Independent Statistics & Analysis
U.S. Energy Information Administration

November 2018

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).

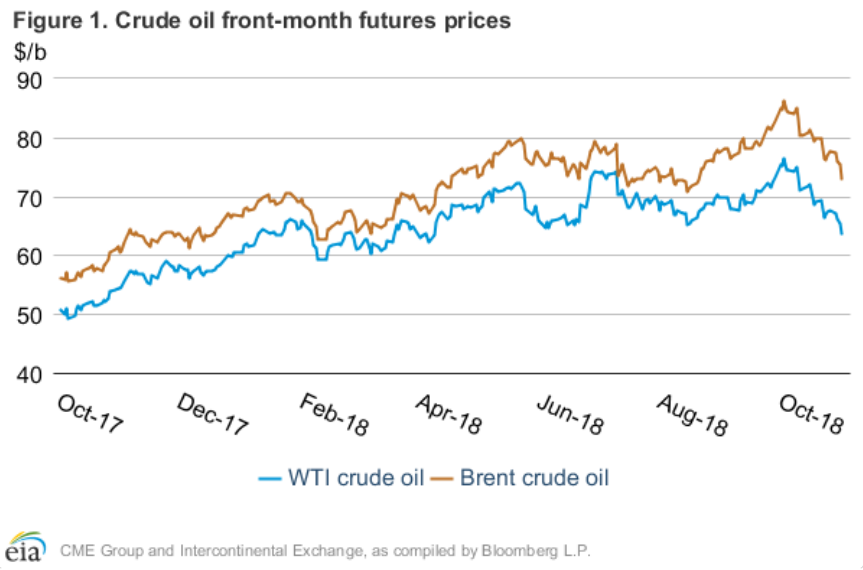
- After declining by 0.8% in 2017, EIA forecasts that U.S. energy-related carbon dioxide (CO_2) emissions will rise by 2.5% in 2018. This increase largely reflects higher natural gas consumption in 2018 because of a colder winter and a warmer summer than in 2017. EIA expects emissions to decline by 1.3% in 2019 because temperatures are forecast to return to normal. Energy-related CO_2 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)**.

Figure 1. Crude oil front-month futures prices



eia 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.

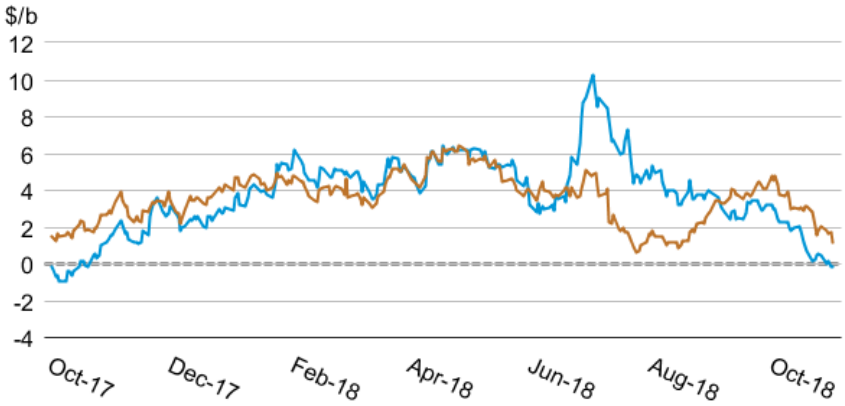
Similar to early 2018, financial markets exhibited significant price volatility in October, contributing to selloffs in risk assets such as equities and commodities. Chinese economic growth was lower than expectations, and leading economic indicators for several countries have slowed, leading to market 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.

Figure 2. Crude oil front-month to 13th month futures price spread

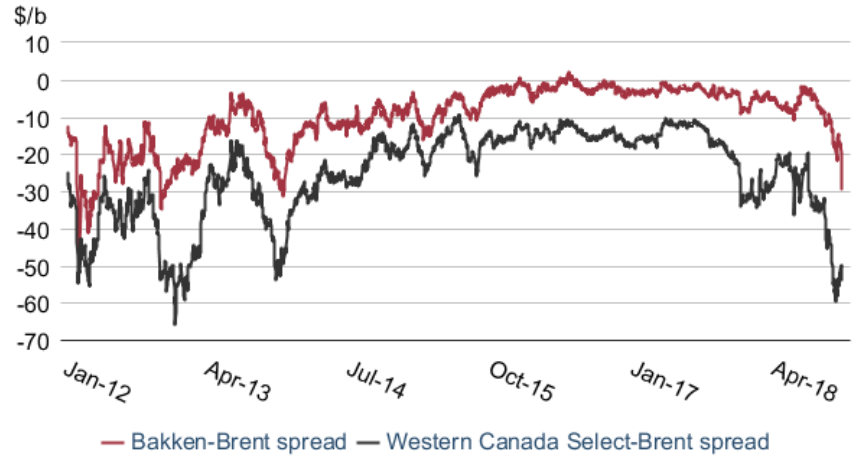


eia CME Group and Intercontinental Exchange, as compiled by Bloomberg L.P.

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/b on November 1, and the Bakken–Brent spread hit its lowest level since 2013, settling at -$29.38/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.

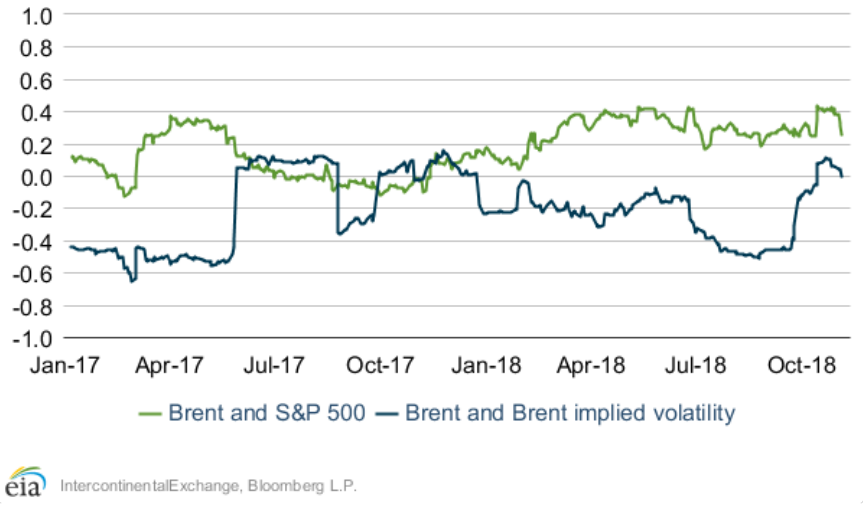
Figure 3. North American crude oil differentials to Brent



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



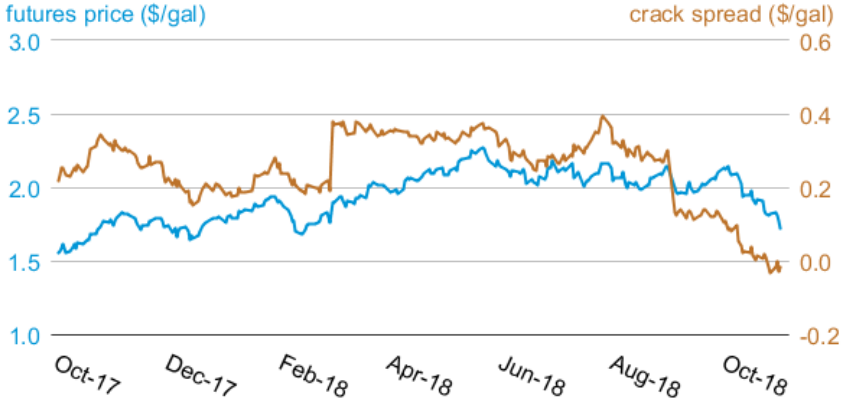
eia IntercontinentalExchange, Bloomberg L.P.

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.

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

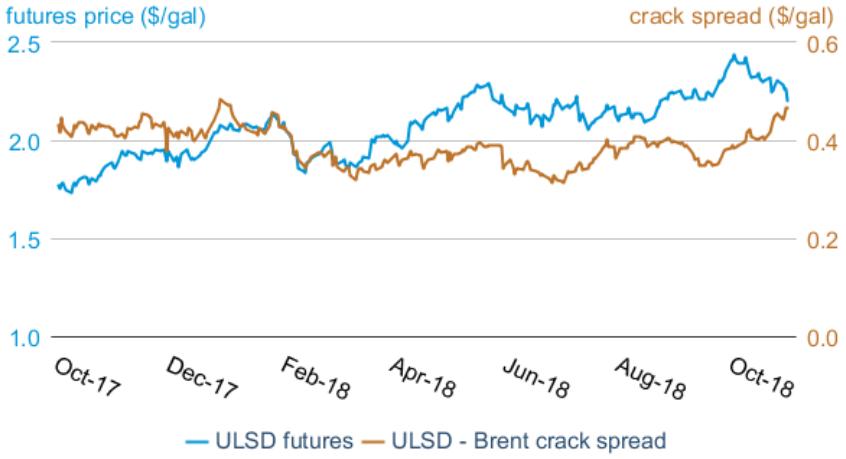


eia CME Group, as compiled by Bloomberg L.P., RBOB=reformulated blendstock for oxygenate blending

Ultra-low sulfur diesel prices: The ultra-low sulfur diesel (ULSD) front-month futures price 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.

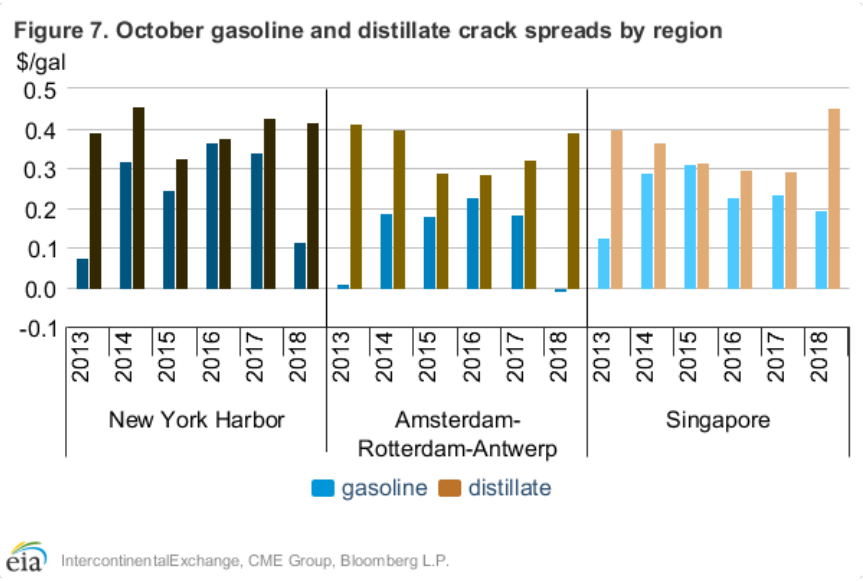
Figure 6. Historical ULSD front-month futures price and crack spread



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

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)**.

Figure 7. October gasoline and distillate crack spreads by region



eia IntercontinentalExchange, CME Group, Bloomberg L.P.

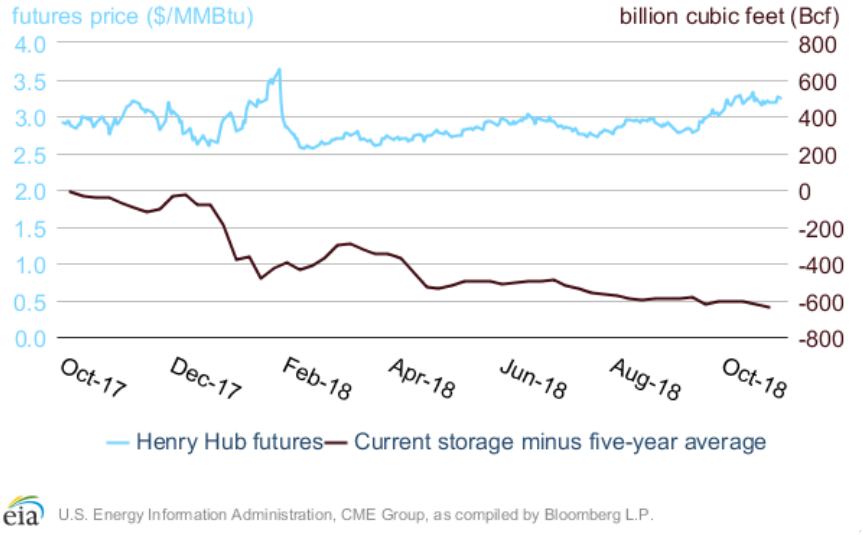
Retail gasoline prices in some emerging market countries reached all-time highs in September and October, partially because of higher crude oil prices, but also because currency depreciation with the U.S. dollar in 2018 has made the cost of imported petroleum effectively higher in many countries. The 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

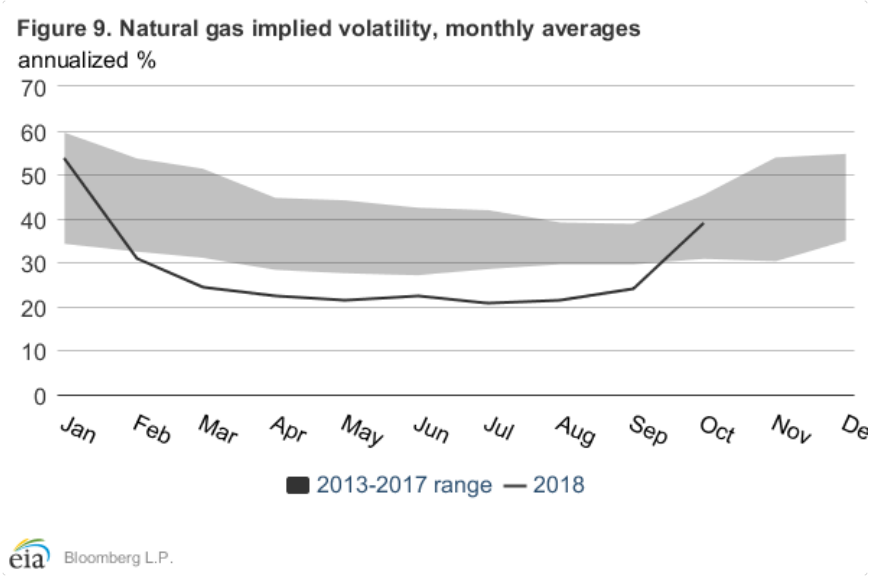
power generation. The higher demand helped to keep storage levels low heading into winter, which put upward pressure on prices. Working gas in underground storage remained 638 billion cubic feet (Bcf) (16.9%) lower than the five-year (2013–17) average for the week ending October 26 and 623 Bcf (16.5%)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

Figure 8. U.S. natural gas front-month futures prices and storage



eia 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.



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.

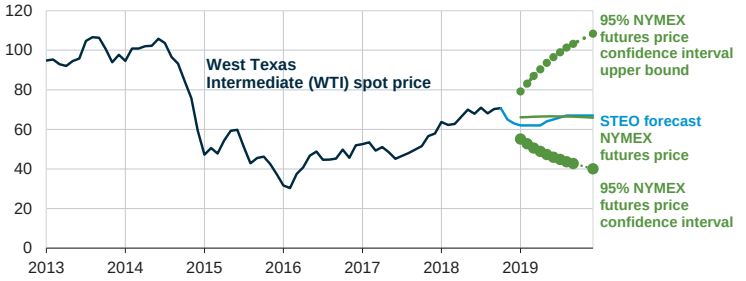
This report was prepared by the U.S. Energy Information Administration (EIA), the statistical and analytical agency within the U.S. Department of Energy. By law, EIA's data, analyses, and forecasts are independent of approval by any other officer or employee of the United States Government. The views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

U.S. Energy Information Administration
Independent Statistics & Analysis

Short-Term Energy Outlook

Chart Gallery for November 2018

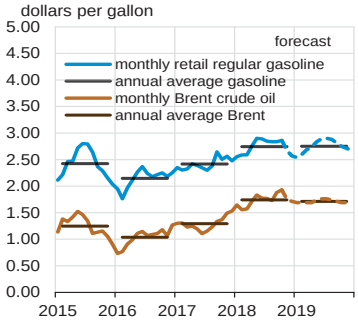
West Texas Intermediate (WTI) crude oil price and NYMEX confidence intervals
dollars per barrel



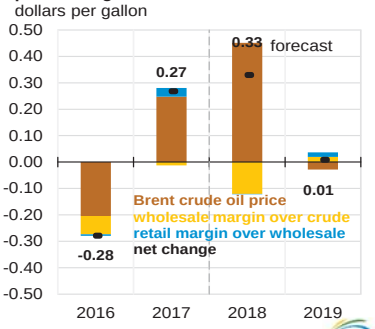
Note: Confidence interval derived from options market information for the five trading days ending Nov 1, 2018. Intervals not calculated for months with sparse trading in near-the-money options contracts.

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

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

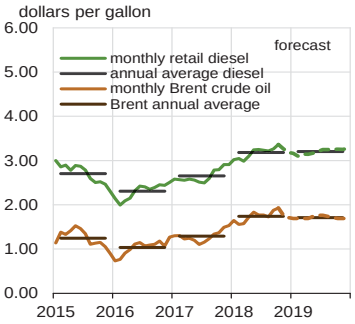


Components of annual gasoline price changes
dollars per gallon

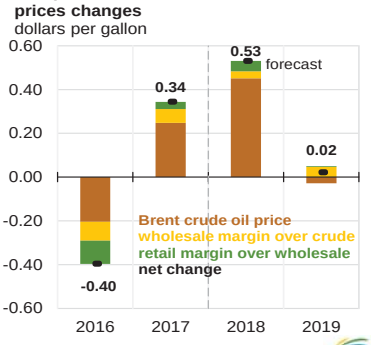


Source: Short-Term Energy Outlook, November 2018

U.S. diesel and crude oil prices



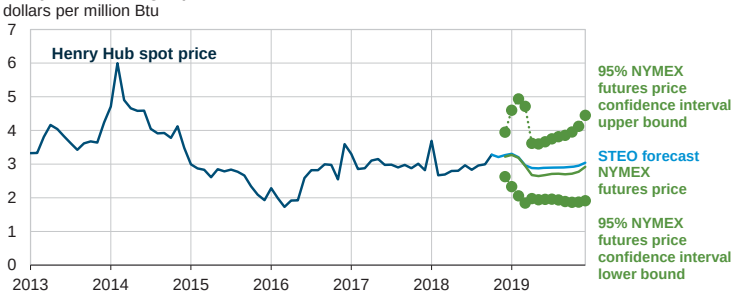
Components of annual diesel prices changes



Source: Short-Term Energy Outlook, November 2018

Henry Hub natural gas price and NYMEX confidence intervals

dollars per million Btu

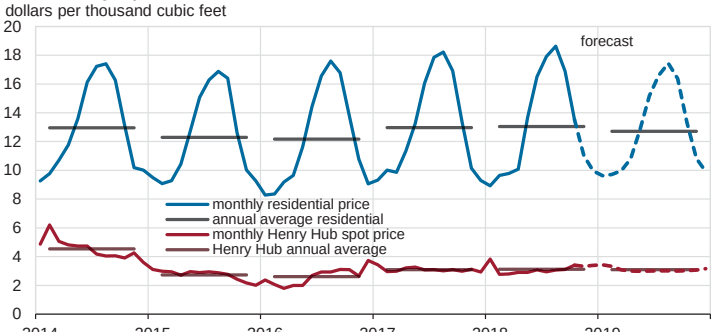


Note: Confidence interval derived from options market information for the five trading days ending Nov 1, 2018. Intervals not calculated for months with sparse trading in near-the-money options contracts.

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

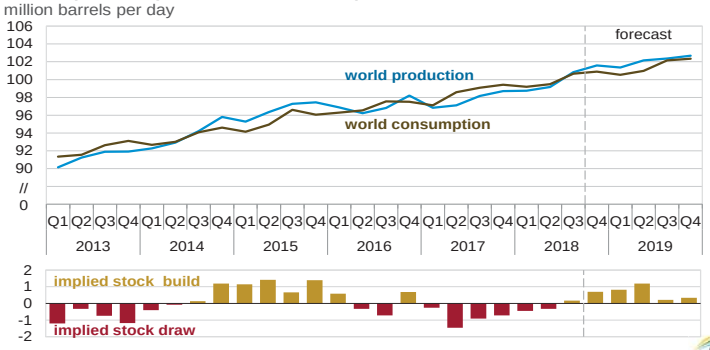
U.S. natural gas prices

dollars per thousand cubic feet



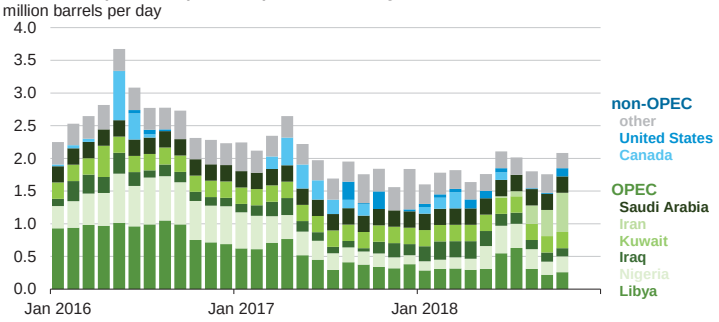
Source: Short-Term Energy Outlook, November 2018, and Thomson Reuters

World liquid fuels production and consumption balance
million barrels per day



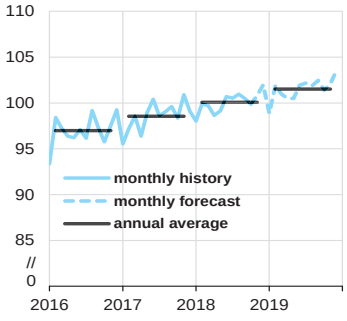
Source: Short-Term Energy Outlook, November 2018

Estimated unplanned liquid fuels production outages
million barrels per day



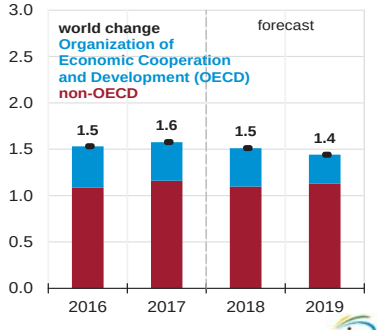
Source: Short-Term Energy Outlook, November 2018

World liquid fuels consumption
million barrels per day

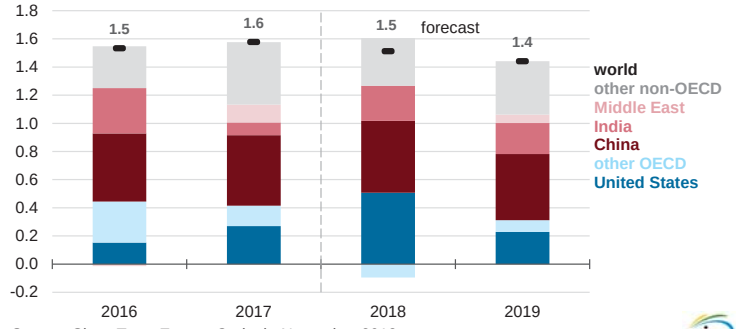


Source: Short-Term Energy Outlook, November 2

Components of annual change
million barrels per day

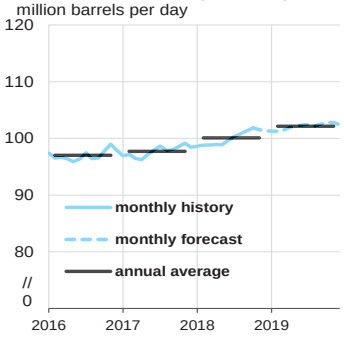


Annual change in world liquid fuels consumption
million barrels per day

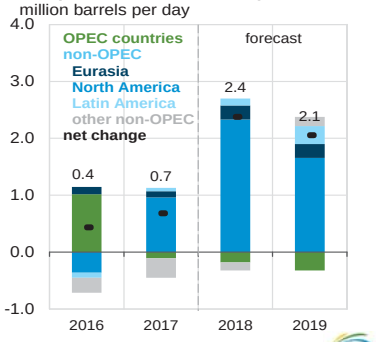


Source: Short-Term Energy Outlook, November 2018

World crude oil and liquid fuels production
million barrels per day

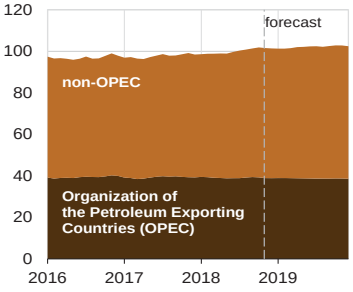


Components of annual change
million barrels per day

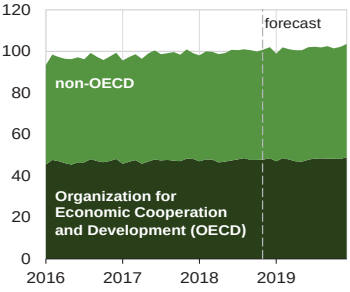


Source: Short-Term Energy Outlook, November 2018

World liquid fuels production
million barrels per day



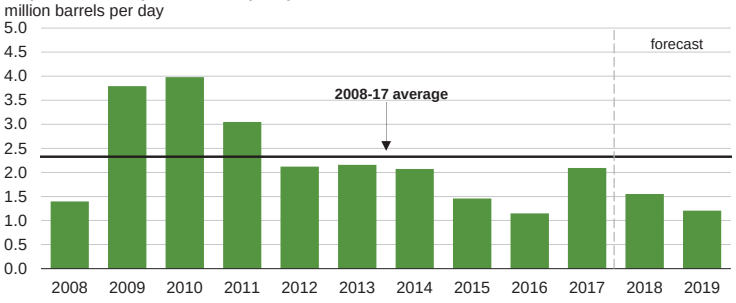
World liquid fuels consumption
million barrels per day



Source: Short-Term Energy Outlook, November 2018

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

million barrels per day

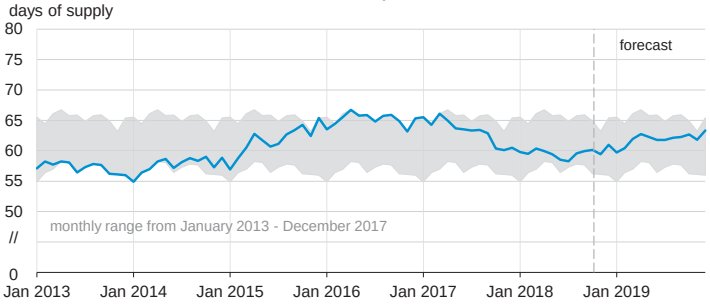


Note: Black line represents 2008-2017 average (2.3 million barrels per day).

Source: Short-Term Energy Outlook, November 2018

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

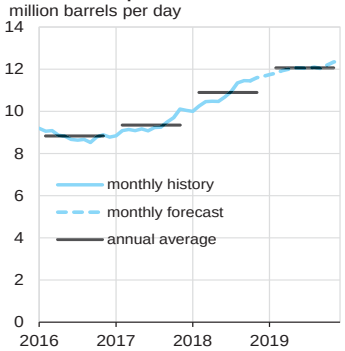
days of supply



Source: Short-Term Energy Outlook, November 2018

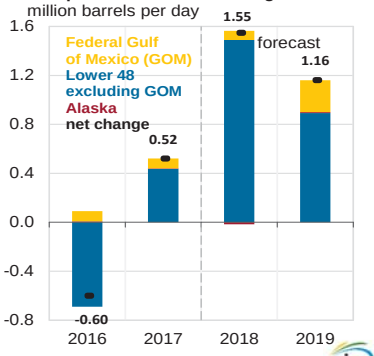
U.S. crude oil production

million barrels per day



Components of annual change

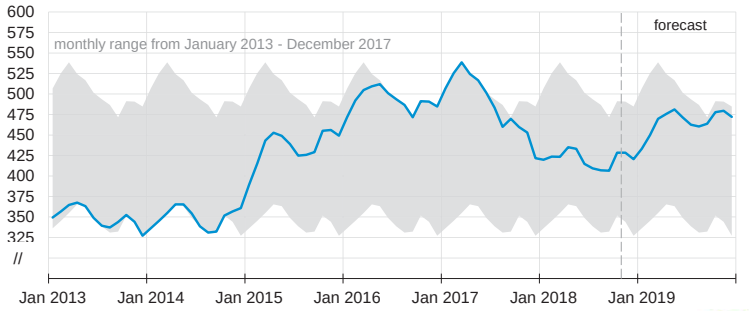
million barrels per day



Source: Short-Term Energy Outlook, November 2018

U.S. commercial crude oil inventories

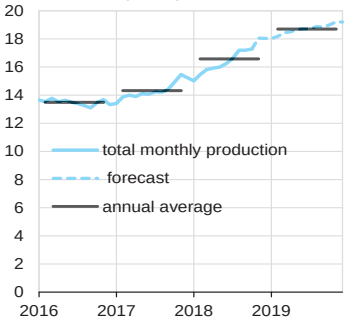
million barrels



Source: Short-Term Energy Outlook, November 2018

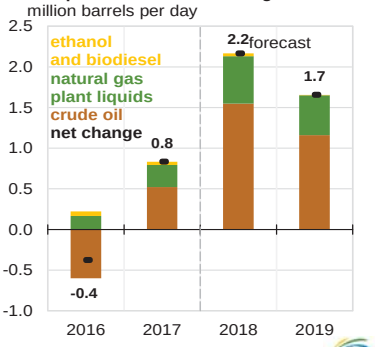
U.S. crude oil and liquid fuels production

million barrels per day



Components of annual change

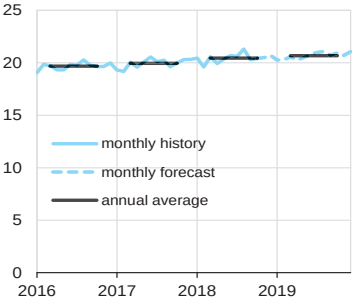
million barrels per day



Source: Short-Term Energy Outlook, November 2018

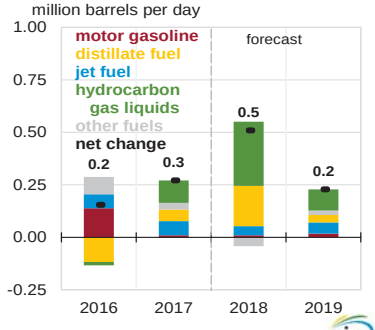
U.S. liquid fuels product supplied (consumption)

million barrels per day



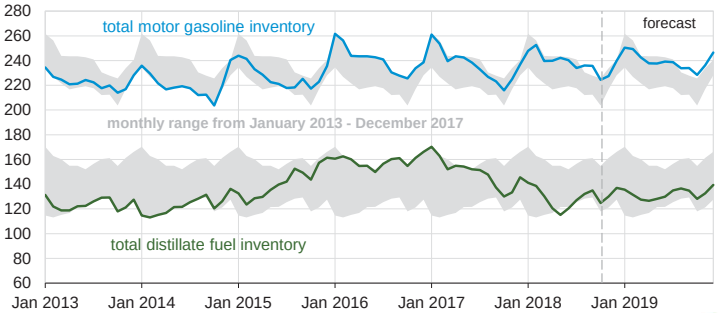
Components of annual change

million barrels per day



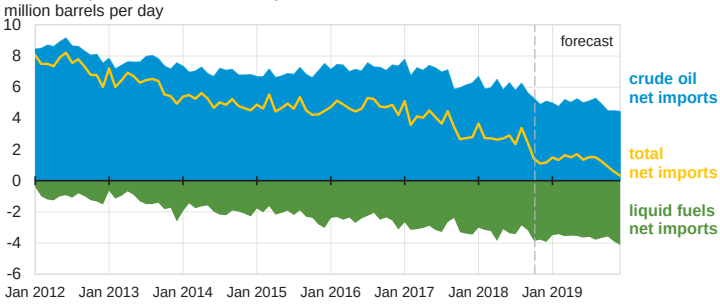
Source: Short-Term Energy Outlook, November 2018

U.S. gasoline and distillate inventories
million barrels



Source: Short-Term Energy Outlook, November 2018

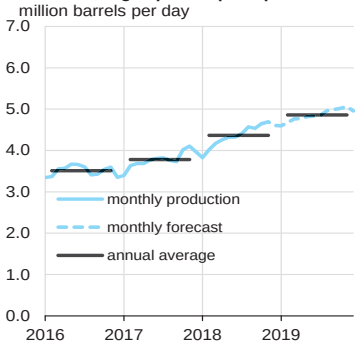
U.S. net imports of crude oil and liquid fuels
million barrels per day



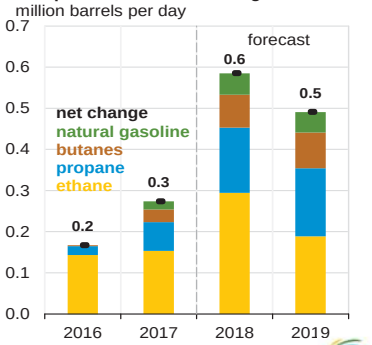
Note: Liquids fuels include: gasoline, distillate fuels, hydrocarbon gas liquids, jet fuel, residual fuel oil, unfinished oils, other hydrocarbons/oxygenates, and other oils.

Source: Short-Term Energy Outlook, November 2018

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

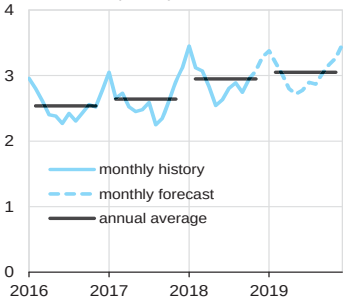


Components of annual change
million barrels per day

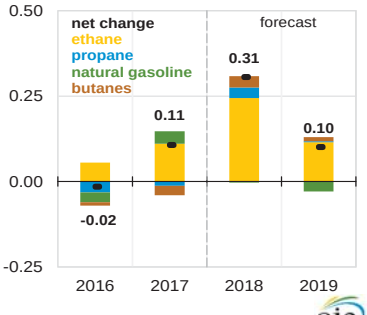


Source: Short-Term Energy Outlook, November 2018

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

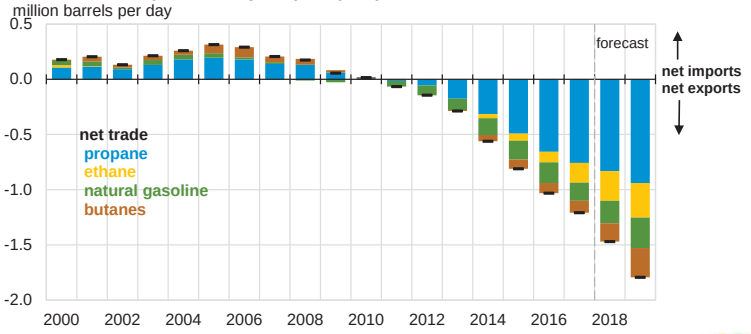


Components of annual change
million barrels per day



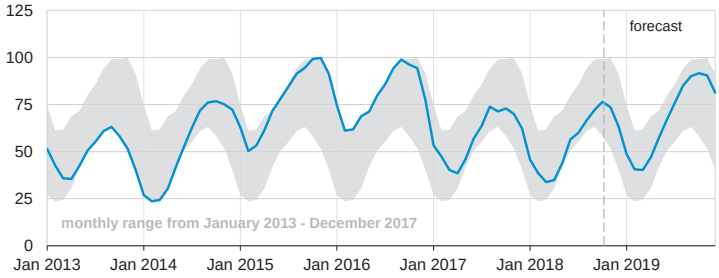
Source: Short-Term Energy Outlook, November 2018

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



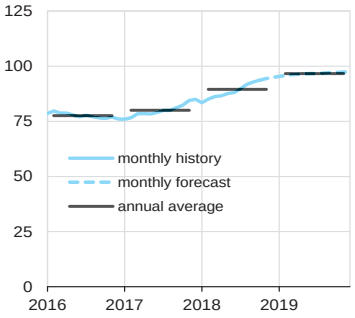
Source: Short-Term Energy Outlook, November 2018

U.S. commercial propane inventories
million barrels

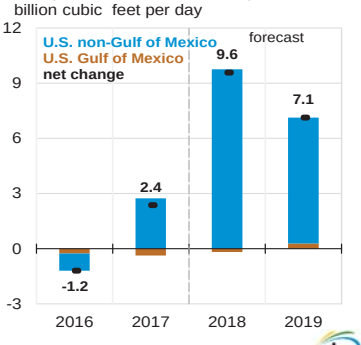


Source: Short-Term Energy Outlook, November 2018

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

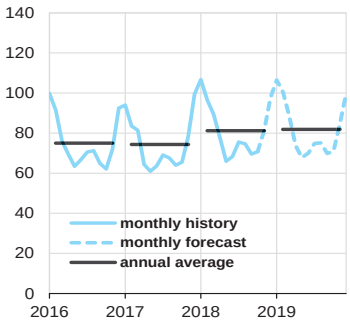


Components of annual change
billion cubic feet per day

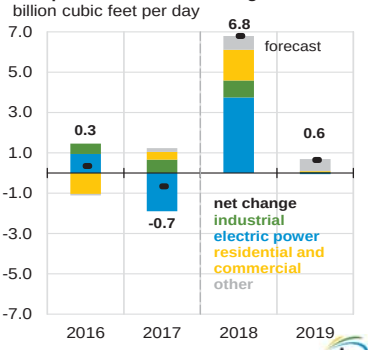


Source: Short-Term Energy Outlook, November 2018

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

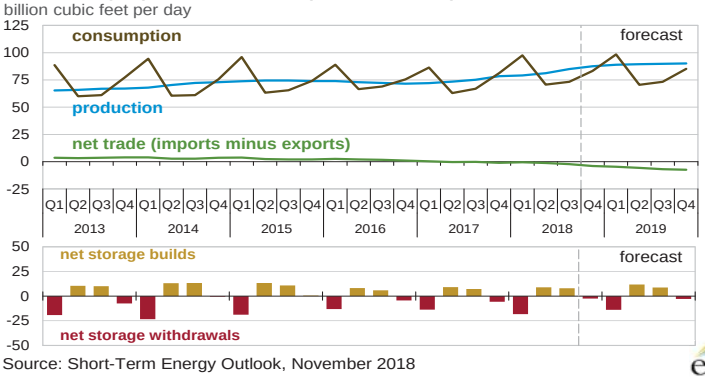


Components of annual change
billion cubic feet per day



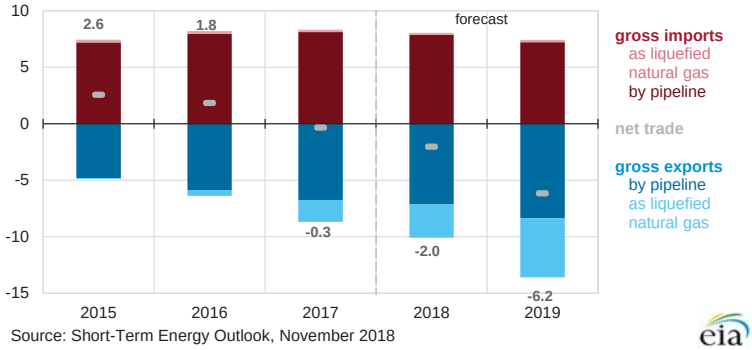
Source: Short-Term Energy Outlook, November 2018

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



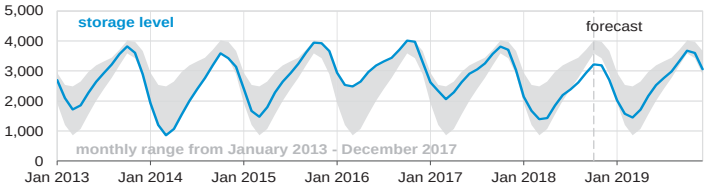
Source: Short-Term Energy Outlook, November 2018

Annual natural gas trade
billion cubic feet per day

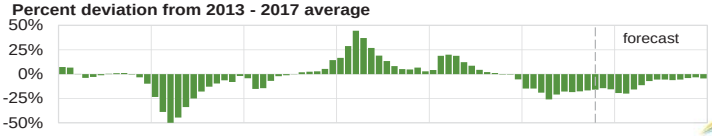


Source: Short-Term Energy Outlook, November 2018

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

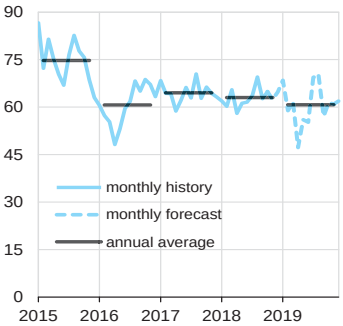


Percent deviation from 2013 - 2017 average

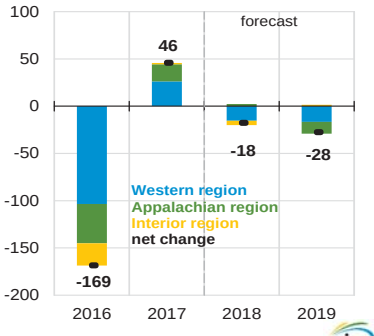


Source: Short-Term Energy Outlook, November 2018

U.S. coal production
million short tons

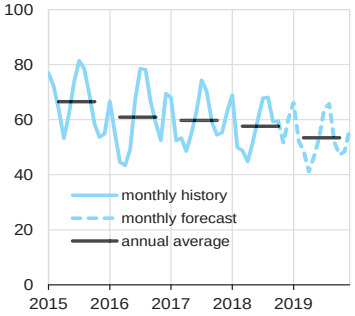


Components of annual change
million short tons

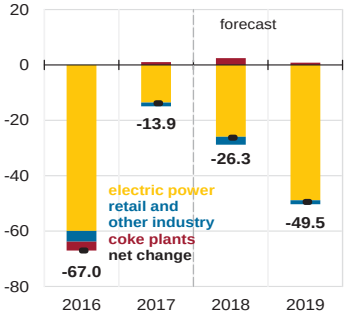


Source: Short-Term Energy Outlook, November 2018

U.S. coal consumption
million short tons

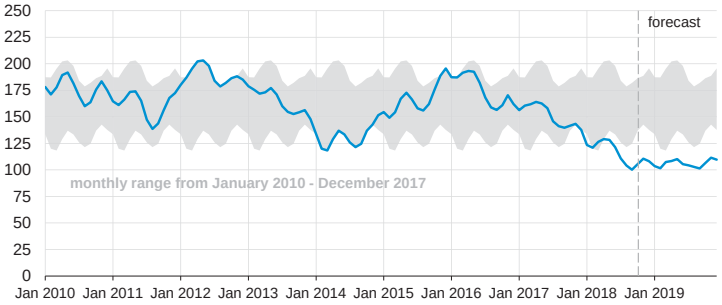


Components of annual change
million short tons



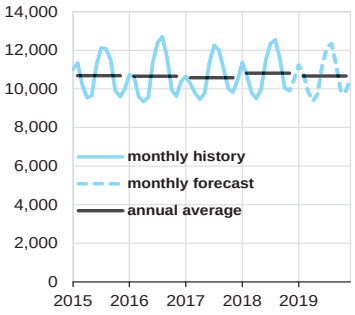
Source: Short-Term Energy Outlook, November 2018

U.S. electric power coal inventories
million short tons

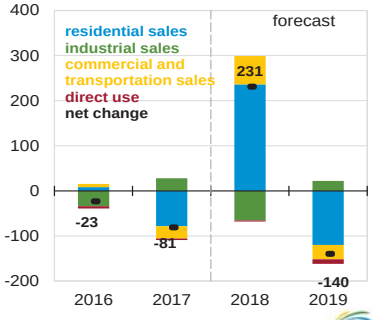


Source: Short-Term Energy Outlook, November 2018

U.S. electricity consumption
million kilowatthours per day



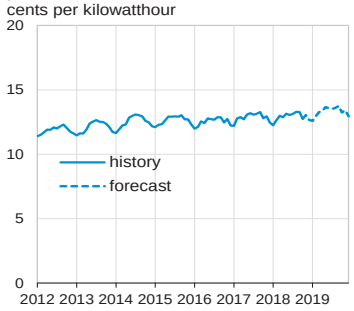
Components of annual change
million kilowatthours per day



Source: Short-Term Energy Outlook, November 2018

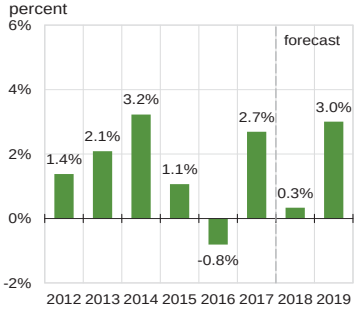
U.S. monthly residential electricity price

cents per kilowatthour



Annual growth in residential electricity prices

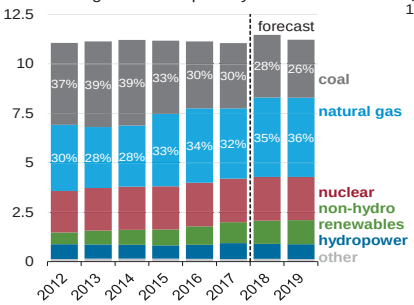
percent



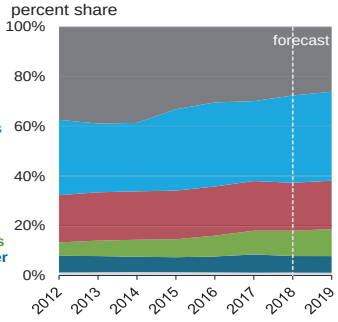
Source: Short-Term Energy Outlook, November 2018

U.S. electricity generation by fuel, all sectors

million megawatthours per day



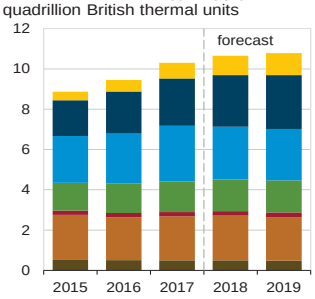
percent share



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

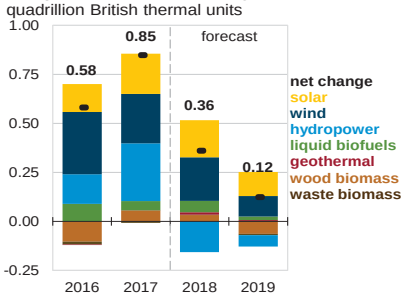
U.S. renewable energy supply

quadrillion British thermal units



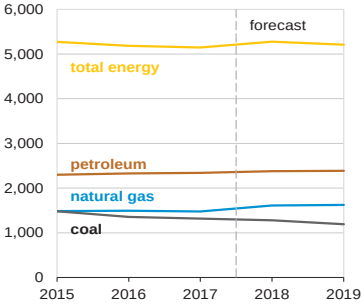
Components of annual change

quadrillion British thermal units

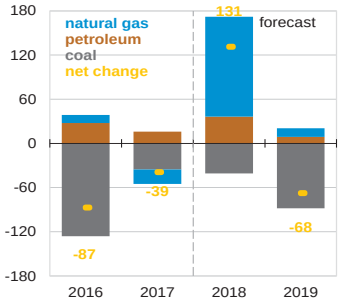


Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol and biodiesel. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste.
Source: Short-Term Energy Outlook, November 2018

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

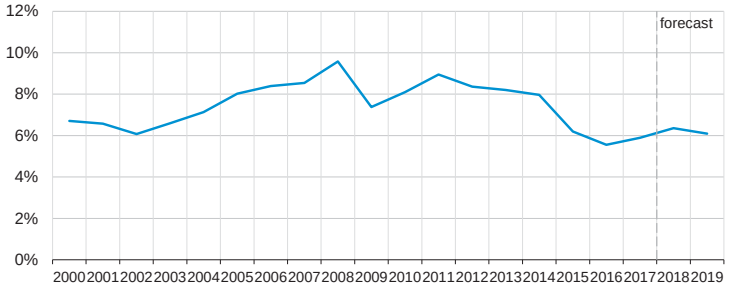


Components of annual change
million metric tons



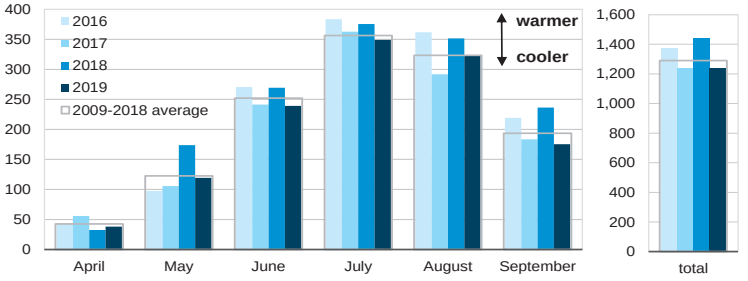
Source: Short-Term Energy Outlook, November 2018

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



Source: Short-Term Energy Outlook, November 2018

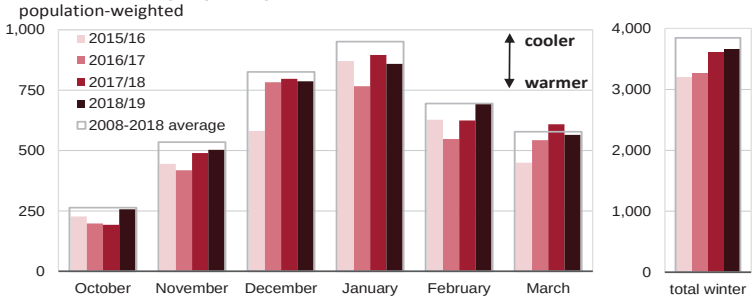
U.S. summer cooling degree days
population-weighted



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

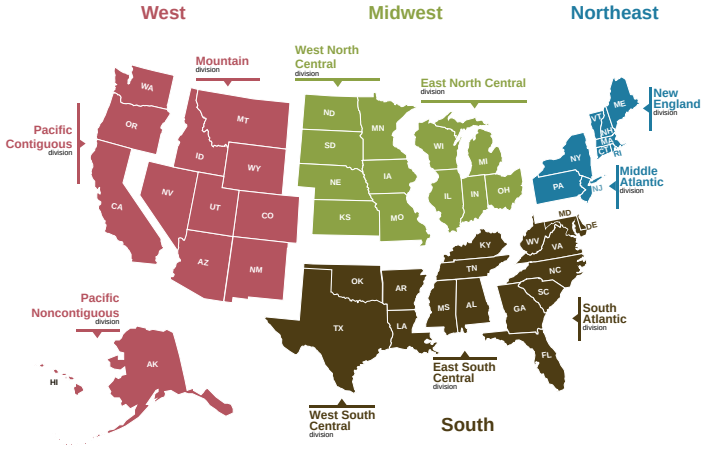
U.S. winter heating degree days
population-weighted



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 *Petroleum Supply Monthly* , DOE/EIA-0109.

Consumption of petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel and loss, and bunkering.

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - 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**	*26.24*	*26.41*	*26.78*	*26.95*	*27.28*	**22.87**	*25.20*	*26.86*
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*
United 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*
Central and South America	**4.91**	**5.40**	**5.70**	**5.33**	**4.89**	**5.64**	**5.83**	*5.48*	*5.18*	*5.95*	*6.16*	*5.81*	**5.34**	*5.46*	*5.78*
Argentina	**0.67**	**0.67**	**0.67**	**0.70**	**0.67**	**0.69**	**0.68**	*0.69*	*0.66*	*0.68*	*0.67*	*0.68*	**0.68**	*0.68*	*0.67*
Brazil	**2.95**	**3.44**	**3.73**	**3.32**	**2.95**	**3.64**	**3.86**	*3.49*	*3.25*	*3.96*	*4.20*	*3.83*	**3.36**	*3.49*	*3.81*
Colombia	**0.87**	**0.88**	**0.88**	**0.89**	**0.86**	**0.89**	**0.88**	*0.88*	*0.87*	*0.89*	*0.87*	*0.88*	**0.88**	*0.88*	*0.88*
Other Central and S. America	**0.42**	**0.42**	**0.42**	**0.42**	**0.41**	**0.42**	**0.41**	*0.42*	*0.41*	*0.42*	*0.41*	*0.41*	**0.42**	*0.41*	*0.41*
Europe	**4.21**	**4.04**	**3.92**	**3.95**	**4.08**	**3.87**	**3.81**	*4.13*	*4.12*	*4.03*	*3.93*	*4.08*	**4.03**	*3.97*	*4.04*
Norway	**2.08**	**2.00**	**1.91**	**1.92**	**1.97**	**1.80**	**1.81**	*1.94*	*1.94*	*1.87*	*1.88*	*1.92*	**1.98**	*1.88*	*1.90*
United Kingdom	**1.09**	**1.07**	**1.00**	**1.02**	**1.11**	**1.07**	**1.03**	*1.19*	*1.20*	*1.19*	*1.07*	*1.17*	**1.05**	*1.10*	*1.16*
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*
Azerbaijan	**0.79**	**0.80**	**0.79**	**0.81**	**0.82**	**0.81**	**0.80**	*0.79*	*0.80*	*0.80*	*0.79*	*0.77*	**0.80**	*0.80*	*0.79*
Kazakhstan	**1.87**	**1.87**	**1.86**	**1.92**	**1.98**	**1.96**	**1.89**	*2.04*	*2.05*	*1.95*	*2.03*	*2.09*	**1.88**	*1.97*	*2.03*
Russia	**11.32**	**11.18**	**11.14**	**11.16**	**11.18**	**11.22**	**11.48**	*11.56*	*11.58*	*11.59*	*11.53*	*11.60*	**11.20**	*11.36*	*11.57*
Turkmenistan	**0.28**	**0.28**	**0.28**	**0.28**	**0.27**	**0.28**	**0.27**	*0.27*	*0.25*	*0.25*	*0.25*	*0.25*	**0.28**	*0.27*	*0.25*
Other Eurasia	**0.16**	**0.17**	**0.16**	**0.16**	**0.16**	**0.15**	**0.17**	*0.17*	*0.16*	*0.16*	*0.16*	*0.16*	**0.16**	*0.16*	*0.16*
Middle East	**1.07**	**1.07**	**1.07**	**1.08**	**1.08**	**1.08**	**1.10**	*1.10*	*1.13*	*1.13*	*1.13*	*1.13*	**1.08**	*1.09*	*1.13*
Oman	**0.98**	**0.98**	**0.98**	**0.98**	**0.98**	**0.98**	**0.99**	*0.99*	*0.99*	*0.99*	*1.00*	*1.00*	**0.98**	*0.98*	*1.00*
Asia and Oceania	**9.36**	**9.29**	**9.20**	**9.19**	**9.24**	**9.16**	**9.14**	*9.28*	*9.22*	*9.24*	*9.22*	*9.29*	**9.26**	*9.21*	*9.24*
Australia	**0.34**	**0.35**	**0.36**	**0.34**	**0.37**	**0.34**	**0.37**	*0.38*	*0.40*	*0.42*	*0.44*	*0.46*	**0.35**	*0.36*	*0.43*
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*
India	**1.01**	**1.00**	**1.00**	**1.00**	**1.01**	**1.01**	**0.97**	*0.99*	*0.99*	*0.98*	*0.97*	*0.99*	**1.00**	*0.99*	*0.98*
Indonesia	**0.92**	**0.91**	**0.90**	**0.90**	**0.89**	**0.90**	**0.90**	*0.90*	*0.88*	*0.87*	*0.85*	*0.84*	**0.91**	*0.90*	*0.86*
Malaysia	**0.76**	**0.74**	**0.74**	**0.75**	**0.77**	**0.74**	**0.73**	*0.75*	*0.74*	*0.74*	*0.73*	*0.72*	**0.75**	*0.75*	*0.73*
Vietnam	**0.29**	**0.29**	**0.28**	**0.27**	**0.27**	**0.25**	**0.25**	*0.24*	*0.25*	*0.24*	*0.24*	*0.24*	**0.28**	*0.25*	*0.24*
Africa	**1.51**	**1.51**	**1.54**	**1.55**	**1.47**	**1.47**	**1.49**	*1.50*	*1.50*	*1.50*	*1.50*	*1.50*	**1.53**	*1.48*	*1.50*
Egypt	**0.64**	**0.65**	**0.66**	**0.66**	**0.63**	**0.63**	**0.64**	*0.63*	*0.61*	*0.61*	*0.61*	*0.61*	**0.65**	*0.63*	*0.61*
South Sudan	**0.15**	**0.15**	**0.15**	**0.15**	**0.12**	**0.12**	**0.12**	*0.14*	*0.15*	*0.15*	*0.15*	*0.15*	**0.15**	*0.13*	*0.15*
Total non-OPEC liquids	**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*
OPEC non-crude liquids	**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*
Non-OPEC + OPEC non-crude	**64.59**	**64.60**	**65.00**	**65.93**	**66.06**	**66.84**	**68.29**	*69.11*	*68.99*	*69.96*	*70.23*	*70.57*	**65.03**	*67.59*	*69.94*
Unplanned non-OPEC Production Outages	**0.43**	**0.68**	**0.63**	**0.54**	**0.53**	**0.40**	**0.28**	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	**0.57**	*n/a*	*n/a*

- = no data available

OPEC = Organization of the Petroleum Exporting Countries: Algeria, Angola, 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**	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	**1.45**	*n/a*	*n/a*

- = no data available

OPEC = Organization of the Petroleum Exporting Countries: Algeria, Angola, 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						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
North America	**23.94**	**24.48**	**24.49**	**24.67**	**24.56**	**24.71**	**25.18**	*24.98*	*24.76*	*24.89*	*25.40*	*25.37*	**24.40**	*24.86*	*25.11*
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*
Mexico	**2.02**	**2.03**	**1.95**	**1.93**	**1.99**	**2.02**	**1.92**	*1.97*	*1.96*	*1.98*	*1.98*	*2.01*	**1.98**	*1.98*	*1.98*
United 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*
Central and South America	**6.84**	**6.93**	**7.06**	**6.94**	**6.72**	**6.76**	**6.96**	*6.96*	*6.73*	*6.86*	*6.98*	*6.97*	**6.94**	*6.85*	*6.88*
Brazil	**2.96**	**3.00**	**3.12**	**3.08**	**2.98**	**2.95**	**3.15**	*3.15*	*3.01*	*3.08*	*3.16*	*3.15*	**3.04**	*3.06*	*3.10*
Europe	**14.55**	**14.98**	**15.44**	**15.14**	**14.80**	**14.91**	**15.43**	*15.08*	*14.78*	*14.99*	*15.52*	*15.22*	**15.03**	*15.05*	*15.13*
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*
Russia	**3.61**	**3.62**	**3.82**	**3.69**	**3.63**	**3.70**	**3.91**	*3.78*	*3.64*	*3.73*	*4.04*	*3.88*	**3.68**	*3.75*	*3.82*
Middle East	**8.24**	**8.77**	**9.10**	**8.48**	**8.30**	**8.73**	**8.99**	*8.56*	*8.33*	*8.79*	*9.11*	*8.59*	**8.65**	*8.65*	*8.71*
Asia and Oceania	**34.49**	**34.43**	**33.83**	**35.03**	**35.68**	**35.20**	**34.73**	*35.90*	*36.68*	*36.11*	*35.51*	*36.54*	**34.44**	*35.37*	*36.21*
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*
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*
India	**4.40**	**4.64**	**4.42**	**4.75**	**4.73**	**4.89**	**4.60**	*4.98*	*5.07*	*5.13*	*4.79*	*5.10*	**4.55**	*4.80*	*5.02*
Africa	**4.32**	**4.28**	**4.17**	**4.29**	**4.34**	**4.35**	**4.26**	*4.45*	*4.45*	*4.46*	*4.39*	*4.56*	**4.27**	*4.35*	*4.46*
Total OECD Liquid Fuels Consumption	**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*
Total non-OECD Liquid Fuels Consumption	**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*
Total World Liquid Fuels 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*
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**	*111.4*	*112.3*	*113.1*	*113.9*	*114.7*	**106.9**	*110.3*	*113.5*
Percent change from prior year	**3.6**	**2.8**	**3.1**	**3.0**	**3.3**	**3.3**	**3.1**	*3.1*	*2.9*	*2.9*	*3.0*	*2.9*	**3.1**	*3.2*	*2.9*
OECD Index, 2015 Q1 = 100	**103.9**	**104.5**	**105.1**	**105.8**	**106.5**	**107.1**	**107.6**	*108.3*	*109.0*	*109.3*	*109.9*	*110.3*	**104.8**	*107.4*	*109.6*
Percent change from prior year	**3.0**	**2.1**	**2.4**	**2.3**	**2.5**	**2.5**	**2.4**	*2.4*	*2.3*	*2.1*	*2.1*	*1.8*	**2.4**	*2.4*	*2.1*
Non-OECD Index, 2015 Q1 = 100	**107.3**	**108.3**	**109.4**	**110.4**	**111.7**	**112.6**	**113.5**	*114.5*	*115.6*	*116.7*	*117.8*	*119.1*	**108.8**	*113.1*	*117.3*
Percent change from prior year	**4.1**	**3.5**	**3.7**	**3.7**	**4.1**	**4.0**	**3.8**	*3.7*	*3.5*	*3.6*	*3.8*	*4.0*	**3.8**	*3.9*	*3.7*
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**	*105.25*	*105.13*	*104.33*	*103.38*	*102.45*	**103.22**	*103.49*	*103.82*
Percent change from prior year	**-0.2**	**0.3**	**-1.0**	**-2.4**	**-4.1**	**-0.9**	**3.4**	*2.8*	*4.4*	*1.7*	*-1.9*	*-2.7*	**-0.8**	*0.3*	*0.3*

- = 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" inludes aviation gasoline blend components, finished aviation gasoline, kerosene, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, and miscellaneous products.

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

SPR: Strategic Petroleum Reserve

HC: Hydrocarbons

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - 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*	*189*	*209*	*211*	*194*	**169**	*202*	*201*
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	**231**	**233**	**241**	**249**	**255**	**279**	**278**	*267*	*258*	*275*	*281*	*271*	**239**	*270*	*271*
PADD 2	**223**	**228**	**232**	**242**	**246**	**274**	**276**	*259*	*253*	*275*	*279*	*263*	**231**	*264*	*268*
PADD 3	**210**	**216**	**222**	**225**	**230**	**261**	**258**	*243*	*238*	*258*	*260*	*244*	**218**	*248*	*250*
PADD 4	**227**	**239**	**245**	**252**	**247**	**288**	**297**	*276*	*248*	*274*	*288*	*269*	**241**	*277*	*270*
PADD 5	**276**	**289**	**290**	**299**	**312**	**342**	**335**	*324*	*304*	*335*	*337*	*311*	**288**	*328*	*322*
U.S. Average	**233**	**238**	**244**	**251**	**258**	**285**	**284**	*270*	*261*	*282*	*287*	*271*	**242**	*275*	*275*
Gasoline All Grades Including Taxes	**244**	**250**	**255**	**263**	**270**	**294**	**292**	*280*	*272*	*294*	*298*	*283*	**253**	*284*	*287*
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**	*67.0*	*67.1*	*67.7*	*64.3*	*68.1*	**60.6**	*67.0*	*68.1*
PADD 2	**57.3**	**53.6**	**50.4**	**52.2**	**57.3**	**53.5**	**51.8**	*51.6*	*54.9*	*53.1*	*51.6*	*53.5*	**52.2**	*51.6*	*53.5*
PADD 3	**79.1**	**82.4**	**77.7**	**83.3**	**84.2**	**82.3**	**79.1**	*83.0*	*82.9*	*82.3*	*82.2*	*85.4*	**83.3**	*83.0*	*85.4*
PADD 4	**7.9**	**7.0**	**6.9**	**7.6**	**7.7**	**7.3**	**6.9**	*7.6*	*7.6*	*7.6*	*7.4*	*7.9*	**7.6**	*7.6*	*7.9*
PADD 5	**29.7**	**27.7**	**29.2**	**33.1**	**32.0**	**30.7**	**28.1**	*30.6*	*29.9*	*28.5*	*28.5*	*31.7*	**33.1**	*30.6*	*31.7*
U.S. Total	**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 Gasoline Inventories															
U.S. Total	**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*
Gasoline Blending Components Inventories															
U.S. Total	**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*

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

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

- = 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 cloal slurry reprocessed into briquettes.

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 7a. U.S. Electricity Industry Overview

U.S. Energy Information Administration | Short-Term Energy Outlook - 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**	*10.80*	*11.06*	*10.77*	*12.46*	*10.61*	**11.05**	*11.47*	*11.23*
Electric Power Sector (a)	**10.14**	**10.29**	**11.78**	**10.27**	**10.69**	**10.71**	**12.36**	*10.40*	*10.65*	*10.37*	*12.03*	*10.19*	**10.62**	*11.05*	*10.81*
Comm. and Indus. Sectors (b)	**0.43**	**0.42**	**0.44**	**0.43**	**0.43**	**0.43**	**0.44**	*0.40*	*0.41*	*0.41*	*0.43*	*0.42*	**0.43**	*0.43*	*0.42*
Net Imports	**0.16**	**0.16**	**0.18**	**0.14**	**0.13**	**0.12**	**0.17**	*0.13*	*0.15*	*0.15*	*0.17*	*0.13*	**0.16**	*0.14*	*0.15*
Total Supply	**10.73**	**10.87**	**12.40**	**10.83**	**11.26**	**11.27**	**12.97**	*10.93*	*11.21*	*10.92*	*12.63*	*10.74*	**11.21**	*11.61*	*11.38*
Losses and Unaccounted for (c)	**0.51**	**0.68**	**0.60**	**0.73**	**0.65**	**0.94**	**0.83**	*0.78*	*0.59*	*0.82*	*0.73*	*0.68*	**0.63**	*0.80*	*0.71*
Electricity Consumption (billion kilowatthours per day unless noted)															
Retail Sales	**9.84**	**9.82**	**11.41**	**9.73**	**10.23**	**9.95**	**11.76**	*9.80*	*10.26*	*9.74*	*11.53*	*9.69*	**10.20**	*10.44*	*10.31*
Residential Sector	**3.70**	**3.42**	**4.46**	**3.51**	**4.10**	**3.61**	**4.72**	*3.62*	*4.11*	*3.42*	*4.53*	*3.52*	**3.78**	*4.01*	*3.89*
Commercial Sector	**3.52**	**3.65**	**4.09**	**3.56**	**3.61**	**3.71**	**4.21**	*3.56*	*3.61*	*3.66*	*4.15*	*3.53*	**3.71**	*3.77*	*3.74*
Industrial Sector	**2.60**	**2.72**	**2.83**	**2.64**	**2.50**	**2.62**	**2.80**	*2.60*	*2.52*	*2.65*	*2.83*	*2.62*	**2.70**	*2.63*	*2.65*
Transportation Sector	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	*0.02*	*0.02*	*0.02*	*0.02*	*0.02*	**0.02**	*0.02*	*0.02*
Direct Use (d)	**0.38**	**0.37**	**0.39**	**0.38**	**0.38**	**0.38**	**0.39**	*0.36*	*0.36*	*0.36*	*0.38*	*0.37*	**0.38**	*0.38*	*0.37*
Total Consumption	**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*
Average residential electricity usage per customer (kWh)	**2,527**	**2,362**	**3,114**	**2,450**	**2,769**	**2,460**	**3,273**	*2,533*	*2,741*	*2,308*	*3,090*	*2,402*	**10,454**	*11,034*	*10,541*
Prices															
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	**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)															
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*
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*
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*

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

Prices are not adjusted for inflation.

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

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - 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*	*58*	*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 8a. U.S. Renewable Energy Consumption (Quadrillion Btu)

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
Electric Power Sector															
Geothermal	**0.037**	**0.035**	**0.037**	**0.038**	**0.038**	**0.038**	**0.039**	*0.039*	*0.038*	*0.038*	*0.038*	*0.039*	**0.147**	*0.154*	*0.153*
Hydroelectric Power (a)	**0.730**	**0.843**	**0.618**	**0.561**	**0.706**	**0.787**	**0.574**	*0.529*	*0.622*	*0.741*	*0.634*	*0.539*	**2.752**	*2.596*	*2.538*
Solar (b)	**0.081**	**0.151**	**0.149**	**0.106**	**0.116**	**0.193**	**0.184**	*0.127*	*0.130*	*0.205*	*0.204*	*0.143*	**0.487**	*0.621*	*0.682*
Waste Biomass (c)	**0.072**	**0.070**	**0.069**	**0.070**	**0.073**	**0.070**	**0.069**	*0.070*	*0.068*	*0.069*	*0.071*	*0.070*	**0.280**	*0.283*	*0.279*
Wood Biomass	**0.060**	**0.052**	**0.059**	**0.058**	**0.058**	**0.053**	**0.056**	*0.053*	*0.056*	*0.055*	*0.066*	*0.060*	**0.229**	*0.220*	*0.237*
Wind	**0.609**	**0.617**	**0.438**	**0.682**	**0.722**	**0.689**	**0.492**	*0.665*	*0.696*	*0.717*	*0.517*	*0.743*	**2.346**	*2.568*	*2.673*
Subtotal	**1.589**	**1.768**	**1.369**	**1.514**	**1.714**	**1.830**	**1.415**	*1.483*	*1.610*	*1.825*	*1.531*	*1.595*	**6.241**	*6.442*	*6.561*
Industrial Sector															
Biofuel Losses and Co-products (d)	**0.204**	**0.200**	**0.205**	**0.212**	**0.202**	**0.204**	**0.210**	*0.208*	*0.201*	*0.204*	*0.205*	*0.206*	**0.821**	*0.824*	*0.816*
Geothermal	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	**0.004**	*0.004*	*0.004*
Hydroelectric Power (a)	**0.003**	**0.004**	**0.003**	**0.003**	**0.003**	**0.003**	**0.003**	*0.003*	*0.003*	*0.003*	*0.003*	*0.003*	**0.013**	*0.012*	*0.012*
Solar (b)	**0.004**	**0.007**	**0.007**	**0.005**	**0.005**	**0.007**	**0.007**	*0.005*	*0.006*	*0.008*	*0.009*	*0.006*	**0.022**	*0.025*	*0.029*
Waste Biomass (c)	**0.044**	**0.041**	**0.039**	**0.044**	**0.044**	**0.041**	**0.041**	*0.044*	*0.042*	*0.041*	*0.041*	*0.043*	**0.168**	*0.169*	*0.166*
Wood Biomass	**0.379**	**0.378**	**0.390**	**0.392**	**0.381**	**0.382**	**0.383**	*0.370*	*0.351*	*0.347*	*0.358*	*0.360*	**1.539**	*1.516*	*1.415*
Subtotal	**0.636**	**0.628**	**0.643**	**0.657**	**0.636**	**0.635**	**0.642**	*0.630*	*0.603*	*0.600*	*0.612*	*0.618*	**2.564**	*2.544*	*2.433*
Commercial Sector															
Geothermal	**0.005**	**0.005**	**0.005**	**0.005**	**0.005**	**0.005**	**0.005**	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	**0.020**	*0.020*	*0.020*
Solar (b)	**0.015**	**0.022**	**0.023**	**0.016**	**0.019**	**0.029**	**0.029**	*0.021*	*0.024*	*0.034*	*0.035*	*0.025*	**0.076**	*0.097*	*0.118*
Waste Biomass (c)	**0.012**	**0.012**	**0.012**	**0.012**	**0.011**	**0.011**	**0.012**	*0.012*	*0.011*	*0.011*	*0.011*	*0.012*	**0.048**	*0.046*	*0.045*
Wood Biomass	**0.021**	**0.021**	**0.021**	**0.021**	**0.021**	**0.021**	**0.021**	*0.021*	*0.021*	*0.021*	*0.021*	*0.021*	**0.084**	*0.084*	*0.084*
Subtotal	**0.059**	**0.067**	**0.068**	**0.061**	**0.063**	**0.072**	**0.074**	*0.066*	*0.067*	*0.078*	*0.080*	*0.070*	**0.255**	*0.275*	*0.295*
Residential Sector															
Geothermal	**0.010**	**0.010**	**0.010**	**0.010**	**0.010**	**0.010**	**0.012**	*0.013*	*0.013*	*0.013*	*0.013*	*0.013*	**0.040**	*0.045*	*0.053*
Solar (e)	**0.036**	**0.057**	**0.058**	**0.040**	**0.043**	**0.066**	**0.067**	*0.047*	*0.049*	*0.076*	*0.078*	*0.054*	**0.191**	*0.222*	*0.258*
Wood Biomass	**0.082**	**0.083**	**0.084**	**0.084**	**0.095**	**0.096**	**0.102**	*0.104*	*0.105*	*0.105*	*0.105*	*0.105*	**0.334**	*0.396*	*0.420*
Subtotal	**0.128**	**0.150**	**0.152**	**0.134**	**0.147**	**0.172**	**0.181**	*0.164*	*0.167*	*0.194*	*0.196*	*0.172*	**0.565**	*0.664*	*0.730*
Transportation Sector															
Biomass-based Diesel (f)	**0.054**	**0.079**	**0.078**	**0.069**	**0.054**	**0.068**	**0.075**	*0.092*	*0.066*	*0.085*	*0.098*	*0.101*	**0.280**	*0.290*	*0.350*
Ethanol (f)	**0.269**	**0.292**	**0.295**	**0.292**	**0.273**	**0.286**	**0.299**	*0.292*	*0.274*	*0.295*	*0.297*	*0.292*	**1.148**	*1.149*	*1.157*
Subtotal	**0.322**	**0.372**	**0.374**	**0.361**	**0.327**	**0.354**	**0.376**	*0.384*	*0.340*	*0.380*	*0.394*	*0.392*	**1.429**	*1.441*	*1.507*
All Sectors Total															
Biomass-based Diesel (f)	**0.054**	**0.079**	**0.078**	**0.069**	**0.054**	**0.068**	**0.075**	*0.092*	*0.066*	*0.085*	*0.098*	*0.101*	**0.280**	*0.290*	*0.350*
Biofuel Losses and Co-products (d)	**0.204**	**0.200**	**0.205**	**0.212**	**0.202**	**0.204**	**0.210**	*0.208*	*0.201*	*0.204*	*0.205*	*0.206*	**0.821**	*0.824*	*0.816*
Ethanol (f)	**0.279**	**0.304**	**0.307**	**0.303**	**0.283**	**0.297**	**0.308**	*0.305*	*0.284*	*0.306*	*0.308*	*0.303*	**1.192**	*1.193*	*1.201*
Geothermal	**0.053**	**0.051**	**0.053**	**0.054**	**0.054**	**0.053**	**0.057**	*0.058*	*0.057*	*0.057*	*0.057*	*0.058*	**0.210**	*0.223*	*0.229*
Hydroelectric Power (a)	**0.734**	**0.848**	**0.621**	**0.564**	**0.710**	**0.791**	**0.577**	*0.532*	*0.626*	*0.745*	*0.638*	*0.543*	**2.767**	*2.610*	*2.552*
Solar (b)(e)	**0.136**	**0.236**	**0.236**	**0.166**	**0.183**	**0.295**	**0.286**	*0.200*	*0.209*	*0.324*	*0.325*	*0.229*	**0.774**	*0.964*	*1.087*
Waste Biomass (c)	**0.128**	**0.122**	**0.120**	**0.125**	**0.128**	**0.122**	**0.122**	*0.125*	*0.121*	*0.121*	*0.123*	*0.125*	**0.495**	*0.497*	*0.490*
Wood Biomass	**0.542**	**0.534**	**0.554**	**0.556**	**0.555**	**0.552**	**0.564**	*0.548*	*0.533*	*0.527*	*0.550*	*0.545*	**2.187**	*2.219*	*2.156*
Wind	**0.609**	**0.617**	**0.438**	**0.682**	**0.722**	**0.689**	**0.492**	*0.665*	*0.696*	*0.717*	*0.517*	*0.743*	**2.346**	*2.568*	*2.673*
Total Consumption	**2.735**	**2.985**	**2.605**	**2.728**	**2.887**	**3.064**	**2.653**	*2.727*	*2.787*	*3.078*	*2.813*	*2.847*	**11.053**	*11.331*	*11.526*

- = no data available

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

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

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

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - 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).