Independent Statistics & Analysis
U.S. Energy Information Administration

August 2017

Short-Term Energy Outlook (STEO)

Forecast highlights

Global liquid fuels

- North Sea Brent crude oil spot prices averaged $48 per barrel (b) in July, $2/b higher than the June average and almost $4/b higher than in July 2016. EIA forecasts Brent spot prices to average $51/b in 2017 and $52/b in 2018. West Texas Intermediate (WTI) crude oil prices are forecast to average $2/b less than Brent prices in both 2017 and 2018. NYMEX contract values for December 2017 delivery that traded during the five-day period ending August 3 suggest that a range of $37/b to $68/b encompasses the market expectation for December WTI prices at the 95% confidence level.

- U.S. regular gasoline retail prices averaged $2.30 per gallon (gal) in July, down 5 cents/gal from the average in June but 6 cents/gal higher than in July 2016. During the April-through-September summer driving season of 2017, U.S. regular gasoline retail prices are forecast to average $2.37/gal, 14 cents/gal higher than last summer. Annual average U.S. regular gasoline retail prices are forecast to be $2.33/gal in both 2017 and 2018.

- U.S. crude oil production averaged an estimated 8.9 million barrels per day (b/d) in 2016 and is forecast to average 9.3 million b/d in 2017. EIA forecasts crude oil production to average 9.9 million b/d in 2018, which would mark the highest annual average production in U.S. history, surpassing the previous record of 9.6 million b/d set in 1970.

- EIA forecasts that global petroleum and liquid fuels inventories will be largely unchanged in 2017 and then increase by an average of 0.2 million b/d in 2018.

Natural gas

- U.S. dry natural gas production is forecast to average 73.5 billion cubic feet per day (Bcf/d) in 2017, a 1.2 Bcf/d increase from the 2016 level. Natural gas production in 2018 is forecast to be 3.9 Bcf/d above the 2017 level.

- In July, the average Henry Hub natural gas spot price was $2.98 per million British thermal units (MMBtu), about the same as in June. Higher natural gas exports and growing domestic natural gas consumption in 2018 contribute to the forecast Henry Hub natural gas spot price rising from an annual average of $3.06/MMBtu in 2017 to $3.29/MMBtu in 2018. NYMEX contract values for December 2017 delivery that traded

during the five-day period ending August 3 suggest that a range of $2.17/MMBtu to $4.48/MMBtu encompasses the market expectation for December Henry Hub natural gas prices at the 95% confidence level.

Electricity, coal, renewables, and emissions

- Total U.S. electricity generation from utility-scale power plants averaged 11,145 gigawatthours per day in 2016. Forecast U.S. generation declines by 1.2% in 2017, which mostly reflects expectations of milder temperatures in the third quarter of 2017 compared with the same period last year. Forecast generation grows by 1.8% in 2018 based largely on a forecast of colder temperatures during the first quarter 2018 compared with the same period in 2017 and on the expectation of a growing economy.

- EIA expects the share of U.S. total utility-scale electricity generation from natural gas to fall from an average of 34% in 2016 to about 31% in 2017 as a result of higher natural gas prices, increased generation from renewables and coal, and lower electricity demand. Coal's forecast generation share rises from 30% last year to almost 32% in 2017. The projected generation shares for natural gas and coal are nearly identical in 2018, averaging between 31% and 32%.

- Coal exports for the first five months of 2017 were 37 million short tons (MMst), which was 60% higher than coal exports over the same period last year. EIA expects growth in coal exports to slow in the coming months, with exports for all of 2017 forecast at 70 MMst, 17% above the 2016 level. The increase in coal exports contributes to an expected 58 MMst (8%) increase in coal production in 2017. In 2018, coal production is forecast to increase by 10 MMst (1%).

- Wind electricity generating capacity at the end of 2016 was 81 gigawatts (GW). EIA expects wind capacity additions in the forecast will bring total wind capacity to 88 GW by the end of 2017 and to 102 GW by the end of 2018.

- Total utility-scale solar electricity generating capacity at the end of 2016 was 22 GW. EIA expects solar capacity additions in the forecast will bring total utility-scale solar capacity to 29 GW by the end of 2017 and to 32 GW by the end of 2018.

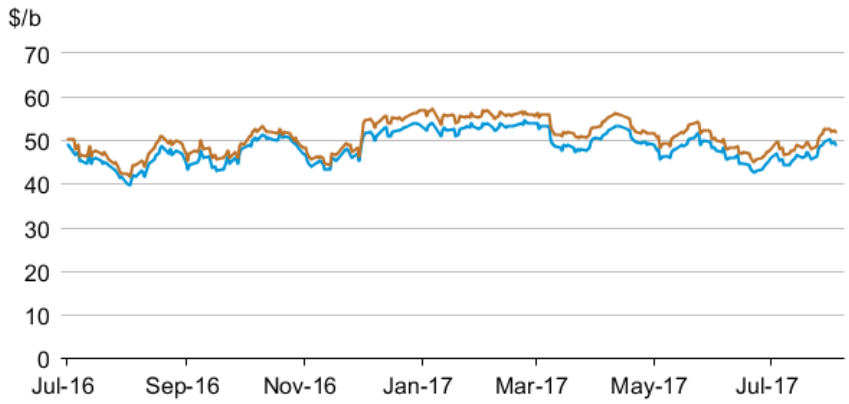
- After declining 1.7% in 2016, energy-related carbon dioxide (CO2) emissions are projected to decrease 0.3% in 2017 and then to increase 2.0% in 2018. Energy-related CO2 emissions are sensitive to changes in weather, economic growth, and energy prices.

Petroleum and natural gas markets review

Crude oil

Prices: Crude oil benchmark Brent front-month futures prices increased by $2.33 per barrel (b) from July 3, settling at $52.01/b on August 3. The West Texas Intermediate (WTI) crude oil price increased by $1.96/b during the same period, settling at $49.03/b **(Figure 1)**. Brent and WTI monthly average spot prices in July were $2.11/b and $1.45/b higher, respectively, than the June averages.

Figure 1. Crude oil front-month futures prices



eia Bloomberg L.P.

Crude oil prices increased in response to supply-side factors as well as strong U.S. refinery demand. Total commercial crude oil and petroleum product inventories in the United States fell by 22.4 million barrels from June 30 to July 28, compared with a five-year average inventory build of 5.9 million barrels over that period. Also, drilling activity in the United States, as measured by the Baker Hughes active oil rig count, increased by 10 rigs in July, the fewest monthly oil rig additions since the rig count began increasing in June 2016. Some U.S. exploration and production companies recently announced less investment spending for the rest of the year, suggesting the current rate of U.S. oil production growth could slow. EIA forecasts that month-over-month crude oil production increases for the Lower 48 states onshore region will slow to an average of 60,000 barrels per day (b/d) in the second half of 2017, compared with estimated average monthly growth of 110,000 b/d in the first half of the year.

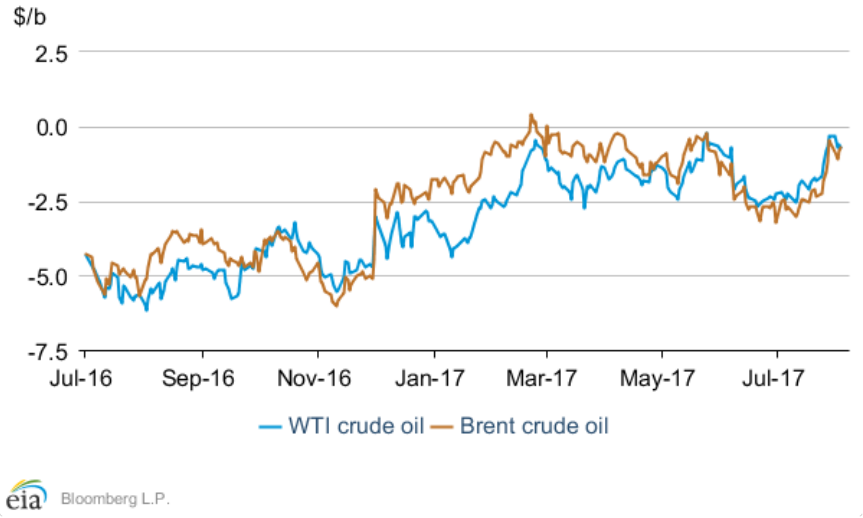
Crude oil prices were further supported as the Organization of the Petroleum Exporting Countries (OPEC) member Saudi Arabia announced a cap on the country's crude oil exports in August. However, it is unclear how much extra crude oil this cap would remove from the market given the country's typical seasonal decline in crude oil exports because of an increase in crude oil use for power generation. However, Libya and Nigeria, two other OPEC members, continue to increase crude oil production, a contributing factor in keeping prices near $50/b.

Global economic growth expectations remain supportive of liquid fuels demand growth. Second-quarter Gross Domestic Product grew 2.6% at a seasonally adjusted annual rate in the United States and grew 6.9% and 2.1% year-over-year in China and the Eurozone, respectively. Furthermore, global inflation data remain below targets set by the major central banks, allowing the continuation of generally accommodative monetary conditions. EIA forecasts global liquid fuels consumption to grow by 1.4 million b/d in 2017 and by 1.6 million b/d in 2018.

Strong oil inventory draws have likely caused front-month futures prices to increase more than prices for contracts for delivery further in the future. Contango (when near-term prices are lower than longer-dated ones) narrowed significantly in the past month. The Brent and WTI 1st-13th spread increased $1.78/b and $1.47/b, respectively, from July 3 to August 3, settling at -73 cents/b and -72 cents/b, respectively **(Figure 2).**

In July, total commercial petroleum inventories in the Organization for Economic Cooperation and Development (OECD) countries are estimated to have declined by the most year-over-year since April 2014. In the United States, commercial crude oil stocks fell to 481.9 million barrels on the week ending July 28, which was 95.0 million barrels above the five-year average. In recent weeks, U.S. crude oil inventories reached the closest to the five-year average since September 2015. U.S. refineries have been running at record highs this year, with crude oil inputs averaging 17.3 million b/d for the four weeks ending July 28, contributing to the inventory decline and the flattening crude oil futures price curve.

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

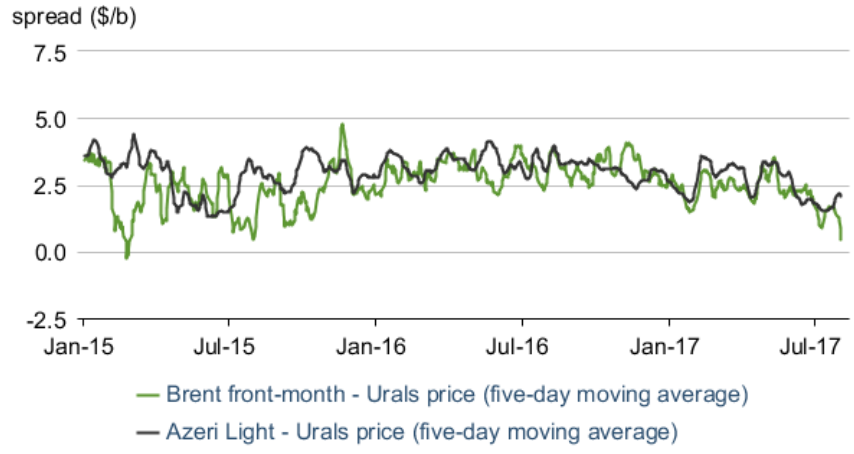


Crude oil quality differentials: The OPEC and non-OPEC crude oil voluntary production cuts resulted primarily in less medium, sour and heavy, sour crude oils on the global market. As a result, over the past several months, the usual premium that light, sweet crude oils command over medium and heavy crude oils has declined in many regions around the world. Prices for Urals crude oil, a medium, sour crude oil produced in Russia and priced in the Mediterranean region, have increased in July compared with prices for lighter crude oils **(Figure 3)**. The average monthly spread between the Brent front-month price and Urals spot price declined from

$2.63/b in May to $1.35/b in July. Similarly, the average monthly price spread between Azeri Light, a light crude oil produced in Azerbaijan, and Urals declined from $3.05/b to $1.73/b over the same period.

Trade press reports indicate that less crude oil is being exported from Saudi Arabia to Europe, which may be supporting prices of crude oils like Urals, which are similar in quality to Saudi Arabian crude oil. Less Urals crude oil exported into the European region may also be supporting Urals prices, as one of the pipelines that transports Urals crude oil for export from the Baltic Sea is being converted to transport diesel. At the same time, higher crude oil production in Libya, Nigeria, and the United States is adding additional light, sweet crude oil into the market and could be contributing to a narrower price spread between light and medium crude oils.

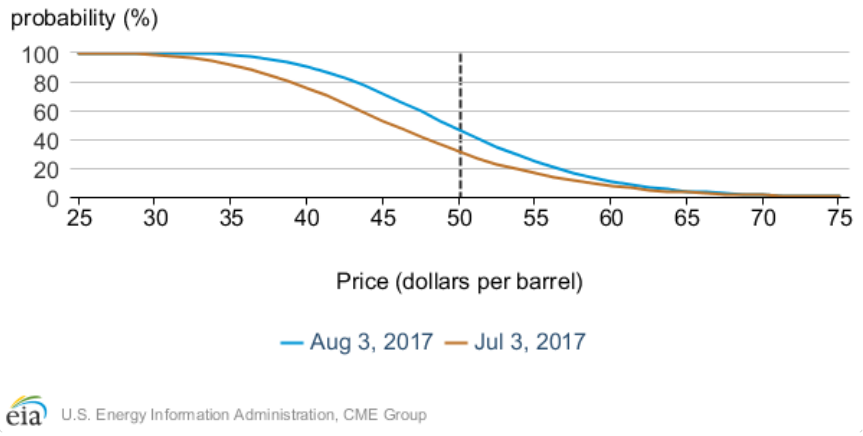
Figure 3. Light crude oil prices minus Urals spot price



eia Bloomberg L.P., Thomson Reuters

Market-derived probabilities: The December 2017 WTI futures contract averaged $49.90/b for the five trading days ending August 3 and has a market-derived probability of exceeding $50/b of 46% **(Figure 4)**. This contract had a 31% market-derived probability of exceeding $50/b as of July 3. Larger than expected inventory withdrawals and petroleum demand reported in the *Weekly Petroleum Status Report* (WPSR) could have contributed to an increase in market expectations of WTI prices ending the year above $50/b.

Figure 4. Probability of the December 2017 WTI contract expiring above price levels

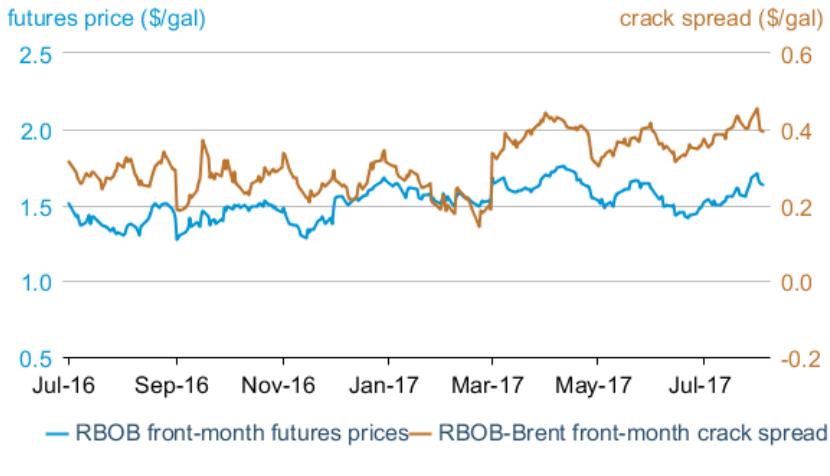


Petroleum products

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) rose by 10 cents per gallon (gal) from July 3, settling at $1.63/gal on August 3 **(Figure 5)**. The RBOB-Brent crack spread (the difference between the price of RBOB and the price of Brent crude oil) rose by 4 cents/gal over the same period, settling at 39 cents/gal.

The RBOB-Brent crack spread averaged 40 cents/gal in July, 12 cents/gal more than in July 2016. In the STEO forecast, EIA estimates that U.S. gasoline consumption reached a record high of 9.7 million barrels per day (b/d) in July. This estimate is supported by WPSR data that show average gasoline consumption for the four weeks ending July 28 was 9.8 million b/d. WPSR data also show finished gasoline exports for the four weeks ending July 28 were 0.6 million b/d, which, if confirmed in monthly data, would be a record high for July because of continued demand from Mexico and South America, among others.

Figure 5. Historical RBOB futures prices and crack spread



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

Regional gasoline prices: The price premium of New York Harbor gasoline over Gulf Coast gasoline reached a seven-month high toward the end of July **(Figure 6)**. The relative strength in the New York market was in response to refinery outages that occurred during a period of low gasoline imports and low receipts of gasoline from the U.S. Gulf Coast compared with typical levels, which contributed to declining gasoline stocks in Petroleum Administration for Defense District (PADD) 1 (U.S. East Coast). Some gasoline production on the U.S. East Coast may have been curtailed because of operational issues at refineries in Philadelphia and Delaware City in recent weeks. WPSR estimates of total gasoline imports into the U.S. East Coast for July were close to or below the five-year low. Further, gasoline movements from the U.S. Gulf Coast to the U.S. East Coast were reported to be lower than usual. In June, shipments of gasoline through the Colonial pipeline, which runs from the U.S. Gulf Coast to New York Harbor, were reported to fall below capacity for the first time in almost six years.

With refinery issues as well as lower imports and regional movements, total gasoline stocks in PADD 1B, which includes the New York Harbor region, have been declining since April and are close to the five-year average for July, according to the WPSR. In contrast, gasoline stocks on the U.S. Gulf Coast reached a record high for the month of July. The higher price premium for New York Harbor gasoline may begin to attract gasoline shipments into the region in the coming weeks.

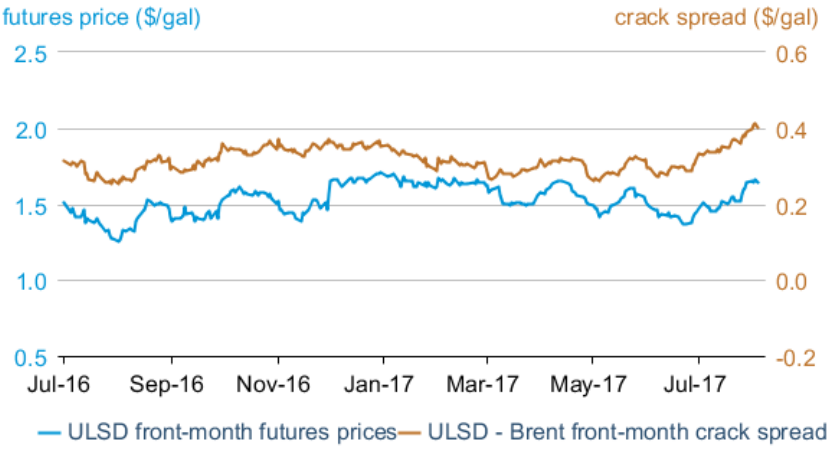
Figure 6. New York Harbor - Gulf Coast conventional gasoline spot price differentials

eia Bloomberg L.P.

Ultra-low sulfur diesel prices: The ultra-low sulfur diesel (ULSD) futures price rose by 13 cents/gal from July 3, settling at $1.64/gal on August 3. The ULSD-Brent crack spread (the difference between the price of ULSD and the price of Brent crude oil) rose by 7 cents/gal, settling at 40 cents/gal **(Figure 7)**. On August 2, the ULSD-Brent crack spread reached the highest point since September 2015.

According to the WPSR, distillate consumption reached 4.2 million b/d in July. That level is closer to the consumption levels seen during the peak U.S. home heating season in the winter months, and if confirmed in the monthly data, it would be a record high for July. Continued increases in U.S. industrial production, manufacturing activity, and freight shipments are likely contributing to increased domestic consumption of distillate. In addition, the *Petroleum Supply Monthly* shows that distillate exports reached a record high of 1.5 million b/d in May.

Figure 7. Historical ULSD futures price and crack spread

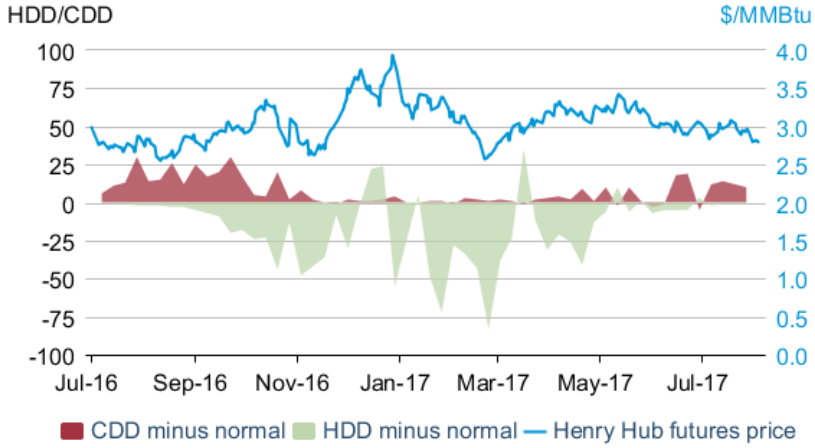


eia Bloomberg L.P., ULSD=ultra-low sulfur diesel

Natural Gas

Prices: The front-month natural gas futures contract for delivery at Henry Hub settled at $2.80 per million British thermal units (MMBtu) on August 3, a decrease of 15 cents/MMBtu from July 3 **(Figure 8)**. Natural gas futures prices fell during the second half of July and the beginning of August as weather models forecasted below-normal temperatures in much of the eastern half of the country for the first half of August. The Henry Hub natural gas spot price averaged $2.98/MMBtu in July, almost unchanged compared with the June average.

Figure 8. Actual minus historical average HDD and CDD



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

Regional markets: Natural gas production in the Marcellus and Utica shales has risen substantially in recent years, often outpacing the growth of natural gas pipeline capacity. This growth has pushed regional natural gas prices lower relative to the benchmark Henry Hub price. The front-month basis swap (the difference between a regional natural gas price and the price at Henry Hub in Louisiana) for Dominion South in southeast Pennsylvania was -$1.20/MMBtu as of August 3 **(Figure 9)**, down from the average basis of -50 cents/MMBtu from January through May 2017. This price decrease reflects constrained pipeline takeaway capacity, which drives producers to lower their natural gas prices. Prior increases in takeaway capacity in the region have narrowed the basis. In November 2016, the Algonquin Incremental Market (AIM) expansion began service, and it likely contributed to the basis swap narrowing by more than $1.00/MMBtu. The Dominion South basis swap could remain near -$1.00/MMBtu without new takeaway capacity. However, the Federal Energy Regulatory Commission certified several new natural gas pipeline projects for the region earlier this year. Once new capacity comes on line, especially from the Atlantic Sunrise and Rover pipeline projects, the basis swap with Henry Hub could narrow.

Figure 9. Dominion South front month basis swap

Notable forecast changes

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

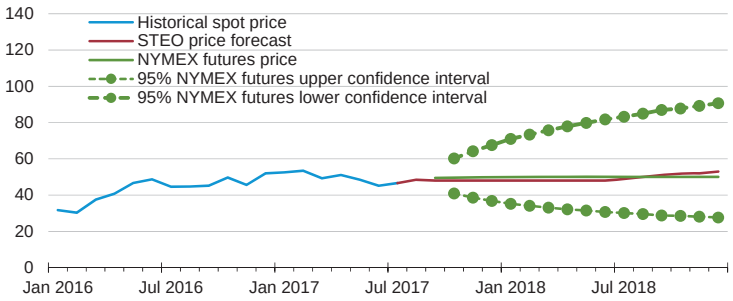
U.S. Energy Information Administration
Independent Statistics & Analysis

Short-Term Energy Outlook

Chart Gallery for August 2017

West Texas Intermediate (WTI) crude oil price

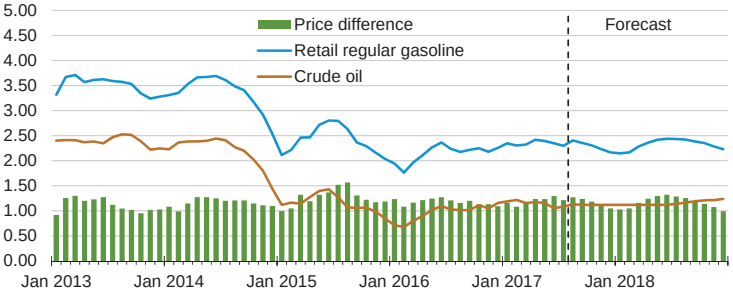
dollars per barrel



Note: Confidence interval derived from options market information for the 5 trading days ending Aug 3, 2017. Intervals not calculated for months with sparse trading in near-the-money options contracts.
Source: Short-Term Energy Outlook, August 2017.

U.S. gasoline and crude oil prices

dollars per gallon

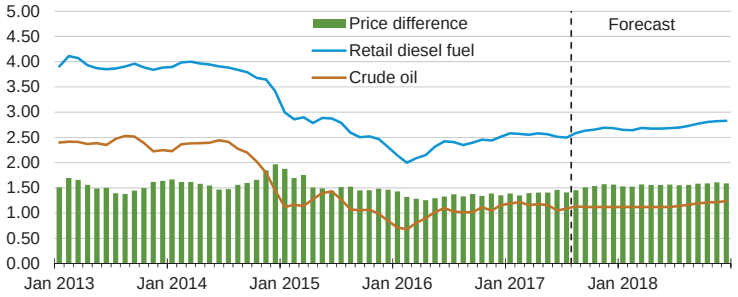


Crude oil price is composite refiner acquisition cost. Retail prices include state and federal taxes.

Source: Short-Term Energy Outlook, August 2017.

U.S. diesel fuel and crude oil prices

dollars per gallon

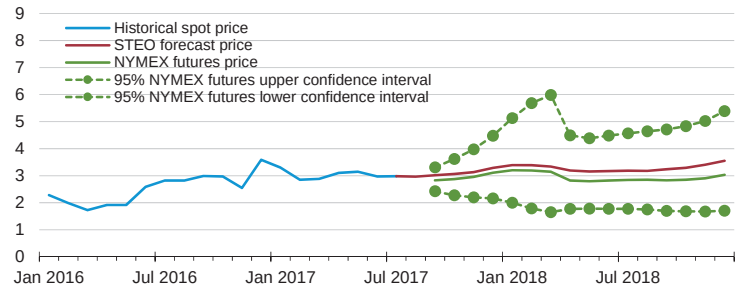


Crude oil price is composite refiner acquisition cost. Retail prices include state and federal taxes.

Source: Short-Term Energy Outlook, August 2017.

Henry Hub natural gas price

dollars per million Btu

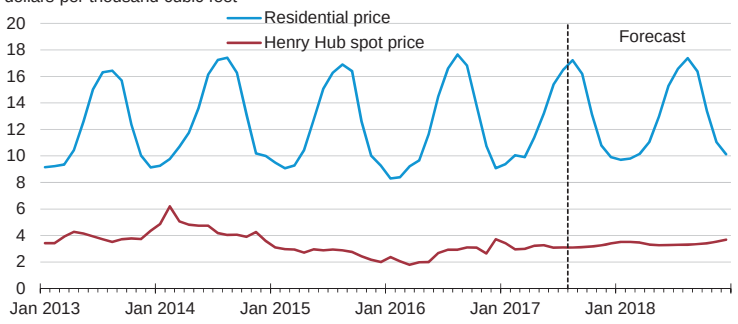


Note: Confidence interval derived from options market information for the 5 trading days ending Aug 3, 2017. Intervals not calculated for months with sparse trading in near-the-money options contracts.

Source: Short-Term Energy Outlook, August 2017.

U.S. natural gas prices

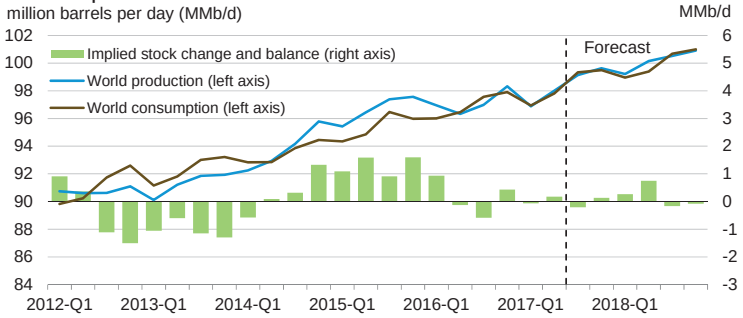
dollars per thousand cubic feet



Source: Short-Term Energy Outlook, August 2017.

World liquid fuels production and consumption balance

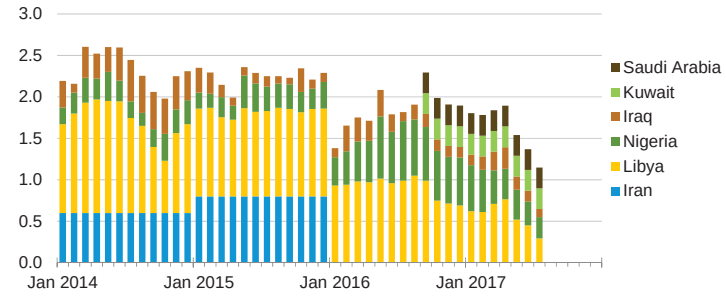
million barrels per day (MMb/d)



Source: Short-Term Energy Outlook, August 2017.

Estimated historical unplanned OPEC crude oil production outages

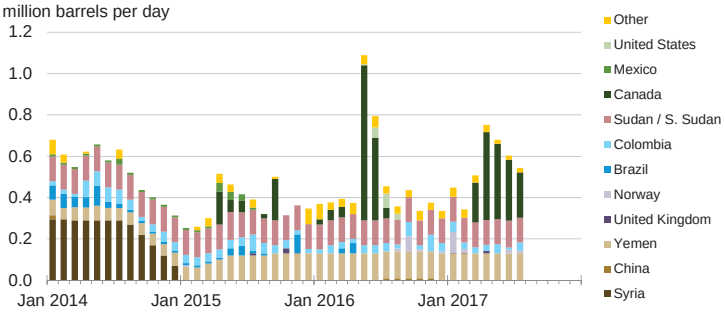
million barrels per day



Source: Short-Term Energy Outlook, August 2017.

Estimated historical unplanned non-OPEC liquid fuels production outages

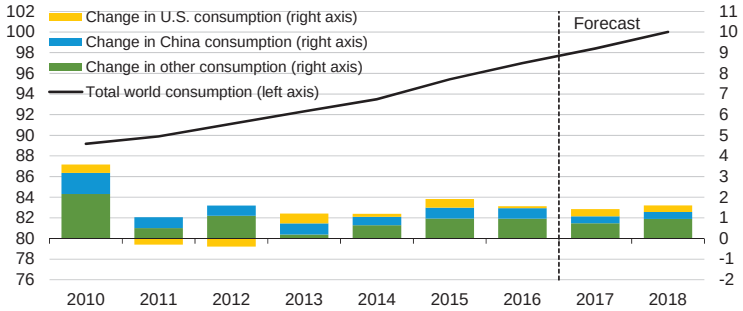
million barrels per day



Source: Short-Term Energy Outlook, August 2017.

World liquid fuels consumption

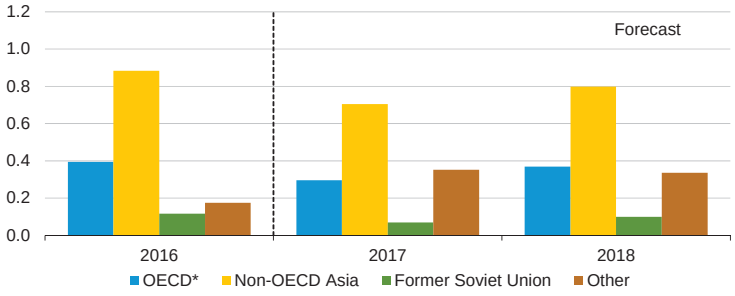
million barrels per day (MMb/d)



Source: Short-Term Energy Outlook, August 2017.

World liquid fuels consumption growth

million barrels per day

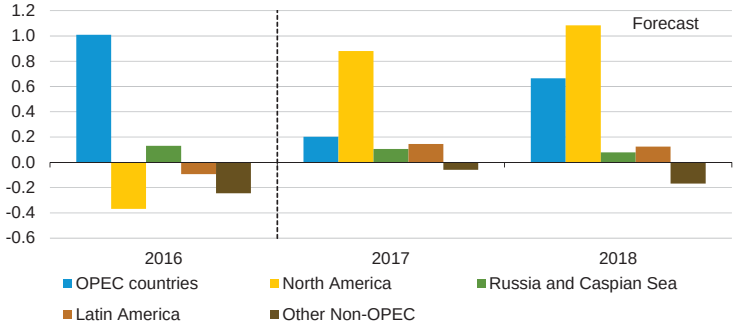


* Countries belonging to the Organization for Economic Cooperation and Development

Source: Short-Term Energy Outlook, August 2017.

World crude oil and liquid fuels production growth

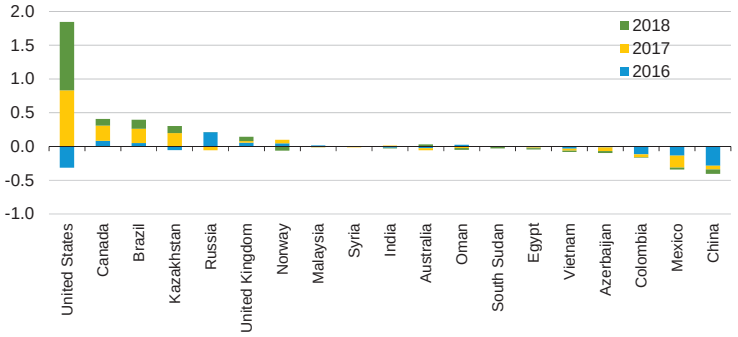
million barrels per day



Source: Short-Term Energy Outlook, August 2017.

Non-OPEC crude oil and liquid fuels production growth

million barrels per day

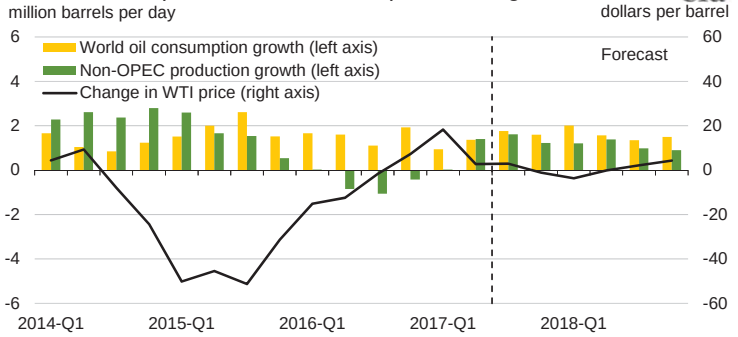


Source: Short-Term Energy Outlook, August 2017.

World consumption and non-OPEC production growth

million barrels per day

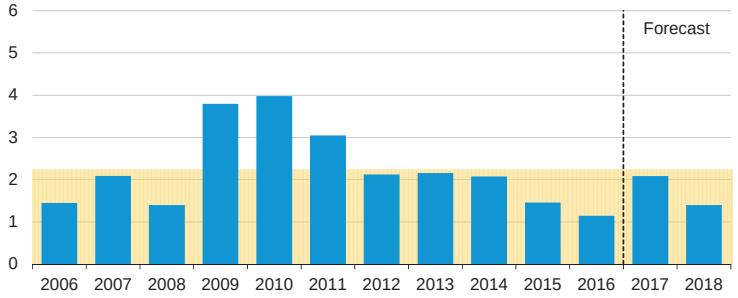
dollars per barrel



Source: Short-Term Energy Outlook, August 2017.

OPEC surplus crude oil production capacity

million barrels per day

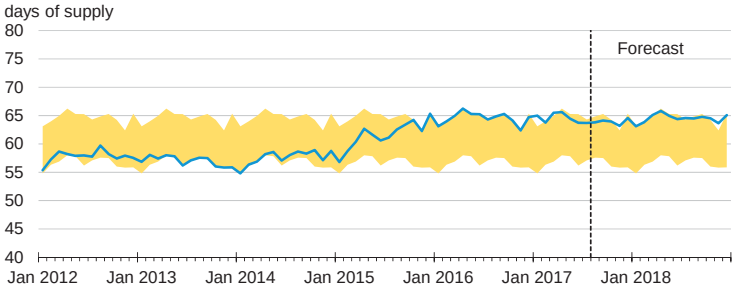


Note: Shaded area represents 2006-2016 average (2.2 million barrels per day).

Source: Short-Term Energy Outlook, August 2017.

OECD commercial stocks of crude oil and other liquids

days of supply



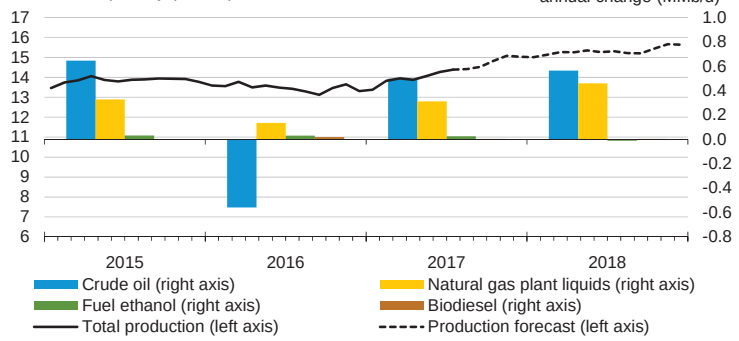
Note: Colored band around days of supply of crude oil and other liquids stocks represents the range between the minimum and maximum from Jan. 2012 - Dec. 2016.

Source: Short-Term Energy Outlook, August 2017.

U.S. crude oil and liquid fuels production

million barrels per day (MMb/d)

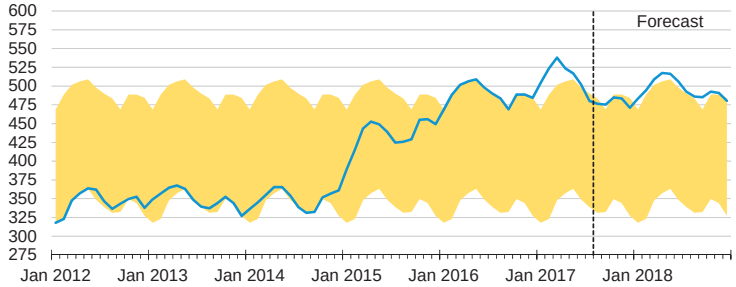
annual change (MMb/d)



Source: Short-Term Energy Outlook, August 2017.

U.S. commercial crude oil stocks

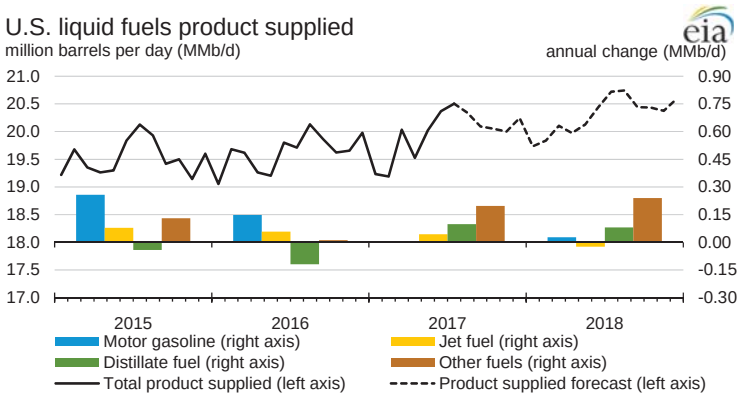
million barrels



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

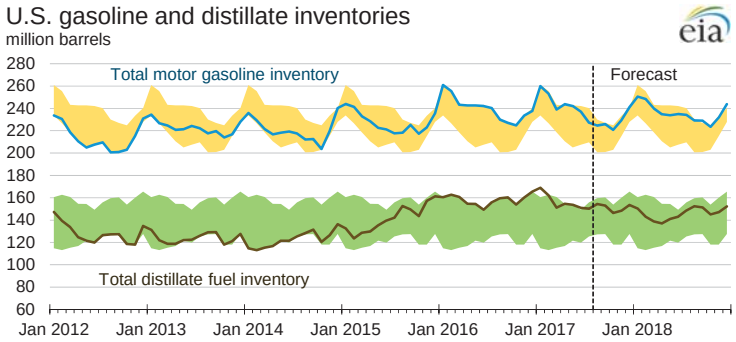
Source: Short-Term Energy Outlook, August 2017.

U.S. liquid fuels product supplied



Source: Short-Term Energy Outlook, August 2017.

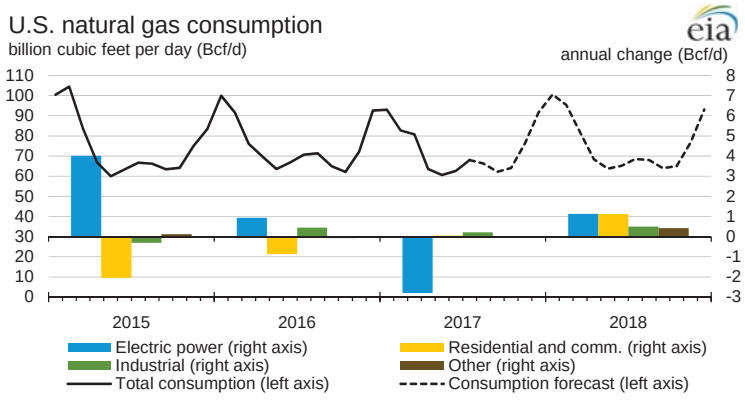
U.S. gasoline and distillate inventories



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

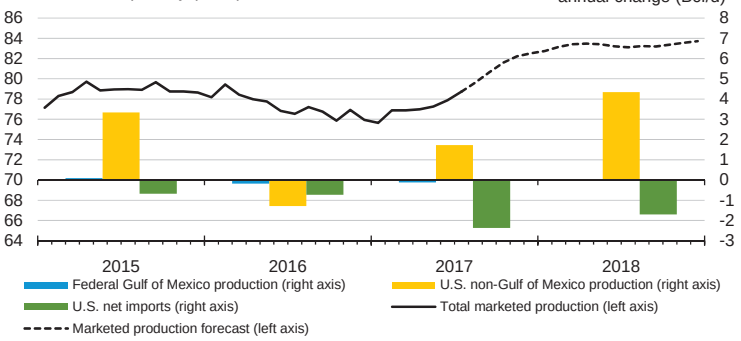
Source: Short-Term Energy Outlook, August 2017.

U.S. natural gas consumption



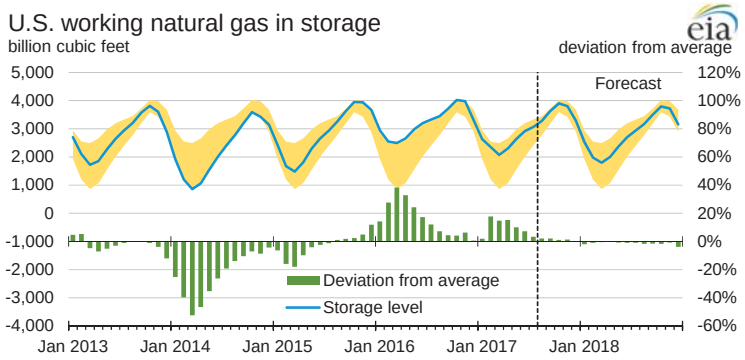
Source: Short-Term Energy Outlook, August 2017.

U.S. natural gas production and imports



Source: Short-Term Energy Outlook, August 2017.

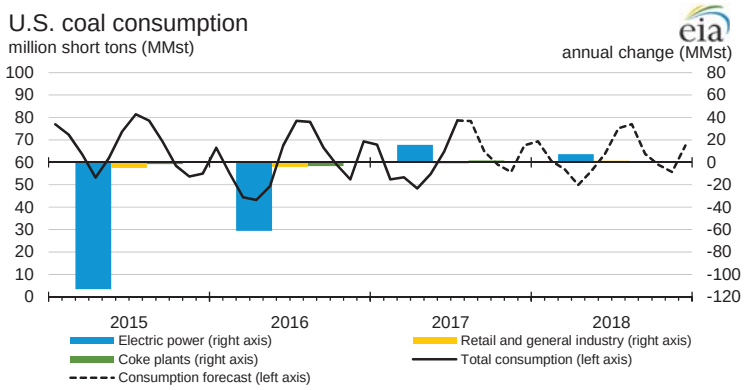
U.S. working natural gas in storage



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

Source: Short-Term Energy Outlook, August 2017.

U.S. coal consumption

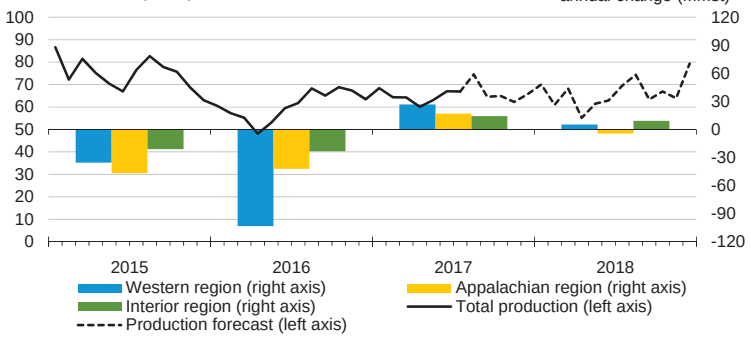


Source: Short-Term Energy Outlook, August 2017.

U.S. coal production

million short tons (MMst)

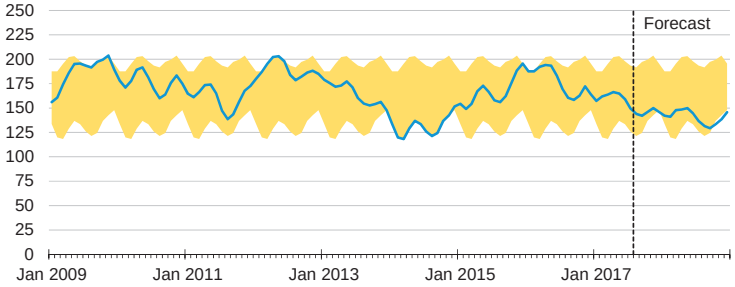
annual change (MMst)



Source: Short-Term Energy Outlook, August 2017.

U.S. electric power coal stocks

million short tons



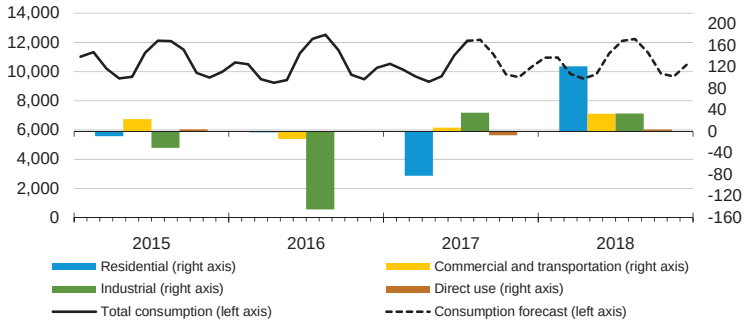
Note: Colored band around stock levels represents the range between the minimum and maximum from Jan. 2009 - Dec. 2016.

Source: Short-Term Energy Outlook, August 2017.

U.S. electricity consumption

million kilowatthours per day (kWh/d)

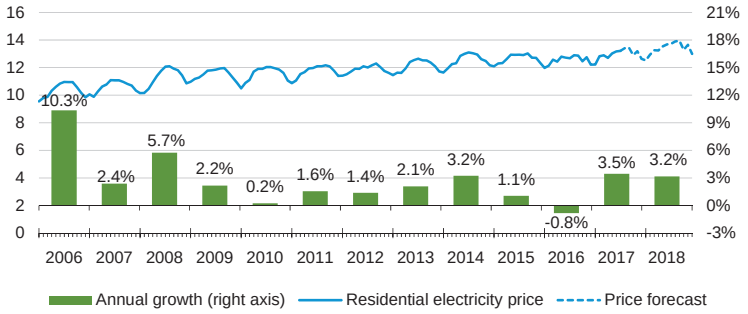
annual change (million kWh/d)



Source: Short-Term Energy Outlook, August 2017.

U.S. residential electricity price

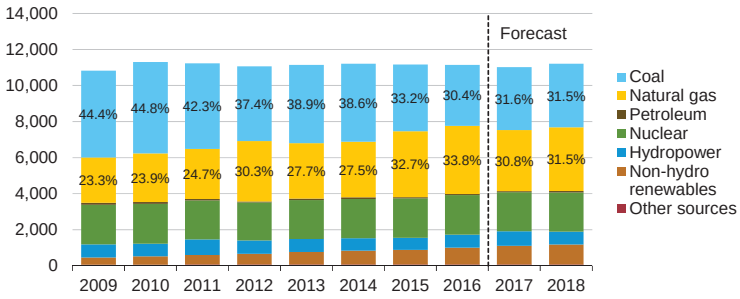
cents per kilowatthour



Source: Short-Term Energy Outlook, August 2017.

U.S. electricity generation by fuel, all sectors

thousand megawatthours per day

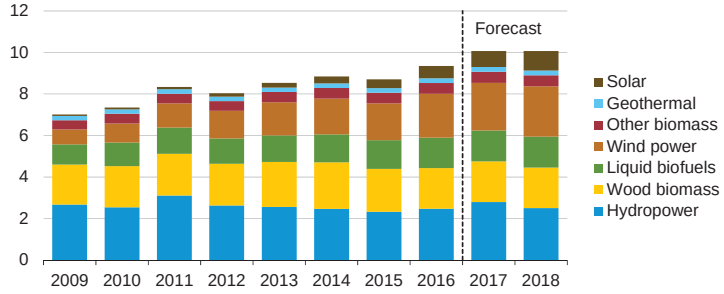


Note: Labels show percentage share of total generation provided by coal and natural gas.

Source: Short-Term Energy Outlook, August 2017.

U.S. renewable energy supply

quadrillion British thermal units (Btu)

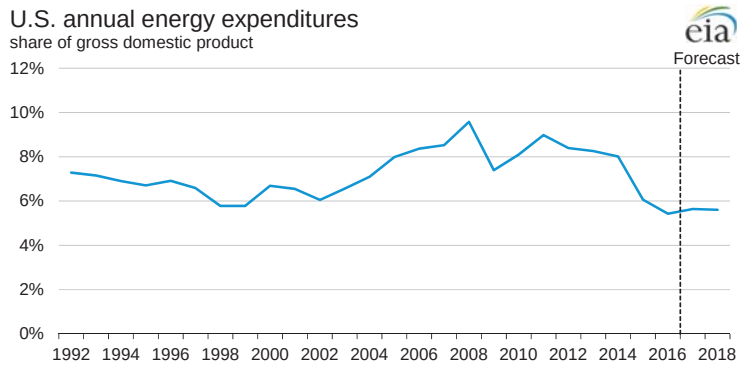


Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol and biodiesel. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste.

Source: Short-Term Energy Outlook, August 2017.

U.S. annual energy expenditures

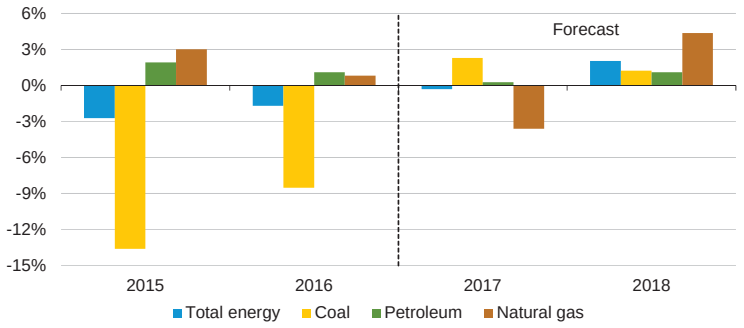
share of gross domestic product



Source: Short-Term Energy Outlook, August 2017.

U.S. energy-related carbon dioxide emissions

annual growth

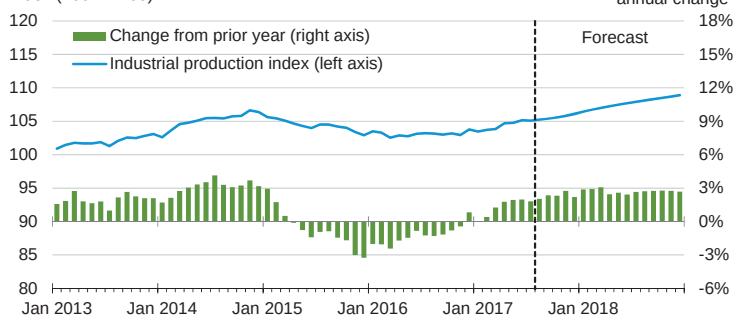


Source: Short-Term Energy Outlook, August 2017.

U.S. total industrial production index

index (2007 = 100)

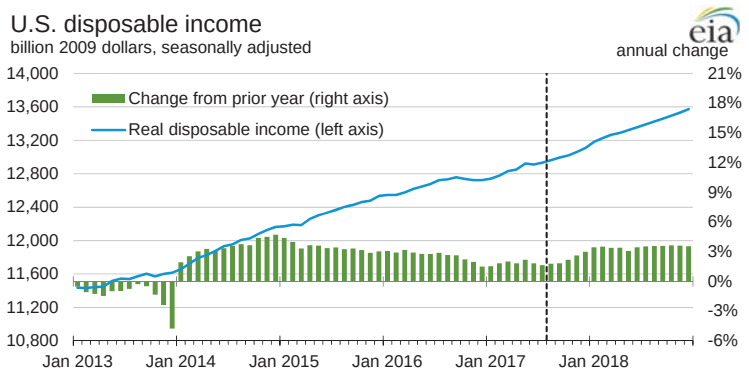
annual change



Source: Short-Term Energy Outlook, August 2017.

U.S. disposable income

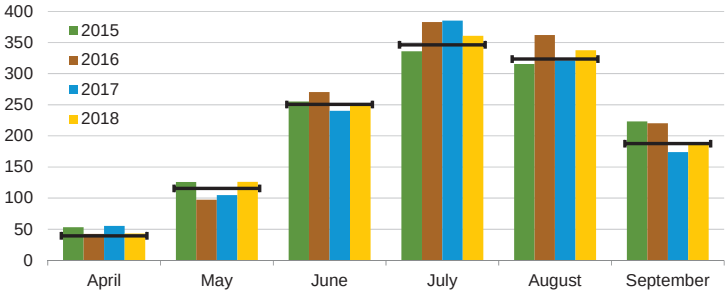
billion 2009 dollars, seasonally adjusted



Source: Short-Term Energy Outlook, August 2017.

U.S. summer cooling degree days

population-weighted

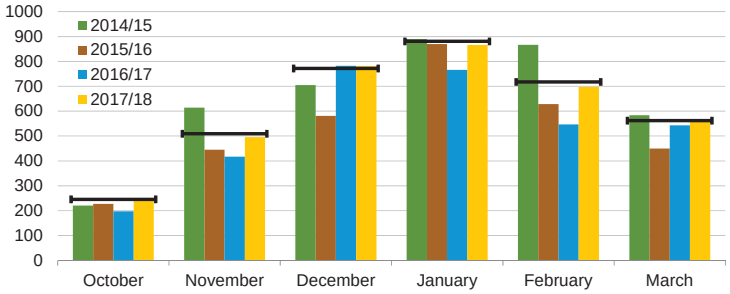


Note: EIA calculations based on from the National Oceanic and Atmospheric Administration data. Horizontal lines indicate each month's prior 10-year average (2007-2016). Projections reflect NOAA's 14-16 month outlook.

Source: Short-Term Energy Outlook, August 2017.

U.S. winter heating degree days

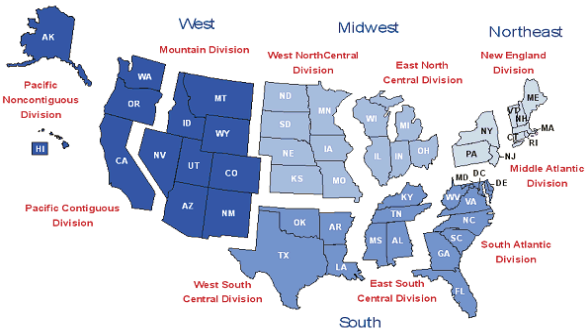
population-weighted



Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Horizontal lines indicate each month's prior 10-year average (Oct 2007 - Mar 2017). Projections reflect NOAA's 14-16 month outlook.

Source: Short-Term Energy Outlook, August 2017.

U.S. census regions and divisions



Source: Short-Term Energy Outlook, August 2017.

Table SF01. U.S. Motor Gasoline Summer Outlook

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

	2016			2017			Year-over-year Change (percent)		
	Q2	Q3	Season	Q2	Q3	Season	Q2	Q3	Season
Nominal Prices (dollars per gallon)									
WTI Crude Oil (Spot) [a]	**1.08**	**1.07**	**1.08**	*1.15*	*1.14*	*1.14*	*5.9*	*6.5*	*6.2*
Brent Crude Oil Price (Spot)	**1.08**	**1.09**	**1.09**	*1.18*	*1.18*	*1.18*	*8.8*	*8.5*	*8.7*
U.S. Refiner Average Crude Oil Cost	**1.01**	**1.02**	**1.01**	*1.13*	*1.11*	*1.12*	*12.2*	*8.9*	*10.5*
Wholesale Gasoline Price [b]	**1.58**	**1.50**	**1.54**	*1.66*	*1.64*	*1.65*	*5.3*	*9.0*	*7.1*
Wholesale Diesel Fuel Price [b]	**1.41**	**1.45**	**1.43**	*1.53*	*1.60*	*1.57*	*9.0*	*10.5*	*9.8*
Regular Gasoline Retail Price [c]	**2.25**	**2.21**	**2.23**	*2.38*	*2.35*	*2.37*	*5.9*	*6.4*	*6.2*
Diesel Fuel Retail Price [c]	**2.30**	**2.38**	**2.34**	*2.55*	*2.57*	*2.56*	*11.0*	*7.9*	*9.4*
Gasoline Consumption/Supply (million barrels per day)									
Total Consumption	**9.437**	**9.562**	**9.500**	*9.474*	*9.600*	*9.537*	*0.4*	*0.4*	*0.4*
Total Refinery and Blender Net Supply [d]	**8.313**	**8.343**	**8.328**	*8.468*	*8.535*	*8.502*	*1.9*	*2.3*	*2.1*
Fuel Ethanol Blending	**0.936**	**0.958**	**0.947**	*0.953*	*0.971*	*0.962*	*1.8*	*1.4*	*1.6*
Total Stock Withdrawal [e]	**0.014**	**0.164**	**0.089**	*0.021*	*0.121*	*0.071*			
Net Imports [e]	**0.175**	**0.098**	**0.136**	*0.032*	*-0.027*	*0.002*	*-82.0*	*-127.7*	*-98.5*
Refinery Utilization (percent)	**89.9**	**91.6**	**90.7**	*93.7*	*92.7*	*93.2*			
Gasoline Stocks, Including Blending Components (million barrels)									
Beginning	**243.3**	**242.1**	**243.3**	*239.0*	*237.1*	*239.0*			
Ending	**242.1**	**227.0**	**227.0**	*237.1*	*225.9*	*225.9*			
Economic Indicators (annualized billion 2000 dollars)									
Real GDP	**16,583**	**16,727**	**16,655**	*16,980*	*17,103*	*17,041*	*2.4*	*2.2*	*2.3*
Real Income	**12,647**	**12,738**	**12,693**	*12,895*	*12,963*	*12,929*	*2.0*	*1.8*	*1.9*

[a] Spot Price of West Texas Intermediate (WTI) crude oil.

[b] Price product sold by refiners to resellers.

[c] Average pump price including taxes.

[d] Finished gasoline net production minus gasoline blend components net inputs minus fuel ethanol blending and supply adjustment.

[e] Total stock withdrawal and net imports includes both finished gasoline and gasoline blend components.

GDP = gross domestic product.

Notes: Minor discrepancies with other Energy Information Administration (EIA) published historical data are due to rounding. Historical data are printed in bold. Forecasts are in italic. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: latest data available from: EIA, *Petroleum Supply Monthly* , DOE/EIA-0109; Monthly Energy Review, DOE/EIA-0035; U.S. Department of Commerce, Bureau of Economic Analysis (GDP and income); Reuters News Service (WTI and Brent crude oil spot prices)

Table SF02. Average Summer Residential Electricity Usage, Prices and Expenditures

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

	2012	2013	2014	2015	2016	Forecast 2017	Change from 2016
United States							
Usage (kWh)	3,354	3,130	3,038	3,165	3,316	**3,172**	-4.4%
Price (cents/kWh)	12.09	12.58	13.04	12.92	12.77	**13.27**	3.9%
Expenditures	$405	$394	$396	$409	$423	**$421**	-0.6%
New England							
Usage (kWh)	2,189	2,173	1,930	1,982	2,080	**2,000**	-3.9%
Price (cents/kWh)	15.50	16.04	17.63	18.65	18.44	**19.45**	5.5%
Expenditures	$339	$348	$340	$370	$384	**$389**	1.4%
Middle Atlantic							
Usage (kWh)	2,548	2,447	2,234	2,376	2,551	**2,363**	-7.4%
Price (cents/kWh)	15.63	16.39	16.90	16.37	15.99	**16.60**	3.8%
Expenditures	$398	$401	$378	$389	$408	**$392**	-3.8%
East North Central							
Usage (kWh)	3,048	2,618	2,505	2,565	2,903	**2,672**	-7.9%
Price (cents/kWh)	12.08	12.57	13.24	13.27	12.92	**13.39**	3.6%
Expenditures	$368	$329	$332	$340	$375	**$358**	-4.6%
West North Central							
Usage (kWh)	3,547	3,099	3,041	3,075	3,282	**3,192**	-2.7%
Price (cents/kWh)	11.50	12.25	12.42	12.65	12.78	**13.08**	2.3%
Expenditures	$408	$380	$378	$389	$419	**$417**	-0.5%
South Atlantic							
Usage (kWh)	4,002	3,773	3,778	3,999	4,110	**3,862**	-6.0%
Price (cents/kWh)	11.65	11.76	12.09	12.04	11.88	**12.32**	3.7%
Expenditures	$466	$444	$457	$482	$488	**$476**	-2.5%
East South Central							
Usage (kWh)	4,468	4,079	4,034	4,279	4,435	**4,048**	-8.7%
Price (cents/kWh)	10.36	10.71	11.09	10.91	10.89	**11.71**	7.5%
Expenditures	$463	$437	$447	$467	$483	**$474**	-1.9%
West South Central							
Usage (kWh)	4,785	4,509	4,256	4,538	4,609	**4,321**	-6.3%
Price (cents/kWh)	10.27	10.94	11.46	11.03	10.55	**11.03**	4.5%
Expenditures	$491	$493	$488	$501	$486	**$477**	-2.0%
Mountain							
Usage (kWh)	3,441	3,382	3,230	3,298	3,428	**3,383**	-1.3%
Price (cents/kWh)	11.55	11.97	12.32	12.33	12.08	**12.33**	2.0%
Expenditures	$397	$405	$398	$407	$414	**$417**	0.7%
Pacific							
Usage (kWh)	2,079	2,038	2,090	2,051	2,092	**2,087**	-0.2%
Price (cents/kWh)	13.78	14.47	15.17	15.33	15.98	**16.33**	2.2%
Expenditures	$286	$295	$317	$314	$334	**$341**	2.0%

Notes: kWh = kilowatthours. All data cover the 3-month period of June-August of each year. Usage amounts represent total residential retail electricity sales per customer. Prices and expenditures are not adjusted for inflation.

Source: EIA Form-861 and Form-826 databases, Short-Term Energy Outlook.

Table 1. U.S. Energy Markets Summary

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

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
Energy Supply															
Crude Oil Production (a)															
(million barrels per day)	**9.14**	**8.82**	**8.64**	**8.81**	**9.02**	**9.20**	*9.42*	*9.75*	*9.89*	*9.93*	*9.80*	*10.03*	**8.85**	*9.35*	*9.91*
Dry Natural Gas Production															
(billion cubic feet per day)	**73.77**	**72.38**	**71.84**	**71.20**	**71.35**	**72.05**	*74.11*	*76.35*	*77.22*	*77.43*	*77.20*	*77.50*	**72.29**	*73.48*	*77.34*
Coal Production															
(million short tons)	**173**	**161**	**195**	**200**	**197**	**190**	*206*	*193*	*199*	*180*	*207*	*210*	**728**	*786*	*796*
Energy Consumption															
Liquid Fuels															
(million barrels per day)	**19.45**	**19.42**	**19.90**	**19.75**	**19.49**	**19.97**	*20.32*	*20.10*	*19.89*	*20.18*	*20.64*	*20.47*	**19.63**	*19.97*	*20.30*
Natural Gas															
(billion cubic feet per day)	**89.13**	**66.62**	**69.05**	**75.70**	**85.57**	**62.25**	*65.52*	*77.30*	*92.47*	*65.74*	*66.89*		**75.11**	*72.62*	*75.79*
Coal (b)															
(million short tons)	**166**	**160**	**223**	**181**	**174**	**168**	*222*	*182*	*187*	*170*	*216*	*182*	**730**	*746*	*755*
Electricity															
(billion kilowatt hours per day)	**10.19**	**9.96**	**12.09**	**9.84**	**10.11**	**10.03**	*11.83*	*9.92*	*10.57*	*10.19*	*11.89*	*10.01*	**10.52**	*10.48*	*10.67*
Renewables (c)															
(quadrillion Btu)	**2.60**	**2.59**	**2.43**	**2.52**	**2.75**	**2.95**	*2.58*	*2.58*	*2.66*	*2.86*	*2.67*	*2.67*	**10.14**	*10.87*	*10.87*
Total Energy Consumption (d)															
(quadrillion Btu)	**25.23**	**22.95**	**24.76**	**24.45**	**25.01**	**22.83**	*24.29*	*24.42*	*25.55*	*23.19*	*24.58*	*24.72*	**97.39**	*96.54*	*98.05*
Energy Prices															
Crude Oil West Texas Intermediate Spot															
(dollars per barrel)	**33.35**	**45.46**	**44.85**	**49.18**	**51.64**	**48.15**	*47.75*	*48.00*	*48.00*	*48.00*	*49.97*	*52.31*	**43.33**	*48.88*	*49.58*
Natural Gas Henry Hub Spot															
(dollars per million Btu)	**2.00**	**2.14**	**2.88**	**3.04**	**3.01**	**3.08**	*2.99*	*3.17*	*3.38*	*3.17*	*3.20*	*3.42*	**2.51**	*3.06*	*3.29*
Coal															
(dollars per million Btu)	**2.13**	**2.13**	**2.11**	**2.08**	**2.08**	**2.14**	*2.20*	*2.17*	*2.20*	*2.20*	*2.23*	*2.22*	**2.11**	*2.15*	*2.21*
Macroeconomic															
Real Gross Domestic Product															
(billion chained 2009 dollars - SAAR)	**16,525**	**16,583**	**16,727**	**16,813**	**16,873**	**16,980**	*17,103*	*17,208*	*17,321*	*17,430*	*17,534*	*17,632*	**16,662**	*17,041*	*17,480*
Percent change from prior year	**1.6**	**1.3**	**1.7**	**2.0**	**2.1**	**2.4**	*2.2*	*2.3*	*2.7*	*2.7*	*2.5*	*2.5*	**1.6**	*2.3*	*2.6*
GDP Implicit Price Deflator															
(Index, 2009=100)	**110.6**	**111.3**	**111.7**	**112.2**	**112.8**	**113.2**	*113.8*	*114.4*	*115.2*	*115.9*	*116.5*	*117.1*	**111.5**	*113.6*	*116.2*
Percent change from prior year	**1.2**	**1.2**	**1.3**	**1.6**	**1.9**	**1.8**	*1.9*	*2.0*	*2.1*	*2.3*	*2.4*	*2.3*	**1.3**	*1.9*	*2.3*
Real Disposable Personal Income															
(billion chained 2009 dollars - SAAR)	**12,556**	**12,647**	**12,738**	**12,729**	**12,783**	**12,895**	*12,963*	*13,061*	*13,225*	*13,322*	*13,426*	*13,532*	**12,668**	*12,925*	*13,376*
Percent change from prior year	**3.1**	**2.8**	**2.7**	**1.9**	**1.8**	**2.0**	*1.8*	*2.6*	*3.5*	*3.3*	*3.6*	*3.6*	**2.6**	*2.0*	*3.5*
Manufacturing Production Index															
(Index, 2012=100)	**102.9**	**102.6**	**102.7**	**103.1**	**103.7**	**104.1**	*104.4*	*105.0*	*105.8*	*106.6*	*107.2*	*107.8*	**102.8**	*104.3*	*106.8*
Percent change from prior year	**0.3**	**0.1**	**-0.1**	**0.5**	**0.9**	**1.5**	*1.7*	*1.8*	*2.0*	*2.3*	*2.6*	*2.7*	**0.2**	*1.5*	*2.4*
Weather															
U.S. Heating Degree-Days	**1,948**	**480**	**51**	**1,397**	**1,856**	**427**	*71*	*1,526*	*2,128*	*481*	*72*	*1,518*	**3,876**	*3,881*	*4,199*
U.S. Cooling Degree-Days	**54**	**411**	**965**	**128**	**69**	**401**	*881*	*92*	*45*	*418*	*886*	*102*	**1,558**	*1,443*	*1,452*

- = 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 - August 2017

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
Crude Oil (dollars per barrel)															
West Texas Intermediate Spot Average	**33.35**	**45.46**	**44.85**	**49.18**	**51.64**	**48.15**	*47.75*	*48.00*	*48.00*	*48.00*	*49.97*	*52.31*	**43.33**	*48.88*	*49.58*
Brent Spot Average	**33.89**	**45.57**	**45.80**	**49.25**	**53.57**	**49.59**	*49.70*	*50.00*	*50.00*	*50.00*	*51.97*	*54.31*	**43.74**	*50.71*	*51.58*
U.S. Imported Average	**28.85**	**40.35**	**41.19**	**44.45**	**47.94**	**45.28**	*44.21*	*44.50*	*44.50*	*44.50*	*46.48*	*48.84*	**38.69**	*45.51*	*46.03*
U.S. Refiner Average Acquisition Cost	**30.84**	**42.23**	**42.90**	**46.56**	**49.91**	**47.40**	*46.70*	*47.00*	*47.00*	*47.00*	*48.97*	*51.35*	**40.69**	*47.72*	*48.59*
U.S. Liquid Fuels (cents per gallon)															
Refiner Prices for Resale															
Gasoline	**119**	**158**	**150**	**153**	**163**	**166**	*164*	*147*	*147*	*165*	*164*	*152*	**145**	*160*	*157*
Diesel Fuel	**109**	**141**	**145**	**156**	**162**	**153**	*160*	*164*	*161*	*163*	*169*	*175*	**138**	*160*	*167*
Heating Oil	**99**	**125**	**132**	**146**	**154**	**145**	*150*	*158*	*159*	*153*	*160*	*169*	**124**	*152*	*161*
Refiner Prices to End Users															
Jet Fuel	**107**	**134**	**137**	**149**	**158**	**149**	*154*	*160*	*158*	*157*	*164*	*171*	**132**	*155*	*163*
No. 6 Residual Fuel Oil (a)	**69**	**89**	**103**	**115**	**128**	**119**	*116*	*117*	*118*	*115*	*120*	*126*	**94**	*120*	*120*
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	**190**	**225**	**221**	**223**	**233**	**238**	*235*	*224*	*220*	*241*	*241*	*229*	**215**	*233*	*233*
Gasoline All Grades (b)	**200**	**235**	**232**	**234**	**244**	**250**	*247*	*235*	*232*	*252*	*253*	*241*	**226**	*244*	*244*
On-highway Diesel Fuel	**208**	**230**	**238**	**247**	**257**	**255**	*257*	*267*	*266*	*268*	*273*	*282*	**231**	*259*	*272*
Heating Oil	**195**	**205**	**211**	**233**	**247**	**239**	*242*	*256*	*260*	*249*	*253*	*265*	**210**	*248*	*259*
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	**2.07**	**2.22**	**2.99**	**3.15**	**3.12**	**3.19**	*3.10*	*3.28*	*3.50*	*3.29*	*3.32*	*3.54*	**2.61**	*3.17*	*3.41*
Henry Hub Spot (dollars per million Btu)	**2.00**	**2.14**	**2.88**	**3.04**	**3.01**	**3.08**	*2.99*	*3.17*	*3.38*	*3.17*	*3.20*	*3.42*	**2.51**	*3.06*	*3.29*
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	**3.44**	**2.93**	**3.63**	**4.03**	**4.52**	**4.06**	*3.98*	*4.38*	*4.81*	*4.21*	*4.18*	*4.63*	**3.51**	*4.25*	*4.47*
Commercial Sector	**6.84**	**7.23**	**8.21**	**7.49**	**7.70**	**8.28**	*8.66*	*7.96*	*7.94*	*8.41*	*8.83*	*8.14*	**7.26**	*7.98*	*8.17*
Residential Sector	**8.54**	**11.17**	**17.01**	**10.19**	**9.73**	**12.84**	*16.61*	*10.70*	*9.86*	*12.49*	*16.76*	*10.93*	**10.06**	*11.02*	*11.07*
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	**2.13**	**2.13**	**2.11**	**2.08**	**2.08**	**2.14**	*2.20*	*2.17*	*2.20*	*2.20*	*2.23*	*2.22*	**2.11**	*2.15*	*2.21*
Natural Gas	**2.65**	**2.51**	**3.00**	**3.36**	**3.69**	**3.35**	*3.27*	*3.75*	*4.24*	*3.66*	*3.51*	*4.04*	**2.88**	*3.49*	*3.82*
Residual Fuel Oil (c)	**6.15**	**8.51**	**9.70**	**9.08**	**11.16**	**10.42**	*9.75*	*9.68*	*9.58*	*10.20*	*9.94*	*10.15*	**8.41**	*10.23*	*9.96*
Distillate Fuel Oil	**9.00**	**11.01**	**11.64**	**12.14**	**12.75**	**14.03**	*13.45*	*13.90*	*14.79*	*15.63*	*14.25*	*14.59*	**10.86**	*13.50*	*14.81*
Retail Prices (cents per kilowatthour)															
Industrial Sector	**6.42**	**6.67**	**7.20**	**6.67**	**6.65**	**6.93**	*7.53*	*6.93*	*6.86*	*7.12*	*7.71*	*7.12*	**6.75**	*7.02*	*7.21*
Commercial Sector	**10.12**	**10.34**	**10.68**	**10.27**	**10.38**	**10.61**	*10.71*	*10.42*	*10.57*	*10.70*	*10.84*	*10.56*	**10.37**	*10.54*	*10.67*
Residential Sector	**12.20**	**12.66**	**12.81**	**12.45**	**12.61**	**12.99**	*13.35*	*12.89*	*12.87*	*13.50*	*13.85*	*13.28*	**12.55**	*12.98*	*13.39*

- = no data available

Prices are not adjusted for inflation.

(a) Average for all sulfur contents.

(b) Average self-service cash price.

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

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

Prices exclude taxes unless otherwise noted.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Marketing Monthly* , DOE/EIA-0380; *Weekly Petroleum Status Report* , DOE/EIA-0208; *Natural Gas Monthly* , DOE/EIA-0130; *Electric Power Monthly* , DOE/EIA-0226; and *Monthly Energy Review* , DOE/EIA-0035.

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
Supply (million barrels per day) (a)															
OECD	**26.96**	**25.87**	**26.28**	**26.84**	**27.00**	**27.13**	*27.42*	*28.18*	*28.33*	*28.48*	*28.40*	*29.01*	**26.49**	*27.44*	*28.56*
U.S. (50 States)	**14.92**	**14.85**	**14.64**	**14.79**	**15.02**	**15.41**	*15.80*	*16.29*	*16.42*	*16.64*	*16.60*	*16.91*	**14.80**	*15.63*	*16.65*
Canada	**4.73**	**3.99**	**4.70**	**4.95**	**4.92**	**4.74**	*4.79*	*4.82*	*4.85*	*4.87*	*4.94*	*5.02*	**4.59**	*4.82*	*4.92*
Mexico	**2.56**	**2.52**	**2.48**	**2.39**	**2.36**	**2.34**	*2.29*	*2.27*	*2.25*	*2.24*	*2.30*	*2.34*	**2.49**	*2.31*	*2.28*
Other OECD	**4.74**	**4.52**	**4.45**	**4.70**	**4.71**	**4.64**	*4.55*	*4.79*	*4.81*	*4.73*	*4.55*	*4.75*	**4.60**	*4.67*	*4.71*
Non-OECD	**69.98**	**70.46**	**70.71**	**71.49**	**69.88**	**70.88**	*71.71*	*71.46*	*70.89*	*71.67*	*72.12*	*71.90*	**70.66**	*70.99*	*71.65*
OPEC	**38.76**	**39.00**	**39.37**	**39.83**	**38.68**	**39.27**	*39.89*	*39.91*	*39.81*	*40.03*	*40.29*	*40.29*	**39.24**	*39.44*	*40.11*
Crude Oil Portion	**32.24**	**32.47**	**32.76**	**33.27**	**32.17**	**32.27**	*32.86*	*32.82*	*32.73*	*32.91*	*33.13*	*33.08*	**32.69**	*32.53*	*32.96*
Other Liquids (b)	**6.52**	**6.53**	**6.60**	**6.56**	**6.51**	**7.01**	*7.03*	*7.09*	*7.09*	*7.12*	*7.16*	*7.20*	**6.56**	*6.91*	*7.14*
Eurasia	**14.33**	**14.09**	**13.91**	**14.51**	**14.42**	**14.33**	*14.27*	*14.29*	*14.38*	*14.39*	*14.37*	*14.48*	**14.21**	*14.33*	*14.41*
China	**5.02**	**4.90**	**4.79**	**4.77**	**4.83**	**4.82**	*4.78*	*4.82*	*4.71*	*4.74*	*4.74*	*4.78*	**4.87**	*4.81*	*4.74*
Other Non-OECD	**11.87**	**12.46**	**12.65**	**12.38**	**11.94**	**12.46**	*12.77*	*12.44*	*11.98*	*12.51*	*12.72*	*12.35*	**12.34**	*12.40*	*12.39*
Total World Supply	**96.94**	**96.33**	**96.99**	**98.33**	**96.88**	**98.01**	*99.13*	*99.64*	*99.22*	*100.15*	*100.52*	*100.92*	**97.15**	*98.42*	*100.21*
Non-OPEC Supply	**58.17**	**57.33**	**57.62**	**58.50**	**58.20**	**58.73**	*59.24*	*59.73*	*59.41*	*60.12*	*60.23*	*60.63*	**57.91**	*58.98*	*60.10*
Consumption (million barrels per day) (c)															
OECD	**46.64**	**46.00**	**47.28**	**47.37**	**46.80**	**46.51**	*47.62*	*47.55*	*47.35*	*46.76*	*47.89*	*47.96*	**46.83**	*47.12*	*47.49*
U.S. (50 States)	**19.45**	**19.42**	**19.90**	**19.75**	**19.49**	**19.97**	*20.32*	*20.10*	*19.87*	*20.18*	*20.64*	*20.47*	**19.63**	*19.98*	*20.30*
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	**2.33**	**2.32**	**2.46**	**2.40**	**2.35**	**2.34**	*2.49*	*2.47*	*2.44*	*2.38*	*2.49*	*2.47*	**2.38**	*2.41*	*2.44*
Europe	**13.63**	**13.93**	**14.45**	**14.20**	**13.81**	**14.06**	*14.60*	*14.24*	*14.08*	*14.14*	*14.54*	*14.28*	**14.05**	*14.18*	*14.26*
Japan	**4.44**	**3.70**	**3.79**	**4.18**	**4.33**	**3.54**	*3.61*	*3.99*	*4.19*	*3.42*	*3.53*	*3.91*	**4.03**	*3.86*	*3.76*
Other OECD	**6.52**	**6.36**	**6.40**	**6.57**	**6.52**	**6.30**	*6.31*	*6.47*	*6.46*	*6.33*	*6.37*	*6.53*	**6.46**	*6.40*	*6.42*
Non-OECD	**49.36**	**50.46**	**50.30**	**50.53**	**50.15**	**51.32**	*51.72*	*51.95*	*51.61*	*52.64*	*52.80*	*53.04*	**50.16**	*51.29*	*52.53*
Eurasia	**4.68**	**4.61**	**4.88**	**4.87**	**4.74**	**4.67**	*4.94*	*4.93*	*4.83*	*4.76*	*5.04*	*5.02*	**4.76**	*4.82*	*4.91*
Europe	**0.69**	**0.70**	**0.72**	**0.72**	**0.70**	**0.71**	*0.73*	*0.73*	*0.71*	*0.72*	*0.74*	*0.74*	**0.71**	*0.72*	*0.73*
China	**12.37**	**12.73**	**12.39**	**12.63**	**12.74**	**12.91**	*12.77*	*13.07*	*13.07*	*13.25*	*13.10*	*13.41*	**12.53**	*12.87*	*13.21*
Other Asia	**12.90**	**13.11**	**12.61**	**13.00**	**13.02**	**13.43**	*13.12*	*13.51*	*13.72*	*13.96*	*13.42*	*13.82*	**12.91**	*13.27*	*13.73*
Other Non-OECD	**18.72**	**19.31**	**19.70**	**19.31**	**18.95**	**19.61**	*20.16*	*19.72*	*19.27*	*19.96*	*20.51*	*20.05*	**19.26**	*19.61*	*19.95*
Total World Consumption	**96.00**	**96.46**	**97.57**	**97.90**	**96.95**	**97.83**	*99.34*	*99.50*	*98.96*	*99.40*	*100.69*	*101.00*	**96.99**	*98.41*	*100.02*
Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)															
U.S. (50 States)	**-0.41**	**-0.28**	**-0.01**	**0.18**	**-0.02**	**0.14**	*0.15*	*0.45*	*-0.05*	*-0.43*	*-0.01*	*0.48*	**-0.13**	*0.18*	*0.00*
Other OECD	**0.03**	**-0.13**	**-0.10**	**0.60**	**-0.47**	**-0.39**	*0.02*	*-0.20*	*-0.07*	*-0.11*	*0.06*	*-0.13*	**0.10**	*-0.26*	*-0.06*
Other Stock Draws and Balance	**-0.56**	**0.54**	**0.70**	**-1.21**	**0.55**	**0.07**	*0.04*	*-0.38*	*-0.14*	*-0.21*	*0.12*	*-0.26*	**-0.14**	*0.07*	*-0.12*
Total Stock Draw	**-0.93**	**0.13**	**0.59**	**-0.43**	**0.06**	**-0.18**	*0.21*	*-0.13*	*-0.26*	*-0.75*	*0.17*	*0.08*	**-0.16**	*-0.01*	*-0.19*
End-of-period Commercial Crude Oil and Other Liquids Inventories															
U.S. Commercial Inventory	**1,326**	**1,352**	**1,353**	**1,336**	**1,341**	**1,338**	*1,327*	*1,292*	*1,303*	*1,347*	*1,354*	*1,316*	**1,336**	*1,292*	*1,316*
OECD Commercial Inventory	**2,997**	**3,037**	**3,043**	**2,967**	**3,011**	**3,043**	*3,030*	*3,013*	*3,031*	*3,085*	*3,086*	*3,060*	**2,967**	*3,013*	*3,060*

- = 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, Equatorial Guinea, 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 lease condensate, natural gas plant liquids, other liquids, and refinery processing gain. Includes other unaccounted-for liquids.

(c) Consumption of petroleum by the OECD countries is synonymous with "petroleum product supplied," defined in the glossary of the EIA *Petroleum Supply Monthly*, DOE/EIA-0109.

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
North America	**22.22**	**21.35**	**21.82**	**22.14**	**22.30**	**22.49**	*22.88*	*23.39*	*23.52*	*23.75*	*23.85*	*24.27*	**21.88**	*22.77*	*23.85*
Canada	**4.73**	**3.99**	**4.70**	**4.95**	**4.92**	**4.74**	*4.79*	*4.82*	*4.85*	*4.87*	*4.94*	*5.02*	**4.59**	*4.82*	*4.92*
Mexico	**2.56**	**2.52**	**2.48**	**2.39**	**2.36**	**2.34**	*2.29*	*2.27*	*2.25*	*2.24*	*2.30*	*2.34*	**2.49**	*2.31*	*2.28*
United States	**14.92**	**14.85**	**14.64**	**14.79**	**15.02**	**15.41**	*15.80*	*16.29*	*16.42*	*16.64*	*16.60*	*16.91*	**14.80**	*15.63*	*16.65*
Central and South America	**4.72**	**5.39**	**5.62**	**5.29**	**4.93**	**5.50**	*5.75*	*5.41*	*5.05*	*5.62*	*5.88*	*5.54*	**5.26**	*5.40*	*5.53*
Argentina	**0.70**	**0.68**	**0.70**	**0.69**	**0.67**	**0.64**	*0.70*	*0.68*	*0.66*	*0.63*	*0.69*	*0.67*	**0.69**	*0.67*	*0.67*
Brazil	**2.63**	**3.36**	**3.63**	**3.32**	**2.97**	**3.56**	*3.78*	*3.45*	*3.10*	*3.69*	*3.92*	*3.59*	**3.23**	*3.45*	*3.58*
Colombia	**0.98**	**0.93**	**0.87**	**0.87**	**0.87**	**0.88**	*0.86*	*0.86*	*0.86*	*0.88*	*0.85*	*0.86*	**0.91**	*0.87*	*0.86*
Other Central and S. America	**0.42**	**0.42**	**0.42**	**0.42**	**0.42**	**0.42**	*0.41*	*0.41*	*0.42*	*0.42*	*0.42*	*0.42*	**0.42**	*0.42*	*0.42*
Europe	**4.22**	**4.02**	**3.92**	**4.20**	**4.23**	**4.13**	*4.02*	*4.27*	*4.27*	*4.18*	*3.99*	*4.16*	**4.09**	*4.16*	*4.15*
Norway	**2.04**	**1.95**	**1.91**	**2.12**	**2.10**	**2.04**	*2.00*	*2.09*	*2.07*	*1.97*	*1.93*	*2.00*	**2.00**	*2.06*	*1.99*
United Kingdom	**1.13**	**1.09**	**1.01**	**1.03**	**1.10**	**1.08**	*1.02*	*1.15*	*1.18*	*1.21*	*1.06*	*1.15*	**1.06**	*1.09*	*1.15*
Eurasia	**14.33**	**14.09**	**13.91**	**14.51**	**14.42**	**14.33**	*14.27*	*14.29*	*14.38*	*14.39*	*14.37*	*14.48*	**14.21**	*14.33*	*14.41*
Azerbaijan	**0.87**	**0.87**	**0.84**	**0.80**	**0.79**	**0.80**	*0.79*	*0.78*	*0.78*	*0.77*	*0.76*	*0.74*	**0.84**	*0.79*	*0.76*
Kazakhstan	**1.76**	**1.63**	**1.57**	**1.83**	**1.87**	**1.88**	*1.89*	*1.95*	*1.99*	*1.98*	*1.98*	*2.05*	**1.70**	*1.90*	*2.00*
Russia	**11.27**	**11.17**	**11.08**	**11.45**	**11.32**	**11.18**	*11.13*	*11.10*	*11.15*	*11.18*	*11.17*	*11.24*	**11.24**	*11.18*	*11.19*
Turkmenistan	**0.27**	**0.26**	**0.26**	**0.28**	**0.28**	**0.29**	*0.29*	*0.29*	*0.29*	*0.29*	*0.29*	*0.29*	**0.27**	*0.28*	*0.29*
Other Eurasia	**0.17**	**0.17**	**0.16**	**0.16**	**0.15**	**0.18**	*0.18*	*0.18*	*0.17*	*0.17*	*0.17*	*0.17*	**0.16**	*0.17*	*0.17*
Middle East	**1.14**	**1.14**	**1.14**	**1.14**	**1.07**	**1.07**	*1.12*	*1.11*	*1.11*	*1.09*	*1.07*	*1.05*	**1.14**	*1.09*	*1.08*
Oman	**1.02**	**1.01**	**1.02**	**1.02**	**0.98**	**0.97**	*1.01*	*1.01*	*0.99*	*0.97*	*0.95*	*0.94*	**1.02**	*0.99*	*0.96*
Asia and Oceania	**9.71**	**9.51**	**9.40**	**9.37**	**9.39**	**9.34**	*9.30*	*9.35*	*9.24*	*9.25*	*9.25*	*9.30*	**9.49**	*9.34*	*9.26*
Australia	**0.39**	**0.37**	**0.40**	**0.37**	**0.34**	**0.35**	*0.35*	*0.36*	*0.37*	*0.37*	*0.38*	*0.40*	**0.38**	*0.35*	*0.38*
China	**5.02**	**4.90**	**4.79**	**4.77**	**4.83**	**4.82**	*4.78*	*4.82*	*4.71*	*4.74*	*4.74*	*4.78*	**4.87**	*4.81*	*4.74*
India	**0.99**	**0.99**	**0.99**	**0.99**	**1.01**	**1.00**	*1.00*	*1.00*	*1.00*	*0.99*	*0.99*	*0.99*	**0.99**	*1.00*	*0.99*
Indonesia	**0.94**	**0.93**	**0.94**	**0.93**	**0.93**	**0.91**	*0.90*	*0.89*	*0.88*	*0.87*	*0.85*	*0.85*	**0.94**	*0.91*	*0.86*
Malaysia	**0.76**	**0.75**	**0.74**	**0.75**	**0.75**	**0.73**	*0.74*	*0.74*	*0.74*	*0.74*	*0.74*	*0.73*	**0.75**	*0.74*	*0.74*
Vietnam	**0.33**	**0.33**	**0.31**	**0.31**	**0.30**	**0.30**	*0.28*	*0.28*	*0.28*	*0.27*	*0.27*	*0.27*	**0.32**	*0.29*	*0.27*
Africa	**1.83**	**1.83**	**1.81**	**1.85**	**1.86**	**1.88**	*1.89*	*1.91*	*1.83*	*1.83*	*1.82*	*1.82*	**1.83**	*1.88*	*1.83*
Egypt	**0.70**	**0.69**	**0.69**	**0.69**	**0.68**	**0.68**	*0.68*	*0.67*	*0.67*	*0.66*	*0.66*	*0.65*	**0.69**	*0.68*	*0.66*
South Sudan	**0.15**	**0.16**	**0.15**	**0.15**	**0.15**	**0.15**	*0.15*	*0.15*	*0.12*	*0.12*	*0.12*	*0.12*	**0.15**	*0.15*	*0.12*
Total non-OPEC liquids	**58.17**	**57.33**	**57.62**	**58.50**	**58.20**	**58.73**	*59.24*	*59.73*	*59.41*	*60.12*	*60.23*	*60.63*	**57.91**	*58.98*	*60.10*
OPEC non-crude liquids	**6.52**	**6.53**	**6.60**	**6.56**	**6.51**	**7.01**	*7.03*	*7.09*	*7.09*	*7.12*	*7.16*	*7.20*	**6.56**	*6.91*	*7.14*
Non-OPEC + OPEC non-crude	**64.69**	**63.86**	**64.22**	**65.06**	**64.71**	**65.74**	*66.27*	*66.82*	*66.49*	*67.24*	*67.39*	*67.83*	**64.46**	*65.89*	*67.24*
Unplanned non-OPEC Production Outages	**0.38**	**0.76**	**0.42**	**0.34**	**0.43**	**0.68**	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	**0.47**	*n/a*	*n/a*

- = no data available

OPEC = Organization of the Petroleum Exporting Countries: Algeria, Angola, Ecuador, Equatorial Guinea, 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 - August 2017

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
Crude Oil															
Algeria	**1.05**	**1.04**	**1.05**	**1.05**	**1.04**	**1.03**	-	-	-	-	-	-	**1.05**	-	-
Angola	**1.78**	**1.79**	**1.79**	**1.64**	**1.64**	**1.66**	-	-	-	-	-	-	**1.75**	-	-
Ecudaor	**0.54**	**0.55**	**0.55**	**0.55**	**0.54**	**0.52**	-	-	-	-	-	-	**0.55**	-	-
Equatorial Guinea	**0.16**	**0.16**	**0.16**	**0.16**	**0.13**	**0.14**	-	-	-	-	-	-	**0.16**	-	-
Gabon	**0.21**	**0.21**	**0.21**	**0.21**	**0.19**	**0.20**	-	-	-	-	-	-	**0.21**	-	-
Iran	**3.25**	**3.61**	**3.67**	**3.73**	**3.80**	**3.81**	-	-	-	-	-	-	**3.57**	-	-
Iraq	**4.29**	**4.39**	**4.43**	**4.61**	**4.46**	**4.44**	-	-	-	-	-	-	**4.43**	-	-
Kuwait	**2.88**	**2.79**	**2.91**	**2.92**	**2.74**	**2.71**	-	-	-	-	-	-	**2.87**	-	-
Libya	**0.35**	**0.31**	**0.29**	**0.58**	**0.65**	**0.72**	-	-	-	-	-	-	**0.38**	-	-
Nigeria	**1.73**	**1.44**	**1.28**	**1.44**	**1.38**	**1.49**	-	-	-	-	-	-	**1.47**	-	-
Qatar	**0.66**	**0.68**	**0.66**	**0.66**	**0.72**	**0.61**	-	-	-	-	-	-	**0.67**	-	-
Saudi Arabia	**10.20**	**10.33**	**10.60**	**10.55**	**9.98**	**10.05**	-	-	-	-	-	-	**10.42**	-	-
United Arab Emirates	**2.85**	**2.93**	**3.06**	**3.09**	**2.92**	**2.90**	-	-	-	-	-	-	**2.98**	-	-
Venezuela	**2.30**	**2.23**	**2.11**	**2.07**	**1.99**	**1.97**	-	-	-	-	-	-	**2.18**	-	-
OPEC Total	**32.24**	**32.47**	**32.76**	**33.27**	**32.17**	**32.27**	*32.86*	*32.82*	*32.73*	*32.91*	*33.13*	*33.08*	**32.69**	*32.53*	*32.96*
Other Liquids (a)	**6.52**	**6.53**	**6.60**	**6.56**	**6.51**	**7.01**	*7.03*	*7.09*	*7.09*	*7.12*	*7.16*	*7.20*	**6.56**	*6.91*	*7.14*
Total OPEC Supply	**38.76**	**39.00**	**39.37**	**39.83**	**38.68**	**39.27**	*39.89*	*39.91*	*39.81*	*40.03*	*40.29*	*40.29*	**39.24**	*39.44*	*40.11*
Crude Oil Production Capacity															
Africa	**5.27**	**4.96**	**4.78**	**5.09**	**5.05**	**5.24**	*5.64*	*5.66*	*5.51*	*5.48*	*5.47*	*5.48*	**5.03**	*5.40*	*5.49*
Middle East	**25.54**	**25.95**	**26.27**	**26.56**	**26.78**	**26.69**	*26.72*	*26.74*	*26.73*	*26.37*	*26.53*	*26.55*	**26.08**	*26.73*	*26.55*
South America	**2.84**	**2.78**	**2.66**	**2.62**	**2.53**	**2.50**	*2.47*	*2.46*	*2.40*	*2.35*	*2.32*	*2.25*	**2.73**	*2.49*	*2.33*
OPEC Total	**33.66**	**33.69**	**33.72**	**34.27**	**34.36**	**34.43**	*34.83*	*34.86*	*34.64*	*34.21*	*34.33*	*34.28*	**33.84**	*34.62*	*34.36*
Surplus Crude Oil Production Capacity															
Africa	**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*	*0.00*
Middle East	**1.42**	**1.22**	**0.95**	**1.00**	**2.17**	**2.17**	*1.96*	*2.04*	*1.91*	*1.30*	*1.20*	*1.20*	**1.15**	*2.08*	*1.40*
South America	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	**0.00**	*0.00*	*0.00*
OPEC Total	**1.42**	**1.22**	**0.95**	**1.00**	**2.19**	**2.17**	*1.96*	*2.04*	*1.91*	*1.30*	*1.20*	*1.20*	**1.15**	*2.09*	*1.40*
Unplanned OPEC Production Outages	**2.09**	**2.44**	**2.34**	**1.93**	**1.81**	**1.60**	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	**2.20**	*n/a*	*n/a*

- = no data available

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2016				2017				2018						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
North America	**23.84**	**23.77**	**24.38**	**24.19**	**23.81**	**24.26**	*24.71*	*24.48*	*24.23*	*24.49*	*25.04*	*24.86*	**24.05**	*24.32*	*24.66*
Canada	**2.33**	**2.32**	**2.46**	**2.40**	**2.35**	**2.34**	*2.49*	*2.47*	*2.44*	*2.38*	*2.49*	*2.47*	**2.38**	*2.41*	*2.44*
Mexico	**2.05**	**2.02**	**2.01**	**2.03**	**1.96**	**1.93**	*1.89*	*1.90*	*1.90*	*1.92*	*1.89*	*1.90*	**2.03**	*1.92*	*1.90*
United States	**19.45**	**19.42**	**19.90**	**19.75**	**19.49**	**19.97**	*20.32*	*20.10*	*19.87*	*20.18*	*20.64*	*20.47*	**19.63**	*19.98*	*20.30*
Central and South America	**7.04**	**7.20**	**7.30**	**7.29**	**7.03**	**7.14**	*7.29*	*7.28*	*6.98*	*7.12*	*7.25*	*7.25*	**7.21**	*7.19*	*7.15*
Brazil	**2.87**	**2.93**	**3.00**	**3.00**	**2.86**	**2.87**	*2.96*	*2.98*	*2.80*	*2.82*	*2.91*	*2.93*	**2.95**	*2.92*	*2.86*
Europe	**14.32**	**14.62**	**15.16**	**14.91**	**14.51**	**14.77**	*15.33*	*14.96*	*14.79*	*14.85*	*15.28*	*15.01*	**14.76**	*14.90*	*14.99*
Eurasia	**4.68**	**4.61**	**4.88**	**4.87**	**4.74**	**4.67**	*4.94*	*4.93*	*4.83*	*4.76*	*5.04*	*5.02*	**4.76**	*4.82*	*4.91*
Russia	**3.54**	**3.49**	**3.69**	**3.68**	**3.58**	**3.54**	*3.74*	*3.73*	*3.66*	*3.61*	*3.83*	*3.81*	**3.60**	*3.65*	*3.73*
Middle East	**8.33**	**8.74**	**9.10**	**8.59**	**8.45**	**9.01**	*9.50*	*8.92*	*8.72*	*9.28*	*9.77*	*9.17*	**8.69**	*8.97*	*9.24*
Asia and Oceania	**33.64**	**33.35**	**32.65**	**33.84**	**34.10**	**33.69**	*33.34*	*34.59*	*34.97*	*34.47*	*33.94*	*35.21*	**33.37**	*33.93*	*34.65*
China	**12.37**	**12.73**	**12.39**	**12.63**	**12.74**	**12.91**	*12.77*	*13.07*	*13.07*	*13.25*	*13.10*	*13.41*	**12.53**	*12.87*	*13.21*
Japan	**4.44**	**3.70**	**3.79**	**4.18**	**4.33**	**3.54**	*3.61*	*3.99*	*4.19*	*3.42*	*3.53*	*3.91*	**4.03**	*3.86*	*3.76*
India	**4.59**	**4.56**	**4.17**	**4.53**	**4.51**	**4.67**	*4.48*	*4.84*	*5.03*	*5.01*	*4.59*	*4.97*	**4.46**	*4.63*	*4.90*
Africa	**4.15**	**4.18**	**4.10**	**4.21**	**4.29**	**4.29**	*4.23*	*4.34*	*4.43*	*4.42*	*4.37*	*4.48*	**4.16**	*4.29*	*4.43*
Total OECD Liquid Fuels Consumption	**46.64**	**46.00**	**47.28**	**47.37**	**46.80**	**46.51**	*47.62*	*47.55*	*47.35*	*46.76*	*47.89*	*47.96*	**46.83**	*47.12*	*47.49*
Total non-OECD Liquid Fuels Consumption	**49.36**	**50.46**	**50.30**	**50.53**	**50.15**	**51.32**	*51.72*	*51.95*	*51.61*	*52.64*	*52.80*	*53.04*	**50.16**	*51.29*	*52.53*
Total World Liquid Fuels Consumption	**96.00**	**96.46**	**97.57**	**97.90**	**96.95**	**97.83**	*99.34*	*99.50*	*98.96*	*99.40*	*100.69*	*101.00*	**96.99**	*98.41*	*100.02*
Oil-weighted Real Gross Domestic Product (a)															
World Index, 2010 Q1 = 100	**119.7**	**120.4**	**121.2**	**122.1**	**123.0**	**123.8**	*124.6*	*125.6*	*126.5*	*127.6*	*128.5*	*129.6*	**120.9**	*124.3*	*128.1*
Percent change from prior year	**2.2**	**2.2**	**2.4**	**2.5**	**2.7**	**2.9**	*2.8*	*2.8*	*2.9*	*3.1*	*3.1*	*3.1*	**2.4**	*2.8*	*3.1*
OECD Index, 2010 Q1 = 100	**111.9**	**112.3**	**113.0**	**113.7**	**114.2**	**114.8**	*115.5*	*116.1*	*116.7*	*117.4*	*118.0*	*118.6*	**112.7**	*115.1*	*117.7*
Percent change from prior year	**1.7**	**1.6**	**1.7**	**2.0**	**2.1**	**2.2**	*2.2*	*2.1*	*2.2*	*2.2*	*2.2*	*2.2*	**1.7**	*2.2*	*2.2*
Non-OECD Index, 2010 Q1 = 100	**129.4**	**130.2**	**131.4**	**132.7**	**133.8**	**135.0**	*136.0*	*137.5*	*138.8*	*140.5*	*141.7*	*143.4*	**130.9**	*135.6*	*141.1*
Percent change from prior year	**2.9**	**3.0**	**3.2**	**3.2**	**3.4**	**3.6**	*3.5*	*3.7*	*3.7*	*4.1*	*4.2*	*4.3*	**3.1**	*3.6*	*4.1*
Real U.S. Dollar Exchange Rate (a)															
Index, January 2010 = 100	**128.72**	**127.98**	**128.46**	**131.61**	**132.29**	**131.11**	*132.25*	*133.73*	*134.77*	*135.44*	*135.60*	*135.85*	**129.19**	*132.35*	*135.41*
Percent change from prior year	**8.0**	**7.1**	**4.6**	**5.6**	**2.8**	**2.4**	*3.0*	*1.6*	*1.9*	*3.3*	*2.5*	*1.6*	**6.3**	*2.4*	*2.3*

- = no data available

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 4a. U.S. Petroleum and Other Liquids Supply, Consumption, and Inventories

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

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
Supply (million barrels per day)															
Crude Oil Supply															
Domestic Production (a)	**9.14**	**8.82**	**8.64**	**8.81**	**9.02**	**9.20**	*9.42*	*9.75*	*9.89*	*9.93*	*9.80*	*10.03*	**8.85**	*9.35*	*9.91*
Alaska	**0.51**	**0.49**	**0.45**	**0.51**	**0.52**	**0.49**	*0.43*	*0.49*	*0.51*	*0.48*	*0.43*	*0.49*	**0.49**	*0.48*	*0.48*
Federal Gulf of Mexico (b)	**1.59**	**1.57**	**1.56**	**1.67**	**1.76**	**1.68**	*1.63*	*1.75*	*1.87*	*1.88*	*1.77*	*1.87*	**1.60**	*1.70*	*1.85*
Lower 48 States (excl GOM)	**7.04**	**6.76**	**6.63**	**6.63**	**6.74**	**7.03**	*7.36*	*7.51*	*7.51*	*7.57*	*7.60*	*7.67*	**6.76**	*7.16*	*7.59*
Crude Oil Net Imports (c)	**7.46**	**7.19**	**7.45**	**7.33**	**7.24**	**7.26**	*7.09*	*6.15*	*6.21*	*6.76*	*6.57*	*5.92*	**7.36**	*6.93*	*6.36*
SPR Net Withdrawals	**0.00**	**0.00**	**0.00**	**0.00**	**0.04**	**0.11**	*0.03*	*0.06*	*0.06*	*0.06*	*0.06*	*0.06*	**0.00**	*0.06*	*0.06*
Commercial Inventory Net Withdrawals	**-0.57**	**0.04**	**0.31**	**-0.17**	**-0.60**	**0.40**	*0.29*	*0.05*	*-0.42*	*0.03*	*0.23*	*0.05*	**-0.10**	*0.04*	*-0.03*
Crude Oil Adjustment (d)	**-0.02**	**0.17**	**0.12**	**0.09**	**0.21**	**0.14**	*0.10*	*0.15*	*0.19*	*0.19*	*0.21*	*0.15*	**0.09**	*0.15*	*0.19*
Total Crude Oil Input to Refineries	**16.00**	**16.22**	**16.53**	**16.06**	**15.91**	**17.10**	*16.93*	*16.16*	*15.93*	*16.97*	*16.87*	*16.22*	**16.20**	*16.53*	*16.50*
Other Supply															
Refinery Processing Gain	**1.07**	**1.10**	**1.15**	**1.11**	**1.09**	**1.12**	*1.13*	*1.09*	*1.06*	*1.10*	*1.11*	*1.09*	**1.11**	*1.11*	*1.09*
Natural Gas Plant Liquids Production	**3.38**	**3.57**	**3.46**	**3.49**	**3.54**	**3.72**	*3.85*	*4.05*	*4.11*	*4.21*	*4.29*	*4.39*	**3.48**	*3.79*	*4.25*
Renewables and Oxygenate Production (e)	**1.12**	**1.13**	**1.17**	**1.18**	**1.16**	**1.15**	*1.17*	*1.18*	*1.14*	*1.15*	*1.16*	*1.15*	**1.15**	*1.16*	*1.15*
Fuel Ethanol Production	**0.99**	**0.97**	**1.01**	**1.02**	**1.03**	**1.00**	*1.03*	*1.03*	*1.01*	*1.01*	*1.02*	*1.02*	**1.00**	*1.02*	*1.01*
Petroleum Products Adjustment (f)	**0.21**	**0.22**	**0.22**	**0.21**	**0.21**	**0.22**	*0.23*	*0.23*	*0.23*	*0.25*	*0.24*	*0.24*	**0.22**	*0.22*	*0.24*
Product Net Imports (c)	**-2.48**	**-2.51**	**-2.31**	**-2.65**	**-2.96**	**-2.98**	*-2.82*	*-2.94*	*-2.87*	*-2.98*	*-2.74*	*-2.99*	**-2.49**	*-2.92*	*-2.90*
Hydrocarbon Gas Liquids	**-1.00**	**-1.10**	**-0.93**	**-1.12**	**-1.20**	**-1.20**	*-1.31*	*-1.45*	*-1.38*	*-1.43*	*-1.45*	*-1.55*	**-1.04**	*-1.29*	*-1.45*
Unfinished Oils	**0.30**	**0.41**	**0.37**	**0.33**	**0.37**	**0.30**	*0.38*	*0.33*	*0.37*	*0.41*	*0.43*	*0.32*	**0.36**	*0.34*	*0.38*
Other HC/Oxygenates	**-0.10**	**-0.08**	**-0.05**	**-0.05**	**-0.12**	**-0.09**	*-0.05*	*-0.05*	*-0.09*	*-0.06*	*-0.04*	*-0.04*	**-0.07**	*-0.08*	*-0.06*
Motor Gasoline Blend Comp.	**0.34**	**0.65**	**0.59**	**0.51**	**0.43**	**0.62**	*0.44*	*0.46*	*0.46*	*0.65*	*0.48*	*0.46*	**0.52**	*0.49*	*0.51*
Finished Motor Gasoline	**-0.56**	**-0.47**	**-0.49**	**-0.76**	**-0.66**	**-0.59**	*-0.47*	*-0.64*	*-0.75*	*-0.63*	*-0.42*	*-0.64*	**-0.57**	*-0.59*	*-0.61*
Jet Fuel	**-0.03**	**-0.04**	**-0.02**	**-0.03**	**-0.04**	**-0.06**	*-0.02*	*-0.01*	*-0.01*	*0.03*	*0.04*	*-0.01*	**-0.03**	*-0.03*	*0.01*
Distillate Fuel Oil	**-0.85**	**-1.21**	**-1.13**	**-0.99**	**-1.01**	**-1.29**	*-1.14*	*-0.99*	*-0.91*	*-1.22*	*-1.16*	*-0.94*	**-1.04**	*-1.11*	*-1.06*
Residual Fuel Oil	**-0.06**	**-0.06**	**-0.07**	**-0.06**	**-0.10**	**-0.10**	*-0.09*	*-0.07*	*-0.06*	*-0.13*	*-0.09*	*-0.09*	**-0.06**	*-0.09*	*-0.09*
Other Oils (g)	**-0.52**	**-0.62**	**-0.58**	**-0.48**	**-0.61**	**-0.57**	*-0.56*	*-0.50*	*-0.49*	*-0.59*	*-0.52*	*-0.50*	**-0.55**	*-0.56*	*-0.52*
Product Inventory Net Withdrawals	**0.17**	**-0.32**	**-0.32**	**0.35**	**0.53**	**-0.37**	*-0.17*	*0.34*	*0.30*	*-0.52*	*-0.30*	*0.36*	**-0.03**	*0.08*	*-0.04*
Total Supply	**19.47**	**19.42**	**19.90**	**19.75**	**19.50**	**19.97**	*20.32*	*20.10*	*19.89*	*20.18*	*20.64*	*20.47*	**19.64**	*19.97*	*20.30*
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	**2.73**	**2.25**	**2.40**	**2.59**	**2.79**	**2.42**	*2.45*	*2.83*	*3.02*	*2.62*	*2.75*	*3.06*	**2.49**	*2.62*	*2.86*
Unfinished Oils	**0.01**	**-0.06**	**-0.05**	**-0.03**	**0.02**	**0.02**	*-0.02*	*0.01*	*0.00*	*-0.03*	*-0.03*	*0.01*	**-0.03**	*0.01*	*-0.01*
Motor Gasoline	**9.09**	**9.44**	**9.56**	**9.22**	**8.95**	**9.47**	*9.60*	*9.29*	*8.96*	*9.52*	*9.62*	*9.31*	**9.33**	*9.33*	*9.36*
Fuel Ethanol blended into Motor Gasoline	**0.91**	**0.94**	**0.96**	**0.94**	**0.89**	**0.95**	*0.97*	*0.94*	*0.90*	*0.96*	*0.97*	*0.94*	**0.94**	*0.94*	*0.94*
Jet Fuel	**1.50**	**1.61**	**1.68**	**1.63**	**1.60**	**1.70**	*1.69*	*1.61*	*1.52*	*1.66*	*1.70*	*1.62*	**1.61**	*1.65*	*1.63*
Distillate Fuel Oil	**3.90**	**3.80**	**3.79**	**4.02**	**3.95**	**3.92**	*3.99*	*4.04*	*4.10*	*3.99*	*4.00*	*4.13*	**3.88**	*3.98*	*4.06*
Residual Fuel Oil	**0.31**	**0.40**	**0.36**	**0.35**	**0.37**	**0.36**	*0.33*	*0.31*	*0.35*	*0.32*	*0.33*	*0.30*	**0.36**	*0.34*	*0.33*
Other Oils (g)	**1.89**	**1.98**	**2.16**	**1.99**	**1.83**	**2.08**	*2.26*	*2.02*	*1.93*	*2.10*	*2.27*	*2.03*	**2.00**	*2.05*	*2.08*
Total Consumption	**19.45**	**19.42**	**19.90**	**19.75**	**19.49**	**19.97**	*20.32*	*20.10*	*19.89*	*20.18*	*20.64*	*20.47*	**19.63**	*19.97*	*20.30*
Total Petroleum and Other Liquids Net Imports	**4.97**	**4.68**	**5.15**	**4.68**	**4.29**	**4.29**	*4.27*	*3.21*	*3.33*	*3.78*	*3.83*	*2.93*	**4.87**	*4.01*	*3.47*
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	**501.5**	**498.0**	**469.1**	**484.3**	**537.9**	**501.8**	*475.4*	*471.1*	*508.9*	*506.3*	*485.3*	*480.5*	**484.3**	*471.1*	*480.5*
Hydrocarbon Gas Liquids	**154.4**	**211.8**	**251.6**	**203.5**	**151.5**	**196.2**	*230.7*	*187.6*	*156.5*	*206.5*	*240.9*	*197.2*	**203.5**	*187.6*	*197.2*
Unfinished Oils	**91.4**	**86.7**	**83.3**	**80.6**	**89.3**	**89.0**	*86.3*	*79.8*	*89.7*	*88.7*	*86.2*	*79.6*	**80.6**	*79.8*	*79.6*
Other HC/Oxygenates	**28.2**	**27.7**	**27.1**	**28.4**	**32.6**	**28.9**	*27.7*	*28.4*	*30.1*	*29.1*	*28.4*	*29.0*	**28.4**	*28.4*	*29.0*
Total Motor Gasoline	**243.3**	**242.1**	**227.0**	**237.7**	**239.0**	**237.1**	*225.9*	*241.1*	*240.0*	*234.9*	*229.1*	*243.9*	**237.7**	*241.1*	*243.9*
Finished Motor Gasoline	**26.5**	**24.9**	**25.1**	**28.6**	**21.7**	**22.5**	*26.1*	*27.9*	*25.2*	*23.9*	*24.3*	*25.9*	**28.6**	*27.9*	*25.9*
Motor Gasoline Blend Comp.	**216.9**	**217.2**	**201.9**	**209.1**	**217.2**	**214.6**	*199.8*	*213.2*	*214.8*	*211.1*	*204.7*	*218.0*	**209.1**	*213.2*	*218.0*
Jet Fuel	**43.8**	**40.4**	**44.7**	**42.8**	**42.3**	**40.9**	*42.1*	*40.0*	*40.0*	*41.5*	*43.1*	*40.9*	**42.8**	*40.0*	*40.9*
Distillate Fuel Oil	**160.6**	**149.2**	**160.4**	**165.5**	**151.1**	**150.9**	*153.0*	*153.6*	*138.9*	*143.1*	*151.3*	*152.2*	**165.5**	*153.6*	*152.2*
Residual Fuel Oil	**44.5**	**40.3**	**38.8**	**41.5**	**40.8**	**36.4**	*35.3*	*37.2*	*40.0*	*40.7*	*39.4*	*39.8*	**41.5**	*37.2*	*39.8*
Other Oils (g)	**58.4**	**55.6**	**50.5**	**51.3**	**56.6**	**57.1**	*51.0*	*53.3*	*58.7*	*56.6*	*50.7*	*53.1*	**51.3**	*53.3*	*53.1*
Total Commercial Inventory	**1,326**	**1,352**	**1,353**	**1,336**	**1,341**	**1,338**	*1,327*	*1,292*	*1,303*	*1,347*	*1,354*	*1,316*	**1,336**	*1,292*	*1,316*
Crude Oil in SPR	**695**	**695**	**695**	**695**	**692**	**682**	*679*	*673*	*667*	*661*	*655*	*650*	**695**	*673*	*650*

- = no data available

(a) Includes lease condensate.

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

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

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

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

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

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

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

SPR: Strategic Petroleum Reserve

HC: Hydrocarbons

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
HGL Production															
Natural Gas Processing Plants															
Ethane	**1.20**	**1.34**	**1.19**	**1.29**	**1.33**	**1.40**	*1.45*	*1.61*	*1.69*	*1.72*	*1.76*	*1.84*	**1.25**	*1.45*	*1.76*
Propane	**1.15**	**1.17**	**1.17**	**1.15**	**1.16**	**1.22**	*1.24*	*1.27*	*1.28*	*1.30*	*1.31*	*1.34*	**1.16**	*1.22*	*1.31*
Butanes	**0.63**	**0.63**	**0.64**	**0.63**	**0.63**	**0.66**	*0.68*	*0.69*	*0.69*	*0.71*	*0.72*	*0.72*	**0.63**	*0.66*	*0.71*
Natural Gasoline (Pentanes Plus)	**0.41**	**0.43**	**0.46**	**0.43**	**0.41**	**0.45**	*0.48*	*0.47*	*0.45*	*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*	*0.01*	*0.00*	*0.00*	**0.00**	*0.01*	*0.00*
Propane/Propylene	**0.58**	**0.60**	**0.58**	**0.58**	**0.57**	**0.60**	*0.60*	*0.59*	*0.58*	*0.61*	*0.60*	*0.59*	**0.58**	*0.59*	*0.60*
Butanes/Butylenes	**-0.11**	**0.26**	**0.20**	**-0.20**	**-0.09**	**0.27**	*0.19*	*-0.17*	*-0.06*	*0.25*	*0.18*	*-0.18*	**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**	**-0.11**	**-0.15**	**-0.18**	*-0.24*	*-0.28*	*-0.31*	*-0.31*	*-0.32*	*-0.34*	**-0.09**	*-0.21*	*-0.32*
Propane/Propylene	**-0.65**	**-0.68**	**-0.56**	**-0.77**	**-0.79**	**-0.71**	*-0.68*	*-0.80*	*-0.74*	*-0.74*	*-0.72*	*-0.84*	**-0.67**	*-0.74*	*-0.76*
Butanes/Butylenes	**-0.07**	**-0.12**	**-0.08**	**-0.10**	**-0.09**	**-0.13**	*-0.17*	*-0.15*	*-0.10*	*-0.16*	*-0.16*	*-0.12*	**-0.09**	*-0.13*	*-0.14*
Natural Gasoline (Pentanes Plus)	**-0.20**	**-0.21**	**-0.19**	**-0.15**	**-0.18**	**-0.18**	*-0.23*	*-0.22*	*-0.23*	*-0.22*	*-0.25*	*-0.24*	**-0.19**	*-0.20*	*-0.24*
HGL Refinery and Blender Net Inputs															
Butanes/Butylenes	**0.43**	**0.28**	**0.32**	**0.52**	**0.43**	**0.30**	*0.32*	*0.48*	*0.41*	*0.30*	*0.32*	*0.49*	**0.39**	*0.38*	*0.38*
Natural Gasoline (Pentanes Plus)	**0.14**	**0.15**	**0.14**	**0.14**	**0.16**	**0.17**	*0.16*	*0.16*	*0.15*	*0.16*	*0.16*	*0.16*	**0.15**	*0.16*	*0.16*
HGL Consumption															
Ethane/Ethylene	**1.10**	**1.08**	**1.11**	**1.13**	**1.18**	**1.18**	*1.23*	*1.35*	*1.37*	*1.39*	*1.48*	*1.53*	**1.11**	*1.24*	*1.44*
Propane/Propylene	**1.41**	**0.88**	**0.98**	**1.18**	**1.39**	**0.93**	*0.95*	*1.19*	*1.39*	*0.91*	*0.97*	*1.22*	**1.11**	*1.11*	*1.12*
Butanes/Butylenes	**0.18**	**0.25**	**0.24**	**0.17**	**0.12**	**0.21**	*0.21*	*0.21*	*0.20*	*0.26*	*0.24*	*0.25*	**0.21**	*0.19*	*0.24*
Natural Gasoline (Pentanes Plus)	**0.04**	**0.04**	**0.07**	**0.11**	**0.10**	**0.10**	*0.07*	*0.07*	*0.05*	*0.06*	*0.06*	*0.07*	**0.07**	*0.08*	*0.06*
HGL Inventories (million barrels)															
Ethane/Ethylene	**33.76**	**45.19**	**50.71**	**53.65**	**52.99**	**57.13**	*57.23*	*57.16*	*56.24*	*59.40*	*57.44*	*56.78*	**45.86**	*56.14*	*57.47*
Propane/Propylene	**66.38**	**85.18**	**103.83**	**84.10**	**43.98**	**60.61**	*80.25*	*68.17*	*43.94*	*67.56*	*87.95*	*75.65*	**84.10**	*68.17*	*75.65*
Butanes/Butylenes	**32.39**	**54.10**	**73.35**	**40.33**	**31.68**	**57.30**	*72.47*	*43.02*	*35.37*	*57.86*	*73.51*	*44.06*	**40.33**	*43.02*	*44.06*
Natural Gasoline (Pentanes Plus)	**20.40**	**20.94**	**24.86**	**25.03**	**21.49**	**19.95**	*21.10*	*20.55*	*19.67*	*21.44*	*22.41*	*22.17*	**25.03**	*20.55*	*22.17*
Refinery and Blender Net Inputs															
Crude Oil	**16.00**	**16.22**	**16.53**	**16.06**	**15.91**	**17.10**	*16.93*	*16.16*	*15.93*	*16.97*	*16.87*	*16.22*	**16.20**	*16.53*	*16.50*
Hydrocarbon Gas Liquids	**0.57**	**0.43**	**0.46**	**0.66**	**0.58**	**0.47**	*0.48*	*0.64*	*0.56*	*0.46*	*0.48*	*0.65*	**0.53**	*0.54*	*0.54*
Other Hydrocarbons/Oxygenates	**1.15**	**1.22**	**1.23**	**1.20**	**1.16**	**1.23**	*1.28*	*1.27*	*1.19*	*1.27*	*1.30*	*1.28*	**1.20**	*1.24*	*1.26*
Unfinished Oils	**0.19**	**0.53**	**0.46**	**0.39**	**0.25**	**0.29**	*0.43*	*0.39*	*0.25*	*0.45*	*0.48*	*0.38*	**0.39**	*0.34*	*0.39*
Motor Gasoline Blend Components	**0.31**	**0.82**	**0.91**	**0.47**	**0.39**	**0.66**	*0.70*	*0.50*	*0.59*	*0.85*	*0.70*	*0.50*	**0.63**	*0.56*	*0.66*
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**	**18.30**	**19.76**	*19.81*	*18.97*	*18.52*	*20.00*	*19.83*	*19.03*	**18.96**	*19.21*	*19.35*
Refinery Processing Gain	**1.07**	**1.10**	**1.15**	**1.11**	**1.09**	**1.12**	*1.13*	*1.09*	*1.06*	*1.10*	*1.11*	*1.09*	**1.11**	*1.11*	*1.09*
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	**0.47**	**0.86**	**0.78**	**0.38**	**0.48**	**0.88**	*0.79*	*0.42*	*0.52*	*0.87*	*0.78*	*0.41*	**0.62**	*0.64*	*0.65*
Finished Motor Gasoline	**9.68**	**10.06**	**10.19**	**10.02**	**9.57**	**10.06**	*10.18*	*10.13*	*9.82*	*10.28*	*10.19*	*10.15*	**9.99**	*9.99*	*10.11*
Jet Fuel	**1.57**	**1.61**	**1.75**	**1.64**	**1.63**	**1.74**	*1.72*	*1.60*	*1.53*	*1.65*	*1.67*	*1.61*	**1.64**	*1.67*	*1.62*
Distillate Fuel	**4.70**	**4.80**	**4.93**	**4.95**	**4.75**	**5.13**	*5.08*	*4.96*	*4.78*	*5.18*	*5.17*	*5.01*	**4.84**	*4.98*	*5.03*
Residual Fuel	**0.40**	**0.42**	**0.42**	**0.44**	**0.46**	**0.41**	*0.41*	*0.41*	*0.44*	*0.45*	*0.41*	*0.40*	**0.42**	*0.42*	*0.43*
Other Oils (a)	**2.47**	**2.57**	**2.68**	**2.47**	**2.50**	**2.66**	*2.75*	*2.54*	*2.48*	*2.68*	*2.72*	*2.55*	**2.55**	*2.61*	*2.61*
Total Refinery and Blender Net Production	**19.29**	**20.32**	**20.75**	**19.89**	**19.40**	**20.88**	*20.94*	*20.06*	*19.58*	*21.11*	*20.95*	*20.13*	**20.07**	*20.32*	*20.44*
Refinery Distillation Inputs	**16.27**	**16.50**	**16.89**	**16.41**	**16.23**	**17.40**	*17.21*	*16.44*	*16.20*	*17.14*	*17.12*	*16.49*	**16.52**	*16.82*	*16.74*
Refinery Operable Distillation Capacity	**18.31**	**18.36**	**18.44**	**18.49**	**18.62**	**18.58**	*18.56*	*18.56*	*18.56*	*18.59*	*18.59*	*18.59*	**18.40**	*18.58*	*18.58*
Refinery Distillation Utilization Factor	**0.89**	**0.90**	**0.92**	**0.89**	**0.87**	**0.94**	*0.93*	*0.89*	*0.87*	*0.92*	*0.92*	*0.89*	**0.90**	*0.91*	*0.90*

- = no data available

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
Prices (cents per gallon)															
Refiner Wholesale Price	**119**	**158**	**150**	**153**	**163**	**166**	*164*	*147*	*147*	*165*	*164*	*152*	**145**	*160*	*157*
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	**187**	**220**	**215**	**223**	**231**	**233**	*233*	*226*	*223*	*237*	*238*	*231*	**212**	*231*	*232*
PADD 2	**176**	**221**	**215**	**212**	**223**	**228**	*226*	*214*	*210*	*233*	*234*	*220*	**207**	*223*	*225*
PADD 3	**167**	**201**	**199**	**201**	**210**	**215**	*209*	*197*	*196*	*214*	*213*	*201*	**192**	*208*	*206*
PADD 4	**184**	**221**	**226**	**220**	**227**	**239**	*239*	*223*	*205*	*229*	*240*	*226*	**213**	*232*	*225*
PADD 5	**241**	**265**	**264**	**263**	**276**	**289**	*280*	*260*	*258*	*287*	*286*	*267*	**259**	*276*	*275*
U.S. Average	**190**	**225**	**221**	**223**	**233**	**238**	*235*	*224*	*220*	*241*	*241*	*229*	**215**	*233*	*233*
Gasoline All Grades Including Taxes	**200**	**235**	**232**	**234**	**244**	**250**	*247*	*235*	*232*	*252*	*253*	*241*	**226**	*244*	*244*
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	**65.9**	**73.0**	**58.6**	**65.0**	**65.3**	**66.2**	*61.0*	*64.8*	*66.2*	*66.2*	*62.5*	*65.9*	**65.0**	*64.8*	*65.9*
PADD 2	**56.7**	**53.3**	**50.6**	**52.8**	**57.0**	**53.2**	*49.9*	*52.7*	*54.0*	*51.4*	*49.9*	*52.7*	**52.8**	*52.7*	*52.7*
PADD 3	**83.0**	**80.4**	**83.3**	**82.7**	**79.1**	**82.4**	*80.6*	*84.4*	*82.3*	*81.7*	*81.4*	*86.1*	**82.7**	*84.4*	*86.1*
PADD 4	**8.4**	**7.5**	**6.9**	**7.9**	**7.9**	**6.9**	*7.0*	*7.8*	*7.4*	*7.5*	*7.3*	*8.0*	**7.9**	*7.8*	*8.0*
PADD 5	**29.4**	**27.9**	**27.6**	**29.3**	**29.7**	**28.3**	*27.5*	*31.3*	*30.0*	*28.1*	*27.9*	*31.3*	**29.3**	*31.3*	*31.3*
U.S. Total	**243.3**	**242.1**	**227.0**	**237.7**	**239.0**	**237.1**	*225.9*	*241.1*	*240.0*	*234.9*	*229.1*	*243.9*	**237.7**	*241.1*	*243.9*
Finished Gasoline Inventories															
U.S. Total	**26.5**	**24.9**	**25.1**	**28.6**	**21.7**	**22.5**	*26.1*	*27.9*	*25.2*	*23.9*	*24.3*	*25.9*	**28.6**	*27.9*	*25.9*
Gasoline Blending Components Inventories															
U.S. Total	**216.9**	**217.2**	**201.9**	**209.1**	**217.2**	**214.6**	*199.8*	*213.2*	*214.8*	*211.1*	*204.7*	*218.0*	**209.1**	*213.2*	*218.0*

- = no data available

Prices are not adjusted for inflation.

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
Supply (billion cubic feet per day)															
Total Marketed Production	**78.66**	**77.52**	**76.83**	**76.24**	**76.45**	**77.37**	*79.65*	*82.10*	*83.10*	*83.37*	*83.17*	*83.55*	**77.31**	*78.91*	*83.30*
Alaska	**0.98**	**0.86**	**0.87**	**1.04**	**1.01**	**0.94**	*0.78*	*0.93*	*1.00*	*0.85*	*0.77*	*0.93*	**0.94**	*0.91*	*0.89*
Federal GOM (a)	**3.48**	**3.34**	**3.24**	**3.35**	**3.35**	**3.16**	*3.21*	*3.22*	*3.35*	*3.33*	*3.21*	*3.22*	**3.35**	*3.23*	*3.28*
Lower 48 States (excl GOM)	**74.20**	**73.32**	**72.72**	**71.85**	**72.10**	**73.28**	*75.66*	*77.95*	*78.74*	*79.19*	*79.20*	*79.40*	**73.02**	*74.77*	*79.13*
Total Dry Gas Production	**73.77**	**72.38**	**71.84**	**71.20**	**71.35**	**72.05**	*74.11*	*76.35*	*77.22*	*77.43*	*77.20*	*77.50*	**72.29**	*73.48*	*77.34*
LNG Gross Imports	**0.33**	**0.19**	**0.18**	**0.26**	**0.29**	**0.17**	*0.18*	*0.22*	*0.29*	*0.16*	*0.18*	*0.22*	**0.24**	*0.21*	*0.21*
LNG Gross Exports	**0.15**	**0.40**	**0.64**	**0.85**	**1.63**	**1.80**	*1.83*	*2.52*	*2.96*	*2.82*	*3.22*	*3.97*	**0.51**	*1.95*	*3.25*
Pipeline Gross Imports	**8.08**	**7.84**	**8.14**	**7.82**	**8.88**	**7.72**	*7.67*	*7.39*	*8.91*	*7.87*	*7.95*	*7.96*	**7.97**	*7.91*	*8.17*
Pipeline Gross Exports	**5.63**	**5.64**	**5.93**	**6.28**	**7.24**	**6.31**	*6.36*	*6.94*	*7.99*	*7.19*	*6.82*	*7.51*	**5.87**	*6.71*	*7.37*
Supplemental Gaseous Fuels	**0.17**	**0.13**	**0.17**	**0.17**	**0.16**	**0.14**	*0.16*	*0.16*	*0.17*	*0.17*	*0.17*	*0.17*	**0.16**	*0.16*	*0.17*
Net Inventory Withdrawals	**13.09**	**-7.77**	**-5.64**	**4.33**	**13.71**	**-9.40**	*-7.70*	*3.74*	*16.53*	*-9.88*	*-8.75*	*3.72*	**0.99**	*0.04*	*0.35*
Total Supply	**89.67**	**66.74**	**68.11**	**76.65**	**85.52**	**62.58**	*66.23*	*78.40*	*92.17*	*65.73*	*66.70*	*78.08*	**75.28**	*73.14*	*75.61*
Balancing Item (b)	**-0.54**	**-0.12**	**0.94**	**-0.95**	**0.04**	**-0.33**	*-0.71*	*-1.10*	*0.29*	*0.02*	*0.20*	*0.23*	**-0.17**	*-0.53*	*0.18*
Total Primary Supply	**89.13**	**66.62**	**69.05**	**75.70**	**85.57**	**62.25**	*65.52*	*77.30*	*92.47*	*65.74*	*66.89*	*78.32*	**75.11**	*72.62*	*75.79*
Consumption (billion cubic feet per day)															
Residential	**22.47**	**7.15**	**3.48**	**14.96**	**22.21**	**6.74**	*3.69*	*15.67*	*24.78*	*7.32*	*3.72*	*15.54*	**12.00**	*12.04*	*12.79*
Commercial	**13.42**	**5.98**	**4.56**	**10.20**	**13.44**	**5.82**	*4.51*	*10.51*	*14.76*	*5.99*	*4.54*	*10.49*	**8.53**	*8.55*	*8.92*
Industrial	**22.44**	**20.02**	**20.07**	**21.83**	**22.86**	**20.29**	*20.25*	*21.87*	*23.33*	*20.94*	*20.63*	*22.38*	**21.09**	*21.31*	*21.81*
Electric Power (c)	**24.17**	**27.45**	**34.91**	**22.54**	**20.63**	**23.50**	*30.99*	*22.69*	*22.60*	*25.11*	*31.56*	*23.11*	**27.28**	*24.47*	*25.61*
Lease and Plant Fuel	**4.34**	**4.28**	**4.24**	**4.21**	**4.22**	**4.27**	*4.39*	*4.53*	*4.59*	*4.60*	*4.59*	*4.61*	**4.27**	*4.35*	*4.60*
Pipeline and Distribution Use	**2.17**	**1.63**	**1.68**	**1.85**	**2.09**	**1.51**	*1.58*	*1.91*	*2.30*	*1.67*	*1.74*	*2.07*	**1.83**	*1.77*	*1.94*
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	**89.13**	**66.62**	**69.05**	**75.70**	**85.57**	**62.25**	*65.52*	*77.30*	*92.47*	*65.74*	*66.89*	*78.32*	**75.11**	*72.62*	*75.79*
End-of-period Inventories (billion cubic feet)															
Working Gas Inventory	**2,495**	**3,194**	**3,714**	**3,305**	**2,072**	**2,919**	*3,628*	*3,284*	*1,796*	*2,695*	*3,501*	*3,158*	**3,305**	*3,284*	*3,158*
East Region (d)	**436**	**654**	**898**	**720**	**259**	**564**	*840*	*710*	*271*	*555*	*801*	*675*	**720**	*710*	*675*
Midwest Region (d)	**543**	**763**	**1,042**	**906**	**478**	**699**	*998*	*869*	*347*	*604*	*962*	*829*	**906**	*869*	*829*
South Central Region (d)	**1,080**	**1,236**	**1,185**	**1,170**	**947**	**1,151**	*1,206*	*1,181*	*808*	*1,036*	*1,166*	*1,138*	**1,170**	*1,181*	*1,138*
Mountain Region (d)	**144**	**196**	**232**	**204**	**142**	**187**	*236*	*207*	*136*	*172*	*223*	*204*	**204**	*207*	*204*
Pacific Region (d)	**266**	**316**	**321**	**271**	**219**	**287**	*314*	*283*	*201*	*295*	*315*	*278*	**271**	*283*	*278*
Alaska	**25**	**30**	**36**	**33**	**27**	**31**	*33*	*33*	*33*	*33*	*33*	*33*	**33**	*33*	*33*

- = no data available

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

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

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

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

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

LNG: liquefied natural gas.

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 5b. U.S. Regional Natural Gas Prices (dollars per thousand cubic feet)

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

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
Wholesale/Spot															
Henry Hub Spot Price	**2.07**	**2.22**	**2.99**	**3.15**	**3.12**	**3.19**	*3.10*	*3.28*	*3.50*	*3.29*	*3.32*	*3.54*	**2.61**	*3.17*	*3.41*
Residential Retail															
New England	**11.79**	**13.12**	**17.80**	**13.42**	**12.91**	**14.10**	*17.06*	*13.52*	*13.16*	*14.20*	*17.11*	*13.79*	**12.90**	*13.54*	*13.77*
Middle Atlantic	**8.84**	**10.70**	**16.17**	**10.15**	**9.86**	**12.23**	*16.48*	*11.13*	*10.24*	*12.33*	*16.68*	*11.35*	**10.03**	*11.02*	*11.31*
E. N. Central	**6.79**	**9.37**	**17.83**	**8.27**	**7.77**	**11.25**	*16.49*	*9.00*	*8.15*	*11.11*	*16.84*	*9.22*	**8.27**	*9.21*	*9.40*
W. N. Central	**7.38**	**10.51**	**17.88**	**9.14**	**8.31**	**11.75**	*17.76*	*9.80*	*8.94*	*11.81*	*17.77*	*9.96*	**8.98**	*9.85*	*10.18*
S. Atlantic	**10.21**	**15.41**	**23.58**	**13.12**	**12.32**	**18.74**	*22.35*	*12.94*	*11.48*	*16.50*	*22.39*	*13.06*	**12.66**	*14.09*	*13.30*
E. S. Central	**8.52**	**13.11**	**19.55**	**11.33**	**10.47**	**15.76**	*20.43*	*12.74*	*10.29*	*14.70*	*20.50*	*13.07*	**10.50**	*12.51*	*12.20*
W. S. Central	**8.27**	**14.10**	**20.93**	**13.26**	**10.34**	**16.48**	*20.35*	*12.21*	*9.51*	*14.46*	*20.03*	*12.43*	**11.60**	*12.75*	*11.92*
Mountain	**8.22**	**9.65**	**13.76**	**8.52**	**8.21**	**10.11**	*13.92*	*9.42*	*9.13*	*10.48*	*13.98*	*9.46*	**8.96**	*9.34*	*9.84*
Pacific	**11.00**	**11.28**	**13.02**	**12.20**	**12.06**	**12.56**	*12.80*	*11.30*	*12.21*	*12.51*	*12.98*	*11.77*	**11.69**	*12.00*	*12.22*
U.S. Average	**8.54**	**11.17**	**17.01**	**10.19**	**9.73**	**12.84**	*16.61*	*10.70*	*9.86*	*12.49*	*16.76*	*10.93*	**10.06**	*11.02*	*11.07*
Commercial Retail															
New England	**8.76**	**9.60**	**10.49**	**9.52**	**9.51**	**10.07**	*10.25*	*10.41*	*10.85*	*10.78*	*10.62*	*10.28*	**9.30**	*9.94*	*10.67*
Middle Atlantic	**6.84**	**6.41**	**6.02**	**6.68**	**7.67**	**7.38**	*6.95*	*7.67*	*7.96*	*7.93*	*7.31*	*7.87*	**6.61**	*7.53*	*7.85*
E. N. Central	**5.87**	**6.58**	**8.78**	**6.53**	**6.63**	**7.83**	*9.09*	*7.13*	*6.88*	*7.95*	*9.28*	*7.32*	**6.41**	*7.17*	*7.35*
W. N. Central	**6.22**	**6.73**	**8.68**	**6.80**	**6.93**	**7.76**	*9.01*	*7.41*	*7.67*	*8.18*	*9.22*	*7.66*	**6.68**	*7.38*	*7.86*
S. Atlantic	**7.54**	**8.32**	**9.27**	**8.55**	**8.92**	**9.99**	*9.94*	*8.99*	*8.83*	*9.56*	*10.09*	*9.15*	**8.17**	*9.26*	*9.20*
E. S. Central	**7.49**	**8.56**	**9.75**	**9.03**	**9.04**	**10.21**	*10.32*	*9.12*	*8.66*	*9.72*	*10.28*	*9.29*	**8.36**	*9.41*	*9.18*
W. S. Central	**6.29**	**6.89**	**8.27**	**8.13**	**7.69**	**8.21**	*8.28*	*7.72*	*7.34*	*7.72*	*8.34*	*7.95*	**7.19**	*7.89*	*7.72*
Mountain	**6.94**	**7.09**	**7.96**	**6.89**	**6.87**	**7.32**	*8.26*	*7.28*	*7.48*	*7.81*	*8.62*	*7.58*	**7.06**	*7.23*	*7.70*
Pacific	**8.42**	**8.17**	**9.15**	**9.18**	**9.06**	**8.92**	*9.07*	*8.68*	*8.76*	*8.58*	*8.99*	*8.83*	**8.73**	*8.92*	*8.79*
U.S. Average	**6.84**	**7.23**	**8.21**	**7.49**	**7.70**	**8.28**	*8.66*	*7.96*	*7.94*	*8.41*	*8.83*	*8.14*	**7.26**	*7.98*	*8.17*
Industrial Retail															
New England	**7.07**	**6.88**	**6.27**	**7.10**	**8.12**	**7.65**	*7.36*	*8.42*	*8.72*	*8.00*	*7.38*	*8.43*	**6.90**	*7.97*	*8.26*
Middle Atlantic	**6.72**	**6.17**	**5.91**	**6.99**	**7.98**	**7.61**	*7.49*	*7.75*	*8.13*	*7.63*	*7.63*	*7.97*	**6.59**	*7.79*	*7.94*
E. N. Central	**5.05**	**4.73**	**5.33**	**5.40**	**5.82**	**5.88**	*5.97*	*5.99*	*6.65*	*6.35*	*6.28*	*6.30*	**5.13**	*5.90*	*6.46*
W. N. Central	**4.31**	**3.49**	**3.98**	**4.39**	**4.95**	**4.26**	*4.55*	*5.17*	*5.73*	*4.99*	*4.82*	*5.45*	**4.09**	*4.77*	*5.29*
S. Atlantic	**4.40**	**3.80**	**4.44**	**4.83**	**5.29**	**4.90**	*4.96*	*5.36*	*5.65*	*5.15*	*5.12*	*5.58*	**4.38**	*5.14*	*5.39*
E. S. Central	**3.96**	**3.38**	**4.09**	**4.60**	**4.97**	**4.54**	*4.50*	*4.99*	*5.24*	*4.76*	*4.71*	*5.21*	**4.01**	*4.77*	*5.00*
W. S. Central	**2.28**	**2.15**	**3.07**	**3.21**	**3.48**	**3.35**	*3.37*	*3.48*	*3.70*	*3.47*	*3.58*	*3.77*	**2.68**	*3.42*	*3.63*
Mountain	**5.28**	**4.96**	**5.42**	**5.12**	**5.30**	**5.35**	*5.85*	*5.86*	*6.03*	*5.85*	*6.19*	*6.25*	**5.19**	*5.58*	*6.08*
Pacific	**6.69**	**6.09**	**6.74**	**7.16**	**7.53**	**6.95**	*6.76*	*6.76*	*7.16*	*6.71*	*6.78*	*6.95*	**6.70**	*7.02*	*6.92*
U.S. Average	**3.44**	**2.93**	**3.63**	**4.03**	**4.52**	**4.06**	*3.98*	*4.38*	*4.81*	*4.21*	*4.18*	*4.63*	**3.51**	*4.25*	*4.47*

- = no data available

Prices are not adjusted for inflation.

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

Regions refer to U.S. Census divisions.

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
Supply (million short tons)															
Production	**173.0**	**160.5**	**195.1**	**199.5**	**197.0**	**190.2**	*205.9*	*192.9*	*199.3*	*179.5*	*207.2*	*210.1*	**728.2**	*786.1*	*796.0*
Appalachia	**44.3**	**43.2**	**44.8**	**47.6**	**50.7**	**48.7**	*50.1*	*47.3*	*47.8*	*45.2*	*49.6*	*49.7*	**180.0**	*196.8*	*192.4*
Interior	**36.9**	**34.4**	**35.7**	**37.2**	**38.5**	**39.7**	*40.2*	*40.2*	*42.0*	*38.4*	*42.4*	*44.9*	**144.2**	*158.5*	*167.7*
Western	**91.8**	**82.8**	**114.6**	**114.8**	**107.8**	**101.8**	*115.7*	*105.4*	*109.4*	*95.9*	*115.1*	*115.5*	**404.0**	*430.7*	*436.0*
Primary Inventory Withdrawals	**-1.4**	**0.2**	**3.6**	**-0.1**	**-1.0**	**0.5**	*2.9*	*-0.8*	*-1.1*	*-0.3*	*3.2*	*-3.0*	**2.2**	*1.6*	*-1.2*
Imports	**2.7**	**2.3**	**2.7**	**2.1**	**1.9**	**2.6**	*3.2*	*2.8*	*1.6*	*2.2*	*3.2*	*2.8*	**9.8**	*10.5*	*9.8*
Exports	**14.2**	**14.2**	**12.6**	**19.3**	**22.3**	**20.8**	*15.1*	*12.2*	*14.1*	*16.3*	*15.0*	*13.6*	**60.3**	*70.4*	*59.0*
Metallurgical Coal	**10.2**	**10.1**	**9.1**	**11.6**	**12.2**	**13.1**	*9.1*	*7.9*	*8.5*	*11.1*	*10.0*	*8.8*	**40.9**	*42.2*	*38.4*
Steam Coal	**4.0**	**4.2**	**3.5**	**7.7**	**10.1**	**7.6**	*6.1*	*4.3*	*5.5*	*5.3*	*5.0*	*4.8*	**19.3**	*28.1*	*20.6*
Total Primary Supply	**160.1**	**148.8**	**188.9**	**182.2**	**175.6**	**172.5**	*196.9*	*182.7*	*185.6*	*165.1*	*198.6*	*196.3*	**680.0**	*727.8*	*745.6*
Secondary Inventory Withdrawals	**4.1**	**9.2**	**25.2**	**-5.6**	**0.8**	**2.1**	*18.2*	*-2.8*	*-1.2*	*2.4*	*15.0*	*-16.7*	**32.9**	*18.2*	*-0.5*
Waste Coal (a)	**2.5**	**1.9**	**2.4**	**2.0**	**2.4**	**2.5**	*2.5*	*2.5*	*2.4*	*2.4*	*2.4*	*2.4*	**8.7**	*9.9*	*9.6*
Total Supply	**166.7**	**159.9**	**216.5**	**178.5**	**178.8**	**177.2**	*217.6*	*182.4*	*186.8*	*169.9*	*216.0*	*182.0*	**721.7**	*756.0*	*754.6*
Consumption (million short tons)															
Coke Plants	**4.1**	**4.1**	**4.2**	**4.1**	**4.2**	**3.3**	*4.9*	*5.7*	*4.0*	*3.6*	*4.8*	*5.9*	**16.5**	*18.1*	*18.3*
Electric Power Sector (b)	**152.2**	**147.2**	**210.3**	**167.6**	**160.5**	**156.1**	*208.4*	*167.8*	*173.5*	*157.5*	*202.3*	*166.8*	**677.3**	*692.9*	*700.2*
Retail and Other Industry	**9.6**	**8.6**	**8.6**	**9.0**	**8.8**	**8.4**	*8.5*	*8.9*	*9.3*	*8.7*	*8.9*	*9.2*	**35.8**	*34.7*	*36.1*
Residential and Commercial	**0.4**	**0.2**	**0.2**	**0.3**	**0.4**	**0.2**	*0.2*	*0.2*	*0.3*	*0.1*	*0.1*	*0.2*	**1.2**	*0.9*	*0.7*
Other Industrial	**9.1**	**8.4**	**8.4**	**8.7**	**8.4**	**8.3**	*8.4*	*8.6*	*9.0*	*8.6*	*8.8*	*9.0*	**34.7**	*33.8*	*35.4*
Total Consumption	**165.9**	**160.0**	**223.1**	**180.6**	**173.5**	**167.9**	*221.9*	*182.4*	*186.8*	*169.9*	*216.0*	*182.0*	**729.6**	*745.7*	*754.6*
Discrepancy (c)	**0.8**	**-0.1**	**-6.6**	**-2.1**	**5.3**	**9.3**	*-4.3*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	**-8.0**	*10.3*	*0.0*
End-of-period Inventories (million short tons)															
Primary Inventories (d)	**37.3**	**37.1**	**33.6**	**33.7**	**34.7**	**34.2**	*31.3*	*32.1*	*33.2*	*33.5*	*30.3*	*33.3*	**33.7**	*32.1*	*33.3*
Secondary Inventories	**198.4**	**189.2**	**164.0**	**169.6**	**168.8**	**166.7**	*148.5*	*151.4*	*152.6*	*150.2*	*135.2*	*151.9*	**169.6**	*151.4*	*151.9*
Electric Power Sector	**192.3**	**183.2**	**158.2**	**163.9**	**163.9**	**159.1**	*142.1*	*145.9*	*147.7*	*144.7*	*129.3*	*145.6*	**163.9**	*145.9*	*145.6*
Retail and General Industry	**3.9**	**3.8**	**3.7**	**3.6**	**3.2**	**5.3**	*4.3*	*3.3*	*3.1*	*3.3*	*3.8*	*4.1*	**3.6**	*3.3*	*4.1*
Coke Plants	**1.9**	**1.8**	**1.7**	**1.7**	**1.4**	**1.9**	*1.8*	*1.8*	*1.5*	*1.9*	*1.8*	*1.8*	**1.7**	*1.8*	*1.8*
Coal Market Indicators															
Coal Miner Productivity (Tons per hour)	**6.23**	**6.23**	**6.23**	**6.23**	**6.19**	**6.19**	*6.19*	*6.19*	*6.10*	*6.10*	*6.10*	*6.10*	**6.23**	*6.19*	*6.10*
Total Raw Steel Production (Million short tons per day)	**0.238**	**0.247**	**0.238**	**0.230**	**0.248**	**0.247**	*0.233*	*0.192*	*0.238*	*0.240*	*0.220*	*0.181*	**0.239**	*0.230*	*0.220*
Cost of Coal to Electric Utilities (Dollars per million Btu)	**2.13**	**2.13**	**2.11**	**2.08**	**2.08**	**2.14**	*2.20*	*2.17*	*2.20*	*2.20*	*2.23*	*2.22*	**2.11**	*2.15*	*2.21*

- = no data available

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

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 7a. U.S. Electricity Industry Overview

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

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
Electricity Supply (billion kilowatthours per day)															
Electricity Generation	**10.67**	**10.75**	**12.76**	**10.39**	**10.53**	**10.68**	*12.39*	*10.44*	*10.98*	*10.87*	*12.44*	*10.55*	**11.15**	*11.01*	*11.22*
Electric Power Sector (a)	**10.23**	**10.32**	**12.32**	**9.96**	**10.10**	**10.27**	*11.94*	*10.02*	*10.55*	*10.45*	*12.00*	*10.13*	**10.71**	*10.59*	*10.78*
Comm. and Indus. Sectors (b)	**0.44**	**0.43**	**0.45**	**0.42**	**0.43**	**0.41**	*0.44*	*0.42*	*0.43*	*0.43*	*0.45*	*0.42*	**0.44**	*0.43*	*0.43*
Net Imports	**0.18**	**0.18**	**0.22**	**0.19**	**0.19**	**0.17**	*0.18*	*0.15*	*0.15*	*0.15*	*0.17*	*0.13*	**0.19**	*0.17*	*0.15*
Total Supply	**10.85**	**10.93**	**12.98**	**10.58**	**10.72**	**10.86**	*12.57*	*10.59*	*11.14*	*11.02*	*12.62*	*10.68*	**11.34**	*11.19*	*11.37*
Losses and Unaccounted for (c)	**0.66**	**0.97**	**0.90**	**0.73**	**0.61**	**0.82**	*0.74*	*0.67*	*0.56*	*0.83*	*0.72*	*0.67*	**0.82**	*0.71*	*0.70*
Electricity Consumption (billion kilowatthours per day unless noted)															
Retail Sales	**9.81**	**9.58**	**11.69**	**9.47**	**9.73**	**9.67**	*11.44*	*9.55*	*10.19*	*9.82*	*11.50*	*9.64*	**10.14**	*10.10*	*10.29*
Residential Sector	**3.81**	**3.37**	**4.77**	**3.42**	**3.70**	**3.38**	*4.53*	*3.43*	*4.05*	*3.44*	*4.56*	*3.49*	**3.85**	*3.76*	*3.88*
Commercial Sector	**3.49**	**3.62**	**4.20**	**3.55**	**3.51**	**3.64**	*4.17*	*3.57*	*3.57*	*3.69*	*4.17*	*3.57*	**3.71**	*3.72*	*3.75*
Industrial Sector	**2.48**	**2.57**	**2.70**	**2.48**	**2.49**	**2.62**	*2.72*	*2.53*	*2.55*	*2.66*	*2.75*	*2.55*	**2.56**	*2.59*	*2.63*
Transportation Sector	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	*0.02*	*0.02*	*0.02*	*0.02*	*0.02*	*0.02*	**0.02**	*0.02*	*0.02*
Direct Use (d)	**0.39**	**0.38**	**0.40**	**0.38**	**0.38**	**0.37**	*0.39*	*0.37*	*0.38*	*0.38*	*0.40*	*0.37*	**0.38**	*0.38*	*0.38*
Total Consumption	**10.19**	**9.96**	**12.09**	**9.84**	**10.11**	**10.03**	*11.83*	*9.92*	*10.57*	*10.19*	*11.89*	*10.01*	**10.52**	*10.48*	*10.67*
Average residential electricity usage per customer (kWh)	**2,645**	**2,342**	**3,348**	**2,401**	**2,527**	**2,356**	*3,171*	*2,394*	*2,734*	*2,350*	*3,146*	*2,410*	**10,736**	*10,448*	*10,640*
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	**2.13**	**2.13**	**2.11**	**2.08**	**2.08**	**2.14**	*2.20*	*2.17*	*2.20*	*2.20*	*2.23*	*2.22*	**2.11**	*2.15*	*2.21*
Natural Gas	**2.65**	**2.51**	**3.00**	**3.36**	**3.69**	**3.35**	*3.27*	*3.75*	*4.24*	*3.66*	*3.51*	*4.04*	**2.88**	*3.49*	*3.82*
Residual Fuel Oil	**6.15**	**8.51**	**9.70**	**9.08**	**11.16**	**10.42**	*9.75*	*9.68*	*9.58*	*10.20*	*9.94*	*10.15*	**8.41**	*10.23*	*9.96*
Distillate Fuel Oil	**9.00**	**11.01**	**11.64**	**12.14**	**12.75**	**14.03**	*13.45*	*13.90*	*14.79*	*15.63*	*14.25*	*14.59*	**10.86**	*13.50*	*14.81*
Retail Prices (cents per kilowatthour)															
Residential Sector	**12.20**	**12.66**	**12.81**	**12.45**	**12.61**	**12.99**	*13.35*	*12.89*	*12.87*	*13.50*	*13.85*	*13.28*	**12.55**	*12.98*	*13.39*
Commercial Sector	**10.12**	**10.34**	**10.68**	**10.27**	**10.38**	**10.61**	*10.71*	*10.42*	*10.57*	*10.70*	*10.84*	*10.56*	**10.37**	*10.54*	*10.67*
Industrial Sector	**6.42**	**6.67**	**7.20**	**6.67**	**6.65**	**6.93**	*7.53*	*6.93*	*6.86*	*7.12*	*7.71*	*7.12*	**6.75**	*7.02*	*7.21*

- = 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 - August 2017

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
Residential Sector															
New England	**133**	**109**	**152**	**114**	**135**	**112**	*141*	*115*	*136*	*111*	*145*	*114*	**127**	*126*	*126*
Middle Atlantic	**367**	**309**	**461**	**320**	**368**	**301**	*420*	*320*	*385*	*320*	*427*	*320*	**364**	*352*	*363*
E. N. Central	**522**	**447**	**619**	**459**	**507**	**431**	*563*	*458*	*548*	*436*	*557*	*461*	**512**	*490*	*500*
W. N. Central	**298**	**243**	**322**	**255**	**298**	**244**	*318*	*260*	*324*	*242*	*311*	*266*	**279**	*280*	*285*
S. Atlantic	**968**	**874**	**1,223**	**852**	**891**	**886**	*1,157*	*858*	*1,017*	*897*	*1,154*	*874*	**980**	*948*	*986*
E. S. Central	**337**	**274**	**412**	**279**	**305**	**274**	*373*	*280*	*359*	*278*	*374*	*287*	**326**	*308*	*325*
W. S. Central	**526**	**518**	**810**	**517**	**501**	**526**	*764*	*513*	*580*	*540*	*796*	*532*	**593**	*577*	*612*
Mountain	**240**	**251**	**337**	**232**	**245**	**255**	*350*	*231*	*251*	*251*	*352*	*236*	**265**	*270*	*273*
Pacific contiguous	**406**	**336**	**422**	**381**	**439**	**344**	*431*	*383*	*435*	*354*	*430*	*388*	**386**	*399*	*402*
AK and HI	**13**	**12**	**12**	**14**	**14**	**12**	*12*	*13*	*14*	*12*	*12*	*13*	**13**	*13*	*13*
Total	**3,810**	**3,373**	**4,771**	**3,421**	**3,704**	**3,384**	*4,527*	*3,433*	*4,048*	*3,441*	*4,557*	*3,491*	**3,845**	*3,763*	*3,885*
Commercial Sector															
New England	**141**	**137**	**160**	**135**	**140**	**134**	*155*	*137*	*138*	*132*	*151*	*131*	**143**	*142*	*138*
Middle Atlantic	**422**	**408**	**488**	**408**	**423**	**406**	*473*	*405*	*423*	*407*	*469*	*400*	**432**	*427*	*425*
E. N. Central	**488**	**493**	**567**	**483**	**490**	**492**	*553*	*485*	*499*	*496*	*548*	*483*	**508**	*505*	*506*
W. N. Central	**271**	**271**	**308**	**271**	**272**	**268**	*308*	*274*	*280*	*276*	*309*	*274*	**280**	*281*	*285*
S. Atlantic	**792**	**844**	**977**	**802**	**784**	**859**	*957*	*803*	*801*	*858*	*951*	*807*	**854**	*851*	*855*
E. S. Central	**231**	**242**	**295**	**234**	**227**	**246**	*294*	*236*	*242*	*253*	*295*	*237*	**251**	*251*	*257*
W. S. Central	**473**	**519**	**623**	**511**	**477**	**531**	*635*	*519*	*508*	*557*	*656*	*536*	**532**	*541*	*565*
Mountain	**240**	**258**	**290**	**250**	**246**	**263**	*294*	*250*	*247*	*267*	*298*	*254*	**260**	*264*	*266*
Pacific contiguous	**418**	**428**	**475**	**436**	**431**	**425**	*482*	*441*	*421*	*430*	*475*	*437*	**440**	*445*	*441*
AK and HI	**16**	**16**	**16**	**16**	**16**	**16**	*16*	*16*	*16*	*15*	*16*	*16*	**16**	*16*	*16*
Total	**3,494**	**3,616**	**4,199**	**3,547**	**3,508**	**3,639**	*4,168*	*3,565*	*3,575*	*3,692*	*4,168*	*3,575*	**3,715**	*3,721*	*3,753*
Industrial Sector															
New England	**45**	**47**	**49**	**45**	**44**	**45**	*48*	*44*	*43*	*44*	*46*	*43*	**47**	*45*	*44*
Middle Atlantic	**192**	**191**	**202**	**189**	**192**	**199**	*200*	*191*	*196*	*195*	*204*	*191*	**193**	*196*	*197*
E. N. Central	**502**	**504**	**528**	**485**	**493**	**510**	*527*	*495*	*512*	*518*	*527*	*493*	**505**	*506*	*512*
W. N. Central	**223**	**228**	**246**	**227**	**228**	**242**	*260*	*242*	*244*	*252*	*266*	*247*	**231**	*243*	*252*
S. Atlantic	**362**	**384**	**393**	**362**	**363**	**382**	*374*	*358*	*347*	*370*	*374*	*352*	**375**	*369*	*361*
E. S. Central	**258**	**269**	**274**	**261**	**264**	**279**	*284*	*270*	*277*	*281*	*278*	*265*	**265**	*274*	*275*
W. S. Central	**456**	**471**	**481**	**458**	**476**	**485**	*495*	*468*	*473*	*501*	*517*	*485*	**467**	*481*	*494*
Mountain	**214**	**232**	**247**	**215**	**210**	**232**	*251*	*221*	*220*	*243*	*258*	*227*	**227**	*229*	*237*
Pacific contiguous	**215**	**236**	**262**	**224**	**211**	**236**	*268*	*232*	*222*	*243*	*264*	*233*	**234**	*237*	*241*
AK and HI	**13**	**14**	**15**	**14**	**13**	**14**	*15*	*14*	*13*	*14*	*15*	*14*	**14**	*14*	*14*
Total	**2,480**	**2,575**	**2,697**	**2,480**	**2,493**	**2,624**	*2,721*	*2,533*	*2,547*	*2,661*	*2,749*	*2,550*	**2,558**	*2,593*	*2,627*
Total All Sectors (a)															
New England	**320**	**294**	**362**	**295**	**320**	**293**	*346*	*297*	*318*	*289*	*344*	*289*	**318**	*314*	*310*
Middle Atlantic	**993**	**918**	**1,162**	**927**	**994**	**916**	*1,105*	*927*	*1,016*	*933*	*1,111*	*923*	**1,000**	*986*	*996*
E. N. Central	**1,514**	**1,446**	**1,716**	**1,429**	**1,492**	**1,435**	*1,644*	*1,439*	*1,561*	*1,451*	*1,633*	*1,438*	**1,526**	*1,503*	*1,521*
W. N. Central	**792**	**742**	**877**	**753**	**798**	**755**	*885*	*776*	*848*	*771*	*886*	*787*	**791**	*804*	*823*
S. Atlantic	**2,126**	**2,106**	**2,596**	**2,020**	**2,042**	**2,130**	*2,491*	*2,021*	*2,170*	*2,130*	*2,483*	*2,036*	**2,213**	*2,172*	*2,205*
E. S. Central	**827**	**785**	**981**	**774**	**796**	**799**	*952*	*786*	*878*	*811*	*947*	*790*	**842**	*833*	*856*
W. S. Central	**1,455**	**1,509**	**1,914**	**1,487**	**1,455**	**1,541**	*1,894*	*1,500*	*1,562*	*1,598*	*1,970*	*1,554*	**1,592**	*1,599*	*1,671*
Mountain	**694**	**741**	**875**	**697**	**701**	**750**	*895*	*703*	*718*	*762*	*908*	*717*	**752**	*763*	*777*
Pacific contiguous	**1,042**	**1,002**	**1,162**	**1,043**	**1,083**	**1,007**	*1,183*	*1,059*	*1,080*	*1,030*	*1,171*	*1,061*	**1,062**	*1,083*	*1,086*
AK and HI	**42**	**41**	**43**	**44**	**43**	**41**	*43*	*43*	*43*	*41*	*43*	*43*	**43**	*43*	*42*
Total	**9,805**	**9,584**	**11,688**	**9,469**	**9,726**	**9,667**	*11,438*	*9,553*	*10,193*	*9,816*	*11,497*	*9,637*	**10,139**	*10,099*	*10,287*

- = no data available

(a) Total retail sales to all sectors includes residential, commercial, industrial, and transportation sector sales.

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

Retail Sales represents total retail electricity sales by electric utilities and power marketers.

Regions refer to U.S. Census divisions.

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 7c. U.S. Regional Retail Electricity Prices (Cents per Kilowatthour

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

	2016				2017				2018				Year		
	Q1	Q2	Q4	Q4	Q1	Q2	Q4	Q4	Q1	Q2	Q4	Q4	2016	2017	2018
Residential Sector															
New England	**19.08**	**19.30**	**18.47**	**18.68**	**19.08**	**19.58**	*19.43*	*19.49*	*20.50*	*20.99*	*20.63*	*20.81*	**18.85**	*19.38*	*20.71*
Middle Atlantic	**15.29**	**15.88**	**16.08**	**15.74**	**15.56**	**16.32**	*16.72*	*16.17*	*15.90*	*16.72*	*17.23*	*16.65*	**15.76**	*16.21*	*16.64*
E. N. Central	**12.51**	**13.25**	**12.91**	**13.04**	**12.90**	**13.54**	*13.45*	*13.61*	*13.42*	*14.19*	*14.08*	*14.17*	**12.91**	*13.37*	*13.95*
W. N. Central	**10.61**	**12.31**	**12.67**	**11.27**	**10.94**	**12.56**	*12.99*	*11.53*	*11.12*	*12.96*	*13.42*	*11.79*	**11.73**	*12.02*	*12.30*
S. Atlantic	**11.40**	**11.75**	**11.88**	**11.47**	**11.73**	**12.03**	*12.36*	*11.86*	*11.93*	*12.47*	*12.81*	*12.20*	**11.65**	*12.02*	*12.38*
E. S. Central	**10.35**	**10.94**	**10.90**	**11.14**	**11.10**	**11.54**	*11.75*	*11.87*	*11.54*	*12.14*	*12.22*	*12.18*	**10.82**	*11.57*	*12.01*
W. S. Central	**10.34**	**10.69**	**10.65**	**10.52**	**10.55**	**10.94**	*11.18*	*10.96*	*10.72*	*11.32*	*11.58*	*11.32*	**10.56**	*10.94*	*11.27*
Mountain	**11.05**	**11.91**	**12.12**	**11.45**	**11.28**	**12.11**	*12.38*	*11.70*	*11.55*	*12.45*	*12.74*	*12.01*	**11.68**	*11.93*	*12.24*
Pacific	**14.13**	**13.95**	**16.09**	**13.85**	**14.52**	**14.44**	*16.50*	*14.10*	*14.97*	*15.11*	*17.15*	*14.51*	**14.56**	*14.94*	*15.48*
U.S. Average	**12.20**	**12.66**	**12.81**	**12.45**	**12.61**	**12.99**	*13.35*	*12.89*	*12.87*	*13.50*	*13.85*	*13.28*	**12.55**	*12.98*	*13.39*
Commercial Sector															
New England	**15.33**	**15.01**	**15.19**	**14.89**	**15.12**	**14.67**	*13.33*	*13.48*	*14.58*	*13.94*	*12.89*	*13.39*	**15.11**	*14.12*	*13.67*
Middle Atlantic	**12.02**	**12.48**	**13.29**	**12.22**	**12.07**	**12.73**	*13.42*	*12.45*	*12.11*	*12.75*	*13.53*	*12.69*	**12.54**	*12.69*	*12.80*
E. N. Central	**9.65**	**9.87**	**9.91**	**9.98**	**10.02**	**10.23**	*10.17*	*10.28*	*10.32*	*10.50*	*10.37*	*10.44*	**9.86**	*10.17*	*10.41*
W. N. Central	**8.86**	**9.70**	**10.15**	**9.07**	**9.12**	**10.06**	*10.37*	*9.33*	*9.25*	*10.25*	*10.64*	*9.62*	**9.47**	*9.74*	*9.96*
S. Atlantic	**9.37**	**9.27**	**9.26**	**9.21**	**9.48**	**9.39**	*9.38*	*9.48*	*10.00*	*9.75*	*9.63*	*9.70*	**9.28**	*9.43*	*9.76*
E. S. Central	**9.93**	**9.99**	**10.12**	**10.35**	**10.53**	**10.54**	*10.42*	*10.85*	*10.83*	*10.79*	*10.59*	*10.98*	**10.10**	*10.58*	*10.78*
W. S. Central	**7.80**	**7.79**	**7.86**	**7.78**	**8.26**	**8.24**	*7.55*	*7.69*	*7.85*	*7.82*	*7.34*	*7.68*	**7.81**	*7.91*	*7.65*
Mountain	**9.02**	**9.75**	**10.03**	**9.34**	**9.14**	**9.88**	*9.89*	*9.40*	*9.21*	*9.94*	*9.97*	*9.52*	**9.56**	*9.60*	*9.68*
Pacific	**12.21**	**13.08**	**14.69**	**12.96**	**12.53**	**13.40**	*15.22*	*13.32*	*13.45*	*13.90*	*15.80*	*13.63*	**13.28**	*13.67*	*14.24*
U.S. Average	**10.12**	**10.34**	**10.68**	**10.27**	**10.38**	**10.61**	*10.71*	*10.42*	*10.57*	*10.70*	*10.84*	*10.56*	**10.37**	*10.54*	*10.67*
Industrial Sector															
New England	**12.22**	**11.86**	**12.25**	**12.03**	**12.42**	**12.14**	*12.42*	*12.14*	*12.89*	*12.48*	*12.68*	*12.32*	**12.09**	*12.29*	*12.59*
Middle Atlantic	**7.05**	**7.01**	**7.12**	**6.92**	**6.93**	**6.99**	*7.12*	*7.01*	*6.92*	*7.07*	*7.18*	*7.12*	**7.03**	*7.01*	*7.07*
E. N. Central	**6.74**	**6.88**	**7.04**	**6.96**	**7.02**	**7.04**	*7.15*	*7.08*	*7.17*	*7.15*	*7.23*	*7.19*	**6.91**	*7.07*	*7.18*
W. N. Central	**6.65**	**7.10**	**7.82**	**6.64**	**6.89**	**7.37**	*7.92*	*6.72*	*7.01*	*7.48*	*8.04*	*6.83*	**7.07**	*7.25*	*7.35*
S. Atlantic	**6.15**	**6.33**	**6.78**	**6.30**	**6.35**	**6.49**	*7.03*	*6.52*	*6.59*	*6.70*	*7.15*	*6.69*	**6.40**	*6.60*	*6.79*
E. S. Central	**5.45**	**5.72**	**6.14**	**5.99**	**5.91**	**6.09**	*6.56*	*6.28*	*6.17*	*6.30*	*6.75*	*6.49*	**5.83**	*6.22*	*6.43*
W. S. Central	**5.06**	**5.03**	**5.44**	**5.32**	**5.27**	**5.62**	*6.24*	*6.04*	*5.69*	*5.99*	*6.58*	*6.41*	**5.22**	*5.80*	*6.18*
Mountain	**5.83**	**6.29**	**7.01**	**6.08**	**6.08**	**6.60**	*7.45*	*6.38*	*6.35*	*6.84*	*7.71*	*6.59*	**6.33**	*6.66*	*6.91*
Pacific	**7.99**	**9.08**	**10.54**	**8.65**	**8.24**	**9.16**	*10.79*	*8.61*	*8.15*	*9.09*	*10.97*	*8.64*	**9.14**	*9.29*	*9.29*
U.S. Average	**6.42**	**6.67**	**7.20**	**6.67**	**6.65**	**6.93**	*7.53*	*6.93*	*6.86*	*7.12*	*7.71*	*7.12*	**6.75**	*7.02*	*7.21*
All Sectors (a)															
New England	**16.41**	**16.07**	**16.13**	**15.88**	**16.38**	**16.11**	*15.67*	*15.59*	*16.85*	*16.41*	*16.10*	*16.13*	**16.13**	*15.93*	*16.37*
Middle Atlantic	**12.25**	**12.47**	**13.31**	**12.34**	**12.35**	**12.70**	*13.50*	*12.59*	*12.53*	*12.90*	*13.77*	*12.89*	**12.63**	*12.81*	*13.05*
E. N. Central	**9.67**	**9.87**	**10.11**	**9.93**	**10.00**	**10.12**	*10.32*	*10.23*	*10.37*	*10.41*	*10.62*	*10.52*	**9.90**	*10.17*	*10.48*
W. N. Central	**8.90**	**9.75**	**10.42**	**9.08**	**9.16**	**10.03**	*10.59*	*9.26*	*9.32*	*10.19*	*10.83*	*9.48*	**9.57**	*9.78*	*9.97*
S. Atlantic	**9.74**	**9.76**	**10.12**	**9.64**	**9.90**	**9.98**	*10.40*	*9.96*	*10.36*	*10.36*	*10.73*	*10.25*	**9.84**	*10.08*	*10.44*
E. S. Central	**8.70**	**8.86**	**9.33**	**9.17**	**9.22**	**9.34**	*9.79*	*9.64*	*9.65*	*9.70*	*10.11*	*9.91*	**9.03**	*9.51*	*9.85*
W. S. Central	**7.86**	**7.92**	**8.43**	**7.97**	**8.07**	**8.33**	*8.69*	*8.29*	*8.26*	*8.43*	*8.85*	*8.53*	**8.07**	*8.37*	*8.54*
Mountain	**8.74**	**9.40**	**9.98**	**9.03**	**8.97**	**9.64**	*10.18*	*9.21*	*9.15*	*9.78*	*10.40*	*9.41*	**9.33**	*9.55*	*9.73*
Pacific	**12.08**	**12.42**	**14.25**	**12.35**	**12.49**	**12.78**	*14.68*	*12.56*	*12.96*	*13.17*	*15.19*	*12.84*	**12.82**	*13.18*	*13.59*
U.S. Average	**9.99**	**10.17**	**10.75**	**10.11**	**10.27**	**10.45**	*11.00*	*10.38*	*10.55*	*10.71*	*11.28*	*10.63*	**10.28**	*10.55*	*10.82*

- = no data available

Prices are not adjusted for inflation.

(a) Volume-weighted average of retail prices to residential, commercial, industrial, and transportation sectors.

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

Regions refer to U.S. Census divisions.

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 7d. U.S. Regional Electricity Generation, All Sectors (Thousand megawatthours per day)

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

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
United States															
Coal	**3,059**	**2,967**	**4,202**	**3,317**	**3,250**	**3,146**	*4,178*	*3,336*	*3,581*	*3,194*	*4,055*	*3,311*	**3,388**	*3,480*	*3,536*
Natural Gas	**3,426**	**3,762**	**4,702**	**3,191**	**2,917**	**3,248**	*4,199*	*3,197*	*3,183*	*3,443*	*4,252*	*3,240*	**3,771**	*3,393*	*3,532*
Petroleum (a)	**68**	**63**	**72**	**59**	**61**	**57**	*71*	*61*	*76*	*69*	*77*	*64*	**65**	*62*	*71*
Other Gases	**40**	**35**	**35**	**32**	**39**	**37**	*36*	*33*	*41*	*38*	*36*	*33*	**36**	*36*	*37*
Nuclear	**2,245**	**2,155**	**2,254**	**2,148**	**2,247**	**2,032**	*2,252*	*2,124*	*2,224*	*2,098*	*2,280*	*2,122*	**2,200**	*2,164*	*2,181*
Renewable Energy Sources:	**1,804**	**1,747**	**1,487**	**1,625**	**1,994**	**2,141**	*1,631*	*1,669*	*1,859*	*2,005*	*1,719*	*1,762*	**1,665**	*1,857*	*1,836*
Conventional Hydropower	**842**	**810**	**618**	**637**	**917**	**1,002**	*729*	*634*	*758*	*805*	*744*	*637*	**726**	*820*	*736*
Wind	**667**	**614**	**517**	**682**	**752**	**742**	*504*	*710*	*756*	*774*	*543*	*782*	**620**	*676*	*714*
Wood Biomass	**114**	**104**	**116**	**108**	**114**	**111**	*118*	*111*	*114*	*106*	*116*	*111*	**111**	*113*	*112*
Waste Biomass	**60**	**61**	**61**	**59**	**59**	**57**	*60*	*59*	*59*	*59*	*61*	*60*	**60**	*59*	*60*
Geothermal	**47**	**46**	**47**	**50**	**49**	**48**	*46*	*47*	*48*	*46*	*47*	*47*	**48**	*48*	*47*
Solar	**73**	**112**	**127**	**89**	**103**	**182**	*174*	*108*	*123*	*214*	*207*	*125*	**100**	*142*	*168*
Pumped Storage Hydropower	**-12**	**-14**	**-26**	**-21**	**-16**	**-14**	*-17*	*-15*	*-14*	*-12*	*-16*	*-14*	**-18**	*-16*	*-14*
Other Nonrenewable Fuels (b)	**36**	**38**	**39**	**36**	**36**	**36**	*40*	*36*	*35*	*37*	*40*	*36*	**37**	*37*	*37*
Total Generation	**10,667**	**10,754**	**12,764**	**10,386**	**10,527**	**10,683**	*12,389*	*10,441*	*10,985*	*10,871*	*12,443*	*10,554*	**11,145**	*11,013*	*11,215*
Northeast Census Region															
Coal	**162**	**141**	**203**	**150**	**154**	**133**	*235*	*198*	*213*	*126*	*209*	*187*	**164**	*180*	*184*
Natural Gas	**512**	**599**	**795**	**521**	**474**	**474**	*652*	*505*	*474*	*517*	*683*	*514*	**607**	*527*	*547*
Petroleum (a)	**7**	**3**	**6**	**6**	**4**	**3**	*6*	*4*	*9*	*6*	*9*	*6*	**5**	*4*	*7*
Other Gases	**2**	**2**	**2**	**2**	**2**	**2**	*2*	*2*	*2*	*2*	*2*	*2*	**2**	*2*	*2*
Nuclear	**543**	**461**	**516**	**525**	**539**	**476**	*541*	*501*	*522*	*493*	*536*	*503*	**511**	*514*	*514*
Hydropower (c)	**111**	**94**	**78**	**82**	**103**	**106**	*93*	*88*	*82*	*92*	*89*	*89*	**91**	*98*	*88*
Other Renewables (d)	**77**	**63**	**61**	**73**	**71**	**74**	*65*	*76*	*79*	*71*	*64*	*77*	**69**	*71*	*73*
Other Nonrenewable Fuels (b)	**11**	**12**	**12**	**11**	**11**	**11**	*12*	*11*	*11*	*11*	*12*	*11*	**12**	*11*	*11*
Total Generation	**1,426**	**1,375**	**1,674**	**1,371**	**1,359**	**1,280**	*1,606*	*1,385*	*1,393*	*1,318*	*1,603*	*1,389*	**1,462**	*1,408*	*1,426*
South Census Region															
Coal	**1,270**	**1,347**	**1,950**	**1,462**	**1,334**	**1,470**	*1,945*	*1,408*	*1,500*	*1,458*	*1,933*	*1,420*	**1,508**	*1,540*	*1,579*
Natural Gas	**2,013**	**2,235**	**2,645**	**1,825**	**1,721**	**2,032**	*2,415*	*1,832*	*1,845*	*2,056*	*2,412*	*1,853*	**2,180**	*2,001*	*2,043*
Petroleum (a)	**29**	**30**	**35**	**23**	**26**	**23**	*30*	*23*	*32*	*28*	*31*	*24*	**29**	*26*	*29*
Other Gases	**15**	**13**	**14**	**13**	**14**	**14**	*15*	*13*	*15*	*14*	*15*	*14*	**14**	*14*	*14*
Nuclear	**951**	**998**	**994**	**936**	**979**	**886**	*981*	*948*	*996*	*939*	*1,021*	*958*	**970**	*948*	*979*
Hydropower (c)	**191**	**84**	**71**	**63**	**135**	**130**	*88*	*71*	*110*	*112*	*84*	*71*	**102**	*106*	*94*
Other Renewables (d)	**330**	**307**	**305**	**335**	**399**	**408**	*318*	*379*	*410*	*448*	*360*	*419*	**320**	*376*	*409*
Other Nonrenewable Fuels (b)	**16**	**18**	**18**	**16**	**15**	**16**	*18*	*15*	*15*	*16*	*18*	*15*	**17**	*16*	*16*
Total Generation	**4,815**	**5,033**	**6,032**	**4,673**	**4,623**	**4,979**	*5,808*	*4,690*	*4,923*	*5,071*	*5,874*	*4,775*	**5,140**	*5,027*	*5,162*
Midwest Census Region															
Coal	**1,202**	**1,109**	**1,498**	**1,197**	**1,292**	**1,187**	*1,460*	*1,210*	*1,356*	*1,173*	*1,407*	*1,182*	**1,252**	*1,288*	*1,279*
Natural Gas	**357**	**368**	**454**	**295**	**283**	**293**	*399*	*300*	*361*	*386*	*437*	*325*	**368**	*319*	*377*
Petroleum (a)	**10**	**9**	**8**	**7**	**7**	**9**	*12*	*10*	*11*	*11*	*12*	*10*	**9**	*10*	*11*
Other Gases	**16**	**13**	**14**	**11**	**17**	**15**	*14*	*12*	*18*	*15*	*14*	*12*	**14**	*14*	*15*
Nuclear	**573**	**543**	**572**	**523**	**555**	**542**	*561*	*519*	*542*	*511*	*556*	*504*	**553**	*544*	*528*
Hydropower (c)	**48**	**43**	**39**	**37**	**55**	**56**	*44*	*40*	*44*	*48*	*42*	*40*	**42**	*49*	*44*
Other Renewables (d)	**282**	**245**	**185**	**300**	**307**	**286**	*189*	*306*	*321*	*293*	*199*	*338*	**253**	*272*	*288*
Other Nonrenewable Fuels (b)	**4**	**4**	**4**	**3**	**4**	**4**	*4*	*4*	*4*	*4*	*5*	*4*	**4**	*4*	*4*
Total Generation	**2,492**	**2,334**	**2,773**	**2,374**	**2,520**	**2,391**	*2,685*	*2,399*	*2,657*	*2,441*	*2,671*	*2,415*	**2,494**	*2,499*	*2,546*
West Census Region															
Coal	**426**	**370**	**551**	**508**	**470**	**356**	*538*	*520*	*512*	*437*	*506*	*522*	**464**	*471*	*494*
Natural Gas	**543**	**560**	**809**	**549**	**440**	**450**	*732*	*560*	*503*	*485*	*721*	*548*	**616**	*546*	*565*
Petroleum (a)	**21**	**20**	**23**	**23**	**23**	**22**	*23*	*24*	*24*	*24*	*25*	*25*	**22**	*23*	*24*
Other Gases	**7**	**6**	**5**	**6**	**6**	**6**	*5*	*6*	*6*	*6*	*5*	*6*	**6**	*6*	*6*
Nuclear	**178**	**152**	**172**	**164**	**175**	**127**	*169*	*157*	*163*	*154*	*168*	*157*	**166**	*157*	*161*
Hydropower (c)	**480**	**575**	**404**	**434**	**607**	**696**	*487*	*420*	*508*	*542*	*513*	*422*	**473**	*552*	*496*
Other Renewables (d)	**273**	**322**	**317**	**280**	**299**	**371**	*330*	*275*	*289*	*389*	*352*	*291*	**298**	*318*	*330*
Other Nonrenewable Fuels (b)	**4**	**5**	**5**	**5**	**5**	**5**	*6*	*5*	*5*	*5*	*6*	*5*	**5**	*5*	*5*
Total Generation	**1,933**	**2,011**	**2,285**	**1,968**	**2,025**	**2,033**	*2,290*	*1,967*	*2,011*	*2,042*	*2,295*	*1,975*	**2,050**	*2,079*	*2,081*

(a) Residual fuel oil, distillate fuel oil, petroleum coke, and other petroleum liquids.

(b) Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, nonrenewable waste, and miscellaneous technologies.

(c) Conventional hydroelectric and pumped storage generation.

(d) Wind, biomass, geothermal, and solar generation.

Notes: Data reflect generation supplied by electricity-only and combined-heat-and-power (CHP) plants operated by electric utilities, independent power producers, and the commercial and industrial sectors. The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from U.S. Energy Information Administration *Electric Power Monthly* and *Electric Power Annual.*

Projections: EIA Regional Short-Term Energy Model.

Table 7e. U.S. Regional Fuel Consumption for Electricity Generation, All Sectors

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

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
Fuel Consumption for Electricity Generation, All Sectors															
United States															
Coal (thousand st/d)	**1,676**	**1,619**	**2,288**	**1,822**	**1,785**	**1,717**	*2,267*	*1,824*	*1,926*	*1,731*	*2,199*	*1,812*	**1,852**	*1,899*	*1,917*
Natural Gas (million cf/d)	**25,226**	**28,572**	**36,107**	**23,726**	**21,813**	**24,644**	*32,163*	*23,813*	*23,718*	*26,272*	*32,758*	*24,253*	**28,416**	*25,632*	*26,768*
Petroleum (thousand b/d)	**121**	**112**	**130**	**103**	**108**	**100**	*124*	*108*	*135*	*121*	*136*	*114*	**116**	*110*	*126*
Residual Fuel Oil	**29**	**22**	**35**	**25**	**24**	**24**	*27*	*24*	*32*	*29*	*34*	*28*	**28**	*25*	*31*
Distillate Fuel Oil	**30**	**23**	**24**	**25**	**29**	**26**	*28*	*25*	*33*	*28*	*29*	*25*	**26**	*27*	*29*
Petroleum Coke (a)	**57**	**63**	**66**	**48**	**50**	**46**	*64*	*54*	*63*	*61*	*68*	*57*	**58**	*54*	*62*
Other Petroleum Liquids (b)	**5**	**3**	**5**	**4**	**4**	**4**	*5*	*5*	*7*	*4*	*5*	*5*	**4**	*4*	*5*
Northeast Census Region															
Coal (thousand st/d)	**80**	**66**	**94**	**70**	**74**	**62**	*113*	*95*	*100*	*60*	*101*	*90*	**77**	*86*	*88*
Natural Gas (million cf/d)	**3,829**	**4,578**	**6,203**	**3,899**	**3,638**	**3,667**	*5,107*	*3,838*	*3,625*	*3,996*	*5,378*	*3,927*	**4,630**	*4,066*	*4,236*
Petroleum (thousand b/d)	**12**	**5**	**12**	**8**	**8**	**6**	*10*	*8*	*16*	*12*	*18*	*11*	**9**	*8*	*14*
South Census Region															
Coal (thousand st/d)	**671**	**718**	**1,035**	**789**	**717**	**787**	*1,028*	*750*	*778*	*767*	*1,020*	*757*	**804**	*821*	*831*
Natural Gas (million cf/d)	**14,754**	**16,920**	**20,179**	**13,502**	**12,676**	**15,265**	*18,261*	*13,462*	*13,539*	*15,516*	*18,320*	*13,676*	**16,342**	*14,927*	*15,272*
Petroleum (thousand b/d)	**55**	**56**	**66**	**43**	**48**	**43**	*56*	*44*	*59*	*52*	*57*	*45*	**55**	*48*	*53*
Midwest Census Region															
Coal (thousand st/d)	**680**	**626**	**848**	**675**	**725**	**666**	*824*	*684*	*759*	*660*	*794*	*668*	**708**	*725*	*720*
Natural Gas (million cf/d)	**2,692**	**2,910**	**3,743**	**2,283**	**2,189**	**2,271**	*3,222*	*2,310*	*2,777*	*3,029*	*3,555*	*2,522*	**2,908**	*2,500*	*2,972*
Petroleum (thousand b/d)	**19**	**19**	**18**	**16**	**15**	**18**	*22*	*20*	*21*	*20*	*21*	*20*	**18**	*18*	*20*
West Census Region															
Coal (thousand st/d)	**244**	**208**	**312**	**288**	**269**	**202**	*302*	*295*	*290*	*244*	*284*	*296*	**263**	*267*	*278*
Natural Gas (million cf/d)	**3,951**	**4,164**	**5,982**	**4,041**	**3,310**	**3,441**	*5,573*	*4,204*	*3,777*	*3,731*	*5,504*	*4,128*	**4,537**	*4,139*	*4,290*
Petroleum (thousand b/d)	**34**	**32**	**35**	**35**	**37**	**34**	*36*	*37*	*38*	*38*	*39*	*39*	**34**	*36*	*39*
End-of-period U.S. Fuel Inventories Held by Electric Power Sector															
Coal (million short tons)	**192.3**	**183.2**	**158.2**	**163.9**	**163.9**	**159.1**	*142.1*	*145.9*	*147.7*	*144.7*	*129.3*	*145.6*	**163.9**	*145.9*	*145.6*
Residual Fuel Oil (mmb)	**11.9**	**12.2**	**11.7**	**11.7**	**12.0**	**11.7**	*11.6*	*12.2*	*12.2*	*12.1*	*12.0*	*12.6*	**11.7**	*12.2*	*12.6*
Distillate Fuel Oil (mmb)	**17.3**	**17.4**	**21.0**	**17.1**	**15.6**	**15.5**	*15.7*	*16.3*	*16.5*	*16.4*	*16.5*	*16.9*	**17.1**	*16.3*	*16.9*
Petroleum Coke (mmb)	**6.2**	**4.5**	**3.8**	**4.4**	**4.4**	**4.4**	*4.4*	*4.3*	*4.3*	*4.3*	*4.2*	*4.2*	**4.4**	*4.3*	*4.2*

(a) Petroleum coke consumption converted from short tons to barrels by multiplying by five.

(b) Other petroleum liquids include jet fuel, kerosene, and waste oil.

Notes: Data reflect generation supplied by electricity-only and combined-heat-and-power (CHP) plants operated by electric utilities, independent power producers, and the commercial and industrial sectors. Data include fuel consumed only for generation of electricity. Values do not include consumption by CHP plants for useful thermal output.

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

Physical Units: st/d = short tons per day; b/d = barrels per day; cf/d = cubic feet per day; mmb = million barrels.

Historical data: Latest data available from U.S. Energy Information Administration *Electric Power Monthly* and *Electric Power Annual.*

Projections: EIA Regional Short-Term Energy Model.

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

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

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
Electric Power Sector															
Geothermal	**0.040**	**0.039**	**0.040**	**0.043**	**0.041**	**0.040**	*0.040*	*0.040*	*0.040*	*0.039*	*0.040*	*0.041*	**0.162**	*0.162*	*0.160*
Hydroelectric Power (a)	**0.710**	**0.684**	**0.528**	**0.543**	**0.765**	**0.846**	*0.622*	*0.541*	*0.632*	*0.679*	*0.636*	*0.543*	**2.465**	*2.775*	*2.490*
Solar (b)	**0.061**	**0.093**	**0.107**	**0.075**	**0.085**	**0.153**	*0.147*	*0.091*	*0.102*	*0.179*	*0.175*	*0.105*	**0.337**	*0.476*	*0.561*
Waste Biomass (c)	**0.070**	**0.072**	**0.072**	**0.072**	**0.071**	**0.067**	*0.072*	*0.072*	*0.069*	*0.072*	*0.074*	*0.073*	**0.287**	*0.282*	*0.288*
Wood Biomass	**0.061**	**0.049**	**0.060**	**0.052**	**0.057**	**0.057**	*0.064*	*0.057*	*0.057*	*0.051*	*0.062*	*0.056*	**0.222**	*0.236*	*0.226*
Wind	**0.565**	**0.520**	**0.443**	**0.584**	**0.630**	**0.628**	*0.431*	*0.608*	*0.634*	*0.656*	*0.465*	*0.670*	**2.112**	*2.298*	*2.424*
Subtotal	**1.508**	**1.457**	**1.250**	**1.370**	**1.650**	**1.792**	*1.378*	*1.408*	*1.533*	*1.676*	*1.453*	*1.487*	**5.585**	*6.228*	*6.149*
Industrial Sector															
Biofuel Losses and Co-products (d)	**0.196**	**0.193**	**0.203**	**0.205**	**0.201**	**0.203**	*0.206*	*0.206*	*0.197*	*0.200*	*0.204*	*0.204*	**0.796**	*0.816*	*0.804*
Geothermal	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	**0.004**	*0.004*	*0.004*
Hydroelectric Power (a)	**0.004**	**0.003**	**0.002**	**0.003**	**0.004**	**0.003**	*0.002*	*0.003*	*0.004*	*0.004*	*0.002*	*0.003*	**0.012**	*0.012*	*0.012*
Solar (b)	**0.003**	**0.005**	**0.005**	**0.004**	**0.004**	**0.007**	*0.007*	*0.005*	*0.006*	*0.008*	*0.009*	*0.006*	**0.017**	*0.024*	*0.029*
Waste Biomass (c)	**0.046**	**0.047**	**0.047**	**0.046**	**0.050**	**0.049**	*0.048*	*0.049*	*0.048*	*0.047*	*0.049*	*0.049*	**0.186**	*0.196*	*0.193*
Wood Biomass	**0.321**	**0.315**	**0.320**	**0.326**	**0.322**	**0.307**	*0.314*	*0.315*	*0.307*	*0.302*	*0.312*	*0.315*	**1.283**	*1.257*	*1.236*
Subtotal	**0.573**	**0.564**	**0.578**	**0.585**	**0.582**	**0.567**	*0.576*	*0.578*	*0.562*	*0.559*	*0.573*	*0.575*	**2.300**	*2.304*	*2.268*
Commercial Sector															
Geothermal	**0.005**	**0.005**	**0.005**	**0.005**	**0.005**	**0.005**	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	**0.020**	*0.020*	*0.020*
Solar (b)	**0.015**	**0.021**	**0.021**	**0.015**	**0.017**	**0.024**	*0.024*	*0.018*	*0.020*	*0.029*	*0.029*	*0.021*	**0.072**	*0.083*	*0.098*
Waste Biomass (c)	**0.013**	**0.012**	**0.012**	**0.013**	**0.012**	**0.012**	*0.012*	*0.012*	*0.012*	*0.012*	*0.012*	*0.012*	**0.049**	*0.047*	*0.047*
Wood Biomass	**0.020**	**0.020**	**0.021**	**0.021**	**0.020**	**0.019**	*0.019*	*0.018*	*0.020*	*0.019*	*0.019*	*0.018*	**0.082**	*0.076*	*0.077*
Subtotal	**0.060**	**0.065**	**0.066**	**0.060**	**0.061**	**0.066**	*0.068*	*0.059*	*0.064*	*0.071*	*0.072*	*0.062*	**0.250**	*0.254*	*0.269*
Residential Sector															
Geothermal	**0.010**	**0.010**	**0.010**	**0.010**	**0.010**	**0.010**	*0.012*	*0.012*	*0.013*	*0.013*	*0.013*	*0.013*	**0.040**	*0.044*	*0.052*
Solar (e)	**0.030**	**0.047**	**0.049**	**0.034**	**0.037**	**0.058**	*0.060*	*0.043*	*0.046*	*0.071*	*0.074*	*0.053*	**0.161**	*0.198*	*0.243*
Wood Biomass	**0.093**	**0.093**	**0.094**	**0.094**	**0.094**	**0.096**	*0.099*	*0.099*	*0.103*	*0.103*	*0.104*	*0.104*	**0.373**	*0.388*	*0.413*
Subtotal	**0.133**	**0.150**	**0.153**	**0.138**	**0.140**	**0.164**	*0.171*	*0.154*	*0.161*	*0.186*	*0.191*	*0.170*	**0.573**	*0.630*	*0.708*
Transportation Sector															
Biomass-based Diesel (f)	**0.051**	**0.066**	**0.088**	**0.084**	**0.051**	**0.080**	*0.090*	*0.095*	*0.070*	*0.077*	*0.090*	*0.091*	**0.289**	*0.316*	*0.328*
Ethanol (f)	**0.277**	**0.283**	**0.293**	**0.288**	**0.267**	**0.291**	*0.297*	*0.289*	*0.270*	*0.290*	*0.296*	*0.289*	**1.141**	*1.144*	*1.146*
Subtotal	**0.328**	**0.349**	**0.381**	**0.372**	**0.319**	**0.367**	*0.388*	*0.384*	*0.340*	*0.368*	*0.386*	*0.380*	**1.430**	*1.457*	*1.474*
All Sectors Total															
Biomass-based Diesel (f)	**0.051**	**0.066**	**0.088**	**0.084**	**0.051**	**0.080**	*0.090*	*0.095*	*0.070*	*0.077*	*0.090*	*0.091*	**0.289**	*0.316*	*0.328*
Biofuel Losses and Co-products (d)	**0.196**	**0.193**	**0.203**	**0.205**	**0.201**	**0.203**	*0.206*	*0.206*	*0.197*	*0.200*	*0.204*	*0.204*	**0.796**	*0.816*	*0.804*
Ethanol (f)	**0.287**	**0.295**	**0.305**	**0.299**	**0.278**	**0.300**	*0.309*	*0.300*	*0.281*	*0.302*	*0.308*	*0.300*	**1.186**	*1.188*	*1.191*
Geothermal	**0.056**	**0.055**	**0.056**	**0.059**	**0.057**	**0.058**	*0.058*	*0.058*	*0.059*	*0.058*	*0.059*	*0.060*	**0.226**	*0.230*	*0.236*
Hydroelectric Power (a)	**0.714**	**0.687**	**0.530**	**0.546**	**0.769**	**0.850**	*0.625*	*0.544*	*0.636*	*0.683*	*0.638*	*0.546*	**2.477**	*2.787*	*2.503*
Solar (b)(e)	**0.110**	**0.166**	**0.183**	**0.128**	**0.143**	**0.238**	*0.239*	*0.157*	*0.173*	*0.287*	*0.286*	*0.185*	**0.587**	*0.777*	*0.931*
Waste Biomass (c)	**0.129**	**0.131**	**0.130**	**0.131**	**0.133**	**0.128**	*0.133*	*0.132*	*0.130*	*0.131*	*0.135*	*0.133*	**0.522**	*0.527*	*0.528*
Wood Biomass	**0.496**	**0.477**	**0.495**	**0.492**	**0.493**	**0.478**	*0.497*	*0.489*	*0.487*	*0.475*	*0.498*	*0.492*	**1.959**	*1.957*	*1.952*
Wind	**0.565**	**0.520**	**0.443**	**0.584**	**0.630**	**0.628**	*0.431*	*0.608*	*0.634*	*0.656*	*0.465*	*0.670*	**2.112**	*2.298*	*2.424*
Total Consumption	**2.601**	**2.585**	**2.428**	**2.524**	**2.752**	**2.951**	*2.581*	*2.584*	*2.660*	*2.860*	*2.674*	*2.675*	**10.138**	*10.867*	*10.868*

- = no data available

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

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

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

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
Renewable Energy Electric Generating Capacity (megawatts, end of period)															
Electric Power Sector (a)															
Biomass	**7,323**	**7,345**	**7,322**	**7,354**	**7,349**	**7,388**	*7,430*	*7,429*	*7,486*	*7,580*	*7,580*	*7,582*	**7,354**	*7,429*	*7,582*
Waste	**4,143**	**4,165**	**4,160**	**4,185**	**4,197**	**4,236**	*4,227*	*4,226*	*4,284*	*4,284*	*4,284*	*4,287*	**4,185**	*4,226*	*4,287*
Wood	**3,180**	**3,180**	**3,162**	**3,169**	**3,152**	**3,152**	*3,202*	*3,202*	*3,202*	*3,296*	*3,296*	*3,296*	**3,169**	*3,202*	*3,296*
Conventional Hydroelectric	**79,531**	**79,597**	**79,618**	**79,663**	**79,665**	**79,673**	*79,762*	*79,851*	*79,862*	*79,878*	*80,005*	*80,172*	**79,663**	*79,851*	*80,172*
Geothermal	**2,513**	**2,513**	**2,513**	**2,513**	**2,453**	**2,453**	*2,453*	*2,490*	*2,490*	*2,490*	*2,490*	*2,521*	**2,513**	*2,490*	*2,521*
Large-Scale Solar (b)	**14,274**	**15,076**	**17,507**	**21,590**	**22,433**	**23,410**	*24,492*	*29,332*	*29,989*	*30,524*	*31,097*	*32,378*	**21,590**	*29,332*	*32,378*
Wind	**73,285**	**74,166**	**74,720**	**81,164**	**82,864**	**83,326**	*84,768*	*88,195*	*88,314*	*89,565*	*90,554*	*102,004*	**81,164**	*88,195*	*102,004*
Other Sectors (c)															
Biomass	**6,811**	**6,807**	**6,806**	**6,759**	**6,808**	**6,827**	*6,828*	*6,828*	*6,828*	*6,829*	*6,829*	*6,831*	**6,759**	*6,828*	*6,831*
Waste	**944**	**943**	**942**	**895**	**892**	**896**	*897*	*897*	*897*	*897*	*897*	*899*	**895**	*897*	*899*
Wood	**5,867**	**5,864**	**5,864**	**5,864**	**5,915**	**5,931**	*5,931*	*5,931*	*5,931*	*5,931*	*5,931*	*5,931*	**5,864**	*5,931*	*5,931*
Conventional Hydroelectric	**325**	**327**	**327**	**327**	**327**	**327**	*327*	*327*	*327*	*327*	*327*	*327*	**327**	*327*	*327*
Large-Scale Solar (b)	**303**	**307**	**309**	**313**	**313**	**330**	*330*	*332*	*332*	*332*	*332*	*331*	**313**	*332*	*331*
Small-Scale Solar (d)	**10,810**	**11,569**	**12,305**	**13,183**	**14,107**	**14,761**	*15,756*	*16,721*	*17,732*	*18,734*	*19,814*	*20,957*	**13,183**	*16,721*	*20,957*
Residential Sector	**5,775**	**6,352**	**6,874**	**7,421**	**8,070**	**8,662**	*9,295*	*9,964*	*10,666*	*11,393*	*12,154*	*12,951*	**7,421**	*9,964*	*12,951*
Commercial Sector	**4,104**	**4,239**	**4,405**	**4,681**	**4,727**	**4,738**	*5,021*	*5,246*	*5,482*	*5,690*	*5,935*	*6,205*	**4,681**	*5,246*	*6,205*
Industrial Sector	**930**	**978**	**1,027**	**1,081**	**1,311**	**1,361**	*1,440*	*1,511*	*1,583*	*1,651*	*1,725*	*1,801*	**1,081**	*1,511*	*1,801*
Wind	**89**	**89**	**89**	**89**	**89**	**87**	*93*	*93*	*93*	*93*	*93*	*93*	**89**	*93*	*93*
Renewable Electricity Generation (thousand megawatthours per day)															
Electric Power Sector (a)															
Biomass	**89**	**84**	**92**	**84**	**87**	**86**	*93*	*87*	*87*	*84*	*92*	*87*	**87**	*88*	*88*
Waste	**49**	**52**	**51**	**50**	**49**	**48**	*50*	*49*	*49*	*50*	*51*	*50*	**51**	*49*	*50*
Wood	**39**	**32**	**41**	**34**	**38**	**38**	*43*	*37*	*38*	*34*	*41*	*37*	**37**	*39*	*37*
Conventional Hydroelectric	**837**	**806**	**615**	**634**	**912**	**998**	*726*	*631*	*754*	*800*	*742*	*633*	**723**	*816*	*732*
Geothermal	**47**	**46**	**47**	**50**	**49**	**48**	*46*	*47*	*48*	*46*	*47*	*47*	**48**	*48*	*47*
Large-Scale Solar (b)	**72**	**110**	**125**	**88**	**102**	**180**	*172*	*106*	*121*	*212*	*204*	*123*	**99**	*140*	*165*
Wind	**667**	**613**	**517**	**681**	**751**	**741**	*503*	*709*	*756*	*773*	*543*	*781*	**619**	*675*	*713*
Other Sectors (c)															
Biomass	**85**	**82**	**85**	**83**	**86**	**82**	*85*	*83*	*86*	*82*	*85*	*83*	**84**	*84*	*84*
Waste	**75**	**72**	**75**	**74**	**76**	**73**	*75*	*74*	*76*	*73*	*75*	*74*	**74**	*75*	*75*
Wood	**11**	**10**	**9**	**9**	**10**	**9**	*9*	*9*	*10*	*9*	*9*	*9*	**10**	*9*	*9*
Conventional Hydroelectric	**5**	**4**	**3**	**3**	**5**	**5**	*3*	*3*	*5*	*5*	*3*	*3*	**4**	*4*	*4*
Large-Scale Solar (b)	**1**	**2**	**2**	**1**	**1**	**2**	*2*	*2*	*2*	*3*	*3*	*2*	**2**	*2*	*2*
Small-Scale Solar (d)	**42**	**63**	**64**	**45**	**53**	**80**	*82*	*59*	*68*	*101*	*103*	*74*	**53**	*68*	*87*
Residential Sector	**21**	**34**	**35**	**24**	**29**	**46**	*48*	*34*	*39*	*60*	*62*	*45*	**29**	*39*	*52*
Commercial Sector	**16**	**23**	**23**	**16**	**19**	**26**	*26*	*18*	*22*	*31*	*31*	*22*	**20**	*22*	*26*
Industrial Sector	**4**	**6**	**6**	**4**	**5**	**8**	*8*	*6*	*7*	*10*	*10*	*7*	**5**	*7*	*8*
Wind	**1**	**1**	**0**	**1**	**1**	**1**	*1*	*1*	*1*	*1*	*1*	*1*	**1**	*1*	*1*

-- = no data available

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

(a) Power plants larger than or equal to one megawatt in size that are operated by electric utilities or independent power producers.

(b) Solar thermal and photovoltaic generating units at power plants larger than or equal to one megawatt.

(c) Businesses or individual households not primarily engaged in electric power production for sale to the public, whose generating capacity is at least one megawatt (except for small-scale solar photovoltaic data, which consists of systems smaller than one megawatt).

(d) Solar photovoltaic systems smaller than one megawatt, as measured in alternating current.

Historical data: Latest data available from EIA databases supporting the Electric Power Monthly, DOE/EIA-0226.

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

Projections: EIA-860M database, EIA-826 Solar PV database, and EIA Regional Short-Term Energy Model.

Table 9a. U.S. Macroeconomic Indicators and CO_2 Emissions

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

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
Macroeconomic															
Real Gross Domestic Product															
(billion chained 2009 dollars - SAAR)	**16,525**	**16,583**	**16,727**	**16,813**	**16,873**	**16,980**	*17,103*	*17,208*	*17,321*	*17,430*	*17,534*	*17,632*	**16,662**	*17,041*	*17,480*
Real Personal Consumption Expend.															
(billion chained 2009 dollars - SAAR)	**11,365**	**11,485**	**11,569**	**11,670**	**11,701**	**11,789**	*11,854*	*11,927*	*12,021*	*12,115*	*12,206*	*12,293*	**11,522**	*11,818*	*12,159*
Real Fixed Investment															
(billion chained 2009 dollars - SAAR)	**2,787**	**2,779**	**2,779**	**2,799**	**2,873**	**2,897**	*2,941*	*2,976*	*3,003*	*3,032*	*3,055*	*3,080*	**2,786**	*2,922*	*3,042*
Business Inventory Change															
(billion chained 2009 dollars - SAAR)	**42**	**-15**	**4**	**52**	**0**	**26**	*8*	*5*	*19*	*31*	*42*	*47*	**21**	*10*	*35*
Real Government Expenditures															
(billion chained 2009 dollars - SAAR)	**2,913**	**2,901**	**2,906**	**2,908**	**2,901**	**2,899**	*2,914*	*2,921*	*2,929*	*2,936*	*2,941*	*2,941*	**2,907**	*2,909*	*2,937*
Real Exports of Goods & Services															
(billion chained 2009 dollars - SAAR)	**2,102**	**2,111**	**2,162**	**2,137**	**2,174**	**2,171**	*2,189*	*2,206*	*2,220*	*2,236*	*2,253*	*2,272*	**2,128**	*2,185*	*2,245*
Real Imports of Goods & Services															
(billion chained 2009 dollars - SAAR)	**2,668**	**2,670**	**2,684**	**2,742**	**2,770**	**2,790**	*2,793*	*2,817*	*2,861*	*2,909*	*2,955*	*2,992*	**2,691**	*2,792*	*2,929*
Real Disposable Personal Income															
(billion chained 2009 dollars - SAAR)	**12,556**	**12,647**	**12,738**	**12,729**	**12,783**	**12,895**	*12,963*	*13,061*	*13,225*	*13,322*	*13,426*	*13,532*	**12,668**	*12,925*	*13,376*
Non-Farm Employment															
(millions)	**143.4**	**144.0**	**144.7**	**145.2**	**145.7**	**146.2**	*146.7*	*147.1*	*147.4*	*147.8*	*148.2*	*148.6*	**144.3**	*146.4*	*148.0*
Civilian Unemployment Rate															
(percent)	**4.9**	**4.9**	**4.9**	**4.7**	**4.7**	**4.4**	*4.3*	*4.3*	*4.2*	*4.1*	*4.1*	*4.1*	**4.9**	*4.4*	*4.1*
Housing Starts															
(millions - SAAR)	**1.15**	**1.16**	**1.15**	**1.25**	**1.24**	**1.13**	*1.22*	*1.25*	*1.31*	*1.32*	*1.34*	*1.36*	**1.18**	*1.21*	*1.33*
Industrial Production Indices (Index, 2012=100)															
Total Industrial Production	**103.1**	**102.9**	**103.1**	**103.3**	**103.7**	**104.9**	*105.2*	*105.8*	*106.7*	*107.5*	*108.1*	*108.7*	**103.1**	*104.9*	*107.7*
Manufacturing	**102.9**	**102.6**	**102.7**	**103.1**	**103.7**	**104.1**	*104.4*	*105.0*	*105.8*	*106.6*	*107.2*	*107.8*	**102.8**	*104.3*	*106.8*
Food	**107.0**	**107.7**	**108.3**	**107.5**	**110.1**	**111.4**	*111.7*	*112.0*	*112.4*	*112.8*	*113.3*	*113.8*	**107.6**	*111.3*	*113.0*
Paper	**96.1**	**95.3**	**95.0**	**96.7**	**96.3**	**95.6**	*95.6*	*95.5*	*95.5*	*95.5*	*95.5*	*95.6*	**95.8**	*95.7*	*95.5*
Petroleum and Coal Products	**100.0**	**100.9**	**101.4**	**101.4**	**102.5**	**106.5**	*106.7*	*107.1*	*107.5*	*108.0*	*108.6*	*109.1*	**100.9**	*105.7*	*108.3*
Chemicals	**98.8**	**98.0**	**97.1**	**98.1**	**97.7**	**97.9**	*98.4*	*99.1*	*99.9*	*100.8*	*101.8*	*102.8*	**98.0**	*98.3*	*101.4*
Nonmetallic Mineral Products	**113.6**	**112.2**	**111.0**	**112.3**	**116.8**	**116.3**	*117.1*	*118.3*	*119.5*	*120.9*	*122.2*	*123.0*	**112.3**	*117.1*	*121.4*
Primary Metals	**94.8**	**95.0**	**92.1**	**92.8**	**96.7**	**95.6**	*94.9*	*95.1*	*95.5*	*96.0*	*96.4*	*96.8*	**93.7**	*95.6*	*96.2*
Coal-weighted Manufacturing (a)	**100.8**	**100.3**	**99.4**	**100.2**	**102.5**	**102.5**	*102.5*	*103.0*	*103.6*	*104.3*	*105.0*	*105.7*	**100.2**	*102.6*	*104.7*
Distillate-weighted Manufacturing (a)	**105.6**	**105.5**	**105.1**	**106.2**	**108.4**	**108.9**	*109.4*	*110.0*	*110.7*	*111.5*	*112.2*	*112.8*	**105.6**	*109.2*	*111.8*
Electricity-weighted Manufacturing (a)	**101.5**	**101.2**	**100.9**	**101.6**	**103.1**	**103.1**	*103.2*	*103.8*	*104.6*	*105.4*	*106.2*	*107.0*	**101.3**	*103.3*	*105.8*
Natural Gas-weighted Manufacturing (a)	**100.8**	**100.5**	**100.5**	**101.4**	**102.9**	**103.1**	*103.3*	*103.9*	*104.8*	*105.8*	*106.8*	*107.8*	**100.8**	*103.3*	*106.3*
Price Indexes															
Consumer Price Index (all urban consumers)															
(index, 1982-1984=1.00)	**2.38**	**2.39**	**2.40**	**2.42**	**2.44**	**2.44**	*2.45*	*2.46*	*2.48*	*2.49*	*2.50*	*2.51*	**2.40**	*2.45*	*2.49*
Producer Price Index: All Commodities															
(index, 1982=1.00)	**1.84**	**1.85**	**1.85**	**1.88**	**1.93**	**1.94**	*1.94*	*1.95*	*1.96*	*1.97*	*1.98*	*1.99*	**1.85**	*1.94*	*1.98*
Producer Price Index: Petroleum															
(index, 1982=1.00)	**1.21**	**1.46**	**1.53**	**1.55**	**1.66**	**1.69**	*1.68*	*1.62*	*1.61*	*1.69*	*1.71*	*1.69*	**1.44**	*1.66*	*1.68*
GDP Implicit Price Deflator															
(index, 2009=100)	**110.6**	**111.3**	**111.7**	**112.2**	**112.8**	**113.2**	*113.8*	*114.4*	*115.2*	*115.9*	*116.5*	*117.1*	**111.5**	*113.6*	*116.2*
Miscellaneous															
Vehicle Miles Traveled (b)															
(million miles/day)	**8,079**	**9,024**	**8,912**	**8,566**	**8,301**	**9,138**	*9,015*	*8,649*	*8,282*	*9,274*	*9,140*	*8,790*	**8,646**	*8,777*	*8,874*
Air Travel Capacity															
(Available ton-miles/day, thousands)	**548**	**603**	**609**	**590**	**565**	**618**	*618*	*575*	*547*	*607*	*619*	*579*	**588**	*594*	*588*
Aircraft Utilization															
(Revenue ton-miles/day, thousands)	**326**	**366**	**375**	**357**	**342**	**380**	*387*	*349*	*328*	*379*	*387*	*351*	**356**	*365*	*361*
Airline Ticket Price Index															
(index, 1982-1984=100)	**281.8**	**305.0**	**273.0**	**270.4**	**277.8**	**297.0**	*277.3*	*288.1*	*289.3*	*319.2*	*298.7*	*302.6*	**282.6**	*285.0*	*302.5*
Raw Steel Production															
(million short tons per day)	**0.238**	**0.247**	**0.238**	**0.230**	**0.248**	**0.247**	*0.233*	*0.192*	*0.238*	*0.240*	*0.220*	*0.181*	**0.239**	*0.230*	*0.220*
Carbon Dioxide (CO_2) Emissions (million metric tons)															
Petroleum	**571**	**571**	**589**	**589**	**564**	**579**	*595*	*588*	*570*	*585*	*601*	*595*	**2,320**	*2,327*	*2,352*
Natural Gas	**439**	**327**	**343**	**376**	**416**	**306**	*325*	*384*	*450*	*323*	*332*	*389*	**1,485**	*1,431*	*1,494*
Coal	**309**	**298**	**413**	**335**	**322**	**311**	*412*	*340*	*347*	*315*	*401*	*340*	**1,354**	*1,385*	*1,402*
Total Energy (c)	**1,322**	**1,199**	**1,347**	**1,302**	**1,306**	**1,199**	*1,335*	*1,315*	*1,370*	*1,225*	*1,337*	*1,327*	**5,170**	*5,154*	*5,259*

- = 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 - August 2017

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
Real Gross State Product (Billion $2009)															
New England	**881**	**883**	**891**	**896**	**898**	**903**	*909*	*914*	*918*	*923*	*928*	*932*	**888**	*906*	*925*
Middle Atlantic	**2,462**	**2,468**	**2,472**	**2,479**	**2,483**	**2,493**	*2,509*	*2,521*	*2,535*	*2,548*	*2,559*	*2,569*	**2,470**	*2,501*	*2,553*
E. N. Central	**2,263**	**2,270**	**2,289**	**2,299**	**2,304**	**2,315**	*2,327*	*2,338*	*2,350*	*2,363*	*2,374*	*2,385*	**2,280**	*2,321*	*2,368*
W. N. Central	**1,050**	**1,055**	**1,065**	**1,068**	**1,071**	**1,078**	*1,085*	*1,090*	*1,096*	*1,102*	*1,107*	*1,113*	**1,060**	*1,081*	*1,105*
S. Atlantic	**2,926**	**2,938**	**2,969**	**2,985**	**2,998**	**3,018**	*3,042*	*3,062*	*3,084*	*3,105*	*3,125*	*3,144*	**2,955**	*3,030*	*3,115*
E. S. Central	**740**	**744**	**751**	**754**	**757**	**762**	*767*	*771*	*775*	*779*	*784*	*787*	**747**	*764*	*781*
W. S. Central	**2,010**	**2,005**	**2,014**	**2,029**	**2,043**	**2,060**	*2,080*	*2,098*	*2,114*	*2,129*	*2,146*	*2,162*	**2,015**	*2,070*	*2,138*
Mountain	**1,049**	**1,051**	**1,068**	**1,073**	**1,077**	**1,086**	*1,097*	*1,105*	*1,115*	*1,122*	*1,130*	*1,138*	**1,060**	*1,091*	*1,126*
Pacific	**3,043**	**3,065**	**3,104**	**3,125**	**3,138**	**3,160**	*3,183*	*3,203*	*3,226*	*3,251*	*3,273*	*3,294*	**3,084**	*3,171*	*3,261*
Industrial Output, Manufacturing (Index, Year 2012=100)															
New England	**98.2**	**97.8**	**97.8**	**97.9**	**98.0**	**97.9**	*97.9*	*98.3*	*99.0*	*99.4*	*99.8*	*100.2*	**97.9**	*98.0*	*99.6*
Middle Atlantic	**98.8**	**98.4**	**98.2**	**97.9**	**98.2**	**97.3**	*97.5*	*97.9*	*98.6*	*99.2*	*99.7*	*100.2*	**98.3**	*97.7*	*99.4*
E. N. Central	**105.0**	**104.9**	**105.0**	**105.7**	**106.2**	**106.3**	*106.6*	*107.1*	*107.9*	*108.7*	*109.4*	*110.1*	**105.1**	*106.6*	*109.0*
W. N. Central	**102.4**	**102.0**	**102.0**	**102.2**	**102.4**	**103.1**	*103.3*	*103.8*	*104.7*	*105.4*	*106.0*	*106.6*	**102.1**	*103.1*	*105.7*
S. Atlantic	**105.5**	**105.5**	**105.9**	**106.9**	**107.2**	**108.0**	*108.2*	*108.6*	*109.3*	*109.9*	*110.4*	*111.0*	**106.0**	*108.0*	*110.1*
E. S. Central	**107.3**	**107.7**	**108.5**	**108.9**	**110.1**	**110.6**	*111.0*	*111.4*	*112.3*	*113.0*	*113.6*	*114.2*	**108.1**	*110.8*	*113.3*
W. S. Central	**97.8**	**96.7**	**96.1**	**96.4**	**98.1**	**99.5**	*100.0*	*100.7*	*101.8*	*102.8*	*103.8*	*104.7*	**96.7**	*99.6*	*103.3*
Mountain	**106.1**	**106.0**	**106.3**	**107.2**	**108.3**	**108.4**	*108.9*	*109.6*	*110.6*	*111.3*	*111.9*	*112.5*	**106.4**	*108.8*	*111.6*
Pacific	**104.0**	**103.7**	**103.3**	**103.7**	**103.8**	**104.5**	*104.9*	*105.6*	*106.5*	*107.4*	*108.0*	*108.7*	**103.7**	*104.7*	*107.7*
Real Personal Income (Billion $2009)															
New England	**775**	**783**	**791**	**782**	**785**	**791**	*796*	*802*	*808*	*813*	*818*	*825*	**783**	*793*	*816*
Middle Atlantic	**1,966**	**1,978**	**1,991**	**1,987**	**1,992**	**2,004**	*2,014*	*2,027*	*2,042*	*2,053*	*2,066*	*2,081*	**1,980**	*2,009*	*2,060*
E. N. Central	**2,092**	**2,106**	**2,118**	**2,115**	**2,122**	**2,139**	*2,148*	*2,161*	*2,178*	*2,190*	*2,205*	*2,221*	**2,108**	*2,143*	*2,198*
W. N. Central	**994**	**1,000**	**1,006**	**1,001**	**1,001**	**1,010**	*1,014*	*1,020*	*1,028*	*1,034*	*1,041*	*1,049*	**1,000**	*1,011*	*1,038*
S. Atlantic	**2,703**	**2,723**	**2,750**	**2,752**	**2,769**	**2,793**	*2,810*	*2,833*	*2,860*	*2,881*	*2,906*	*2,933*	**2,732**	*2,801*	*2,895*
E. S. Central	**773**	**777**	**783**	**782**	**786**	**792**	*796*	*802*	*809*	*814*	*819*	*826*	**779**	*794*	*817*
W. S. Central	**1,731**	**1,739**	**1,746**	**1,737**	**1,748**	**1,765**	*1,778*	*1,796*	*1,814*	*1,829*	*1,846*	*1,865*	**1,738**	*1,772*	*1,839*
Mountain	**949**	**957**	**969**	**963**	**967**	**977**	*984*	*993*	*1,003*	*1,011*	*1,020*	*1,031*	**959**	*980*	*1,016*
Pacific	**2,316**	**2,336**	**2,356**	**2,367**	**2,377**	**2,395**	*2,410*	*2,430*	*2,452*	*2,470*	*2,490*	*2,513*	**2,344**	*2,403*	*2,481*
Households (Thousands)															
New England	**5,827**	**5,832**	**5,835**	**5,838**	**5,840**	**5,823**	*5,830*	*5,839*	*5,849*	*5,859*	*5,869*	*5,880*	**5,838**	*5,839*	*5,880*
Middle Atlantic	**15,961**	**15,971**	**15,977**	**15,982**	**15,983**	**15,931**	*15,948*	*15,967*	*15,991*	*16,013*	*16,037*	*16,062*	**15,982**	*15,967*	*16,062*
E. N. Central	**18,744**	**18,760**	**18,769**	**18,776**	**18,784**	**18,722**	*18,741*	*18,763*	*18,789*	*18,818*	*18,849*	*18,881*	**18,776**	*18,763*	*18,881*
W. N. Central	**8,523**	**8,540**	**8,554**	**8,568**	**8,583**	**8,566**	*8,584*	*8,606*	*8,629*	*8,654*	*8,678*	*8,702*	**8,568**	*8,606*	*8,702*
S. Atlantic	**25,028**	**25,127**	**25,216**	**25,301**	**25,382**	**25,372**	*25,466*	*25,566*	*25,668*	*25,773*	*25,878*	*25,985*	**25,301**	*25,566*	*25,985*
E. S. Central	**7,585**	**7,599**	**7,611**	**7,622**	**7,633**	**7,616**	*7,632*	*7,649*	*7,667*	*7,687*	*7,707*	*7,727*	**7,622**	*7,649*	*7,727*
W. S. Central	**14,512**	**14,564**	**14,613**	**14,657**	**14,701**	**14,695**	*14,751*	*14,810*	*14,871*	*14,932*	*14,993*	*15,055*	**14,657**	*14,810*	*15,055*
Mountain	**8,934**	**8,973**	**9,010**	**9,047**	**9,081**	**9,083**	*9,123*	*9,164*	*9,207*	*9,252*	*9,296*	*9,341*	**9,047**	*9,164*	*9,341*
Pacific	**18,622**	**18,677**	**18,725**	**18,774**	**18,821**	**18,808**	*18,873*	*18,941*	*19,012*	*19,075*	*19,138*	*19,197*	**18,774**	*18,941*	*19,197*
Total Non-farm Employment (Millions)															
New England	**7.3**	**7.3**	**7.3**	**7.3**	**7.4**	**7.4**	*7.4*	*7.4*	*7.4*	*7.4*	*7.4*	*7.4*	**7.3**	*7.4*	*7.4*
Middle Atlantic	**19.2**	**19.2**	**19.3**	**19.4**	**19.4**	**19.5**	*19.5*	*19.5*	*19.6*	*19.6*	*19.6*	*19.6*	**19.3**	*19.5*	*19.6*
E. N. Central	**21.7**	**21.7**	**21.8**	**21.8**	**21.9**	**21.9**	*22.0*	*22.0*	*22.0*	*22.1*	*22.1*	*22.1*	**21.7**	*21.9*	*22.1*
W. N. Central	**10.5**	**10.5**	**10.6**	**10.6**	**10.6**	**10.7**	*10.7*	*10.7*	*10.7*	*10.8*	*10.8*	*10.8*	**10.6**	*10.7*	*10.8*
S. Atlantic	**27.4**	**27.6**	**27.8**	**27.9**	**28.0**	**28.1**	*28.2*	*28.3*	*28.4*	*28.5*	*28.6*	*28.7*	**27.7**	*28.2*	*28.6*
E. S. Central	**7.9**	**7.9**	**8.0**	**8.0**	**8.0**	**8.1**	*8.1*	*8.1*	*8.1*	*8.2*	*8.2*	*8.2*	**8.0**	*8.1*	*8.2*
W. S. Central	**16.8**	**16.8**	**16.8**	**16.9**	**17.0**	**17.1**	*17.2*	*17.2*	*17.3*	*17.4*	*17.4*	*17.5*	**16.8**	*17.1*	*17.4*
Mountain	**10.2**	**10.2**	**10.3**	**10.4**	**10.4**	**10.5**	*10.5*	*10.6*	*10.6*	*10.6*	*10.7*	*10.7*	**10.3**	*10.5*	*10.7*
Pacific	**22.2**	**22.4**	**22.5**	**22.6**	**22.7**	**22.8**	*22.9*	*22.9*	*23.0*	*23.1*	*23.1*	*23.2*	**22.4**	*22.8*	*23.1*

- = no data available

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

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 - August 2017

	2016				2017				2018				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016	2017	2018
Heating Degree Days															
New England	**2,841**	**901**	**77**	**2,114**	**2,989**	**806**	*140*	*2,171*	*3,095*	*848*	*130*	*2,112*	**5,933**	*6,106*	*6,185*
Middle Atlantic	**2,668**	**751**	**39**	**1,903**	**2,662**	**604**	*83*	*1,985*	*2,881*	*676*	*83*	*1,942*	**5,360**	*5,335*	*5,582*
E. N. Central	**2,868**	**753**	**48**	**2,032**	**2,691**	**629**	*120*	*2,212*	*3,163*	*724*	*119*	*2,227*	**5,702**	*5,651*	*6,233*
W. N. Central	**2,894**	**659**	**103**	**2,131**	**2,813**	**663**	*142*	*2,388*	*3,273*	*684*	*149*	*2,416*	**5,788**	*6,005*	*6,521*
South Atlantic	**1,381**	**210**	**2**	**858**	**1,147**	**124**	*13*	*964*	*1,429*	*199*	*14*	*963*	**2,451**	*2,247*	*2,605*
E. S. Central	**1,754**	**233**	**5**	**1,099**	**1,374**	**153**	*20*	*1,288*	*1,849*	*248*	*20*	*1,308*	**3,090**	*2,835*	*3,425*
W. S. Central	**1,050**	**78**	**1**	**620**	**772**	**66**	*5*	*801*	*1,183*	*82*	*4*	*801*	**1,749**	*1,644*	*2,070*
Mountain	**2,083**	**678**	**160**	**1,705**	**2,059**	**698**	*133*	*1,830*	*2,236*	*676*	*138*	*1,846*	**4,625**	*4,720*	*4,896*
Pacific	**1,302**	**465**	**95**	**1,149**	**1,550**	**530**	*78*	*1,221*	*1,504*	*567*	*87*	*1,183*	**3,012**	*3,379*	*3,341*
U.S. Average	**1,948**	**480**	**51**	**1,397**	**1,856**	**427**	*71*	*1,526*	*2,128*	*481*	*72*	*1,518*	**3,876**	*3,881*	*4,199*
Heating Degree Days, Prior 10-year Average															
New England	**3,212**	**824**	**133**	**2,105**	**3,200**	**830**	*122*	*2,125*	*3,172*	*818*	*124*	*2,121*	**6,273**	*6,278*	*6,235*
Middle Atlantic	**2,983**	**651**	**90**	**1,927**	**2,982**	**661**	*81*	*1,941*	*2,947*	*646*	*82*	*1,947*	**5,650**	*5,664*	*5,622*
E. N. Central	**3,246**	**689**	**125**	**2,205**	**3,254**	**701**	*114*	*2,197*	*3,208*	*692*	*118*	*2,205*	**6,266**	*6,266*	*6,223*
W. N. Central	**3,298**	**693**	**150**	**2,393**	**3,302**	**707**	*142*	*2,379*	*3,264*	*705*	*144*	*2,379*	**6,534**	*6,530*	*6,492*
South Atlantic	**1,498**	**184**	**14**	**972**	**1,502**	**188**	*12*	*965*	*1,476*	*176*	*12*	*975*	**2,668**	*2,666*	*2,639*
E. S. Central	**1,898**	**225**	**19**	**1,308**	**1,905**	**231**	*16*	*1,287*	*1,867*	*217*	*17*	*1,302*	**3,450**	*3,438*	*3,403*
W. S. Central	**1,221**	**83**	**5**	**815**	**1,227**	**88**	*4*	*799*	*1,180*	*80*	*4*	*807*	**2,123**	*2,118*	*2,072*
Mountain	**2,231**	**725**	**147**	**1,880**	**2,216**	**734**	*142*	*1,862*	*2,195*	*737*	*142*	*1,858*	**4,982**	*4,953*	*4,931*
Pacific	**1,495**	**610**	**88**	**1,212**	**1,461**	**597**	*88*	*1,204*	*1,463*	*592*	*84*	*1,199*	**3,406**	*3,351*	*3,338*
U.S. Average	**2,199**	**483**	**76**	**1,534**	**2,192**	**487**	*71*	*1,526*	*2,160*	*478*	*71*	*1,528*	**4,292**	*4,276*	*4,237*
Cooling Degree Days															
New England	**0**	**80**	**539**	**0**	**0**	**77**	*413*	*1*	*0*	*94*	*455*	*1*	**618**	*492*	*550*
Middle Atlantic	**0**	**145**	**734**	**6**	**0**	**140**	*571*	*4*	*0*	*173*	*590*	*6*	**884**	*715*	*769*
E. N. Central	**4**	**230**	**704**	**19**	**1**	**209**	*547*	*7*	*0*	*219*	*543*	*8*	**957**	*764*	*770*
W. N. Central	**10**	**319**	**711**	**30**	**9**	**262**	*712*	*10*	*3*	*274*	*676*	*12*	**1,071**	*993*	*965*
South Atlantic	**136**	**651**	**1,344**	**277**	**156**	**666**	*1,194*	*233*	*124*	*652*	*1,180*	*243*	**2,409**	*2,249*	*2,199*
E. S. Central	**42**	**533**	**1,253**	**129**	**66**	**483**	*1,057*	*66*	*29*	*522*	*1,062*	*72*	**1,957**	*1,673*	*1,685*
W. S. Central	**123**	**836**	**1,599**	**329**	**214**	**831**	*1,499*	*196*	*93*	*912*	*1,574*	*219*	**2,886**	*2,740*	*2,798*
Mountain	**33**	**464**	**889**	**112**	**35**	**463**	*971*	*75*	*23*	*451*	*964*	*85*	**1,499**	*1,545*	*1,523*
Pacific	**36**	**230**	**597**	**72**	**30**	**215**	*661*	*61*	*34*	*214*	*636*	*83*	**935**	*966*	*967*
U.S. Average	**54**	**411**	**965**	**128**	**69**	**401**	*881*	*92*	*45*	*418*	*886*	*102*	**1,558**	*1,443*	*1,452*
Cooling Degree Days, Prior 10-year Average															
New England	**0**	**81**	**419**	**1**	**0**	**81**	*433*	*1*	*0*	*81*	*438*	*0*	**501**	*515*	*519*
Middle Atlantic	**0**	**168**	**549**	**5**	**0**	**169**	*566*	*6*	*0*	*166*	*574*	*3*	**722**	*741*	*743*
E. N. Central	**3**	**229**	**528**	**6**	**3**	**234**	*543*	*8*	*3*	*228*	*539*	*6*	**766**	*788*	*776*
W. N. Central	**7**	**279**	**674**	**9**	**7**	**281**	*673*	*12*	*7*	*276*	*668*	*11*	**969**	*973*	*962*
South Atlantic	**114**	**661**	**1,147**	**222**	**117**	**666**	*1,167*	*230*	*119*	*675*	*1,165*	*224*	**2,144**	*2,180*	*2,182*
E. S. Central	**32**	**541**	**1,038**	**56**	**33**	**544**	*1,056*	*65*	*34*	*539*	*1,041*	*62*	**1,668**	*1,698*	*1,677*
W. S. Central	**90**	**890**	**1,518**	**191**	**90**	**877**	*1,528*	*205*	*100*	*887*	*1,536*	*202*	**2,689**	*2,699*	*2,725*
Mountain	**21**	**429**	**930**	**76**	**23**	**424**	*931*	*81*	*24*	*426*	*928*	*80*	**1,456**	*1,459*	*1,457*
Pacific	**29**	**180**	**611**	**72**	**30**	**181**	*608*	*74*	*30*	*185*	*618*	*74*	**892**	*893*	*907*
U.S. Average	**42**	**404**	**845**	**89**	**43**	**406**	*857*	*94*	*45*	*408*	*860*	*92*	**1,380**	*1,400*	*1,405*

- = 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

	June 2017	July 2017	June-July 2017 Average	June-July 2016 Average	2014 – 2016 Average
Global Petroleum and Other Liquids (million barrels per day)					
Global Petroleum and Other Liquids Production (a)	99.2	99.3	99.2	97.1	95.9
Global Petroleum and Other Liquids Consumption (b)	98.9	99.3	99.1	96.3	95.3
Biofuels Production (c)	2.5	2.4	2.5	2.4	2.1
Biofuels Consumption (c)	2.2	2.2	2.2	2.1	2.0
Iran Liquid Fuels Production	4.9	4.9	4.9	4.3	3.7
Iran Liquid Fuels Consumption	1.9	1.9	1.9	1.8	1.9
Petroleum and Petroleum Products Produced and Consumed in Countries Other Than Iran (million barrels per day)					
Production (d)	91.8	92.0	91.9	90.4	90.1
Consumption (d)	94.8	95.3	95.1	92.4	91.4
Production minus Consumption	-3.0	-3.3	-3.1	-2.0	-1.3
World Inventory Net Withdrawals Including Iran	-0.3	0.1	-0.1	-0.7	-0.6
Estimated OECD Inventory Level (e) (million barrels)	3,043	3,029	3,036	3,061	2,840
OPEC Surplus Crude Oil Production Capacity (f)	2.0	2.0	2.0	1.0	1.6

Note: The term "petroleum and other liquids" encompasses crude oil, lease condensate, natural gas liquids, biofuels, coal-to-liquids, gas-to-liquids, and refinery processing gains, which are important to consider in concert due to the inter-related supply, demand, and price dynamics of petroleum, petroleum products, and related fuels.
(a) Production includes crude oil (including lease condensates), natural gas liquids, other liquids, and refinery processing gains.
(b) Consumption of petroleum by the OECD countries is synonymous with "products supplied," defined in the glossary of the EIA Petroleum Supply Monthly, DOE/EIA-0109. Consumption of petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel, and loss, and bunkering.
(c) Biofuels production and consumption are based on EIA estimates as published in the International Energy Statistics. Biofuels production in the third quarter tends to be at its highest level in the year as ethanol production in Brazil reaches its seasonal peak and is typically lowest in the first quarter as seasonal production falls in the South/South-Central region of Brazil.
(d) Global production of petroleum and petroleum products outside of Iran is derived by subtracting biofuels production and Iran liquid fuels production from global liquid fuels production. The same method is used to calculate global consumption outside of Iran.
(e) Estimated inventory level is for OECD countries only.

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

Table a2. Crude Oil and Petroleum Product Price Data

Item	June 2017	July 2017	June-July 2017 Average	June-July 2016 Average	2014 – 2016 Average
Brent Front Month Futures Price ($ per barrel)	47.55	49.15	48.31	48.31	66.06
WTI Front Month Futures Price ($ per barrel)	45.20	46.68	45.90	46.92	61.71
Dubai Front Month Futures Price ($ per barrel)	46.34	47.75	47.01	45.02	63.38
Brent 1st - 13th Month Futures Spread ($ per barrel)	-2.39	-2.21	-2.30	-4.09	-3.42
WTI 1st - 13th Month Futures Spread ($ per barrel)	-2.01	-1.72	-1.87	-4.21	-2.04
RBOB Front Month Futures Price ($ per gallon)	1.48	1.57	1.52	1.47	1.89
Heating Oil Front Month Futures Price ($ per gallon)	1.43	1.53	1.47	1.45	1.93
RBOB - Brent Futures Crack Spread ($ per gallon)	0.35	0.40	0.37	0.32	0.31
Heating Oil - Brent Futures Crack Spread ($ per gallon)	0.29	0.36	0.32	0.30	0.36

(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).