



Independent Statistics & Analysis

U.S. Energy Information
Administration

February 2018

Short-Term Energy Outlook (STEO)

Forecast highlights

Global liquid fuels

- North Sea Brent crude oil spot prices averaged \$69 per barrel (b) in January, an increase of \$5/b from the December level. Monthly average Brent prices have increased for seven consecutive months, and, on January 11, spot prices moved higher than \$70/b for the first time since December 2014. EIA forecasts Brent spot prices will average about \$62/b in both 2018 and 2019 compared with an average of \$54/b in 2017.
- EIA expects West Texas Intermediate (WTI) crude oil prices to average \$4/b lower than Brent prices in both 2018 and 2019. NYMEX WTI contract values for May 2018 delivery traded during the five-day period ending February 1, 2018, suggest a range of \$55/b to \$77/b encompasses the market expectation for May 2018 WTI prices at the 95% confidence level.
- EIA estimates that U.S. crude oil production averaged 10.2 million barrels per day (b/d) in January, up 100,000 b/d from the December level. EIA estimates that total U.S. crude oil production averaged 9.3 million b/d in 2017 and will average 10.6 million b/d in 2018, which would mark the highest annual average U.S. crude oil production level, surpassing the previous record of 9.6 million b/d set in 1970. EIA forecasts that 2019 crude oil production will average 11.2 million b/d.
- EIA estimates that global petroleum and other liquid fuels inventories declined by 0.5 million b/d in 2017. In this forecast, global inventories grow by about 0.2 million b/d in both 2018 and 2019.

Natural gas

- EIA estimates that U.S. dry natural gas production averaged 73.6 billion cubic feet per day (Bcf/d) in 2017. EIA forecasts that natural gas production will reach 80.3 Bcf/d in 2018, establishing a new record. That level would be 6.7 Bcf/d higher than the 2017 level, and the forecast 2017 growth would be the highest annual average growth on record. EIA expects natural gas production will also increase in 2019, with forecast growth of 2.6 Bcf/d.
- In January, the U.S. benchmark Henry Hub natural gas spot price averaged \$3.88 per million British thermal units (MMBtu), up \$1.06/MMBtu from December. Cold

temperatures east of the Rocky Mountains in early January contributed to high levels of natural gas consumption as well as a reduction in production because of well freeze-offs. This combination resulted in record-high natural gas inventory withdrawals in mid-January, which contributed to rising prices.

- EIA expects natural gas prices to moderate in the coming months, based on a forecast of record growth in natural gas production. EIA expects Henry Hub spot prices to average \$3.34/MMBtu in February and \$3.20/MMBtu for all of 2018. In 2019, EIA forecasts prices will average \$3.08/MMBtu. NYMEX contract values for May 2018 delivery that traded during the five-day period ending February 1, 2018, suggest that a range of \$2.26/MMBtu to \$3.67/MMBtu encompasses the market expectation for May Henry Hub natural gas prices at the 95% confidence level.

Electricity, coal, renewables, and emissions

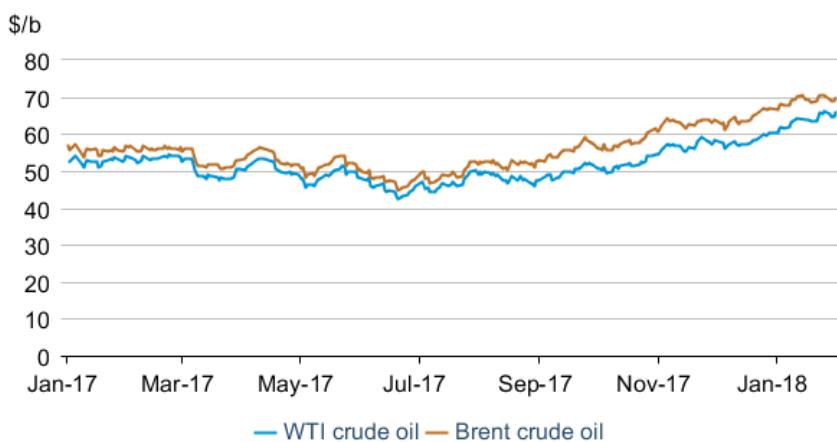
- EIA expects the share of U.S. total utility-scale electricity generation from natural gas-fired power plants to rise from 32% in 2017 to 33% in 2018 and to 34% in 2019. The forecast generation share from coal in 2018 averages 30%, about the same as in 2017, but then falls to 29% in 2019. The nuclear share of generation was 20% in 2017 and is forecast to average 20% in 2018 and 19% in 2019. Nonhydropower renewables provided slightly less than 10% of electricity generation in 2017 and is expected to provide about 10% in both 2018 and 2019. The generation share of hydropower was almost 8% in 2017 and is forecast to be about 7% in both 2018 and 2019.
- EIA estimates U.S. coal production was 772 million short tons (MMst) in 2017, 44 MMst (6%) higher than in 2016. Forecast coal production declines by 2% to 760 MMst in 2018 and then increases slightly to 762 MMst in 2019. Lower expected global demand for U.S. coal exports (down 16% in 2018 and another 4% in 2019) and lower forecasts of coal use in the electric power sector (1% lower in 2018 and another 2% lower in 2019) contribute to the forecast of lower coal production.
- Wind generated an estimated 691,000 megawatthours per day (MWh/d) of electricity in 2017. EIA projects that generation from wind will rise to an average of 705,000 MWh/d in 2018 and 765,000 MWh/d in 2019. If project conditions hold, generation from conventional hydropower is projected to average 730,000 MWh/d in 2019, [which would make it the first year that wind generation exceeds hydropower generation](#).
- EIA projects that total solar electricity generation will increase from an estimated average of 209,000 MWh/d in 2017 to 240,000 MWh/d in 2018 and to 287,000 MWh/d in 2019.
- After declining by 0.8% in 2017, energy-related carbon dioxide (CO₂) emissions are projected to increase by 1.8% in 2018 and by 0.4% in 2019. Energy-related CO₂ emissions are sensitive to changes in weather, economic growth, and energy prices.

Petroleum and natural gas markets review

Crude oil

Prices: The front-month futures price for North Sea Brent crude oil settled at \$69.65 per barrel (b) on February 1, an increase of \$3.08/b since January 2. Front-month futures prices for West Texas Intermediate (WTI) crude oil for delivery at Cushing, Oklahoma, increased by \$5.43/b over the same period, settling at \$65.80/b on February 1 (**Figure 1**). January Brent and WTI monthly average spot prices were \$4.71/b and \$5.82/b higher, respectively, than the December average spot prices.

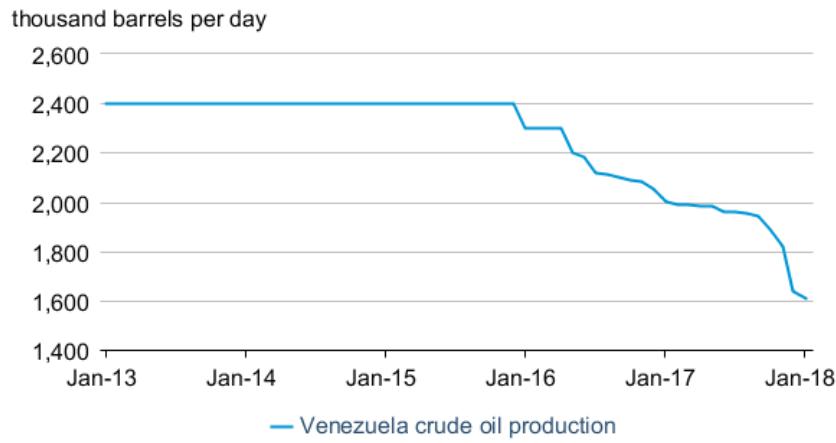
Figure 1. Crude oil front-month futures prices



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

Brent crude oil futures prices closed above \$70/b in mid-January for the first time since December 2014. Prices have increased over the past seven months as oil inventories, both in the United States and globally, have fallen steadily. In January, oil prices may have received some support following the Organization of the Petroleum Exporting Countries' (OPEC) monitoring committee meeting, where some oil ministers suggested extending the production cut agreement in some form beyond the current expiration at the end of 2018. Rapid declines in Venezuelan crude oil output are also likely contributing to higher crude oil prices (**Figure 2**). Average U.S. imports of crude oil from Venezuela [declined to 0.4 million b/d](#) for the four weeks ending January 26, approaching the lowest level in decades. Trade press reports indicate that workers at the national oil company may be fleeing the country amid social unrest.

Figure 2. Venezuela crude oil production



 U.S. Energy Information Administration

Improved global economic growth expectations could also be supporting oil prices. The International Monetary Fund (IMF) recently forecast that world Gross Domestic Product (GDP) would grow by 3.9% in both 2018 and 2019, rates that are both 0.2 percentage points higher than its previous forecast. The IMF's forecast of higher economic growth is consistent with the increases in leading economic indicators from the fourth quarter of 2017. Faster economic growth along with increases in world trade would be significant factors contributing to increases in crude oil and petroleum product consumption. EIA, based on forecasts from Oxford Economics, projects oil-weighted GDP growth will be 3.4% in 2018 and 3.2% in 2019. EIA expects global petroleum and other liquid fuels consumption to increase by 1.7 million b/d in both 2018 and 2019, up from an estimated 1.6 million b/d in 2017.

Crude oil inventories in the United States declined by 6 million barrels during the first four weeks of 2018 in contrast to a five-year average build of 14 million barrels during those four weeks. High levels of refinery inputs of crude oil and crude oil exports contributed to the counter-seasonal draw in crude oil inventories. A cold snap in the U.S. Northeast in early January increased demand for home heating oil and likely contributed to higher refinery utilization than is typical for this time of year. Inputs of crude oil at U.S. refineries averaged 16.7 million b/d for the four weeks ending January 26, which, if confirmed in the *Petroleum Supply Monthly*, would be the highest level of refinery runs on record for the month of January. Also, U.S. crude oil exports averaged almost 1.4 million b/d for the four weeks ending January 26. In January 2017, U.S. crude oil exports averaged about 0.7 million b/d.

Similar to the draw in U.S. inventories, Organization for Economic Cooperation and Development (OECD) oil inventories also declined. EIA estimated OECD total petroleum inventories at 2.87 billion barrels; this was a decline of 183 million barrels from January 2017, the largest year-over-year decline since March 2003. However, a continued acceleration in non-OPEC supply growth is expected to contribute to global total petroleum and other liquids inventories rising by 0.2 million b/d in 2018. This expected modest increase in global oil

inventories could put downward pressure on crude oil prices in the coming months. EIA forecasts Brent crude oil prices to decline to \$60/b and WTI prices to decline to \$56/b by the third quarter of 2018. EIA expects Brent prices to average \$62/b for all of 2018 and WTI prices to average \$58/b for the year.

The increase in crude oil prices in recent months has been mitigated for some countries whose currency [exchange rate](#) with the U.S. dollar has appreciated. Even though Brent crude oil prices increased by 40% from July 3, 2017, through February 1, 2018, in U.S. dollar terms, crude oil prices in Indian rupees, Thai baht, and euros have only increased by 38%, 29%, and 27%, respectively, during the same period (**Figure 3**). Rising economic growth in several European countries, as well as in non-OECD countries, has likely contributed to larger demand for their goods and services, which is reflected in currency appreciation compared with the U.S. dollar. For countries that import crude oil, a stronger currency can lessen the effect higher crude oil prices have on businesses and households.

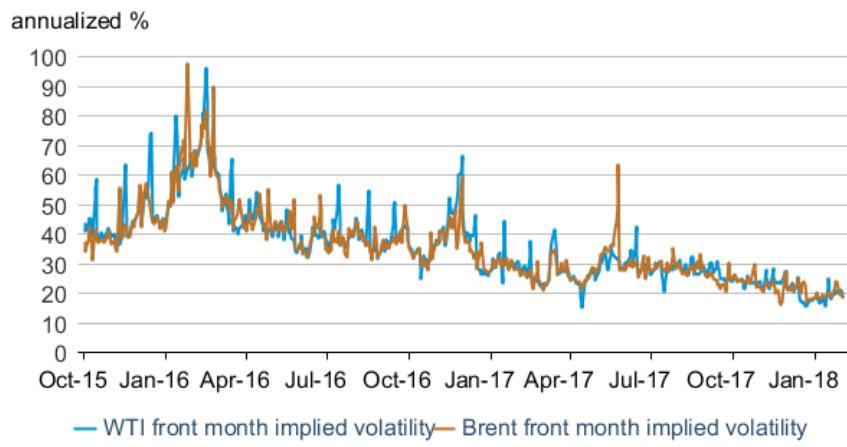
Figure 3. Brent crude oil prices in various currencies



 Bloomberg, L.P.

Even though crude oil prices reached the highest levels in more than three years, implied volatility for crude oil options approached the lowest levels in more than three years in January. Brent front-month implied volatility decreased 0.5 percentage points since the beginning of January to settle at 18.2% on February 1 (**Figure 4**), and monthly average implied volatility for January was the lowest since September 2014. Higher oil prices and lower implied volatility often occur in times of [improving economic conditions](#).

Figure 4. Crude oil implied volatility

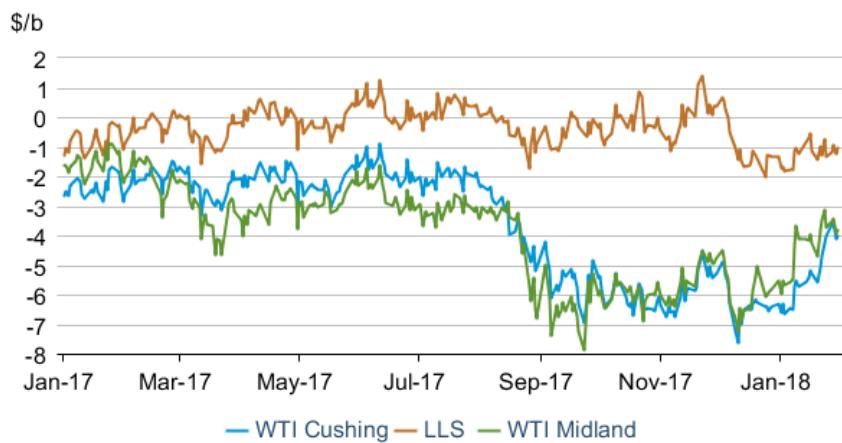


Source: eia Bloomberg L.P.

U.S. crude oil prices compared with Brent crude oil prices diverged from recent trends in January. The Light Louisiana Sweet (LLS) price difference with Brent crude oil fell from a slight premium to Brent to trade \$1/b or more under Brent for 23 consecutive trading days in December and January, settling at -\$1.07/b on February 1 (**Figure 5**). These 23 days were the longest stretch where LLS traded more than \$1/b under Brent since February and March 2015. Although the [Forties pipeline outage](#) in mid-December contributed to rising Brent crude oil prices relative other light sweet crude oils, LLS differentials remained lower even after the pipeline was restored to full service. The discount could be attributable to the startup of the [Diamond pipeline](#) from Cushing, Oklahoma, to Memphis, Tennessee, which may be lowering the demand for U.S. Gulf Coast crude oil from refineries in the U.S. Midwest.

In contrast to LLS, WTI Cushing and WTI Midland crude oil prices increased relative to Brent in recent weeks. On February 1, the WTI Cushing and WTI Midland spreads with Brent settled at -\$4.02/b and -\$3.82/b, respectively, increases of \$2.30/b and \$1.70/b, respectively, since January 2. The Diamond pipeline startup and a likely reduction in [Canadian crude oil deliveries](#) to Cushing have contributed to a stock draw at the hub of [12 million barrels](#) since the last week of December and likely increased WTI Cushing prices. Cold winter weather in west Texas led to some production shut-ins, increasing the WTI Midland-Brent crude oil price spread.

Figure 5. U.S. crude oil spot price differentials to Brent



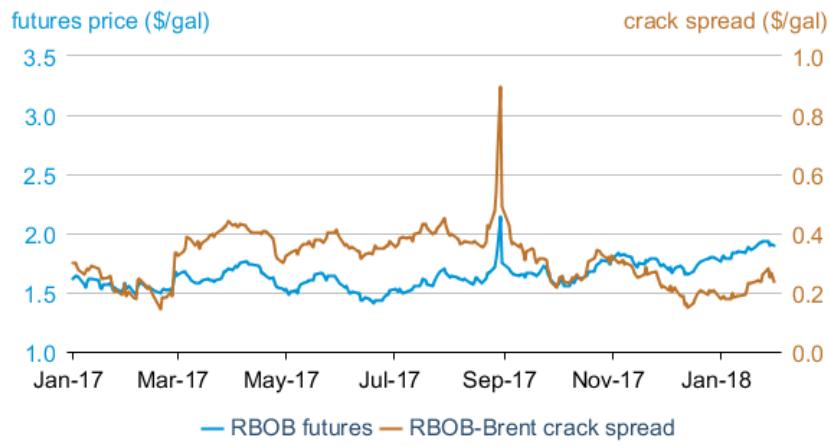
 U.S. Energy Information Administration, Bloomberg L.P.

Petroleum products

Gasoline prices: The front-month futures price of reformulated blendstock for oxygenate blending (RBOB, the petroleum component of gasoline used in many parts of the country) settled at \$1.90 per gallon (gal) on February 1 (**Figure 6**), an increase of 13 cents/gal since January 2. The RBOB–Brent crack spread (the difference between the price of RBOB and the price of Brent crude oil) rose by 6 cents/gal to settle at 24 cents/gal over the same period. EIA compares RBOB prices to Brent prices because [EIA research indicates that U.S. gasoline prices usually move with Brent prices](#), the international crude oil benchmark.

In January, RBOB prices rose to the highest level since late August because of relatively tight supply conditions for the month of January in conjunction with higher crude oil prices. For the four weeks ending January 26, 2018, the days of supply of U.S. gasoline inventories (when including both U.S. gasoline product supplied and finished motor gasoline exports) fell to 25.2 days, which is below the five-year range for the month of January.

Figure 6. Historical RBOB front-month futures prices and crack spread

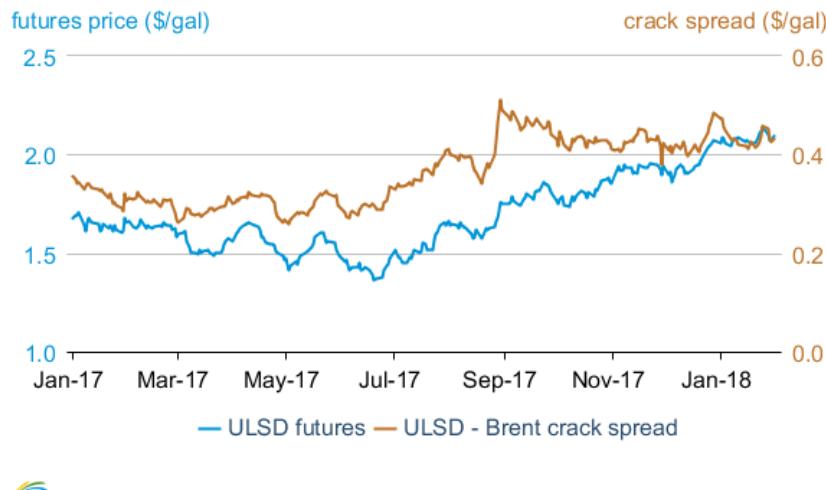


CME Group, as compiled by Bloomberg L.P., RBOB=reformulated blendstock for oxygenate blending

Ultra-low sulfur diesel prices: The ultra-low sulfur diesel (ULSD) front-month futures price rose by 3 cents/gal from January 2 to settle at \$2.09/gal on February 1. On January 26, the ULSD price reached the highest point since February 2015. The ULSD-Brent crack spread (the difference between the price of ULSD and the price of Brent crude oil) decreased by 4 cents/gal over the same period, settling at 43 cents/gal (**Figure 7**).

Distillate prices rose as colder-than-normal temperatures affected much of the United States in the first half of January. Temperatures are also expected to be colder than normal at the beginning of February, which may be lending additional support to ULSD prices. In addition to temporary weather-related price support, EIA has revised annual U.S. distillate consumption higher in 2018 and 2019 by 26,000 b/d and 45,000 b/d, respectively, compared with the January 2018 STEO. EIA now expects distillate fuel consumption to increase by 2.7% in 2018, which would be the highest growth rate since 2014. The higher distillate consumption forecast reflects updated U.S. economic growth assumptions in this STEO in response to the U.S. tax reform bill passed in December 2017 and its potential impact on industrial and manufacturing activity.

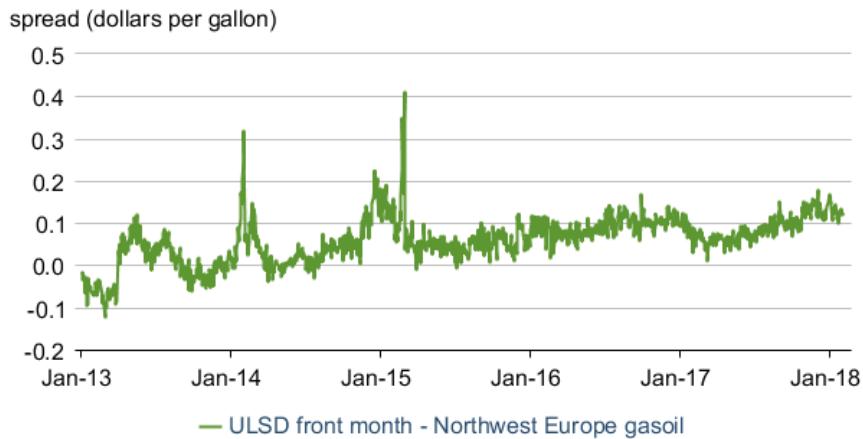
Figure 7. Historical ULSD front-month futures price and crack spread



Since November 2017, the ULSD front-month futures price premium to the Northwest Europe ULSD spot price has remained, on average, at the highest level since the extreme cold weather in the United States during the winter of 2014–15 (**Figure 8**). The current premium has been supported by the combination of cold weather and regional distillate market fundamentals. Distillate inventories in the [Petroleum Administration for Defense District](#) (PADD) 1B, the New York Harbor delivery point of the ULSD futures contract, declined by 9% in the four weeks ending January 26. In contrast, gasoil inventories in the European trading hub of Amsterdam-Rotterdam-Antwerp have risen sharply for six straight weeks and, as of January 25, are slightly above its five-year average.

PADD 1B distillate inventories for the week ending January 26 were 3% below the five-year average level. However, they were 27% higher than during the same week in 2015. Trade press indicates that the premium between U.S. and European ULSD prices during January reached a level high enough that some European distillate cargoes were booked for export to the U.S. East Coast, which sometimes occurs during this time of year in the event of very cold weather.

Figure 8. ULSD front month - Northwest Europe ULSD spot price differential



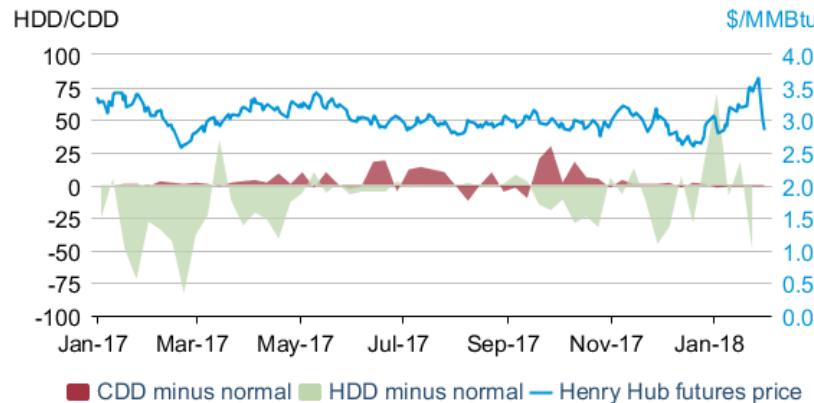
Source: eia CME Group, Bloomberg

Natural Gas

The natural gas futures contract for February delivery at Henry Hub expired on January 29 at \$3.63/million British thermal units (MMBtu), an increase of 58 cents/MMBtu from January 2 (**Figure 9**). Cold weather east of the Rockies, record-level withdrawals from storage, and record demand contributed to substantial increases in prices in January. These demand factors likely outweighed EIA estimates of U.S. dry natural gas production reaching 77.6 billion cubic feet per day (Bcf/d) in January, a year-over-year increase of 7.0 Bcf/d. The contract for March delivery became the front-month contract on January 30 and settled at \$2.86/MMBtu on February 1. Moderating weather forecasts for February contributed to a decline in the March contract prices. The Henry Hub natural gas spot price averaged \$3.88/MMBtu in January, \$1.06/MMBtu higher than the average December price.

Cold weather appears to have driven estimated U.S. natural gas demand to a [record high](#) of 150.7 billion cubic feet on January 1, surpassing the previous single-day record set in 2014. Heating degree days (HDD) were 32% above normal for the week ending January 4. Because of cold weather east of the Rockies, inventories fell relative to the five-year average in all regions except the Pacific region during the first four weeks of January. January saw the two largest withdrawals on record: [359 Bcf for the week ending January 5](#) and 288 Bcf for the week ending January 19. The cold weather [had a significant effect on the South Central region](#), where the Henry Hub national benchmark is located. Withdrawals in that region comprised between 42% and 43% of total U.S. withdrawals in both of the record-breaking weeks because of increased natural gas-fired electricity generation for heating.

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



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

The cold weather and high demand affected natural gas spot prices more than futures prices. Henry Hub spot prices more than doubled from \$2.76/MMBtu on December 27, 2017, to \$6.24/MMBtu on January 3, 2018, the highest price since the polar vortex in early 2014 when cold weather led to similar price increases (**Figure 10**). Since 2014, the U.S. demand profile has changed with the addition of liquefied natural gas (LNG) export facilities and increased pipeline exports. Total exports in January 2018 are estimated to account for 9% of combined consumption and exports compared with 4% in January 2014. However, rising production contributes to EIA's forecast that inventories will end the withdrawal season (end of March) at 1,429 Bcf, 17% below the five-year average. In 2014, [inventories were 55% below the 2009–13 average at the end of withdrawal season](#).

Figure 10. Henry Hub natural gas spot prices

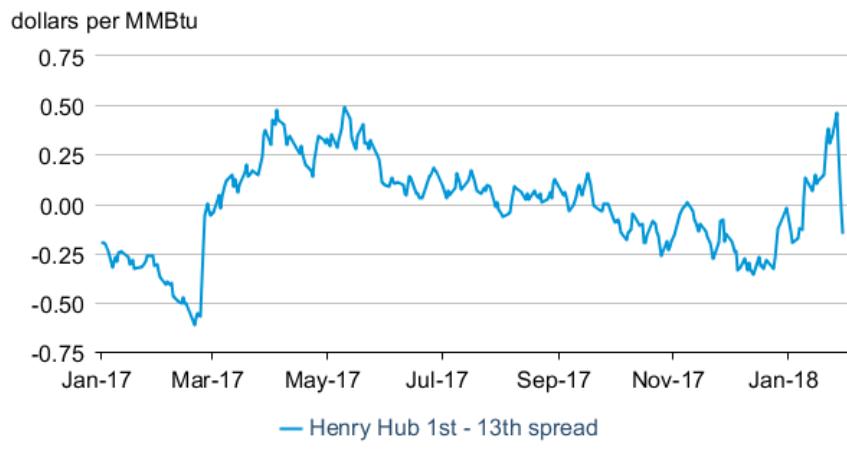


 Natural Gas Intelligence

The large inventory draws in January put upward pressure mainly on the near months of the natural gas futures curve. The difference between the prices of the front-month natural gas

contract and the contract for delivery 13 months in the future (1st–13th spread) increased from -33 cents/MMBtu on December 26, 2017, to 38 cents/MMBtu on January 24, 2018 (**Figure 11**). The change in the 1st–13th spread implies a reversal of the expectations of market conditions. Through December, the negative 1st–13th spread indicated a market that was anticipating supply to outpace demand. Money managers increased their short (sell) positions in natural gas futures contracts by 150,356 contracts from November 14 to December 26, possibly anticipating a decline in natural gas prices as natural gas production continued to reach record levels. In early January, the record-setting natural gas demand and inventory draws indicated a substantial tightening of the market and pushed up near-term prices. The reduction in money manager short positions by 170,253 contracts from December 26, 2017, to January 23, 2018, likely provided some additional buying pressure on the February natural gas contract. The 1st–13th price spread declined when the comparisons shifted to the March contract, falling to -15 cents/MMBtu on February 1.

Figure 11. Natural gas 1st-13th futures price spread



Source: EIA, CME Group

Notable forecast changes

- EIA forecasts U.S. crude oil production to average 10.6 million barrels per day (b/d) in 2018 and 11.2 million b/d in 2019, both of which are 0.3 million b/d higher than forecast in the January STEO. The higher production reflects both the incorporation of recently reported survey data that was higher than expected in the previous STEO and a higher crude oil price forecast. On January 31, EIA reported that [total U.S. crude oil production in November 2017 was above 10.0 million b/d](#). This level was 170,000 b/d higher than EIA's estimate of November production in the January STEO. The new data raised the level of crude oil production from which EIA bases its forecast. Additionally, EIA raised its forecast for WTI crude oil by about \$7 per barrel during the first half of 2018. The higher WTI prices contribute to higher forecast rig counts and production in the Lower 48 onshore regions after about a six-month lag.

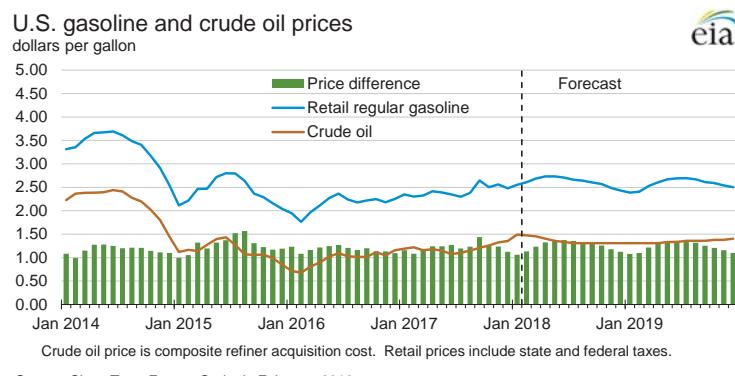
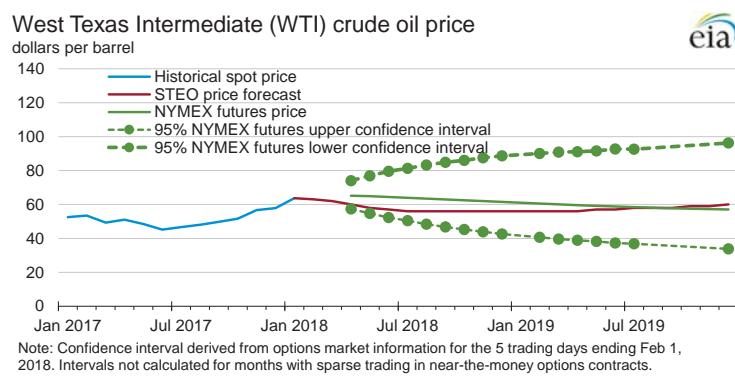
- EIA expects the Henry Hub natural gas spot price to average \$3.20 per Million British thermal units (MMBtu) in 2018, which is 31 cents/MMBtu higher than forecast in the January STEO. The higher price forecast partly reflects record inventory draws during January 2018, which lowered expected storage levels through 2018 in the forecast.

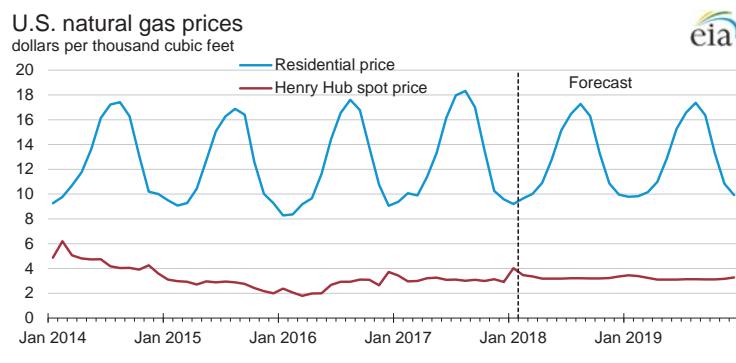
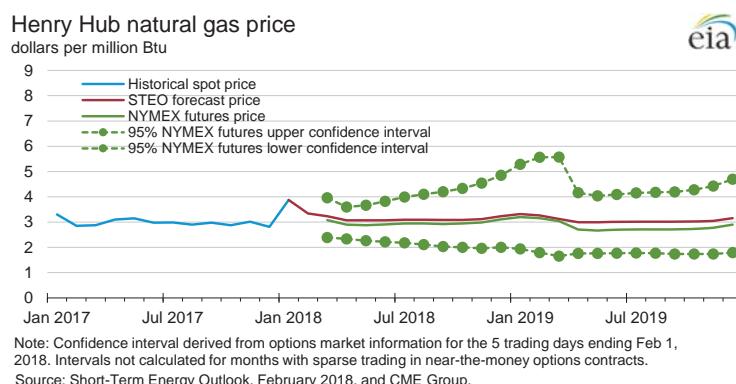
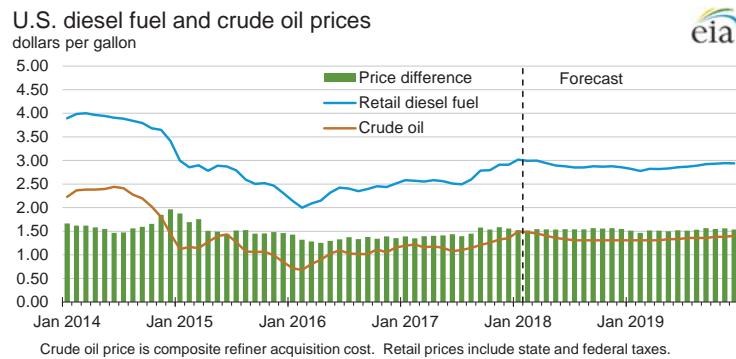
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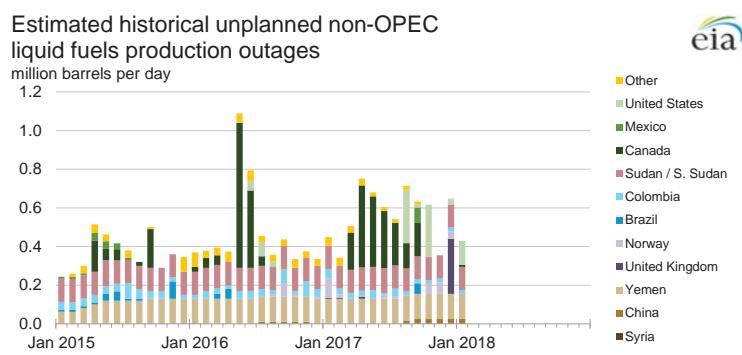
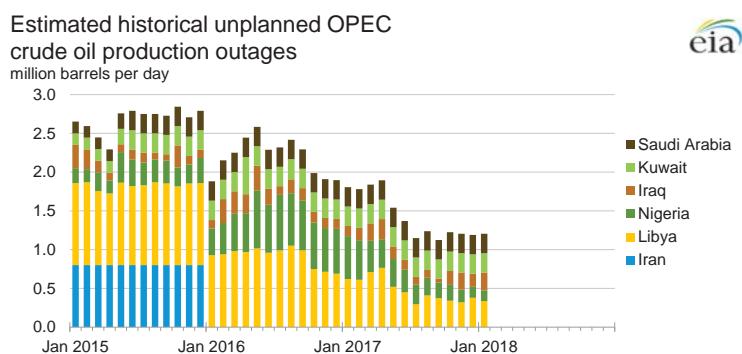
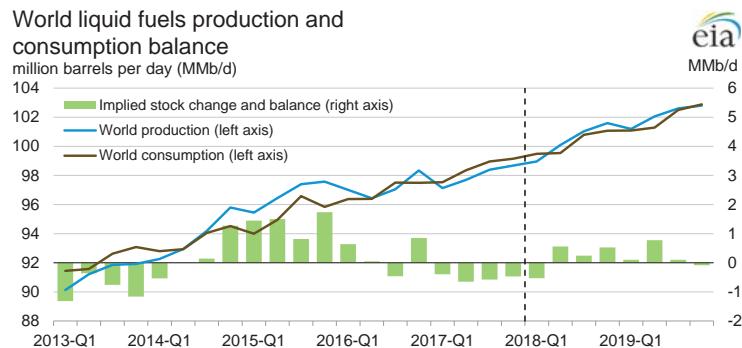


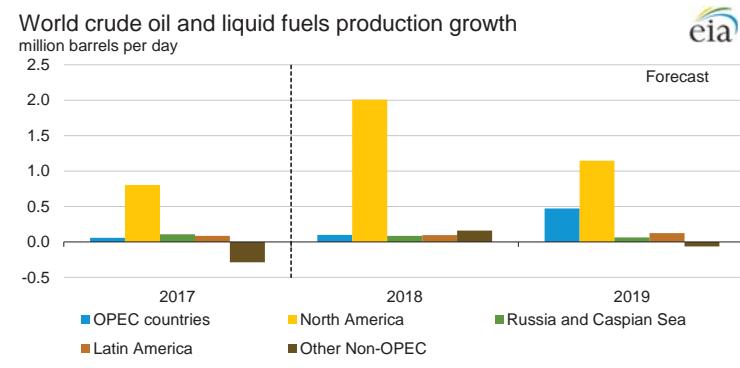
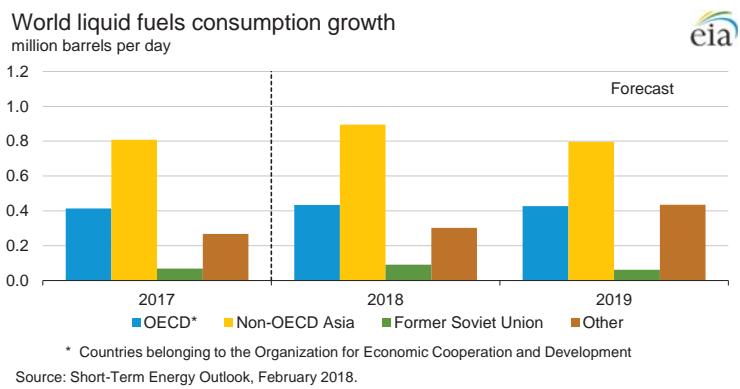
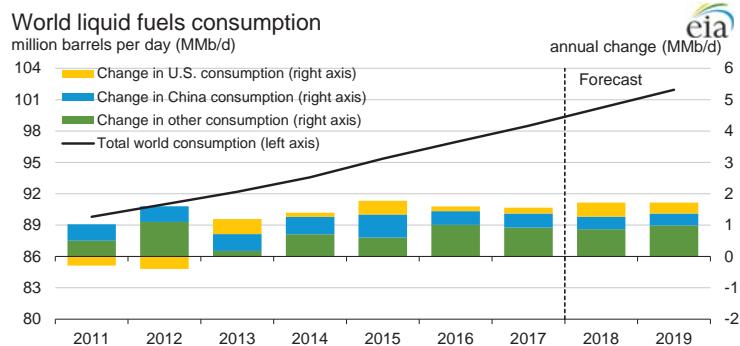
Short-Term Energy Outlook

Chart Gallery for February 2018



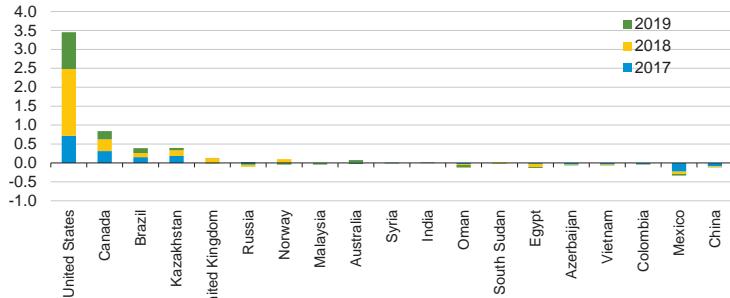






Non-OPEC crude oil and liquid fuels production growth million barrels per day

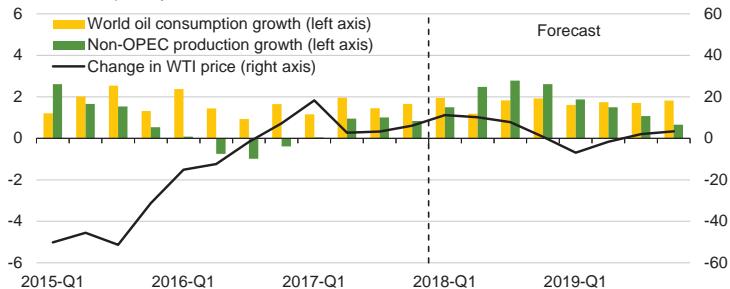
Source: Short-Term Energy Outlook, February 2018.



Source: Short-Term Energy Outlook, February 2018.

World consumption and non-OPEC production growth million barrels per day

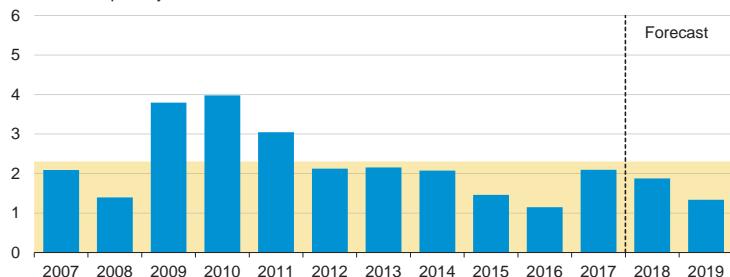
Source: Short-Term Energy Outlook, February 2018.



Source: Short-Term Energy Outlook, February 2018.

OPEC surplus crude oil production capacity million barrels per day

Source: Short-Term Energy Outlook, February 2018.

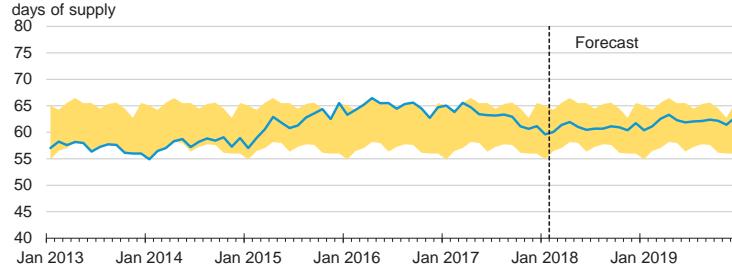


Note: Shaded area represents 2007-2017 average (2.3 million barrels per day).

Source: Short-Term Energy Outlook, February 2018.

OECD commercial stocks of crude oil and other liquids
days of supply

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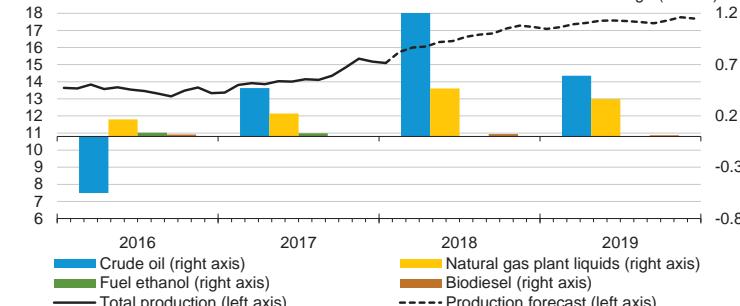


Note: Colored band around days of supply of crude oil and other liquids stocks represents the range between the minimum and maximum from Jan. 2013 - Dec. 2017.
Source: Short-Term Energy Outlook, February 2018.

U.S. crude oil and liquid fuels production
million barrels per day (MMb/d)

ea

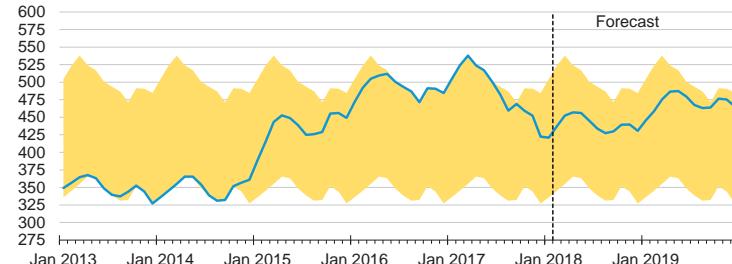
annual change (MMb/d)



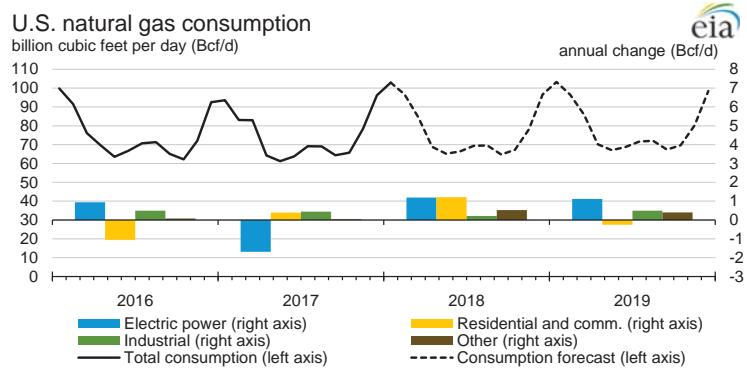
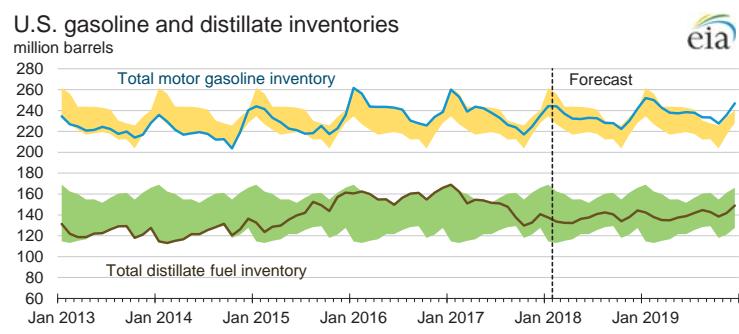
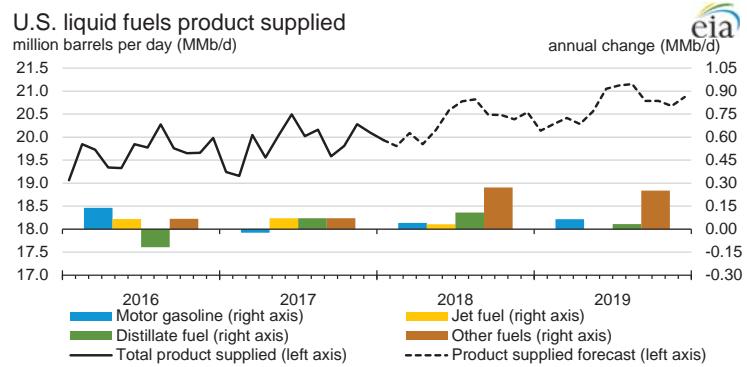
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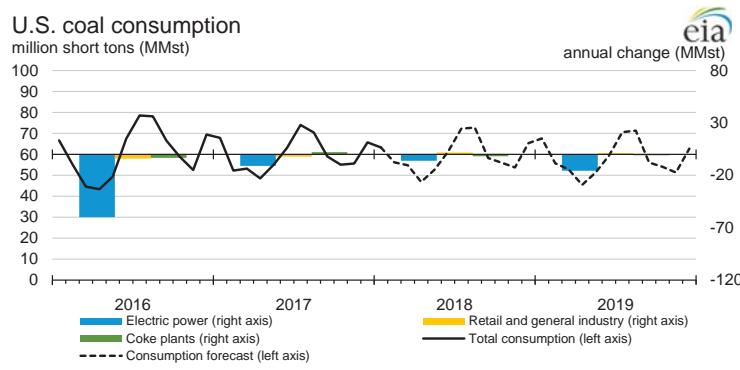
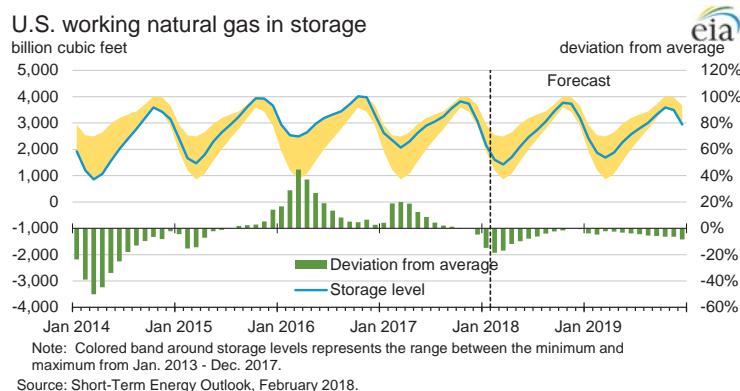
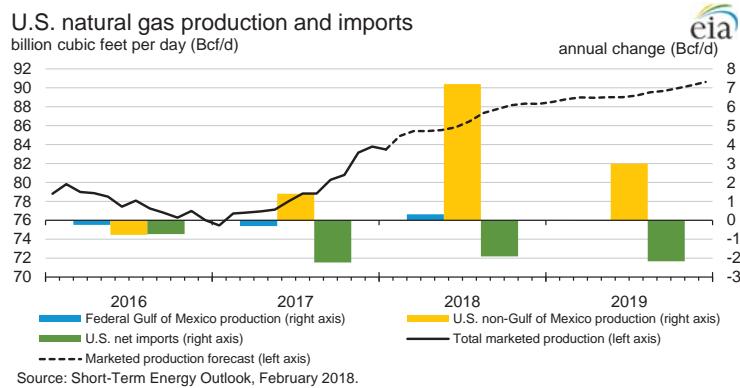
U.S. commercial crude oil stocks
million barrels

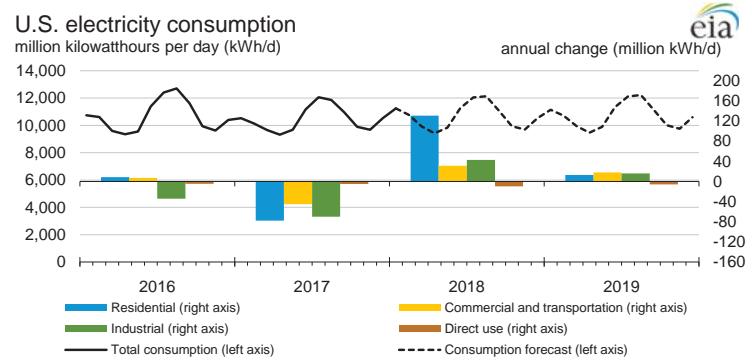
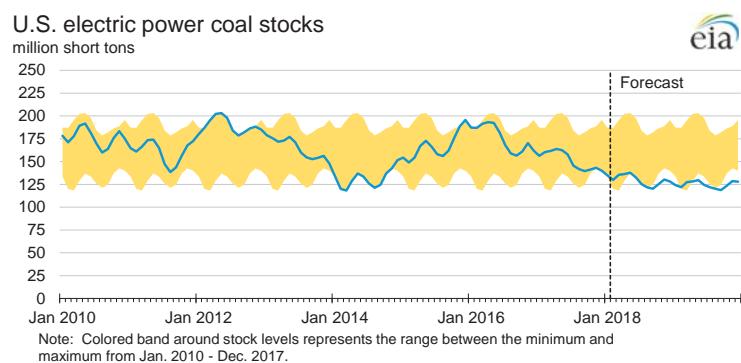
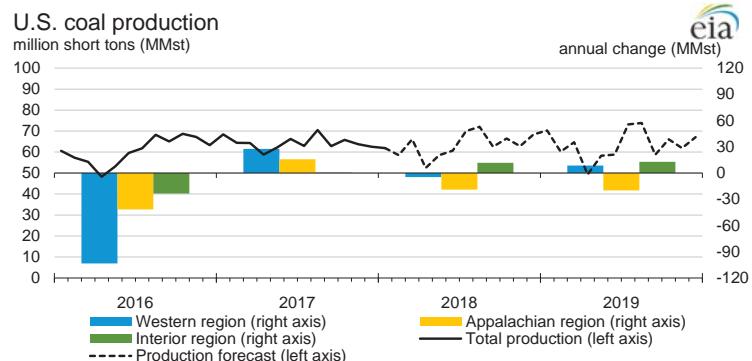
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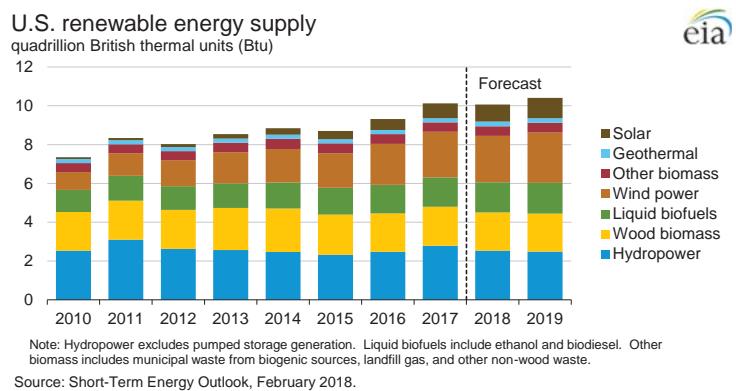
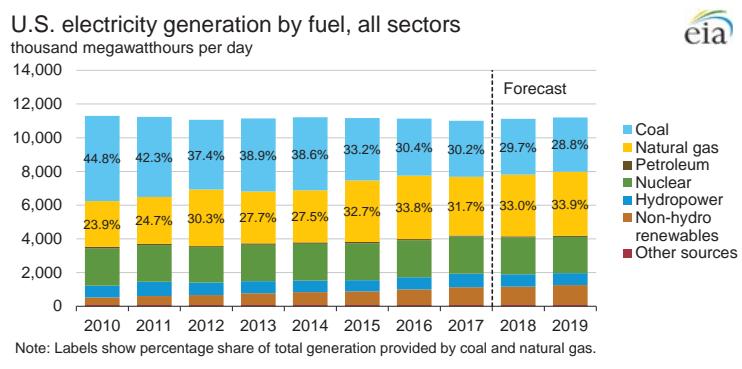
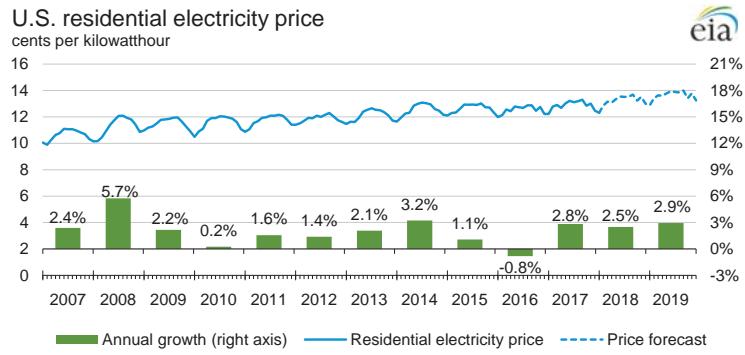


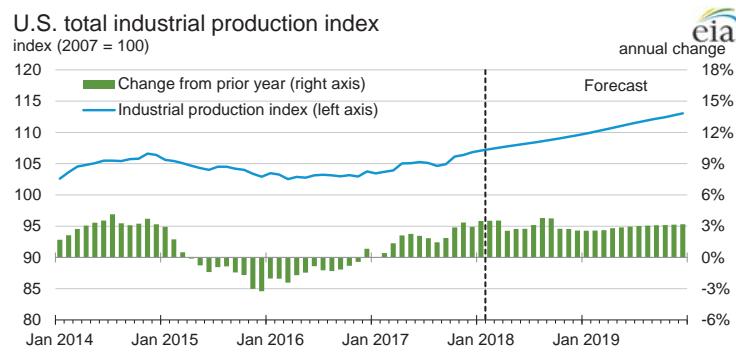
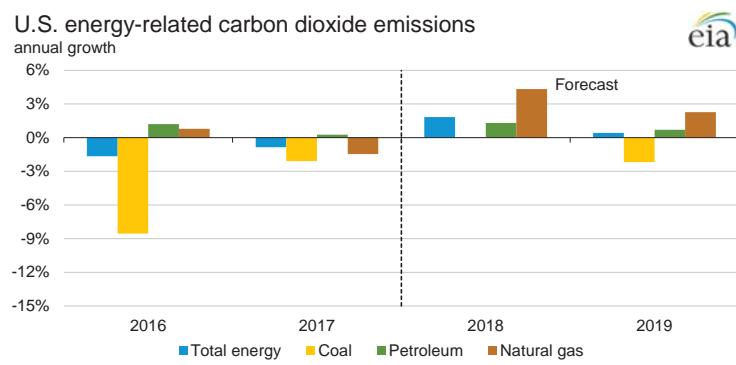
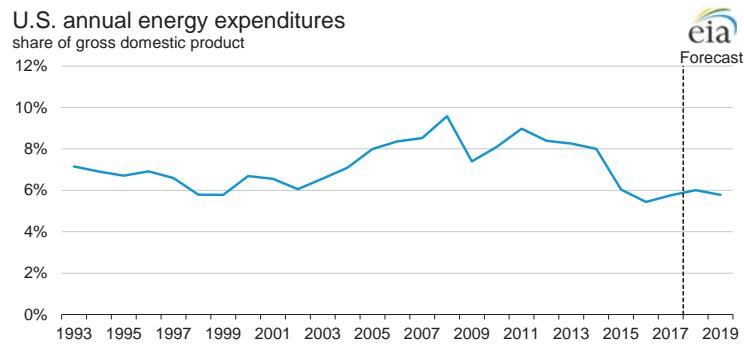
Note: Colored band around storage levels represents the range between the minimum and maximum from Jan. 2013 - Dec. 2017.
Source: Short-Term Energy Outlook, February 2018.

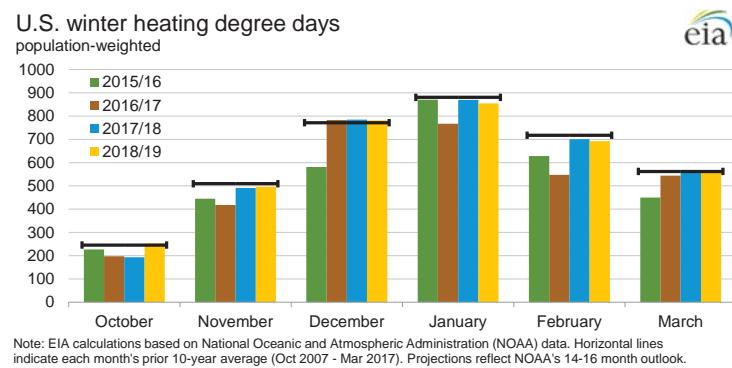
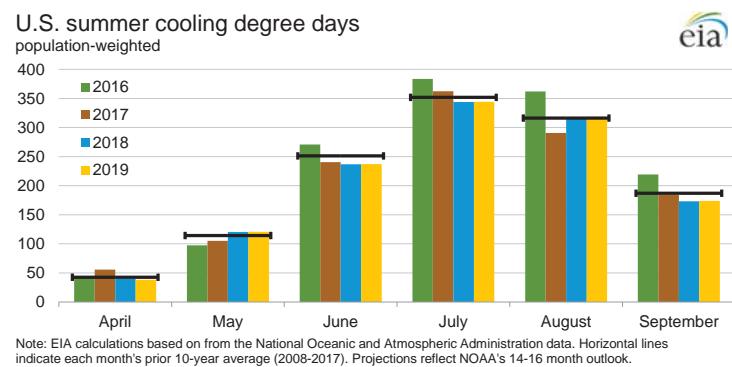












U.S. census regions and divisions



Source: Short-Term Energy Outlook, February 2018.

Table 1. U.S. Energy Markets Summary

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Energy Supply															
Crude Oil Production (a) (million barrels per day)	8.99	9.10	9.29	9.92	10.24	10.42	10.66	11.04	11.19	11.21	11.07	11.27	9.33	10.59	11.18
Dry Natural Gas Production (billion cubic feet per day)	71.28	72.09	74.01	76.83	78.68	79.56	80.98	81.94	82.37	82.52	82.90	83.62	73.57	80.30	82.86
Coal Production (million short tons)	197	187	196	192	187	172	205	198	195	166	206	195	772	760	762
Energy Consumption															
Liquid Fuels (million barrels per day)	19.49	20.03	19.92	20.06	19.95	20.19	20.70	20.47	20.28	20.63	21.02	20.78	19.88	20.33	20.68
Natural Gas (billion cubic feet per day)	86.64	63.05	67.53	80.10	94.60	66.79	67.92	80.70	95.17	68.66	70.40	74.29	77.44	79.20
Coal (b) (million short tons)	173	167	203	176	174	161	203	175	176	156	198	168	720	714	698
Electricity (billion kilowatt hours per day)	10.11	10.05	11.64	10.05	10.64	10.17	11.75	10.06	10.60	10.23	11.84	10.13	10.46	10.66	10.70
Renewables (c) (quadrillion Btu)	2.76	2.96	2.54	2.65	2.65	2.86	2.64	2.66	2.71	2.96	2.74	2.77	10.91	10.81	11.18
Total Energy Consumption (d) (quadrillion Btu)	25.08	23.24	24.40	24.68	25.58	23.11	24.41	24.80	25.76	23.40	24.70	25.03	97.39	97.89	98.89
Energy Prices															
Crude Oil West Texas Intermediate Spot (dollars per barrel)	51.64	48.15	48.16	55.27	62.88	58.33	56.00	56.00	56.00	56.66	58.00	59.33	50.79	58.28	57.51
Natural Gas Henry Hub Spot (dollars per million Btu)	3.01	3.08	2.95	2.90	3.48	3.07	3.09	3.15	3.24	3.00	3.02	3.07	2.99	3.20	3.08
Coal (dollars per million Btu)	2.08	2.12	2.07	2.10	2.21	2.21	2.22	2.20	2.22	2.20	2.22	2.19	2.09	2.21	2.21
Macroeconomic															
Real Gross Domestic Product (billion chained 2009 dollars - SAAR)	16,903	17,031	17,164	17,267	17,367	17,477	17,588	17,692	17,805	17,913	18,023	18,127	17,091	17,531	17,967
Percent change from prior year	2.0	2.2	2.3	2.5	2.7	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.2	2.6	2.5
GDP Implicit Price Deflator (Index, 2009=100)	112.8	113.0	113.6	114.2	114.9	115.5	116.1	116.8	117.5	118.1	118.8	119.4	113.4	115.8	118.4
Percent change from prior year	2.0	1.6	1.8	1.8	1.9	2.2	2.2	2.3	2.3	2.3	2.3	2.2	1.8	2.1	2.3
Real Disposable Personal Income (billion chained 2009 dollars - SAAR)	12,680	12,766	12,783	12,848	13,032	13,167	13,290	13,409	13,555	13,663	13,769	13,874	12,769	13,224	13,715
Percent change from prior year	0.9	1.1	1.1	2.0	2.8	3.1	4.0	4.4	4.0	3.8	3.6	3.5	1.3	3.6	3.7
Manufacturing Production Index (Index, 2012=100)	103.7	104.5	104.1	106.0	106.8	107.3	108.0	108.6	109.5	110.4	111.1	111.8	104.6	107.7	110.7
Percent change from prior year	0.8	1.8	1.4	2.8	2.9	2.8	3.7	2.5	2.5	2.8	2.9	2.9	1.7	3.0	2.8
Weather															
U.S. Heating Degree-Days	1,859	428	65	1,468	2,138	493	79	1,529	2,113	494	79	1,527	3,820	4,239	4,213
U.S. Cooling Degree-Days	70	401	837	114	39	397	835	91	43	396	836	91	1,422	1,362	1,366

- = no data available

Prices are not adjusted for inflation.

(a) Includes lease condensate.

(b) Total consumption includes Independent Power Producer (IPP) consumption.

(c) Renewable energy includes minor components of non-marketed renewable energy that is neither bought nor sold, either directly or indirectly, as inputs to marketed energy. EIA does not estimate or project end-use consumption of non-marketed renewable energy.

(d) The conversion from physical units to Btu is calculated using a subset of conversion factors used in the calculations of gross energy consumption in EIA's Monthly Energy Review. Consequently, the historical data may not precisely match those published in the MER or the Annual Energy Review (AER).

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.**Historical data:** Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109;*Petroleum Supply Annual*, DOE/EIA-0340/2; *Weekly Petroleum Status Report*, DOE/EIA-0208; *Petroleum Marketing Monthly*, DOE/EIA-0380; *Natural Gas Monthly*, DOE/EIA-0130;*Electric Power Monthly*, DOE/EIA-0226; *Quarterly Coal Report*, DOE/EIA-0121; and *International Petroleum Monthly*, DOE/EIA-0520.

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

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

Weather projections from National Oceanic and Atmospheric Administration.

Table 2. Energy Prices

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Crude Oil (dollars per barrel)															
West Texas Intermediate Spot Average	51.64	48.15	48.16	55.27	62.88	58.33	56.00	56.00	56.66	58.00	59.33	50.79	58.28	57.51	
Brent Spot Average	53.57	49.59	52.09	61.42	67.35	62.33	60.00	60.00	60.66	62.00	63.33	54.15	62.39	61.51	
U.S. Imported Average	47.94	46.12	47.49	53.15	59.40	54.84	52.50	52.50	53.17	54.50	55.84	48.53	54.95	53.97	
U.S. Refiner Average Acquisition Cost	49.91	47.66	48.32	55.17	61.90	57.31	55.00	55.00	55.68	57.00	58.35	50.27	57.25	56.51	
U.S. Liquid Fuels (cents per gallon)															
Refiner Prices for Resale															
Gasoline	163	165	172	176	190	194	185	171	170	188	187	176	169	185	181
Diesel Fuel	162	155	169	191	209	195	191	191	187	190	196	198	169	196	193
Heating Oil	154	144	154	179	205	185	182	183	184	179	187	190	160	192	185
Refiner Prices to End Users															
Jet Fuel	158	150	162	185	205	188	185	185	185	185	192	195	164	191	189
No. 6 Residual Fuel Oil (a)	128	120	124	138	151	142	137	136	137	136	140	143	128	142	139
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	233	238	244	251	262	272	264	250	244	266	266	254	242	262	258
Gasoline All Grades (b)	244	250	255	263	273	283	275	261	256	277	278	267	253	273	270
On-highway Diesel Fuel	257	255	263	287	300	290	286	287	281	283	289	294	265	291	287
Heating Oil	247	238	234	272	300	280	273	279	284	271	275	285	253	288	281
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	3.12	3.19	3.06	3.01	3.61	3.18	3.20	3.26	3.36	3.11	3.13	3.19	3.10	3.31	3.19
Henry Hub Spot (dollars per million Btu)	3.01	3.08	2.95	2.90	3.48	3.07	3.09	3.15	3.24	3.00	3.02	3.07	2.99	3.20	3.08
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	4.50	4.12	3.89	4.05	4.82	4.13	4.10	4.42	4.73	4.05	4.05	4.35	4.15	4.39	4.31
Commercial Sector	7.71	8.32	8.68	7.65	7.78	8.32	8.72	8.00	7.90	8.37	8.70	7.94	7.90	8.04	8.08
Residential Sector	9.73	13.00	17.74	10.32	9.56	12.32	16.66	10.73	9.90	12.41	16.75	10.70	10.97	10.78	10.96
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.08	2.12	2.07	2.10	2.21	2.21	2.22	2.20	2.22	2.20	2.22	2.19	2.09	2.21	2.21
Natural Gas	3.68	3.38	3.19	3.21	4.10	3.37	3.41	3.65	3.85	3.24	3.28	3.51	3.34	3.61	3.45
Residual Fuel Oil (c)	11.16	10.60	10.03	11.07	12.42	12.86	11.66	11.27	11.51	12.16	11.70	11.66	10.69	12.11	11.73
Distillate Fuel Oil	12.74	12.23	13.13	14.84	16.25	15.23	14.86	14.90	14.67	14.80	15.15	15.45	13.27	15.48	15.00
Retail Prices (cents per kilowatthour)															
Industrial Sector	6.64	6.88	7.26	6.86	6.90	7.08	7.52	7.08	6.92	7.14	7.60	7.15	6.92	7.15	7.21
Commercial Sector	10.39	10.68	11.03	10.57	10.56	10.94	11.40	10.94	10.80	11.00	11.35	10.96	10.68	10.98	11.04
Residential Sector	12.60	13.00	13.20	12.75	12.73	13.35	13.58	13.22	13.27	13.79	13.91	13.46	12.90	13.23	13.62

- = no data available

Prices are not adjusted for inflation.

(a) Average for all sulfur contents.

(b) Average self-service cash price.

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

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

Prices exclude taxes unless otherwise noted.

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Supply (million barrels per day) (a)															
OECD	27.12	26.92	27.09	27.98	28.71	29.31	29.70	30.48	30.50	30.76	30.63	31.05	27.28	29.55	30.74
U.S. (50 States)	15.00	15.32	15.48	16.47	16.61	17.11	17.58	18.03	18.04	18.38	18.31	18.50	15.57	17.34	18.31
Canada	5.05	4.71	5.00	4.87	5.00	5.18	5.29	5.39	5.40	5.40	5.44	5.48	4.91	5.22	5.43
Mexico	2.36	2.34	2.19	2.16	2.21	2.20	2.19	2.18	2.17	2.16	2.15	2.14	2.26	2.20	2.15
Other OECD	4.70	4.55	4.42	4.48	4.88	4.81	4.65	4.88	4.89	4.83	4.73	4.93	4.54	4.81	4.84
Non-OECD	70.02	70.78	71.30	70.69	70.24	70.79	71.34	71.11	70.69	71.30	71.97	71.75	70.70	70.87	71.43
OPEC	38.84	39.32	39.68	39.31	39.16	39.24	39.55	39.61	39.53	39.71	40.05	40.16	39.29	39.39	39.86
Crude Oil Portion	32.08	32.32	32.89	32.50	32.26	32.29	32.57	32.59	32.47	32.59	32.86	32.89	32.45	32.43	32.70
Other Liquids (b)	6.77	7.00	6.79	6.81	6.90	6.94	6.98	7.02	7.05	7.12	7.19	7.27	6.84	6.96	7.16
Eurasia	14.43	14.31	14.23	14.33	14.46	14.44	14.37	14.41	14.48	14.43	14.49	14.49	14.33	14.42	14.47
China	4.82	4.82	4.73	4.75	4.72	4.75	4.75	4.79	4.72	4.74	4.74	4.78	4.78	4.75	4.74
Other Non-OECD	11.93	12.34	12.65	12.30	11.91	12.37	12.67	12.30	11.96	12.42	12.70	12.32	12.31	12.31	12.35
Total World Supply	97.14	97.70	98.39	98.68	98.95	100.09	101.03	101.59	101.19	102.06	102.60	102.80	97.98	100.43	102.17
Non-OPEC Supply	58.29	58.38	58.71	59.37	59.79	60.86	61.48	61.98	61.67	62.35	62.55	62.64	58.69	61.04	62.31
Consumption (million barrels per day) (c)															
OECD	46.78	46.91	47.44	47.49	47.47	46.82	48.01	48.06	47.91	47.29	48.39	48.48	47.16	47.59	48.02
U.S. (50 States)	19.49	20.03	19.92	20.06	19.95	20.19	20.70	20.47	20.28	20.63	21.02	20.78	19.88	20.33	20.68
U.S. Territories	0.15	0.15	0.13	0.09	0.09	0.10	0.12	0.13	0.15	0.15	0.15	0.15	0.13	0.11	0.15
Canada	2.35	2.34	2.50	2.46	2.37	2.31	2.42	2.41	2.37	2.31	2.42	2.41	2.41	2.38	2.38
Europe	13.93	14.32	14.74	14.23	14.21	14.26	14.68	14.41	14.28	14.25	14.71	14.52	14.31	14.39	14.44
Japan	4.33	3.64	3.69	4.05	4.24	3.47	3.58	3.96	4.19	3.42	3.53	3.91	3.92	3.81	3.76
Other OECD	6.52	6.44	6.46	6.60	6.61	6.48	6.52	6.68	6.65	6.52	6.56	6.72	6.51	6.57	6.61
Non-OECD	50.75	51.44	51.52	51.66	52.02	52.72	52.78	53.01	53.18	54.00	54.11	54.40	51.35	52.63	53.93
Eurasia	4.76	4.75	5.02	4.89	4.80	4.84	5.11	4.99	4.85	4.90	5.17	5.05	4.86	4.94	4.99
Europe	0.70	0.71	0.73	0.73	0.71	0.72	0.74	0.74	0.72	0.72	0.74	0.74	0.72	0.73	0.73
China	13.48	13.27	12.95	13.34	13.84	13.64	13.34	13.82	14.14	14.01	13.75	14.26	13.26	13.66	14.04
Other Asia	12.99	13.31	13.03	13.36	13.65	13.82	13.45	13.76	14.06	14.24	13.85	14.18	13.17	13.67	14.08
Other Non-OECD	18.82	19.40	19.81	19.33	19.02	19.70	20.14	19.70	19.41	20.13	20.59	20.17	19.34	19.64	20.08
Total World Consumption	97.53	98.35	98.96	99.15	99.48	99.54	100.79	101.07	101.09	101.28	102.50	102.88	98.50	100.23	101.95
Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)															
U.S. (50 States)	0.00	0.22	0.34	0.94	-0.02	-0.48	-0.11	0.42	-0.25	-0.50	-0.08	0.33	0.38	-0.05	-0.12
Other OECD	-0.49	0.04	0.25	0.13	0.19	-0.02	-0.04	-0.32	0.05	-0.09	-0.01	-0.08	-0.01	-0.05	-0.03
Other Stock Draws and Balance	0.88	0.39	-0.01	-0.60	0.36	-0.05	-0.09	-0.62	0.10	-0.18	-0.02	-0.17	0.16	-0.10	-0.07
Total Stock Draw	0.40	0.65	0.57	0.47	0.53	-0.56	-0.24	-0.52	-0.10	-0.78	-0.10	0.08	0.52	-0.20	-0.22
End-of-period Commercial Crude Oil and Other Liquids Inventories															
U.S. Commercial Inventory	1,338	1,330	1,305	1,228	1,231	1,277	1,289	1,255	1,281	1,331	1,342	1,313	1,228	1,255	1,313
OECD Commercial Inventory	3,011	2,999	2,955	2,870	2,855	2,903	2,920	2,915	2,937	2,995	3,007	2,986	2,870	2,915	2,986

- = 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 *Retroeum Supply Monthly*, DOE/EIA-0109.

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

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.**Historical data:** Latest data available from Energy Information Administration international energy statistics.

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
North America	22.41	22.37	22.67	23.50	23.83	24.49	25.05	25.60	25.62	25.93	25.90	26.12	22.74	24.75	25.90
Canada	5.05	4.71	5.00	4.87	5.00	5.18	5.29	5.39	5.40	5.40	5.44	5.48	4.91	5.22	5.43
Mexico	2.36	2.34	2.19	2.16	2.21	2.20	2.19	2.18	2.17	2.16	2.15	2.14	2.26	2.20	2.15
United States	15.00	15.32	15.48	16.47	16.61	17.11	17.58	18.03	18.04	18.38	18.31	18.50	15.57	17.34	18.31
Central and South America	4.91	5.40	5.76	5.38	5.01	5.50	5.83	5.50	5.12	5.63	5.96	5.63	5.37	5.46	5.59
Argentina	0.67	0.67	0.69	0.69	0.66	0.66	0.67	0.68	0.66	0.65	0.67	0.67	0.68	0.67	0.66
Brazil	2.95	3.44	3.76	3.40	3.07	3.55	3.86	3.53	3.18	3.68	3.99	3.66	3.39	3.50	3.63
Colombia	0.87	0.88	0.88	0.87	0.86	0.88	0.88	0.87	0.86	0.87	0.87	0.86	0.88	0.87	0.86
Other Central and S. America	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.43	0.43	0.42	0.43	0.43	0.42	0.42	0.43
Europe	4.22	4.05	3.91	3.96	4.35	4.28	4.09	4.31	4.30	4.22	4.10	4.29	4.04	4.26	4.23
Norway	2.09	2.01	1.90	1.93	2.14	2.06	2.03	2.11	2.10	2.03	2.02	2.09	1.98	2.08	2.06
United Kingdom	1.10	1.07	1.00	1.02	1.20	1.22	1.07	1.20	1.20	1.20	1.10	1.20	1.05	1.17	1.17
Eurasia	14.43	14.31	14.23	14.33	14.46	14.44	14.37	14.41	14.48	14.43	14.49	14.49	14.33	14.42	14.47
Azerbaijan	0.79	0.80	0.79	0.81	0.81	0.80	0.78	0.77	0.79	0.79	0.77	0.76	0.80	0.79	0.78
Kazakhstan	1.87	1.87	1.86	1.93	2.01	2.01	2.02	2.08	2.11	2.04	2.09	2.14	1.88	2.03	2.10
Russia	11.32	11.18	11.14	11.13	11.18	11.17	11.10	11.10	11.14	11.16	11.18	11.15	11.19	11.14	11.16
Turkmenistan	0.28	0.28	0.29	0.29	0.29	0.29	0.29	0.29	0.28	0.28	0.28	0.28	0.28	0.29	0.28
Other Eurasia	0.16	0.17	0.16	0.18	0.18	0.18	0.18	0.17	0.17	0.17	0.17	0.16	0.17	0.17	0.17
Middle East	1.07	1.07	1.07	1.11	1.11	1.09	1.07	1.05	1.05	1.03	1.02	1.00	1.08	1.08	1.03
Oman	0.98	0.98	0.98	1.01	0.99	0.97	0.95	0.94	0.92	0.90	0.88	0.87	0.99	0.96	0.89
Asia and Oceania	9.35	9.29	9.19	9.24	9.25	9.27	9.29	9.33	9.30	9.30	9.29	9.30	9.27	9.29	9.30
Australia	0.35	0.36	0.37	0.36	0.36	0.37	0.38	0.39	0.41	0.43	0.44	0.45	0.36	0.37	0.43
China	4.82	4.82	4.73	4.75	4.72	4.75	4.75	4.79	4.72	4.74	4.74	4.78	4.78	4.75	4.74
India	1.01	1.00	1.00	0.98	1.00	1.00	0.99	0.99	1.01	1.00	1.00	1.00	1.00	1.00	1.00
Indonesia	0.92	0.91	0.90	0.90	0.91	0.91	0.90	0.91	0.90	0.89	0.88	0.87	0.91	0.91	0.89
Malaysia	0.74	0.72	0.71	0.73	0.74	0.73	0.73	0.72	0.72	0.71	0.70	0.69	0.72	0.73	0.70
Vietnam	0.29	0.29	0.28	0.28	0.27	0.27	0.27	0.26	0.26	0.25	0.25	0.24	0.28	0.27	0.25
Africa	1.89	1.89	1.87	1.83	1.78	1.78	1.78	1.78	1.80	1.80	1.80	1.80	1.87	1.78	1.80
Egypt	0.68	0.68	0.67	0.63	0.59	0.59	0.59	0.59	0.56	0.56	0.56	0.56	0.67	0.59	0.56
South Sudan	0.15	0.15	0.15	0.15	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.15	0.12	0.12
Total non-OPEC liquids	58.29	58.38	58.71	59.37	59.79	60.86	61.48	61.98	61.67	62.35	62.55	62.64	58.69	61.04	62.31
OPEC non-crude liquids	6.77	7.00	6.79	6.81	6.90	6.94	6.98	7.02	7.05	7.12	7.19	7.27	6.84	6.96	7.16
Non-OPEC + OPEC non-crude	65.06	65.38	65.49	66.18	66.69	67.80	68.47	69.00	68.72	69.47	69.74	69.91	65.53	68.00	69.46
Unplanned non-OPEC Production Outages	0.43	0.68	0.63	0.54	n/a	0.57	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 - February 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Crude Oil															
Algeria	1.04	1.03	1.03	1.00	-	-	-	-	-	-	-	-	1.03	-	-
Angola	1.64	1.66	1.66	1.63	-	-	-	-	-	-	-	-	1.65	-	-
Ecuador	0.53	0.53	0.54	0.54	-	-	-	-	-	-	-	-	0.54	-	-
Equatorial Guinea	0.14	0.14	0.13	0.13	-	-	-	-	-	-	-	-	0.13	-	-
Gabon	0.19	0.20	0.20	0.20	-	-	-	-	-	-	-	-	0.20	-	-
Iran	3.80	3.81	3.83	3.84	-	-	-	-	-	-	-	-	3.82	-	-
Iraq	4.46	4.44	4.50	4.36	-	-	-	-	-	-	-	-	4.44	-	-
Kuwait	2.74	2.71	2.72	2.72	-	-	-	-	-	-	-	-	2.72	-	-
Libya	0.65	0.72	0.94	0.96	-	-	-	-	-	-	-	-	0.82	-	-
Nigeria	1.38	1.49	1.68	1.72	-	-	-	-	-	-	-	-	1.57	-	-
Qatar	0.62	0.61	0.61	0.60	-	-	-	-	-	-	-	-	0.61	-	-
Saudi Arabia	9.98	10.09	10.18	10.11	-	-	-	-	-	-	-	-	10.09	-	-
United Arab Emirates	2.92	2.90	2.92	2.90	-	-	-	-	-	-	-	-	2.91	-	-
Venezuela	1.99	1.97	1.95	1.79	-	-	-	-	-	-	-	-	1.93	-	-
OPEC Total	32.08	32.32	32.89	32.50	32.26	32.29	32.57	32.59	32.47	32.59	32.86	32.89	32.45	32.43	32.70
Other Liquids (a)	6.77	7.00	6.79	6.81	6.90	6.94	6.98	7.02	7.05	7.12	7.19	7.27	6.84	6.96	7.16
Total OPEC Supply	38.84	39.32	39.68	39.31	39.16	39.24	39.55	39.61	39.53	39.71	40.05	40.16	39.29	39.39	39.86
Crude Oil Production Capacity															
Africa	5.04	5.24	5.65	5.64	5.64	5.57	5.55	5.54	5.51	5.53	5.56	5.63	5.39	5.57	5.56
Middle East	26.70	26.69	26.71	26.64	26.59	26.69	26.69	26.68	26.45	26.54	26.67	26.71	26.69	26.67	26.59
South America	2.53	2.51	2.49	2.33	2.13	2.09	2.06	2.01	1.96	1.92	1.87	1.82	2.46	2.07	1.89
OPEC Total	34.27	34.44	34.85	34.61	34.36	34.35	34.30	34.23	33.92	33.99	34.10	34.16	34.54	34.31	34.04
Surplus Crude Oil Production Capacity															
Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.01
Middle East	2.19	2.13	1.95	2.11	2.10	2.05	1.73	1.64	1.43	1.38	1.24	1.27	2.09	1.88	1.33
South America	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OPEC Total	2.19	2.13	1.95	2.11	2.10	2.05	1.73	1.64	1.45	1.40	1.24	1.27	2.09	1.88	1.34
Unplanned OPEC Production Outages	1.81	1.60	1.17	1.21	n/a	1.45	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 - February 2018

	2017				2018				2019						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
North America	23.81	24.36	24.33	24.49	24.27	24.48	25.07	24.83	24.59	24.89	25.37	25.12	24.25	24.66	24.99
Canada	2.35	2.34	2.50	2.46	2.37	2.31	2.42	2.41	2.37	2.31	2.42	2.41	2.41	2.38	2.38
Mexico	1.96	1.98	1.90	1.96	1.94	1.96	1.93	1.94	1.92	1.94	1.91	1.92	1.95	1.94	1.92
United States	19.49	20.03	19.92	20.06	19.95	20.19	20.70	20.47	20.28	20.63	21.02	20.78	19.88	20.33	20.68
Central and South America	6.98	7.03	7.11	7.05	6.86	7.02	7.15	7.18	7.02	7.19	7.32	7.35	7.04	7.05	7.22
Brazil	3.02	3.01	3.09	3.12	3.00	3.07	3.16	3.21	3.11	3.19	3.30	3.35	3.06	3.11	3.24
Europe	14.64	15.03	15.47	14.96	14.92	14.98	15.41	15.15	14.99	14.97	15.45	15.26	15.02	15.12	15.17
Eurasia	4.76	4.75	5.02	4.89	4.80	4.84	5.11	4.99	4.85	4.90	5.17	5.05	4.86	4.94	4.99
Russia	3.61	3.62	3.82	3.69	3.61	3.68	3.89	3.76	3.66	3.73	3.94	3.81	3.68	3.73	3.78
Middle East	8.19	8.73	9.14	8.56	8.33	8.88	9.30	8.71	8.48	9.05	9.48	8.89	8.66	8.81	8.97
Asia and Oceania	34.83	34.15	33.67	34.86	35.83	34.88	34.38	35.73	36.54	35.67	35.19	36.59	34.37	35.20	36.00
China	13.48	13.27	12.95	13.34	13.84	13.64	13.34	13.82	14.14	14.01	13.75	14.26	13.26	13.66	14.04
Japan	4.33	3.64	3.69	4.05	4.24	3.47	3.58	3.96	4.19	3.42	3.53	3.91	3.92	3.81	3.76
India	4.40	4.64	4.42	4.75	4.85	4.93	4.63	4.92	5.12	5.20	4.87	5.18	4.55	4.83	5.09
Africa	4.31	4.30	4.22	4.32	4.46	4.44	4.36	4.47	4.61	4.59	4.50	4.62	4.29	4.43	4.58
Total OECD Liquid Fuels Consumption	46.78	46.91	47.44	47.49	47.47	46.82	48.01	48.06	47.91	47.29	48.39	48.48	47.16	47.59	48.02
Total non-OECD Liquid Fuels Consumption	50.75	51.44	51.52	51.66	52.02	52.72	52.78	53.01	53.18	54.00	54.11	54.40	51.35	52.63	53.93
Total World Liquid Fuels Consumption	97.53	98.35	98.96	99.15	99.48	99.54	100.79	101.07	101.09	101.28	102.50	102.88	98.50	100.23	101.95
Oil-weighted Real Gross Domestic Product (a)															
World Index, 2015 Q1 = 100	105.6	106.4	107.3	108.2	109.3	110.1	110.9	111.8	112.8	113.6	114.4	115.3	106.9	110.5	114.0
Percent change from prior year	3.6	2.9	3.1	3.1	3.5	3.4	3.4	3.4	3.3	3.2	3.2	3.1	3.2	3.4	3.2
OECD Index, 2015 Q1 = 100	103.8	104.5	105.1	105.8	106.7	107.2	107.6	108.3	109.0	109.3	109.7	110.1	104.8	107.4	109.5
Percent change from prior year	3.0	2.1	2.4	2.3	2.7	2.6	2.4	2.4	2.1	2.0	1.9	1.7	2.5	2.5	1.9
Non-OECD Index, 2015 Q1 = 100	107.3	108.3	109.4	110.5	111.8	112.9	114.0	115.3	116.6	117.8	119.0	120.3	108.9	113.5	118.4
Percent change from prior year	4.2	3.6	3.7	3.8	4.2	4.2	4.2	4.3	4.3	4.3	4.4	4.4	3.8	4.2	4.3
Real U.S. Dollar Exchange Rate (a)															
Index, 2015 Q1 = 100	104.78	103.38	101.82	102.16	100.92	100.42	100.04	99.68	99.30	99.17	99.02	98.82	103.04	100.27	99.08
Percent change from prior year	0.2	0.7	-0.7	-2.3	-3.7	-2.9	-1.7	-2.4	-1.6	-1.2	-1.0	-0.9	-0.5	-2.7	-1.2

- = no data available

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

France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, the United States.

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

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.**Historical data:** Latest data available from Energy Information Administration international energy statistics.

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Supply (million barrels per day)															
Crude Oil Supply															
Domestic Production (a)	8.99	9.10	9.29	9.92	10.24	10.42	10.66	11.04	11.19	11.21	11.27	11.27	9.33	10.59	11.18
Alaska	0.52	0.50	0.45	0.51	0.51	0.48	0.43	0.49	0.51	0.49	0.44	0.50	0.49	0.48	0.48
Federal Gulf of Mexico (b)	1.73	1.62	1.68	1.59	1.70	1.72	1.63	1.73	1.81	1.82	1.71	1.81	1.66	1.69	1.79
Lower 48 States (excl GOM)	6.74	6.98	7.16	7.82	8.04	8.21	8.59	8.82	8.87	8.90	8.92	8.97	7.18	8.42	8.91
Crude Oil Net Imports (c)	7.24	7.24	6.63	6.13	6.51	6.62	6.09	5.21	5.34	5.87	5.61	4.94	6.81	6.10	5.44
SPR Net Withdrawals	0.04	0.14	0.06	0.11	0.01	0.02	0.02	0.04	0.04	0.04	0.04	0.02	0.09	0.02	0.04
Commercial Inventory Net Withdrawals	-0.59	0.41	0.34	0.51	-0.34	0.08	0.17	-0.01	-0.50	-0.04	0.17	-0.02	0.17	-0.02	-0.09
Crude Oil Adjustment (d)	0.23	0.24	0.28	0.06	0.02	0.19	0.21	0.15	0.19	0.19	0.21	0.15	0.20	0.14	0.19
Total Crude Oil Input to Refineries	15.91	17.13	16.60	16.72	16.44	17.32	17.15	16.44	16.27	17.27	17.10	16.37	16.59	16.84	16.75
Other Supply															
Refinery Processing Gain	1.09	1.13	1.07	1.12	1.08	1.12	1.13	1.11	1.07	1.12	1.13	1.10	1.11	1.11	1.11
Natural Gas Plant Liquids Production	3.54	3.70	3.72	3.97	3.90	4.13	4.33	4.42	4.38	4.59	4.64	4.65	3.73	4.20	4.56
Renewables and Oxygenate Production (e)	1.17	1.16	1.19	1.23	1.15	1.19	1.21	1.21	1.15	1.21	1.22	1.22	1.19	1.19	1.20
Fuel Ethanol Production	1.04	1.01	1.02	1.06	1.02	1.04	1.04	1.04	1.02	1.04	1.04	1.04	1.03	1.03	1.03
Petroleum Products Adjustment (f)	0.21	0.22	0.21	0.23	0.23	0.25	0.25	0.24	0.24	0.26	0.26	0.25	0.22	0.24	0.25
Product Net Imports (c)	-2.96	-2.99	-2.80	-3.53	-3.18	-3.24	-3.07	-3.34	-3.04	-3.30	-3.03	-3.15	-3.07	-3.21	-3.13
Hydrocarbon Gas Liquids	-1.20	-1.18	-1.16	-1.28	-1.29	-1.30	-1.34	-1.56	-1.33	-1.46	-1.47	-1.59	-1.20	-1.37	-1.46
Unfinished Oils	0.37	0.34	0.38	0.35	0.31	0.40	0.43	0.32	0.37	0.40	0.43	0.32	0.36	0.36	0.38
Other HC/Oxygenates	-0.13	-0.09	-0.09	-0.11	-0.11	-0.09	-0.08	-0.08	-0.09	-0.07	-0.06	-0.07	-0.10	-0.09	-0.08
Motor Gasoline Blend Comp.	0.43	0.68	0.64	0.30	0.25	0.67	0.49	0.44	0.47	0.66	0.48	0.45	0.51	0.46	0.52
Finished Motor Gasoline	-0.66	-0.62	-0.63	-0.94	-0.73	-0.73	-0.51	-0.77	-0.85	-0.68	-0.46	-0.70	-0.72	-0.69	-0.67
Jet Fuel	-0.04	-0.07	-0.01	0.04	-0.03	0.02	0.05	0.08	0.00	0.05	0.07	0.11	-0.02	0.03	0.06
Distillate Fuel Oil	-1.01	-1.36	-1.32	-1.19	-0.93	-1.36	-1.36	-1.07	-0.98	-1.35	-1.31	-0.99	-1.22	-1.18	-1.16
Residual Fuel Oil	-0.10	-0.11	-0.12	-0.08	-0.07	-0.14	-0.10	-0.11	-0.07	-0.14	-0.10	-0.11	-0.10	-0.10	-0.11
Other Oils (g)	-0.61	-0.60	-0.50	-0.62	-0.60	-0.71	-0.64	-0.58	-0.56	-0.70	-0.62	-0.56	-0.58	-0.63	-0.61
Product Inventory Net Withdrawals	0.56	-0.33	-0.07	0.32	0.31	-0.59	-0.31	0.39	0.20	-0.50	-0.29	0.33	0.12	-0.05	-0.07
Total Supply	19.52	20.03	19.92	20.07	19.95	20.19	20.70	20.47	20.28	20.63	21.02	20.78	19.89	20.33	20.68
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	2.79	2.45	2.33	2.80	2.99	2.62	2.82	3.10	3.29	2.96	3.03	3.26	2.59	2.88	3.14
Unfinished Oils	0.02	0.02	-0.01	0.00	0.00	-0.03	-0.03	0.01	0.00	-0.03	-0.03	0.01	0.01	-0.01	-0.01
Motor Gasoline	8.95	9.54	9.56	9.13	8.94	9.53	9.62	9.25	8.98	9.60	9.68	9.33	9.29	9.33	9.40
Fuel Ethanol blended into Motor Gasoline	0.90	0.96	0.96	0.97	0.93	0.98	0.98	0.95	0.92	0.99	0.99	0.96	0.95	0.96	0.97
Jet Fuel	1.60	1.68	1.71	1.75	1.62	1.73	1.77	1.75	1.60	1.74	1.78	1.76	1.69	1.72	1.72
Distillate Fuel Oil	3.95	3.91	3.87	4.06	4.16	3.99	3.99	4.09	4.16	4.02	4.05	4.14	3.95	4.06	4.09
Residual Fuel Oil	0.37	0.37	0.30	0.39	0.33	0.31	0.33	0.30	0.36	0.31	0.33	0.30	0.36	0.32	0.32
Other Oils (g)	1.83	2.06	2.15	1.93	1.91	2.04	2.20	1.98	1.90	2.03	2.19	1.98	1.99	2.03	2.03
Total Consumption	19.49	20.03	19.92	20.06	19.95	20.19	20.70	20.47	20.28	20.63	21.02	20.78	19.88	20.33	20.68
Total Petroleum and Other Liquids Net Imports	4.28	4.25	3.83	2.60	3.34	3.38	3.02	1.87	2.30	2.57	2.58	1.79	3.74	2.90	2.31
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	537.9	500.4	469.1	422.3	452.5	445.3	429.7	430.7	475.5	479.4	463.8	465.3	422.3	430.7	465.3
Hydrocarbon Gas Liquids	148.1	190.6	229.7	196.3	155.8	209.6	248.2	200.2	170.6	219.3	254.9	210.1	196.3	200.2	210.1
Unfinished Oils	89.3	88.7	89.2	84.5	91.0	89.0	86.4	79.9	90.3	88.3	86.7	80.0	84.5	79.9	80.0
Other HC/Oxygenates	32.6	29.3	28.3	29.5	30.3	29.3	28.5	29.2	30.9	29.9	29.2	29.8	29.5	29.2	29.8
Total Motor Gasoline	239.0	237.9	223.8	235.0	236.8	233.1	227.9	241.8	242.5	238.5	233.4	246.8	235.0	241.8	246.8
Finished Motor Gasoline	21.7	22.5	21.8	24.7	24.6	23.4	24.0	27.3	24.8	23.8	24.5	25.4	24.7	27.3	25.4
Motor Gasoline Blend Comp.	217.2	215.5	202.0	210.2	212.3	209.7	203.9	214.6	217.7	214.7	208.9	221.4	210.2	214.6	221.4
Jet Fuel	42.3	41.0	43.3	41.0	40.7	42.0	43.2	40.9	40.9	42.5	44.2	42.0	41.0	40.9	42.0
Distillate Fuel Oil	151.1	151.6	137.5	140.7	132.3	137.4	140.5	144.2	135.1	138.8	142.7	149.0	140.7	144.2	149.0
Residual Fuel Oil	40.8	35.2	35.9	30.7	36.8	38.5	37.7	38.1	40.3	40.8	39.5	39.6	30.7	38.1	39.6
Other Oils (g)	56.6	55.2	47.9	48.5	54.3	52.6	47.0	49.7	55.4	53.7	48.0	50.6	48.5	49.7	50.6
Total Commercial Inventory	1,338	1,330	1,305	1,228	1,231	1,277	1,289	1,255	1,281	1,331	1,342	1,313	1,228	1,255	1,313
Crude Oil in SPR	692	679	674	664	663	661	659	655	651	647	643	641	664	655	641

- = no data available

(a) Includes lease condensate.

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

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

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

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

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

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

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

SPR: Strategic Petroleum Reserve

HC: Hydrocarbons

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration

Short-Term Energy Outlook - February 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
HGL Production															
Natural Gas Processing Plants															
Ethane	1.33	1.39	1.34	1.54	1.54	1.62	1.72	1.82	1.83	1.92	1.92	1.95	1.40	1.67	1.90
Propane	1.16	1.21	1.23	1.28	1.26	1.31	1.36	1.37	1.35	1.39	1.42	1.43	1.22	1.33	1.40
Butane	0.63	0.65	0.67	0.69	0.66	0.72	0.74	0.74	0.73	0.76	0.77	0.76	0.66	0.71	0.75
Natural Gasoline (Pentanes Plus)	0.41	0.45	0.48	0.46	0.44	0.49	0.52	0.50	0.47	0.51	0.53	0.51	0.45	0.49	0.51
Refinery and Blender Net Production															
Ethane/Ethylene	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Propane	0.29	0.32	0.30	0.32	0.31	0.33	0.33	0.32	0.31	0.33	0.33	0.32	0.31	0.32	0.32
Propylene (refinery-grade)	0.27	0.29	0.27	0.29	0.28	0.29	0.28	0.28	0.28	0.29	0.28	0.28	0.28	0.28	0.28
Butanes/Butylenes	-0.09	0.27	0.16	-0.20	-0.07	0.26	0.18	-0.19	-0.07	0.26	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	-0.15	-0.16	-0.20	-0.21	-0.29	-0.28	-0.29	-0.30	-0.31	-0.30	-0.31	-0.32	-0.18	-0.29	-0.31
Propane/Propylene	-0.79	-0.71	-0.68	-0.80	-0.66	-0.70	-0.71	-0.91	-0.68	-0.81	-0.80	-0.91	-0.75	-0.75	-0.80
Butanes/Butylenes	-0.09	-0.12	-0.11	-0.12	-0.14	-0.12	-0.13	-0.15	-0.12	-0.12	-0.12	-0.14	-0.11	-0.13	-0.12
Natural Gasoline (Pentanes Plus)	-0.18	-0.18	-0.16	-0.15	-0.19	-0.20	-0.22	-0.21	-0.22	-0.23	-0.24	-0.23	-0.17	-0.20	-0.23
HGL Refinery and Blender Net Inputs															
Butanes/Butylenes	0.43	0.30	0.33	0.49	0.41	0.32	0.34	0.50	0.42	0.32	0.35	0.50	0.38	0.39	0.40
Natural Gasoline (Pentanes Plus)	0.16	0.18	0.18	0.17	0.17	0.17	0.18	0.18	0.17	0.18	0.18	0.18	0.17	0.17	0.18
HGL Consumption															
Ethane/Ethylene	1.19	1.23	1.13	1.29	1.28	1.32	1.46	1.54	1.55	1.61	1.62	1.65	1.21	1.40	1.61
Propane	1.05	0.60	0.67	0.90	1.14	0.65	0.71	0.95	1.13	0.66	0.73	0.96	0.81	0.86	0.87
Propylene (refinery-grade)	0.34	0.31	0.28	0.32	0.31	0.31	0.30	0.29	0.31	0.31	0.30	0.29	0.31	0.30	0.30
Butanes/Butylenes	0.12	0.23	0.18	0.16	0.20	0.28	0.27	0.24	0.24	0.32	0.31	0.28	0.17	0.25	0.28
Natural Gasoline (Pentanes Plus)	0.10	0.08	0.08	0.13	0.06	0.07	0.08	0.09	0.07	0.07	0.08	0.08	0.10	0.08	0.07
HGL Inventories (million barrels)															
Ethane	49.65	51.89	51.77	58.52	55.26	57.73	55.80	55.29	51.44	53.11	52.02	51.45	52.98	56.02	52.00
Propane	40.23	57.06	71.59	60.41	37.96	63.39	85.85	68.99	54.10	75.43	94.39	81.21	60.41	68.99	81.21
Propylene (refinery-grade)	3.75	4.01	5.21	4.87	4.08	4.70	4.71	4.95	3.73	4.04	4.14	4.80	4.87	4.95	4.80
Butanes/Butylenes	31.68	57.24	76.10	51.42	36.51	60.60	76.93	46.44	36.37	60.46	76.79	46.30	51.42	46.44	46.30
Natural Gasoline (Pentanes Plus)	21.49	20.55	23.40	21.59	21.47	23.41	25.53	25.87	24.93	26.21	27.94	27.84	21.59	25.87	27.84
Refinery and Blender Net Inputs															
Crude Oil	15.91	17.13	16.60	16.72	16.44	17.32	17.15	16.44	16.27	17.27	17.10	16.37	16.59	16.84	16.75
Hydrocarbon Gas Liquids	0.58	0.48	0.51	0.66	0.58	0.49	0.52	0.68	0.59	0.50	0.52	0.68	0.56	0.57	0.57
Other Hydrocarbons/Oxygenates	1.16	1.24	1.22	1.21	1.17	1.28	1.31	1.28	1.19	1.31	1.34	1.31	1.21	1.26	1.29
Unfinished Oils	0.25	0.33	0.38	0.40	0.24	0.45	0.48	0.39	0.25	0.45	0.48	0.38	0.34	0.39	0.39
Motor Gasoline Blend Components	0.39	0.65	0.67	0.28	0.34	0.82	0.67	0.47	0.58	0.85	0.70	0.50	0.50	0.58	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	18.30	19.83	19.38	19.27	18.77	20.36	20.13	19.26	18.89	20.38	20.15	19.25	19.20	19.63	19.67
Refinery Processing Gain															
	1.09	1.13	1.07	1.12	1.08	1.12	1.13	1.11	1.07	1.12	1.13	1.10	1.11	1.11	1.11
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	0.48	0.89	0.73	0.42	0.52	0.89	0.79	0.41	0.52	0.89	0.79	0.42	0.63	0.66	0.66
Finished Motor Gasoline	9.57	10.10	10.04	10.11	9.74	10.35	10.24	10.18	9.93	10.40	10.28	10.22	9.96	10.13	10.21
Jet Fuel	1.63	1.74	1.75	1.68	1.64	1.72	1.73	1.65	1.60	1.71	1.72	1.63	1.70	1.69	1.66
Distillate Fuel	4.75	5.18	4.94	5.21	4.91	5.31	5.30	5.11	4.95	5.32	5.31	5.11	5.02	5.16	5.17
Residual Fuel	0.46	0.41	0.43	0.42	0.46	0.47	0.42	0.41	0.45	0.46	0.42	0.41	0.43	0.44	0.43
Other Oils (a)	2.50	2.64	2.56	2.55	2.57	2.74	2.78	2.60	2.52	2.71	2.75	2.57	2.56	2.67	2.64
Total Refinery and Blender Net Production	19.40	20.97	20.46	20.39	19.85	21.48	21.27	20.36	19.96	21.49	21.27	20.35	20.31	20.74	20.77
Refinery Distillation Inputs															
	16.23	17.42	16.90	17.01	16.67	17.44	17.37	16.69	16.50	17.39	17.33	16.63	16.89	17.05	16.96
Refinery Operable Distillation Capacity															
	18.62	18.58	18.55	18.51	18.51	18.55	18.55	18.55	18.56	18.56	18.59	18.60	18.56	18.54	18.58
Refinery Distillation Utilization Factor															
	0.87	0.94	0.91	0.92	0.90	0.94	0.94	0.90	0.89	0.94	0.93	0.89	0.91	0.92	0.91

- = no data available

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

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.**Historical data:** Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109;*Petroleum Supply Annual*, DOE/EIA-0340/2; *Weekly Petroleum Status Report*, DOE/EIA-0208.

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019	
Prices (cents per gallon)																
Refiner Wholesale Price	163	165	172	176	190	194	185	171	170	188	187	176	169	185	181	
Gasoline Regular Grade Retail Prices Including Taxes																
PADD 1	231	233	241	249	263	269	260	250	247	263	263	256	239	260	257	
PADD 2	223	228	232	242	251	263	256	240	234	259	259	246	231	253	250	
PADD 3	210	216	222	225	235	245	234	221	219	238	236	226	218	234	230	
PADD 4	227	239	245	252	249	262	262	246	228	254	264	250	241	255	249	
PADD 5	276	289	290	299	306	323	313	292	283	313	312	293	288	309	301	
U.S. Average	233	238	244	251	262	272	264	250	244	266	266	254	242	262	258	
Gasoline All Grades Including Taxes	244	250	255	263	273	283	275	261	256	277	278	267	253	273	270	
End-of-period Inventories (million barrels)																
Total Gasoline Inventories																
PADD 1	65.3	67.2	58.8	59.6	64.3	65.8	62.4	65.4	67.0	67.5	63.9	67.2	59.6	65.4	67.2	
PADD 2	57.0	53.6	50.4	51.7	53.8	51.0	49.6	52.1	54.5	52.1	50.8	53.4	51.7	52.1	53.4	
PADD 3	79.1	82.4	78.5	83.1	80.5	80.5	80.5	84.9	83.1	82.9	83.0	86.6	83.1	84.9	86.6	
PADD 4	7.9	7.0	6.9	7.5	7.5	7.5	7.3	7.9	7.6	7.6	7.5	8.0	7.5	7.9	8.0	
PADD 5	29.7	27.7	29.2	33.1	30.7	28.4	28.0	31.5	30.2	28.3	28.2	31.6	33.1	31.5	31.6	
U.S. Total	239.0	237.9	223.8	235.0	236.8	233.1	227.9	241.8	242.5	238.5	233.4	246.8	235.0	241.8	246.8	
Finished Gasoline Inventories	U.S. Total	21.7	22.5	21.8	24.7	24.6	23.4	24.0	27.3	24.8	23.8	24.5	25.4	24.7	27.3	25.4
Gasoline Blending Components Inventories																
U.S. Total	217.2	215.5	202.0	210.2	212.3	209.7	203.9	214.6	217.7	214.7	208.9	221.4	210.2	214.6	221.4	

- = 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 Adminstration Defense District" in EIA's Energy Glossary (<http://www.eia.doe.gov/glossary/index.html>) for a list of States in each region.**Historical data:** Latest data available from Energy Information Administration databases supporting the following reports *Petroleum Marketing Monthly*, DOE/EIA-0380;*Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; and *Weekly Petroleum Status Report*, DOE/EIA-0208.

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Supply (billion cubic feet per day)															
Total Marketed Production	76.32	77.36	79.30	82.57	84.60	85.59	87.17	88.26	88.77	88.99	89.45	90.28	78.91	86.42	89.38
Alaska	1.01	0.97	0.82	0.98	1.00	0.85	0.77	0.94	1.01	0.86	0.78	0.94	0.94	0.89	0.90
Federal GOM (a)	3.26	2.99	2.91	2.79	3.45	3.33	3.21	3.22	3.45	3.28	3.16	3.17	2.99	3.30	3.27
Lower 48 States (excl GOM)	72.05	73.40	75.56	78.80	80.14	81.41	83.19	84.11	84.31	84.85	85.51	86.17	74.97	82.23	85.22
Total Dry Gas Production	71.28	72.09	74.01	76.83	78.68	79.56	80.98	81.94	82.37	82.52	82.90	83.62	73.57	80.30	82.86
LNG Gross Imports	0.29	0.18	0.17	0.22	0.31	0.17	0.15	0.22	0.32	0.17	0.17	0.21	0.21	0.21	0.22
LNG Gross Exports	1.63	1.80	1.67	2.65	2.51	2.78	3.00	3.44	4.00	4.22	5.14	6.27	1.94	2.94	4.92
Pipeline Gross Imports	8.89	7.76	7.74	7.93	8.35	7.85	7.62	7.75	8.73	8.08	7.98	8.06	8.08	7.89	8.21
Pipeline Gross Exports	7.24	6.49	6.43	6.83	8.26	7.03	7.09	7.48	8.98	7.71	7.58	7.65	6.75	7.46	7.98
Supplemental Gaseous Fuels	0.16	0.13	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.15	0.17	0.17
Net Inventory Withdrawals	13.72	-9.02	-7.19	5.55	18.12	-11.40	-10.63	2.74	16.79	-9.80	-8.13	4.15	0.72	-0.37	0.69
Total Supply	85.47	62.84	66.79	81.22	94.85	66.52	68.19	81.90	95.39	69.21	70.37	82.30	74.05	77.81	79.26
Balancing Item (b)	1.17	0.21	0.74	-1.12	-0.25	0.27	-0.27	-1.20	-0.22	-0.56	0.04	0.51	0.24	-0.37	-0.06
Total Primary Supply	86.64	63.05	67.53	80.10	94.60	66.79	67.92	80.70	95.17	68.66	70.40	82.81	74.29	77.44	79.20
Consumption (billion cubic feet per day)															
Residential	22.17	6.65	3.55	16.27	25.32	7.09	3.44	15.85	24.77	7.01	3.42	15.68	12.12	12.88	12.67
Commercial	13.50	5.83	4.55	10.70	14.86	6.10	4.62	10.86	14.72	6.11	4.60	10.81	8.63	9.09	9.04
Industrial	22.96	20.45	20.34	22.42	23.30	20.80	20.50	22.45	23.66	21.40	21.11	22.86	21.54	21.75	22.25
Electric Power (c)	21.43	24.08	32.82	23.95	23.93	26.17	32.61	24.37	24.44	27.15	34.12	25.86	25.60	26.79	27.91
Lease and Plant Fuel	4.26	4.32	4.43	4.61	4.72	4.78	4.87	4.93	4.96	4.97	4.99	5.04	4.40	4.82	4.99
Pipeline and Distribution Use	2.20	1.60	1.71	2.02	2.35	1.72	1.77	2.11	2.51	1.90	2.03	2.44	1.88	1.99	2.22
Vehicle Use	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13	0.12	0.12	0.13
Total Consumption	86.64	63.05	67.53	80.10	94.60	66.79	67.92	80.70	95.17	68.66	70.40	82.81	74.29	77.44	79.20
End-of-period Inventories (billion cubic feet)															
Working Gas Inventory	2,063	2,908	3,568	3,059	1,429	2,466	3,444	3,193	1,682	2,573	3,321	2,939	3,059	3,193	2,939
East Region (d)	260	563	866	718	222	530	841	732	244	531	789	665	718	732	665
Midwest Region (d)	478	702	994	847	287	578	969	851	315	568	918	801	847	851	801
South Central Region (d)	938	1,139	1,137	1,016	612	899	1,081	1,105	754	964	1,036	982	1,016	1,105	982
Mountain Region (d)	142	184	218	178	82	129	190	181	130	168	204	169	178	181	169
Pacific Region (d)	219	288	314	263	191	296	331	289	206	309	341	289	263	289	289
Alaska	27	32	39	36	33	33	33	33	33	33	33	33	36	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 - February 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Wholesale/Spot															
Henry Hub Spot Price	3.12	3.19	3.06	3.01	3.61	3.18	3.20	3.26	3.36	3.11	3.13	3.19	3.10	3.31	3.19
Residential Retail															
New England	12.85	14.08	18.12	13.41	12.95	14.03	16.98	13.59	13.14	14.01	16.92	13.48	13.55	13.56	13.62
Middle Atlantic	9.92	12.18	17.11	11.40	10.05	12.03	16.48	11.19	10.20	12.04	16.43	10.93	11.19	11.09	11.12
E. N. Central	7.77	11.52	17.80	8.13	7.75	10.96	16.70	9.07	8.13	10.99	16.64	8.96	9.00	9.07	9.29
W. N. Central	8.32	11.85	18.78	9.49	8.83	11.90	17.80	9.82	8.96	11.86	17.79	9.94	9.79	10.07	10.20
S. Atlantic	12.28	20.04	26.87	13.71	11.27	16.35	22.23	12.88	11.45	16.26	22.17	12.67	14.87	13.10	13.16
E. S. Central	10.53	15.83	20.82	11.74	9.24	14.03	20.02	12.72	10.37	14.74	20.73	13.05	12.24	11.24	12.29
W. S. Central	10.33	16.49	22.10	12.52	8.91	14.08	19.67	12.25	9.61	14.32	19.80	12.14	13.00	11.46	11.93
Mountain	8.21	10.17	13.91	9.17	9.28	10.40	13.77	9.23	9.04	10.36	13.83	9.26	9.28	9.82	9.71
Pacific	12.02	12.64	12.90	11.29	12.27	12.42	12.88	11.64	12.55	12.78	13.25	11.97	12.01	12.17	12.49
U.S. Average	9.73	13.00	17.74	10.32	9.56	12.32	16.66	10.73	9.90	12.41	16.75	10.70	10.97	10.78	10.96
Commercial Retail															
New England	9.55	9.97	10.61	9.53	10.24	10.51	10.51	9.96	10.16	10.33	10.32	10.15	9.71	10.24	10.20
Middle Atlantic	7.66	7.42	6.82	7.40	7.77	7.74	7.14	7.69	7.84	7.75	7.12	7.60	7.44	7.66	7.66
E. N. Central	6.63	7.87	8.98	6.48	6.60	7.82	9.17	7.20	6.86	7.82	9.11	7.11	6.95	7.13	7.24
W. N. Central	6.96	7.79	9.08	6.91	7.46	8.07	9.12	7.48	7.67	8.06	9.07	7.43	7.24	7.69	7.77
S. Atlantic	8.88	9.97	9.62	9.04	8.74	9.40	9.91	9.02	8.83	9.60	9.91	8.83	9.21	9.08	9.10
E. S. Central	9.05	10.28	10.76	9.32	8.58	9.75	10.28	9.20	8.71	9.64	10.15	9.11	9.54	9.12	9.14
W. S. Central	7.63	8.20	8.86	7.92	7.27	7.73	8.28	7.81	7.41	7.78	8.10	7.69	8.02	7.64	7.66
Mountain	6.88	7.37	8.27	7.25	7.80	8.04	8.72	7.58	7.72	7.92	8.61	7.48	7.23	7.87	7.77
Pacific	9.09	9.06	9.08	8.61	8.82	8.48	8.89	8.67	8.75	8.80	9.12	8.75	8.94	8.72	8.82
U.S. Average	7.71	8.32	8.68	7.65	7.78	8.32	8.72	8.00	7.90	8.37	8.70	7.94	7.90	8.04	8.08
Industrial Retail															
New England	7.81	7.04	6.39	7.17	8.45	7.84	7.22	8.35	8.59	7.73	7.14	8.16	7.23	8.08	8.04
Middle Atlantic	7.69	7.59	7.62	7.07	8.10	7.59	7.55	7.83	8.14	7.46	7.46	7.74	7.50	7.88	7.84
E. N. Central	5.86	5.96	5.59	5.42	6.47	6.27	6.20	6.06	6.60	6.20	6.12	6.03	5.70	6.29	6.31
W. N. Central	5.00	4.28	4.24	4.69	5.65	4.93	4.74	5.24	5.71	4.86	4.68	5.23	4.59	5.18	5.17
S. Atlantic	5.35	5.01	4.88	4.94	5.65	5.01	5.00	5.37	5.56	4.98	4.93	5.26	5.05	5.28	5.20
E. S. Central	5.06	4.59	4.40	4.62	5.13	4.55	4.54	4.95	5.11	4.54	4.51	4.85	4.68	4.81	4.77
W. S. Central	3.42	3.42	3.30	3.21	3.77	3.40	3.49	3.52	3.61	3.29	3.43	3.46	3.33	3.55	3.45
Mountain	5.31	5.36	5.61	5.56	5.89	5.86	6.24	6.22	6.26	5.87	6.09	6.07	5.45	6.04	6.09
Pacific	7.31	6.71	6.32	6.63	7.20	6.64	6.69	6.80	7.17	6.55	6.65	6.69	6.78	6.85	6.78
U.S. Average	4.50	4.12	3.89	4.05	4.82	4.13	4.10	4.42	4.73	4.05	4.05	4.35	4.15	4.39	4.31

- = no data available

Prices are not adjusted for inflation.

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

Regions refer to U.S. Census divisions.

See "Census division" in EIA's Energy Glossary (<http://www.eia.doe.gov/glossary/index.html>) for a list of States in each region.**Historical data:** Latest data available from Energy Information Administration databases supporting the *Natural Gas Monthly*, DOE/EIA-0130.Natural gas Henry Hub spot price from Reuter's News Service (<http://www.reuters.com>).

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Supply (million short tons)															
Production	197.0	187.1	196.2	192.0	186.5	171.6	204.5	197.7	195.1	166.3	205.7	195.0	772.3	760.4	762.1
Appalachia	50.7	51.2	46.3	47.7	49.9	45.0	41.6	40.4	43.2	38.3	38.1	37.6	196.0	177.0	157.1
Interior	38.5	36.4	34.9	34.8	36.5	34.9	42.3	42.6	46.3	35.8	43.4	43.6	144.6	156.3	169.2
Western	107.8	99.4	115.0	109.5	100.2	91.7	120.6	114.6	105.5	92.3	124.2	113.8	431.7	427.1	435.8
Primary Inventory Withdrawals	0.1	1.8	1.4	0.9	-2.8	2.1	1.0	-0.5	-3.9	1.5	1.2	-3.0	4.2	-0.1	-4.3
Imports	1.9	2.2	2.3	1.5	1.2	2.2	2.9	2.6	1.4	2.3	2.9	2.6	8.0	8.9	9.3
Exports	22.3	21.8	24.6	27.6	22.3	20.0	19.8	19.3	19.8	19.0	19.9	19.7	96.3	81.4	78.4
Metallurgical Coal	12.2	13.5	14.8	14.6	13.8	13.6	13.6	13.3	13.7	13.3	13.6	13.2	55.1	54.3	53.7
Steam Coal	10.1	8.3	9.8	13.0	8.6	6.4	6.3	6.0	6.1	5.7	6.3	6.5	41.2	27.2	24.7
Total Primary Supply	176.8	169.2	175.3	166.8	162.5	156.0	188.7	180.6	172.8	151.1	189.9	174.9	688.1	687.8	688.7
Secondary Inventory Withdrawals	1.0	3.7	18.2	-0.1	4.8	2.5	12.3	-7.8	1.0	2.5	5.7	-9.2	22.9	11.8	0.0
Waste Coal (a)	2.4	1.7	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	9.2	9.6	9.6
Total Supply	180.2	174.7	196.0	169.3	169.7	160.8	203.4	175.2	176.2	156.0	198.0	168.1	720.1	709.1	698.3
Consumption (million short tons)															
Coke Plants	4.2	4.3	4.7	5.4	3.9	3.5	4.2	5.2	3.5	3.3	4.0	5.1	18.7	16.8	15.9
Electric Power Sector (b)	160.3	154.1	190.7	162.4	161.3	148.8	190.4	161.0	163.3	143.9	185.0	153.7	667.5	661.4	645.9
Retail and Other Industry	8.8	8.3	7.9	8.6	9.1	8.6	8.7	9.0	9.4	8.9	9.0	9.3	33.7	35.4	36.6
Residential and Commercial	0.4	0.2	0.1	0.2	0.3	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.9	0.7	0.5
Other Industrial	8.4	8.1	7.8	8.4	8.8	8.5	8.6	8.9	9.2	8.8	8.9	9.2	32.8	34.8	36.0
Total Consumption	173.4	166.7	203.4	176.4	174.3	160.8	203.4	175.2	176.2	156.0	198.0	168.1	719.9	713.7	698.3
Discrepancy (c)	6.8	7.9	-7.4	-7.2	-4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	-4.6	0.0
End-of-period Inventories (million short tons)															
Primary Inventories (d)	25.2	23.4	22.0	21.1	24.0	21.8	20.8	21.3	25.1	23.7	22.5	25.5	21.1	21.3	25.5
Secondary Inventories	166.6	163.0	144.8	144.8	140.0	137.6	125.2	133.1	132.1	129.5	123.9	133.1	144.8	133.1	133.1
Electric Power Sector	161.7	157.7	139.5	140.0	135.5	132.7	120.2	128.1	127.5	124.6	118.7	127.9	140.0	128.1	127.9
Retail and General Industry	3.2	3.3	3.3	2.9	3.0	3.0	3.1	3.1	3.2	3.2	3.4	3.4	2.9	3.1	3.4
Coke Plants	1.4	1.6	1.7	1.8	1.3	1.6	1.7	1.7	1.2	1.5	1.6	1.6	1.8	1.7	1.6
Coal Market Indicators															
Coal Miner Productivity															
(Tons per hour)	6.19	6.19	6.19	6.19	6.10	6.10	6.10	6.10	6.02	6.02	6.02	6.02	6.19	6.10	6.02
Total Raw Steel Production															
(Million short tons per day)	0.248	0.247	0.250	0.245	0.255	0.255	0.234	0.199	0.256	0.254	0.236	0.204	0.248	0.236	0.237
Cost of Coal to Electric Utilities															
(Dollars per million Btu)	2.08	2.12	2.07	2.10	2.21	2.21	2.22	2.20	2.22	2.20	2.22	2.19	2.09	2.21	2.21

- = no data available

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 7a. U.S. Electricity Industry Overview

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Electricity Supply (billion kilowatthours per day)															
Electricity Generation	10.58	10.68	12.15	10.58	10.90	10.78	12.24	10.55	10.99	10.86	12.34	10.63	11.00	11.12	11.21
Electric Power Sector (a)	10.14	10.26	11.72	10.16	10.48	10.36	11.81	10.15	10.58	10.45	11.91	10.23	10.57	10.70	10.80
Comm. and Indus. Sectors (b)	0.43	0.42	0.44	0.42	0.42	0.41	0.43	0.40	0.41	0.40	0.43	0.40	0.43	0.42	0.41
Net Imports	0.13	0.14	0.19	0.16	0.20	0.21	0.23	0.18	0.19	0.20	0.21	0.17	0.16	0.21	0.19
Total Supply	10.71	10.83	12.34	10.74	11.10	10.99	12.46	10.73	11.18	11.05	12.55	10.81	11.16	11.32	11.40
Losses and Unaccounted for (c)	0.60	0.78	0.70	0.69	0.46	0.81	0.71	0.67	0.58	0.82	0.72	0.68	0.69	0.67	0.70
Electricity Consumption (billion kilowatthours per day unless noted)															
Retail Sales	9.73	9.68	11.25	9.68	10.27	9.81	11.37	9.71	10.24	9.87	11.46	9.77	10.09	10.29	10.34
Residential Sector	3.70	3.42	4.45	3.53	4.07	3.50	4.51	3.54	4.03	3.53	4.55	3.58	3.78	3.91	3.92
Commercial Sector	3.50	3.62	4.06	3.57	3.58	3.65	4.08	3.58	3.58	3.67	4.11	3.59	3.69	3.72	3.74
Industrial Sector	2.50	2.62	2.72	2.55	2.60	2.64	2.76	2.57	2.61	2.66	2.78	2.59	2.60	2.64	2.66
Transportation Sector	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Direct Use (d)	0.38	0.37	0.38	0.37	0.37	0.36	0.38	0.35	0.36	0.36	0.38	0.35	0.38	0.37	0.36
Total Consumption	10.11	10.05	11.64	10.05	10.64	10.17	11.75	10.06	10.60	10.23	11.84	10.13	10.46	10.66	10.70
Average residential electricity usage per customer (kWh)	2,527	2,360	3,104	2,461	2,712	2,387	3,108	2,440	2,678	2,371	3,095	2,432	10,452	10,647	10,575
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.08	2.12	2.07	2.10	2.21	2.21	2.22	2.20	2.22	2.20	2.22	2.19	2.09	2.21	2.21
Natural Gas	3.68	3.38	3.19	3.21	4.10	3.37	3.41	3.65	3.85	3.24	3.28	3.51	3.34	3.61	3.45
Residual Fuel Oil	11.16	10.60	10.03	11.07	12.42	12.86	11.66	11.27	11.51	12.16	11.70	11.66	10.69	12.11	11.73
Distillate Fuel Oil	12.74	12.23	13.13	14.84	16.25	15.23	14.86	14.90	14.67	14.80	15.15	15.45	13.27	15.48	15.00
Retail Prices (cents per kilowatthour)															
Residential Sector	12.60	13.00	13.20	12.75	12.73	13.35	13.58	13.22	13.27	13.79	13.91	13.46	12.90	13.23	13.62
Commercial Sector	10.39	10.68	11.03	10.57	10.56	10.94	11.40	10.94	10.80	11.00	11.35	10.96	10.68	10.98	11.04
Industrial Sector	6.64	6.88	7.26	6.86	6.90	7.08	7.52	7.08	6.92	7.14	7.60	7.15	6.92	7.15	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 - February 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Residential Sector															
New England	135	112	136	123	143	113	140	122	140	113	140	123	126	130	129
Middle Atlantic	368	307	403	329	398	312	410	324	390	312	410	325	352	361	359
E. N. Central	507	435	545	477	552	442	560	470	543	442	560	471	491	506	504
W. N. Central	298	246	303	268	326	254	314	270	325	257	320	275	279	291	294
S. Atlantic	891	891	1,131	891	1,044	911	1,134	890	1,025	917	1,143	899	951	995	996
E. S. Central	305	277	368	287	367	290	380	290	351	291	382	291	310	331	329
W. S. Central	501	536	760	522	562	564	791	535	552	572	805	545	580	613	619
Mountain	245	259	347	232	246	259	350	235	253	262	356	238	271	273	278
Pacific contiguous	439	346	447	387	418	348	423	394	434	349	424	397	405	396	401
AK and HI	14	12	12	14	13	12	12	13	13	12	12	13	13	13	13
Total	3,704	3,421	4,450	3,529	4,071	3,504	4,514	3,544	4,027	3,526	4,552	3,577	3,777	3,908	3,921
Commercial Sector															
New England	140	136	152	146	140	133	148	143	137	131	146	138	143	141	138
Middle Atlantic	423	404	462	413	431	404	463	410	428	402	461	409	425	427	425
E. N. Central	489	486	537	484	498	488	543	484	498	489	543	483	499	503	504
W. N. Central	272	270	302	270	276	271	306	271	278	274	309	273	278	281	283
S. Atlantic	785	853	941	811	806	855	941	810	807	858	944	811	848	853	855
E. S. Central	225	241	275	232	234	243	278	231	234	245	281	233	243	247	248
W. S. Central	471	522	598	509	496	540	614	518	505	557	634	531	525	542	557
Mountain	246	265	301	249	247	265	305	251	250	268	307	252	265	267	269
Pacific contiguous	431	431	480	445	433	430	468	443	432	431	469	444	447	444	444
AK and HI	16	16	16	16	16	16	16	16	15	16	16	16	16	16	16
Total	3,498	3,622	4,063	3,573	3,578	3,645	4,082	3,577	3,585	3,670	4,110	3,590	3,690	3,722	3,740
Industrial Sector															
New England	44	44	48	47	44	43	46	45	43	42	45	44	46	44	43
Middle Atlantic	192	194	204	196	201	195	207	197	202	197	209	199	197	200	202
E. N. Central	495	504	522	498	519	506	528	499	518	506	528	500	505	513	513
W. N. Central	228	240	253	238	242	247	261	243	247	253	267	250	240	248	254
S. Atlantic	362	386	390	370	363	380	388	364	358	376	384	361	377	374	370
E. S. Central	267	275	281	263	270	275	282	261	267	274	280	260	272	272	270
W. S. Central	480	502	510	490	514	517	525	501	524	527	537	513	495	514	525
Mountain	210	228	245	211	215	232	250	215	219	236	254	218	224	228	232
Pacific contiguous	211	230	253	226	218	232	256	228	219	233	257	228	230	234	234
AK and HI	13	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Total	2,503	2,616	2,719	2,553	2,598	2,642	2,757	2,568	2,609	2,657	2,775	2,588	2,598	2,641	2,657
Total All Sectors (a)															
New England	320	294	336	317	329	290	336	312	322	287	332	307	317	317	312
Middle Atlantic	994	915	1,079	948	1,041	921	1,090	942	1,031	920	1,090	943	984	999	996
E. N. Central	1,493	1,427	1,605	1,461	1,570	1,438	1,631	1,454	1,561	1,439	1,633	1,457	1,497	1,524	1,522
W. N. Central	798	755	857	776	844	772	880	785	849	784	896	798	797	820	832
S. Atlantic	2,042	2,134	2,465	2,075	2,218	2,150	2,467	2,068	2,193	2,154	2,474	2,074	2,180	2,226	2,224
E. S. Central	798	793	924	782	871	808	940	782	853	810	943	784	825	850	847
W. S. Central	1,452	1,559	1,868	1,521	1,573	1,621	1,931	1,554	1,581	1,656	1,977	1,590	1,601	1,670	1,702
Mountain	701	752	893	692	708	756	906	701	722	766	917	709	760	768	779
Pacific contiguous	1,084	1,010	1,184	1,060	1,071	1,013	1,150	1,067	1,087	1,015	1,153	1,071	1,084	1,075	1,082
AK and HI	43	41	43	43	43	41	43	43	43	41	43	43	43	42	42
Total	9,726	9,679	11,253	9,676	10,268	9,811	11,374	9,708	10,241	9,873	11,458	9,775	10,087	10,292	10,338

- = no data available

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

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

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

Regions refer to U.S. Census divisions.

See "Census division" in EIA's Energy Glossary (<http://www.eia.doe.gov/glossary/index.html>) for a list of States in each region.**Historical data:** Latest data available from Energy Information Administration databases supporting the following reports: *Electric Power Monthly*, DOE/EIA-0226; and *Electric Power Annual*, DOE/EIA-0348.

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

Projections: EIA Regional Short-Term Energy Model.

Table 7c. U.S. Regional Retail Electricity Prices (Cents per Kilowatthour)
 U.S. Energy Information Administration | Short-Term Energy Outlook - February 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Residential Sector															
New England	19.06	19.49	19.50	19.39	19.92	20.46	20.35	20.53	21.22	21.58	21.29	21.24	19.36	20.30	21.32
Middle Atlantic	15.55	16.27	16.43	15.85	15.68	16.57	16.83	16.39	16.19	17.03	17.20	16.68	16.03	16.36	16.77
E. N. Central	12.90	13.58	13.26	13.26	13.19	14.11	13.87	13.98	13.87	14.70	14.31	14.38	13.24	13.77	14.29
W. N. Central	10.94	12.66	13.17	11.31	10.98	12.95	13.56	11.71	11.34	13.28	13.80	11.93	12.02	12.28	12.58
S. Atlantic	11.69	12.01	12.26	11.84	11.88	12.36	12.67	12.31	12.38	12.74	12.95	12.49	11.97	12.32	12.65
E. S. Central	11.08	11.44	11.32	11.27	11.04	11.87	11.97	11.86	11.58	12.15	11.99	12.03	11.28	11.67	11.93
W. S. Central	10.55	10.93	10.87	10.77	10.51	11.00	11.07	11.12	10.90	11.29	11.20	11.13	10.79	10.94	11.14
Mountain	11.28	12.16	12.31	11.72	11.49	12.42	12.65	12.09	11.84	12.76	12.94	12.32	11.92	12.21	12.52
Pacific	14.52	14.70	16.50	14.44	15.06	15.27	16.66	14.59	15.66	16.15	17.66	14.99	15.09	15.42	16.14
U.S. Average	12.60	13.00	13.20	12.75	12.73	13.35	13.58	13.22	13.27	13.79	13.91	13.46	12.90	13.23	13.62
Commercial Sector															
New England	15.11	15.06	15.72	15.19	15.61	15.60	16.32	15.85	15.77	15.13	15.72	15.46	15.28	15.86	15.52
Middle Atlantic	12.07	12.75	13.35	12.12	12.06	12.80	13.49	12.29	12.08	12.77	13.45	12.38	12.59	12.68	12.69
E. N. Central	10.02	10.24	10.05	10.04	10.16	10.51	10.42	10.36	10.37	10.65	10.45	10.46	10.09	10.36	10.48
W. N. Central	9.11	10.11	10.58	9.25	9.24	10.37	10.94	9.59	9.43	10.58	11.13	9.83	9.79	10.06	10.27
S. Atlantic	9.44	9.38	9.55	9.52	9.68	9.65	9.90	9.91	10.18	9.88	9.94	9.93	9.48	9.79	9.98
E. S. Central	10.58	10.56	10.62	10.65	10.91	11.10	11.36	11.26	10.97	11.05	11.09	11.25	10.60	11.17	11.09
W. S. Central	8.37	8.40	8.38	8.31	8.32	8.39	8.47	8.49	8.10	8.00	8.07	8.30	8.37	8.42	8.12
Mountain	9.14	9.93	10.04	9.49	9.33	10.19	10.31	9.77	9.38	10.22	10.34	9.83	9.67	9.93	9.97
Pacific	12.53	13.56	15.36	13.62	12.95	14.17	16.32	14.35	13.82	14.83	16.83	14.56	13.82	14.50	15.05
U.S. Average	10.39	10.68	11.03	10.57	10.56	10.94	11.40	10.94	10.80	11.00	11.35	10.96	10.68	10.98	11.04
Industrial Sector															
New England	12.46	12.25	12.60	12.32	12.73	12.49	12.89	12.62	13.17	12.78	13.09	12.74	12.41	12.69	12.95
Middle Atlantic	6.94	6.94	6.88	6.71	7.03	6.98	7.00	6.85	6.82	6.85	6.94	6.79	6.87	6.97	6.85
E. N. Central	7.03	7.04	7.01	7.02	7.26	7.25	7.28	7.26	7.30	7.31	7.35	7.32	7.03	7.26	7.32
W. N. Central	6.89	7.33	8.06	6.96	7.14	7.57	8.33	7.17	7.26	7.69	8.46	7.28	7.33	7.57	7.69
S. Atlantic	6.32	6.39	6.79	6.43	6.62	6.60	7.10	6.70	6.58	6.63	7.15	6.74	6.48	6.76	6.78
E. S. Central	5.90	5.95	6.17	6.06	6.21	6.16	6.48	6.32	6.30	6.28	6.60	6.42	6.02	6.29	6.40
W. S. Central	5.29	5.56	5.72	5.47	5.56	5.69	5.98	5.67	5.43	5.68	6.04	5.75	5.51	5.73	5.73
Mountain	6.08	6.54	7.12	6.26	6.33	6.75	7.33	6.43	6.54	6.96	7.55	6.62	6.53	6.74	6.94
Pacific	8.23	9.34	10.72	9.77	8.59	9.62	10.88	9.91	8.74	9.72	10.96	9.97	9.58	9.80	9.90
U.S. Average	6.64	6.88	7.26	6.86	6.90	7.08	7.52	7.08	6.92	7.14	7.60	7.15	6.92	7.15	7.21
All Sectors (a)															
New England	16.37	16.29	16.77	16.34	17.07	17.00	17.51	17.18	17.77	17.29	17.69	17.35	16.45	17.20	17.53
Middle Atlantic	12.35	12.68	13.26	12.28	12.48	12.83	13.50	12.55	12.59	12.94	13.60	12.66	12.66	12.86	12.97
E. N. Central	10.00	10.13	10.15	10.07	10.28	10.46	10.59	10.46	10.56	10.72	10.77	10.65	10.09	10.45	10.67
W. N. Central	9.15	10.06	10.75	9.27	9.32	10.32	11.10	9.57	9.53	10.53	11.29	9.76	9.83	10.10	10.30
S. Atlantic	9.86	9.93	10.36	9.96	10.20	10.26	10.73	10.38	10.62	10.53	10.90	10.48	10.04	10.41	10.64
E. S. Central	9.20	9.27	9.55	9.33	9.51	9.70	10.14	9.84	9.76	9.83	10.12	9.94	9.35	9.81	9.92
W. S. Central	8.10	8.36	8.67	8.25	8.22	8.44	8.86	8.49	8.19	8.39	8.79	8.45	8.37	8.52	8.48
Mountain	8.97	9.67	10.12	9.26	9.18	9.90	10.39	9.52	9.38	10.09	10.58	9.68	9.55	9.79	9.98
Pacific	12.48	12.98	14.79	13.10	12.90	13.49	15.22	13.48	13.52	14.10	15.81	13.73	13.38	13.81	14.32
U.S. Average	10.26	10.47	10.98	10.39	10.50	10.76	11.32	10.75	10.78	10.96	11.46	10.86	10.55	10.85	11.03

- = no data available

Prices are not adjusted for inflation.

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

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

Regions refer to U.S. Census divisions.

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
United States															
Coal	3,242	3,096	3,764	3,166	3,286	2,993	3,776	3,170	3,345	2,886	3,652	3,010	3,318	3,307	3,224
Natural Gas	2,965	3,288	4,359	3,321	3,347	3,561	4,361	3,379	3,381	3,681	4,544	3,568	3,486	3,664	3,796
Petroleum (a)	61	54	56	56	91	63	70	62	79	64	70	62	57	71	69
Other Gases	40	39	40	35	41	40	41	36	41	40	41	37	39	39	40
Nuclear	2,247	2,034	2,302	2,239	2,241	2,091	2,273	2,132	2,200	2,070	2,240	2,085	2,206	2,184	2,149
Renewable Energy Sources:	2,004	2,155	1,616	1,746	1,872	2,006	1,695	1,752	1,918	2,090	1,769	1,851	1,879	1,831	1,906
Conventional Hydropower	918	1,010	717	662	775	820	733	655	743	800	724	654	826	746	730
Wind	764	747	503	754	758	768	538	758	818	838	584	821	691	705	765
Wood Biomass	118	115	122	118	118	110	120	112	116	110	121	113	118	115	115
Waste Biomass	58	56	56	57	58	59	60	60	59	60	61	61	57	59	60
Geothermal	45	43	44	44	47	46	47	47	48	47	47	48	44	47	47
Solar	101	184	174	111	117	204	196	119	135	236	232	155	143	159	190
Pumped Storage Hydropower	-16	-16	-22	-15	-14	-12	-16	-14	-13	-12	-16	-14	-17	-14	-14
Other Nonrenewable Fuels (b)	35	35	37	35	35	36	38	35	35	36	39	35	36	36	36
Total Generation	10,577	10,684	12,152	10,583	10,900	10,777	12,238	10,552	10,986	10,857	12,339	10,634	11,002	11,119	11,206
Northeast Census Region															
Coal	154	134	136	140	140	103	152	123	161	101	145	131	141	130	134
Natural Gas	487	482	637	510	501	510	650	537	525	532	687	569	529	550	579
Petroleum (a)	4	2	3	3	25	3	4	4	13	3	4	4	3	9	6
Other Gases	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Nuclear	539	476	549	529	529	491	534	501	512	478	509	461	523	514	490
Hydropower (c)	102	107	99	101	82	89	91	94	83	89	92	94	102	89	89
Other Renewables (d)	72	76	68	76	79	71	65	76	79	72	66	78	73	73	74
Other Nonrenewable Fuels (b)	11	11	12	12	11	11	12	12	11	11	12	12	11	11	11
Total Generation	1,371	1,290	1,505	1,372	1,369	1,281	1,510	1,348	1,386	1,288	1,517	1,351	1,385	1,377	1,386
South Census Region															
Coal	1,330	1,412	1,681	1,320	1,335	1,311	1,676	1,347	1,390	1,245	1,584	1,243	1,436	1,418	1,366
Natural Gas	1,757	2,088	2,565	1,910	2,004	2,210	2,579	1,918	1,947	2,267	2,688	2,023	2,082	2,179	2,233
Petroleum (a)	26	22	23	22	32	27	29	24	30	27	29	23	23	28	28
Other Gases	15	15	15	13	15	15	15	13	15	15	15	14	14	15	15
Nuclear	979	888	1,003	1,010	995	936	1,018	955	995	939	1,020	957	970	976	978
Hydropower (c)	128	138	99	96	106	117	96	90	106	117	97	91	115	102	103
Other Renewables (d)	401	402	323	387	412	444	358	416	456	505	409	469	378	407	460
Other Nonrenewable Fuels (b)	15	15	16	15	15	16	17	15	15	16	17	15	15	15	16
Total Generation	4,650	4,980	5,725	4,773	4,913	5,076	5,788	4,778	4,955	5,131	5,860	4,835	5,034	5,140	5,197
Midwest Census Region															
Coal	1,288	1,177	1,395	1,216	1,305	1,174	1,444	1,221	1,298	1,145	1,408	1,163	1,269	1,286	1,253
Natural Gas	290	272	406	346	370	346	429	351	394	374	472	397	329	374	410
Petroleum (a)	8	7	7	8	11	11	12	11	11	11	12	10	8	11	11
Other Gases	17	16	17	14	18	16	17	14	18	16	18	15	16	16	17
Nuclear	555	543	579	532	550	509	554	519	530	500	544	510	552	533	521
Hydropower (c)	52	58	37	36	42	49	34	34	43	49	34	34	46	40	40
Other Renewables (d)	313	303	199	323	324	296	200	323	340	312	211	352	284	286	304
Other Nonrenewable Fuels (b)	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Total Generation	2,526	2,380	2,645	2,479	2,624	2,405	2,694	2,477	2,639	2,412	2,703	2,485	2,508	2,550	2,560
West Census Region															
Coal	470	373	551	490	507	404	504	478	496	395	515	474	472	473	470
Natural Gas	431	446	751	555	473	495	704	573	514	507	697	578	547	562	575
Petroleum (a)	23	22	23	23	23	23	24	24	24	24	25	25	23	24	24
Other Gases	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Nuclear	175	127	171	168	166	154	167	157	163	154	167	157	160	161	160
Hydropower (c)	619	692	460	414	531	553	497	423	497	533	484	421	545	501	484
Other Renewables (d)	301	363	309	298	283	376	338	282	300	401	358	297	318	320	339
Other Nonrenewable Fuels (b)	5	5	6	5	5	5	6	5	5	5	6	5	5	5	5
Total Generation	2,031	2,035	2,277	1,959	1,993	2,016	2,245	1,948	2,006	2,025	2,258	1,963	2,076	2,051	2,063

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

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

(c) Conventional hydroelectric and pumped storage generation.

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Fuel Consumption for Electricity Generation, All Sectors															
United States															
Coal (thousand st/d)	1,777	1,690	2,069	1,762	1,791	1,635	2,071	1,749	1,812	1,580	2,010	1,668	1,825	1,812	1,768
Natural Gas (million cf/d)	21,934	24,634	33,338	24,532	24,701	27,015	33,488	25,218	25,295	28,063	35,071	26,774	26,136	27,623	28,822
Petroleum (thousand b/d)	107	100	105	104	168	113	124	112	143	115	126	113	104	129	124
Residual Fuel Oil	26	27	28	26	54	26	30	26	41	26	29	26	27	34	30
Distillate Fuel Oil	28	24	23	27	47	25	25	25	32	25	25	25	25	31	27
Petroleum Coke (a)	49	45	48	46	60	58	65	56	63	60	67	57	47	59	62
Other Petroleum Liquids (b)	4	4	7	5	7	4	5	5	7	4	5	5	5	5	5
Northeast Census Region															
Coal (thousand st/d)	75	63	67	68	66	49	74	60	76	48	71	64	68	63	65
Natural Gas (million cf/d)	3,772	3,666	5,065	3,826	3,781	3,912	5,089	4,069	4,009	4,086	5,406	4,309	4,085	4,216	4,456
Petroleum (thousand b/d)	7	4	7	6	48	4	7	6	24	4	7	6	6	16	10
South Census Region															
Coal (thousand st/d)	715	759	902	726	707	700	900	727	728	667	857	678	776	759	733
Natural Gas (million cf/d)	12,476	15,424	19,083	13,948	14,494	16,516	19,463	14,048	14,233	17,048	20,379	14,962	15,247	16,138	16,668
Petroleum (thousand b/d)	47	42	43	42	60	49	54	44	56	50	54	44	43	52	51
Midwest Census Region															
Coal (thousand st/d)	717	655	788	690	731	660	815	691	727	644	794	658	713	724	706
Natural Gas (million cf/d)	2,489	2,165	3,566	2,641	2,903	2,792	3,586	2,794	3,173	3,021	3,984	3,145	2,718	3,020	3,332
Petroleum (thousand b/d)	15	16	16	18	21	20	22	21	21	20	22	21	16	21	21
West Census Region															
Coal (thousand st/d)	269	213	313	278	286	225	282	271	281	221	288	269	268	266	265
Natural Gas (million cf/d)	3,197	3,379	5,625	4,116	3,523	3,794	5,351	4,307	3,880	3,909	5,302	4,359	4,086	4,249	4,366
Petroleum (thousand b/d)	39	37	39	38	39	39	41	41	40	42	41	41	38	40	41
End-of-period U.S. Fuel Inventories Held by Electric Power Sector															
Coal (million short tons)	161.7	157.7	139.5	140.0	135.5	132.7	120.2	128.1	127.5	124.6	118.7	127.9	140.0	128.1	127.9
Residual Fuel Oil (mmbarrels)	12.5	11.9	11.4	11.4	11.4	11.4	11.4	12.0	11.9	11.9	11.8	12.2	11.4	12.0	12.2
Distillate Fuel Oil (mmbarrels)	17.0	16.6	16.4	16.5	16.7	16.7	16.7	17.2	17.3	17.2	17.1	17.5	16.5	17.2	17.5
Petroleum Coke (mmbarrels)	4.3	4.3	4.9	5.4	5.3	5.2	5.1	5.0	4.9	4.9	4.8	4.7	5.4	5.0	4.7

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

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

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

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

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

Historical data: Latest data available from U.S. Energy Information Administration *Electric Power Monthly* and *Electric Power Annual*.**Projections:** EIA Regional Short-Term Energy Model.

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Electric Power Sector															
Geothermal	0.037	0.037	0.038	0.037	0.039	0.039	0.040	0.040	0.040	0.040	0.040	0.041	0.149	0.159	0.161
Hydroelectric Power (a)	0.759	0.844	0.605	0.562	0.646	0.691	0.625	0.558	0.619	0.674	0.617	0.557	2.771	2.521	2.467
Solar (b)	0.083	0.154	0.147	0.094	0.096	0.171	0.166	0.100	0.111	0.198	0.197	0.130	0.479	0.533	0.635
Waste Biomass (c)	0.070	0.066	0.068	0.068	0.068	0.071	0.074	0.073	0.070	0.073	0.075	0.074	0.272	0.286	0.291
Wood Biomass	0.061	0.059	0.064	0.063	0.059	0.051	0.062	0.055	0.056	0.051	0.063	0.056	0.247	0.227	0.226
Wind	0.640	0.633	0.431	0.646	0.635	0.650	0.460	0.649	0.685	0.710	0.500	0.703	2.350	2.395	2.598
Subtotal	1.651	1.793	1.353	1.471	1.544	1.674	1.427	1.476	1.581	1.745	1.491	1.561	6.268	6.121	6.377
Industrial Sector															
Biofuel Losses and Co-products (d)	0.203	0.199	0.204	0.208	0.198	0.204	0.208	0.207	0.198	0.205	0.208	0.207	0.814	0.817	0.818
Geothermal	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.004	0.004	0.004
Hydroelectric Power (a)	0.003	0.004	0.003	0.003	0.003	0.004	0.003	0.003	0.003	0.004	0.003	0.003	0.013	0.013	0.013
Solar (b)	0.005	0.007	0.007	0.005	0.006	0.008	0.008	0.006	0.007	0.010	0.010	0.007	0.024	0.028	0.033
Waste Biomass (c)	0.044	0.040	0.038	0.045	0.042	0.040	0.040	0.043	0.041	0.040	0.040	0.043	0.166	0.165	0.165
Wood Biomass	0.328	0.319	0.332	0.321	0.310	0.304	0.314	0.314	0.306	0.303	0.315	0.315	1.299	1.243	1.239
Subtotal	0.583	0.567	0.583	0.582	0.558	0.558	0.571	0.574	0.554	0.558	0.572	0.575	2.315	2.260	2.258
Commercial Sector															
Geothermal	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.020	0.020	0.020
Solar (b)	0.015	0.023	0.023	0.016	0.019	0.028	0.029	0.021	0.024	0.034	0.035	0.025	0.077	0.098	0.117
Waste Biomass (c)	0.011	0.011	0.011	0.012	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.045	0.045	0.045
Wood Biomass	0.020	0.020	0.020	0.019	0.020	0.020	0.021	0.019	0.020	0.020	0.021	0.019	0.080	0.080	0.080
Subtotal	0.058	0.067	0.067	0.060	0.063	0.073	0.073	0.064	0.067	0.078	0.079	0.068	0.252	0.273	0.293
Residential Sector															
Geothermal	0.010	0.010	0.010	0.010	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.040	0.052	0.053
Solar (e)	0.037	0.057	0.058	0.041	0.042	0.065	0.068	0.048	0.050	0.076	0.078	0.055	0.192	0.223	0.257
Wood Biomass	0.094	0.095	0.096	0.098	0.103	0.103	0.104	0.104	0.105	0.105	0.105	0.105	0.383	0.413	0.420
Subtotal	0.140	0.162	0.164	0.149	0.158	0.181	0.184	0.165	0.168	0.194	0.196	0.173	0.615	0.688	0.730
Transportation Sector															
Biomass-based Diesel (f)	0.054	0.079	0.080	0.077	0.057	0.076	0.087	0.090	0.064	0.083	0.095	0.098	0.290	0.309	0.340
Ethanol (f)	0.270	0.290	0.293	0.294	0.271	0.297	0.302	0.293	0.277	0.301	0.305	0.295	1.146	1.162	1.178
Subtotal	0.324	0.369	0.373	0.379	0.328	0.373	0.389	0.382	0.341	0.384	0.400	0.394	1.445	1.472	1.518
All Sectors Total															
Biomass-based Diesel (f)	0.054	0.079	0.080	0.077	0.057	0.076	0.087	0.090	0.064	0.083	0.095	0.098	0.290	0.309	0.340
Biofuel Losses and Co-products (d)	0.203	0.199	0.204	0.208	0.198	0.204	0.208	0.207	0.198	0.205	0.208	0.207	0.814	0.817	0.818
Ethanol (f)	0.281	0.301	0.304	0.310	0.289	0.308	0.314	0.304	0.288	0.313	0.317	0.307	1.196	1.215	1.225
Geothermal	0.053	0.052	0.053	0.053	0.058	0.058	0.059	0.059	0.059	0.060	0.060	0.060	0.211	0.235	0.238
Hydroelectric Power (a)	0.763	0.849	0.609	0.566	0.650	0.695	0.629	0.562	0.623	0.678	0.620	0.561	2.786	2.536	2.482
Solar (b)(e)	0.138	0.239	0.234	0.162	0.164	0.273	0.271	0.175	0.191	0.317	0.319	0.217	0.773	0.882	1.043
Waste Biomass (c)	0.126	0.117	0.117	0.125	0.121	0.122	0.125	0.128	0.123	0.124	0.126	0.128	0.485	0.496	0.501
Wood Biomass	0.504	0.493	0.512	0.502	0.492	0.478	0.500	0.492	0.487	0.480	0.503	0.496	2.011	1.963	1.965
Wind	0.640	0.633	0.431	0.646	0.635	0.650	0.460	0.649	0.685	0.710	0.500	0.703	2.350	2.395	2.598
Total Consumption	2.757	2.957	2.541	2.652	2.651	2.857	2.644	2.660	2.711	2.958	2.738	2.770	10.906	10.813	11.176

- = 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 - February 2018

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Renewable Energy Electric Generating Capacity (megawatts, end of period)															
Electric Power Sector (a)															
Biomass	7,332	7,371	7,424	7,424	7,479	7,572	7,572	7,606	7,673	7,673	7,715	7,715	7,424	7,606	7,715
Waste	4,205	4,244	4,247	4,247	4,302	4,302	4,302	4,336	4,337	4,337	4,337	4,337	4,247	4,336	4,337
Wood	3,127	3,127	3,177	3,177	3,177	3,177	3,270	3,270	3,335	3,335	3,377	3,377	3,177	3,270	3,377
Conventional Hydroelectric	79,561	79,568	79,663	79,701	79,729	79,747	79,868	80,017	80,031	80,033	79,934	79,966	79,701	80,017	79,966
Geothermal	2,457	2,457	2,457	2,494	2,494	2,494	2,494	2,500	2,508	2,508	2,508	2,543	2,494	2,500	2,543
Large-Scale Solar (b)	22,520	23,530	24,018	26,240	27,678	28,418	28,781	30,320	31,886	33,682	34,957	41,526	26,240	30,320	41,526
Wind	82,898	83,361	84,081	87,448	88,482	88,808	89,772	94,803	96,185	96,924	97,429	103,945	87,448	94,803	103,945
Other Sectors (c)															
Biomass	6,704	6,723	6,724	6,724	6,724	6,725	6,725	6,725	6,737	6,714	6,714	6,728	6,724	6,725	6,728
Waste	885	889	890	890	890	890	890	890	902	904	904	918	890	890	918
Wood	5,819	5,834	5,834	5,834	5,834	5,835	5,835	5,835	5,835	5,811	5,811	5,811	5,834	5,835	5,811
Conventional Hydroelectric	357	357	357	357	357	357	357	357	357	357	357	357	357	357	357
Large-Scale Solar (b)	322	338	338	340	340	340	340	340	339	339	339	339	340	340	339
Small-Scale Solar (d)	13,728	14,549	15,333	16,292	17,113	17,907	18,751	19,631	20,455	21,333	22,262	23,231	16,292	19,631	23,231
Residential Sector	8,130	8,619	9,097	9,580	10,067	10,556	11,052	11,552	12,055	12,566	13,082	13,603	9,580	11,552	13,603
Commercial Sector	4,292	4,561	4,799	5,202	5,472	5,716	5,998	6,309	6,567	6,865	7,205	7,575	5,202	6,309	7,575
Industrial Sector	1,305	1,369	1,436	1,510	1,574	1,635	1,701	1,771	1,833	1,901	1,975	2,053	1,510	1,771	2,053
Wind	93	91	91	96	100	100	100	100	100	100	100	100	96	100	100
Renewable Electricity Generation (thousand megawatthours per day)															
Electric Power Sector (a)															
Biomass	90	86	90	90	88	85	93	87	88	85	94	89	89	88	89
Waste	49	47	47	48	48	50	51	51	50	51	52	51	48	50	51
Wood	41	39	43	42	40	35	41	37	38	34	42	37	41	38	38
Conventional Hydroelectric	913	1,005	713	658	771	815	729	651	738	795	719	650	821	741	725
Geothermal	45	43	44	44	47	46	47	47	48	47	47	48	44	47	47
Large-Scale Solar (b)	100	182	172	110	115	201	193	117	132	233	229	152	141	157	187
Wind	763	746	503	753	757	767	537	757	817	837	583	820	691	704	764
Other Sectors (c)															
Biomass	87	84	88	85	87	84	88	85	87	84	88	85	86	86	86
Waste	78	75	79	75	78	75	79	75	78	75	79	75	77	77	77
Wood	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Conventional Hydroelectric	5	5	4	4	5	5	4	4	5	5	4	4	5	5	5
Large-Scale Solar (b)	1	2	2	1	2	2	3	2	3	3	3	3	2	2	3
Small-Scale Solar (d)	51	79	80	55	63	96	97	68	77	115	116	81	66	81	97
Residential Sector	29	46	46	31	35	55	56	39	43	66	67	46	38	46	56
Commercial Sector	17	25	25	18	21	31	31	22	26	37	38	26	21	26	32
Industrial Sector	5	8	8	6	7	10	10	7	8	11	11	8	7	8	10
Wind	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1

-- = no data available

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

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

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

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

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

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

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

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

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

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Macroeconomic															
Real Gross Domestic Product (billion chained 2009 dollars - SAAR)	16,903	17,031	17,164	17,267	17,367	17,477	17,588	17,692	17,805	17,913	18,023	18,127	17,091	17,531	17,967
Real Personal Consumption Expend. (billion chained 2009 dollars - SAAR)	11,758	11,853	11,917	12,004	12,087	12,163	12,231	12,295	12,366	12,437	12,509	12,584	11,883	12,194	12,474
Real Fixed Investment (billion chained 2009 dollars - SAAR)	2,876	2,898	2,916	2,980	3,004	3,032	3,078	3,119	3,152	3,184	3,223	3,256	2,917	3,058	3,204
Business Inventory Change (billion chained 2009 dollars - SAAR)	0	5	42	28	41	46	54	62	66	70	71	75	19	51	70
Real Government Expenditures (billion chained 2009 dollars - SAAR)	2,897	2,895	2,900	2,904	2,904	2,909	2,914	2,919	2,922	2,924	2,928	2,930	2,899	2,911	2,926
Real Exports of Goods & Services (billion chained 2009 dollars - SAAR)	2,162	2,181	2,192	2,232	2,270	2,294	2,321	2,344	2,371	2,398	2,422	2,445	2,192	2,308	2,409
Real Imports of Goods & Services (billion chained 2009 dollars - SAAR)	2,785	2,795	2,790	2,872	2,930	2,958	3,001	3,036	3,060	3,088	3,116	3,148	2,810	2,981	3,103
Real Disposable Personal Income (billion chained 2009 dollars - SAAR)	12,680	12,766	12,783	12,848	13,032	13,167	13,290	13,409	13,555	13,663	13,769	13,874	12,769	13,224	13,715
Non-Farm Employment (millions)	145.7	146.2	146.7	147.2	147.8	148.3	149.0	149.6	150.2	150.7	151.1	151.3	146.4	148.7	150.8
Civilian Unemployment Rate (percent)	4.7	4.3	4.3	4.1	4.0	3.9	3.9	3.8	3.8	3.8	3.8	3.8	4.4	3.9	3.8
Housing Starts (millions - SAAR)	1.24	1.17	1.17	1.28	1.25	1.27	1.28	1.34	1.34	1.36	1.40	1.42	1.21	1.28	1.38
Industrial Production Indices (Index, 2012=100)															
Total Industrial Production	103.7	105.1	104.9	106.5	107.3	107.9	108.6	109.3	110.1	111.0	111.9	112.7	105.0	108.3	111.5
Manufacturing	103.7	104.5	104.1	106.0	106.8	107.3	108.0	108.6	109.5	110.4	111.1	111.8	104.6	107.7	110.7
Food	110.1	111.2	112.9	113.0	113.2	113.7	114.1	114.6	115.2	115.8	116.4	116.9	111.8	113.9	116.1
Paper	96.3	95.5	95.1	94.5	94.8	94.7	94.7	94.7	94.8	95.1	95.4	95.7	95.4	94.7	95.3
Petroleum and Coal Products	102.5	106.1	101.3	103.9	106.6	108.0	108.7	109.3	110.0	110.7	111.2	111.7	103.5	108.1	110.9
Chemicals	97.6	98.8	98.3	102.0	102.1	102.7	103.5	104.3	105.2	106.1	107.1	108.0	99.2	103.1	106.6
Nonmetallic Mineral Products	116.7	115.3	115.1	117.4	119.3	120.7	122.1	123.0	123.7	124.1	124.3	124.7	116.1	121.3	124.2
Primary Metals	96.8	95.4	95.4	97.1	97.0	96.5	96.4	96.3	96.8	97.7	98.3	99.0	96.2	96.6	98.0
Coal-weighted Manufacturing (a)	102.6	102.7	101.4	103.7	104.2	104.6	105.1	105.6	106.3	107.1	107.7	108.5	102.6	104.9	107.4
Distillate-weighted Manufacturing (a)	108.5	108.8	108.3	109.9	111.0	111.8	112.5	113.1	113.8	114.6	115.1	115.7	108.9	112.1	114.8
Electricity-weighted Manufacturing (a)	103.1	103.6	102.5	104.8	105.4	105.9	106.5	107.1	107.9	108.9	109.7	110.7	103.5	106.2	109.3
Natural Gas-weighted Manufacturing (a) ...	103.0	104.3	102.2	105.5	106.2	106.9	107.7	108.4	109.4	110.5	111.5	112.6	103.8	107.3	111.0
Price Indexes															
Consumer Price Index (all urban consumers) (index, 1982-1984=1.00)	2.44	2.44	2.45	2.47	2.49	2.50	2.51	2.52	2.53	2.55	2.56	2.58	2.45	2.50	2.55
Producer Price Index: All Commodities (index, 1982=1.00)	1.93	1.92	1.92	1.95	1.96	1.97	1.97	1.99	1.99	2.00	2.01	2.02	1.93	1.97	2.00
Producer Price Index: Petroleum (index, 1982=1.00)	1.66	1.67	1.77	1.89	2.01	1.98	1.92	1.85	1.83	1.92	1.95	1.91	1.75	1.94	1.90
GDP Implicit Price Deflator (index, 2009=100)	112.8	113.0	113.6	114.2	114.9	115.5	116.1	116.8	117.5	118.1	118.8	119.4	113.4	115.8	118.4
Miscellaneous															
Vehicle Miles Traveled (b) (million miles/day)	8,301	9,163	9,015	8,692	8,318	9,279	9,160	8,829	8,456	9,462	9,314	8,945	8,794	8,899	9,046
Air Travel Capacity (Available ton-miles/day, thousands)	567	619	667	568	541	626	650	569	544	627	653	574	606	596	600
Aircraft Utilization (Revenue ton-miles/day, thousands)	344	390	397	350	332	394	408	348	333	397	412	354	370	371	374
Airline Ticket Price Index (index, 1982-1984=100)	277.8	297.0	264.9	266.5	282.6	325.3	312.3	310.5	304.0	339.8	323.5	321.4	276.5	307.7	322.2
Raw Steel Production (million short tons per day)	0.248	0.247	0.250	0.245	0.255	0.255	0.234	0.199	0.256	0.254	0.236	0.204	0.248	0.236	0.237
Carbon Dioxide (CO₂) Emissions (million metric tons)															
Petroleum	565	588	593	587	577	588	604	596	578	593	609	601	2,333	2,364	2,381
Natural Gas	424	312	337	399	463	330	339	404	466	339	352	414	1,473	1,536	1,571
Coal	321	309	376	319	323	297	376	328	327	288	366	315	1,326	1,325	1,296
Total Energy (c)	1,314	1,211	1,310	1,308	1,367	1,218	1,323	1,330	1,374	1,223	1,329	1,333	5,143	5,237	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. U.S. macroeconomic projections are based on the IHS Markit model of the U.S. Economy.

Table 9b. U.S. Regional Macroeconomic Data

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Real Gross State Product (Billion \$2009)															
New England	888	893	899	903	908	912	917	922	926	931	936	941	896	915	933
Middle Atlantic	2,483	2,496	2,513	2,523	2,534	2,548	2,561	2,573	2,584	2,595	2,607	2,619	2,504	2,554	2,601
E. N. Central	2,318	2,336	2,354	2,364	2,375	2,386	2,398	2,409	2,421	2,432	2,445	2,456	2,343	2,392	2,439
W. N. Central	1,070	1,075	1,085	1,090	1,094	1,100	1,105	1,111	1,116	1,122	1,128	1,134	1,080	1,102	1,125
S. Atlantic	3,008	3,029	3,050	3,068	3,088	3,108	3,130	3,150	3,172	3,192	3,212	3,230	3,039	3,119	3,201
E. S. Central	761	767	774	778	781	786	790	794	799	803	808	812	770	788	805
W. S. Central	2,021	2,050	2,062	2,083	2,100	2,118	2,136	2,152	2,170	2,186	2,202	2,217	2,054	2,126	2,194
Mountain	1,082	1,092	1,103	1,111	1,120	1,127	1,136	1,144	1,154	1,162	1,171	1,179	1,097	1,132	1,167
Pacific	3,168	3,188	3,218	3,241	3,261	3,284	3,306	3,329	3,353	3,379	3,403	3,427	3,204	3,295	3,391
Industrial Output, Manufacturing (Index, Year 2012=100)															
New England	98.0	98.7	98.3	99.9	100.3	100.5	100.8	101.3	101.9	102.5	103.1	103.6	98.7	100.8	102.8
Middle Atlantic	98.2	97.9	97.3	98.4	99.0	99.3	99.8	100.3	100.9	101.5	102.1	102.6	98.0	99.6	101.8
E. N. Central	106.2	106.9	106.4	108.3	109.2	109.8	110.6	111.2	112.2	113.1	113.9	114.7	106.9	110.2	113.5
W. N. Central	102.3	103.3	103.3	105.5	106.2	106.8	107.4	108.1	108.9	109.9	110.6	111.4	103.6	107.2	110.2
S. Atlantic	107.2	108.0	107.7	110.0	110.8	111.3	111.8	112.4	113.2	114.1	114.8	115.5	108.2	111.6	114.4
E. S. Central	110.1	110.6	109.7	111.8	112.6	113.2	113.8	114.6	115.4	116.4	117.2	118.0	110.5	113.6	116.8
W. S. Central	98.0	99.7	99.9	101.7	102.6	103.5	104.4	105.4	106.3	107.3	108.2	109.0	99.8	104.0	107.7
Mountain	108.3	109.1	108.7	110.8	111.6	112.3	112.9	113.6	114.5	115.5	116.3	117.1	109.2	112.6	115.9
Pacific	103.7	104.3	103.6	105.6	106.4	107.0	107.7	108.5	109.3	110.2	111.0	111.7	104.3	107.4	110.5
Real Personal Income (Billion \$2009)															
New England	774	776	778	781	786	792	798	804	811	816	822	827	777	795	819
Middle Atlantic	1,965	1,976	1,984	1,990	2,001	2,016	2,030	2,043	2,060	2,071	2,084	2,097	1,979	2,022	2,078
E. N. Central	2,107	2,109	2,115	2,125	2,139	2,156	2,172	2,186	2,205	2,219	2,233	2,248	2,114	2,163	2,226
W. N. Central	989	993	994	999	1,007	1,017	1,026	1,034	1,044	1,053	1,062	1,070	994	1,021	1,057
S. Atlantic	2,776	2,787	2,796	2,807	2,832	2,859	2,885	2,910	2,942	2,966	2,991	3,016	2,792	2,872	2,979
E. S. Central	778	780	782	784	790	797	803	809	817	822	828	834	781	800	825
W. S. Central	1,703	1,711	1,719	1,728	1,744	1,762	1,780	1,797	1,817	1,833	1,849	1,866	1,715	1,771	1,841
Mountain	976	981	983	988	996	1,007	1,017	1,027	1,039	1,048	1,058	1,067	982	1,012	1,053
Pacific	2,397	2,425	2,432	2,445	2,464	2,487	2,509	2,532	2,557	2,578	2,599	2,621	2,425	2,498	2,589
Households (Thousands)															
New England	5,859	5,868	5,888	5,897	5,908	5,920	5,930	5,942	5,956	5,968	5,980	5,990	5,897	5,942	5,990
Middle Atlantic	15,899	15,915	15,967	15,983	16,009	16,035	16,061	16,090	16,121	16,148	16,175	16,201	15,983	16,090	16,201
E. N. Central	18,823	18,840	18,900	18,919	18,951	18,990	19,025	19,062	19,097	19,132	19,169	19,205	18,919	19,062	19,205
W. N. Central	8,518	8,536	8,574	8,595	8,623	8,654	8,680	8,706	8,732	8,757	8,782	8,807	8,595	8,706	8,807
S. Atlantic	25,184	25,275	25,434	25,533	25,643	25,757	25,864	25,973	26,087	26,192	26,294	26,394	25,533	25,973	26,394
E. S. Central	7,602	7,617	7,649	7,666	7,688	7,712	7,733	7,755	7,779	7,802	7,824	7,846	7,666	7,755	7,846
W. S. Central	14,579	14,625	14,704	14,751	14,806	14,865	14,926	14,992	15,059	15,124	15,189	15,252	14,751	14,992	15,252
Mountain	9,036	9,074	9,132	9,173	9,220	9,269	9,316	9,363	9,412	9,458	9,503	9,548	9,173	9,363	9,548
Pacific	18,697	18,753	18,846	18,898	18,960	19,025	19,089	19,151	19,217	19,277	19,338	19,395	18,898	19,151	19,395
Total Non-farm Employment (Millions)															
New England	7.4	7.4	7.4	7.4	7.4	7.4	7.5	7.5	7.5	7.5	7.5	7.5	7.4	7.5	7.5
Middle Atlantic	19.4	19.5	19.5	19.6	19.6	19.7	19.7	19.8	19.8	19.9	19.9	19.9	19.5	19.7	19.9
E. N. Central	21.9	21.9	22.0	22.0	22.1	22.1	22.2	22.3	22.3	22.4	22.4	22.5	21.9	22.2	22.4
W. N. Central	10.6	10.7	10.7	10.7	10.7	10.8	10.8	10.8	10.9	10.9	10.9	10.9	10.7	10.8	10.9
S. Atlantic	28.0	28.1	28.2	28.4	28.5	28.6	28.8	28.9	29.0	29.2	29.3	29.3	28.2	28.7	29.2
E. S. Central	8.0	8.1	8.1	8.1	8.1	8.2	8.2	8.2	8.3	8.3	8.3	8.3	8.1	8.2	8.3
W. S. Central	17.0	17.1	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	17.9	17.1	17.5	17.8
Mountain	10.4	10.4	10.5	10.5	10.6	10.7	10.7	10.8	10.8	10.9	10.9	11.0	10.5	10.7	10.9
Pacific	22.7	22.8	22.9	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.7	22.8	23.3	23.6

- = no data available

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

Regions refer to U.S. Census divisions.

See "Census division" in EIA's Energy Glossary (<http://www.eia.doe.gov/glossary/index.html>) for a list of States in each region.**Historical data:** Latest data available from U.S. Department of Commerce, Bureau of Economic Analysis; Federal Reserve System, Statistical release G17.

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

Projections: Macroeconomic projections are based on the IHS Markit model of the U.S. Economy.

Table 9c. U.S. Regional Weather Data

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

	2017				2018				2019				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018	2019
Heating Degree Days															
New England	2,987	804	92	2,151	3,198	874	132	2,163	3,128	866	132	2,163	6,034	6,366	6,288
Middle Atlantic	2,658	601	73	1,990	2,994	700	92	1,985	2,920	703	92	1,985	5,322	5,771	5,699
E. N. Central	2,692	628	106	2,248	3,188	741	133	2,223	3,139	743	133	2,223	5,673	6,285	6,238
W. N. Central	2,811	662	138	2,361	3,276	706	162	2,400	3,220	706	162	2,401	5,972	6,544	6,489
South Atlantic	1,148	125	15	940	1,488	196	15	980	1,433	204	15	979	2,228	2,679	2,631
E. S. Central	1,375	154	24	1,272	1,946	248	22	1,305	1,827	257	22	1,306	2,826	3,522	3,412
W. S. Central	772	65	4	725	1,214	74	4	784	1,120	80	4	784	1,565	2,078	1,989
Mountain	2,056	695	153	1,647	2,080	676	143	1,832	2,185	672	143	1,831	4,552	4,731	4,831
Pacific	1,562	534	69	1,022	1,385	606	99	1,221	1,524	599	99	1,221	3,187	3,310	3,444
U.S. Average	1,859	428	65	1,468	2,138	493	79	1,529	2,113	494	79	1,527	3,820	4,239	4,213
Heating Degree Days, Prior 10-year Average															
New England	3,201	831	122	2,125	3,172	818	119	2,119	3,181	817	117	2,106	6,279	6,228	6,221
Middle Atlantic	2,983	661	81	1,941	2,947	646	81	1,948	2,961	645	81	1,933	5,665	5,622	5,621
E. N. Central	3,254	701	114	2,197	3,209	692	117	2,209	3,194	689	119	2,185	6,267	6,227	6,187
W. N. Central	3,302	707	142	2,380	3,264	705	144	2,377	3,240	690	144	2,357	6,531	6,489	6,432
South Atlantic	1,502	188	12	966	1,476	177	12	973	1,485	174	13	964	2,667	2,638	2,636
E. S. Central	1,906	231	16	1,287	1,868	217	18	1,300	1,875	214	19	1,288	3,440	3,403	3,395
W. S. Central	1,227	88	4	799	1,181	80	4	799	1,185	78	4	793	2,119	2,065	2,060
Mountain	2,216	734	142	1,862	2,194	737	144	1,840	2,160	722	141	1,842	4,954	4,915	4,865
Pacific	1,462	598	89	1,205	1,465	593	84	1,180	1,439	588	84	1,184	3,354	3,322	3,296
U.S. Average	2,192	487	71	1,527	2,160	478	71	1,523	2,152	473	71	1,512	4,277	4,232	4,207
Cooling Degree Days															
New England	0	75	364	11	0	80	398	1	0	80	398	1	451	480	480
Middle Atlantic	0	139	500	22	0	148	516	4	0	148	516	4	661	668	668
E. N. Central	1	211	479	15	0	210	515	6	0	210	515	6	706	732	732
W. N. Central	9	264	624	14	3	261	656	10	3	261	655	10	911	930	929
South Atlantic	158	668	1,153	261	110	642	1,137	226	117	639	1,138	226	2,240	2,115	2,120
E. S. Central	65	480	965	73	22	508	1,022	64	27	504	1,021	63	1,584	1,615	1,616
W. S. Central	214	829	1,457	216	81	898	1,508	201	94	889	1,509	201	2,716	2,689	2,693
Mountain	36	467	918	119	19	433	931	76	19	433	932	76	1,539	1,458	1,459
Pacific	30	218	700	98	28	167	567	58	28	167	566	58	1,046	819	819
U.S. Average	70	401	837	114	39	397	835	91	43	396	836	91	1,422	1,362	1,366
Cooling Degree Days, Prior 10-year Average															
New England	0	81	433	1	0	81	433	1	0	79	437	1	515	515	517
Middle Atlantic	0	169	566	6	0	166	566	5	0	163	570	6	741	738	738
E. N. Central	3	234	542	8	3	228	532	7	3	230	535	7	788	770	775
W. N. Central	7	281	672	12	7	277	659	11	7	280	666	12	973	953	965
South Atlantic	117	666	1,167	230	119	675	1,160	227	118	675	1,166	233	2,179	2,181	2,192
E. S. Central	33	544	1,056	65	34	539	1,031	63	34	540	1,035	65	1,698	1,667	1,675
W. S. Central	90	876	1,527	205	100	887	1,532	204	99	887	1,546	208	2,698	2,722	2,741
Mountain	23	424	930	81	24	426	922	84	25	431	925	83	1,458	1,456	1,463
Pacific	30	180	608	74	30	185	621	78	30	183	615	75	892	914	904
U.S. Average	43	405	857	94	45	408	855	94	45	409	860	96	1,399	1,402	1,410

- = no data available

Notes: Regional degree days for each period are calculated by EIA as contemporaneous period population-weighted averages of state degree day data published by the National Oceanic and Atmospheric Administration (NOAA).See *Change in Regional and U.S. Degree-Day Calculations* (http://www.eia.gov/forecasts/steo/special/pdf/2012_sp_04.pdf) for more information.

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

Regions refer to U.S. Census divisions. See "Census division" in EIA's Energy Glossary (<http://www.eia.gov/tools/glossary/>) for a list of states in each region.**Historical data:** Latest data available from U.S. Department of Commerce, National Oceanic and Atmospheric Association (NOAA).**Projections:** Based on forecasts by the NOAA Climate Prediction Center (<http://www.cpc.ncep.noaa.gov/pacdir/DDdir/NHOME3.shtml>).

Appendix

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

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

Table a1. Summary of Estimated Petroleum and Other Liquids Quantities

	December 2017	January 2018	December 2017- January 2018 Average	December 2016- January 2017 Average	2014 – 2016 Average
Global Petroleum and Other Liquids (million barrels per day)					
Global Petroleum and Other Liquids Production (a)	98.4	98.9	98.6	97.5	95.9
Global Petroleum and Other Liquids Consumption (b)	99.3	98.4	98.8	97.1	95.3
Biofuels Production (c)	1.9	1.7	1.8	1.8	2.1
Biofuels Consumption (c)	2.2	2.1	2.1	2.1	2.0
Iran Liquid Fuels Production	4.6	4.7	4.7	4.4	3.7
Iran Liquid Fuels Consumption	1.8	1.7	1.7	1.7	1.9
Petroleum and Petroleum Products Produced and Consumed in Countries Other Than Iran (million barrels per day)					
Production (d)	91.8	92.4	92.1	91.2	90.1
Consumption (d)	95.3	94.6	94.9	93.3	91.4
Production minus Consumption	-3.5	-2.1	-2.8	-2.1	-1.3
World Inventory Net Withdrawals Including Iran	0.9	-0.4	0.3	-0.3	-0.6
Estimated OECD Inventory Level (e) (million barrels)	2,870	2,865	2,867	3,008	2,842
OPEC Surplus Crude Oil Production Capacity (f)	2.1	2.0	2.1	1.5	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	December 2017	January 2018	December 2017- January 2018 Average	December 2016- January 2017 Average	2014 – 2016 Average
Brent Front Month Futures Price (\$ per barrel)	64.09	69.08	66.65	55.21	66.06
WTI Front Month Futures Price (\$ per barrel)	57.95	63.66	60.87	52.38	61.71
Dubai Front Month Futures Price (\$ per barrel)	61.49	66.41	64.01	53.20	63.38
Brent 1st - 13th Month Futures Spread (\$ per barrel)	3.37	4.44	3.92	-2.04	-3.42
WTI 1st - 13th Month Futures Spread (\$ per barrel)	2.44	4.16	3.32	-3.46	-2.04
RBOB Front Month Futures Price (\$ per gallon)	1.72	1.86	1.79	1.58	1.89
Heating Oil Front Month Futures Price (\$ per gallon)	1.95	2.08	2.01	1.65	1.93
RBOB - Brent Futures Crack Spread (\$ per gallon)	0.19	0.21	0.20	0.26	0.31
Heating Oil - Brent Futures Crack Spread (\$ per gallon)	0.42	0.43	0.43	0.34	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).