



Short-Term Energy Outlook (STEO)

Forecast highlights

Global liquid fuels

- Brent crude oil spot prices averaged \$74 per barrel (b) in July, largely unchanged from the average in June. EIA expects Brent spot prices will average \$72/b in 2018 and \$71/b in 2019. EIA expects West Texas Intermediate (WTI) crude oil prices will average about \$6/b lower than Brent prices in 2018 and in 2019. NYMEX WTI futures and options contract values for November 2018 delivery that traded during the five-day period ending August 2, 2018, suggest a range of \$54/b to \$84/b encompasses the market expectation for November WTI prices at the 95% confidence level.
- U.S. regular gasoline retail prices averaged \$2.85 gallon (gal) in July, down 4 cents/gal from the average in June. EIA expects that 2018 monthly average gasoline prices **peaked in May** and forecasts prices will remain relatively flat in the coming months, averaging \$2.83/gal in September. EIA expects regular gasoline retail prices to average \$2.76/gal in 2018 and in 2019.
- EIA estimates that U.S. crude oil production averaged 10.8 million barrels per day (b/d) in July, up 47,000 b/d from June. EIA forecasts that U.S. crude oil production will average 10.7 million b/d in 2018, up from **9.4 million b/d in 2017**, and will average 11.7 million b/d in 2019.
- EIA forecasts total global liquid fuels inventories to decrease by 0.3 million b/d in 2018 compared with 2017, followed by an increase of 0.3 million b/d in 2019. This outlook of relatively stable inventory levels over the forecast period contributes to a forecast of monthly average Brent crude oil prices remaining relatively stable between \$70/b and \$73/b, from August 2018 through the end of 2019.

Natural Gas

- EIA estimates dry natural gas production was 81.8 billion cubic feet per day (Bcf/d) in July, up 0.4 Bcf/d from June. EIA forecasts dry natural gas production will average 81.1 Bcf/d in 2018, up by 7.5 Bcf/d from 2017 and establishing a new record high. EIA expects natural gas production will rise again in 2019 to 84.1 Bcf/d.
- EIA forecasts that pipeline exports of natural gas, which averaged 6.7 Bcf/d in 2017, will average 7.0 Bcf/d in 2018 and 8.5 Bcf/d in 2019. Increasing natural gas production in the

United States and the completion of new pipelines that carry U.S. natural gas to demand centers in Mexico contribute to the expected increase. In June, two new pipelines in Mexico were placed in service that will distribute natural gas from the United States to destinations in Mexico. In addition, EIA forecasts exports of liquefied natural gas (LNG) rise from 1.9 Bcf/d in 2017 to 3.0 Bcf/d in 2018 and to 5.1 Bcf/d in 2019. This growth contributes to U.S. net exports of natural gas averaging 2.0 Bcf/d in 2018 and 5.4 Bcf/d in 2019, compared with 0.3 Bcf/d in 2017.

- EIA expects Henry Hub natural gas spot prices to average \$2.96/million British thermal units (MMBtu) in 2018 and \$3.10/MMBtu in 2019. NYMEX futures and options contract values for November 2018 delivery that traded during the five-day period ending August 2, 2018, suggest a range of \$2.33/MMBtu to \$3.48/MMBtu encompasses the market expectation for November Henry Hub natural gas prices at the 95% confidence level.

Electricity, coal, renewables, and emissions

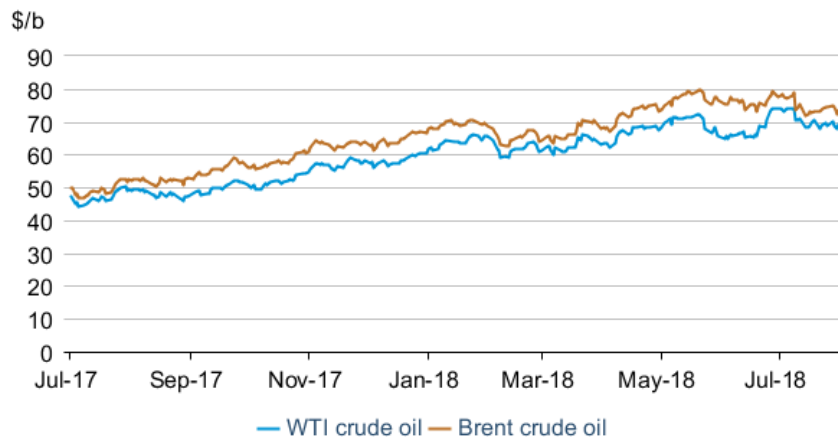
- EIA expects the share of U.S. total utility-scale electricity generation from natural gas-fired power plants to rise from 32% in 2017 to 34% in 2018 and to 35% in 2019. EIA's forecast electricity generation share from coal averages 28% in 2018 and 27% in 2019, down from 30% in 2017. The nuclear share of generation was 20% in 2017 and is forecast to be 20% in 2018 and then fall to 19% in 2019. Nonhydropower renewables provided slightly less than 10% of electricity generation in 2017 and EIA expects it to provide more than 10% in 2018 and nearly 11% in 2019. The generation share of hydropower was 7% in 2017 and is forecast to be about the same in 2018 and 2019.
- In 2017, EIA estimates that wind generation averaged 697,000 megawatthours per day (MWh/d). EIA forecasts that wind generation will rise by 7% to 746,000 MWh/d in 2018 and by 5% in to 782,000 MWh/d in 2019.
- Although solar power generates less electricity in the United States than wind power, solar power continues to grow. EIA expects solar generation will rise from 211,000 MWh/d in 2017 to 260,000 MWh/d in 2018 (an increase of 23%) and to 290,000 MWh/d in 2019 (an increase of 12%).
- EIA forecasts coal production will decline by 1.1% to 766 million short tons (MMst) in 2018 despite a 5.7% (6 MMst) increase in coal exports. The production decrease is largely attributable to a forecast decline of 2.1% (15 MMst) in domestic coal consumption in 2018. EIA expects coal production to decline by 1.8% (14 MMst) in 2019 because coal exports and coal consumption are both forecast to decrease.
- After declining by 0.9% in 2017, EIA forecasts that energy-related carbon dioxide (CO₂) emissions will rise by 2.0% in 2018. The increase largely reflects higher natural gas consumption because of a colder winter and warmer summer than in 2017. Emissions are forecast to decline by 0.8% in 2019. Energy-related CO₂ emissions are sensitive to changes in weather, economic growth, energy prices, and fuel mix.

Petroleum and natural gas markets review

Crude oil

Prices: The front-month futures price for Brent crude oil settled at \$73.45 per barrel (b) on August 2, a decrease of \$3.85/b from July 2. The front-month futures price for West Texas Intermediate (WTI) crude oil for delivery at Cushing, Oklahoma, decreased by \$4.98/b during the same period, settling at \$68.96/b on August 2 (**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 during July as several key oil producers increased production from the first half of 2018 and as a major supply disruption that many analysts expected to persist for several months was resolved quickly. Crude oil production from most members of the Organization of the Petroleum Exporting Countries (OPEC), Russia, and other exporting countries were estimated to be higher in July compared with the first-half average of 2018. In addition, a faster-than-expected return of Libyan crude oil production following last month's unplanned supply outage could have put downward pressure on crude oil prices. Despite these developments, oil supply disruption risk increased during July because of Iranian threats to block the [Strait of Hormuz](#) and Saudi Arabia's decision to halt oil shipments through the Bab al-Mandeb strait amid Yemeni Houthi rebel attacks. This increased disruption risk could be contributing to higher price volatility. Petroleum [inventories](#) remain slightly lower than five-year (2013–17) average levels, and any actual outages could cause crude oil prices to increase.

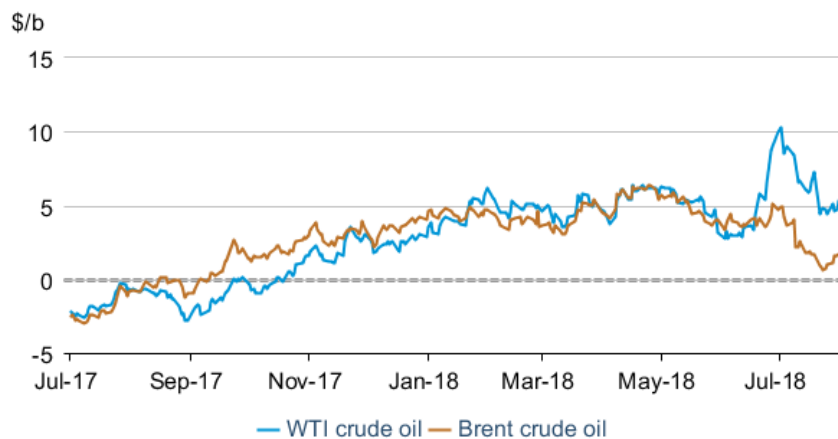
EIA forecasts that global petroleum inventories will decrease by an average of 0.1 million barrels per day (b/d) during the final five months of 2018 and then increase by an average of 0.3 million b/d in 2019. EIA forecasts Brent crude oil prices to average \$73/b in the second half of 2018 and to decline to an average of \$71/b in 2019. Although forecast inventory builds in 2019 put modest downward pressure on crude oil prices, competing upside and downside price risks will play a large role in price formation during the forecast period. Upside price risks stem largely from the possibility of supply outages amid a market where petroleum inventories are lower

than average and OPEC spare crude oil production capacity is low. Downside price risks stem largely from the demand side, because economic growth could be lower than expected and put downward pressure on oil demand growth and prices.

Increased supply availability in the Atlantic basin market has likely affected the shape of the Brent futures curve. The Brent 1st–13th month spread settled at \$1.73/b on August 2, a decrease of \$3.00/b since July 2, to reach the lowest levels since September 2017 (**Figure 2**). Price spreads in the front part of the Brent futures curve, such as the 1st–2nd month spread, have exhibited contango (when near-term futures contracts are lower than longer-dated ones) in recent weeks, suggesting near-term demand for crude oil in global waterborne markets is less than available supply.

In contrast to the waterborne crude oil market, local conditions in the North American midcontinent contributed to steep backwardation (when near-term prices are higher than longer-dated ones) in the middle of July. Crude oil [refinery inputs](#) in the Midwest, [Petroleum Administration for Defense District \(PADD\) 2](#), for example, reached a [record high](#) in early June and remained higher than the five-year range during July. Crude oil [inventories](#) in Cushing, Oklahoma, declined by more than 5 million barrels from June 29 through July 27. The WTI 1st–13th month spread approached a four-year high of \$10.24/b on July 3, eventually declining to \$5.32/b on August 2.

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

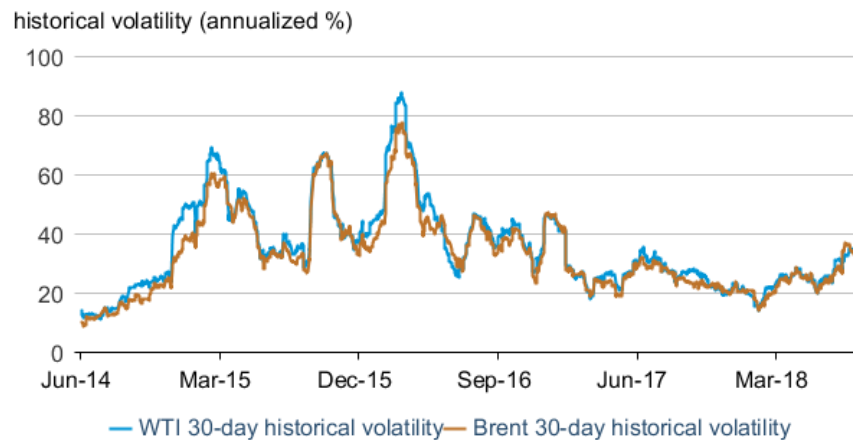


 CME Group and Intercontinental Exchange, as compiled by Bloomberg L.P.

Historical volatility: Unlike implied volatility, which is a calculated measure from options prices, [historical volatility](#) measures the magnitude of daily changes in closing prices for a commodity during a given time in the past. Brent and WTI 30-day historical volatility increased from July 2 to August 2, settling at 32.8% and 34.8%, respectively (**Figure 3**). In the second half of 2017, historical volatility had declined as Brent crude oil prices steadily increased from the mid-\$40/b level to more than \$60/b by the end of the year. Compliance with OPEC’s voluntary supply reductions was high and generally in line with market expectations. Global demand growth was also stable for most regions of the world. In contrast, different factors in 2018 could be

contributing to higher volatility. Price increases have been largely driven by unplanned supply disruptions and the potential for further supply losses later in 2018. In addition, concerns regarding the pace of future economic and oil consumption growth has likely contributed to demand-side uncertainty.

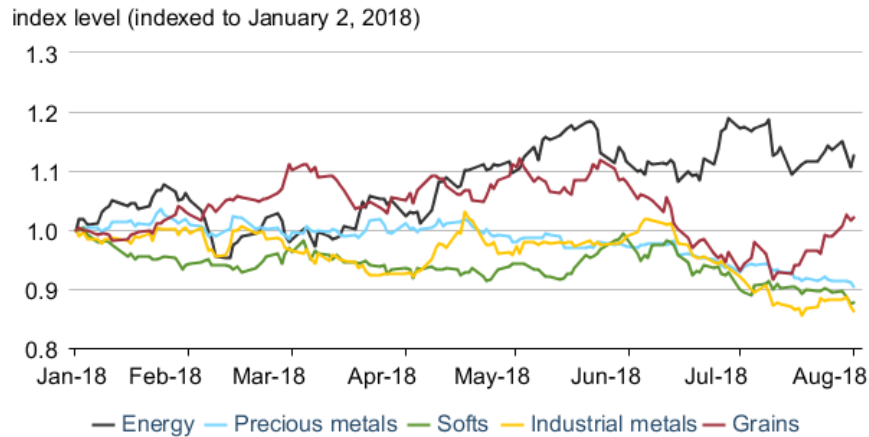
Figure 3. Crude oil historical volatility



 U.S. EIA, Bloomberg L.P.

Energy and nonenergy commodities: Energy commodity prices have increased more than prices for nonenergy commodities this year. The [Standard & Poor's Goldman Sachs Commodity Index \(S&P GSCI\)](#) energy component is heavily weighted toward crude oil and petroleum product prices. The S&P GSCI energy index is up 13% from the beginning of the year through August 2. During the same period the S&P GSCI grains index increased by 2%, the precious metals index declined by 10%, the softs index (which includes coffee, sugar, cocoa, and cotton) declined by 12%, and the industrial metals index declined by 14% (**Figure 4**). Oil supply disruptions and other petroleum-specific factors have likely contributed to the divergence in commodity price trends, with nonenergy commodity prices likely affected by tariffs.

Figure 4. Select S&P GSCI components



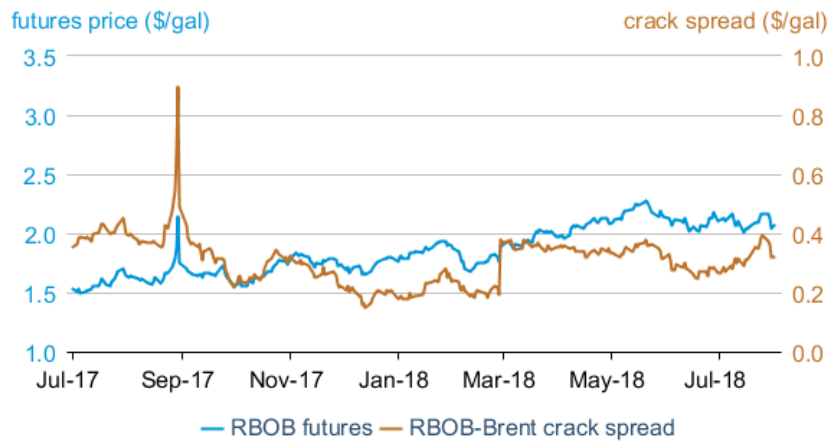
eia Bloomberg L.P.

Petroleum products

Gasoline prices: The front-month futures price of reformulated blendstock for oxygenate blending (RBOB, the petroleum component of gasoline used in many parts of the country) settled at \$2.07 per gallon (gal) on August 2 (**Figure 5**), a decrease of 4 cents/gal from July 2. The RBOB–Brent crack spread (the difference between the price of RBOB and the price of Brent crude oil) rose by 5 cents/gal to settle at 32 cents/gal over the same period.

The RBOB–Brent crack spread rose in July as total motor gasoline inventories fell for [five consecutive weeks](#) through the week ending July 27. EIA estimates that total motor gasoline inventories fell by 9.0 million barrels from June to July, compared with the five-year (2013–17) average decline of 2.7 million barrels during the same period.

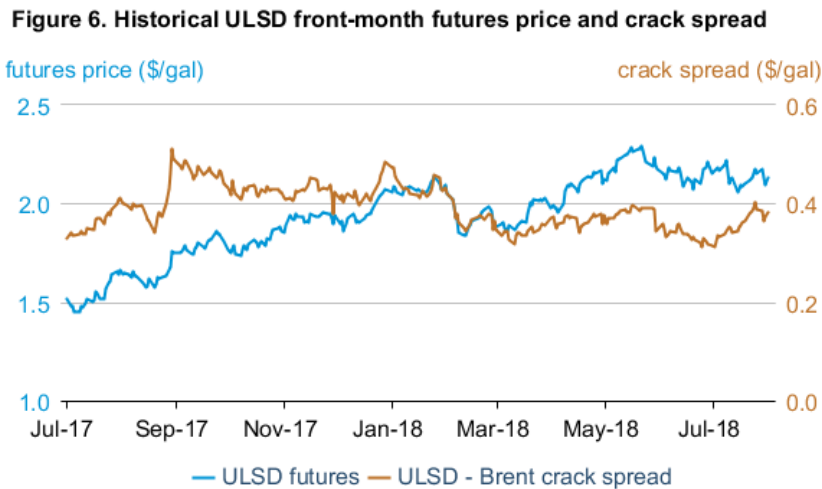
Figure 5. Historical RBOB front-month futures prices and crack spread



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 settled at \$2.13/gal on August 2 (**Figure 6**), a decrease of 2 cents/gal from July 2. The ULSD–Brent crack spread (the difference between the price of ULSD and the price of Brent crude oil) rose by 7 cents/gal to settle at 38 cents/gal over the same period.

Distillate stocks rose for the second consecutive month, increasing by 6.4 million barrels (5%) from June to July. Despite this increase, distillate inventories continue to [remain low for this time of year](#), which likely contributed to the increase in the crack spread. EIA forecasts that distillate stocks will be near or lower than the five-year low through December.

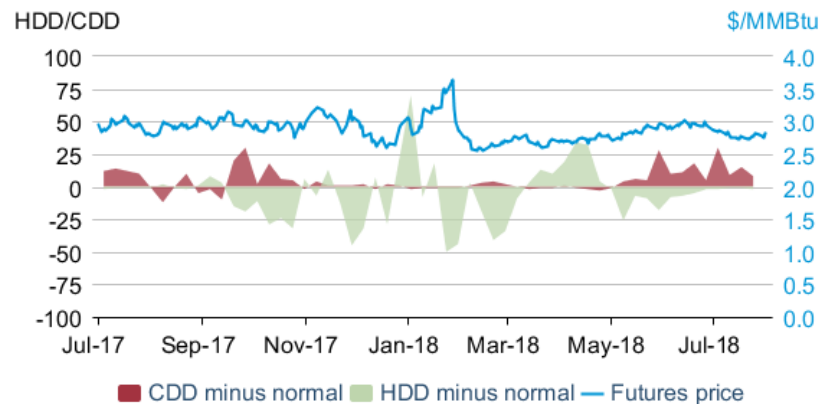


CME Group, as compiled by Bloomberg L.P., ULSD=ultra-low sulfur diesel

Natural Gas

Prices: The front-month natural gas futures contract for delivery at the Henry Hub settled at \$2.82/million British thermal units (MMBtu) on August 2, a decrease of 5 cents/MMBtu from July 2 (**Figure 7**). The Henry Hub natural gas spot price averaged \$2.84/MMBtu in July, 13 cents/MMBtu lower than in June. Both natural gas futures and spot prices fell despite the much hotter-than-normal weather for July. U.S. cooling degree days (CDD) averaged 11% higher than normal for July, which contributed to higher natural gas demand. EIA estimates that natural gas consumption for power generation reached a record high in July. The high demand likely slowed the pace of inventory injections. Natural gas inventories remained 565 billion cubic feet (Bcf) lower than the five-year (2013–17) average for the week ending July 27.

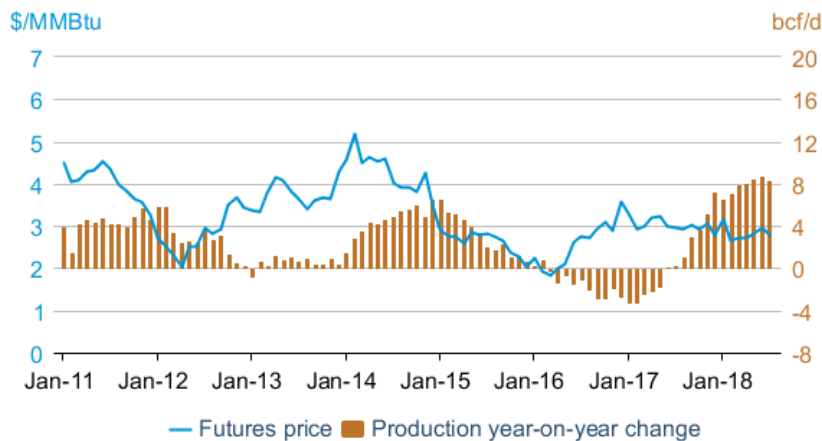
Figure 7. Natural gas front-month futures prices and actual minus historical average HDD and CDD



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

Production: Despite the record-high natural gas power burn and relatively low natural gas inventory levels, record-high natural gas production growth could be keeping prices from rising. EIA estimates that U.S. dry natural gas production reached 81.8 Bcf per day (Bcf/d) during July 2018, a year-over-year increase of 8.4 Bcf/d (11%) (**Figure 8**). March through July saw the largest year-on-year increases in natural gas production on record, as drilling productivity improvements contributed to accelerated production growth. EIA expects that natural gas production will continue to increase, reaching 84.3 Bcf/d by the end of 2019.

Figure 8. Natural gas futures prices and year-on-year change in production

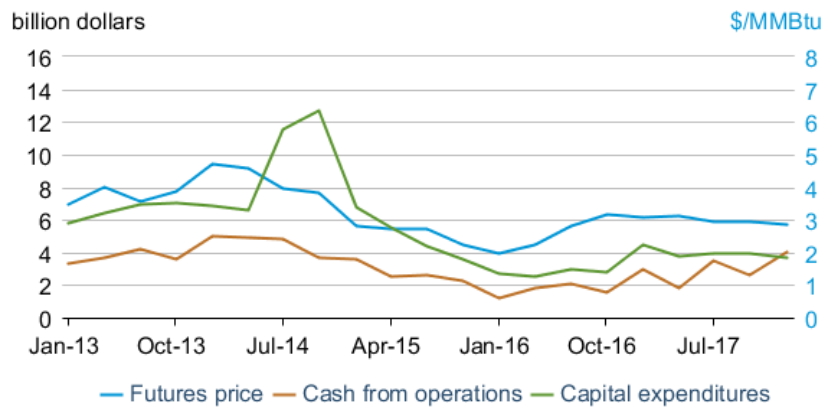


eia U.S. Energy Information Administration, CME Group, as compiled by Bloomberg L.P.

First-quarter 2018 financials: Cash flow from operations for 22 U.S. publicly traded oil and natural gas producers whose production is at least 60% natural gas rose to \$4 billion in the first quarter of 2018, the highest since the third quarter of 2014 (**Figure 9**). Natural gas production for this group of companies increased by 12% in the first quarter of 2018 from a year earlier, leading to higher upstream revenue and cash flow from operations even though futures prices

fell slightly during this period. Throughout 2017 and the first quarter of 2018, natural gas production steadily increased while capital expenditures remained relatively flat. Cash flow from operations exceeded capital expenditures in the first quarter of 2018 for the first time in five years, which may have contributed to these companies' decisions to spend more on share repurchases than in any quarter in the past five-year period.

Figure 9. Cash from operations and capital expenditures for 22 U.S. natural gas producers



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

Notable forecast changes

- EIA now forecasts Brent crude oil prices to average \$71 per barrel (b) and West Texas Intermediate (WTI) crude oil prices to average more than \$64/b in 2019. Both of these forecasts are \$2/b higher than the forecast from the July STEO. The higher price forecast reflects a lower forecast for global oil supply in 2019 that was only partially offset by lower forecast oil demand for next year. EIA now expects global oil inventories to rise by about 0.3 million b/d next year, which is almost 0.4 million b/d less than previously forecast.
- On June 22, 2018, the Republic of Congo (Congo Brazzaville) became the newest member of OPEC. Congo Brazzaville is the third-largest oil producer in the sub-Saharan region after Nigeria and Angola, and it is the seventh African nation to join the organization. Beginning with the August STEO, Congo Brazzaville's crude oil production is included in OPEC's total crude oil supply for both history and the forecast. In July, EIA estimates that Congo Brazzaville produced 325,000 b/d of crude oil.
- As a result of incoming data reported in the [Annual Electric Generator survey](#) (EIA-860), EIA has re-evaluated its assumptions for electric power sector solar capacity additions in 2019. The current STEO forecasts that 6.3 gigawatts (GW) of utility-scale solar capacity will come online in 2019, compared with a forecast of 11.4 GW of new capacity in the

July STEO. Most of these capacity additions are scheduled to come online in the fourth quarter of 2018.

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

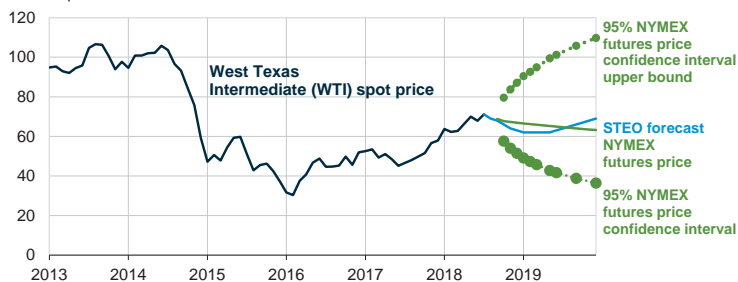
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Short-Term Energy Outlook

Chart Gallery for August 2018

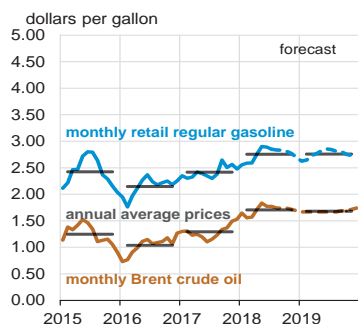
West Texas Intermediate (WTI) crude oil price and NYMEX confidence intervals
dollars per barrel



Note: Confidence interval derived from options market information for the five trading days ending Aug 2, 2018. Intervals not calculated for months with sparse trading in near-the-money options contracts.
Source: Short-Term Energy Outlook, August 2018, and CME Group

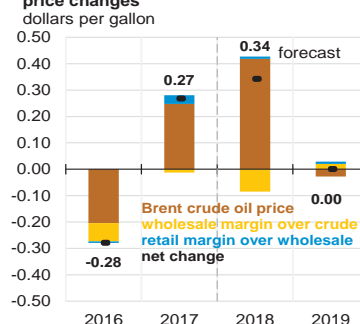


U.S. gasoline and crude oil prices

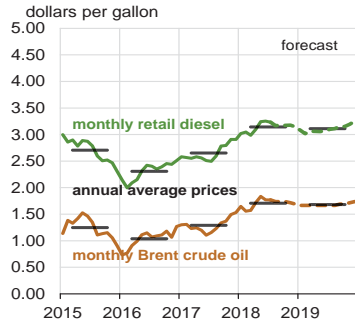


Source: Short-Term Energy Outlook, August 2018

Components of annual gasoline price changes

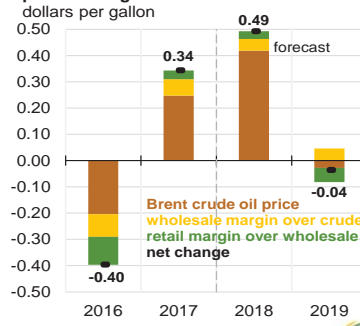


U.S. diesel and crude oil prices



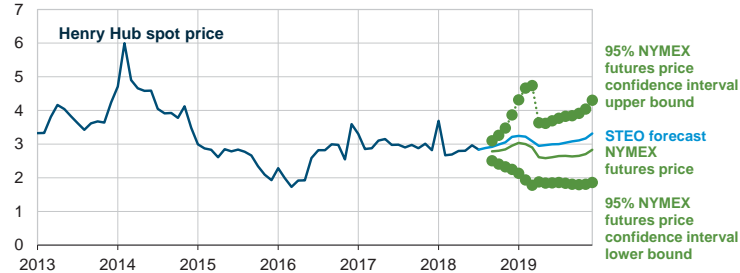
Source: Short-Term Energy Outlook, August 2018

Components of annual diesel prices changes



Henry Hub natural gas price and NYMEX confidence intervals

dollars per million Btu



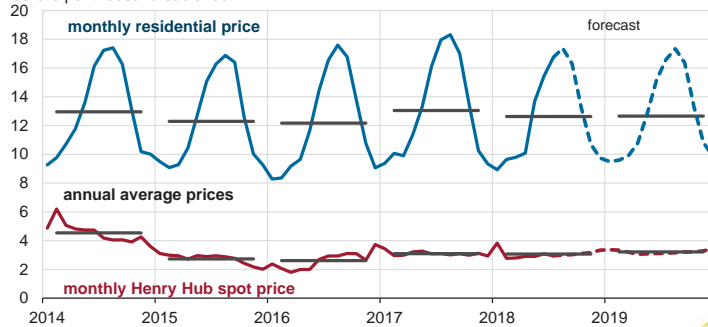
Note: Confidence interval derived from options market information for the five trading days ending Aug 2, 2018. Intervals not calculated for months with sparse trading in near-the-money options contracts.

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



U.S. natural gas prices

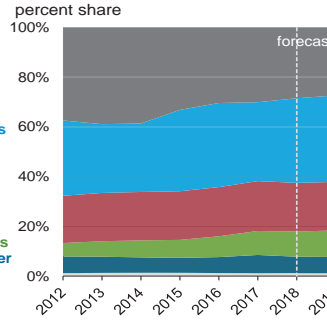
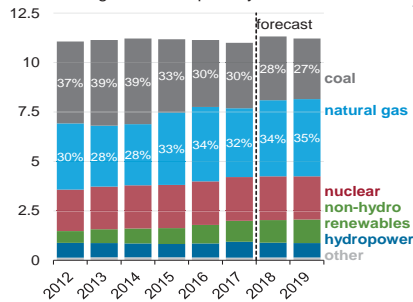
dollars per thousand cubic feet



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



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

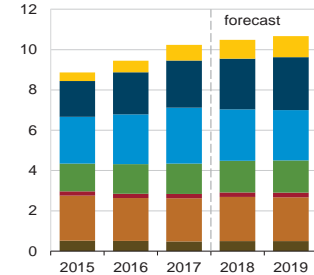


Note: Labels show percentage share of total generation provided by coal and natural gas.

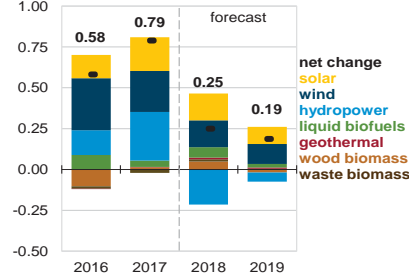
Source: Short-Term Energy Outlook, August 2018



U.S. renewable energy supply
quadrillion British thermal units



Components of annual change
quadrillion British thermal units

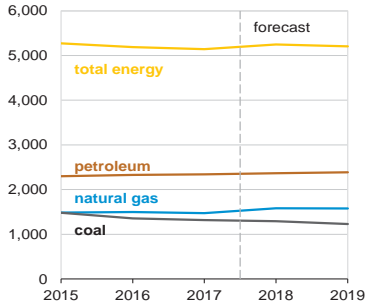


Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol and biodiesel. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste.

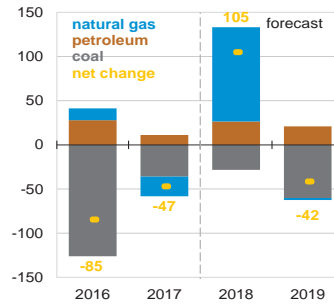
Source: Short-Term Energy Outlook, August 2018



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



Components of annual change
million metric tons

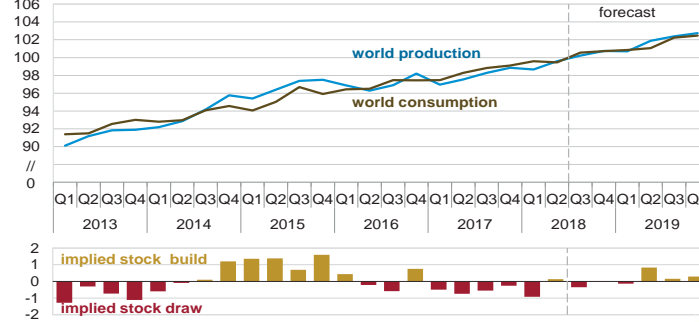


Source: Short-Term Energy Outlook, August 2018



World liquid fuels production and consumption balance

million barrels per day

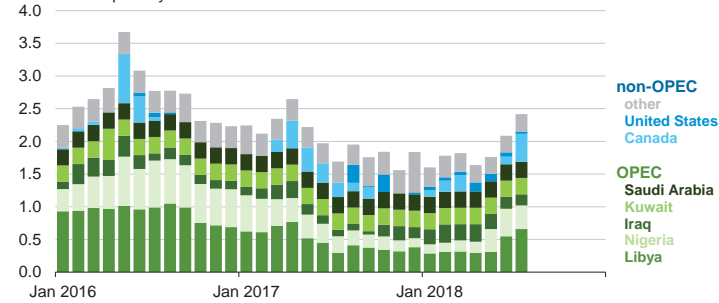


Source: Short-Term Energy Outlook, August 2018



Estimated unplanned liquid fuels production outages

million barrels per day

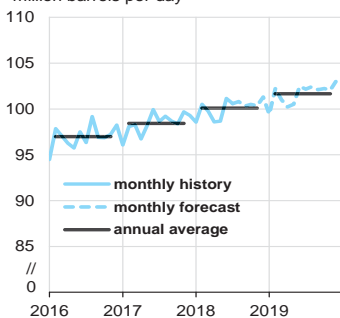


Source: Short-Term Energy Outlook, August 2018



World liquid fuels consumption

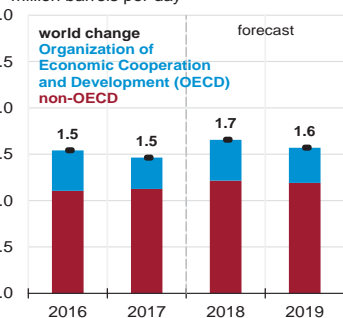
million barrels per day



Source: Short-Term Energy Outlook, August 2018

Components of annual change

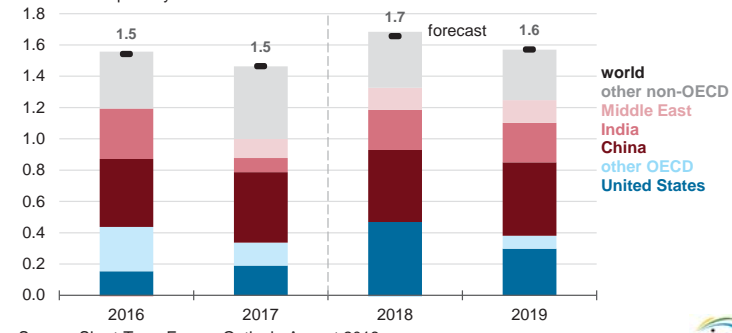
million barrels per day



Source: Short-Term Energy Outlook, August 2018



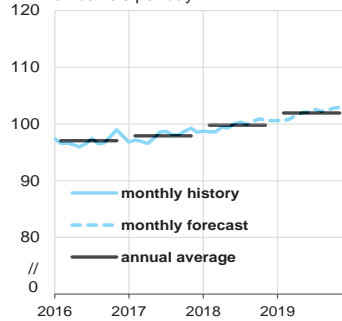
Annual change in world liquid fuels consumption
million barrels per day



Source: Short-Term Energy Outlook, August 2018

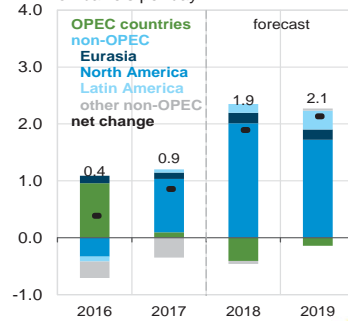


World crude oil and liquid fuels production
million barrels per day

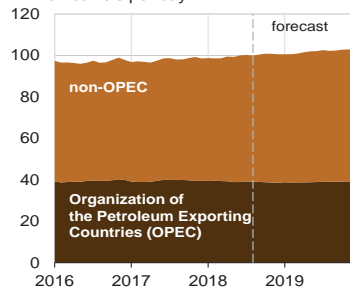


Source: Short-Term Energy Outlook, August 2018

Components of annual change
million barrels per day

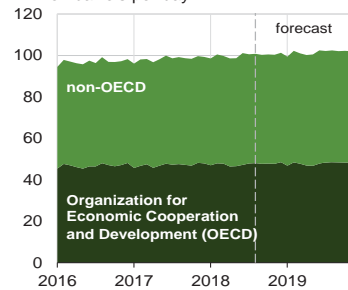


World liquid fuels production
million barrels per day

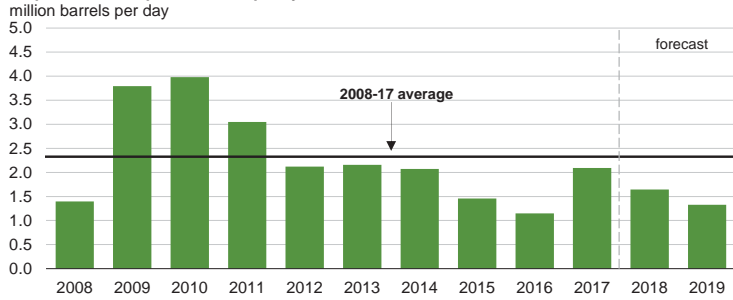


Source: Short-Term Energy Outlook, August 2018

World liquid fuels consumption
million barrels per day



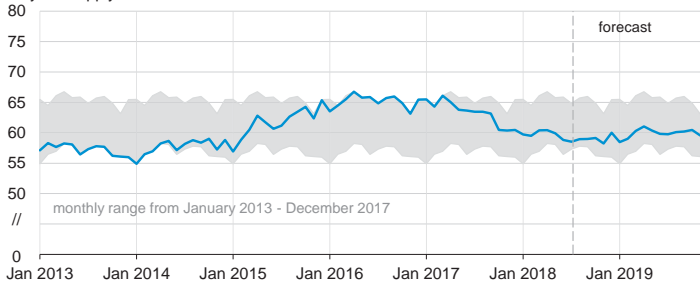
**Organization of the Petroleum Exporting Countries (OPEC)
surplus crude oil production capacity**



Note: Black line represents 2008-2017 average (2.3 million barrels per day).
Source: Short-Term Energy Outlook, August 2018



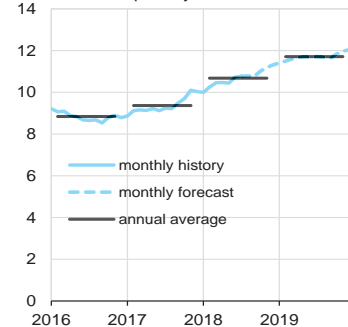
**Organization for Economic Cooperation and Development (OECD)
commercial inventories of crude oil and other liquids**



Source: Short-Term Energy Outlook, August 2018

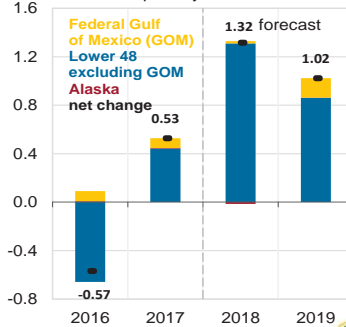


U.S. crude oil production

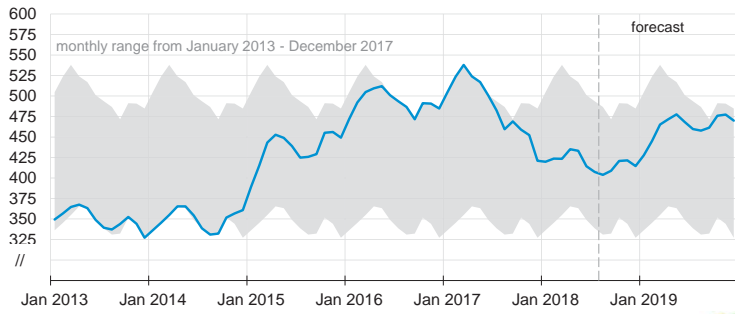


Source: Short-Term Energy Outlook, August 2018

Components of annual change



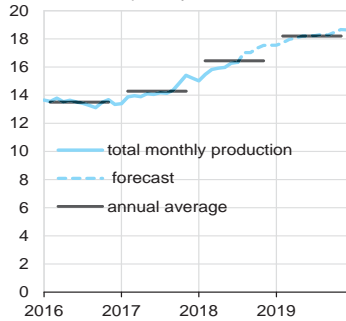
U.S. commercial crude oil inventories
million barrels



Source: Short-Term Energy Outlook, August 2018

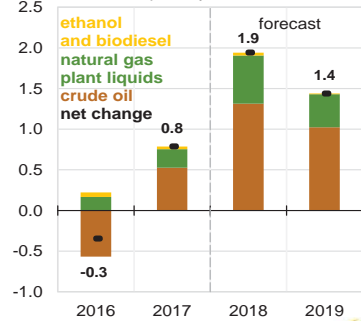


U.S. crude oil and liquid fuels production
million barrels per day

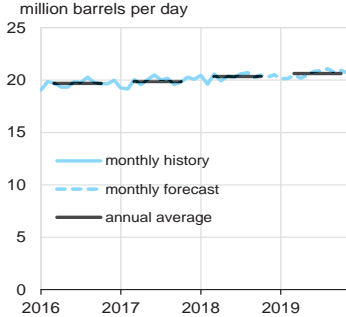


Source: Short-Term Energy Outlook, August 2018

Components of annual change
million barrels per day

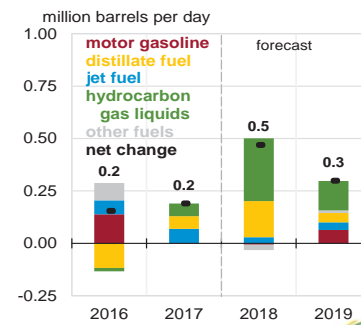


U.S. liquid fuels product supplied (consumption)
million barrels per day

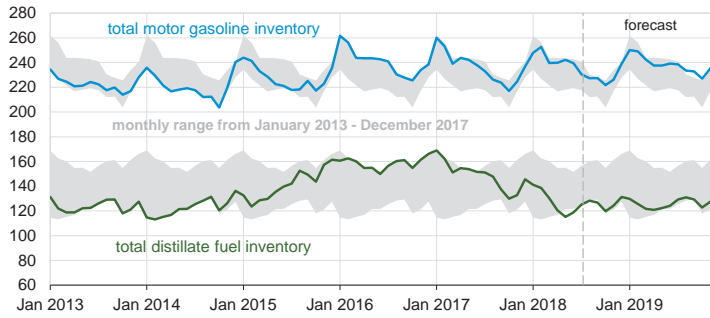


Source: Short-Term Energy Outlook, August 2018

Components of annual change
million barrels per day



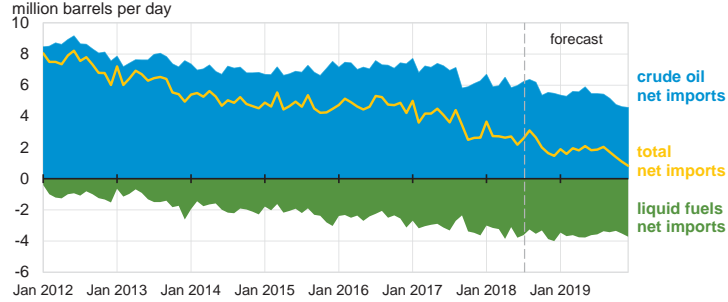
U.S. gasoline and distillate inventories
million barrels



Source: Short-Term Energy Outlook, August 2018



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

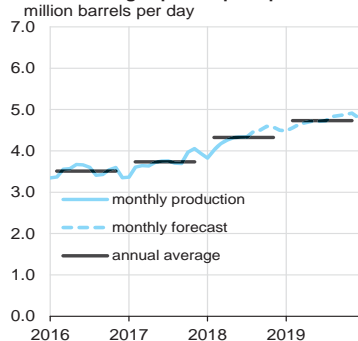


Note: Liquids fuels include: gasoline, distillate fuels, hydrocarbon gas liquids, jet fuel, residual fuel oil, unfinished oils, other hydrocarbons/oxygenates, and other oils.

Source: Short-Term Energy Outlook, August 2018

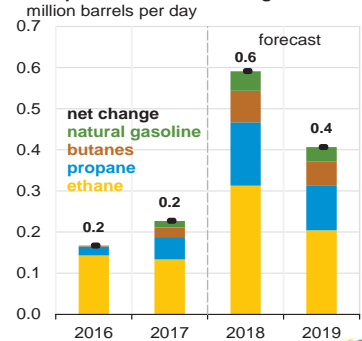


U.S. natural gas plant liquids production
million barrels per day

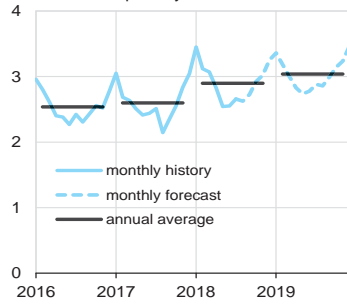


Source: Short-Term Energy Outlook, August 2018

Components of annual change
million barrels per day

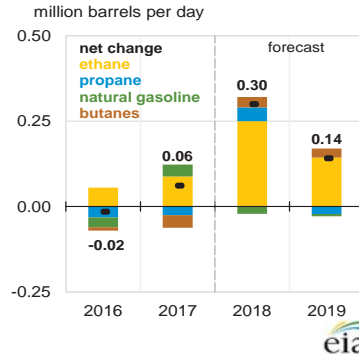


U.S. hydrocarbon gas liquids product supplied (consumption)
million barrels per day

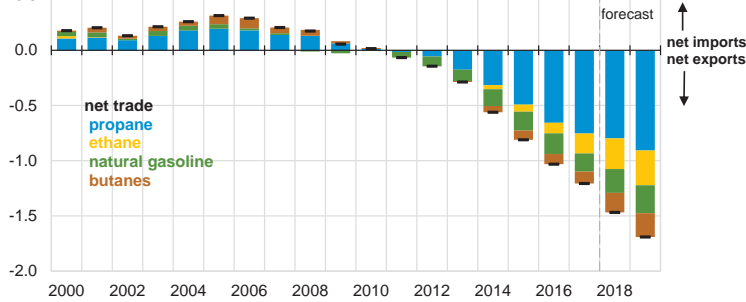


Source: Short-Term Energy Outlook, August 2018

Components of annual change



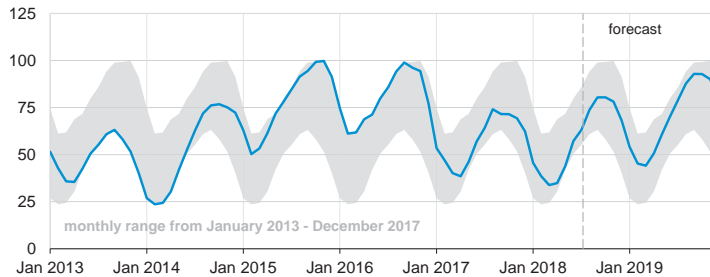
U.S. net trade of hydrocarbon gas liquids (HGL)
million barrels per day



Source: Short-Term Energy Outlook, August 2018



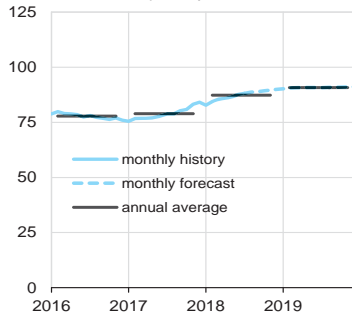
U.S. commercial propane inventories
million barrels



Source: Short-Term Energy Outlook, August 2018

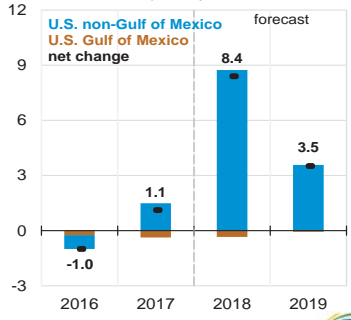


U.S. marketed natural gas production
billion cubic feet per day

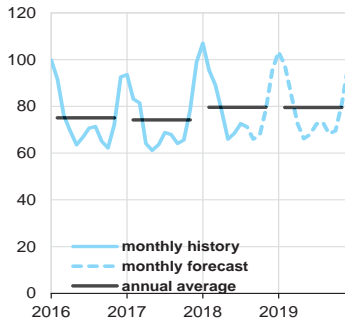


Source: Short-Term Energy Outlook, August 2018

Components of annual change
billion cubic feet per day

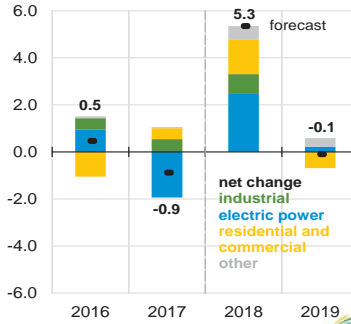


U.S. natural gas consumption
billion cubic feet per day

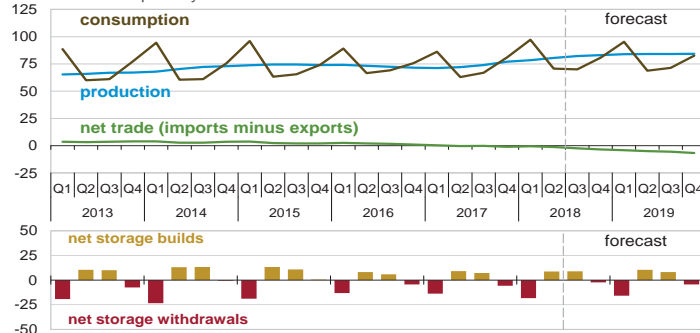


Source: Short-Term Energy Outlook, August 2018

Components of annual change
billion cubic feet per day



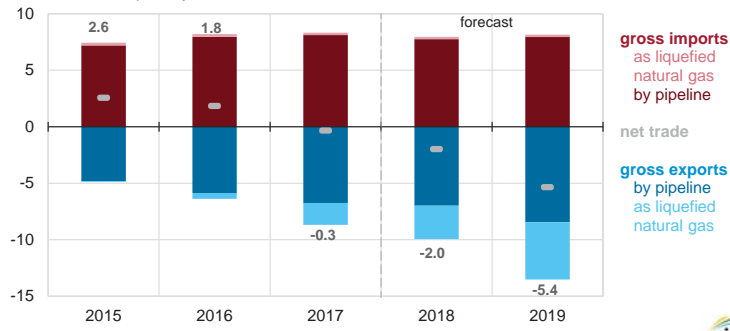
U.S. natural gas production, consumption, and net imports
billion cubic feet per day



Source: Short-Term Energy Outlook, August 2018



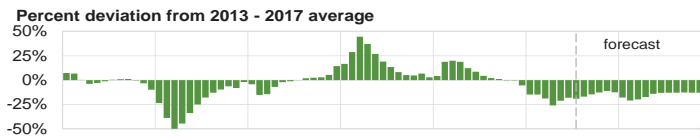
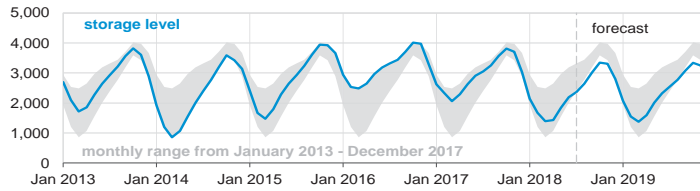
Annual natural gas trade
billion cubic feet per day



Source: Short-Term Energy Outlook, August 2018



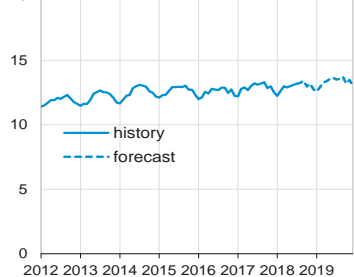
U.S. working natural gas in storage
billion cubic feet



Source: Short-Term Energy Outlook, August 2018

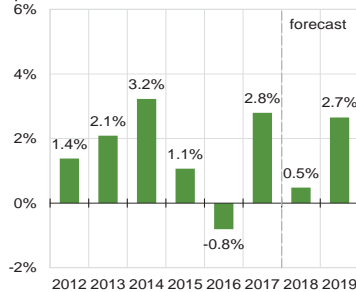


U.S. monthly residential electricity price
cents per kilowatthour

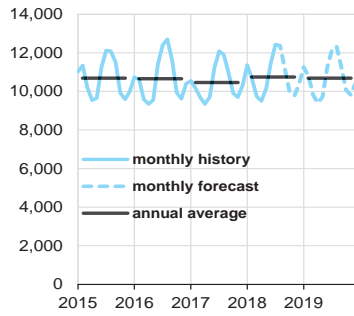


Source: Short-Term Energy Outlook, August 2018

Annual growth in residential electricity prices
percent

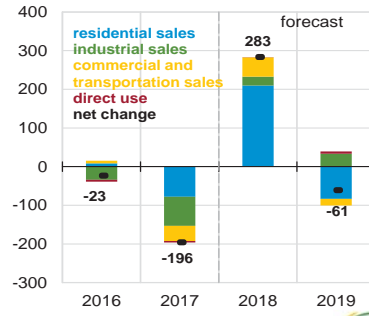


U.S. electricity consumption
million kilowatthours per day

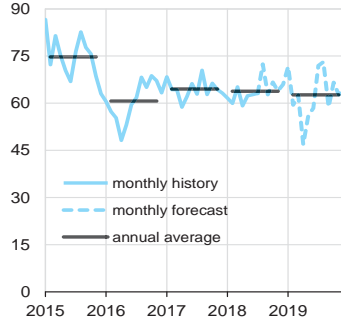


Source: Short-Term Energy Outlook, August 2018

Components of annual change
million kilowatthours per day

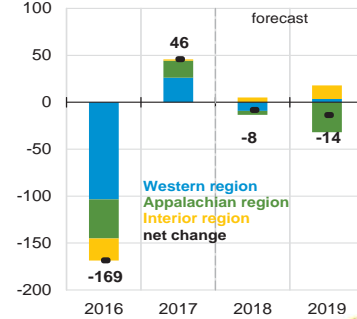


U.S. coal production
million short tons

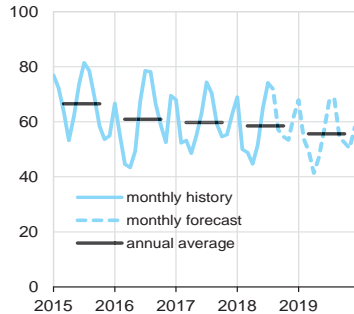


Source: Short-Term Energy Outlook, August 2018

Components of annual change
million short tons

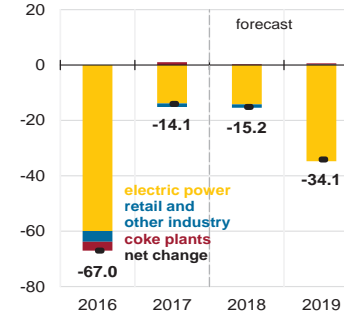


U.S. coal consumption
million short tons

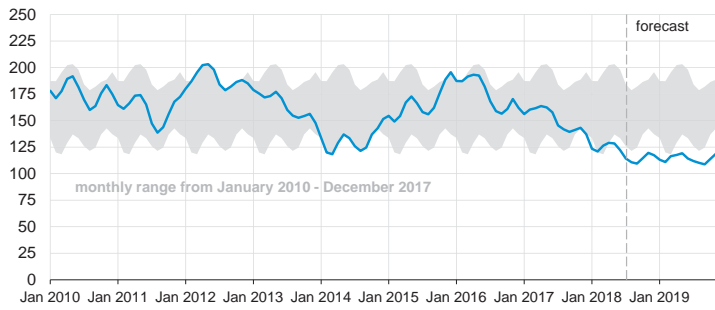


Source: Short-Term Energy Outlook, August 2018

Components of annual change
million short tons



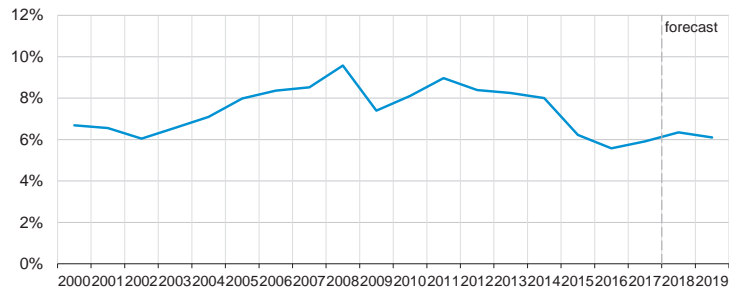
U.S. electric power coal inventories
million short tons



Source: Short-Term Energy Outlook, August 2018



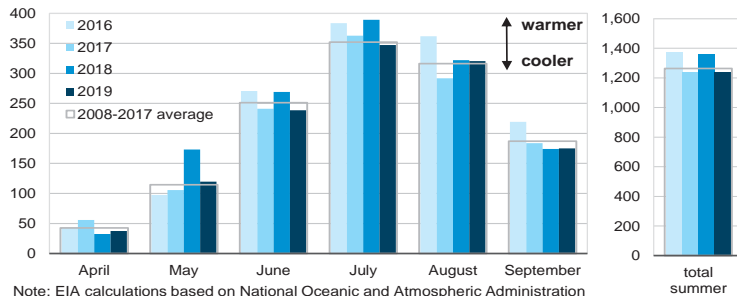
U.S. annual energy expenditures
share of gross domestic product



Source: Short-Term Energy Outlook, August 2018



U.S. summer cooling degree days
population-weighted

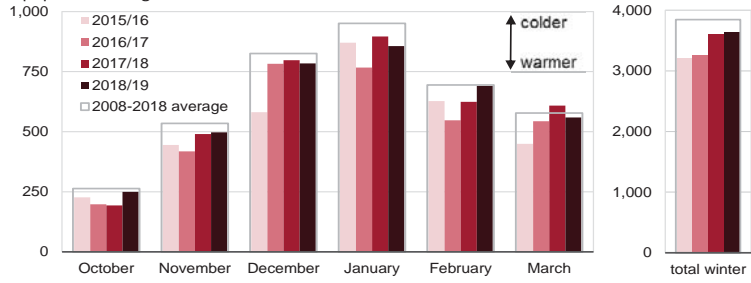


Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

Source: Short-Term Energy Outlook, August 2018



U.S. winter heating degree days
population-weighted

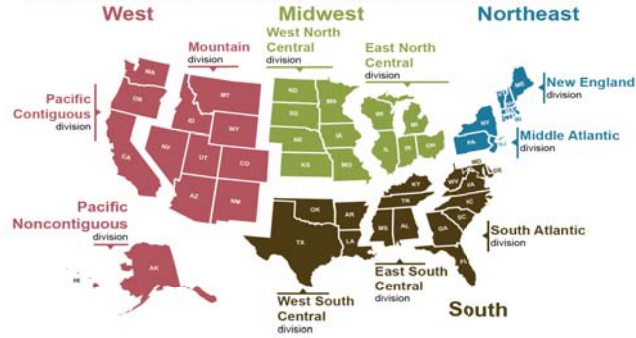


Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

Source: Short-Term Energy Outlook, August 2018



U.S. Census regions and divisions



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



Table 1. U.S. Energy Markets Summary

U.S. Energy Information Administration | Short-Term Energy Outlook - August 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)	9.04	9.16	9.31	9.94	10.23	10.54	10.77	11.17	11.50	11.69	11.68	11.94	9.37	10.68	11.70
Dry Natural Gas Production (billion cubic feet per day)	71.24	72.04	73.97	76.98	78.50	80.50	82.20	83.13	83.88	84.15	84.09	84.28	73.57	81.10	84.10
Coal Production (million short tons)	197	187	196	194	187	184	198	197	194	161	204	193	774	766	752
Energy Consumption															
Liquid Fuels (million barrels per day)	19.49	20.03	19.92	20.05	20.24	20.20	20.52	20.43	20.25	20.50	20.92	20.90	19.88	20.35	20.64
Natural Gas (billion cubic feet per day)	86.15	62.96	66.96	80.94	97.21	70.74	69.98	80.63	95.28	68.89	71.37		74.22	79.57	79.47
Coal (b) (million short tons)	173	167	204	173	168	161	203	170	171	145	191	161	717	702	668
Electricity (billion kilowatt hours per day)	10.13	10.08	11.66	9.98	10.59	10.37	11.98	10.05	10.62	10.11	11.91	10.11	10.47	10.75	10.69
Renewables (c) (quadrillion Btu)	2.78	2.98	2.57	2.66	2.87	2.97	2.65	2.71	2.77	3.05	2.78	2.82	10.99	11.20	11.42
Total Energy Consumption (d) (quadrillion Btu)	25.06	23.25	24.35	25.08	26.40	23.76	24.54	24.75	25.79	23.34	24.72	25.05	97.74	99.44	98.90
Energy Prices															
Crude Oil West Texas Intermediate Spot (dollars per barrel)	51.64	48.15	48.16	55.27	62.90	68.07	69.41	64.41	62.00	62.31	64.97	67.97	50.79	66.21	64.34
Natural Gas Henry Hub Spot (dollars per million Btu)	3.01	3.08	2.95	2.90	3.02	2.85	2.88	3.08	3.18	2.97	3.04	3.20	2.99	2.96	3.10
Coal (dollars per million Btu)	2.08	2.12	2.07	2.04	2.06	2.10	2.12	2.11	2.09	2.08	2.09	2.09	2.08	2.10	2.09
Macroeconomic															
Real Gross Domestic Product (billion chained 2009 dollars - SAAR)	16,903	17,031	17,164	17,286	17,372	17,575	17,687	17,816	17,926	18,021	18,104	18,180	17,096	17,612	18,058
Percent change from prior year	2.0	2.2	2.3	2.6	2.8	3.2	3.1	3.1	3.2	2.5	2.4	2.0	2.3	3.0	2.5
GDP Implicit Price Deflator (Index, 2009=100)	112.8	113.0	113.6	114.3	114.9	115.6	116.4	117.2	118.0	118.8	119.6	120.3	113.4	116.0	119.2
Percent change from prior year	2.0	1.6	1.8	1.9	1.9	2.2	2.4	2.5	2.7	2.8	2.8	2.7	1.8	2.3	2.7
Real Disposable Personal Income (billion chained 2009 dollars - SAAR)	12,680	12,766	12,788	12,827	12,940	13,003	13,055	13,170	13,311	13,402	13,491	13,587	12,765	13,042	13,448
Percent change from prior year	0.9	1.1	1.1	1.9	2.1	1.9	2.1	2.7	2.9	3.1	3.3	3.2	1.2	2.2	3.1
Manufacturing Production Index (Index, 2012=100)	102.0	102.7	102.2	103.6	104.1	104.9	105.4	106.3	107.0	107.4	107.8	108.1	102.6	105.2	107.6
Percent change from prior year	0.6	1.9	1.2	2.1	2.1	2.1	3.1	2.6	2.8	2.4	2.3	1.7	1.5	2.5	2.3
Weather															
U.S. Heating Degree-Days	1,859	427	65	1,481	2,131	523	70	1,531	2,106	478	77	1,531	3,832	4,255	4,193
U.S. Cooling Degree-Days	70	403	838	115	51	474	885	88	40	396	843	91	1,426	1,499	1,369

- = 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 - August 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	<i>69.41</i>	<i>64.41</i>	<i>62.00</i>	<i>62.31</i>	<i>64.97</i>	<i>67.97</i>	50.79	<i>66.21</i>	<i>64.34</i>
Brent Spot Average	53.57	49.59	52.09	61.42	66.84	74.53	<i>73.42</i>	<i>72.05</i>	<i>70.00</i>	<i>70.00</i>	<i>70.31</i>	<i>71.97</i>	54.15	<i>71.74</i>	<i>70.58</i>
U.S. Imported Average	47.94	46.25	47.42	55.10	58.08	63.79	<i>65.89</i>	<i>60.82</i>	<i>58.50</i>	<i>58.82</i>	<i>61.47</i>	<i>64.49</i>	48.98	<i>62.21</i>	<i>60.68</i>
U.S. Refiner Average Acquisition Cost	49.91	47.73	48.31	56.73	61.89	66.62	<i>68.40</i>	<i>63.30</i>	<i>61.00</i>	<i>61.33</i>	<i>63.97</i>	<i>67.02</i>	50.68	<i>65.12</i>	<i>63.33</i>
U.S. Liquid Fuels (cents per gallon)															
Refiner Prices for Resale															
Gasoline	163	165	172	175	186	214	<i>210</i>	<i>199</i>	<i>195</i>	<i>207</i>	<i>206</i>	<i>197</i>	169	<i>202</i>	<i>201</i>
Diesel Fuel	162	155	169	190	199	219	<i>222</i>	<i>220</i>	<i>211</i>	<i>212</i>	<i>219</i>	<i>225</i>	169	<i>215</i>	<i>217</i>
Heating Oil	154	144	154	179	193	206	<i>212</i>	<i>212</i>	<i>208</i>	<i>202</i>	<i>209</i>	<i>219</i>	160	<i>205</i>	<i>208</i>
Refiner Prices to End Users															
Jet Fuel	158	150	162	181	197	216	<i>219</i>	<i>217</i>	<i>209</i>	<i>209</i>	<i>216</i>	<i>222</i>	163	<i>212</i>	<i>214</i>
No. 6 Residual Fuel Oil (a)	128	120	124	140	149	160	<i>168</i>	<i>158</i>	<i>152</i>	<i>149</i>	<i>156</i>	<i>163</i>	129	<i>159</i>	<i>155</i>
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	233	238	244	251	258	285	<i>284</i>	<i>276</i>	<i>267</i>	<i>281</i>	<i>282</i>	<i>273</i>	242	<i>276</i>	<i>276</i>
Gasoline All Grades (b)	244	250	255	263	270	294	<i>293</i>	<i>287</i>	<i>278</i>	<i>293</i>	<i>293</i>	<i>285</i>	253	<i>286</i>	<i>288</i>
On-highway Diesel Fuel	257	255	263	287	302	320	<i>319</i>	<i>317</i>	<i>305</i>	<i>306</i>	<i>312</i>	<i>320</i>	265	<i>315</i>	<i>311</i>
Heating Oil	247	238	234	265	287	299	<i>306</i>	<i>308</i>	<i>308</i>	<i>293</i>	<i>296</i>	<i>310</i>	251	<i>297</i>	<i>305</i>
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	3.12	3.19	3.06	3.01	3.13	2.96	<i>2.99</i>	<i>3.20</i>	<i>3.30</i>	<i>3.08</i>	<i>3.15</i>	<i>3.32</i>	3.10	<i>3.07</i>	<i>3.21</i>
Henry Hub Spot (dollars per million Btu)	3.01	3.08	2.95	2.90	3.02	2.85	<i>2.88</i>	<i>3.08</i>	<i>3.18</i>	<i>2.97</i>	<i>3.04</i>	<i>3.20</i>	2.99	<i>2.96</i>	<i>3.10</i>
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	4.50	4.11	3.89	4.00	4.48	3.87	<i>3.91</i>	<i>4.30</i>	<i>4.64</i>	<i>4.02</i>	<i>4.01</i>	<i>4.43</i>	4.14	<i>4.16</i>	<i>4.29</i>
Commercial Sector	7.71	8.33	8.69	7.56	7.66	8.08	<i>8.67</i>	<i>7.87</i>	<i>7.80</i>	<i>8.25</i>	<i>8.67</i>	<i>7.98</i>	7.87	<i>7.90</i>	<i>8.02</i>
Residential Sector	9.73	13.00	17.74	10.19	9.39	11.83	<i>16.78</i>	<i>10.59</i>	<i>9.64</i>	<i>12.16</i>	<i>16.74</i>	<i>10.72</i>	10.92	<i>10.64</i>	<i>10.87</i>
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.08	2.12	2.07	2.04	2.06	2.10	<i>2.12</i>	<i>2.11</i>	<i>2.09</i>	<i>2.08</i>	<i>2.09</i>	<i>2.09</i>	2.08	<i>2.10</i>	<i>2.09</i>
Natural Gas	3.69	3.38	3.19	3.38	3.98	3.07	<i>3.25</i>	<i>3.53</i>	<i>3.73</i>	<i>3.19</i>	<i>3.21</i>	<i>3.58</i>	3.38	<i>3.43</i>	<i>3.40</i>
Residual Fuel Oil (c)	11.16	10.60	10.03	11.93	11.47	13.31	<i>13.65</i>	<i>13.57</i>	<i>13.63</i>	<i>14.08</i>	<i>13.30</i>	<i>13.15</i>	10.97	<i>12.75</i>	<i>13.54</i>
Distillate Fuel Oil	12.74	12.23	13.13	14.54	15.77	16.70	<i>17.05</i>	<i>17.02</i>	<i>16.45</i>	<i>16.44</i>	<i>16.81</i>	<i>17.43</i>	13.26	<i>16.38</i>	<i>16.77</i>
Retail Prices (cents per kilowatthour)															
Industrial Sector	6.64	6.89	7.27	6.79	6.79	6.91	<i>7.43</i>	<i>6.95</i>	<i>6.83</i>	<i>6.99</i>	<i>7.49</i>	<i>7.02</i>	6.91	<i>7.03</i>	<i>7.09</i>
Commercial Sector	10.39	10.68	11.03	10.56	10.51	10.71	<i>11.13</i>	<i>10.75</i>	<i>10.66</i>	<i>10.81</i>	<i>11.13</i>	<i>10.78</i>	10.68	<i>10.79</i>	<i>10.86</i>
Residential Sector	12.59	12.99	13.19	12.75	12.57	13.01	<i>13.27</i>	<i>12.95</i>	<i>12.88</i>	<i>13.54</i>	<i>13.58</i>	<i>13.21</i>	12.90	<i>12.96</i>	<i>13.31</i>

- = no data available

Prices are not adjusted for inflation.

(a) Average for all sulfur contents.

(b) Average self-service cash price.

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

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

Prices exclude taxes unless otherwise noted.

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - August 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	27.15	26.96	27.10	28.29	28.54	29.13	<i>29.41</i>	<i>30.51</i>	<i>30.78</i>	<i>31.12</i>	<i>31.19</i>	<i>31.72</i>	27.38	<i>29.40</i>	<i>31.21</i>
U.S. (50 States)	15.06	15.37	15.51	16.50	16.76	17.40	<i>17.79</i>	<i>18.29</i>	<i>18.54</i>	<i>18.96</i>	<i>19.06</i>	<i>19.38</i>	15.61	<i>17.57</i>	<i>18.99</i>
Canada	5.05	4.71	4.99	5.19	5.01	5.15	<i>4.92</i>	<i>5.39</i>	<i>5.41</i>	<i>5.40</i>	<i>5.45</i>	<i>5.49</i>	4.99	<i>5.12</i>	<i>5.44</i>
Mexico	2.35	2.34	2.19	2.16	2.18	2.17	<i>2.20</i>	<i>2.20</i>	<i>2.19</i>	<i>2.17</i>	<i>2.16</i>	<i>2.15</i>	2.26	<i>2.19</i>	<i>2.17</i>
Other OECD	4.69	4.54	4.42	4.44	4.60	4.41	<i>4.49</i>	<i>4.64</i>	<i>4.65</i>	<i>4.58</i>	<i>4.52</i>	<i>4.70</i>	4.52	<i>4.53</i>	<i>4.61</i>
Non-OECD	69.81	70.59	71.19	70.57	70.12	70.47	<i>70.81</i>	<i>70.23</i>	<i>69.93</i>	<i>70.76</i>	<i>71.20</i>	<i>71.03</i>	70.54	<i>70.41</i>	<i>70.74</i>
OPEC	39.03	39.53	39.96	39.60	39.59	39.07	<i>39.13</i>	<i>38.74</i>	<i>38.79</i>	<i>38.86</i>	<i>39.09</i>	<i>39.21</i>	39.54	<i>39.13</i>	<i>38.99</i>
Crude Oil Portion	32.25	32.52	33.16	32.78	32.68	32.31	<i>32.40</i>	<i>32.01</i>	<i>31.93</i>	<i>31.98</i>	<i>32.17</i>	<i>32.26</i>	32.68	<i>32.35</i>	<i>32.09</i>
Other Liquids (b)	6.78	7.01	6.81	6.82	6.91	6.76	<i>6.74</i>	<i>6.73</i>	<i>6.85</i>	<i>6.88</i>	<i>6.91</i>	<i>6.95</i>	6.86	<i>6.78</i>	<i>6.90</i>
Eurasia	14.43	14.30	14.22	14.32	14.40	14.45	<i>14.52</i>	<i>14.68</i>	<i>14.71</i>	<i>14.63</i>	<i>14.67</i>	<i>14.74</i>	14.32	<i>14.51</i>	<i>14.69</i>
China	4.81	4.82	4.74	4.75	4.76	4.81	<i>4.78</i>	<i>4.82</i>	<i>4.77</i>	<i>4.80</i>	<i>4.81</i>	<i>4.85</i>	4.78	<i>4.79</i>	<i>4.81</i>
Other Non-OECD	11.54	11.93	12.27	11.89	11.37	12.14	<i>12.38</i>	<i>11.99</i>	<i>11.66</i>	<i>12.47</i>	<i>12.64</i>	<i>12.23</i>	11.91	<i>11.97</i>	<i>12.25</i>
Total World Supply	96.97	97.55	98.29	98.85	98.66	99.60	<i>100.22</i>	<i>100.74</i>	<i>100.71</i>	<i>101.88</i>	<i>102.39</i>	<i>102.75</i>	97.92	<i>99.81</i>	<i>101.94</i>
Non-OPEC Supply	57.93	58.01	58.33	59.25	59.07	60.53	<i>61.09</i>	<i>62.00</i>	<i>61.92</i>	<i>63.02</i>	<i>63.31</i>	<i>63.54</i>	58.39	<i>60.68</i>	<i>62.95</i>
Consumption (million barrels per day) (c)															
OECD	46.68	46.83	47.39	47.67	47.60	46.76	<i>47.91</i>	<i>48.05</i>	<i>47.66</i>	<i>47.17</i>	<i>48.42</i>	<i>48.60</i>	47.14	<i>47.59</i>	<i>47.97</i>
U.S. (50 States)	19.49	20.03	19.92	20.05	20.24	20.20	<i>20.52</i>	<i>20.43</i>	<i>20.25</i>	<i>20.50</i>	<i>20.92</i>	<i>20.90</i>	19.88	<i>20.35</i>	<i>20.64</i>
U.S. Territories	0.15	0.15	0.13	0.09	0.09	0.09	<i>0.10</i>	<i>0.10</i>	<i>0.11</i>	<i>0.11</i>	<i>0.12</i>	<i>0.13</i>	0.13	<i>0.10</i>	<i>0.12</i>
Canada	2.37	2.36	2.52	2.52	2.32	2.32	<i>2.48</i>	<i>2.46</i>	<i>2.42</i>	<i>2.36</i>	<i>2.48</i>	<i>2.46</i>	2.44	<i>2.39</i>	<i>2.43</i>
Europe	13.82	14.25	14.70	14.40	14.09	14.24	<i>14.75</i>	<i>14.45</i>	<i>14.13</i>	<i>14.35</i>	<i>14.87</i>	<i>14.56</i>	14.30	<i>14.38</i>	<i>14.48</i>
Japan	4.30	3.58	3.63	4.06	4.27	3.42	<i>3.55</i>	<i>3.90</i>	<i>4.09</i>	<i>3.31</i>	<i>3.43</i>	<i>3.78</i>	3.89	<i>3.78</i>	<i>3.65</i>
Other OECD	6.54	6.45	6.48	6.55	6.60	6.50	<i>6.53</i>	<i>6.71</i>	<i>6.66</i>	<i>6.54</i>	<i>6.60</i>	<i>6.78</i>	6.50	<i>6.58</i>	<i>6.65</i>
Non-OECD	50.79	51.46	51.45	51.44	51.98	52.70	<i>52.65</i>	<i>52.67</i>	<i>53.19</i>	<i>53.89</i>	<i>53.82</i>	<i>53.87</i>	51.29	<i>52.50</i>	<i>53.69</i>
Eurasia	4.73	4.72	4.99	4.86	4.76	4.81	<i>5.08</i>	<i>4.96</i>	<i>4.82</i>	<i>4.87</i>	<i>5.14</i>	<i>5.02</i>	4.83	<i>4.91</i>	<i>4.96</i>
Europe	0.72	0.71	0.73	0.73	0.73	0.73	<i>0.75</i>	<i>0.75</i>	<i>0.74</i>	<i>0.74</i>	<i>0.76</i>	<i>0.76</i>	0.72	<i>0.74</i>	<i>0.75</i>
China	13.48	13.29	13.01	13.27	14.01	13.77	<i>13.43</i>	<i>13.67</i>	<i>14.52</i>	<i>14.24</i>	<i>13.88</i>	<i>14.13</i>	13.26	<i>13.72</i>	<i>14.19</i>
Other Asia	13.05	13.37	13.08	13.42	13.59	13.81	<i>13.51</i>	<i>13.83</i>	<i>14.08</i>	<i>14.25</i>	<i>13.86</i>	<i>14.19</i>	13.23	<i>13.68</i>	<i>14.09</i>
Other Non-OECD	18.80	19.36	19.65	19.15	18.88	19.58	<i>19.88</i>	<i>19.45</i>	<i>19.04</i>	<i>19.78</i>	<i>20.18</i>	<i>19.77</i>	19.24	<i>19.45</i>	<i>19.70</i>
Total World Consumption	97.47	98.28	98.84	99.11	99.58	99.46	<i>100.57</i>	<i>100.72</i>	<i>100.85</i>	<i>101.06</i>	<i>102.24</i>	<i>102.46</i>	98.43	<i>100.09</i>	<i>101.66</i>
Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)															
U.S. (50 States)	0.00	0.22	0.34	0.91	0.37	-0.07	<i>-0.28</i>	<i>0.28</i>	<i>-0.30</i>	<i>-0.56</i>	<i>-0.23</i>	<i>0.27</i>	0.37	<i>0.07</i>	<i>-0.20</i>
Other OECD	-0.38	0.08	0.34	0.48	-0.02	-0.01	<i>0.21</i>	<i>-0.10</i>	<i>0.15</i>	<i>-0.09</i>	<i>0.02</i>	<i>-0.19</i>	0.13	<i>0.02</i>	<i>-0.03</i>
Other Stock Draws and Balance	0.87	0.44	-0.12	-1.13	0.58	-0.06	<i>0.41</i>	<i>-0.20</i>	<i>0.29</i>	<i>-0.18</i>	<i>0.05</i>	<i>-0.36</i>	0.01	<i>0.18</i>	<i>-0.05</i>
Total Stock Draw	0.50	0.74	0.55	0.26	0.92	-0.13	<i>0.35</i>	<i>-0.02</i>	<i>0.14</i>	<i>-0.83</i>	<i>-0.16</i>	<i>-0.29</i>	0.51	<i>0.28</i>	<i>-0.28</i>
End-of-period Commercial Crude Oil and Other Liquids Inventories (million barrels)															
U.S. Commercial Inventory	1,338	1,330	1,305	1,232	1,196	1,208	<i>1,234</i>	<i>1,212</i>	<i>1,243</i>	<i>1,298</i>	<i>1,323</i>	<i>1,300</i>	1,232	<i>1,212</i>	<i>1,300</i>
OECD Commercial Inventory	3,028	3,012	2,961	2,844	2,806	2,818	<i>2,824</i>	<i>2,811</i>	<i>2,829</i>	<i>2,892</i>	<i>2,914</i>	<i>2,909</i>	2,844	<i>2,811</i>	<i>2,909</i>

- = no data available

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

OPEC = Organization of the Petroleum Exporting Countries: Algeria, Angola, Congo (Brazzaville), Ecuador, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, 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 - August 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
North America	22.46	22.42	22.68	23.85	23.95	24.72	<i>24.92</i>	<i>25.87</i>	<i>26.13</i>	<i>26.54</i>	<i>26.67</i>	<i>27.02</i>	22.86	<i>24.87</i>	<i>26.59</i>
Canada	5.05	4.71	4.99	5.19	5.01	5.15	<i>4.92</i>	<i>5.39</i>	<i>5.41</i>	<i>5.40</i>	<i>5.45</i>	<i>5.49</i>	4.99	<i>5.12</i>	<i>5.44</i>
Mexico	2.35	2.34	2.19	2.16	2.18	2.17	<i>2.20</i>	<i>2.20</i>	<i>2.19</i>	<i>2.17</i>	<i>2.16</i>	<i>2.15</i>	2.26	<i>2.19</i>	<i>2.17</i>
United States	15.06	15.37	15.51	16.50	16.76	17.40	<i>17.79</i>	<i>18.29</i>	<i>18.54</i>	<i>18.96</i>	<i>19.06</i>	<i>19.38</i>	15.61	<i>17.57</i>	<i>18.99</i>
Central and South America	4.91	5.40	5.70	5.33	4.88	5.70	<i>5.88</i>	<i>5.49</i>	<i>5.19</i>	<i>6.04</i>	<i>6.21</i>	<i>5.83</i>	5.34	<i>5.49</i>	<i>5.82</i>
Argentina	0.67	0.67	0.67	0.70	0.67	0.68	<i>0.67</i>	<i>0.69</i>	<i>0.65</i>	<i>0.67</i>	<i>0.66</i>	<i>0.68</i>	0.68	<i>0.68</i>	<i>0.67</i>
Brazil	2.95	3.44	3.73	3.32	2.94	3.71	<i>3.92</i>	<i>3.50</i>	<i>3.26</i>	<i>4.07</i>	<i>4.27</i>	<i>3.86</i>	3.36	<i>3.52</i>	<i>3.87</i>
Colombia	0.87	0.88	0.88	0.89	0.86	0.89	<i>0.88</i>	<i>0.88</i>	<i>0.87</i>	<i>0.88</i>	<i>0.87</i>	<i>0.88</i>	0.88	<i>0.88</i>	<i>0.87</i>
Other Central and S. America	0.42	0.41	0.42	0.42	0.40	0.42	<i>0.42</i>	<i>0.42</i>	<i>0.41</i>	<i>0.42</i>	<i>0.41</i>	<i>0.41</i>	0.42	<i>0.41</i>	<i>0.41</i>
Europe	4.21	4.05	3.92	3.96	4.09	3.88	<i>3.95</i>	<i>4.09</i>	<i>4.08</i>	<i>4.00</i>	<i>3.92</i>	<i>4.07</i>	4.04	<i>4.00</i>	<i>4.02</i>
Norway	2.08	2.00	1.91	1.92	1.97	1.77	<i>1.90</i>	<i>1.93</i>	<i>1.92</i>	<i>1.85</i>	<i>1.86</i>	<i>1.90</i>	1.98	<i>1.89</i>	<i>1.88</i>
United Kingdom	1.09	1.07	1.00	1.02	1.11	1.13	<i>1.06</i>	<i>1.17</i>	<i>1.18</i>	<i>1.18</i>	<i>1.09</i>	<i>1.19</i>	1.05	<i>1.12</i>	<i>1.16</i>
Eurasia	14.43	14.30	14.22	14.32	14.40	14.45	<i>14.52</i>	<i>14.68</i>	<i>14.71</i>	<i>14.63</i>	<i>14.67</i>	<i>14.74</i>	14.32	<i>14.51</i>	<i>14.69</i>
Azerbaijan	0.79	0.80	0.79	0.81	0.82	0.81	<i>0.79</i>	<i>0.78</i>	<i>0.79</i>	<i>0.79</i>	<i>0.78</i>	<i>0.76</i>	0.80	<i>0.80</i>	<i>0.78</i>
Kazakhstan	1.87	1.87	1.86	1.92	1.98	1.97	<i>2.00</i>	<i>2.07</i>	<i>2.08</i>	<i>1.97</i>	<i>2.01</i>	<i>2.08</i>	1.88	<i>2.00</i>	<i>2.03</i>
Russia	11.32	11.18	11.14	11.16	11.17	11.21	<i>11.27</i>	<i>11.38</i>	<i>11.40</i>	<i>11.43</i>	<i>11.44</i>	<i>11.46</i>	11.20	<i>11.26</i>	<i>11.43</i>
Turkmenistan	0.28	0.28	0.28	0.28	0.27	0.28	<i>0.29</i>	<i>0.29</i>	<i>0.28</i>	<i>0.28</i>	<i>0.28</i>	<i>0.28</i>	0.28	<i>0.28</i>	<i>0.28</i>
Other Eurasia	0.16	0.17	0.16	0.16	0.15	0.17	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	<i>0.16</i>	0.16	<i>0.17</i>	<i>0.16</i>
Middle East	1.07	1.07	1.07	1.08	1.08	1.09	<i>1.10</i>	<i>1.10</i>	<i>1.13</i>	<i>1.13</i>	<i>1.13</i>	<i>1.13</i>	1.08	<i>1.09</i>	<i>1.13</i>
Oman	0.98	0.98	0.98	0.98	0.98	0.98	<i>0.99</i>	<i>0.99</i>	<i>0.99</i>	<i>0.99</i>	<i>1.00</i>	<i>1.00</i>	0.98	<i>0.98</i>	<i>1.00</i>
Asia and Oceania	9.34	9.26	9.17	9.16	9.22	9.21	<i>9.25</i>	<i>9.30</i>	<i>9.24</i>	<i>9.25</i>	<i>9.28</i>	<i>9.31</i>	9.23	<i>9.25</i>	<i>9.27</i>
Australia	0.34	0.35	0.36	0.34	0.38	0.37	<i>0.37</i>	<i>0.38</i>	<i>0.39</i>	<i>0.41</i>	<i>0.42</i>	<i>0.45</i>	0.35	<i>0.37</i>	<i>0.42</i>
China	4.81	4.82	4.74	4.75	4.76	4.81	<i>4.78</i>	<i>4.82</i>	<i>4.77</i>	<i>4.80</i>	<i>4.81</i>	<i>4.85</i>	4.78	<i>4.79</i>	<i>4.81</i>
India	1.01	1.00	1.00	1.00	1.00	0.99	<i>1.00</i>	<i>0.99</i>	<i>0.99</i>	<i>0.98</i>	<i>1.00</i>	<i>0.99</i>	1.00	<i>1.00</i>	<i>0.99</i>
Indonesia	0.93	0.91	0.91	0.90	0.90	0.90	<i>0.90</i>	<i>0.90</i>	<i>0.88</i>	<i>0.87</i>	<i>0.85</i>	<i>0.84</i>	0.91	<i>0.90</i>	<i>0.86</i>
Malaysia	0.74	0.72	0.71	0.72	0.74	0.72	<i>0.73</i>	<i>0.73</i>	<i>0.73</i>	<i>0.72</i>	<i>0.71</i>	<i>0.70</i>	0.72	<i>0.73</i>	<i>0.72</i>
Vietnam	0.29	0.29	0.28	0.27	0.27	0.25	<i>0.26</i>	<i>0.26</i>	<i>0.26</i>	<i>0.25</i>	<i>0.26</i>	<i>0.26</i>	0.28	<i>0.26</i>	<i>0.26</i>
Africa	1.51	1.50	1.55	1.55	1.47	1.47	<i>1.47</i>	<i>1.47</i>	<i>1.43</i>	<i>1.43</i>	<i>1.43</i>	<i>1.44</i>	1.53	<i>1.47</i>	<i>1.43</i>
Egypt	0.64	0.65	0.66	0.66	0.63	0.63	<i>0.63</i>	<i>0.63</i>	<i>0.58</i>	<i>0.58</i>	<i>0.58</i>	<i>0.58</i>	0.65	<i>0.63</i>	<i>0.58</i>
South Sudan	0.15	0.15	0.15	0.15	0.12	0.12	<i>0.12</i>	<i>0.12</i>	<i>0.12</i>	<i>0.12</i>	<i>0.12</i>	<i>0.12</i>	0.15	<i>0.12</i>	<i>0.12</i>
Total non-OPEC liquids	57.93	58.01	58.33	59.25	59.07	60.53	<i>61.09</i>	<i>62.00</i>	<i>61.92</i>	<i>63.02</i>	<i>63.31</i>	<i>63.54</i>	58.39	<i>60.68</i>	<i>62.95</i>
OPEC non-crude liquids	6.78	7.01	6.81	6.82	6.91	6.76	<i>6.74</i>	<i>6.73</i>	<i>6.85</i>	<i>6.88</i>	<i>6.91</i>	<i>6.95</i>	6.86	<i>6.78</i>	<i>6.90</i>
Non-OPEC + OPEC non-crude	64.71	65.03	65.14	66.08	65.98	67.28	<i>67.82</i>	<i>68.73</i>	<i>68.78</i>	<i>69.90</i>	<i>70.22</i>	<i>70.50</i>	65.24	<i>67.46</i>	<i>69.85</i>
Unplanned non-OPEC Production Outages	0.43	0.68	0.63	0.54	0.53	0.40	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	0.57	<i>n/a</i>	<i>n/a</i>

- = no data available

OPEC = Organization of the Petroleum Exporting Countries: Algeria, Angola, Congo (Brazzaville), Ecuador, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates,

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

Supply includes production of crude oil (including lease condensates), natural gas plant liquids, biofuels, other liquids, and refinery processing gains.

Not all countries are shown in each region and sum of reported country volumes may not equal regional volumes.

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 3c. OPEC Crude Oil (excluding condensates) Supply (million barrels per day)

U.S. Energy Information Administration | Short-Term Energy Outlook - August 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	-	-
Angola	1.64	1.66	1.66	1.63	1.59	1.54	-	-	-	-	-	-	1.65	-	-
Congo (Brazzaville)	0.18	0.20	0.27	0.30	0.34	0.35	-	-	-	-	-	-	0.24	-	-
Ecuador	0.53	0.53	0.54	0.52	0.51	0.52	-	-	-	-	-	-	0.53	-	-
Equatorial Guinea	0.14	0.14	0.13	0.13	0.14	0.13	-	-	-	-	-	-	0.13	-	-
Gabon	0.19	0.20	0.20	0.20	0.20	0.20	-	-	-	-	-	-	0.20	-	-
Iran	3.80	3.81	3.83	3.84	3.83	3.80	-	-	-	-	-	-	3.82	-	-
Iraq	4.46	4.44	4.50	4.36	4.46	4.49	-	-	-	-	-	-	4.44	-	-
Kuwait	2.74	2.71	2.72	2.72	2.71	2.71	-	-	-	-	-	-	2.72	-	-
Libya	0.65	0.72	0.94	0.95	1.00	0.92	-	-	-	-	-	-	0.82	-	-
Nigeria	1.38	1.49	1.68	1.72	1.72	1.53	-	-	-	-	-	-	1.57	-	-
Qatar	0.62	0.61	0.61	0.60	0.61	0.61	-	-	-	-	-	-	0.61	-	-
Saudi Arabia	9.98	10.09	10.18	10.12	10.10	10.22	-	-	-	-	-	-	10.09	-	-
United Arab Emirates	2.92	2.90	2.92	2.90	2.88	2.86	-	-	-	-	-	-	2.91	-	-
Venezuela	1.99	1.97	1.95	1.78	1.57	1.42	-	-	-	-	-	-	1.92	-	-
OPEC Total	32.25	32.52	33.16	32.78	32.68	32.31	<i>32.40</i>	<i>32.01</i>	<i>31.93</i>	<i>31.98</i>	<i>32.17</i>	<i>32.26</i>	32.68	<i>32.35</i>	<i>32.09</i>
Other Liquids (a)	6.78	7.01	6.81	6.82	6.91	6.76	<i>6.74</i>	<i>6.73</i>	<i>6.85</i>	<i>6.88</i>	<i>6.91</i>	<i>6.95</i>	6.86	<i>6.78</i>	<i>6.90</i>
Total OPEC Supply	39.03	39.53	39.96	39.60	39.59	39.07	<i>39.13</i>	<i>38.74</i>	<i>38.79</i>	<i>38.86</i>	<i>39.09</i>	<i>39.21</i>	39.54	<i>39.13</i>	<i>38.99</i>
Crude Oil Production Capacity															
Africa	5.22	5.44	5.91	5.94	6.00	5.68	<i>5.37</i>	<i>5.53</i>	<i>5.62</i>	<i>5.64</i>	<i>5.68</i>	<i>5.76</i>	5.63	<i>5.64</i>	<i>5.68</i>
Middle East	26.70	26.69	26.71	26.64	26.51	26.52	<i>26.60</i>	<i>26.51</i>	<i>26.44</i>	<i>26.33</i>	<i>26.36</i>	<i>26.40</i>	26.69	<i>26.53</i>	<i>26.38</i>
South America	2.53	2.51	2.49	2.31	2.08	1.94	<i>1.75</i>	<i>1.49</i>	<i>1.42</i>	<i>1.38</i>	<i>1.34</i>	<i>1.29</i>	2.46	<i>1.81</i>	<i>1.35</i>
OPEC Total	34.45	34.64	35.11	34.88	34.59	34.14	<i>33.72</i>	<i>33.53</i>	<i>33.48</i>	<i>33.34</i>	<i>33.38</i>	<i>33.45</i>	34.77	<i>33.99</i>	<i>33.41</i>
Surplus Crude Oil Production Capacity															
Africa	0.00	0.00	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	0.00	<i>0.00</i>	<i>0.00</i>
Middle East	2.19	2.13	1.95	2.10	1.91	1.82	<i>1.33</i>	<i>1.53</i>	<i>1.55</i>	<i>1.36</i>	<i>1.21</i>	<i>1.19</i>	2.09	<i>1.64</i>	<i>1.33</i>
South America	0.00	0.00	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	0.00	<i>0.00</i>	<i>0.00</i>
OPEC Total	2.19	2.13	1.95	2.10	1.91	1.82	<i>1.33</i>	<i>1.53</i>	<i>1.55</i>	<i>1.36</i>	<i>1.21</i>	<i>1.19</i>	2.09	<i>1.64</i>	<i>1.33</i>
Unplanned OPEC Production Outages	1.81	1.60	1.17	1.21	1.21	1.42	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	1.45	<i>n/a</i>	<i>n/a</i>

- = no data available

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				2017	2018	2019
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
North America	23.89	24.43	24.41	24.52	24.56	24.49	<i>24.94</i>	<i>24.86</i>	<i>24.62</i>	<i>24.83</i>	<i>25.35</i>	<i>25.34</i>	24.32	<i>24.71</i>	<i>25.04</i>
Canada	2.37	2.36	2.52	2.52	2.32	2.32	<i>2.48</i>	<i>2.46</i>	<i>2.42</i>	<i>2.36</i>	<i>2.48</i>	<i>2.46</i>	2.44	<i>2.39</i>	<i>2.43</i>
Mexico	2.02	2.03	1.95	1.93	1.99	1.96	<i>1.93</i>	<i>1.97</i>	<i>1.94</i>	<i>1.95</i>	<i>1.95</i>	<i>1.98</i>	1.98	<i>1.96</i>	<i>1.95</i>
United States	19.49	20.03	19.92	20.05	20.24	20.20	<i>20.52</i>	<i>20.43</i>	<i>20.25</i>	<i>20.50</i>	<i>20.92</i>	<i>20.90</i>	19.88	<i>20.35</i>	<i>20.64</i>
Central and South America	6.96	7.02	7.10	7.03	6.84	6.85	<i>7.05</i>	<i>7.06</i>	<i>6.77</i>	<i>6.96</i>	<i>7.09</i>	<i>7.10</i>	7.03	<i>6.95</i>	<i>6.98</i>
Brazil	3.02	3.01	3.09	3.10	3.03	2.96	<i>3.16</i>	<i>3.18</i>	<i>3.01</i>	<i>3.09</i>	<i>3.19</i>	<i>3.23</i>	3.06	<i>3.08</i>	<i>3.13</i>
Europe	14.50	14.92	15.38	15.09	14.78	14.93	<i>15.45</i>	<i>15.16</i>	<i>14.83</i>	<i>15.05</i>	<i>15.58</i>	<i>15.28</i>	14.98	<i>15.08</i>	<i>15.19</i>
Eurasia	4.77	4.77	5.03	4.90	4.80	4.85	<i>5.13</i>	<i>5.00</i>	<i>4.86</i>	<i>4.91</i>	<i>5.19</i>	<i>5.06</i>	4.87	<i>4.95</i>	<i>5.00</i>
Russia	3.61	3.62	3.82	3.69	3.61	3.68	<i>3.89</i>	<i>3.76</i>	<i>3.66</i>	<i>3.73</i>	<i>3.94</i>	<i>3.81</i>	3.68	<i>3.73</i>	<i>3.78</i>
Middle East	8.23	8.76	9.09	8.48	8.30	9.02	<i>9.21</i>	<i>8.59</i>	<i>8.48</i>	<i>9.05</i>	<i>9.40</i>	<i>8.78</i>	8.64	<i>8.78</i>	<i>8.93</i>
Asia and Oceania	34.80	34.11	33.66	34.81	35.91	34.96	<i>34.51</i>	<i>35.60</i>	<i>36.85</i>	<i>35.82</i>	<i>35.25</i>	<i>36.36</i>	34.34	<i>35.24</i>	<i>36.07</i>
China	13.48	13.29	13.01	13.27	14.01	13.77	<i>13.43</i>	<i>13.67</i>	<i>14.52</i>	<i>14.24</i>	<i>13.88</i>	<i>14.13</i>	13.26	<i>13.72</i>	<i>14.19</i>
Japan	4.30	3.58	3.63	4.06	4.27	3.42	<i>3.55</i>	<i>3.90</i>	<i>4.09</i>	<i>3.31</i>	<i>3.43</i>	<i>3.78</i>	3.89	<i>3.78</i>	<i>3.65</i>
India	4.40	4.64	4.42	4.75	4.75	4.88	<i>4.66</i>	<i>4.95</i>	<i>5.09</i>	<i>5.17</i>	<i>4.84</i>	<i>5.15</i>	4.55	<i>4.81</i>	<i>5.06</i>
Africa	4.31	4.27	4.16	4.28	4.38	4.36	<i>4.28</i>	<i>4.44</i>	<i>4.44</i>	<i>4.45</i>	<i>4.38</i>	<i>4.55</i>	4.26	<i>4.37</i>	<i>4.45</i>
Total OECD Liquid Fuels Consumption	46.68	46.83	47.39	47.67	47.60	46.76	<i>47.91</i>	<i>48.05</i>	<i>47.66</i>	<i>47.17</i>	<i>48.42</i>	<i>48.60</i>	47.14	<i>47.59</i>	<i>47.97</i>
Total non-OECD Liquid Fuels Consumption	50.79	51.46	51.45	51.44	51.98	52.70	<i>52.65</i>	<i>52.67</i>	<i>53.19</i>	<i>53.89</i>	<i>53.82</i>	<i>53.87</i>	51.29	<i>52.50</i>	<i>53.69</i>
Total World Liquid Fuels Consumption	97.47	98.28	98.84	99.11	99.58	99.46	<i>100.57</i>	<i>100.72</i>	<i>100.85</i>	<i>101.06</i>	<i>102.24</i>	<i>102.46</i>	98.43	<i>100.09</i>	<i>101.66</i>
Oil-weighted Real Gross Domestic Product (a)															
World Index, 2015 Q1 = 100	105.7	106.5	107.3	108.2	109.3	110.0	<i>110.8</i>	<i>111.7</i>	<i>112.7</i>	<i>113.4</i>	<i>114.3</i>	<i>115.1</i>	106.9	<i>110.5</i>	<i>113.9</i>
Percent change from prior year	3.6	2.9	3.1	3.1	3.4	3.3	<i>3.3</i>	<i>3.2</i>	<i>3.1</i>	<i>3.1</i>	<i>3.1</i>	<i>3.0</i>	3.2	<i>3.3</i>	<i>3.1</i>
OECD Index, 2015 Q1 = 100	103.9	104.4	105.1	105.8	106.5	107.1	<i>107.6</i>	<i>108.2</i>	<i>108.9</i>	<i>109.3</i>	<i>109.8</i>	<i>110.2</i>	104.8	<i>107.4</i>	<i>109.6</i>
Percent change from prior year	3.0	2.1	2.4	2.4	2.6	2.6	<i>2.4</i>	<i>2.3</i>	<i>2.2</i>	<i>2.0</i>	<i>2.0</i>	<i>1.8</i>	2.5	<i>2.5</i>	<i>2.0</i>
Non-OECD Index, 2015 Q1 = 100	107.5	108.5	109.5	110.6	111.9	112.8	<i>113.9</i>	<i>115.1</i>	<i>116.4</i>	<i>117.5</i>	<i>118.7</i>	<i>119.9</i>	109.0	<i>113.4</i>	<i>118.1</i>
Percent change from prior year	4.2	3.6	3.8	3.7	4.1	4.0	<i>4.1</i>	<i>4.1</i>	<i>4.0</i>	<i>4.1</i>	<i>4.1</i>	<i>4.2</i>	3.8	<i>4.1</i>	<i>4.1</i>
Real U.S. Dollar Exchange Rate (a)															
Index, 2015 Q1 = 100	104.95	103.51	101.97	102.36	100.64	102.62	<i>103.95</i>	<i>103.41</i>	<i>102.62</i>	<i>101.91</i>	<i>101.15</i>	<i>100.53</i>	103.20	<i>102.65</i>	<i>101.55</i>
Percent change from prior year	-0.2	0.3	-1.0	-2.4	-4.1	-0.9	<i>1.9</i>	<i>1.0</i>	<i>2.0</i>	<i>-0.7</i>	<i>-2.7</i>	<i>-2.8</i>	-0.8	<i>-0.5</i>	<i>-1.1</i>

- = no data available

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 4a. U.S. Petroleum and Other Liquids Supply, Consumption, and Inventories
U.S. Energy Information Administration | Short-Term Energy Outlook - August 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)	9.04	9.16	9.31	9.94	10.23	10.54	10.77	11.17	11.50	11.69	11.68	11.94	9.37	10.68	11.70
Alaska	0.52	0.50	0.45	0.51	0.51	0.48	0.43	0.49	0.51	0.48	0.44	0.50	0.49	0.48	0.48
Federal Gulf of Mexico (b)	1.76	1.66	1.72	1.58	1.67	1.61	1.70	1.81	1.88	1.89	1.78	1.88	1.68	1.70	1.86
Lower 48 States (excl GOM)	6.77	7.00	7.14	7.86	8.05	8.45	8.64	8.87	9.11	9.32	9.46	9.57	7.19	8.50	9.36
Crude Oil Net Imports (c)	7.24	7.24	6.63	6.08	6.18	6.09	6.25	5.44	5.41	5.63	5.33	4.63	6.79	5.99	5.25
SPR Net Withdrawals	0.04	0.14	0.06	0.12	-0.03	0.06	0.00	0.04	0.04	0.04	0.04	0.02	0.09	0.02	0.04
Commercial Inventory Net Withdrawals	-0.59	0.41	0.34	0.52	-0.03	0.10	0.06	-0.06	-0.56	-0.03	0.08	-0.09	0.17	0.02	-0.15
Crude Oil Adjustment (d)	0.18	0.18	0.26	0.06	0.06	0.36	0.23	0.15	0.19	0.19	0.21	0.15	0.17	0.20	0.19
Total Crude Oil Input to Refineries	15.91	17.13	16.60	16.72	16.41	17.15	17.30	16.74	16.58	17.52	17.34	16.65	16.59	16.90	17.02
Other Supply															
Refinery Processing Gain	1.09	1.13	1.07	1.12	1.11	1.13	1.14	1.12	1.09	1.13	1.13	1.12	1.10	1.13	1.12
Natural Gas Plant Liquids Production	3.54	3.70	3.72	3.99	4.01	4.31	4.43	4.56	4.56	4.70	4.80	4.86	3.74	4.33	4.73
Renewables and Oxygenate Production (e)	1.17	1.16	1.19	1.23	1.21	1.21	1.22	1.22	1.17	1.21	1.23	1.23	1.19	1.21	1.21
Fuel Ethanol Production	1.04	1.01	1.02	1.06	1.05	1.04	1.05	1.04	1.03	1.04	1.04	1.04	1.03	1.04	1.04
Petroleum Products Adjustment (f)	0.21	0.22	0.21	0.22	0.21	0.21	0.22	0.22	0.21	0.23	0.22	0.22	0.22	0.22	0.22
Product Net Imports (c)	-2.96	-2.99	-2.80	-3.49	-3.13	-3.58	-3.47	-3.73	-3.59	-3.72	-3.46	-3.53	-3.06	-3.48	-3.57
Hydrocarbon Gas Liquids	-1.20	-1.18	-1.16	-1.29	-1.22	-1.51	-1.54	-1.60	-1.66	-1.70	-1.68	-1.72	-1.21	-1.47	-1.69
Unfinished Oils	0.37	0.34	0.38	0.38	0.39	0.35	0.36	0.31	0.37	0.39	0.41	0.31	0.37	0.35	0.37
Other HC/Oxygenates	-0.13	-0.09	-0.09	-0.13	-0.18	-0.13	-0.09	-0.09	-0.12	-0.10	-0.08	-0.09	-0.11	-0.12	-0.10
Motor Gasoline Blend Comp.	0.43	0.68	0.64	0.36	0.50	0.73	0.55	0.41	0.50	0.67	0.48	0.45	0.53	0.55	0.53
Finished Motor Gasoline	-0.66	-0.62	-0.63	-0.94	-0.94	-0.77	-0.73	-0.82	-0.91	-0.75	-0.54	-0.74	-0.71	-0.82	-0.73
Jet Fuel	-0.04	-0.07	-0.01	0.02	-0.10	-0.12	-0.09	-0.04	-0.02	-0.06	-0.06	-0.01	-0.02	-0.09	-0.04
Distillate Fuel Oil	-1.01	-1.36	-1.32	-1.22	-0.87	-1.31	-1.28	-1.17	-1.05	-1.35	-1.30	-1.02	-1.23	-1.16	-1.18
Residual Fuel Oil	-0.10	-0.11	-0.12	-0.09	-0.10	-0.13	-0.05	-0.08	-0.06	-0.13	-0.09	-0.11	-0.10	-0.09	-0.10
Other Oils (g)	-0.61	-0.60	-0.50	-0.59	-0.62	-0.68	-0.60	-0.64	-0.64	-0.69	-0.62	-0.61	-0.57	-0.63	-0.64
Product Inventory Net Withdrawals	0.56	-0.33	-0.07	0.27	0.42	-0.23	-0.34	0.30	0.22	-0.57	-0.35	0.34	0.11	0.04	-0.09
Total Supply	19.52	20.03	19.92	20.05	20.24	20.20	20.52	20.43	20.25	20.50	20.92	20.90	19.88	20.35	20.64
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	2.79	2.45	2.33	2.81	3.22	2.64	2.67	3.06	3.18	2.78	2.91	3.28	2.60	2.90	3.04
Unfinished Oils	0.02	0.02	-0.01	-0.04	0.13	-0.06	-0.03	0.01	0.00	-0.03	-0.03	0.01	0.00	0.01	-0.01
Motor Gasoline	8.95	9.54	9.56	9.23	9.01	9.44	9.55	9.24	9.00	9.55	9.62	9.34	9.32	9.31	9.38
Fuel Ethanol blended into Motor Gasoline	0.89	0.96	0.96	0.95	0.91	0.95	0.98	0.95	0.91	0.97	0.98	0.95	0.94	0.95	0.95
Jet Fuel	1.60	1.68	1.71	1.73	1.64	1.71	1.77	1.73	1.67	1.75	1.80	1.77	1.68	1.71	1.75
Distillate Fuel Oil	3.95	3.91	3.87	4.02	4.18	4.14	4.03	4.10	4.16	4.11	4.12	4.23	3.94	4.11	4.15
Residual Fuel Oil	0.37	0.37	0.30	0.39	0.28	0.35	0.35	0.32	0.37	0.32	0.34	0.30	0.36	0.33	0.33
Other Oils (g)	1.83	2.06	2.15	1.91	1.78	1.98	2.18	1.97	1.87	2.02	2.17	1.97	1.99	1.98	2.01
Total Consumption	19.49	20.03	19.92	20.05	20.24	20.20	20.52	20.43	20.25	20.50	20.92	20.90	19.88	20.35	20.64
Total Petroleum and Other Liquids Net Imports	4.28	4.25	3.83	2.59	3.05	2.51	2.78	1.71	1.82	1.91	1.87	1.10	3.73	2.51	1.67
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	537.9	500.4	469.1	421.1	423.4	414.3	408.8	414.5	465.3	468.2	461.3	469.9	421.1	414.5	469.9
Hydrocarbon Gas Liquids	148.1	190.6	229.7	190.9	139.3	185.7	229.1	189.3	154.6	208.2	249.7	206.5	190.9	189.3	206.5
Unfinished Oils	89.3	88.7	89.2	86.3	98.3	92.5	87.4	80.1	90.6	89.3	87.3	80.2	86.3	80.1	80.2
Other HC/Oxygenates	32.6	29.3	28.3	30.1	30.5	29.3	28.3	28.9	30.6	29.6	28.9	29.6	30.1	28.9	29.6
Total Motor Gasoline	239.0	237.9	223.8	236.7	239.6	239.5	227.5	239.1	242.4	239.2	232.9	245.7	236.7	239.1	245.7
Finished Motor Gasoline	21.7	22.5	21.8	24.6	23.1	23.9	23.9	27.3	25.1	24.1	24.7	25.4	24.6	27.3	25.4
Motor Gasoline Blend Comp.	217.2	215.5	202.0	212.1	216.5	215.6	203.6	211.8	217.2	215.1	208.2	220.3	212.1	211.8	220.3
Jet Fuel	42.3	41.0	43.3	41.2	40.4	40.8	42.4	40.3	40.5	42.1	43.8	41.7	41.2	40.3	41.7
Distillate Fuel Oil	151.1	151.6	137.5	145.6	130.4	118.7	126.7	131.3	121.6	124.2	129.2	134.4	145.6	131.3	134.4
Residual Fuel Oil	40.8	35.2	35.9	29.4	35.0	29.1	31.5	34.5	38.0	39.1	37.7	38.0	29.4	34.5	38.0
Other Oils (g)	56.6	55.2	47.9	50.9	59.3	58.0	51.8	53.8	59.2	57.7	51.8	53.9	50.9	53.8	53.9
Total Commercial Inventory	1,338	1,330	1,305	1,232	1,196	1,208	1,234	1,212	1,243	1,298	1,323	1,300	1,232	1,212	1,300
Crude Oil in SPR	692	679	674	663	665	660	660	656	652	648	644	642	663	656	642

- = no data available

(a) Includes lease condensate.

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

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

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

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

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

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

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

SPR: Strategic Petroleum Reserve

HC: Hydrocarbons

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
HGL Production															
Natural Gas Processing Plants															
Ethane	1.33	1.39	1.34	1.56	1.59	1.71	1.74	1.84	1.85	1.89	1.94	2.00	1.41	1.72	1.92
Propane	1.16	1.21	1.23	1.28	1.29	1.37	1.41	1.43	1.44	1.48	1.50	1.51	1.22	1.37	1.48
Butanes	0.63	0.65	0.67	0.69	0.69	0.73	0.76	0.77	0.77	0.80	0.81	0.81	0.66	0.74	0.80
Natural Gasoline (Pentanes Plus)	0.41	0.45	0.48	0.46	0.44	0.50	0.53	0.52	0.50	0.53	0.56	0.54	0.45	0.50	0.53
Refinery and Blender Net Production															
Ethane/Ethylene	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00
Propane	0.29	0.32	0.30	0.32	0.30	0.31	0.30	0.30	0.29	0.31	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	0.29	0.28	0.29	0.28	0.28	0.29	0.28	0.28
Butanes/Butylenes	-0.09	0.27	0.16	-0.22	-0.11	0.25	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	-0.21	-0.22	-0.29	-0.29	-0.31	-0.31	-0.31	-0.31	-0.33	-0.18	-0.28	-0.31
Propane/Propylene	-0.79	-0.71	-0.68	-0.83	-0.72	-0.80	-0.78	-0.89	-0.91	-0.91	-0.87	-0.94	-0.75	-0.80	-0.91
Butanes/Butylenes	-0.09	-0.12	-0.11	-0.11	-0.10	-0.20	-0.22	-0.19	-0.20	-0.23	-0.22	-0.21	-0.11	-0.18	-0.22
Natural Gasoline (Pentanes Plus)	-0.18	-0.18	-0.16	-0.14	-0.18	-0.23	-0.25	-0.21	-0.24	-0.25	-0.27	-0.24	-0.16	-0.22	-0.25
HGL Refinery and Blender Net Inputs															
Butanes/Butylenes	0.43	0.30	0.33	0.50	0.45	0.31	0.33	0.51	0.41	0.31	0.33	0.51	0.39	0.40	0.39
Natural Gasoline (Pentanes Plus)	0.16	0.18	0.18	0.19	0.15	0.17	0.18	0.18	0.17	0.18	0.18	0.18	0.18	0.17	0.18
HGL Consumption															
Ethane/Ethylene	1.19	1.23	1.13	1.33	1.44	1.44	1.46	1.53	1.53	1.56	1.64	1.70	1.22	1.47	1.61
Propane	1.05	0.60	0.67	0.85	1.16	0.61	0.65	0.95	1.07	0.57	0.66	0.98	0.79	0.84	0.82
Propylene (refinery-grade)	0.34	0.31	0.28	0.32	0.32	0.30	0.30	0.30	0.31	0.31	0.30	0.29	0.31	0.30	0.30
Butanes/Butylenes	0.12	0.23	0.18	0.16	0.20	0.21	0.20	0.20	0.19	0.26	0.25	0.22	0.17	0.20	0.23
Natural Gasoline (Pentanes Plus)	0.10	0.08	0.08	0.15	0.10	0.08	0.06	0.08	0.08	0.07	0.07	0.08	0.10	0.08	0.07
HGL Inventories (million barrels)															
Ethane	49.65	51.89	51.77	57.73	51.41	48.37	47.31	48.95	47.95	51.14	50.34	50.31	52.78	49.00	49.94
Propane	40.23	57.06	71.59	62.37	33.83	57.24	80.42	68.30	44.17	70.12	92.85	79.98	62.37	68.30	79.98
Propylene (refinery-grade)	3.75	4.01	5.21	4.82	3.82	4.66	5.00	5.27	4.37	4.20	4.54	5.21	4.82	5.27	5.21
Butanes/Butylenes	31.68	57.24	76.10	47.95	32.02	56.18	74.38	43.66	34.56	58.23	75.78	45.05	47.95	43.66	45.05
Natural Gasoline (Pentanes Plus)	21.49	20.55	23.40	20.14	19.36	19.49	21.42	24.01	22.50	24.45	25.67	27.53	20.14	24.01	27.53
Refinery and Blender Net Inputs															
Crude Oil	15.91	17.13	16.60	16.72	16.41	17.15	17.30	16.74	16.58	17.52	17.34	16.65	16.59	16.90	17.02
Hydrocarbon Gas Liquids	0.58	0.48	0.51	0.69	0.61	0.47	0.51	0.69	0.58	0.48	0.51	0.69	0.57	0.57	0.57
Other Hydrocarbons/Oxygenates	1.16	1.24	1.22	1.21	1.16	1.23	1.28	1.26	1.20	1.28	1.30	1.29	1.21	1.23	1.27
Unfinished Oils	0.25	0.33	0.38	0.45	0.12	0.47	0.45	0.38	0.26	0.43	0.46	0.38	0.36	0.36	0.38
Motor Gasoline Blend Components	0.39	0.65	0.67	0.22	0.34	0.66	0.69	0.47	0.57	0.84	0.66	0.49	0.49	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	18.30	19.83	19.38	19.30	18.63	19.99	20.22	19.55	19.18	20.55	20.28	19.50	19.21	19.60	19.88
Refinery Processing Gain															
.....	1.09	1.13	1.07	1.12	1.11	1.13	1.14	1.12	1.09	1.13	1.13	1.12	1.10	1.13	1.12
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	0.48	0.89	0.73	0.40	0.48	0.85	0.77	0.39	0.49	0.86	0.77	0.38	0.63	0.62	0.63
Finished Motor Gasoline	9.57	10.10	10.04	10.13	9.79	10.12	10.26	10.24	9.99	10.41	10.24	10.23	9.96	10.11	10.22
Jet Fuel	1.63	1.74	1.75	1.69	1.72	1.83	1.87	1.75	1.70	1.82	1.87	1.75	1.70	1.79	1.79
Distillate Fuel	4.75	5.18	4.94	5.25	4.81	5.25	5.31	5.24	5.05	5.42	5.39	5.23	5.03	5.15	5.28
Residual Fuel	0.46	0.41	0.43	0.41	0.44	0.41	0.43	0.43	0.46	0.47	0.42	0.42	0.43	0.43	0.44
Other Oils (a)	2.50	2.64	2.56	2.53	2.49	2.64	2.71	2.63	2.57	2.70	2.72	2.60	2.56	2.62	2.65
Total Refinery and Blender Net Production	19.40	20.97	20.46	20.41	19.74	21.11	21.37	20.67	20.27	21.68	21.41	20.61	20.31	20.73	20.99
Refinery Distillation Inputs															
.....	16.23	17.42	16.90	17.00	16.76	17.48	17.52	16.96	16.77	17.62	17.54	16.88	16.89	17.18	17.20
Refinery Operable Distillation Capacity															
.....	18.62	18.58	18.55	18.52	18.57	18.60	18.60	18.60	18.61	18.61	18.64	18.65	18.57	18.59	18.63
Refinery Distillation Utilization Factor															
.....	0.87	0.94	0.91	0.92	0.90	0.94	0.94	0.91	0.90	0.95	0.94	0.90	0.91	0.92	0.92

- = no data available

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - August 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	214	<i>210</i>	<i>199</i>	<i>195</i>	<i>207</i>	<i>206</i>	<i>197</i>	169	<i>202</i>	<i>201</i>
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	231	233	241	249	255	279	<i>278</i>	<i>276</i>	<i>265</i>	<i>274</i>	<i>276</i>	<i>272</i>	239	<i>272</i>	<i>272</i>
PADD 2	223	228	232	242	246	274	<i>276</i>	<i>267</i>	<i>259</i>	<i>274</i>	<i>274</i>	<i>265</i>	231	<i>266</i>	<i>268</i>
PADD 3	210	216	222	225	230	261	<i>258</i>	<i>249</i>	<i>244</i>	<i>257</i>	<i>255</i>	<i>246</i>	218	<i>250</i>	<i>251</i>
PADD 4	227	239	245	252	247	288	<i>291</i>	<i>274</i>	<i>254</i>	<i>274</i>	<i>283</i>	<i>271</i>	241	<i>275</i>	<i>271</i>
PADD 5	276	289	290	299	312	342	<i>333</i>	<i>318</i>	<i>308</i>	<i>334</i>	<i>332</i>	<i>314</i>	288	<i>326</i>	<i>322</i>
U.S. Average	233	238	244	251	258	285	<i>284</i>	<i>276</i>	<i>267</i>	<i>281</i>	<i>282</i>	<i>273</i>	242	<i>276</i>	<i>276</i>
Gasoline All Grades Including Taxes	244	250	255	263	270	294	<i>293</i>	<i>287</i>	<i>278</i>	<i>293</i>	<i>293</i>	<i>285</i>	253	<i>286</i>	<i>288</i>
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	65.3	67.2	58.8	60.6	58.4	65.8	<i>62.0</i>	<i>65.1</i>	<i>66.7</i>	<i>67.5</i>	<i>63.8</i>	<i>67.1</i>	60.6	<i>65.1</i>	<i>67.1</i>
PADD 2	57.0	53.6	50.4	52.2	57.3	53.5	<i>49.8</i>	<i>51.9</i>	<i>54.9</i>	<i>53.1</i>	<i>51.2</i>	<i>53.4</i>	52.2	<i>51.9</i>	<i>53.4</i>
PADD 3	79.1	82.4	78.5	83.2	84.2	82.4	<i>79.4</i>	<i>82.7</i>	<i>82.8</i>	<i>82.3</i>	<i>81.9</i>	<i>85.4</i>	83.2	<i>82.7</i>	<i>85.4</i>
PADD 4	7.9	7.0	6.9	7.6	7.7	7.3	<i>7.2</i>	<i>7.8</i>	<i>7.7</i>	<i>7.6</i>	<i>7.4</i>	<i>8.0</i>	7.6	<i>7.8</i>	<i>8.0</i>
PADD 5	29.7	27.7	29.2	33.1	32.0	30.6	<i>29.0</i>	<i>31.6</i>	<i>30.3</i>	<i>28.7</i>	<i>28.6</i>	<i>31.9</i>	33.1	<i>31.6</i>	<i>31.9</i>
U.S. Total	239.0	237.9	223.8	236.7	239.6	239.5	<i>227.5</i>	<i>239.1</i>	<i>242.4</i>	<i>239.2</i>	<i>232.9</i>	<i>245.7</i>	236.7	<i>239.1</i>	<i>245.7</i>
Finished Gasoline Inventories															
U.S. Total	21.7	22.5	21.8	24.6	23.1	23.9	<i>23.9</i>	<i>27.3</i>	<i>25.1</i>	<i>24.1</i>	<i>24.7</i>	<i>25.4</i>	24.6	<i>27.3</i>	<i>25.4</i>
Gasoline Blending Components Inventories															
U.S. Total	217.2	215.5	202.0	212.1	216.5	215.6	<i>203.6</i>	<i>211.8</i>	<i>217.2</i>	<i>215.1</i>	<i>208.2</i>	<i>220.3</i>	212.1	<i>211.8</i>	<i>220.3</i>

- = no data available

Prices are not adjusted for inflation.

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Supply (billion cubic feet per day)															
Total Marketed Production	76.32	77.36	79.30	82.72	84.25	86.68	<i>88.56</i>	<i>89.62</i>	<i>90.48</i>	<i>90.82</i>	<i>90.82</i>	<i>91.07</i>	78.94	<i>87.30</i>	<i>90.80</i>
Alaska	1.01	0.97	0.82	0.98	1.00	0.90	<i>0.78</i>	<i>0.94</i>	<i>1.00</i>	<i>0.85</i>	<i>0.78</i>	<i>0.94</i>	0.94	<i>0.90</i>	<i>0.89</i>
Federal GOM (a)	3.26	2.99	2.91	2.52	2.57	2.53	<i>2.58</i>	<i>2.62</i>	<i>2.62</i>	<i>2.56</i>	<i>2.45</i>	<i>2.44</i>	2.92	<i>2.58</i>	<i>2.51</i>
Lower 48 States (excl GOM)	72.05	73.40	75.56	79.22	80.68	83.25	<i>85.21</i>	<i>86.06</i>	<i>86.85</i>	<i>87.42</i>	<i>87.59</i>	<i>87.69</i>	75.08	<i>83.82</i>	<i>87.39</i>
Total Dry Gas Production	71.24	72.04	73.97	76.98	78.50	80.50	<i>82.20</i>	<i>83.13</i>	<i>83.88</i>	<i>84.15</i>	<i>84.09</i>	<i>84.28</i>	73.57	<i>81.10</i>	<i>84.10</i>
LNG Gross Imports	0.29	0.18	0.17	0.21	0.33	0.10	<i>0.15</i>	<i>0.26</i>	<i>0.32</i>	<i>0.17</i>	<i>0.17</i>	<i>0.21</i>	0.21	<i>0.21</i>	<i>0.22</i>
LNG Gross Exports	1.63	1.80	1.67	2.64	2.64	2.94	<i>2.94</i>	<i>3.31</i>	<i>3.99</i>	<i>4.40</i>	<i>5.24</i>	<i>6.60</i>	1.94	<i>2.96</i>	<i>5.07</i>
Pipeline Gross Imports	8.89	7.76	7.74	8.10	8.76	7.63	<i>7.11</i>	<i>7.55</i>	<i>8.41</i>	<i>7.52</i>	<i>7.55</i>	<i>8.29</i>	8.12	<i>7.76</i>	<i>7.94</i>
Pipeline Gross Exports	7.24	6.49	6.43	6.81	7.01	6.07	<i>6.83</i>	<i>8.02</i>	<i>8.86</i>	<i>8.23</i>	<i>8.06</i>	<i>8.68</i>	6.74	<i>6.98</i>	<i>8.45</i>
Supplemental Gaseous Fuels	0.16	0.13	0.16	0.16	0.17	0.14	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	0.15	<i>0.16</i>	<i>0.17</i>
Net Inventory Withdrawals	13.74	-9.02	-7.20	5.76	18.29	-8.78	<i>-8.91</i>	<i>2.29</i>	<i>15.83</i>	<i>-10.42</i>	<i>-8.17</i>	<i>4.36</i>	0.78	<i>0.65</i>	<i>0.35</i>
Total Supply	85.45	62.80	66.74	81.78	96.41	70.57	<i>70.96</i>	<i>82.07</i>	<i>95.76</i>	<i>68.96</i>	<i>70.52</i>	<i>82.04</i>	74.16	<i>79.94</i>	<i>79.26</i>
Balancing Item (b)	0.70	0.16	0.22	-0.84	0.80	0.17	<i>-0.97</i>	<i>-1.45</i>	<i>-0.48</i>	<i>-0.08</i>	<i>0.85</i>	<i>0.52</i>	0.06	<i>-0.37</i>	<i>0.21</i>
Total Primary Supply	86.15	62.96	66.96	80.94	97.21	70.74	<i>69.98</i>	<i>80.63</i>	<i>95.28</i>	<i>68.89</i>	<i>71.37</i>	<i>82.56</i>	74.22	<i>79.57</i>	<i>79.47</i>
Consumption (billion cubic feet per day)															
Residential	22.17	6.65	3.55	16.26	25.73	8.06	<i>3.72</i>	<i>15.64</i>	<i>24.55</i>	<i>7.64</i>	<i>3.74</i>	<i>15.61</i>	12.12	<i>13.23</i>	<i>12.83</i>
Commercial	13.50	5.83	4.55	11.01	15.34	6.61	<i>4.44</i>	<i>9.88</i>	<i>14.70</i>	<i>6.09</i>	<i>4.47</i>	<i>9.87</i>	8.70	<i>9.04</i>	<i>8.76</i>
Industrial	22.96	20.45	20.34	22.85	24.32	21.66	<i>20.71</i>	<i>23.29</i>	<i>23.80</i>	<i>21.36</i>	<i>21.09</i>	<i>23.71</i>	21.65	<i>22.49</i>	<i>22.49</i>
Electric Power (c)	20.95	24.00	32.28	24.03	24.53	27.67	<i>34.30</i>	<i>24.68</i>	<i>24.64</i>	<i>26.74</i>	<i>34.89</i>	<i>25.78</i>	25.34	<i>27.81</i>	<i>28.03</i>
Lease and Plant Fuel	4.26	4.32	4.43	4.62	4.70	4.84	<i>4.94</i>	<i>5.00</i>	<i>5.05</i>	<i>5.07</i>	<i>5.07</i>	<i>5.08</i>	4.41	<i>4.87</i>	<i>5.07</i>
Pipeline and Distribution Use	2.19	1.60	1.70	2.05	2.47	1.79	<i>1.75</i>	<i>2.03</i>	<i>2.42</i>	<i>1.87</i>	<i>2.00</i>	<i>2.39</i>	1.88	<i>2.01</i>	<i>2.17</i>
Vehicle Use	0.12	0.12	0.12	0.12	0.12	0.12	<i>0.12</i>	<i>0.12</i>	<i>0.12</i>	<i>0.12</i>	<i>0.12</i>	<i>0.12</i>	0.12	<i>0.12</i>	<i>0.12</i>
Total Consumption	86.15	62.96	66.96	80.94	97.21	70.74	<i>69.98</i>	<i>80.63</i>	<i>95.28</i>	<i>68.89</i>	<i>71.37</i>	<i>82.56</i>	74.22	<i>79.57</i>	<i>79.47</i>
End-of-period Inventories (billion cubic feet)															
Working Gas Inventory	2,063	2,907	3,567	3,033	1,392	2,193	<i>3,012</i>	<i>2,801</i>	<i>1,377</i>	<i>2,324</i>	<i>3,076</i>	<i>2,674</i>	3,033	<i>2,801</i>	<i>2,674</i>
East Region (d)	260	563	866	710	229	463	<i>757</i>	<i>672</i>	<i>194</i>	<i>469</i>	<i>735</i>	<i>596</i>	710	<i>672</i>	<i>596</i>
Midwest Region (d)	477	701	993	829	261	458	<i>848</i>	<i>753</i>	<i>286</i>	<i>558</i>	<i>897</i>	<i>765</i>	829	<i>753</i>	<i>765</i>
South Central Region (d)	938	1,139	1,137	1,016	615	841	<i>909</i>	<i>920</i>	<i>562</i>	<i>809</i>	<i>884</i>	<i>825</i>	1,016	<i>920</i>	<i>825</i>
Mountain Region (d)	142	184	218	177	87	140	<i>184</i>	<i>167</i>	<i>115</i>	<i>158</i>	<i>198</i>	<i>164</i>	177	<i>167</i>	<i>164</i>
Pacific Region (d)	219	288	314	264	169	257	<i>278</i>	<i>253</i>	<i>184</i>	<i>294</i>	<i>326</i>	<i>288</i>	264	<i>253</i>	<i>288</i>
Alaska	27	32	39	36	31	34	<i>36</i>	<i>36</i>	<i>36</i>	<i>36</i>	<i>36</i>	<i>36</i>	36	<i>36</i>	<i>36</i>

- = no data available

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

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

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

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

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

LNG: liquefied natural gas.

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 5b. U.S. Regional Natural Gas Prices (dollars per thousand cubic feet)
 U.S. Energy Information Administration | Short-Term Energy Outlook - August 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	2.99	3.20	3.30	3.08	3.15	3.32	3.10	3.07	3.21
Residential Retail															
New England	12.85	14.08	18.12	13.57	14.56	17.32	17.79	13.58	13.04	13.93	17.15	13.61	13.60	14.93	13.62
Middle Atlantic	9.92	12.18	17.11	11.33	10.15	11.66	16.26	10.69	9.91	11.84	16.39	10.82	11.17	10.94	10.91
E. N. Central	7.77	11.52	17.80	7.81	7.20	9.62	16.75	8.87	8.00	10.82	16.62	9.02	8.86	8.62	9.27
W. N. Central	8.32	11.85	18.79	9.56	8.17	10.47	18.33	10.39	9.51	12.24	17.83	9.96	9.80	9.70	10.58
S. Atlantic	12.29	20.05	26.86	13.20	11.09	15.44	22.43	12.68	11.10	16.05	22.36	12.80	14.63	12.95	13.03
E. S. Central	10.53	15.83	20.82	11.32	9.71	12.66	19.57	11.99	9.70	14.12	20.31	12.69	12.05	11.33	11.65
W. S. Central	10.33	16.49	22.10	13.09	9.32	13.93	19.60	11.16	8.01	13.44	19.89	11.48	13.18	11.37	10.66
Mountain	8.21	10.17	13.91	8.76	8.22	10.29	14.20	9.25	9.00	10.28	13.92	9.29	9.14	9.31	9.70
Pacific	12.02	12.64	12.90	11.30	11.63	12.12	13.01	11.59	12.44	12.58	12.92	11.85	12.01	11.87	12.34
U.S. Average	9.73	13.00	17.74	10.19	9.39	11.83	16.78	10.59	9.64	12.16	16.74	10.72	10.92	10.64	10.87
Commercial Retail															
New England	9.55	9.97	10.61	9.53	11.09	12.31	11.27	10.56	10.58	10.63	10.54	10.42	9.71	11.15	10.54
Middle Atlantic	7.66	7.42	6.82	7.38	8.10	7.60	7.06	7.53	7.67	7.51	6.96	7.55	7.43	7.72	7.51
E. N. Central	6.63	7.90	8.98	6.21	6.19	6.97	8.86	6.91	6.66	7.62	9.04	7.14	6.84	6.73	7.13
W. N. Central	6.96	7.80	9.11	7.04	7.00	7.14	9.01	7.43	7.65	7.98	9.03	7.49	7.28	7.30	7.77
S. Atlantic	8.89	10.00	9.56	8.91	8.32	9.22	9.68	8.68	8.51	9.36	9.75	8.80	9.16	8.74	8.89
E. S. Central	9.05	10.28	10.76	9.30	8.69	9.29	10.14	9.09	8.66	9.68	10.21	9.18	9.53	9.06	9.15
W. S. Central	7.63	8.20	8.86	8.18	7.24	7.81	8.42	7.76	7.31	7.77	8.38	7.81	8.09	7.65	7.68
Mountain	6.88	7.37	8.27	7.21	6.99	7.56	8.62	7.46	7.61	7.85	8.56	7.48	7.22	7.41	7.72
Pacific	9.09	9.06	9.08	8.54	8.91	8.66	8.86	8.47	8.73	8.81	9.12	8.84	8.92	8.72	8.84
U.S. Average	7.71	8.33	8.69	7.56	7.66	8.08	8.67	7.87	7.80	8.25	8.67	7.98	7.87	7.90	8.02
Industrial Retail															
New England	7.81	7.04	6.39	7.05	9.05	8.91	7.06	7.83	8.24	7.47	6.90	7.93	7.19	8.35	7.76
Middle Atlantic	7.69	7.59	7.62	7.18	8.29	7.64	7.50	7.62	7.98	7.34	7.38	7.67	7.53	7.91	7.72
E. N. Central	5.86	5.96	5.59	5.30	5.74	5.06	5.90	6.00	6.63	6.27	6.16	6.15	5.66	5.69	6.37
W. N. Central	5.01	4.29	4.25	4.68	5.04	4.26	4.63	5.27	5.78	4.88	4.66	5.29	4.60	4.84	5.21
S. Atlantic	5.35	5.00	4.88	4.93	5.39	4.78	4.78	5.12	5.46	4.87	4.87	5.27	5.05	5.04	5.14
E. S. Central	5.06	4.59	4.40	4.56	4.99	4.30	4.30	4.74	4.93	4.44	4.44	4.90	4.67	4.61	4.70
W. S. Central	3.42	3.42	3.30	3.14	3.34	3.13	3.34	3.46	3.55	3.30	3.43	3.58	3.32	3.32	3.47
Mountain	5.31	5.36	5.61	5.50	5.41	5.32	5.95	6.05	6.18	5.85	6.07	6.12	5.43	5.68	6.07
Pacific	7.31	6.71	6.32	6.35	7.05	6.27	6.47	6.58	7.04	6.49	6.65	6.78	6.71	6.61	6.76
U.S. Average	4.50	4.11	3.89	4.00	4.48	3.87	3.91	4.30	4.64	4.02	4.01	4.43	4.14	4.16	4.29

- = no data available

Prices are not adjusted for inflation.

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

Regions refer to U.S. Census divisions.

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - August 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	186.8	184.3	198.2	196.6	193.6	161.3	203.8	193.3	774.1	765.8	752.1
Appalachia	50.7	51.2	46.3	50.2	49.2	49.4	50.9	44.8	45.7	38.7	39.1	38.9	198.5	194.3	162.5
Interior	38.5	36.4	34.9	35.6	34.0	34.1	39.4	43.1	45.1	34.5	42.8	42.7	145.4	150.5	165.1
Western	107.8	99.4	115.0	108.0	103.6	100.8	107.9	108.7	102.8	88.1	121.9	111.8	430.2	421.1	424.5
Primary Inventory Withdrawals	0.1	1.8	1.4	0.9	-2.8	2.3	0.6	-0.8	-4.0	1.4	1.1	-3.2	4.2	-0.7	-4.7
Imports	1.9	2.2	2.3	1.4	1.4	1.7	2.6	2.4	1.1	2.0	2.6	2.3	7.8	8.0	8.1
Exports	22.3	21.8	24.6	28.2	27.2	29.6	22.9	22.9	23.5	23.5	24.7	24.8	97.0	102.5	96.4
Metallurgical Coal	12.2	13.5	14.8	14.8	14.9	16.5	12.7	12.9	13.3	13.1	13.8	13.8	55.3	57.0	54.1
Steam Coal	10.1	8.3	9.8	13.4	12.3	13.1	10.2	9.9	10.2	10.4	10.8	11.0	41.7	45.5	42.4
Total Primary Supply	176.8	169.2	175.3	167.9	158.1	158.6	178.6	175.3	167.3	141.2	182.9	167.7	689.1	670.7	659.0
Secondary Inventory Withdrawals	1.0	3.7	18.2	2.4	11.4	3.6	12.6	-8.0	1.2	1.9	5.3	-9.3	25.2	19.6	-0.9
Waste Coal (a)	2.5	1.8	2.3	2.1	2.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4	8.7	9.9	9.6
Total Supply	180.3	174.8	195.8	172.3	172.2	164.7	193.5	169.7	170.9	145.4	190.6	160.8	723.1	700.2	667.7
Consumption (million short tons)															
Coke Plants	4.2	4.3	4.5	4.5	4.2	3.9	4.5	5.1	4.2	3.9	4.5	5.6	17.5	17.8	18.2
Electric Power Sector (b)	160.3	154.2	190.6	159.6	155.0	149.1	190.3	156.1	157.8	133.4	177.8	146.8	664.7	650.5	615.8
Retail and Other Industry	8.9	8.3	8.8	8.7	8.5	8.3	8.2	8.5	8.8	8.2	8.2	8.4	34.7	33.4	33.7
Residential and Commercial	0.4	0.2	0.2	0.3	0.4	0.1	0.1	0.2	0.2	0.1	0.1	0.2	1.1	0.8	0.5
Other Industrial	8.5	8.1	8.6	8.4	8.2	8.1	8.0	8.3	8.6	8.1	8.1	8.3	33.6	32.6	33.2
Total Consumption	173.5	166.8	203.9	172.7	167.7	161.3	203.0	169.7	170.9	145.4	190.6	160.8	717.0	701.8	667.7
Discrepancy (c)	6.8	7.9	-8.1	-0.4	4.5	3.3	-9.5	0.0	0.0	0.0	0.0	0.0	6.2	-1.6	0.0
End-of-period Inventories (million short tons)															
Primary Inventories (d)	25.2	23.4	22.0	21.1	23.9	21.6	21.0	21.8	25.8	24.4	23.3	26.5	21.1	21.8	26.5
Secondary Inventories	166.6	163.0	144.8	142.4	131.1	127.4	114.9	122.8	121.6	119.7	114.4	123.7	142.4	122.8	123.7
Electric Power Sector	161.7	157.7	139.3	137.2	126.4	122.1	109.4	117.4	116.5	114.3	108.8	118.1	137.2	117.4	118.1
Retail and General Industry	3.2	3.3	3.5	3.2	2.9	3.4	3.5	3.4	3.5	3.5	3.6	3.6	3.2	3.4	3.6
Coke Plants	1.4	1.6	1.7	1.7	1.5	1.6	1.7	1.7	1.3	1.7	1.7	1.8	1.7	1.7	1.8
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	0.244	0.214	0.261	0.261	0.243	0.210	0.248	0.240	0.244
Cost of Coal to Electric Utilities															
(Dollars per million Btu)	2.08	2.12	2.07	2.04	2.06	2.10	2.12	2.11	2.09	2.08	2.09	2.09	2.08	2.10	2.09

- = no data available

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

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 7a. U.S. Electricity Industry Overview

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Electricity Supply (billion kilowatthours per day)															
Electricity Generation	10.58	10.69	12.15	10.57	11.11	11.15	<i>12.47</i>	<i>10.54</i>	<i>11.02</i>	<i>10.75</i>	<i>12.45</i>	<i>10.63</i>	11.00	<i>11.32</i>	<i>11.21</i>
Electric Power Sector (a)	10.15	10.27	11.71	10.14	10.67	10.73	<i>12.04</i>	<i>10.12</i>	<i>10.58</i>	<i>10.32</i>	<i>12.00</i>	<i>10.20</i>	10.57	<i>10.89</i>	<i>10.78</i>
Comm. and Indus. Sectors (b)	0.43	0.42	0.44	0.42	0.43	0.42	<i>0.44</i>	<i>0.42</i>	<i>0.43</i>	<i>0.43</i>	<i>0.45</i>	<i>0.43</i>	0.43	<i>0.43</i>	<i>0.44</i>
Net Imports	0.18	0.15	0.17	0.11	0.14	0.17	<i>0.22</i>	<i>0.18</i>	<i>0.18</i>	<i>0.18</i>	<i>0.19</i>	<i>0.15</i>	0.15	<i>0.18</i>	<i>0.17</i>
Total Supply	10.76	10.84	12.32	10.68	11.25	11.32	<i>12.70</i>	<i>10.72</i>	<i>11.19</i>	<i>10.93</i>	<i>12.64</i>	<i>10.78</i>	11.15	<i>11.50</i>	<i>11.39</i>
Losses and Unaccounted for (c)	0.63	0.77	0.65	0.70	0.66	0.95	<i>0.71</i>	<i>0.67</i>	<i>0.58</i>	<i>0.82</i>	<i>0.73</i>	<i>0.68</i>	0.69	<i>0.75</i>	<i>0.70</i>
Electricity Consumption (billion kilowatthours per day unless noted)															
Retail Sales	9.75	9.70	11.28	9.60	10.20	10.00	<i>11.60</i>	<i>9.67</i>	<i>10.23</i>	<i>9.73</i>	<i>11.52</i>	<i>9.73</i>	10.09	<i>10.37</i>	<i>10.30</i>
Residential Sector	3.71	3.43	4.46	3.51	4.09	3.66	<i>4.65</i>	<i>3.54</i>	<i>4.08</i>	<i>3.41</i>	<i>4.56</i>	<i>3.57</i>	3.78	<i>3.99</i>	<i>3.90</i>
Commercial Sector	3.51	3.64	4.08	3.55	3.59	3.70	<i>4.13</i>	<i>3.56</i>	<i>3.60</i>	<i>3.63</i>	<i>4.11</i>	<i>3.57</i>	3.70	<i>3.75</i>	<i>3.73</i>
Industrial Sector	2.50	2.62	2.72	2.53	2.50	2.61	<i>2.80</i>	<i>2.55</i>	<i>2.53</i>	<i>2.67</i>	<i>2.82</i>	<i>2.57</i>	2.59	<i>2.62</i>	<i>2.65</i>
Transportation Sector	0.02	0.02	0.02	0.02	0.02	0.02	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	0.02	<i>0.02</i>	<i>0.02</i>
Direct Use (d)	0.38	0.37	0.38	0.37	0.38	0.37	<i>0.39</i>	<i>0.37</i>	<i>0.38</i>	<i>0.38</i>	<i>0.40</i>	<i>0.38</i>	0.38	<i>0.38</i>	<i>0.38</i>
Total Consumption	10.13	10.08	11.66	9.98	10.59	10.37	<i>11.98</i>	<i>10.05</i>	<i>10.62</i>	<i>10.11</i>	<i>11.91</i>	<i>10.11</i>	10.47	<i>10.75</i>	<i>10.69</i>
Average residential electricity usage per customer (kWh)	2,532	2,365	3,109	2,446	2,760	2,474	<i>3,226</i>	<i>2,441</i>	<i>2,723</i>	<i>2,298</i>	<i>3,109</i>	<i>2,432</i>	10,453	<i>10,900</i>	<i>10,562</i>
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.08	2.12	2.07	2.04	2.06	2.10	<i>2.12</i>	<i>2.11</i>	<i>2.09</i>	<i>2.08</i>	<i>2.09</i>	<i>2.09</i>	2.08	<i>2.10</i>	<i>2.09</i>
Natural Gas	3.69	3.38	3.19	3.38	3.98	3.07	<i>3.25</i>	<i>3.53</i>	<i>3.73</i>	<i>3.19</i>	<i>3.21</i>	<i>3.58</i>	3.38	<i>3.43</i>	<i>3.40</i>
Residual Fuel Oil	11.16	10.60	10.03	11.93	11.47	13.31	<i>13.65</i>	<i>13.57</i>	<i>13.63</i>	<i>14.08</i>	<i>13.30</i>	<i>13.15</i>	10.97	<i>12.75</i>	<i>13.54</i>
Distillate Fuel Oil	12.74	12.23	13.13	14.54	15.77	16.70	<i>17.05</i>	<i>17.02</i>	<i>16.45</i>	<i>16.44</i>	<i>16.81</i>	<i>17.43</i>	13.26	<i>16.38</i>	<i>16.77</i>
Retail Prices (cents per kilowatthour)															
Residential Sector	12.59	12.99	13.19	12.75	12.57	13.01	<i>13.27</i>	<i>12.95</i>	<i>12.88</i>	<i>13.54</i>	<i>13.58</i>	<i>13.21</i>	12.90	<i>12.96</i>	<i>13.31</i>
Commercial Sector	10.39	10.68	11.03	10.56	10.51	10.71	<i>11.13</i>	<i>10.75</i>	<i>10.66</i>	<i>10.81</i>	<i>11.13</i>	<i>10.78</i>	10.68	<i>10.79</i>	<i>10.86</i>
Industrial Sector	6.64	6.89	7.27	6.79	6.79	6.91	<i>7.43</i>	<i>6.95</i>	<i>6.83</i>	<i>6.99</i>	<i>7.49</i>	<i>7.02</i>	6.91	<i>7.03</i>	<i>7.09</i>

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

Prices are not adjusted for inflation.

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

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Residential Sector															
New England	142	119	143	126	141	111	151	127	141	111	143	127	133	132	130
Middle Atlantic	368	307	403	327	394	323	426	322	389	313	405	322	351	366	357
E. N. Central	507	435	545	475	552	481	579	469	540	442	562	469	491	520	503
W. N. Central	298	246	303	261	327	275	326	265	317	246	322	269	277	298	288
S. Atlantic	891	891	1,131	889	1,040	925	1,157	896	1,044	878	1,159	902	951	1,004	996
E. S. Central	305	277	368	288	368	297	386	294	368	273	378	294	310	336	328
W. S. Central	501	536	760	516	608	564	812	533	606	531	805	544	579	630	622
Mountain	245	259	347	232	239	266	358	235	244	260	350	238	271	275	273
Pacific contiguous	439	346	447	381	411	341	444	387	419	341	423	388	404	396	393
AK and HI	14	12	12	13	14	12	12	13	14	12	12	13	13	13	13
Total	3,712	3,428	4,458	3,507	4,093	3,595	4,652	3,541	4,082	3,407	4,559	3,567	3,778	3,971	3,904
Commercial Sector															
New England	155	150	168	149	142	136	159	146	139	134	151	140	156	146	141
Middle Atlantic	423	404	462	412	431	414	466	408	428	409	456	407	425	430	425
E. N. Central	489	486	537	482	499	504	546	480	497	490	541	480	498	507	502
W. N. Central	272	270	302	269	282	279	301	271	282	270	302	272	278	283	282
S. Atlantic	785	853	941	807	811	859	950	805	807	846	951	806	847	856	853
E. S. Central	225	241	275	229	241	249	283	230	243	243	283	231	243	251	250
W. S. Central	471	522	598	501	498	532	623	517	512	534	638	529	523	543	553
Mountain	246	265	301	249	249	269	306	251	251	266	304	252	265	269	268
Pacific contiguous	431	431	480	438	423	426	481	437	422	427	472	438	445	442	440
AK and HI	16	16	16	16	16	15	16	16	16	15	16	16	16	16	16
Total	3,513	3,637	4,079	3,551	3,592	3,684	4,131	3,559	3,598	3,635	4,113	3,570	3,696	3,743	3,730
Industrial Sector															
New England	46	46	49	47	42	45	48	45	41	45	47	44	47	45	44
Middle Atlantic	192	194	204	195	196	199	207	197	199	202	209	198	196	200	202
E. N. Central	495	504	522	489	499	521	547	495	505	528	551	495	502	516	520
W. N. Central	228	240	253	235	232	243	254	240	240	252	262	246	239	243	250
S. Atlantic	362	386	390	372	366	383	392	368	365	381	389	364	377	377	375
E. S. Central	267	275	280	262	260	266	278	259	259	265	276	256	271	266	264
W. S. Central	480	503	511	484	466	496	530	498	480	510	544	510	495	498	511
Mountain	210	228	245	210	209	233	254	214	214	239	259	217	223	228	232
Pacific contiguous	211	230	253	220	213	235	271	225	215	237	273	226	229	236	238
AK and HI	13	14	14	13	13	13	14	13	13	13	14	13	14	14	14
Total	2,504	2,619	2,722	2,526	2,497	2,634	2,796	2,554	2,531	2,669	2,825	2,570	2,593	2,621	2,649
Total All Sectors (a)															
New England	345	317	362	323	327	294	359	319	323	290	342	312	337	325	317
Middle Atlantic	994	915	1,079	943	1,033	946	1,109	937	1,027	933	1,080	936	983	1,006	994
E. N. Central	1,493	1,427	1,605	1,447	1,552	1,508	1,674	1,446	1,544	1,462	1,655	1,446	1,493	1,545	1,527
W. N. Central	798	755	857	765	842	797	882	776	839	768	886	787	794	824	820
S. Atlantic	2,042	2,134	2,465	2,070	2,220	2,170	2,502	2,072	2,220	2,109	2,503	2,075	2,179	2,241	2,227
E. S. Central	797	793	924	779	870	812	947	783	871	781	938	782	823	853	843
W. S. Central	1,452	1,561	1,869	1,501	1,572	1,592	1,966	1,549	1,599	1,575	1,987	1,583	1,597	1,670	1,687
Mountain	701	752	893	691	697	768	918	700	710	765	913	708	760	771	774
Pacific contiguous	1,084	1,010	1,184	1,042	1,049	1,005	1,198	1,052	1,059	1,007	1,170	1,054	1,080	1,076	1,073
AK and HI	43	41	43	43	42	40	42	42	42	40	42	42	42	42	42
Total	9,750	9,704	11,280	9,605	10,205	9,932	11,599	9,675	10,233	9,730	11,517	9,726	10,088	10,354	10,303

- = 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 - August 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Residential Sector															
New England	18.57	18.92	18.97	19.28	20.42	20.09	18.92	19.69	21.03	20.86	19.90	20.45	18.93	19.74	20.54
Middle Atlantic	15.55	16.27	16.43	15.87	15.61	16.36	16.51	16.14	15.94	16.79	16.94	16.47	16.04	16.16	16.53
E. N. Central	12.90	13.58	13.28	13.19	12.94	13.65	13.53	13.63	13.45	14.28	14.00	14.00	13.23	13.43	13.92
W. N. Central	10.94	12.66	13.16	11.51	10.91	12.41	13.27	11.79	11.31	13.02	13.62	12.02	12.07	12.10	12.49
S. Atlantic	11.69	12.01	12.26	11.81	11.61	11.86	12.26	11.94	11.82	12.22	12.52	12.13	11.96	11.93	12.18
E. S. Central	11.08	11.44	11.32	11.20	10.86	11.29	11.25	11.42	11.27	11.84	11.47	11.53	11.26	11.19	11.51
W. S. Central	10.54	10.93	10.87	10.76	10.54	10.88	10.71	10.74	10.65	11.19	10.91	10.87	10.79	10.71	10.90
Mountain	11.28	12.16	12.31	11.82	11.57	12.39	12.54	12.06	11.84	12.71	12.84	12.32	11.94	12.19	12.47
Pacific	14.51	14.69	16.50	14.37	14.86	15.48	16.99	14.59	15.14	16.07	17.63	15.06	15.07	15.53	16.00
U.S. Average	12.59	12.99	13.19	12.75	12.57	13.01	13.27	12.95	12.88	13.54	13.58	13.21	12.90	12.96	13.31
Commercial Sector															
New England	14.64	14.65	15.30	15.20	16.56	15.78	15.54	15.41	16.30	15.16	15.10	15.18	14.95	15.81	15.43
Middle Atlantic	12.07	12.75	13.34	12.08	12.07	12.43	13.27	12.10	12.01	12.37	13.25	12.25	12.58	12.49	12.49
E. N. Central	10.02	10.24	10.05	9.99	10.10	10.28	10.19	10.19	10.31	10.50	10.31	10.28	10.08	10.19	10.35
W. N. Central	9.12	10.11	10.57	9.26	9.17	10.04	10.75	9.50	9.36	10.32	10.99	9.76	9.79	9.89	10.13
S. Atlantic	9.44	9.38	9.55	9.53	9.56	9.35	9.61	9.66	9.88	9.54	9.68	9.70	9.48	9.55	9.69
E. S. Central	10.58	10.56	10.62	10.57	10.51	10.58	10.84	10.95	10.63	10.78	10.82	10.93	10.58	10.72	10.79
W. S. Central	8.37	8.40	8.38	8.28	8.38	8.11	8.13	8.17	8.00	7.74	7.80	8.11	8.36	8.19	7.91
Mountain	9.14	9.92	10.04	9.49	9.25	10.04	10.22	9.73	9.28	10.08	10.27	9.81	9.67	9.84	9.88
Pacific	12.53	13.56	15.36	13.61	12.86	14.36	16.03	14.29	13.67	14.95	16.60	14.43	13.82	14.45	14.96
U.S. Average	10.39	10.68	11.03	10.56	10.51	10.71	11.13	10.75	10.66	10.81	11.13	10.78	10.68	10.79	10.86
Industrial Sector															
New England	12.38	12.19	12.55	12.37	13.49	12.76	13.08	12.83	14.12	13.16	13.35	13.01	12.37	13.03	13.39
Middle Atlantic	6.94	6.94	6.88	6.81	7.20	6.72	6.90	6.87	7.00	6.64	6.84	6.84	6.89	6.92	6.83
E. N. Central	7.03	7.05	7.04	6.96	7.08	7.09	7.20	7.16	7.14	7.16	7.25	7.21	7.02	7.13	7.19
W. N. Central	6.89	7.35	8.07	6.87	7.05	7.27	8.19	7.04	7.16	7.37	8.30	7.12	7.31	7.40	7.50
S. Atlantic	6.31	6.39	6.79	6.34	6.45	6.40	6.95	6.53	6.44	6.44	6.97	6.56	6.46	6.59	6.61
E. S. Central	5.90	5.96	6.18	5.89	5.74	5.86	6.29	6.06	5.85	5.98	6.37	6.15	5.98	5.99	6.09
W. S. Central	5.28	5.55	5.72	5.41	5.43	5.35	5.71	5.46	5.31	5.36	5.72	5.53	5.50	5.49	5.49
Mountain	6.08	6.54	7.12	6.13	6.10	6.62	7.24	6.25	6.28	6.82	7.44	6.43	6.50	6.59	6.78
Pacific	8.23	9.35	10.73	9.73	8.63	9.94	11.11	9.99	8.80	10.04	11.19	10.04	9.57	10.00	10.10
U.S. Average	6.64	6.89	7.27	6.79	6.79	6.91	7.43	6.95	6.83	6.99	7.49	7.02	6.91	7.03	7.09
All Sectors (a)															
New England	15.93	15.87	16.35	16.35	17.79	16.98	16.63	16.71	18.05	16.99	16.84	16.99	16.13	17.02	17.22
Middle Atlantic	12.35	12.68	13.26	12.29	12.48	12.59	13.33	12.38	12.52	12.60	13.37	12.55	12.67	12.72	12.78
E. N. Central	10.00	10.13	10.16	10.01	10.13	10.29	10.38	10.27	10.37	10.43	10.54	10.43	10.08	10.27	10.45
W. N. Central	9.15	10.06	10.75	9.29	9.26	10.04	10.93	9.52	9.47	10.21	11.15	9.71	9.84	9.96	10.16
S. Atlantic	9.86	9.93	10.35	9.93	10.00	9.93	10.42	10.09	10.22	10.09	10.57	10.20	10.04	10.12	10.29
E. S. Central	9.20	9.27	9.55	9.23	9.23	9.33	9.68	9.51	9.48	9.52	9.77	9.59	9.32	9.45	9.60
W. S. Central	8.10	8.35	8.67	8.21	8.34	8.26	8.56	8.18	8.20	8.13	8.49	8.23	8.35	8.35	8.28
Mountain	8.97	9.67	10.12	9.25	9.10	9.83	10.31	9.45	9.26	9.95	10.45	9.61	9.55	9.73	9.87
Pacific	12.48	12.98	14.79	13.06	12.78	13.73	15.28	13.47	13.25	14.16	15.70	13.71	13.38	13.87	14.25
U.S. Average	10.26	10.47	10.98	10.37	10.42	10.56	11.11	10.55	10.60	10.72	11.20	10.68	10.54	10.68	10.82

- = 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 - August 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
United States															
Coal	3,242	3,100	3,762	3,128	3,127	2,959	<i>3,752</i>	<i>3,056</i>	<i>3,205</i>	<i>2,669</i>	<i>3,513</i>	<i>2,877</i>	3,309	<i>3,225</i>	<i>3,066</i>
Natural Gas	2,969	3,286	4,359	3,322	3,442	3,811	<i>4,661</i>	<i>3,479</i>	<i>3,495</i>	<i>3,705</i>	<i>4,751</i>	<i>3,636</i>	3,487	<i>3,850</i>	<i>3,899</i>
Petroleum (a)	59	54	56	62	101	51	<i>63</i>	<i>56</i>	<i>75</i>	<i>58</i>	<i>65</i>	<i>57</i>	58	<i>68</i>	<i>64</i>
Other Gases	40	39	40	36	37	36	<i>40</i>	<i>36</i>	<i>37</i>	<i>35</i>	<i>41</i>	<i>37</i>	39	<i>37</i>	<i>37</i>
Nuclear	2,242	2,034	2,302	2,243	2,294	2,157	<i>2,285</i>	<i>2,133</i>	<i>2,240</i>	<i>2,097</i>	<i>2,272</i>	<i>2,135</i>	2,205	<i>2,217</i>	<i>2,186</i>
Renewable Energy Sources:	2,008	2,157	1,615	1,757	2,084	2,119	<i>1,653</i>	<i>1,762</i>	<i>1,942</i>	<i>2,161</i>	<i>1,784</i>	<i>1,870</i>	1,883	<i>1,903</i>	<i>1,939</i>
Conventional Hydropower	918	1,010	717	647	854	898	<i>662</i>	<i>621</i>	<i>751</i>	<i>862</i>	<i>723</i>	<i>632</i>	822	<i>758</i>	<i>742</i>
Wind	768	748	501	771	867	782	<i>553</i>	<i>782</i>	<i>830</i>	<i>843</i>	<i>598</i>	<i>859</i>	697	<i>746</i>	<i>782</i>
Wood Biomass	118	115	122	119	122	115	<i>124</i>	<i>117</i>	<i>120</i>	<i>116</i>	<i>125</i>	<i>119</i>	119	<i>120</i>	<i>120</i>
Waste Biomass	59	56	56	57	58	56	<i>58</i>	<i>59</i>	<i>58</i>	<i>59</i>	<i>60</i>	<i>59</i>	57	<i>58</i>	<i>59</i>
Geothermal	45	43	44	43	45	44	<i>45</i>	<i>46</i>	<i>46</i>	<i>45</i>	<i>45</i>	<i>46</i>	44	<i>45</i>	<i>45</i>
Solar	101	185	175	120	138	224	<i>210</i>	<i>136</i>	<i>137</i>	<i>236</i>	<i>233</i>	<i>155</i>	145	<i>177</i>	<i>191</i>
Pumped Storage Hydropower	-16	-16	-22	-17	-15	-13	<i>-18</i>	<i>-14</i>	<i>-13</i>	<i>-12</i>	<i>-18</i>	<i>-14</i>	-18	<i>-15</i>	<i>-14</i>
Other Nonrenewable Fuels (b)	35	35	38	35	36	35	<i>38</i>	<i>36</i>	<i>35</i>	<i>36</i>	<i>38</i>	<i>36</i>	36	<i>36</i>	<i>36</i>
Total Generation	10,579	10,690	12,151	10,566	11,107	11,154	<i>12,474</i>	<i>10,544</i>	<i>11,015</i>	<i>10,749</i>	<i>12,445</i>	<i>10,633</i>	10,999	<i>11,321</i>	<i>11,213</i>
Northeast Census Region															
Coal	154	134	136	139	149	136	<i>233</i>	<i>172</i>	<i>160</i>	<i>98</i>	<i>150</i>	<i>150</i>	141	<i>173</i>	<i>140</i>
Natural Gas	486	482	637	492	500	524	<i>672</i>	<i>521</i>	<i>517</i>	<i>558</i>	<i>691</i>	<i>559</i>	525	<i>555</i>	<i>582</i>
Petroleum (a)	4	2	3	11	32	3	<i>4</i>	<i>3</i>	<i>12</i>	<i>2</i>	<i>4</i>	<i>4</i>	5	<i>11</i>	<i>5</i>
Other Gases	2	2	2	2	2	2	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	2	<i>2</i>	<i>2</i>
Nuclear	539	476	549	529	552	508	<i>536</i>	<i>489</i>	<i>512</i>	<i>476</i>	<i>507</i>	<i>463</i>	523	<i>521</i>	<i>489</i>
Hydropower (c)	102	107	99	99	103	102	<i>88</i>	<i>94</i>	<i>100</i>	<i>97</i>	<i>92</i>	<i>94</i>	102	<i>97</i>	<i>96</i>
Other Renewables (d)	72	76	68	74	80	73	<i>66</i>	<i>78</i>	<i>80</i>	<i>72</i>	<i>66</i>	<i>80</i>	73	<i>74</i>	<i>74</i>
Other Nonrenewable Fuels (b)	11	11	12	12	11	11	<i>12</i>	<i>12</i>	<i>11</i>	<i>11</i>	<i>12</i>	<i>12</i>	11	<i>11</i>	<i>11</i>
Total Generation	1,370	1,290	1,506	1,359	1,430	1,359	<i>1,613</i>	<i>1,371</i>	<i>1,394</i>	<i>1,316</i>	<i>1,523</i>	<i>1,364</i>	1,381	<i>1,444</i>	<i>1,400</i>
South Census Region															
Coal	1,330	1,416	1,681	1,293	1,261	1,298	<i>1,593</i>	<i>1,234</i>	<i>1,309</i>	<i>1,151</i>	<i>1,543</i>	<i>1,159</i>	1,431	<i>1,347</i>	<i>1,291</i>
Natural Gas	1,763	2,087	2,565	1,922	2,052	2,365	<i>2,713</i>	<i>2,007</i>	<i>2,026</i>	<i>2,259</i>	<i>2,792</i>	<i>2,079</i>	2,086	<i>2,285</i>	<i>2,290</i>
Petroleum (a)	25	22	23	21	38	19	<i>26</i>	<i>22</i>	<i>30</i>	<i>25</i>	<i>28</i>	<i>23</i>	23	<i>26</i>	<i>26</i>
Other Gases	15	15	15	13	13	14	<i>15</i>	<i>13</i>	<i>13</i>	<i>13</i>	<i>14</i>	<i>12</i>	14	<i>14</i>	<i>13</i>
Nuclear	973	888	1,003	1,012	1,008	952	<i>1,018</i>	<i>960</i>	<i>1,009</i>	<i>948</i>	<i>1,032</i>	<i>978</i>	969	<i>985</i>	<i>992</i>
Hydropower (c)	128	138	99	103	126	130	<i>91</i>	<i>100</i>	<i>122</i>	<i>121</i>	<i>96</i>	<i>99</i>	117	<i>111</i>	<i>109</i>
Other Renewables (d)	401	403	323	391	453	469	<i>365</i>	<i>415</i>	<i>444</i>	<i>484</i>	<i>397</i>	<i>456</i>	379	<i>425</i>	<i>445</i>
Other Nonrenewable Fuels (b)	15	15	16	15	16	16	<i>16</i>	<i>15</i>	<i>15</i>	<i>15</i>	<i>16</i>	<i>15</i>	15	<i>16</i>	<i>15</i>
Total Generation	4,650	4,984	5,726	4,769	4,968	5,262	<i>5,838</i>	<i>4,766</i>	<i>4,967</i>	<i>5,015</i>	<i>5,919</i>	<i>4,822</i>	5,034	<i>5,210</i>	<i>5,182</i>
Midwest Census Region															
Coal	1,288	1,177	1,394	1,216	1,302	1,139	<i>1,368</i>	<i>1,152</i>	<i>1,238</i>	<i>1,060</i>	<i>1,333</i>	<i>1,094</i>	1,269	<i>1,240</i>	<i>1,181</i>
Natural Gas	289	272	407	349	400	447	<i>517</i>	<i>401</i>	<i>444</i>	<i>417</i>	<i>528</i>	<i>437</i>	330	<i>441</i>	<i>457</i>
Petroleum (a)	7	7	7	8	9	7	<i>10</i>	<i>9</i>	<i>11</i>	<i>10</i>	<i>10</i>	<i>9</i>	7	<i>9</i>	<i>10</i>
Other Gases	17	16	17	15	15	14	<i>17</i>	<i>15</i>	<i>16</i>	<i>14</i>	<i>18</i>	<i>16</i>	16	<i>15</i>	<i>16</i>
Nuclear	555	543	580	535	571	539	<i>563</i>	<i>525</i>	<i>553</i>	<i>519</i>	<i>564</i>	<i>534</i>	553	<i>549</i>	<i>542</i>
Hydropower (c)	52	58	37	36	54	54	<i>33</i>	<i>35</i>	<i>53</i>	<i>52</i>	<i>34</i>	<i>35</i>	46	<i>44</i>	<i>44</i>
Other Renewables (d)	315	304	198	340	360	285	<i>209</i>	<i>342</i>	<i>353</i>	<i>330</i>	<i>227</i>	<i>383</i>	289	<i>299</i>	<i>323</i>
Other Nonrenewable Fuels (b)	3	4	4	4	4	4	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	4	<i>4</i>	<i>4</i>
Total Generation	2,528	2,381	2,643	2,503	2,714	2,488	<i>2,720</i>	<i>2,484</i>	<i>2,672</i>	<i>2,405</i>	<i>2,719</i>	<i>2,511</i>	2,514	<i>2,601</i>	<i>2,577</i>
West Census Region															
Coal	470	373	551	480	415	386	<i>559</i>	<i>498</i>	<i>498</i>	<i>360</i>	<i>487</i>	<i>474</i>	469	<i>465</i>	<i>455</i>
Natural Gas	430	446	751	558	490	475	<i>759</i>	<i>549</i>	<i>507</i>	<i>471</i>	<i>741</i>	<i>560</i>	547	<i>569</i>	<i>571</i>
Petroleum (a)	23	22	23	22	21	22	<i>23</i>	<i>22</i>	<i>22</i>	<i>21</i>	<i>23</i>	<i>22</i>	23	<i>22</i>	<i>22</i>
Other Gases	6	6	6	6	7	6	<i>6</i>	<i>7</i>	<i>7</i>	<i>6</i>	<i>6</i>	<i>7</i>	6	<i>7</i>	<i>7</i>
Nuclear	175	127	171	167	164	158	<i>168</i>	<i>158</i>	<i>165</i>	<i>155</i>	<i>169</i>	<i>160</i>	160	<i>162</i>	<i>162</i>
Hydropower (c)	619	692	460	392	557	598	<i>433</i>	<i>378</i>	<i>463</i>	<i>580</i>	<i>483</i>	<i>389</i>	540	<i>491</i>	<i>479</i>
Other Renewables (d)	302	364	308	305	337	394	<i>351</i>	<i>305</i>	<i>315</i>	<i>413</i>	<i>370</i>	<i>319</i>	320	<i>347</i>	<i>354</i>
Other Nonrenewable Fuels (b)	5	5	6	5	5	6	<i>6</i>	<i>5</i>	<i>5</i>	<i>6</i>	<i>6</i>	<i>5</i>	5	<i>5</i>	<i>5</i>
Total Generation	2,031	2,035	2,277	1,934	1,995	2,045	<i>2,303</i>	<i>1,922</i>	<i>1,982</i>	<i>2,013</i>	<i>2,285</i>	<i>1,935</i>	2,069	<i>2,067</i>	<i>2,054</i>

(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 - August 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Fuel Consumption for Electricity Generation, All Sectors															
United States															
Coal (thousand st/d)	1,777	1,692	2,068	1,731	1,719	1,637	2,065	1,691	1,746	1,459	1,928	1,589	1,818	1,779	1,681
Natural Gas (million cf/d)	21,452	24,555	32,799	24,545	25,006	28,239	34,872	25,316	25,279	27,425	35,557	26,453	25,865	28,377	28,701
Petroleum (thousand b/d)	107	100	105	111	178	94	115	102	135	105	117	103	106	122	115
Residual Fuel Oil	26	27	28	33	51	27	30	26	39	26	29	26	29	33	30
Distillate Fuel Oil	28	24	23	32	71	26	26	27	34	25	25	28	27	37	28
Petroleum Coke (a)	49	45	48	42	47	38	55	45	56	50	59	46	46	46	53
Other Petroleum Liquids (b)	4	4	7	5	9	4	4	4	5	3	4	4	5	5	4
Northeast Census Region															
Coal (thousand st/d)	75	63	66	65	76	72	116	85	80	49	76	76	67	88	70
Natural Gas (million cf/d)	3,603	3,640	4,893	3,706	3,635	3,853	5,011	3,767	3,741	4,089	5,158	4,050	3,963	4,069	4,263
Petroleum (thousand b/d)	7	4	7	18	53	6	8	6	21	4	6	6	9	18	9
South Census Region															
Coal (thousand st/d)	715	761	902	705	659	690	849	664	683	607	817	619	771	716	682
Natural Gas (million cf/d)	12,471	15,401	19,033	14,045	14,832	17,476	20,174	14,507	14,498	16,624	20,745	15,008	15,252	16,755	16,731
Petroleum (thousand b/d)	47	42	43	40	70	36	48	42	57	46	52	43	43	49	49
Midwest Census Region															
Coal (thousand st/d)	717	655	787	688	745	652	778	654	697	600	758	622	712	707	669
Natural Gas (million cf/d)	2,186	2,134	3,249	2,676	2,915	3,351	4,030	2,999	3,287	3,156	4,111	3,257	2,564	3,326	3,455
Petroleum (thousand b/d)	15	16	16	16	19	16	21	18	20	19	21	18	16	18	20
West Census Region															
Coal (thousand st/d)	269	213	313	273	240	223	321	287	286	205	277	272	267	268	260
Natural Gas (million cf/d)	3,192	3,378	5,624	4,117	3,625	3,559	5,657	4,043	3,753	3,556	5,543	4,138	4,085	4,226	4,252
Petroleum (thousand b/d)	39	37	39	37	36	37	38	37	37	35	37	37	38	37	37
End-of-period U.S. Fuel Inventories Held by Electric Power Sector															
Coal (million short tons)	161.7	157.7	139.3	137.2	126.4	122.1	109.4	117.4	116.5	114.3	108.8	118.1	137.2	117.4	118.1
Residual Fuel Oil (mmb)	12.5	11.9	11.4	11.0	10.3	10.3	10.5	11.2	11.2	11.2	11.2	11.6	11.0	11.2	11.6
Distillate Fuel Oil (mmb)	17.0	16.6	16.4	15.8	15.0	15.2	15.4	15.8	16.0	16.0	15.9	16.2	15.8	15.8	16.2
Petroleum Coke (mmb)	4.3	4.3	4.9	5.6	5.3	5.5	5.4	5.3	5.2	5.1	5.0	4.9	5.6	5.3	4.9

(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 - August 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Electric Power Sector															
Geothermal	0.037	0.036	0.037	0.037	0.038	0.037	<i>0.038</i>	<i>0.039</i>	<i>0.038</i>	<i>0.038</i>	<i>0.038</i>	<i>0.039</i>	0.147	<i>0.151</i>	<i>0.153</i>
Hydroelectric Power (a)	0.759	0.844	0.605	0.546	0.706	0.750	<i>0.559</i>	<i>0.524</i>	<i>0.620</i>	<i>0.720</i>	<i>0.610</i>	<i>0.533</i>	2.755	<i>2.539</i>	<i>2.484</i>
Solar (b)	0.083	0.153	0.147	0.100	0.113	0.187	<i>0.176</i>	<i>0.114</i>	<i>0.112</i>	<i>0.196</i>	<i>0.195</i>	<i>0.129</i>	0.483	<i>0.590</i>	<i>0.632</i>
Waste Biomass (c)	0.070	0.066	0.068	0.068	0.070	0.067	<i>0.071</i>	<i>0.071</i>	<i>0.069</i>	<i>0.071</i>	<i>0.073</i>	<i>0.072</i>	0.272	<i>0.280</i>	<i>0.285</i>
Wood Biomass	0.061	0.059	0.064	0.063	0.061	0.057	<i>0.067</i>	<i>0.060</i>	<i>0.061</i>	<i>0.058</i>	<i>0.069</i>	<i>0.063</i>	0.247	<i>0.246</i>	<i>0.250</i>
Wind	0.637	0.628	0.425	0.654	0.720	0.657	<i>0.469</i>	<i>0.664</i>	<i>0.689</i>	<i>0.707</i>	<i>0.507</i>	<i>0.729</i>	2.345	<i>2.510</i>	<i>2.632</i>
Subtotal	1.648	1.787	1.347	1.468	1.708	1.754	<i>1.381</i>	<i>1.472</i>	<i>1.589</i>	<i>1.790</i>	<i>1.494</i>	<i>1.565</i>	6.249	<i>6.316</i>	<i>6.437</i>
Industrial Sector															
Biofuel Losses and Co-products (d)	0.203	0.199	0.204	0.211	0.202	0.203	<i>0.209</i>	<i>0.207</i>	<i>0.201</i>	<i>0.204</i>	<i>0.207</i>	<i>0.207</i>	0.817	<i>0.821</i>	<i>0.820</i>
Geothermal	0.001	0.001	0.001	0.001	0.001	0.001	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	0.004	<i>0.004</i>	<i>0.004</i>
Hydroelectric Power (a)	0.003	0.004	0.003	0.003	0.003	0.003	<i>0.003</i>	<i>0.003</i>	<i>0.003</i>	<i>0.003</i>	<i>0.003</i>	<i>0.003</i>	0.013	<i>0.013</i>	<i>0.013</i>
Solar (b)	0.005	0.007	0.007	0.005	0.005	0.008	<i>0.008</i>	<i>0.006</i>	<i>0.006</i>	<i>0.009</i>	<i>0.010</i>	<i>0.007</i>	0.024	<i>0.028</i>	<i>0.032</i>
Waste Biomass (c)	0.044	0.040	0.038	0.044	0.044	0.041	<i>0.041</i>	<i>0.044</i>	<i>0.043</i>	<i>0.042</i>	<i>0.041</i>	<i>0.043</i>	0.165	<i>0.170</i>	<i>0.169</i>
Wood Biomass	0.370	0.361	0.375	0.374	0.368	0.366	<i>0.365</i>	<i>0.363</i>	<i>0.351</i>	<i>0.348</i>	<i>0.360</i>	<i>0.361</i>	1.480	<i>1.463</i>	<i>1.420</i>
Subtotal	0.625	0.609	0.625	0.638	0.624	0.616	<i>0.624</i>	<i>0.622</i>	<i>0.603</i>	<i>0.603</i>	<i>0.617</i>	<i>0.621</i>	2.498	<i>2.486</i>	<i>2.444</i>
Commercial Sector															
Geothermal	0.005	0.005	0.005	0.005	0.005	0.005	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	0.020	<i>0.020</i>	<i>0.020</i>
Solar (b)	0.015	0.023	0.023	0.016	0.019	0.028	<i>0.029</i>	<i>0.021</i>	<i>0.024</i>	<i>0.034</i>	<i>0.035</i>	<i>0.025</i>	0.076	<i>0.096</i>	<i>0.118</i>
Waste Biomass (c)	0.012	0.011	0.011	0.011	0.011	0.011	<i>0.012</i>	<i>0.012</i>	<i>0.011</i>	<i>0.011</i>	<i>0.012</i>	<i>0.012</i>	0.045	<i>0.045</i>	<i>0.045</i>
Wood Biomass	0.021	0.021	0.021	0.021	0.021	0.021	<i>0.021</i>	<i>0.021</i>	<i>0.021</i>	<i>0.021</i>	<i>0.021</i>	<i>0.021</i>	0.084	<i>0.084</i>	<i>0.084</i>
Subtotal	0.059	0.067	0.067	0.061	0.062	0.072	<i>0.074</i>	<i>0.066</i>	<i>0.067</i>	<i>0.078</i>	<i>0.080</i>	<i>0.070</i>	0.253	<i>0.274</i>	<i>0.295</i>
Residential Sector															
Geothermal	0.010	0.010	0.010	0.010	0.010	0.011	<i>0.013</i>	<i>0.013</i>	<i>0.013</i>	<i>0.013</i>	<i>0.013</i>	<i>0.013</i>	0.040	<i>0.047</i>	<i>0.053</i>
Solar (e)	0.036	0.057	0.058	0.040	0.043	0.066	<i>0.068</i>	<i>0.047</i>	<i>0.050</i>	<i>0.077</i>	<i>0.078</i>	<i>0.055</i>	0.191	<i>0.225</i>	<i>0.260</i>
Wood Biomass	0.082	0.083	0.084	0.084	0.095	0.098	<i>0.104</i>	<i>0.104</i>	<i>0.105</i>	<i>0.105</i>	<i>0.105</i>	<i>0.105</i>	0.334	<i>0.401</i>	<i>0.420</i>
Subtotal	0.128	0.150	0.152	0.134	0.148	0.175	<i>0.185</i>	<i>0.164</i>	<i>0.168</i>	<i>0.195</i>	<i>0.197</i>	<i>0.173</i>	0.565	<i>0.672</i>	<i>0.732</i>
Transportation Sector															
Biomass-based Diesel (f)	0.054	0.079	0.080	0.066	0.057	0.069	<i>0.089</i>	<i>0.093</i>	<i>0.066</i>	<i>0.085</i>	<i>0.098</i>	<i>0.101</i>	0.279	<i>0.308</i>	<i>0.350</i>
Ethanol (f)	0.268	0.290	0.293	0.291	0.273	0.283	<i>0.300</i>	<i>0.290</i>	<i>0.273</i>	<i>0.295</i>	<i>0.299</i>	<i>0.292</i>	1.142	<i>1.146</i>	<i>1.160</i>
Subtotal	0.321	0.370	0.373	0.357	0.329	0.352	<i>0.389</i>	<i>0.383</i>	<i>0.339</i>	<i>0.380</i>	<i>0.397</i>	<i>0.393</i>	1.421	<i>1.454</i>	<i>1.510</i>
All Sectors Total															
Biomass-based Diesel (f)	0.054	0.079	0.080	0.066	0.057	0.069	<i>0.089</i>	<i>0.093</i>	<i>0.066</i>	<i>0.085</i>	<i>0.098</i>	<i>0.101</i>	0.279	<i>0.308</i>	<i>0.350</i>
Biofuel Losses and Co-products (d)	0.203	0.199	0.204	0.211	0.202	0.203	<i>0.209</i>	<i>0.207</i>	<i>0.201</i>	<i>0.204</i>	<i>0.207</i>	<i>0.207</i>	0.817	<i>0.821</i>	<i>0.820</i>
Ethanol (f)	0.278	0.301	0.304	0.302	0.283	0.298	<i>0.313</i>	<i>0.302</i>	<i>0.284</i>	<i>0.306</i>	<i>0.311</i>	<i>0.304</i>	1.186	<i>1.195</i>	<i>1.204</i>
Geothermal	0.053	0.052	0.053	0.053	0.053	0.053	<i>0.057</i>	<i>0.058</i>	<i>0.057</i>	<i>0.057</i>	<i>0.057</i>	<i>0.058</i>	0.211	<i>0.222</i>	<i>0.229</i>
Hydroelectric Power (a)	0.763	0.849	0.609	0.550	0.710	0.754	<i>0.563</i>	<i>0.528</i>	<i>0.624</i>	<i>0.724</i>	<i>0.614</i>	<i>0.536</i>	2.770	<i>2.554</i>	<i>2.499</i>
Solar (b)(e)	0.138	0.240	0.235	0.161	0.180	0.288	<i>0.281</i>	<i>0.188</i>	<i>0.192</i>	<i>0.316</i>	<i>0.318</i>	<i>0.216</i>	0.774	<i>0.938</i>	<i>1.042</i>
Waste Biomass (c)	0.126	0.117	0.117	0.122	0.125	0.120	<i>0.124</i>	<i>0.127</i>	<i>0.123</i>	<i>0.124</i>	<i>0.126</i>	<i>0.127</i>	0.482	<i>0.496</i>	<i>0.500</i>
Wood Biomass	0.534	0.524	0.543	0.543	0.545	0.542	<i>0.558</i>	<i>0.549</i>	<i>0.537</i>	<i>0.532</i>	<i>0.555</i>	<i>0.550</i>	2.145	<i>2.194</i>	<i>2.174</i>
Wind	0.637	0.628	0.425	0.654	0.720	0.657	<i>0.469</i>	<i>0.664</i>	<i>0.689</i>	<i>0.707</i>	<i>0.507</i>	<i>0.729</i>	2.345	<i>2.510</i>	<i>2.632</i>
Total Consumption	2.781	2.982	2.565	2.657	2.871	2.967	<i>2.653</i>	<i>2.707</i>	<i>2.766</i>	<i>3.047</i>	<i>2.783</i>	<i>2.822</i>	10.986	<i>11.199</i>	<i>11.419</i>

- = no data available

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

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

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

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 8b. U.S. Renewable Electricity Generation and Capacity
 U.S. Energy Information Administration | Short-Term Energy Outlook - August 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	7,294	7,333	7,330	7,363	7,526	7,526	7,526	7,526	7,313	7,363	7,526
Waste	4,202	4,238	4,241	4,234	4,215	4,253	4,251	4,284	4,288	4,288	4,288	4,288	4,234	4,284	4,288
Wood	3,031	3,031	3,085	3,079	3,079	3,079	3,079	3,079	3,238	3,238	3,238	3,238	3,079	3,079	3,238
Conventional Hydroelectric	79,336	79,343	79,437	79,432	79,540	79,508	79,648	79,662	79,706	79,733	79,693	79,727	79,432	79,662	79,727
Geothermal	2,449	2,449	2,449	2,486	2,502	2,502	2,502	2,502	2,510	2,510	2,510	2,545	2,486	2,502	2,545
Large-Scale Solar (b)	22,591	23,624	24,134	26,432	27,922	28,767	29,491	32,098	32,711	33,353	33,518	38,428	26,432	32,098	38,428
Wind	82,919	83,378	84,109	87,488	88,505	88,629	89,859	94,578	95,453	96,184	97,342	104,975	87,488	94,578	104,975
Other Sectors (c)															
Biomass	6,686	6,690	6,688	6,657	6,655	6,636	6,645	6,645	6,645	6,623	6,623	6,637	6,657	6,645	6,637
Waste	881	885	883	872	876	876	876	876	876	878	878	892	872	876	892
Wood	5,805	5,805	5,805	5,785	5,779	5,760	5,769	5,769	5,769	5,745	5,745	5,745	5,785	5,769	5,745
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	352	360	361	361	361	360	360	360	349	361	360
Small-Scale Solar (d)	13,722	14,543	15,341	16,224	16,972	17,992	18,874	19,804	20,692	21,646	22,666	23,739	16,224	19,804	23,739
Residential Sector	8,124	8,618	9,105	9,574	10,170	10,667	11,187	11,721	12,272	12,842	13,428	14,031	9,574	11,721	14,031
Commercial Sector	4,286	4,555	4,797	5,146	5,290	5,724	6,021	6,347	6,622	6,938	7,297	7,689	5,146	6,347	7,689
Industrial Sector	1,312	1,370	1,438	1,504	1,512	1,601	1,666	1,736	1,798	1,866	1,940	2,019	1,504	1,736	2,019
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	86	90	90	92	85	94	90	90	89	97	92	89	90	92
Waste	49	47	47	47	49	47	49	49	49	50	50	50	48	49	50
Wood	41	39	43	43	43	38	45	41	41	39	46	42	41	42	42
Conventional Hydroelectric	913	1,005	713	643	850	893	658	617	747	857	719	627	818	754	737
Geothermal	45	43	44	43	45	44	45	46	46	45	45	46	44	45	45
Large-Scale Solar (b)	100	182	173	118	136	222	207	134	135	233	230	152	143	175	188
Wind	767	748	501	770	866	782	553	781	829	842	597	858	696	745	781
Other Sectors (c)															
Biomass	87	84	88	86	88	86	88	86	88	86	88	86	86	87	87
Waste	78	75	79	77	79	77	79	77	79	77	79	77	77	78	78
Wood	10	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Conventional Hydroelectric	5	5	4	4	5	5	4	4	5	5	4	4	5	4	4
Large-Scale Solar (b)	1	2	2	1	1	2	3	2	3	3	3	3	2	2	3
Small-Scale Solar (d)	51	79	80	55	65	97	98	69	79	117	119	83	66	82	100
Residential Sector	29	46	46	31	37	57	57	40	45	69	69	48	38	48	58
Commercial Sector	17	25	25	18	21	31	32	22	26	38	38	27	21	26	32
Industrial Sector	5	8	8	6	6	9	10	7	8	11	11	8	7	8	9
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 - August 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Macroeconomic															
Real Gross Domestic Product (billion chained 2009 dollars - SAAR)	16,903	17,031	17,164	17,286	17,372	17,575	<i>17,687</i>	<i>17,816</i>	<i>17,926</i>	<i>18,021</i>	<i>18,104</i>	<i>18,180</i>	17,096	<i>17,612</i>	<i>18,058</i>
Real Personal Consumption Expend. (billion chained 2009 dollars - SAAR)	11,758	11,853	11,917	12,035	12,061	12,143	<i>12,208</i>	<i>12,284</i>	<i>12,362</i>	<i>12,439</i>	<i>12,516</i>	<i>12,590</i>	11,891	<i>12,174</i>	<i>12,477</i>
Real Fixed Investment (billion chained 2009 dollars - SAAR)	2,876	2,898	2,916	2,974	3,029	3,051	<i>3,086</i>	<i>3,121</i>	<i>3,160</i>	<i>3,196</i>	<i>3,229</i>	<i>3,262</i>	2,916	<i>3,072</i>	<i>3,212</i>
Business Inventory Change (billion chained 2009 dollars - SAAR)	0	5	42	16	15	41	<i>73</i>	<i>89</i>	<i>94</i>	<i>97</i>	<i>92</i>	<i>84</i>	16	<i>55</i>	<i>92</i>
Real Government Expenditures (billion chained 2009 dollars - SAAR)	2,897	2,895	2,900	2,922	2,931	2,949	<i>2,970</i>	<i>2,996</i>	<i>3,015</i>	<i>3,027</i>	<i>3,035</i>	<i>3,040</i>	2,903	<i>2,961</i>	<i>3,029</i>
Real Exports of Goods & Services (billion chained 2009 dollars - SAAR)	2,162	2,181	2,192	2,230	2,250	2,306	<i>2,308</i>	<i>2,346</i>	<i>2,378</i>	<i>2,412</i>	<i>2,448</i>	<i>2,489</i>	2,191	<i>2,302</i>	<i>2,432</i>
Real Imports of Goods & Services (billion chained 2009 dollars - SAAR)	2,785	2,795	2,790	2,884	2,906	2,900	<i>2,940</i>	<i>3,002</i>	<i>3,067</i>	<i>3,138</i>	<i>3,209</i>	<i>3,285</i>	2,813	<i>2,937</i>	<i>3,175</i>
Real Disposable Personal Income (billion chained 2009 dollars - SAAR)	12,680	12,766	12,788	12,827	12,940	13,003	<i>13,055</i>	<i>13,170</i>	<i>13,311</i>	<i>13,402</i>	<i>13,491</i>	<i>13,587</i>	12,765	<i>13,042</i>	<i>13,448</i>
Non-Farm Employment (millions)	145.9	146.3	146.9	147.4	148.1	148.7	<i>149.3</i>	<i>149.9</i>	<i>150.4</i>	<i>150.8</i>	<i>151.1</i>	<i>151.4</i>	146.6	<i>149.0</i>	<i>150.9</i>
Civilian Unemployment Rate (percent)	4.7	4.3	4.3	4.1	4.1	3.9	<i>3.8</i>	<i>3.6</i>	<i>3.5</i>	<i>3.5</i>	<i>3.6</i>	<i>3.6</i>	4.4	<i>3.8</i>	<i>3.5</i>
Housing Starts (millions - SAAR)	1.23	1.17	1.17	1.26	1.32	1.32	<i>1.32</i>	<i>1.35</i>	<i>1.37</i>	<i>1.37</i>	<i>1.39</i>	<i>1.39</i>	1.21	<i>1.33</i>	<i>1.38</i>
Industrial Production Indices (Index, 2012=100)															
Total Industrial Production	102.5	103.7	103.3	105.3	105.9	107.4	<i>107.5</i>	<i>108.5</i>	<i>109.3</i>	<i>109.8</i>	<i>110.4</i>	<i>110.9</i>	103.7	<i>107.3</i>	<i>110.1</i>
Manufacturing	102.0	102.7	102.2	103.6	104.1	104.9	<i>105.4</i>	<i>106.3</i>	<i>107.0</i>	<i>107.4</i>	<i>107.8</i>	<i>108.1</i>	102.6	<i>105.2</i>	<i>107.6</i>
Food	109.2	110.1	112.1	112.5	114.1	115.1	<i>115.4</i>	<i>115.9</i>	<i>116.5</i>	<i>117.0</i>	<i>117.5</i>	<i>118.0</i>	111.0	<i>115.1</i>	<i>117.3</i>
Paper	97.8	96.9	96.4	96.1	95.6	96.6	<i>96.4</i>	<i>96.5</i>	<i>96.5</i>	<i>96.5</i>	<i>96.5</i>	<i>96.4</i>	96.8	<i>96.3</i>	<i>96.5</i>
Petroleum and Coal Products	105.5	108.9	104.7	107.4	106.4	106.2	<i>106.6</i>	<i>107.1</i>	<i>107.5</i>	<i>107.7</i>	<i>108.0</i>	<i>108.3</i>	106.6	<i>106.6</i>	<i>107.9</i>
Chemicals	94.2	95.9	94.7	97.7	96.7	98.2	<i>98.8</i>	<i>99.7</i>	<i>100.6</i>	<i>101.5</i>	<i>102.4</i>	<i>103.2</i>	95.6	<i>98.3</i>	<i>101.9</i>
Nonmetallic Mineral Products	114.0	113.2	113.6	117.1	119.2	121.2	<i>122.1</i>	<i>123.0</i>	<i>124.0</i>	<i>124.9</i>	<i>125.8</i>	<i>126.7</i>	114.5	<i>121.4</i>	<i>125.4</i>
Primary Metals	94.0	92.9	93.6	95.2	96.2	95.9	<i>97.7</i>	<i>101.7</i>	<i>104.4</i>	<i>105.1</i>	<i>105.1</i>	<i>104.6</i>	93.9	<i>97.9</i>	<i>104.8</i>
Coal-weighted Manufacturing (a)	101.7	102.1	101.1	103.3	103.4	104.2	<i>105.1</i>	<i>106.6</i>	<i>107.9</i>	<i>108.6</i>	<i>109.0</i>	<i>109.4</i>	102.0	<i>104.8</i>	<i>108.7</i>
Distillate-weighted Manufacturing (a)	107.8	108.2	108.2	110.1	111.0	111.5	<i>112.3</i>	<i>113.4</i>	<i>114.3</i>	<i>114.9</i>	<i>115.5</i>	<i>115.9</i>	108.6	<i>112.1</i>	<i>115.2</i>
Electricity-weighted Manufacturing (a)	102.1	102.8	101.9	103.9	104.1	104.8	<i>105.7</i>	<i>107.1</i>	<i>108.2</i>	<i>109.0</i>	<i>109.6</i>	<i>110.1</i>	102.7	<i>105.4</i>	<i>109.2</i>
Natural Gas-weighted Manufacturing (a)	101.7	103.5	101.6	104.5	103.6	104.8	<i>105.6</i>	<i>106.8</i>	<i>107.9</i>	<i>108.7</i>	<i>109.5</i>	<i>110.1</i>	102.9	<i>105.2</i>	<i>109.0</i>
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	<i>2.52</i>	<i>2.53</i>	<i>2.55</i>	<i>2.56</i>	<i>2.58</i>	<i>2.59</i>	2.45	<i>2.51</i>	<i>2.57</i>
Producer Price Index: All Commodities (index, 1982=1.00)	1.93	1.92	1.92	1.97	2.01	2.03	<i>2.04</i>	<i>2.05</i>	<i>2.05</i>	<i>2.05</i>	<i>2.06</i>	<i>2.07</i>	1.94	<i>2.03</i>	<i>2.06</i>
Producer Price Index: Petroleum (index, 1982=1.00)	1.66	1.67	1.75	1.91	1.99	2.15	<i>2.19</i>	<i>2.12</i>	<i>2.05</i>	<i>2.10</i>	<i>2.13</i>	<i>2.13</i>	1.75	<i>2.11</i>	<i>2.10</i>
GDP Implicit Price Deflator (index, 2009=100)	112.8	113.0	113.6	114.3	114.9	115.6	<i>116.4</i>	<i>117.2</i>	<i>118.0</i>	<i>118.8</i>	<i>119.6</i>	<i>120.3</i>	113.4	<i>116.0</i>	<i>119.2</i>
Miscellaneous															
Vehicle Miles Traveled (b) (million miles/day)	8,210	9,202	9,057	8,730	8,237	9,225	<i>9,163</i>	<i>8,840</i>	<i>8,449</i>	<i>9,420</i>	<i>9,275</i>	<i>8,949</i>	8,802	<i>8,869</i>	<i>9,025</i>
Air Travel Capacity (Available ton-miles/day, thousands)	567	619	661	631	603	639	<i>646</i>	<i>619</i>	<i>600</i>	<i>636</i>	<i>647</i>	<i>624</i>	620	<i>627</i>	<i>627</i>
Aircraft Utilization (Revenue ton-miles/day, thousands)	344	390	398	382	368	404	<i>408</i>	<i>384</i>	<i>365</i>	<i>401</i>	<i>407</i>	<i>387</i>	378	<i>391</i>	<i>390</i>
Airline Ticket Price Index (index, 1982-1984=100)	277.8	297.0	264.9	263.4	262.8	279.6	<i>278.1</i>	<i>304.6</i>	<i>323.2</i>	<i>344.0</i>	<i>310.6</i>	<i>323.2</i>	275.8	<i>281.3</i>	<i>325.2</i>
Raw Steel Production (million short tons per day)	0.248	0.247	0.250	0.245	0.251	0.253	<i>0.244</i>	<i>0.214</i>	<i>0.261</i>	<i>0.261</i>	<i>0.243</i>	<i>0.210</i>	0.248	<i>0.240</i>	<i>0.244</i>
Carbon Dioxide (CO₂) Emissions (million metric tons)															
Petroleum	565	588	593	592	581	589	<i>600</i>	<i>595</i>	<i>579</i>	<i>593</i>	<i>609</i>	<i>604</i>	2,338	<i>2,365</i>	<i>2,386</i>
Natural Gas	422	311	335	405	477	350	<i>350</i>	<i>404</i>	<i>468</i>	<i>341</i>	<i>357</i>	<i>413</i>	1,474	<i>1,581</i>	<i>1,578</i>
Coal	319	307	375	317	308	295	<i>373</i>	<i>314</i>	<i>315</i>	<i>267</i>	<i>350</i>	<i>298</i>	1,318	<i>1,290</i>	<i>1,230</i>
Total Energy (c)	1,309	1,209	1,305	1,318	1,369	1,237	<i>1,326</i>	<i>1,315</i>	<i>1,364</i>	<i>1,204</i>	<i>1,319</i>	<i>1,318</i>	5,142	<i>5,247</i>	<i>5,206</i>

- = no data available

SAAR = Seasonally-adjusted annual rate

 (a) Fuel share weights of individual sector indices based on EIA *Manufacturing Energy Consumption Survey*.

(b) Total highway travel includes gasoline and diesel fuel vehicles.

(c) Includes electric power sector use of geothermal energy and non-biomass waste.

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

Historical data: Latest data available from U.S. Department of Commerce, Bureau of Economic Analysis; Federal Reserve System, Statistical release G17; Federal Highway Administration; and Federal Aviation Administration. Minor discrepancies with published historical data are due to independent rounding.

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

Table 9b. U.S. Regional Macroeconomic Data

U.S. Energy Information Administration | Short-Term Energy Outlook - August 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	889	892	903	909	912	922	927	932	936	940	944	947	898	923	942
Middle Atlantic	2,492	2,499	2,519	2,527	2,537	2,563	2,577	2,590	2,601	2,611	2,620	2,628	2,509	2,567	2,615
E. N. Central	2,317	2,324	2,346	2,362	2,371	2,394	2,406	2,421	2,433	2,442	2,451	2,458	2,337	2,398	2,446
W. N. Central	1,078	1,089	1,084	1,088	1,091	1,103	1,108	1,115	1,120	1,125	1,129	1,133	1,085	1,104	1,127
S. Atlantic	3,007	3,020	3,047	3,069	3,086	3,122	3,143	3,167	3,188	3,205	3,220	3,234	3,036	3,130	3,212
E. S. Central	759	762	767	773	776	784	788	793	797	801	805	807	765	785	803
W. S. Central	2,019	2,040	2,052	2,076	2,091	2,124	2,144	2,165	2,183	2,197	2,211	2,221	2,047	2,131	2,203
Mountain	1,082	1,092	1,110	1,118	1,126	1,140	1,149	1,159	1,169	1,177	1,184	1,190	1,101	1,144	1,180
Pacific	3,157	3,209	3,229	3,258	3,274	3,315	3,337	3,364	3,387	3,411	3,430	3,448	3,213	3,322	3,419
Industrial Output, Manufacturing (Index, Year 2012=100)															
New England	96.8	97.2	96.8	98.5	98.2	98.8	99.1	99.7	100.2	100.4	100.6	100.6	97.3	99.0	100.4
Middle Atlantic	97.0	97.5	96.9	97.6	97.6	98.1	98.5	99.2	99.7	99.9	100.1	100.2	97.2	98.3	100.0
E. N. Central	104.3	105.2	104.4	106.0	106.0	106.9	107.5	108.5	109.3	109.8	110.3	110.7	105.0	107.2	110.0
W. N. Central	101.1	101.8	101.5	103.0	103.8	104.6	105.2	106.0	106.7	107.2	107.7	108.0	101.8	104.9	107.4
S. Atlantic	105.6	106.4	105.8	107.1	107.8	108.5	109.0	109.8	110.4	110.8	111.2	111.4	106.2	108.8	111.0
E. S. Central	107.8	108.3	107.4	108.5	108.7	109.6	110.2	111.2	111.9	112.4	112.9	113.2	108.0	109.9	112.6
W. S. Central	95.1	96.0	95.9	96.8	97.4	98.4	99.1	100.1	101.0	101.6	102.1	102.5	95.9	98.7	101.8
Mountain	106.5	107.8	108.1	110.0	111.4	112.2	112.7	113.7	114.5	115.0	115.5	115.9	108.1	112.5	115.2
Pacific	102.2	102.7	101.7	103.0	104.0	104.7	105.2	106.2	106.9	107.3	107.7	107.9	102.4	105.1	107.4
Real Personal Income (Billion \$2009)															
New England	772	774	779	784	787	790	792	799	806	810	815	819	777	792	812
Middle Atlantic	1,965	1,977	1,986	1,994	2,001	2,006	2,012	2,027	2,044	2,055	2,066	2,077	1,981	2,012	2,060
E. N. Central	2,110	2,113	2,124	2,135	2,147	2,151	2,159	2,175	2,195	2,207	2,219	2,233	2,120	2,158	2,213
W. N. Central	989	992	988	991	997	1,001	1,005	1,014	1,024	1,032	1,040	1,048	990	1,004	1,036
S. Atlantic	2,775	2,786	2,799	2,812	2,827	2,838	2,850	2,875	2,907	2,928	2,949	2,971	2,793	2,847	2,939
E. S. Central	779	781	783	787	790	792	794	800	809	814	819	824	783	794	816
W. S. Central	1,704	1,712	1,716	1,727	1,738	1,747	1,757	1,775	1,797	1,813	1,828	1,844	1,715	1,754	1,821
Mountain	979	983	994	1,000	1,006	1,011	1,017	1,027	1,039	1,048	1,056	1,065	989	1,015	1,052
Pacific	2,391	2,419	2,428	2,441	2,452	2,462	2,473	2,497	2,522	2,540	2,558	2,577	2,420	2,471	2,549
Households (Thousands)															
New England	5,859	5,868	5,888	5,896	5,906	5,915	5,923	5,932	5,940	5,949	5,958	5,967	5,896	5,932	5,967
Middle Atlantic	15,899	15,915	15,967	15,982	16,002	16,024	16,044	16,063	16,081	16,099	16,119	16,143	15,982	16,063	16,143
E. N. Central	18,823	18,840	18,900	18,917	18,944	18,977	19,004	19,028	19,048	19,071	19,099	19,131	18,917	19,028	19,131
W. N. Central	8,518	8,536	8,574	8,594	8,620	8,648	8,670	8,690	8,709	8,729	8,750	8,773	8,594	8,690	8,773
S. Atlantic	25,184	25,275	25,434	25,530	25,633	25,739	25,835	25,927	26,018	26,107	26,195	26,288	25,530	25,927	26,288
E. S. Central	7,602	7,617	7,649	7,665	7,685	7,706	7,725	7,741	7,759	7,777	7,795	7,815	7,665	7,741	7,815
W. S. Central	14,579	14,625	14,704	14,749	14,800	14,855	14,910	14,966	15,021	15,078	15,136	15,197	14,749	14,966	15,197
Mountain	9,036	9,074	9,132	9,172	9,216	9,263	9,305	9,347	9,387	9,427	9,467	9,510	9,172	9,347	9,510
Pacific	18,697	18,753	18,846	18,896	18,954	19,013	19,070	19,121	19,173	19,226	19,281	19,337	18,896	19,121	19,337
Total Non-farm Employment (Millions)															
New England	7.4	7.4	7.4	7.4	7.4	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.4	7.5	7.5
Middle Atlantic	19.5	19.5	19.6	19.7	19.7	19.8	19.8	19.9	19.9	20.0	20.0	20.0	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	22.4	22.5	22.0	22.2	22.4
W. N. Central	10.6	10.6	10.7	10.7	10.7	10.7	10.8	10.8	10.8	10.8	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	28.8	29.0	29.1	29.1	29.2	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	17.7	17.8	17.9	17.1	17.4	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	23.8	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 - August 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	2,984	803	93	2,172	3,054	907	125	2,152	3,133	852	136	2,157	6,051	6,239	6,277
Middle Atlantic	2,658	600	72	2,000	2,941	757	81	1,973	2,894	676	91	1,979	5,331	5,752	5,640
E. N. Central	2,692	627	106	2,264	3,211	827	123	2,208	3,081	713	135	2,226	5,689	6,369	6,154
W. N. Central	2,812	662	138	2,387	3,420	829	150	2,384	3,151	688	168	2,400	5,998	6,782	6,407
South Atlantic	1,148	125	15	947	1,446	220	14	997	1,460	194	15	993	2,234	2,677	2,662
E. S. Central	1,376	154	25	1,282	1,818	328	20	1,328	1,862	244	22	1,331	2,837	3,494	3,458
W. S. Central	774	65	4	741	1,193	143	4	830	1,220	87	4	825	1,583	2,170	2,136
Mountain	2,058	700	153	1,667	2,122	601	129	1,839	2,182	676	143	1,836	4,578	4,692	4,837
Pacific	1,560	531	68	1,029	1,435	535	77	1,200	1,460	567	87	1,192	3,189	3,248	3,306
U.S. Average	1,859	427	65	1,481	2,131	523	70	1,531	2,106	478	77	1,531	3,832	4,255	4,193
Heating Degree Days, Prior 10-year Average															
New England	3,201	831	122	2,125	3,172	818	119	2,121	3,166	820	117	2,107	6,279	6,230	6,210
Middle Atlantic	2,983	661	81	1,941	2,947	646	81	1,949	2,956	651	80	1,933	5,666	5,623	5,620
E. N. Central	3,255	701	114	2,198	3,209	692	117	2,211	3,196	698	118	2,186	6,267	6,228	6,197
W. N. Central	3,302	707	142	2,380	3,264	705	144	2,379	3,255	702	143	2,358	6,531	6,492	6,458
South Atlantic	1,502	188	12	966	1,476	177	12	974	1,480	177	13	967	2,667	2,639	2,636
E. S. Central	1,906	231	16	1,287	1,868	217	18	1,301	1,862	222	19	1,291	3,440	3,404	3,394
W. S. Central	1,228	88	4	799	1,181	80	4	801	1,183	85	4	799	2,119	2,066	2,071
Mountain	2,216	734	142	1,862	2,195	737	144	1,842	2,165	715	140	1,844	4,954	4,918	4,864
Pacific	1,462	598	89	1,205	1,465	592	84	1,181	1,444	581	82	1,183	3,354	3,322	3,290
U.S. Average	2,193	487	71	1,527	2,160	478	71	1,524	2,151	476	70	1,513	4,277	4,233	4,210
Cooling Degree Days															
New England	0	75	363	11	0	77	486	1	0	86	403	1	449	565	490
Middle Atlantic	0	138	500	22	0	171	604	4	0	155	522	4	660	780	681
E. N. Central	1	211	479	16	0	330	557	7	0	219	517	6	707	893	742
W. N. Central	9	265	623	14	2	439	680	10	3	267	654	9	911	1,131	933
South Atlantic	160	672	1,154	262	135	723	1,140	219	111	643	1,144	224	2,249	2,217	2,123
E. S. Central	65	481	963	73	36	649	1,051	62	26	516	1,029	62	1,582	1,797	1,633
W. S. Central	214	830	1,461	217	125	999	1,535	192	80	854	1,524	201	2,722	2,851	2,659
Mountain	36	467	921	120	21	506	976	75	17	425	932	76	1,544	1,578	1,450
Pacific	30	220	701	99	31	187	683	58	28	167	578	58	1,051	960	831
U.S. Average	70	403	838	115	51	474	885	88	40	396	843	91	1,426	1,499	1,369
Cooling Degree Days, Prior 10-year Average															
New England	0	81	433	1	0	81	433	1	0	79	446	1	515	515	525
Middle Atlantic	0	169	566	6	0	166	567	5	0	165	579	6	741	738	749
E. N. Central	3	234	542	8	3	228	532	7	3	242	540	7	788	770	791
W. N. Central	7	281	672	12	7	277	659	11	7	298	668	12	973	953	985
South Atlantic	117	666	1,167	230	119	675	1,160	227	120	684	1,167	233	2,179	2,182	2,204
E. S. Central	33	544	1,056	65	34	539	1,031	63	36	554	1,038	65	1,698	1,667	1,693
W. S. Central	90	876	1,528	205	100	887	1,532	204	103	897	1,550	208	2,698	2,723	2,758
Mountain	23	424	930	81	24	426	922	84	25	438	930	83	1,458	1,456	1,476
Pacific	30	180	608	74	30	185	621	78	31	186	627	75	892	914	919
U.S. Average	43	405	857	94	45	408	855	94	46	417	866	96	1,399	1,402	1,424

- = 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>).

Appendix to the August 2018 Short-Term Energy Outlook

This appendix is prepared in fulfillment of section 1245(d)(4)(A) of the National Defense Authorization Act (NDAA) for Fiscal Year 2012, as amended. The law requires the U.S. Energy Information Administration (EIA), the statistical and analytical agency within the U.S. Department of Energy, to submit to Congress a report on the availability and price of petroleum and petroleum products produced in countries other than Iran in the two-month period preceding the submission of the report. By law, EIA's data, analyses, and forecasts are independent of approval by any other officer or employee of the U.S. Government. The data in this appendix, therefore, should not be construed as representing those of the U.S. Department of Energy or other federal agencies.

EIA consulted with the U.S. Department of the Treasury, the U.S. Department of State, and the intelligence community in the process of developing the NDAA report, which was previously published as a stand-alone report. Detailed background and contextual information not repeated here can be found in [early editions of the NDAA report](#).

This appendix is published in the *Short-Term Energy Outlook* in even numbered months.

Table a1. Summary of Estimated Petroleum and Other Liquids Quantities

	June 2018	July 2018	June-July 2018 Average	June-July 2017 Average	2015 – 2017 Average
Global Petroleum and Other Liquids (million barrels per day)					
Global Petroleum and Other Liquids Production (a)	100.0	100.3	100.2	98.6	97.2
Global Petroleum and Other Liquids Consumption (b)	101.1	100.6	100.9	99.3	96.9
Biofuels Production (c)	3.0	2.9	3.0	2.8	2.3
Biofuels Consumption (c)	2.4	2.4	2.4	2.4	2.3
Iran Liquid Fuels Production	4.7	4.7	4.7	4.8	4.1
Iran Liquid Fuels Consumption	2.2	1.7	2.0	1.7	1.8
Petroleum and Petroleum Products Produced and Consumed in Countries Other Than Iran (million barrels per day)					
Production (d)	92.4	92.7	92.5	91.1	90.8
Consumption (d)	96.6	96.4	96.5	95.1	92.9
Production minus Consumption	-4.2	-3.8	-4.0	-4.0	-2.1
World Inventory Net Withdrawals Including Iran	1.1	0.3	0.7	0.6	-0.3
Estimated OECD Inventory Level (e) (million barrels)	2,818	2,814	2,816	3,016	2,968
OPEC Surplus Crude Oil Production Capacity (f)	1.5	1.3	1.4	1.9	1.6

Note: The term "petroleum and other liquids" encompasses crude oil, lease condensate, natural gas liquids, biofuels, coal-to-liquids, gas-to-liquids, and refinery processing gains, which are important to consider in concert due to the inter-related supply, demand, and price dynamics of petroleum, petroleum products, and related fuels.

(a) Production includes crude oil (including lease condensates), natural gas liquids, other liquids, and refinery processing gains.

(b) Consumption of petroleum by the OECD countries is synonymous with "products 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.

(c) Biofuels production and consumption are based on EIA estimates as published in the International Energy Statistics. Biofuels production in the third quarter tends to be at its highest level in the year as ethanol production in Brazil reaches its seasonal peak and is typically lowest in the first quarter as seasonal production falls in the South/South-Central region of Brazil.

(d) Global production of petroleum and petroleum products outside of Iran is derived by subtracting biofuels production and Iran liquid fuels production from global liquid fuels production. The same method is used to calculate global consumption outside of Iran.

(e) Estimated inventory level is for OECD countries only.

(f) EIA defines surplus oil production capacity as potential oil production that could be brought online within 30 days and sustained for at least 90 days, consistent with sound business practices. This does not include oil production increases that could not be sustained without degrading the future production capacity of a field.

Source: U.S. Energy Information Administration.

Table a2. Crude Oil and Petroleum Product Price Data

Item	June 2018	July 2018	June-July 2018 Average	June-July 2017 Average	2015 – 2017 Average
Brent Front Month Futures Price (\$ per barrel)	75.94	74.95	75.45	48.39	51.16
WTI Front Month Futures Price (\$ per barrel)	67.32	70.58	68.95	45.98	47.69
Dubai Front Month Futures Price (\$ per barrel)	73.63	72.92	73.28	47.08	48.82
Brent 1st - 13th Month Futures Spread (\$ per barrel)	3.93	2.40	3.17	-2.30	-3.90
WTI 1st - 13th Month Futures Spread (\$ per barrel)	4.45	6.68	5.57	-1.86	-4.26
RBOB Front Month Futures Price (\$ per gallon)	2.09	2.10	2.10	1.53	1.55
Heating Oil Front Month Futures Price (\$ per gallon)	2.15	2.14	2.14	1.48	1.56
RBOB - Brent Futures Crack Spread (\$ per gallon)	0.28	0.32	0.30	0.38	0.34
Heating Oil - Brent Futures Crack Spread (\$ per gallon)	0.34	0.35	0.34	0.33	0.34

(a) Brent refers to Brent crude oil traded on the Intercontinental Exchange (ICE).

(b) WTI refers to West Texas Intermediate crude oil traded on the New York Mercantile Exchange (NYMEX), owned by Chicago Mercantile Exchange (CME) Group.

(c) RBOB refers to reformulated blendstock for oxygenate blending traded on the NYMEX.

Source: U.S. Energy Information Administration, based on Chicago Mercantile Exchange (CME), Intercontinental Exchange (ICE), and Dubai Mercantile Exchange (DME).