.57	11.97	12.27	11.92	11.40	12.07	12.28	11.98	11.69	12.42	12.59	12.24	11.93	11.94	12.24
Total World Supply	96.85	97.11	98.16	98.71	98.74	99.16	100.83	101.58	101.35	102.16	102.36	102.68	97.71	100.09	102.14
Non-OPEC Supply	57.98	57.96	58.42	59.32	59.42	60.27	61.65	62.54	62.40	63.38	63.65	63.97	58.42	60.98	63.36
Consumption (million barrels per day) (c)															
OECD	46.73	46.87	47.47	47.83	47.58	46.92	48.05	48.02	47.80	47.20	48.33	48.48	47.23	47.64	47.96
U.S. (50 States)	19.54	20.07	20.01	20.21	20.24	20.33	20.74	20.54	20.38	20.53	20.94	20.91	19.96	20.47	20.69
U.S. Territories	0.16	0.14	0.12	0.09	0.10	0.08	0.09	0.11	0.12	0.11	0.12	0.13	0.13	0.10	0.12
Canada	2.37	2.36	2.52	2.52	2.32	2.34	2.51	2.46	2.41	2.36	2.47	2.44	2.44	2.41	2.42
Europe	13.82	14.25	14.70	14.40	14.05	14.16	14.67	14.31	14.02	14.24	14.75	14.45	14.30	14.30	14.37
Japan	4.30	3.58	3.63	4.06	4.27	3.43	3.54	3.88	4.15	3.40	3.47	3.79	3.89	3.78	3.70
Other OECD	6.54	6.46	6.48	6.55	6.60	6.57	6.49	6.71	6.71	6.56	6.59	6.76	6.51	6.59	6.66
Non-OECD	50.37	51.71	51.60	51.59	51.62	52.57	52.61	52.87	52.73	53.77	53.82	53.86	51.32	52.42	53.55
Eurasia	4.73	4.72	4.99	4.86	4.78	4.83	5.11	4.98	4.80	4.87	5.24	5.09	4.83	4.93	5.00
Europe	0.73	0.73	0.74	0.74	0.75	0.74	0.76	0.76	0.75	0.75	0.77	0.77	0.73	0.75	0.76
China	13.17	13.61	13.17	13.49	13.80	14.00	13.73	13.95	14.28	14.47	14.20	14.41	13.36	13.87	14.34
Other Asia	13.06	13.37	13.08	13.42	13.58	13.82	13.45	13.86	14.06	14.22	13.81	14.14	13.23	13.68	14.05
Other Non-OECD	18.69	19.28	19.63	19.07	18.71	19.18	19.56	19.32	18.84	19.45	19.80	19.45	19.17	19.20	19.39
Total World Consumption	97.10	98.58	99.08	99.42	99.20	99.49	100.66	100.89	100.53	100.97	102.15	102.34	98.55	100.07	101.51
Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)															
U.S. (50 States)	-0.01	0.23	0.35	0.90	0.36	-0.06	-0.43	0.40	-0.28	-0.57	-0.26	0.25	0.37	0.07	-0.22
Other OECD	-0.38	0.08	0.34	0.48	-0.03	0.11	-0.13	-0.37	-0.18	-0.20	0.02	-0.20	0.13	-0.11	-0.14
Other Stock Draws and Balance	0.64	1.16	0.23	-0.67	0.12	0.28	0.39	-0.72	-0.36	-0.41	0.03	-0.38	0.34	0.01	-0.28
Total Stock Draw	0.26	1.47	0.92	0.72	0.46	0.33	-0.17	-0.69	-0.82	-1.19	-0.21	-0.34	0.84	-0.02	-0.64
End-of-period Commercial Crude Oil and Other Liquids Inventories (million barrels)															
U.S. Commercial Inventory	1,339	1,331	1,304	1,232	1,196	1,207	1,247	1,221	1,249	1,304	1,328	1,308	1,232	1,221	1,308
OECD Commercial Inventory	3,029	3,013	2,960	2,843	2,806	2,807	2,858	2,867	2,911	2,984	3,006	3,005	2,843	2,867	3,005

- = 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, Qatar, Saudi Arabia, the United Arab

(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 *Retroleum 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 - November 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
North America	22.48	22.34	22.77	23.90	24.26	24.62	25.67	<i>26.24</i>	<i>26.41</i>	<i>26.78</i>	<i>26.95</i>	<i>27.28</i>	22.87	<i>25.20</i>	<i>26.86</i>
Canada	5.05	4.60	5.00	5.18	5.32	5.09	5.17	<i>5.26</i>	<i>5.25</i>	<i>5.21</i>	<i>5.21</i>	<i>5.22</i>	4.96	<i>5.21</i>	<i>5.22</i>
Mexico	2.35	2.34	2.19	2.16	2.18	2.14	2.13	<i>2.20</i>	<i>2.19</i>	<i>2.17</i>	<i>2.16</i>	<i>2.15</i>	2.26	<i>2.16</i>	<i>2.17</i>
United States	15.08	15.40	15.58	16.55	16.77	17.39	18.37	<i>18.78</i>	<i>18.98</i>	<i>19.40</i>	<i>19.57</i>	<i>19.91</i>	15.65	<i>17.83</i>	<i>19.47</i>
Central and South America	4.91	5.40	5.70	5.33	4.89	5.64	5.83	<i>5.48</i>	<i>5.18</i>	<i>5.95</i>	<i>6.16</i>	<i>5.81</i>	5.34	<i>5.46</i>	<i>5.78</i>
Argentina	0.67	0.67	0.67	0.70	0.67	0.69	0.68	<i>0.69</i>	<i>0.66</i>	<i>0.68</i>	<i>0.67</i>	<i>0.68</i>	0.68	<i>0.68</i>	<i>0.67</i>
Brazil	2.95	3.44	3.73	3.32	2.95	3.64	3.86	<i>3.49</i>	<i>3.25</i>	<i>3.96</i>	<i>4.20</i>	<i>3.83</i>	3.36	<i>3.49</i>	<i>3.81</i>
Colombia	0.87	0.88	0.88	0.89	0.86	0.89	0.88	<i>0.88</i>	<i>0.87</i>	<i>0.89</i>	<i>0.87</i>	<i>0.88</i>	0.88	<i>0.88</i>	<i>0.88</i>
Other Central and S. America	0.42	0.42	0.42	0.42	0.41	0.42	0.41	<i>0.42</i>	<i>0.41</i>	<i>0.42</i>	<i>0.41</i>	<i>0.41</i>	0.42	<i>0.41</i>	<i>0.41</i>
Europe	4.21	4.04	3.92	3.95	4.08	3.87	3.81	<i>4.13</i>	<i>4.12</i>	<i>4.03</i>	<i>3.93</i>	<i>4.08</i>	4.03	<i>3.97</i>	<i>4.04</i>
Norway	2.08	2.00	1.91	1.92	1.97	1.80	1.81	<i>1.94</i>	<i>1.94</i>	<i>1.87</i>	<i>1.88</i>	<i>1.92</i>	1.98	<i>1.88</i>	<i>1.90</i>
United Kingdom	1.09	1.07	1.00	1.02	1.11	1.07	1.03	<i>1.19</i>	<i>1.20</i>	<i>1.19</i>	<i>1.07</i>	<i>1.17</i>	1.05	<i>1.10</i>	<i>1.16</i>
Eurasia	14.43	14.30	14.22	14.32	14.40	14.42	14.60	<i>14.83</i>	<i>14.84</i>	<i>14.75</i>	<i>14.76</i>	<i>14.88</i>	14.32	<i>14.56</i>	<i>14.81</i>
Azerbaijan	0.79	0.80	0.79	0.81	0.82	0.81	0.80	<i>0.79</i>	<i>0.80</i>	<i>0.80</i>	<i>0.79</i>	<i>0.77</i>	0.80	<i>0.80</i>	<i>0.79</i>
Kazakhstan	1.87	1.87	1.86	1.92	1.98	1.96	1.89	<i>2.04</i>	<i>2.05</i>	<i>1.95</i>	<i>2.03</i>	<i>2.09</i>	1.88	<i>1.97</i>	<i>2.03</i>
Russia	11.32	11.18	11.14	11.16	11.18	11.22	11.48	<i>11.56</i>	<i>11.58</i>	<i>11.59</i>	<i>11.53</i>	<i>11.60</i>	11.20	<i>11.36</i>	<i>11.57</i>
Turkmenistan	0.28	0.28	0.28	0.28	0.27	0.28	0.27	<i>0.27</i>	<i>0.25</i>	<i>0.25</i>	<i>0.25</i>	<i>0.25</i>	0.28	<i>0.27</i>	<i>0.25</i>
Other Eurasia	0.16	0.17	0.16	0.16	0.16	0.15	0.17	<i>0.17</i>	<i>0.16</i>	<i>0.16</i>	<i>0.16</i>	<i>0.16</i>	0.16	<i>0.16</i>	<i>0.16</i>
Middle East	1.07	1.07	1.07	1.08	1.08	1.08	1.10	<i>1.10</i>	<i>1.13</i>	<i>1.13</i>	<i>1.13</i>	<i>1.13</i>	1.08	<i>1.09</i>	<i>1.13</i>
Oman	0.98	0.98	0.98	0.98	0.98	0.98	0.99	<i>0.99</i>	<i>0.99</i>	<i>0.99</i>	<i>1.00</i>	<i>1.00</i>	0.98	<i>0.98</i>	<i>1.00</i>
Asia and Oceania	9.36	9.29	9.20	9.19	9.24	9.16	9.14	<i>9.28</i>	<i>9.22</i>	<i>9.24</i>	<i>9.22</i>	<i>9.29</i>	9.26	<i>9.21</i>	<i>9.24</i>
Australia	0.34	0.35	0.36	0.34	0.37	0.34	0.37	<i>0.38</i>	<i>0.40</i>	<i>0.42</i>	<i>0.44</i>	<i>0.46</i>	0.35	<i>0.36</i>	<i>0.43</i>
China	4.81	4.82	4.74	4.75	4.76	4.80	4.75	<i>4.82</i>	<i>4.76</i>	<i>4.80</i>	<i>4.80</i>	<i>4.85</i>	4.78	<i>4.78</i>	<i>4.80</i>
India	1.01	1.00	1.00	1.00	1.01	1.01	0.97	<i>0.99</i>	<i>0.99</i>	<i>0.98</i>	<i>0.97</i>	<i>0.99</i>	1.00	<i>0.99</i>	<i>0.98</i>
Indonesia	0.92	0.91	0.90	0.90	0.89	0.90	0.90	<i>0.90</i>	<i>0.88</i>	<i>0.87</i>	<i>0.85</i>	<i>0.84</i>	0.91	<i>0.90</i>	<i>0.86</i>
Malaysia	0.76	0.74	0.74	0.75	0.77	0.74	0.73	<i>0.75</i>	<i>0.74</i>	<i>0.74</i>	<i>0.73</i>	<i>0.72</i>	0.75	<i>0.75</i>	<i>0.73</i>
Vietnam	0.29	0.29	0.28	0.27	0.27	0.25	0.25	<i>0.24</i>	<i>0.25</i>	<i>0.24</i>	<i>0.24</i>	<i>0.24</i>	0.28	<i>0.25</i>	<i>0.24</i>
Africa	1.51	1.51	1.54	1.55	1.47	1.47	1.49	<i>1.50</i>	<i>1.50</i>	<i>1.50</i>	<i>1.50</i>	<i>1.50</i>	1.53	<i>1.48</i>	<i>1.50</i>
Egypt	0.64	0.65	0.66	0.66	0.63	0.63	0.64	<i>0.63</i>	<i>0.61</i>	<i>0.61</i>	<i>0.61</i>	<i>0.61</i>	0.65	<i>0.63</i>	<i>0.61</i>
South Sudan	0.15	0.15	0.15	0.15	0.12	0.12	0.12	<i>0.14</i>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	0.15	<i>0.13</i>	<i>0.15</i>
Total non-OPEC liquids	57.98	57.96	58.42	59.32	59.42	60.27	61.65	<i>62.54</i>	<i>62.40</i>	<i>63.38</i>	<i>63.65</i>	<i>63.97</i>	58.42	<i>60.98</i>	<i>63.36</i>
OPEC non-crude liquids	6.61	6.63	6.59	6.60	6.65	6.57	6.64	<i>6.57</i>	<i>6.58</i>	<i>6.58</i>	<i>6.59</i>	<i>6.59</i>	6.61	<i>6.61</i>	<i>6.59</i>
Non-OPEC + OPEC non-crude	64.59	64.60	65.00	65.93	66.06	66.84	68.29	<i>69.11</i>	<i>68.99</i>	<i>69.96</i>	<i>70.23</i>	<i>70.57</i>	65.03	<i>67.59</i>	<i>69.94</i>
Unplanned non-OPEC Production Outages	0.43	0.68	0.63	0.54	0.53	0.40	0.28	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	0.57	<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, Qatar, Saudi Arabia, the United Arab Emirates,

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 - November 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Crude Oil															
Algeria	1.04	1.03	1.03	1.00	1.02	1.02	1.03	-	-	-	-	-	1.03	-	-
Angola	1.64	1.66	1.66	1.63	1.59	1.56	1.56	-	-	-	-	-	1.65	-	-
Congo (Brazzaville)	0.18	0.20	0.27	0.30	0.34	0.35	0.32	-	-	-	-	-	0.24	-	-
Ecuador	0.53	0.53	0.54	0.52	0.51	0.52	0.53	-	-	-	-	-	0.53	-	-
Equatorial Guinea	0.14	0.14	0.13	0.13	0.14	0.13	0.14	-	-	-	-	-	0.13	-	-
Gabon	0.19	0.20	0.20	0.20	0.20	0.20	0.19	-	-	-	-	-	0.20	-	-
Iran	3.80	3.81	3.83	3.84	3.83	3.80	3.55	-	-	-	-	-	3.82	-	-
Iraq	4.46	4.44	4.50	4.36	4.46	4.50	4.66	-	-	-	-	-	4.44	-	-
Kuwait	2.74	2.71	2.72	2.72	2.71	2.71	2.80	-	-	-	-	-	2.72	-	-
Libya	0.65	0.72	0.94	0.95	1.00	0.92	0.91	-	-	-	-	-	0.82	-	-
Nigeria	1.38	1.49	1.68	1.72	1.72	1.53	1.55	-	-	-	-	-	1.57	-	-
Qatar	0.62	0.61	0.61	0.60	0.61	0.61	0.62	-	-	-	-	-	0.61	-	-
Saudi Arabia	9.98	10.09	10.18	10.12	10.10	10.20	10.47	-	-	-	-	-	10.09	-	-
United Arab Emirates	2.92	2.90	2.92	2.90	2.88	2.86	2.94	-	-	-	-	-	2.91	-	-
Venezuela	1.99	1.97	1.95	1.78	1.57	1.42	1.26	-	-	-	-	-	1.92	-	-
OPEC Total	32.25	32.52	33.16	32.78	32.68	32.32	32.54	32.47	32.36	32.20	32.13	32.11	32.68	32.50	32.20
Other Liquids (a)	6.61	6.63	6.59	6.60	6.65	6.57	6.64	6.57	6.58	6.58	6.59	6.59	6.61	6.61	6.59
Total OPEC Supply	38.87	39.15	39.74	39.38	39.32	38.89	39.18	39.04	38.95	38.78	38.72	38.70	39.29	39.11	38.79
Crude Oil Production Capacity															
Africa	5.22	5.44	5.91	5.94	6.00	5.70	5.72	5.79	5.76	5.78	5.82	5.84	5.63	5.80	5.80
Middle East	26.70	26.69	26.71	26.64	26.51	26.52	26.43	26.06	26.24	26.15	26.14	26.15	26.69	26.38	26.17
South America	2.53	2.51	2.49	2.31	2.08	1.94	1.80	1.69	1.58	1.48	1.39	1.30	2.46	1.87	1.44
OPEC Total	34.45	34.64	35.11	34.88	34.59	34.16	33.94	33.53	33.58	33.42	33.34	33.29	34.77	34.05	33.41
Surplus Crude Oil Production Capacity															
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Middle East	2.19	2.13	1.95	2.10	1.91	1.83	1.39	1.07	1.22	1.22	1.22	1.18	2.09	1.55	1.21
South America	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OPEC Total	2.19	2.13	1.95	2.10	1.91	1.83	1.40	1.07	1.22	1.22	1.22	1.18	2.09	1.55	1.21
Unplanned OPEC Production Outages	1.81	1.60	1.17	1.21	1.21	1.43	1.59	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	1.45	<i>n/a</i>	<i>n/a</i>

- = no data available

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				2017	2018	2019
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
North America	23.94	24.48	24.49	24.67	24.56	24.71	25.18	<i>24.98</i>	<i>24.76</i>	<i>24.89</i>	<i>25.40</i>	<i>25.37</i>	24.40	<i>24.86</i>	<i>25.11</i>
Canada	2.37	2.36	2.52	2.52	2.32	2.34	2.51	<i>2.46</i>	<i>2.41</i>	<i>2.36</i>	<i>2.47</i>	<i>2.44</i>	2.44	<i>2.41</i>	<i>2.42</i>
Mexico	2.02	2.03	1.95	1.93	1.99	2.02	1.92	<i>1.97</i>	<i>1.96</i>	<i>1.98</i>	<i>1.98</i>	<i>2.01</i>	1.98	<i>1.98</i>	<i>1.98</i>
United States	19.54	20.07	20.01	20.21	20.24	20.33	20.74	<i>20.54</i>	<i>20.38</i>	<i>20.53</i>	<i>20.94</i>	<i>20.91</i>	19.96	<i>20.47</i>	<i>20.69</i>
Central and South America	6.84	6.93	7.06	6.94	6.72	6.76	6.96	<i>6.96</i>	<i>6.73</i>	<i>6.86</i>	<i>6.98</i>	<i>6.97</i>	6.94	<i>6.85</i>	<i>6.88</i>
Brazil	2.96	3.00	3.12	3.08	2.98	2.95	3.15	<i>3.15</i>	<i>3.01</i>	<i>3.08</i>	<i>3.16</i>	<i>3.15</i>	3.04	<i>3.06</i>	<i>3.10</i>
Europe	14.55	14.98	15.44	15.14	14.80	14.91	15.43	<i>15.08</i>	<i>14.78</i>	<i>14.99</i>	<i>15.52</i>	<i>15.22</i>	15.03	<i>15.05</i>	<i>15.13</i>
Eurasia	4.73	4.72	4.99	4.86	4.78	4.83	5.11	<i>4.98</i>	<i>4.80</i>	<i>4.87</i>	<i>5.24</i>	<i>5.09</i>	4.83	<i>4.93</i>	<i>5.00</i>
Russia	3.61	3.62	3.82	3.69	3.63	3.70	3.91	<i>3.78</i>	<i>3.64</i>	<i>3.73</i>	<i>4.04</i>	<i>3.88</i>	3.68	<i>3.75</i>	<i>3.82</i>
Middle East	8.24	8.77	9.10	8.48	8.30	8.73	8.99	<i>8.56</i>	<i>8.33</i>	<i>8.79</i>	<i>9.11</i>	<i>8.59</i>	8.65	<i>8.65</i>	<i>8.71</i>
Asia and Oceania	34.49	34.43	33.83	35.03	35.68	35.20	34.73	<i>35.90</i>	<i>36.68</i>	<i>36.11</i>	<i>35.51</i>	<i>36.54</i>	34.44	<i>35.37</i>	<i>36.21</i>
China	13.17	13.61	13.17	13.49	13.80	14.00	13.73	<i>13.95</i>	<i>14.28</i>	<i>14.47</i>	<i>14.20</i>	<i>14.41</i>	13.36	<i>13.87</i>	<i>14.34</i>
Japan	4.30	3.58	3.63	4.06	4.27	3.43	3.54	<i>3.88</i>	<i>4.15</i>	<i>3.40</i>	<i>3.47</i>	<i>3.79</i>	3.89	<i>3.78</i>	<i>3.70</i>
India	4.40	4.64	4.42	4.75	4.73	4.89	4.60	<i>4.98</i>	<i>5.07</i>	<i>5.13</i>	<i>4.79</i>	<i>5.10</i>	4.55	<i>4.80</i>	<i>5.02</i>
Africa	4.32	4.28	4.17	4.29	4.34	4.35	4.26	<i>4.45</i>	<i>4.45</i>	<i>4.46</i>	<i>4.39</i>	<i>4.56</i>	4.27	<i>4.35</i>	<i>4.46</i>
Total OECD Liquid Fuels Consumption	46.73	46.87	47.47	47.83	47.58	46.92	48.05	<i>48.02</i>	<i>47.80</i>	<i>47.20</i>	<i>48.33</i>	<i>48.48</i>	47.23	<i>47.64</i>	<i>47.96</i>
Total non-OECD Liquid Fuels Consumption	50.37	51.71	51.60	51.59	51.62	52.57	52.61	<i>52.87</i>	<i>52.73</i>	<i>53.77</i>	<i>53.82</i>	<i>53.86</i>	51.32	<i>52.42</i>	<i>53.55</i>
Total World Liquid Fuels Consumption	97.10	98.58	99.08	99.42	99.20	99.49	100.66	<i>100.89</i>	<i>100.53</i>	<i>100.97</i>	<i>102.15</i>	<i>102.34</i>	98.55	<i>100.07</i>	<i>101.51</i>
Oil-weighted Real Gross Domestic Product (a)															
World Index, 2015 Q1 = 100	105.6	106.4	107.3	108.1	109.2	109.9	110.6	<i>111.4</i>	<i>112.3</i>	<i>113.1</i>	<i>113.9</i>	<i>114.7</i>	106.9	<i>110.3</i>	<i>113.5</i>
Percent change from prior year	3.6	2.8	3.1	3.0	3.3	3.3	3.1	<i>3.1</i>	<i>2.9</i>	<i>2.9</i>	<i>3.0</i>	<i>2.9</i>	3.1	<i>3.2</i>	<i>2.9</i>
OECD Index, 2015 Q1 = 100	103.9	104.5	105.1	105.8	106.5	107.1	107.6	<i>108.3</i>	<i>109.0</i>	<i>109.3</i>	<i>109.9</i>	<i>110.3</i>	104.8	<i>107.4</i>	<i>109.6</i>
Percent change from prior year	3.0	2.1	2.4	2.3	2.5	2.5	2.4	<i>2.4</i>	<i>2.3</i>	<i>2.1</i>	<i>2.1</i>	<i>1.8</i>	2.4	<i>2.4</i>	<i>2.1</i>
Non-OECD Index, 2015 Q1 = 100	107.3	108.3	109.4	110.4	111.7	112.6	113.5	<i>114.5</i>	<i>115.6</i>	<i>116.7</i>	<i>117.8</i>	<i>119.1</i>	108.8	<i>113.1</i>	<i>117.3</i>
Percent change from prior year	4.1	3.5	3.7	3.7	4.1	4.0	3.8	<i>3.7</i>	<i>3.5</i>	<i>3.6</i>	<i>3.8</i>	<i>4.0</i>	3.8	<i>3.9</i>	<i>3.7</i>
Real U.S. Dollar Exchange Rate (a)															
Index, 2015 Q1 = 100	104.98	103.53	101.99	102.36	100.65	102.63	105.42	<i>105.25</i>	<i>105.13</i>	<i>104.33</i>	<i>103.38</i>	<i>102.45</i>	103.22	<i>103.49</i>	<i>103.82</i>
Percent change from prior year	-0.2	0.3	-1.0	-2.4	-4.1	-0.9	3.4	<i>2.8</i>	<i>4.4</i>	<i>1.7</i>	<i>-1.9</i>	<i>-2.7</i>	-0.8	<i>0.3</i>	<i>0.3</i>

- = no data available

OECD = Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, the United States.

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 4a. U.S. Petroleum and Other Liquids Supply, Consumption, and Inventories
U.S. Energy Information Administration | Short-Term Energy Outlook - November 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Supply (million barrels per day)															
Crude Oil Supply															
Domestic Production (a)	9.02	9.11	9.32	9.95	10.23	10.54	11.24	11.57	11.83	12.04	12.05	12.31	9.35	10.90	12.06
Alaska	0.52	0.50	0.45	0.51	0.51	0.48	0.44	0.48	0.50	0.49	0.46	0.49	0.49	0.48	0.49
Federal Gulf of Mexico (b)	1.76	1.66	1.72	1.58	1.67	1.58	1.88	1.87	1.99	2.04	1.95	2.08	1.68	1.75	2.01
Lower 48 States (excl GOM)	6.74	6.95	7.15	7.86	8.05	8.47	8.92	9.21	9.34	9.51	9.64	9.74	7.18	8.67	9.56
Crude Oil Net Imports (c)	7.26	7.23	6.65	6.12	6.18	6.19	5.89	5.09	4.99	5.09	5.10	4.47	6.81	5.83	4.91
SPR Net Withdrawals	0.04	0.14	0.06	0.12	-0.03	0.06	0.01	0.12	0.03	0.03	0.00	0.03	0.09	0.04	0.02
Commercial Inventory Net Withdrawals	-0.60	0.41	0.35	0.52	-0.02	0.09	0.09	-0.15	-0.55	-0.02	0.08	-0.09	0.17	0.00	-0.14
Crude Oil Adjustment (d)	0.18	0.24	0.22	0.02	0.05	0.26	0.10	0.13	0.19	0.19	0.21	0.15	0.17	0.13	0.19
Total Crude Oil Input to Refineries	15.90	17.13	16.60	16.72	16.41	17.14	17.32	16.75	16.49	17.32	17.45	16.88	16.59	16.91	17.04
Other Supply															
Refinery Processing Gain	1.11	1.15	1.08	1.12	1.11	1.12	1.16	1.12	1.08	1.12	1.14	1.13	1.11	1.13	1.12
Natural Gas Plant Liquids Production	3.57	3.75	3.77	4.03	4.01	4.30	4.51	4.65	4.68	4.81	4.93	5.01	3.78	4.37	4.86
Renewables and Oxygenate Production (e)	1.18	1.17	1.19	1.24	1.21	1.22	1.25	1.22	1.18	1.21	1.22	1.23	1.19	1.23	1.21
Fuel Ethanol Production	1.05	1.01	1.03	1.06	1.05	1.04	1.07	1.05	1.03	1.04	1.03	1.04	1.04	1.05	1.04
Petroleum Products Adjustment (f)	0.20	0.22	0.21	0.22	0.21	0.21	0.21	0.22	0.21	0.22	0.22	0.22	0.21	0.21	0.22
Product Net Imports (c)	-2.97	-3.02	-2.79	-3.39	-3.13	-3.44	-3.16	-3.86	-3.49	-3.57	-3.68	-3.87	-3.04	-3.40	-3.65
Hydrocarbon Gas Liquids	-1.21	-1.20	-1.16	-1.26	-1.22	-1.53	-1.51	-1.61	-1.77	-1.80	-1.80	-1.80	-1.21	-1.47	-1.79
Unfinished Oils	0.41	0.36	0.41	0.45	0.39	0.32	0.37	0.26	0.36	0.39	0.41	0.32	0.41	0.33	0.37
Other HC/Oxygenates	-0.13	-0.09	-0.09	-0.14	-0.18	-0.15	-0.12	-0.09	-0.12	-0.10	-0.08	-0.09	-0.11	-0.14	-0.10
Motor Gasoline Blend Comp.	0.43	0.68	0.64	0.36	0.50	0.78	0.68	0.35	0.50	0.67	0.50	0.44	0.53	0.58	0.53
Finished Motor Gasoline	-0.68	-0.63	-0.63	-0.92	-0.94	-0.71	-0.72	-0.85	-0.83	-0.68	-0.65	-0.86	-0.72	-0.80	-0.76
Jet Fuel	-0.04	-0.06	-0.01	0.02	-0.10	-0.10	-0.05	-0.06	0.02	-0.01	-0.04	0.00	-0.02	-0.07	-0.01
Distillate Fuel Oil	-1.02	-1.37	-1.33	-1.19	-0.87	-1.30	-1.15	-1.13	-1.02	-1.31	-1.33	-1.13	-1.23	-1.11	-1.20
Residual Fuel Oil	-0.12	-0.13	-0.12	-0.11	-0.10	-0.14	-0.08	-0.07	-0.02	-0.10	-0.07	-0.09	-0.12	-0.10	-0.07
Other Oils (g)	-0.60	-0.59	-0.50	-0.58	-0.62	-0.61	-0.58	-0.67	-0.61	-0.63	-0.61	-0.65	-0.57	-0.62	-0.63
Product Inventory Net Withdrawals	0.55	-0.32	-0.06	0.27	0.41	-0.21	-0.52	0.43	0.23	-0.58	-0.34	0.30	0.11	0.03	-0.10
Total Supply	19.54	20.07	20.01	20.21	20.23	20.33	20.76	20.54	20.38	20.53	20.94	20.91	19.96	20.47	20.69
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	2.82	2.48	2.40	2.88	3.22	2.67	2.81	3.10	3.20	2.76	2.93	3.31	2.64	2.95	3.05
Unfinished Oils	0.02	0.06	0.02	0.05	0.13	-0.04	-0.04	0.01	0.00	-0.03	-0.03	0.01	0.04	0.01	-0.01
Motor Gasoline	8.94	9.54	9.58	9.24	9.01	9.51	9.57	9.25	9.03	9.54	9.54	9.30	9.33	9.34	9.35
Fuel Ethanol blended into Motor Gasoline	0.90	0.96	0.96	0.95	0.91	0.94	0.97	0.96	0.91	0.97	0.97	0.95	0.94	0.94	0.95
Jet Fuel	1.60	1.69	1.71	1.73	1.64	1.73	1.79	1.75	1.71	1.78	1.83	1.80	1.68	1.73	1.78
Distillate Fuel Oil	3.93	3.89	3.85	4.05	4.18	4.13	4.04	4.14	4.19	4.11	4.12	4.22	3.93	4.12	4.16
Residual Fuel Oil	0.38	0.33	0.31	0.34	0.28	0.32	0.34	0.32	0.37	0.32	0.34	0.30	0.34	0.32	0.33
Other Oils (g)	1.84	2.08	2.14	1.92	1.78	2.01	2.23	1.98	1.89	2.04	2.21	1.98	2.00	2.00	2.03
Total Consumption	19.54	20.07	20.01	20.21	20.24	20.33	20.74	20.54	20.38	20.53	20.94	20.91	19.96	20.47	20.69
Total Petroleum and Other Liquids Net Imports	4.29	4.21	3.86	2.73	3.05	2.75	2.73	1.23	1.49	1.51	1.42	0.60	3.77	2.43	1.26
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	538.6	501.6	469.6	421.6	423.4	414.8	406.5	420.5	469.7	471.3	463.7	472.0	421.6	420.5	472.0
Hydrocarbon Gas Liquids	147.6	189.9	228.7	190.0	139.3	180.8	220.5	184.5	149.1	203.6	243.5	204.4	190.0	184.5	204.4
Unfinished Oils	91.9	89.9	91.6	86.3	98.3	92.6	91.2	81.8	91.2	89.9	88.1	81.3	86.3	81.8	81.3
Other HC/Oxygenates	32.8	29.3	28.5	29.6	30.5	28.8	29.8	29.9	31.7	30.7	29.9	30.6	29.6	29.9	30.6
Total Motor Gasoline	239.6	238.4	223.2	236.8	239.6	240.3	235.6	239.7	242.5	239.2	234.0	246.5	236.8	239.7	246.5
Finished Motor Gasoline	21.5	22.5	21.8	24.5	23.1	24.7	24.7	27.4	25.2	24.1	24.8	25.4	24.5	27.4	25.4
Motor Gasoline Blend Comp.	218.0	215.9	201.4	212.3	216.5	215.6	210.9	212.4	217.3	215.2	209.2	221.1	212.3	212.4	221.1
Jet Fuel	42.4	41.0	43.6	41.3	40.4	40.8	46.7	41.6	41.5	42.9	44.4	42.3	41.3	41.6	42.3
Distillate Fuel Oil	152.0	152.1	137.3	145.6	130.4	120.4	135.0	137.1	127.5	129.9	134.7	139.4	145.6	137.1	139.4
Residual Fuel Oil	37.5	33.2	33.6	29.4	35.0	30.0	28.4	31.1	35.8	37.5	36.5	36.6	29.4	31.1	36.6
Other Oils (g)	56.5	55.4	48.0	51.0	59.3	58.8	53.3	55.2	60.4	58.8	52.8	54.9	51.0	55.2	54.9
Total Commercial Inventory	1,339	1,331	1,304	1,232	1,196	1,207	1,247	1,221	1,249	1,304	1,328	1,308	1,232	1,221	1,308
Crude Oil in SPR	692	679	674	663	665	660	659	648	646	643	643	640	663	648	640

- = 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 - November 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
HGL Production															
Natural Gas Processing Plants															
Ethane	1.35	1.41	1.36	1.58	1.59	1.70	1.75	1.84	1.85	1.87	1.92	1.99	1.43	1.72	1.91
Propane	1.18	1.22	1.25	1.30	1.29	1.37	1.44	1.48	1.51	1.55	1.58	1.60	1.24	1.39	1.56
Butanes	0.63	0.66	0.68	0.69	0.69	0.74	0.77	0.79	0.80	0.83	0.85	0.85	0.67	0.75	0.83
Natural Gasoline (Pentanes Plus)	0.41	0.45	0.48	0.46	0.44	0.50	0.55	0.53	0.52	0.56	0.58	0.57	0.45	0.51	0.56
Refinery and Blender Net Production															
Ethane/Ethylene	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00
Propane	0.29	0.32	0.30	0.32	0.30	0.31	0.31	0.29	0.28	0.30	0.30	0.30	0.31	0.30	0.30
Propylene (refinery-grade)	0.27	0.29	0.27	0.30	0.28	0.29	0.28	0.28	0.28	0.29	0.28	0.29	0.28	0.28	0.28
Butanes/Butylenes	-0.09	0.27	0.16	-0.22	-0.11	0.24	0.19	-0.20	-0.08	0.26	0.19	-0.20	0.03	0.03	0.04
Renewable Fuels and Oxygenate Plant Net Production															
Natural Gasoline (Pentanes Plus)	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
HGL Net Imports															
Ethane	-0.15	-0.16	-0.20	-0.19	-0.22	-0.29	-0.26	-0.30	-0.31	-0.31	-0.31	-0.33	-0.18	-0.27	-0.31
Propane/Propylene	-0.80	-0.73	-0.69	-0.82	-0.72	-0.81	-0.91	-0.88	-0.95	-0.95	-0.91	-0.95	-0.76	-0.83	-0.94
Butanes/Butylenes	-0.08	-0.13	-0.11	-0.11	-0.10	-0.20	-0.16	-0.20	-0.25	-0.27	-0.28	-0.26	-0.11	-0.16	-0.27
Natural Gasoline (Pentanes Plus)	-0.18	-0.18	-0.16	-0.14	-0.18	-0.23	-0.18	-0.22	-0.26	-0.27	-0.30	-0.27	-0.17	-0.20	-0.28
HGL Refinery and Blender Net Inputs															
Butanes/Butylenes	0.43	0.30	0.33	0.50	0.45	0.30	0.32	0.51	0.41	0.30	0.33	0.51	0.39	0.40	0.39
Natural Gasoline (Pentanes Plus)	0.16	0.18	0.18	0.19	0.15	0.16	0.19	0.18	0.17	0.18	0.18	0.18	0.18	0.17	0.18
HGL Consumption															
Ethane/Ethylene	1.20	1.25	1.15	1.37	1.44	1.45	1.51	1.54	1.54	1.55	1.63	1.69	1.24	1.49	1.60
Propane	1.05	0.61	0.68	0.87	1.16	0.60	0.64	0.97	1.08	0.58	0.70	1.03	0.80	0.84	0.85
Propylene (refinery-grade)	0.34	0.32	0.28	0.32	0.32	0.31	0.30	0.30	0.31	0.31	0.30	0.30	0.31	0.31	0.30
Butanes/Butylenes	0.14	0.23	0.20	0.16	0.20	0.21	0.23	0.21	0.19	0.26	0.25	0.22	0.18	0.22	0.23
Natural Gasoline (Pentanes Plus)	0.09	0.08	0.09	0.15	0.10	0.09	0.13	0.08	0.08	0.06	0.06	0.07	0.10	0.10	0.07
HGL Inventories (million barrels)															
Ethane	49.66	51.90	51.76	57.72	51.41	47.90	45.60	46.47	45.34	48.44	47.65	47.66	52.78	47.83	47.28
Propane	40.18	56.92	71.42	62.21	33.83	56.51	72.10	63.38	40.33	67.01	90.08	81.36	62.21	63.38	81.36
Propylene (refinery-grade)	3.66	3.86	4.90	4.61	3.82	3.64	3.88	4.08	3.20	3.04	3.00	3.64	4.61	4.08	3.64
Butanes/Butylenes	31.28	56.79	75.55	47.45	32.02	55.37	78.80	48.47	37.58	61.25	77.19	46.36	47.45	48.47	46.36
Natural Gasoline (Pentanes Plus)	21.49	20.55	23.40	20.11	19.36	18.59	20.20	23.00	21.68	23.78	25.08	26.99	20.11	23.00	26.99
Refinery and Blender Net Inputs															
Crude Oil	15.90	17.13	16.60	16.72	16.41	17.14	17.32	16.75	16.49	17.32	17.45	16.88	16.59	16.91	17.04
Hydrocarbon Gas Liquids	0.59	0.48	0.51	0.69	0.61	0.47	0.51	0.69	0.58	0.48	0.52	0.69	0.57	0.57	0.57
Other Hydrocarbons/Oxygenates	1.16	1.23	1.22	1.20	1.16	1.23	1.23	1.27	1.20	1.28	1.29	1.29	1.20	1.22	1.27
Unfinished Oils	0.26	0.32	0.38	0.45	0.12	0.42	0.42	0.36	0.25	0.43	0.46	0.38	0.35	0.33	0.38
Motor Gasoline Blend Components	0.35	0.64	0.67	0.24	0.34	0.70	0.62	0.48	0.57	0.84	0.66	0.49	0.47	0.54	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	18.25	19.80	19.37	19.31	18.63	19.96	20.12	19.55	19.09	20.35	20.38	19.73	19.19	19.57	19.89
Refinery Processing Gain															
.....	1.11	1.15	1.08	1.12	1.11	1.12	1.16	1.12	1.08	1.12	1.14	1.13	1.11	1.13	1.12
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	0.48	0.89	0.73	0.40	0.48	0.84	0.78	0.38	0.49	0.86	0.77	0.39	0.63	0.62	0.63
Finished Motor Gasoline	9.53	10.08	10.04	10.15	9.79	10.14	10.15	10.24	9.94	10.33	10.28	10.32	9.95	10.08	10.22
Jet Fuel	1.63	1.74	1.75	1.69	1.72	1.83	1.90	1.75	1.69	1.80	1.88	1.77	1.70	1.80	1.79
Distillate Fuel	4.75	5.17	4.93	5.25	4.81	5.25	5.26	5.21	5.06	5.37	5.43	5.32	5.02	5.13	5.30
Residual Fuel	0.46	0.41	0.43	0.41	0.44	0.40	0.41	0.41	0.44	0.44	0.40	0.40	0.43	0.42	0.42
Other Oils (a)	2.51	2.65	2.56	2.53	2.49	2.61	2.77	2.67	2.56	2.66	2.76	2.65	2.56	2.64	2.66
Total Refinery and Blender Net Production	19.36	20.95	20.44	20.43	19.74	21.08	21.27	20.67	20.17	21.47	21.52	20.86	20.30	20.70	21.01
Refinery Distillation Inputs															
.....	16.25	17.44	16.91	17.01	16.76	17.50	17.65	16.97	16.69	17.44	17.63	17.08	16.90	17.22	17.21
Refinery Operable Distillation Capacity															
.....	18.62	18.58	18.54	18.52	18.57	18.60	18.60	18.60	18.60	18.60	18.63	18.65	18.56	18.59	18.62
Refinery Distillation Utilization Factor															
.....	0.87	0.94	0.91	0.92	0.90	0.94	0.95	0.91	0.90	0.94	0.95	0.92	0.91	0.93	0.92

- = no data available

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Prices (cents per gallon)															
Refiner Wholesale Price	163	165	172	175	186	213	214	193	<i>189</i>	<i>209</i>	<i>211</i>	<i>194</i>	169	<i>202</i>	<i>201</i>
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	231	233	241	249	255	279	278	<i>267</i>	<i>258</i>	<i>275</i>	<i>281</i>	<i>271</i>	239	<i>270</i>	<i>271</i>
PADD 2	223	228	232	242	246	274	276	<i>259</i>	<i>253</i>	<i>275</i>	<i>279</i>	<i>263</i>	231	<i>264</i>	<i>268</i>
PADD 3	210	216	222	225	230	261	258	<i>243</i>	<i>238</i>	<i>258</i>	<i>260</i>	<i>244</i>	218	<i>248</i>	<i>250</i>
PADD 4	227	239	245	252	247	288	297	<i>276</i>	<i>248</i>	<i>274</i>	<i>288</i>	<i>269</i>	241	<i>277</i>	<i>270</i>
PADD 5	276	289	290	299	312	342	335	<i>324</i>	<i>304</i>	<i>335</i>	<i>337</i>	<i>311</i>	288	<i>328</i>	<i>322</i>
U.S. Average	233	238	244	251	258	285	284	<i>270</i>	<i>261</i>	<i>282</i>	<i>287</i>	<i>271</i>	242	<i>275</i>	<i>275</i>
Gasoline All Grades Including Taxes	244	250	255	263	270	294	292	<i>280</i>	<i>272</i>	<i>294</i>	<i>298</i>	<i>283</i>	253	<i>284</i>	<i>287</i>
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	65.5	67.7	59.0	60.6	58.4	66.5	69.8	<i>67.0</i>	<i>67.1</i>	<i>67.7</i>	<i>64.3</i>	<i>68.1</i>	60.6	<i>67.0</i>	<i>68.1</i>
PADD 2	57.3	53.6	50.4	52.2	57.3	53.5	51.8	<i>51.6</i>	<i>54.9</i>	<i>53.1</i>	<i>51.6</i>	<i>53.5</i>	52.2	<i>51.6</i>	<i>53.5</i>
PADD 3	79.1	82.4	77.7	83.3	84.2	82.3	79.1	<i>83.0</i>	<i>82.9</i>	<i>82.3</i>	<i>82.2</i>	<i>85.4</i>	83.3	<i>83.0</i>	<i>85.4</i>
PADD 4	7.9	7.0	6.9	7.6	7.7	7.3	6.9	<i>7.6</i>	<i>7.6</i>	<i>7.6</i>	<i>7.4</i>	<i>7.9</i>	7.6	<i>7.6</i>	<i>7.9</i>
PADD 5	29.7	27.7	29.2	33.1	32.0	30.7	28.1	<i>30.6</i>	<i>29.9</i>	<i>28.5</i>	<i>28.5</i>	<i>31.7</i>	33.1	<i>30.6</i>	<i>31.7</i>
U.S. Total	239.6	238.4	223.2	236.8	239.6	240.3	235.6	<i>239.7</i>	<i>242.5</i>	<i>239.2</i>	<i>234.0</i>	<i>246.5</i>	236.8	<i>239.7</i>	<i>246.5</i>
Finished Gasoline Inventories															
U.S. Total	21.5	22.5	21.8	24.5	23.1	24.7	24.7	<i>27.4</i>	<i>25.2</i>	<i>24.1</i>	<i>24.8</i>	<i>25.4</i>	24.5	<i>27.4</i>	<i>25.4</i>
Gasoline Blending Components Inventories															
U.S. Total	218.0	215.9	201.4	212.3	216.5	215.6	210.9	<i>212.4</i>	<i>217.3</i>	<i>215.2</i>	<i>209.2</i>	<i>221.1</i>	212.3	<i>212.4</i>	<i>221.1</i>

- = no data available

Prices are not adjusted for inflation.

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Supply (billion cubic feet per day)															
Total Marketed Production	77.02	78.62	80.33	83.92	84.93	87.39	91.44	<i>94.32</i>	<i>95.78</i>	<i>96.52</i>	<i>96.89</i>	<i>97.37</i>	79.99	<i>89.55</i>	<i>96.65</i>
Alaska	1.01	0.97	0.82	0.98	1.00	0.92	0.86	<i>0.94</i>	<i>1.00</i>	<i>0.86</i>	<i>0.79</i>	<i>0.94</i>	0.94	<i>0.93</i>	<i>0.90</i>
Federal GOM (a)	3.24	3.00	2.90	2.49	2.57	2.48	2.90	<i>2.92</i>	<i>3.00</i>	<i>3.01</i>	<i>2.96</i>	<i>3.03</i>	2.90	<i>2.72</i>	<i>3.00</i>
Lower 48 States (excl GOM)	72.78	74.65	76.61	80.45	81.37	83.98	87.67	<i>90.46</i>	<i>91.79</i>	<i>92.65</i>	<i>93.14</i>	<i>93.40</i>	76.14	<i>85.90</i>	<i>92.75</i>
Total Dry Gas Production	71.99	73.49	75.09	78.44	79.14	81.19	84.92	<i>87.54</i>	<i>88.85</i>	<i>89.49</i>	<i>89.78</i>	<i>90.17</i>	74.77	<i>83.23</i>	<i>89.58</i>
LNG Gross Imports	0.29	0.18	0.17	0.21	0.33	0.10	0.16	<i>0.18</i>	<i>0.32</i>	<i>0.17</i>	<i>0.17</i>	<i>0.21</i>	0.21	<i>0.19</i>	<i>0.22</i>
LNG Gross Exports	1.63	1.80	1.67	2.64	2.64	2.79	3.01	<i>3.33</i>	<i>4.17</i>	<i>4.47</i>	<i>5.73</i>	<i>6.59</i>	1.94	<i>2.95</i>	<i>5.25</i>
Pipeline Gross Imports	8.89	7.76	7.74	8.10	8.76	7.63	7.55	<i>7.48</i>	<i>8.61</i>	<i>6.79</i>	<i>6.34</i>	<i>7.14</i>	8.12	<i>7.85</i>	<i>7.21</i>
Pipeline Gross Exports	7.24	6.49	6.43	6.81	7.02	6.15	7.03	<i>8.33</i>	<i>9.36</i>	<i>8.17</i>	<i>7.71</i>	<i>8.17</i>	6.74	<i>7.14</i>	<i>8.35</i>
Supplemental Gaseous Fuels	0.17	0.18	0.18	0.19	0.21	0.17	0.19	<i>0.20</i>	<i>0.21</i>	<i>0.21</i>	<i>0.21</i>	<i>0.21</i>	0.18	<i>0.19</i>	<i>0.21</i>
Net Inventory Withdrawals	13.74	-9.02	-7.20	5.76	18.31	-8.86	-8.01	<i>2.50</i>	<i>13.93</i>	<i>-11.86</i>	<i>-8.72</i>	<i>2.93</i>	0.78	<i>0.92</i>	<i>-0.98</i>
Total Supply	86.22	64.30	67.88	83.26	97.10	71.29	74.77	<i>86.24</i>	<i>98.39</i>	<i>72.14</i>	<i>74.33</i>	<i>85.90</i>	75.39	<i>82.30</i>	<i>82.63</i>
Balancing Item (b)	0.17	-1.32	-1.00	-2.10	0.44	-0.63	-1.51	<i>-3.02</i>	<i>-0.04</i>	<i>-1.65</i>	<i>-1.02</i>	<i>-0.82</i>	-1.07	<i>-1.19</i>	<i>-0.89</i>
Total Primary Supply	86.39	62.98	66.88	81.16	97.54	70.66	73.26	<i>83.22</i>	<i>98.34</i>	<i>70.50</i>	<i>73.30</i>	<i>85.08</i>	74.32	<i>81.11</i>	<i>81.75</i>
Consumption (billion cubic feet per day)															
Residential	22.11	6.62	3.54	16.24	25.75	7.97	3.30	<i>16.04</i>	<i>25.45</i>	<i>7.46</i>	<i>3.69</i>	<i>16.24</i>	12.09	<i>13.21</i>	<i>13.16</i>
Commercial	13.45	5.81	4.52	10.97	15.35	6.61	4.42	<i>9.99</i>	<i>15.28</i>	<i>6.56</i>	<i>4.63</i>	<i>10.27</i>	8.67	<i>9.06</i>	<i>9.15</i>
Industrial	23.13	20.61	20.41	22.98	24.27	21.78	21.04	<i>23.41</i>	<i>24.04</i>	<i>21.66</i>	<i>21.06</i>	<i>23.97</i>	21.78	<i>22.62</i>	<i>22.68</i>
Electric Power (c)	21.12	23.94	32.21	24.17	24.91	27.61	37.53	<i>26.38</i>	<i>25.65</i>	<i>27.49</i>	<i>36.39</i>	<i>26.69</i>	25.39	<i>29.13</i>	<i>29.08</i>
Lease and Plant Fuel	4.13	4.21	4.30	4.50	4.55	4.68	4.90	<i>5.05</i>	<i>5.13</i>	<i>5.17</i>	<i>5.19</i>	<i>5.22</i>	4.29	<i>4.80</i>	<i>5.18</i>
Pipeline and Distribution Use	2.32	1.66	1.77	2.16	2.60	1.88	1.95	<i>2.23</i>	<i>2.68</i>	<i>2.03</i>	<i>2.22</i>	<i>2.59</i>	1.98	<i>2.16</i>	<i>2.38</i>
Vehicle Use	0.13	0.13	0.13	0.13	0.12	0.12	0.12	<i>0.12</i>	<i>0.12</i>	<i>0.12</i>	<i>0.12</i>	<i>0.12</i>	0.13	<i>0.12</i>	<i>0.12</i>
Total Consumption	86.39	62.98	66.88	81.16	97.54	70.66	73.26	<i>83.22</i>	<i>98.34</i>	<i>70.50</i>	<i>73.30</i>	<i>85.08</i>	74.32	<i>81.11</i>	<i>81.75</i>
End-of-period Inventories (billion cubic feet)															
Working Gas Inventory	2,063	2,907	3,567	3,033	1,391	2,196	2,931	<i>2,701</i>	<i>1,448</i>	<i>2,527</i>	<i>3,330</i>	<i>3,060</i>	3,033	<i>2,701</i>	<i>3,060</i>
East Region (d)	260	563	866	710	229	465	771	<i>686</i>	<i>254</i>	<i>566</i>	<i>843</i>	<i>739</i>	710	<i>686</i>	<i>739</i>
Midwest Region (d)	477	701	993	829	261	459	846	<i>754</i>	<i>274</i>	<i>549</i>	<i>892</i>	<i>772</i>	829	<i>754</i>	<i>772</i>
South Central Region (d)	938	1,139	1,137	1,016	614	846	836	<i>872</i>	<i>637</i>	<i>961</i>	<i>1,060</i>	<i>1,080</i>	1,016	<i>872</i>	<i>1,080</i>
Mountain Region (d)	142	184	218	177	87	140	178	<i>144</i>	<i>92</i>	<i>140</i>	<i>186</i>	<i>156</i>	177	<i>144</i>	<i>156</i>
Pacific Region (d)	219	288	314	264	169	253	262	<i>206</i>	<i>151</i>	<i>272</i>	<i>309</i>	<i>274</i>	264	<i>206</i>	<i>274</i>
Alaska	27	32	39	36	31	33	38	<i>39</i>	<i>39</i>	<i>39</i>	<i>39</i>	<i>39</i>	36	<i>39</i>	<i>39</i>

- = no data available

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

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

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

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

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

LNG: liquefied natural gas.

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 5b. U.S. Regional Natural Gas Prices (dollars per thousand cubic feet)
 U.S. Energy Information Administration | Short-Term Energy Outlook - November 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Wholesale/Spot															
Henry Hub Spot Price	3.12	3.19	3.06	3.01	3.13	2.96	3.04	3.37	<i>3.28</i>	<i>2.99</i>	<i>3.01</i>	<i>3.08</i>	3.10	<i>3.12</i>	<i>3.09</i>
Residential Retail															
New England	12.86	14.09	18.10	13.58	14.53	17.28	18.71	13.92	<i>13.16</i>	<i>13.92</i>	<i>17.15</i>	<i>13.59</i>	13.61	<i>15.06</i>	<i>13.67</i>
Middle Atlantic	9.88	12.21	17.18	11.31	10.17	11.92	18.01	11.14	<i>10.01</i>	<i>11.95</i>	<i>16.65</i>	<i>11.22</i>	11.15	<i>11.20</i>	<i>11.10</i>
E. N. Central	7.79	11.58	17.93	7.84	7.20	9.77	18.08	9.32	<i>8.20</i>	<i>10.84</i>	<i>16.56</i>	<i>8.85</i>	8.90	<i>8.79</i>	<i>9.32</i>
W. N. Central	8.27	11.74	18.64	9.36	8.15	10.48	18.74	10.48	<i>9.51</i>	<i>12.19</i>	<i>17.78</i>	<i>9.80</i>	9.67	<i>9.70</i>	<i>10.51</i>
S. Atlantic	11.87	19.32	25.73	12.76	11.07	15.62	24.28	13.15	<i>11.32</i>	<i>16.22</i>	<i>22.54</i>	<i>12.95</i>	14.11	<i>13.17</i>	<i>13.24</i>
E. S. Central	10.41	15.64	20.60	11.19	9.61	12.70	21.41	12.36	<i>9.81</i>	<i>14.25</i>	<i>20.62</i>	<i>13.13</i>	11.90	<i>11.37</i>	<i>11.86</i>
W. S. Central	10.21	16.31	21.92	13.00	9.27	14.25	21.69	11.09	<i>8.09</i>	<i>13.71</i>	<i>20.33</i>	<i>12.29</i>	13.05	<i>11.27</i>	<i>10.99</i>
Mountain	8.25	10.20	13.95	8.70	8.22	10.41	14.08	9.06	<i>8.94</i>	<i>10.13</i>	<i>13.77</i>	<i>9.15</i>	9.14	<i>9.25</i>	<i>9.59</i>
Pacific	12.00	12.61	12.88	11.28	11.62	12.02	13.03	11.72	<i>12.46</i>	<i>12.47</i>	<i>12.76</i>	<i>11.63</i>	11.99	<i>11.88</i>	<i>12.23</i>
U.S. Average	9.68	12.95	17.64	10.12	9.38	11.96	17.81	10.88	<i>9.75</i>	<i>12.18</i>	<i>16.78</i>	<i>10.76</i>	10.86	<i>10.76</i>	<i>10.91</i>
Commercial Retail															
New England	9.66	10.11	10.69	9.78	11.17	12.34	10.81	10.47	<i>10.45</i>	<i>10.30</i>	<i>10.04</i>	<i>9.78</i>	9.86	<i>11.11</i>	<i>10.20</i>
Middle Atlantic	7.73	7.46	6.88	7.44	8.13	7.67	7.54	7.88	<i>7.89</i>	<i>7.65</i>	<i>7.06</i>	<i>7.61</i>	7.49	<i>7.91</i>	<i>7.67</i>
E. N. Central	6.61	7.87	8.93	6.19	6.19	6.95	8.90	7.00	<i>6.80</i>	<i>7.69</i>	<i>9.00</i>	<i>7.00</i>	6.81	<i>6.75</i>	<i>7.16</i>
W. N. Central	6.92	7.69	9.06	7.00	6.96	7.13	8.92	7.47	<i>7.68</i>	<i>7.95</i>	<i>8.94</i>	<i>7.31</i>	7.23	<i>7.28</i>	<i>7.71</i>
S. Atlantic	8.79	9.85	9.63	8.74	8.29	9.14	9.56	8.75	<i>8.63</i>	<i>9.50</i>	<i>9.95</i>	<i>9.01</i>	9.05	<i>8.72</i>	<i>9.05</i>
E. S. Central	8.92	10.12	10.61	9.16	8.62	9.32	10.63	9.38	<i>8.85</i>	<i>9.69</i>	<i>10.09</i>	<i>8.92</i>	9.38	<i>9.16</i>	<i>9.14</i>
W. S. Central	7.55	8.13	8.79	8.11	7.21	7.90	8.60	7.88	<i>7.44</i>	<i>7.73</i>	<i>8.25</i>	<i>7.62</i>	8.02	<i>7.69</i>	<i>7.67</i>
Mountain	6.90	7.40	8.30	7.22	7.00	7.52	7.89	6.84	<i>7.25</i>	<i>7.59</i>	<i>8.37</i>	<i>7.31</i>	7.24	<i>7.13</i>	<i>7.45</i>
Pacific	9.08	9.05	9.10	8.53	8.90	8.58	8.99	8.60	<i>8.76</i>	<i>8.74</i>	<i>8.98</i>	<i>8.63</i>	8.91	<i>8.76</i>	<i>8.75</i>
U.S. Average	7.70	8.30	8.69	7.55	7.64	8.08	8.75	7.95	<i>7.88</i>	<i>8.25</i>	<i>8.62</i>	<i>7.87</i>	7.86	<i>7.92</i>	<i>8.02</i>
Industrial Retail															
New England	7.81	7.03	6.37	6.97	9.07	8.74	6.55	7.89	<i>8.41</i>	<i>7.65</i>	<i>7.08</i>	<i>8.07</i>	7.17	<i>8.24</i>	<i>7.92</i>
Middle Atlantic	7.71	7.65	7.59	7.69	8.33	8.07	7.74	7.86	<i>8.15</i>	<i>7.41</i>	<i>7.36</i>	<i>7.56</i>	7.68	<i>8.10</i>	<i>7.78</i>
E. N. Central	5.92	5.97	5.58	5.32	5.69	5.02	5.38	5.95	<i>6.59</i>	<i>6.12</i>	<i>5.92</i>	<i>5.80</i>	5.69	<i>5.60</i>	<i>6.20</i>
W. N. Central	4.98	4.26	4.19	4.66	5.05	4.23	4.30	5.28	<i>5.78</i>	<i>4.81</i>	<i>4.55</i>	<i>5.10</i>	4.56	<i>4.76</i>	<i>5.12</i>
S. Atlantic	5.32	4.95	4.87	4.92	5.34	4.67	4.74	5.31	<i>5.51</i>	<i>4.83</i>	<i>4.82</i>	<i>5.16</i>	5.02	<i>5.03</i>	<i>5.10</i>
E. S. Central	4.99	4.50	4.30	4.48	4.93	4.21	4.21	4.86	<i>4.95</i>	<i>4.41</i>	<i>4.41</i>	<i>4.84</i>	4.58	<i>4.58</i>	<i>4.67</i>
W. S. Central	3.42	3.41	3.29	3.13	3.32	3.09	3.22	3.64	<i>3.57</i>	<i>3.18</i>	<i>3.26</i>	<i>3.32</i>	3.31	<i>3.33</i>	<i>3.33</i>
Mountain	5.33	5.40	5.69	5.55	5.44	5.38	5.48	5.87	<i>6.16</i>	<i>5.86</i>	<i>6.05</i>	<i>6.03</i>	5.48	<i>5.56</i>	<i>6.04</i>
Pacific	7.24	6.61	6.21	6.27	6.97	6.03	6.90	6.92	<i>7.14</i>	<i>6.42</i>	<i>6.52</i>	<i>6.59</i>	6.62	<i>6.72</i>	<i>6.69</i>
U.S. Average	4.46	4.07	3.85	3.97	4.45	3.84	3.82	4.44	<i>4.64</i>	<i>3.92</i>	<i>3.87</i>	<i>4.20</i>	4.10	<i>4.16</i>	<i>4.18</i>

- = no data available

Prices are not adjusted for inflation.

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

Regions refer to U.S. Census divisions.

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Supply (million short tons)															
Production	197.0	187.1	196.2	193.8	187.6	180.8	195.8	192.1	189.0	158.5	196.9	184.3	774.1	756.4	728.7
Appalachia	50.7	51.2	46.3	50.2	50.0	51.6	50.6	48.6	51.6	45.3	48.2	43.1	198.5	200.7	188.2
Interior	38.5	36.4	34.9	35.6	34.0	34.6	35.1	37.1	37.9	29.2	37.5	37.6	145.4	140.8	142.2
Western	107.8	99.4	115.0	108.0	103.7	94.6	110.1	106.5	99.5	84.1	111.2	103.6	430.2	414.9	398.3
Primary Inventory Withdrawals	0.1	1.8	1.4	0.9	-2.8	2.3	1.1	-0.7	-0.9	1.4	1.0	-3.1	4.2	-0.1	-1.5
Imports	1.9	2.2	2.3	1.4	1.4	1.5	1.8	2.0	0.9	1.8	2.5	2.2	7.8	6.7	7.4
Exports	22.3	21.8	24.6	28.2	27.2	30.9	28.3	24.0	25.4	24.6	25.2	25.2	97.0	110.4	100.4
Metallurgical Coal	12.2	13.5	14.8	14.8	14.9	16.9	15.0	13.2	13.4	13.0	13.8	14.0	55.3	60.1	54.2
Steam Coal	10.1	8.3	9.8	13.4	12.3	13.9	13.2	10.8	12.0	11.6	11.4	11.2	41.7	50.3	46.2
Total Primary Supply	176.8	169.2	175.3	167.9	159.0	153.7	170.5	169.5	163.5	137.2	175.3	158.3	689.1	652.6	634.2
Secondary Inventory Withdrawals	0.9	3.5	18.2	2.1	11.9	4.9	21.0	-7.9	1.0	1.5	3.7	-8.2	24.7	29.9	-2.0
Waste Coal (a)	2.5	1.8	2.3	2.1	2.8	2.3	2.4	2.4	2.3	2.3	2.3	2.3	8.7	9.8	9.2
Total Supply	180.1	174.6	195.8	172.0	173.7	160.9	193.8	163.9	166.8	141.0	181.3	152.3	722.6	692.3	641.4
Consumption (million short tons)															
Coke Plants	4.2	4.3	4.5	4.5	4.2	4.6	5.2	6.0	5.0	4.5	5.2	6.2	17.5	20.0	20.8
Electric Power Sector (b)	160.6	154.2	190.5	159.6	154.8	144.2	182.5	157.6	153.9	129.0	168.7	138.6	665.0	639.1	590.2
Retail and Other Industry	8.9	8.3	8.8	8.7	8.5	7.9	7.6	7.8	7.9	7.5	7.4	7.5	34.7	31.8	30.4
Residential and Commercial	0.4	0.2	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.2	1.1	1.0	0.7
Other Industrial	8.5	8.1	8.6	8.4	8.2	7.7	7.4	7.6	7.7	7.4	7.3	7.3	33.6	30.8	29.6
Total Consumption	173.7	166.9	203.8	172.8	167.6	156.6	195.2	171.4	166.8	141.0	181.3	152.3	717.2	690.9	641.4
Discrepancy (c)	6.4	7.7	-8.0	-0.8	6.1	4.2	-1.4	-7.5	0.0	0.0	0.0	0.0	5.4	1.4	0.0
End-of-period Inventories (million short tons)															
Primary Inventories (d)	25.2	23.4	22.0	21.1	23.9	21.6	20.5	21.2	22.1	20.7	19.6	22.7	21.1	21.2	22.7
Secondary Inventories	166.8	163.3	145.1	143.0	131.1	126.2	105.2	113.1	112.1	110.6	106.9	115.1	143.0	113.1	115.1
Electric Power Sector	161.9	158.1	139.6	137.7	126.4	121.4	100.2	108.1	107.4	105.4	101.4	109.6	137.7	108.1	109.6
Retail and General Industry	3.2	3.3	3.5	3.2	2.9	2.9	3.0	2.9	3.1	3.1	3.2	3.2	3.2	2.9	3.2
Coke Plants	1.4	1.6	1.7	1.7	1.5	1.6	1.7	1.8	1.4	1.8	1.9	2.0	1.7	1.8	2.0
Coal Market Indicators															
Coal Miner Productivity															
(Tons per hour)	6.19	6.19	6.19	6.19	6.10	6.10	6.10	6.10	6.02	6.02	6.02	6.02	6.19	6.10	6.02
Total Raw Steel Production															
(Million short tons per day)	0.248	0.247	0.250	0.245	0.251	0.253	0.263	0.256	0.295	0.289	0.269	0.237	0.248	0.256	0.272
Cost of Coal to Electric Utilities															
(Dollars per million Btu)	2.07	2.08	2.04	2.04	2.06	2.05	2.08	2.13	2.10	2.10	2.10	2.09	2.06	2.08	2.10

- = 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 - November 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Electricity Supply (billion kilowatthours per day)															
Electricity Generation	10.56	10.71	12.22	10.70	11.13	11.14	12.81	<i>10.80</i>	<i>11.06</i>	<i>10.77</i>	<i>12.46</i>	<i>10.61</i>	11.05	<i>11.47</i>	<i>11.23</i>
Electric Power Sector (a)	10.14	10.29	11.78	10.27	10.69	10.71	12.36	<i>10.40</i>	<i>10.65</i>	<i>10.37</i>	<i>12.03</i>	<i>10.19</i>	10.62	<i>11.05</i>	<i>10.81</i>
Comm. and Indus. Sectors (b)	0.43	0.42	0.44	0.43	0.43	0.43	0.44	<i>0.40</i>	<i>0.41</i>	<i>0.41</i>	<i>0.43</i>	<i>0.42</i>	0.43	<i>0.43</i>	<i>0.42</i>
Net Imports	0.16	0.16	0.18	0.14	0.13	0.12	0.17	<i>0.13</i>	<i>0.15</i>	<i>0.15</i>	<i>0.17</i>	<i>0.13</i>	0.16	<i>0.14</i>	<i>0.15</i>
Total Supply	10.73	10.87	12.40	10.83	11.26	11.27	12.97	<i>10.93</i>	<i>11.21</i>	<i>10.92</i>	<i>12.63</i>	<i>10.74</i>	11.21	<i>11.61</i>	<i>11.38</i>
Losses and Unaccounted for (c)	0.51	0.68	0.60	0.73	0.65	0.94	0.83	<i>0.78</i>	<i>0.59</i>	<i>0.82</i>	<i>0.73</i>	<i>0.68</i>	0.63	<i>0.80</i>	<i>0.71</i>
Electricity Consumption (billion kilowatthours per day unless noted)															
Retail Sales	9.84	9.82	11.41	9.73	10.23	9.95	11.76	<i>9.80</i>	<i>10.26</i>	<i>9.74</i>	<i>11.53</i>	<i>9.69</i>	10.20	<i>10.44</i>	<i>10.31</i>
Residential Sector	3.70	3.42	4.46	3.51	4.10	3.61	4.72	<i>3.62</i>	<i>4.11</i>	<i>3.42</i>	<i>4.53</i>	<i>3.52</i>	3.78	<i>4.01</i>	<i>3.89</i>
Commercial Sector	3.52	3.65	4.09	3.56	3.61	3.71	4.21	<i>3.56</i>	<i>3.61</i>	<i>3.66</i>	<i>4.15</i>	<i>3.53</i>	3.71	<i>3.77</i>	<i>3.74</i>
Industrial Sector	2.60	2.72	2.83	2.64	2.50	2.62	2.80	<i>2.60</i>	<i>2.52</i>	<i>2.65</i>	<i>2.83</i>	<i>2.62</i>	2.70	<i>2.63</i>	<i>2.65</i>
Transportation Sector	0.02	0.02	0.02	0.02	0.02	0.02	0.02	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	0.02	<i>0.02</i>	<i>0.02</i>
Direct Use (d)	0.38	0.37	0.39	0.38	0.38	0.38	0.39	<i>0.36</i>	<i>0.36</i>	<i>0.36</i>	<i>0.38</i>	<i>0.37</i>	0.38	<i>0.38</i>	<i>0.37</i>
Total Consumption	10.22	10.19	11.80	10.11	10.61	10.32	12.15	<i>10.15</i>	<i>10.62</i>	<i>10.10</i>	<i>11.90</i>	<i>10.06</i>	10.58	<i>10.81</i>	<i>10.67</i>
Average residential electricity usage per customer (kWh)	2,527	2,362	3,114	2,450	2,769	2,460	3,273	<i>2,533</i>	<i>2,741</i>	<i>2,308</i>	<i>3,090</i>	<i>2,402</i>	10,454	<i>11,034</i>	<i>10,541</i>
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.07	2.08	2.04	2.04	2.06	2.05	2.08	<i>2.13</i>	<i>2.10</i>	<i>2.10</i>	<i>2.10</i>	<i>2.09</i>	2.06	<i>2.08</i>	<i>2.10</i>
Natural Gas	3.68	3.37	3.17	3.37	3.96	3.09	3.24	<i>3.63</i>	<i>3.66</i>	<i>3.07</i>	<i>3.01</i>	<i>3.31</i>	3.37	<i>3.45</i>	<i>3.24</i>
Residual Fuel Oil	11.15	10.60	10.03	12.04	11.47	13.02	13.60	<i>14.35</i>	<i>13.98</i>	<i>14.41</i>	<i>13.93</i>	<i>13.25</i>	11.01	<i>12.80</i>	<i>13.90</i>
Distillate Fuel Oil	12.79	12.24	13.11	14.50	15.77	16.61	16.80	<i>17.49</i>	<i>16.56</i>	<i>16.76</i>	<i>17.24</i>	<i>17.21</i>	13.27	<i>16.41</i>	<i>16.92</i>
Retail Prices (cents per kilowatthour)															
Residential Sector	12.60	13.02	13.16	12.71	12.59	13.03	13.23	<i>12.81</i>	<i>12.91</i>	<i>13.55</i>	<i>13.62</i>	<i>13.18</i>	12.89	<i>12.93</i>	<i>13.32</i>
Commercial Sector	10.38	10.68	11.00	10.52	10.54	10.59	11.02	<i>10.67</i>	<i>10.69</i>	<i>10.71</i>	<i>11.07</i>	<i>10.73</i>	10.66	<i>10.72</i>	<i>10.81</i>
Industrial Sector	6.64	6.86	7.23	6.73	6.81	6.87	7.30	<i>6.90</i>	<i>6.85</i>	<i>6.98</i>	<i>7.39</i>	<i>6.95</i>	6.88	<i>6.98</i>	<i>7.05</i>

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

Prices are not adjusted for inflation.

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

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 7b. U.S. Regional Electricity Retail Sales (Million Kilowatthours per Day)
 U.S. Energy Information Administration | Short-Term Energy Outlook - November 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Residential Sector															
New England	134	113	136	120	140	111	152	121	140	111	137	119	126	131	127
Middle Atlantic	369	308	404	328	394	323	446	330	393	314	409	320	352	373	359
E. N. Central	507	435	547	476	552	480	603	483	546	442	567	468	491	529	506
W. N. Central	296	241	303	262	327	274	319	266	320	246	318	264	275	296	287
S. Atlantic	896	894	1,139	898	1,040	920	1,184	940	1,050	877	1,144	891	957	1,021	991
E. S. Central	302	273	365	285	368	301	391	306	370	277	376	288	306	341	328
W. S. Central	505	540	764	519	608	582	798	542	599	545	781	528	583	633	613
Mountain	244	258	346	231	239	263	359	234	244	257	351	238	270	274	273
Pacific contiguous	435	351	449	381	422	339	459	382	428	338	432	390	404	401	397
AK and HI	14	12	12	13	14	12	12	13	14	12	12	13	13	13	13
Total	3,703	3,424	4,464	3,512	4,103	3,605	4,724	3,617	4,105	3,419	4,528	3,520	3,777	4,013	3,893
Commercial Sector															
New England	143	139	156	139	141	136	161	139	142	136	153	136	144	144	142
Middle Atlantic	425	406	464	414	431	411	481	410	428	406	462	405	427	433	425
E. N. Central	488	486	536	481	499	501	559	483	498	487	546	478	498	510	502
W. N. Central	272	270	303	270	282	282	309	267	282	274	310	267	279	285	283
S. Atlantic	786	853	943	811	811	862	963	807	808	851	945	790	849	861	849
E. S. Central	229	245	280	233	242	253	293	232	241	246	288	228	247	255	251
W. S. Central	480	531	609	510	501	549	634	517	514	550	646	521	533	551	558
Mountain	247	266	302	250	249	270	308	251	251	267	306	254	266	270	270
Pacific contiguous	430	444	486	438	435	424	488	436	433	426	477	438	449	446	444
AK and HI	16	16	16	16	16	15	16	16	16	15	16	16	16	16	16
Total	3,516	3,655	4,094	3,562	3,606	3,705	4,211	3,555	3,613	3,658	4,150	3,533	3,708	3,770	3,739
Industrial Sector															
New England	45	45	49	45	42	43	48	43	41	43	46	42	46	44	43
Middle Atlantic	196	198	208	198	196	194	213	198	199	197	215	199	200	200	203
E. N. Central	519	528	547	512	499	517	543	510	504	523	547	509	526	517	521
W. N. Central	244	255	270	251	232	242	265	250	239	249	273	256	255	247	254
S. Atlantic	369	393	397	379	366	388	399	367	365	386	396	362	385	380	378
E. S. Central	276	284	290	270	257	261	290	258	252	257	287	255	280	267	263
W. S. Central	505	532	546	526	467	500	519	517	476	512	532	526	527	501	512
Mountain	212	229	247	212	208	229	250	216	213	234	255	220	225	226	230
Pacific contiguous	220	240	263	229	216	231	261	232	218	233	262	232	238	235	236
AK and HI	13	14	14	14	13	13	14	14	13	13	14	14	14	13	14
Total	2,599	2,719	2,831	2,636	2,498	2,618	2,802	2,604	2,520	2,647	2,828	2,616	2,697	2,631	2,653
Total All Sectors (a)															
New England	324	298	342	306	325	292	362	305	325	291	338	299	318	321	313
Middle Atlantic	1,001	922	1,087	950	1,033	939	1,151	948	1,031	926	1,096	934	990	1,018	997
E. N. Central	1,516	1,450	1,632	1,470	1,552	1,500	1,706	1,476	1,550	1,453	1,662	1,457	1,517	1,559	1,531
W. N. Central	813	767	877	783	841	798	893	783	841	769	901	788	810	829	825
S. Atlantic	2,054	2,143	2,482	2,092	2,220	2,174	2,549	2,117	2,227	2,118	2,489	2,047	2,194	2,266	2,221
E. S. Central	806	802	934	788	867	815	974	797	862	780	951	771	833	863	841
W. S. Central	1,491	1,603	1,919	1,555	1,577	1,632	1,952	1,576	1,589	1,608	1,959	1,576	1,643	1,685	1,684
Mountain	702	754	895	694	697	762	918	701	709	758	913	711	762	770	773
Pacific contiguous	1,088	1,037	1,200	1,050	1,075	996	1,211	1,052	1,082	999	1,173	1,062	1,094	1,084	1,079
AK and HI	43	41	43	43	42	41	43	42	42	40	42	42	42	42	42
Total	9,839	9,817	11,410	9,731	10,230	9,948	11,759	9,797	10,259	9,743	11,526	9,688	10,202	10,436	10,306

- = no data available

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

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

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

Regions refer to U.S. Census divisions.

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 7c. U.S. Regional Retail Electricity Prices (Cents per Kilowatthour)
 U.S. Energy Information Administration | Short-Term Energy Outlook - November 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Residential Sector															
New England	19.12	19.43	19.48	19.61	20.56	20.58	20.37	20.88	21.71	21.68	21.76	21.78	19.41	20.58	21.74
Middle Atlantic	15.50	16.23	16.38	15.82	15.62	16.21	16.32	16.01	15.92	16.63	16.79	16.34	15.99	16.05	16.42
E. N. Central	13.04	13.74	13.41	13.29	12.94	13.48	13.32	13.64	13.43	14.13	13.87	14.10	13.36	13.33	13.86
W. N. Central	10.97	12.80	13.22	11.53	10.91	12.63	13.21	11.76	11.28	13.25	13.59	12.06	12.13	12.12	12.53
S. Atlantic	11.63	11.98	12.12	11.66	11.65	11.91	11.81	11.47	11.77	12.25	12.15	11.77	11.86	11.71	11.99
E. S. Central	11.13	11.48	11.34	11.24	10.86	11.40	11.18	11.24	11.19	12.00	11.51	11.52	11.30	11.16	11.53
W. S. Central	10.49	10.89	10.81	10.70	10.53	11.01	10.99	10.76	10.74	11.36	11.20	10.89	10.74	10.83	11.06
Mountain	11.24	12.10	12.26	11.78	11.58	12.25	12.31	11.99	11.85	12.57	12.61	12.27	11.89	12.07	12.36
Pacific	14.55	14.70	16.49	14.36	14.88	15.28	17.50	14.71	15.20	15.81	18.09	15.17	15.08	15.68	16.11
U.S. Average	12.60	13.02	13.16	12.71	12.59	13.03	13.23	12.81	12.91	13.55	13.62	13.18	12.89	12.93	13.32
Commercial Sector															
New England	15.13	15.14	15.69	15.52	16.61	15.91	16.23	16.34	16.70	15.44	15.85	15.90	15.38	16.27	15.97
Middle Atlantic	12.05	12.75	13.33	12.07	12.07	12.22	13.09	11.98	11.98	12.14	13.01	12.06	12.57	12.37	12.32
E. N. Central	10.10	10.32	10.15	10.07	10.09	10.15	10.10	10.18	10.29	10.40	10.28	10.32	10.16	10.13	10.32
W. N. Central	9.15	10.14	10.60	9.26	9.17	10.03	10.41	9.39	9.34	10.32	10.66	9.66	9.81	9.77	10.01
S. Atlantic	9.38	9.34	9.43	9.41	9.61	9.30	9.25	9.46	9.94	9.52	9.37	9.53	9.39	9.40	9.58
E. S. Central	10.59	10.59	10.64	10.59	10.51	10.49	10.40	10.65	10.49	10.70	10.47	10.72	10.60	10.50	10.59
W. S. Central	8.34	8.43	8.36	8.25	8.36	8.17	8.21	8.15	8.00	7.79	7.84	8.01	8.35	8.22	7.90
Mountain	9.08	9.84	9.97	9.43	9.26	9.87	10.02	9.64	9.27	9.91	10.06	9.69	9.61	9.72	9.76
Pacific	12.51	13.48	15.27	13.55	12.90	14.02	16.52	14.39	13.75	14.60	17.14	14.50	13.76	14.53	15.06
U.S. Average	10.38	10.68	11.00	10.52	10.54	10.59	11.02	10.67	10.69	10.71	11.07	10.73	10.66	10.72	10.81
Industrial Sector															
New England	12.48	12.31	12.75	12.58	13.48	12.60	12.76	12.67	13.80	12.81	12.88	12.72	12.54	12.87	13.04
Middle Atlantic	6.94	6.96	6.90	6.80	7.20	6.80	6.88	6.87	6.99	6.71	6.80	6.76	6.90	6.94	6.82
E. N. Central	7.12	7.09	7.10	7.00	7.10	6.96	7.03	7.09	7.11	7.04	7.09	7.12	7.08	7.05	7.09
W. N. Central	6.80	7.22	7.92	6.68	7.05	7.38	7.97	6.81	7.16	7.52	8.10	6.90	7.17	7.32	7.43
S. Atlantic	6.38	6.44	6.82	6.36	6.54	6.40	6.68	6.56	6.54	6.50	6.73	6.54	6.50	6.54	6.58
E. S. Central	5.86	5.90	6.12	5.83	5.74	5.92	5.88	5.88	5.82	6.10	6.01	5.93	5.93	5.86	5.97
W. S. Central	5.30	5.52	5.65	5.32	5.41	5.41	5.85	5.56	5.42	5.56	5.96	5.60	5.45	5.57	5.64
Mountain	6.13	6.61	7.18	6.18	6.10	6.47	7.03	6.19	6.22	6.63	7.20	6.35	6.55	6.47	6.63
Pacific	8.05	9.18	10.50	9.48	8.63	9.53	11.21	9.85	8.83	9.61	11.32	9.94	9.36	9.88	9.99
U.S. Average	6.64	6.86	7.23	6.73	6.81	6.87	7.30	6.90	6.85	6.98	7.39	6.95	6.88	6.98	7.05
All Sectors (a)															
New England	16.38	16.29	16.74	16.66	17.88	17.15	17.45	17.57	18.46	17.40	17.81	17.76	16.52	17.52	17.87
Middle Atlantic	12.31	12.65	13.22	12.25	12.48	12.46	13.18	12.30	12.50	12.49	13.19	12.38	12.63	12.63	12.66
E. N. Central	10.06	10.17	10.21	10.04	10.14	10.11	10.26	10.24	10.36	10.32	10.45	10.41	10.12	10.19	10.39
W. N. Central	9.10	10.00	10.68	9.19	9.26	10.12	10.69	9.37	9.46	10.35	10.92	9.57	9.77	9.88	10.09
S. Atlantic	9.82	9.90	10.24	9.82	10.06	9.88	10.03	9.85	10.24	10.09	10.23	9.98	9.96	9.96	10.14
E. S. Central	9.17	9.23	9.51	9.20	9.24	9.36	9.35	9.33	9.42	9.64	9.54	9.44	9.29	9.32	9.51
W. S. Central	8.03	8.29	8.56	8.07	8.32	8.34	8.73	8.21	8.26	8.29	8.67	8.17	8.26	8.42	8.37
Mountain	8.94	9.64	10.08	9.22	9.11	9.67	10.10	9.36	9.24	9.80	10.25	9.52	9.51	9.60	9.74
Pacific	12.42	12.89	14.67	12.95	12.81	13.39	15.74	13.50	13.32	13.83	16.17	13.74	13.28	13.94	14.32
U.S. Average	10.22	10.44	10.91	10.28	10.45	10.50	11.03	10.46	10.63	10.69	11.17	10.60	10.48	10.63	10.79

- = no data available

Prices are not adjusted for inflation.

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

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

Regions refer to U.S. Census divisions.

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
United States															
Coal	3,239	3,095	3,754	3,123	3,127	2,859	3,588	3,093	3,120	2,578	3,317	2,709	3,304	3,168	2,931
Natural Gas	3,035	3,338	4,416	3,403	3,456	3,806	5,130	3,700	3,600	3,783	4,924	3,742	3,552	4,027	4,015
Petroleum (a)	59	55	56	64	102	53	62	57	75	57	64	55	59	68	63
Other Gases	34	33	35	34	34	33	37	34	34	32	37	34	34	34	34
Nuclear	2,242	2,034	2,302	2,243	2,294	2,155	2,279	2,121	2,240	2,097	2,272	2,135	2,205	2,212	2,186
Renewable Energy Sources:	1,936	2,137	1,644	1,813	2,094	2,212	1,698	1,779	1,971	2,205	1,829	1,907	1,881	1,944	1,977
Conventional Hydropower	886	1,011	733	665	856	944	680	627	754	887	751	639	823	776	757
Wind	734	735	516	804	869	821	580	784	838	854	610	876	697	763	794
Wood Biomass	113	107	117	114	119	113	115	111	117	114	122	116	113	115	117
Waste Biomass	61	59	58	59	61	58	58	58	58	59	59	59	59	59	58
Geothermal	45	42	43	44	46	45	46	46	46	45	45	46	44	46	45
Solar	98	182	177	126	142	232	219	152	159	247	243	171	146	186	205
Pumped Storage Hydropower	-16	-16	-22	-17	-15	-13	-21	-15	-13	-12	-18	-14	-18	-16	-14
Other Nonrenewable Fuels (b)	35	36	38	35	36	35	34	35	34	35	36	36	36	35	35
Total Generation	10,564	10,712	12,224	10,697	11,128	11,141	12,807	10,804	11,061	10,775	12,461	10,605	11,053	11,473	11,228
Northeast Census Region															
Coal	155	133	135	139	149	120	168	210	176	78	91	156	141	162	125
Natural Gas	522	527	703	533	500	527	797	582	541	591	775	611	572	602	630
Petroleum (a)	3	2	2	13	32	3	4	4	13	2	4	4	5	11	6
Other Gases	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Nuclear	539	476	549	529	552	507	526	482	512	476	507	463	523	516	489
Hydropower (c)	109	120	98	102	108	114	97	95	104	105	98	93	107	103	100
Other Renewables (d)	79	68	60	77	81	76	70	79	82	75	68	82	71	77	77
Other Nonrenewable Fuels (b)	11	11	12	12	11	10	12	12	11	11	12	12	12	11	12
Total Generation	1,420	1,340	1,560	1,405	1,435	1,359	1,676	1,465	1,441	1,340	1,557	1,423	1,432	1,484	1,440
South Census Region															
Coal	1,330	1,416	1,681	1,293	1,262	1,260	1,543	1,259	1,234	1,127	1,458	1,069	1,431	1,331	1,222
Natural Gas	1,764	2,085	2,545	1,928	2,049	2,345	2,925	2,099	2,081	2,301	2,841	2,105	2,083	2,356	2,334
Petroleum (a)	25	23	22	21	39	21	26	23	30	25	28	22	23	27	26
Other Gases	13	14	15	13	13	12	15	13	12	12	14	12	14	13	12
Nuclear	973	888	1,003	1,012	1,008	952	1,012	953	1,009	948	1,032	978	969	981	992
Hydropower (c)	99	125	95	99	114	127	97	93	110	116	98	92	104	108	104
Other Renewables (d)	389	393	318	400	452	494	376	421	458	501	410	471	375	435	460
Other Nonrenewable Fuels (b)	15	15	16	15	16	16	13	14	14	14	14	15	15	14	14
Total Generation	4,608	4,958	5,695	4,781	4,952	5,227	6,006	4,874	4,948	5,043	5,894	4,765	5,013	5,267	5,164
Midwest Census Region															
Coal	1,285	1,173	1,389	1,212	1,303	1,140	1,362	1,189	1,233	1,030	1,310	1,063	1,265	1,248	1,159
Natural Gas	301	289	394	354	403	441	543	411	460	429	532	439	335	450	465
Petroleum (a)	7	9	8	9	10	7	9	9	10	9	10	8	8	9	10
Other Gases	14	12	13	12	13	12	14	13	14	13	15	13	13	13	13
Nuclear	555	543	580	535	571	539	568	526	553	519	564	534	553	551	542
Hydropower (c)	46	57	43	44	57	58	36	40	55	55	38	41	47	48	47
Other Renewables (d)	309	297	196	377	367	303	231	343	354	331	230	390	295	311	326
Other Nonrenewable Fuels (b)	3	4	4	4	4	3	4	4	4	4	4	4	4	4	4
Total Generation	2,519	2,383	2,627	2,547	2,727	2,505	2,766	2,534	2,683	2,389	2,702	2,493	2,519	2,633	2,567
West Census Region															
Coal	469	373	549	479	413	339	515	436	477	343	459	421	468	426	425
Natural Gas	448	438	774	588	503	493	866	609	517	461	776	587	563	619	586
Petroleum (a)	23	22	23	22	21	21	23	22	22	20	22	21	23	22	21
Other Gases	5	6	6	6	7	7	7	7	7	7	6	7	6	7	7
Nuclear	175	127	171	167	164	158	173	160	165	155	169	160	160	164	162
Hydropower (c)	616	694	475	403	562	632	429	383	471	600	500	399	546	501	492
Other Renewables (d)	273	367	337	293	338	395	342	309	324	411	369	326	318	346	358
Other Nonrenewable Fuels (b)	6	5	6	5	6	6	6	5	5	6	6	5	5	6	6
Total Generation	2,016	2,031	2,341	1,964	2,014	2,051	2,359	1,931	1,989	2,003	2,307	1,925	2,089	2,089	2,057

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

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

(c) Conventional hydroelectric and pumped storage generation.

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 7e. U.S. Regional Fuel Consumption for Electricity Generation, All Sectors
 U.S. Energy Information Administration | Short-Term Energy Outlook - November 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Fuel Consumption for Electricity Generation, All Sectors															
United States															
Coal (thousand st/d)	1,781	1,693	2,068	1,732	1,717	1,583	1,982	1,709	1,704	1,413	1,829	1,501	1,819	1,749	1,612
Natural Gas (million cf/d)	21,745	24,619	32,891	24,831	25,473	28,252	38,113	26,719	25,972	27,901	36,828	27,175	26,049	29,666	29,492
Petroleum (thousand b/d)	108	101	104	117	180	96	111	104	135	103	115	101	107	122	113
Residual Fuel Oil	26	27	28	34	51	27	28	25	38	24	28	25	29	32	29
Distillate Fuel Oil	27	24	22	33	71	26	24	29	34	25	24	27	27	37	28
Petroleum Coke (a)	51	46	50	44	48	40	55	47	57	51	59	45	48	47	53
Other Petroleum Liquids (b)	4	4	4	6	9	4	4	4	5	3	4	4	4	5	4
Northeast Census Region															
Coal (thousand st/d)	80	66	70	69	77	63	85	104	88	39	47	79	71	82	63
Natural Gas (million cf/d)	3,732	3,857	5,256	3,898	3,815	3,894	5,938	4,211	3,946	4,381	5,864	4,474	4,189	4,470	4,671
Petroleum (thousand b/d)	6	4	4	21	53	6	6	7	22	4	7	7	9	18	10
South Census Region															
Coal (thousand st/d)	716	761	902	705	659	670	828	678	646	595	775	574	771	709	647
Natural Gas (million cf/d)	12,448	15,193	18,701	13,948	14,730	17,258	21,456	14,982	14,731	16,730	20,885	15,019	15,087	17,119	16,853
Petroleum (thousand b/d)	47	43	43	40	72	39	49	44	56	46	51	42	43	51	49
Midwest Census Region															
Coal (thousand st/d)	716	653	785	686	743	654	778	676	695	583	745	605	710	713	657
Natural Gas (million cf/d)	2,270	2,264	3,183	2,706	3,135	3,415	4,206	3,066	3,471	3,311	4,246	3,344	2,608	3,457	3,594
Petroleum (thousand b/d)	15	18	18	18	19	15	17	17	20	19	21	17	17	17	19
West Census Region															
Coal (thousand st/d)	269	213	311	273	239	195	291	252	275	196	262	243	266	245	244
Natural Gas (million cf/d)	3,296	3,304	5,751	4,279	3,793	3,685	6,513	4,460	3,824	3,480	5,833	4,339	4,165	4,620	4,374
Petroleum (thousand b/d)	39	36	39	37	36	36	39	36	37	34	37	35	38	37	36
End-of-period U.S. Fuel Inventories Held by Electric Power Sector															
Coal (million short tons)	161.9	158.1	139.6	137.7	126.4	121.4	100.2	108.1	107.4	105.4	101.4	109.6	137.7	108.1	109.6
Residual Fuel Oil (mmb)	12.7	12.0	11.4	10.9	10.1	9.9	9.3	10.2	10.4	10.6	10.6	11.1	10.9	10.2	11.1
Distillate Fuel Oil (mmb)	17.3	17.1	16.8	16.4	14.8	14.6	14.3	14.9	15.1	15.2	15.2	15.6	16.4	14.9	15.6
Petroleum Coke (mmb)	3.9	3.7	4.0	4.3	4.8	4.1	4.0	4.0	4.0	4.0	4.0	3.9	4.3	4.0	3.9

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 8b. U.S. Renewable Electricity Generation and Capacity
 U.S. Energy Information Administration | Short-Term Energy Outlook - November 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Renewable Energy Electric Generating Capacity (megawatts, end of period)															
Electric Power Sector (a)															
Biomass	7,233	7,269	7,326	7,313	7,254	7,227	7,223	7,202	7,365	7,358	7,358	7,352	7,313	7,202	7,352
Waste	4,202	4,238	4,241	4,234	4,212	4,184	4,180	4,215	4,219	4,212	4,212	4,206	4,234	4,215	4,206
Wood	3,031	3,031	3,085	3,079	3,042	3,042	3,042	2,987	3,146	3,146	3,146	3,146	3,079	2,987	3,146
Conventional Hydroelectric	79,336	79,343	79,437	79,432	79,426	79,394	79,394	79,538	79,573	79,603	79,504	79,553	79,432	79,538	79,553
Geothermal	2,449	2,449	2,449	2,486	2,499	2,499	2,499	2,499	2,507	2,507	2,507	2,542	2,486	2,499	2,542
Large-Scale Solar (b)	22,591	23,624	24,134	26,432	27,956	28,793	29,246	32,157	32,697	33,310	33,598	36,385	26,432	32,157	36,385
Wind	82,919	83,378	84,109	87,488	88,538	88,662	89,565	95,419	96,178	97,650	99,071	107,081	87,488	95,419	107,081
Other Sectors (c)															
Biomass	6,686	6,690	6,688	6,657	6,656	6,621	6,621	6,630	6,630	6,605	6,607	6,621	6,657	6,630	6,621
Waste	881	885	883	872	873	873	873	873	873	873	875	889	872	873	889
Wood	5,805	5,805	5,805	5,785	5,783	5,747	5,747	5,757	5,757	5,732	5,732	5,732	5,785	5,757	5,732
Conventional Hydroelectric	357	357	357	357	357	357	357	364	364	364	364	364	357	364	364
Large-Scale Solar (b)	322	340	340	349	355	362	367	367	369	368	368	368	349	367	368
Small-Scale Solar (d)	13,559	14,402	15,216	16,148	17,029	17,863	18,703	19,603	20,543	21,518	22,528	23,576	16,148	19,603	23,576
Residential Sector	8,115	8,618	9,113	9,627	10,155	10,657	11,184	11,729	12,296	12,880	13,481	14,100	9,627	11,729	14,100
Commercial Sector	4,204	4,482	4,738	5,156	5,490	5,761	6,031	6,329	6,643	6,973	7,320	7,685	5,156	6,329	7,685
Industrial Sector	1,240	1,302	1,365	1,365	1,385	1,445	1,488	1,546	1,605	1,665	1,727	1,791	1,365	1,546	1,791
Wind	94	93	93	97	103	100	107	107	107	107	107	107	97	107	107
Renewable Electricity Generation (thousand megawatthours per day)															
Electric Power Sector (a)															
Biomass	90	83	87	87	93	85	87	85	87	87	95	90	87	87	90
Waste	51	50	48	49	52	49	49	49	48	49	50	49	50	50	49
Wood	39	33	39	38	41	36	38	36	39	37	45	41	37	38	40
Conventional Hydroelectric	881	1,006	729	661	852	939	676	623	749	883	747	635	818	771	753
Geothermal	45	42	43	44	46	45	46	46	46	45	45	46	44	46	45
Large-Scale Solar (b)	97	180	175	125	140	230	217	150	157	244	240	168	144	184	202
Wind	733	734	515	803	869	820	580	783	837	853	609	875	696	762	793
Other Sectors (c)															
Biomass	84	84	87	85	87	86	86	85	87	86	86	85	85	86	86
Waste	74	74	78	75	78	77	77	75	78	77	77	75	75	77	77
Wood	10	10	10	10	9	9	9	10	9	9	9	10	10	9	9
Conventional Hydroelectric	5	5	4	4	5	5	4	4	5	5	4	4	4	4	4
Large-Scale Solar (b)	1	2	2	1	1	3	3	2	3	3	3	3	2	2	3
Small-Scale Solar (d)	51	78	79	55	64	97	97	68	78	116	117	82	66	81	98
Residential Sector	29	46	46	32	37	57	56	39	45	68	69	48	38	47	57
Commercial Sector	17	25	25	18	22	32	32	22	26	38	38	27	21	27	32
Industrial Sector	5	8	8	5	6	8	9	6	7	10	10	7	6	7	8
Wind	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1

-- = no data available

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

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

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

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

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

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

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

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

Table 9a. U.S. Macroeconomic Indicators and CO2 Emissions

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Macroeconomic															
Real Gross Domestic Product (billion chained 2012 dollars - SAAR)	17,863	17,995	18,121	18,224	18,324	18,512	18,667	18,792	18,912	19,039	19,155	19,260	18,051	18,574	19,092
Real Personal Consumption Expend. (billion chained 2012 dollars - SAAR)	12,428	12,516	12,585	12,706	12,723	12,842	12,955	13,033	13,122	13,217	13,310	13,393	12,559	12,888	13,261
Real Private Fixed Investment (billion chained 2012 dollars - SAAR)	3,109	3,141	3,161	3,209	3,271	3,322	3,335	3,377	3,404	3,440	3,481	3,522	3,155	3,326	3,462
Business Inventory Change (billion chained 2012 dollars - SAAR)	8	17	55	21	36	-10	59	68	77	87	87	87	25	38	84
Real Government Expenditures (billion chained 2012 dollars - SAAR)	3,130	3,130	3,122	3,140	3,152	3,172	3,204	3,232	3,250	3,262	3,272	3,277	3,130	3,190	3,265
Real Exports of Goods & Services (billion chained 2012 dollars - SAAR)	2,413	2,435	2,456	2,496	2,518	2,574	2,538	2,561	2,590	2,622	2,658	2,699	2,450	2,548	2,642
Real Imports of Goods & Services (billion chained 2012 dollars - SAAR)	3,259	3,279	3,302	3,395	3,420	3,415	3,484	3,540	3,597	3,661	3,731	3,804	3,309	3,465	3,698
Real Disposable Personal Income (billion chained 2012 dollars - SAAR)	13,835	13,910	13,986	14,066	14,220	14,307	14,391	14,432	14,540	14,648	14,750	14,855	13,949	14,337	14,698
Non-Farm Employment (millions)	145.9	146.3	146.9	147.4	148.1	148.7	149.3	149.9	150.5	151.0	151.4	151.9	146.6	149.0	151.2
Civilian Unemployment Rate (percent)	4.7	4.3	4.3	4.1	4.1	3.9	3.8	3.7	3.6	3.5	3.5	3.4	4.4	3.9	3.5
Housing Starts (millions - SAAR)	1.23	1.17	1.17	1.26	1.32	1.26	1.23	1.27	1.31	1.34	1.37	1.39	1.21	1.27	1.35
Industrial Production Indices (Index, 2012=100)															
Total Industrial Production	102.5	103.7	103.3	105.3	105.9	107.3	108.2	108.8	109.5	110.2	111.0	111.6	103.7	107.6	110.6
Manufacturing	102.0	102.7	102.2	103.6	104.1	104.8	105.7	106.3	107.0	107.9	108.6	109.1	102.6	105.2	108.2
Food	109.2	110.1	112.1	112.5	114.1	114.7	116.2	116.7	117.3	118.0	118.6	119.1	111.0	115.4	118.3
Paper	97.8	96.9	96.4	96.1	96.0	96.1	96.3	95.6	95.4	95.3	95.2	95.1	96.8	96.0	95.2
Petroleum and Coal Products	105.5	108.9	104.7	107.4	106.6	107.6	108.2	108.5	108.8	108.5	108.8	109.1	106.6	107.7	108.8
Chemicals	94.2	95.9	94.7	97.7	96.7	98.9	99.4	100.4	101.2	102.2	103.1	103.9	95.6	98.8	102.6
Nonmetallic Mineral Products	114.0	113.2	113.6	117.1	119.2	120.8	120.0	120.5	121.0	121.6	122.5	123.2	114.5	120.1	122.1
Primary Metals	94.0	92.9	93.6	95.2	96.1	96.3	96.9	100.7	103.4	104.5	104.4	103.9	93.9	97.5	104.1
Coal-weighted Manufacturing (a)	101.7	102.1	101.1	103.3	103.5	104.8	105.3	106.7	107.8	108.5	108.9	109.2	102.0	105.1	108.6
Distillate-weighted Manufacturing (a)	107.8	108.2	108.2	110.1	111.1	111.7	112.1	112.7	113.4	113.9	114.4	114.8	108.6	111.9	114.1
Electricity-weighted Manufacturing (a)	102.1	102.8	101.9	103.9	104.1	105.2	106.0	107.2	108.4	109.3	109.8	110.2	102.7	105.6	109.4
Natural Gas-weighted Manufacturing (a) ...	101.7	103.5	101.6	104.5	103.8	105.6	106.3	107.5	108.5	109.4	110.1	110.6	102.9	105.8	109.6
Price Indexes															
Consumer Price Index (all urban consumers) (index, 1982-1984=1.00)	2.44	2.44	2.45	2.47	2.49	2.50	2.52	2.54	2.55	2.56	2.58	2.59	2.45	2.51	2.57
Producer Price Index: All Commodities (index, 1982=1.00)	1.93	1.92	1.92	1.97	2.01	2.01	2.04	2.06	2.07	2.07	2.07	2.08	1.94	2.03	2.07
Producer Price Index: Petroleum (index, 1982=1.00)	1.66	1.67	1.75	1.90	1.98	2.22	2.26	2.13	2.03	2.12	2.18	2.08	1.74	2.15	2.10
GDP Implicit Price Deflator (index, 2012=100)	107.2	107.6	108.1	108.8	109.3	110.2	110.6	111.3	112.1	112.8	113.5	114.1	107.9	110.4	113.1
Miscellaneous															
Vehicle Miles Traveled (b) (million miles/day)	8,210	9,202	9,057	8,730	8,232	9,225	9,143	8,847	8,395	9,351	9,228	8,931	8,802	8,864	8,978
Air Travel Capacity (Available ton-miles/day, thousands)	567	619	661	631	603	663	672	641	619	654	663	641	620	645	644
Aircraft Utilization (Revenue ton-miles/day, thousands)	344	390	398	382	368	414	426	403	381	416	423	402	378	403	406
Airline Ticket Price Index (index, 1982-1984=100)	277.8	297.0	264.9	263.4	262.8	277.9	261.4	287.5	313.4	352.0	324.6	321.2	275.8	272.4	327.8
Raw Steel Production (million short tons per day)	0.248	0.247	0.250	0.245	0.251	0.253	0.263	0.256	0.295	0.289	0.269	0.237	0.248	0.256	0.272
Carbon Dioxide (CO2) Emissions (million metric tons)															
Petroleum	565	587	594	596	580	594	603	601	582	594	608	604	2,342	2,379	2,387
Natural Gas	423	311	334	406	478	349	366	416	482	348	366	426	1,474	1,610	1,622
Coal	320	307	374	318	308	289	360	321	308	261	335	285	1,319	1,278	1,190
Total Energy (c)	1,311	1,209	1,305	1,322	1,369	1,235	1,333	1,341	1,375	1,206	1,312	1,318	5,147	5,278	5,210

- = 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 - November 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Real Gross State Product (Billion \$2009)															
New England	893	896	907	911	916	922	930	934	940	945	950	955	902	926	948
Middle Atlantic	2,505	2,512	2,530	2,534	2,545	2,568	2,586	2,599	2,612	2,626	2,639	2,651	2,520	2,575	2,632
E. N. Central	2,328	2,336	2,356	2,368	2,379	2,399	2,416	2,431	2,443	2,456	2,467	2,477	2,347	2,406	2,461
W. N. Central	1,084	1,094	1,088	1,091	1,097	1,107	1,115	1,122	1,127	1,133	1,140	1,145	1,089	1,110	1,136
S. Atlantic	3,023	3,035	3,060	3,077	3,095	3,126	3,155	3,177	3,199	3,220	3,240	3,257	3,049	3,138	3,229
E. S. Central	763	766	770	775	779	785	791	796	800	805	809	813	768	788	807
W. S. Central	2,029	2,050	2,061	2,082	2,097	2,128	2,150	2,168	2,186	2,204	2,221	2,236	2,055	2,136	2,212
Mountain	1,088	1,097	1,115	1,121	1,129	1,142	1,153	1,163	1,172	1,181	1,190	1,198	1,105	1,147	1,185
Pacific	3,173	3,225	3,243	3,267	3,284	3,320	3,349	3,375	3,398	3,427	3,451	3,473	3,227	3,332	3,437
Industrial Output, Manufacturing (Index, Year 2012=100)															
New England	96.8	97.2	96.8	98.5	98.7	98.7	99.6	100.0	100.4	100.9	101.4	101.6	97.3	99.3	101.1
Middle Atlantic	97.0	97.5	96.9	97.6	97.9	98.0	98.6	98.9	99.5	100.1	100.7	101.0	97.2	98.3	100.3
E. N. Central	104.3	105.2	104.4	106.0	106.3	106.6	107.9	108.7	109.5	110.5	111.2	111.8	105.0	107.4	110.7
W. N. Central	101.1	101.8	101.5	103.0	103.8	104.5	105.4	105.9	106.6	107.5	108.3	108.8	101.8	104.9	107.8
S. Atlantic	105.6	106.4	105.8	107.1	107.6	108.7	109.5	110.0	110.7	111.5	112.2	112.7	106.2	109.0	111.8
E. S. Central	107.8	108.3	107.4	108.5	108.7	108.9	109.8	110.5	111.2	112.2	113.1	113.7	108.0	109.5	112.6
W. S. Central	95.1	96.0	95.9	96.8	97.3	98.9	100.0	100.8	101.7	102.7	103.6	104.1	95.9	99.3	103.0
Mountain	106.5	107.8	108.1	110.0	111.4	112.8	113.7	114.4	115.2	116.1	117.0	117.6	108.1	113.1	116.5
Pacific	102.2	102.7	101.7	103.0	103.4	104.1	105.0	105.6	106.3	107.0	107.7	108.1	102.4	104.5	107.3
Real Personal Income (Billion \$2009)															
New England	789	791	798	797	803	807	812	814	819	824	829	834	794	809	827
Middle Atlantic	2,010	2,022	2,037	2,058	2,064	2,068	2,078	2,081	2,094	2,106	2,118	2,130	2,032	2,073	2,112
E. N. Central	2,169	2,172	2,189	2,191	2,208	2,215	2,227	2,233	2,248	2,262	2,275	2,288	2,180	2,221	2,268
W. N. Central	1,016	1,020	1,017	1,022	1,029	1,039	1,045	1,047	1,055	1,064	1,072	1,080	1,019	1,040	1,068
S. Atlantic	2,849	2,860	2,879	2,896	2,918	2,935	2,954	2,963	2,987	3,012	3,036	3,060	2,871	2,943	3,024
E. S. Central	800	802	806	810	816	820	823	825	830	836	840	845	804	821	838
W. S. Central	1,749	1,758	1,766	1,769	1,782	1,798	1,811	1,818	1,835	1,850	1,865	1,880	1,760	1,802	1,857
Mountain	1,004	1,009	1,022	1,025	1,034	1,041	1,047	1,052	1,061	1,071	1,080	1,089	1,015	1,043	1,075
Pacific	2,433	2,461	2,475	2,504	2,516	2,530	2,546	2,556	2,574	2,596	2,616	2,636	2,468	2,537	2,605
Households (Thousands)															
New England	5,860	5,872	5,881	5,890	5,899	5,907	5,921	5,926	5,934	5,943	5,953	5,962	5,890	5,926	5,962
Middle Atlantic	15,902	15,927	15,947	15,966	15,984	16,002	16,037	16,048	16,065	16,085	16,107	16,132	15,966	16,048	16,132
E. N. Central	18,827	18,854	18,876	18,899	18,922	18,951	18,995	19,011	19,027	19,053	19,083	19,116	18,899	19,011	19,116
W. N. Central	8,519	8,542	8,563	8,586	8,610	8,636	8,666	8,682	8,700	8,721	8,743	8,766	8,586	8,682	8,766
S. Atlantic	25,188	25,294	25,402	25,505	25,604	25,704	25,823	25,902	25,989	26,079	26,170	26,265	25,505	25,902	26,265
E. S. Central	7,603	7,622	7,640	7,657	7,676	7,696	7,721	7,734	7,750	7,769	7,789	7,809	7,657	7,734	7,809
W. S. Central	14,581	14,636	14,685	14,734	14,783	14,835	14,903	14,953	15,009	15,070	15,132	15,195	14,734	14,953	15,195
Mountain	9,038	9,080	9,120	9,162	9,205	9,249	9,300	9,337	9,375	9,415	9,456	9,499	9,162	9,337	9,499
Pacific	18,700	18,767	18,822	18,877	18,932	18,987	19,061	19,109	19,162	19,221	19,279	19,338	18,877	19,109	19,338
Total Non-farm Employment (Millions)															
New England	7.4	7.4	7.4	7.4	7.4	7.5	7.5	7.5	7.5	7.6	7.6	7.6	7.4	7.5	7.6
Middle Atlantic	19.5	19.5	19.6	19.7	19.7	19.8	19.8	19.9	19.9	20.0	20.0	20.1	19.6	19.8	20.0
E. N. Central	21.9	22.0	22.0	22.0	22.1	22.2	22.3	22.3	22.4	22.4	22.5	22.5	22.0	22.2	22.5
W. N. Central	10.6	10.6	10.7	10.7	10.7	10.7	10.8	10.8	10.8	10.9	10.9	10.9	10.6	10.8	10.9
S. Atlantic	28.0	28.1	28.2	28.3	28.4	28.6	28.7	28.9	29.0	29.1	29.2	29.3	28.2	28.6	29.1
E. S. Central	8.1	8.1	8.1	8.1	8.1	8.2	8.2	8.2	8.3	8.3	8.3	8.3	8.1	8.2	8.3
W. S. Central	17.0	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.8	17.9	17.1	17.5	17.8
Mountain	10.4	10.5	10.6	10.6	10.7	10.8	10.8	10.9	10.9	11.0	11.0	11.1	10.5	10.8	11.0
Pacific	22.8	22.9	23.0	23.2	23.3	23.4	23.5	23.6	23.7	23.7	23.8	23.9	23.0	23.4	23.8

- = no data available

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

Regions refer to U.S. Census divisions.

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

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

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

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

Table 9c. U.S. Regional Weather Data

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Heating Degree Days															
New England	2,983	804	94	2,169	3,051	906	63	2,196	3,177	868	127	2,115	6,051	6,216	6,286
Middle Atlantic	2,660	600	73	2,000	2,936	754	32	1,982	2,952	696	80	1,961	5,333	5,704	5,689
E. N. Central	2,691	627	105	2,262	3,210	824	56	2,286	3,146	731	130	2,226	5,684	6,376	6,233
W. N. Central	2,812	662	138	2,387	3,421	829	116	2,504	3,203	701	164	2,406	5,999	6,870	6,475
South Atlantic	1,146	125	15	946	1,443	220	2	996	1,462	194	14	1,001	2,232	2,661	2,671
E. S. Central	1,373	154	25	1,281	1,816	327	2	1,350	1,858	243	22	1,342	2,832	3,495	3,465
W. S. Central	772	65	4	741	1,194	143	3	880	1,181	85	4	782	1,582	2,219	2,052
Mountain	2,059	697	153	1,663	2,124	599	121	1,850	2,167	682	143	1,815	4,573	4,693	4,807
Pacific	1,557	529	69	1,026	1,435	539	82	1,111	1,430	541	85	1,214	3,180	3,168	3,270
U.S. Average	1,857	427	65	1,480	2,129	522	46	1,547	2,118	480	74	1,526	3,829	4,244	4,199
Heating Degree Days, Prior 10-year Average															
New England	3,201	831	122	2,125	3,172	818	119	2,121	3,166	820	110	2,111	6,279	6,230	6,208
Middle Atlantic	2,983	661	81	1,941	2,947	646	81	1,949	2,956	650	75	1,934	5,666	5,623	5,615
E. N. Central	3,255	701	114	2,198	3,209	692	116	2,210	3,196	697	111	2,193	6,267	6,228	6,198
W. N. Central	3,302	707	142	2,380	3,264	705	144	2,380	3,255	702	139	2,371	6,531	6,492	6,467
South Atlantic	1,502	188	12	966	1,476	177	12	974	1,480	177	11	966	2,667	2,639	2,634
E. S. Central	1,906	231	16	1,287	1,868	217	18	1,301	1,861	222	17	1,293	3,440	3,404	3,393
W. S. Central	1,228	88	4	799	1,181	80	4	801	1,183	85	4	804	2,119	2,066	2,076
Mountain	2,216	734	142	1,862	2,195	737	144	1,841	2,165	714	139	1,845	4,954	4,917	4,863
Pacific	1,462	598	89	1,205	1,465	592	84	1,181	1,443	581	82	1,174	3,354	3,321	3,281
U.S. Average	2,193	487	71	1,527	2,160	478	71	1,524	2,151	476	68	1,515	4,277	4,233	4,208
Cooling Degree Days															
New England	0	73	361	10	0	80	588	11	0	86	418	2	445	679	506
Middle Atlantic	0	138	501	22	0	176	717	30	0	155	537	4	660	923	696
E. N. Central	1	211	480	16	0	334	645	36	0	216	520	6	707	1,015	743
W. N. Central	9	264	623	14	2	440	689	17	3	264	654	10	910	1,148	930
South Atlantic	160	672	1,156	262	136	724	1,268	304	112	649	1,147	219	2,250	2,431	2,127
E. S. Central	66	481	964	73	36	648	1,168	135	26	517	1,028	60	1,585	1,987	1,631
W. S. Central	213	826	1,457	217	125	1,002	1,566	225	84	852	1,514	206	2,714	2,918	2,656
Mountain	36	466	920	121	21	507	998	56	17	423	933	78	1,543	1,582	1,451
Pacific	30	223	701	101	31	183	731	48	28	172	589	58	1,056	994	846
U.S. Average	70	403	838	115	51	476	963	119	40	397	847	90	1,426	1,609	1,374
Cooling Degree Days, Prior 10-year Average															
New England	0	81	433	1	0	81	433	1	0	79	456	2	515	515	536
Middle Atlantic	0	169	566	6	0	166	567	5	0	165	590	8	741	738	763
E. N. Central	3	234	542	8	3	228	533	7	3	242	549	10	788	770	804
W. N. Central	7	281	672	12	7	277	659	11	7	298	669	12	973	953	986
South Atlantic	117	666	1,167	230	119	675	1,161	227	120	684	1,180	241	2,179	2,182	2,225
E. S. Central	33	544	1,056	65	34	539	1,031	63	36	554	1,050	72	1,698	1,667	1,712
W. S. Central	90	876	1,528	205	100	887	1,532	204	103	897	1,552	211	2,698	2,722	2,764
Mountain	23	424	930	81	24	426	922	84	25	438	932	81	1,458	1,456	1,476
Pacific	30	180	608	74	30	185	621	78	31	186	632	74	892	915	923
U.S. Average	43	405	857	94	45	408	855	94	46	417	873	99	1,399	1,402	1,435

- = no data available

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

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

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

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

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

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