Independent Statistics & Analysis
U.S. Energy Information Administration

September 2018

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.

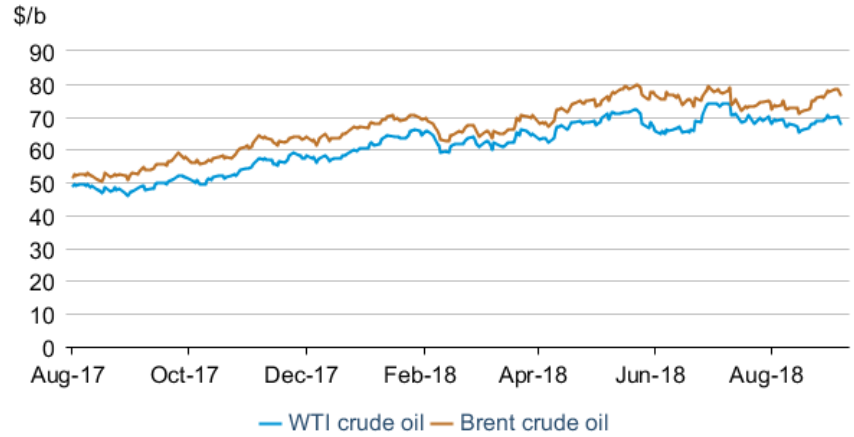
- After declining by 0.9% in 2017, EIA forecasts that U.S. energy-related carbon dioxide (CO_2) emissions will rise by 2.3% in 2018. The increase largely reflects higher natural gas consumption because of a colder winter and a warmer summer than in 2017. Emissions are forecast to decline by 0.9% in 2019. Energy-related CO_2 emissions are sensitive to changes in weather, economic growth, energy prices, and fuel mix.

Petroleum and natural gas markets review

Crude oil

Prices: The front-month futures price for Brent crude oil settled at $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



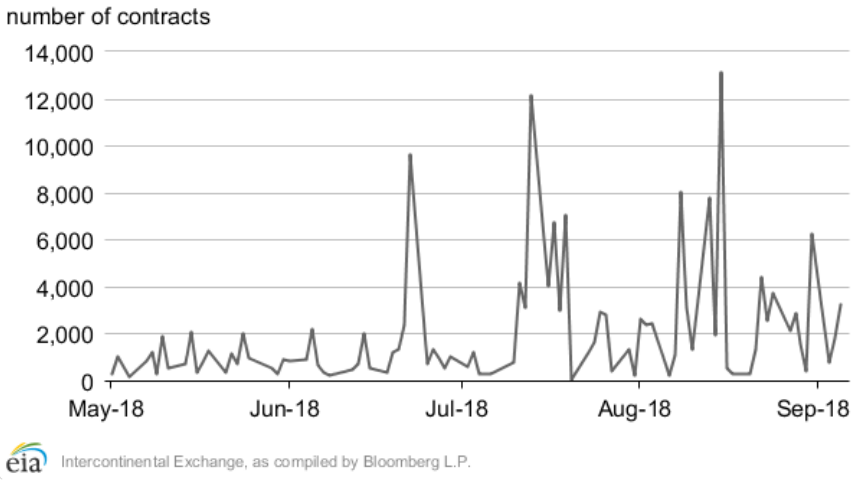
eia CME Group and Intercontinental Exchange, as compiled by Bloomberg L.P.

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 reinstituting 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.

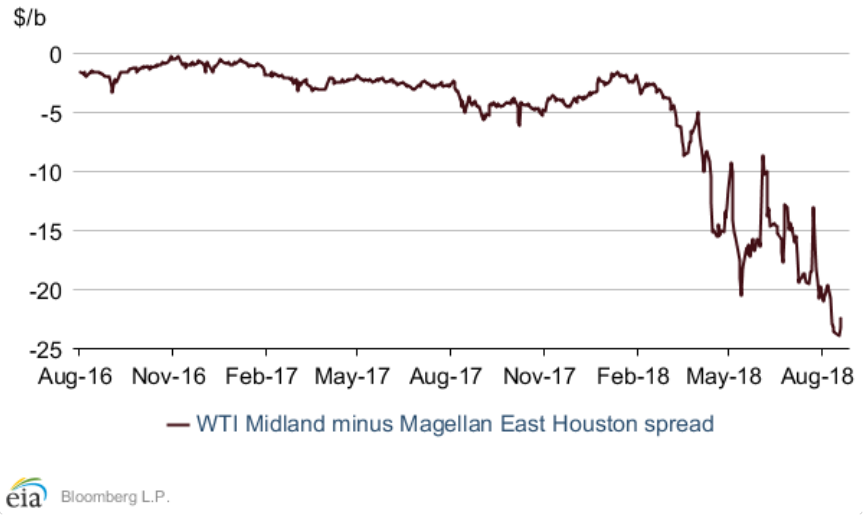
Trading volume averaged more than 2,000 contracts per day since May, and trading of 10,000 or more contracts occurred on some days in July and August **(Figure 2)**. Third-party ship tracking data indicate that several countries may have already reduced purchases of Iranian crude oil, and August estimates 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



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 transportion, such as trucks. In additon 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

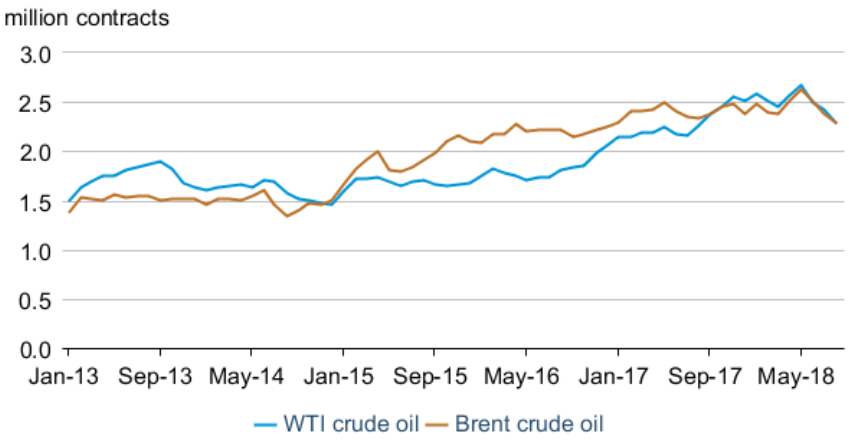


EIA's August Drilling Productivity Report estimates that crude oil production in the Permian region will grow to 3.4 million b/d in September. Current estimates of available regional refinery intake and pipeline takeaway capacity is about 3.6 million b/d. Even though crude oil takeaway infrastructure 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

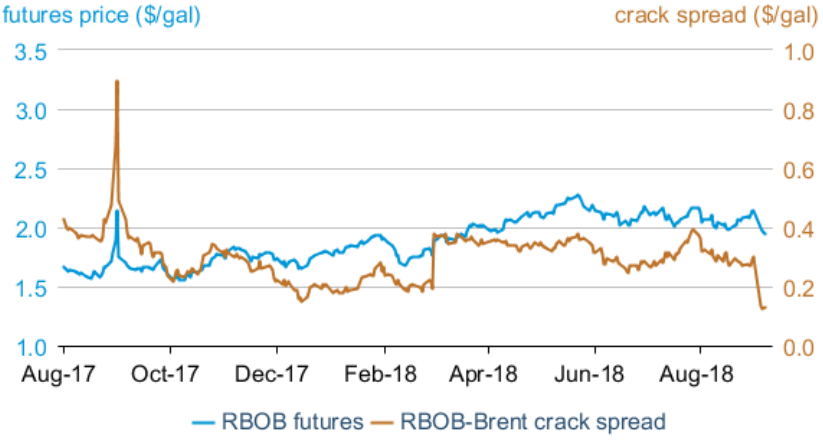


eia CME Group and Intercontinental Exchange, as compiled by Bloomberg L.P.

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

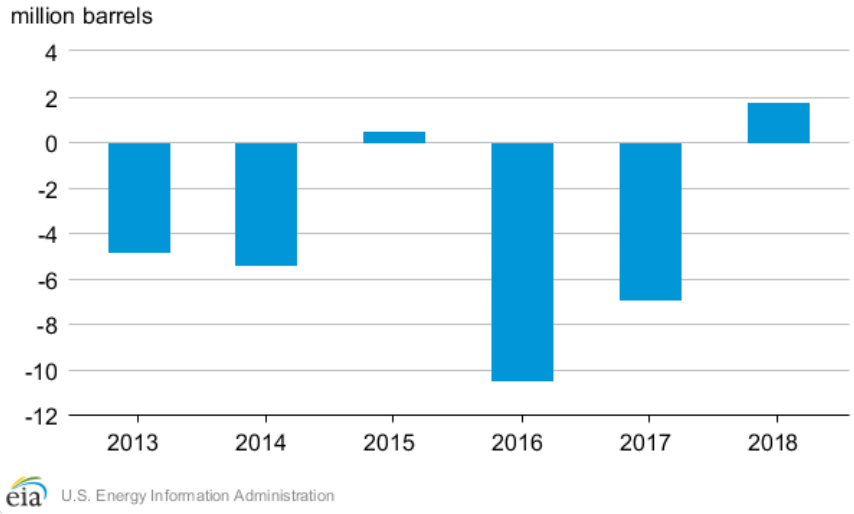


eia CME Group, as compiled by Bloomberg L.P., RBOB=reformulated blendstock for oxygenate blending

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

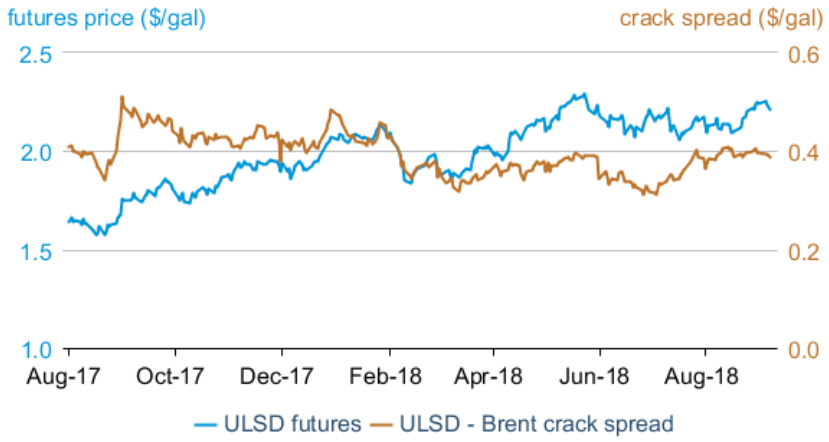
including exports, however, declined from last year's record high for August to an estimated 10.3 million barrels per day (b/d) in August 2018. The higher production and lower consumption (including exports) resulted in a rare increase in total motor gasoline inventories for the month of August **(Figure 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



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

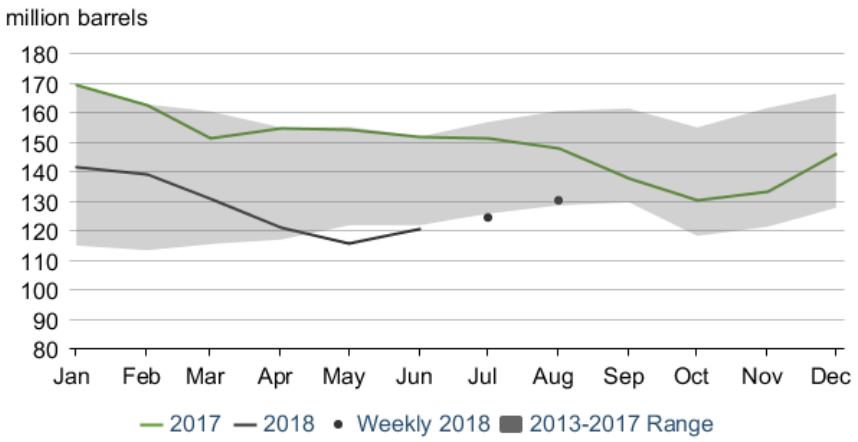


eia CME Group, as compiled by Bloomberg L.P., ULSD=ultra-low sulfur diesel

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



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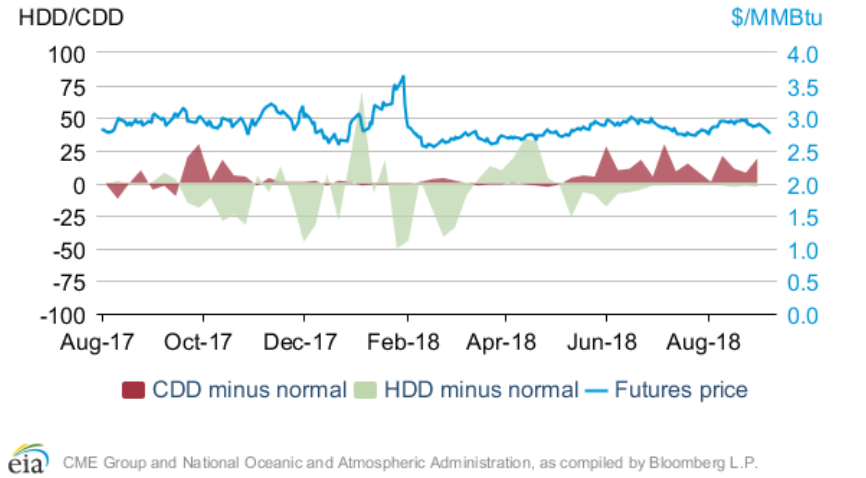
Natural Gas

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



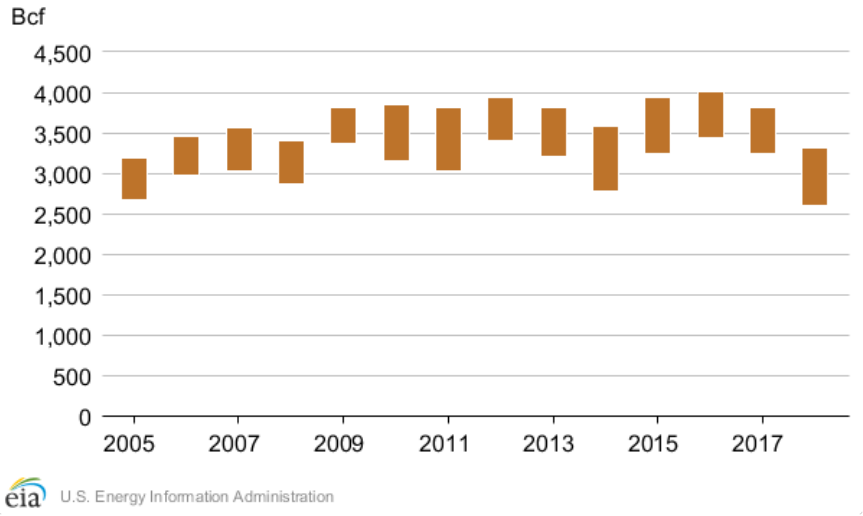
eia CME Group and National Oceanic and Atmospheric Administration, as compiled by Bloomberg L.P.

***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



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.

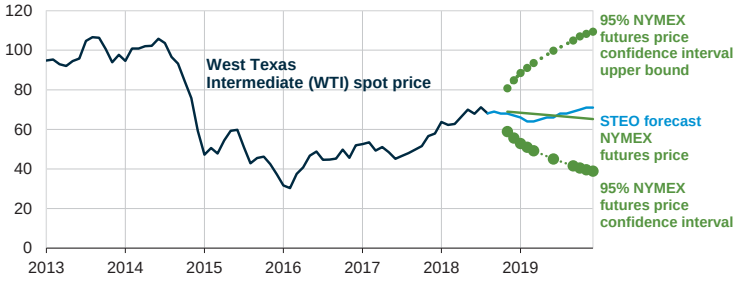
- For more information, see the detailed table of STEO forecast changes.

U.S. Energy Information Administration
Independent Statistics & Analysis

Short-Term Energy Outlook

Chart Gallery for September 2018

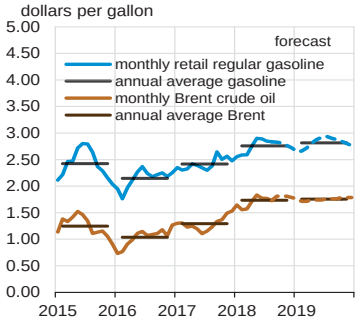
West Texas Intermediate (WTI) crude oil price and NYMEX confidence intervals
dollars per barrel



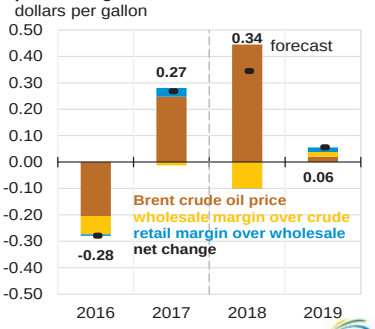
Note: Confidence interval derived from options market information for the five trading days ending Sep 6, 2018. Intervals not calculated for months with sparse trading in near-the-money options contracts.

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

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

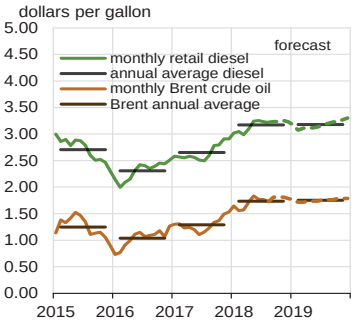


Components of annual gasoline price changes
dollars per gallon

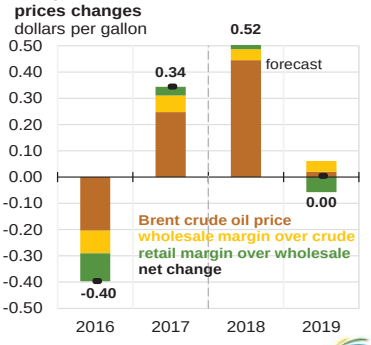


Source: Short-Term Energy Outlook, September 2018

U.S. diesel and crude oil prices



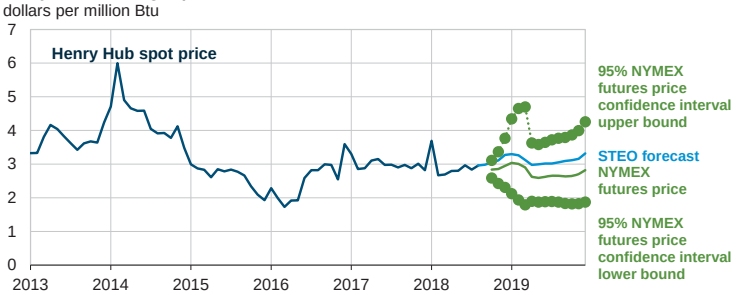
Components of annual diesel prices changes



Source: Short-Term Energy Outlook, September 2018

Henry Hub natural gas price and NYMEX confidence intervals

dollars per million Btu

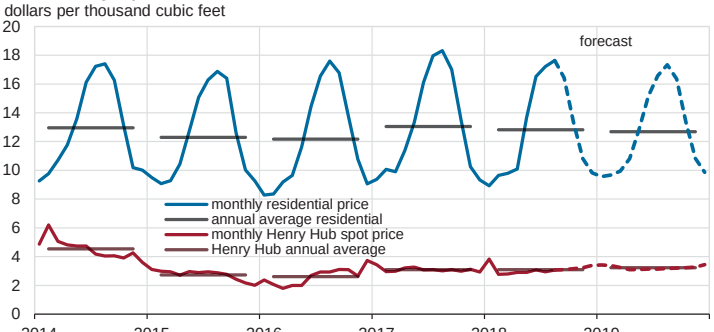


Note: Confidence interval derived from options market information for the five trading days ending Sep 6, 2018. Intervals not calculated for months with sparse trading in near-the-money options contracts.

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

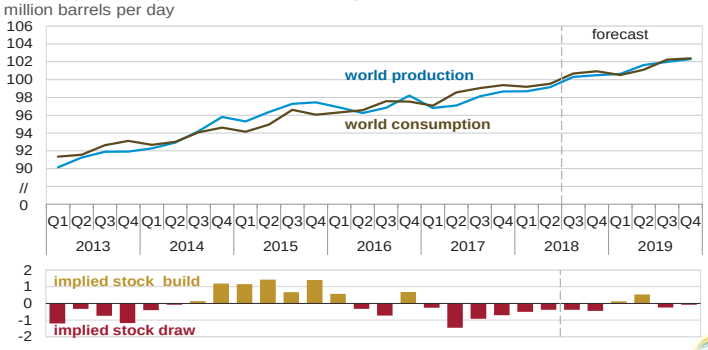
U.S. natural gas prices

dollars per thousand cubic feet



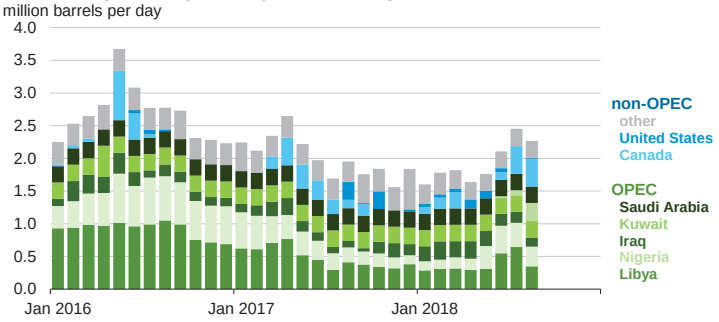
Source: Short-Term Energy Outlook, September 2018, and Thomson Reuters

World liquid fuels production and consumption balance
million barrels per day



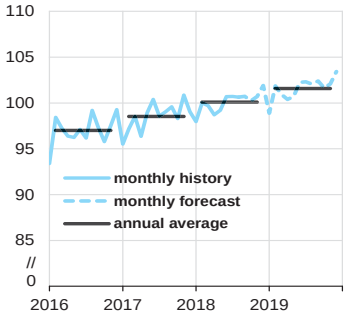
Source: Short-Term Energy Outlook, September 2018

Estimated unplanned liquid fuels production outages
million barrels per day

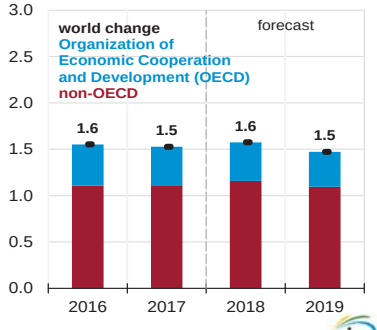


Source: Short-Term Energy Outlook, September 2018

World liquid fuels consumption
million barrels per day

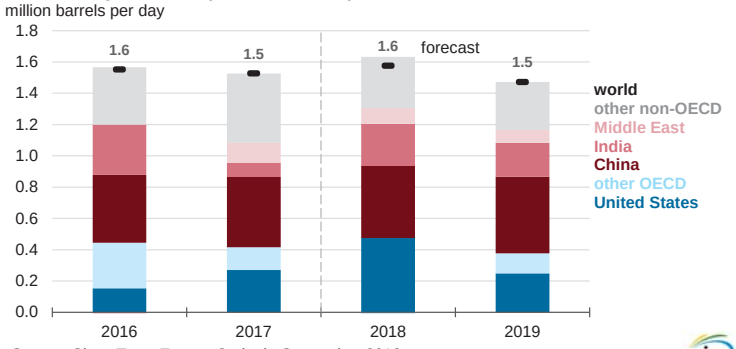


Components of annual change
million barrels per day



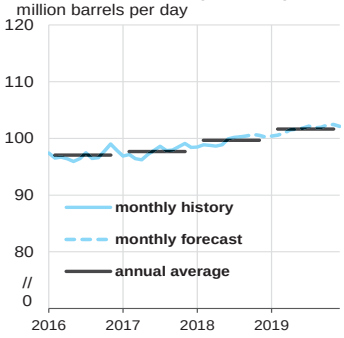
Source: Short-Term Energy Outlook, September 2

Annual change in world liquid fuels consumption
million barrels per day

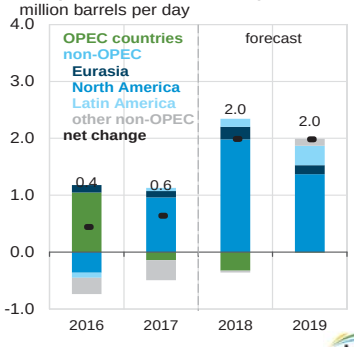


Source: Short-Term Energy Outlook, September 2018

World crude oil and liquid fuels production
million barrels per day

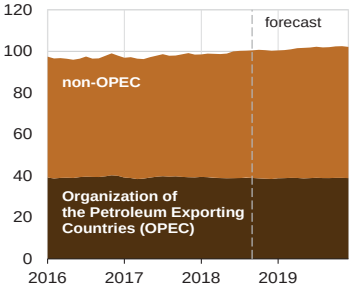


Components of annual change
million barrels per day

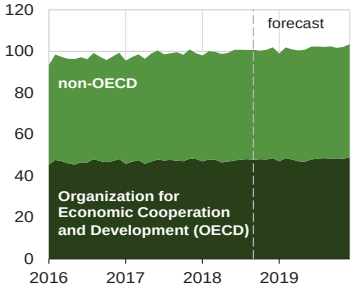


Source: Short-Term Energy Outlook, September 2018

World liquid fuels production
million barrels per day

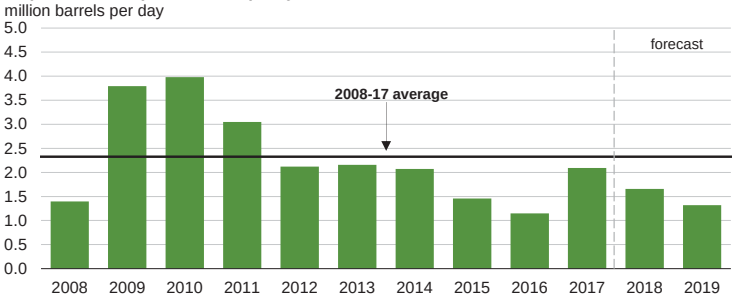


World liquid fuels consumption
million barrels per day



Source: Short-Term Energy Outlook, September 2018

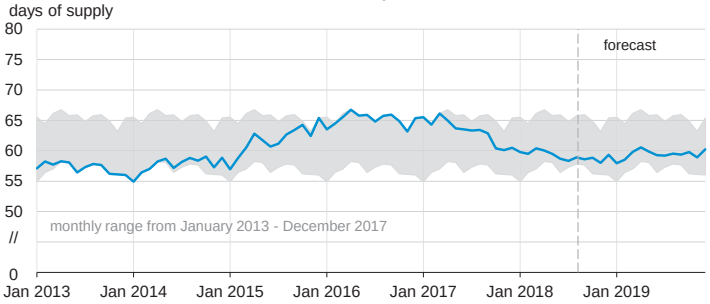
Organization of the Petroleum Exporting Countries (OPEC)
surplus crude oil production capacity
million barrels per day



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

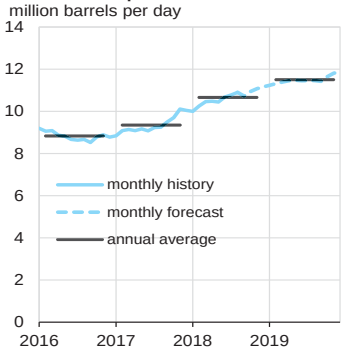
Source: Short-Term Energy Outlook, September 2018

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

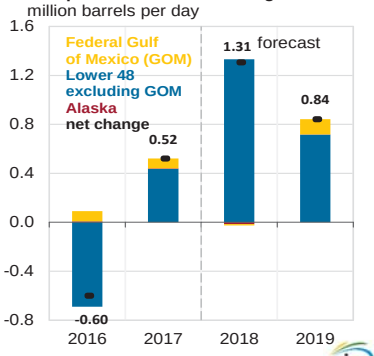


Source: Short-Term Energy Outlook, September 2018

U.S. crude oil production
million barrels per day



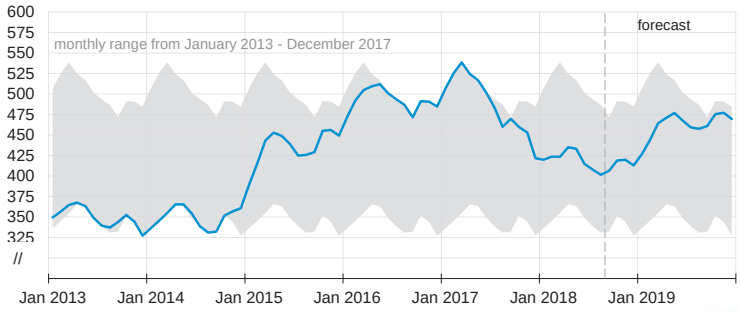
Components of annual change
million barrels per day



Source: Short-Term Energy Outlook, September 2018

U.S. commercial crude oil inventories

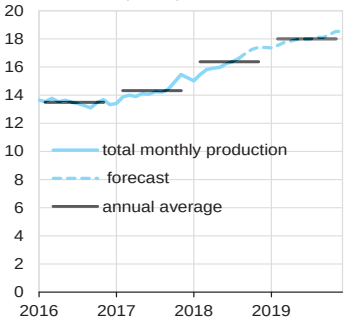
million barrels



Source: Short-Term Energy Outlook, September 2018

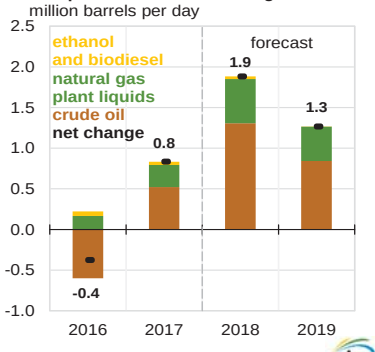
U.S. crude oil and liquid fuels production

million barrels per day



Components of annual change

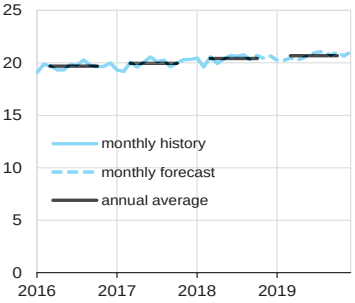
million barrels per day



Source: Short-Term Energy Outlook, September 2018

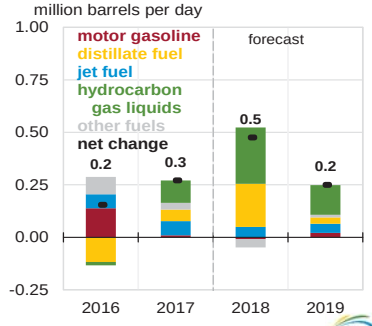
U.S. liquid fuels product supplied (consumption)

million barrels per day



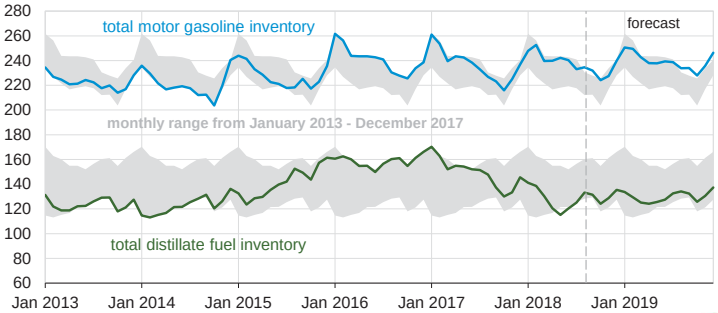
Components of annual change

million barrels per day



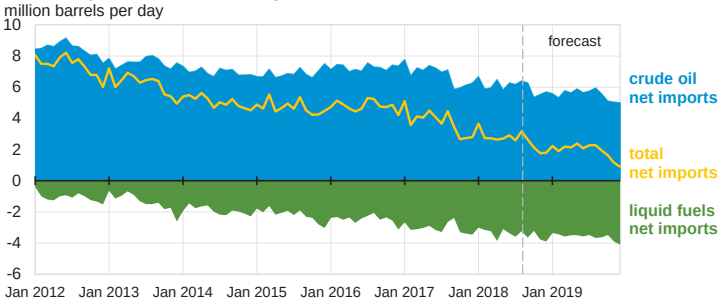
Source: Short-Term Energy Outlook, September 2018

U.S. gasoline and distillate inventories
million barrels



Source: Short-Term Energy Outlook, September 2018

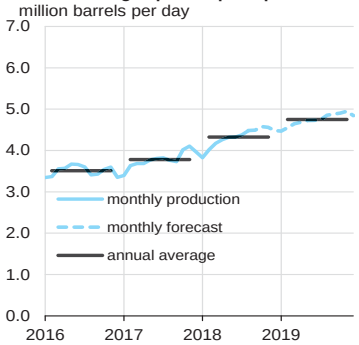
U.S. net imports of crude oil and liquid fuels
million barrels per day



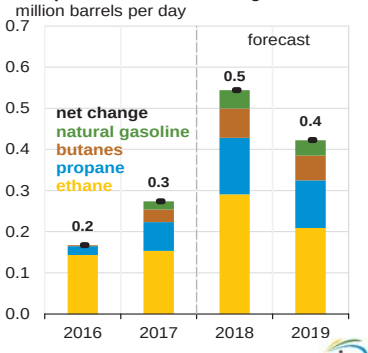
Note: Liquids fuels include: gasoline, distillate fuels, hydrocarbon gas liquids, jet fuel, residual fuel oil, unfinished oils, other hydrocarbons/oxygenates, and other oils.

Source: Short-Term Energy Outlook, September 2018

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

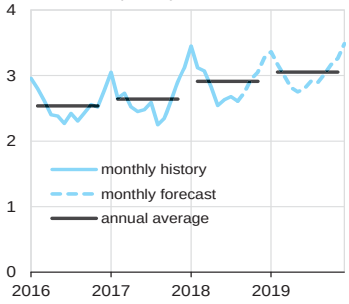


Components of annual change
million barrels per day

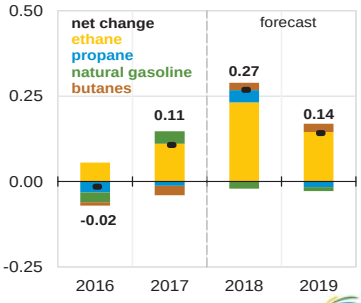


Source: Short-Term Energy Outlook, September 2018

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

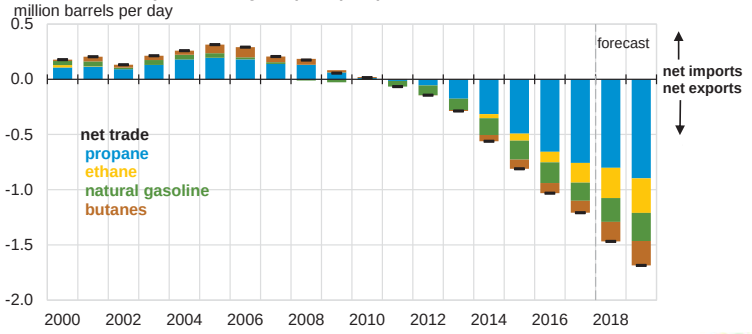


Components of annual change
million barrels per day



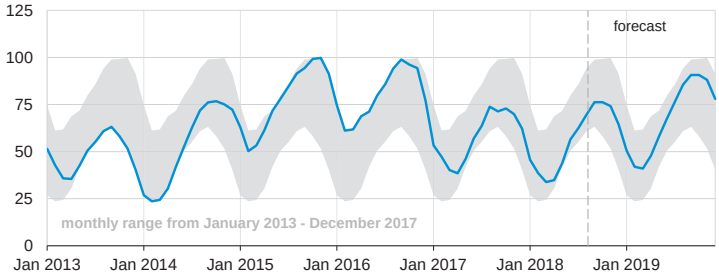
Source: Short-Term Energy Outlook, September 2018

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



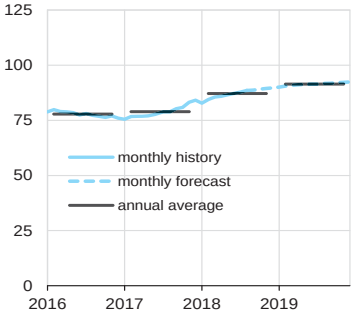
Source: Short-Term Energy Outlook, September 2018

U.S. commercial propane inventories
million barrels

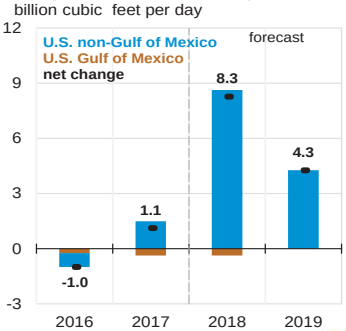


Source: Short-Term Energy Outlook, September 2018

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

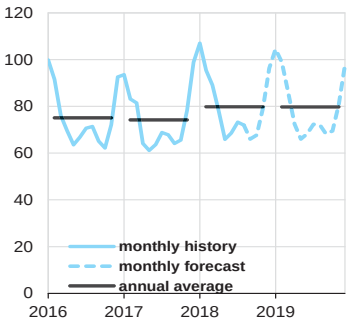


Components of annual change
billion cubic feet per day

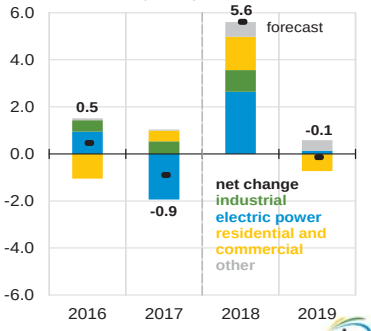


Source: Short-Term Energy Outlook, September 2018

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

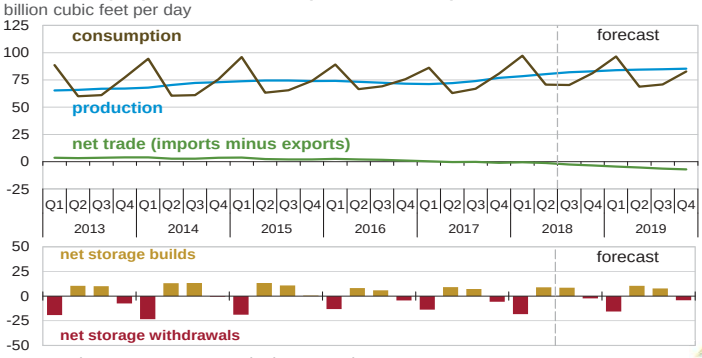


Components of annual change
billion cubic feet per day



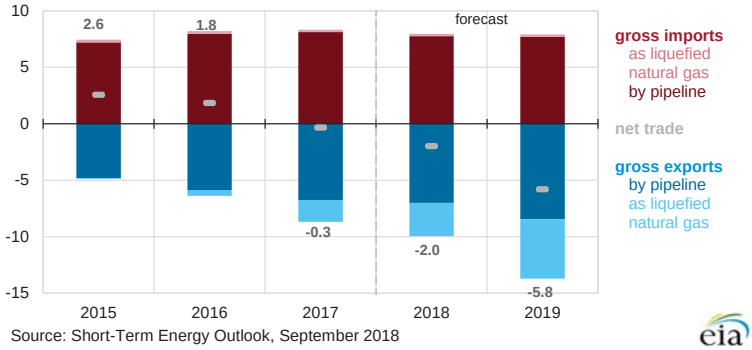
Source: Short-Term Energy Outlook, September 2018

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



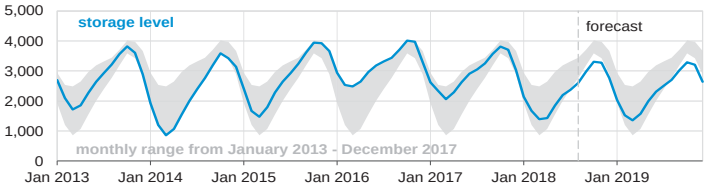
Source: Short-Term Energy Outlook, September 2018

Annual natural gas trade
billion cubic feet per day

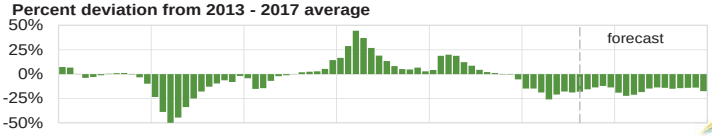


Source: Short-Term Energy Outlook, September 2018

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

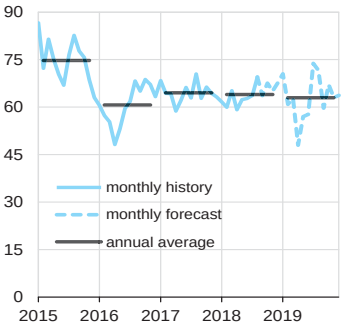


Percent deviation from 2013 - 2017 average

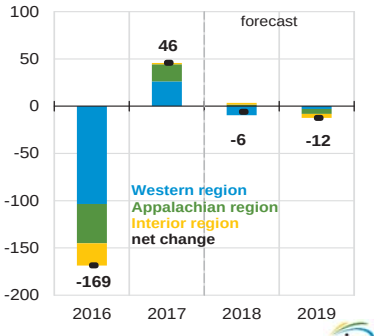


Source: Short-Term Energy Outlook, September 2018

U.S. coal production
million short tons

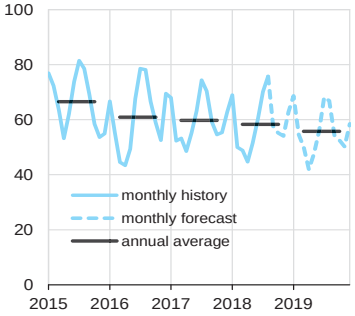


Components of annual change
million short tons

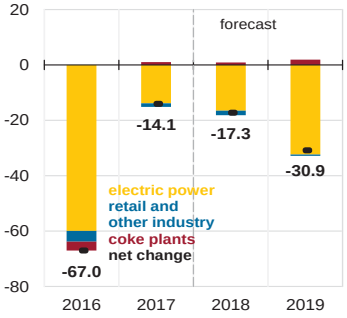


Source: Short-Term Energy Outlook, September 2018

U.S. coal consumption
million short tons

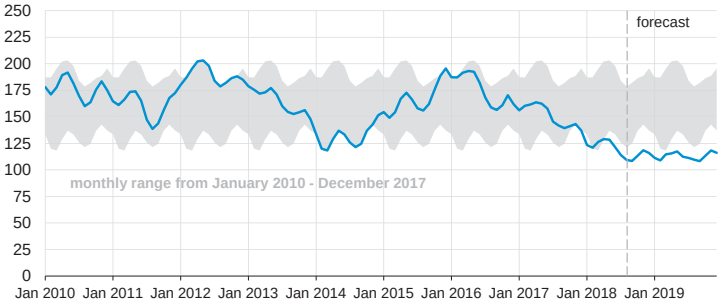


Components of annual change
million short tons



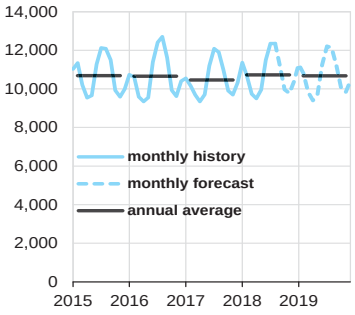
Source: Short-Term Energy Outlook, September 2018

U.S. electric power coal inventories
million short tons

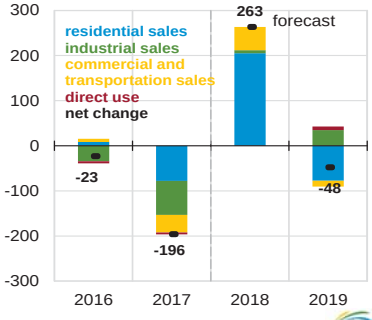


Source: Short-Term Energy Outlook, September 2018

U.S. electricity consumption
million kilowatthours per day



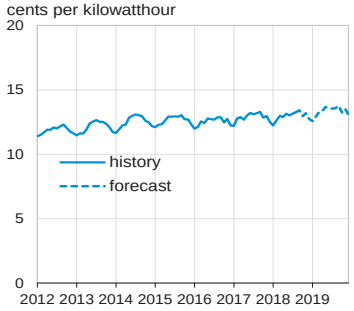
Components of annual change
million kilowatthours per day



Source: Short-Term Energy Outlook, September 2018

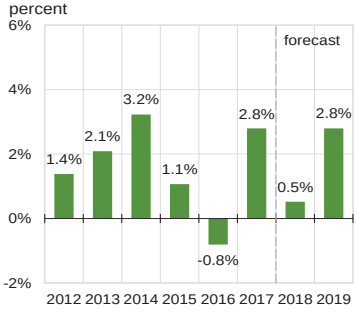
U.S. monthly residential electricity price

cents per kilowatthour



Annual growth in residential electricity prices

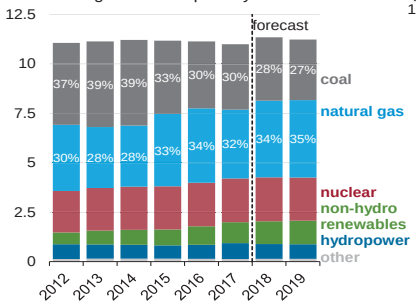
percent



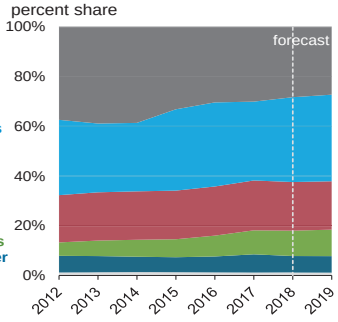
Source: Short-Term Energy Outlook, September 2018

U.S. electricity generation by fuel, all sectors

million megawatthours per day



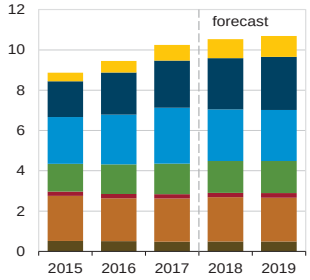
percent share



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

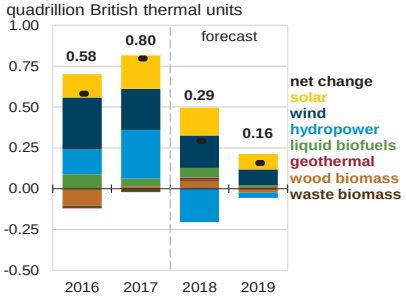
U.S. renewable energy supply

quadrillion British thermal units



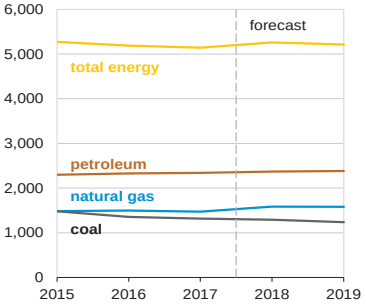
Components of annual change

quadrillion British thermal units

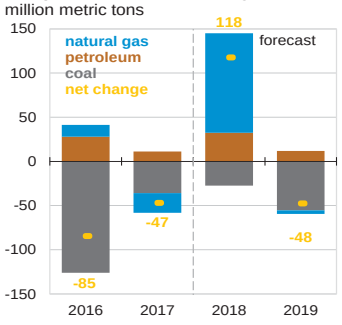


Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol and biodiesel. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste.
Source: Short-Term Energy Outlook, September 2018

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

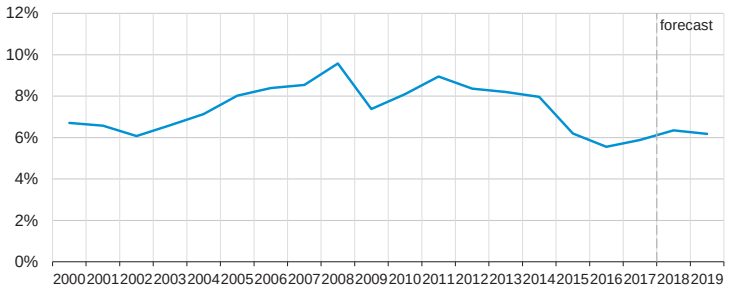


Components of annual change
million metric tons



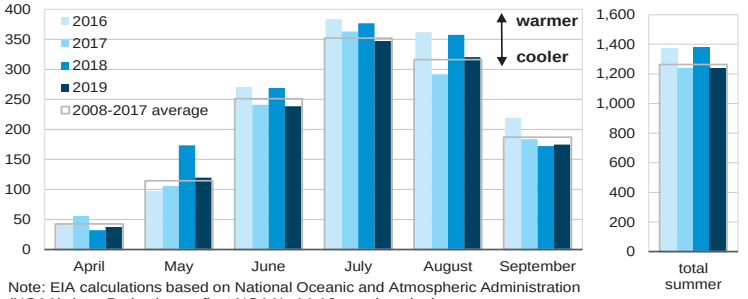
Source: Short-Term Energy Outlook, September 2018

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



Source: Short-Term Energy Outlook, September 2018

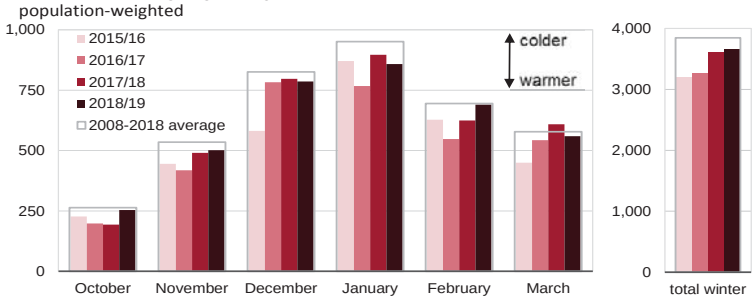
U.S. summer cooling degree days
population-weighted



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

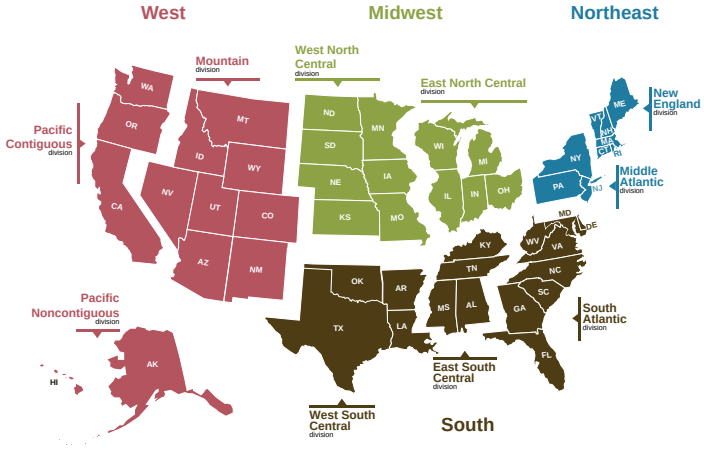
U.S. winter heating degree days
population-weighted



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

Source: Short-Term Energy Outlook, September 2018

U.S. Census regions and divisions



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

Table 1. U.S. Energy Markets Summary

U.S. Energy Information Administration | Short-Term Energy Outlook - 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**	*69.37*	*67.69*	*64.69*	*65.66*	*68.31*	*70.64*	**50.79**	*67.03*	*67.36*
Brent Spot Average	**53.57**	**49.59**	**52.09**	**61.42**	**66.84**	**74.53**	*74.15*	*75.69*	*72.69*	*73.00*	*74.00*	*75.00*	**54.15**	*72.84*	*73.68*
U.S. Imported Average	**47.94**	**46.25**	**47.43**	**55.08**	**58.08**	**63.84**	*65.88*	*64.15*	*61.19*	*62.18*	*64.82*	*67.16*	**48.98**	*63.00*	*63.77*
U.S. Refiner Average Acquisition Cost	**49.90**	**47.73**	**48.31**	**56.73**	**61.89**	**66.80**	*68.40*	*66.65*	*63.69*	*64.68*	*67.32*	*69.67*	**50.68**	*66.00*	*66.37*
U.S. Liquid Fuels (cents per gallon)															
Refiner Prices for Resale															
Gasoline	**163**	**165**	**172**	**175**	**186**	**213**	*213*	*201*	*195*	*213*	*215*	*204*	**169**	*203*	*207*
Diesel Fuel	**162**	**155**	**169**	**190**	**199**	**219**	*223*	*228*	*217*	*219*	*227*	*232*	**169**	*218*	*224*
Heating Oil	**154**	**144**	**154**	**179**	**193**	**205**	*214*	*220*	*214*	*208*	*217*	*225*	**160**	*207*	*215*
Refiner Prices to End Users															
Jet Fuel	**158**	**151**	**162**	**181**	**197**	**217**	*221*	*224*	*215*	*215*	*224*	*229*	**163**	*215*	*221*
No. 6 Residual Fuel Oil (a)	**128**	**120**	**124**	**140**	**149**	**162**	*169*	*165*	*159*	*157*	*164*	*170*	**128**	*162*	*162*
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	**233**	**238**	**244**	**251**	**258**	**285**	*284*	*277*	*268*	*287*	*291*	*280*	**242**	*276*	*282*
Gasoline All Grades (b)	**244**	**250**	**255**	**263**	**270**	**294**	*292*	*287*	*279*	*298*	*302*	*293*	**253**	*286*	*293*
On-highway Diesel Fuel	**257**	**255**	**263**	**287**	**302**	**320**	*323*	*324*	*312*	*312*	*320*	*327*	**265**	*317*	*318*
Heating Oil	**247**	**238**	**234**	**265**	**287**	**299**	*308*	*315*	*314*	*299*	*304*	*317*	**251**	*299*	*312*
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	**3.12**	**3.19**	**3.06**	**3.01**	**3.13**	**2.96**	*3.03*	*3.26*	*3.35*	*3.11*	*3.17*	*3.31*	**3.10**	*3.10*	*3.23*
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*
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	**4.50**	**4.11**	**3.89**	**4.00**	**4.48**	**3.87**	*3.88*	*4.35*	*4.69*	*4.06*	*4.03*	*4.44*	**4.14**	*4.16*	*4.32*
Commercial Sector	**7.71**	**8.33**	**8.69**	**7.56**	**7.66**	**8.08**	*8.65*	*7.89*	*7.84*	*8.29*	*8.69*	*8.00*	**7.87**	*7.90*	*8.05*
Residential Sector	**9.73**	**13.00**	**17.74**	**10.19**	**9.39**	**11.97**	*17.05*	*10.67*	*9.70*	*12.20*	*16.73*	*10.69*	**10.92**	*10.67*	*10.82*
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	**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*
Natural Gas	**3.69**	**3.38**	**3.19**	**3.38**	**3.98**	**3.09**	*3.09*	*3.58*	*3.77*	*3.21*	*3.23*	*3.58*	**3.38**	*3.39*	*3.42*
Residual Fuel Oil (c)	**11.16**	**10.60**	**10.03**	**11.93**	**11.47**	**13.17**	*13.66*	*14.02*	*14.18*	*14.46*	*13.86*	*13.71*	**10.97**	*12.81*	*14.06*
Distillate Fuel Oil	**12.74**	**12.23**	**13.13**	**14.54**	**15.77**	**16.72**	*17.11*	*17.58*	*16.94*	*16.88*	*17.40*	*17.89*	**13.26**	*16.50*	*17.27*
Retail Prices (cents per kilowatthour)															
Industrial Sector	**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*
Commercial Sector	**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*
Residential Sector	**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*

- = 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**	*24.94*	*25.65*	*25.81*	*26.15*	*26.27*	*26.67*	**22.87**	*24.86*	*26.23*
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*
United 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*
Central and South America	**4.91**	**5.40**	**5.70**	**5.33**	**4.87**	**5.62**	*5.93*	*5.48*	*5.19*	*6.04*	*6.21*	*5.83*	**5.34**	*5.48*	*5.82*
Argentina	**0.67**	**0.67**	**0.67**	**0.70**	**0.66**	**0.68**	*0.67*	*0.69*	*0.65*	*0.67*	*0.66*	*0.68*	**0.68**	*0.68*	*0.67*
Brazil	**2.95**	**3.44**	**3.73**	**3.32**	**2.94**	**3.63**	*3.97*	*3.49*	*3.26*	*4.07*	*4.27*	*3.86*	**3.36**	*3.51*	*3.87*
Colombia	**0.87**	**0.88**	**0.88**	**0.89**	**0.86**	**0.89**	*0.88*	*0.88*	*0.87*	*0.88*	*0.87*	*0.88*	**0.88**	*0.88*	*0.87*
Other Central and S. America	**0.42**	**0.41**	**0.42**	**0.42**	**0.40**	**0.42**	*0.42*	*0.42*	*0.41*	*0.42*	*0.41*	*0.41*	**0.42**	*0.41*	*0.41*
Europe	**4.21**	**4.04**	**3.92**	**3.95**	**4.08**	**3.93**	*3.94*	*4.11*	*4.10*	*4.02*	*3.94*	*4.10*	**4.03**	*4.01*	*4.04*
Norway	**2.08**	**2.00**	**1.91**	**1.92**	**1.97**	**1.80**	*1.88*	*1.94*	*1.93*	*1.86*	*1.87*	*1.91*	**1.98**	*1.90*	*1.89*
United Kingdom	**1.09**	**1.07**	**1.00**	**1.02**	**1.11**	**1.14**	*1.07*	*1.18*	*1.19*	*1.19*	*1.10*	*1.21*	**1.05**	*1.13*	*1.17*
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*
Azerbaijan	**0.79**	**0.80**	**0.79**	**0.81**	**0.82**	**0.81**	*0.79*	*0.78*	*0.79*	*0.79*	*0.78*	*0.76*	**0.80**	*0.80*	*0.78*
Kazakhstan	**1.87**	**1.87**	**1.86**	**1.92**	**1.98**	**1.96**	*2.02*	*2.08*	*2.09*	*2.00*	*2.07*	*2.13*	**1.88**	*2.01*	*2.07*
Russia	**11.32**	**11.18**	**11.14**	**11.16**	**11.18**	**11.22**	*11.38*	*11.42*	*11.43*	*11.44*	*11.42*	*11.43*	**11.20**	*11.30*	*11.43*
Turkmenistan	**0.28**	**0.28**	**0.28**	**0.28**	**0.27**	**0.28**	*0.27*	*0.27*	*0.25*	*0.25*	*0.25*	*0.25*	**0.28**	*0.27*	*0.25*
Other Eurasia	**0.16**	**0.17**	**0.16**	**0.16**	**0.16**	**0.16**	*0.17*	*0.17*	*0.16*	*0.16*	*0.16*	*0.16*	**0.16**	*0.16*	*0.16*
Middle East	**1.07**	**1.07**	**1.07**	**1.08**	**1.08**	**1.09**	*1.10*	*1.10*	*1.13*	*1.13*	*1.13*	*1.13*	**1.08**	*1.09*	*1.13*
Oman	**0.98**	**0.98**	**0.98**	**0.98**	**0.98**	**0.98**	*0.99*	*0.99*	*0.99*	*0.99*	*1.00*	*1.00*	**0.98**	*0.98*	*1.00*
Asia and Oceania	**9.34**	**9.26**	**9.17**	**9.17**	**9.22**	**9.19**	*9.26*	*9.31*	*9.25*	*9.27*	*9.28*	*9.33*	**9.23**	*9.24*	*9.29*
Australia	**0.34**	**0.35**	**0.36**	**0.34**	**0.38**	**0.36**	*0.36*	*0.37*	*0.39*	*0.41*	*0.43*	*0.46*	**0.35**	*0.37*	*0.42*
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*
India	**1.01**	**1.00**	**1.00**	**1.00**	**1.00**	**0.99**	*0.98*	*0.99*	*0.99*	*0.98*	*0.99*	*0.99*	**1.00**	*0.99*	*0.99*
Indonesia	**0.93**	**0.92**	**0.91**	**0.90**	**0.90**	**0.90**	*0.90*	*0.90*	*0.88*	*0.87*	*0.85*	*0.84*	**0.91**	*0.90*	*0.86*
Malaysia	**0.74**	**0.72**	**0.71**	**0.72**	**0.74**	**0.73**	*0.75*	*0.75*	*0.75*	*0.74*	*0.73*	*0.72*	**0.72**	*0.74*	*0.73*
Vietnam	**0.29**	**0.29**	**0.28**	**0.27**	**0.27**	**0.25**	*0.25*	*0.25*	*0.25*	*0.25*	*0.25*	*0.25*	**0.28**	*0.26*	*0.25*
Africa	**1.51**	**1.51**	**1.54**	**1.55**	**1.47**	**1.46**	*1.48*	*1.50*	*1.50*	*1.50*	*1.50*	*1.50*	**1.53**	*1.48*	*1.50*
Egypt	**0.64**	**0.65**	**0.66**	**0.66**	**0.63**	**0.63**	*0.63*	*0.63*	*0.61*	*0.61*	*0.61*	*0.61*	**0.65**	*0.63*	*0.61*
South Sudan	**0.15**	**0.15**	**0.15**	**0.15**	**0.12**	**0.12**	*0.12*	*0.14*	*0.15*	*0.15*	*0.15*	*0.15*	**0.15**	*0.13*	*0.15*
Total non-OPEC liquids	**57.95**	**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*
OPEC non-crude liquids	**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*
Non-OPEC + OPEC non-crude	**64.56**	**64.56**	**64.97**	**65.90**	**66.02**	**66.85**	*67.88*	*68.49*	*68.48*	*69.46*	*69.76*	*70.07*	**65.00**	*67.32*	*69.45*
Unplanned non-OPEC Production Outages	**0.43**	**0.68**	**0.63**	**0.54**	**0.53**	**0.40**	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	**0.57**	*n/a*	*n/a*

- = no data available

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - 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**	-	-
Ecudaor	**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**	*6.61*	*6.63*	*6.77*	*6.72*	*6.75*	*6.77*	**6.61**	*6.61*	*6.75*
Total OPEC Supply	**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 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**	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	**1.45**	*n/a*	*n/a*

- = no data available

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
North America	**23.94**	**24.48**	**24.49**	**24.67**	**24.56**	**24.72**	*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" inludes aviation gasoline blend components, finished aviation gasoline, kerosene, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, and miscellaneous products.

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

SPR: Strategic Petroleum Reserve

HC: Hydrocarbons

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - 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**	*213*	*201*	*195*	*213*	*215*	*204*	**169**	*203*	*207*
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	**231**	**233**	**241**	**249**	**255**	**279**	*278*	*275*	*266*	*279*	*285*	*280*	**239**	*272*	*278*
PADD 2	**223**	**228**	**232**	**242**	**246**	**274**	*275*	*267*	*259*	*279*	*283*	*273*	**231**	*266*	*274*
PADD 3	**210**	**216**	**222**	**225**	**230**	**261**	*257*	*250*	*245*	*263*	*264*	*254*	**218**	*250*	*257*
PADD 4	**227**	**239**	**245**	**252**	**247**	**288**	*296*	*279*	*256*	*279*	*291*	*278*	**241**	*278*	*276*
PADD 5	**276**	**289**	**290**	**299**	**312**	**342**	*334*	*321*	*310*	*339*	*340*	*321*	**288**	*327*	*328*
U.S. Average	**233**	**238**	**244**	**251**	**258**	**285**	*284*	*277*	*268*	*287*	*291*	*280*	**242**	*276*	*282*
Gasoline All Grades Including Taxes	**244**	**250**	**255**	**263**	**270**	**294**	*292*	*287*	*279*	*298*	*302*	*293*	**253**	*286*	*293*
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	**65.5**	**67.7**	**59.0**	**60.6**	**58.4**	**66.5**	*63.8*	*65.6*	*66.8*	*67.6*	*64.1*	*67.4*	**60.6**	*65.6*	*67.4*
PADD 2	**57.3**	**53.6**	**50.4**	**52.2**	**57.3**	**53.5**	*51.6*	*52.3*	*55.0*	*53.1*	*51.6*	*53.7*	**52.2**	*52.3*	*53.7*
PADD 3	**79.1**	**82.4**	**77.7**	**83.3**	**84.2**	**82.3**	*81.1*	*82.9*	*82.9*	*82.3*	*82.3*	*85.5*	**83.3**	*82.9*	*85.5*
PADD 4	**7.9**	**7.0**	**6.9**	**7.6**	**7.7**	**7.3**	*6.9*	*7.7*	*7.7*	*7.6*	*7.4*	*7.9*	**7.6**	*7.7*	*7.9*
PADD 5	**29.7**	**27.7**	**29.2**	**33.1**	**32.0**	**30.7**	*28.4*	*31.4*	*30.2*	*28.7*	*28.5*	*31.8*	**33.1**	*31.4*	*31.8*
U.S. Total	**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 Gasoline Inventories															
U.S. Total	**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*
Gasoline Blending Components Inventories															
U.S. Total	**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*

- = 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**	*88.37*	*89.41*	*90.48*	*91.25*	*91.64*	*92.24*	**78.94**	*87.17*	*91.41*
Alaska	**1.01**	**0.97**	**0.82**	**0.98**	**1.00**	**0.92**	*0.78*	*0.94*	*1.00*	*0.85*	*0.78*	*0.94*	**0.94**	*0.91*	*0.89*
Federal GOM (a)	**3.26**	**2.99**	**2.91**	**2.52**	**2.57**	**2.49**	*2.54*	*2.59*	*2.61*	*2.56*	*2.48*	*2.50*	**2.92**	*2.55*	*2.54*
Lower 48 States (excl GOM)	**72.05**	**73.40**	**75.56**	**79.22**	**80.68**	**83.16**	*85.05*	*85.89*	*86.87*	*87.84*	*88.39*	*88.80*	**75.08**	*83.71*	*87.98*
Total Dry Gas Production	**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*
LNG Gross Imports	**0.29**	**0.18**	**0.17**	**0.21**	**0.33**	**0.10**	*0.15*	*0.26*	*0.32*	*0.17*	*0.17*	*0.21*	**0.21**	*0.21*	*0.22*
LNG Gross Exports	**1.63**	**1.80**	**1.67**	**2.64**	**2.64**	**2.79**	*3.04*	*3.23*	*4.17*	*4.47*	*5.73*	*6.59*	**1.94**	*2.93*	*5.25*
Pipeline Gross Imports	**8.89**	**7.76**	**7.74**	**8.10**	**8.76**	**7.63**	*7.10*	*7.55*	*8.18*	*7.26*	*7.28*	*8.02*	**8.12**	*7.76*	*7.69*
Pipeline Gross Exports	**7.24**	**6.49**	**6.43**	**6.81**	**7.02**	**6.11**	*6.88*	*8.04*	*8.87*	*8.24*	*8.06*	*8.68*	**6.74**	*7.01*	*8.46*
Supplemental Gaseous Fuels	**0.16**	**0.13**	**0.16**	**0.16**	**0.17**	**0.14**	*0.17*	*0.17*	*0.17*	*0.18*	*0.18*	*0.18*	**0.15**	*0.16*	*0.18*
Net Inventory Withdrawals	**13.74**	**-9.02**	**-7.20**	**5.76**	**18.29**	**-8.83**	*-8.50*	*2.28*	*15.71*	*-10.49*	*-7.72*	*4.12*	**0.78**	*0.74*	*0.35*
Total Supply	**85.42**	**62.78**	**66.72**	**81.75**	**96.36**	**70.51**	*71.01*	*81.92*	*95.22*	*68.93*	*70.96*	*82.61*	**74.14**	*79.89*	*79.37*
Balancing Item (b)	**0.72**	**0.19**	**0.22**	**-0.85**	**0.85**	**0.26**	*-0.59*	*-0.79*	*1.20*	*-0.08*	*-0.05*	*0.13*	**0.07**	*-0.08*	*0.30*
Total Primary Supply	**86.15**	**62.96**	**66.94**	**80.90**	**97.21**	**70.77**	*70.43*	*81.13*	*96.42*	*68.86*	*70.91*	*82.74*	**74.20**	*79.81*	*79.67*
Consumption (billion cubic feet per day)															
Residential	**22.17**	**6.65**	**3.55**	**16.26**	**25.73**	**7.97**	*3.41*	*15.80*	*25.30*	*7.15*	*3.36*	*15.47*	**12.12**	*13.17*	*12.77*
Commercial	**13.50**	**5.83**	**4.54**	**11.01**	**15.34**	**6.62**	*4.47*	*9.93*	*14.68*	*6.10*	*4.50*	*9.84*	**8.70**	*9.06*	*8.76*
Industrial	**22.96**	**20.45**	**20.32**	**22.81**	**24.32**	**21.81**	*20.76*	*23.36*	*23.91*	*21.52*	*20.91*	*23.83*	**21.63**	*22.56*	*22.54*
Electric Power (c)	**20.95**	**24.00**	**32.28**	**24.03**	**24.53**	**27.62**	*34.89*	*24.83*	*24.79*	*26.93*	*34.79*	*25.85*	**25.34**	*27.98*	*28.11*
Lease and Plant Fuel	**4.26**	**4.32**	**4.43**	**4.62**	**4.70**	**4.83**	*4.93*	*4.99*	*5.05*	*5.09*	*5.12*	*5.15*	**4.41**	*4.87*	*5.10*
Pipeline and Distribution Use	**2.19**	**1.60**	**1.70**	**2.05**	**2.47**	**1.80**	*1.84*	*2.11*	*2.56*	*1.94*	*2.11*	*2.47*	**1.88**	*2.05*	*2.27*
Vehicle Use	**0.12**	**0.12**	**0.12**	**0.12**	**0.12**	**0.12**	*0.12*	*0.12*	*0.12*	*0.12*	*0.12*	*0.12*	**0.12**	*0.12*	*0.12*
Total Consumption	**86.15**	**62.96**	**66.94**	**80.90**	**97.21**	**70.77**	*70.43*	*81.13*	*96.42*	*68.86*	*70.91*	*82.74*	**74.20**	*79.81*	*79.67*
End-of-period Inventories (billion cubic feet)															
Working Gas Inventory	**2,063**	**2,907**	**3,567**	**3,033**	**1,392**	**2,195**	*2,977*	*2,767*	*1,354*	*2,309*	*3,019*	*2,640*	**3,033**	*2,767*	*2,640*
East Region (d)	**260**	**563**	**866**	**710**	**229**	**465**	*756*	*667*	*191*	*466*	*717*	*586*	**710**	*667*	*586*
Midwest Region (d)	**477**	**701**	**993**	**829**	**261**	**459**	*844*	*747*	*281*	*556*	*896*	*763*	**829**	*747*	*763*
South Central Region (d)	**938**	**1,139**	**1,137**	**1,016**	**615**	**846**	*891*	*904*	*550*	*801*	*848*	*803*	**1,016**	*904*	*803*
Mountain Region (d)	**142**	**184**	**218**	**177**	**87**	**140**	*182*	*167*	*115*	*158*	*198*	*164*	**177**	*167*	*164*
Pacific Region (d)	**219**	**288**	**314**	**264**	**169**	**253**	*267*	*244*	*178*	*290*	*323*	*286*	**264**	*244*	*286*
Alaska	**27**	**32**	**39**	**36**	**31**	**33**	*38*	*38*	*38*	*38*	*38*	*38*	**36**	*38*	*38*

- = 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**	*3.03*	*3.26*	*3.35*	*3.11*	*3.17*	*3.31*	**3.10**	*3.10*	*3.23*
Residential Retail															
New England	**12.85**	**14.08**	**18.12**	**13.57**	**14.56**	**17.30**	*17.75*	*13.62*	*13.08*	*13.96*	*17.17*	*13.61*	**13.60**	*14.94*	*13.65*
Middle Atlantic	**9.92**	**12.18**	**17.11**	**11.33**	**10.15**	**11.89**	*16.68*	*10.74*	*9.94*	*11.86*	*16.37*	*10.77*	**11.17**	*11.00*	*10.91*
E. N. Central	**7.77**	**11.52**	**17.80**	**7.81**	**7.20**	**9.77**	*17.44*	*9.09*	*8.12*	*10.89*	*16.65*	*9.02*	**8.86**	*8.71*	*9.34*
W. N. Central	**8.32**	**11.85**	**18.79**	**9.56**	**8.17**	**10.49**	*18.39*	*10.44*	*9.55*	*12.31*	*17.88*	*9.97*	**9.80**	*9.69*	*10.62*
S. Atlantic	**12.29**	**20.05**	**26.86**	**13.20**	**11.09**	**15.70**	*23.02*	*12.78*	*11.15*	*16.11*	*22.35*	*12.74*	**14.63**	*13.03*	*13.05*
E. S. Central	**10.53**	**15.83**	**20.82**	**11.32**	**9.71**	**12.89**	*20.63*	*12.14*	*9.75*	*14.14*	*20.29*	*12.62*	**12.05**	*11.38*	*11.67*
W. S. Central	**10.33**	**16.49**	**22.10**	**13.09**	**9.32**	**14.32**	*20.25*	*11.17*	*8.03*	*13.44*	*19.85*	*11.45*	**13.18**	*11.38*	*10.67*
Mountain	**8.21**	**10.17**	**13.91**	**8.76**	**8.22**	**10.38**	*14.56*	*9.42*	*9.08*	*10.33*	*13.96*	*9.36*	**9.14**	*9.39*	*9.77*
Pacific	**12.02**	**12.64**	**12.90**	**11.30**	**11.63**	**12.01**	*12.76*	*11.50*	*12.42*	*12.57*	*12.93*	*11.86*	**12.01**	*11.79*	*12.33*
U.S. Average	**9.73**	**13.00**	**17.74**	**10.19**	**9.39**	**11.97**	*17.05*	*10.67*	*9.70*	*12.20*	*16.73*	*10.69*	**10.92**	*10.67*	*10.82*
Commercial Retail															
New England	**9.55**	**9.97**	**10.61**	**9.53**	**11.09**	**12.18**	*10.92*	*10.48*	*10.58*	*10.66*	*10.59*	*10.52*	**9.71**	*11.07*	*10.58*
Middle Atlantic	**7.66**	**7.42**	**6.82**	**7.38**	**8.10**	**7.64**	*7.15*	*7.60*	*7.73*	*7.56*	*6.98*	*7.55*	**7.43**	*7.76*	*7.55*
E. N. Central	**6.63**	**7.90**	**8.98**	**6.21**	**6.19**	**6.95**	*8.83*	*6.94*	*6.71*	*7.66*	*9.07*	*7.15*	**6.84**	*6.73*	*7.17*
W. N. Central	**6.96**	**7.80**	**9.11**	**7.04**	**7.00**	**7.12**	*8.90*	*7.43*	*7.68*	*8.02*	*9.06*	*7.50*	**7.28**	*7.29*	*7.79*
S. Atlantic	**8.89**	**10.00**	**9.56**	**8.91**	**8.32**	**9.17**	*9.58*	*8.69*	*8.54*	*9.39*	*9.75*	*8.76*	**9.16**	*8.72*	*8.89*
E. S. Central	**9.05**	**10.28**	**10.76**	**9.30**	**8.69**	**9.43**	*10.50*	*9.25*	*8.77*	*9.75*	*10.26*	*9.21*	**9.53**	*9.17*	*9.22*
W. S. Central	**7.63**	**8.20**	**8.86**	**8.18**	**7.24**	**7.94**	*8.64*	*7.85*	*7.38*	*7.81*	*8.41*	*7.84*	**8.09**	*7.72*	*7.73*
Mountain	**6.88**	**7.37**	**8.27**	**7.21**	**6.99**	**7.51**	*8.45*	*7.38*	*7.56*	*7.81*	*8.55*	*7.51*	**7.22**	*7.35*	*7.70*
Pacific	**9.09**	**9.06**	**9.08**	**8.54**	**8.92**	**8.58**	*8.65*	*8.39*	*8.71*	*8.81*	*9.13*	*8.86*	**8.92**	*8.65*	*8.84*
U.S. Average	**7.71**	**8.33**	**8.69**	**7.56**	**7.66**	**8.08**	*8.65*	*7.89*	*7.84*	*8.29*	*8.69*	*8.00*	**7.87**	*7.90*	*8.05*
Industrial Retail															
New England	**7.81**	**7.04**	**6.39**	**7.05**	**9.05**	**8.74**	*6.75*	*7.82*	*8.27*	*7.50*	*6.90*	*7.88*	**7.19**	*8.26*	*7.76*
Middle Atlantic	**7.69**	**7.59**	**7.52**	**7.19**	**8.29**	**8.06**	*8.64*	*8.09*	*8.22*	*7.46*	*7.44*	*7.69*	**7.52**	*8.24*	*7.86*
E. N. Central	**5.86**	**5.96**	**5.59**	**5.30**	**5.74**	**5.04**	*5.84*	*6.03*	*6.68*	*6.31*	*6.19*	*6.17*	**5.66**	*5.70*	*6.41*
W. N. Central	**5.01**	**4.29**	**4.25**	**4.68**	**5.04**	**4.19**	*4.48*	*5.30*	*5.82*	*4.92*	*4.69*	*5.30*	**4.60**	*4.79*	*5.24*
S. Atlantic	**5.35**	**5.00**	**4.88**	**4.93**	**5.39**	**4.72**	*4.76*	*5.19*	*5.51*	*4.90*	*4.88*	*5.26*	**5.05**	*5.04*	*5.16*
E. S. Central	**5.06**	**4.59**	**4.40**	**4.56**	**4.99**	**4.27**	*4.28*	*4.79*	*4.98*	*4.46*	*4.44*	*4.89*	**4.67**	*4.61*	*4.71*
W. S. Central	**3.42**	**3.42**	**3.30**	**3.14**	**3.34**	**3.13**	*3.32*	*3.52*	*3.61*	*3.33*	*3.45*	*3.59*	**3.32**	*3.34*	*3.50*
Mountain	**5.31**	**5.36**	**5.61**	**5.50**	**5.41**	**5.32**	*5.93*	*6.08*	*6.22*	*5.89*	*6.10*	*6.14*	**5.43**	*5.69*	*6.10*
Pacific	**7.31**	**6.71**	**6.32**	**6.35**	**6.90**	**5.96**	*6.13*	*6.50*	*7.04*	*6.50*	*6.66*	*6.80*	**6.71**	*6.40*	*6.77*
U.S. Average	**4.50**	**4.11**	**3.89**	**4.00**	**4.48**	**3.87**	*3.88*	*4.35*	*4.69*	*4.06*	*4.03*	*4.44*	**4.14**	*4.16*	*4.32*

- = 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 cloal slurry reprocessed into briquettes.

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 7a. U.S. Electricity Industry Overview

U.S. Energy Information Administration | Short-Term Energy Outlook - 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**	*12.56*	*10.59*	*11.07*	*10.80*	*12.41*	*10.66*	**11.00**	*11.35*	*11.24*
Electric Power Sector (a)	**10.15**	**10.27**	**11.71**	**10.14**	**10.67**	**10.70**	*12.13*	*10.17*	*10.64*	*10.37*	*11.95*	*10.22*	**10.57**	*10.92*	*10.80*
Comm. and Indus. Sectors (b)	**0.43**	**0.42**	**0.44**	**0.42**	**0.43**	**0.42**	*0.44*	*0.42*	*0.43*	*0.43*	*0.45*	*0.44*	**0.43**	*0.43*	*0.44*
Net Imports	**0.18**	**0.15**	**0.17**	**0.11**	**0.14**	**0.15**	*0.17*	*0.13*	*0.15*	*0.15*	*0.17*	*0.13*	**0.15**	*0.15*	*0.15*
Total Supply	**10.76**	**10.84**	**12.32**	**10.68**	**11.25**	**11.27**	*12.73*	*10.72*	*11.22*	*10.95*	*12.58*	*10.79*	**11.15**	*11.50*	*11.39*
Losses and Unaccounted for (c)	**0.63**	**0.77**	**0.65**	**0.70**	**0.66**	**0.96**	*0.77*	*0.68*	*0.58*	*0.83*	*0.73*	*0.68*	**0.69**	*0.77*	*0.70*
Electricity Consumption (billion kilowatthours per day unless noted)															
Retail Sales	**9.75**	**9.70**	**11.28**	**9.60**	**10.20**	**9.94**	*11.58*	*9.67*	*10.25*	*9.75*	*11.45*	*9.72*	**10.09**	*10.35*	*10.30*
Residential Sector	**3.71**	**3.43**	**4.46**	**3.51**	**4.09**	**3.60**	*4.69*	*3.55*	*4.09*	*3.42*	*4.55*	*3.56*	**3.78**	*3.98*	*3.91*
Commercial Sector	**3.51**	**3.64**	**4.08**	**3.55**	**3.59**	**3.70**	*4.14*	*3.56*	*3.60*	*3.65*	*4.11*	*3.58*	**3.70**	*3.75*	*3.74*
Industrial Sector	**2.50**	**2.62**	**2.72**	**2.53**	**2.50**	**2.62**	*2.73*	*2.55*	*2.54*	*2.66*	*2.77*	*2.57*	**2.59**	*2.60*	*2.63*
Transportation Sector	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	*0.02*	*0.02*	*0.02*	*0.02*	*0.02*	*0.02*	**0.02**	*0.02*	*0.02*
Direct Use (d)	**0.38**	**0.37**	**0.38**	**0.37**	**0.38**	**0.37**	*0.39*	*0.37*	*0.38*	*0.38*	*0.40*	*0.38*	**0.38**	*0.38*	*0.39*
Total Consumption	**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*
Average residential electricity usage per customer (kWh)	**2,532**	**2,365**	**3,109**	**2,446**	**2,760**	**2,457**	*3,251*	*2,444*	*2,727*	*2,303*	*3,103*	*2,430*	**10,453**	*10,912*	*10,564*
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	**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*
Natural Gas	**3.69**	**3.38**	**3.19**	**3.38**	**3.98**	**3.09**	*3.09*	*3.58*	*3.77*	*3.21*	*3.23*	*3.58*	**3.38**	*3.39*	*3.42*
Residual Fuel Oil	**11.16**	**10.60**	**10.03**	**11.93**	**11.47**	**13.17**	*13.66*	*14.02*	*14.18*	*14.46*	*13.86*	*13.71*	**10.97**	*12.81*	*14.06*
Distillate Fuel Oil	**12.74**	**12.23**	**13.13**	**14.54**	**15.77**	**16.72**	*17.11*	*17.58*	*16.94*	*16.88*	*17.40*	*17.89*	**13.26**	*16.50*	*17.27*
Retail Prices (cents per kilowatthour)															
Residential Sector	**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	**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	**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*

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

Prices are not adjusted for inflation.

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

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - 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**	*3,757*	*3,099*	*3,244*	*2,662*	*3,478*	*2,878*	**3,309**	*3,213*	*3,066*
Natural Gas	**2,969**	**3,286**	**4,359**	**3,322**	**3,442**	**3,798**	*4,738*	*3,496*	*3,515*	*3,733*	*4,742*	*3,650*	**3,487**	*3,871*	*3,913*
Petroleum (a)	**59**	**54**	**56**	**62**	**101**	**52**	*64*	*56*	*75*	*58*	*64*	*57*	**58**	*68*	*63*
Other Gases	**40**	**39**	**40**	**36**	**37**	**34**	*40*	*36*	*37*	*34*	*40*	*36*	**39**	*37*	*37*
Nuclear	**2,242**	**2,034**	**2,302**	**2,243**	**2,294**	**2,155**	*2,298*	*2,132*	*2,240*	*2,097*	*2,272*	*2,135*	**2,205**	*2,220*	*2,186*
Renewable Energy Sources:	**2,008**	**2,157**	**1,615**	**1,757**	**2,084**	**2,202**	*1,646*	*1,752*	*1,936*	*2,193*	*1,788*	*1,881*	**1,883**	*1,919*	*1,949*
Conventional Hydropower	**918**	**1,010**	**717**	**647**	**854**	**938**	*647*	*610*	*748*	*895*	*725*	*640*	**822**	*761*	*752*
Wind	**768**	**748**	**501**	**771**	**867**	**819**	*556*	*783*	*829*	*844*	*601*	*864*	**697**	*756*	*784*
Wood Biomass	**118**	**115**	**122**	**119**	**122**	**115**	*123*	*117*	*120*	*116*	*125*	*118*	**119**	*119*	*120*
Waste Biomass	**59**	**56**	**56**	**57**	**58**	**56**	*58*	*58*	*57*	*58*	*59*	*58*	**57**	*58*	*58*
Geothermal	**45**	**43**	**44**	**43**	**45**	**43**	*45*	*45*	*46*	*45*	*45*	*46*	**44**	*45*	*45*
Solar	**101**	**185**	**175**	**120**	**138**	**231**	*217*	*138*	*137*	*236*	*234*	*155*	**145**	*181*	*190*
Pumped Storage Hydropower	**-16**	**-16**	**-22**	**-17**	**-15**	**-13**	*-18*	*-14*	*-13*	*-12*	*-18*	*-14*	**-18**	*-15*	*-14*
Other Nonrenewable Fuels (b)	**35**	**35**	**38**	**35**	**36**	**35**	*40*	*37*	*35*	*36*	*39*	*37*	**36**	*37*	*37*
Total Generation	**10,579**	**10,690**	**12,151**	**10,566**	**11,107**	**11,126**	*12,565*	*10,594*	*11,070*	*10,801*	*12,406*	*10,660*	**10,999**	*11,350*	*11,236*
Northeast Census Region															
Coal	**154**	**134**	**136**	**139**	**149**	**119**	*284*	*192*	*179*	*102*	*177*	*164*	**141**	*187*	*155*
Natural Gas	**486**	**482**	**637**	**492**	**500**	**534**	*689*	*535*	*529*	*563*	*713*	*569*	**525**	*565*	*594*
Petroleum (a)	**4**	**2**	**3**	**11**	**32**	**3**	*5*	*4*	*12*	*2*	*4*	*4*	**5**	*11*	*6*
Other Gases	**2**	**2**	**2**	**2**	**2**	**2**	*2*	*2*	*2*	*2*	*2*	*2*	**2**	*2*	*2*
Nuclear	**539**	**476**	**549**	**529**	**552**	**507**	*535*	*489*	*512*	*476*	*507*	*463*	**523**	*521*	*489*
Hydropower (c)	**102**	**107**	**99**	**99**	**103**	**108**	*88*	*94*	*100*	*100*	*92*	*94*	**102**	*98*	*96*
Other Renewables (d)	**72**	**76**	**68**	**74**	**80**	**76**	*68*	*78*	*80*	*72*	*66*	*80*	**73**	*75*	*75*
Other Nonrenewable Fuels (b)	**11**	**11**	**12**	**12**	**11**	**10**	*12*	*12*	*11*	*11*	*12*	*12*	**11**	*12*	*12*
Total Generation	**1,370**	**1,290**	**1,506**	**1,359**	**1,430**	**1,359**	*1,683*	*1,407*	*1,425*	*1,328*	*1,573*	*1,388*	**1,381**	*1,470*	*1,429*
South Census Region															
Coal	**1,330**	**1,416**	**1,681**	**1,293**	**1,261**	**1,261**	*1,559*	*1,240*	*1,317*	*1,172*	*1,507*	*1,156*	**1,431**	*1,331*	*1,288*
Natural Gas	**1,763**	**2,087**	**2,565**	**1,922**	**2,052**	**2,349**	*2,762*	*2,011*	*2,033*	*2,284*	*2,767*	*2,083*	**2,086**	*2,295*	*2,293*
Petroleum (a)	**25**	**22**	**23**	**21**	**38**	**21**	*27*	*22*	*30*	*25*	*28*	*23*	**23**	*27*	*26*
Other Gases	**15**	**15**	**15**	**13**	**13**	**13**	*15*	*13*	*12*	*12*	*14*	*12*	**14**	*13*	*13*
Nuclear	**973**	**888**	**1,003**	**1,012**	**1,008**	**951**	*1,024*	*960*	*1,009*	*948*	*1,032*	*978*	**969**	*986*	*992*
Hydropower (c)	**128**	**138**	**99**	**103**	**126**	**135**	*91*	*100*	*122*	*124*	*96*	*99*	**117**	*113*	*110*
Other Renewables (d)	**401**	**403**	**323**	**391**	**453**	**495**	*366*	*416*	*444*	*487*	*400*	*460*	**379**	*432*	*447*
Other Nonrenewable Fuels (b)	**15**	**15**	**16**	**15**	**16**	**16**	*17*	*16*	*15*	*15*	*16*	*15*	**15**	*16*	*15*
Total Generation	**4,650**	**4,984**	**5,726**	**4,769**	**4,968**	**5,240**	*5,861*	*4,777*	*4,982*	*5,066*	*5,860*	*4,826*	**5,034**	*5,213*	*5,185*
Midwest Census Region															
Coal	**1,288**	**1,177**	**1,394**	**1,216**	**1,302**	**1,142**	*1,371*	*1,160*	*1,245*	*1,057*	*1,322*	*1,095*	**1,269**	*1,244*	*1,180*
Natural Gas	**289**	**272**	**407**	**349**	**400**	**434**	*500*	*403*	*446*	*417*	*526*	*438*	**330**	*434*	*457*
Petroleum (a)	**7**	**7**	**7**	**8**	**9**	**6**	*10*	*9*	*11*	*10*	*10*	*9*	**7**	*8*	*10*
Other Gases	**17**	**16**	**17**	**15**	**15**	**14**	*17*	*15*	*16*	*14*	*18*	*16*	**16**	*15*	*16*
Nuclear	**555**	**543**	**580**	**535**	**571**	**539**	*569*	*525*	*553*	*519*	*564*	*534*	**553**	*551*	*542*
Hydropower (c)	**52**	**58**	**37**	**36**	**54**	**56**	*32*	*35*	*53*	*53*	*34*	*35*	**46**	*44*	*44*
Other Renewables (d)	**315**	**304**	**198**	**340**	**360**	**299**	*213*	*342*	*352*	*328*	*227*	*384*	**289**	*303*	*323*
Other Nonrenewable Fuels (b)	**3**	**4**	**4**	**4**	**4**	**4**	*4*	*4*	*4*	*4*	*4*	*4*	**4**	*4*	*4*
Total Generation	**2,528**	**2,381**	**2,643**	**2,503**	**2,714**	**2,494**	*2,716*	*2,493*	*2,679*	*2,402*	*2,705*	*2,515*	**2,514**	*2,604*	*2,575*
West Census Region															
Coal	**470**	**373**	**551**	**480**	**415**	**340**	*543*	*506*	*503*	*331*	*473*	*463*	**469**	*451*	*443*
Natural Gas	**430**	**446**	**751**	**558**	**490**	**481**	*787*	*548*	*507*	*470*	*736*	*559*	**547**	*577*	*569*
Petroleum (a)	**23**	**22**	**23**	**22**	**21**	**21**	*23*	*22*	*22*	*21*	*22*	*22*	**23**	*22*	*22*
Other Gases	**6**	**6**	**6**	**6**	**7**	**7**	*6*	*7*	*7*	*7*	*6*	*7*	**6**	*7*	*7*
Nuclear	**175**	**127**	**171**	**167**	**164**	**158**	*170*	*158*	*165*	*155*	*169*	*160*	**160**	*162*	*162*
Hydropower (c)	**619**	**692**	**460**	**392**	**557**	**626**	*417*	*367*	*460*	*605*	*486*	*397*	**540**	*491*	*487*
Other Renewables (d)	**302**	**364**	**308**	**305**	**337**	**394**	*353*	*305*	*313*	*411*	*370*	*317*	**320**	*347*	*353*
Other Nonrenewable Fuels (b)	**5**	**5**	**6**	**5**	**5**	**6**	*6*	*5*	*5*	*6*	*6*	*5*	**5**	*6*	*6*
Total Generation	**2,031**	**2,035**	**2,277**	**1,934**	**1,995**	**2,033**	*2,305*	*1,917*	*1,983*	*2,006*	*2,267*	*1,930*	**2,069**	*2,063*	*2,047*

(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**	*0.038*	*0.039*	*0.038*	*0.038*	*0.038*	*0.039*	**0.147**	*0.151*	*0.153*
Hydroelectric Power (a)	**0.759**	**0.844**	**0.605**	**0.546**	**0.706**	**0.784**	*0.546*	*0.515*	*0.618*	*0.748*	*0.612*	*0.540*	**2.755**	*2.551*	*2.518*
Solar (b)	**0.083**	**0.153**	**0.147**	**0.100**	**0.113**	**0.192**	*0.182*	*0.115*	*0.111*	*0.195*	*0.196*	*0.129*	**0.483**	*0.602*	*0.632*
Waste Biomass (c)	**0.070**	**0.066**	**0.068**	**0.068**	**0.070**	**0.067**	*0.071*	*0.070*	*0.068*	*0.070*	*0.072*	*0.071*	**0.272**	*0.279*	*0.281*
Wood Biomass	**0.061**	**0.059**	**0.064**	**0.063**	**0.061**	**0.056**	*0.066*	*0.059*	*0.060*	*0.057*	*0.068*	*0.062*	**0.247**	*0.242*	*0.247*
Wind	**0.637**	**0.628**	**0.425**	**0.654**	**0.720**	**0.688**	*0.472*	*0.664*	*0.688*	*0.708*	*0.510*	*0.733*	**2.345**	*2.543*	*2.639*
Subtotal	**1.648**	**1.787**	**1.347**	**1.468**	**1.708**	**1.823**	*1.374*	*1.463*	*1.583*	*1.816*	*1.496*	*1.574*	**6.249**	*6.368*	*6.469*
Industrial Sector															
Biofuel Losses and Co-products (d)	**0.203**	**0.199**	**0.204**	**0.211**	**0.202**	**0.203**	*0.211*	*0.206*	*0.200*	*0.204*	*0.205*	*0.205*	**0.817**	*0.822*	*0.814*
Geothermal	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	**0.004**	*0.004*	*0.004*
Hydroelectric Power (a)	**0.003**	**0.004**	**0.003**	**0.003**	**0.003**	**0.003**	*0.003*	*0.003*	*0.003*	*0.003*	*0.003*	*0.003*	**0.013**	*0.013*	*0.013*
Solar (b)	**0.005**	**0.007**	**0.007**	**0.005**	**0.005**	**0.008**	*0.008*	*0.006*	*0.006*	*0.009*	*0.010*	*0.007*	**0.024**	*0.027*	*0.032*
Waste Biomass (c)	**0.044**	**0.040**	**0.038**	**0.044**	**0.044**	**0.041**	*0.041*	*0.043*	*0.042*	*0.041*	*0.041*	*0.043*	**0.165**	*0.170*	*0.167*
Wood Biomass	**0.370**	**0.361**	**0.375**	**0.374**	**0.368**	**0.366**	*0.367*	*0.363*	*0.350*	*0.347*	*0.359*	*0.361*	**1.480**	*1.464*	*1.418*
Subtotal	**0.625**	**0.609**	**0.625**	**0.638**	**0.624**	**0.619**	*0.627*	*0.621*	*0.601*	*0.601*	*0.613*	*0.618*	**2.498**	*2.491*	*2.434*
Commercial Sector															
Geothermal	**0.005**	**0.005**	**0.005**	**0.005**	**0.005**	**0.005**	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	**0.020**	*0.020*	*0.020*
Solar (b)	**0.015**	**0.023**	**0.023**	**0.016**	**0.019**	**0.027**	*0.028*	*0.020*	*0.023*	*0.033*	*0.034*	*0.025*	**0.077**	*0.095*	*0.115*
Waste Biomass (c)	**0.012**	**0.011**	**0.011**	**0.011**	**0.011**	**0.011**	*0.012*	*0.012*	*0.011*	*0.011*	*0.012*	*0.012*	**0.045**	*0.045*	*0.045*
Wood Biomass	**0.021**	**0.021**	**0.021**	**0.021**	**0.021**	**0.021**	*0.021*	*0.021*	*0.021*	*0.021*	*0.021*	*0.021*	**0.084**	*0.084*	*0.084*
Subtotal	**0.059**	**0.067**	**0.067**	**0.061**	**0.062**	**0.072**	*0.073*	*0.065*	*0.067*	*0.078*	*0.079*	*0.069*	**0.253**	*0.272*	*0.293*
Residential Sector															
Geothermal	**0.010**	**0.010**	**0.010**	**0.010**	**0.010**	**0.011**	*0.013*	*0.013*	*0.013*	*0.013*	*0.013*	*0.013*	**0.040**	*0.047*	*0.053*
Solar (e)	**0.036**	**0.057**	**0.058**	**0.040**	**0.043**	**0.066**	*0.068*	*0.048*	*0.050*	*0.077*	*0.079*	*0.055*	**0.191**	*0.225*	*0.260*
Wood Biomass	**0.082**	**0.083**	**0.084**	**0.084**	**0.095**	**0.098**	*0.104*	*0.104*	*0.105*	*0.105*	*0.105*	*0.105*	**0.334**	*0.401*	*0.420*
Subtotal	**0.128**	**0.150**	**0.152**	**0.134**	**0.148**	**0.175**	*0.185*	*0.164*	*0.168*	*0.195*	*0.197*	*0.173*	**0.565**	*0.672*	*0.733*
Transportation Sector															
Biomass-based Diesel (f)	**0.053**	**0.079**	**0.078**	**0.069**	**0.054**	**0.068**	*0.086*	*0.093*	*0.066*	*0.085*	*0.098*	*0.101*	**0.280**	*0.301*	*0.350*
Ethanol (f)	**0.269**	**0.292**	**0.295**	**0.292**	**0.273**	**0.288**	*0.301*	*0.290*	*0.273*	*0.295*	*0.297*	*0.291*	**1.148**	*1.151*	*1.155*
Subtotal	**0.322**	**0.372**	**0.373**	**0.361**	**0.327**	**0.357**	*0.387*	*0.383*	*0.339*	*0.380*	*0.394*	*0.392*	**1.428**	*1.454*	*1.505*
All Sectors Total															
Biomass-based Diesel (f)	**0.053**	**0.079**	**0.078**	**0.069**	**0.054**	**0.068**	*0.086*	*0.093*	*0.066*	*0.085*	*0.098*	*0.101*	**0.280**	*0.301*	*0.350*
Biofuel Losses and Co-products (d)	**0.203**	**0.199**	**0.204**	**0.211**	**0.202**	**0.203**	*0.211*	*0.206*	*0.200*	*0.204*	*0.205*	*0.205*	**0.817**	*0.822*	*0.814*
Ethanol (f)	**0.279**	**0.304**	**0.307**	**0.303**	**0.283**	**0.297**	*0.310*	*0.302*	*0.283*	*0.306*	*0.308*	*0.302*	**1.192**	*1.192*	*1.199*
Geothermal	**0.053**	**0.052**	**0.053**	**0.053**	**0.053**	**0.053**	*0.057*	*0.058*	*0.057*	*0.057*	*0.057*	*0.058*	**0.211**	*0.221*	*0.229*
Hydroelectric Power (a)	**0.763**	**0.849**	**0.609**	**0.550**	**0.710**	**0.788**	*0.549*	*0.518*	*0.621*	*0.752*	*0.616*	*0.543*	**2.770**	*2.566*	*2.533*
Solar (b)(e)	**0.138**	**0.240**	**0.235**	**0.161**	**0.180**	**0.288**	*0.286*	*0.189*	*0.191*	*0.315*	*0.318*	*0.215*	**0.774**	*0.944*	*1.039*
Waste Biomass (c)	**0.126**	**0.117**	**0.117**	**0.122**	**0.125**	**0.120**	*0.123*	*0.125*	*0.121*	*0.122*	*0.125*	*0.126*	**0.482**	*0.493*	*0.494*
Wood Biomass	**0.534**	**0.524**	**0.543**	**0.543**	**0.545**	**0.542**	*0.558*	*0.547*	*0.536*	*0.531*	*0.554*	*0.549*	**2.145**	*2.192*	*2.169*
Wind	**0.637**	**0.628**	**0.425**	**0.654**	**0.720**	**0.688**	*0.472*	*0.664*	*0.688*	*0.708*	*0.510*	*0.733*	**2.345**	*2.543*	*2.639*
Total Consumption	**2.782**	**2.985**	**2.565**	**2.662**	**2.868**	**3.011**	*2.646*	*2.696*	*2.758*	*3.070*	*2.780*	*2.825*	**10.994**	*11.221*	*11.434*

- = 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**	*18,655*	*18,811*	*18,934*	*19,049*	*19,149*	*19,246*	**18,051**	*18,574*	*19,094*
Real Personal Consumption Expend.															
(billion chained 2012 dollars - SAAR)	**12,428**	**12,516**	**12,585**	**12,706**	**12,723**	**12,848**	*12,930*	*13,024*	*13,108*	*13,194*	*13,273*	*13,347*	**12,559**	*12,881*	*13,231*
Real Private Fixed Investment															
(billion chained 2012 dollars - SAAR)	**3,109**	**3,141**	**3,161**	**3,209**	**3,271**	**3,315**	*3,344*	*3,392*	*3,427*	*3,465*	*3,507*	*3,550*	**3,155**	*3,331*	*3,487*
Business Inventory Change															
(billion chained 2012 dollars - SAAR)	**8**	**17**	**55**	**21**	**36**	**-6**	*38*	*59*	*76*	*90*	*88*	*85*	**25**	*32*	*85*
Real Government Expenditures															
(billion chained 2012 dollars - SAAR)	**3,130**	**3,130**	**3,122**	**3,140**	**3,152**	**3,169**	*3,196*	*3,225*	*3,242*	*3,253*	*3,262*	*3,268*	**3,130**	*3,186*	*3,256*
Real Exports of Goods & Services															
(billion chained 2012 dollars - SAAR)	**2,413**	**2,435**	**2,456**	**2,496**	**2,518**	**2,574**	*2,571*	*2,603*	*2,635*	*2,667*	*2,702*	*2,743*	**2,450**	*2,567*	*2,687*
Real Imports of Goods & Services															
(billion chained 2012 dollars - SAAR)	**3,259**	**3,279**	**3,302**	**3,395**	**3,420**	**3,424**	*3,481*	*3,553*	*3,619*	*3,691*	*3,762*	*3,835*	**3,309**	*3,469*	*3,727*
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*
Non-Farm Employment															
(millions)	**145.9**	**146.3**	**146.9**	**147.4**	**148.1**	**148.7**	*149.4*	*150.1*	*150.7*	*151.2*	*151.6*	*152.0*	**146.6**	*149.1*	*151.4*
Civilian Unemployment Rate															
(percent)	**4.7**	**4.3**	**4.3**	**4.1**	**4.1**	**3.9**	*3.8*	*3.6*	*3.5*	*3.4*	*3.4*	*3.4*	**4.4**	*3.9*	*3.4*
Housing Starts															
(millions - SAAR)	**1.23**	**1.17**	**1.17**	**1.26**	**1.32**	**1.25**	*1.24*	*1.30*	*1.33*	*1.37*	*1.40*	*1.42*	**1.21**	*1.28*	*1.38*
Industrial Production Indices (Index, 2012=100)															
Total Industrial Production	**102.5**	**103.7**	**103.3**	**105.3**	**105.9**	**107.5**	*108.2*	*108.8*	*109.4*	*110.1*	*110.7*	*111.3*	**103.7**	*107.6*	*110.4*
Manufacturing	**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*
Food	**109.2**	**110.1**	**112.1**	**112.5**	**114.1**	**114.8**	*115.1*	*115.7*	*116.3*	*116.9*	*117.5*	*117.9*	**111.0**	*114.9*	*117.1*
Paper	**97.8**	**96.9**	**96.4**	**96.1**	**95.6**	**96.0**	*95.5*	*96.1*	*96.2*	*96.2*	*96.1*	*95.9*	**96.8**	*95.8*	*96.1*
Petroleum and Coal Products	**105.5**	**108.9**	**104.7**	**107.4**	**106.6**	**107.0**	*107.7*	*108.2*	*108.8*	*109.3*	*109.6*	*109.8*	**106.6**	*107.4*	*109.4*
Chemicals	**94.2**	**95.9**	**94.7**	**97.7**	**96.7**	**98.7**	*99.6*	*100.6*	*101.5*	*102.5*	*103.4*	*104.3*	**95.6**	*98.9*	*102.9*
Nonmetallic Mineral Products	**114.0**	**113.2**	**113.6**	**117.1**	**119.2**	**120.8**	*121.8*	*123.5*	*124.6*	*125.7*	*126.7*	*127.6*	**114.5**	*121.3*	*126.1*
Primary Metals	**94.0**	**92.9**	**93.6**	**95.2**	**96.1**	**96.2**	*97.3*	*102.2*	*105.3*	*106.3*	*106.0*	*105.1*	**93.9**	*98.0*	*105.7*
Coal-weighted Manufacturing (a)	**101.7**	**102.1**	**101.1**	**103.3**	**103.5**	**104.7**	*105.4*	*107.5*	*108.9*	*109.7*	*110.1*	*110.3*	**102.0**	*105.3*	*109.8*
Distillate-weighted Manufacturing (a)	**107.8**	**108.2**	**108.2**	**110.1**	**111.1**	**111.7**	*112.5*	*113.8*	*114.9*	*115.7*	*116.3*	*116.7*	**108.6**	*112.3*	*115.9*
Electricity-weighted Manufacturing (a)	**102.1**	**102.8**	**101.9**	**103.9**	**104.1**	**105.2**	*106.1*	*107.8*	*109.1*	*110.1*	*110.7*	*111.0*	**102.7**	*105.8*	*110.2*
Natural Gas-weighted Manufacturing (a)	**101.7**	**103.5**	**101.6**	**104.5**	**103.7**	**105.3**	*106.2*	*107.7*	*109.0*	*109.9*	*110.6*	*111.1*	**102.9**	*105.7*	*110.1*
Price Indexes															
Consumer Price Index (all urban consumers)															
(index, 1982-1984=1.00)	**2.44**	**2.44**	**2.45**	**2.47**	**2.49**	**2.50**	*2.52*	*2.53*	*2.55*	*2.56*	*2.57*	*2.58*	**2.45**	*2.51*	*2.56*
Producer Price Index: All Commodities															
(index, 1982=1.00)	**1.93**	**1.92**	**1.92**	**1.97**	**2.01**	**2.01**	*2.03*	*2.04*	*2.04*	*2.04*	*2.05*	*2.07*	**1.94**	*2.02*	*2.05*
Producer Price Index: Petroleum															
(index, 1982=1.00)	**1.66**	**1.67**	**1.75**	**1.90**	**1.98**	**2.22**	*2.24*	*2.16*	*2.09*	*2.16*	*2.22*	*2.20*	**1.74**	*2.15*	*2.17*
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*
Miscellaneous															
Vehicle Miles Traveled (b)															
(million miles/day)	**8,210**	**9,202**	**9,057**	**8,730**	**8,238**	**9,231**	*9,153*	*8,844*	*8,421*	*9,384*	*9,244*	*8,927*	**8,802**	*8,869*	*8,996*
Air Travel Capacity															
(Available ton-miles/day, thousands)	**567**	**619**	**661**	**631**	**603**	**646**	*659*	*634*	*616*	*652*	*662*	*639*	**620**	*635*	*642*
Aircraft Utilization															
(Revenue ton-miles/day, thousands)	**344**	**390**	**398**	**382**	**368**	**412**	*421*	*398*	*379*	*415*	*422*	*401*	**378**	*400*	*404*
Airline Ticket Price Index															
(index, 1982-1984=100)	**277.8**	**297.0**	**264.9**	**263.4**	**262.8**	**279.8**	*279.4*	*309.2*	*330.5*	*350.5*	*315.3*	*329.7*	**275.8**	*282.8*	*331.5*
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*
Carbon Dioxide (CO2) Emissions (million metric tons)															
Petroleum	**565**	**588**	**593**	**592**	**581**	**593**	*601*	*596*	*581*	*593*	*608*	*600*	**2,338**	*2,371*	*2,383*
Natural Gas	**422**	**311**	**335**	**405**	**477**	**351**	*352*	*406*	*473*	*341*	*355*	*414*	**1,474**	*1,587*	*1,583*
Coal	**319**	**307**	**375**	**317**	**308**	**290**	*374*	*319*	*320*	*268*	*349*	*299*	**1,318**	*1,291*	*1,235*
Total Energy (c)	**1,309**	**1,209**	**1,305**	**1,318**	**1,369**	**1,236**	*1,331*	*1,324*	*1,376*	*1,205*	*1,314*	*1,317*	**5,142**	*5,260*	*5,212*

- = 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**	*120*	*2,167*	*3,132*	*854*	*134*	*2,143*	**6,043**	*6,242*	*6,263*
Middle Atlantic	**2,658**	**599**	**72**	**2,000**	**2,938**	**755**	*82*	*1,988*	*2,895*	*680*	*90*	*1,974*	**5,329**	*5,763*	*5,638*
E. N. Central	**2,691**	**628**	**105**	**2,263**	**3,211**	**825**	*111*	*2,219*	*3,080*	*714*	*132*	*2,227*	**5,688**	*6,366*	*6,153*
W. N. Central	**2,812**	**661**	**138**	**2,387**	**3,421**	**828**	*142*	*2,397*	*3,165*	*686*	*164*	*2,407*	**5,997**	*6,788*	*6,423*
South Atlantic	**1,145**	**125**	**15**	**945**	**1,443**	**219**	*15*	*1,005*	*1,460*	*195*	*15*	*1,001*	**2,230**	*2,683*	*2,671*
E. S. Central	**1,376**	**155**	**24**	**1,281**	**1,817**	**326**	*22*	*1,345*	*1,862*	*244*	*22*	*1,338*	**2,836**	*3,510*	*3,466*
W. S. Central	**773**	**66**	**4**	**741**	**1,193**	**144**	*4*	*830*	*1,219*	*87*	*4*	*807*	**1,583**	*2,170*	*2,117*
Mountain	**2,058**	**697**	**153**	**1,665**	**2,123**	**599**	*134*	*1,846*	*2,199*	*675*	*142*	*1,813*	**4,573**	*4,702*	*4,829*
Pacific	**1,561**	**531**	**69**	**1,031**	**1,440**	**541**	*81*	*1,210*	*1,458*	*567*	*86*	*1,177*	**3,191**	*3,273*	*3,288*
U.S. Average	**1,858**	**427**	**65**	**1,481**	**2,130**	**523**	*69*	*1,541*	*2,108*	*478*	*77*	*1,526*	**3,830**	*4,263*	*4,189*
Heating Degree Days, Prior 10-year Average															
New England	**3,201**	**831**	**122**	**2,125**	**3,171**	**818**	*119*	*2,121*	*3,165*	*820*	*116*	*2,108*	**6,279**	*6,229*	*6,210*
Middle Atlantic	**2,983**	**661**	**81**	**1,941**	**2,947**	**646**	*81*	*1,949*	*2,956*	*650*	*80*	*1,935*	**5,666**	*5,623*	*5,621*
E. N. Central	**3,255**	**701**	**114**	**2,198**	**3,209**	**692**	*116*	*2,211*	*3,196*	*697*	*117*	*2,187*	**6,267**	*6,228*	*6,197*
W. N. Central	**3,302**	**707**	**142**	**2,380**	**3,264**	**705**	*144*	*2,379*	*3,255*	*702*	*142*	*2,360*	**6,531**	*6,492*	*6,459*
South Atlantic	**1,502**	**188**	**12**	**966**	**1,476**	**177**	*12*	*973*	*1,480*	*177*	*13*	*967*	**2,667**	*2,638*	*2,636*
E. S. Central	**1,906**	**231**	**16**	**1,287**	**1,868**	**217**	*18*	*1,301*	*1,862*	*222*	*19*	*1,293*	**3,440**	*3,404*	*3,395*
W. S. Central	**1,228**	**88**	**4**	**799**	**1,181**	**80**	*4*	*801*	*1,183*	*85*	*4*	*799*	**2,119**	*2,066*	*2,071*
Mountain	**2,216**	**734**	**142**	**1,862**	**2,195**	**737**	*144*	*1,842*	*2,165*	*714*	*140*	*1,845*	**4,954**	*4,917*	*4,864*
Pacific	**1,462**	**598**	**89**	**1,205**	**1,465**	**592**	*84*	*1,181*	*1,444*	*582*	*82*	*1,184*	**3,354**	*3,322*	*3,293*
U.S. Average	**2,193**	**487**	**71**	**1,527**	**2,160**	**478**	*71*	*1,524*	*2,151*	*476*	*70*	*1,514*	**4,277**	*4,233*	*4,210*
Cooling Degree Days															
New England	**0**	**75**	**363**	**11**	**0**	**80**	*544*	*1*	*0*	*86*	*403*	*1*	**450**	*626*	*490*
Middle Atlantic	**0**	**139**	**502**	**22**	**0**	**176**	*646*	*4*	*0*	*154*	*522*	*4*	**663**	*825*	*681*
E. N. Central	**1**	**210**	**480**	**16**	**0**	**333**	*583*	*7*	*0*	*218*	*518*	*6*	**706**	*923*	*743*
W. N. Central	**9**	**265**	**624**	**14**	**2**	**439**	*670*	*10*	*3*	*267*	*656*	*10*	**911**	*1,121*	*936*
South Atlantic	**161**	**674**	**1,158**	**263**	**136**	**722**	*1,156*	*216*	*111*	*643*	*1,142*	*220*	**2,255**	*2,230*	*2,117*
E. S. Central	**65**	**481**	**963**	**74**	**36**	**648**	*1,046*	*59*	*26*	*516*	*1,028*	*61*	**1,583**	*1,789*	*1,631*
W. S. Central	**214**	**828**	**1,459**	**217**	**125**	**999**	*1,537*	*190*	*80*	*854*	*1,524*	*205*	**2,718**	*2,852*	*2,664*
Mountain	**36**	**467**	**921**	**120**	**21**	**504**	*975*	*76*	*17*	*426*	*933*	*78*	**1,544**	*1,576*	*1,454*
Pacific	**30**	**219**	**700**	**99**	**31**	**183**	*728*	*57*	*28*	*167*	*578*	*58*	**1,048**	*1,000*	*831*
U.S. Average	**70**	**403**	**839**	**115**	**51**	**475**	*907*	*87*	*40*	*396*	*842*	*91*	**1,426**	*1,520*	*1,369*
Cooling Degree Days, Prior 10-year Average															
New England	**0**	**81**	**433**	**1**	**0**	**81**	*433*	*1*	*0*	*79*	*451*	*1*	**515**	*515*	*532*
Middle Atlantic	**0**	**169**	**566**	**6**	**0**	**166**	*567*	*5*	*0*	*165*	*583*	*6*	**741**	*738*	*754*
E. N. Central	**3**	**234**	**542**	**8**	**3**	**228**	*532*	*7*	*3*	*242*	*542*	*7*	**788**	*770*	*794*
W. N. Central	**7**	**281**	**672**	**12**	**7**	**277**	*659*	*11*	*7*	*298*	*667*	*12*	**973**	*954*	*984*
South Atlantic	**117**	**666**	**1,167**	**230**	**119**	**675**	*1,161*	*227*	*120*	*684*	*1,169*	*233*	**2,179**	*2,182*	*2,206*
E. S. Central	**33**	**544**	**1,056**	**65**	**34**	**539**	*1,031*	*63*	*36*	*554*	*1,037*	*65*	**1,698**	*1,667*	*1,692*
W. S. Central	**90**	**876**	**1,528**	**205**	**100**	**887**	*1,532*	*204*	*103*	*897*	*1,550*	*207*	**2,698**	*2,722*	*2,757*
Mountain	**23**	**424**	**930**	**81**	**24**	**426**	*922*	*84*	*25*	*438*	*930*	*83*	**1,458**	*1,456*	*1,475*
Pacific	**30**	**180**	**608**	**74**	**30**	**185**	*621*	*78*	*31*	*185*	*631*	*75*	**892**	*914*	*922*
U.S. Average	**43**	**405**	**857**	**94**	**45**	**408**	*855*	*94*	*46*	*417*	*868*	*95*	**1,399**	*1,402*	*1,426*

- = 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).