



Short-Term Energy Outlook (STEO)

Forecast highlights

Global liquid fuels

- Brent crude oil spot prices averaged \$73 per barrel (b) in August, down almost \$2 from July. EIA expects Brent spot prices will average \$73/b in 2018 and \$74/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 December 2018 delivery that traded during the five-day period ending September 6, 2018, suggest a range of \$56/b to \$85/b encompasses the market expectation for December WTI prices at the 95% confidence level.
- EIA estimates that U.S. crude oil production averaged 10.9 million barrels per day (b/d) in August, up by 120,000 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 11.5 million b/d in 2019.
- EIA forecasts total global liquid fuels inventories to decrease by 0.4 million b/d in 2018 compared with 2017, followed by an increase of 0.1 million b/d in 2019. This outlook of relatively stable inventory levels during the forecast period contributes to a forecast of monthly average Brent crude oil prices remaining relatively stable, between \$72/b and \$76/b, from September 2018 through the end of 2019.

Natural gas

- EIA estimates dry natural gas production in the United States was 82.2 billion cubic feet per day (Bcf/d) in August, up 0.7 Bcf/d from July. Dry natural gas production is forecast to average 81.0 Bcf/d in 2018, up by 7.4 Bcf/d from 2017 and establishing a new record high. EIA expects natural gas production will continue to rise in 2019 to an average of 84.7 Bcf/d.
- EIA forecasts that U.S. natural gas inventories will total 3.3 trillion cubic feet (Tcf) at the end of October. This level would be 13% lower than the 2017 end-of-October level and 14% below the five-year (2013–17) average for the end of October, while also marking the lowest level for that time of year since 2005.
- EIA expects Henry Hub natural gas spot prices to average \$2.99/million British thermal units (MMBtu) in 2018 and \$3.12/MMBtu in 2019. NYMEX futures and options contract

values for December 2018 delivery that traded during the five-day period ending September 6, 2018, suggest a range of \$2.31/MMBtu to \$3.77/MMBtu encompasses the market expectation for December Henry Hub natural gas prices at the 95% confidence level.

Electricity, coal, renewables, and emissions

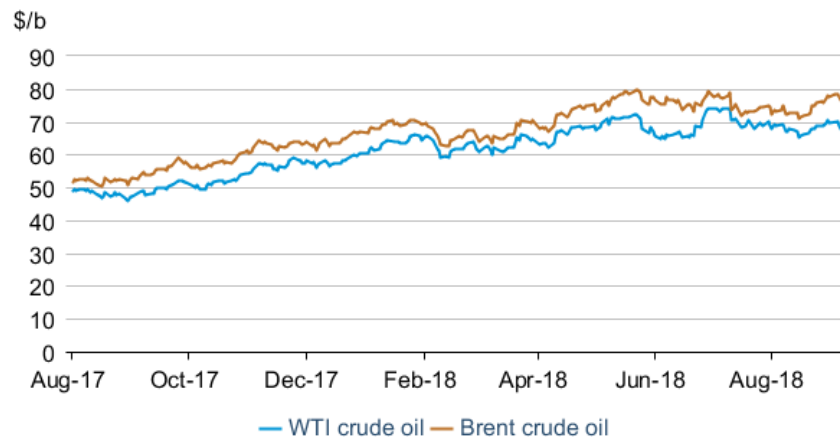
- EIA expects the share of U.S. total utility-scale electricity generation from natural gas-fired power plants to rise from 32% in 2017 to 34% in 2018 and to 35% in 2019. EIA's forecast electricity generation share from coal averages 28% in 2018 and 27% in 2019, down from 30% in 2017. The nuclear share of generation was 20% in 2017 and is forecast to be 20% in 2018 and 19% in 2019. Nonhydropower renewables provided slightly less than 10% of electricity generation in 2017, and EIA expects them to provide more than 10% in 2018 and nearly 11% in 2019. The generation share of hydropower was 7% in 2017 and is forecast to be about the same in 2018 and 2019.
- In 2017, EIA estimates that U.S. wind generation averaged 697,000 megawatthours per day (MWh/d). EIA forecasts that wind generation will rise by 8% to 756,000 MWh/d in 2018 and by 4% to 784,000 MWh/d in 2019.
- Solar power generates less electricity in the United States than wind power, but solar power also continues to grow. EIA expects solar generation will rise from 211,000 MWh/d in 2017 to 263,000 MWh/d in 2018 (an increase of 24%) and to 289,000 MWh/d in 2019 (an increase of 10%).
- EIA forecasts U.S. coal production will decline by 1% to 768 million short tons (MMst) in 2018, despite a 10% (10 MMst) increase in coal exports. The production decrease is largely attributable to a forecast decline of 2% (17 MMst) in domestic coal consumption in 2018. EIA expects coal production to decline by 2% (12 MMst) in 2019, because coal exports and coal consumption are both forecast to decrease.
- EIA estimates U.S. coal exports through the first half of 2018 were 32% (14 MMst) higher than in the same period of 2017, and June was the second month of this year that exports exceeded 10 MMst. EIA forecasts total coal exports to be 107 MMst in 2018 and 101 MMst in 2019, with U.S. coal exports to Asia expected to remain strong. Three of the top five destinations for U.S. coal exports are in Asia, with India, South Korea, and Japan accounting for more than one-third of U.S. exports through March, the most recent month for which EIA has actual data.
- After declining by 0.9% in 2017, EIA forecasts that U.S. energy-related carbon dioxide (CO₂) emissions will rise by 2.3% in 2018. The increase largely reflects higher natural gas consumption because of a colder winter and a warmer summer than in 2017. Emissions are forecast to decline by 0.9% 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 \$76.50 per barrel (b) on September 6, an increase of \$4.11/b from August 1. The front-month futures price for West Texas Intermediate (WTI) crude oil for delivery at Cushing, Oklahoma, increased by 11 cents/b during the same period, settling at \$67.77/b on September 6 (**Figure 1**).

Figure 1. Crude oil front-month futures prices



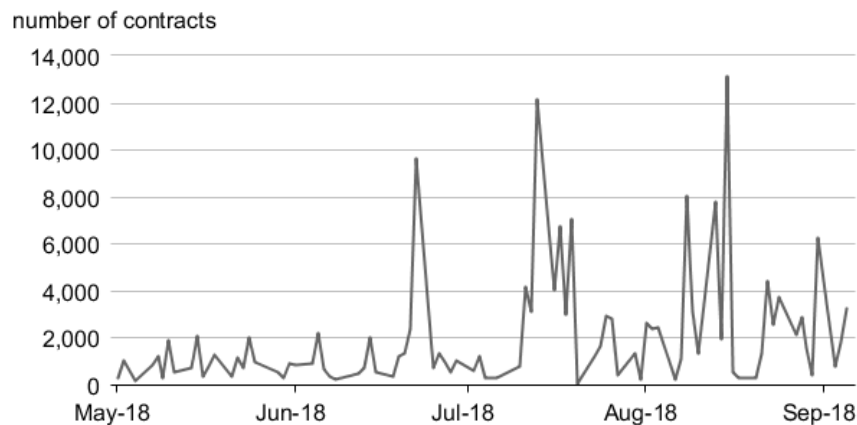
 CME Group and Intercontinental Exchange, as compiled by Bloomberg L.P.

Although crude oil prices were up for August as a whole, crude oil prices and prices for commodities more broadly fell in early August. Significant declines in some emerging market currencies may have contributed to increased concerns about global economic growth and its potential impact on oil demand. However, oil prices rose in the second half of August following reports of reduced purchases of Iranian crude oil ahead of the United States reinstating sanctions on Iran in November. Other supply developments likely contributed to a pull on oil inventories, which contributed to higher prices. A restart to some Canadian production after July's [oil sands outage](#) is anticipated to be delayed until September, and tropical storm activity in the U.S. Gulf of Mexico led to the shutdown of some offshore crude oil platforms. EIA estimates that global petroleum inventories declined by almost 0.4 million barrels per day (b/d) in August, the seventh consecutive month of net inventory withdrawals.

Apparent hedging activity in the crude oil options market suggests several market participants purchased financial protection in anticipation of an increase in crude oil prices ahead of the November implementation of Iranian sanctions. Call options for the December 2018 Brent crude oil futures contract with a strike price of \$80/b have been one of the most actively traded out-of-the-money contracts in recent months. A call option—which gives the buyer the right, but not the obligation, to purchase an underlying security at a specific price by a certain time—is out-of-the-money when the strike price of the option is higher than the price that the futures contract is currently trading.

Trading volume averaged more than 2,000 contracts per day since May, and trading of 10,000 or more contracts occurred on some days in July and August (**Figure 2**). Third-party ship tracking data indicate that several countries may have already reduced purchases of Iranian crude oil, and August estimates of waterborne crude oil exports from Iran to be 19% lower than the average during first seven months of 2018. EIA estimates that Iranian crude oil production declined 0.2 million b/d from July to August. If the reduction in Iranian crude oil production and exports is larger than expected, the disruption to the crude oil market in the fourth quarter of 2018 could result in price increases. End users could be financially hedging against this outcome through the purchase of call options, which gain in value as the underlying security price increases, among other factors.

Figure 2. Daily trading volume for the Brent December 2018 \$80/b strike call option



eia Intercontinental Exchange, as compiled by Bloomberg L.P.

Crude oil price spreads: Crude oil prices in the Permian region of Texas and New Mexico traded at wide differentials to those on the U.S. Gulf Coast in August. The WTI-Midland differential to Magellan East Houston reached a low of $-\$23.95/b$ on September 4 before settling at $-\$22.45/b$ on September 6 (**Figure 3**). The wide differential between Permian region prices and the Houston prices is the result of constrained pipeline capacity to move crude oil along that route, which has caused producers without pipeline space to ship crude oil using more costly modes of transportation, such as trucks. In addition to this capacity constraint, the differential in August could have been exacerbated by a fire near a storage tank that feeds the Basin Pipeline, which runs from the Permian to Cushing, Oklahoma. The fire disrupted an estimated 50,000 b/d of flow, more than 10% of the pipeline’s total capacity. Although the disruption was brief, prices in Midland declined $\$2.15/b$ compared with Magellan East Houston prices on the day of the fire.

Figure 3. WTI Midland minus Magellan East Houston price spread

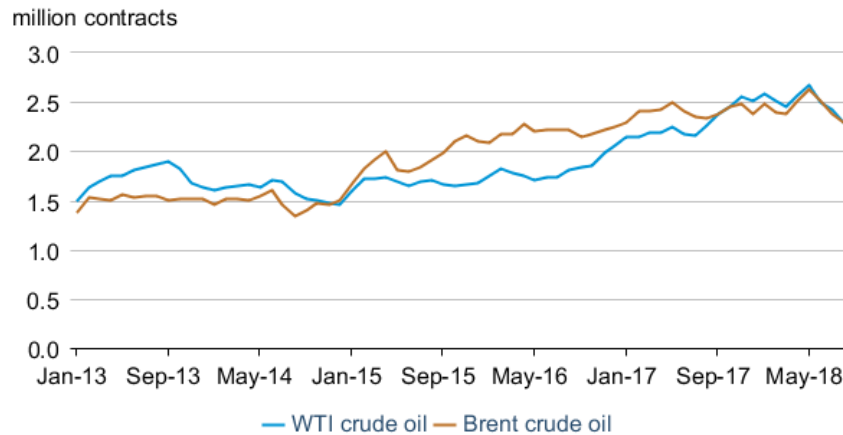


EIA's [August Drilling Productivity Report](#) estimates that crude oil production in the Permian region will grow to 3.4 million b/d in September. Current estimates of available regional refinery intake and pipeline takeaway capacity is about 3.6 million b/d. Even though crude oil takeaway infrastructure constraints could contribute to wide price discounts for Permian crude oil through the third quarter of 2019, which would moderate production growth compared with an unconstrained scenario, EIA still expects Permian crude oil production [to drive total U.S. production growth](#) next year. Many producers in the region claim they can operate profitably with prices in the mid-\$50/b level, and they might use higher cost transportation options to move crude oil to the U.S. Gulf Coast or other regions. Some producers with a geographically diverse portfolio of upstream properties could also redirect capital to other areas or decide to reduce completion activity until the transportation constraints ease.

Open interest: Brent and WTI average daily open interest declined for the third consecutive month in August. Both crude oil futures contracts' open interest reached an all-time high in May 2018, averaging 2.6 million and 2.7 million contracts outstanding, respectively (**Figure 4**). Since peaking in May, average daily open interest declined to 2.3 million contracts for both Brent and WTI crude oil in August.

Based on the weekly U.S. Commodity Futures Trading Commission (CFTC) [Commitments of Traders](#) data, WTI futures open interest declined from the first week of May to the last week of August as a result of the closure of [short positions](#) from the Producers and Merchants category, followed by short position closures from Swap Dealers. Producers and Merchants reduced the largest number of long positions, followed by the Other Reportables category. The Producers and Merchants category, along with Swap Dealers, typically represent participants in the futures market whose primary purpose is risk management in the production or processing of a commodity. Fewer futures contracts held by these traders suggest some producers or end users could be reducing their [hedging](#) activity.

Figure 4. Average daily open interest in Brent and WTI futures contracts

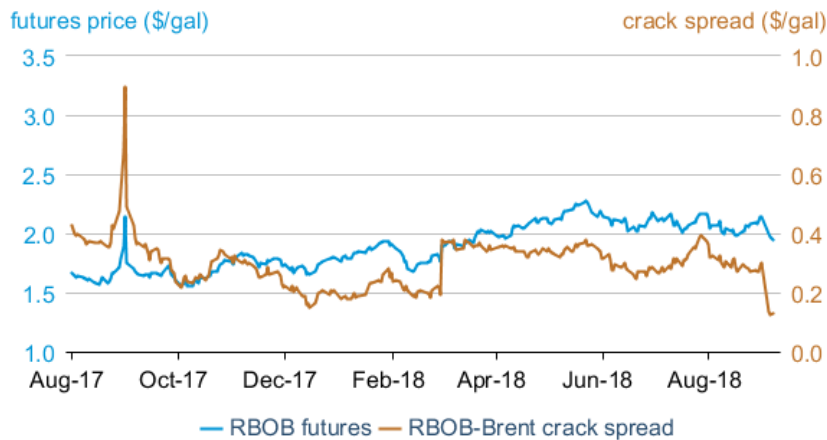


eia CME Group and Intercontinental Exchange, as compiled by Bloomberg L.P.

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 \$1.95 per gallon (gal) on September 6 (**Figure 5**), a decrease of 9 cents/gal from August 1. The RBOB–Brent crack spread (the difference between the price of RBOB and the price of Brent crude oil) decreased by 19 cents/gal to settle at 13 cents/gal during the same period. The RBOB–Brent crack spread declined for most of August and then fell further at the beginning of September, when the front-month contract rolled to October delivery, which reflects winter-grade gasoline that is cheaper for refineries to produce.

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

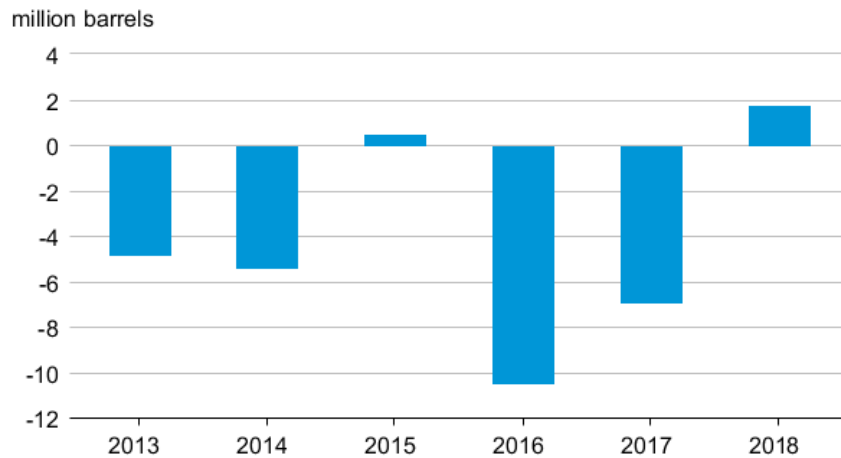


eia CME Group, as compiled by Bloomberg L.P., RBOB=reformulated blendstock for oxygenate blending

U.S. motor gasoline inventories: For the four weeks ending August 31, finished motor gasoline production averaged slightly higher than the August 2017 monthly average. Consumption

including exports, however, declined from last year’s record high for August to an estimated 10.3 million barrels per day (b/d) in August 2018. The higher production and lower consumption (including exports) resulted in a rare increase in total motor gasoline inventories for the month of August (**Figure 6**). Total motor gasoline inventories ended the month slightly higher than the top of the five-year (2013–17) range for August.

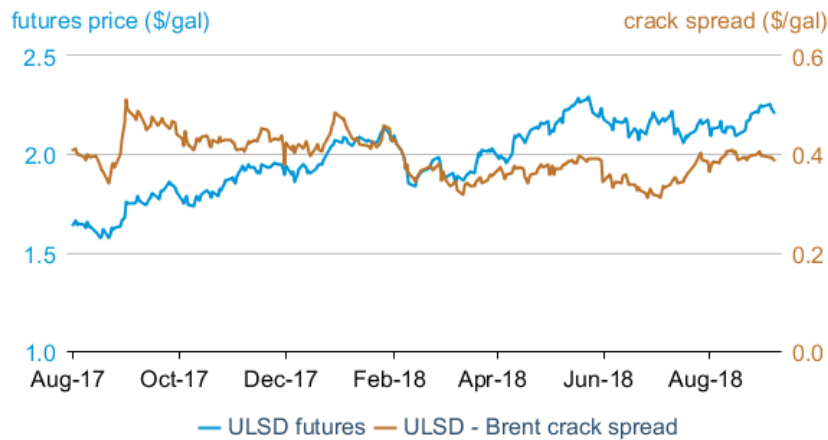
Figure 6. Change in August U.S. gasoline inventories



 U.S. Energy Information Administration

Ultra-low sulfur diesel prices: The front-month futures price of ultra-low sulfur diesel (ULSD) settled at \$2.21/gal on September 6 (**Figure 7**), an increase of 11 cents/gal from August 1. The ULSD–Brent crack spread (the difference between the price of ULSD and the price of Brent crude oil) rose by 1 cent/gal to settle at 39 cents/gal during the same period. ULSD crack spreads were at or higher than the five-year average in August in the United States and also in major international trading hubs such as Northwest Europe and Singapore. Strong global economic growth has contributed to higher demand for distillate fuel for much of the past year. In addition, a fire and temporary shutdown of Brazil’s largest refinery in late August resulted in Petrobras, Brazil’s national oil company, purchasing several distillate cargoes from the United States, which also contributed to higher ULSD crack spreads.

Figure 7. Historical ULSD front-month futures price and crack spread

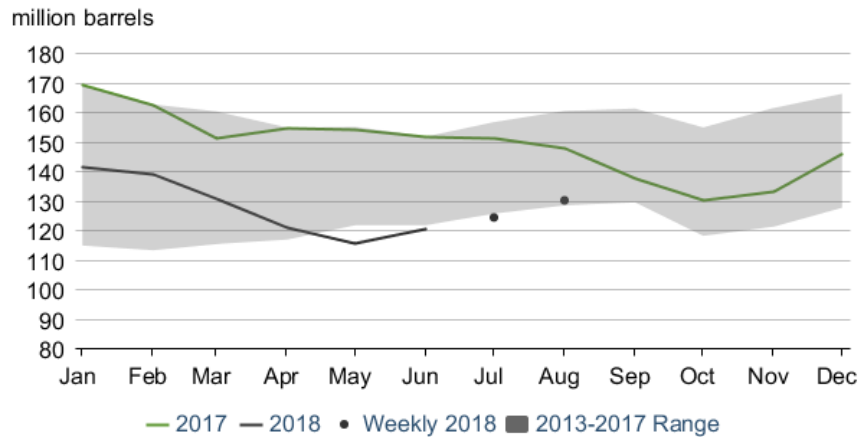


 CME Group, as compiled by Bloomberg L.P., ULSD=ultra-low sulfur diesel

U.S. distillate inventories: In the United States, [distillate consumption during the first five months of 2018](#) was the highest since 2007, which helped to pull inventories below the five-year range in May (**Figure 8**). Since May, however, U.S. consumption including exports of distillate have shown year-on-year declines largely because of lower export growth. Refinery distillate production in June reached a record high for the month, and weekly estimates indicate similar record production levels for July and August, if confirmed in monthly data. The high production levels and lower consumption (including exports) levels contributed to inventory builds in each of the past three months that were higher than the five-year average, bringing distillate inventories back into the five-year range by the end of August.

The disruption at the Brazilian refinery, which has restarted at reduced operating rates, may provide some additional demand for distillate exports from the United States in the near term, but whether the recent slowdown in U.S. distillate exports is temporary or whether it indicates a longer-term slowing of trade flows is unclear.

Figure 8. U.S. distillate inventory

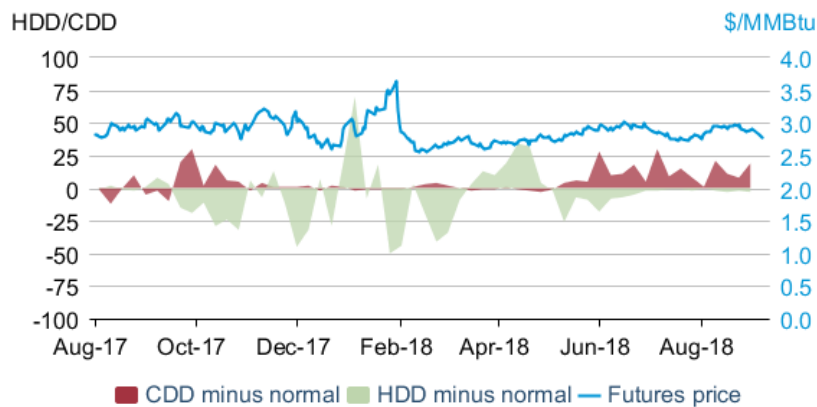


eia U.S. Energy Information Administration

Natural Gas

Prices: The front-month natural gas futures contract for delivery at the Henry Hub settled at \$2.77/million British thermal units (MMBtu) on September 6, an increase of 1 cent/MMBtu from August 1 (**Figure 9**). The Henry Hub natural gas spot price averaged \$2.96/MMBtu in August, 12 cents/MMBtu higher than in July. Cooling degree days (CDD) in the United States averaged 13% higher than the 10-year (2008–17) average in August, which contributed to high natural gas demand for power generation.

Figure 9. Natural gas front-month futures prices and actual minus historical average HDD and CDD



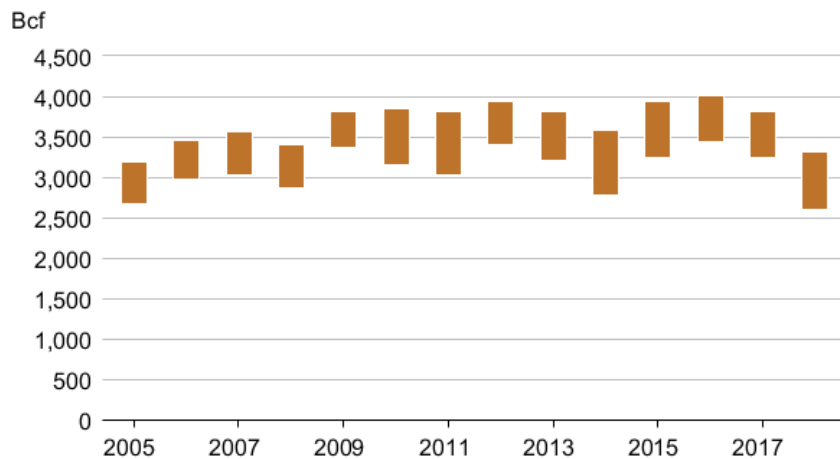
eia CME Group and National Oceanic and Atmospheric Administration, as compiled by Bloomberg L.P.

U.S. natural gas inventory: Natural gas inventories have been low compared with the five-year (2013–17) average during most of 2018. The low inventory levels reflect high residential and commercial consumption in early 2018 and growth in both liquefied natural gas and pipeline exports over the past year. High natural gas use for electric power generation during July and

August also likely slowed the pace of inventory injections. EIA estimates that working gas in underground storage at the end of August totaled 2,606 Bcf, which is 577 billion cubic feet (Bcf), or 18%, lower than the five-year average at the end of August.

The end of October is typically considered the end of the natural gas storage injection season, although injections often occur into the first weeks of November. EIA forecasts that inventories will rise to 3,308 Bcf at the end of October, which would be the lowest end-of-October natural gas inventory level since 2005 (**Figure 10**). Despite low inventory levels, price increases have been moderate. Significant month-over-month production growth in 2018 helped keep futures prices lower than \$3/MMBtu for most of the summer. Total U.S. dry natural gas production reached an estimated 82.2 billion cubic feet per day in August. Implied volatility, which is based on futures and options, has also remained low, indicating lower expectations by market participants for large price increases in the near future.

Figure 10. Increase in U.S. natural gas inventory from August to October



 U.S. Energy Information Administration

Notable forecast changes

- EIA forecasts that U.S. crude oil production will average 11.5 million barrels per day (b/d) in 2019, which is 0.2 million b/d lower than forecast in the August STEO. The lower production reflects more severe constraints in Permian region pipeline takeaway capacity than previously expected, which results in slower expected crude oil production growth in that region. The lower forecast is also the result of a reevaluation of projects in the U.S. Gulf of Mexico. EIA now expects production in that region to proceed at a slightly slower pace than previously assumed.
- EIA forecasts Brent crude oil prices to average \$74 per barrel (b) and West Texas Intermediate (WTI) crude oil prices to average more than \$67/b in 2019. Both of these forecasts are \$3/b higher than the forecast from the August STEO. The higher price

forecast reflects a lower forecast for global oil supply in 2019 based on lower expected production from the United States, Canada, and OPEC noncrude oil liquids. The lower production forecast is only partially offset by lower forecast oil demand for next year. EIA expects global oil inventories to rise by about 0.1 million b/d next year, which is 0.2 million b/d lower than previously forecast.

- EIA expects U.S. coal exports to be 107 million short tons (MMst) in 2018 and 101 MMst in 2019, which are 5 MMst and 4 MMst higher, respectively, than expected in the August STEO. The higher forecast reflects the incorporation of higher than expected exports during the first half of 2018, which has raised the base for the rest of the forecast period.
- EIA uses IHS Markit to provide history and forecasts for macroeconomic data in STEO. Beginning with this forecast, IHS Markit incorporated revised historical data and rebased 2012-dollar concepts from the Bureau of Economic Analysis comprehensive revisions. Therefore, national income accounting variables are now stated in 2012 dollars instead of in 2009 dollars as reported in the previous STEO. This change results in a level shift upward for several of the macroeconomic variables reported in STEO, most notably U.S. gross domestic product (GDP). In this forecast, GDP is forecast to average \$18.6 trillion in 2018 and \$19.1 trillion in 2019, compared with \$17.6 trillion and \$18.1 trillion, respectively, for those years in the August STEO.
- For more information, see the [detailed table of STEO forecast changes](#).

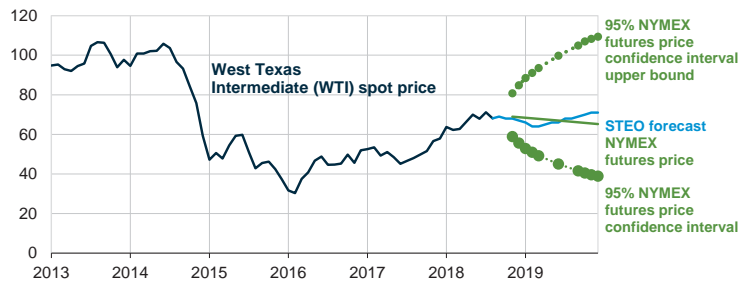
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Short-Term Energy Outlook

Chart Gallery for September 2018

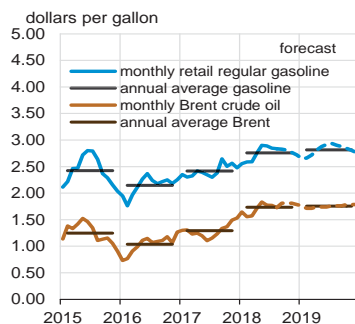
West Texas Intermediate (WTI) crude oil price and NYMEX confidence intervals
dollars per barrel



Note: Confidence interval derived from options market information for the five trading days ending Sep 6, 2018. Intervals not calculated for months with sparse trading in near-the-money options contracts.
Source: Short-Term Energy Outlook, September 2018, and CME Group

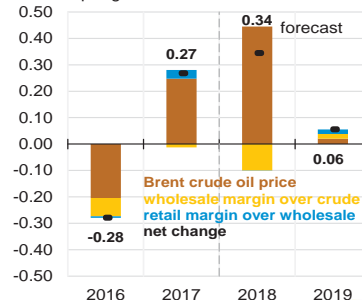


U.S. gasoline and crude oil prices

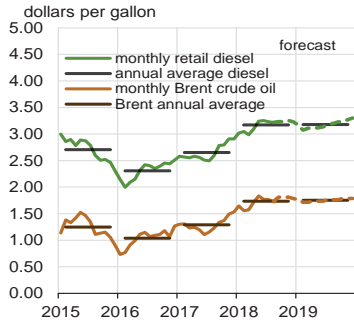


Source: Short-Term Energy Outlook, September 2018

Components of annual gasoline price changes
dollars per gallon

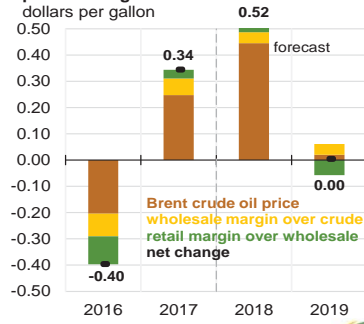


U.S. diesel and crude oil prices



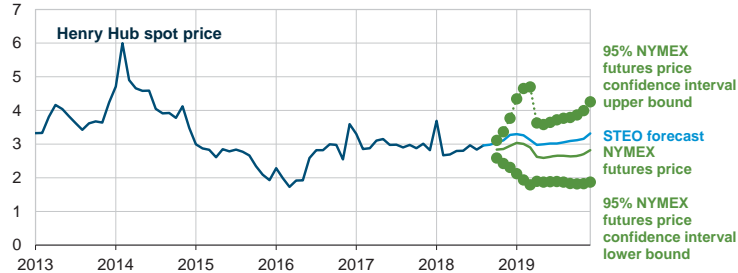
Source: Short-Term Energy Outlook, September 2018

Components of annual diesel prices changes



Henry Hub natural gas price and NYMEX confidence intervals

dollars per million Btu



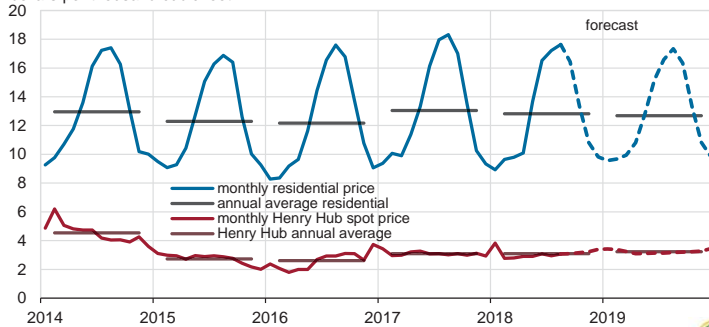
Note: Confidence interval derived from options market information for the five trading days ending Sep 6, 2018. Intervals not calculated for months with sparse trading in near-the-money options contracts.

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



U.S. natural gas prices

dollars per thousand cubic feet

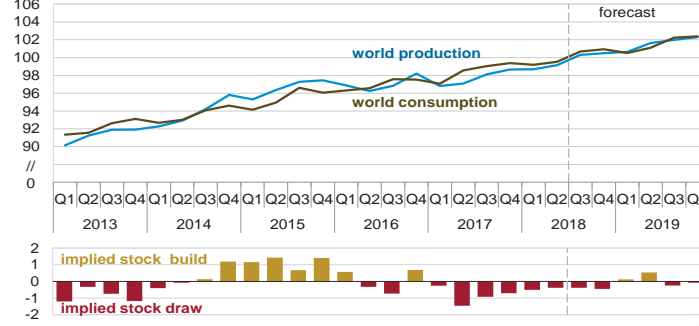


Source: Short-Term Energy Outlook, September 2018, and Thomson Reuters



World liquid fuels production and consumption balance

million barrels per day

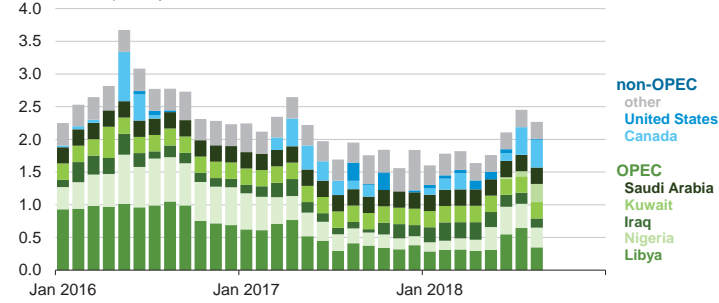


Source: Short-Term Energy Outlook, September 2018



Estimated unplanned liquid fuels production outages

million barrels per day

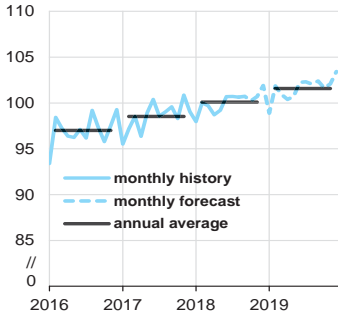


Source: Short-Term Energy Outlook, September 2018



World liquid fuels consumption

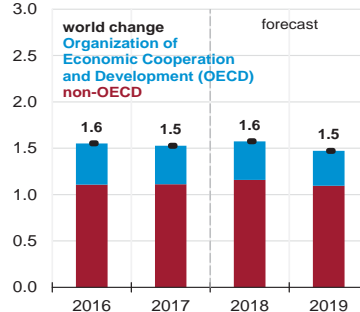
million barrels per day



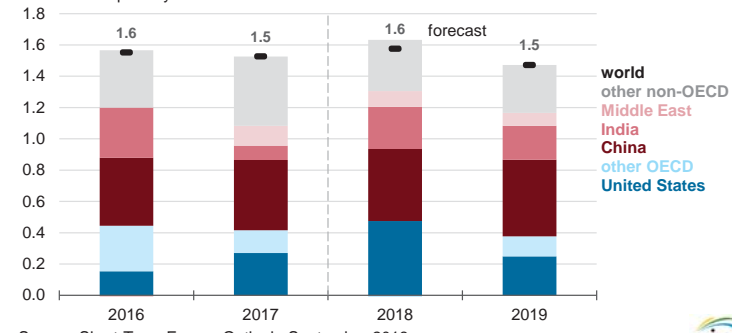
Source: Short-Term Energy Outlook, September 2

Components of annual change

million barrels per day



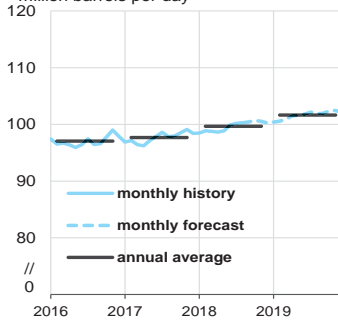
Annual change in world liquid fuels consumption
million barrels per day



Source: Short-Term Energy Outlook, September 2018

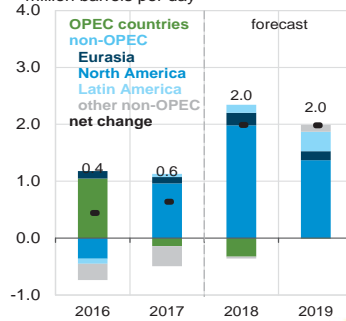


World crude oil and liquid fuels production
million barrels per day

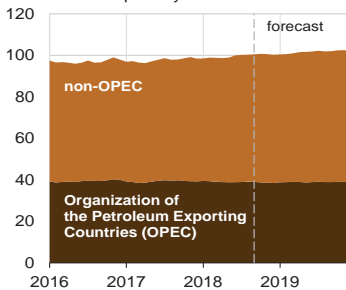


Source: Short-Term Energy Outlook, September 2018

Components of annual change
million barrels per day

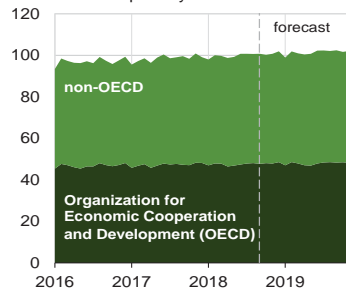


World liquid fuels production
million barrels per day

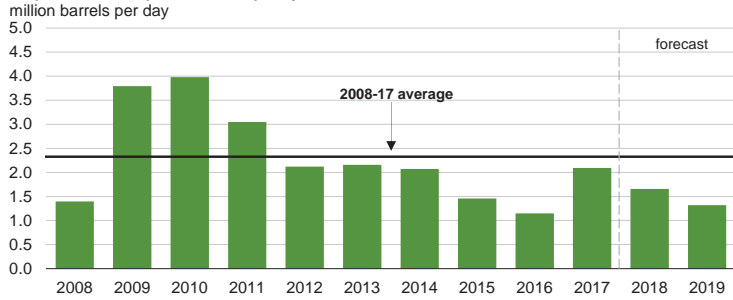


Source: Short-Term Energy Outlook, September 2018

World liquid fuels consumption
million barrels per day



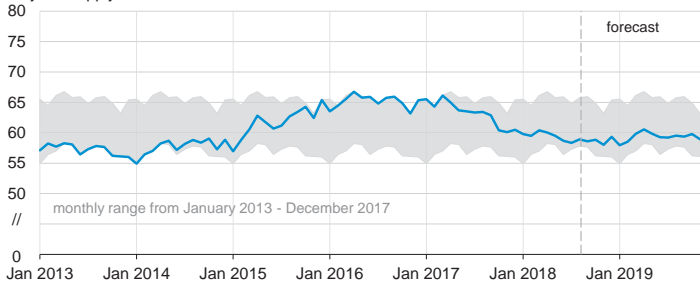
**Organization of the Petroleum Exporting Countries (OPEC)
surplus crude oil production capacity**



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



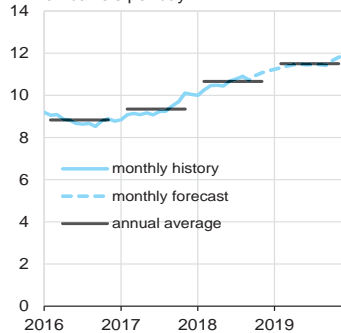
**Organization for Economic Cooperation and Development (OECD)
commercial inventories of crude oil and other liquids**



Source: Short-Term Energy Outlook, September 2018

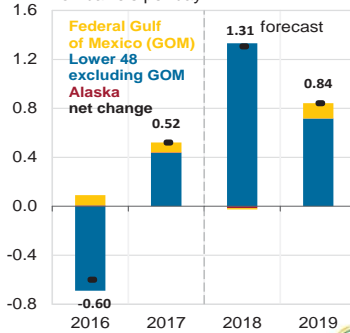


U.S. crude oil production

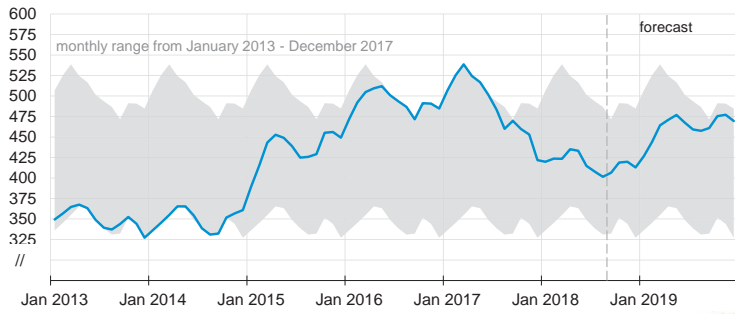


Source: Short-Term Energy Outlook, September 2018

Components of annual change



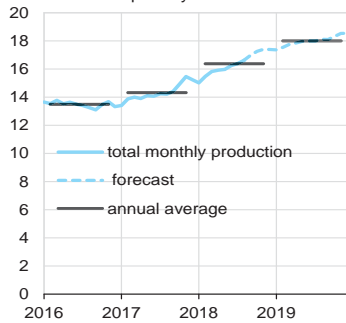
U.S. commercial crude oil inventories
million barrels



Source: Short-Term Energy Outlook, September 2018

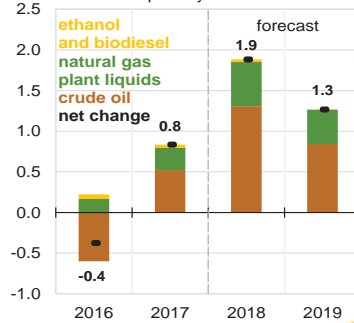


U.S. crude oil and liquid fuels production
million barrels per day

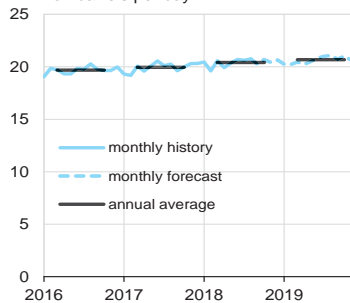


Source: Short-Term Energy Outlook, September 2018

Components of annual change
million barrels per day

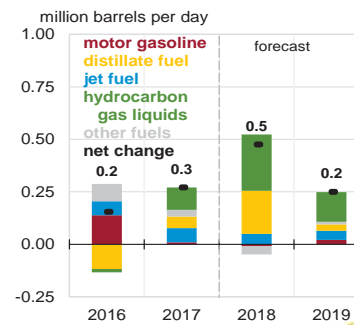


U.S. liquid fuels product supplied (consumption)
million barrels per day

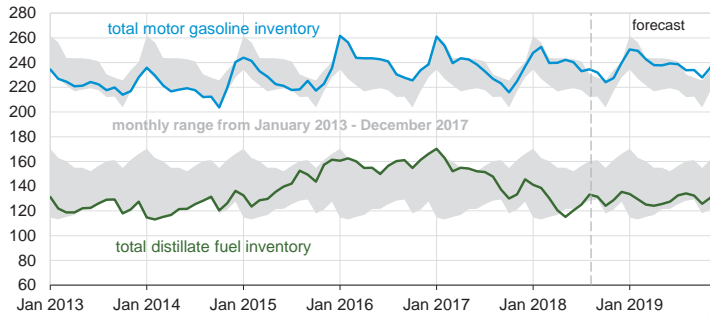


Source: Short-Term Energy Outlook, September 2018

Components of annual change
million barrels per day



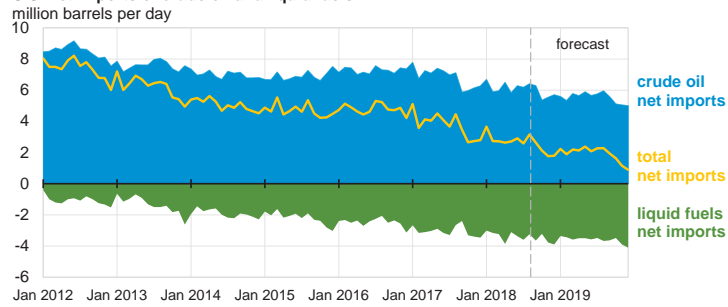
U.S. gasoline and distillate inventories
million barrels



Source: Short-Term Energy Outlook, September 2018



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

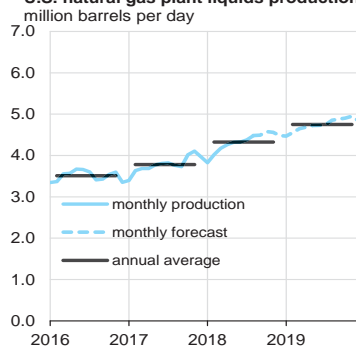


Note: Liquids fuels include: gasoline, distillate fuels, hydrocarbon gas liquids, jet fuel, residual fuel oil, unfinished oils, other hydrocarbons/oxygenates, and other oils.

Source: Short-Term Energy Outlook, September 2018

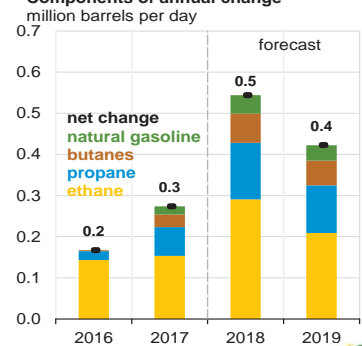


U.S. natural gas plant liquids production

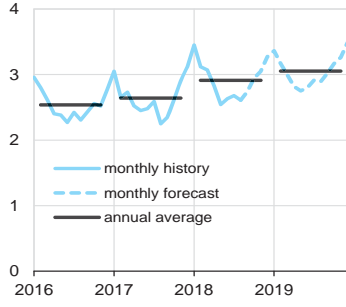


Source: Short-Term Energy Outlook, September 2018

Components of annual change

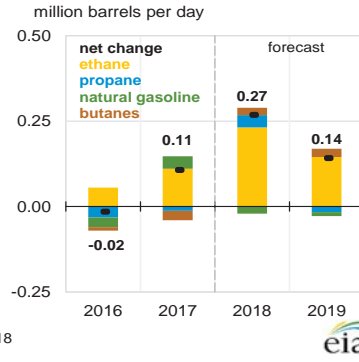


U.S. hydrocarbon gas liquids product supplied (consumption)
million barrels per day

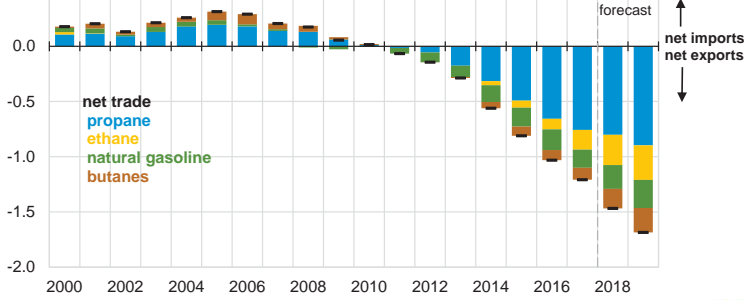


Source: Short-Term Energy Outlook, September 2018

Components of annual change



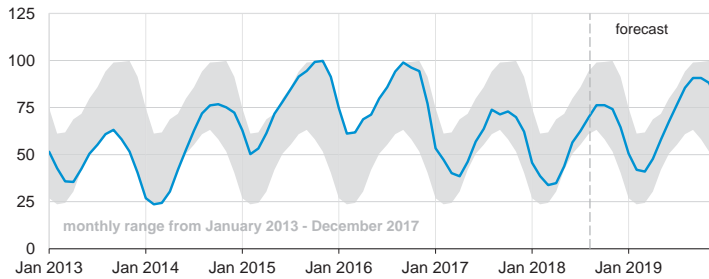
U.S. net trade of hydrocarbon gas liquids (HGL)
million barrels per day



Source: Short-Term Energy Outlook, September 2018



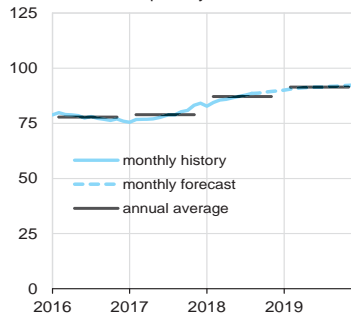
U.S. commercial propane inventories
million barrels



Source: Short-Term Energy Outlook, September 2018

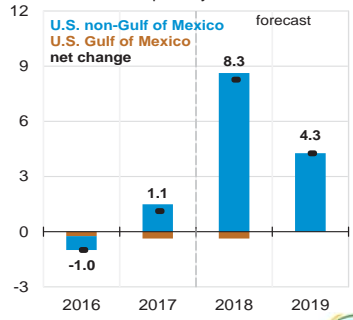


U.S. marketed natural gas production
billion cubic feet per day

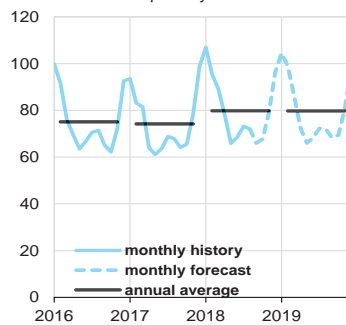


Source: Short-Term Energy Outlook, September 2018

Components of annual change
billion cubic feet per day

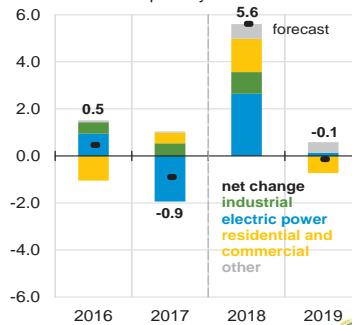


U.S. natural gas consumption
billion cubic feet per day

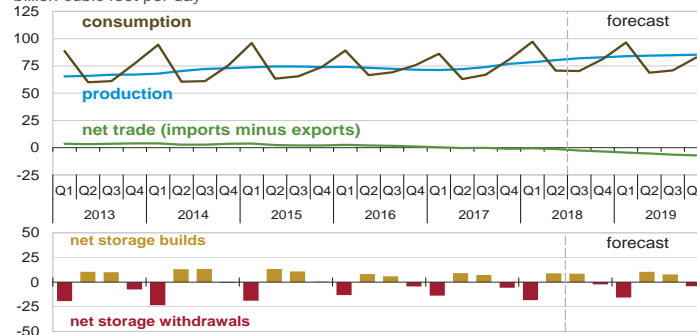


Source: Short-Term Energy Outlook, September 2018

Components of annual change
billion cubic feet per day



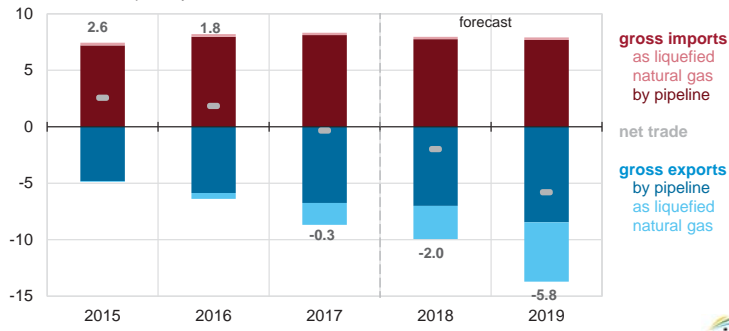
U.S. natural gas production, consumption, and net imports
billion cubic feet per day



Source: Short-Term Energy Outlook, September 2018



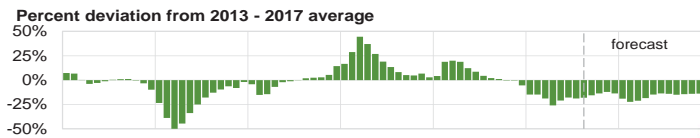
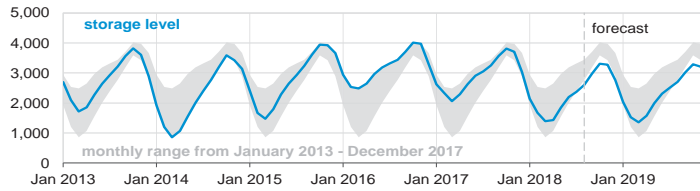
Annual natural gas trade
billion cubic feet per day



Source: Short-Term Energy Outlook, September 2018



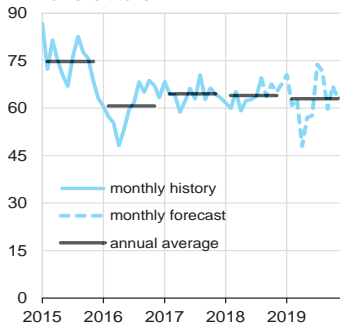
U.S. working natural gas in storage
billion cubic feet



Source: Short-Term Energy Outlook, September 2018

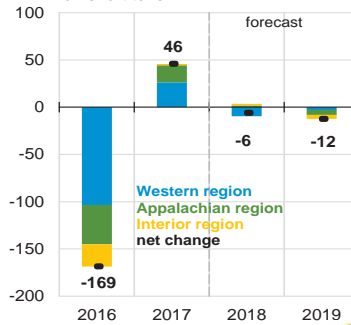


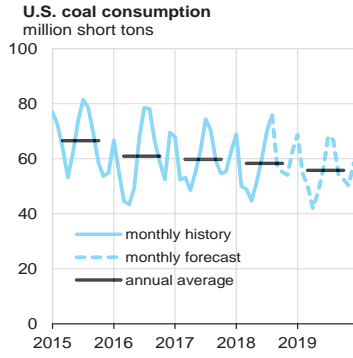
U.S. coal production
million short tons



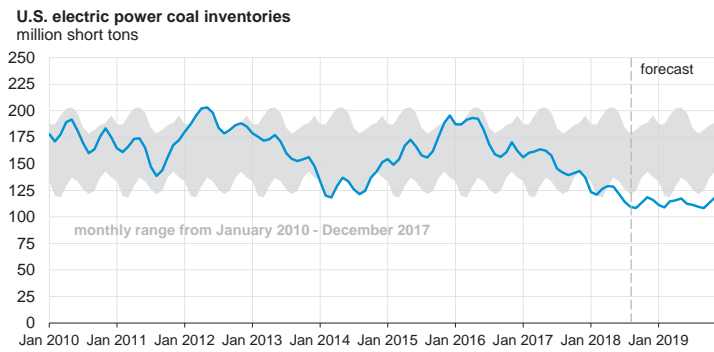
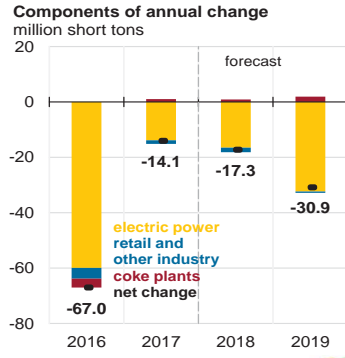
Source: Short-Term Energy Outlook, September 2018

Components of annual change
million short tons

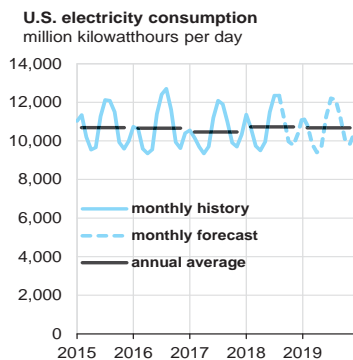




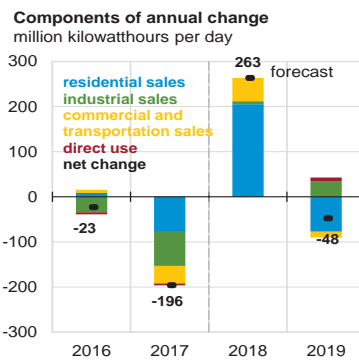
Source: Short-Term Energy Outlook, September 2018



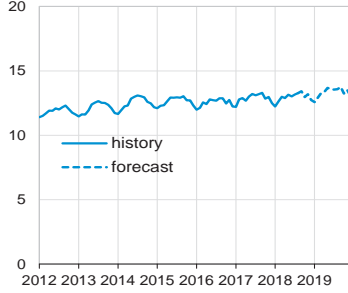
Source: Short-Term Energy Outlook, September 2018



Source: Short-Term Energy Outlook, September 2018

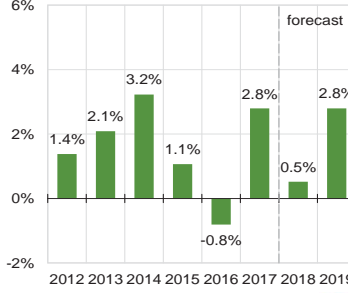


U.S. monthly residential electricity price
cents per kilowatthour

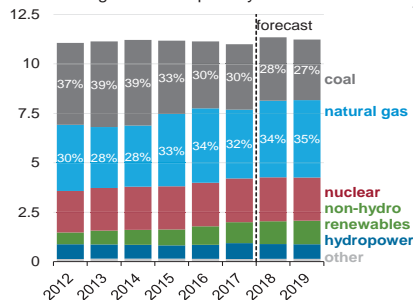


Source: Short-Term Energy Outlook, September 2018

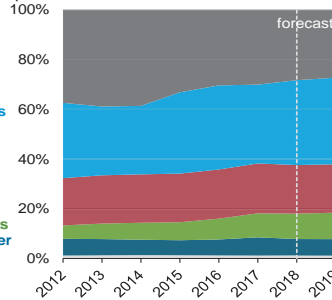
Annual growth in residential electricity prices
percent



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



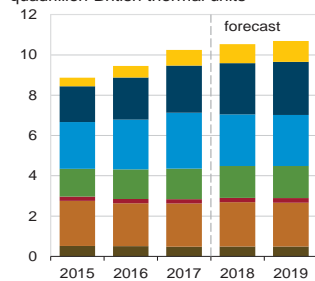
percent share



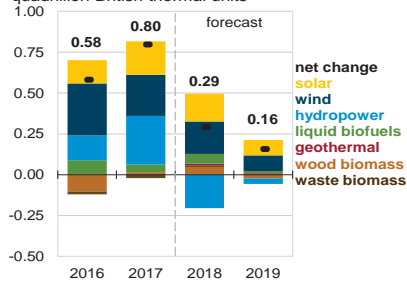
Note: Labels show percentage share of total generation provided by coal and natural gas.
Source: Short-Term Energy Outlook, September 2018



U.S. renewable energy supply
quadrillion British thermal units



Components of annual change
quadrillion British thermal units

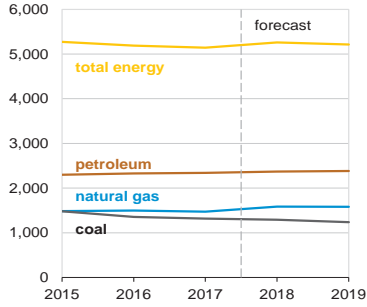


Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol and biodiesel. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste.

Source: Short-Term Energy Outlook, September 2018

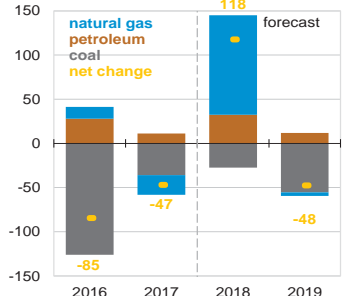


U.S. annual carbon emissions by source
million metric tons

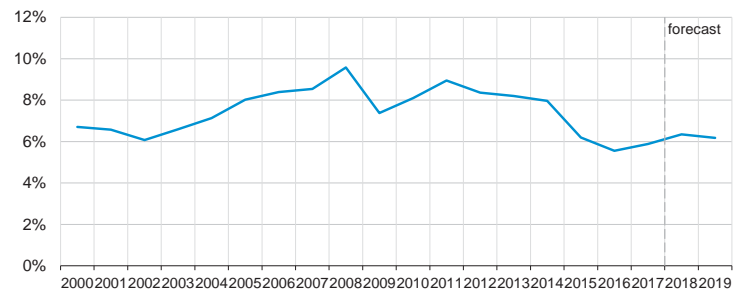


Source: Short-Term Energy Outlook, September 2018

Components of annual change
million metric tons



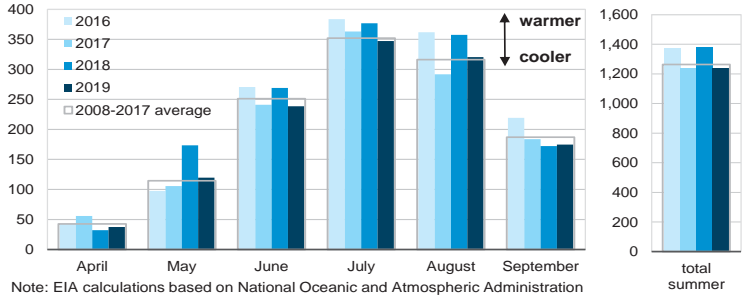
U.S. annual energy expenditures
share of gross domestic product



Source: Short-Term Energy Outlook, September 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, September 2018



Table 1. U.S. Energy Markets Summary

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Energy Supply															
Crude Oil Production (a) (million barrels per day)	9.02	9.11	9.32	9.95	10.23	10.53	10.80	11.06	11.31	11.46	11.45	11.78	9.35	10.66	11.50
Dry Natural Gas Production (billion cubic feet per day)	71.21	72.01	73.95	76.95	78.46	80.38	82.01	82.92	83.87	84.53	84.84	85.35	73.55	80.96	84.65
Coal Production (million short tons)	197	187	196	194	187	184	197	200	194	163	205	194	774	768	756
Energy Consumption															
Liquid Fuels (million barrels per day)	19.54	20.07	20.01	20.21	20.24	20.33	20.55	20.60	20.32	20.53	20.95	20.92	19.96	20.43	20.68
Natural Gas (billion cubic feet per day)	86.15	62.96	66.94	80.90	97.21	70.77	70.43	81.13	96.42	68.86	70.91		74.20	79.81	79.67
Coal (b) (million short tons)	173	167	204	173	168	156	203	172	173	145	189	161	717	700	669
Electricity (billion kilowatt hours per day)	10.13	10.08	11.66	9.98	10.59	10.31	11.96	10.04	10.63	10.13	11.85	10.11	10.47	10.73	10.68
Renewables (c) (quadrillion Btu)	2.78	2.98	2.57	2.66	2.87	3.01	2.65	2.70	2.76	3.07	2.78	2.83	10.99	11.22	11.43
Total Energy Consumption (d) (quadrillion Btu)	25.06	23.25	24.35	25.08	26.39	23.93	24.59	24.90	25.95	23.35	24.65	25.08	97.74	99.81	99.03
Energy Prices															
Crude Oil West Texas Intermediate Spot (dollars per barrel)	51.64	48.15	48.16	55.27	62.90	68.07	69.37	67.69	64.69	65.66	68.31	70.64	50.79	67.03	67.36
Natural Gas Henry Hub Spot (dollars per million Btu)	3.01	3.08	2.95	2.90	3.02	2.85	2.93	3.14	3.23	3.00	3.06	3.20	2.99	2.99	3.12
Coal (dollars per million Btu)	2.08	2.12	2.07	2.04	2.06	2.05	2.12	2.12	2.10	2.09	2.10	2.10	2.08	2.09	2.10
Macroeconomic															
Real Gross Domestic Product (billion chained 2012 dollars - SAAR)	17,863	17,995	18,121	18,224	18,324	18,507	18,655	18,811	18,934	19,049	19,149	19,246	18,051	18,574	19,094
Percent change from prior year	1.9	2.1	2.3	2.5	2.6	2.8	2.9	3.2	3.3	2.9	2.6	2.3	2.2	2.9	2.8
GDP Implicit Price Deflator (Index, 2012=100)	107.2	107.6	108.1	108.8	109.3	110.2	110.7	111.3	112.0	112.6	113.2	113.9	107.9	110.4	112.9
Percent change from prior year	2.1	1.7	1.9	2.0	2.0	2.4	2.4	2.3	2.4	2.2	2.3	2.3	1.9	2.3	2.3
Real Disposable Personal Income (billion chained 2012 dollars - SAAR)	13,835	13,910	13,986	14,066	14,220	14,310	14,364	14,432	14,563	14,658	14,749	14,845	13,949	14,332	14,704
Percent change from prior year	2.0	2.7	2.9	2.8	2.8	2.9	2.7	2.6	2.4	2.4	2.7	2.9	2.6	2.7	2.6
Manufacturing Production Index (Index, 2012=100)	102.0	102.7	102.2	103.6	104.1	104.9	105.6	106.2	107.0	107.9	108.5	109.0	102.6	105.2	108.1
Percent change from prior year	0.6	1.9	1.2	2.1	2.1	2.1	3.3	2.5	2.8	2.9	2.8	2.6	1.5	2.5	2.8
Weather															
U.S. Heating Degree-Days	1,858	427	65	1,481	2,130	523	69	1,541	2,108	478	77	1,526	3,830	4,263	4,189
U.S. Cooling Degree-Days	70	403	839	115	51	475	907	87	40	396	842	91	1,426	1,520	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 - September 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>69.37</i>	<i>67.69</i>	<i>64.69</i>	<i>65.66</i>	<i>68.31</i>	<i>70.64</i>	50.79	<i>67.03</i>	<i>67.36</i>
Brent Spot Average	53.57	49.59	52.09	61.42	66.84	74.53	<i>74.15</i>	<i>75.69</i>	<i>72.69</i>	<i>73.00</i>	<i>74.00</i>	<i>75.00</i>	54.15	<i>72.84</i>	<i>73.68</i>
U.S. Imported Average	47.94	46.25	47.43	55.08	58.08	63.84	<i>65.88</i>	<i>64.15</i>	<i>61.19</i>	<i>62.18</i>	<i>64.82</i>	<i>67.16</i>	48.98	<i>63.00</i>	<i>63.77</i>
U.S. Refiner Average Acquisition Cost	49.90	47.73	48.31	56.73	61.89	66.80	<i>68.40</i>	<i>66.65</i>	<i>63.69</i>	<i>64.68</i>	<i>67.32</i>	<i>69.67</i>	50.68	<i>66.00</i>	<i>66.37</i>
U.S. Liquid Fuels (cents per gallon)															
Refiner Prices for Resale															
Gasoline	163	165	172	175	186	213	<i>213</i>	<i>201</i>	<i>195</i>	<i>213</i>	<i>215</i>	<i>204</i>	169	<i>203</i>	<i>207</i>
Diesel Fuel	162	155	169	190	199	219	<i>223</i>	<i>228</i>	<i>217</i>	<i>219</i>	<i>227</i>	<i>232</i>	169	<i>218</i>	<i>224</i>
Heating Oil	154	144	154	179	193	205	<i>214</i>	<i>220</i>	<i>214</i>	<i>208</i>	<i>217</i>	<i>225</i>	160	<i>207</i>	<i>215</i>
Refiner Prices to End Users															
Jet Fuel	158	151	162	181	197	217	<i>221</i>	<i>224</i>	<i>215</i>	<i>215</i>	<i>224</i>	<i>229</i>	163	<i>215</i>	<i>221</i>
No. 6 Residual Fuel Oil (a)	128	120	124	140	149	162	<i>169</i>	<i>165</i>	<i>159</i>	<i>157</i>	<i>164</i>	<i>170</i>	128	<i>162</i>	<i>162</i>
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	233	238	244	251	258	285	<i>284</i>	<i>277</i>	<i>268</i>	<i>287</i>	<i>291</i>	<i>280</i>	242	<i>276</i>	<i>282</i>
Gasoline All Grades (b)	244	250	255	263	270	294	<i>292</i>	<i>287</i>	<i>279</i>	<i>298</i>	<i>302</i>	<i>293</i>	253	<i>286</i>	<i>293</i>
On-highway Diesel Fuel	257	255	263	287	302	320	<i>323</i>	<i>324</i>	<i>312</i>	<i>312</i>	<i>320</i>	<i>327</i>	265	<i>317</i>	<i>318</i>
Heating Oil	247	238	234	265	287	299	<i>308</i>	<i>315</i>	<i>314</i>	<i>299</i>	<i>304</i>	<i>317</i>	251	<i>299</i>	<i>312</i>
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	3.12	3.19	3.06	3.01	3.13	2.96	<i>3.03</i>	<i>3.26</i>	<i>3.35</i>	<i>3.11</i>	<i>3.17</i>	<i>3.31</i>	3.10	<i>3.10</i>	<i>3.23</i>
Henry Hub Spot (dollars per million Btu)	3.01	3.08	2.95	2.90	3.02	2.85	<i>2.93</i>	<i>3.14</i>	<i>3.23</i>	<i>3.00</i>	<i>3.06</i>	<i>3.20</i>	2.99	<i>2.99</i>	<i>3.12</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>3.88</i>	<i>4.35</i>	<i>4.69</i>	<i>4.06</i>	<i>4.03</i>	<i>4.44</i>	4.14	<i>4.16</i>	<i>4.32</i>
Commercial Sector	7.71	8.33	8.69	7.56	7.66	8.08	<i>8.65</i>	<i>7.89</i>	<i>7.84</i>	<i>8.29</i>	<i>8.69</i>	<i>8.00</i>	7.87	<i>7.90</i>	<i>8.05</i>
Residential Sector	9.73	13.00	17.74	10.19	9.39	11.97	<i>17.05</i>	<i>10.67</i>	<i>9.70</i>	<i>12.20</i>	<i>16.73</i>	<i>10.69</i>	10.92	<i>10.67</i>	<i>10.82</i>
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.08	2.12	2.07	2.04	2.06	2.05	<i>2.12</i>	<i>2.12</i>	<i>2.10</i>	<i>2.09</i>	<i>2.10</i>	<i>2.10</i>	2.08	<i>2.09</i>	<i>2.10</i>
Natural Gas	3.69	3.38	3.19	3.38	3.98	3.09	<i>3.09</i>	<i>3.58</i>	<i>3.77</i>	<i>3.21</i>	<i>3.23</i>	<i>3.58</i>	3.38	<i>3.39</i>	<i>3.42</i>
Residual Fuel Oil (c)	11.16	10.60	10.03	11.93	11.47	13.17	<i>13.66</i>	<i>14.02</i>	<i>14.18</i>	<i>14.46</i>	<i>13.86</i>	<i>13.71</i>	10.97	<i>12.81</i>	<i>14.06</i>
Distillate Fuel Oil	12.74	12.23	13.13	14.54	15.77	16.72	<i>17.11</i>	<i>17.58</i>	<i>16.94</i>	<i>16.88</i>	<i>17.40</i>	<i>17.89</i>	13.26	<i>16.50</i>	<i>17.27</i>
Retail Prices (cents per kilowatthour)															
Industrial Sector	6.64	6.89	7.27	6.79	6.79	6.87	<i>7.36</i>	<i>6.94</i>	<i>6.83</i>	<i>6.98</i>	<i>7.43</i>	<i>7.01</i>	6.91	<i>7.00</i>	<i>7.07</i>
Commercial Sector	10.39	10.68	11.03	10.56	10.51	10.60	<i>11.02</i>	<i>10.69</i>	<i>10.64</i>	<i>10.72</i>	<i>11.05</i>	<i>10.75</i>	10.68	<i>10.72</i>	<i>10.80</i>
Residential Sector	12.59	12.99	13.19	12.75	12.57	13.02	<i>13.28</i>	<i>12.94</i>	<i>12.88</i>	<i>13.55</i>	<i>13.62</i>	<i>13.25</i>	12.90	<i>12.97</i>	<i>13.33</i>

- = no data available

Prices are not adjusted for inflation.

(a) Average for all sulfur contents.

(b) Average self-service cash price.

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

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

Prices exclude taxes unless otherwise noted.

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Supply (million barrels per day) (a)															
OECD	27.17	26.87	27.19	28.34	28.85	29.00	29.42	30.31	30.48	30.75	30.82	31.41	27.39	29.40	30.87
U.S. (50 States)	15.08	15.40	15.58	16.55	16.77	17.38	17.85	18.16	18.34	18.73	18.86	19.26	15.65	17.54	18.80
Canada	5.05	4.60	5.00	5.19	5.31	5.01	4.92	5.29	5.29	5.24	5.25	5.26	4.96	5.13	5.26
Mexico	2.35	2.34	2.19	2.16	2.18	2.17	2.17	2.20	2.19	2.17	2.16	2.15	2.26	2.18	2.17
Other OECD	4.69	4.54	4.42	4.44	4.60	4.44	4.48	4.66	4.67	4.61	4.55	4.74	4.52	4.54	4.64
Non-OECD	69.64	70.21	70.94	70.34	69.85	70.15	70.88	70.19	70.16	70.88	71.17	70.89	70.29	70.27	70.78
OPEC	38.87	39.15	39.74	39.38	39.32	38.88	39.03	38.64	38.93	38.90	38.99	39.00	39.29	38.96	38.95
Crude Oil Portion	32.25	32.52	33.16	32.78	32.68	32.31	32.42	32.01	32.15	32.18	32.24	32.23	32.68	32.35	32.20
Other Liquids (b)	6.61	6.63	6.59	6.60	6.65	6.57	6.61	6.63	6.77	6.72	6.75	6.77	6.61	6.61	6.75
Eurasia	14.43	14.30	14.22	14.32	14.40	14.43	14.63	14.71	14.72	14.64	14.68	14.74	14.32	14.54	14.69
China	4.81	4.82	4.74	4.75	4.76	4.81	4.79	4.83	4.78	4.82	4.82	4.87	4.78	4.80	4.82
Other Non-OECD	11.54	11.93	12.24	11.89	11.36	12.04	12.44	12.01	11.73	12.53	12.69	12.29	11.90	11.97	12.31
Total World Supply	96.81	97.08	98.13	98.68	98.70	99.15	100.30	100.49	100.63	101.64	102.00	102.30	97.68	99.67	101.65
Non-OPEC Supply	57.95	57.93	58.39	59.29	59.37	60.28	61.28	61.86	61.71	62.74	63.01	63.30	58.39	60.70	62.70
Consumption (million barrels per day) (c)															
OECD	46.72	46.86	47.46	47.82	47.56	46.92	47.89	48.16	47.80	47.26	48.41	48.56	47.22	47.64	48.01
U.S. (50 States)	19.54	20.07	20.01	20.21	20.24	20.33	20.55	20.60	20.32	20.53	20.95	20.92	19.96	20.43	20.68
U.S. Territories	0.15	0.13	0.11	0.08	0.08	0.07	0.08	0.10	0.11	0.09	0.10	0.12	0.12	0.08	0.11
Canada	2.37	2.36	2.52	2.52	2.32	2.38	2.48	2.46	2.42	2.36	2.48	2.46	2.44	2.41	2.43
Europe	13.82	14.25	14.70	14.40	14.05	14.10	14.71	14.41	14.08	14.30	14.81	14.51	14.30	14.32	14.43
Japan	4.30	3.58	3.63	4.06	4.27	3.47	3.55	3.88	4.15	3.40	3.47	3.79	3.89	3.79	3.70
Other OECD	6.54	6.46	6.48	6.55	6.60	6.56	6.53	6.71	6.72	6.57	6.60	6.77	6.51	6.60	6.67
Non-OECD	50.35	51.69	51.58	51.57	51.63	52.62	52.79	52.79	52.71	53.85	53.84	53.82	51.30	52.46	53.56
Eurasia	4.73	4.72	4.99	4.86	4.76	4.81	5.08	4.96	4.82	4.87	5.14	5.02	4.83	4.91	4.96
Europe	0.73	0.73	0.74	0.74	0.75	0.74	0.76	0.76	0.75	0.75	0.77	0.77	0.73	0.75	0.76
China	13.07	13.51	13.08	13.39	13.65	13.84	13.58	13.80	14.15	14.34	14.07	14.28	13.26	13.72	14.21
Other Asia	13.07	13.39	13.09	13.44	13.64	13.82	13.51	13.87	14.09	14.25	13.84	14.17	13.24	13.71	14.09
Other Non-OECD	18.76	19.36	19.69	19.14	18.83	19.40	19.86	19.40	18.90	19.63	20.02	19.58	19.24	19.37	19.54
Total World Consumption	97.08	98.55	99.05	99.39	99.20	99.54	100.69	100.95	100.51	101.11	102.25	102.38	98.52	100.10	101.57
Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)															
U.S. (50 States)	-0.01	0.23	0.35	0.90	0.36	-0.06	-0.30	0.39	-0.32	-0.58	-0.28	0.28	0.37	0.10	-0.22
Other OECD	-0.38	0.08	0.34	0.48	-0.03	0.08	0.23	0.02	0.07	0.02	0.18	-0.07	0.13	0.08	0.05
Other Stock Draws and Balance	0.65	1.17	0.23	-0.67	0.16	0.36	0.45	0.04	0.13	0.04	0.35	-0.14	0.34	0.26	0.10
Total Stock Draw	0.26	1.47	0.92	0.71	0.50	0.38	0.38	0.45	-0.12	-0.53	0.25	0.08	0.84	0.43	-0.08
End-of-period Commercial Crude Oil and Other Liquids Inventories (million barrels)															
U.S. Commercial Inventory	1,339	1,331	1,304	1,232	1,196	1,207	1,235	1,210	1,242	1,297	1,323	1,300	1,232	1,210	1,300
OECD Commercial Inventory	3,029	3,013	2,960	2,843	2,806	2,810	2,816	2,789	2,814	2,868	2,878	2,861	2,843	2,789	2,861

- = 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 - September 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
North America	22.48	22.34	22.77	23.90	24.25	24.56	<i>24.94</i>	<i>25.65</i>	<i>25.81</i>	<i>26.15</i>	<i>26.27</i>	<i>26.67</i>	22.87	<i>24.86</i>	<i>26.23</i>
Canada	5.05	4.60	5.00	5.19	5.31	5.01	<i>4.92</i>	<i>5.29</i>	<i>5.29</i>	<i>5.24</i>	<i>5.25</i>	<i>5.26</i>	4.96	<i>5.13</i>	<i>5.26</i>
Mexico	2.35	2.34	2.19	2.16	2.18	2.17	<i>2.17</i>	<i>2.20</i>	<i>2.19</i>	<i>2.17</i>	<i>2.16</i>	<i>2.15</i>	2.26	<i>2.18</i>	<i>2.17</i>
United States	15.08	15.40	15.58	16.55	16.77	17.38	<i>17.85</i>	<i>18.16</i>	<i>18.34</i>	<i>18.73</i>	<i>18.86</i>	<i>19.26</i>	15.65	<i>17.54</i>	<i>18.80</i>
Central and South America	4.91	5.40	5.70	5.33	4.87	5.62	<i>5.93</i>	<i>5.48</i>	<i>5.19</i>	<i>6.04</i>	<i>6.21</i>	<i>5.83</i>	5.34	<i>5.48</i>	<i>5.82</i>
Argentina	0.67	0.67	0.67	0.70	0.66	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	3.63	<i>3.97</i>	<i>3.49</i>	<i>3.26</i>	<i>4.07</i>	<i>4.27</i>	<i>3.86</i>	3.36	<i>3.51</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	4.04	3.92	3.95	4.08	3.93	<i>3.94</i>	<i>4.11</i>	<i>4.10</i>	<i>4.02</i>	<i>3.94</i>	<i>4.10</i>	4.03	<i>4.01</i>	<i>4.04</i>
Norway	2.08	2.00	1.91	1.92	1.97	1.80	<i>1.88</i>	<i>1.94</i>	<i>1.93</i>	<i>1.86</i>	<i>1.87</i>	<i>1.91</i>	1.98	<i>1.90</i>	<i>1.89</i>
United Kingdom	1.09	1.07	1.00	1.02	1.11	1.14	<i>1.07</i>	<i>1.18</i>	<i>1.19</i>	<i>1.19</i>	<i>1.10</i>	<i>1.21</i>	1.05	<i>1.13</i>	<i>1.17</i>
Eurasia	14.43	14.30	14.22	14.32	14.40	14.43	<i>14.63</i>	<i>14.71</i>	<i>14.72</i>	<i>14.64</i>	<i>14.68</i>	<i>14.74</i>	14.32	<i>14.54</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	1.96	<i>2.02</i>	<i>2.08</i>	<i>2.09</i>	<i>2.00</i>	<i>2.07</i>	<i>2.13</i>	1.88	<i>2.01</i>	<i>2.07</i>
Russia	11.32	11.18	11.14	11.16	11.18	11.22	<i>11.38</i>	<i>11.42</i>	<i>11.43</i>	<i>11.44</i>	<i>11.42</i>	<i>11.43</i>	11.20	<i>11.30</i>	<i>11.43</i>
Turkmenistan	0.28	0.28	0.28	0.28	0.27	0.28	<i>0.27</i>	<i>0.27</i>	<i>0.25</i>	<i>0.25</i>	<i>0.25</i>	<i>0.25</i>	0.28	<i>0.27</i>	<i>0.25</i>
Other Eurasia	0.16	0.17	0.16	0.16	0.16	0.16	<i>0.17</i>	<i>0.17</i>	<i>0.16</i>	<i>0.16</i>	<i>0.16</i>	<i>0.16</i>	0.16	<i>0.16</i>	<i>0.16</i>
Middle East	1.07	1.07	1.07	1.08	1.08	1.09	<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	9.17	9.22	9.19	<i>9.26</i>	<i>9.31</i>	<i>9.25</i>	<i>9.27</i>	<i>9.28</i>	<i>9.33</i>	9.23	<i>9.24</i>	<i>9.29</i>
Australia	0.34	0.35	0.36	0.34	0.38	0.36	<i>0.36</i>	<i>0.37</i>	<i>0.39</i>	<i>0.41</i>	<i>0.43</i>	<i>0.46</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>4.79</i>	<i>4.83</i>	<i>4.78</i>	<i>4.82</i>	<i>4.82</i>	<i>4.87</i>	4.78	<i>4.80</i>	<i>4.82</i>
India	1.01	1.00	1.00	1.00	1.00	0.99	<i>0.98</i>	<i>0.99</i>	<i>0.99</i>	<i>0.98</i>	<i>0.99</i>	<i>0.99</i>	1.00	<i>0.99</i>	<i>0.99</i>
Indonesia	0.93	0.92	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	0.73	<i>0.75</i>	<i>0.75</i>	<i>0.75</i>	<i>0.74</i>	<i>0.73</i>	<i>0.72</i>	0.72	<i>0.74</i>	<i>0.73</i>
Vietnam	0.29	0.29	0.28	0.27	0.27	0.25	<i>0.25</i>	<i>0.25</i>	<i>0.25</i>	<i>0.25</i>	<i>0.25</i>	<i>0.25</i>	0.28	<i>0.26</i>	<i>0.25</i>
Africa	1.51	1.51	1.54	1.55	1.47	1.46	<i>1.48</i>	<i>1.50</i>	<i>1.50</i>	<i>1.50</i>	<i>1.50</i>	<i>1.50</i>	1.53	<i>1.48</i>	<i>1.50</i>
Egypt	0.64	0.65	0.66	0.66	0.63	0.63	<i>0.63</i>	<i>0.63</i>	<i>0.61</i>	<i>0.61</i>	<i>0.61</i>	<i>0.61</i>	0.65	<i>0.63</i>	<i>0.61</i>
South Sudan	0.15	0.15	0.15	0.15	0.12	0.12	<i>0.12</i>	<i>0.14</i>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	0.15	<i>0.13</i>	<i>0.15</i>
Total non-OPEC liquids	57.95	57.93	58.39	59.29	59.37	60.28	<i>61.28</i>	<i>61.86</i>	<i>61.71</i>	<i>62.74</i>	<i>63.01</i>	<i>63.30</i>	58.39	<i>60.70</i>	<i>62.70</i>
OPEC non-crude liquids	6.61	6.63	6.59	6.60	6.65	6.57	<i>6.61</i>	<i>6.63</i>	<i>6.77</i>	<i>6.72</i>	<i>6.75</i>	<i>6.77</i>	6.61	<i>6.61</i>	<i>6.75</i>
Non-OPEC + OPEC non-crude	64.56	64.56	64.97	65.90	66.02	66.85	<i>67.88</i>	<i>68.49</i>	<i>68.48</i>	<i>69.46</i>	<i>69.76</i>	<i>70.07</i>	65.00	<i>67.32</i>	<i>69.45</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 - September 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	4.50	-	-	-	-	-	-	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	10.20	-	-	-	-	-	-	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	32.42	32.01	32.15	32.18	32.24	32.23	32.68	32.35	32.20
Other Liquids (a)	6.61	6.63	6.59	6.60	6.65	6.57	<i>6.61</i>	<i>6.63</i>	<i>6.77</i>	<i>6.72</i>	<i>6.75</i>	<i>6.77</i>	6.61	<i>6.61</i>	<i>6.75</i>
Total OPEC Supply	38.87	39.15	39.74	39.38	39.32	38.88	<i>39.03</i>	<i>38.64</i>	<i>38.93</i>	<i>38.90</i>	<i>38.99</i>	<i>39.00</i>	39.29	<i>38.96</i>	<i>38.95</i>
Crude Oil Production Capacity															
Africa	5.22	5.44	5.91	5.94	6.00	5.68	5.58	5.71	5.76	5.78	5.82	5.84	5.63	5.74	5.80
Middle East	26.70	26.69	26.71	26.64	26.51	26.52	26.44	26.04	26.32	26.28	26.24	26.28	26.69	26.38	26.28
South America	2.53	2.51	2.49	2.31	2.08	1.94	1.80	1.73	1.60	1.48	1.39	1.30	2.46	1.89	1.44
OPEC Total	34.45	34.64	35.11	34.88	34.59	34.14	33.82	33.49	33.68	33.54	33.45	33.42	34.77	34.01	33.52
Surplus Crude Oil Production Capacity															
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Middle East	2.19	2.13	1.95	2.10	1.91	1.83	1.40	1.49	1.52	1.36	1.21	1.19	2.09	1.66	1.32
South America	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OPEC Total	2.19	2.13	1.95	2.10	1.91	1.84	1.40	1.49	1.52	1.36	1.21	1.19	2.09	1.66	1.32
Unplanned OPEC Production Outages	1.81	1.60	1.17	1.21	1.21	1.43	<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 - September 2018

	2017				2018				2019				2017	2018	2019
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
North America	23.94	24.48	24.49	24.67	24.56	24.72	24.97	25.03	24.71	24.88	25.40	25.38	24.40	24.82	25.10
Canada	2.37	2.36	2.52	2.52	2.32	2.38	2.48	2.46	2.42	2.36	2.48	2.46	2.44	2.41	2.43
Mexico	2.02	2.03	1.95	1.93	1.99	1.99	1.93	1.97	1.96	1.97	1.97	2.00	1.98	1.97	1.97
United States	19.54	20.07	20.01	20.21	20.24	20.33	20.55	20.60	20.32	20.53	20.95	20.92	19.96	20.43	20.68
Central and South America	6.91	7.00	7.13	7.01	6.79	6.81	7.01	6.99	6.73	6.89	7.01	7.00	7.01	6.90	6.91
Brazil	2.96	3.00	3.12	3.08	3.01	2.97	3.16	3.15	3.00	3.07	3.16	3.17	3.04	3.07	3.10
Europe	14.55	14.98	15.44	15.14	14.79	14.85	15.47	15.18	14.84	15.05	15.58	15.28	15.03	15.07	15.19
Eurasia	4.73	4.72	4.99	4.86	4.76	4.81	5.08	4.96	4.82	4.87	5.14	5.02	4.83	4.91	4.96
Russia	3.61	3.62	3.82	3.69	3.61	3.68	3.89	3.76	3.66	3.73	3.94	3.81	3.68	3.73	3.78
Middle East	8.24	8.77	9.10	8.48	8.31	8.87	9.21	8.59	8.38	8.95	9.30	8.68	8.65	8.75	8.83
Asia and Oceania	34.39	34.33	33.73	34.93	35.59	35.10	34.66	35.75	36.59	36.02	35.42	36.46	34.34	35.27	36.12
China	13.07	13.51	13.08	13.39	13.65	13.84	13.58	13.80	14.15	14.34	14.07	14.28	13.26	13.72	14.21
Japan	4.30	3.58	3.63	4.06	4.27	3.47	3.55	3.88	4.15	3.40	3.47	3.79	3.89	3.79	3.70
India	4.40	4.64	4.42	4.75	4.79	4.88	4.65	4.98	5.09	5.15	4.81	5.12	4.55	4.82	5.04
Africa	4.32	4.28	4.17	4.29	4.39	4.38	4.29	4.45	4.45	4.46	4.39	4.56	4.27	4.38	4.46
Total OECD Liquid Fuels Consumption	46.72	46.86	47.46	47.82	47.56	46.92	47.89	48.16	47.80	47.26	48.41	48.56	47.22	47.64	48.01
Total non-OECD Liquid Fuels Consumption	50.35	51.69	51.58	51.57	51.63	52.62	52.79	52.79	52.71	53.85	53.84	53.82	51.30	52.46	53.56
Total World Liquid Fuels Consumption	97.08	98.55	99.05	99.39	99.20	99.54	100.69	100.95	100.51	101.11	102.25	102.38	98.52	100.10	101.57
Oil-weighted Real Gross Domestic Product (a)															
World Index, 2015 Q1 = 100	105.7	106.5	107.4	108.2	109.3	110.0	110.8	111.7	112.6	113.4	114.2	115.0	106.9	110.4	113.8
Percent change from prior year	3.6	2.9	3.1	3.0	3.3	3.3	3.2	3.2	3.1	3.1	3.1	3.0	3.1	3.3	3.1
OECD Index, 2015 Q1 = 100	103.9	104.5	105.1	105.8	106.5	107.1	107.6	108.3	108.9	109.3	109.7	110.1	104.8	107.4	109.5
Percent change from prior year	3.0	2.1	2.4	2.3	2.5	2.4	2.4	2.4	2.2	2.0	2.0	1.7	2.4	2.4	2.0
Non-OECD Index, 2015 Q1 = 100	107.4	108.4	109.5	110.6	111.9	112.8	113.9	115.0	116.3	117.4	118.6	119.8	109.0	113.4	118.0
Percent change from prior year	4.2	3.6	3.8	3.7	4.2	4.1	4.0	4.0	3.9	4.1	4.1	4.2	3.8	4.1	4.1
Real U.S. Dollar Exchange Rate (a)															
Index, 2015 Q1 = 100	104.94	103.51	101.97	102.36	100.65	102.66	104.54	104.20	103.45	102.71	101.83	101.03	103.19	103.01	102.25
Percent change from prior year	-0.2	0.3	-1.0	-2.4	-4.1	-0.8	2.5	1.8	2.8	0.0	-2.6	-3.0	-0.8	-0.2	-0.7

- = no data available

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Supply (million barrels per day)															
Crude Oil Supply															
Domestic Production (a)	9.02	9.11	9.32	9.95	10.23	10.53	10.80	11.06	11.31	11.46	11.45	11.78	9.35	10.66	11.50
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	1.58	1.68	1.74	1.81	1.83	1.71	1.82	1.68	1.67	1.79
Lower 48 States (excl GOM)	6.74	6.95	7.15	7.86	8.05	8.47	8.68	8.83	8.99	9.15	9.30	9.46	7.18	8.51	9.23
Crude Oil Net Imports (c)	7.26	7.23	6.65	6.12	6.18	6.19	6.28	5.52	5.57	5.72	5.76	5.05	6.81	6.04	5.52
SPR Net Withdrawals	0.04	0.14	0.06	0.12	-0.03	0.06	0.00	0.12	0.03	0.03	0.00	0.03	0.09	0.04	0.02
Commercial Inventory Net Withdrawals	-0.60	0.41	0.35	0.52	-0.02	0.09	0.09	-0.07	-0.57	-0.04	0.07	-0.09	0.17	0.02	-0.16
Crude Oil Adjustment (d)	0.18	0.24	0.22	0.02	0.05	0.26	0.22	0.15	0.19	0.19	0.21	0.15	0.17	0.17	0.19
Total Crude Oil Input to Refineries	15.90	17.13	16.60	16.72	16.41	17.14	17.40	16.78	16.53	17.36	17.49	16.92	16.59	16.94	17.08
Other Supply															
Refinery Processing Gain	1.11	1.15	1.08	1.12	1.11	1.12	1.14	1.12	1.08	1.12	1.14	1.13	1.11	1.12	1.12
Natural Gas Plant Liquids Production	3.57	3.75	3.77	4.03	4.01	4.30	4.45	4.54	4.56	4.71	4.82	4.90	3.78	4.33	4.75
Renewables and Oxygenate Production (e)	1.18	1.17	1.19	1.24	1.21	1.22	1.23	1.22	1.17	1.21	1.22	1.23	1.19	1.22	1.21
Fuel Ethanol Production	1.05	1.01	1.03	1.06	1.05	1.04	1.06	1.04	1.03	1.04	1.03	1.04	1.04	1.05	1.03
Petroleum Products Adjustment (f)	0.20	0.22	0.21	0.22	0.21	0.21	0.22	0.22	0.21	0.22	0.22	0.23	0.21	0.22	0.22
Product Net Imports (c)	-2.97	-3.02	-2.79	-3.39	-3.13	-3.44	-3.49	-3.63	-3.46	-3.52	-3.60	-3.83	-3.04	-3.42	-3.60
Hydrocarbon Gas Liquids	-1.21	-1.20	-1.16	-1.26	-1.22	-1.53	-1.57	-1.55	-1.65	-1.69	-1.67	-1.74	-1.21	-1.47	-1.69
Unfinished Oils	0.41	0.36	0.41	0.45	0.39	0.32	0.34	0.31	0.37	0.39	0.40	0.31	0.41	0.34	0.37
Other HC/Oxygenates	-0.13	-0.09	-0.09	-0.14	-0.18	-0.15	-0.10	-0.09	-0.12	-0.10	-0.08	-0.08	-0.11	-0.13	-0.10
Motor Gasoline Blend Comp.	0.43	0.68	0.64	0.36	0.50	0.78	0.55	0.37	0.50	0.67	0.49	0.44	0.53	0.55	0.53
Finished Motor Gasoline	-0.68	-0.63	-0.63	-0.92	-0.94	-0.71	-0.75	-0.81	-0.87	-0.70	-0.67	-0.89	-0.72	-0.80	-0.78
Jet Fuel	-0.04	-0.06	-0.01	0.02	-0.10	-0.10	-0.09	-0.02	0.01	-0.01	-0.04	0.00	-0.02	-0.07	-0.01
Distillate Fuel Oil	-1.02	-1.37	-1.33	-1.19	-0.87	-1.30	-1.22	-1.12	-1.03	-1.32	-1.31	-1.10	-1.23	-1.13	-1.19
Residual Fuel Oil	-0.12	-0.13	-0.12	-0.11	-0.10	-0.14	-0.07	-0.08	-0.05	-0.13	-0.09	-0.12	-0.12	-0.10	-0.10
Other Oils (g)	-0.60	-0.59	-0.50	-0.58	-0.62	-0.61	-0.59	-0.63	-0.61	-0.64	-0.64	-0.65	-0.57	-0.61	-0.63
Product Inventory Net Withdrawals	0.55	-0.32	-0.06	0.27	0.41	-0.21	-0.39	0.34	0.22	-0.58	-0.36	0.34	0.11	0.03	-0.09
Total Supply	19.54	20.07	20.01	20.21	20.23	20.33	20.56	20.60	20.32	20.53	20.95	20.92	19.96	20.43	20.68
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	2.82	2.48	2.40	2.88	3.22	2.67	2.68	3.09	3.18	2.79	2.94	3.30	2.64	2.91	3.05
Unfinished Oils	0.02	0.06	0.02	0.05	0.13	-0.04	-0.02	0.01	0.00	-0.03	-0.03	0.01	0.04	0.02	-0.01
Motor Gasoline	8.94	9.54	9.58	9.24	9.01	9.51	9.50	9.25	9.00	9.54	9.54	9.27	9.33	9.32	9.34
Fuel Ethanol blended into Motor Gasoline	0.90	0.96	0.96	0.95	0.91	0.94	0.97	0.95	0.91	0.97	0.97	0.95	0.94	0.94	0.95
Jet Fuel	1.60	1.69	1.71	1.73	1.64	1.73	1.80	1.76	1.70	1.78	1.83	1.80	1.68	1.73	1.78
Distillate Fuel Oil	3.93	3.89	3.85	4.05	4.18	4.13	4.04	4.20	4.19	4.09	4.14	4.25	3.93	4.14	4.17
Residual Fuel Oil	0.38	0.33	0.31	0.34	0.28	0.32	0.35	0.32	0.37	0.32	0.34	0.30	0.34	0.32	0.33
Other Oils (g)	1.84	2.08	2.14	1.92	1.78	2.01	2.21	1.99	1.89	2.04	2.19	1.99	2.00	2.00	2.03
Total Consumption	19.54	20.07	20.01	20.21	20.24	20.33	20.55	20.60	20.32	20.53	20.95	20.92	19.96	20.43	20.68
Total Petroleum and Other Liquids Net Imports	4.29	4.21	3.86	2.73	3.05	2.75	2.79	1.90	2.11	2.20	2.16	1.22	3.77	2.62	1.92
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	538.6	501.6	469.6	421.6	423.4	414.8	406.6	412.9	464.3	467.6	460.9	469.5	421.6	412.9	469.5
Hydrocarbon Gas Liquids	147.6	189.9	228.7	190.0	139.3	180.8	222.2	182.9	149.0	203.3	245.0	202.0	190.0	182.9	202.0
Unfinished Oils	91.9	89.9	91.6	86.3	98.3	92.6	87.9	80.6	90.9	89.8	87.9	80.8	86.3	80.6	80.8
Other HC/Oxygenates	32.8	29.3	28.5	29.6	30.5	28.8	29.6	30.3	32.0	31.0	30.3	30.9	29.6	30.3	30.9
Total Motor Gasoline	239.6	238.4	223.2	236.8	239.6	240.3	231.8	239.8	242.6	239.3	233.9	246.3	236.8	239.8	246.3
Finished Motor Gasoline	21.5	22.5	21.8	24.5	23.1	24.7	24.4	27.4	25.2	24.0	24.8	25.4	24.5	27.4	25.4
Motor Gasoline Blend Comp.	218.0	215.9	201.4	212.3	216.5	215.6	207.4	212.4	217.5	215.3	209.1	220.9	212.3	212.4	220.9
Jet Fuel	42.4	41.0	43.6	41.3	40.4	40.8	43.1	40.8	40.9	42.5	44.1	42.0	41.3	40.8	42.0
Distillate Fuel Oil	152.0	152.1	137.3	145.6	130.4	120.4	131.5	135.4	125.2	127.5	132.3	137.4	145.6	135.4	137.4
Residual Fuel Oil	37.5	33.2	33.6	29.4	35.0	30.0	29.6	33.1	37.0	38.2	36.8	37.1	29.4	33.1	37.1
Other Oils (g)	56.5	55.4	48.0	51.0	59.3	58.8	52.6	54.5	59.8	58.3	52.3	54.4	51.0	54.5	54.4
Total Commercial Inventory	1,339	1,331	1,304	1,232	1,196	1,207	1,235	1,210	1,242	1,297	1,323	1,300	1,232	1,210	1,300
Crude Oil in SPR	692	679	674	663	665	660	660	649	647	644	644	641	663	649	641

- = no data available

(a) Includes lease condensate.

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

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

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

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

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

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

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

SPR: Strategic Petroleum Reserve

HC: Hydrocarbons

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
HGL Production															
Natural Gas Processing Plants															
Ethane	1.35	1.41	1.36	1.58	1.59	1.70	1.74	1.84	1.85	1.90	1.94	2.01	1.43	1.72	1.93
Propane	1.18	1.22	1.25	1.30	1.29	1.37	1.41	1.42	1.44	1.48	1.51	1.53	1.24	1.37	1.49
Butanes	0.63	0.66	0.68	0.69	0.69	0.74	0.77	0.76	0.77	0.80	0.81	0.82	0.67	0.74	0.80
Natural Gasoline (Pentanes Plus)	0.41	0.45	0.48	0.46	0.44	0.50	0.53	0.51	0.50	0.54	0.56	0.55	0.45	0.50	0.54
Refinery and Blender Net Production															
Ethane/Ethylene	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00
Propane	0.29	0.32	0.30	0.32	0.30	0.31	0.30	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	0.29	0.28	0.28	0.28
Butanes/Butylenes	-0.09	0.27	0.16	-0.22	-0.11	0.24	0.19	-0.20	-0.08	0.26	0.19	-0.20	0.03	0.03	0.04
Renewable Fuels and Oxygenate Plant Net Production															
Natural Gasoline (Pentanes Plus)	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
HGL Net Imports															
Ethane	-0.15	-0.16	-0.20	-0.19	-0.22	-0.29	-0.28	-0.31	-0.31	-0.31	-0.31	-0.32	-0.18	-0.27	-0.31
Propane/Propylene	-0.80	-0.73	-0.69	-0.82	-0.72	-0.81	-0.82	-0.85	-0.90	-0.89	-0.85	-0.94	-0.76	-0.80	-0.90
Butanes/Butylenes	-0.08	-0.13	-0.11	-0.11	-0.10	-0.20	-0.22	-0.19	-0.20	-0.24	-0.23	-0.22	-0.11	-0.18	-0.22
Natural Gasoline (Pentanes Plus)	-0.18	-0.18	-0.16	-0.14	-0.18	-0.23	-0.25	-0.20	-0.24	-0.25	-0.28	-0.25	-0.17	-0.22	-0.26
HGL Refinery and Blender Net Inputs															
Butanes/Butylenes	0.43	0.30	0.33	0.50	0.45	0.30	0.33	0.51	0.41	0.30	0.33	0.51	0.39	0.40	0.39
Natural Gasoline (Pentanes Plus)	0.16	0.18	0.18	0.19	0.15	0.16	0.18	0.18	0.17	0.18	0.18	0.18	0.18	0.17	0.18
HGL Consumption															
Ethane/Ethylene	1.20	1.25	1.15	1.37	1.44	1.45	1.46	1.54	1.54	1.57	1.65	1.71	1.24	1.47	1.62
Propane	1.05	0.61	0.68	0.87	1.16	0.60	0.66	0.97	1.06	0.58	0.68	1.00	0.80	0.85	0.83
Propylene (refinery-grade)	0.34	0.32	0.28	0.32	0.32	0.31	0.29	0.30	0.31	0.31	0.30	0.30	0.31	0.30	0.30
Butanes/Butylenes	0.14	0.23	0.20	0.16	0.20	0.21	0.20	0.20	0.18	0.26	0.25	0.22	0.18	0.20	0.23
Natural Gasoline (Pentanes Plus)	0.09	0.08	0.09	0.15	0.10	0.09	0.06	0.08	0.08	0.06	0.06	0.08	0.10	0.08	0.07
HGL Inventories (million barrels)															
Ethane	49.66	51.90	51.76	57.72	51.41	47.90	45.88	47.41	46.35	49.53	48.72	48.74	52.78	48.13	48.34
Propane	40.18	56.92	71.42	62.21	33.83	56.51	76.24	64.50	41.04	67.58	90.72	78.06	62.21	64.50	78.06
Propylene (refinery-grade)	3.66	3.86	4.90	4.61	3.82	3.64	4.23	4.52	3.67	3.50	3.56	4.22	4.61	4.52	4.22
Butanes/Butylenes	31.28	56.79	75.55	47.45	32.02	55.37	74.77	44.04	34.94	58.62	76.17	45.44	47.45	44.04	45.44
Natural Gasoline (Pentanes Plus)	21.49	20.55	23.40	20.11	19.36	18.59	20.58	23.32	21.94	24.00	25.26	27.16	20.11	23.32	27.16
Refinery and Blender Net Inputs															
Crude Oil	15.90	17.13	16.60	16.72	16.41	17.14	17.40	16.78	16.53	17.36	17.49	16.92	16.59	16.94	17.08
Hydrocarbon Gas Liquids	0.59	0.48	0.51	0.69	0.61	0.47	0.51	0.69	0.58	0.48	0.52	0.69	0.57	0.57	0.57
Other Hydrocarbons/Oxygenates	1.16	1.23	1.22	1.20	1.16	1.23	1.25	1.26	1.20	1.28	1.29	1.28	1.20	1.23	1.26
Unfinished Oils	0.26	0.32	0.38	0.45	0.12	0.42	0.42	0.38	0.26	0.43	0.46	0.38	0.35	0.33	0.38
Motor Gasoline Blend Components	0.35	0.64	0.67	0.24	0.34	0.70	0.63	0.47	0.57	0.84	0.66	0.49	0.47	0.53	0.64
Aviation Gasoline Blend Components	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Refinery and Blender Net Inputs	18.25	19.80	19.37	19.31	18.63	19.96	20.21	19.58	19.13	20.39	20.42	19.76	19.19	19.60	19.93
Refinery Processing Gain															
.....	1.11	1.15	1.08	1.12	1.11	1.12	1.14	1.12	1.08	1.12	1.14	1.13	1.11	1.12	1.12
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	0.48	0.89	0.73	0.40	0.48	0.84	0.77	0.38	0.49	0.86	0.77	0.39	0.63	0.62	0.63
Finished Motor Gasoline	9.53	10.08	10.04	10.15	9.79	10.14	10.22	10.22	9.95	10.35	10.29	10.32	9.95	10.09	10.23
Jet Fuel	1.63	1.74	1.75	1.69	1.72	1.83	1.91	1.76	1.69	1.81	1.88	1.77	1.70	1.81	1.79
Distillate Fuel	4.75	5.17	4.93	5.25	4.81	5.25	5.30	5.28	5.06	5.37	5.43	5.33	5.02	5.16	5.30
Residual Fuel	0.46	0.41	0.43	0.41	0.44	0.40	0.41	0.43	0.46	0.46	0.42	0.42	0.43	0.42	0.44
Other Oils (a)	2.51	2.65	2.56	2.53	2.49	2.61	2.73	2.64	2.56	2.67	2.76	2.66	2.56	2.62	2.66
Total Refinery and Blender Net Production	19.36	20.95	20.44	20.43	19.74	21.08	21.35	20.71	20.21	21.51	21.56	20.89	20.30	20.72	21.05
Refinery Distillation Inputs															
.....	16.25	17.44	16.91	17.01	16.76	17.50	17.67	16.99	16.73	17.48	17.67	17.11	16.90	17.23	17.25
Refinery Operable Distillation Capacity															
.....	18.62	18.58	18.54	18.52	18.57	18.60	18.60	18.60	18.61	18.61	18.64	18.65	18.56	18.59	18.63
Refinery Distillation Utilization Factor															
.....	0.87	0.94	0.91	0.92	0.90	0.94	0.95	0.91	0.90	0.94	0.95	0.92	0.91	0.93	0.93

- = no data available

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Prices (cents per gallon)															
Refiner Wholesale Price	163	165	172	175	186	213	<i>213</i>	<i>201</i>	<i>195</i>	<i>213</i>	<i>215</i>	<i>204</i>	169	<i>203</i>	<i>207</i>
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	231	233	241	249	255	279	<i>278</i>	<i>275</i>	<i>266</i>	<i>279</i>	<i>285</i>	<i>280</i>	239	<i>272</i>	<i>278</i>
PADD 2	223	228	232	242	246	274	<i>275</i>	<i>267</i>	<i>259</i>	<i>279</i>	<i>283</i>	<i>273</i>	231	<i>266</i>	<i>274</i>
PADD 3	210	216	222	225	230	261	<i>257</i>	<i>250</i>	<i>245</i>	<i>263</i>	<i>264</i>	<i>254</i>	218	<i>250</i>	<i>257</i>
PADD 4	227	239	245	252	247	288	<i>296</i>	<i>279</i>	<i>256</i>	<i>279</i>	<i>291</i>	<i>278</i>	241	<i>278</i>	<i>276</i>
PADD 5	276	289	290	299	312	342	<i>334</i>	<i>321</i>	<i>310</i>	<i>339</i>	<i>340</i>	<i>321</i>	288	<i>327</i>	<i>328</i>
U.S. Average	233	238	244	251	258	285	<i>284</i>	<i>277</i>	<i>268</i>	<i>287</i>	<i>291</i>	<i>280</i>	242	<i>276</i>	<i>282</i>
Gasoline All Grades Including Taxes	244	250	255	263	270	294	<i>292</i>	<i>287</i>	<i>279</i>	<i>298</i>	<i>302</i>	<i>293</i>	253	<i>286</i>	<i>293</i>
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	65.5	67.7	59.0	60.6	58.4	66.5	<i>63.8</i>	<i>65.6</i>	<i>66.8</i>	<i>67.6</i>	<i>64.1</i>	<i>67.4</i>	60.6	<i>65.6</i>	<i>67.4</i>
PADD 2	57.3	53.6	50.4	52.2	57.3	53.5	<i>51.6</i>	<i>52.3</i>	<i>55.0</i>	<i>53.1</i>	<i>51.6</i>	<i>53.7</i>	52.2	<i>52.3</i>	<i>53.7</i>
PADD 3	79.1	82.4	77.7	83.3	84.2	82.3	<i>81.1</i>	<i>82.9</i>	<i>82.9</i>	<i>82.3</i>	<i>82.3</i>	<i>85.5</i>	83.3	<i>82.9</i>	<i>85.5</i>
PADD 4	7.9	7.0	6.9	7.6	7.7	7.3	<i>6.9</i>	<i>7.7</i>	<i>7.7</i>	<i>7.6</i>	<i>7.4</i>	<i>7.9</i>	7.6	<i>7.7</i>	<i>7.9</i>
PADD 5	29.7	27.7	29.2	33.1	32.0	30.7	<i>28.4</i>	<i>31.4</i>	<i>30.2</i>	<i>28.7</i>	<i>28.5</i>	<i>31.8</i>	33.1	<i>31.4</i>	<i>31.8</i>
U.S. Total	239.6	238.4	223.2	236.8	239.6	240.3	<i>231.8</i>	<i>239.8</i>	<i>242.6</i>	<i>239.3</i>	<i>233.9</i>	<i>246.3</i>	236.8	<i>239.8</i>	<i>246.3</i>
Finished Gasoline Inventories															
U.S. Total	21.5	22.5	21.8	24.5	23.1	24.7	<i>24.4</i>	<i>27.4</i>	<i>25.2</i>	<i>24.0</i>	<i>24.8</i>	<i>25.4</i>	24.5	<i>27.4</i>	<i>25.4</i>
Gasoline Blending Components Inventories															
U.S. Total	218.0	215.9	201.4	212.3	216.5	215.6	<i>207.4</i>	<i>212.4</i>	<i>217.5</i>	<i>215.3</i>	<i>209.1</i>	<i>220.9</i>	212.3	<i>212.4</i>	<i>220.9</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 - September 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	86.57	<i>88.37</i>	<i>89.41</i>	<i>90.48</i>	<i>91.25</i>	<i>91.64</i>	<i>92.24</i>	78.94	<i>87.17</i>	<i>91.41</i>
Alaska	1.01	0.97	0.82	0.98	1.00	0.92	<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>0.91</i>	<i>0.89</i>
Federal GOM (a)	3.26	2.99	2.91	2.52	2.57	2.49	<i>2.54</i>	<i>2.59</i>	<i>2.61</i>	<i>2.56</i>	<i>2.48</i>	<i>2.50</i>	2.92	<i>2.55</i>	<i>2.54</i>
Lower 48 States (excl GOM)	72.05	73.40	75.56	79.22	80.68	83.16	<i>85.05</i>	<i>85.89</i>	<i>86.87</i>	<i>87.84</i>	<i>88.39</i>	<i>88.80</i>	75.08	<i>83.71</i>	<i>87.98</i>
Total Dry Gas Production	71.21	72.01	73.95	76.95	78.46	80.38	<i>82.01</i>	<i>82.92</i>	<i>83.87</i>	<i>84.53</i>	<i>84.84</i>	<i>85.35</i>	73.55	<i>80.96</i>	<i>84.65</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	2.79	<i>3.04</i>	<i>3.23</i>	<i>4.17</i>	<i>4.47</i>	<i>5.73</i>	<i>6.59</i>	1.94	<i>2.93</i>	<i>5.25</i>
Pipeline Gross Imports	8.89	7.76	7.74	8.10	8.76	7.63	<i>7.10</i>	<i>7.55</i>	<i>8.18</i>	<i>7.26</i>	<i>7.28</i>	<i>8.02</i>	8.12	<i>7.76</i>	<i>7.69</i>
Pipeline Gross Exports	7.24	6.49	6.43	6.81	7.02	6.11	<i>6.88</i>	<i>8.04</i>	<i>8.87</i>	<i>8.24</i>	<i>8.06</i>	<i>8.68</i>	6.74	<i>7.01</i>	<i>8.46</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>0.18</i>	<i>0.18</i>	<i>0.18</i>	0.15	<i>0.16</i>	<i>0.18</i>
Net Inventory Withdrawals	13.74	-9.02	-7.20	5.76	18.29	-8.83	<i>-8.50</i>	<i>2.28</i>	<i>15.71</i>	<i>-10.49</i>	<i>-7.72</i>	<i>4.12</i>	0.78	<i>0.74</i>	<i>0.35</i>
Total Supply	85.42	62.78	66.72	81.75	96.36	70.51	<i>71.01</i>	<i>81.92</i>	<i>95.22</i>	<i>68.93</i>	<i>70.96</i>	<i>82.61</i>	74.14	<i>79.89</i>	<i>79.37</i>
Balancing Item (b)	0.72	0.19	0.22	-0.85	0.85	0.26	<i>-0.59</i>	<i>-0.79</i>	<i>1.20</i>	<i>-0.08</i>	<i>-0.05</i>	<i>0.13</i>	0.07	<i>-0.08</i>	<i>0.30</i>
Total Primary Supply	86.15	62.96	66.94	80.90	97.21	70.77	<i>70.43</i>	<i>81.13</i>	<i>96.42</i>	<i>68.86</i>	<i>70.91</i>	<i>82.74</i>	74.20	<i>79.81</i>	<i>79.67</i>
Consumption (billion cubic feet per day)															
Residential	22.17	6.65	3.55	16.26	25.73	7.97	<i>3.41</i>	<i>15.80</i>	<i>25.30</i>	<i>7.15</i>	<i>3.36</i>	<i>15.47</i>	12.12	<i>13.17</i>	<i>12.77</i>
Commercial	13.50	5.83	4.54	11.01	15.34	6.62	<i>4.47</i>	<i>9.93</i>	<i>14.68</i>	<i>6.10</i>	<i>4.50</i>	<i>9.84</i>	8.70	<i>9.06</i>	<i>8.76</i>
Industrial	22.96	20.45	20.32	22.81	24.32	21.81	<i>20.76</i>	<i>23.36</i>	<i>23.91</i>	<i>21.52</i>	<i>20.91</i>	<i>23.83</i>	21.63	<i>22.56</i>	<i>22.54</i>
Electric Power (c)	20.95	24.00	32.28	24.03	24.53	27.62	<i>34.89</i>	<i>24.83</i>	<i>24.79</i>	<i>26.93</i>	<i>34.79</i>	<i>25.85</i>	25.34	<i>27.98</i>	<i>28.11</i>
Lease and Plant Fuel	4.26	4.32	4.43	4.62	4.70	4.83	<i>4.93</i>	<i>4.99</i>	<i>5.05</i>	<i>5.09</i>	<i>5.12</i>	<i>5.15</i>	4.41	<i>4.87</i>	<i>5.10</i>
Pipeline and Distribution Use	2.19	1.60	1.70	2.05	2.47	1.80	<i>1.84</i>	<i>2.11</i>	<i>2.56</i>	<i>1.94</i>	<i>2.11</i>	<i>2.47</i>	1.88	<i>2.05</i>	<i>2.27</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	66.94	80.90	97.21	70.77	<i>70.43</i>	<i>81.13</i>	<i>96.42</i>	<i>68.86</i>	<i>70.91</i>	<i>82.74</i>	74.20	<i>79.81</i>	<i>79.67</i>
End-of-period Inventories (billion cubic feet)															
Working Gas Inventory	2,063	2,907	3,567	3,033	1,392	2,195	<i>2,977</i>	<i>2,767</i>	<i>1,354</i>	<i>2,309</i>	<i>3,019</i>	<i>2,640</i>	3,033	<i>2,767</i>	<i>2,640</i>
East Region (d)	260	563	866	710	229	465	<i>756</i>	<i>667</i>	<i>191</i>	<i>466</i>	<i>717</i>	<i>586</i>	710	<i>667</i>	<i>586</i>
Midwest Region (d)	477	701	993	829	261	459	<i>844</i>	<i>747</i>	<i>281</i>	<i>556</i>	<i>896</i>	<i>763</i>	829	<i>747</i>	<i>763</i>
South Central Region (d)	938	1,139	1,137	1,016	615	846	<i>891</i>	<i>904</i>	<i>550</i>	<i>801</i>	<i>848</i>	<i>803</i>	1,016	<i>904</i>	<i>803</i>
Mountain Region (d)	142	184	218	177	87	140	<i>182</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	253	<i>267</i>	<i>244</i>	<i>178</i>	<i>290</i>	<i>323</i>	<i>286</i>	264	<i>244</i>	<i>286</i>
Alaska	27	32	39	36	31	33	<i>38</i>	<i>38</i>	<i>38</i>	<i>38</i>	<i>38</i>	<i>38</i>	36	<i>38</i>	<i>38</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 - September 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	<i>3.03</i>	<i>3.26</i>	<i>3.35</i>	<i>3.11</i>	<i>3.17</i>	<i>3.31</i>	3.10	<i>3.10</i>	<i>3.23</i>
Residential Retail															
New England	12.85	14.08	18.12	13.57	14.56	17.30	<i>17.75</i>	<i>13.62</i>	<i>13.08</i>	<i>13.96</i>	<i>17.17</i>	<i>13.61</i>	13.60	<i>14.94</i>	<i>13.65</i>
Middle Atlantic	9.92	12.18	17.11	11.33	10.15	11.89	<i>16.68</i>	<i>10.74</i>	<i>9.94</i>	<i>11.86</i>	<i>16.37</i>	<i>10.77</i>	11.17	<i>11.00</i>	<i>10.91</i>
E. N. Central	7.77	11.52	17.80	7.81	7.20	9.77	<i>17.44</i>	<i>9.09</i>	<i>8.12</i>	<i>10.89</i>	<i>16.65</i>	<i>9.02</i>	8.86	<i>8.71</i>	<i>9.34</i>
W. N. Central	8.32	11.85	18.79	9.56	8.17	10.49	<i>18.39</i>	<i>10.44</i>	<i>9.55</i>	<i>12.31</i>	<i>17.88</i>	<i>9.97</i>	9.80	<i>9.69</i>	<i>10.62</i>
S. Atlantic	12.29	20.05	26.86	13.20	11.09	15.70	<i>23.02</i>	<i>12.78</i>	<i>11.15</i>	<i>16.11</i>	<i>22.35</i>	<i>12.74</i>	14.63	<i>13.03</i>	<i>13.05</i>
E. S. Central	10.53	15.83	20.82	11.32	9.71	12.89	<i>20.63</i>	<i>12.14</i>	<i>9.75</i>	<i>14.14</i>	<i>20.29</i>	<i>12.62</i>	12.05	<i>11.38</i>	<i>11.67</i>
W. S. Central	10.33	16.49	22.10	13.09	9.32	14.32	<i>20.25</i>	<i>11.17</i>	<i>8.03</i>	<i>13.44</i>	<i>19.85</i>	<i>11.45</i>	13.18	<i>11.38</i>	<i>10.67</i>
Mountain	8.21	10.17	13.91	8.76	8.22	10.38	<i>14.56</i>	<i>9.42</i>	<i>9.08</i>	<i>10.33</i>	<i>13.96</i>	<i>9.36</i>	9.14	<i>9.39</i>	<i>9.77</i>
Pacific	12.02	12.64	12.90	11.30	11.63	12.01	<i>12.76</i>	<i>11.50</i>	<i>12.42</i>	<i>12.57</i>	<i>12.93</i>	<i>11.86</i>	12.01	<i>11.79</i>	<i>12.33</i>
U.S. Average	9.73	13.00	17.74	10.19	9.39	11.97	<i>17.05</i>	<i>10.67</i>	<i>9.70</i>	<i>12.20</i>	<i>16.73</i>	<i>10.69</i>	10.92	<i>10.67</i>	<i>10.82</i>
Commercial Retail															
New England	9.55	9.97	10.61	9.53	11.09	12.18	<i>10.92</i>	<i>10.48</i>	<i>10.58</i>	<i>10.66</i>	<i>10.59</i>	<i>10.52</i>	9.71	<i>11.07</i>	<i>10.58</i>
Middle Atlantic	7.66	7.42	6.82	7.38	8.10	7.64	<i>7.15</i>	<i>7.60</i>	<i>7.73</i>	<i>7.56</i>	<i>6.98</i>	<i>7.55</i>	7.43	<i>7.76</i>	<i>7.55</i>
E. N. Central	6.63	7.90	8.98	6.21	6.19	6.95	<i>8.83</i>	<i>6.94</i>	<i>6.71</i>	<i>7.66</i>	<i>9.07</i>	<i>7.15</i>	6.84	<i>6.73</i>	<i>7.17</i>
W. N. Central	6.96	7.80	9.11	7.04	7.00	7.12	<i>8.90</i>	<i>7.43</i>	<i>7.68</i>	<i>8.02</i>	<i>9.06</i>	<i>7.50</i>	7.28	<i>7.29</i>	<i>7.79</i>
S. Atlantic	8.89	10.00	9.56	8.91	8.32	9.17	<i>9.58</i>	<i>8.69</i>	<i>8.54</i>	<i>9.39</i>	<i>9.75</i>	<i>8.76</i>	9.16	<i>8.72</i>	<i>8.89</i>
E. S. Central	9.05	10.28	10.76	9.30	8.69	9.43	<i>10.50</i>	<i>9.25</i>	<i>8.77</i>	<i>9.75</i>	<i>10.26</i>	<i>9.21</i>	9.53	<i>9.17</i>	<i>9.22</i>
W. S. Central	7.63	8.20	8.86	8.18	7.24	7.94	<i>8.64</i>	<i>7.85</i>	<i>7.38</i>	<i>7.81</i>	<i>8.41</i>	<i>7.84</i>	8.09	<i>7.72</i>	<i>7.73</i>
Mountain	6.88	7.37	8.27	7.21	6.99	7.51	<i>8.45</i>	<i>7.38</i>	<i>7.56</i>	<i>7.81</i>	<i>8.55</i>	<i>7.51</i>	7.22	<i>7.35</i>	<i>7.70</i>
Pacific	9.09	9.06	9.08	8.54	8.92	8.58	<i>8.65</i>	<i>8.39</i>	<i>8.71</i>	<i>8.81</i>	<i>9.13</i>	<i>8.86</i>	8.92	<i>8.65</i>	<i>8.84</i>
U.S. Average	7.71	8.33	8.69	7.56	7.66	8.08	<i>8.65</i>	<i>7.89</i>	<i>7.84</i>	<i>8.29</i>	<i>8.69</i>	<i>8.00</i>	7.87	<i>7.90</i>	<i>8.05</i>
Industrial Retail															
New England	7.81	7.04	6.39	7.05	9.05	8.74	<i>6.75</i>	<i>7.82</i>	<i>8.27</i>	<i>7.50</i>	<i>6.90</i>	<i>7.88</i>	7.19	<i>8.26</i>	<i>7.76</i>
Middle Atlantic	7.69	7.59	7.52	7.19	8.29	8.06	<i>8.64</i>	<i>8.09</i>	<i>8.22</i>	<i>7.46</i>	<i>7.44</i>	<i>7.69</i>	7.52	<i>8.24</i>	<i>7.86</i>
E. N. Central	5.86	5.96	5.59	5.30	5.74	5.04	<i>5.84</i>	<i>6.03</i>	<i>6.68</i>	<i>6.31</i>	<i>6.19</i>	<i>6.17</i>	5.66	<i>5.70</i>	<i>6.41</i>
W. N. Central	5.01	4.29	4.25	4.68	5.04	4.19	<i>4.48</i>	<i>5.30</i>	<i>5.82</i>	<i>4.92</i>	<i>4.69</i>	<i>5.30</i>	4.60	<i>4.79</i>	<i>5.24</i>
S. Atlantic	5.35	5.00	4.88	4.93	5.39	4.72	<i>4.76</i>	<i>5.19</i>	<i>5.51</i>	<i>4.90</i>	<i>4.88</i>	<i>5.26</i>	5.05	<i>5.04</i>	<i>5.16</i>
E. S. Central	5.06	4.59	4.40	4.56	4.99	4.27	<i>4.28</i>	<i>4.79</i>	<i>4.98</i>	<i>4.46</i>	<i>4.44</i>	<i>4.89</i>	4.67	<i>4.61</i>	<i>4.71</i>
W. S. Central	3.42	3.42	3.30	3.14	3.34	3.13	<i>3.32</i>	<i>3.52</i>	<i>3.61</i>	<i>3.33</i>	<i>3.45</i>	<i>3.59</i>	3.32	<i>3.34</i>	<i>3.50</i>
Mountain	5.31	5.36	5.61	5.50	5.41	5.32	<i>5.93</i>	<i>6.08</i>	<i>6.22</i>	<i>5.89</i>	<i>6.10</i>	<i>6.14</i>	5.43	<i>5.69</i>	<i>6.10</i>
Pacific	7.31	6.71	6.32	6.35	6.90	5.96	<i>6.13</i>	<i>6.50</i>	<i>7.04</i>	<i>6.50</i>	<i>6.66</i>	<i>6.80</i>	6.71	<i>6.40</i>	<i>6.77</i>
U.S. Average	4.50	4.11	3.89	4.00	4.48	3.87	<i>3.88</i>	<i>4.35</i>	<i>4.69</i>	<i>4.06</i>	<i>4.03</i>	<i>4.44</i>	4.14	<i>4.16</i>	<i>4.32</i>

- = no data available

Prices are not adjusted for inflation.

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

Regions refer to U.S. Census divisions.

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - September 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	196.8	200.2	194.1	162.7	205.1	193.7	774.1	768.0	755.7
Appalachia	50.7	51.2	46.3	50.2	49.2	49.4	51.9	49.8	53.6	46.9	47.1	47.4	198.5	200.3	195.0
Interior	38.5	36.4	34.9	35.6	34.0	34.1	36.7	42.3	39.0	29.0	37.5	37.4	145.4	147.0	142.9
Western	107.8	99.4	115.0	108.0	103.6	100.8	108.2	108.1	101.5	86.8	120.5	109.0	430.2	420.7	417.8
Primary Inventory Withdrawals	0.1	1.8	1.4	0.9	-2.8	2.3	0.7	-0.9	-1.2	1.2	0.9	-3.5	4.2	-0.8	-2.5
Imports	1.9	2.2	2.3	1.4	1.4	1.5	2.3	2.3	1.0	1.8	2.5	2.2	7.8	7.5	7.5
Exports	22.3	21.8	24.6	28.2	27.2	30.9	24.7	24.3	24.8	24.5	25.5	25.7	97.0	107.1	100.5
Metallurgical Coal	12.2	13.5	14.8	14.8	14.9	16.9	12.8	13.3	13.5	13.3	13.9	14.0	55.3	57.9	54.7
Steam Coal	10.1	8.3	9.8	13.4	12.3	13.9	11.8	11.0	11.3	11.3	11.6	11.7	41.7	49.1	45.8
Total Primary Supply	176.8	169.2	175.3	167.9	158.1	157.2	175.1	177.3	169.0	141.2	183.0	166.8	689.1	667.7	660.1
Secondary Inventory Withdrawals	1.0	3.7	18.2	2.4	11.4	4.3	13.0	-7.6	1.6	1.8	4.0	-7.9	25.2	21.0	-0.5
Waste Coal (a)	2.5	1.8	2.3	2.1	2.8	2.4	2.4	2.4	2.3	2.3	2.3	2.3	8.7	9.9	9.2
Total Supply	180.3	174.8	195.8	172.3	172.2	163.9	190.5	172.1	173.0	145.3	189.3	161.2	723.1	698.6	668.8
Consumption (million short tons)															
Coke Plants	4.2	4.3	4.5	4.5	4.2	3.9	4.8	5.5	4.7	4.4	5.1	6.2	17.5	18.4	20.4
Electric Power Sector (b)	160.3	154.2	190.6	159.6	155.0	144.4	190.6	158.3	159.7	133.0	176.2	146.9	664.7	648.2	615.9
Retail and Other Industry	8.9	8.3	8.8	8.7	8.5	8.2	8.0	8.3	8.5	7.9	8.0	8.1	34.7	33.1	32.6
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	0.1	1.1	0.8	0.5
Other Industrial	8.5	8.1	8.6	8.4	8.2	8.1	7.9	8.1	8.3	7.9	7.9	8.0	33.6	32.2	32.1
Total Consumption	173.5	166.8	203.9	172.7	167.7	156.5	203.4	172.1	173.0	145.3	189.3	161.2	717.0	699.7	668.8
Discrepancy (c)	6.8	7.9	-8.1	-0.4	4.5	7.4	-12.9	0.0	0.0	0.0	0.0	0.0	6.2	-1.1	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	21.9	23.1	21.9	20.9	24.4	21.1	21.9	24.4
Secondary Inventories	166.6	163.0	144.8	142.4	131.1	126.8	113.8	121.4	119.8	118.0	114.0	121.9	142.4	121.4	121.9
Electric Power Sector	161.7	157.7	139.3	137.2	126.4	121.5	108.3	116.0	114.6	112.4	108.2	116.1	137.2	116.0	116.1
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	1.8	1.3	1.8	1.9	2.0	1.7	1.8	2.0
Coal Market Indicators															
Coal Miner Productivity															
(Tons per hour)	6.19	6.19	6.19	6.19	6.10	6.10	6.10	6.10	6.02	6.02	6.02	6.02	6.19	6.10	6.02
Total Raw Steel Production															
(Million short tons per day)	0.248	0.247	0.250	0.245	0.251	0.253	0.258	0.228	0.290	0.291	0.273	0.239	0.248	0.248	0.273
Cost of Coal to Electric Utilities															
(Dollars per million Btu)	2.08	2.12	2.07	2.04	2.06	2.05	2.12	2.12	2.10	2.09	2.10	2.10	2.08	2.09	2.10

- = no data available

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 7a. U.S. Electricity Industry Overview

U.S. Energy Information Administration | Short-Term Energy Outlook - September 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	11.13	<i>12.56</i>	<i>10.59</i>	<i>11.07</i>	<i>10.80</i>	<i>12.41</i>	<i>10.66</i>	11.00	<i>11.35</i>	<i>11.24</i>
Electric Power Sector (a)	10.15	10.27	11.71	10.14	10.67	10.70	<i>12.13</i>	<i>10.17</i>	<i>10.64</i>	<i>10.37</i>	<i>11.95</i>	<i>10.22</i>	10.57	<i>10.92</i>	<i>10.80</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>0.44</i>	0.43	<i>0.43</i>	<i>0.44</i>
Net Imports	0.18	0.15	0.17	0.11	0.14	0.15	<i>0.17</i>	<i>0.13</i>	<i>0.15</i>	<i>0.15</i>	<i>0.17</i>	<i>0.13</i>	0.15	<i>0.15</i>	<i>0.15</i>
Total Supply	10.76	10.84	12.32	10.68	11.25	11.27	<i>12.73</i>	<i>10.72</i>	<i>11.22</i>	<i>10.95</i>	<i>12.58</i>	<i>10.79</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	0.96	<i>0.77</i>	<i>0.68</i>	<i>0.58</i>	<i>0.83</i>	<i>0.73</i>	<i>0.68</i>	0.69	<i>0.77</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	9.94	<i>11.58</i>	<i>9.67</i>	<i>10.25</i>	<i>9.75</i>	<i>11.45</i>	<i>9.72</i>	10.09	<i>10.35</i>	<i>10.30</i>
Residential Sector	3.71	3.43	4.46	3.51	4.09	3.60	<i>4.69</i>	<i>3.55</i>	<i>4.09</i>	<i>3.42</i>	<i>4.55</i>	<i>3.56</i>	3.78	<i>3.98</i>	<i>3.91</i>
Commercial Sector	3.51	3.64	4.08	3.55	3.59	3.70	<i>4.14</i>	<i>3.56</i>	<i>3.60</i>	<i>3.65</i>	<i>4.11</i>	<i>3.58</i>	3.70	<i>3.75</i>	<i>3.74</i>
Industrial Sector	2.50	2.62	2.72	2.53	2.50	2.62	<i>2.73</i>	<i>2.55</i>	<i>2.54</i>	<i>2.66</i>	<i>2.77</i>	<i>2.57</i>	2.59	<i>2.60</i>	<i>2.63</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>0.39</i>
Total Consumption	10.13	10.08	11.66	9.98	10.59	10.31	<i>11.96</i>	<i>10.04</i>	<i>10.63</i>	<i>10.13</i>	<i>11.85</i>	<i>10.11</i>	10.47	<i>10.73</i>	<i>10.68</i>
Average residential electricity usage per customer (kWh)	2,532	2,365	3,109	2,446	2,760	2,457	<i>3,251</i>	<i>2,444</i>	<i>2,727</i>	<i>2,303</i>	<i>3,103</i>	<i>2,430</i>	10,453	<i>10,912</i>	<i>10,564</i>
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.08	2.12	2.07	2.04	2.06	2.05	<i>2.12</i>	<i>2.12</i>	<i>2.10</i>	<i>2.09</i>	<i>2.10</i>	<i>2.10</i>	2.08	<i>2.09</i>	<i>2.10</i>
Natural Gas	3.69	3.38	3.19	3.38	3.98	3.09	<i>3.09</i>	<i>3.58</i>	<i>3.77</i>	<i>3.21</i>	<i>3.23</i>	<i>3.58</i>	3.38	<i>3.39</i>	<i>3.42</i>
Residual Fuel Oil	11.16	10.60	10.03	11.93	11.47	13.17	<i>13.66</i>	<i>14.02</i>	<i>14.18</i>	<i>14.46</i>	<i>13.86</i>	<i>13.71</i>	10.97	<i>12.81</i>	<i>14.06</i>
Distillate Fuel Oil	12.74	12.23	13.13	14.54	15.77	16.72	<i>17.11</i>	<i>17.58</i>	<i>16.94</i>	<i>16.88</i>	<i>17.40</i>	<i>17.89</i>	13.26	<i>16.50</i>	<i>17.27</i>
Retail Prices (cents per kilowatthour)															
Residential Sector	12.59	12.99	13.19	12.75	12.57	13.02	<i>13.28</i>	<i>12.94</i>	<i>12.88</i>	<i>13.55</i>	<i>13.62</i>	<i>13.25</i>	12.90	<i>12.97</i>	<i>13.33</i>
Commercial Sector	10.39	10.68	11.03	10.56	10.51	10.60	<i>11.02</i>	<i>10.69</i>	<i>10.64</i>	<i>10.72</i>	<i>11.05</i>	<i>10.75</i>	10.68	<i>10.72</i>	<i>10.80</i>
Industrial Sector	6.64	6.89	7.27	6.79	6.79	6.87	<i>7.36</i>	<i>6.94</i>	<i>6.83</i>	<i>6.98</i>	<i>7.43</i>	<i>7.01</i>	6.91	<i>7.00</i>	<i>7.07</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 - September 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	152	127	141	111	138	126	133	133	129
Middle Atlantic	368	307	403	327	394	323	437	323	390	312	405	322	351	369	357
E. N. Central	507	435	545	475	552	480	600	470	541	441	575	470	491	525	506
W. N. Central	298	246	303	261	327	274	324	266	319	246	323	270	277	298	289
S. Atlantic	891	891	1,131	889	1,040	920	1,164	898	1,047	875	1,156	903	951	1,005	995
E. S. Central	305	277	368	288	368	301	386	294	369	277	378	294	310	337	329
W. S. Central	501	536	760	516	608	581	808	533	605	545	798	541	579	633	623
Mountain	245	259	347	232	239	263	353	235	245	258	346	238	271	273	272
Pacific contiguous	439	346	447	381	411	339	451	388	419	339	421	388	404	397	392
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	3,604	4,686	3,546	4,089	3,415	4,552	3,564	3,778	3,983	3,905
Commercial Sector															
New England	155	150	168	149	142	136	158	148	142	135	151	144	156	146	143
Middle Atlantic	423	404	462	412	431	411	468	407	428	406	453	406	425	429	423
E. N. Central	489	486	537	482	499	501	561	481	497	488	554	481	498	510	505
W. N. Central	272	270	302	269	282	282	307	272	283	274	309	274	278	286	285
S. Atlantic	785	853	941	807	811	862	951	805	808	850	950	806	847	857	854
E. S. Central	225	241	275	229	241	253	277	229	243	246	277	230	243	250	249
W. S. Central	471	522	598	501	498	542	620	516	512	542	633	528	523	544	554
Mountain	246	265	301	249	249	270	299	251	251	268	298	252	265	267	268
Pacific contiguous	431	431	480	438	423	426	481	436	423	427	468	438	445	442	439
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	3,698	4,138	3,560	3,602	3,651	4,109	3,575	3,696	3,748	3,735
Industrial Sector															
New England	46	46	49	47	42	43	43	44	41	42	42	43	47	43	42
Middle Atlantic	192	194	204	195	196	194	204	197	200	198	206	199	196	198	201
E. N. Central	495	504	522	489	499	517	538	496	507	526	544	496	502	513	518
W. N. Central	228	240	253	235	232	242	260	243	241	251	269	249	239	244	253
S. Atlantic	362	386	390	372	366	388	390	370	367	388	390	366	377	379	378
E. S. Central	267	275	280	262	260	264	275	258	260	264	275	256	271	264	264
W. S. Central	480	503	511	484	466	497	518	496	481	512	533	507	495	494	509
Mountain	210	228	245	210	209	229	241	212	214	234	246	216	223	223	227
Pacific contiguous	211	230	253	220	213	231	249	219	214	233	252	220	229	228	230
AK and HI	13	14	14	13	13	13	14	13	13	13	14	13	14	13	14
Total	2,504	2,619	2,722	2,526	2,497	2,619	2,734	2,548	2,537	2,662	2,771	2,565	2,593	2,600	2,634
Total All Sectors (a)															
New England	345	317	362	323	327	292	355	320	326	290	333	315	337	324	316
Middle Atlantic	994	915	1,079	943	1,033	939	1,118	937	1,028	925	1,075	937	983	1,007	991
E. N. Central	1,493	1,427	1,605	1,447	1,552	1,500	1,701	1,447	1,547	1,456	1,673	1,449	1,493	1,550	1,531
W. N. Central	798	755	857	765	842	798	891	780	843	770	901	792	794	828	827
S. Atlantic	2,042	2,134	2,465	2,070	2,220	2,174	2,509	2,076	2,225	2,117	2,499	2,078	2,179	2,245	2,230
E. S. Central	797	793	924	779	870	818	938	781	871	787	929	781	823	852	842
W. S. Central	1,452	1,561	1,869	1,501	1,572	1,620	1,947	1,545	1,599	1,600	1,964	1,577	1,597	1,672	1,686
Mountain	701	752	893	691	697	762	893	699	711	760	891	706	760	763	767
Pacific contiguous	1,084	1,010	1,184	1,042	1,049	997	1,183	1,045	1,057	1,002	1,143	1,048	1,080	1,069	1,063
AK and HI	43	41	43	43	42	41	43	42	42	40	42	42	42	42	42
Total	9,750	9,704	11,280	9,605	10,205	9,941	11,578	9,673	10,250	9,748	11,452	9,724	10,088	10,351	10,295

- = 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 - September 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	20.59	19.24	19.77	21.07	21.43	20.47	20.67	18.93	19.96	20.89
Middle Atlantic	15.55	16.27	16.43	15.87	15.61	16.21	16.39	16.07	15.91	16.66	16.90	16.44	16.04	16.08	16.47
E. N. Central	12.90	13.58	13.28	13.19	12.94	13.48	13.38	13.59	13.44	14.14	13.92	14.01	13.23	13.34	13.86
W. N. Central	10.94	12.66	13.16	11.51	10.91	12.48	13.21	11.77	11.30	13.12	13.57	12.02	12.07	12.09	12.49
S. Atlantic	11.69	12.01	12.26	11.81	11.61	11.91	12.20	11.90	11.79	12.27	12.52	12.14	11.96	11.92	12.19
E. S. Central	11.08	11.44	11.32	11.20	10.86	11.40	11.38	11.47	11.34	12.10	11.69	11.64	11.26	11.27	11.67
W. S. Central	10.54	10.93	10.87	10.76	10.54	11.04	10.90	10.81	10.69	11.40	11.19	11.02	10.79	10.83	11.08
Mountain	11.28	12.16	12.31	11.82	11.57	12.25	12.44	12.04	11.84	12.57	12.77	12.32	11.94	12.12	12.42
Pacific	14.51	14.69	16.50	14.37	14.86	15.27	16.87	14.59	15.10	15.73	17.43	15.05	15.07	15.46	15.86
U.S. Average	12.59	12.99	13.19	12.75	12.57	13.02	13.28	12.94	12.88	13.55	13.62	13.25	12.90	12.97	13.33
Commercial Sector															
New England	14.64	14.65	15.30	15.20	16.56	15.92	15.34	15.14	16.06	15.15	14.87	14.85	14.95	15.72	15.22
Middle Atlantic	12.07	12.75	13.34	12.08	12.07	12.21	13.07	12.02	11.98	12.15	13.06	12.19	12.58	12.37	12.36
E. N. Central	10.02	10.24	10.05	9.99	10.10	10.15	10.09	10.16	10.32	10.41	10.24	10.27	10.08	10.12	10.31
W. N. Central	9.12	10.11	10.57	9.26	9.17	10.03	10.71	9.49	9.36	10.33	10.97	9.76	9.79	9.87	10.13
S. Atlantic	9.44	9.38	9.55	9.53	9.56	9.30	9.56	9.63	9.87	9.52	9.68	9.72	9.48	9.51	9.69
E. S. Central	10.58	10.56	10.62	10.57	10.51	10.49	10.67	10.84	10.62	10.78	10.72	10.86	10.58	10.63	10.74
W. S. Central	8.37	8.40	8.38	8.28	8.38	8.19	8.22	8.19	8.01	7.84	7.94	8.16	8.36	8.24	7.98
Mountain	9.14	9.92	10.04	9.49	9.25	9.87	10.05	9.65	9.25	9.90	10.10	9.73	9.67	9.73	9.76
Pacific	12.53	13.56	15.36	13.61	12.86	13.99	15.63	14.17	13.64	14.54	16.23	14.31	13.82	14.22	14.72
U.S. Average	10.39	10.68	11.03	10.56	10.51	10.60	11.02	10.69	10.64	10.72	11.05	10.75	10.68	10.72	10.80
Industrial Sector															
New England	12.38	12.19	12.55	12.37	13.49	12.60	12.69	12.57	13.91	12.87	12.86	12.67	12.37	12.83	13.07
Middle Atlantic	6.94	6.94	6.88	6.81	7.20	6.79	6.87	6.87	7.01	6.73	6.84	6.83	6.89	6.93	6.85
E. N. Central	7.03	7.05	7.04	6.96	7.08	6.96	7.10	7.11	7.13	7.06	7.14	7.16	7.02	7.06	7.12
W. N. Central	6.89	7.35	8.07	6.87	7.05	7.39	8.27	7.06	7.17	7.52	8.37	7.15	7.31	7.46	7.57
S. Atlantic	6.31	6.39	6.79	6.34	6.45	6.40	6.95	6.54	6.45	6.50	6.99	6.57	6.46	6.59	6.63
E. S. Central	5.90	5.96	6.18	5.89	5.74	5.91	6.34	6.10	5.87	6.10	6.43	6.18	5.98	6.02	6.15
W. S. Central	5.28	5.55	5.72	5.41	5.43	5.41	5.88	5.62	5.44	5.57	5.99	5.72	5.50	5.59	5.69
Mountain	6.08	6.54	7.12	6.13	6.10	6.48	7.02	6.15	6.23	6.64	7.20	6.32	6.50	6.46	6.62
Pacific	8.23	9.35	10.73	9.73	8.63	9.51	10.63	9.73	8.68	9.52	10.65	9.77	9.57	9.67	9.70
U.S. Average	6.64	6.89	7.27	6.79	6.79	6.87	7.36	6.94	6.83	6.98	7.43	7.01	6.91	7.00	7.07
All Sectors (a)															
New England	15.93	15.87	16.35	16.35	17.79	17.17	16.68	16.58	17.93	17.18	16.92	16.85	16.13	17.04	17.22
Middle Atlantic	12.35	12.68	13.26	12.29	12.48	12.46	13.24	12.33	12.49	12.50	13.30	12.50	12.67	12.65	12.72
E. N. Central	10.00	10.13	10.16	10.01	10.13	10.12	10.29	10.23	10.36	10.33	10.49	10.42	10.08	10.19	10.40
W. N. Central	9.15	10.06	10.75	9.29	9.26	10.07	10.91	9.51	9.46	10.30	11.13	9.71	9.84	9.96	10.18
S. Atlantic	9.86	9.93	10.35	9.93	10.00	9.88	10.38	10.06	10.21	10.10	10.57	10.22	10.04	10.09	10.29
E. S. Central	9.20	9.27	9.55	9.23	9.23	9.35	9.71	9.51	9.51	9.68	9.85	9.62	9.32	9.45	9.67
W. S. Central	8.10	8.35	8.67	8.21	8.34	8.36	8.72	8.27	8.25	8.33	8.73	8.36	8.35	8.44	8.43
Mountain	8.97	9.67	10.12	9.25	9.10	9.67	10.19	9.39	9.23	9.80	10.34	9.56	9.55	9.63	9.77
Pacific	12.48	12.98	14.79	13.06	12.78	13.38	15.04	13.39	13.20	13.76	15.42	13.62	13.38	13.70	14.04
U.S. Average	10.26	10.47	10.98	10.37	10.42	10.50	11.08	10.53	10.59	10.69	11.19	10.68	10.54	10.65	10.80

- = 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 - September 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	2,862	<i>3,757</i>	<i>3,099</i>	<i>3,244</i>	<i>2,662</i>	<i>3,478</i>	<i>2,878</i>	3,309	<i>3,213</i>	<i>3,066</i>
Natural Gas	2,969	3,286	4,359	3,322	3,442	3,798	<i>4,738</i>	<i>3,496</i>	<i>3,515</i>	<i>3,733</i>	<i>4,742</i>	<i>3,650</i>	3,487	<i>3,871</i>	<i>3,913</i>
Petroleum (a)	59	54	56	62	101	52	<i>64</i>	<i>56</i>	<i>75</i>	<i>58</i>	<i>64</i>	<i>57</i>	58	<i>68</i>	<i>63</i>
Other Gases	40	39	40	36	37	34	<i>40</i>	<i>36</i>	<i>37</i>	<i>34</i>	<i>40</i>	<i>36</i>	39	<i>37</i>	<i>37</i>
Nuclear	2,242	2,034	2,302	2,243	2,294	2,155	<i>2,298</i>	<i>2,132</i>	<i>2,240</i>	<i>2,097</i>	<i>2,272</i>	<i>2,135</i>	2,205	<i>2,220</i>	<i>2,186</i>
Renewable Energy Sources:	2,008	2,157	1,615	1,757	2,084	2,202	<i>1,646</i>	<i>1,752</i>	<i>1,936</i>	<i>2,193</i>	<i>1,788</i>	<i>1,881</i>	1,883	<i>1,919</i>	<i>1,949</i>
Conventional Hydropower	918	1,010	717	647	854	938	<i>647</i>	<i>610</i>	<i>748</i>	<i>895</i>	<i>725</i>	<i>640</i>	822	<i>761</i>	<i>752</i>
Wind	768	748	501	771	867	819	<i>556</i>	<i>783</i>	<i>829</i>	<i>844</i>	<i>601</i>	<i>864</i>	697	<i>756</i>	<i>784</i>
Wood Biomass	118	115	122	119	122	115	<i>123</i>	<i>117</i>	<i>120</i>	<i>116</i>	<i>125</i>	<i>118</i>	119	<i>119</i>	<i>120</i>
Waste Biomass	59	56	56	57	58	56	<i>58</i>	<i>58</i>	<i>57</i>	<i>58</i>	<i>59</i>	<i>58</i>	57	<i>58</i>	<i>58</i>
Geothermal	45	43	44	43	45	43	<i>45</i>	<i>45</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	231	<i>217</i>	<i>138</i>	<i>137</i>	<i>236</i>	<i>234</i>	<i>155</i>	145	<i>181</i>	<i>190</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>40</i>	<i>37</i>	<i>35</i>	<i>36</i>	<i>39</i>	<i>37</i>	36	<i>37</i>	<i>37</i>
Total Generation	10,579	10,690	12,151	10,566	11,107	11,126	<i>12,565</i>	<i>10,594</i>	<i>11,070</i>	<i>10,801</i>	<i>12,406</i>	<i>10,660</i>	10,999	<i>11,350</i>	<i>11,236</i>
Northeast Census Region															
Coal	154	134	136	139	149	119	<i>284</i>	<i>192</i>	<i>179</i>	<i>102</i>	<i>177</i>	<i>164</i>	141	<i>187</i>	<i>155</i>
Natural Gas	486	482	637	492	500	534	<i>689</i>	<i>535</i>	<i>529</i>	<i>563</i>	<i>713</i>	<i>569</i>	525	<i>565</i>	<i>594</i>
Petroleum (a)	4	2	3	11	32	3	<i>5</i>	<i>4</i>	<i>12</i>	<i>2</i>	<i>4</i>	<i>4</i>	5	<i>11</i>	<i>6</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	507	<i>535</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	108	<i>88</i>	<i>94</i>	<i>100</i>	<i>100</i>	<i>92</i>	<i>94</i>	102	<i>98</i>	<i>96</i>
Other Renewables (d)	72	76	68	74	80	76	<i>68</i>	<i>78</i>	<i>80</i>	<i>72</i>	<i>66</i>	<i>80</i>	73	<i>75</i>	<i>75</i>
Other Nonrenewable Fuels (b)	11	11	12	12	11	10	<i>12</i>	<i>12</i>	<i>11</i>	<i>11</i>	<i>12</i>	<i>12</i>	11	<i>12</i>	<i>12</i>
Total Generation	1,370	1,290	1,506	1,359	1,430	1,359	<i>1,683</i>	<i>1,407</i>	<i>1,425</i>	<i>1,328</i>	<i>1,573</i>	<i>1,388</i>	1,381	<i>1,470</i>	<i>1,429</i>
South Census Region															
Coal	1,330	1,416	1,681	1,293	1,261	1,261	<i>1,559</i>	<i>1,240</i>	<i>1,317</i>	<i>1,172</i>	<i>1,507</i>	<i>1,156</i>	1,431	<i>1,331</i>	<i>1,288</i>
Natural Gas	1,763	2,087	2,565	1,922	2,052	2,349	<i>2,762</i>	<i>2,011</i>	<i>2,033</i>	<i>2,284</i>	<i>2,767</i>	<i>2,083</i>	2,086	<i>2,295</i>	<i>2,293</i>
Petroleum (a)	25	22	23	21	38	21	<i>27</i>	<i>22</i>	<i>30</i>	<i>25</i>	<i>28</i>	<i>23</i>	23	<i>27</i>	<i>26</i>
Other Gases	15	15	15	13	13	13	<i>15</i>	<i>13</i>	<i>12</i>	<i>12</i>	<i>14</i>	<i>12</i>	14	<i>13</i>	<i>13</i>
Nuclear	973	888	1,003	1,012	1,008	951	<i>1,024</i>	<i>960</i>	<i>1,009</i>	<i>948</i>	<i>1,032</i>	<i>978</i>	969	<i>986</i>	<i>992</i>
Hydropower (c)	128	138	99	103	126	135	<i>91</i>	<i>100</i>	<i>122</i>	<i>124</i>	<i>96</i>	<i>99</i>	117	<i>113</i>	<i>110</i>
Other Renewables (d)	401	403	323	391	453	495	<i>366</i>	<i>416</i>	<i>444</i>	<i>487</i>	<i>400</i>	<i>460</i>	379	<i>432</i>	<i>447</i>
Other Nonrenewable Fuels (b)	15	15	16	15	16	16	<i>17</i>	<i>16</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	5,240	<i>5,861</i>	<i>4,777</i>	<i>4,982</i>	<i>5,066</i>	<i>5,860</i>	<i>4,826</i>	5,034	<i>5,213</i>	<i>5,185</i>
Midwest Census Region															
Coal	1,288	1,177	1,394	1,216	1,302	1,142	<i>1,371</i>	<i>1,160</i>	<i>1,245</i>	<i>1,057</i>	<i>1,322</i>	<i>1,095</i>	1,269	<i>1,244</i>	<i>1,180</i>
Natural Gas	289	272	407	349	400	434	<i>500</i>	<i>403</i>	<i>446</i>	<i>417</i>	<i>526</i>	<i>438</i>	330	<i>434</i>	<i>457</i>
Petroleum (a)	7	7	7	8	9	6	<i>10</i>	<i>9</i>	<i>11</i>	<i>10</i>	<i>10</i>	<i>9</i>	7	<i>8</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>569</i>	<i>525</i>	<i>553</i>	<i>519</i>	<i>564</i>	<i>534</i>	553	<i>551</i>	<i>542</i>
Hydropower (c)	52	58	37	36	54	56	<i>32</i>	<i>35</i>	<i>53</i>	<i>53</i>	<i>34</i>	<i>35</i>	46	<i>44</i>	<i>44</i>
Other Renewables (d)	315	304	198	340	360	299	<i>213</i>	<i>342</i>	<i>352</i>	<i>328</i>	<i>227</i>	<i>384</i>	289	<i>303</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	2,494	<i>2,716</i>	<i>2,493</i>	<i>2,679</i>	<i>2,402</i>	<i>2,705</i>	<i>2,515</i>	2,514	<i>2,604</i>	<i>2,575</i>
West Census Region															
Coal	470	373	551	480	415	340	<i>543</i>	<i>506</i>	<i>503</i>	<i>331</i>	<i>473</i>	<i>463</i>	469	<i>451</i>	<i>443</i>
Natural Gas	430	446	751	558	490	481	<i>787</i>	<i>548</i>	<i>507</i>	<i>470</i>	<i>736</i>	<i>559</i>	547	<i>577</i>	<i>569</i>
Petroleum (a)	23	22	23	22	21	21	<i>23</i>	<i>22</i>	<i>22</i>	<i>21</i>	<i>22</i>	<i>22</i>	23	<i>22</i>	<i>22</i>
Other Gases	6	6	6	6	7	7	<i>6</i>	<i>7</i>	<i>7</i>	<i>7</i>	<i>6</i>	<i>7</i>	6	<i>7</i>	<i>7</i>
Nuclear	175	127	171	167	164	158	<i>170</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	626	<i>417</i>	<i>367</i>	<i>460</i>	<i>605</i>	<i>486</i>	<i>397</i>	540	<i>491</i>	<i>487</i>
Other Renewables (d)	302	364	308	305	337	394	<i>353</i>	<i>305</i>	<i>313</i>	<i>411</i>	<i>370</i>	<i>317</i>	320	<i>347</i>	<i>353</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>6</i>	<i>6</i>
Total Generation	2,031	2,035	2,277	1,934	1,995	2,033	<i>2,305</i>	<i>1,917</i>	<i>1,983</i>	<i>2,006</i>	<i>2,267</i>	<i>1,930</i>	2,069	<i>2,063</i>	<i>2,047</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 - September 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	1,585	2,067	1,713	1,766	1,455	1,909	1,589	1,818	1,772	1,680
Natural Gas (million cf/d)	21,452	24,555	32,799	24,545	25,006	28,172	35,398	25,389	25,390	27,603	35,452	26,525	25,865	28,511	28,764
Petroleum (thousand b/d)	107	100	105	111	178	95	116	102	135	104	115	103	106	123	114
Residual Fuel Oil	26	27	28	33	51	27	30	26	39	25	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	39	56	45	56	50	58	45	46	47	52
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	63	140	95	89	50	89	82	67	94	78
Natural Gas (million cf/d)	3,603	3,640	4,893	3,706	3,635	3,923	5,131	3,860	3,822	4,123	5,327	4,120	3,963	4,140	4,352
Petroleum (thousand b/d)	7	4	7	18	53	6	9	6	22	4	7	7	9	18	10
South Census Region															
Coal (thousand st/d)	715	761	902	705	659	671	833	667	687	618	798	618	771	708	680
Natural Gas (million cf/d)	12,471	15,401	19,033	14,045	14,832	17,387	20,516	14,500	14,522	16,792	20,532	15,014	15,252	16,818	16,727
Petroleum (thousand b/d)	47	42	43	40	70	39	50	42	57	47	51	43	43	50	49
Midwest Census Region															
Coal (thousand st/d)	717	655	787	688	745	656	782	659	701	598	752	623	712	710	668
Natural Gas (million cf/d)	2,186	2,134	3,249	2,676	2,915	3,251	3,890	3,007	3,296	3,150	4,092	3,264	2,564	3,267	3,452
Petroleum (thousand b/d)	15	16	16	16	19	15	20	17	20	19	21	18	16	18	19
West Census Region															
Coal (thousand st/d)	269	213	313	273	240	196	312	292	289	189	270	266	267	260	253
Natural Gas (million cf/d)	3,192	3,378	5,624	4,117	3,625	3,611	5,862	4,023	3,749	3,538	5,501	4,127	4,085	4,286	4,234
Petroleum (thousand b/d)	39	37	39	37	36	36	37	36	36	34	37	36	38	36	36
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	121.5	108.3	116.0	114.6	112.4	108.2	116.1	137.2	116.0	116.1
Residual Fuel Oil (mmb)	12.5	11.9	11.4	11.0	10.3	10.0	10.3	11.0	11.0	11.1	11.0	11.5	11.0	11.0	11.5
Distillate Fuel Oil (mmb)	17.0	16.6	16.4	15.8	15.0	14.8	15.0	15.5	15.7	15.7	15.7	16.0	15.8	15.5	16.0
Petroleum Coke (mmb)	4.3	4.3	4.9	5.6	5.3	5.1	5.0	4.9	4.9	4.8	4.7	4.7	5.6	4.9	4.7

(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 - September 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	0.784	<i>0.546</i>	<i>0.515</i>	<i>0.618</i>	<i>0.748</i>	<i>0.612</i>	<i>0.540</i>	2.755	<i>2.551</i>	<i>2.518</i>
Solar (b)	0.083	0.153	0.147	0.100	0.113	0.192	<i>0.182</i>	<i>0.115</i>	<i>0.111</i>	<i>0.195</i>	<i>0.196</i>	<i>0.129</i>	0.483	<i>0.602</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>0.070</i>	<i>0.068</i>	<i>0.070</i>	<i>0.072</i>	<i>0.071</i>	0.272	<i>0.279</i>	<i>0.281</i>
Wood Biomass	0.061	0.059	0.064	0.063	0.061	0.056	<i>0.066</i>	<i>0.059</i>	<i>0.060</i>	<i>0.057</i>	<i>0.068</i>	<i>0.062</i>	0.247	<i>0.242</i>	<i>0.247</i>
Wind	0.637	0.628	0.425	0.654	0.720	0.688	<i>0.472</i>	<i>0.664</i>	<i>0.688</i>	<i>0.708</i>	<i>0.510</i>	<i>0.733</i>	2.345	<i>2.543</i>	<i>2.639</i>
Subtotal	1.648	1.787	1.347	1.468	1.708	1.823	<i>1.374</i>	<i>1.463</i>	<i>1.583</i>	<i>1.816</i>	<i>1.496</i>	<i>1.574</i>	6.249	<i>6.368</i>	<i>6.469</i>
Industrial Sector															
Biofuel Losses and Co-products (d)	0.203	0.199	0.204	0.211	0.202	0.203	<i>0.211</i>	<i>0.206</i>	<i>0.200</i>	<i>0.204</i>	<i>0.205</i>	<i>0.205</i>	0.817	<i>0.822</i>	<i>0.814</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>0.027</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>0.043</i>	<i>0.042</i>	<i>0.041</i>	<i>0.041</i>	<i>0.043</i>	0.165	<i>0.170</i>	<i>0.167</i>
Wood Biomass	0.370	0.361	0.375	0.374	0.368	0.366	<i>0.367</i>	<i>0.363</i>	<i>0.350</i>	<i>0.347</i>	<i>0.359</i>	<i>0.361</i>	1.480	<i>1.464</i>	<i>1.418</i>
Subtotal	0.625	0.609	0.625	0.638	0.624	0.619	<i>0.627</i>	<i>0.621</i>	<i>0.601</i>	<i>0.601</i>	<i>0.613</i>	<i>0.618</i>	2.498	<i>2.491</i>	<i>2.434</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	0.027	<i>0.028</i>	<i>0.020</i>	<i>0.023</i>	<i>0.033</i>	<i>0.034</i>	<i>0.025</i>	0.077	<i>0.095</i>	<i>0.115</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>0.073</i>	<i>0.065</i>	<i>0.067</i>	<i>0.078</i>	<i>0.079</i>	<i>0.069</i>	0.253	<i>0.272</i>	<i>0.293</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>0.048</i>	<i>0.050</i>	<i>0.077</i>	<i>0.079</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>0.733</i>
Transportation Sector															
Biomass-based Diesel (f)	0.053	0.079	0.078	0.069	0.054	0.068	<i>0.086</i>	<i>0.093</i>	<i>0.066</i>	<i>0.085</i>	<i>0.098</i>	<i>0.101</i>	0.280	<i>0.301</i>	<i>0.350</i>
Ethanol (f)	0.269	0.292	0.295	0.292	0.273	0.288	<i>0.301</i>	<i>0.290</i>	<i>0.273</i>	<i>0.295</i>	<i>0.297</i>	<i>0.291</i>	1.148	<i>1.151</i>	<i>1.155</i>
Subtotal	0.322	0.372	0.373	0.361	0.327	0.357	<i>0.387</i>	<i>0.383</i>	<i>0.339</i>	<i>0.380</i>	<i>0.394</i>	<i>0.392</i>	1.428	<i>1.454</i>	<i>1.505</i>
All Sectors Total															
Biomass-based Diesel (f)	0.053	0.079	0.078	0.069	0.054	0.068	<i>0.086</i>	<i>0.093</i>	<i>0.066</i>	<i>0.085</i>	<i>0.098</i>	<i>0.101</i>	0.280	<i>0.301</i>	<i>0.350</i>
Biofuel Losses and Co-products (d)	0.203	0.199	0.204	0.211	0.202	0.203	<i>0.211</i>	<i>0.206</i>	<i>0.200</i>	<i>0.204</i>	<i>0.205</i>	<i>0.205</i>	0.817	<i>0.822</i>	<i>0.814</i>
Ethanol (f)	0.279	0.304	0.307	0.303	0.283	0.297	<i>0.310</i>	<i>0.302</i>	<i>0.283</i>	<i>0.306</i>	<i>0.308</i>	<i>0.302</i>	1.192	<i>1.192</i>	<i>1.199</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>0.221</i>	<i>0.229</i>
Hydroelectric Power (a)	0.763	0.849	0.609	0.550	0.710	0.788	<i>0.549</i>	<i>0.518</i>	<i>0.621</i>	<i>0.752</i>	<i>0.616</i>	<i>0.543</i>	2.770	<i>2.566</i>	<i>2.533</i>
Solar (b)(e)	0.138	0.240	0.235	0.161	0.180	0.288	<i>0.286</i>	<i>0.189</i>	<i>0.191</i>	<i>0.315</i>	<i>0.318</i>	<i>0.215</i>	0.774	<i>0.944</i>	<i>1.039</i>
Waste Biomass (c)	0.126	0.117	0.117	0.122	0.125	0.120	<i>0.123</i>	<i>0.125</i>	<i>0.121</i>	<i>0.122</i>	<i>0.125</i>	<i>0.126</i>	0.482	<i>0.493</i>	<i>0.494</i>
Wood Biomass	0.534	0.524	0.543	0.543	0.545	0.542	<i>0.558</i>	<i>0.547</i>	<i>0.536</i>	<i>0.531</i>	<i>0.554</i>	<i>0.549</i>	2.145	<i>2.192</i>	<i>2.169</i>
Wind	0.637	0.628	0.425	0.654	0.720	0.688	<i>0.472</i>	<i>0.664</i>	<i>0.688</i>	<i>0.708</i>	<i>0.510</i>	<i>0.733</i>	2.345	<i>2.543</i>	<i>2.639</i>
Total Consumption	2.782	2.985	2.565	2.662	2.868	3.011	<i>2.646</i>	<i>2.696</i>	<i>2.758</i>	<i>3.070</i>	<i>2.780</i>	<i>2.825</i>	10.994	<i>11.221</i>	<i>11.434</i>

- = no data available

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

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

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

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Renewable Energy Electric Generating Capacity (megawatts, end of period)															
Electric Power Sector (a)															
Biomass	7,233	7,269	7,326	7,313	7,254	7,227	7,224	7,237	7,400	7,400	7,400	7,394	7,313	7,237	7,394
Waste	4,202	4,238	4,241	4,234	4,212	4,184	4,181	4,195	4,199	4,199	4,199	4,193	4,234	4,195	4,193
Wood	3,031	3,031	3,085	3,079	3,042	3,042	3,042	3,042	3,201	3,201	3,201	3,201	3,079	3,042	3,201
Conventional Hydroelectric	79,336	79,343	79,437	79,432	79,564	79,532	79,654	79,683	79,726	79,753	79,714	79,748	79,432	79,683	79,748
Geothermal	2,449	2,449	2,449	2,486	2,497	2,497	2,497	2,497	2,505	2,505	2,505	2,540	2,486	2,497	2,540
Large-Scale Solar (b)	22,591	23,624	24,134	26,432	27,940	28,761	29,408	32,079	32,701	33,237	33,677	37,935	26,432	32,079	37,935
Wind	82,919	83,378	84,109	87,488	88,505	88,629	90,058	94,476	95,351	96,262	97,866	105,674	87,488	94,476	105,674
Other Sectors (c)															
Biomass	6,686	6,690	6,688	6,657	6,651	6,616	6,625	6,625	6,625	6,600	6,602	6,616	6,657	6,625	6,616
Waste	881	885	883	872	872	872	872	872	872	872	874	888	872	872	888
Wood	5,805	5,805	5,805	5,785	5,779	5,744	5,752	5,753	5,753	5,728	5,728	5,728	5,785	5,753	5,728
Conventional Hydroelectric	357	357	357	357	357	357	357	364	364	364	364	364	357	364	364
Large-Scale Solar (b)	322	340	340	349	355	362	364	363	363	362	362	362	349	363	362
Small-Scale Solar (d)	13,712	14,525	15,330	16,218	16,972	17,837	18,699	19,601	20,543	21,515	22,524	23,570	16,218	19,601	23,570
Residential Sector	8,124	8,618	9,105	9,576	10,170	10,670	11,188	11,730	12,295	12,872	13,466	14,077	9,576	11,730	14,077
Commercial Sector	4,282	4,544	4,794	5,139	5,290	5,585	5,864	6,157	6,466	6,790	7,130	7,488	5,139	6,157	7,488
Industrial Sector	1,305	1,363	1,431	1,504	1,512	1,582	1,646	1,713	1,782	1,854	1,928	2,005	1,504	1,713	2,005
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	84	93	89	89	88	96	90	89	89	91
Waste	49	47	47	47	49	47	49	49	48	49	50	49	48	48	49
Wood	41	39	43	43	43	37	44	40	41	39	46	41	41	41	42
Conventional Hydroelectric	913	1,005	713	643	850	933	643	606	743	890	721	636	818	757	747
Geothermal	45	43	44	43	45	43	45	45	46	45	45	46	44	45	45
Large-Scale Solar (b)	100	182	173	118	136	228	214	136	134	233	231	152	143	179	188
Wind	767	748	501	770	866	819	555	782	828	843	600	863	696	755	783
Other Sectors (c)															
Biomass	87	84	88	86	88	87	88	86	88	87	88	86	86	87	87
Waste	78	75	79	77	79	78	79	77	79	78	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	3	3	3	3	3	3	3	2	2	3
Small-Scale Solar (d)	52	79	79	55	65	96	98	69	78	117	118	83	66	82	99
Residential Sector	29	46	46	31	37	57	57	40	45	69	69	49	38	48	58
Commercial Sector	17	25	25	18	21	30	31	22	25	37	37	26	21	26	32
Industrial Sector	5	8	8	6	6	9	9	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 - September 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Macroeconomic															
Real Gross Domestic Product (billion chained 2012 dollars - SAAR)	17,863	17,995	18,121	18,224	18,324	18,507	<i>18,655</i>	<i>18,811</i>	<i>18,934</i>	<i>19,049</i>	<i>19,149</i>	<i>19,246</i>	18,051	<i>18,574</i>	<i>19,094</i>
Real Personal Consumption Expend. (billion chained 2012 dollars - SAAR)	12,428	12,516	12,585	12,706	12,723	12,848	<i>12,930</i>	<i>13,024</i>	<i>13,108</i>	<i>13,194</i>	<i>13,273</i>	<i>13,347</i>	12,559	<i>12,881</i>	<i>13,231</i>
Real Private Fixed Investment (billion chained 2012 dollars - SAAR)	3,109	3,141	3,161	3,209	3,271	3,315	<i>3,344</i>	<i>3,392</i>	<i>3,427</i>	<i>3,465</i>	<i>3,507</i>	<i>3,550</i>	3,155	<i>3,331</i>	<i>3,487</i>
Business Inventory Change (billion chained 2012 dollars - SAAR)	8	17	55	21	36	-6	<i>38</i>	<i>59</i>	<i>76</i>	<i>90</i>	<i>88</i>	<i>85</i>	25	<i>32</i>	<i>85</i>
Real Government Expenditures (billion chained 2012 dollars - SAAR)	3,130	3,130	3,122	3,140	3,152	3,169	<i>3,196</i>	<i>3,225</i>	<i>3,242</i>	<i>3,253</i>	<i>3,262</i>	<i>3,268</i>	3,130	<i>3,186</i>	<i>3,256</i>
Real Exports of Goods & Services (billion chained 2012 dollars - SAAR)	2,413	2,435	2,456	2,496	2,518	2,574	<i>2,571</i>	<i>2,603</i>	<i>2,635</i>	<i>2,667</i>	<i>2,702</i>	<i>2,743</i>	2,450	<i>2,567</i>	<i>2,687</i>
Real Imports of Goods & Services (billion chained 2012 dollars - SAAR)	3,259	3,279	3,302	3,395	3,420	3,424	<i>3,481</i>	<i>3,553</i>	<i>3,619</i>	<i>3,691</i>	<i>3,762</i>	<i>3,835</i>	3,309	<i>3,469</i>	<i>3,727</i>
Real Disposable Personal Income (billion chained 2012 dollars - SAAR)	13,835	13,910	13,986	14,066	14,220	14,310	<i>14,364</i>	<i>14,432</i>	<i>14,563</i>	<i>14,658</i>	<i>14,749</i>	<i>14,845</i>	13,949	<i>14,332</i>	<i>14,704</i>
Non-Farm Employment (millions)	145.9	146.3	146.9	147.4	148.1	148.7	<i>149.4</i>	<i>150.1</i>	<i>150.7</i>	<i>151.2</i>	<i>151.6</i>	<i>152.0</i>	146.6	<i>149.1</i>	<i>151.4</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>3.4</i>	<i>3.4</i>	<i>3.4</i>	4.4	<i>3.9</i>	<i>3.4</i>
Housing Starts (millions - SAAR)	1.23	1.17	1.17	1.26	1.32	1.25	<i>1.24</i>	<i>1.30</i>	<i>1.33</i>	<i>1.37</i>	<i>1.40</i>	<i>1.42</i>	1.21	<i>1.28</i>	<i>1.38</i>
Industrial Production Indices (Index, 2012=100)															
Total Industrial Production	102.5	103.7	103.3	105.3	105.9	107.5	<i>108.2</i>	<i>108.8</i>	<i>109.4</i>	<i>110.1</i>	<i>110.7</i>	<i>111.3</i>	103.7	<i>107.6</i>	<i>110.4</i>
Manufacturing	102.0	102.7	102.2	103.6	104.1	104.9	<i>105.6</i>	<i>106.2</i>	<i>107.0</i>	<i>107.9</i>	<i>108.5</i>	<i>109.0</i>	102.6	<i>105.2</i>	<i>108.1</i>
Food	109.2	110.1	112.1	112.5	114.1	114.8	<i>115.1</i>	<i>115.7</i>	<i>116.3</i>	<i>116.9</i>	<i>117.5</i>	<i>117.9</i>	111.0	<i>114.9</i>	<i>117.1</i>
Paper	97.8	96.9	96.4	96.1	95.6	96.0	<i>95.5</i>	<i>96.1</i>	<i>96.2</i>	<i>96.2</i>	<i>96.1</i>	<i>95.9</i>	96.8	<i>95.8</i>	<i>96.1</i>
Petroleum and Coal Products	105.5	108.9	104.7	107.4	106.6	107.0	<i>107.7</i>	<i>108.2</i>	<i>108.8</i>	<i>109.3</i>	<i>109.6</i>	<i>109.8</i>	106.6	<i>107.4</i>	<i>109.4</i>
Chemicals	94.2	95.9	94.7	97.7	96.7	98.7	<i>99.6</i>	<i>100.6</i>	<i>101.5</i>	<i>102.5</i>	<i>103.4</i>	<i>104.3</i>	95.6	<i>98.9</i>	<i>102.9</i>
Nonmetallic Mineral Products	114.0	113.2	113.6	117.1	119.2	120.8	<i>121.8</i>	<i>123.5</i>	<i>124.6</i>	<i>125.7</i>	<i>126.7</i>	<i>127.6</i>	114.5	<i>121.3</i>	<i>126.1</i>
Primary Metals	94.0	92.9	93.6	95.2	96.1	96.2	<i>97.3</i>	<i>102.2</i>	<i>105.3</i>	<i>106.3</i>	<i>106.0</i>	<i>105.1</i>	93.9	<i>98.0</i>	<i>105.7</i>
Coal-weighted Manufacturing (a)	101.7	102.1	101.1	103.3	103.5	104.7	<i>105.4</i>	<i>107.5</i>	<i>108.9</i>	<i>109.7</i>	<i>110.1</i>	<i>110.3</i>	102.0	<i>105.3</i>	<i>109.8</i>
Distillate-weighted Manufacturing (a)	107.8	108.2	108.2	110.1	111.1	111.7	<i>112.5</i>	<i>113.8</i>	<i>114.9</i>	<i>115.7</i>	<i>116.3</i>	<i>116.7</i>	108.6	<i>112.3</i>	<i>115.9</i>
Electricity-weighted Manufacturing (a)	102.1	102.8	101.9	103.9	104.1	105.2	<i>106.1</i>	<i>107.8</i>	<i>109.1</i>	<i>110.1</i>	<i>110.7</i>	<i>111.0</i>	102.7	<i>105.8</i>	<i>110.2</i>
Natural Gas-weighted Manufacturing (a) ...	101.7	103.5	101.6	104.5	103.7	105.3	<i>106.2</i>	<i>107.7</i>	<i>109.0</i>	<i>109.9</i>	<i>110.6</i>	<i>111.1</i>	102.9	<i>105.7</i>	<i>110.1</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>2.57</i>	<i>2.58</i>	2.45	<i>2.51</i>	<i>2.56</i>
Producer Price Index: All Commodities (index, 1982=1.00)	1.93	1.92	1.92	1.97	2.01	2.01	<i>2.03</i>	<i>2.04</i>	<i>2.04</i>	<i>2.04</i>	<i>2.05</i>	<i>2.07</i>	1.94	<i>2.02</i>	<i>2.05</i>
Producer Price Index: Petroleum (index, 1982=1.00)	1.66	1.67	1.75	1.90	1.98	2.22	<i>2.24</i>	<i>2.16</i>	<i>2.09</i>	<i>2.16</i>	<i>2.22</i>	<i>2.20</i>	1.74	<i>2.15</i>	<i>2.17</i>
GDP Implicit Price Deflator (index, 2012=100)	107.2	107.6	108.1	108.8	109.3	110.2	<i>110.7</i>	<i>111.3</i>	<i>112.0</i>	<i>112.6</i>	<i>113.2</i>	<i>113.9</i>	107.9	<i>110.4</i>	<i>112.9</i>
Miscellaneous															
Vehicle Miles Traveled (b) (million miles/day)	8,210	9,202	9,057	8,730	8,238	9,231	<i>9,153</i>	<i>8,844</i>	<i>8,421</i>	<i>9,384</i>	<i>9,244</i>	<i>8,927</i>	8,802	<i>8,869</i>	<i>8,996</i>
Air Travel Capacity (Available ton-miles/day, thousands)	567	619	661	631	603	646	<i>659</i>	<i>634</i>	<i>616</i>	<i>652</i>	<i>662</i>	<i>639</i>	620	<i>635</i>	<i>642</i>
Aircraft Utilization (Revenue ton-miles/day, thousands)	344	390	398	382	368	412	<i>421</i>	<i>398</i>	<i>379</i>	<i>415</i>	<i>422</i>	<i>401</i>	378	<i>400</i>	<i>404</i>
Airline Ticket Price Index (index, 1982-1984=100)	277.8	297.0	264.9	263.4	262.8	279.8	<i>279.4</i>	<i>309.2</i>	<i>330.5</i>	<i>350.5</i>	<i>315.3</i>	<i>329.7</i>	275.8	<i>282.8</i>	<i>331.5</i>
Raw Steel Production (million short tons per day)	0.248	0.247	0.250	0.245	0.251	0.253	<i>0.258</i>	<i>0.228</i>	<i>0.290</i>	<i>0.291</i>	<i>0.273</i>	<i>0.239</i>	0.248	<i>0.248</i>	<i>0.273</i>
Carbon Dioxide (CO2) Emissions (million metric tons)															
Petroleum	565	588	593	592	581	593	<i>601</i>	<i>596</i>	<i>581</i>	<i>593</i>	<i>608</i>	<i>600</i>	2,338	<i>2,371</i>	<i>2,383</i>
Natural Gas	422	311	335	405	477	351	<i>352</i>	<i>406</i>	<i>473</i>	<i>341</i>	<i>355</i>	<i>414</i>	1,474	<i>1,587</i>	<i>1,583</i>
Coal	319	307	375	317	308	290	<i>374</i>	<i>319</i>	<i>320</i>	<i>268</i>	<i>349</i>	<i>299</i>	1,318	<i>1,291</i>	<i>1,235</i>
Total Energy (c)	1,309	1,209	1,305	1,318	1,369	1,236	<i>1,331</i>	<i>1,324</i>	<i>1,376</i>	<i>1,205</i>	<i>1,314</i>	<i>1,317</i>	5,142	<i>5,260</i>	<i>5,212</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 - September 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Real Gross State Product (Billion \$2009)															
New England	893	896	907	911	915	923	929	936	940	945	949	954	902	926	947
Middle Atlantic	2,505	2,512	2,530	2,534	2,545	2,567	2,585	2,601	2,613	2,626	2,637	2,648	2,520	2,575	2,631
E. N. Central	2,328	2,336	2,356	2,369	2,378	2,397	2,413	2,430	2,444	2,455	2,465	2,475	2,347	2,405	2,460
W. N. Central	1,084	1,094	1,088	1,091	1,095	1,104	1,112	1,120	1,126	1,131	1,136	1,141	1,089	1,108	1,134
S. Atlantic	3,023	3,035	3,060	3,077	3,097	3,127	3,153	3,180	3,202	3,221	3,238	3,254	3,049	3,139	3,229
E. S. Central	763	766	770	775	778	785	790	796	801	805	809	813	768	787	807
W. S. Central	2,029	2,050	2,061	2,082	2,098	2,129	2,152	2,175	2,194	2,210	2,226	2,238	2,055	2,139	2,217
Mountain	1,088	1,097	1,115	1,121	1,130	1,142	1,153	1,164	1,174	1,183	1,191	1,198	1,105	1,147	1,186
Pacific	3,173	3,225	3,243	3,267	3,285	3,320	3,348	3,378	3,403	3,429	3,450	3,471	3,227	3,333	3,438
Industrial Output, Manufacturing (Index, Year 2012=100)															
New England	96.8	97.2	96.8	98.5	98.7	98.7	99.1	99.4	99.9	100.5	100.9	101.0	97.3	99.0	100.6
Middle Atlantic	97.0	97.5	96.9	97.6	97.9	97.9	98.5	98.9	99.5	100.1	100.6	100.8	97.2	98.3	100.2
E. N. Central	104.3	105.2	104.4	106.0	106.3	106.6	107.4	108.1	109.0	110.0	110.7	111.2	105.0	107.1	110.2
W. N. Central	101.1	101.8	101.5	103.0	103.8	104.4	105.1	105.6	106.5	107.3	108.0	108.5	101.8	104.7	107.6
S. Atlantic	105.6	106.4	105.8	107.1	107.7	108.9	109.6	110.1	110.9	111.7	112.3	112.7	106.2	109.1	111.9
E. S. Central	107.8	108.3	107.4	108.5	108.7	109.1	110.0	110.7	111.6	112.6	113.3	113.8	108.0	109.6	112.8
W. S. Central	95.1	96.0	95.9	96.8	97.3	99.3	100.2	100.9	102.0	103.0	103.8	104.3	95.9	99.4	103.2
Mountain	106.5	107.8	108.1	110.0	111.4	113.0	113.7	114.4	115.3	116.2	117.0	117.5	108.1	113.1	116.5
Pacific	102.2	102.7	101.7	103.0	103.4	104.3	105.0	105.7	106.4	107.3	107.9	108.3	102.4	104.6	107.5
Real Personal Income (Billion \$2009)															
New England	789	791	798	797	803	808	810	814	820	825	829	834	794	809	827
Middle Atlantic	2,010	2,022	2,037	2,058	2,064	2,069	2,075	2,083	2,099	2,109	2,120	2,130	2,032	2,073	2,114
E. N. Central	2,169	2,172	2,189	2,191	2,208	2,223	2,230	2,239	2,256	2,269	2,280	2,292	2,180	2,225	2,274
W. N. Central	1,016	1,020	1,017	1,022	1,029	1,037	1,040	1,045	1,054	1,062	1,070	1,079	1,019	1,038	1,066
S. Atlantic	2,849	2,860	2,879	2,896	2,918	2,935	2,947	2,964	2,993	3,014	3,035	3,056	2,871	2,941	3,025
E. S. Central	800	802	806	810	815	820	822	826	834	838	843	848	804	821	841
W. S. Central	1,749	1,758	1,766	1,769	1,782	1,798	1,808	1,821	1,841	1,857	1,872	1,887	1,760	1,802	1,864
Mountain	1,004	1,009	1,022	1,025	1,034	1,041	1,046	1,053	1,064	1,073	1,081	1,090	1,015	1,043	1,077
Pacific	2,433	2,461	2,475	2,504	2,516	2,531	2,542	2,558	2,581	2,600	2,618	2,636	2,468	2,537	2,609
Households (Thousands)															
New England	5,859	5,868	5,888	5,896	5,906	5,916	5,922	5,931	5,940	5,949	5,959	5,968	5,896	5,931	5,968
Middle Atlantic	15,899	15,915	15,967	15,982	16,003	16,025	16,041	16,061	16,080	16,101	16,123	16,148	15,982	16,061	16,148
E. N. Central	18,823	18,840	18,900	18,917	18,944	18,978	19,001	19,027	19,047	19,073	19,103	19,136	18,917	19,027	19,136
W. N. Central	8,518	8,536	8,574	8,594	8,620	8,648	8,669	8,690	8,709	8,730	8,752	8,775	8,594	8,690	8,775
S. Atlantic	25,184	25,275	25,434	25,530	25,633	25,741	25,831	25,925	26,016	26,108	26,199	26,294	25,530	25,925	26,294
E. S. Central	7,602	7,617	7,649	7,665	7,685	7,707	7,724	7,741	7,758	7,777	7,797	7,818	7,665	7,741	7,818
W. S. Central	14,579	14,625	14,704	14,749	14,800	14,856	14,908	14,965	15,021	15,080	15,139	15,201	14,749	14,965	15,201
Mountain	9,036	9,074	9,132	9,172	9,216	9,263	9,304	9,346	9,386	9,428	9,469	9,512	9,172	9,346	9,512
Pacific	18,697	18,753	18,846	18,896	18,954	19,013	19,066	19,118	19,173	19,229	19,287	19,345	18,896	19,118	19,345
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	7.6	7.6	7.4	7.5	7.5
Middle Atlantic	19.5	19.5	19.6	19.7	19.7	19.8	19.8	19.9	20.0	20.0	20.0	20.1	19.6	19.8	20.0
E. N. Central	21.9	22.0	22.0	22.0	22.1	22.2	22.3	22.3	22.4	22.5	22.5	22.6	22.0	22.2	22.5
W. N. Central	10.6	10.6	10.7	10.7	10.7	10.7	10.8	10.8	10.8	10.9	10.9	10.9	10.6	10.8	10.9
S. Atlantic	28.0	28.1	28.2	28.3	28.4	28.6	28.7	28.9	29.0	29.1	29.2	29.3	28.2	28.7	29.2
E. S. Central	8.1	8.1	8.1	8.1	8.1	8.2	8.2	8.2	8.3	8.3	8.3	8.3	8.1	8.2	8.3
W. S. Central	17.0	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	18.0	17.1	17.5	17.8
Mountain	10.4	10.5	10.6	10.6	10.7	10.8	10.8	10.9	11.0	11.0	11.1	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	23.9	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 - September 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	2,980	801	93	2,168	3,051	905	<i>120</i>	<i>2,167</i>	<i>3,132</i>	<i>854</i>	<i>134</i>	<i>2,143</i>	6,043	<i>6,242</i>	<i>6,263</i>
Middle Atlantic	2,658	599	72	2,000	2,938	755	<i>82</i>	<i>1,988</i>	<i>2,895</i>	<i>680</i>	<i>90</i>	<i>1,974</i>	5,329	<i>5,763</i>	<i>5,638</i>
E. N. Central	2,691	628	105	2,263	3,211	825	<i>111</i>	<i>2,219</i>	<i>3,080</i>	<i>714</i>	<i>132</i>	<i>2,227</i>	5,688	<i>6,366</i>	<i>6,153</i>
W. N. Central	2,812	661	138	2,387	3,421	828	<i>142</i>	<i>2,397</i>	<i>3,165</i>	<i>686</i>	<i>164</i>	<i>2,407</i>	5,997	<i>6,788</i>	<i>6,423</i>
South Atlantic	1,145	125	15	945	1,443	219	<i>15</i>	<i>1,005</i>	<i>1,460</i>	<i>195</i>	<i>15</i>	<i>1,001</i>	2,230	<i>2,683</i>	<i>2,671</i>
E. S. Central	1,376	155	24	1,281	1,817	326	<i>22</i>	<i>1,345</i>	<i>1,862</i>	<i>244</i>	<i>22</i>	<i>1,338</i>	2,836	<i>3,510</i>	<i>3,466</i>
W. S. Central	773	66	4	741	1,193	144	<i>4</i>	<i>830</i>	<i>1,219</i>	<i>87</i>	<i>4</i>	<i>807</i>	1,583	<i>2,170</i>	<i>2,117</i>
Mountain	2,058	697	153	1,665	2,123	599	<i>134</i>	<i>1,846</i>	<i>2,199</i>	<i>675</i>	<i>142</i>	<i>1,813</i>	4,573	<i>4,702</i>	<i>4,829</i>
Pacific	1,561	531	69	1,031	1,440	541	<i>81</i>	<i>1,210</i>	<i>1,458</i>	<i>567</i>	<i>86</i>	<i>1,177</i>	3,191	<i>3,273</i>	<i>3,288</i>
U.S. Average	1,858	427	65	1,481	2,130	523	<i>69</i>	<i>1,541</i>	<i>2,108</i>	<i>478</i>	<i>77</i>	<i>1,526</i>	3,830	<i>4,263</i>	<i>4,189</i>
Heating Degree Days, Prior 10-year Average															
New England	3,201	831	122	2,125	3,171	818	<i>119</i>	<i>2,121</i>	<i>3,165</i>	<i>820</i>	<i>116</i>	<i>2,108</i>	6,279	<i>6,229</i>	<i>6,210</i>
Middle Atlantic	2,983	661	81	1,941	2,947	646	<i>81</i>	<i>1,949</i>	<i>2,956</i>	<i>650</i>	<i>80</i>	<i>1,935</i>	5,666	<i>5,623</i>	<i>5,621</i>
E. N. Central	3,255	701	114	2,198	3,209	692	<i>116</i>	<i>2,211</i>	<i>3,196</i>	<i>697</i>	<i>117</i>	<i>2,187</i>	6,267	<i>6,228</i>	<i>6,197</i>
W. N. Central	3,302	707	142	2,380	3,264	705	<i>144</i>	<i>2,379</i>	<i>3,255</i>	<i>702</i>	<i>142</i>	<i>2,360</i>	6,531	<i>6,492</i>	<i>6,459</i>
South Atlantic	1,502	188	12	966	1,476	177	<i>12</i>	<i>973</i>	<i>1,480</i>	<i>177</i>	<i>13</i>	<i>967</i>	2,667	<i>2,638</i>	<i>2,636</i>
E. S. Central	1,906	231	16	1,287	1,868	217	<i>18</i>	<i>1,301</i>	<i>1,862</i>	<i>222</i>	<i>19</i>	<i>1,293</i>	3,440	<i>3,404</i>	<i>3,395</i>
W. S. Central	1,228	88	4	799	1,181	80	<i>4</i>	<i>801</i>	<i>1,183</i>	<i>85</i>	<i>4</i>	<i>799</i>	2,119	<i>2,066</i>	<i>2,071</i>
Mountain	2,216	734	142	1,862	2,195	737	<i>144</i>	<i>1,842</i>	<i>2,165</i>	<i>714</i>	<i>140</i>	<i>1,845</i>	4,954	<i>4,917</i>	<i>4,864</i>
Pacific	1,462	598	89	1,205	1,465	592	<i>84</i>	<i>1,181</i>	<i>1,444</i>	<i>582</i>	<i>82</i>	<i>1,184</i>	3,354	<i>3,322</i>	<i>3,293</i>
U.S. Average	2,193	487	71	1,527	2,160	478	<i>71</i>	<i>1,524</i>	<i>2,151</i>	<i>476</i>	<i>70</i>	<i>1,514</i>	4,277	<i>4,233</i>	<i>4,210</i>
Cooling Degree Days															
New England	0	75	363	11	0	80	<i>544</i>	<i>1</i>	<i>0</i>	<i>86</i>	<i>403</i>	<i>1</i>	450	<i>626</i>	<i>490</i>
Middle Atlantic	0	139	502	22	0	176	<i>646</i>	<i>4</i>	<i>0</i>	<i>154</i>	<i>522</i>	<i>4</i>	663	<i>825</i>	<i>681</i>
E. N. Central	1	210	480	16	0	333	<i>583</i>	<i>7</i>	<i>0</i>	<i>218</i>	<i>518</i>	<i>6</i>	706	<i>923</i>	<i>743</i>
W. N. Central	9	265	624	14	2	439	<i>670</i>	<i>10</i>	<i>3</i>	<i>267</i>	<i>656</i>	<i>10</i>	911	<i>1,121</i>	<i>936</i>
South Atlantic	161	674	1,158	263	136	722	<i>1,156</i>	<i>216</i>	<i>111</i>	<i>643</i>	<i>1,142</i>	<i>220</i>	2,255	<i>2,230</i>	<i>2,117</i>
E. S. Central	65	481	963	74	36	648	<i>1,046</i>	<i>59</i>	<i>26</i>	<i>516</i>	<i>1,028</i>	<i>61</i>	1,583	<i>1,789</i>	<i>1,631</i>
W. S. Central	214	828	1,459	217	125	999	<i>1,537</i>	<i>190</i>	<i>80</i>	<i>854</i>	<i>1,524</i>	<i>205</i>	2,718	<i>2,852</i>	<i>2,664</i>
Mountain	36	467	921	120	21	504	<i>975</i>	<i>76</i>	<i>17</i>	<i>426</i>	<i>933</i>	<i>78</i>	1,544	<i>1,576</i>	<i>1,454</i>
Pacific	30	219	700	99	31	183	<i>728</i>	<i>57</i>	<i>28</i>	<i>167</i>	<i>578</i>	<i>58</i>	1,048	<i>1,000</i>	<i>831</i>
U.S. Average	70	403	839	115	51	475	<i>907</i>	<i>87</i>	<i>40</i>	<i>396</i>	<i>842</i>	<i>91</i>	1,426	<i>1,520</i>	<i>1,369</i>
Cooling Degree Days, Prior 10-year Average															
New England	0	81	433	1	0	81	<i>433</i>	<i>1</i>	<i>0</i>	<i>79</i>	<i>451</i>	<i>1</i>	515	<i>515</i>	<i>532</i>
Middle Atlantic	0	169	566	6	0	166	<i>567</i>	<i>5</i>	<i>0</i>	<i>165</i>	<i>583</i>	<i>6</i>	741	<i>738</i>	<i>754</i>
E. N. Central	3	234	542	8	3	228	<i>532</i>	<i>7</i>	<i>3</i>	<i>242</i>	<i>542</i>	<i>7</i>	788	<i>770</i>	<i>794</i>
W. N. Central	7	281	672	12	7	277	<i>659</i>	<i>11</i>	<i>7</i>	<i>298</i>	<i>667</i>	<i>12</i>	973	<i>954</i>	<i>984</i>
South Atlantic	117	666	1,167	230	119	675	<i>1,161</i>	<i>227</i>	<i>120</i>	<i>684</i>	<i>1,169</i>	<i>233</i>	2,179	<i>2,182</i>	<i>2,206</i>
E. S. Central	33	544	1,056	65	34	539	<i>1,031</i>	<i>63</i>	<i>36</i>	<i>554</i>	<i>1,037</i>	<i>65</i>	1,698	<i>1,667</i>	<i>1,692</i>
W. S. Central	90	876	1,528	205	100	887	<i>1,532</i>	<i>204</i>	<i>103</i>	<i>897</i>	<i>1,550</i>	<i>207</i>	2,698	<i>2,722</i>	<i>2,757</i>
Mountain	23	424	930	81	24	426	<i>922</i>	<i>84</i>	<i>25</i>	<i>438</i>	<i>930</i>	<i>83</i>	1,458	<i>1,456</i>	<i>1,475</i>
Pacific	30	180	608	74	30	185	<i>621</i>	<i>78</i>	<i>31</i>	<i>185</i>	<i>631</i>	<i>75</i>	892	<i>914</i>	<i>922</i>
U.S. Average	43	405	857	94	45	408	<i>855</i>	<i>94</i>	<i>46</i>	<i>417</i>	<i>868</i>	<i>95</i>	1,399	<i>1,402</i>	<i>1,426</i>

- = no data available

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

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

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

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

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

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