



Short-Term Energy Outlook (STEO)

Forecast highlights

Global liquid fuels

- Implied global petroleum and liquid fuels inventories are estimated to have increased by 0.8 million barrels per day (b/d) in 2016. EIA expects the oil market to be relatively balanced in 2017 and 2018, with inventory draws averaging 0.1 million b/d in 2017 and builds averaging 0.2 million b/d in 2018. The revised forecast, which reduces average inventory builds from last month's outlook, resulted from changes to estimates of historical global liquid fuels consumption that created a higher base for consumption during recent years and the forecast period. See [International Data Revisions and the STEO Forecast](#) for more discussion about this change.
- U.S. crude oil production averaged an estimated 8.9 million b/d in 2016. U.S. crude oil production is forecast to average 9.0 million b/d in 2017 and 9.5 million b/d in 2018.
- Benchmark North Sea Brent crude oil spot prices averaged \$55/barrel (b) in January, a \$1/b increase from December. This price was \$24/b higher than the January 2016 average, and it was the highest monthly average for Brent spot prices since July 2015.
- EIA forecasts Brent crude oil prices to average \$55/b in 2017 and \$57/b in 2018. West Texas Intermediate (WTI) crude oil prices are forecast to average about \$1/b less than Brent prices in 2017. The NYMEX contract values for April 2017 delivery traded during the five-day period ending February 2 suggest that a range from \$45/b to \$65/b encompasses the market expectation of WTI prices in April 2017 at the 95% confidence level.
- U.S. regular gasoline retail prices are expected to decrease from an average of \$2.35/gallon (gal) in January 2017 to an average of \$2.27/gal in February and then rise to \$2.33/gal in March. U.S. regular gasoline retail prices are forecast to average \$2.39/gal in 2017 and \$2.44/gal in 2018.

Natural gas

- U.S. dry natural gas production is forecast to average 73.7 billion cubic feet per day (Bcf/d) in 2017, a 1.3 Bcf/d increase from the 2016 level. This increase reverses a 2016

production decline, which was the first decline since 2005. Natural gas production in 2018 is forecast to increase by an average of 4.1 Bcf/d from the 2017 level.

- In January, average Henry Hub natural gas spot prices fell by 29 cents per million British thermal units (MMBtu) from December levels to \$3.30/MMBtu. Mild January temperatures, which were the warmest since 2006, contributed to lower prices.
- Increasing capacity for natural gas-fired electric generation, growing domestic natural gas consumption, and new export capabilities contribute to the forecast Henry Hub natural gas spot price rising from an average of \$3.43/MMBtu in 2017 to \$3.70/MMBtu in 2018. NYMEX contract values for April 2017 delivery traded during the five-day period ending February 2 suggest that a price range from \$2.42/MMBtu to \$4.38/MMBtu encompasses the market expectation of Henry Hub natural gas prices in April 2017 at the 95% confidence level.

Electricity, coal, renewables, and emissions

- Total U.S. electricity generation from utility-scale plants averaged 11,150 gigawatthours per day in 2016. Forecast U.S. generation declines by 0.1% in 2017, then grows by 1.5% in 2018.
- EIA expects the share of U.S. total utility-scale electricity generation from natural gas will fall from 34% last year to an average of 32% in 2017 as a result of higher expected natural gas prices. The forecast natural gas share is forecast to rise slightly to 33% in 2018. Coal's generation share rises from 30% in 2016 to average 31% in both 2017 and 2018. Nonhydropower renewables are forecast to provide 9% of electricity generation in 2017 and 10% in 2018. The generation share of hydropower is forecast to be relatively unchanged from 2017 to 2018, and the nuclear share declines slightly in 2018.
- The U.S. residential electricity price averaged 12.3 cents per kilowatthour (kWh) in January 2017 and is expected to average 12.5 cents/kWh in the first quarter of 2017. EIA expects the annual average U.S. residential electricity price to increase by 3.0% in 2017 and by 2.4% in 2018.
- U.S. coal production is estimated to have declined by 158 million short tons (MMst) (18%) in 2016 to 739 MMst, which would be the lowest level since 1978. EIA expects growth in coal-fired electricity generation to contribute to a 3% increase in coal production in 2017. Coal production is expect to increase by 1% in 2018.
- [Coal exports](#) in November 2016 totaled 6.6 MMst, which was 35% higher than in October and 39% higher than coal exports in November 2015. Despite the monthly and year-over-year increases, EIA estimates that U.S. coal exports declined by 20% in 2016

to 59 MMst, the lowest level since 2009. Exports are expected to average 51 MMst in 2017 and 50 MMst in 2018.

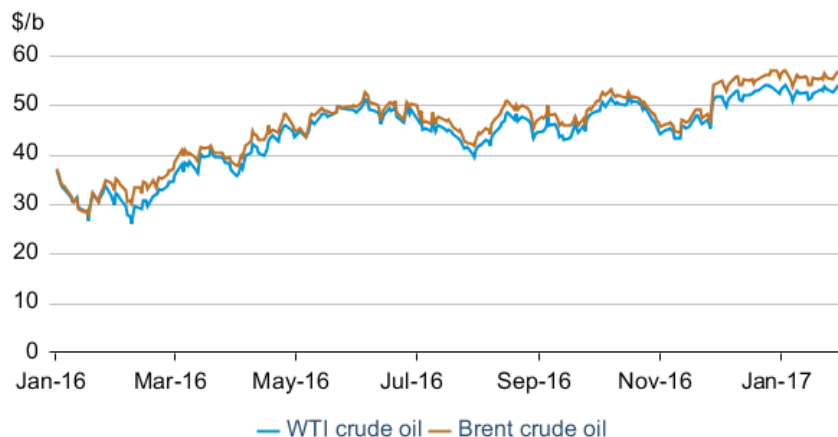
- Wind energy capacity at the end of 2016 was 81 gigawatts (GW). EIA expects capacity additions in the next two years will bring total wind capacity to 94 GW by the end of 2018.
- After declining by 1.7% in 2016, energy-related carbon dioxide (CO₂) emissions are projected to increase by 0.3% in 2017 and by 1.4% in 2018. Energy-related CO₂ emissions are sensitive to changes in weather, economic growth, and energy prices.

Petroleum and natural gas markets review

Crude oil

Prices: Global crude oil prices traded within a relatively narrow range in January compared with recent history. Brent crude oil prices increased by \$1.09 per barrel (b) from January 3 to settle at \$56.56/b on February 2. U.S. benchmark crude oil West Texas Intermediate (WTI) increased \$1.21/b over the same period, settling at \$53.54/b (**Figure 1**). Brent and WTI average spot prices in January were both about \$1/b higher compared with December averages.

Figure 1. Crude oil front-month futures prices



eia Bloomberg L.P.

The relatively stable prices in January came as oil market participants assessed news and data on the status of supply from countries participating in the production cuts by the Organization of the Petroleum Exporting Countries (OPEC) and non-OPEC countries. The [Joint Ministerial Monitoring Committee \(JMMC\)](#), a body of three representatives from OPEC and two representatives from non-OPEC countries established to monitor compliance with the agreement to reduce crude oil production by 1.8 million barrels per day (b/d), met on January 22. At the meeting, the countries affirmed commitments to shoulder their share of the production cuts originally announced in November and December. The JMMC plans to provide

monthly updates on each country's production data and to monitor adherence to the agreed-upon production levels. In addition to statements from OPEC and non-OPEC officials announcing that production targets were met, oil tanker traffic data also indicate a possible reduction in oil being exported from the Middle East to customers in Asia, although official data will not be available for several months. With petroleum product demand forecast to grow at a faster rate in 2017 than in 2016, global oil markets appear closer to balance than at any time in the recent past.

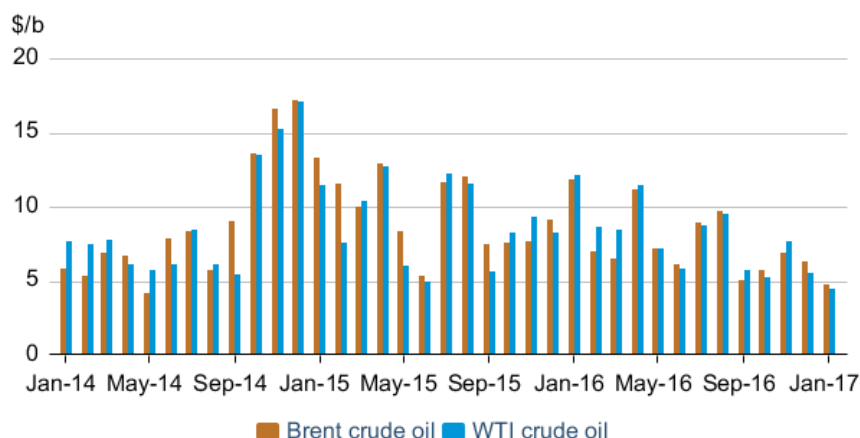
For this STEO, EIA incorporated [significant revisions to historical liquid fuel consumption](#) and supply. These revisions, from 2013–14, create a higher baseline from which 2015–16 STEO consumption is estimated. Notably, the revisions include an upward adjustment to 2016 Chinese oil consumption and supply of 0.7 million b/d and 0.4 million b/d, respectively, as well as other revisions to consumption outside the Organization for Economic Cooperation and Development (OECD).

These revisions were incorporated into the historical data in this month's STEO and are contributing to forecasts of tighter supply and demand balances. EIA now estimates that global liquid fuels inventories increased by an average of 0.8 million b/d in 2016, down from the previous estimate of 0.9 million b/d. More importantly, EIA now expects the global oil market to be largely in balance in 2017 and 2018 with implied global inventories forecast to draw by 0.1 million b/d and build by 0.2 million b/d in those years, respectively. Previously, EIA had forecast small annual average builds in both 2017 and 2018, notwithstanding draws during the third quarters of both years.

The historical revisions to consumption and the projection of a balanced market sooner compared with the previous STEO do not significantly change the crude oil price projection. This implies that current crude oil price levels are near the point where the market balances, allowing U.S. and OPEC production to increase to meet higher demand in 2017 and 2018. The current Brent crude oil price projections of \$55/b and \$57/b in 2017 and 2018, respectively, contribute to a roughly balanced market through the projection period.

Crude oil price volatility declined in December and continued declining in January. All front-month crude oil transactions traded in the mid-\$50/b range in January, with Brent crude oil prices trading in the narrowest range since May 2014 and WTI prices trading in the narrowest range since December 2006 (**Figure 2**). The narrow trading range further suggests buyers and sellers increasingly agree that a mid-\$50/b oil price is sufficient to balance the oil market, as global demand continues growing at a robust pace and producers begin to increase investments in new production. EIA forecasts a 0.2 million b/d decline in global inventories in the first quarter of 2017, in contrast to the estimated 1.5 million b/d stock build during the same period in 2016.

Figure 2. Monthly crude oil price trading ranges



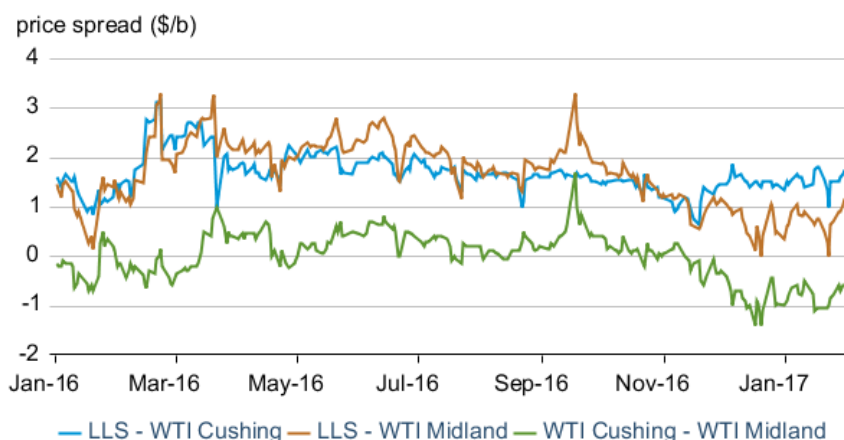
eia Bloomberg L.P.

Crude oil supply and price spreads: Total OPEC supply is expected to increase by 0.2 million b/d in 2017 and by 0.5 million b/d in 2018. Recent estimates of production from Libya, which is not subject to any production target under the OPEC production cut agreement, average almost 0.7 million b/d in January, the country's highest production level since 2014. Saudi Arabia recently announced it is meeting its production target, and the country is estimated to have produced slightly less than 10.0 million b/d in January.

U.S. crude oil production is expected to increase by 0.1 million b/d in 2017 year-over-year and by 0.5 million b/d in 2018. The U.S. oil-directed rig count increased by 41 rigs in January, the eighth consecutive monthly increase and the first year-over-year increase since December 2014, according to Baker Hughes.

Prices for WTI Midland, a crude oil produced in West Texas, strengthened compared with similar light sweet crude oils at different delivery hubs, as represented by a decline in the WTI Cushing-WTI Midland differential and Light Louisiana Sweet (LLS)-WTI Midland differential (**Figure 3**). Recent movements in U.S. crude oil price differentials could be reflecting infrastructure developments and changes in oil market trade flows. Trade press reports that since a new export terminal opened at Ingleside, Texas (at the Port of Corpus Christi in the third quarter of 2016), producers in the Midland area of Texas have been able to ship crude oil directly to the export terminal via the Cactus pipeline, bypassing the Cushing storage and pipeline hub. Four-week average U.S. exports of crude oil [increased 0.2 million b/d since the beginning of December](#), with trade press reporting an increase in exports to Europe and Latin America. Increased flexibility in exporting directly out of the Port of Corpus Christi could keep the low price difference of WTI Cushing compared with WTI Midland unless barrels are needed for Midcontinent refineries. WTI Midland prices reached parity with LLS crude oil prices in December and January, which suggests that buyers are increasingly able to purchase WTI Midland for delivery out of the new export terminal directly.

Figure 3. U.S. crude oil price differentials



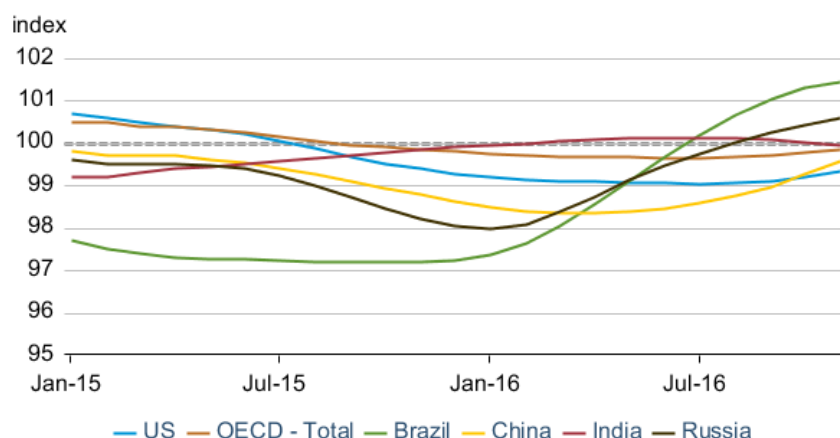
eia Bloomberg L.P.

Liquid fuels consumption and economic leading indicators: In the February STEO, global liquid fuels consumption is expected to grow by 1.6 million b/d in 2017 and by 1.5 million b/d in 2018. The projection for real oil-weighted world GDP growth is 2.7% in 2017 and 3.0% in 2018. Many economic and financial data series point to improved future economic growth for both developed and emerging market economies, which supports the oil consumption growth outlook.

The OECD provides [monthly composite leading indicators](#) for the economic growth of every member OECD country and several emerging market economies. Each composite leading indicator is composed of data series unique to each respective country, with an index of 100 representing that country's long-term economic growth. These indicators are constructed so that peaks and troughs in the series could [signal a change in the country's business cycle](#) six to nine months ahead of time.

The composite leading indicator for OECD countries as a group has been rising since June 2016 (**Figure 4**), implying that economic activity for those countries collectively could strengthen in the near term. The composite leading indicators for emerging markets, with the exception of India, have been rising since late 2015 and early 2016. The leading indicators for Brazil and Russia are above 100, potentially signaling that economic activity could be above their long-term average this year as their economies begin to recover from recessions.

Figure 4. OECD Composite Leading Indicators



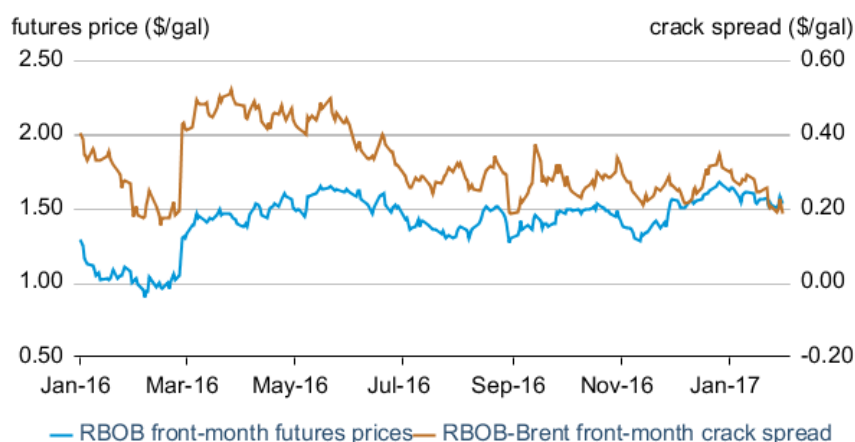
eia Organization for Economic Cooperation and Development

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) declined 9 cents per gallon (gal) from January 3 to settle at \$1.53/gal on February 2 (**Figure 5**). The RBOB-Brent crack spread (the difference between the price of RBOB and the price of Brent crude oil) declined by 11 cents/gal over the same period.

The RBOB-Brent crack spread declined from December to January for the first time since 2011, as [lower domestic gasoline consumption](#) and rising gasoline inventory levels contributed to lower RBOB prices. U.S. gasoline consumption typically falls to its seasonal low in January. However, EIA estimates the decline in gasoline consumption this year between December and January was 57% larger than the average decline over the past five years, falling by almost 0.6 million b/d. [Total U.S. gasoline stocks](#) rose to 257 million barrels for the week ending January 27, the second highest for any week based on data going back to 1990.

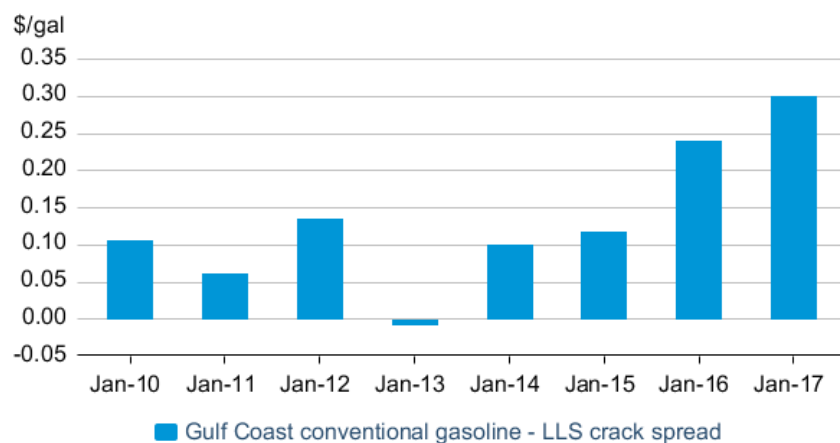
Figure 5. Historical RBOB futures prices and crack spread



eia Bloomberg L.P., RBOB=reformulated blendstock for oxygenate blending

Gulf Coast gasoline crack spreads: Because of lower domestic gasoline consumption, gasoline crack spreads in the futures market and in the New York Harbor spot market (the delivery hub of the RBOB futures contract), are below levels seen last year at this time. In contrast, gasoline crack spreads on the U.S. Gulf Coast are higher than last year because strong international demand is countering weak domestic demand. Most of the gasoline exported from the United States is [exported from the U.S. Gulf Coast](#). Since the second half of 2016, [U.S. gasoline exports](#) have increased significantly, reaching more than 1 million b/d during some weeks in December and January. Despite recent lower domestic gasoline consumption, increased overseas demand has pushed gasoline crack spreads on the U.S. Gulf Coast to a record high for the month of January. The Gulf Coast conventional gasoline–LLS crack spread averaged 30 cents/gal in January (Figure 6), 6 cents/gal higher than last January when domestic gasoline consumption was comparatively stronger.

Figure 6. Gulf Coast conventional gasoline - LLS crack spread

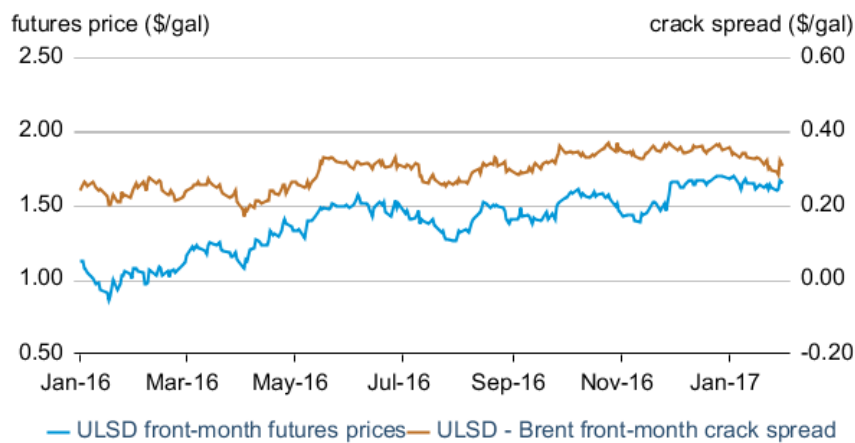


eia Bloomberg L.P.

Ultra-low Sulfur Diesel Prices: The front-month futures price for the New York Harbor ultra-low sulfur diesel (ULSD) contract declined 2 cents/gal from January 3 to settle at \$1.65/gal on February 2. The ULSD-Brent crack spread also declined over the same period (**Figure 7**).

With [warmer-than-normal January temperatures](#) in much of the United States, distillate consumption declined because of lower demand for home heating. EIA estimates distillate consumption averaged 3.8 million b/d in January, the third lowest level for that month in the past 15 years. Both total [U.S. distillate stocks](#) and distillate stocks in the U.S. Northeast, the region that uses the most distillate for home heating, set new five-year highs in January.

Figure 7. Historical ULSD futures price and crack spread

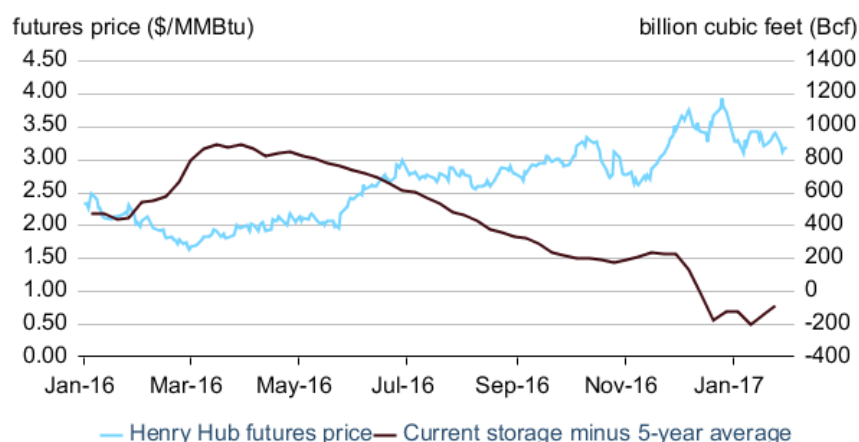


 Bloomberg L.P., ULSD=ultra-low sulfur diesel

Natural gas

Prices and inventories: The front-month natural gas contract for delivery at Henry Hub decreased by 14 cents per million British thermal units (MMBtu) from January 3 and settled at \$3.19/MMBtu on February 2 (**Figure 8**). The monthly average natural gas spot price in January decreased by 29 cents/MMBtu from the December average.

Figure 8. U.S. natural gas prices and storage

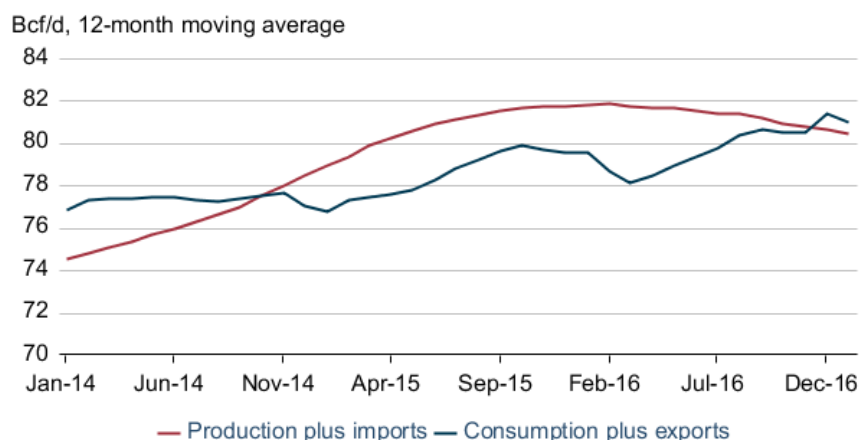


eia U.S. Energy Information Administration, Bloomberg L.P.

Prices traded in a more narrow range in January compared with December because of milder weather across the Lower 48 states, which put downward pressure on prices, while tightening supply-demand fundamentals kept upward pressure on prices. U.S. population-weighted heating degree days (HDD) were 16% below normal, the warmest January since 2006. At the same time, reduced natural gas production and increased export volumes relative to last year contributed to lower inventory levels. Lower 48 inventories fell below the five-year average in the week ending December 23, 2016 for the first time since May 2015 and remained below the five-year average until January 27, 2017.

Market fundamentals: The 12-month moving average of natural gas consumption plus exports surpassed that of production plus imports in December 2016 for the first time since September 2014 (**Figure 9**). EIA projects this trend to continue through June 2018, keeping upward pressure on natural gas prices. Lower natural gas prices in the summer of 2016 contributed to both a slowdown in production and [increased consumption of natural gas in the power generation sector](#). In addition, [new export capabilities](#) led to expanded natural gas exports.

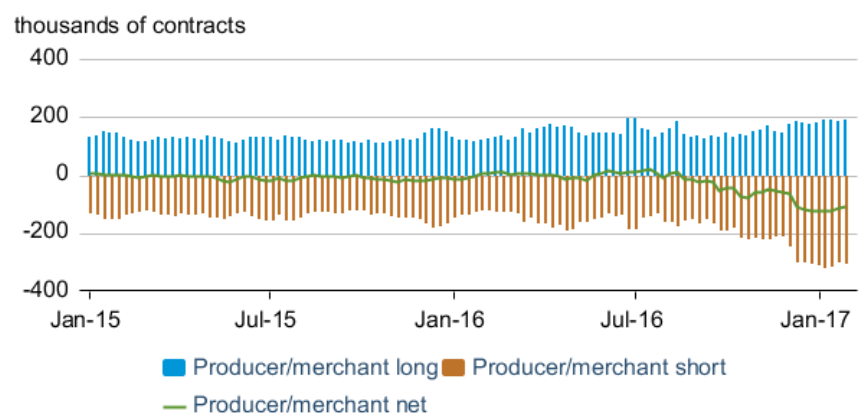
Figure 9. Natural gas market fundamentals



eia U.S. Energy Information Administration

Producer/merchant open interest: A tightening market and higher natural gas prices have contributed to greater interest by producers in increasing natural gas production. Short positions held by producers and merchants rose to 317,565 contracts on January 10, 2017, the highest level since at least June 2006 (**Figure 10**). A [short position](#), or the selling of a futures contract, allows the holder to lock in a future price for a commodity today, which producers can use as a way to hedge or mitigate price risk. Increased short positions may indicate that current futures prices are seen as sufficient to generate positive returns from drilling projects. According to Baker Hughes, the U.S. natural gas rig count rose to 145 for the week ending February 3, 79% above the record low point in August 2016.

Figure 10. Producer/merchant open interest in natural gas futures contracts



eia U.S. Energy Information Administration, U.S. Commodity Futures Trading Commission, Bloomberg L.P.

Notable forecast changes

- Implied global petroleum and liquid fuels inventories are estimated to have increased by 0.8 million barrels per day (b/d) in 2016. EIA expects the oil market to be relatively balanced in 2017 and 2018, with inventory draws averaging 0.1 million b/d in 2017 and builds averaging 0.2 million b/d in 2018. The revised forecast, which reduces average inventory builds from last month's outlook, resulted from changes to estimates of historical global liquid fuels consumption that created a higher base for consumption during recent years and the forecast period. See [International Data Revisions and the STEO Forecast](#) for more discussion about this change.
- Indonesia's membership in OPEC was suspended as of the group's November 30, meeting. In this STEO, Indonesia's production volumes have been removed from OPEC total for both history and the forecast.
- EIA forecasts U.S. Lower 48 crude oil production to average 6.88 million b/d in 2017 and 7.29 million b/d in 2018, which are 70,000 b/d and 310,000 b/d higher, respectively, than in the previous forecast. The higher forecast reflects slightly higher forecast oil prices and higher rig efficiencies. Based on revised assumptions related to the decline rates of producing fields and to projections related to announced discoveries, Gulf of Mexico crude oil production is expected to average 1.63 million b/d in 2017, 100,000 b/d lower than previously expected. The 2018 Gulf of Mexico crude oil production forecast of 1.77 million b/d in 2018 is down by 90,000 b/d from the previous forecast. The net result of these changes is that EIA expects total U.S. crude oil production to average 8.98 million b/d in 2017 and 9.53 million b/d in 2018, levels that are 20,000 b/d lower and 230,000 b/d higher, respectively, than previously forecast.
- Natural gas plant production of hydrocarbon gas liquids (HGL) is 50,000 b/d higher in 2017 and 110,000 higher in 2018 than in the previous forecast, which results in higher HGL export growth and inventory levels compared with the previous forecast. Given a wider spread between natural gas prices and crude oil prices in this STEO, producers are expected to be more focused on natural gas resources with a higher concentration of liquids, which contributes to higher natural gas plant production throughout the forecast period. Stronger growth in natural gas production is expected to further increase HGL production in 2018.
- For more information, see the [detailed STEO table of forecast changes](#).

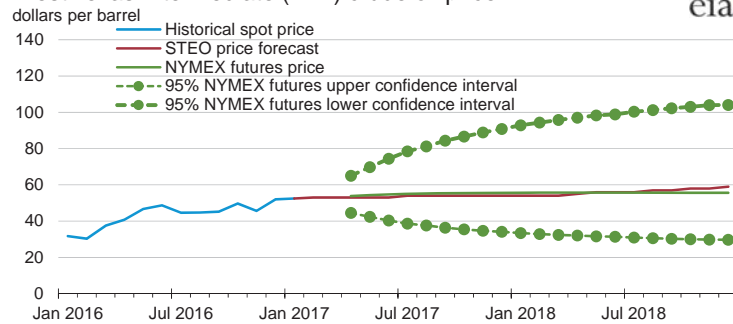
This report was prepared by the U.S. Energy Information Administration (EIA), the statistical and analytical agency within the U.S. Department of Energy. By law, EIA's data, analyses, and forecasts are independent of approval by any other officer or employee of the United States Government. The views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



Short-Term Energy Outlook

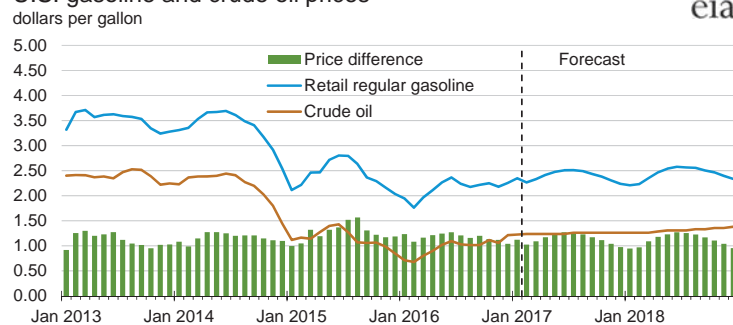
Chart Gallery for February 2017

West Texas Intermediate (WTI) crude oil price



Note: Confidence interval derived from options market information for the 5 trading days ending Feb 2, 2017. Intervals not calculated for months with sparse trading in near-the-money options contracts.
Source: Short-Term Energy Outlook, February 2017.

U.S. gasoline and crude oil prices

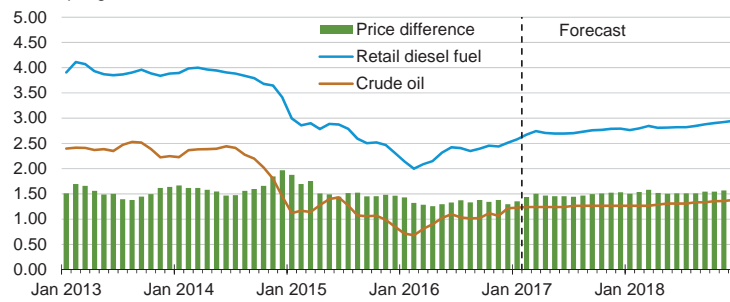


Crude oil price is composite refiner acquisition cost. Retail prices include state and federal taxes.

Source: Short-Term Energy Outlook, February 2017.

U.S. diesel fuel and crude oil prices

dollars per gallon

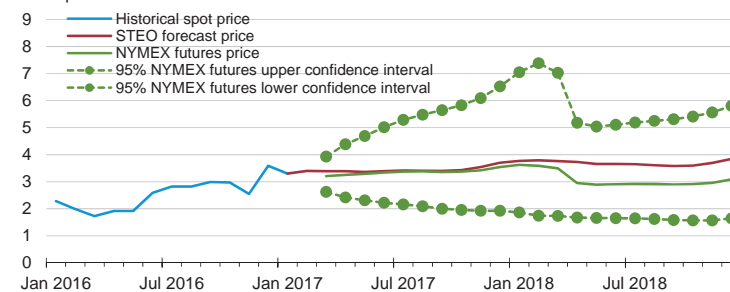


Crude oil price is composite refiner acquisition cost. Retail prices include state and federal taxes.

Source: Short-Term Energy Outlook, February 2017.

Henry Hub natural gas price

dollars per million Btu

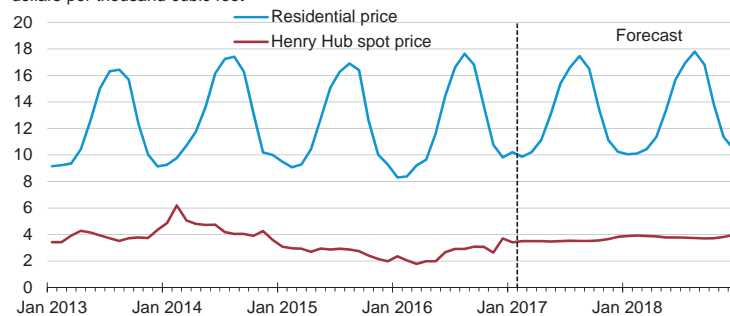


Note: Confidence interval derived from options market information for the 5 trading days ending Feb 2, 2017. Intervals not calculated for months with sparse trading in near-the-money options contracts.

Source: Short-Term Energy Outlook, February 2017.

U.S. natural gas prices

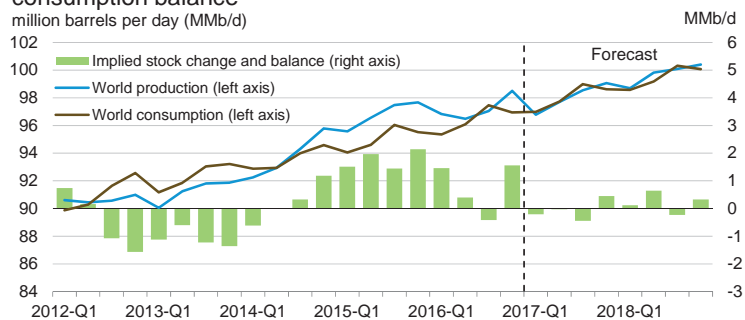
dollars per thousand cubic feet



Source: Short-Term Energy Outlook, February 2017.

World liquid fuels production and consumption balance

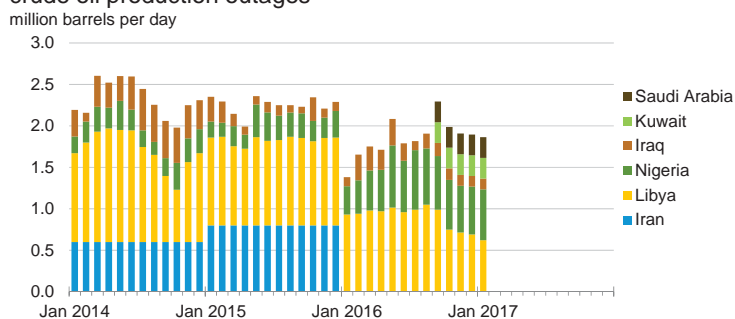
million barrels per day (MMb/d)



Source: Short-Term Energy Outlook, February 2017.

Estimated historical unplanned OPEC crude oil production outages

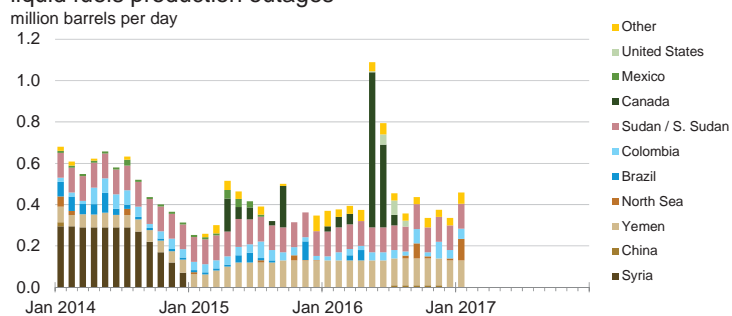
million barrels per day



Source: Short-Term Energy Outlook, February 2017.

Estimated historical unplanned non-OPEC liquid fuels production outages

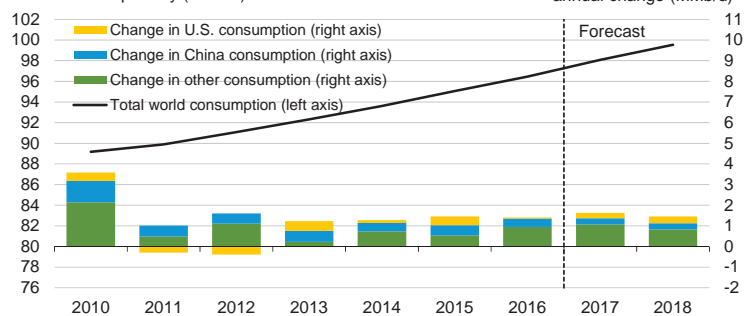
million barrels per day



Source: Short-Term Energy Outlook, February 2017.

World liquid fuels consumption

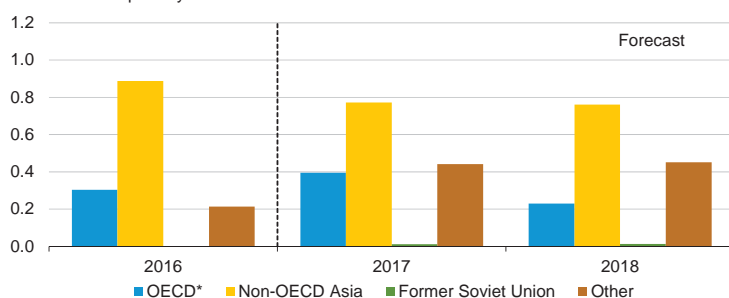
million barrels per day (MMb/d)



Source: Short-Term Energy Outlook, February 2017.

World liquid fuels consumption growth

million barrels per day

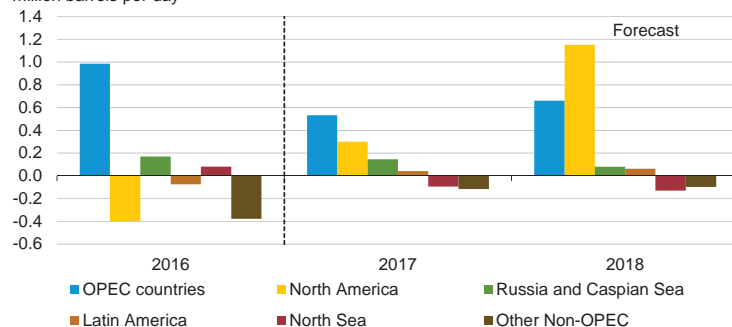


* Countries belonging to the Organization for Economic Cooperation and Development

Source: Short-Term Energy Outlook, February 2017.

World crude oil and liquid fuels production growth

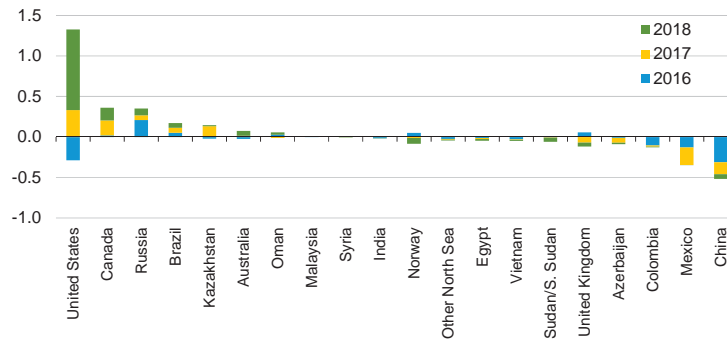
million barrels per day



Source: Short-Term Energy Outlook, February 2017.

Non-OPEC crude oil and liquid fuels production growth

million barrels per day

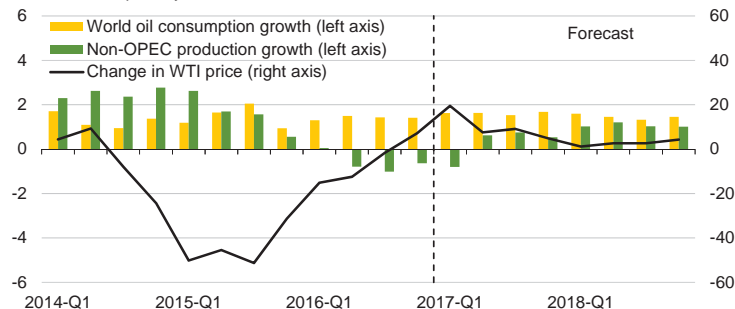


Source: Short-Term Energy Outlook, February 2017.

World consumption and non-OPEC production growth

million barrels per day

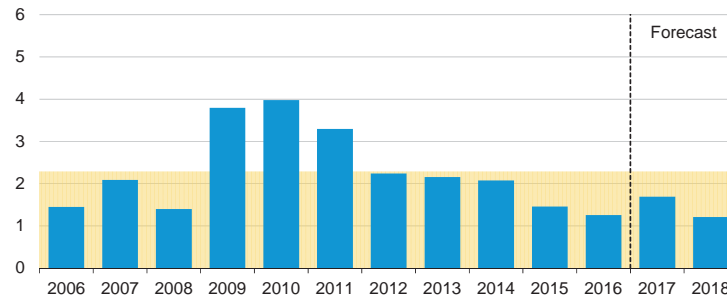
dollars per barrel



Source: Short-Term Energy Outlook, February 2017.

OPEC surplus crude oil production capacity

million barrels per day

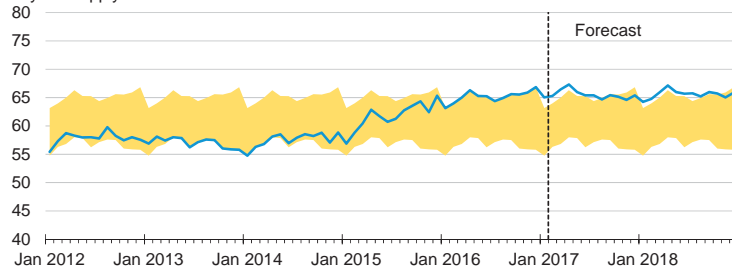


Note: Shaded area represents 2006-2016 average (2.3 million barrels per day).

Source: Short-Term Energy Outlook, February 2017.

OECD commercial stocks of crude oil and other liquids

days of supply

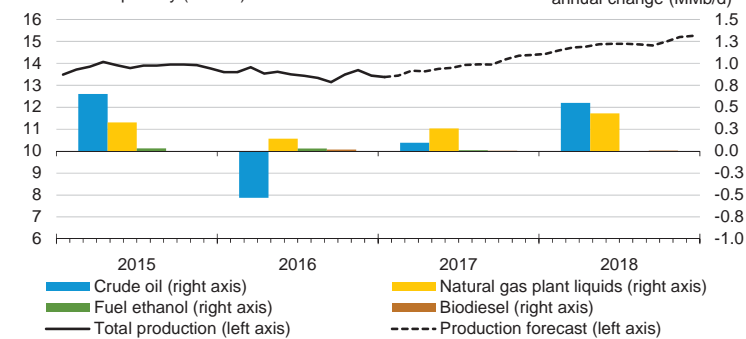


Note: Colored band around days of supply of crude oil and other liquids stocks represents the range between the minimum and maximum from Jan. 2012 - Dec. 2016.

Source: Short-Term Energy Outlook, February 2017.

U.S. crude oil and liquid fuels production

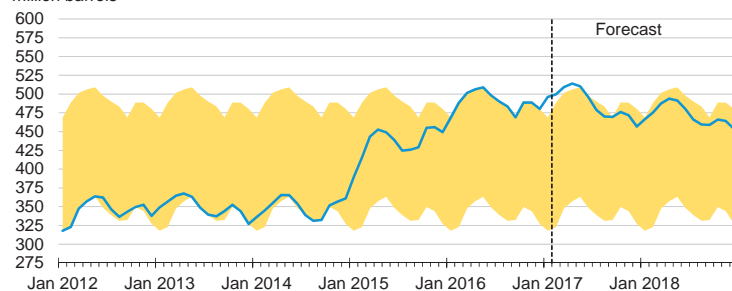
million barrels per day (MMb/d)



Source: Short-Term Energy Outlook, February 2017.

U.S. commercial crude oil stocks

million barrels



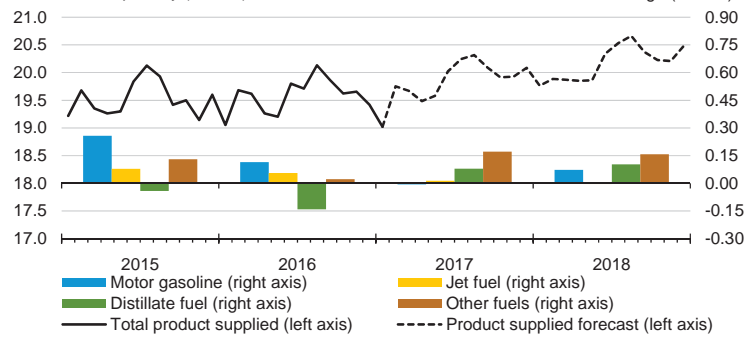
Note: Colored band around storage levels represents the range between the minimum and maximum from Jan. 2012 - Dec. 2016.

Source: Short-Term Energy Outlook, February 2017.

U.S. liquid fuels product supplied

million barrels per day (MMb/d)

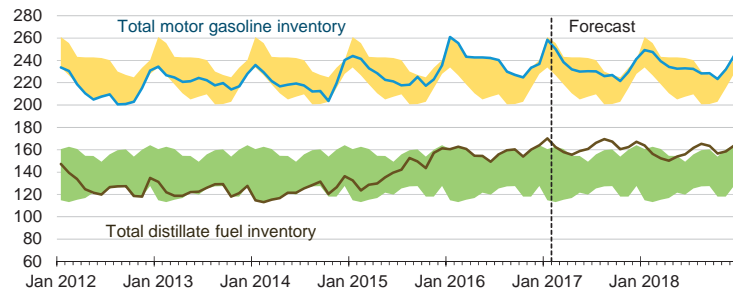
annual change (MMb/d)



Source: Short-Term Energy Outlook, February 2017.

U.S. gasoline and distillate inventories

million barrels



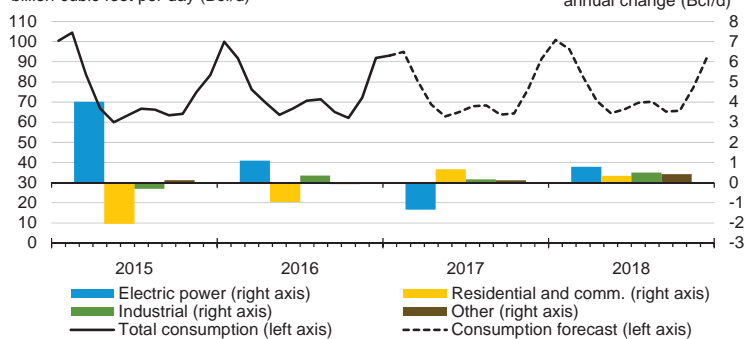
Note: Colored bands around storage levels represent the range between the minimum and maximum from Jan. 2012 - Dec. 2016.

Source: Short-Term Energy Outlook, February 2017.

U.S. natural gas consumption

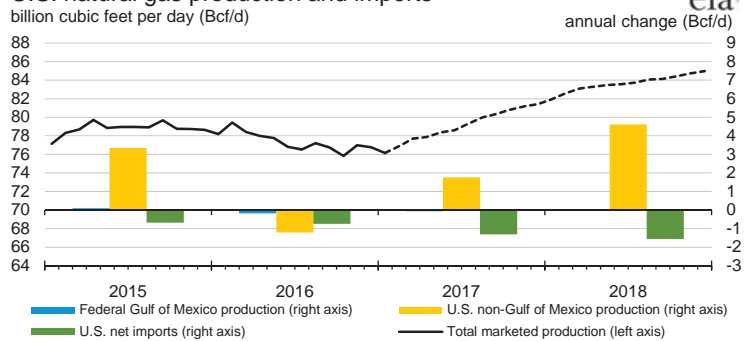
billion cubic feet per day (Bcf/d)

annual change (Bcf/d)



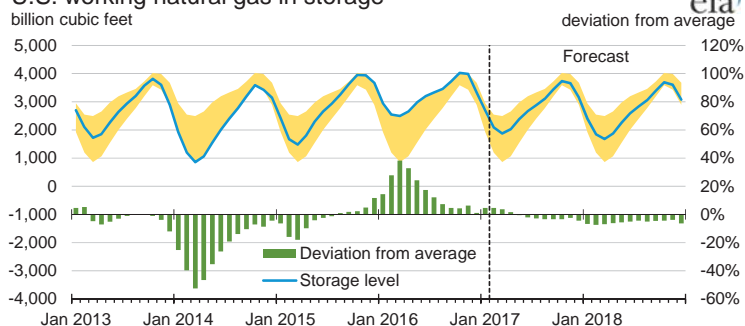
Source: Short-Term Energy Outlook, February 2017.

U.S. natural gas production and imports



Source: Short-Term Energy Outlook, February 2017.

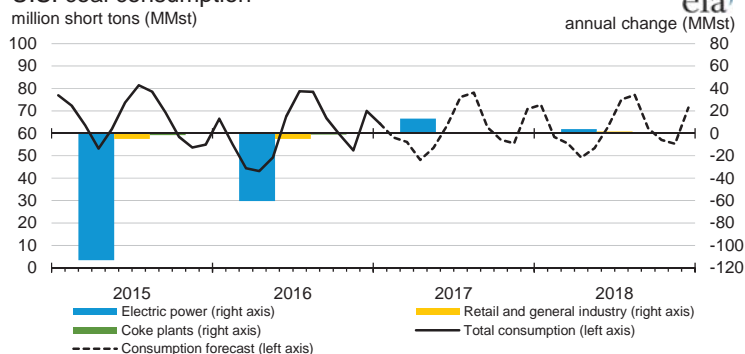
U.S. working natural gas in storage



Note: Colored band around storage levels represents the range between the minimum and maximum from Jan. 2012 - Dec. 2016.

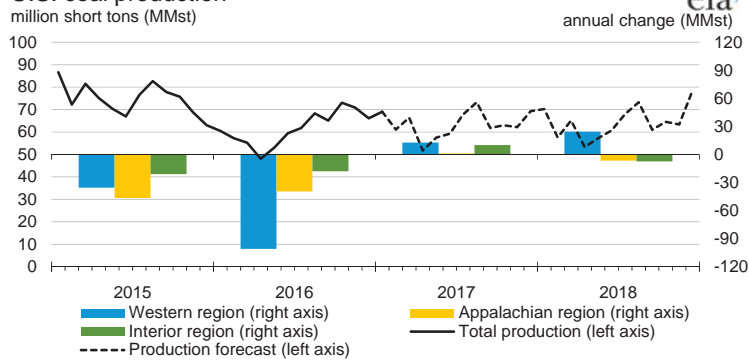
Source: Short-Term Energy Outlook, February 2017.

U.S. coal consumption



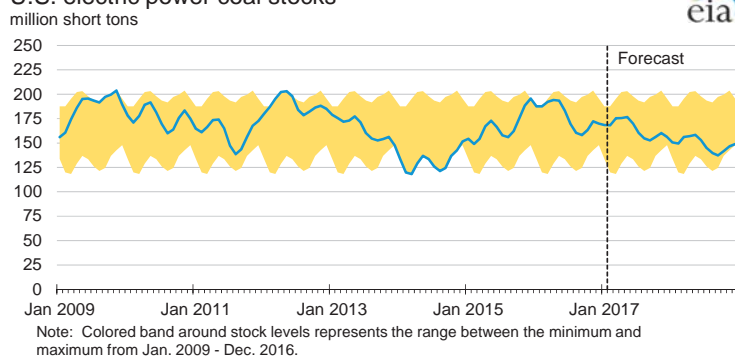
Source: Short-Term Energy Outlook, February 2017.

U.S. coal production



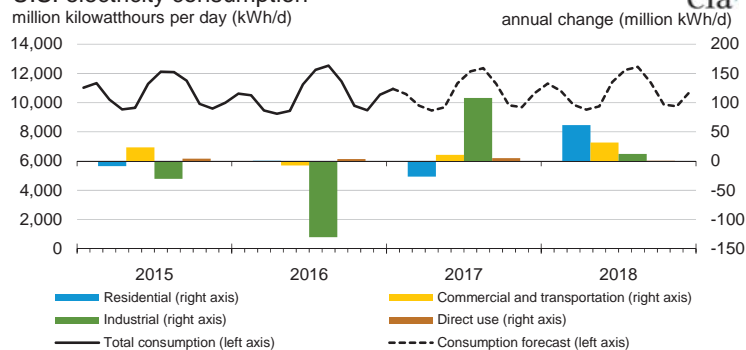
Source: Short-Term Energy Outlook, February 2017.

U.S. electric power coal stocks



Source: Short-Term Energy Outlook, February 2017.

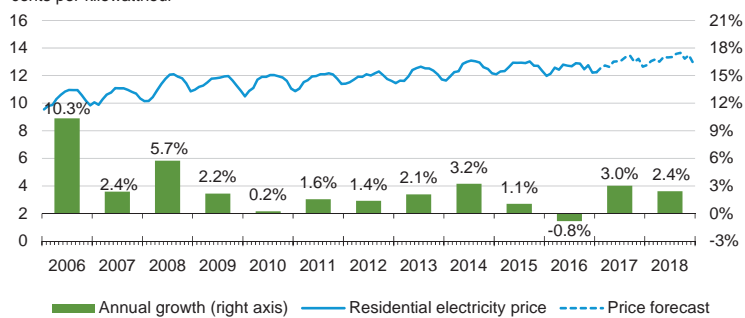
U.S. electricity consumption



Source: Short-Term Energy Outlook, February 2017.

U.S. residential electricity price

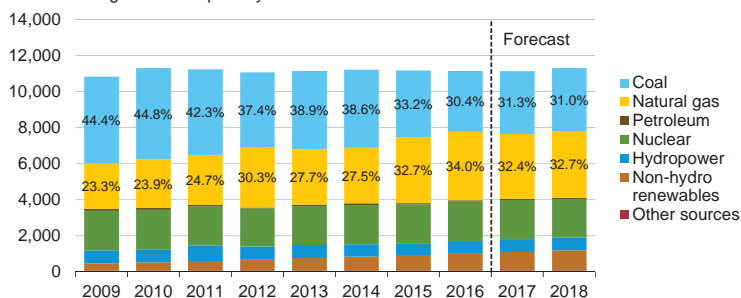
cents per kilowatthour



Source: Short-Term Energy Outlook, February 2017.

U.S. electricity generation by fuel, all sectors

thousand megawatthours per day

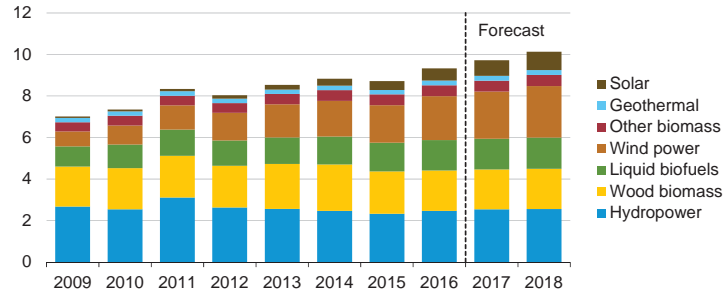


Note: Labels show percentage share of total generation provided by coal and natural gas.

Source: Short-Term Energy Outlook, February 2017.

U.S. renewable energy supply

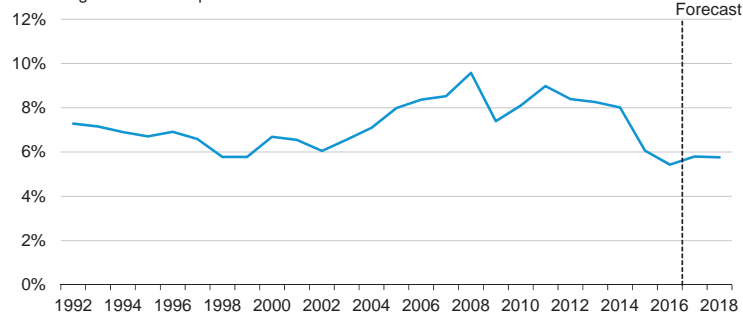
quadrillion British thermal units (Btu)



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.

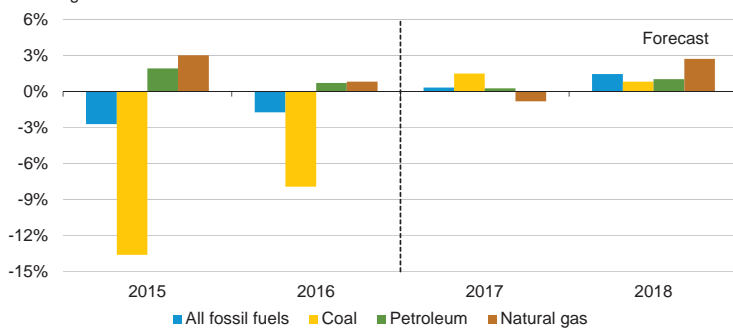
Source: Short-Term Energy Outlook, February 2017.

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



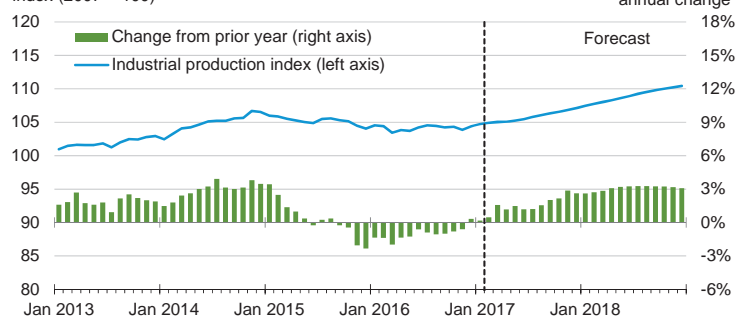
Source: Short-Term Energy Outlook, February 2017.

U.S. energy-related carbon dioxide emissions annual growth



Source: Short-Term Energy Outlook, February 2017.

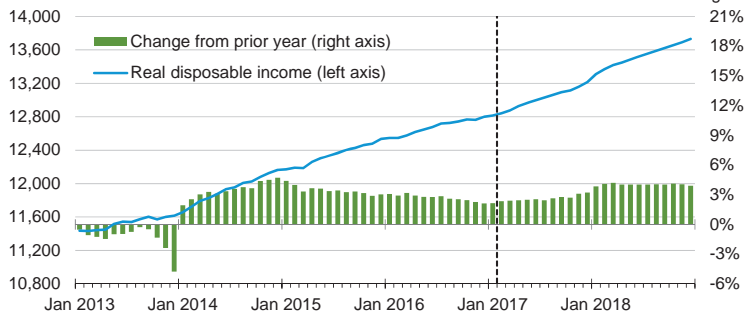
U.S. total industrial production index index (2007 = 100)



Source: Short-Term Energy Outlook, February 2017.

U.S. disposable income

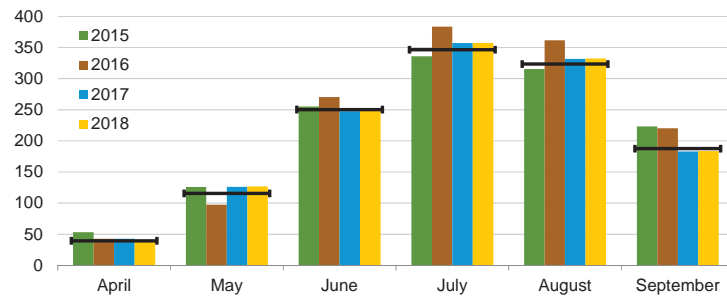
billion 2009 dollars, seasonally adjusted



Source: Short-Term Energy Outlook, February 2017.

U.S. summer cooling degree days

population-weighted

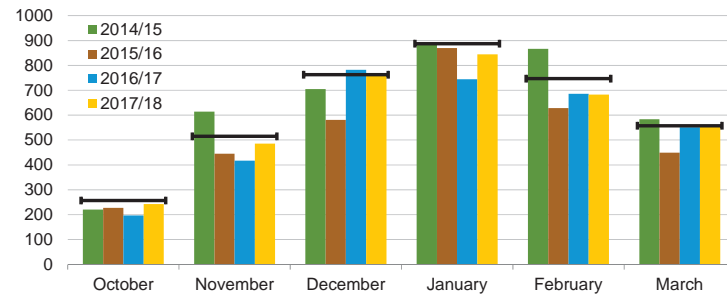


Note: EIA calculations based on from the National Oceanic and Atmospheric Administration data. Horizontal lines indicate each month's prior 10-year average (2007-2016). Projections reflect NOAA's 14-16 month outlook.

Source: Short-Term Energy Outlook, February 2017.

U.S. winter heating degree days

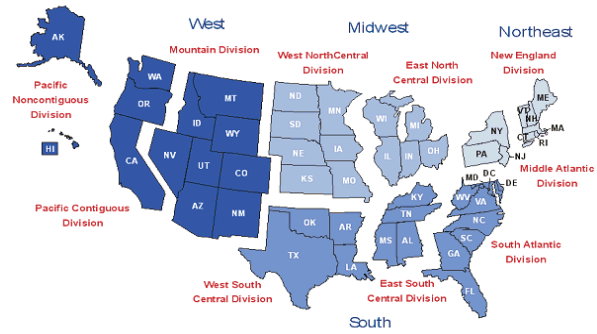
population-weighted



Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Horizontal lines indicate each month's prior 10-year average (Oct 2006 - Mar 2016). Projections reflect NOAA's 14-16 month outlook.

Source: Short-Term Energy Outlook, February 2017.

U.S. census regions and divisions



Source: Short-Term Energy Outlook, February 2017.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2017

Fuel / Region	Winter of							Forecast	
	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	% Change
Natural Gas									
Northeast									
Consumption (Mcf**)	75.7	80.7	66.4	76.1	84.0	84.7	67.8	73.1	7.9
Price (\$/mcf)	13.31	12.66	12.21	11.71	11.53	10.82	10.20	11.16	9.4
Expenditures (\$)	1,007	1,022	812	891	969	916	691	816	18.1
Midwest									
Consumption (Mcf)	78.6	80.2	65.4	77.6	88.1	83.0	67.7	72.1	6.6
Price (\$/mcf)	9.44	9.23	8.99	8.36	8.69	8.56	7.58	8.85	16.8
Expenditures (\$)	742	740	587	648	766	711	513	639	24.5
South									
Consumption (Mcf)	53.2	49.3	40.8	46.5	52.1	50.4	40.7	40.9	0.5
Price (\$/mcf)	11.52	11.02	11.45	10.71	10.77	10.82	10.85	12.64	16.5
Expenditures (\$)	613	543	468	497	561	546	442	517	17.0
West									
Consumption (Mcf)	49.9	49.4	49.1	48.6	46.4	41.4	45.9	46.8	2.0
Price (\$/mcf)	9.91	9.67	9.35	9.13	9.96	10.72	9.93	10.60	6.7
Expenditures (\$)	494	478	459	444	462	444	456	496	8.9
U.S. Average									
Consumption (Mcf)	64.4	65.0	55.7	62.5	68.0	64.8	55.7	58.5	4.9
Price (\$/mcf)	10.83	10.46	10.25	9.72	9.97	9.91	9.31	10.46	12.3
Expenditures (\$)	698	679	570	607	677	642	519	612	17.9
Heating Oil									
U.S. Average									
Consumption (gallons)	544.7	580.7	471.1	545.4	607.1	608.1	481.6	522.5	8.5
Price (\$/gallon)	2.85	3.38	3.73	3.87	3.88	3.04	2.06	2.46	19.3
Expenditures (\$)	1,552	1,965	1,757	2,113	2,353	1,849	992	1,285	29.5
Electricity									
Northeast									
Consumption (kWh***)	6,847	7,076	6,436	6,862	7,221	7,252	6,496	6,736	3.7
Price (\$/kwh)	0.152	0.154	0.154	0.152	0.163	0.168	0.164	0.166	0.6
Expenditures (\$)	1,039	1,091	993	1,046	1,177	1,219	1,068	1,115	4.4
Midwest									
Consumption (kWh)	8,660	8,733	7,897	8,588	9,168	8,856	8,030	8,281	3.1
Price (\$/kwh)	0.099	0.105	0.111	0.112	0.112	0.118	0.121	0.122	0.5
Expenditures (\$)	856	914	875	958	1,031	1,045	974	1,009	3.7
South									
Consumption (kWh)	8,482	8,220	7,466	7,972	8,381	8,280	7,460	7,494	0.5
Price (\$/kwh)	0.103	0.104	0.107	0.107	0.109	0.111	0.111	0.111	0.2
Expenditures (\$)	873	855	797	851	913	919	825	830	0.7
West									
Consumption (kWh)	7,239	7,216	7,190	7,150	6,981	6,601	6,952	7,025	1.1
Price (\$/kwh)	0.110	0.112	0.115	0.119	0.123	0.127	0.130	0.133	2.5
Expenditures (\$)	799	809	825	848	860	836	901	934	3.6
U.S. Average									
Consumption (kWh)	7,935	7,842	7,251	7,670	7,980	7,801	7,240	7,348	1.5
Price (\$/kwh)	0.110	0.113	0.116	0.117	0.120	0.123	0.124	0.125	0.9
Expenditures (\$)	873	884	842	895	955	960	895	917	2.4

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

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2017

Fuel / Region	Winter of							Forecast	
	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	% Change
Propane									
Northeast									
Consumption (gallons)	672.0	717.5	595.6	675.8	745.1	751.3	607.4	654.2	7.7
Price* (\$/gallon)	2.98	3.24	3.34	3.00	3.56	3.00	2.71	3.07	13.3
Expenditures (\$)	2,004	2,321	1,990	2,031	2,653	2,254	1,646	2,008	22.0
Midwest									
Consumption (gallons)	779.6	791.9	644.3	766.4	868.6	813.1	667.6	711.9	6.6
Price* (\$/gallon)	1.99	2.11	2.23	1.74	2.61	1.91	1.47	1.76	19.7
Expenditures (\$)	1,548	1,674	1,437	1,333	2,267	1,553	981	1,253	27.7
Number of households by primary space heating fuel (thousands)									
Northeast									
Natural gas	10,992	11,118	11,236	11,345	11,522	11,724	11,842	11,959	1.0
Heating oil	6,016	5,858	5,701	5,458	5,241	5,101	4,971	4,827	-2.9
Propane	733	744	761	813	845	860	873	878	0.6
Electricity	2,645	2,776	2,894	3,011	3,036	3,104	3,222	3,307	2.6
Wood	501	512	548	582	585	566	541	536	-0.9
Other/None	311	315	324	377	436	438	434	452	4.2
Midwest									
Natural gas	18,050	17,977	18,019	18,054	18,072	18,167	18,092	18,046	-0.3
Heating oil	451	419	393	360	336	318	299	280	-6.5
Propane	2,098	2,073	2,037	2,063	2,088	2,079	2,076	2,061	-0.7
Electricity	4,715	4,922	5,119	5,333	5,422	5,500	5,722	5,924	3.5
Wood	616	618	631	640	632	612	602	612	1.7
Other/None	283	289	282	319	353	350	350	362	3.3
South									
Natural gas	13,731	13,657	13,636	13,681	13,793	13,906	13,914	13,962	0.3
Heating oil	906	853	790	738	698	680	656	623	-5.1
Propane	2,165	2,098	2,024	1,982	1,943	1,924	1,888	1,828	-3.2
Electricity	25,791	26,555	27,283	27,857	28,230	28,802	29,483	30,158	2.3
Wood	586	599	609	612	616	587	581	601	3.4
Other/None	314	309	304	367	419	408	405	410	1.3
West									
Natural gas	14,939	15,020	15,021	15,009	15,059	15,216	15,318	15,434	0.8
Heating oil	289	279	261	247	234	225	218	209	-4.0
Propane	940	914	885	909	930	917	910	899	-1.2
Electricity	7,877	8,126	8,439	8,671	8,754	8,919	9,221	9,489	2.9
Wood	721	725	736	728	744	747	724	731	1.0
Other/None	850	850	829	903	1,015	1,076	1,074	1,076	0.2
U.S. Totals									
Natural gas	57,713	57,771	57,912	58,088	58,446	59,014	59,166	59,401	0.4
Heating oil	7,662	7,408	7,145	6,803	6,509	6,324	6,144	5,938	-3.3
Propane	5,936	5,829	5,707	5,766	5,806	5,780	5,746	5,667	-1.4
Electricity	41,029	42,380	43,734	44,873	45,442	46,325	47,649	48,878	2.6
Wood	2,424	2,454	2,524	2,563	2,576	2,512	2,448	2,480	1.3
Other/None	1,758	1,763	1,739	1,965	2,222	2,272	2,263	2,300	1.7
Heating degree days									
Northeast	4,933	5,337	4,217	4,964	5,594	5,646	4,320	4,743	9.8
Midwest	5,639	5,773	4,484	5,544	6,451	6,001	4,687	5,074	8.3
South	2,867	2,629	2,019	2,426	2,783	2,689	2,012	2,034	1.1
West	3,285	3,258	3,229	3,181	2,989	2,566	2,952	3,034	2.8
U.S. Average	3,936	3,938	3,223	3,720	4,108	3,880	3,201	3,379	5.6

Note: Winter covers the period October 1 through March 31. Fuel prices are nominal prices. Fuel consumption per household is based only on households that use that fuel as the primary space-heating fuel. Included in fuel consumption is consumption for water heating, appliances, and lighting (electricity). Per-household consumption based on an average of EIA 2005 and 2009 Residential Energy Consumption Surveys corrected for actual and projected heating degree days. Number of households using heating oil includes kerosene.

* Prices exclude taxes

** thousand cubic feet

*** kilowatthour

Table 1. U.S. Energy Markets Summary

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
Energy Supply															
Crude Oil Production (a) (million barrels per day)	9.17	8.85	8.67	8.85	<i>8.88</i>	<i>8.93</i>	<i>8.93</i>	<i>9.18</i>	<i>9.44</i>	<i>9.55</i>	<i>9.45</i>	<i>9.68</i>	8.88	<i>8.98</i>	<i>9.53</i>
Dry Natural Gas Production (billion cubic feet per day)	73.77	72.38	71.84	71.39	<i>71.81</i>	<i>72.96</i>	<i>74.41</i>	<i>75.54</i>	<i>76.79</i>	<i>77.59</i>	<i>78.03</i>	<i>78.66</i>	72.34	<i>73.69</i>	<i>77.77</i>
Coal Production (million short tons)	173	161	195	210	<i>196</i>	<i>169</i>	<i>203</i>	<i>194</i>	<i>193</i>	<i>171</i>	<i>202</i>	<i>206</i>	739	<i>762</i>	<i>773</i>
Energy Consumption															
Liquid Fuels (million barrels per day)	19.45	19.42	19.90	19.57	<i>19.47</i>	<i>19.69</i>	<i>20.22</i>	<i>19.98</i>	<i>19.84</i>	<i>20.02</i>	<i>20.52</i>	<i>20.31</i>	19.58	<i>19.84</i>	<i>20.17</i>
Natural Gas (billion cubic feet per day)	89.23	66.69	69.08	75.38	<i>89.41</i>	<i>65.51</i>	<i>66.72</i>	<i>77.31</i>	<i>93.07</i>	<i>67.10</i>	<i>68.41</i>		75.08	<i>74.68</i>	<i>76.72</i>
Coal (b) (million short tons)	166	160	224	182	<i>179</i>	<i>165</i>	<i>217</i>	<i>184</i>	<i>187</i>	<i>165</i>	<i>214</i>	<i>184</i>	732	<i>744</i>	<i>750</i>
Electricity (billion kilowatt hours per day)	10.19	9.96	12.09	9.94	<i>10.44</i>	<i>10.15</i>	<i>11.93</i>	<i>10.06</i>	<i>10.65</i>	<i>10.21</i>	<i>12.02</i>	<i>10.12</i>	10.55	<i>10.65</i>	<i>10.75</i>
Renewables (c) (quadrillion Btu)	2.61	2.60	2.44	2.52	<i>2.56</i>	<i>2.84</i>	<i>2.56</i>	<i>2.55</i>	<i>2.70</i>	<i>2.93</i>	<i>2.68</i>	<i>2.63</i>	10.16	<i>10.51</i>	<i>10.93</i>
Total Energy Consumption (d) (quadrillion Btu)	25.24	22.95	24.79	24.14	<i>24.84</i>	<i>22.80</i>	<i>24.26</i>	<i>24.30</i>	<i>25.53</i>	<i>23.12</i>	<i>24.56</i>	<i>24.59</i>	97.13	<i>96.20</i>	<i>97.80</i>
Energy Prices															
Crude Oil West Texas Intermediate Spot (dollars per barrel)	33.35	45.46	44.85	49.18	<i>52.83</i>	<i>53.00</i>	<i>54.00</i>	<i>54.00</i>	<i>54.00</i>	<i>55.67</i>	<i>56.67</i>	<i>58.31</i>	43.33	<i>53.46</i>	<i>56.18</i>
Natural Gas Henry Hub Spot (dollars per million Btu)	2.00	2.14	2.88	3.04	<i>3.36</i>	<i>3.38</i>	<i>3.41</i>	<i>3.56</i>	<i>3.78</i>	<i>3.68</i>	<i>3.61</i>	<i>3.71</i>	2.51	<i>3.43</i>	<i>3.70</i>
Coal (dollars per million Btu)	2.13	2.14	2.11	2.12	<i>2.16</i>	<i>2.15</i>	<i>2.19</i>	<i>2.17</i>	<i>2.19</i>	<i>2.19</i>	<i>2.22</i>	<i>2.22</i>	2.13	<i>2.17</i>	<i>2.21</i>
Macroeconomic															
Real Gross Domestic Product (billion chained 2009 dollars - SAAR)	16,525	16,583	16,727	16,788	<i>16,885</i>	<i>16,982</i>	<i>17,082</i>	<i>17,175</i>	<i>17,304</i>	<i>17,422</i>	<i>17,540</i>	<i>17,647</i>	16,656	<i>17,031</i>	<i>17,478</i>
Percent change from prior year	1.6	1.3	1.7	1.8	<i>2.2</i>	<i>2.4</i>	<i>2.1</i>	<i>2.3</i>	<i>2.5</i>	<i>2.6</i>	<i>2.7</i>	<i>2.7</i>	1.6	<i>2.3</i>	<i>2.6</i>
GDP Implicit Price Deflator (Index, 2009=100)	110.6	111.3	111.7	112.2	<i>113.1</i>	<i>113.6</i>	<i>114.3</i>	<i>114.9</i>	<i>115.5</i>	<i>116.1</i>	<i>116.7</i>	<i>117.3</i>	111.4	<i>114.0</i>	<i>116.4</i>
Percent change from prior year	1.2	1.2	1.3	1.5	<i>2.2</i>	<i>2.1</i>	<i>2.3</i>	<i>2.4</i>	<i>2.1</i>	<i>2.1</i>	<i>2.1</i>	<i>2.1</i>	1.3	<i>2.3</i>	<i>2.1</i>
Real Disposable Personal Income (billion chained 2009 dollars - SAAR)	12,556	12,647	12,729	12,777	<i>12,845</i>	<i>12,963</i>	<i>13,062</i>	<i>13,162</i>	<i>13,365</i>	<i>13,485</i>	<i>13,590</i>	<i>13,692</i>	12,677	<i>13,008</i>	<i>13,533</i>
Percent change from prior year	3.1	2.8	2.7	2.3	<i>2.3</i>	<i>2.5</i>	<i>2.6</i>	<i>3.0</i>	<i>4.1</i>	<i>4.0</i>	<i>4.0</i>	<i>4.0</i>	2.7	<i>2.6</i>	<i>4.0</i>
Manufacturing Production Index (Index, 2012=100)	103.9	103.6	103.8	104.1	<i>104.4</i>	<i>104.6</i>	<i>105.4</i>	<i>106.1</i>	<i>107.0</i>	<i>107.8</i>	<i>108.8</i>	<i>109.5</i>	103.8	<i>105.1</i>	<i>108.3</i>
Percent change from prior year	0.6	0.2	-0.1	0.3	<i>0.5</i>	<i>0.9</i>	<i>1.5</i>	<i>2.0</i>	<i>2.5</i>	<i>3.1</i>	<i>3.3</i>	<i>3.1</i>	0.3	<i>1.2</i>	<i>3.0</i>
Weather															
U.S. Heating Degree-Days	1,947	480	51	1,397	<i>1,982</i>	<i>459</i>	<i>68</i>	<i>1,495</i>	<i>2,084</i>	<i>464</i>	<i>68</i>	<i>1,493</i>	3,875	<i>4,004</i>	<i>4,108</i>
U.S. Cooling Degree-Days	54	410	965	129	<i>48</i>	<i>417</i>	<i>872</i>	<i>97</i>	<i>42</i>	<i>415</i>	<i>873</i>	<i>97</i>	1,559	<i>1,433</i>	<i>1,428</i>

- = 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. Macroeconomic projections are based on Global Insight 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 - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
Crude Oil (dollars per barrel)															
West Texas Intermediate Spot Average	33.35	45.46	44.85	49.18	<i>52.83</i>	<i>53.00</i>	<i>54.00</i>	<i>54.00</i>	<i>54.00</i>	<i>55.67</i>	<i>56.67</i>	<i>58.31</i>	43.33	<i>53.46</i>	<i>56.18</i>
Brent Spot Average	33.89	45.57	45.80	49.25	<i>54.18</i>	<i>54.00</i>	<i>55.00</i>	<i>55.00</i>	<i>55.00</i>	<i>56.67</i>	<i>57.67</i>	<i>59.31</i>	43.74	<i>54.54</i>	<i>57.18</i>
U.S. Imported Average	28.83	40.35	41.19	45.02	<i>49.31</i>	<i>49.50</i>	<i>50.50</i>	<i>50.50</i>	<i>50.50</i>	<i>52.16</i>	<i>53.17</i>	<i>54.84</i>	38.82	<i>49.95</i>	<i>52.68</i>
U.S. Refiner Average Acquisition Cost	30.84	42.23	42.90	47.54	<i>51.82</i>	<i>52.00</i>	<i>53.00</i>	<i>53.00</i>	<i>53.00</i>	<i>54.68</i>	<i>55.66</i>	<i>57.35</i>	40.93	<i>52.46</i>	<i>55.20</i>
U.S. Liquid Fuels (cents per gallon)															
Refiner Prices for Resale															
Gasoline	119	158	150	153	<i>160</i>	<i>173</i>	<i>172</i>	<i>156</i>	<i>155</i>	<i>179</i>	<i>178</i>	<i>164</i>	145	<i>166</i>	<i>169</i>
Diesel Fuel	109	141	145	157	<i>167</i>	<i>168</i>	<i>172</i>	<i>176</i>	<i>174</i>	<i>177</i>	<i>181</i>	<i>188</i>	138	<i>171</i>	<i>180</i>
Heating Oil	99	125	132	148	<i>161</i>	<i>159</i>	<i>163</i>	<i>170</i>	<i>172</i>	<i>168</i>	<i>172</i>	<i>181</i>	123	<i>163</i>	<i>174</i>
Refiner Prices to End Users															
Jet Fuel	107	134	137	152	<i>163</i>	<i>162</i>	<i>168</i>	<i>172</i>	<i>171</i>	<i>171</i>	<i>176</i>	<i>183</i>	133	<i>166</i>	<i>175</i>
No. 6 Residual Fuel Oil (a)	69	89	103	112	<i>127</i>	<i>127</i>	<i>131</i>	<i>131</i>	<i>132</i>	<i>133</i>	<i>137</i>	<i>141</i>	93	<i>129</i>	<i>136</i>
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	190	225	221	223	<i>232</i>	<i>247</i>	<i>248</i>	<i>231</i>	<i>227</i>	<i>253</i>	<i>254</i>	<i>240</i>	215	<i>239</i>	<i>244</i>
Gasoline All Grades (b)	200	235	232	234	<i>242</i>	<i>257</i>	<i>259</i>	<i>242</i>	<i>238</i>	<i>264</i>	<i>265</i>	<i>252</i>	226	<i>250</i>	<i>255</i>
On-highway Diesel Fuel	208	230	238	247	<i>267</i>	<i>270</i>	<i>273</i>	<i>278</i>	<i>280</i>	<i>281</i>	<i>285</i>	<i>292</i>	231	<i>272</i>	<i>285</i>
Heating Oil	195	205	211	233	<i>255</i>	<i>257</i>	<i>261</i>	<i>270</i>	<i>275</i>	<i>266</i>	<i>269</i>	<i>280</i>	210	<i>261</i>	<i>275</i>
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	2.06	2.21	2.97	3.14	<i>3.47</i>	<i>3.49</i>	<i>3.52</i>	<i>3.67</i>	<i>3.90</i>	<i>3.80</i>	<i>3.73</i>	<i>3.83</i>	2.60	<i>3.54</i>	<i>3.81</i>
Henry Hub Spot (dollars per million Btu)	2.00	2.14	2.88	3.04	<i>3.36</i>	<i>3.38</i>	<i>3.41</i>	<i>3.56</i>	<i>3.78</i>	<i>3.68</i>	<i>3.61</i>	<i>3.71</i>	2.51	<i>3.43</i>	<i>3.70</i>
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	3.44	2.93	3.62	4.12	<i>4.91</i>	<i>4.43</i>	<i>4.49</i>	<i>4.85</i>	<i>5.33</i>	<i>4.78</i>	<i>4.78</i>	<i>5.05</i>	3.54	<i>4.68</i>	<i>5.00</i>
Commercial Sector	6.84	7.25	8.21	7.67	<i>8.13</i>	<i>8.61</i>	<i>9.04</i>	<i>8.38</i>	<i>8.37</i>	<i>8.82</i>	<i>9.26</i>	<i>8.53</i>	7.32	<i>8.39</i>	<i>8.59</i>
Residential Sector	8.53	11.16	16.99	10.64	<i>10.09</i>	<i>12.51</i>	<i>16.84</i>	<i>11.01</i>	<i>10.17</i>	<i>12.77</i>	<i>17.16</i>	<i>11.27</i>	10.19	<i>11.21</i>	<i>11.37</i>
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.13	2.14	2.11	2.12	<i>2.16</i>	<i>2.15</i>	<i>2.19</i>	<i>2.17</i>	<i>2.19</i>	<i>2.19</i>	<i>2.22</i>	<i>2.22</i>	2.13	<i>2.17</i>	<i>2.21</i>
Natural Gas	2.65	2.51	3.00	3.52	<i>4.25</i>	<i>3.88</i>	<i>3.73</i>	<i>4.16</i>	<i>4.66</i>	<i>4.19</i>	<i>3.95</i>	<i>4.35</i>	2.91	<i>3.97</i>	<i>4.25</i>
Residual Fuel Oil (c)	6.15	8.51	9.70	8.93	<i>9.81</i>	<i>10.75</i>	<i>10.49</i>	<i>10.38</i>	<i>10.27</i>	<i>11.03</i>	<i>10.85</i>	<i>10.90</i>	8.38	<i>10.36</i>	<i>10.76</i>
Distillate Fuel Oil	9.00	11.01	11.64	12.59	<i>13.59</i>	<i>13.75</i>	<i>14.00</i>	<i>14.66</i>	<i>14.86</i>	<i>14.89</i>	<i>15.11</i>	<i>15.96</i>	10.98	<i>14.00</i>	<i>15.18</i>
Retail Prices (cents per kilowatthour)															
Industrial Sector	6.42	6.67	7.20	6.67	<i>6.54</i>	<i>6.81</i>	<i>7.36</i>	<i>6.80</i>	<i>6.59</i>	<i>6.92</i>	<i>7.48</i>	<i>6.93</i>	6.75	<i>6.89</i>	<i>6.99</i>
Commercial Sector	10.12	10.34	10.67	10.25	<i>10.11</i>	<i>10.48</i>	<i>11.00</i>	<i>10.61</i>	<i>10.38</i>	<i>10.62</i>	<i>11.08</i>	<i>10.74</i>	10.36	<i>10.57</i>	<i>10.72</i>
Residential Sector	12.20	12.66	12.81	12.45	<i>12.50</i>	<i>12.92</i>	<i>13.29</i>	<i>12.93</i>	<i>12.98</i>	<i>13.23</i>	<i>13.51</i>	<i>13.19</i>	12.55	<i>12.93</i>	<i>13.24</i>

- = no data available

Prices are not adjusted for inflation.

(a) Average for all sulfur contents.

(b) Average self-service cash price.

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

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

Prices exclude taxes unless otherwise noted.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Marketing Monthly*, DOE/EIA-0380;*Weekly Petroleum Status Report*, DOE/EIA-0208; *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; and *Monthly Energy Review*, DOE/EIA-0035.WTI and Brent crude oils, and Henry Hub natural gas spot prices from Reuter's News Service (<http://www.reuters.com>).

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
Supply (million barrels per day) (a)															
OECD	26.97	25.88	26.27	26.66	26.40	26.56	26.65	27.23	27.50	27.75	27.76	28.23	26.44	26.71	27.81
U.S. (50 States)	14.96	14.88	14.67	14.84	14.76	15.02	15.27	15.61	15.84	16.14	16.20	16.47	14.84	15.17	16.16
Canada	4.73	3.98	4.69	4.70	4.71	4.68	4.70	4.75	4.79	4.82	4.89	4.97	4.53	4.71	4.87
Mexico	2.57	2.52	2.49	2.41	2.25	2.24	2.33	2.31	2.29	2.28	2.27	2.26	2.49	2.28	2.28
North Sea (b)	3.24	3.12	2.98	3.23	3.20	3.13	2.84	3.04	3.04	2.95	2.80	2.90	3.14	3.05	2.92
Other OECD	1.47	1.38	1.44	1.48	1.49	1.50	1.51	1.52	1.55	1.56	1.60	1.62	1.44	1.50	1.58
Non-OECD	69.86	70.61	70.77	71.84	70.37	71.14	71.90	71.84	71.19	72.08	72.34	72.17	70.77	71.32	71.95
OPEC	38.32	38.78	39.06	39.91	39.07	39.37	39.81	39.95	39.96	40.29	40.32	40.27	39.02	39.55	40.21
Crude Oil Portion	31.91	32.39	32.58	33.19	32.26	32.54	32.95	33.03	33.02	33.30	33.29	33.19	32.52	32.70	33.20
Other Liquids (c)	6.41	6.39	6.48	6.71	6.80	6.83	6.86	6.92	6.95	6.99	7.03	7.07	6.50	6.85	7.01
Eurasia	14.37	14.16	13.97	14.55	14.50	14.33	14.38	14.45	14.48	14.42	14.44	14.60	14.26	14.41	14.49
China	5.02	4.91	4.79	4.70	4.68	4.71	4.70	4.74	4.63	4.65	4.64	4.68	4.86	4.71	4.65
Other Non-OECD	12.15	12.77	12.95	12.68	12.12	12.73	13.01	12.71	12.12	12.72	12.93	12.63	12.64	12.64	12.60
Total World Supply	96.82	96.49	97.04	98.50	96.78	97.70	98.55	99.07	98.69	99.83	100.09	100.40	97.22	98.03	99.76
Non-OPEC Supply	58.51	57.71	57.98	58.59	57.71	58.33	58.73	59.13	58.73	59.54	59.77	60.14	58.20	58.48	59.55
Consumption (million barrels per day) (d)															
OECD	46.63	45.96	47.21	46.71	47.04	46.38	47.39	47.29	47.33	46.60	47.59	47.51	46.63	47.03	47.26
U.S. (50 States)	19.45	19.42	19.90	19.57	19.47	19.69	20.22	19.98	19.84	20.02	20.52	20.31	19.58	19.84	20.17
U.S. Territories	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.31	0.31	0.31	0.31	0.28	0.29	0.31
Canada	2.39	2.37	2.51	2.37	2.40	2.34	2.46	2.44	2.38	2.32	2.44	2.42	2.41	2.41	2.39
Europe	13.62	13.93	14.42	13.89	13.87	14.00	14.40	13.96	13.91	13.95	14.35	13.90	13.96	14.06	14.03
Japan	4.43	3.66	3.75	4.07	4.32	3.64	3.67	4.02	4.23	3.56	3.59	3.93	3.98	3.91	3.83
Other OECD	6.47	6.31	6.35	6.55	6.67	6.41	6.36	6.61	6.65	6.44	6.38	6.64	6.42	6.51	6.53
Non-OECD	48.73	50.12	50.25	50.23	49.95	51.34	51.60	51.33	51.25	52.58	52.73	52.57	49.83	51.06	52.29
Eurasia	4.78	4.71	4.98	4.97	4.78	4.71	4.99	4.97	4.79	4.71	4.99	4.98	4.86	4.86	4.87
Europe	0.69	0.70	0.72	0.72	0.70	0.70	0.73	0.72	0.71	0.71	0.74	0.73	0.71	0.71	0.72
China	12.20	12.41	12.32	12.59	12.59	12.72	12.64	12.77	12.88	13.02	12.89	13.12	12.38	12.68	12.98
Other Asia	12.74	12.95	12.46	12.84	13.20	13.44	12.93	13.31	13.67	13.91	13.37	13.77	12.75	13.22	13.68
Other Non-OECD	18.31	19.36	19.77	19.11	18.67	19.77	20.32	19.56	19.19	20.22	20.75	19.97	19.14	19.58	20.04
Total World Consumption	95.36	96.09	97.46	96.94	96.98	97.72	99.00	98.62	98.58	99.18	100.32	100.08	96.47	98.09	99.55
Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)															
U.S. (50 States)	-0.41	-0.28	-0.01	0.25	0.12	-0.17	0.09	0.57	0.06	-0.34	0.00	0.44	-0.11	0.16	0.04
Other OECD	0.02	-0.10	-0.22	-0.64	0.03	0.07	0.12	-0.35	-0.06	-0.10	0.08	-0.26	-0.24	-0.03	-0.09
Other Stock Draws and Balance	-1.08	-0.02	0.65	-1.17	0.05	0.13	0.23	-0.66	-0.11	-0.21	0.15	-0.51	-0.41	-0.06	-0.17
Total Stock Draw	-1.46	-0.40	0.42	-1.56	0.21	0.03	0.45	-0.45	-0.12	-0.65	0.23	-0.33	-0.75	0.06	-0.22
End-of-period Commercial Crude Oil and Other Liquids Inventories															
U.S. Commercial Inventory	1,326	1,352	1,353	1,330	1,322	1,344	1,341	1,295	1,296	1,333	1,339	1,305	1,330	1,295	1,305
OECD Commercial Inventory	2,997	3,034	3,052	3,087	3,077	3,093	3,079	3,066	3,072	3,118	3,117	3,107	3,087	3,066	3,107

- = 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, Ecuador, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, Venezuela.

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

(b) Includes offshore supply from Denmark, Germany, the Netherlands, Norway, and the United Kingdom.

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

(d) 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 - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
North America	22.25	21.37	21.85	21.95	<i>21.72</i>	<i>21.93</i>	<i>22.30</i>	<i>22.67</i>	<i>22.92</i>	<i>23.24</i>	<i>23.36</i>	<i>23.71</i>	21.86	22.16	23.31
Canada	4.73	3.98	4.69	4.70	<i>4.71</i>	<i>4.68</i>	<i>4.70</i>	<i>4.75</i>	<i>4.79</i>	<i>4.82</i>	<i>4.89</i>	<i>4.97</i>	4.53	4.71	4.87
Mexico	2.57	2.52	2.49	2.41	<i>2.25</i>	<i>2.24</i>	<i>2.33</i>	<i>2.31</i>	<i>2.29</i>	<i>2.28</i>	<i>2.27</i>	<i>2.26</i>	2.49	2.28	2.28
United States	14.96	14.88	14.67	14.84	<i>14.76</i>	<i>15.02</i>	<i>15.27</i>	<i>15.61</i>	<i>15.84</i>	<i>16.14</i>	<i>16.20</i>	<i>16.47</i>	14.84	15.17	16.16
Central and South America	4.73	5.40	5.63	5.35	<i>4.82</i>	<i>5.43</i>	<i>5.66</i>	<i>5.37</i>	<i>4.86</i>	<i>5.49</i>	<i>5.73</i>	<i>5.45</i>	5.28	5.32	5.38
Argentina	0.70	0.69	0.70	0.70	<i>0.71</i>	<i>0.69</i>	<i>0.70</i>	<i>0.70</i>	<i>0.71</i>	<i>0.69</i>	<i>0.70</i>	<i>0.70</i>	0.70	0.70	0.70
Brazil	2.63	3.36	3.63	3.32	<i>2.76</i>	<i>3.40</i>	<i>3.67</i>	<i>3.35</i>	<i>2.80</i>	<i>3.46</i>	<i>3.74</i>	<i>3.41</i>	3.23	3.30	3.36
Colombia	0.98	0.93	0.87	0.92	<i>0.94</i>	<i>0.92</i>	<i>0.86</i>	<i>0.91</i>	<i>0.93</i>	<i>0.92</i>	<i>0.85</i>	<i>0.91</i>	0.92	0.91	0.90
Other Central and S. America	0.42	0.43	0.42	0.41	<i>0.41</i>	<i>0.42</i>	<i>0.42</i>	<i>0.41</i>	<i>0.41</i>	<i>0.42</i>	<i>0.43</i>	<i>0.43</i>	0.42	0.41	0.42
Europe	4.19	4.00	3.88	4.15	<i>4.13</i>	<i>4.06</i>	<i>3.78</i>	<i>3.98</i>	<i>3.97</i>	<i>3.88</i>	<i>3.75</i>	<i>3.85</i>	4.06	3.99	3.86
Norway	2.04	1.95	1.91	2.13	<i>2.04</i>	<i>2.00</i>	<i>1.91</i>	<i>2.01</i>	<i>1.99</i>	<i>1.90</i>	<i>1.88</i>	<i>1.92</i>	2.01	1.99	1.92
United Kingdom (offshore)	1.05	1.01	0.92	0.94	<i>1.00</i>	<i>0.98</i>	<i>0.79</i>	<i>0.88</i>	<i>0.90</i>	<i>0.91</i>	<i>0.80</i>	<i>0.85</i>	0.98	0.91	0.87
Other North Sea	0.15	0.16	0.15	0.15	<i>0.15</i>	<i>0.15</i>	<i>0.14</i>	<i>0.14</i>	<i>0.14</i>	<i>0.14</i>	<i>0.12</i>	<i>0.13</i>	0.15	0.15	0.13
Eurasia	14.38	14.18	13.98	14.56	<i>14.52</i>	<i>14.35</i>	<i>14.39</i>	<i>14.46</i>	<i>14.50</i>	<i>14.43</i>	<i>14.46</i>	<i>14.62</i>	14.28	14.43	14.50
Azerbaijan	0.87	0.87	0.85	0.80	<i>0.80</i>	<i>0.80</i>	<i>0.79</i>	<i>0.77</i>	<i>0.79</i>	<i>0.78</i>	<i>0.76</i>	<i>0.74</i>	0.85	0.79	0.77
Kazakhstan	1.79	1.69	1.61	1.83	<i>1.87</i>	<i>1.85</i>	<i>1.83</i>	<i>1.91</i>	<i>1.92</i>	<i>1.80</i>	<i>1.87</i>	<i>1.93</i>	1.73	1.86	1.88
Russia	11.27	11.17	11.08	11.45	<i>11.36</i>	<i>11.22</i>	<i>11.30</i>	<i>11.31</i>	<i>11.31</i>	<i>11.38</i>	<i>11.35</i>	<i>11.48</i>	11.24	11.30	11.38
Turkmenistan	0.27	0.26	0.26	0.28	<i>0.29</i>	<i>0.29</i>	<i>0.29</i>	<i>0.29</i>	<i>0.29</i>	<i>0.29</i>	<i>0.29</i>	<i>0.29</i>	0.27	0.29	0.29
Other Eurasia	0.18	0.18	0.19	0.20	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	0.19	0.20	0.19
Middle East	1.14	1.14	1.14	1.14	<i>1.10</i>	<i>1.10</i>	<i>1.15</i>	<i>1.14</i>	<i>1.15</i>	<i>1.15</i>	<i>1.15</i>	<i>1.15</i>	1.14	1.12	1.15
Oman	1.02	1.01	1.02	1.02	<i>0.98</i>	<i>0.98</i>	<i>1.03</i>	<i>1.02</i>	<i>1.03</i>	<i>1.03</i>	<i>1.04</i>	<i>1.04</i>	1.02	1.00	1.03
Syria	0.03	0.03	0.03	0.03	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	0.03	0.03	0.03
Yemen	0.02	0.02	0.01	0.01	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	0.02	0.01	0.01
Asia and Oceania	9.71	9.53	9.42	9.33	<i>9.34</i>	<i>9.34</i>	<i>9.32</i>	<i>9.35</i>	<i>9.28</i>	<i>9.29</i>	<i>9.28</i>	<i>9.32</i>	9.50	9.34	9.29
Australia	0.39	0.37	0.40	0.41	<i>0.40</i>	<i>0.40</i>	<i>0.40</i>	<i>0.42</i>	<i>0.44</i>	<i>0.46</i>	<i>0.48</i>	<i>0.50</i>	0.39	0.41	0.47
China	5.02	4.91	4.79	4.70	<i>4.68</i>	<i>4.71</i>	<i>4.70</i>	<i>4.74</i>	<i>4.63</i>	<i>4.65</i>	<i>4.64</i>	<i>4.68</i>	4.86	4.71	4.65
India	1.00	0.99	1.00	0.99	<i>1.01</i>	<i>1.00</i>	<i>0.99</i>	<i>0.99</i>	<i>1.01</i>	<i>1.00</i>	<i>0.99</i>	<i>0.99</i>	0.99	1.00	1.00
Indonesia	0.94	0.96	0.95	0.93	<i>0.93</i>	<i>0.92</i>	<i>0.90</i>	<i>0.89</i>	<i>0.87</i>	<i>0.86</i>	<i>0.84</i>	<i>0.83</i>	0.94	0.91	0.85
Malaysia	0.76	0.74	0.73	0.73	<i>0.74</i>	<i>0.74</i>	<i>0.75</i>	<i>0.75</i>	<i>0.76</i>	<i>0.75</i>	<i>0.75</i>	<i>0.74</i>	0.74	0.75	0.75
Vietnam	0.33	0.33	0.31	0.32	<i>0.32</i>	<i>0.32</i>	<i>0.31</i>	<i>0.31</i>	<i>0.31</i>	<i>0.30</i>	<i>0.30</i>	<i>0.30</i>	0.32	0.32	0.30
Africa	2.10	2.09	2.08	2.11	<i>2.09</i>	<i>2.12</i>	<i>2.14</i>	<i>2.15</i>	<i>2.05</i>	<i>2.06</i>	<i>2.05</i>	<i>2.05</i>	2.09	2.13	2.05
Egypt	0.70	0.69	0.69	0.69	<i>0.68</i>	<i>0.68</i>	<i>0.68</i>	<i>0.67</i>	<i>0.67</i>	<i>0.66</i>	<i>0.66</i>	<i>0.65</i>	0.69	0.68	0.66
Equatorial Guinea	0.24	0.24	0.24	0.25	<i>0.22</i>	<i>0.22</i>	<i>0.22</i>	<i>0.22</i>	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	0.24	0.22	0.20
Sudan and South Sudan	0.26	0.26	0.26	0.26	<i>0.25</i>	<i>0.25</i>	<i>0.25</i>	<i>0.25</i>	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	0.26	0.25	0.20
Total non-OPEC liquids	58.51	57.71	57.98	58.59	<i>57.71</i>	<i>58.33</i>	<i>58.73</i>	<i>59.13</i>	<i>58.73</i>	<i>59.54</i>	<i>59.77</i>	<i>60.14</i>	58.20	58.48	59.55
OPEC non-crude liquids	6.41	6.39	6.48	6.71	<i>6.80</i>	<i>6.83</i>	<i>6.86</i>	<i>6.92</i>	<i>6.95</i>	<i>6.99</i>	<i>7.03</i>	<i>7.07</i>	6.50	6.85	7.01
Non-OPEC + OPEC non-crude	64.92	64.10	64.46	65.31	<i>64.51</i>	<i>65.16</i>	<i>65.60</i>	<i>66.04</i>	<i>65.68</i>	<i>66.53</i>	<i>66.80</i>	<i>67.21</i>	64.70	65.33	66.56
Unplanned non-OPEC Production Outages	0.38	0.76	0.42	0.34	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	0.47	<i>n/a</i>	<i>n/a</i>

- = no data available

OPEC = Organization of the Petroleum Exporting Countries: Algeria, Angola, Ecuador, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, Venezuela.

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 - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
Crude Oil															
Algeria	1.05	1.04	1.05	1.05	-	-	-	-	-	-	-	-	1.05	-	-
Angola	1.78	1.79	1.79	1.64	-	-	-	-	-	-	-	-	1.75	-	-
Ecuador	0.54	0.55	0.55	0.55	-	-	-	-	-	-	-	-	0.55	-	-
Gabon	0.21	0.21	0.21	0.21	-	-	-	-	-	-	-	-	0.21	-	-
Iran	3.03	3.57	3.65	3.70	-	-	-	-	-	-	-	-	3.49	-	-
Iraq	4.29	4.39	4.42	4.61	-	-	-	-	-	-	-	-	4.43	-	-
Kuwait	2.88	2.79	2.91	2.92	-	-	-	-	-	-	-	-	2.87	-	-
Libya	0.35	0.31	0.29	0.58	-	-	-	-	-	-	-	-	0.38	-	-
Nigeria	1.77	1.56	1.50	1.55	-	-	-	-	-	-	-	-	1.59	-	-
Qatar	0.66	0.68	0.66	0.66	-	-	-	-	-	-	-	-	0.67	-	-
Saudi Arabia	10.20	10.33	10.60	10.55	-	-	-	-	-	-	-	-	10.42	-	-
United Arab Emirates	2.85	2.93	2.84	3.09	-	-	-	-	-	-	-	-	2.93	-	-
Venezuela	2.30	2.23	2.11	2.07	-	-	-	-	-	-	-	-	2.18	-	-
OPEC Total	31.91	32.39	32.58	33.19	<i>32.26</i>	<i>32.54</i>	<i>32.95</i>	<i>33.03</i>	<i>33.02</i>	<i>33.30</i>	<i>33.29</i>	<i>33.19</i>	32.52	<i>32.70</i>	<i>33.20</i>
Other Liquids (a)	6.41	6.39	6.48	6.71	<i>6.80</i>	<i>6.83</i>	<i>6.86</i>	<i>6.92</i>	<i>6.95</i>	<i>6.99</i>	<i>7.03</i>	<i>7.07</i>	6.50	<i>6.85</i>	<i>7.01</i>
Total OPEC Supply	38.32	38.78	39.06	39.91	<i>39.07</i>	<i>39.37</i>	<i>39.81</i>	<i>39.95</i>	<i>39.96</i>	<i>40.29</i>	<i>40.32</i>	<i>40.27</i>	39.02	<i>39.55</i>	<i>40.21</i>
Crude Oil Production Capacity															
Africa	5.16	4.92	4.84	5.04	<i>5.16</i>	<i>5.31</i>	<i>5.43</i>	<i>5.52</i>	<i>5.53</i>	<i>5.53</i>	<i>5.53</i>	<i>5.54</i>	4.99	<i>5.35</i>	<i>5.54</i>
Middle East	25.52	25.94	26.25	26.53	<i>26.66</i>	<i>26.59</i>	<i>26.46</i>	<i>26.40</i>	<i>26.47</i>	<i>26.49</i>	<i>26.53</i>	<i>26.55</i>	26.06	<i>26.53</i>	<i>26.51</i>
South America	2.84	2.78	2.66	2.62	<i>2.51</i>	<i>2.52</i>	<i>2.50</i>	<i>2.50</i>	<i>2.43</i>	<i>2.40</i>	<i>2.32</i>	<i>2.30</i>	2.73	<i>2.51</i>	<i>2.36</i>
OPEC Total	33.52	33.64	33.75	34.19	<i>34.33</i>	<i>34.41</i>	<i>34.39</i>	<i>34.42</i>	<i>34.43</i>	<i>34.42</i>	<i>34.39</i>	<i>34.39</i>	33.78	<i>34.39</i>	<i>34.41</i>
Surplus Crude Oil Production Capacity															
Africa	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	0.00	<i>0.00</i>	<i>0.00</i>
Middle East	1.62	1.25	1.17	1.00	<i>2.06</i>	<i>1.88</i>	<i>1.44</i>	<i>1.39</i>	<i>1.42</i>	<i>1.12</i>	<i>1.10</i>	<i>1.20</i>	1.26	<i>1.69</i>	<i>1.21</i>
South America	0.00	0.00	0.00	0.00	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	0.00	<i>0.00</i>	<i>0.00</i>
OPEC Total	1.62	1.25	1.17	1.00	<i>2.06</i>	<i>1.88</i>	<i>1.44</i>	<i>1.39</i>	<i>1.42</i>	<i>1.12</i>	<i>1.10</i>	<i>1.20</i>	1.26	<i>1.69</i>	<i>1.21</i>
Unplanned OPEC Production Outages	2.09	2.44	2.34	1.93	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	2.20	<i>n/a</i>	<i>n/a</i>

- = no data available

OPEC = Organization of the Petroleum Exporting Countries: Algeria, Angola, 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 - February 2017

	2016				2017				2018						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
North America	23.82	23.75	24.36	23.89	<i>23.84</i>	<i>24.02</i>	<i>24.63</i>	<i>24.37</i>	<i>24.19</i>	<i>24.32</i>	<i>24.91</i>	<i>24.68</i>	23.96	<i>24.22</i>	<i>24.53</i>
Canada	2.39	2.37	2.51	2.37	<i>2.40</i>	<i>2.34</i>	<i>2.46</i>	<i>2.44</i>	<i>2.38</i>	<i>2.32</i>	<i>2.44</i>	<i>2.42</i>	2.41	<i>2.41</i>	<i>2.39</i>
Mexico	1.98	1.94	1.93	1.95	<i>1.95</i>	<i>1.97</i>	<i>1.94</i>	<i>1.95</i>	<i>1.95</i>	<i>1.97</i>	<i>1.94</i>	<i>1.95</i>	1.95	<i>1.95</i>	<i>1.95</i>
United States	19.45	19.42	19.90	19.57	<i>19.47</i>	<i>19.69</i>	<i>20.22</i>	<i>19.98</i>	<i>19.84</i>	<i>20.02</i>	<i>20.52</i>	<i>20.31</i>	19.58	<i>19.84</i>	<i>20.17</i>
Central and South America	6.93	7.18	7.21	7.24	<i>6.95</i>	<i>7.21</i>	<i>7.24</i>	<i>7.23</i>	<i>6.94</i>	<i>7.21</i>	<i>7.24</i>	<i>7.22</i>	7.14	<i>7.16</i>	<i>7.15</i>
Brazil	2.93	3.04	3.11	3.10	<i>2.88</i>	<i>2.99</i>	<i>3.06</i>	<i>3.04</i>	<i>2.83</i>	<i>2.94</i>	<i>3.01</i>	<i>2.99</i>	3.04	<i>3.00</i>	<i>2.95</i>
Europe	14.31	14.62	15.14	14.60	<i>14.57</i>	<i>14.71</i>	<i>15.13</i>	<i>14.68</i>	<i>14.63</i>	<i>14.66</i>	<i>15.08</i>	<i>14.64</i>	14.67	<i>14.77</i>	<i>14.75</i>
Eurasia	4.81	4.73	5.01	5.00	<i>4.82</i>	<i>4.74</i>	<i>5.02</i>	<i>5.01</i>	<i>4.82</i>	<i>4.75</i>	<i>5.03</i>	<i>5.01</i>	4.89	<i>4.90</i>	<i>4.90</i>
Russia	3.49	3.44	3.65	3.63	<i>3.48</i>	<i>3.43</i>	<i>3.64</i>	<i>3.62</i>	<i>3.47</i>	<i>3.42</i>	<i>3.63</i>	<i>3.61</i>	3.55	<i>3.54</i>	<i>3.53</i>
Middle East	7.96	8.71	9.17	8.44	<i>8.19</i>	<i>9.03</i>	<i>9.61</i>	<i>8.72</i>	<i>8.54</i>	<i>9.31</i>	<i>9.87</i>	<i>8.96</i>	8.57	<i>8.89</i>	<i>9.17</i>
Asia and Oceania	33.27	32.79	32.34	33.43	<i>34.14</i>	<i>33.54</i>	<i>32.94</i>	<i>34.08</i>	<i>34.79</i>	<i>34.27</i>	<i>33.57</i>	<i>34.83</i>	32.95	<i>33.67</i>	<i>34.36</i>
China	12.20	12.41	12.32	12.59	<i>12.59</i>	<i>12.72</i>	<i>12.64</i>	<i>12.77</i>	<i>12.88</i>	<i>13.02</i>	<i>12.89</i>	<i>13.12</i>	12.38	<i>12.68</i>	<i>12.98</i>
Japan	4.43	3.66	3.75	4.07	<i>4.32</i>	<i>3.64</i>	<i>3.67</i>	<i>4.02</i>	<i>4.23</i>	<i>3.56</i>	<i>3.59</i>	<i>3.93</i>	3.98	<i>3.91</i>	<i>3.83</i>
India	4.48	4.44	4.07	4.42	<i>4.75</i>	<i>4.73</i>	<i>4.34</i>	<i>4.69</i>	<i>5.01</i>	<i>4.99</i>	<i>4.57</i>	<i>4.94</i>	4.35	<i>4.62</i>	<i>4.88</i>
Africa	4.27	4.30	4.23	4.34	<i>4.48</i>	<i>4.47</i>	<i>4.42</i>	<i>4.53</i>	<i>4.68</i>	<i>4.67</i>	<i>4.62</i>	<i>4.73</i>	4.29	<i>4.48</i>	<i>4.68</i>
Total OECD Liquid Fuels Consumption	46.63	45.96	47.21	46.71	<i>47.04</i>	<i>46.38</i>	<i>47.39</i>	<i>47.29</i>	<i>47.33</i>	<i>46.60</i>	<i>47.59</i>	<i>47.51</i>	46.63	<i>47.03</i>	<i>47.26</i>
Total non-OECD Liquid Fuels Consumption	48.73	50.12	50.25	50.23	<i>49.95</i>	<i>51.34</i>	<i>51.60</i>	<i>51.33</i>	<i>51.25</i>	<i>52.58</i>	<i>52.73</i>	<i>52.57</i>	49.83	<i>51.06</i>	<i>52.29</i>
Total World Liquid Fuels Consumption	95.36	96.09	97.46	96.94	<i>96.98</i>	<i>97.72</i>	<i>99.00</i>	<i>98.62</i>	<i>98.58</i>	<i>99.18</i>	<i>100.32</i>	<i>100.08</i>	96.47	<i>98.09</i>	<i>99.55</i>
Oil-weighted Real Gross Domestic Product (a)															
World Index, 2010 Q1 = 100	119.5	120.1	120.9	121.7	<i>122.6</i>	<i>123.3</i>	<i>124.2</i>	<i>125.1</i>	<i>126.0</i>	<i>127.1</i>	<i>128.0</i>	<i>129.1</i>	120.5	<i>123.8</i>	<i>127.5</i>
Percent change from prior year	2.1	2.2	2.3	2.4	<i>2.6</i>	<i>2.7</i>	<i>2.7</i>	<i>2.8</i>	<i>2.8</i>	<i>3.0</i>	<i>3.1</i>	<i>3.2</i>	2.3	<i>2.7</i>	<i>3.0</i>
OECD Index, 2010 Q1 = 100	111.7	112.1	112.7	113.3	<i>113.8</i>	<i>114.3</i>	<i>114.9</i>	<i>115.4</i>	<i>116.1</i>	<i>116.7</i>	<i>117.4</i>	<i>118.0</i>	112.4	<i>114.6</i>	<i>117.0</i>
Percent change from prior year	1.7	1.6	1.7	1.8	<i>1.9</i>	<i>2.0</i>	<i>1.9</i>	<i>1.9</i>	<i>2.0</i>	<i>2.1</i>	<i>2.2</i>	<i>2.3</i>	1.7	<i>1.9</i>	<i>2.1</i>
Non-OECD Index, 2010 Q1 = 100	129.0	130.0	130.9	132.2	<i>133.5</i>	<i>134.5</i>	<i>135.7</i>	<i>137.2</i>	<i>138.5</i>	<i>140.0</i>	<i>141.4</i>	<i>143.0</i>	130.5	<i>135.2</i>	<i>140.7</i>
Percent change from prior year	2.7	2.9	2.9	3.1	<i>3.4</i>	<i>3.4</i>	<i>3.7</i>	<i>3.8</i>	<i>3.8</i>	<i>4.1</i>	<i>4.2</i>	<i>4.3</i>	2.9	<i>3.6</i>	<i>4.1</i>
Real U.S. Dollar Exchange Rate (a)															
Index, January 2010 = 100	128.72	128.02	128.50	131.46	<i>134.55</i>	<i>135.64</i>	<i>136.57</i>	<i>137.38</i>	<i>137.66</i>	<i>137.40</i>	<i>137.18</i>	<i>136.93</i>	129.18	<i>136.04</i>	<i>137.29</i>
Percent change from prior year	8.1	7.2	4.7	5.5	<i>4.5</i>	<i>6.0</i>	<i>6.3</i>	<i>4.5</i>	<i>2.3</i>	<i>1.3</i>	<i>0.4</i>	<i>-0.3</i>	6.3	<i>5.3</i>	<i>0.9</i>

- = no data available

OECD = Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland,

France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal,

Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, the United States.

(a) Weighted geometric mean of real indices for various countries with weights equal to each country's share of world oil consumption in the base period. Exchange rate is measured in foreign currency per U.S. dollar.

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 - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
Supply (million barrels per day)															
Crude Oil Supply															
Domestic Production (a)	9.17	8.85	8.67	8.85	8.88	8.93	8.93	9.18	9.44	9.55	9.45	9.68	8.88	8.98	9.53
Alaska	0.51	0.49	0.45	0.50	0.49	0.46	0.43	0.49	0.50	0.48	0.43	0.49	0.49	0.47	0.48
Federal Gulf of Mexico (b)	1.61	1.58	1.57	1.64	1.64	1.66	1.55	1.66	1.77	1.79	1.69	1.81	1.60	1.63	1.77
Lower 48 States (excl GOM)	7.05	6.78	6.65	6.71	6.75	6.81	6.94	7.03	7.17	7.28	7.33	7.37	6.80	6.88	7.29
Crude Oil Net Imports (c)	7.46	7.19	7.45	7.29	7.18	6.93	7.07	6.51	6.30	6.40	6.67	6.23	7.35	6.92	6.40
SPR Net Withdrawals	0.00	0.00	0.00	0.00	0.03	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.00	0.06	0.07
Commercial Inventory Net Withdrawals	-0.57	0.04	0.31	-0.12	-0.32	0.14	0.29	0.14	-0.34	0.08	0.23	0.06	-0.08	0.06	0.01
Crude Oil Adjustment (d)	-0.06	0.14	0.09	0.08	0.23	0.19	0.21	0.15	0.19	0.19	0.21	0.15	0.06	0.20	0.19
Total Crude Oil Input to Refineries	16.00	16.22	16.53	16.10	16.01	16.27	16.56	16.05	15.65	16.28	16.64	16.19	16.21	16.22	16.19
Other Supply															
Refinery Processing Gain	1.07	1.10	1.15	1.10	1.04	1.06	1.10	1.07	1.03	1.06	1.10	1.08	1.11	1.07	1.07
Natural Gas Plant Liquids Production	3.38	3.57	3.46	3.52	3.48	3.66	3.85	3.98	3.98	4.13	4.24	4.34	3.49	3.75	4.18
Renewables and Oxygenate Production (e)	1.12	1.13	1.17	1.16	1.13	1.13	1.16	1.14	1.16	1.16	1.16	1.12	1.15	1.14	1.15
Fuel Ethanol Production	0.99	0.97	1.01	1.02	1.02	1.00	1.02	1.00	1.03	1.02	1.02	0.98	1.00	1.01	1.01
Petroleum Products Adjustment (f)	0.21	0.22	0.22	0.21	0.22	0.23	0.23	0.24	0.23	0.24	0.24	0.25	0.22	0.23	0.24
Product Net Imports (c)	-2.48	-2.51	-2.31	-2.84	-2.82	-2.27	-2.43	-2.86	-2.55	-2.37	-2.56	-2.99	-2.54	-2.60	-2.62
Hydrocarbon Gas Liquids	-1.00	-1.10	-0.93	-1.13	-1.23	-1.20	-1.27	-1.33	-1.35	-1.39	-1.43	-1.52	-1.04	-1.26	-1.42
Unfinished Oils	0.30	0.41	0.37	0.32	0.27	0.30	0.34	0.30	0.31	0.31	0.35	0.30	0.35	0.31	0.32
Other HC/Oxygenates	-0.10	-0.08	-0.05	-0.07	-0.08	-0.06	-0.05	-0.05	-0.09	-0.07	-0.04	-0.03	-0.07	-0.06	-0.06
Motor Gasoline Blend Comp.	0.34	0.65	0.59	0.48	0.18	0.62	0.49	0.45	0.46	0.64	0.49	0.46	0.51	0.44	0.51
Finished Motor Gasoline	-0.56	-0.47	-0.49	-0.79	-0.52	-0.41	-0.34	-0.68	-0.56	-0.39	-0.35	-0.69	-0.58	-0.49	-0.50
Jet Fuel	-0.03	-0.04	-0.02	-0.05	0.00	0.02	-0.01	0.02	0.05	0.04	0.00	0.02	-0.03	0.01	0.03
Distillate Fuel Oil	-0.85	-1.21	-1.13	-1.00	-0.88	-1.00	-1.05	-0.95	-0.81	-0.95	-1.02	-0.91	-1.05	-0.97	-0.92
Residual Fuel Oil	-0.06	-0.06	-0.07	-0.07	-0.08	-0.11	-0.09	-0.09	-0.10	-0.14	-0.10	-0.09	-0.07	-0.09	-0.11
Other Oils (g)	-0.52	-0.62	-0.58	-0.53	-0.49	-0.44	-0.47	-0.53	-0.46	-0.43	-0.45	-0.53	-0.56	-0.48	-0.47
Product Inventory Net Withdrawals	0.17	-0.32	-0.32	0.37	0.41	-0.39	-0.26	0.36	0.33	-0.49	-0.30	0.32	-0.03	0.03	-0.03
Total Supply	19.47	19.42	19.90	19.62	19.47	19.69	20.22	19.98	19.84	20.02	20.52	20.31	19.60	19.84	20.17
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	2.73	2.25	2.40	2.65	2.76	2.39	2.55	2.86	2.93	2.60	2.74	3.01	2.51	2.64	2.82
Unfinished Oils	0.01	-0.06	-0.05	-0.01	0.00	-0.01	-0.01	0.03	0.00	-0.01	-0.01	0.03	-0.03	0.00	0.00
Motor Gasoline	9.09	9.44	9.56	9.09	8.92	9.46	9.60	9.17	9.06	9.53	9.62	9.22	9.29	9.29	9.36
Fuel Ethanol blended into Motor Gasoline	0.91	0.94	0.96	0.94	0.91	0.96	0.97	0.93	0.91	0.96	0.97	0.93	0.94	0.94	0.94
Jet Fuel	1.50	1.61	1.68	1.62	1.58	1.62	1.65	1.63	1.55	1.62	1.65	1.64	1.60	1.62	1.61
Distillate Fuel Oil	3.90	3.80	3.79	3.92	3.95	3.87	3.88	4.03	4.09	3.93	3.97	4.14	3.85	3.93	4.04
Residual Fuel Oil	0.31	0.40	0.36	0.33	0.38	0.32	0.33	0.30	0.31	0.30	0.32	0.30	0.35	0.33	0.31
Other Oils (g)	1.89	1.98	2.16	1.97	1.88	2.05	2.22	1.96	1.88	2.05	2.23	1.97	2.00	2.03	2.03
Total Consumption	19.45	19.42	19.90	19.57	19.47	19.69	20.22	19.98	19.84	20.02	20.52	20.31	19.58	19.84	20.17
Total Petroleum and Other Liquids Net Imports	4.97	4.68	5.15	4.45	4.36	4.66	4.64	3.65	3.75	4.03	4.11	3.24	4.81	4.32	3.78
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	501.5	498.0	469.1	480.2	509.1	496.0	469.6	456.8	487.7	480.3	458.9	453.6	480.2	456.8	453.6
Hydrocarbon Gas Liquids	154.4	211.8	251.6	204.4	155.5	199.8	230.3	189.0	156.8	206.5	239.7	200.6	204.4	189.0	200.6
Unfinished Oils	91.4	86.7	83.3	80.7	90.0	88.3	85.4	79.0	89.3	88.3	85.8	79.4	80.7	79.0	79.4
Other HC/Oxygenates	28.2	27.7	27.1	26.1	29.7	28.6	27.9	28.1	30.2	29.1	28.4	28.6	26.1	28.1	28.6
Total Motor Gasoline	243.3	242.1	227.0	236.9	238.5	230.5	226.8	241.4	239.3	232.9	228.6	243.9	236.9	241.4	243.9
Finished Motor Gasoline	26.5	24.9	25.1	27.7	27.5	25.6	26.3	28.1	25.3	23.7	24.3	26.1	27.7	28.1	26.1
Motor Gasoline Blend Comp.	216.9	217.2	201.9	209.2	211.0	204.8	200.5	213.2	214.0	209.2	204.3	217.8	209.2	213.2	217.8
Jet Fuel	43.8	40.4	44.7	43.0	41.4	42.5	44.0	41.4	41.1	42.3	43.8	41.5	43.0	41.4	41.5
Distillate Fuel Oil	160.6	149.2	160.4	164.1	157.9	160.7	167.4	167.2	152.2	155.9	163.4	163.6	164.1	167.2	163.6
Residual Fuel Oil	44.5	40.3	38.8	42.3	42.0	41.9	40.3	40.4	42.3	42.4	41.1	41.4	42.3	40.4	41.4
Other Oils (g)	58.4	55.6	50.5	52.2	57.6	55.6	49.7	52.1	57.6	55.6	49.8	52.3	52.2	52.1	52.3
Total Commercial Inventory	1,326	1,352	1,353	1,330	1,322	1,344	1,341	1,295	1,296	1,333	1,339	1,305	1,330	1,295	1,305
Crude Oil in SPR	695	695	695	695	692	685	679	673	667	660	654	648	695	673	648

- = no data available

(a) Includes lease condensate.

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

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

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

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

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

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

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

SPR: Strategic Petroleum Reserve

HC: Hydrocarbons

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
HGL Production															
Natural Gas Processing Plants															
Ethane	1.20	1.34	1.19	1.30	1.31	1.39	1.49	1.60	1.61	1.66	1.73	1.80	1.26	1.45	1.70
Propane	1.15	1.17	1.17	1.16	1.15	1.17	1.21	1.23	1.25	1.29	1.29	1.33	1.16	1.19	1.29
Butanes	0.63	0.63	0.64	0.63	0.62	0.65	0.67	0.68	0.68	0.71	0.72	0.73	0.63	0.66	0.71
Natural Gasoline (Pentanes Plus)	0.41	0.43	0.46	0.43	0.40	0.45	0.47	0.46	0.44	0.48	0.50	0.49	0.43	0.45	0.48
Refinery and Blender Net Production															
Ethane/Ethylene	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Propane/Propylene	0.58	0.60	0.58	0.58	0.59	0.62	0.60	0.58	0.58	0.61	0.60	0.58	0.58	0.60	0.59
Butanes/Butylenes	-0.11	0.26	0.20	-0.19	-0.06	0.25	0.19	-0.17	-0.06	0.25	0.19	-0.17	0.04	0.05	0.05
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	-0.08	-0.09	-0.10	-0.12	-0.19	-0.24	-0.26	-0.28	-0.28	-0.29	-0.30	-0.32	-0.10	-0.24	-0.30
Propane/Propylene	-0.65	-0.68	-0.56	-0.75	-0.75	-0.66	-0.64	-0.72	-0.72	-0.72	-0.70	-0.79	-0.66	-0.69	-0.73
Butanes/Butylenes	-0.07	-0.12	-0.08	-0.10	-0.07	-0.10	-0.12	-0.10	-0.13	-0.16	-0.17	-0.16	-0.09	-0.10	-0.15
Natural Gasoline (Pentanes Plus)	-0.20	-0.21	-0.19	-0.17	-0.22	-0.20	-0.24	-0.22	-0.23	-0.22	-0.25	-0.24	-0.19	-0.22	-0.24
HGL Refinery and Blender Net Inputs															
Butanes/Butylenes	0.43	0.28	0.32	0.51	0.41	0.29	0.32	0.48	0.41	0.29	0.32	0.48	0.39	0.37	0.37
Natural Gasoline (Pentanes Plus)	0.14	0.15	0.14	0.14	0.14	0.15	0.16	0.16	0.15	0.16	0.16	0.16	0.15	0.15	0.16
HGL Consumption															
Ethane/Ethylene	1.10	1.08	1.11	1.15	1.16	1.16	1.26	1.34	1.32	1.35	1.45	1.49	1.11	1.23	1.40
Propane/Propylene	1.41	0.88	0.98	1.21	1.37	0.92	0.99	1.22	1.37	0.94	1.00	1.23	1.12	1.12	1.14
Butanes/Butylenes	0.18	0.25	0.24	0.19	0.18	0.25	0.24	0.23	0.19	0.25	0.23	0.21	0.22	0.23	0.22
Natural Gasoline (Pentanes Plus)	0.04	0.04	0.07	0.09	0.05	0.06	0.06	0.07	0.05	0.06	0.06	0.07	0.06	0.06	0.06
HGL Inventories (million barrels)															
Ethane/Ethylene	33.76	45.19	50.71	53.17	50.04	50.07	47.77	47.71	46.93	49.81	48.08	48.20	45.74	48.89	48.26
Propane/Propylene	66.38	85.18	103.83	84.49	49.90	68.96	85.44	73.88	50.65	71.85	89.43	78.67	84.49	73.88	78.67
Butanes/Butylenes	32.39	54.10	73.35	41.96	33.46	57.68	74.31	47.08	37.70	62.28	79.44	52.45	41.96	47.08	52.45
Natural Gasoline (Pentanes Plus)	20.40	20.94	24.86	25.33	22.44	23.28	22.81	21.55	20.32	22.24	22.74	22.51	25.33	21.55	22.51
Refinery and Blender Net Inputs															
Crude Oil	16.00	16.22	16.53	16.10	16.01	16.27	16.56	16.05	15.65	16.28	16.64	16.19	16.21	16.22	16.19
Hydrocarbon Gas Liquids	0.57	0.43	0.46	0.65	0.55	0.44	0.47	0.63	0.56	0.45	0.48	0.64	0.53	0.52	0.53
Other Hydrocarbons/Oxygenates	1.15	1.22	1.23	1.19	1.15	1.23	1.27	1.23	1.19	1.25	1.29	1.25	1.20	1.22	1.25
Unfinished Oils	0.19	0.53	0.46	0.37	0.17	0.33	0.39	0.34	0.20	0.33	0.39	0.34	0.39	0.31	0.32
Motor Gasoline Blend Components	0.31	0.82	0.91	0.46	0.37	0.91	0.74	0.51	0.67	0.91	0.74	0.51	0.63	0.63	0.71
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	18.22	19.22	19.60	18.78	18.25	19.18	19.43	18.77	18.26	19.23	19.53	18.93	18.96	18.91	18.99
Refinery Processing Gain															
.....	1.07	1.10	1.15	1.10	1.04	1.06	1.10	1.07	1.03	1.06	1.10	1.08	1.11	1.07	1.07
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	0.47	0.86	0.78	0.40	0.53	0.88	0.79	0.41	0.53	0.87	0.79	0.41	0.63	0.65	0.65
Finished Motor Gasoline	9.68	10.06	10.19	9.99	9.63	10.06	10.13	10.06	9.79	10.11	10.16	10.12	9.98	9.97	10.05
Jet Fuel	1.57	1.61	1.75	1.64	1.57	1.61	1.67	1.58	1.50	1.59	1.66	1.59	1.64	1.61	1.59
Distillate Fuel	4.70	4.80	4.93	4.90	4.68	4.80	4.91	4.88	4.64	4.83	4.98	4.96	4.83	4.82	4.85
Residual Fuel	0.40	0.42	0.42	0.44	0.45	0.43	0.40	0.40	0.43	0.43	0.41	0.40	0.42	0.42	0.42
Other Oils (a)	2.47	2.57	2.68	2.50	2.43	2.46	2.63	2.52	2.40	2.46	2.62	2.53	2.55	2.51	2.50
Total Refinery and Blender Net Production	19.29	20.32	20.75	19.88	19.29	20.24	20.53	19.84	19.29	20.29	20.62	20.01	20.06	19.98	20.06
Refinery Distillation Inputs															
.....	16.27	16.50	16.89	16.40	16.26	16.50	16.85	16.34	15.95	16.51	16.91	16.46	16.51	16.49	16.46
Refinery Operable Distillation Capacity															
.....	18.31	18.36	18.44	18.47	18.47	18.47	18.47	18.47	18.48	18.51	18.51	18.51	18.40	18.47	18.50
Refinery Distillation Utilization Factor															
.....	0.89	0.90	0.92	0.89	0.88	0.89	0.91	0.88	0.86	0.89	0.91	0.89	0.90	0.89	0.89

- = 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 - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
Prices (cents per gallon)															
Refiner Wholesale Price	119	158	150	153	<i>160</i>	<i>173</i>	<i>172</i>	<i>156</i>	<i>155</i>	<i>179</i>	<i>178</i>	<i>164</i>	145	<i>166</i>	<i>169</i>
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	187	220	215	223	<i>232</i>	<i>244</i>	<i>246</i>	<i>234</i>	<i>231</i>	<i>251</i>	<i>253</i>	<i>243</i>	212	<i>239</i>	<i>244</i>
PADD 2	176	221	215	212	<i>222</i>	<i>240</i>	<i>242</i>	<i>224</i>	<i>218</i>	<i>248</i>	<i>248</i>	<i>233</i>	207	<i>232</i>	<i>237</i>
PADD 3	167	201	199	201	<i>210</i>	<i>223</i>	<i>222</i>	<i>206</i>	<i>204</i>	<i>228</i>	<i>227</i>	<i>214</i>	192	<i>215</i>	<i>218</i>
PADD 4	184	221	226	220	<i>222</i>	<i>237</i>	<i>249</i>	<i>230</i>	<i>212</i>	<i>242</i>	<i>254</i>	<i>238</i>	213	<i>235</i>	<i>237</i>
PADD 5	241	265	264	263	<i>269</i>	<i>287</i>	<i>288</i>	<i>263</i>	<i>258</i>	<i>293</i>	<i>294</i>	<i>272</i>	259	<i>277</i>	<i>280</i>
U.S. Average	190	225	221	223	<i>232</i>	<i>247</i>	<i>248</i>	<i>231</i>	<i>227</i>	<i>253</i>	<i>254</i>	<i>240</i>	215	<i>239</i>	<i>244</i>
Gasoline All Grades Including Taxes	200	235	232	234	<i>242</i>	<i>257</i>	<i>259</i>	<i>242</i>	<i>238</i>	<i>264</i>	<i>265</i>	<i>252</i>	226	<i>250</i>	<i>255</i>
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	65.9	73.0	58.6	65.8	<i>65.7</i>	<i>64.7</i>	<i>61.6</i>	<i>65.0</i>	<i>66.1</i>	<i>65.4</i>	<i>62.5</i>	<i>65.9</i>	65.8	<i>65.0</i>	<i>65.9</i>
PADD 2	56.7	53.3	50.6	51.5	<i>54.5</i>	<i>50.3</i>	<i>49.0</i>	<i>52.5</i>	<i>53.4</i>	<i>50.3</i>	<i>49.3</i>	<i>52.5</i>	51.5	<i>52.5</i>	<i>52.5</i>
PADD 3	83.0	80.4	83.3	82.5	<i>81.5</i>	<i>80.5</i>	<i>80.9</i>	<i>84.5</i>	<i>82.4</i>	<i>81.9</i>	<i>81.5</i>	<i>86.1</i>	82.5	<i>84.5</i>	<i>86.1</i>
PADD 4	8.4	7.5	6.9	8.0	<i>7.3</i>	<i>7.1</i>	<i>7.3</i>	<i>7.9</i>	<i>7.4</i>	<i>7.3</i>	<i>7.4</i>	<i>8.0</i>	8.0	<i>7.9</i>	<i>8.0</i>
PADD 5	29.4	27.9	27.6	29.1	<i>29.5</i>	<i>27.8</i>	<i>28.0</i>	<i>31.5</i>	<i>30.0</i>	<i>28.0</i>	<i>27.9</i>	<i>31.4</i>	29.1	<i>31.5</i>	<i>31.4</i>
U.S. Total	243.3	242.1	227.0	236.9	<i>238.5</i>	<i>230.5</i>	<i>226.8</i>	<i>241.4</i>	<i>239.3</i>	<i>232.9</i>	<i>228.6</i>	<i>243.9</i>	236.9	<i>241.4</i>	<i>243.9</i>
Finished Gasoline Inventories															
U.S. Total	26.5	24.9	25.1	27.7	<i>27.5</i>	<i>25.6</i>	<i>26.3</i>	<i>28.1</i>	<i>25.3</i>	<i>23.7</i>	<i>24.3</i>	<i>26.1</i>	27.7	<i>28.1</i>	<i>26.1</i>
Gasoline Blending Components Inventories															
U.S. Total	216.9	217.2	201.9	209.2	<i>211.0</i>	<i>204.8</i>	<i>200.5</i>	<i>213.2</i>	<i>214.0</i>	<i>209.2</i>	<i>204.3</i>	<i>217.8</i>	209.2	<i>213.2</i>	<i>217.8</i>

- = no data available

Prices are not adjusted for inflation.

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

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

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

Historical data : Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Marketing Monthly* , DOE/EIA-0380; *Petroleum Supply Monthly* , DOE/EIA-0109; *Petroleum Supply Annual* , DOE/EIA-0340/2; and *Weekly Petroleum Status Report* , DOE/EIA-0208.

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
Supply (billion cubic feet per day)															
Total Marketed Production	78.66	77.52	76.83	76.53	76.92	78.28	79.88	81.14	82.54	83.45	83.98	84.71	77.38	79.07	83.68
Alaska	0.98	0.86	0.87	1.05	0.99	0.83	0.77	0.94	1.00	0.84	0.77	0.94	0.94	0.88	0.89
Federal GOM (a)	3.48	3.34	3.24	3.34	3.35	3.33	3.21	3.22	3.35	3.33	3.21	3.22	3.35	3.28	3.28
Lower 48 States (excl GOM)	74.20	73.32	72.72	72.14	72.57	74.12	75.90	76.99	78.19	79.27	80.00	80.55	73.09	74.91	79.51
Total Dry Gas Production	73.77	72.38	71.84	71.39	71.81	72.96	74.41	75.54	76.79	77.59	78.03	78.66	72.34	73.69	77.77
LNG Gross Imports	0.33	0.19	0.18	0.25	0.27	0.17	0.18	0.22	0.27	0.17	0.18	0.22	0.24	0.21	0.21
LNG Gross Exports	0.15	0.40	0.64	0.83	1.04	1.33	1.65	1.68	2.02	2.40	2.72	3.30	0.51	1.43	2.61
Pipeline Gross Imports	8.08	7.84	8.11	7.51	8.41	7.76	7.92	7.61	8.63	7.94	8.17	7.69	7.89	7.92	8.10
Pipeline Gross Exports	5.63	5.56	5.86	6.16	6.37	5.85	5.99	6.56	7.00	6.53	6.53	6.94	5.80	6.19	6.75
Supplemental Gaseous Fuels	0.17	0.13	0.17	0.17	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.17
Net Inventory Withdrawals	13.08	-7.79	-5.66	4.23	16.13	-8.74	-8.36	3.19	16.24	-9.96	-8.77	3.43	0.96	0.50	0.18
Total Supply	89.66	66.80	68.15	76.56	89.37	65.13	66.67	78.48	93.08	66.97	68.54	79.94	75.28	74.86	77.07
Balancing Item (b)	-0.43	-0.11	0.94	-1.18	0.04	0.38	0.05	-1.17	0.00	0.13	-0.13	-1.38	-0.20	-0.18	-0.35
Total Primary Supply	89.23	66.69	69.08	75.38	89.41	65.51	66.72	77.31	93.07	67.10	68.41	78.56	75.08	74.68	76.72
Consumption (billion cubic feet per day)															
Residential	22.49	7.14	3.48	14.56	23.79	7.24	3.53	14.89	24.55	7.27	3.51	14.80	11.90	12.31	12.48
Commercial	13.44	5.98	4.58	10.20	13.96	6.10	4.59	10.61	14.55	6.15	4.62	10.64	8.54	8.80	8.96
Industrial	22.49	20.06	20.07	21.36	22.75	20.35	19.92	21.65	23.40	20.79	20.37	22.11	20.99	21.16	21.66
Electric Power (c)	24.19	27.50	34.91	23.07	22.37	25.76	32.47	23.64	23.54	26.41	33.34	24.10	27.43	26.08	26.87
Lease and Plant Fuel	4.34	4.28	4.24	4.22	4.24	4.32	4.41	4.48	4.55	4.60	4.63	4.67	4.27	4.36	4.62
Pipeline and Distribution Use	2.18	1.63	1.69	1.85	2.18	1.62	1.68	1.94	2.35	1.76	1.82	2.12	1.83	1.85	2.01
Vehicle Use	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.12	0.12
Total Consumption	89.23	66.69	69.08	75.38	89.41	65.51	66.72	77.31	93.07	67.10	68.41	78.56	75.08	74.68	76.72
End-of-period Inventories (billion cubic feet)															
Working Gas Inventory	2,496	3,197	3,717	3,324	1,872	2,667	3,437	3,143	1,681	2,587	3,394	3,078	3,324	3,143	3,078
East Region (d)	436	655	899	731	292	568	820	700	249	537	797	666	731	700	666
Midwest Region (d)	543	763	1,042	913	397	610	959	829	330	588	948	824	913	829	824
South Central Region (d)	1,080	1,236	1,185	1,166	825	1,006	1,088	1,087	721	956	1,079	1,076	1,166	1,087	1,076
Mountain Region (d)	145	197	234	206	124	153	210	196	130	165	215	199	206	196	199
Pacific Region (d)	266	316	321	273	200	296	324	296	217	307	321	279	273	296	279
Alaska	25	30	36	34	34	34	34	34	34	34	34	34	34	34	34

- = 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 - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
Wholesale/Spot															
Henry Hub Spot Price	2.06	2.21	2.97	3.14	3.47	3.49	3.52	3.67	3.90	3.80	3.73	3.83	2.60	3.54	3.81
Residential Retail															
New England	11.79	13.13	17.81	13.58	13.35	14.32	17.20	13.80	13.49	14.55	17.39	13.95	12.92	13.91	14.06
Middle Atlantic	8.84	10.70	16.17	10.52	10.63	12.62	16.89	11.51	10.55	12.60	17.07	11.65	10.14	11.63	11.61
E. N. Central	6.78	9.31	17.80	8.82	8.29	11.13	16.94	9.38	8.54	11.40	17.05	9.55	8.42	9.56	9.75
W. N. Central	7.38	10.65	17.93	10.03	9.27	11.72	17.73	10.17	9.48	12.17	18.29	10.56	9.25	10.43	10.73
S. Atlantic	10.22	15.30	23.46	13.95	12.19	16.73	22.39	13.25	11.80	16.75	22.63	13.36	12.86	13.84	13.57
E. S. Central	8.52	13.12	19.54	12.56	10.47	14.78	20.34	12.77	10.47	14.79	20.70	13.20	10.77	12.32	12.30
W. S. Central	8.27	14.10	20.94	15.18	10.62	14.87	20.11	12.27	9.75	14.63	20.40	12.65	11.91	12.82	12.10
Mountain	8.22	9.66	13.76	8.87	9.15	10.74	14.24	9.78	9.67	11.09	14.56	10.00	9.08	10.01	10.41
Pacific	10.97	11.26	13.02	11.84	11.55	12.08	12.80	11.70	11.97	12.68	13.37	12.21	11.56	11.85	12.36
U.S. Average	8.53	11.16	16.99	10.64	10.09	12.51	16.84	11.01	10.17	12.77	17.16	11.27	10.19	11.21	11.37
Commercial Retail															
New England	8.76	9.58	10.49	9.83	10.77	10.72	10.61	10.84	11.26	11.19	11.13	10.82	9.39	10.77	11.12
Middle Atlantic	6.84	6.41	6.02	6.83	7.97	8.13	7.56	8.17	8.40	8.11	7.52	8.12	6.65	8.00	8.16
E. N. Central	5.86	6.58	8.77	6.94	7.24	8.24	9.55	7.52	7.24	8.31	9.73	7.70	6.52	7.65	7.72
W. N. Central	6.28	6.97	8.69	6.86	7.57	8.10	9.31	7.79	8.11	8.62	9.67	8.03	6.77	7.86	8.28
S. Atlantic	7.54	8.32	9.27	8.66	9.09	9.74	10.13	9.29	9.09	9.81	10.45	9.49	8.20	9.39	9.49
E. S. Central	7.49	8.57	9.73	9.24	9.11	9.81	10.22	9.39	9.05	10.11	10.69	9.70	8.40	9.43	9.57
W. S. Central	6.29	6.89	8.27	7.97	7.70	7.81	8.51	8.10	7.77	8.17	8.82	8.32	7.15	7.95	8.14
Mountain	6.96	7.11	8.00	7.08	7.70	8.28	9.03	7.94	8.16	8.51	9.26	8.15	7.13	8.02	8.34
Pacific	8.38	8.13	9.14	9.05	9.10	8.90	9.21	9.12	9.35	9.20	9.47	9.32	8.67	9.09	9.33
U.S. Average	6.84	7.25	8.21	7.67	8.13	8.61	9.04	8.38	8.37	8.82	9.26	8.53	7.32	8.39	8.59
Industrial Retail															
New England	7.07	6.88	6.27	7.33	8.31	8.02	7.67	8.77	8.98	8.29	7.77	8.85	6.96	8.26	8.59
Middle Atlantic	6.73	6.17	5.91	7.10	8.00	7.56	7.92	8.35	8.60	7.94	8.15	8.52	6.61	7.99	8.41
E. N. Central	5.05	4.73	5.33	5.73	6.76	6.55	6.54	6.47	7.11	6.87	6.87	6.70	5.22	6.62	6.93
W. N. Central	4.30	3.57	3.99	4.65	5.77	5.13	5.13	5.65	6.27	5.59	5.43	5.85	4.18	5.46	5.83
S. Atlantic	4.40	3.84	4.44	4.97	5.65	5.39	5.50	5.73	6.02	5.67	5.71	5.88	4.42	5.58	5.84
E. S. Central	3.96	3.38	4.09	4.63	5.31	4.99	4.97	5.32	5.58	5.22	5.26	5.49	4.02	5.16	5.40
W. S. Central	2.28	2.15	3.07	3.27	3.74	3.65	3.83	3.89	4.12	3.98	4.08	4.07	2.70	3.78	4.06
Mountain	5.26	4.96	5.38	5.55	6.18	6.09	6.51	6.44	6.56	6.37	6.71	6.67	5.30	6.30	6.58
Pacific	6.65	6.04	6.68	6.92	7.08	6.64	6.91	7.01	7.57	7.03	7.19	7.21	6.60	6.92	7.27
U.S. Average	3.44	2.93	3.62	4.12	4.91	4.43	4.49	4.85	5.33	4.78	4.78	5.05	3.54	4.68	5.00

- = 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 - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
Supply (million short tons)															
Production	173.0	160.5	195.1	210.0	<i>196.4</i>	<i>168.6</i>	<i>203.0</i>	<i>194.5</i>	<i>192.9</i>	<i>171.2</i>	<i>202.3</i>	<i>206.5</i>	738.7	<i>762.5</i>	<i>772.9</i>
Appalachia	44.3	43.2	44.8	50.2	<i>49.1</i>	<i>42.3</i>	<i>47.2</i>	<i>45.0</i>	<i>44.2</i>	<i>41.2</i>	<i>45.3</i>	<i>46.4</i>	182.6	<i>183.6</i>	<i>177.1</i>
Interior	36.9	34.4	35.7	42.6	<i>42.2</i>	<i>35.4</i>	<i>41.2</i>	<i>40.9</i>	<i>37.9</i>	<i>33.9</i>	<i>39.0</i>	<i>41.6</i>	149.6	<i>159.7</i>	<i>152.4</i>
Western	91.8	82.8	114.6	117.2	<i>105.1</i>	<i>90.8</i>	<i>114.6</i>	<i>108.5</i>	<i>110.8</i>	<i>96.1</i>	<i>118.0</i>	<i>118.5</i>	406.5	<i>419.1</i>	<i>443.4</i>
Primary Inventory Withdrawals	-1.4	0.2	3.6	-0.1	<i>-1.0</i>	<i>0.5</i>	<i>2.9</i>	<i>-0.8</i>	<i>-1.1</i>	<i>-0.3</i>	<i>3.2</i>	<i>-3.0</i>	2.2	<i>1.6</i>	<i>-1.2</i>
Imports	2.7	2.3	2.7	2.6	<i>2.1</i>	<i>2.4</i>	<i>3.3</i>	<i>2.9</i>	<i>2.2</i>	<i>2.4</i>	<i>3.3</i>	<i>2.9</i>	10.3	<i>10.7</i>	<i>10.8</i>
Exports	14.2	14.2	12.6	18.3	<i>14.5</i>	<i>13.3</i>	<i>11.7</i>	<i>11.6</i>	<i>11.2</i>	<i>13.0</i>	<i>12.0</i>	<i>13.4</i>	59.3	<i>51.1</i>	<i>49.7</i>
Metallurgical Coal	10.2	10.1	9.1	10.6	<i>8.3</i>	<i>8.0</i>	<i>6.2</i>	<i>6.9</i>	<i>6.6</i>	<i>8.2</i>	<i>7.3</i>	<i>8.7</i>	39.9	<i>29.5</i>	<i>30.7</i>
Steam Coal	4.0	4.2	3.5	7.7	<i>6.2</i>	<i>5.3</i>	<i>5.5</i>	<i>4.7</i>	<i>4.6</i>	<i>4.8</i>	<i>4.8</i>	<i>4.7</i>	19.3	<i>21.6</i>	<i>19.0</i>
Total Primary Supply	160.1	148.8	188.9	194.1	<i>183.1</i>	<i>158.1</i>	<i>197.5</i>	<i>185.0</i>	<i>182.8</i>	<i>160.3</i>	<i>196.7</i>	<i>192.9</i>	691.9	<i>723.7</i>	<i>732.8</i>
Secondary Inventory Withdrawals	4.1	9.3	22.9	-12.2	<i>-4.3</i>	<i>4.6</i>	<i>17.0</i>	<i>-4.0</i>	<i>1.2</i>	<i>2.6</i>	<i>15.1</i>	<i>-11.7</i>	24.2	<i>13.3</i>	<i>7.3</i>
Waste Coal (a)	2.5	2.5	2.5	2.5	<i>2.6</i>	<i>2.6</i>	<i>2.6</i>	<i>2.6</i>	<i>2.6</i>	<i>2.6</i>	<i>2.6</i>	<i>2.6</i>	9.8	<i>10.2</i>	<i>10.3</i>
Total Supply	166.7	160.6	214.3	184.4	<i>181.3</i>	<i>165.3</i>	<i>217.1</i>	<i>183.5</i>	<i>186.6</i>	<i>165.4</i>	<i>214.5</i>	<i>183.8</i>	725.9	<i>747.2</i>	<i>750.3</i>
Consumption (million short tons)															
Coke Plants	4.3	4.2	5.1	5.0	<i>4.3</i>	<i>4.2</i>	<i>5.3</i>	<i>5.0</i>	<i>4.4</i>	<i>4.4</i>	<i>5.3</i>	<i>5.0</i>	18.6	<i>18.8</i>	<i>19.2</i>
Electric Power Sector (b)	152.2	147.1	210.3	168.3	<i>165.3</i>	<i>152.8</i>	<i>203.4</i>	<i>169.7</i>	<i>172.8</i>	<i>152.3</i>	<i>200.3</i>	<i>169.6</i>	677.9	<i>691.2</i>	<i>695.0</i>
Retail and Other Industry	9.4	8.5	8.7	8.4	<i>8.9</i>	<i>8.3</i>	<i>8.5</i>	<i>8.9</i>	<i>9.4</i>	<i>8.7</i>	<i>8.8</i>	<i>9.2</i>	35.0	<i>34.5</i>	<i>36.1</i>
Residential and Commercial	0.4	0.2	0.2	0.2	<i>0.3</i>	<i>0.2</i>	<i>0.2</i>	<i>0.3</i>	<i>0.4</i>	<i>0.1</i>	<i>0.1</i>	<i>0.3</i>	1.1	<i>1.0</i>	<i>0.9</i>
Other Industrial	9.0	8.3	8.5	8.2	<i>8.5</i>	<i>8.1</i>	<i>8.3</i>	<i>8.6</i>	<i>9.0</i>	<i>8.6</i>	<i>8.7</i>	<i>9.0</i>	34.0	<i>33.5</i>	<i>35.2</i>
Total Consumption	165.9	159.9	224.1	181.7	<i>178.6</i>	<i>165.3</i>	<i>217.1</i>	<i>183.5</i>	<i>186.6</i>	<i>165.4</i>	<i>214.5</i>	<i>183.8</i>	731.5	<i>744.4</i>	<i>750.3</i>
Discrepancy (c)	0.8	0.7	-9.8	2.7	<i>2.7</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	-5.7	<i>2.7</i>	<i>0.0</i>
End-of-period Inventories (million short tons)															
Primary Inventories (d)	37.3	37.1	33.6	33.7	<i>34.7</i>	<i>34.2</i>	<i>31.3</i>	<i>32.1</i>	<i>33.2</i>	<i>33.5</i>	<i>30.3</i>	<i>33.3</i>	33.7	<i>32.1</i>	<i>33.3</i>
Secondary Inventories	198.4	189.1	166.2	178.3	<i>182.7</i>	<i>178.0</i>	<i>161.0</i>	<i>165.1</i>	<i>163.9</i>	<i>161.3</i>	<i>146.1</i>	<i>157.8</i>	178.3	<i>165.1</i>	<i>157.8</i>
Electric Power Sector	192.2	183.1	158.2	170.0	<i>175.3</i>	<i>170.1</i>	<i>152.6</i>	<i>156.3</i>	<i>156.2</i>	<i>153.0</i>	<i>137.4</i>	<i>148.8</i>	170.0	<i>156.3</i>	<i>148.8</i>
Retail and General Industry	3.9	3.8	5.7	6.0	<i>5.3</i>	<i>5.5</i>	<i>6.1</i>	<i>6.4</i>	<i>5.6</i>	<i>5.8</i>	<i>6.4</i>	<i>6.6</i>	6.0	<i>6.4</i>	<i>6.6</i>
Coke Plants	2.0	1.8	1.8	1.8	<i>1.5</i>	<i>1.9</i>	<i>1.8</i>	<i>1.8</i>	<i>1.5</i>	<i>1.9</i>	<i>1.8</i>	<i>1.8</i>	1.8	<i>1.8</i>	<i>1.8</i>
Coal Market Indicators															
Coal Miner Productivity															
(Tons per hour)	6.11	6.11	6.11	6.11	<i>5.96</i>	<i>5.96</i>	<i>5.96</i>	<i>5.96</i>	<i>5.86</i>	<i>5.86</i>	<i>5.86</i>	<i>5.86</i>	6.11	<i>5.96</i>	<i>5.86</i>
Total Raw Steel Production															
(Million short tons per day)	0.238	0.247	0.238	0.230	<i>0.242</i>	<i>0.240</i>	<i>0.211</i>	<i>0.178</i>	<i>0.227</i>	<i>0.231</i>	<i>0.212</i>	<i>0.173</i>	0.239	<i>0.217</i>	<i>0.210</i>
Cost of Coal to Electric Utilities															
(Dollars per million Btu)	2.13	2.14	2.11	2.12	<i>2.16</i>	<i>2.15</i>	<i>2.19</i>	<i>2.17</i>	<i>2.19</i>	<i>2.19</i>	<i>2.22</i>	<i>2.22</i>	2.13	<i>2.17</i>	<i>2.21</i>

- = no data available

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 7a. U.S. Electricity Industry Overview

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
Electricity Supply (billion kilowatthours per day)															
Electricity Generation	10.66	10.75	12.76	10.41	<i>10.67</i>	<i>10.81</i>	<i>12.47</i>	<i>10.57</i>	<i>11.07</i>	<i>10.90</i>	<i>12.57</i>	<i>10.66</i>	11.15	<i>11.13</i>	<i>11.30</i>
Electric Power Sector (a)	10.23	10.32	12.31	9.98	<i>10.23</i>	<i>10.37</i>	<i>12.01</i>	<i>10.14</i>	<i>10.62</i>	<i>10.47</i>	<i>12.11</i>	<i>10.23</i>	10.71	<i>10.69</i>	<i>10.86</i>
Comm. and Indus. Sectors (b)	0.44	0.43	0.45	0.44	<i>0.45</i>	<i>0.43</i>	<i>0.46</i>	<i>0.43</i>	<i>0.44</i>	<i>0.43</i>	<i>0.46</i>	<i>0.44</i>	0.44	<i>0.44</i>	<i>0.44</i>
Net Imports	0.18	0.18	0.22	0.19	<i>0.19</i>	<i>0.17</i>	<i>0.18</i>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	<i>0.17</i>	<i>0.13</i>	0.19	<i>0.17</i>	<i>0.15</i>
Total Supply	10.85	10.93	12.98	10.60	<i>10.86</i>	<i>10.97</i>	<i>12.65</i>	<i>10.72</i>	<i>11.22</i>	<i>11.05</i>	<i>12.75</i>	<i>10.79</i>	11.34	<i>11.30</i>	<i>11.46</i>
Losses and Unaccounted for (c)	0.66	0.97	0.89	0.66	<i>0.42</i>	<i>0.82</i>	<i>0.72</i>	<i>0.67</i>	<i>0.57</i>	<i>0.84</i>	<i>0.73</i>	<i>0.68</i>	0.79	<i>0.66</i>	<i>0.70</i>
Electricity Consumption (billion kilowatthours per day unless noted)															
Retail Sales	9.81	9.58	11.69	9.56	<i>10.04</i>	<i>9.76</i>	<i>11.52</i>	<i>9.67</i>	<i>10.26</i>	<i>9.83</i>	<i>11.61</i>	<i>9.73</i>	10.16	<i>10.25</i>	<i>10.36</i>
Residential Sector	3.81	3.37	4.77	3.43	<i>3.84</i>	<i>3.42</i>	<i>4.57</i>	<i>3.45</i>	<i>4.00</i>	<i>3.45</i>	<i>4.61</i>	<i>3.48</i>	3.85	<i>3.82</i>	<i>3.88</i>
Commercial Sector	3.49	3.62	4.20	3.57	<i>3.55</i>	<i>3.65</i>	<i>4.14</i>	<i>3.57</i>	<i>3.60</i>	<i>3.67</i>	<i>4.17</i>	<i>3.60</i>	3.72	<i>3.73</i>	<i>3.76</i>
Industrial Sector	2.48	2.57	2.70	2.54	<i>2.63</i>	<i>2.67</i>	<i>2.80</i>	<i>2.62</i>	<i>2.64</i>	<i>2.69</i>	<i>2.81</i>	<i>2.63</i>	2.57	<i>2.68</i>	<i>2.69</i>
Transportation Sector	0.02	0.02	0.02	0.02	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	0.02	<i>0.02</i>	<i>0.02</i>
Direct Use (d)	0.39	0.38	0.40	0.39	<i>0.39</i>	<i>0.38</i>	<i>0.41</i>	<i>0.38</i>	<i>0.39</i>	<i>0.38</i>	<i>0.41</i>	<i>0.39</i>	0.39	<i>0.39</i>	<i>0.39</i>
Total Consumption	10.19	9.96	12.09	9.94	<i>10.44</i>	<i>10.15</i>	<i>11.93</i>	<i>10.06</i>	<i>10.65</i>	<i>10.21</i>	<i>12.02</i>	<i>10.12</i>	10.55	<i>10.65</i>	<i>10.75</i>
Average residential electricity usage per customer (kWh)	2,645	2,342	3,349	2,404	<i>2,597</i>	<i>2,353</i>	<i>3,174</i>	<i>2,399</i>	<i>2,685</i>	<i>2,344</i>	<i>3,163</i>	<i>2,387</i>	10,740	<i>10,523</i>	<i>10,579</i>
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.13	2.14	2.11	2.12	<i>2.16</i>	<i>2.15</i>	<i>2.19</i>	<i>2.17</i>	<i>2.19</i>	<i>2.19</i>	<i>2.22</i>	<i>2.22</i>	2.13	<i>2.17</i>	<i>2.21</i>
Natural Gas	2.65	2.51	3.00	3.52	<i>4.25</i>	<i>3.88</i>	<i>3.73</i>	<i>4.16</i>	<i>4.66</i>	<i>4.19</i>	<i>3.95</i>	<i>4.35</i>	2.91	<i>3.97</i>	<i>4.25</i>
Residual Fuel Oil	6.15	8.51	9.70	8.93	<i>9.81</i>	<i>10.75</i>	<i>10.49</i>	<i>10.38</i>	<i>10.27</i>	<i>11.03</i>	<i>10.85</i>	<i>10.90</i>	8.38	<i>10.36</i>	<i>10.76</i>
Distillate Fuel Oil	9.00	11.01	11.64	12.59	<i>13.59</i>	<i>13.75</i>	<i>14.00</i>	<i>14.66</i>	<i>14.86</i>	<i>14.89</i>	<i>15.11</i>	<i>15.96</i>	10.98	<i>14.00</i>	<i>15.18</i>
Retail Prices (cents per kilowatthour)															
Residential Sector	12.20	12.66	12.81	12.45	<i>12.50</i>	<i>12.92</i>	<i>13.29</i>	<i>12.93</i>	<i>12.98</i>	<i>13.23</i>	<i>13.51</i>	<i>13.19</i>	12.55	<i>12.93</i>	<i>13.24</i>
Commercial Sector	10.12	10.34	10.67	10.25	<i>10.11</i>	<i>10.48</i>	<i>11.00</i>	<i>10.61</i>	<i>10.38</i>	<i>10.62</i>	<i>11.08</i>	<i>10.74</i>	10.36	<i>10.57</i>	<i>10.72</i>
Industrial Sector	6.42	6.67	7.20	6.67	<i>6.54</i>	<i>6.81</i>	<i>7.36</i>	<i>6.80</i>	<i>6.59</i>	<i>6.92</i>	<i>7.48</i>	<i>6.93</i>	6.75	<i>6.89</i>	<i>6.99</i>

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

Prices are not adjusted for inflation.

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

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

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

 (d) Direct Use represents commercial and industrial facility use of onsite net electricity generation; and electrical sales or transfers to adjacent or 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 - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
Residential Sector															
New England	133	109	152	116	136	111	143	116	139	112	145	118	127	127	129
Middle Atlantic	367	309	461	320	370	312	422	319	380	312	421	318	364	356	358
E. N. Central	522	447	619	457	524	445	574	461	533	445	574	460	511	501	503
W. N. Central	298	243	322	258	317	245	329	269	326	250	335	272	280	290	296
S. Atlantic	969	874	1,223	862	946	884	1,126	868	1,011	889	1,135	874	982	956	978
E. S. Central	337	274	412	277	326	279	382	281	358	280	382	281	325	317	325
W. S. Central	526	518	810	519	531	543	803	516	574	553	819	525	594	599	618
Mountain	240	251	337	230	246	254	356	232	246	258	362	236	265	272	276
Pacific contiguous	406	336	422	377	428	339	419	376	416	338	420	379	385	390	388
AK and HI	13	12	12	13	13	11	12	13	13	11	12	13	13	12	12
Total	3,810	3,373	4,771	3,429	3,838	3,423	4,566	3,451	3,996	3,450	4,606	3,476	3,847	3,821	3,882
Commercial Sector															
New England	141	137	160	136	139	136	152	131	134	134	150	130	143	139	137
Middle Atlantic	422	408	488	410	424	410	473	411	425	409	471	411	432	430	429
E. N. Central	488	493	567	484	494	493	552	485	497	494	554	487	508	506	508
W. N. Central	271	271	308	272	277	272	311	275	280	274	314	277	281	284	286
S. Atlantic	792	843	977	808	803	843	944	808	814	845	947	810	855	850	854
E. S. Central	231	242	295	240	248	251	291	241	255	255	296	245	252	258	263
W. S. Central	473	519	625	516	491	536	625	515	512	553	644	525	533	542	559
Mountain	240	258	290	250	242	260	300	251	244	262	302	253	260	263	266
Pacific contiguous	418	428	475	439	421	431	476	442	423	431	477	446	440	443	444
AK and HI	16	16	16	16	16	16	16	16	16	15	16	16	16	16	16
Total	3,494	3,616	4,201	3,570	3,555	3,647	4,139	3,575	3,600	3,672	4,171	3,600	3,721	3,730	3,762
Industrial Sector															
New England	45	47	49	46	45	46	50	46	45	46	50	46	47	47	47
Middle Atlantic	192	191	202	189	201	198	211	196	201	200	214	199	193	201	204
E. N. Central	502	504	528	494	528	524	540	507	519	520	541	508	507	525	522
W. N. Central	223	228	246	237	235	232	249	240	237	235	253	244	233	239	242
S. Atlantic	362	384	391	366	367	385	394	370	371	391	401	376	376	379	385
E. S. Central	258	269	274	269	289	284	282	272	290	283	281	270	268	282	281
W. S. Central	456	471	485	469	489	500	527	509	498	502	522	501	470	506	506
Mountain	214	232	247	219	222	241	256	228	226	245	261	231	228	237	241
Pacific contiguous	215	236	262	233	240	250	273	241	239	251	275	243	236	251	252
AK and HI	13	14	15	14	13	14	14	14	13	14	15	14	14	14	14
Total	2,480	2,574	2,699	2,536	2,629	2,673	2,796	2,623	2,640	2,687	2,811	2,633	2,573	2,681	2,693
Total All Sectors (a)															
New England	320	294	362	299	322	295	346	295	319	294	346	296	319	314	314
Middle Atlantic	993	918	1,162	929	1,008	931	1,117	937	1,019	932	1,118	939	1,001	998	1,002
E. N. Central	1,514	1,446	1,716	1,436	1,548	1,464	1,668	1,455	1,552	1,461	1,670	1,456	1,528	1,534	1,535
W. N. Central	792	742	877	768	829	749	889	784	843	759	902	794	795	813	825
S. Atlantic	2,126	2,106	2,595	2,040	2,120	2,115	2,469	2,049	2,200	2,130	2,486	2,065	2,217	2,189	2,220
E. S. Central	827	785	981	786	862	814	954	794	903	819	959	795	845	856	869
W. S. Central	1,455	1,509	1,920	1,505	1,512	1,579	1,956	1,541	1,584	1,608	1,985	1,552	1,598	1,648	1,683
Mountain	694	741	875	699	710	755	913	711	716	765	926	720	752	773	782
Pacific contiguous	1,042	1,002	1,162	1,051	1,091	1,022	1,170	1,062	1,081	1,022	1,175	1,070	1,064	1,086	1,087
AK and HI	42	41	43	43	42	41	43	43	42	40	43	43	42	42	42
Total	9,805	9,583	11,692	9,556	10,045	9,764	11,524	9,671	10,259	9,830	11,610	9,730	10,161	10,253	10,359

- = 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 - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
Residential Sector															
New England	19.08	19.29	18.47	18.98	19.49	19.66	19.31	19.86	21.02	20.06	19.20	19.70	18.92	19.56	19.99
Middle Atlantic	15.29	15.88	16.08	15.71	15.45	16.33	16.89	16.46	15.93	16.71	17.36	17.10	15.76	16.30	16.78
E. N. Central	12.51	13.25	12.91	12.96	12.76	13.76	13.58	13.63	13.35	14.28	14.03	14.20	12.89	13.42	13.95
W. N. Central	10.61	12.31	12.67	11.35	10.76	12.57	12.94	11.61	10.96	12.79	13.14	11.93	11.75	11.96	12.19
S. Atlantic	11.40	11.75	11.89	11.48	11.85	11.97	12.31	11.88	12.45	12.33	12.53	12.06	11.65	12.02	12.36
E. S. Central	10.35	10.94	10.90	11.01	10.25	11.02	11.39	11.39	10.35	11.13	11.42	11.65	10.79	11.02	11.12
W. S. Central	10.34	10.69	10.65	10.44	10.26	10.88	11.24	11.13	10.54	10.85	11.19	11.25	10.54	10.92	10.98
Mountain	11.05	11.91	12.12	11.48	11.22	12.15	12.43	11.79	11.45	12.37	12.67	12.06	11.69	11.96	12.20
Pacific	14.13	13.95	16.09	13.96	14.80	14.04	16.10	14.18	15.93	14.81	16.69	14.30	14.59	14.84	15.49
U.S. Average	12.20	12.66	12.81	12.45	12.50	12.92	13.29	12.93	12.98	13.23	13.51	13.19	12.55	12.93	13.24
Commercial Sector															
New England	15.33	15.01	15.19	15.21	15.35	15.12	15.91	15.97	16.20	15.07	15.66	15.84	15.19	15.59	15.69
Middle Atlantic	12.02	12.48	13.29	12.22	11.91	12.69	13.69	12.66	12.04	12.71	13.77	12.88	12.54	12.77	12.88
E. N. Central	9.65	9.87	9.91	9.87	9.61	10.02	10.14	10.11	9.79	10.18	10.26	10.28	9.83	9.98	10.13
W. N. Central	8.86	9.70	10.15	9.00	8.88	9.92	10.45	9.27	8.97	10.06	10.65	9.54	9.45	9.66	9.83
S. Atlantic	9.37	9.27	9.26	9.28	9.53	9.44	9.56	9.70	10.12	9.75	9.73	9.86	9.29	9.56	9.86
E. S. Central	9.93	9.99	10.12	10.19	9.44	10.00	10.50	10.57	9.53	10.07	10.51	10.76	10.06	10.14	10.23
W. S. Central	7.80	7.79	7.85	7.76	7.58	7.82	8.21	8.18	7.47	7.50	7.95	8.16	7.80	7.97	7.78
Mountain	9.02	9.75	10.02	9.35	8.97	9.84	10.18	9.55	9.08	9.92	10.26	9.66	9.56	9.67	9.77
Pacific	12.21	13.08	14.69	12.81	12.37	13.32	15.03	13.14	13.18	13.99	15.56	13.36	13.24	13.51	14.07
U.S. Average	10.12	10.34	10.67	10.25	10.11	10.48	11.00	10.61	10.38	10.62	11.08	10.74	10.36	10.57	10.72
Industrial Sector															
New England	12.23	11.86	12.24	11.93	12.54	12.14	12.43	12.06	13.03	12.47	12.68	12.23	12.07	12.29	12.60
Middle Atlantic	7.05	7.01	7.17	6.87	7.05	7.18	7.31	6.98	7.01	7.19	7.37	7.04	7.03	7.13	7.16
E. N. Central	6.74	6.88	7.03	6.98	6.77	6.93	7.16	7.09	6.83	7.03	7.25	7.20	6.91	6.99	7.08
W. N. Central	6.66	7.09	7.75	6.66	6.76	7.18	7.90	6.76	6.88	7.31	8.02	6.88	7.05	7.16	7.28
S. Atlantic	6.15	6.34	6.79	6.36	6.28	6.54	7.02	6.52	6.29	6.62	7.11	6.62	6.42	6.60	6.67
E. S. Central	5.46	5.72	6.14	5.96	5.72	5.91	6.40	6.16	5.83	6.09	6.57	6.35	5.83	6.05	6.21
W. S. Central	5.06	5.03	5.44	5.36	5.20	5.23	5.72	5.61	5.12	5.29	5.82	5.78	5.23	5.45	5.51
Mountain	5.84	6.29	7.01	6.02	5.96	6.46	7.21	6.20	6.15	6.66	7.44	6.39	6.31	6.49	6.69
Pacific	7.99	9.08	10.54	8.59	8.15	9.12	10.48	8.50	8.33	9.22	10.53	8.51	9.12	9.12	9.20
U.S. Average	6.42	6.67	7.20	6.67	6.54	6.81	7.36	6.80	6.59	6.92	7.48	6.93	6.75	6.89	6.99
All Sectors (a)															
New England	16.41	16.07	16.13	16.11	16.67	16.32	16.78	16.84	17.81	16.53	16.69	16.78	16.18	16.66	16.96
Middle Atlantic	12.25	12.47	13.31	12.33	12.24	12.71	13.67	12.74	12.48	12.85	13.87	13.05	12.63	12.87	13.09
E. N. Central	9.67	9.87	10.10	9.86	9.74	10.05	10.36	10.17	10.02	10.31	10.58	10.44	9.88	10.08	10.34
W. N. Central	8.90	9.75	10.40	9.08	9.01	9.94	10.66	9.31	9.15	10.11	10.84	9.54	9.56	9.75	9.93
S. Atlantic	9.75	9.76	10.12	9.67	10.01	9.97	10.41	10.05	10.54	10.25	10.58	10.20	9.84	10.12	10.40
E. S. Central	8.70	8.86	9.33	9.06	8.51	8.92	9.64	9.35	8.67	9.05	9.72	9.58	9.01	9.12	9.26
W. S. Central	7.86	7.92	8.42	7.94	7.75	8.05	8.78	8.32	7.84	7.96	8.73	8.43	8.06	8.27	8.27
Mountain	8.74	9.40	9.98	9.03	8.81	9.54	10.22	9.21	8.97	9.70	10.41	9.40	9.33	9.50	9.68
Pacific	12.08	12.42	14.25	12.29	12.39	12.52	14.34	12.44	13.15	13.08	14.77	12.58	12.81	12.96	13.43
U.S. Average	9.99	10.17	10.74	10.10	10.10	10.33	11.02	10.40	10.41	10.52	11.17	10.58	10.27	10.49	10.69

- = 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 - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
United States															
Coal	3,058	2,965	4,203	3,317	3,391	3,102	4,065	3,361	3,561	3,086	3,995	3,355	3,388	3,482	3,500
Natural Gas	3,429	3,767	4,700	3,265	3,164	3,537	4,389	3,322	3,312	3,612	4,491	3,378	3,791	3,605	3,701
Petroleum (a)	68	63	72	61	71	67	75	64	77	68	77	66	66	69	72
Other Gases	40	35	35	35	44	37	36	36	46	38	37	37	36	39	40
Nuclear	2,245	2,155	2,253	2,144	2,219	2,035	2,268	2,125	2,168	2,002	2,231	2,090	2,199	2,162	2,123
Renewable Energy Sources:	1,799	1,743	1,484	1,570	1,763	2,001	1,613	1,640	1,881	2,068	1,719	1,715	1,648	1,753	1,845
Conventional Hydropower	841	810	618	618	734	894	709	592	753	854	734	606	721	732	736
Wind	665	612	517	646	698	711	499	714	779	787	550	761	610	655	719
Wood Biomass	114	104	116	107	111	104	114	110	112	105	116	111	110	110	111
Waste Biomass	60	61	61	59	59	60	60	60	60	60	61	61	60	60	60
Geothermal	47	46	47	49	49	47	47	47	47	46	46	47	47	48	46
Solar	72	110	125	86	98	171	165	102	116	202	195	116	98	134	157
Pumped Storage Hydropower	-12	-14	-26	-18	-13	-12	-17	-15	-13	-12	-16	-14	-18	-14	-14
Other Nonrenewable Fuels (b)	36	39	39	37	35	38	40	37	36	38	40	37	38	38	38
Total Generation	10,663	10,753	12,760	10,410	10,675	10,805	12,470	10,570	11,069	10,900	12,575	10,664	11,149	11,133	11,304
Northeast Census Region															
Coal	161	141	203	141	164	114	175	158	213	120	174	150	162	153	164
Natural Gas	512	599	795	525	506	546	717	528	481	552	724	556	608	575	579
Petroleum (a)	7	3	6	6	8	4	6	5	9	6	9	6	5	6	7
Other Gases	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Nuclear	543	461	516	525	524	480	535	501	517	478	532	499	511	510	507
Hydropower (c)	111	94	78	86	98	106	89	90	98	103	87	88	92	96	94
Other Renewables (d)	76	62	60	70	80	70	66	80	88	77	70	85	67	74	80
Other Nonrenewable Fuels (b)	11	12	12	11	11	11	12	12	11	11	12	12	12	11	11
Total Generation	1,424	1,374	1,673	1,366	1,393	1,334	1,602	1,376	1,419	1,349	1,610	1,397	1,459	1,427	1,444
South Census Region															
Coal	1,270	1,345	1,950	1,424	1,377	1,488	1,877	1,417	1,489	1,465	1,849	1,429	1,498	1,541	1,559
Natural Gas	2,013	2,235	2,642	1,858	1,800	2,111	2,476	1,878	1,923	2,152	2,533	1,887	2,187	2,068	2,125
Petroleum (a)	29	30	35	24	28	28	31	24	32	28	31	24	30	28	29
Other Gases	15	13	14	14	15	13	14	15	16	13	14	15	14	14	15
Nuclear	951	998	994	935	984	908	1,012	949	988	912	1,016	952	969	963	967
Hydropower (c)	190	84	71	95	159	94	84	100	160	91	82	99	110	109	108
Other Renewables (d)	327	305	304	332	369	396	320	385	413	439	351	405	317	368	402
Other Nonrenewable Fuels (b)	16	18	18	17	16	17	18	16	16	17	18	16	17	17	17
Total Generation	4,812	5,028	6,028	4,699	4,750	5,056	5,832	4,784	5,036	5,118	5,895	4,827	5,143	5,108	5,220
Midwest Census Region															
Coal	1,201	1,109	1,498	1,185	1,336	1,170	1,497	1,220	1,338	1,153	1,502	1,241	1,249	1,306	1,309
Natural Gas	357	368	454	318	314	350	416	309	370	388	450	317	374	347	381
Petroleum (a)	10	9	8	8	11	11	12	10	12	11	13	10	9	11	12
Other Gases	16	13	14	13	20	16	15	14	21	16	16	14	14	16	17
Nuclear	573	543	572	520	546	497	554	519	500	462	515	483	552	529	490
Hydropower (c)	48	43	39	35	38	44	42	37	37	43	41	37	41	40	40
Other Renewables (d)	281	245	185	276	300	273	188	306	333	302	206	327	247	267	292
Other Nonrenewable Fuels (b)	4	4	4	4	4	4	5	4	4	4	5	4	4	4	4
Total Generation	2,492	2,335	2,774	2,359	2,568	2,366	2,729	2,420	2,616	2,380	2,747	2,433	2,490	2,521	2,544
West Census Region															
Coal	426	370	552	567	514	330	516	565	521	348	470	535	479	482	468
Natural Gas	546	566	809	564	543	529	780	606	538	520	785	618	622	615	616
Petroleum (a)	21	20	23	23	24	23	25	26	25	23	25	26	22	24	25
Other Gases	7	6	5	6	7	6	5	6	7	6	5	6	6	6	6
Nuclear	178	152	172	164	165	149	167	156	163	150	167	157	167	159	159
Hydropower (c)	480	575	404	383	425	639	478	350	444	604	507	367	460	473	481
Other Renewables (d)	273	322	316	273	280	366	329	277	295	397	358	292	296	313	336
Other Nonrenewable Fuels (b)	4	5	5	5	5	5	6	6	5	5	6	6	5	5	5
Total Generation	1,936	2,016	2,285	1,987	1,964	2,049	2,306	1,991	1,998	2,053	2,323	2,008	2,057	2,078	2,096

(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 - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
Fuel Consumption for Electricity Generation, All Sectors															
United States															
Coal (thousand st/d)	1,675	1,619	2,289	1,830	<i>1,836</i>	<i>1,679</i>	<i>2,211</i>	<i>1,843</i>	<i>1,917</i>	<i>1,672</i>	<i>2,176</i>	<i>1,841</i>	1,854	<i>1,893</i>	<i>1,902</i>
Natural Gas (million cf/d)	25,244	28,614	36,109	24,252	<i>23,446</i>	<i>26,853</i>	<i>33,611</i>	<i>24,723</i>	<i>24,627</i>	<i>27,517</i>	<i>34,508</i>	<i>25,221</i>	28,564	<i>27,179</i>	<i>27,988</i>
Petroleum (thousand b/d)	121	112	130	107	<i>124</i>	<i>117</i>	<i>131</i>	<i>114</i>	<i>136</i>	<i>120</i>	<i>136</i>	<i>117</i>	117	<i>121</i>	<i>127</i>
Residual Fuel Oil	29	22	35	26	<i>31</i>	<i>28</i>	<i>31</i>	<i>26</i>	<i>32</i>	<i>28</i>	<i>33</i>	<i>28</i>	28	<i>29</i>	<i>30</i>
Distillate Fuel Oil	29	23	24	25	<i>26</i>	<i>26</i>	<i>28</i>	<i>26</i>	<i>33</i>	<i>27</i>	<i>29</i>	<i>26</i>	26	<i>26</i>	<i>29</i>
Petroleum Coke (a)	57	63	66	51	<i>60</i>	<i>59</i>	<i>67</i>	<i>57</i>	<i>65</i>	<i>61</i>	<i>69</i>	<i>58</i>	59	<i>61</i>	<i>63</i>
Other Petroleum Liquids (b)	5	3	5	5	<i>7</i>	<i>4</i>	<i>5</i>	<i>5</i>	<i>7</i>	<i>4</i>	<i>5</i>	<i>5</i>	5	<i>5</i>	<i>5</i>
Northeast Census Region															
Coal (thousand st/d)	80	66	94	67	<i>78</i>	<i>54</i>	<i>85</i>	<i>77</i>	<i>100</i>	<i>57</i>	<i>85</i>	<i>73</i>	76	<i>73</i>	<i>78</i>
Natural Gas (million cf/d)	3,829	4,578	6,204	3,929	<i>3,832</i>	<i>4,186</i>	<i>5,591</i>	<i>3,997</i>	<i>3,649</i>	<i>4,233</i>	<i>5,648</i>	<i>4,213</i>	4,637	<i>4,405</i>	<i>4,441</i>
Petroleum (thousand b/d)	12	5	12	7	<i>14</i>	<i>8</i>	<i>12</i>	<i>8</i>	<i>16</i>	<i>11</i>	<i>17</i>	<i>11</i>	9	<i>10</i>	<i>14</i>
South Census Region															
Coal (thousand st/d)	671	717	1,035	769	<i>720</i>	<i>782</i>	<i>992</i>	<i>757</i>	<i>775</i>	<i>772</i>	<i>981</i>	<i>764</i>	799	<i>813</i>	<i>823</i>
Natural Gas (million cf/d)	14,756	16,918	20,175	13,743	<i>13,221</i>	<i>15,945</i>	<i>18,822</i>	<i>13,864</i>	<i>14,171</i>	<i>16,312</i>	<i>19,318</i>	<i>13,972</i>	16,401	<i>15,474</i>	<i>15,952</i>
Petroleum (thousand b/d)	55	56	66	46	<i>52</i>	<i>53</i>	<i>58</i>	<i>45</i>	<i>59</i>	<i>52</i>	<i>57</i>	<i>45</i>	56	<i>52</i>	<i>53</i>
Midwest Census Region															
Coal (thousand st/d)	680	627	848	673	<i>748</i>	<i>658</i>	<i>844</i>	<i>690</i>	<i>749</i>	<i>649</i>	<i>847</i>	<i>701</i>	707	<i>735</i>	<i>736</i>
Natural Gas (million cf/d)	2,693	2,910	3,754	2,429	<i>2,397</i>	<i>2,735</i>	<i>3,368</i>	<i>2,388</i>	<i>2,842</i>	<i>3,052</i>	<i>3,668</i>	<i>2,468</i>	2,947	<i>2,724</i>	<i>3,008</i>
Petroleum (thousand b/d)	19	19	18	17	<i>20</i>	<i>20</i>	<i>22</i>	<i>20</i>	<i>21</i>	<i>21</i>	<i>22</i>	<i>20</i>	18	<i>21</i>	<i>21</i>
West Census Region															
Coal (thousand st/d)	244	208	312	322	<i>290</i>	<i>185</i>	<i>290</i>	<i>320</i>	<i>294</i>	<i>195</i>	<i>264</i>	<i>303</i>	272	<i>271</i>	<i>264</i>
Natural Gas (million cf/d)	3,967	4,208	5,976	4,151	<i>3,995</i>	<i>3,987</i>	<i>5,829</i>	<i>4,474</i>	<i>3,965</i>	<i>3,920</i>	<i>5,875</i>	<i>4,568</i>	4,578	<i>4,576</i>	<i>4,587</i>
Petroleum (thousand b/d)	34	32	35	37	<i>38</i>	<i>36</i>	<i>39</i>	<i>41</i>	<i>40</i>	<i>37</i>	<i>40</i>	<i>41</i>	34	<i>39</i>	<i>39</i>
End-of-period U.S. Fuel Inventories Held by Electric Power Sector															
Coal (million short tons)	192.2	183.1	158.2	170.0	<i>175.3</i>	<i>170.1</i>	<i>152.6</i>	<i>156.3</i>	<i>156.2</i>	<i>153.0</i>	<i>137.4</i>	<i>148.8</i>	170.0	<i>156.3</i>	<i>148.8</i>
Residual Fuel Oil (mmb)	11.9	12.2	11.7	12.0	<i>12.8</i>	<i>12.5</i>	<i>12.2</i>	<i>12.8</i>	<i>12.9</i>	<i>12.7</i>	<i>12.5</i>	<i>13.1</i>	12.0	<i>12.8</i>	<i>13.1</i>
Distillate Fuel Oil (mmb)	17.2	17.3	20.9	17.0	<i>17.2</i>	<i>17.1</i>	<i>17.1</i>	<i>17.6</i>	<i>17.7</i>	<i>17.6</i>	<i>17.6</i>	<i>17.9</i>	17.0	<i>17.6</i>	<i>17.9</i>
Petroleum Coke (mmb)	6.2	4.5	3.8	4.1	<i>4.1</i>	<i>4.1</i>	<i>4.0</i>	<i>4.0</i>	<i>4.0</i>	<i>4.0</i>	<i>3.9</i>	<i>3.9</i>	4.1	<i>4.0</i>	<i>3.9</i>

(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 8. U.S. Renewable Energy Consumption (Quadrillion Btu)

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
Electric Power Sector															
Hydroelectric Power (a)	0.709	0.684	0.528	0.531	<i>0.624</i>	<i>0.770</i>	<i>0.618</i>	<i>0.515</i>	<i>0.641</i>	<i>0.735</i>	<i>0.639</i>	<i>0.527</i>	2.451	<i>2.528</i>	<i>2.542</i>
Wood Biomass (b)	0.061	0.049	0.060	0.050	<i>0.054</i>	<i>0.048</i>	<i>0.059</i>	<i>0.055</i>	<i>0.056</i>	<i>0.050</i>	<i>0.062</i>	<i>0.056</i>	0.220	<i>0.216</i>	<i>0.223</i>
Waste Biomass (c)	0.070	0.072	0.072	0.072	<i>0.068</i>	<i>0.070</i>	<i>0.073</i>	<i>0.072</i>	<i>0.069</i>	<i>0.072</i>	<i>0.074</i>	<i>0.073</i>	0.287	<i>0.283</i>	<i>0.287</i>
Wind	0.575	0.529	0.452	0.565	<i>0.597</i>	<i>0.614</i>	<i>0.436</i>	<i>0.624</i>	<i>0.666</i>	<i>0.680</i>	<i>0.481</i>	<i>0.665</i>	2.120	<i>2.272</i>	<i>2.492</i>
Geothermal	0.040	0.039	0.040	0.042	<i>0.041</i>	<i>0.040</i>	<i>0.041</i>	<i>0.040</i>	<i>0.039</i>	<i>0.039</i>	<i>0.040</i>	<i>0.040</i>	0.162	<i>0.162</i>	<i>0.158</i>
Solar	0.061	0.093	0.108	0.074	<i>0.082</i>	<i>0.146</i>	<i>0.142</i>	<i>0.088</i>	<i>0.098</i>	<i>0.173</i>	<i>0.168</i>	<i>0.100</i>	0.337	<i>0.459</i>	<i>0.538</i>
Subtotal	1.517	1.466	1.259	1.334	<i>1.466</i>	<i>1.690</i>	<i>1.370</i>	<i>1.394</i>	<i>1.568</i>	<i>1.749</i>	<i>1.464</i>	<i>1.460</i>	5.576	<i>5.920</i>	<i>6.241</i>
Industrial Sector															
Hydroelectric Power (a)	0.004	0.003	0.002	0.003	<i>0.004</i>	<i>0.003</i>	<i>0.002</i>	<i>0.003</i>	<i>0.004</i>	<i>0.003</i>	<i>0.002</i>	<i>0.003</i>	0.012	<i>0.013</i>	<i>0.013</i>
Wood Biomass (b)	0.319	0.312	0.318	0.321	<i>0.309</i>	<i>0.301</i>	<i>0.311</i>	<i>0.313</i>	<i>0.304</i>	<i>0.300</i>	<i>0.312</i>	<i>0.314</i>	1.270	<i>1.235</i>	<i>1.230</i>
Waste Biomass (c)	0.047	0.048	0.048	0.047	<i>0.049</i>	<i>0.048</i>	<i>0.047</i>	<i>0.048</i>	<i>0.049</i>	<i>0.048</i>	<i>0.047</i>	<i>0.048</i>	0.191	<i>0.192</i>	<i>0.192</i>
Geothermal	0.001	0.001	0.001	0.001	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	0.004	<i>0.004</i>	<i>0.004</i>
Biofuel Losses and Co-products (f)	0.196	0.193	0.203	0.209	<i>0.196</i>	<i>0.199</i>	<i>0.205</i>	<i>0.201</i>	<i>0.202</i>	<i>0.203</i>	<i>0.204</i>	<i>0.198</i>	0.800	<i>0.800</i>	<i>0.807</i>
Subtotal	0.571	0.562	0.576	0.582	<i>0.563</i>	<i>0.558</i>	<i>0.571</i>	<i>0.570</i>	<i>0.565</i>	<i>0.560</i>	<i>0.571</i>	<i>0.568</i>	2.291	<i>2.261</i>	<i>2.263</i>
Commercial Sector															
Wood Biomass (b)	0.018	0.018	0.019	0.018	<i>0.018</i>	<i>0.018</i>	<i>0.019</i>	<i>0.018</i>	<i>0.018</i>	<i>0.018</i>	<i>0.019</i>	<i>0.018</i>	0.073	<i>0.073</i>	<i>0.073</i>
Waste Biomass (c)	0.013	0.012	0.012	0.013	<i>0.013</i>	<i>0.012</i>	<i>0.012</i>	<i>0.012</i>	<i>0.013</i>	<i>0.012</i>	<i>0.012</i>	<i>0.012</i>	0.049	<i>0.049</i>	<i>0.049</i>
Geothermal	0.005	0.005	0.005	0.005	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	0.020	<i>0.020</i>	<i>0.020</i>
Subtotal	0.058	0.063	0.064	0.058	<i>0.059</i>	<i>0.066</i>	<i>0.067</i>	<i>0.059</i>	<i>0.062</i>	<i>0.069</i>	<i>0.070</i>	<i>0.061</i>	0.243	<i>0.252</i>	<i>0.261</i>
Residential Sector															
Wood Biomass (b)	0.096	0.096	0.097	0.097	<i>0.098</i>	<i>0.098</i>	<i>0.099</i>	<i>0.099</i>	<i>0.103</i>	<i>0.103</i>	<i>0.104</i>	<i>0.104</i>	0.386	<i>0.395</i>	<i>0.413</i>
Geothermal	0.011	0.011	0.011	0.011	<i>0.012</i>	<i>0.012</i>	<i>0.012</i>	<i>0.012</i>	<i>0.013</i>	<i>0.013</i>	<i>0.013</i>	<i>0.013</i>	0.044	<i>0.047</i>	<i>0.052</i>
Solar (d)	0.031	0.047	0.049	0.035	<i>0.036</i>	<i>0.055</i>	<i>0.057</i>	<i>0.042</i>	<i>0.043</i>	<i>0.066</i>	<i>0.068</i>	<i>0.050</i>	0.162	<i>0.190</i>	<i>0.227</i>
Subtotal	0.138	0.154	0.157	0.143	<i>0.145</i>	<i>0.165</i>	<i>0.168</i>	<i>0.153</i>	<i>0.159</i>	<i>0.181</i>	<i>0.185</i>	<i>0.167</i>	0.592	<i>0.632</i>	<i>0.692</i>
Transportation Sector															
Ethanol (e)	0.277	0.283	0.293	0.287	<i>0.269</i>	<i>0.290</i>	<i>0.297</i>	<i>0.284</i>	<i>0.274</i>	<i>0.291</i>	<i>0.296</i>	<i>0.285</i>	1.140	<i>1.140</i>	<i>1.146</i>
Biomass-based Diesel (e)	0.051	0.066	0.088	0.084	<i>0.059</i>	<i>0.071</i>	<i>0.086</i>	<i>0.087</i>	<i>0.072</i>	<i>0.078</i>	<i>0.089</i>	<i>0.091</i>	0.289	<i>0.304</i>	<i>0.330</i>
Subtotal	0.328	0.349	0.381	0.367	<i>0.328</i>	<i>0.361</i>	<i>0.383</i>	<i>0.371</i>	<i>0.345</i>	<i>0.369</i>	<i>0.386</i>	<i>0.376</i>	1.426	<i>1.443</i>	<i>1.475</i>
All Sectors Total															
Hydroelectric Power (a)	0.713	0.687	0.530	0.534	<i>0.628</i>	<i>0.774</i>	<i>0.621</i>	<i>0.518</i>	<i>0.645</i>	<i>0.739</i>	<i>0.642</i>	<i>0.530</i>	2.464	<i>2.541</i>	<i>2.556</i>
Wood Biomass (b)	0.494	0.475	0.493	0.486	<i>0.479</i>	<i>0.466</i>	<i>0.489</i>	<i>0.485</i>	<i>0.480</i>	<i>0.471</i>	<i>0.497</i>	<i>0.492</i>	1.949	<i>1.919</i>	<i>1.940</i>
Waste Biomass (c)	0.130	0.132	0.131	0.132	<i>0.130</i>	<i>0.130</i>	<i>0.132</i>	<i>0.132</i>	<i>0.131</i>	<i>0.131</i>	<i>0.133</i>	<i>0.133</i>	0.526	<i>0.524</i>	<i>0.528</i>
Wind	0.575	0.529	0.452	0.565	<i>0.597</i>	<i>0.614</i>	<i>0.436</i>	<i>0.624</i>	<i>0.666</i>	<i>0.680</i>	<i>0.481</i>	<i>0.665</i>	2.120	<i>2.272</i>	<i>2.492</i>
Geothermal	0.057	0.056	0.057	0.059	<i>0.059</i>	<i>0.058</i>	<i>0.059</i>	<i>0.058</i>	<i>0.058</i>	<i>0.058</i>	<i>0.059</i>	<i>0.059</i>	0.229	<i>0.233</i>	<i>0.234</i>
Solar	0.109	0.165	0.181	0.127	<i>0.139</i>	<i>0.231</i>	<i>0.230</i>	<i>0.151</i>	<i>0.165</i>	<i>0.272</i>	<i>0.270</i>	<i>0.174</i>	0.582	<i>0.751</i>	<i>0.881</i>
Ethanol (e)	0.287	0.295	0.305	0.298	<i>0.283</i>	<i>0.301</i>	<i>0.309</i>	<i>0.295</i>	<i>0.284</i>	<i>0.302</i>	<i>0.308</i>	<i>0.296</i>	1.185	<i>1.188</i>	<i>1.191</i>
Biomass-based Diesel (e)	0.051	0.066	0.088	0.084	<i>0.059</i>	<i>0.071</i>	<i>0.086</i>	<i>0.087</i>	<i>0.072</i>	<i>0.078</i>	<i>0.089</i>	<i>0.091</i>	0.289	<i>0.304</i>	<i>0.330</i>
Biofuel Losses and Co-products (f)	0.196	0.193	0.203	0.209	<i>0.196</i>	<i>0.199</i>	<i>0.205</i>	<i>0.201</i>	<i>0.202</i>	<i>0.203</i>	<i>0.204</i>	<i>0.198</i>	0.800	<i>0.800</i>	<i>0.807</i>
Total Consumption	2.611	2.595	2.438	2.516	<i>2.562</i>	<i>2.839</i>	<i>2.560</i>	<i>2.547</i>	<i>2.698</i>	<i>2.928</i>	<i>2.676</i>	<i>2.632</i>	10.160	<i>10.508</i>	<i>10.934</i>

- = no data available

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

(b) Wood and wood-derived fuels.

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

(d) Includes small-scale solar thermal and photovoltaic energy used in the commercial, industrial, and electric power sectors.

(e) 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.

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

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

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
Macroeconomic															
Real Gross Domestic Product															
(billion chained 2009 dollars - SAAR)	16,525	16,583	16,727	16,788	<i>16,885</i>	<i>16,982</i>	<i>17,082</i>	<i>17,175</i>	<i>17,304</i>	<i>17,422</i>	<i>17,540</i>	<i>17,647</i>	16,656	<i>17,031</i>	<i>17,478</i>
Real Personal Consumption Expend.															
(billion chained 2009 dollars - SAAR)	11,365	11,485	11,569	11,641	<i>11,726</i>	<i>11,792</i>	<i>11,873</i>	<i>11,948</i>	<i>12,054</i>	<i>12,157</i>	<i>12,256</i>	<i>12,350</i>	11,515	<i>11,835</i>	<i>12,204</i>
Real Fixed Investment															
(billion chained 2009 dollars - SAAR)	2,787	2,779	2,779	2,819	<i>2,856</i>	<i>2,895</i>	<i>2,927</i>	<i>2,958</i>	<i>2,986</i>	<i>3,014</i>	<i>3,048</i>	<i>3,078</i>	2,791	<i>2,909</i>	<i>3,031</i>
Business Inventory Change															
(billion chained 2009 dollars - SAAR)	42	-15	4	4	<i>-14</i>	<i>-5</i>	<i>3</i>	<i>16</i>	<i>36</i>	<i>55</i>	<i>67</i>	<i>69</i>	9	<i>0</i>	<i>57</i>
Real Government Expenditures															
(billion chained 2009 dollars - SAAR)	2,913	2,901	2,906	2,914	<i>2,920</i>	<i>2,927</i>	<i>2,929</i>	<i>2,929</i>	<i>2,935</i>	<i>2,939</i>	<i>2,946</i>	<i>2,947</i>	2,909	<i>2,926</i>	<i>2,942</i>
Real Exports of Goods & Services															
(billion chained 2009 dollars - SAAR)	2,102	2,111	2,162	2,140	<i>2,149</i>	<i>2,162</i>	<i>2,178</i>	<i>2,189</i>	<i>2,200</i>	<i>2,213</i>	<i>2,229</i>	<i>2,248</i>	2,129	<i>2,170</i>	<i>2,223</i>
Real Imports of Goods & Services															
(billion chained 2009 dollars - SAAR)	2,668	2,670	2,684	2,719	<i>2,743</i>	<i>2,781</i>	<i>2,821</i>	<i>2,859</i>	<i>2,901</i>	<i>2,952</i>	<i>3,004</i>	<i>3,046</i>	2,685	<i>2,801</i>	<i>2,976</i>
Real Disposable Personal Income															
(billion chained 2009 dollars - SAAR)	12,556	12,647	12,729	12,777	<i>12,845</i>	<i>12,963</i>	<i>13,062</i>	<i>13,162</i>	<i>13,365</i>	<i>13,485</i>	<i>13,590</i>	<i>13,692</i>	12,677	<i>13,008</i>	<i>13,533</i>
Non-Farm Employment															
(millions)	143.5	144.0	144.6	145.1	<i>145.6</i>	<i>146.0</i>	<i>146.4</i>	<i>146.7</i>	<i>147.2</i>	<i>147.7</i>	<i>148.2</i>	<i>148.7</i>	144.3	<i>146.2</i>	<i>148.0</i>
Civilian Unemployment Rate															
(percent)	4.9	4.9	4.9	4.7	<i>4.7</i>	<i>4.6</i>	<i>4.6</i>	<i>4.5</i>	<i>4.4</i>	<i>4.3</i>	<i>4.2</i>	<i>4.1</i>	4.9	<i>4.6</i>	<i>4.3</i>
Housing Starts															
(millions - SAAR)	1.15	1.16	1.14	1.21	<i>1.18</i>	<i>1.20</i>	<i>1.25</i>	<i>1.28</i>	<i>1.29</i>	<i>1.31</i>	<i>1.32</i>	<i>1.34</i>	1.17	<i>1.23</i>	<i>1.32</i>
Industrial Production Indices (Index, 2012=100)															
Total Industrial Production	104.1	103.9	104.4	104.2	<i>104.9</i>	<i>105.2</i>	<i>106.1</i>	<i>106.8</i>	<i>107.7</i>	<i>108.6</i>	<i>109.5</i>	<i>110.2</i>	104.2	<i>105.8</i>	<i>109.0</i>
Manufacturing	103.9	103.6	103.8	104.1	<i>104.4</i>	<i>104.6</i>	<i>105.4</i>	<i>106.1</i>	<i>107.0</i>	<i>107.8</i>	<i>108.8</i>	<i>109.5</i>	103.8	<i>105.1</i>	<i>108.3</i>
Food	104.4	104.8	105.4	105.2	<i>105.7</i>	<i>106.3</i>	<i>106.9</i>	<i>107.6</i>	<i>108.2</i>	<i>108.9</i>	<i>109.5</i>	<i>110.2</i>	104.9	<i>106.6</i>	<i>109.2</i>
Paper	96.4	95.6	95.5	96.7	<i>95.3</i>	<i>94.6</i>	<i>94.6</i>	<i>94.7</i>	<i>94.9</i>	<i>95.0</i>	<i>95.1</i>	<i>95.3</i>	96.1	<i>94.8</i>	<i>95.1</i>
Petroleum and Coal Products	106.5	105.5	104.8	106.4	<i>106.3</i>	<i>106.6</i>	<i>107.2</i>	<i>107.7</i>	<i>108.2</i>	<i>108.6</i>	<i>109.1</i>	<i>109.6</i>	105.8	<i>106.9</i>	<i>108.9</i>
Chemicals	99.1	98.3	97.1	97.3	<i>97.6</i>	<i>98.0</i>	<i>98.8</i>	<i>99.7</i>	<i>100.6</i>	<i>101.5</i>	<i>102.6</i>	<i>103.8</i>	98.0	<i>98.5</i>	<i>102.1</i>
Nonmetallic Mineral Products	117.1	115.6	113.9	115.7	<i>116.9</i>	<i>117.8</i>	<i>119.0</i>	<i>120.2</i>	<i>121.3</i>	<i>122.3</i>	<i>123.4</i>	<i>124.2</i>	115.6	<i>118.5</i>	<i>122.8</i>
Primary Metals	94.8	95.7	92.8	92.4	<i>92.6</i>	<i>92.4</i>	<i>93.0</i>	<i>93.6</i>	<i>94.1</i>	<i>94.4</i>	<i>95.1</i>	<i>95.9</i>	93.9	<i>92.9</i>	<i>94.9</i>
Coal-weighted Manufacturing (a)	102.8	102.2	101.0	101.6	<i>101.7</i>	<i>101.8</i>	<i>102.6</i>	<i>103.4</i>	<i>104.1</i>	<i>104.7</i>	<i>105.5</i>	<i>106.4</i>	101.9	<i>102.4</i>	<i>105.2</i>
Distillate-weighted Manufacturing (a)	106.2	105.7	105.1	106.1	<i>106.4</i>	<i>106.8</i>	<i>107.6</i>	<i>108.3</i>	<i>109.0</i>	<i>109.7</i>	<i>110.4</i>	<i>111.2</i>	105.8	<i>107.3</i>	<i>110.1</i>
Electricity-weighted Manufacturing (a)	103.5	103.0	102.6	103.0	<i>103.0</i>	<i>103.1</i>	<i>103.9</i>	<i>104.8</i>	<i>105.6</i>	<i>106.4</i>	<i>107.4</i>	<i>108.4</i>	103.0	<i>103.7</i>	<i>107.0</i>
Natural Gas-weighted Manufacturing (a)	104.4	103.5	103.3	103.8	<i>103.9</i>	<i>104.2</i>	<i>105.2</i>	<i>106.3</i>	<i>107.3</i>	<i>108.3</i>	<i>109.4</i>	<i>110.7</i>	103.8	<i>104.9</i>	<i>108.9</i>
Price Indexes															
Consumer Price Index (all urban consumers)															
(index, 1982-1984=1.00)	2.38	2.39	2.40	2.42	<i>2.44</i>	<i>2.45</i>	<i>2.46</i>	<i>2.48</i>	<i>2.49</i>	<i>2.50</i>	<i>2.52</i>	<i>2.53</i>	2.40	<i>2.46</i>	<i>2.51</i>
Producer Price Index: All Commodities															
(index, 1982=1.00)	1.83	1.85	1.86	1.89	<i>1.92</i>	<i>1.92</i>	<i>1.92</i>	<i>1.93</i>	<i>1.94</i>	<i>1.96</i>	<i>1.96</i>	<i>1.98</i>	1.85	<i>1.92</i>	<i>1.96</i>
Producer Price Index: Petroleum															
(index, 1982=1.00)	1.21	1.46	1.53	1.63	<i>1.71</i>	<i>1.77</i>	<i>1.79</i>	<i>1.73</i>	<i>1.71</i>	<i>1.83</i>	<i>1.85</i>	<i>1.82</i>	1.45	<i>1.75</i>	<i>1.80</i>
GDP Implicit Price Deflator															
(index, 2009=100)	110.6	111.3	111.7	112.2	<i>113.1</i>	<i>113.6</i>	<i>114.3</i>	<i>114.9</i>	<i>115.5</i>	<i>116.1</i>	<i>116.7</i>	<i>117.3</i>	111.4	<i>114.0</i>	<i>116.4</i>
Miscellaneous															
Vehicle Miles Traveled (b)															
(million miles/day)	8,202	9,158	9,075	8,711	<i>8,210</i>	<i>9,269</i>	<i>9,162</i>	<i>8,808</i>	<i>8,429</i>	<i>9,394</i>	<i>9,285</i>	<i>8,945</i>	8,787	<i>8,865</i>	<i>9,015</i>
Air Travel Capacity															
(Available ton-miles/day, thousands)	548	603	609	578	<i>567</i>	<i>594</i>	<i>595</i>	<i>579</i>	<i>571</i>	<i>597</i>	<i>600</i>	<i>588</i>	585	<i>584</i>	<i>589</i>
Aircraft Utilization															
(Revenue ton-miles/day, thousands)	326	366	375	356	<i>341</i>	<i>362</i>	<i>368</i>	<i>359</i>	<i>344</i>	<i>368</i>	<i>373</i>	<i>364</i>	356	<i>358</i>	<i>362</i>
Airline Ticket Price Index															
(index, 1982-1984=100)	281.8	305.0	273.0	271.9	<i>281.1</i>	<i>308.9</i>	<i>288.5</i>	<i>297.6</i>	<i>299.4</i>	<i>324.0</i>	<i>300.5</i>	<i>308.4</i>	282.9	<i>294.0</i>	<i>308.1</i>
Raw Steel Production															
(million short tons per day)	0.238	0.247	0.238	0.230	<i>0.242</i>	<i>0.240</i>	<i>0.211</i>	<i>0.178</i>	<i>0.227</i>	<i>0.231</i>	<i>0.212</i>	<i>0.173</i>	0.239	<i>0.217</i>	<i>0.210</i>
Carbon Dioxide (CO₂) Emissions (million metric tons)															
Petroleum	571	572	589	580	<i>564</i>	<i>577</i>	<i>593</i>	<i>583</i>	<i>571</i>	<i>582</i>	<i>598</i>	<i>590</i>	2,311	<i>2,317</i>	<i>2,341</i>
Natural Gas	440	328	343	374	<i>436</i>	<i>322</i>	<i>331</i>	<i>384</i>	<i>453</i>	<i>329</i>	<i>340</i>	<i>390</i>	1,485	<i>1,473</i>	<i>1,513</i>
Coal	308	297	415	343	<i>332</i>	<i>308</i>	<i>403</i>	<i>341</i>	<i>347</i>	<i>308</i>	<i>398</i>	<i>341</i>	1,363	<i>1,383</i>	<i>1,395</i>
Total Energy (c)	1,322	1,199	1,349	1,298	<i>1,335</i>	<i>1,209</i>	<i>1,330</i>	<i>1,310</i>	<i>1,374</i>	<i>1,222</i>	<i>1,339</i>	<i>1,324</i>	5,168	<i>5,185</i>	<i>5,260</i>

- = no data available

SAAR = Seasonally-adjusted annual rate

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

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

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

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.**Historical data:** Latest data available from U.S. Department of Commerce, Bureau of Economic Analysis; Federal Reserve System, Statistical release G17; Federal Highway Administration; and Federal Aviation Administration. Minor discrepancies with published historical data are due to independent rounding.**Projections:** EIA Regional Short-Term Energy Model. Macroeconomic projections are based on Global Insight Model of the U.S. Economy.

Table 9b. U.S. Regional Macroeconomic Data

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
Real Gross State Product (Billion \$2009)															
New England	870	873	880	881	<i>884</i>	<i>888</i>	<i>892</i>	<i>896</i>	<i>902</i>	<i>907</i>	<i>912</i>	<i>917</i>	876	<i>890</i>	<i>909</i>
Middle Atlantic	2,455	2,459	2,486	2,491	<i>2,500</i>	<i>2,514</i>	<i>2,525</i>	<i>2,536</i>	<i>2,552</i>	<i>2,567</i>	<i>2,580</i>	<i>2,591</i>	2,473	<i>2,519</i>	<i>2,572</i>
E. N. Central	2,273	2,282	2,304	2,309	<i>2,319</i>	<i>2,329</i>	<i>2,338</i>	<i>2,347</i>	<i>2,363</i>	<i>2,376</i>	<i>2,389</i>	<i>2,401</i>	2,292	<i>2,333</i>	<i>2,382</i>
W. N. Central	1,042	1,044	1,050	1,054	<i>1,059</i>	<i>1,065</i>	<i>1,071</i>	<i>1,075</i>	<i>1,082</i>	<i>1,089</i>	<i>1,095</i>	<i>1,101</i>	1,048	<i>1,068</i>	<i>1,092</i>
S. Atlantic	2,928	2,936	2,968	2,981	<i>3,000</i>	<i>3,017</i>	<i>3,035</i>	<i>3,052</i>	<i>3,077</i>	<i>3,100</i>	<i>3,122</i>	<i>3,142</i>	2,953	<i>3,026</i>	<i>3,110</i>
E. S. Central	743	745	751	754	<i>757</i>	<i>761</i>	<i>765</i>	<i>769</i>	<i>774</i>	<i>779</i>	<i>784</i>	<i>788</i>	748	<i>763</i>	<i>781</i>
W. S. Central	2,028	2,039	2,039	2,048	<i>2,066</i>	<i>2,081</i>	<i>2,099</i>	<i>2,117</i>	<i>2,133</i>	<i>2,150</i>	<i>2,171</i>	<i>2,189</i>	2,039	<i>2,091</i>	<i>2,161</i>
Mountain	1,046	1,053	1,062	1,066	<i>1,074</i>	<i>1,082</i>	<i>1,090</i>	<i>1,098</i>	<i>1,109</i>	<i>1,117</i>	<i>1,126</i>	<i>1,136</i>	1,057	<i>1,086</i>	<i>1,122</i>
Pacific	3,038	3,051	3,084	3,100	<i>3,121</i>	<i>3,141</i>	<i>3,160</i>	<i>3,179</i>	<i>3,206</i>	<i>3,230</i>	<i>3,253</i>	<i>3,275</i>	3,068	<i>3,151</i>	<i>3,241</i>
Industrial Output, Manufacturing (Index, Year 2012=100)															
New England	99.8	100.0	100.1	100.5	<i>100.7</i>	<i>100.7</i>	<i>101.3</i>	<i>101.9</i>	<i>102.6</i>	<i>103.2</i>	<i>103.9</i>	<i>104.3</i>	100.1	<i>101.2</i>	<i>103.5</i>
Middle Atlantic	100.1	99.9	99.9	100.1	<i>100.3</i>	<i>100.4</i>	<i>101.2</i>	<i>101.9</i>	<i>102.6</i>	<i>103.3</i>	<i>104.1</i>	<i>104.7</i>	100.0	<i>100.9</i>	<i>103.7</i>
E. N. Central	106.3	106.1	105.8	106.0	<i>106.2</i>	<i>106.4</i>	<i>107.2</i>	<i>107.9</i>	<i>108.8</i>	<i>109.6</i>	<i>110.6</i>	<i>111.5</i>	106.1	<i>106.9</i>	<i>110.1</i>
W. N. Central	103.0	102.4	102.8	103.1	<i>103.4</i>	<i>103.5</i>	<i>104.3</i>	<i>105.1</i>	<i>105.9</i>	<i>106.8</i>	<i>107.7</i>	<i>108.4</i>	102.8	<i>104.1</i>	<i>107.2</i>
S. Atlantic	106.5	106.4	107.2	107.8	<i>108.2</i>	<i>108.2</i>	<i>108.9</i>	<i>109.5</i>	<i>110.2</i>	<i>111.0</i>	<i>111.9</i>	<i>112.5</i>	107.0	<i>108.7</i>	<i>111.4</i>
E. S. Central	108.3	108.6	109.0	109.4	<i>109.7</i>	<i>109.8</i>	<i>110.6</i>	<i>111.3</i>	<i>112.2</i>	<i>113.0</i>	<i>113.9</i>	<i>114.7</i>	108.8	<i>110.3</i>	<i>113.4</i>
W. S. Central	99.0	97.6	97.4	97.4	<i>97.7</i>	<i>97.9</i>	<i>98.8</i>	<i>99.8</i>	<i>100.9</i>	<i>101.9</i>	<i>103.1</i>	<i>104.0</i>	97.8	<i>98.5</i>	<i>102.5</i>
Mountain	107.5	107.3	107.5	108.2	<i>108.7</i>	<i>109.1</i>	<i>110.2</i>	<i>111.1</i>	<i>112.2</i>	<i>113.1</i>	<i>114.0</i>	<i>114.7</i>	107.6	<i>109.8</i>	<i>113.5</i>
Pacific	104.1	103.7	103.7	104.1	<i>104.2</i>	<i>104.5</i>	<i>105.3</i>	<i>106.2</i>	<i>107.1</i>	<i>108.0</i>	<i>109.0</i>	<i>109.7</i>	103.9	<i>105.0</i>	<i>108.4</i>
Real Personal Income (Billion \$2009)															
New England	775	780	786	789	<i>793</i>	<i>799</i>	<i>806</i>	<i>812</i>	<i>818</i>	<i>825</i>	<i>831</i>	<i>837</i>	782	<i>803</i>	<i>828</i>
Middle Atlantic	1,957	1,969	1,982	1,986	<i>1,996</i>	<i>2,011</i>	<i>2,025</i>	<i>2,038</i>	<i>2,052</i>	<i>2,067</i>	<i>2,081</i>	<i>2,094</i>	1,974	<i>2,017</i>	<i>2,073</i>
E. N. Central	2,082	2,098	2,110	2,117	<i>2,126</i>	<i>2,143</i>	<i>2,157</i>	<i>2,172</i>	<i>2,189</i>	<i>2,205</i>	<i>2,221</i>	<i>2,236</i>	2,102	<i>2,149</i>	<i>2,213</i>
W. N. Central	989	996	1,000	1,004	<i>1,008</i>	<i>1,017</i>	<i>1,023</i>	<i>1,031</i>	<i>1,039</i>	<i>1,047</i>	<i>1,055</i>	<i>1,062</i>	998	<i>1,020</i>	<i>1,051</i>
S. Atlantic	2,705	2,726	2,748	2,765	<i>2,781</i>	<i>2,809</i>	<i>2,832</i>	<i>2,857</i>	<i>2,885</i>	<i>2,912</i>	<i>2,938</i>	<i>2,964</i>	2,736	<i>2,820</i>	<i>2,925</i>
E. S. Central	771	775	780	783	<i>787</i>	<i>794</i>	<i>799</i>	<i>806</i>	<i>813</i>	<i>819</i>	<i>826</i>	<i>832</i>	777	<i>796</i>	<i>822</i>
W. S. Central	1,730	1,739	1,750	1,759	<i>1,771</i>	<i>1,791</i>	<i>1,808</i>	<i>1,827</i>	<i>1,846</i>	<i>1,866</i>	<i>1,884</i>	<i>1,902</i>	1,745	<i>1,799</i>	<i>1,875</i>
Mountain	951	959	966	973	<i>980</i>	<i>991</i>	<i>1,000</i>	<i>1,010</i>	<i>1,021</i>	<i>1,032</i>	<i>1,042</i>	<i>1,052</i>	962	<i>995</i>	<i>1,036</i>
Pacific	2,338	2,353	2,377	2,387	<i>2,401</i>	<i>2,425</i>	<i>2,444</i>	<i>2,466</i>	<i>2,488</i>	<i>2,512</i>	<i>2,533</i>	<i>2,555</i>	2,364	<i>2,434</i>	<i>2,522</i>
Households (Thousands)															
New England	5,828	5,834	5,837	5,841	<i>5,847</i>	<i>5,855</i>	<i>5,864</i>	<i>5,875</i>	<i>5,887</i>	<i>5,899</i>	<i>5,910</i>	<i>5,922</i>	5,841	<i>5,875</i>	<i>5,922</i>
Middle Atlantic	15,972	15,986	15,996	16,004	<i>16,016</i>	<i>16,033</i>	<i>16,052</i>	<i>16,073</i>	<i>16,099</i>	<i>16,125</i>	<i>16,151</i>	<i>16,178</i>	16,004	<i>16,073</i>	<i>16,178</i>
E. N. Central	18,744	18,760	18,770	18,780	<i>18,797</i>	<i>18,817</i>	<i>18,840</i>	<i>18,867</i>	<i>18,899</i>	<i>18,933</i>	<i>18,966</i>	<i>19,000</i>	18,780	<i>18,867</i>	<i>19,000</i>
W. N. Central	8,525	8,543	8,558	8,573	<i>8,592</i>	<i>8,612</i>	<i>8,633</i>	<i>8,656</i>	<i>8,682</i>	<i>8,709</i>	<i>8,734</i>	<i>8,758</i>	8,573	<i>8,656</i>	<i>8,758</i>
S. Atlantic	25,016	25,111	25,196	25,279	<i>25,369</i>	<i>25,466</i>	<i>25,563</i>	<i>25,667</i>	<i>25,773</i>	<i>25,881</i>	<i>25,987</i>	<i>26,094</i>	25,279	<i>25,667</i>	<i>26,094</i>
E. S. Central	7,581	7,595	7,607	7,618	<i>7,632</i>	<i>7,648</i>	<i>7,664</i>	<i>7,682</i>	<i>7,702</i>	<i>7,722</i>	<i>7,743</i>	<i>7,762</i>	7,618	<i>7,682</i>	<i>7,762</i>
W. S. Central	14,523	14,577	14,628	14,676	<i>14,728</i>	<i>14,784</i>	<i>14,840</i>	<i>14,900</i>	<i>14,963</i>	<i>15,027</i>	<i>15,089</i>	<i>15,151</i>	14,676	<i>14,900</i>	<i>15,151</i>
Mountain	8,922	8,957	8,992	9,026	<i>9,062</i>	<i>9,102</i>	<i>9,143</i>	<i>9,186</i>	<i>9,232</i>	<i>9,278</i>	<i>9,325</i>	<i>9,371</i>	9,026	<i>9,186</i>	<i>9,371</i>
Pacific	18,624	18,679	18,726	18,776	<i>18,831</i>	<i>18,891</i>	<i>18,950</i>	<i>19,012</i>	<i>19,077</i>	<i>19,144</i>	<i>19,208</i>	<i>19,268</i>	18,776	<i>19,012</i>	<i>19,268</i>
Total Non-farm Employment (Millions)															
New England	7.3	7.3	7.3	7.3	<i>7.4</i>	<i>7.4</i>	<i>7.4</i>	<i>7.4</i>	<i>7.4</i>	<i>7.4</i>	<i>7.4</i>	<i>7.5</i>	7.3	<i>7.4</i>	<i>7.4</i>
Middle Atlantic	19.2	19.2	19.3	19.3	<i>19.4</i>	<i>19.4</i>	<i>19.4</i>	<i>19.4</i>	<i>19.5</i>	<i>19.5</i>	<i>19.6</i>	<i>19.6</i>	19.3	<i>19.4</i>	<i>19.5</i>
E. N. Central	21.7	21.7	21.8	21.8	<i>21.9</i>	<i>21.9</i>	<i>21.9</i>	<i>22.0</i>	<i>22.0</i>	<i>22.1</i>	<i>22.1</i>	<i>22.2</i>	21.8	<i>21.9</i>	<i>22.1</i>
W. N. Central	10.5	10.5	10.6	10.6	<i>10.6</i>	<i>10.6</i>	<i>10.7</i>	<i>10.7</i>	<i>10.7</i>	<i>10.7</i>	<i>10.8</i>	<i>10.8</i>	10.5	<i>10.7</i>	<i>10.7</i>
S. Atlantic	27.4	27.6	27.7	27.9	<i>28.0</i>	<i>28.1</i>	<i>28.2</i>	<i>28.3</i>	<i>28.4</i>	<i>28.5</i>	<i>28.6</i>	<i>28.7</i>	27.6	<i>28.1</i>	<i>28.5</i>
E. S. Central	7.9	7.9	8.0	8.0	<i>8.0</i>	<i>8.0</i>	<i>8.0</i>	<i>8.1</i>	<i>8.1</i>	<i>8.1</i>	<i>8.1</i>	<i>8.2</i>	8.0	<i>8.0</i>	<i>8.1</i>
W. S. Central	16.8	16.8	16.9	16.9	<i>17.0</i>	<i>17.1</i>	<i>17.1</i>	<i>17.2</i>	<i>17.3</i>	<i>17.3</i>	<i>17.4</i>	<i>17.5</i>	16.8	<i>17.1</i>	<i>17.4</i>
Mountain	10.2	10.2	10.3	10.3	<i>10.4</i>	<i>10.4</i>	<i>10.5</i>	<i>10.5</i>	<i>10.6</i>	<i>10.6</i>	<i>10.7</i>	<i>10.7</i>	10.3	<i>10.5</i>	<i>10.7</i>
Pacific	22.3	22.4	22.5	22.6	<i>22.7</i>	<i>22.8</i>	<i>22.9</i>	<i>22.9</i>	<i>23.0</i>	<i>23.1</i>	<i>23.2</i>	<i>23.2</i>	22.5	<i>22.8</i>	<i>23.1</i>

- = 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 Global Insight Model of the U.S. Economy.

Table 9c. U.S. Regional Weather Data

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
Heating Degree Days															
New England	2,840	903	77	2,113	2,975	834	126	2,159	3,166	849	126	2,159	5,933	6,094	6,301
Middle Atlantic	2,662	749	39	1,894	2,726	653	79	1,958	2,905	667	79	1,958	5,345	5,416	5,609
E. N. Central	2,867	753	48	2,033	2,960	710	115	2,208	3,125	718	115	2,208	5,701	5,994	6,166
W. N. Central	2,893	660	103	2,137	3,112	672	142	2,379	3,192	678	142	2,380	5,792	6,306	6,392
South Atlantic	1,382	210	2	857	1,262	193	14	966	1,439	201	14	965	2,450	2,435	2,619
E. S. Central	1,755	232	5	1,095	1,587	245	19	1,297	1,840	256	19	1,297	3,087	3,147	3,412
W. S. Central	1,051	78	1	622	968	73	4	793	1,166	85	4	793	1,752	1,838	2,047
Mountain	2,077	677	160	1,710	2,234	627	129	1,808	2,139	628	129	1,807	4,623	4,798	4,704
Pacific	1,304	464	96	1,152	1,472	509	75	1,075	1,334	496	75	1,076	3,017	3,131	2,981
U.S. Average	1,947	480	51	1,397	1,982	459	68	1,495	2,084	464	68	1,493	3,875	4,004	4,108
Heating Degree Days, Prior 10-year Average															
New England	3,212	824	133	2,105	3,200	831	122	2,124	3,171	821	123	2,119	6,273	6,278	6,233
Middle Atlantic	2,983	651	90	1,927	2,982	660	81	1,940	2,953	651	82	1,944	5,650	5,663	5,629
E. N. Central	3,246	689	125	2,205	3,254	701	114	2,197	3,235	700	117	2,205	6,266	6,266	6,258
W. N. Central	3,298	693	150	2,393	3,302	707	142	2,380	3,294	706	144	2,379	6,534	6,531	6,523
South Atlantic	1,498	184	14	972	1,502	188	12	965	1,487	183	12	975	2,668	2,666	2,658
E. S. Central	1,898	225	19	1,308	1,905	231	16	1,286	1,889	226	17	1,302	3,450	3,438	3,434
W. S. Central	1,221	83	5	815	1,227	88	4	799	1,200	81	4	806	2,123	2,118	2,091
Mountain	2,231	725	147	1,880	2,215	733	142	1,862	2,211	730	142	1,856	4,982	4,953	4,939
Pacific	1,495	610	88	1,212	1,462	597	88	1,204	1,455	590	84	1,184	3,405	3,351	3,314
U.S. Average	2,198	483	76	1,534	2,192	487	71	1,526	2,172	481	71	1,525	4,292	4,275	4,249
Cooling Degree Days															
New England	0	80	541	0	0	95	432	1	0	95	432	1	621	528	528
Middle Atlantic	0	146	735	6	0	175	575	6	0	175	575	6	887	756	756
E. N. Central	3	231	705	19	0	226	565	9	0	226	565	9	959	800	800
W. N. Central	10	319	714	30	3	283	705	12	3	282	705	12	1,073	1,003	1,002
South Atlantic	137	652	1,347	279	133	647	1,159	232	117	644	1,160	233	2,415	2,172	2,154
E. S. Central	42	533	1,254	129	24	524	1,067	70	27	520	1,067	70	1,958	1,684	1,683
W. S. Central	122	833	1,595	330	109	916	1,540	205	83	899	1,540	205	2,880	2,769	2,726
Mountain	34	466	885	114	19	469	984	84	22	469	985	84	1,500	1,556	1,559
Pacific	36	229	596	73	29	201	592	75	31	201	591	75	934	897	899
U.S. Average	54	410	965	129	48	417	872	97	42	415	873	97	1,559	1,433	1,428
Cooling Degree Days, Prior 10-year Average															
New England	0	81	419	1	0	81	433	1	0	83	440	0	501	515	523
Middle Atlantic	0	168	549	5	0	169	567	6	0	170	574	4	722	742	748
E. N. Central	3	229	528	6	3	234	543	8	3	230	541	6	766	788	780
W. N. Central	7	279	674	9	7	281	673	12	6	279	667	11	969	973	963
South Atlantic	114	661	1,147	222	117	666	1,167	230	117	673	1,161	224	2,144	2,180	2,175
E. S. Central	32	541	1,038	56	33	544	1,056	65	30	543	1,042	63	1,668	1,699	1,678
W. S. Central	90	890	1,518	191	89	876	1,528	205	89	895	1,540	203	2,689	2,698	2,727
Mountain	21	429	930	76	23	424	931	81	22	427	929	81	1,456	1,459	1,459
Pacific	29	180	611	72	30	180	608	74	30	183	611	76	892	893	900
U.S. Average	42	404	845	89	43	406	857	94	43	410	859	92	1,380	1,400	1,404

- = no data available

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

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

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

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

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

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

Appendix

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

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

Table a1. Summary of Estimated Petroleum and Other Liquids Quantities

	December 2016	January 2017	December 2016- January 2017 Average	December 2015- January 2016 Average	2013 – 2015 Average
Global Petroleum and Other Liquids (million barrels per day)					
Global Petroleum and Other Liquids Production (a)	98.3	96.8	97.5	97.5	94.0
Global Petroleum and Other Liquids Consumption (b)	96.5	96.1	96.3	95.1	93.7
Biofuels Production (c)	1.9	1.7	1.8	1.8	2.0
Biofuels Consumption (c)	2.1	2.0	2.1	2.0	2.0
Iran Liquid Fuels Production	4.6	4.7	4.7	3.5	3.3
Iran Liquid Fuels Consumption	1.8	1.8	1.8	1.9	1.9
Petroleum and Petroleum Products Produced and Consumed in Countries Other Than Iran (million barrels per day)					
Production (d)	91.8	90.4	91.1	92.2	88.6
Consumption (d)	92.5	92.2	92.4	91.2	89.8
Production minus Consumption	-0.7	-1.9	-1.3	1.0	-1.3
World Inventory Net Withdrawals Including Iran	-1.8	-0.7	-1.3	-2.4	-0.3
Estimated OECD Inventory Level (e) (million barrels)	3,087	3,110	3,098	2,986	2,708
OPEC Surplus Crude Oil Production Capacity (f)	1.1	2.0	1.5	1.5	1.9

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

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

(b) Consumption of petroleum by the OECD countries is synonymous with "products supplied," defined in the glossary of the EIA Petroleum Supply Monthly, DOE/EIA-0109. Consumption of petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel, and loss, and bunkering.

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

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

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

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

Source: U.S. Energy Information Administration.

Table a2. Crude Oil and Petroleum Product Price Data

Item	December 2016	January 2017	October 2016- January 2017 Average	December 2015- January 2016 Average	2013 – 2015 Average
Brent Front Month Futures Price (\$ per barrel)	54.92	55.51	55.21	35.67	87.25
WTI Front Month Futures Price (\$ per barrel)	52.17	52.61	52.38	34.76	79.91
Dubai Front Month Futures Price (\$ per barrel)	52.72	53.70	53.20	31.13	84.58
Brent 1st - 13th Month Futures Spread (\$ per barrel)	-2.36	-1.71	-2.04	-7.93	0.15
WTI 1st - 13th Month Futures Spread (\$ per barrel)	-3.46	-3.45	-3.46	-8.02	1.52
RBOB Front Month Futures Price (\$ per gallon)	1.58	1.57	1.58	1.18	2.37
Heating Oil Front Month Futures Price (\$ per gallon)	1.66	1.64	1.65	1.10	2.47
RBOB - Brent Futures Crack Spread (\$ per gallon)	0.27	0.25	0.26	0.33	0.29
Heating Oil - Brent Futures Crack Spread (\$ per gallon)	0.35	0.32	0.34	0.25	0.40

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

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

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

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