



## Short-Term Energy Outlook (STEO)

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### Forecast highlights

#### *Global liquid fuels*

- U.S. crude oil production averaged 9.4 million barrels per day (b/d) in 2015, and it is forecast to average 8.9 million b/d in 2016 and 8.8 million b/d in 2017.
- EIA forecasts Brent crude oil prices to average \$43 per barrel (b) in 2016 and \$52/b in 2017. West Texas Intermediate (WTI) crude oil prices are forecast to average about \$1/b less than Brent prices in 2017. The values of futures and options contracts indicate significant uncertainty in the price outlook. The NYMEX contract values for March 2017 delivery traded during the five-day period ending December 1 suggest that a range from \$34/b to \$71/b encompasses the market expectation of WTI prices in March 2017 at the 95% confidence level.
- Lower crude oil prices contributed to U.S. average retail regular gasoline prices in November averaging \$2.18 per gallon (gal), a decline of 7 cents/gal from the October level. EIA expects gasoline prices to fall to an average of \$2.10/gal in January. Retail gasoline prices are forecast to average \$2.14/gal in 2016 and \$2.30/gal in 2017.
- Global oil inventory builds are forecast to average 0.7 million b/d in 2016 and 0.4 million b/d in 2017.

#### *Natural gas*

- Natural gas marketed production is forecast to average 77.5 billion cubic feet per day (Bcf/d) in 2016, a 1.3 Bcf/d decline from the 2015 level, which would be the first annual production decline since 2005. In 2017, forecast natural gas production increases by an average of 2.5 Bcf/d from the 2016 level.
- Growing domestic natural gas consumption, along with higher pipeline exports to Mexico and liquefied natural gas exports, contribute to the Henry Hub natural gas spot price rising from an average of \$2.49 per million British thermal units (MMBtu) in 2016 to \$3.27/MMBtu in 2017. NYMEX contract values for March 2017 delivery traded during the five-day period ending December 1 suggest that a price range from \$2.20/MMBtu to \$5.04/MMBtu encompasses the market expectation of Henry Hub natural gas prices in March 2017 at the 95% confidence level.

### *Electricity, coal, renewables, and emissions*

- Total U.S. electricity generation from utility-scale plants averaged 11,172 gigawatthours per day in 2015. Forecast U.S. generation grows by 0.2% in 2016 and by 0.7% in 2017.
- EIA expects the share of U.S. total utility-scale electricity generation from natural gas will average 34% this year, and the share from coal will average 30%. In 2015, both fuels supplied about 33% of total U.S. electricity generation. In 2017, natural gas and coal are forecast to generate 33% and 31% of electricity, respectively. Nonhydropower renewables are forecast to generate 8% of electricity generation in 2016 and 9% in 2017. Generation shares of nuclear and hydropower are forecast to be relatively unchanged from 2016 to 2017.
- Coal production in November 2016 was 70.7 million short tons (MMst), the third time this year monthly production exceeded 70 MMst. Monthly coal production exceeded 70 MMst nine times in 2015 and in every month in 2014. Forecast annual coal production declines by 15% to 758 MMst in 2016, which would be the lowest level of coal production since 1978. Coal production is forecast to increase by 2% in 2017.
- Despite recent increases in global coal prices, [spot U.S. coal prices](#) have remained unchanged for the past six weeks. The delivered coal price averaged \$2.23/MMBtu in 2015. Forecast coal prices average \$2.14/MMBtu in 2016 (a 4% decline) and \$2.21/MMBtu in 2017 (a 3% increase).
- Wind energy capacity at the end of 2015 was 72 gigawatts (GW). EIA expects capacity additions of 7 GW in 2016 and 9 GW in 2017. These additions would bring total wind capacity to 89 GW by the end of 2017.
- On November 23, 2016, the U.S. Environmental Protection Agency (EPA) finalized a [rule setting Renewable Fuel Standard \(RFS\) volumes for 2017](#). EIA used the final volumes to develop the current STEO forecast. EIA expects that the largest effect of the finalized 2017 RFS targets will be on biomass-based diesel consumption, which includes both biodiesel and renewable diesel and helps to meet the RFS targets for use of biomass-based diesel, advanced biofuel, and total renewable fuel. Biodiesel production averaged 82,000 b/d in 2015, and it is forecast to average 99,000 b/d in 2016 and 104,000 b/d in 2017. Net imports of biomass-based diesel are expected to rise from 31,000 b/d in 2015 to 45,000 b/d in 2016 and to 51,000 b/d in 2017. Projected ethanol consumption averages about 940,000 b/d in both 2016 and 2017, resulting in the [ethanol share of the total gasoline pool averaging 10%](#) in both years.
- After declining by 2.6% in 2015, energy-related carbon dioxide (CO<sub>2</sub>) emissions are projected to decline by 1.3% in 2016 and then increase by 0.9% in 2017. Energy-related CO<sub>2</sub> emissions are sensitive to changes in weather, economic growth, and energy prices.

## Petroleum and natural gas markets review

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### Crude oil

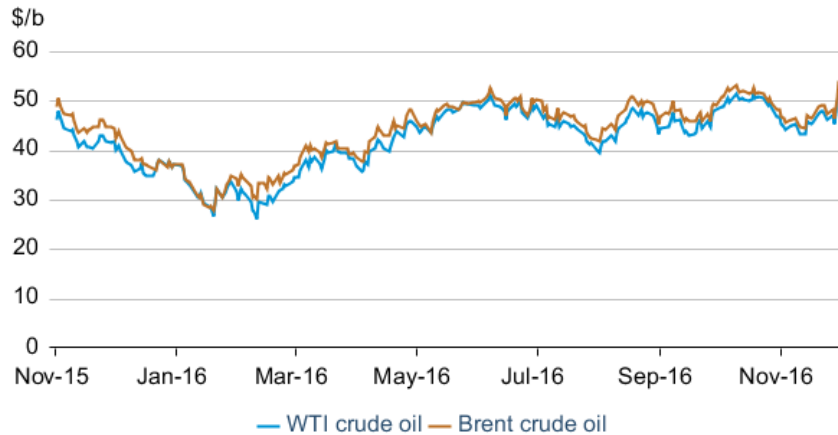
**Prices:** Crude oil prices traded below October levels for most of November before increasing significantly on the last day of the month. West Texas Intermediate (WTI) crude oil prices increased from \$46.67 per barrel (b) on November 1 to \$51.06/b on December 1, while international benchmark Brent crude oil increased by \$5.80/b over the same period to settle at \$53.94/b (**Figure 1**). WTI and Brent average spot prices in November were \$4.07/b and \$4.79/b lower, respectively, than the October averages.

At their November 30 meeting, members of the Organization of the Petroleum Exporting Countries (OPEC) announced a framework for supply reductions among most of its members. Several non-OPEC producers also announced their intention to freeze or reduce production. The extent to which the announced plans will be carried out and actually reduce supply below levels that would have occurred in their absence remains uncertain. If the agreement contributes to prices rising above \$50/b in the coming months, it could encourage a return to supply growth in U.S. tight oil more quickly than currently expected. Crude oil prices near \$50/b have led to increased investment by some U.S. production companies, particularly in the Permian Basin. A price recovery above \$50/b could contribute to supply growth in other U.S. tight oil regions and in other non-OPEC producing countries that do not participate in the OPEC-led supply reductions.

Continuing global supply growth in 2017 may postpone significant global inventory withdrawals until 2018, with the first half of 2017 showing inventory builds averaging 0.8 million b/d in our current forecast. Global inventory builds are forecast to average 0.4 million b/d for all of 2017. Despite new oil production coming online when oil inventories are at high levels globally, global economic data have been more positive than previous expectations, and increases in oil demand growth could help to support prices in the coming quarters.

The Brent crude oil price forecast for 2017 was increased by \$1/b from the November STEO, with 2017 prices expected to average \$52/b in the December STEO. Brent and WTI crude oil prices for the first half of 2017 are projected to remain near \$50/b, with prices ending the year around \$55/b. Implied volatility increased in the weeks prior to the OPEC meeting, suggesting significant uncertainty regarding both the prospects for the recent agreement and its potential implications for global oil balances.

**Figure 1. Crude oil front-month futures prices**

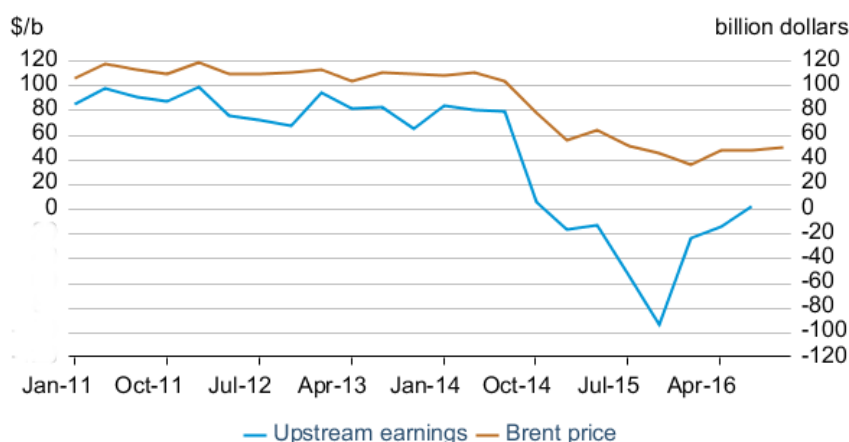


eia Bloomberg L.P.

Oil production, particularly in the United States, has been more resilient in the current oil price environment than had been expected, as reflected in improving financial conditions at oil companies. Improved profits could encourage oil producers to increase capital expenditures and expand production in 2017 and beyond, especially if oil prices increase. In the third quarter of 2016, a group of publicly traded global oil companies reported the first quarterly profit from upstream production business segments since the fourth quarter of 2014, according to recently released earnings statements from 91 companies (**Figure 2**). Collectively, the group earned almost \$2.3 billion in the third quarter when front-month Brent crude oil prices averaged \$47/b. In the same period in 2015, when prices averaged \$51/b, the group lost \$54.1 billion.

Since the fourth quarter of 2014, many companies have [written down the value of their assets](#) to reflect lower oil prices, which reduces earnings in the quarter in which a company recognizes the write-down. The increase in earnings this year is partially attributable to a reduction in asset write-downs, which declined 80% year-over-year. Additionally, company reductions in operating expenses were greater than the declines in revenue, contributing to higher profitability.

**Figure 2. Upstream earnings and Brent oil price**



eia | Bloomberg L.P., Evaluate Energy

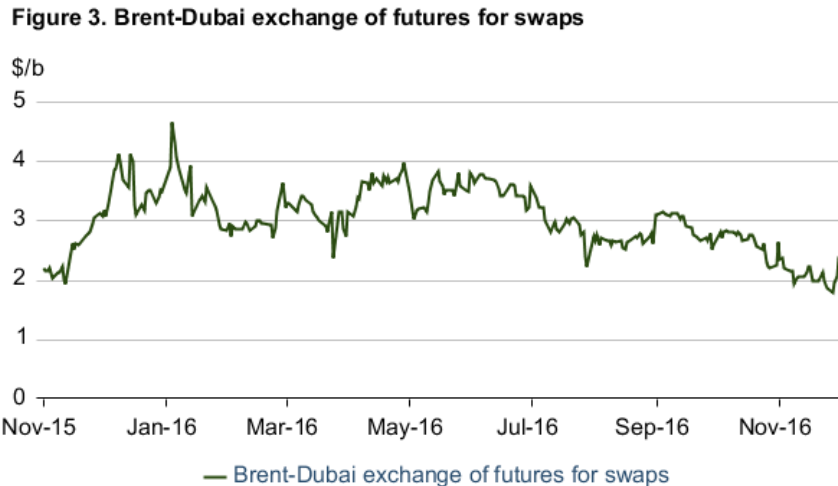
**Crude oil supply and price spreads:** EIA revised the U.S. crude oil production forecast upward from the November STEO, with average 2017 production expected to decline by less than 0.1 million b/d from 2016 levels. Total U.S. liquids production, which includes production of hydrocarbon gas liquids (HGL) and biofuels, is expected to increase by 0.2 million b/d in 2017.

Total non-OPEC liquids production is expected to grow by almost 0.4 million b/d in 2017 from 2016 levels. Outside the United States, non-OPEC total liquid fuels production is expected to increase by slightly more than 0.1 million b/d in 2017. Canada's liquid fuels production is expected to grow by about 0.3 million b/d in 2017, making up for the low production growth in 2016, when wildfires during the summer resulted in large production shut-ins. Russia, Kazakhstan, and Brazil are also expected to see an increase in liquids output in 2017. Liquid fuels growth in these countries in 2017 is expected to be partially offset by declining production in the North Sea, China, and Mexico.

OPEC crude oil production is expected to average 33.2 million b/d in 2017. The Nigerian oil sector continues to experience setbacks as militant attacks continue to target oil infrastructure, lowering the country's production outlook. Libya's crude oil production was almost 0.6 million b/d at the end of November, a slight increase compared with the previous month. Additional oil production increases from Libya in the near term are not likely to occur without an agreement with the Zintani militia, which controls the pipelines that transport crude oil from some of Libya's largest fields, including the El Sharara and El Feel fields.

A return from seasonal maintenance at North Sea offshore oil fields in the United Kingdom and Norway increased collective production by almost 0.1 million b/d in November compared with October. Sustained production near 0.6 million b/d in Libya and an increase in North Sea production could be weakening near-term Brent prices compared with Middle Eastern crude oil. Along with relatively [low shipping rates](#), weaker Brent prices have made crude oils produced in the Atlantic Basin market more competitive for refiners in Asia, whose traditional suppliers are Middle Eastern crude oil producers.

The front-month Brent-Dubai Exchange of Futures for Swaps (EFS), which is an instrument that allows trade between the Brent futures market and the Dubai swaps market and represents the price premium of Brent over Dubai crude oil, reached its lowest point so far this year towards the end of November, before rising in response to the OPEC supply cut agreement (**Figure 3**). Last November, when the spread between Brent and Dubai was similarly low, Chinese refiners increased purchases of West African crude oil. This year, some Asian refineries are purchasing Atlantic-based crude oils, with the trade press reporting that refineries in countries like South Korea and China recently purchased crude oil cargoes from the North Sea.



eia Thomson Reuters

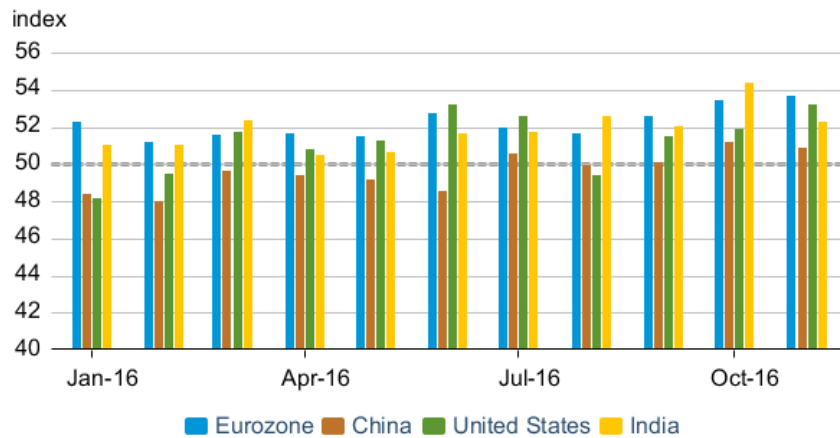
**Liquid fuels demand and economic growth indicators:** The outlook for global liquid fuels demand in the December STEO has been revised upward from the November STEO, with global oil demand now expected to grow by 1.4 and 1.6 million b/d in 2016 and 2017, respectively. The projection for real oil-weighted world GDP growth increases slightly from 2.2% in 2016 to 2.7% in 2017.

Higher expectations for demand growth are supported by relatively strong economic data released in November. U.S. GDP growth in the third quarter of 2016 was revised upward from initial estimates of 2.9% to 3.2%, according to the Bureau of Economic Analysis, and improvements in leading economic indicators across the world provide support for the increased global demand forecast. Manufacturing Purchasing Managers' Indexes (PMI) in major developed and emerging markets indicate expansion in the manufacturing sectors in these regions (**Figure 4**). A manufacturing PMI measures conditions within the manufacturing sector and is used as an indicator of economic growth. An index level above 50 indicates the manufacturing sector is expanding.

Four major manufacturing regions of the world are reporting continued expansion, indicating strength in global economic growth. The U.S. manufacturing PMI has increased over the past few months, while the latest PMI reading for the Eurozone was at its highest in nearly three years. The manufacturing PMI for China and India were at multi-year highs in October before

declining slightly in November. An expanding manufacturing sector typically leads to increasing consumption of fuels like distillate, but it can also indirectly indicate that domestic and international demand for goods is increasing, which can lead to future economic growth and oil demand.

**Figure 4. Regional Manufacturing Purchasing Managers' Indexes**



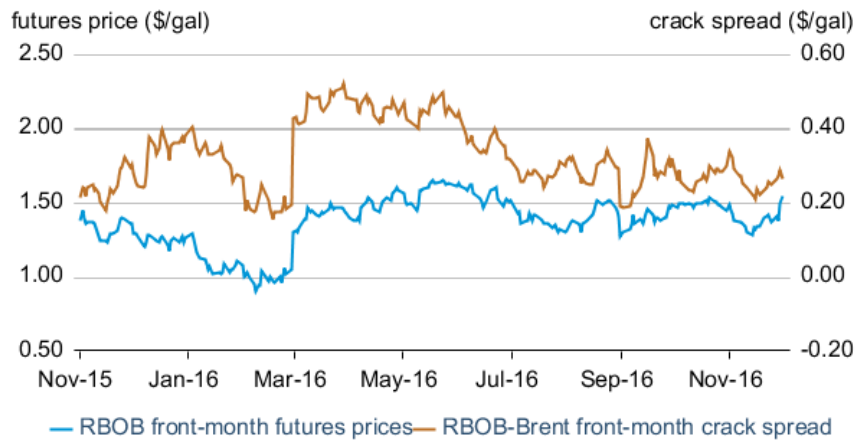
eia Bloomberg L.P., IHS Markit, Institute for Supply Management

## 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) increased in November and settled at \$1.55 per gallon (gal) on December 1 (**Figure 5**). The RBOB-Brent crack spread (the difference between the price of RBOB and the price of Brent crude oil) declined slightly in November.

Although gasoline crack spreads declined during November, the average crack spread was still a record high for the month. Strong domestic and international demand for gasoline likely supported gasoline crack spreads. Preliminary export data indicate that monthly [gasoline exports](#) set a record high in November. EIA also estimates U.S. gasoline consumption will reach a record high of 9.31 million b/d in 2016; the previous record was 9.29 million b/d set in 2007.

**Figure 5. Historical RBOB futures prices and crack spread**



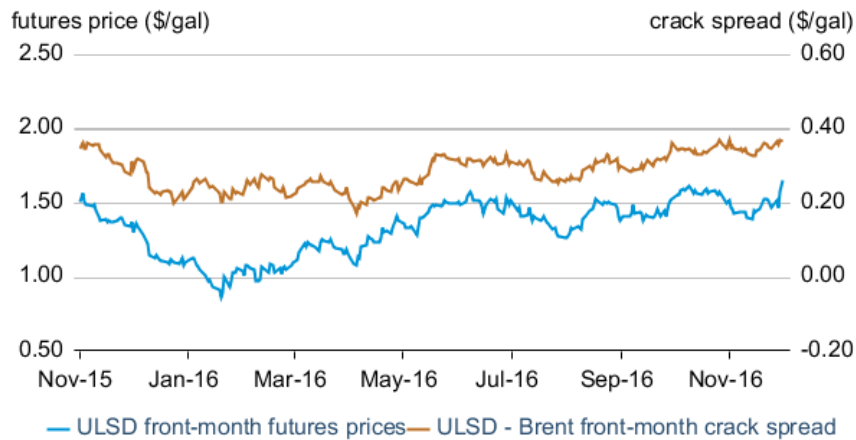
eia Bloomberg L.P.

**Ultra-low sulfur diesel prices:** The front-month futures price for the New York Harbor Ultra-low Sulfur Diesel (ULSD) contract increased by 13 cents/gal since November 1, settling at \$1.65/gal on December 1. The ULSD-Brent crack spread declined by 1 cent/gal over the same period (**Figure 6**). Crack spreads remain below the five-year average for this time of year.

Despite a warm start to the winter, which typically reduces distillate fuel use for home heating in the northeast United States, total U.S. distillate consumption increased by more than 0.2 million b/d in November compared with the same period in 2015, which was also unseasonably warm. The increase in distillate consumption in the United States could be the result of increased transportation, freight, and industrial activity related to U.S. manufacturing. Along with the increase in the U.S. manufacturing PMI, the Texas Manufacturing Outlook Survey from the Federal Reserve Bank of Dallas showed that [general business activity](#) increased in November for the first time in nearly two years, supporting renewed industrial activity in the region.



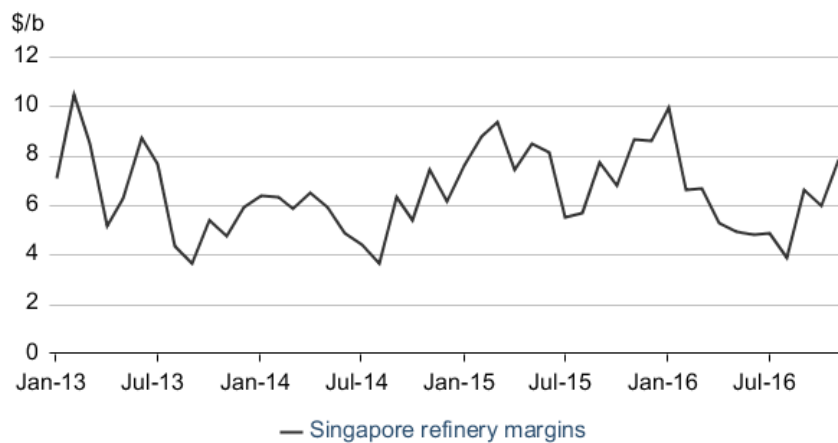
**Figure 6. Historical ULSD futures price and crack spread**



eia Bloomberg L.P.

**Asian product markets:** Refinery margins in Asia, calculated using Dubai crude oil and benchmark Singapore product prices, rose from a two-year low in August to \$7.82/b in November (**Figure 7**), a steeper rise than in previous years during this period. Declines in petroleum product stocks in the region likely supported refinery margins. Stocks of light distillates, which include gasoline, have generally declined since August and briefly declined below last year’s levels in November. The drawdown in light distillate stocks was because of seasonal maintenance at Asian and Middle Eastern refineries and strong gasoline demand from some Asian countries. Residual fuel stocks in Singapore have declined since June and have been below last year’s levels since late July. Residual fuel oil stocks declined because of the seasonal increase in demand for power generation and reduced fuel oil exports from Russia, an important supplier to the region. A tight petroleum product market in Asia could support higher regional refinery margins through the end of 2016.

**Figure 7. Singapore refinery margins**

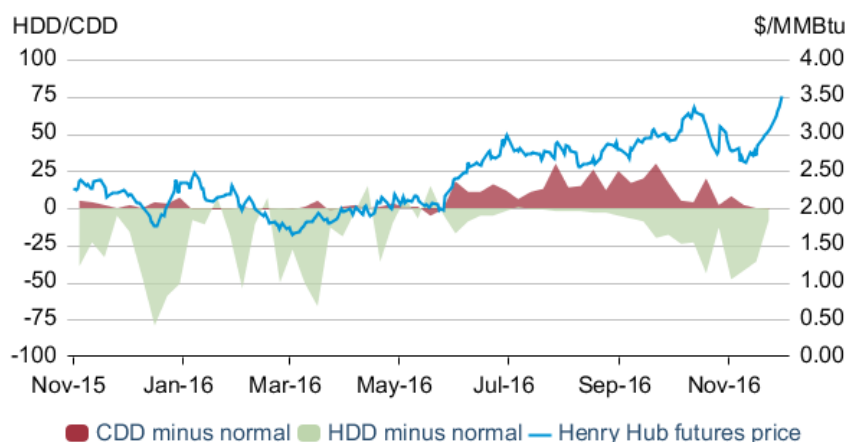


eia Thomson Reuters

## Natural gas

**Prices and temperatures:** The front-month natural gas contract for delivery at Henry Hub increased by 60 cents per million British thermal units (MMBtu) from November 1 and settled at \$3.51/MMBtu on December 1 (**Figure 8**). The monthly average natural gas spot price in November fell 43 cents/MMBtu from the October average. Both natural gas futures and spot prices declined in the first half of November as warmer-than-normal temperatures helped to push natural gas inventories to record levels. In November, U.S. population-weighted heating degree days (HDD) were 21% below the previous ten-year average and U.S. natural gas inventory levels exceeded 4 trillion cubic feet during the middle of the month. The natural gas spot price, which represents very-near-term delivery, was more greatly affected by the record high inventories and fell by a larger percentage than the futures price.

**Figure 8. Actual minus historical average HDD and CDD**



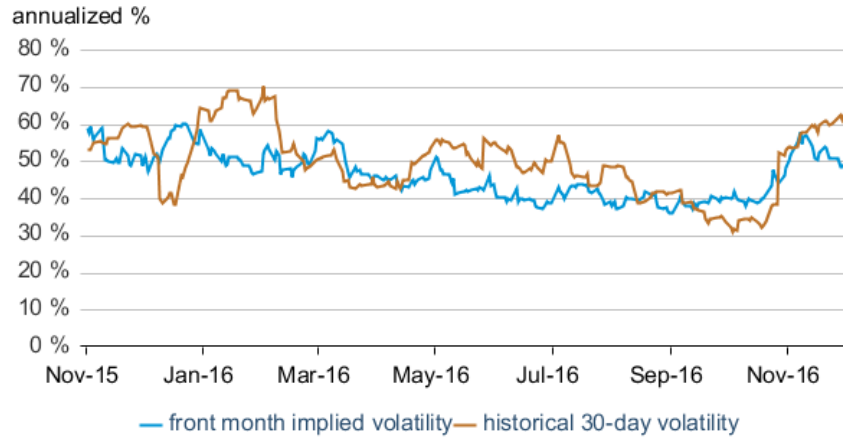
eia Bloomberg L.P., U.S. EIA

After falling in the first part of November, natural gas prices began increasing in the middle of November as new weather forecasts contributed to higher demand expectations. The price variations drove historical volatility and implied volatility on the front-month futures contract to the highest levels since last winter. Volatility levels are similar to the start of winter in 2015, when inventories were also high (**Figure 9**).

Although temperatures from December 2016 through March 2017 are projected to average 3% warmer than normal, this forecast is 13% colder than the same period last year. The expectation of colder temperatures than last winter contributes to EIA's projection of a 13% year-over-year increase in residential and commercial natural gas consumption from December 2016 through March 2017. Total natural gas consumption for December through March is forecast to be 4% higher than last winter. The increase in domestic consumption, combined with ongoing [growth in pipeline](#) and liquefied natural gas (LNG) exports, is projected to reduce natural gas inventories to levels closer to historical averages at the end of the winter. The wide range of prices in

November shows how market participants are attempting to balance current high inventory levels with expectations of narrowing supply and demand fundamentals going forward.

**Figure 9. Natural gas historical and implied volatility**



eia Bloomberg L.P.

## Notable forecast changes

- For more information, see the [detailed table of forecast changes](#).

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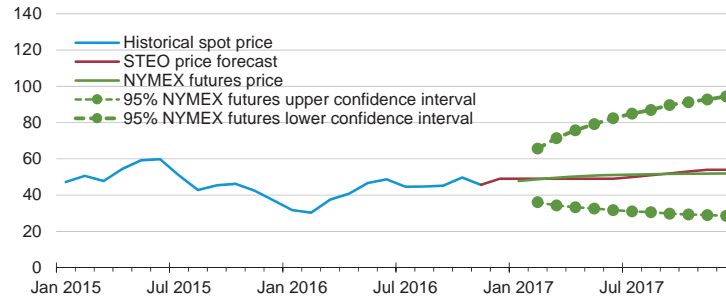


# Short-Term Energy Outlook

## Chart Gallery for December 2016

West Texas intermediate (WTI) crude oil price

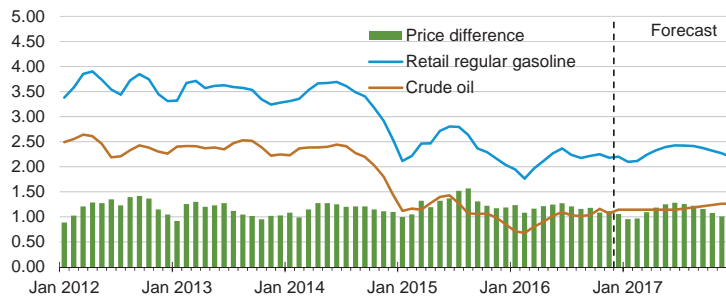
dollars per barrel



Note: Confidence interval derived from options market information for the 5 trading days ending Dec 1, 2016. Intervals not calculated for months with sparse trading in near-the-money options contracts.  
Source: Short-Term Energy Outlook, December 2016.

U.S. gasoline and crude oil prices

dollars per gallon

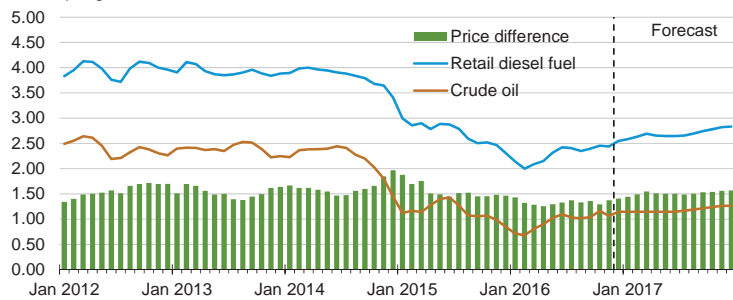


Crude oil price is composite refiner acquisition cost. Retail prices include state and federal taxes.

Source: Short-Term Energy Outlook, December 2016.

### U.S. diesel fuel and crude oil prices

dollars per gallon

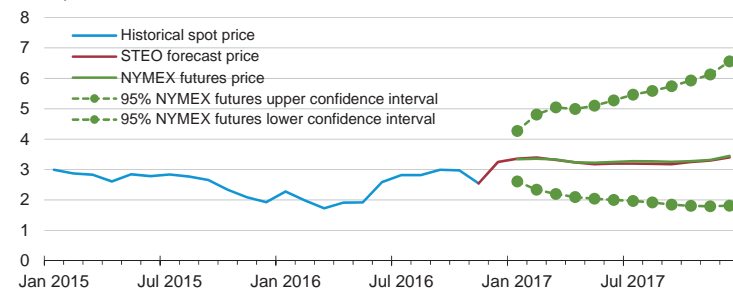


Crude oil price is composite refiner acquisition cost. Retail prices include state and federal taxes.

Source: Short-Term Energy Outlook, December 2016.

### Henry hub natural gas price

dollars per million Btu

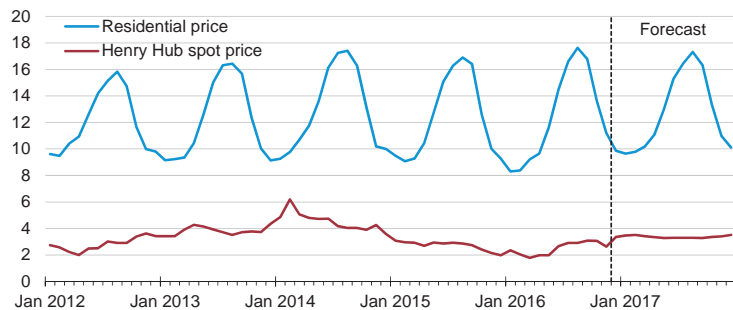


Note: Confidence interval derived from options market information for the 5 trading days ending Dec 1, 2016. Intervals not calculated for months with sparse trading in near-the-money options contracts.

Source: Short-Term Energy Outlook, December 2016.

### U.S. natural gas prices

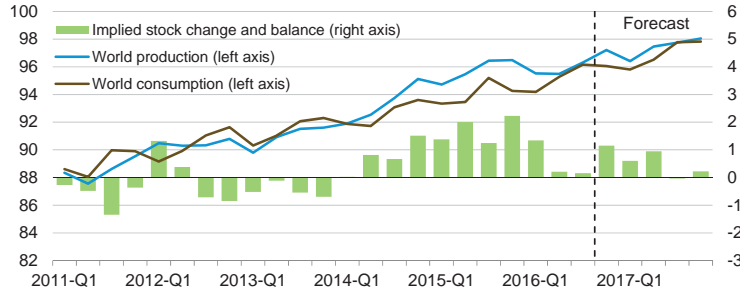
dollars per thousand cubic feet



Source: Short-Term Energy Outlook, December 2016.

### World liquid fuels production and consumption balance

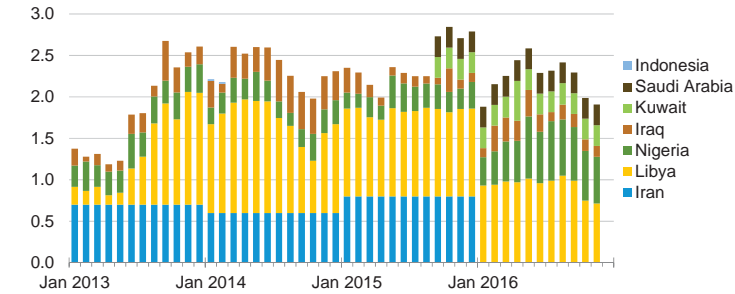
million barrels per day (MMb/d)



Source: Short-Term Energy Outlook, December 2016.

### Estimated historical unplanned OPEC crude oil production outages

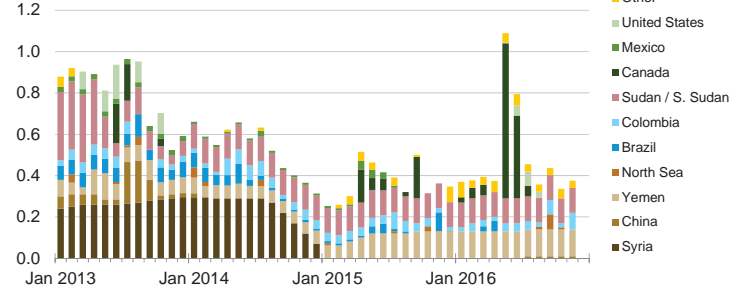
million barrels per day



Source: Short-Term Energy Outlook, December 2016.

### Estimated historical unplanned non-OPEC liquid fuels production outages

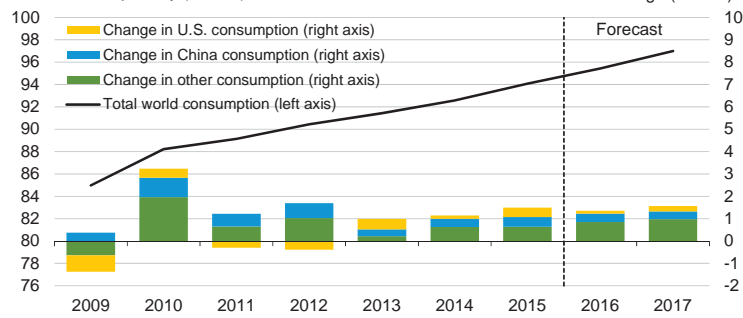
million barrels per day



Source: Short-Term Energy Outlook, December 2016.

### World liquid fuels consumption

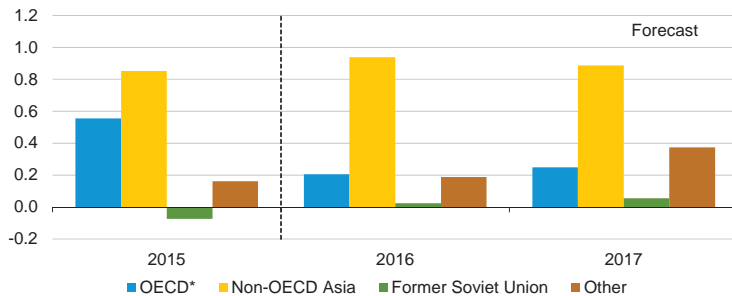
million barrels per day (MMb/d)



Source: Short-Term Energy Outlook, December 2016.

### World liquid fuels consumption growth

million barrels per day

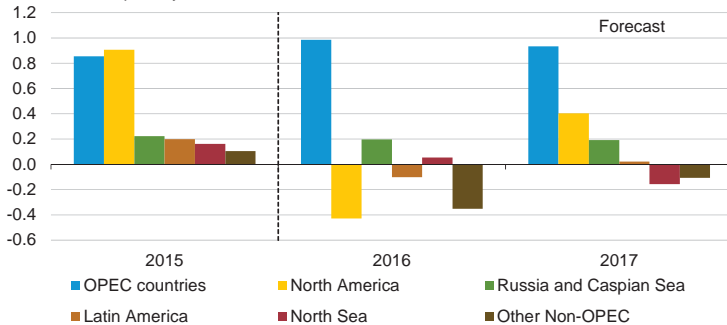


\* Countries belonging to the Organization for Economic Cooperation and Development

Source: Short-Term Energy Outlook, December 2016.

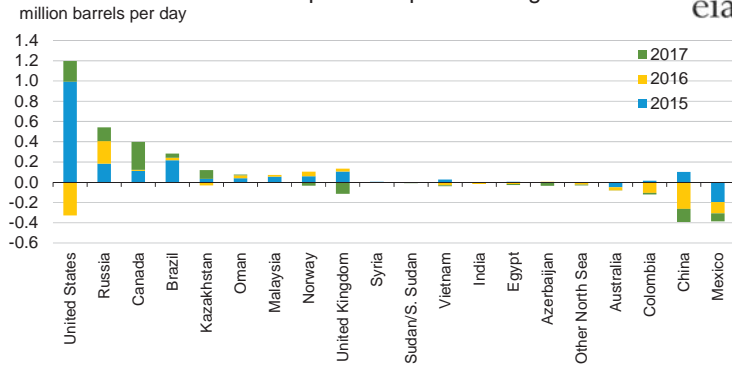
### World crude oil and liquid fuels production growth

million barrels per day



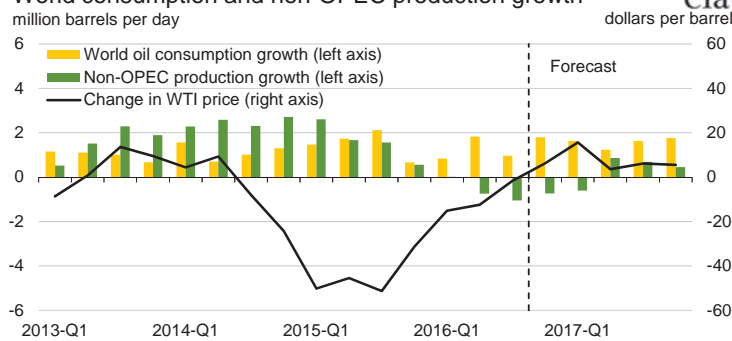
Source: Short-Term Energy Outlook, December 2016.

### Non-OPEC crude oil and liquid fuels production growth



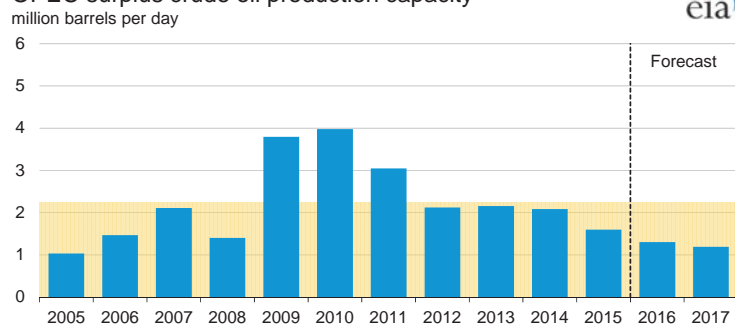
Source: Short-Term Energy Outlook, December 2016.

### World consumption and non-OPEC production growth



Source: Short-Term Energy Outlook, December 2016.

### OPEC surplus crude oil production capacity

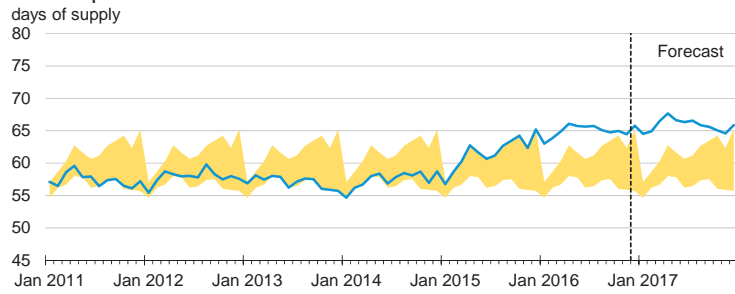


Note: Shaded area represents 2005-2015 average (2.3 million barrels per day).

Source: Short-Term Energy Outlook, December 2016.



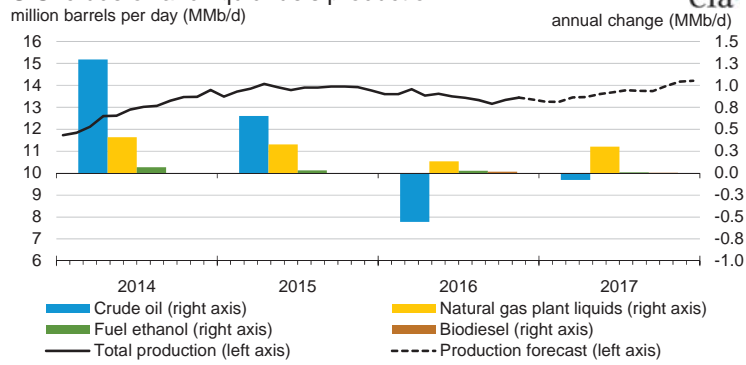
### OECD commercial stocks of crude oil and other liquids



Note: Colored band around days of supply of crude oil and other liquids stocks represents the range between the minimum and maximum from Jan. 2011 - Dec. 2015.

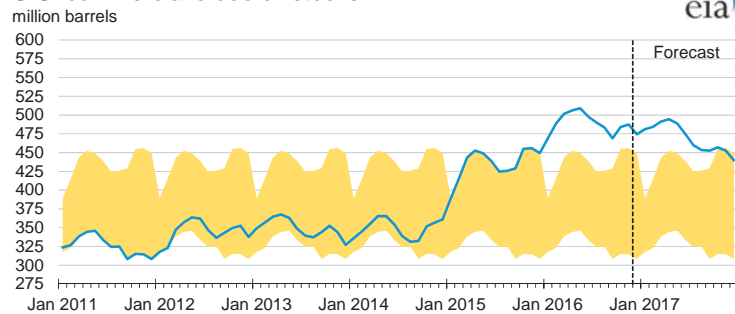
Source: Short-Term Energy Outlook, December 2016.

### U.S. crude oil and liquid fuels production



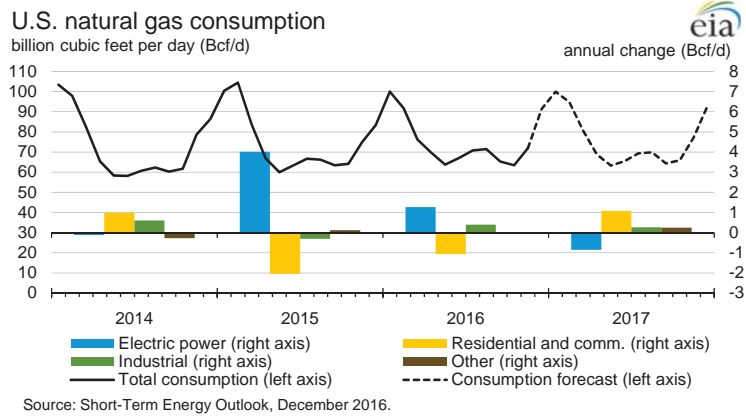
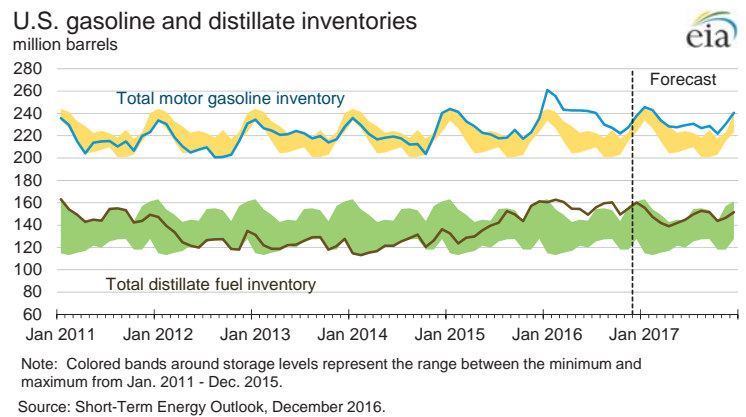
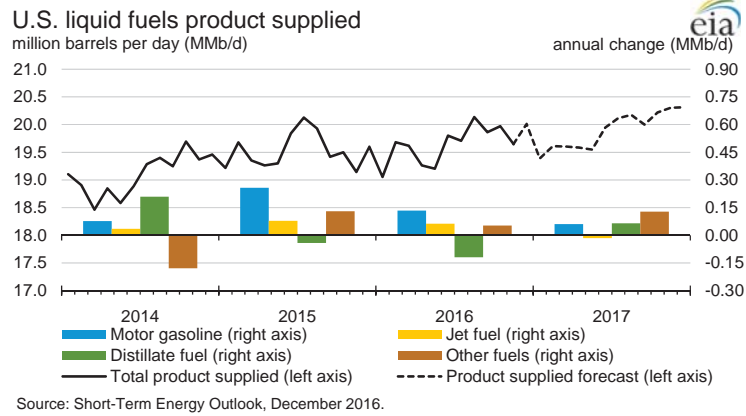
Source: Short-Term Energy Outlook, December 2016.

### U.S. commercial crude oil stocks

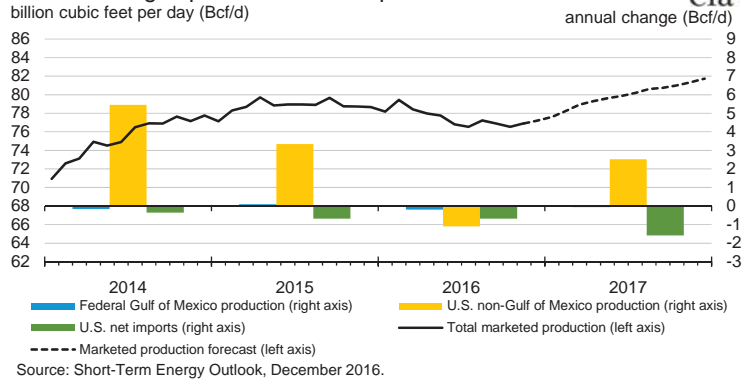


Note: Colored band around storage levels represents the range between the minimum and maximum from Jan. 2011 - Dec. 2015.

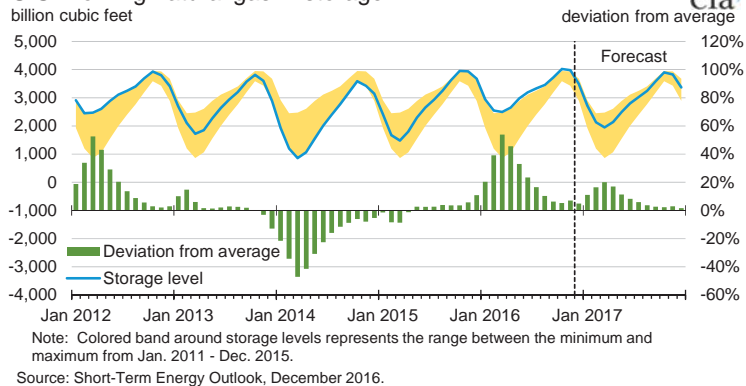
Source: Short-Term Energy Outlook, December 2016.



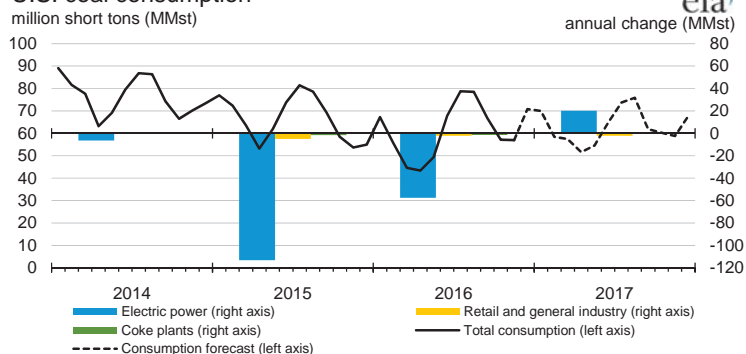
### U.S. natural gas production and imports

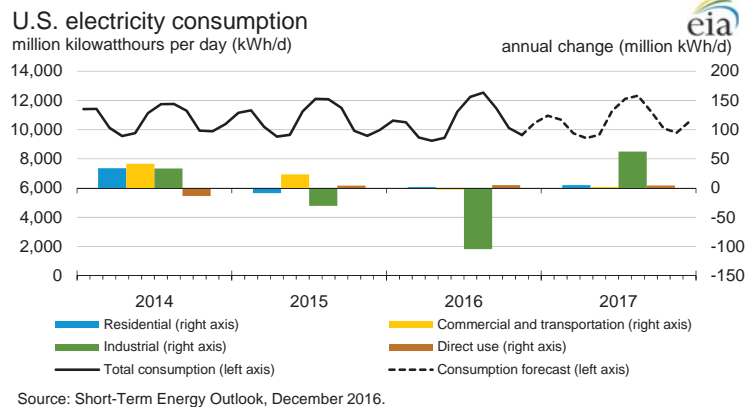
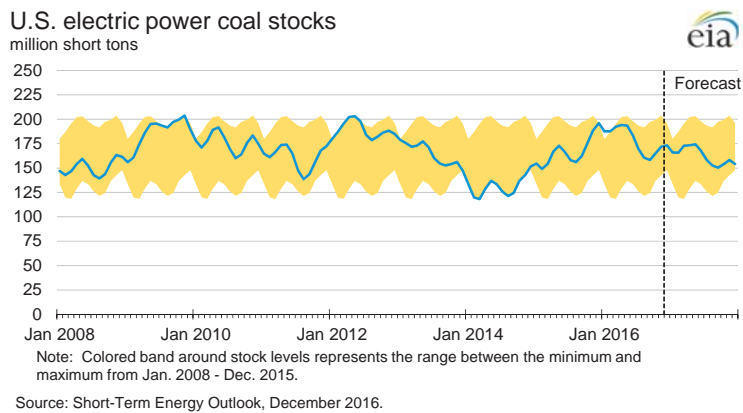
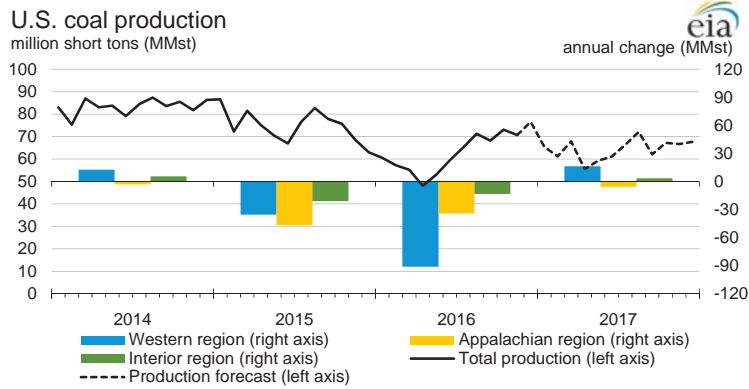


### U.S. working natural gas in storage



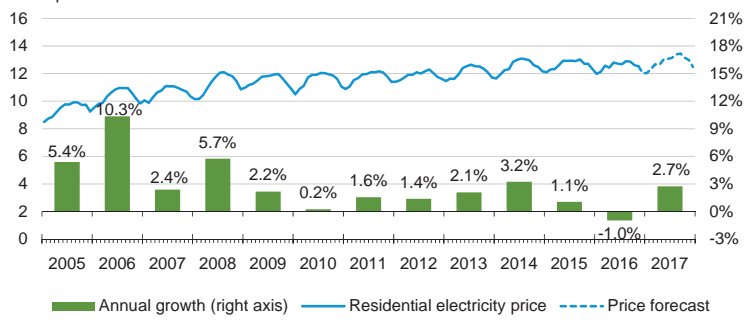
### U.S. coal consumption





### U.S. residential electricity price

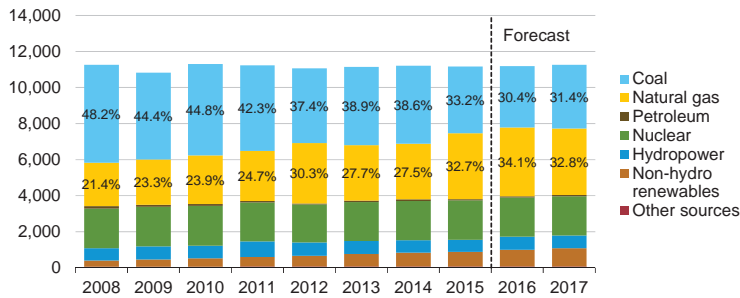
cents per kilowatthour



Source: Short-Term Energy Outlook, December 2016.

### U.S. electricity generation by fuel, all sectors

thousand megawatthours per day

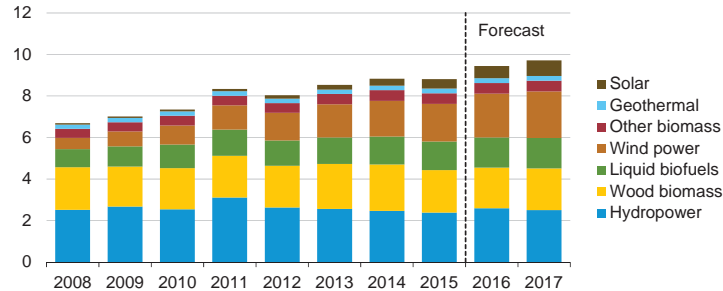


Note: Labels show percentage share of total generation provided by coal and natural gas.

Source: Short-Term Energy Outlook, December 2016.

### U.S. renewable energy supply

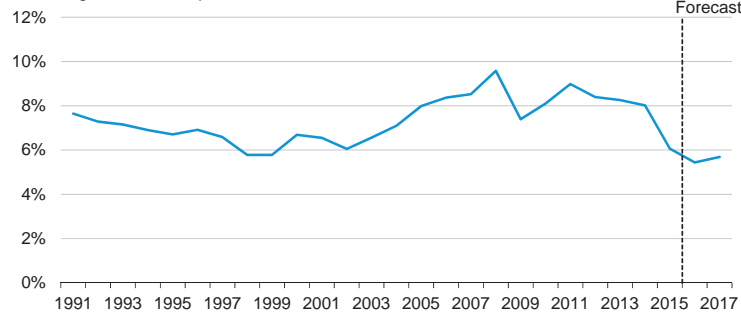
quadrillion British thermal units (Btu)



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

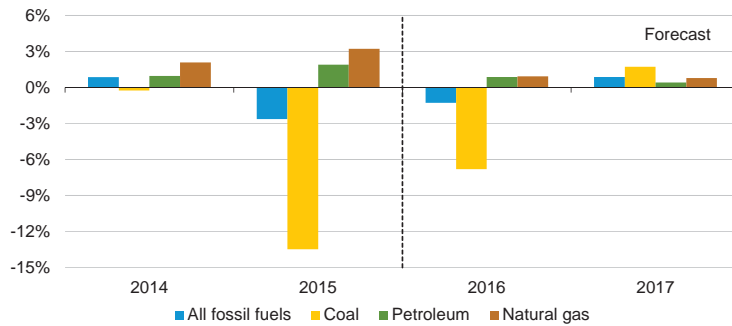
Source: Short-Term Energy Outlook, December 2016.

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



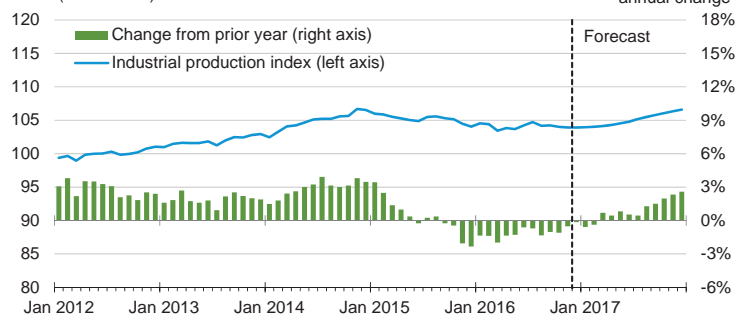
Source: Short-Term Energy Outlook, December 2016.

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



Source: Short-Term Energy Outlook, December 2016.

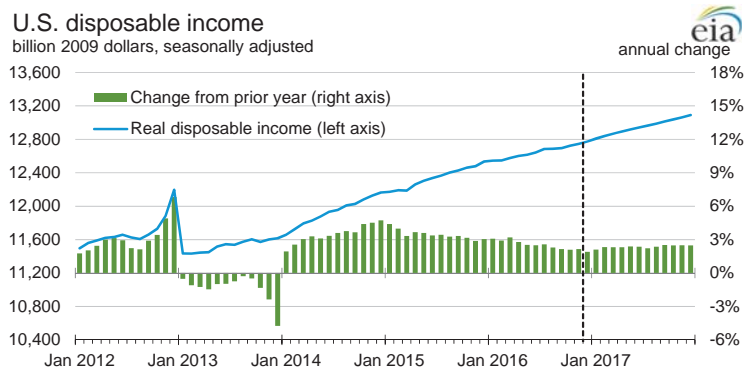
### U.S. total industrial production index index (2007 = 100)



Source: Short-Term Energy Outlook, December 2016.

### U.S. disposable income

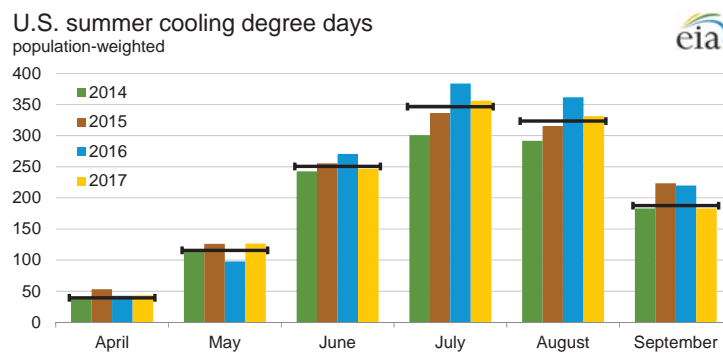
billion 2009 dollars, seasonally adjusted



Source: Short-Term Energy Outlook, December 2016.

### U.S. summer cooling degree days

population-weighted

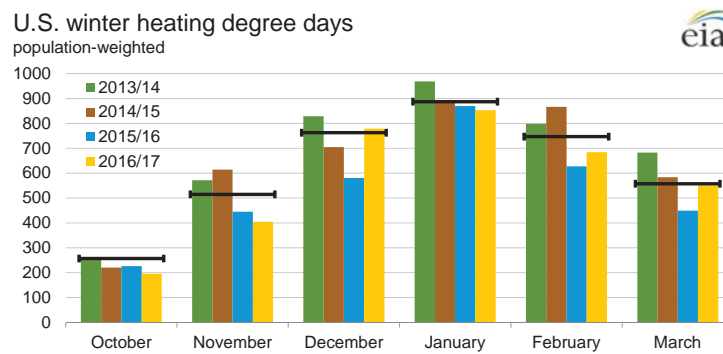


Note: EIA calculations based on from the National Oceanic and Atmospheric Administration data. Horizontal lines indicate each month's prior 10-year average (2007-2016). Projections reflect NOAA's 14-16 month outlook.

Source: Short-Term Energy Outlook, December 2016.

### U.S. winter heating degree days

population-weighted



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

Source: Short-Term Energy Outlook, December 2016.





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

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

Fuel / Region	Winter of							Forecast	
	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	% Change
<b>Natural Gas</b>									
<b>Northeast</b>									
Consumption (Mcf**)	75.7	80.7	66.4	76.1	84.0	84.6	67.7	75.3	11.2
Price (\$/mcf)	13.31	12.66	12.21	11.71	11.53	10.82	10.20	11.21	9.9
Expenditures (\$)	1,007	1,022	812	891	969	916	691	844	22.2
<b>Midwest</b>									
Consumption (Mcf)	78.6	80.2	65.4	77.6	88.1	83.1	67.7	73.6	8.8
Price (\$/mcf)	9.44	9.23	8.99	8.36	8.69	8.56	7.58	8.90	17.5
Expenditures (\$)	742	740	587	648	766	711	513	655	27.8
<b>South</b>									
Consumption (Mcf)	53.2	49.3	40.8	46.5	52.1	50.5	40.7	43.9	7.9
Price (\$/mcf)	11.52	11.02	11.45	10.71	10.77	10.82	10.85	11.73	8.1
Expenditures (\$)	613	543	468	497	561	546	441	515	16.7
<b>West</b>									
Consumption (Mcf)	49.9	49.4	49.1	48.6	46.4	41.4	45.8	44.5	-2.9
Price (\$/mcf)	9.91	9.67	9.35	9.13	9.96	10.72	9.93	10.37	4.4
Expenditures (\$)	494	478	459	444	462	444	455	462	1.4
<b>U.S. Average</b>									
Consumption (Mcf)	64.4	65.0	55.7	62.5	68.0	64.8	55.7	59.4	6.5
Price (\$/mcf)	10.83	10.46	10.25	9.72	9.97	9.91	9.31	10.33	10.9
Expenditures (\$)	698	679	570	607	677	642	519	613	18.1
<b>Heating Oil</b>									
<b>U.S. Average</b>									
Consumption (gallons)	544.7	580.7	471.1	545.4	607.1	607.9	481.2	539.6	12.1
Price (\$/gallon)	2.85	3.38	3.73	3.87	3.88	3.04	2.06	2.51	21.7
Expenditures (\$)	1,552	1,965	1,757	2,113	2,353	1,848	992	1,353	36.4
<b>Electricity</b>									
<b>Northeast</b>									
Consumption (kWh***)	6,847	7,076	6,436	6,862	7,221	7,250	6,494	6,834	5.2
Price (\$/kwh)	0.152	0.154	0.154	0.152	0.163	0.168	0.164	0.164	-0.2
Expenditures (\$)	1,039	1,091	993	1,046	1,177	1,218	1,068	1,121	5.0
<b>Midwest</b>									
Consumption (kWh)	8,660	8,733	7,897	8,588	9,168	8,857	8,030	8,359	4.1
Price (\$/kwh)	0.099	0.105	0.111	0.112	0.112	0.118	0.121	0.122	0.6
Expenditures (\$)	856	914	875	958	1,031	1,045	973	1,019	4.7
<b>South</b>									
Consumption (kWh)	8,482	8,220	7,466	7,972	8,381	8,281	7,457	7,744	3.9
Price (\$/kwh)	0.103	0.104	0.107	0.107	0.109	0.111	0.111	0.109	-1.7
Expenditures (\$)	873	855	797	851	913	919	825	842	2.1
<b>West</b>									
Consumption (kWh)	7,239	7,216	7,190	7,150	6,981	6,600	6,949	6,847	-1.5
Price (\$/kwh)	0.110	0.112	0.115	0.119	0.123	0.127	0.130	0.133	2.3
Expenditures (\$)	799	809	825	848	860	836	901	908	0.8
<b>U.S. Average</b>									
Consumption (kWh)	7,935	7,842	7,251	7,670	7,980	7,801	7,238	7,460	3.1
Price (\$/kwh)	0.110	0.113	0.116	0.117	0.120	0.123	0.124	0.123	-0.2
Expenditures (\$)	873	884	842	895	955	960	895	920	2.8

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

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

Fuel / Region	Winter of							Forecast	
	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	% Change
<b>Propane</b>									
<b>Northeast</b>									
Consumption (gallons)	672.0	717.5	595.6	675.8	745.1	751.1	607.0	672.9	10.8
Price* (\$/gallon)	2.98	3.24	3.34	3.00	3.56	3.00	2.71	2.95	8.9
Expenditures (\$)	2,004	2,321	1,990	2,031	2,653	2,253	1,645	1,985	20.7
<b>Midwest</b>									
Consumption (gallons)	779.6	791.9	644.3	766.4	868.6	813.2	667.6	725.7	8.7
Price* (\$/gallon)	1.99	2.11	2.23	1.74	2.61	1.91	1.47	1.73	17.7
Expenditures (\$)	1,548	1,674	1,437	1,333	2,267	1,553	981	1,255	27.9

**Number of households by primary space heating fuel (thousands)**

<b>Northeast</b>									
Natural gas	10,992	11,118	11,236	11,345	11,522	11,724	11,842	11,959	1.0
Heating oil	6,016	5,858	5,701	5,458	5,241	5,101	4,971	4,827	-2.9
Propane	733	744	761	813	845	860	873	878	0.6
Electricity	2,645	2,776	2,894	3,011	3,036	3,104	3,222	3,307	2.6
Wood	501	512	548	582	585	566	541	536	-0.9
Other/None	311	315	324	377	436	438	434	452	4.2
<b>Midwest</b>									
Natural gas	18,050	17,977	18,019	18,054	18,072	18,167	18,092	18,046	-0.3
Heating oil	451	419	393	360	336	318	299	280	-6.5
Propane	2,098	2,073	2,037	2,063	2,088	2,079	2,076	2,061	-0.7
Electricity	4,715	4,922	5,119	5,333	5,422	5,500	5,722	5,924	3.5
Wood	616	618	631	640	632	612	602	612	1.7
Other/None	283	289	282	319	353	350	350	362	3.3
<b>South</b>									
Natural gas	13,731	13,657	13,636	13,681	13,793	13,906	13,914	13,962	0.3
Heating oil	906	853	790	738	698	680	656	623	-5.1
Propane	2,165	2,098	2,024	1,982	1,943	1,924	1,888	1,828	-3.2
Electricity	25,791	26,555	27,283	27,857	28,230	28,802	29,483	30,158	2.3
Wood	586	599	609	612	616	587	581	601	3.4
Other/None	314	309	304	367	419	408	405	410	1.3
<b>West</b>									
Natural gas	14,939	15,020	15,021	15,009	15,059	15,216	15,318	15,434	0.8
Heating oil	289	279	261	247	234	225	218	209	-4.0
Propane	940	914	885	909	930	917	910	899	-1.2
Electricity	7,877	8,126	8,439	8,671	8,754	8,919	9,221	9,489	2.9
Wood	721	725	736	728	744	747	724	731	1.0
Other/None	850	850	829	903	1,015	1,076	1,074	1,076	0.2
<b>U.S. Totals</b>									
Natural gas	57,713	57,771	57,912	58,088	58,446	59,014	59,166	59,401	0.4
Heating oil	7,662	7,408	7,145	6,803	6,509	6,324	6,144	5,938	-3.3
Propane	5,936	5,829	5,707	5,766	5,806	5,780	5,746	5,667	-1.4
Electricity	41,029	42,380	43,734	44,873	45,442	46,325	47,649	48,878	2.6
Wood	2,424	2,454	2,524	2,563	2,576	2,512	2,448	2,480	1.3
Other/None	1,758	1,763	1,739	1,965	2,222	2,272	2,263	2,300	1.7

**Heating degree days**

Northeast	4,933	5,337	4,217	4,964	5,594	5,643	4,317	4,915	13.9
Midwest	5,639	5,773	4,484	5,544	6,451	6,002	4,686	5,199	10.9
South	2,867	2,629	2,019	2,426	2,783	2,689	2,010	2,241	11.5
West	3,285	3,258	3,229	3,181	2,989	2,565	2,949	2,837	-3.8
U.S. Average	3,936	3,938	3,223	3,720	4,108	3,879	3,198	3,466	8.4

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

\* Prices exclude taxes

\*\* thousand cubic feet

\*\*\* kilowatthour

**Table 1. U.S. Energy Markets Summary**

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Energy Supply</b>															
Crude Oil Production (a) (million barrels per day) .....	<b>9.49</b>	<b>9.47</b>	<b>9.41</b>	<b>9.30</b>	<i>9.17</i>	<i>8.85</i>	<i>8.67</i>	<i>8.75</i>	<i>8.75</i>	<i>8.74</i>	<i>8.70</i>	<i>8.94</i>	<b>9.42</b>	<i>8.86</i>	<i>8.78</i>
Dry Natural Gas Production (billion cubic feet per day) .....	<b>73.44</b>	<b>74.50</b>	<b>74.51</b>	<b>74.08</b>	<i>73.77</i>	<i>72.38</i>	<i>71.89</i>	<i>71.94</i>	<i>73.22</i>	<i>74.48</i>	<i>75.34</i>	<i>76.13</i>	<b>74.14</b>	<i>72.49</i>	<i>74.80</i>
Coal Production (million short tons) .....	<b>240</b>	<b>212</b>	<b>237</b>	<b>207</b>	<i>173</i>	<i>161</i>	<i>205</i>	<i>220</i>	<i>194</i>	<i>176</i>	<i>200</i>	<i>202</i>	<b>897</b>	<i>758</i>	<i>772</i>
<b>Energy Consumption</b>															
Liquid Fuels (million barrels per day) .....	<b>19.41</b>	<b>19.47</b>	<b>19.83</b>	<b>19.42</b>	<i>19.45</i>	<i>19.42</i>	<i>19.90</i>	<i>19.88</i>	<i>19.53</i>	<i>19.69</i>	<i>20.10</i>	<i>20.28</i>	<b>19.53</b>	<i>19.66</i>	<i>19.90</i>
Natural Gas (billion cubic feet per day) .....	<b>95.88</b>	<b>63.40</b>	<b>65.48</b>	<b>74.19</b>	<i>89.30</i>	<i>66.81</i>	<i>69.24</i>	<i>75.57</i>	<i>91.73</i>	<i>65.84</i>	<i>67.89</i>	<i>78.59</i>	<b>74.65</b>	<i>75.22</i>	<i>75.96</i>
Coal (b) (million short tons) .....	<b>213</b>	<b>189</b>	<b>229</b>	<b>167</b>	<i>167</i>	<i>160</i>	<i>224</i>	<i>185</i>	<i>186</i>	<i>171</i>	<i>211</i>	<i>187</i>	<b>798</b>	<i>737</i>	<i>755</i>
Electricity (billion kilowatt hours per day) .....	<b>10.87</b>	<b>10.14</b>	<b>11.89</b>	<b>9.82</b>	<i>10.19</i>	<i>9.96</i>	<i>12.09</i>	<i>10.07</i>	<i>10.45</i>	<i>10.11</i>	<i>11.90</i>	<i>10.15</i>	<b>10.68</b>	<i>10.58</i>	<i>10.66</i>
Renewables (c) (quadrillion Btu) .....	<b>2.38</b>	<b>2.40</b>	<b>2.32</b>	<b>2.43</b>	<i>2.63</i>	<i>2.61</i>	<i>2.44</i>	<i>2.55</i>	<i>2.55</i>	<i>2.79</i>	<i>2.60</i>	<i>2.57</i>	<b>9.53</b>	<i>10.22</i>	<i>10.51</i>
Total Energy Consumption (d) (quadrillion Btu) .....	<b>26.34</b>	<b>23.04</b>	<b>24.47</b>	<b>23.70</b>	<i>25.32</i>	<i>23.02</i>	<i>24.73</i>	<i>24.17</i>	<i>25.26</i>	<i>22.95</i>	<i>24.31</i>	<i>24.67</i>	<b>97.55</b>	<i>97.24</i>	<i>97.19</i>
<b>Energy Prices</b>															
Crude Oil West Texas Intermediate Spot (dollars per barrel) .....	<b>48.48</b>	<b>57.85</b>	<b>46.55</b>	<b>41.94</b>	<i>33.35</i>	<i>45.46</i>	<i>44.85</i>	<i>48.18</i>	<i>49.00</i>	<i>49.00</i>	<i>51.00</i>	<i>53.65</i>	<b>48.67</b>	<i>43.07</i>	<i>50.66</i>
Natural Gas Henry Hub Spot (dollars per million Btu) .....	<b>2.90</b>	<b>2.75</b>	<b>2.76</b>	<b>2.12</b>	<i>2.00</i>	<i>2.14</i>	<i>2.88</i>	<i>2.93</i>	<i>3.36</i>	<i>3.21</i>	<i>3.19</i>	<i>3.32</i>	<b>2.63</b>	<i>2.49</i>	<i>3.27</i>
Coal (dollars per million Btu) .....	<b>2.27</b>	<b>2.25</b>	<b>2.22</b>	<b>2.15</b>	<i>2.13</i>	<i>2.14</i>	<i>2.12</i>	<i>2.19</i>	<i>2.17</i>	<i>2.20</i>	<i>2.23</i>	<i>2.21</i>	<b>2.23</b>	<i>2.14</i>	<i>2.21</i>
<b>Macroeconomic</b>															
Real Gross Domestic Product (billion chained 2009 dollars - SAAR) .....	<b>16,269</b>	<b>16,374</b>	<b>16,455</b>	<b>16,491</b>	<i>16,525</i>	<i>16,583</i>	<i>16,702</i>	<i>16,786</i>	<i>16,880</i>	<i>16,968</i>	<i>17,060</i>	<i>17,142</i>	<b>16,397</b>	<i>16,649</i>	<i>17,013</i>
Percent change from prior year .....	<b>3.3</b>	<b>3.0</b>	<b>2.2</b>	<b>1.9</b>	<i>1.6</i>	<i>1.3</i>	<i>1.5</i>	<i>1.8</i>	<i>2.1</i>	<i>2.3</i>	<i>2.1</i>	<i>2.1</i>	<b>2.6</b>	<i>1.5</i>	<i>2.2</i>
GDP Implicit Price Deflator (Index, 2009=100) .....	<b>109.3</b>	<b>109.9</b>	<b>110.3</b>	<b>110.5</b>	<i>110.6</i>	<i>111.3</i>	<i>111.7</i>	<i>112.3</i>	<i>113.0</i>	<i>113.6</i>	<i>114.3</i>	<i>114.9</i>	<b>110.0</b>	<i>111.5</i>	<i>114.0</i>
Percent change from prior year .....	<b>1.1</b>	<b>1.1</b>	<b>1.0</b>	<b>1.1</b>	<i>1.2</i>	<i>1.2</i>	<i>1.3</i>	<i>1.7</i>	<i>2.2</i>	<i>2.1</i>	<i>2.3</i>	<i>2.3</i>	<b>1.1</b>	<i>1.4</i>	<i>2.2</i>
Real Disposable Personal Income (billion chained 2009 dollars - SAAR) .....	<b>12,183</b>	<b>12,300</b>	<b>12,399</b>	<b>12,491</b>	<i>12,556</i>	<i>12,621</i>	<i>12,688</i>	<i>12,747</i>	<i>12,839</i>	<i>12,918</i>	<i>12,988</i>	<i>13,064</i>	<b>12,343</b>	<i>12,653</i>	<i>12,952</i>
Percent change from prior year .....	<b>3.9</b>	<b>3.6</b>	<b>3.3</b>	<b>3.0</b>	<i>3.1</i>	<i>2.6</i>	<i>2.3</i>	<i>2.1</i>	<i>2.3</i>	<i>2.4</i>	<i>2.4</i>	<i>2.5</i>	<b>3.5</b>	<i>2.5</i>	<i>2.4</i>
Manufacturing Production Index (Index, 2012=100) .....	<b>103.2</b>	<b>103.4</b>	<b>103.9</b>	<b>103.7</b>	<i>103.9</i>	<i>103.6</i>	<i>103.9</i>	<i>103.9</i>	<i>104.3</i>	<i>104.5</i>	<i>105.1</i>	<i>106.0</i>	<b>103.6</b>	<i>103.8</i>	<i>105.0</i>
Percent change from prior year .....	<b>2.1</b>	<b>1.1</b>	<b>0.9</b>	<b>0.1</b>	<i>0.6</i>	<i>0.2</i>	<i>0.0</i>	<i>0.2</i>	<i>0.4</i>	<i>0.9</i>	<i>1.2</i>	<i>2.0</i>	<b>1.1</b>	<i>0.3</i>	<i>1.1</i>
<b>Weather</b>															
U.S. Heating Degree-Days .....	<b>2,340</b>	<b>442</b>	<b>49</b>	<b>1,252</b>	<i>1,946</i>	<i>480</i>	<i>51</i>	<i>1,379</i>	<i>2,087</i>	<i>455</i>	<i>68</i>	<i>1,495</i>	<b>4,084</b>	<i>3,856</i>	<i>4,106</i>
U.S. Cooling Degree-Days .....	<b>46</b>	<b>435</b>	<b>875</b>	<b>134</b>	<i>54</i>	<i>411</i>	<i>966</i>	<i>125</i>	<i>45</i>	<i>417</i>	<i>871</i>	<i>97</i>	<b>1,490</b>	<i>1,556</i>	<i>1,429</i>

- = no data available

Prices are not adjusted for inflation.

(a) Includes lease condensate.

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

(c) Renewable energy includes minor components of non-marketed renewable energy that is neither bought nor sold, either directly or indirectly, as inputs to marketed energy.

EIA does not estimate or project end-use consumption of non-marketed renewable energy.

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

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

**Historical data:** Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; *Weekly Petroleum Status Report*, DOE/EIA-0208; *Petroleum Marketing Monthly*, DOE/EIA-0380; *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; *Quarterly Coal Report*, DOE/EIA-0121; and *International Petroleum Monthly*, DOE/EIA-0520.

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

**Projections:** EIA Regional Short-Term Energy Model. Macroeconomic projections are based on Global Insight Model of the U.S. Economy.

Weather projections from National Oceanic and Atmospheric Administration.

**Table 2. Energy Prices**

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Crude Oil</b> (dollars per barrel)															
West Texas Intermediate Spot Average .....	<b>48.48</b>	<b>57.85</b>	<b>46.55</b>	<b>41.94</b>	<b>33.35</b>	<b>45.46</b>	<b>44.85</b>	<i>48.18</i>	<i>49.00</i>	<i>49.00</i>	<i>51.00</i>	<i>53.65</i>	<b>48.67</b>	<i>43.07</i>	<i>50.66</i>
Brent Spot Average .....	<b>53.91</b>	<b>61.65</b>	<b>50.43</b>	<b>43.55</b>	<b>33.89</b>	<b>45.57</b>	<b>45.80</b>	<i>48.11</i>	<i>50.00</i>	<i>50.00</i>	<i>52.00</i>	<i>54.65</i>	<b>52.32</b>	<i>43.46</i>	<i>51.66</i>
U.S. Imported Average .....	<b>46.37</b>	<b>56.07</b>	<b>45.59</b>	<b>37.88</b>	<b>28.83</b>	<b>40.35</b>	<b>41.66</b>	<i>44.68</i>	<i>45.50</i>	<i>45.50</i>	<i>47.50</i>	<i>50.17</i>	<b>46.34</b>	<i>38.86</i>	<i>47.20</i>
U.S. Refiner Average Acquisition Cost .....	<b>47.94</b>	<b>57.47</b>	<b>47.67</b>	<b>40.48</b>	<b>30.84</b>	<b>42.23</b>	<b>43.18</b>	<i>47.17</i>	<i>48.00</i>	<i>48.00</i>	<i>49.98</i>	<i>52.67</i>	<b>48.40</b>	<i>40.92</i>	<i>49.70</i>
<b>U.S. Liquid Fuels</b> (cents per gallon)															
<b>Refiner Prices for Resale</b>															
Gasoline .....	<b>159</b>	<b>201</b>	<b>184</b>	<b>145</b>	<b>119</b>	<b>158</b>	<b>150</b>	<i>151</i>	<i>145</i>	<i>165</i>	<i>165</i>	<i>151</i>	<b>173</b>	<i>145</i>	<i>157</i>
Diesel Fuel .....	<b>176</b>	<b>189</b>	<b>161</b>	<b>141</b>	<b>109</b>	<b>141</b>	<b>145</b>	<i>157</i>	<i>161</i>	<i>163</i>	<i>170</i>	<i>179</i>	<b>167</b>	<i>138</i>	<i>168</i>
Heating Oil .....	<b>178</b>	<b>180</b>	<b>151</b>	<b>129</b>	<b>99</b>	<b>125</b>	<b>132</b>	<i>150</i>	<i>159</i>	<i>154</i>	<i>161</i>	<i>173</i>	<b>157</b>	<i>122</i>	<i>162</i>
<b>Refiner Prices to End Users</b>															
Jet Fuel .....	<b>172</b>	<b>186</b>	<b>156</b>	<b>138</b>	<b>107</b>	<b>134</b>	<b>137</b>	<i>152</i>	<i>158</i>	<i>157</i>	<i>165</i>	<i>175</i>	<b>163</b>	<i>133</i>	<i>164</i>
No. 6 Residual Fuel Oil (a) .....	<b>136</b>	<b>154</b>	<b>124</b>	<b>101</b>	<b>69</b>	<b>89</b>	<b>103</b>	<i>115</i>	<i>119</i>	<i>118</i>	<i>123</i>	<i>130</i>	<b>126</b>	<i>95</i>	<i>122</i>
<b>Retail Prices Including Taxes</b>															
Gasoline Regular Grade (b) .....	<b>227</b>	<b>266</b>	<b>260</b>	<b>216</b>	<b>190</b>	<b>225</b>	<b>221</b>	<i>221</i>	<i>215</i>	<i>238</i>	<i>240</i>	<i>226</i>	<b>243</b>	<i>214</i>	<i>230</i>
Gasoline All Grades (b) .....	<b>236</b>	<b>275</b>	<b>269</b>	<b>226</b>	<b>200</b>	<b>235</b>	<b>232</b>	<i>232</i>	<i>226</i>	<i>249</i>	<i>251</i>	<i>237</i>	<b>252</b>	<i>225</i>	<i>241</i>
On-highway Diesel Fuel .....	<b>292</b>	<b>285</b>	<b>263</b>	<b>243</b>	<b>208</b>	<b>230</b>	<b>238</b>	<i>248</i>	<i>264</i>	<i>265</i>	<i>270</i>	<i>281</i>	<b>271</b>	<i>231</i>	<i>270</i>
Heating Oil .....	<b>288</b>	<b>276</b>	<b>247</b>	<b>224</b>	<b>195</b>	<b>205</b>	<b>211</b>	<i>239</i>	<i>258</i>	<i>253</i>	<i>257</i>	<i>271</i>	<b>265</b>	<i>212</i>	<i>262</i>
<b>Natural Gas</b>															
Henry Hub Spot (dollars per thousand cubic feet) .....	<b>2.99</b>	<b>2.84</b>	<b>2.85</b>	<b>2.19</b>	<b>2.06</b>	<b>2.21</b>	<b>2.97</b>	<i>3.02</i>	<i>3.47</i>	<i>3.31</i>	<i>3.29</i>	<i>3.42</i>	<b>2.72</b>	<i>2.57</i>	<i>3.37</i>
Henry Hub Spot (dollars per million Btu) .....	<b>2.90</b>	<b>2.75</b>	<b>2.76</b>	<b>2.12</b>	<b>2.00</b>	<b>2.14</b>	<b>2.88</b>	<i>2.93</i>	<i>3.36</i>	<i>3.21</i>	<i>3.19</i>	<i>3.32</i>	<b>2.63</b>	<i>2.49</i>	<i>3.27</i>
<b>U.S. Retail Prices</b> (dollars per thousand cubic feet)															
Industrial Sector .....	<b>4.67</b>	<b>3.75</b>	<b>3.71</b>	<b>3.41</b>	<b>3.44</b>	<b>2.93</b>	<b>3.62</b>	<i>4.18</i>	<i>4.84</i>	<i>4.25</i>	<i>4.29</i>	<i>4.62</i>	<b>3.91</b>	<i>3.56</i>	<i>4.52</i>
Commercial Sector .....	<b>7.94</b>	<b>8.17</b>	<b>8.45</b>	<b>7.40</b>	<b>6.84</b>	<b>7.25</b>	<b>8.21</b>	<i>7.75</i>	<i>7.83</i>	<i>8.37</i>	<i>8.80</i>	<i>8.17</i>	<b>7.90</b>	<i>7.34</i>	<i>8.12</i>
Residential Sector .....	<b>9.29</b>	<b>12.02</b>	<b>16.52</b>	<b>10.08</b>	<b>8.53</b>	<b>11.16</b>	<b>16.99</b>	<i>10.80</i>	<i>9.84</i>	<i>12.45</i>	<i>16.68</i>	<i>10.89</i>	<b>10.36</b>	<i>10.24</i>	<i>11.02</i>
<b>U.S. Electricity</b>															
<b>Power Generation Fuel Costs</b> (dollars per million Btu)															
Coal .....	<b>2.27</b>	<b>2.25</b>	<b>2.22</b>	<b>2.15</b>	<b>2.13</b>	<b>2.14</b>	<b>2.12</b>	<i>2.19</i>	<i>2.17</i>	<i>2.20</i>	<i>2.23</i>	<i>2.21</i>	<b>2.23</b>	<i>2.14</i>	<i>2.21</i>
Natural Gas .....	<b>4.10</b>	<b>3.12</b>	<b>3.10</b>	<b>2.72</b>	<b>2.65</b>	<b>2.51</b>	<b>3.00</b>	<i>3.62</i>	<i>4.25</i>	<i>3.71</i>	<i>3.52</i>	<i>4.00</i>	<b>3.23</b>	<i>2.94</i>	<i>3.83</i>
Residual Fuel Oil (c) .....	<b>10.82</b>	<b>11.64</b>	<b>10.49</b>	<b>7.76</b>	<b>6.15</b>	<b>8.51</b>	<b>9.85</b>	<i>8.98</i>	<i>9.29</i>	<i>10.07</i>	<i>9.82</i>	<i>10.03</i>	<b>10.36</b>	<i>8.44</i>	<i>9.80</i>
Distillate Fuel Oil .....	<b>15.61</b>	<b>15.17</b>	<b>13.19</b>	<b>11.76</b>	<b>9.02</b>	<b>11.03</b>	<b>11.79</b>	<i>12.99</i>	<i>13.58</i>	<i>13.55</i>	<i>13.91</i>	<i>14.97</i>	<b>14.44</b>	<i>11.12</i>	<i>13.99</i>
<b>Retail Prices</b> (cents per kilowatthour)															
Industrial Sector .....	<b>6.79</b>	<b>6.83</b>	<b>7.34</b>	<b>6.65</b>	<b>6.42</b>	<b>6.67</b>	<b>7.20</b>	<i>6.66</i>	<i>6.49</i>	<i>6.82</i>	<i>7.37</i>	<i>6.75</i>	<b>6.91</b>	<i>6.75</i>	<i>6.87</i>
Commercial Sector .....	<b>10.42</b>	<b>10.62</b>	<b>11.03</b>	<b>10.43</b>	<b>10.12</b>	<b>10.34</b>	<b>10.67</b>	<i>10.16</i>	<i>10.14</i>	<i>10.55</i>	<i>11.03</i>	<i>10.50</i>	<b>10.64</b>	<i>10.34</i>	<i>10.58</i>
Residential Sector .....	<b>12.23</b>	<b>12.83</b>	<b>12.96</b>	<b>12.57</b>	<b>12.20</b>	<b>12.66</b>	<b>12.81</b>	<i>12.36</i>	<i>12.33</i>	<i>12.93</i>	<i>13.32</i>	<i>12.84</i>	<b>12.65</b>	<i>12.53</i>	<i>12.87</i>

- = no data available

Prices are not adjusted for inflation.

(a) Average for all sulfur contents.

(b) Average self-service cash price.

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

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

Prices exclude taxes unless otherwise noted.

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

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

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

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

**Projections:** EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Supply (million barrels per day) (a)</b>															
OECD .....	26.76	26.51	26.89	27.12	26.97	25.92	26.25	26.53	26.43	26.56	26.55	27.14	26.82	26.41	26.67
U.S. (50 States) .....	14.93	15.19	15.21	15.17	14.96	14.88	14.67	14.68	14.57	14.88	15.09	15.45	15.12	14.80	15.00
Canada .....	4.69	4.16	4.56	4.62	4.73	3.98	4.63	4.72	4.79	4.76	4.78	4.84	4.51	4.52	4.79
Mexico .....	2.68	2.58	2.62	2.62	2.57	2.51	2.50	2.48	2.46	2.45	2.42	2.41	2.62	2.51	2.43
North Sea (b) .....	3.00	3.10	2.95	3.20	3.24	3.10	2.95	3.18	3.14	3.00	2.77	2.94	3.06	3.12	2.96
Other OECD .....	1.46	1.49	1.55	1.52	1.47	1.45	1.50	1.47	1.47	1.47	1.49	1.50	1.50	1.47	1.48
Non-OECD .....	67.96	68.95	69.55	69.37	68.56	69.58	70.06	70.68	69.98	70.90	71.19	70.92	68.96	69.72	70.75
OPEC .....	37.59	38.30	38.76	38.56	38.38	39.07	39.68	40.02	39.87	40.18	40.42	40.42	38.31	39.29	40.22
Crude Oil Portion .....	31.06	31.74	32.19	31.99	31.77	32.41	32.83	33.09	32.84	33.13	33.34	33.29	31.75	32.53	33.15
Other Liquids (c) .....	6.53	6.56	6.57	6.57	6.61	6.67	6.85	6.93	7.03	7.05	7.08	7.13	6.56	6.76	7.07
Eurasia .....	14.18	14.02	14.01	14.17	14.37	14.22	14.05	14.55	14.61	14.56	14.37	14.42	14.10	14.30	14.49
China .....	4.68	4.76	4.73	4.72	4.59	4.47	4.36	4.42	4.30	4.33	4.32	4.36	4.72	4.46	4.33
Other Non-OECD .....	11.51	11.88	12.05	11.92	11.23	11.82	11.97	11.69	11.20	11.83	12.08	11.72	11.84	11.68	11.71
Total World Supply .....	94.72	95.46	96.44	96.49	95.52	95.50	96.31	97.21	96.41	97.47	97.75	98.05	95.78	96.14	97.42
Non-OPEC Supply .....	57.13	57.16	57.68	57.92	57.14	56.42	56.63	57.19	56.54	57.29	57.32	57.63	57.48	56.85	57.20
<b>Consumption (million barrels per day) (d)</b>															
OECD .....	46.63	45.64	46.92	46.46	46.72	45.97	46.64	47.13	47.02	45.95	46.90	47.58	46.41	46.62	46.87
U.S. (50 States) .....	19.41	19.47	19.83	19.42	19.45	19.42	19.90	19.88	19.53	19.69	20.10	20.28	19.53	19.66	19.90
U.S. Territories .....	0.37	0.37	0.37	0.37	0.40	0.40	0.40	0.40	0.42	0.42	0.42	0.42	0.37	0.40	0.42
Canada .....	2.43	2.33	2.45	2.40	2.39	2.36	2.38	2.37	2.31	2.25	2.36	2.35	2.41	2.37	2.32
Europe .....	13.43	13.54	14.13	13.68	13.60	13.82	13.94	13.87	13.83	13.59	14.05	13.97	13.70	13.81	13.86
Japan .....	4.70	3.80	3.85	4.14	4.43	3.70	3.71	4.07	4.29	3.61	3.64	3.99	4.12	3.98	3.88
Other OECD .....	6.29	6.12	6.28	6.44	6.45	6.28	6.30	6.55	6.64	6.39	6.33	6.58	6.28	6.40	6.48
Non-OECD .....	46.71	47.82	48.28	47.81	47.46	49.31	49.52	48.93	48.79	50.57	50.88	50.24	47.66	48.81	50.13
Eurasia .....	4.71	4.65	4.92	4.90	4.73	4.66	4.93	4.92	4.77	4.70	4.98	4.96	4.80	4.81	4.85
Europe .....	0.72	0.73	0.75	0.75	0.73	0.74	0.76	0.76	0.74	0.75	0.77	0.77	0.74	0.75	0.76
China .....	11.13	11.26	11.35	11.38	11.25	11.87	11.72	11.77	11.56	12.20	12.15	12.09	11.28	11.65	12.00
Other Asia .....	12.26	12.48	12.00	12.34	12.84	13.04	12.53	12.91	13.38	13.60	13.06	13.44	12.27	12.83	13.37
Other Non-OECD .....	17.89	18.71	19.26	18.45	17.92	19.00	19.57	18.57	18.34	19.32	19.92	18.97	18.58	18.77	19.14
Total World Consumption .....	93.34	93.46	95.19	94.26	94.18	95.29	96.16	96.06	95.81	96.52	97.78	97.83	94.07	95.43	96.99
<b>Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)</b>															
U.S. (50 States) .....	-0.63	-0.64	-0.33	-0.14	-0.41	-0.28	-0.01	0.45	0.32	-0.29	-0.04	0.64	-0.43	-0.06	0.16
Other OECD .....	-0.33	-0.36	-0.43	-0.29	0.00	-0.17	-0.05	-0.57	-0.33	-0.22	0.03	-0.31	-0.35	-0.20	-0.21
Other Stock Draws and Balance .....	-0.43	-1.01	-0.50	-1.79	-0.94	0.24	-0.09	-1.02	-0.59	-0.44	0.05	-0.56	-0.93	-0.45	-0.38
Total Stock Draw .....	-1.38	-2.00	-1.25	-2.22	-1.34	-0.21	-0.15	-1.15	-0.60	-0.95	0.04	-0.23	-1.71	-0.71	-0.43
<b>End-of-period Commercial Crude Oil and Other Liquids Inventories</b>															
U.S. Commercial Inventory .....	1,192	1,247	1,276	1,289	1,326	1,352	1,353	1,311	1,283	1,309	1,312	1,255	1,289	1,311	1,255
OECD Commercial Inventory .....	2,772	2,859	2,934	2,967	2,997	3,041	3,046	3,057	3,059	3,105	3,106	3,077	2,967	3,057	3,077

- = 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, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

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

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

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

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

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

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

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

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

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

**Projections:** EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>North America</b> .....	<b>22.29</b>	<b>21.93</b>	<b>22.39</b>	<b>22.40</b>	<b>22.25</b>	<b>21.36</b>	<b>21.81</b>	<i>21.88</i>	<i>21.83</i>	<i>22.09</i>	<i>22.30</i>	<i>22.69</i>	<b>22.25</b>	<i>21.83</i>	<i>22.23</i>
Canada .....	<b>4.69</b>	<b>4.16</b>	<b>4.56</b>	<b>4.62</b>	<b>4.73</b>	<b>3.98</b>	<b>4.63</b>	<i>4.72</i>	<i>4.79</i>	<i>4.76</i>	<i>4.78</i>	<i>4.84</i>	<b>4.51</b>	<i>4.52</i>	<i>4.79</i>
Mexico .....	<b>2.68</b>	<b>2.58</b>	<b>2.62</b>	<b>2.62</b>	<b>2.57</b>	<b>2.51</b>	<b>2.50</b>	<i>2.48</i>	<i>2.46</i>	<i>2.45</i>	<i>2.42</i>	<i>2.41</i>	<b>2.62</b>	<i>2.51</i>	<i>2.43</i>
United States .....	<b>14.93</b>	<b>15.19</b>	<b>15.21</b>	<b>15.17</b>	<b>14.96</b>	<b>14.88</b>	<b>14.67</b>	<i>14.68</i>	<i>14.57</i>	<i>14.88</i>	<i>15.09</i>	<i>15.45</i>	<b>15.12</b>	<i>14.80</i>	<i>15.00</i>
<b>Central and South America</b> .....	<b>4.94</b>	<b>5.41</b>	<b>5.64</b>	<b>5.41</b>	<b>4.74</b>	<b>5.39</b>	<b>5.62</b>	<i>5.25</i>	<i>4.78</i>	<i>5.40</i>	<i>5.63</i>	<i>5.26</i>	<b>5.35</b>	<i>5.25</i>	<i>5.27</i>
Argentina .....	<b>0.70</b>	<b>0.71</b>	<b>0.72</b>	<b>0.72</b>	<b>0.70</b>	<b>0.69</b>	<b>0.70</b>	<i>0.72</i>	<i>0.71</i>	<i>0.69</i>	<i>0.70</i>	<i>0.72</i>	<b>0.71</b>	<i>0.70</i>	<i>0.71</i>
Brazil .....	<b>2.75</b>	<b>3.23</b>	<b>3.50</b>	<b>3.24</b>	<b>2.65</b>	<b>3.36</b>	<b>3.63</b>	<i>3.19</i>	<i>2.73</i>	<i>3.38</i>	<i>3.66</i>	<i>3.21</i>	<b>3.18</b>	<i>3.21</i>	<i>3.25</i>
Colombia .....	<b>1.05</b>	<b>1.05</b>	<b>1.00</b>	<b>1.02</b>	<b>0.98</b>	<b>0.93</b>	<b>0.87</b>	<i>0.92</i>	<i>0.94</i>	<i>0.92</i>	<i>0.86</i>	<i>0.91</i>	<b>1.03</b>	<i>0.92</i>	<i>0.91</i>
Other Central and S. America .....	<b>0.44</b>	<b>0.42</b>	<b>0.42</b>	<b>0.44</b>	<b>0.41</b>	<b>0.42</b>	<b>0.41</b>	<i>0.41</i>	<i>0.40</i>	<i>0.41</i>	<i>0.41</i>	<i>0.41</i>	<b>0.43</b>	<i>0.41</i>	<i>0.41</i>
<b>Europe</b> .....	<b>3.95</b>	<b>4.05</b>	<b>3.91</b>	<b>4.15</b>	<b>4.19</b>	<b>4.04</b>	<b>3.89</b>	<i>4.12</i>	<i>4.07</i>	<i>3.93</i>	<i>3.71</i>	<i>3.88</i>	<b>4.02</b>	<i>4.06</i>	<i>3.90</i>
Norway .....	<b>1.94</b>	<b>1.94</b>	<b>1.92</b>	<b>2.03</b>	<b>2.04</b>	<b>1.95</b>	<b>1.91</b>	<i>2.11</i>	<i>2.06</i>	<i>1.96</i>	<i>1.91</i>	<i>1.95</i>	<b>1.96</b>	<i>2.00</i>	<i>1.97</i>
United Kingdom (offshore) .....	<b>0.88</b>	<b>0.97</b>	<b>0.85</b>	<b>0.99</b>	<b>1.05</b>	<b>0.99</b>	<b>0.88</b>	<i>0.90</i>	<i>0.91</i>	<i>0.89</i>	<i>0.72</i>	<i>0.85</i>	<b>0.93</b>	<i>0.95</i>	<i>0.84</i>
Other North Sea .....	<b>0.18</b>	<b>0.18</b>	<b>0.18</b>	<b>0.17</b>	<b>0.15</b>	<b>0.16</b>	<b>0.16</b>	<i>0.16</i>	<i>0.16</i>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	<b>0.18</b>	<i>0.16</i>	<i>0.15</i>
<b>Eurasia</b> .....	<b>14.20</b>	<b>14.03</b>	<b>14.03</b>	<b>14.19</b>	<b>14.38</b>	<b>14.23</b>	<b>14.06</b>	<i>14.57</i>	<i>14.62</i>	<i>14.58</i>	<i>14.38</i>	<i>14.43</i>	<b>14.11</b>	<i>14.31</i>	<i>14.50</i>
Azerbaijan .....	<b>0.89</b>	<b>0.85</b>	<b>0.85</b>	<b>0.83</b>	<b>0.87</b>	<b>0.87</b>	<b>0.85</b>	<i>0.85</i>	<i>0.84</i>	<i>0.83</i>	<i>0.82</i>	<i>0.81</i>	<b>0.86</b>	<i>0.86</i>	<i>0.83</i>
Kazakhstan .....	<b>1.80</b>	<b>1.76</b>	<b>1.70</b>	<b>1.75</b>	<b>1.79</b>	<b>1.70</b>	<b>1.64</b>	<i>1.75</i>	<i>1.79</i>	<i>1.80</i>	<i>1.81</i>	<i>1.82</i>	<b>1.75</b>	<i>1.72</i>	<i>1.81</i>
Russia .....	<b>11.00</b>	<b>10.96</b>	<b>11.01</b>	<b>11.14</b>	<b>11.27</b>	<b>11.19</b>	<b>11.08</b>	<i>11.48</i>	<i>11.50</i>	<i>11.46</i>	<i>11.27</i>	<i>11.32</i>	<b>11.03</b>	<i>11.25</i>	<i>11.39</i>
Turkmenistan .....	<b>0.29</b>	<b>0.27</b>	<b>0.28</b>	<b>0.27</b>	<b>0.27</b>	<b>0.28</b>	<b>0.29</b>	<i>0.28</i>	<i>0.29</i>	<i>0.29</i>	<i>0.29</i>	<i>0.29</i>	<b>0.28</b>	<i>0.28</i>	<i>0.29</i>
Other Eurasia .....	<b>0.20</b>	<b>0.19</b>	<b>0.19</b>	<b>0.18</b>	<b>0.18</b>	<b>0.19</b>	<b>0.21</b>	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	<i>0.19</i>	<b>0.19</b>	<i>0.20</i>	<i>0.20</i>
<b>Middle East</b> .....	<b>1.18</b>	<b>1.13</b>	<b>1.13</b>	<b>1.13</b>	<b>1.14</b>	<b>1.14</b>	<b>1.14</b>	<i>1.14</i>	<i>1.15</i>	<i>1.14</i>	<i>1.14</i>	<i>1.14</i>	<b>1.14</b>	<i>1.14</i>	<i>1.14</i>
Oman .....	<b>0.97</b>	<b>0.98</b>	<b>1.00</b>	<b>1.00</b>	<b>1.02</b>	<b>1.01</b>	<b>1.03</b>	<i>1.02</i>	<i>1.03</i>	<i>1.03</i>	<i>1.03</i>	<i>1.02</i>	<b>0.99</b>	<i>1.02</i>	<i>1.03</i>
Syria .....	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	<b>0.03</b>	<i>0.03</i>	<i>0.03</i>
Yemen .....	<b>0.11</b>	<b>0.04</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.01</b>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<b>0.05</b>	<i>0.02</i>	<i>0.01</i>
<b>Asia and Oceania</b> .....	<b>8.44</b>	<b>8.49</b>	<b>8.47</b>	<b>8.50</b>	<b>8.34</b>	<b>8.16</b>	<b>8.04</b>	<i>8.12</i>	<i>8.00</i>	<i>8.02</i>	<i>8.01</i>	<i>8.07</i>	<b>8.48</b>	<i>8.16</i>	<i>8.03</i>
Australia .....	<b>0.39</b>	<b>0.39</b>	<b>0.45</b>	<b>0.43</b>	<b>0.39</b>	<b>0.37</b>	<b>0.40</b>	<i>0.38</i>	<i>0.38</i>	<i>0.38</i>	<i>0.38</i>	<i>0.40</i>	<b>0.42</b>	<i>0.39</i>	<i>0.38</i>
China .....	<b>4.68</b>	<b>4.76</b>	<b>4.73</b>	<b>4.72</b>	<b>4.59</b>	<b>4.47</b>	<b>4.36</b>	<i>4.42</i>	<i>4.30</i>	<i>4.33</i>	<i>4.32</i>	<i>4.36</i>	<b>4.72</b>	<i>4.46</i>	<i>4.33</i>
India .....	<b>1.01</b>	<b>1.00</b>	<b>1.01</b>	<b>1.02</b>	<b>1.00</b>	<b>0.99</b>	<b>0.99</b>	<i>1.00</i>	<i>1.00</i>	<i>1.00</i>	<i>0.99</i>	<i>1.00</i>	<b>1.01</b>	<i>0.99</i>	<i>1.00</i>
Malaysia .....	<b>0.77</b>	<b>0.74</b>	<b>0.69</b>	<b>0.73</b>	<b>0.76</b>	<b>0.74</b>	<b>0.74</b>	<i>0.76</i>	<i>0.75</i>	<i>0.75</i>	<i>0.75</i>	<i>0.76</i>	<b>0.74</b>	<i>0.75</i>	<i>0.75</i>
Vietnam .....	<b>0.36</b>	<b>0.34</b>	<b>0.35</b>	<b>0.36</b>	<b>0.33</b>	<b>0.33</b>	<b>0.31</b>	<i>0.32</i>	<i>0.32</i>	<i>0.31</i>	<i>0.31</i>	<i>0.31</i>	<b>0.35</b>	<i>0.32</i>	<i>0.31</i>
<b>Africa</b> .....	<b>2.12</b>	<b>2.12</b>	<b>2.12</b>	<b>2.14</b>	<b>2.09</b>	<b>2.10</b>	<b>2.08</b>	<i>2.11</i>	<i>2.09</i>	<i>2.12</i>	<i>2.14</i>	<i>2.16</i>	<b>2.12</b>	<i>2.10</i>	<i>2.13</i>
Egypt .....	<b>0.71</b>	<b>0.70</b>	<b>0.71</b>	<b>0.71</b>	<b>0.69</b>	<b>0.69</b>	<b>0.69</b>	<i>0.69</i>	<i>0.68</i>	<i>0.68</i>	<i>0.68</i>	<i>0.67</i>	<b>0.71</b>	<i>0.69</i>	<i>0.68</i>
Equatorial Guinea .....	<b>0.27</b>	<b>0.27</b>	<b>0.27</b>	<b>0.27</b>	<b>0.24</b>	<b>0.24</b>	<b>0.25</b>	<i>0.25</i>	<i>0.22</i>	<i>0.22</i>	<i>0.22</i>	<i>0.22</i>	<b>0.27</b>	<i>0.25</i>	<i>0.22</i>
Sudan and South Sudan .....	<b>0.26</b>	<b>0.26</b>	<b>0.26</b>	<b>0.26</b>	<b>0.26</b>	<b>0.26</b>	<b>0.26</b>	<i>0.26</i>	<i>0.25</i>	<i>0.25</i>	<i>0.25</i>	<i>0.25</i>	<b>0.26</b>	<i>0.26</i>	<i>0.25</i>
<b>Total non-OPEC liquids</b> .....	<b>57.13</b>	<b>57.16</b>	<b>57.68</b>	<b>57.92</b>	<b>57.14</b>	<b>56.42</b>	<b>56.63</b>	<i>57.19</i>	<i>56.54</i>	<i>57.29</i>	<i>57.32</i>	<i>57.63</i>	<b>57.48</b>	<i>56.85</i>	<i>57.20</i>
<b>OPEC non-crude liquids</b> .....	<b>6.53</b>	<b>6.56</b>	<b>6.57</b>	<b>6.57</b>	<b>6.61</b>	<b>6.67</b>	<b>6.85</b>	<i>6.93</i>	<i>7.03</i>	<i>7.05</i>	<i>7.08</i>	<i>7.13</i>	<b>6.56</b>	<i>6.76</i>	<i>7.07</i>
<b>Non-OPEC + OPEC non-crude</b> .....	<b>63.66</b>	<b>63.72</b>	<b>64.25</b>	<b>64.50</b>	<b>63.75</b>	<b>63.09</b>	<b>63.48</b>	<i>64.12</i>	<i>63.57</i>	<i>64.34</i>	<i>64.40</i>	<i>64.77</i>	<b>64.04</b>	<i>63.61</i>	<i>64.27</i>
<b>Unplanned non-OPEC Production Outages</b> .....	<b>0.27</b>	<b>0.46</b>	<b>0.40</b>	<b>0.34</b>	<b>0.38</b>	<b>0.76</b>	<b>0.42</b>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<b>0.37</b>	<i>n/a</i>	<i>n/a</i>

- = no data available

OPEC = Organization of Petroleum Exporting Countries: Algeria, Angola, Ecuador, Gabon, Indonesia, 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.

## U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Crude Oil</b>															
Algeria .....	<b>1.10</b>	<b>1.10</b>	<b>1.10</b>	<b>1.10</b>	<b>1.05</b>	<b>1.04</b>	<b>1.05</b>	-	-	-	-	-	<b>1.10</b>	-	-
Angola .....	<b>1.75</b>	<b>1.77</b>	<b>1.82</b>	<b>1.78</b>	<b>1.78</b>	<b>1.79</b>	<b>1.79</b>	-	-	-	-	-	<b>1.78</b>	-	-
Ecuador .....	<b>0.55</b>	<b>0.54</b>	<b>0.54</b>	<b>0.54</b>	<b>0.54</b>	<b>0.55</b>	<b>0.56</b>	-	-	-	-	-	<b>0.54</b>	-	-
Gabon .....	<b>0.22</b>	<b>0.21</b>	<b>0.22</b>	<b>0.22</b>	<b>0.21</b>	<b>0.21</b>	<b>0.21</b>	-	-	-	-	-	<b>0.21</b>	-	-
Indonesia .....	<b>0.67</b>	<b>0.69</b>	<b>0.69</b>	<b>0.69</b>	<b>0.73</b>	<b>0.74</b>	<b>0.74</b>	-	-	-	-	-	<b>0.68</b>	-	-
Iran .....	<b>2.80</b>	<b>2.80</b>	<b>2.80</b>	<b>2.80</b>	<b>3.03</b>	<b>3.57</b>	<b>3.65</b>	-	-	-	-	-	<b>2.80</b>	-	-
Iraq .....	<b>3.49</b>	<b>3.97</b>	<b>4.30</b>	<b>4.35</b>	<b>4.29</b>	<b>4.38</b>	<b>4.42</b>	-	-	-	-	-	<b>4.03</b>	-	-
Kuwait .....	<b>2.57</b>	<b>2.53</b>	<b>2.50</b>	<b>2.45</b>	<b>2.48</b>	<b>2.43</b>	<b>2.52</b>	-	-	-	-	-	<b>2.51</b>	-	-
Libya .....	<b>0.40</b>	<b>0.45</b>	<b>0.38</b>	<b>0.39</b>	<b>0.35</b>	<b>0.31</b>	<b>0.29</b>	-	-	-	-	-	<b>0.40</b>	-	-
Nigeria .....	<b>2.00</b>	<b>1.83</b>	<b>1.86</b>	<b>1.90</b>	<b>1.77</b>	<b>1.56</b>	<b>1.50</b>	-	-	-	-	-	<b>1.90</b>	-	-
Qatar .....	<b>0.68</b>	<b>0.68</b>	<b>0.68</b>	<b>0.68</b>	<b>0.66</b>	<b>0.68</b>	<b>0.67</b>	-	-	-	-	-	<b>0.68</b>	-	-
Saudi Arabia .....	<b>9.73</b>	<b>10.07</b>	<b>10.22</b>	<b>10.00</b>	<b>9.98</b>	<b>10.33</b>	<b>10.59</b>	-	-	-	-	-	<b>10.01</b>	-	-
United Arab Emirates .....	<b>2.70</b>	<b>2.70</b>	<b>2.70</b>	<b>2.70</b>	<b>2.60</b>	<b>2.57</b>	<b>2.72</b>	-	-	-	-	-	<b>2.70</b>	-	-
Venezuela .....	<b>2.40</b>	<b>2.40</b>	<b>2.40</b>	<b>2.40</b>	<b>2.30</b>	<b>2.23</b>	<b>2.11</b>	-	-	-	-	-	<b>2.40</b>	-	-
OPEC Total .....	<b>31.06</b>	<b>31.74</b>	<b>32.19</b>	<b>31.99</b>	<b>31.77</b>	<b>32.41</b>	<b>32.83</b>	<i>33.09</i>	<i>32.84</i>	<i>33.13</i>	<i>33.34</i>	<i>33.29</i>	<b>31.75</b>	<i>32.53</i>	<i>33.15</i>
<b>Other Liquids (a)</b> .....	<b>6.53</b>	<b>6.56</b>	<b>6.57</b>	<b>6.57</b>	<b>6.61</b>	<b>6.67</b>	<b>6.85</b>	<i>6.93</i>	<i>7.03</i>	<i>7.05</i>	<i>7.08</i>	<i>7.13</i>	<b>6.56</b>	<i>6.76</i>	<i>7.07</i>
<b>Total OPEC Supply</b> .....	<b>37.59</b>	<b>38.30</b>	<b>38.76</b>	<b>38.56</b>	<b>38.38</b>	<b>39.07</b>	<b>39.68</b>	<i>40.02</i>	<i>39.87</i>	<i>40.18</i>	<i>40.42</i>	<i>40.42</i>	<b>38.31</b>	<i>39.29</i>	<i>40.22</i>
<b>Crude Oil Production Capacity</b>															
Africa .....	<b>5.47</b>	<b>5.36</b>	<b>5.37</b>	<b>5.38</b>	<b>5.16</b>	<b>4.92</b>	<b>4.84</b>	<i>5.14</i>	<i>5.28</i>	<i>5.32</i>	<i>5.33</i>	<i>5.40</i>	<b>5.40</b>	<i>5.01</i>	<i>5.33</i>
Middle East .....	<b>23.89</b>	<b>24.28</b>	<b>24.53</b>	<b>24.53</b>	<b>24.88</b>	<b>25.23</b>	<b>25.54</b>	<i>25.73</i>	<i>25.69</i>	<i>25.73</i>	<i>25.79</i>	<i>25.84</i>	<b>24.31</b>	<i>25.35</i>	<i>25.76</i>
South America and Asia .....	<b>3.65</b>	<b>3.66</b>	<b>3.63</b>	<b>3.63</b>	<b>3.58</b>	<b>3.52</b>	<b>3.41</b>	<i>3.36</i>	<i>3.29</i>	<i>3.26</i>	<i>3.23</i>	<i>3.22</i>	<b>3.64</b>	<i>3.47</i>	<i>3.25</i>
OPEC Total .....	<b>33.00</b>	<b>33.30</b>	<b>33.53</b>	<b>33.54</b>	<b>33.61</b>	<b>33.67</b>	<b>33.79</b>	<i>34.23</i>	<i>34.26</i>	<i>34.31</i>	<i>34.34</i>	<i>34.45</i>	<b>33.35</b>	<i>33.83</i>	<i>34.34</i>
<b>Surplus Crude Oil Production Capacity</b>															
Africa .....	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<b>0.00</b>	<i>0.00</i>	<i>0.00</i>
Middle East .....	<b>1.92</b>	<b>1.53</b>	<b>1.33</b>	<b>1.55</b>	<b>1.84</b>	<b>1.26</b>	<b>0.96</b>	<i>1.14</i>	<i>1.42</i>	<i>1.18</i>	<i>1.00</i>	<i>1.17</i>	<b>1.58</b>	<i>1.30</i>	<i>1.19</i>
South America and Asia .....	<b>0.03</b>	<b>0.02</b>	<b>0.01</b>	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<b>0.01</b>	<i>0.00</i>	<i>0.00</i>
OPEC Total .....	<b>1.94</b>	<b>1.56</b>	<b>1.34</b>	<b>1.56</b>	<b>1.85</b>	<b>1.26</b>	<b>0.96</b>	<i>1.14</i>	<i>1.42</i>	<i>1.18</i>	<i>1.00</i>	<i>1.17</i>	<b>1.60</b>	<i>1.30</i>	<i>1.19</i>
<b>Unplanned OPEC Production Outages</b> .....	<b>2.56</b>	<b>2.62</b>	<b>2.74</b>	<b>2.78</b>	<b>2.09</b>	<b>2.44</b>	<b>2.34</b>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<b>2.68</b>	<i>n/a</i>	<i>n/a</i>

- = no data available

OPEC = Organization of Petroleum Exporting Countries: Algeria, Angola, Gabon, Libya, and Nigeria (Africa); Ecuador and Venezuela (South America); Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates (Middle East). (a) Includes lease condensate, natural gas plant liquids, other liquids, and refinery processing gain. Includes other unaccounted-for liquids.

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

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

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

**Projections:** EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

	2015				2016				2017				2015	2016	2017
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
<b>North America</b> .....	<b>23.79</b>	<b>23.78</b>	<b>24.36</b>	<b>23.88</b>	<b>23.82</b>	<b>23.73</b>	<b>24.24</b>	<i>24.21</i>	<i>23.81</i>	<i>23.93</i>	<i>24.41</i>	<i>24.58</i>	<b>23.95</b>	<i>24.00</i>	<i>24.19</i>
Canada .....	<b>2.43</b>	<b>2.33</b>	<b>2.45</b>	<b>2.40</b>	<b>2.39</b>	<b>2.36</b>	<b>2.38</b>	<i>2.37</i>	<i>2.31</i>	<i>2.25</i>	<i>2.36</i>	<i>2.35</i>	<b>2.41</b>	<i>2.37</i>	<i>2.32</i>
Mexico .....	<b>1.94</b>	<b>1.97</b>	<b>2.07</b>	<b>2.05</b>	<b>1.98</b>	<b>1.94</b>	<b>1.94</b>	<i>1.95</i>	<i>1.95</i>	<i>1.97</i>	<i>1.94</i>	<i>1.95</i>	<b>2.01</b>	<i>1.95</i>	<i>1.95</i>
United States .....	<b>19.41</b>	<b>19.47</b>	<b>19.83</b>	<b>19.42</b>	<b>19.45</b>	<b>19.42</b>	<b>19.90</b>	<i>19.88</i>	<i>19.53</i>	<i>19.69</i>	<i>20.10</i>	<i>20.28</i>	<b>19.53</b>	<i>19.66</i>	<i>19.90</i>
<b>Central and South America</b> .....	<b>7.09</b>	<b>7.34</b>	<b>7.36</b>	<b>7.36</b>	<b>7.06</b>	<b>7.34</b>	<b>7.40</b>	<i>7.38</i>	<i>7.10</i>	<i>7.37</i>	<i>7.40</i>	<i>7.38</i>	<b>7.29</b>	<i>7.30</i>	<i>7.31</i>
Brazil .....	<b>3.00</b>	<b>3.11</b>	<b>3.18</b>	<b>3.17</b>	<b>2.93</b>	<b>3.04</b>	<b>3.11</b>	<i>3.10</i>	<i>2.88</i>	<i>2.99</i>	<i>3.06</i>	<i>3.04</i>	<b>3.12</b>	<i>3.04</i>	<i>3.00</i>
<b>Europe</b> .....	<b>14.15</b>	<b>14.27</b>	<b>14.88</b>	<b>14.43</b>	<b>14.33</b>	<b>14.56</b>	<b>14.70</b>	<i>14.63</i>	<i>14.57</i>	<i>14.34</i>	<i>14.82</i>	<i>14.74</i>	<b>14.44</b>	<i>14.56</i>	<i>14.62</i>
<b>Eurasia</b> .....	<b>4.74</b>	<b>4.67</b>	<b>4.95</b>	<b>4.93</b>	<b>4.76</b>	<b>4.69</b>	<b>4.97</b>	<i>4.95</i>	<i>4.81</i>	<i>4.73</i>	<i>5.01</i>	<i>5.00</i>	<b>4.82</b>	<i>4.84</i>	<i>4.89</i>
Russia .....	<b>3.39</b>	<b>3.34</b>	<b>3.54</b>	<b>3.53</b>	<b>3.35</b>	<b>3.30</b>	<b>3.50</b>	<i>3.48</i>	<i>3.34</i>	<i>3.29</i>	<i>3.48</i>	<i>3.47</i>	<b>3.45</b>	<i>3.41</i>	<i>3.40</i>
<b>Middle East</b> .....	<b>7.83</b>	<b>8.42</b>	<b>8.97</b>	<b>8.14</b>	<b>7.74</b>	<b>8.59</b>	<b>9.21</b>	<i>8.18</i>	<i>8.05</i>	<i>8.78</i>	<i>9.41</i>	<i>8.42</i>	<b>8.34</b>	<i>8.43</i>	<i>8.67</i>
<b>Asia and Oceania</b> .....	<b>31.85</b>	<b>31.10</b>	<b>30.83</b>	<b>31.67</b>	<b>32.40</b>	<b>32.32</b>	<b>31.62</b>	<i>32.67</i>	<i>33.23</i>	<i>33.13</i>	<i>32.52</i>	<i>33.47</i>	<b>31.36</b>	<i>32.26</i>	<i>33.09</i>
China .....	<b>11.13</b>	<b>11.26</b>	<b>11.35</b>	<b>11.38</b>	<b>11.25</b>	<b>11.87</b>	<b>11.72</b>	<i>11.77</i>	<i>11.56</i>	<i>12.20</i>	<i>12.15</i>	<i>12.09</i>	<b>11.28</b>	<i>11.65</i>	<i>12.00</i>
Japan .....	<b>4.70</b>	<b>3.80</b>	<b>3.85</b>	<b>4.14</b>	<b>4.43</b>	<b>3.70</b>	<b>3.71</b>	<i>4.07</i>	<i>4.29</i>	<i>3.61</i>	<i>3.64</i>	<i>3.99</i>	<b>4.12</b>	<i>3.98</i>	<i>3.88</i>
India .....	<b>4.19</b>	<b>4.17</b>	<b>3.82</b>	<b>4.13</b>	<b>4.54</b>	<b>4.50</b>	<b>4.13</b>	<i>4.48</i>	<i>4.87</i>	<i>4.85</i>	<i>4.44</i>	<i>4.80</i>	<b>4.08</b>	<i>4.41</i>	<i>4.74</i>
<b>Africa</b> .....	<b>3.89</b>	<b>3.88</b>	<b>3.84</b>	<b>3.86</b>	<b>4.07</b>	<b>4.06</b>	<b>4.02</b>	<i>4.04</i>	<i>4.26</i>	<i>4.25</i>	<i>4.20</i>	<i>4.23</i>	<b>3.86</b>	<i>4.05</i>	<i>4.23</i>
<b>Total OECD Liquid Fuels Consumption</b> .....	<b>46.63</b>	<b>45.64</b>	<b>46.92</b>	<b>46.46</b>	<b>46.72</b>	<b>45.97</b>	<b>46.64</b>	<i>47.13</i>	<i>47.02</i>	<i>45.95</i>	<i>46.90</i>	<i>47.58</i>	<b>46.41</b>	<i>46.62</i>	<i>46.87</i>
<b>Total non-OECD Liquid Fuels Consumption</b> .....	<b>46.71</b>	<b>47.82</b>	<b>48.28</b>	<b>47.81</b>	<b>47.46</b>	<b>49.31</b>	<b>49.52</b>	<i>48.93</i>	<i>48.79</i>	<i>50.57</i>	<i>50.88</i>	<i>50.24</i>	<b>47.66</b>	<i>48.81</i>	<i>50.13</i>
<b>Total World Liquid Fuels Consumption</b> .....	<b>93.34</b>	<b>93.46</b>	<b>95.19</b>	<b>94.26</b>	<b>94.18</b>	<b>95.29</b>	<b>96.16</b>	<i>96.06</i>	<i>95.81</i>	<i>96.52</i>	<i>97.78</i>	<i>97.83</i>	<b>94.07</b>	<i>95.43</i>	<i>96.99</i>
<b>Oil-weighted Real Gross Domestic Product (a)</b>															
World Index, 2010 Q1 = 100 .....	<b>116.6</b>	<b>117.2</b>	<b>117.8</b>	<b>118.4</b>	<b>119.0</b>	<b>119.7</b>	<b>120.4</b>	<i>121.3</i>	<i>122.0</i>	<i>122.8</i>	<i>123.8</i>	<i>124.6</i>	<b>117.5</b>	<i>120.1</i>	<i>123.3</i>
Percent change from prior year .....	<b>2.8</b>	<b>2.7</b>	<b>2.5</b>	<b>2.2</b>	<b>2.1</b>	<b>2.2</b>	<b>2.2</b>	<i>2.4</i>	<i>2.5</i>	<i>2.6</i>	<i>2.7</i>	<i>2.7</i>	<b>2.5</b>	<i>2.2</i>	<i>2.7</i>
OECD Index, 2010 Q1 = 100 .....	<b>109.6</b>	<b>110.1</b>	<b>110.6</b>	<b>111.0</b>	<b>111.4</b>	<b>111.8</b>	<b>112.3</b>	<i>112.9</i>	<i>113.4</i>	<i>113.9</i>	<i>114.4</i>	<i>115.0</i>	<b>110.3</b>	<i>112.1</i>	<i>114.2</i>
Percent change from prior year .....	<b>2.3</b>	<b>2.3</b>	<b>2.2</b>	<b>1.9</b>	<b>1.6</b>	<b>1.5</b>	<b>1.5</b>	<i>1.7</i>	<i>1.7</i>	<i>1.9</i>	<i>1.9</i>	<i>1.8</i>	<b>2.2</b>	<i>1.6</i>	<i>1.8</i>
Non-OECD Index, 2010 Q1 = 100 .....	<b>125.3</b>	<b>126.1</b>	<b>126.9</b>	<b>127.9</b>	<b>128.6</b>	<b>129.8</b>	<b>130.8</b>	<i>132.0</i>	<i>133.1</i>	<i>134.3</i>	<i>135.7</i>	<i>137.0</i>	<b>126.6</b>	<i>130.3</i>	<i>135.1</i>
Percent change from prior year .....	<b>3.4</b>	<b>3.1</b>	<b>2.9</b>	<b>2.6</b>	<b>2.6</b>	<b>2.9</b>	<b>3.0</b>	<i>3.2</i>	<i>3.5</i>	<i>3.5</i>	<i>3.8</i>	<i>3.8</i>	<b>3.0</b>	<i>3.0</i>	<i>3.6</i>
<b>Real U.S. Dollar Exchange Rate (a)</b>															
Index, January 2010 = 100 .....	<b>119.22</b>	<b>119.51</b>	<b>122.84</b>	<b>124.74</b>	<b>128.56</b>	<b>127.49</b>	<b>127.89</b>	<i>128.83</i>	<i>130.17</i>	<i>131.01</i>	<i>131.67</i>	<i>131.77</i>	<b>121.58</b>	<i>128.19</i>	<i>131.16</i>
Percent change from prior year .....	<b>10.2</b>	<b>10.7</b>	<b>12.7</b>	<b>9.8</b>	<b>7.8</b>	<b>6.7</b>	<b>4.1</b>	<i>3.3</i>	<i>1.3</i>	<i>2.8</i>	<i>3.0</i>	<i>2.3</i>	<b>10.8</b>	<i>5.4</i>	<i>2.3</i>

- = no data available

OECD = Organisation for Economic Co-operation and Development: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Finland,

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

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

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

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

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

**Projections:** EIA Regional Short-Term Energy Model.



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

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Supply (million barrels per day)</b>															
<b>Crude Oil Supply</b>															
Domestic Production (a) .....	9.49	9.47	9.41	9.30	9.17	8.85	8.67	8.75	8.75	8.74	8.70	8.94	9.42	8.86	8.78
Alaska .....	0.50	0.48	0.44	0.51	0.51	0.49	0.45	0.48	0.48	0.46	0.42	0.48	0.48	0.48	0.46
Federal Gulf of Mexico (b) .....	1.43	1.44	1.62	1.57	1.61	1.58	1.57	1.72	1.81	1.84	1.76	1.90	1.51	1.62	1.83
Lower 48 States (excl GOM) .....	7.56	7.56	7.35	7.21	7.05	6.78	6.65	6.54	6.46	6.44	6.51	6.55	7.42	6.76	6.49
Crude Oil Net Imports (c) .....	6.84	6.73	6.96	7.05	7.46	7.19	7.45	7.32	7.04	7.33	7.64	7.33	6.90	7.36	7.34
SPR Net Withdrawals .....	0.00	-0.03	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	-0.01	0.00	0.00
Commercial Inventory Net Withdrawals .....	-0.91	0.05	0.11	-0.22	-0.57	0.04	0.31	-0.06	-0.19	0.18	0.24	0.14	-0.24	-0.07	0.10
Crude Oil Adjustment (d) .....	0.08	0.24	0.12	0.08	-0.06	0.14	0.09	0.16	0.19	0.19	0.21	0.15	0.13	0.08	0.19
Total Crude Oil Input to Refineries .....	15.48	16.46	16.59	16.21	16.00	16.22	16.53	16.17	15.79	16.44	16.79	16.58	16.19	16.23	16.40
<b>Other Supply</b>															
Refinery Processing Gain .....	1.04	1.06	1.08	1.07	1.07	1.10	1.15	1.08	1.03	1.07	1.10	1.09	1.06	1.10	1.07
Natural Gas Plant Liquids Production .....	3.15	3.34	3.40	3.47	3.38	3.57	3.46	3.49	3.46	3.71	3.91	4.03	3.34	3.48	3.78
Renewables and Oxygenate Production (e) .....	1.05	1.10	1.10	1.11	1.12	1.13	1.17	1.13	1.11	1.13	1.15	1.15	1.09	1.14	1.13
Fuel Ethanol Production .....	0.96	0.96	0.96	0.99	0.99	0.97	1.01	1.00	1.00	1.00	1.00	1.01	0.97	0.99	1.00
Petroleum Products Adjustment (f) .....	0.20	0.21	0.21	0.22	0.21	0.22	0.22	0.23	0.22	0.23	0.24	0.24	0.21	0.22	0.23
Product Net Imports (c) .....	-1.81	-2.06	-2.14	-2.74	-2.48	-2.51	-2.31	-2.73	-2.59	-2.43	-2.80	-3.29	-2.19	-2.51	-2.78
Hydrocarbon Gas Liquids .....	-0.67	-0.79	-0.91	-0.86	-1.00	-1.10	-0.93	-1.18	-1.18	-1.25	-1.36	-1.43	-0.81	-1.05	-1.31
Unfinished Oils .....	0.30	0.30	0.40	0.18	0.30	0.41	0.37	0.30	0.31	0.32	0.33	0.28	0.29	0.35	0.31
Other HC/Oxygenates .....	-0.07	-0.09	-0.06	-0.07	-0.10	-0.08	-0.05	-0.07	-0.08	-0.06	-0.04	-0.05	-0.07	-0.08	-0.06
Motor Gasoline Blend Comp. ....	0.41	0.53	0.60	0.29	0.34	0.65	0.59	0.51	0.42	0.66	0.52	0.42	0.46	0.52	0.51
Finished Motor Gasoline .....	-0.44	-0.31	-0.40	-0.47	-0.56	-0.47	-0.49	-0.79	-0.53	-0.43	-0.44	-0.63	-0.40	-0.58	-0.51
Jet Fuel .....	-0.06	0.01	-0.05	-0.06	-0.03	-0.04	-0.02	-0.01	0.02	0.00	0.02	-0.01	-0.04	-0.02	0.01
Distillate Fuel Oil .....	-0.68	-1.05	-1.09	-1.07	-0.85	-1.21	-1.13	-0.92	-0.96	-1.07	-1.19	-1.16	-0.98	-1.03	-1.09
Residual Fuel Oil .....	-0.12	-0.20	-0.12	-0.10	-0.06	-0.06	-0.07	-0.05	-0.09	-0.14	-0.14	-0.12	-0.13	-0.06	-0.12
Other Oils (g) .....	-0.49	-0.46	-0.50	-0.58	-0.52	-0.62	-0.58	-0.52	-0.50	-0.45	-0.50	-0.60	-0.51	-0.56	-0.51
Product Inventory Net Withdrawals .....	0.29	-0.65	-0.42	0.08	0.17	-0.32	-0.32	0.51	0.51	-0.47	-0.28	0.48	-0.18	0.01	0.06
Total Supply .....	19.41	19.47	19.83	19.42	19.47	19.42	19.90	19.88	19.53	19.69	20.10	20.28	19.53	19.67	19.90
<b>Consumption (million barrels per day)</b>															
Hydrocarbon Gas Liquids .....	2.78	2.37	2.39	2.66	2.73	2.25	2.40	2.68	2.73	2.35	2.54	2.93	2.55	2.51	2.64
Unfinished Oils .....	-0.03	0.07	-0.02	-0.05	0.01	-0.06	-0.05	0.04	0.00	-0.01	-0.01	0.03	-0.01	-0.02	0.00
Motor Gasoline .....	8.84	9.29	9.41	9.17	9.09	9.44	9.56	9.16	9.07	9.52	9.54	9.37	9.18	9.31	9.37
Fuel Ethanol blended into Motor Gasoline .....	0.87	0.92	0.94	0.91	0.91	0.94	0.96	0.94	0.90	0.95	0.95	0.94	0.91	0.94	0.94
Jet Fuel .....	1.46	1.57	1.60	1.57	1.50	1.61	1.68	1.65	1.52	1.58	1.64	1.64	1.55	1.61	1.60
Distillate Fuel Oil .....	4.26	3.90	3.96	3.86	3.90	3.80	3.79	4.02	4.01	3.88	3.85	4.02	4.00	3.88	3.94
Residual Fuel Oil .....	0.25	0.20	0.30	0.28	0.31	0.40	0.36	0.38	0.32	0.29	0.30	0.29	0.26	0.36	0.30
Other Oils (g) .....	1.85	2.07	2.19	1.92	1.89	1.98	2.16	1.97	1.89	2.08	2.24	1.99	2.01	2.00	2.05
Total Consumption .....	19.41	19.47	19.83	19.42	19.45	19.42	19.90	19.88	19.53	19.69	20.10	20.28	19.53	19.66	19.90
<b>Total Petroleum and Other Liquids Net Imports</b> ....	<b>5.03</b>	<b>4.68</b>	<b>4.83</b>	<b>4.32</b>	<b>4.97</b>	<b>4.68</b>	<b>5.15</b>	<b>4.59</b>	<b>4.45</b>	<b>4.91</b>	<b>4.83</b>	<b>4.04</b>	<b>4.71</b>	<b>4.85</b>	<b>4.56</b>
<b>End-of-period Inventories (million barrels)</b>															
<b>Commercial Inventory</b>															
Crude Oil (excluding SPR) .....	443.2	438.8	429.1	449.2	501.5	498.0	469.1	474.5	491.4	474.8	452.7	439.8	449.2	474.5	439.8
Hydrocarbon Gas Liquids .....	140.5	196.0	229.2	197.0	154.4	211.8	251.6	199.5	156.7	203.7	232.9	183.9	197.0	199.5	183.9
Unfinished Oils .....	85.0	86.3	89.0	82.9	91.4	86.7	83.3	78.8	89.2	88.1	85.6	79.2	82.9	78.8	79.2
Other HC/Oxygenates .....	27.0	25.2	23.9	27.1	28.2	27.7	27.1	25.6	27.7	26.6	25.8	26.1	27.1	25.6	26.1
Total Motor Gasoline .....	232.9	221.1	225.2	235.5	243.3	242.1	227.0	237.7	233.7	229.5	228.8	240.5	235.5	237.7	240.5
Finished Motor Gasoline .....	26.7	25.2	29.0	28.6	26.5	24.9	25.1	27.9	27.1	25.6	26.7	28.2	28.6	27.9	28.2
Motor Gasoline Blend Comp. ....	206.2	195.9	196.2	206.9	216.9	217.2	201.9	209.9	206.6	203.8	202.1	212.3	206.9	209.9	212.3
Jet Fuel .....	38.3	43.8	40.5	40.4	43.8	40.4	44.7	42.1	41.5	42.6	44.6	40.8	40.4	42.1	40.8
Distillate Fuel Oil .....	128.7	139.6	149.4	161.3	160.6	149.2	160.4	160.1	141.9	144.7	151.6	151.5	161.3	160.1	151.5
Residual Fuel Oil .....	38.4	42.0	41.6	42.1	44.5	40.3	38.8	39.2	41.6	42.0	39.5	39.8	42.1	39.2	39.8
Other Oils (g) .....	58.3	54.6	48.4	53.9	58.4	55.6	50.5	53.6	58.9	56.8	50.7	53.1	53.9	53.6	53.1
Total Commercial Inventory .....	1,192	1,247	1,276	1,289	1,326	1,352	1,353	1,311	1,283	1,309	1,312	1,255	1,289	1,311	1,255
Crude Oil in SPR .....	691	694	695	695	695	695	695	695	695	695	695	694	695	695	694

- = 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 - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>HGL Production</b>															
<b>Natural Gas Processing Plants</b>															
Ethane .....	1.07	1.12	1.12	1.21	1.20	1.34	1.19	1.24	1.29	1.43	1.54	1.65	1.13	1.24	1.48
Propane .....	1.09	1.15	1.16	1.17	1.15	1.17	1.17	1.16	1.14	1.18	1.20	1.23	1.14	1.16	1.19
Butanes .....	0.59	0.64	0.66	0.65	0.63	0.63	0.64	0.66	0.62	0.65	0.67	0.68	0.63	0.64	0.65
Natural Gasoline (Pentanes Plus) .....	0.39	0.44	0.47	0.44	0.41	0.43	0.46	0.44	0.41	0.45	0.49	0.47	0.43	0.44	0.46
<b>Refinery and Blender Net Production</b>															
Ethane/Ethylene .....	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00
Propane/Propylene .....	0.54	0.58	0.56	0.55	0.58	0.60	0.58	0.58	0.57	0.60	0.60	0.59	0.56	0.58	0.59
Butanes/Butylenes .....	-0.08	0.27	0.19	-0.19	-0.11	0.26	0.20	-0.17	-0.06	0.25	0.19	-0.17	0.05	0.04	0.05
<b>Renewable Fuels and Oxygenate Plant Net Production</b>															
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
<b>HGL Net Imports</b>															
Ethane .....	-0.06	-0.07	-0.06	-0.07	-0.08	-0.09	-0.10	-0.13	-0.20	-0.24	-0.26	-0.28	-0.06	-0.10	-0.24
Propane/Propylene .....	-0.39	-0.48	-0.54	-0.55	-0.65	-0.68	-0.56	-0.71	-0.66	-0.67	-0.67	-0.75	-0.49	-0.65	-0.69
Butanes/Butylenes .....	-0.05	-0.09	-0.11	-0.08	-0.07	-0.12	-0.08	-0.14	-0.10	-0.15	-0.18	-0.16	-0.08	-0.10	-0.15
Natural Gasoline (Pentanes Plus) .....	-0.17	-0.15	-0.21	-0.16	-0.20	-0.21	-0.19	-0.21	-0.21	-0.20	-0.25	-0.24	-0.17	-0.20	-0.23
<b>HGL Refinery and Blender Net Inputs</b>															
Butanes/Butylenes .....	0.40	0.27	0.32	0.50	0.43	0.28	0.32	0.44	0.37	0.27	0.31	0.45	0.37	0.37	0.35
Natural Gasoline (Pentanes Plus) .....	0.15	0.14	0.16	0.15	0.14	0.15	0.14	0.16	0.15	0.16	0.16	0.16	0.15	0.15	0.16
<b>HGL Consumption</b>															
Ethane/Ethylene .....	1.05	1.05	1.04	1.15	1.10	1.08	1.11	1.17	1.16	1.17	1.32	1.41	1.07	1.12	1.27
Propane/Propylene .....	1.46	0.97	1.01	1.21	1.41	0.88	0.98	1.22	1.36	0.90	0.96	1.25	1.16	1.12	1.11
Butanes/Butylenes .....	0.18	0.25	0.24	0.21	0.18	0.25	0.24	0.22	0.16	0.22	0.21	0.20	0.22	0.22	0.20
Natural Gasoline (Pentanes Plus) .....	0.10	0.09	0.10	0.09	0.04	0.04	0.07	0.07	0.05	0.06	0.06	0.07	0.10	0.06	0.06
<b>HGL Inventories (million barrels)</b>															
Ethane/Ethylene .....	31.81	31.91	32.55	34.37	33.76	45.19	50.71	47.78	40.59	41.08	41.27	37.83	32.67	44.39	40.19
Propane/Propylene .....	59.23	84.75	100.19	96.25	66.38	85.18	103.83	86.44	58.34	78.01	94.37	78.48	96.25	86.44	78.48
Butanes/Butylenes .....	32.48	59.16	76.30	45.96	32.39	54.10	73.35	45.17	38.10	60.89	76.14	48.77	45.96	45.17	48.77
Natural Gasoline (Pentanes Plus) .....	17.22	20.49	18.90	20.52	20.40	20.94	24.86	23.12	20.49	22.15	22.15	20.69	20.52	23.12	20.69
<b>Refinery and Blender Net Inputs</b>															
Crude Oil .....	15.48	16.46	16.59	16.21	16.00	16.22	16.53	16.17	15.79	16.44	16.79	16.58	16.19	16.23	16.40
Hydrocarbon Gas Liquids .....	0.54	0.41	0.47	0.64	0.57	0.43	0.46	0.60	0.52	0.43	0.47	0.61	0.52	0.52	0.51
Other Hydrocarbons/Oxygenates .....	1.12	1.18	1.20	1.17	1.15	1.22	1.23	1.21	1.16	1.23	1.27	1.26	1.17	1.20	1.23
Unfinished Oils .....	0.26	0.22	0.39	0.30	0.19	0.53	0.46	0.32	0.19	0.34	0.37	0.32	0.29	0.37	0.31
Motor Gasoline Blend Components .....	0.66	0.85	0.73	0.41	0.31	0.82	0.91	0.60	0.67	0.91	0.74	0.51	0.66	0.66	0.71
Aviation Gasoline Blend Components .....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Refinery and Blender Net Inputs .....	18.06	19.11	19.38	18.73	18.22	19.22	19.60	18.90	18.33	19.36	19.63	19.27	18.82	18.99	19.15
<b>Refinery Processing Gain</b>															
.....	1.04	1.06	1.08	1.07	1.07	1.10	1.15	1.08	1.03	1.07	1.10	1.09	1.06	1.10	1.07
<b>Refinery and Blender Net Production</b>															
Hydrocarbon Gas Liquids .....	0.47	0.86	0.76	0.37	0.47	0.86	0.78	0.41	0.52	0.86	0.79	0.42	0.61	0.63	0.65
Finished Motor Gasoline .....	9.43	9.78	9.96	9.85	9.68	10.06	10.19	10.11	9.80	10.14	10.18	10.19	9.75	10.01	10.08
Jet Fuel .....	1.51	1.61	1.61	1.63	1.57	1.61	1.75	1.63	1.49	1.60	1.65	1.61	1.59	1.64	1.59
Distillate Fuel .....	4.83	5.00	5.09	5.01	4.70	4.80	4.93	4.86	4.69	4.89	5.03	5.10	4.98	4.82	4.93
Residual Fuel .....	0.43	0.44	0.41	0.39	0.40	0.42	0.42	0.43	0.43	0.44	0.41	0.41	0.42	0.42	0.42
Other Oils (a) .....	2.44	2.48	2.63	2.55	2.47	2.57	2.68	2.53	2.44	2.51	2.67	2.62	2.53	2.56	2.56
Total Refinery and Blender Net Production .....	19.10	20.17	20.46	19.80	19.29	20.32	20.75	19.97	19.37	20.43	20.73	20.36	19.89	20.08	20.23
<b>Refinery Distillation Inputs</b>															
.....	15.76	16.68	16.86	16.40	16.27	16.50	16.89	16.43	16.07	16.66	17.04	16.80	16.43	16.52	16.65
<b>Refinery Operable Distillation Capacity</b>															
.....	17.96	17.99	18.11	18.17	18.31	18.36	18.44	18.45	18.49	18.49	18.49	18.49	18.06	18.39	18.49
<b>Refinery Distillation Utilization Factor</b>															
.....	0.88	0.93	0.93	0.90	0.89	0.90	0.92	0.89	0.87	0.90	0.92	0.91	0.91	0.90	0.90

- = no data available

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

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

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

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

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

**Projections:** EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Prices (cents per gallon)</b>															
<b>Refiner Wholesale Price</b> .....	<b>159</b>	<b>201</b>	<b>184</b>	<b>145</b>	<b>119</b>	<b>158</b>	<b>150</b>	<i>151</i>	<i>145</i>	<i>165</i>	<i>165</i>	<i>151</i>	<b>173</b>	<i>145</i>	<i>157</i>
<b>Gasoline Regular Grade Retail Prices Including Taxes</b>															
PADD 1 .....	<b>228</b>	<b>259</b>	<b>247</b>	<b>211</b>	<b>187</b>	<b>220</b>	<b>215</b>	<i>221</i>	<i>219</i>	<i>236</i>	<i>237</i>	<i>230</i>	<b>236</b>	<i>211</i>	<i>231</i>
PADD 2 .....	<b>216</b>	<b>256</b>	<b>253</b>	<b>209</b>	<b>176</b>	<b>221</b>	<b>215</b>	<i>209</i>	<i>205</i>	<i>233</i>	<i>235</i>	<i>219</i>	<b>234</b>	<i>206</i>	<i>223</i>
PADD 3 .....	<b>204</b>	<b>240</b>	<b>228</b>	<b>190</b>	<b>167</b>	<b>201</b>	<b>199</b>	<i>199</i>	<i>195</i>	<i>214</i>	<i>214</i>	<i>201</i>	<b>216</b>	<i>191</i>	<i>206</i>
PADD 4 .....	<b>207</b>	<b>261</b>	<b>276</b>	<b>218</b>	<b>184</b>	<b>221</b>	<b>226</b>	<i>219</i>	<i>202</i>	<i>228</i>	<i>241</i>	<i>225</i>	<b>241</b>	<i>213</i>	<i>224</i>
PADD 5 .....	<b>271</b>	<b>328</b>	<b>327</b>	<b>264</b>	<b>241</b>	<b>265</b>	<b>264</b>	<i>263</i>	<i>248</i>	<i>277</i>	<i>279</i>	<i>256</i>	<b>298</b>	<i>259</i>	<i>265</i>
U.S. Average .....	<b>227</b>	<b>266</b>	<b>260</b>	<b>216</b>	<b>190</b>	<b>225</b>	<b>221</b>	<i>221</i>	<i>215</i>	<i>238</i>	<i>240</i>	<i>226</i>	<b>243</b>	<i>214</i>	<i>230</i>
<b>Gasoline All Grades Including Taxes</b>	<b>236</b>	<b>275</b>	<b>269</b>	<b>226</b>	<b>200</b>	<b>235</b>	<b>232</b>	<i>232</i>	<i>226</i>	<i>249</i>	<i>251</i>	<i>237</i>	<b>252</b>	<i>225</i>	<i>241</i>
<b>End-of-period Inventories (million barrels)</b>															
<b>Total Gasoline Inventories</b>															
PADD 1 .....	<b>64.5</b>	<b>61.4</b>	<b>62.6</b>	<b>60.7</b>	<b>65.9</b>	<b>73.0</b>	<b>58.6</b>	<i>62.7</i>	<i>62.8</i>	<i>63.9</i>	<i>62.5</i>	<i>64.3</i>	<b>60.7</b>	<i>62.7</i>	<i>64.3</i>
PADD 2 .....	<b>52.9</b>	<b>50.4</b>	<b>47.0</b>	<b>53.7</b>	<b>56.7</b>	<b>53.3</b>	<b>50.6</b>	<i>51.7</i>	<i>52.3</i>	<i>49.7</i>	<i>49.9</i>	<i>52.2</i>	<b>53.7</b>	<i>51.7</i>	<i>52.2</i>
PADD 3 .....	<b>79.8</b>	<b>74.6</b>	<b>78.1</b>	<b>84.6</b>	<b>83.0</b>	<b>80.4</b>	<b>83.3</b>	<i>84.6</i>	<i>81.0</i>	<i>80.4</i>	<i>80.9</i>	<i>84.7</i>	<b>84.6</b>	<i>84.6</i>	<i>84.7</i>
PADD 4 .....	<b>6.5</b>	<b>6.8</b>	<b>7.2</b>	<b>7.7</b>	<b>8.4</b>	<b>7.5</b>	<b>6.9</b>	<i>7.9</i>	<i>7.2</i>	<i>7.2</i>	<i>7.3</i>	<i>7.9</i>	<b>7.7</b>	<i>7.9</i>	<i>7.9</i>
PADD 5 .....	<b>29.2</b>	<b>28.0</b>	<b>30.3</b>	<b>28.7</b>	<b>29.4</b>	<b>27.9</b>	<b>27.6</b>	<i>30.9</i>	<i>30.3</i>	<i>28.2</i>	<i>28.2</i>	<i>31.5</i>	<b>28.7</b>	<i>30.9</i>	<i>31.5</i>
U.S. Total .....	<b>232.9</b>	<b>221.1</b>	<b>225.2</b>	<b>235.5</b>	<b>243.3</b>	<b>242.1</b>	<b>227.0</b>	<i>237.7</i>	<i>233.7</i>	<i>229.5</i>	<i>228.8</i>	<i>240.5</i>	<b>235.5</b>	<i>237.7</i>	<i>240.5</i>
<b>Finished Gasoline Inventories</b>															
U.S. Total .....	<b>26.7</b>	<b>25.2</b>	<b>29.0</b>	<b>28.6</b>	<b>26.5</b>	<b>24.9</b>	<b>25.1</b>	<i>27.9</i>	<i>27.1</i>	<i>25.6</i>	<i>26.7</i>	<i>28.2</i>	<b>28.6</b>	<i>27.9</i>	<i>28.2</i>
<b>Gasoline Blending Components Inventories</b>															
U.S. Total .....	<b>206.2</b>	<b>195.9</b>	<b>196.2</b>	<b>206.9</b>	<b>216.9</b>	<b>217.2</b>	<b>201.9</b>	<i>209.9</i>	<i>206.6</i>	<i>203.8</i>	<i>202.1</i>	<i>212.3</i>	<b>206.9</b>	<i>209.9</i>	<i>212.3</i>

- = no data available

Prices are not adjusted for inflation.

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

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

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

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

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

**Projections:** EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Supply (billion cubic feet per day)</b>															
Total Marketed Production .....	<b>78.03</b>	<b>79.17</b>	<b>79.17</b>	<b>78.72</b>	<b>78.66</b>	<b>77.52</b>	<b>76.88</b>	<i>76.89</i>	<i>78.25</i>	<i>79.60</i>	<i>80.52</i>	<i>81.36</i>	<b>78.78</b>	<i>77.48</i>	<i>79.94</i>
Alaska .....	<b>0.99</b>	<b>0.93</b>	<b>0.86</b>	<b>0.98</b>	<b>0.98</b>	<b>0.86</b>	<b>0.87</b>	<i>0.95</i>	<i>0.97</i>	<i>0.82</i>	<i>0.76</i>	<i>0.92</i>	<b>0.94</b>	<i>0.92</i>	<i>0.87</i>
Federal GOM (a) .....	<b>3.27</b>	<b>3.54</b>	<b>3.81</b>	<b>3.49</b>	<b>3.48</b>	<b>3.34</b>	<b>3.23</b>	<i>3.31</i>	<i>3.35</i>	<i>3.33</i>	<i>3.21</i>	<i>3.22</i>	<b>3.53</b>	<i>3.34</i>	<i>3.28</i>
Lower 48 States (excl GOM) .....	<b>73.77</b>	<b>74.70</b>	<b>74.49</b>	<b>74.25</b>	<b>74.20</b>	<b>73.32</b>	<b>72.77</b>	<i>72.63</i>	<i>73.93</i>	<i>75.44</i>	<i>76.54</i>	<i>77.22</i>	<b>74.30</b>	<i>73.23</i>	<i>75.79</i>
Total Dry Gas Production .....	<b>73.44</b>	<b>74.50</b>	<b>74.51</b>	<b>74.08</b>	<b>73.77</b>	<b>72.38</b>	<b>71.89</b>	<i>71.94</i>	<i>73.22</i>	<i>74.48</i>	<i>75.34</i>	<i>76.13</i>	<b>74.14</b>	<i>72.49</i>	<i>74.80</i>
LNG Gross Imports .....	<b>0.43</b>	<b>0.08</b>	<b>0.26</b>	<b>0.24</b>	<b>0.33</b>	<b>0.19</b>	<b>0.18</b>	<i>0.19</i>	<i>0.27</i>	<i>0.17</i>	<i>0.18</i>	<i>0.22</i>	<b>0.25</b>	<i>0.23</i>	<i>0.21</i>
LNG Gross Exports .....	<b>0.06</b>	<b>0.06</b>	<b>0.09</b>	<b>0.10</b>	<b>0.15</b>	<b>0.40</b>	<b>0.64</b>	<i>0.85</i>	<i>1.10</i>	<i>1.33</i>	<i>1.65</i>	<i>1.68</i>	<b>0.08</b>	<i>0.51</i>	<i>1.44</i>
Pipeline Gross Imports .....	<b>8.36</b>	<b>6.69</b>	<b>6.69</b>	<b>7.06</b>	<b>8.08</b>	<b>7.84</b>	<b>8.11</b>	<i>7.58</i>	<i>8.50</i>	<i>7.17</i>	<i>7.27</i>	<i>7.47</i>	<b>7.20</b>	<i>7.91</i>	<i>7.60</i>
Pipeline Gross Exports .....	<b>4.98</b>	<b>4.36</b>	<b>4.81</b>	<b>5.08</b>	<b>5.63</b>	<b>5.56</b>	<b>5.88</b>	<i>5.89</i>	<i>6.37</i>	<i>6.00</i>	<i>5.80</i>	<i>6.09</i>	<b>4.81</b>	<i>5.74</i>	<i>6.06</i>
Supplemental Gaseous Fuels .....	<b>0.16</b>	<b>0.16</b>	<b>0.16</b>	<b>0.16</b>	<b>0.17</b>	<b>0.13</b>	<b>0.17</b>	<i>0.16</i>	<i>0.16</i>	<i>0.16</i>	<i>0.16</i>	<i>0.16</i>	<b>0.16</b>	<i>0.16</i>	<i>0.16</i>
Net Inventory Withdrawals .....	<b>18.50</b>	<b>-12.99</b>	<b>-10.48</b>	<b>-0.55</b>	<b>13.08</b>	<b>-7.79</b>	<b>-5.66</b>	<i>2.61</i>	<i>17.01</i>	<i>-9.42</i>	<i>-8.55</i>	<i>2.38</i>	<b>-1.46</b>	<i>0.55</i>	<i>0.29</i>
Total Supply .....	<b>95.85</b>	<b>64.02</b>	<b>66.24</b>	<b>75.81</b>	<b>89.66</b>	<b>66.80</b>	<b>68.18</b>	<i>75.74</i>	<i>91.69</i>	<i>65.22</i>	<i>66.94</i>	<i>78.59</i>	<b>75.40</b>	<i>75.08</i>	<i>75.55</i>
Balancing Item (b) .....	<b>0.03</b>	<b>-0.62</b>	<b>-0.75</b>	<b>-1.62</b>	<b>-0.35</b>	<b>0.01</b>	<b>1.06</b>	<i>-0.17</i>	<i>0.04</i>	<i>0.62</i>	<i>0.95</i>	<i>0.01</i>	<b>-0.75</b>	<i>0.14</i>	<i>0.41</i>
Total Primary Supply .....	<b>95.88</b>	<b>63.40</b>	<b>65.48</b>	<b>74.19</b>	<b>89.30</b>	<b>66.81</b>	<b>69.24</b>	<i>75.57</i>	<i>91.73</i>	<i>65.84</i>	<i>67.89</i>	<i>78.59</i>	<b>74.65</b>	<i>75.22</i>	<i>75.96</i>
<b>Consumption (billion cubic feet per day)</b>															
Residential .....	<b>27.46</b>	<b>6.82</b>	<b>3.47</b>	<b>13.02</b>	<b>22.46</b>	<b>7.13</b>	<b>3.48</b>	<i>14.41</i>	<i>24.34</i>	<i>7.07</i>	<i>3.55</i>	<i>15.28</i>	<b>12.63</b>	<i>11.86</i>	<i>12.51</i>
Commercial .....	<b>15.93</b>	<b>5.80</b>	<b>4.42</b>	<b>9.02</b>	<b>13.43</b>	<b>5.99</b>	<b>4.59</b>	<i>9.96</i>	<i>14.60</i>	<i>6.10</i>	<i>4.56</i>	<i>10.48</i>	<b>8.76</b>	<i>8.48</i>	<i>8.91</i>
Industrial .....	<b>22.71</b>	<b>19.66</b>	<b>19.27</b>	<b>20.97</b>	<b>22.59</b>	<b>20.18</b>	<b>20.21</b>	<i>21.18</i>	<i>23.04</i>	<i>20.54</i>	<i>20.00</i>	<i>21.69</i>	<b>20.64</b>	<i>21.04</i>	<i>21.31</i>
Electric Power (c) .....	<b>22.98</b>	<b>25.11</b>	<b>32.25</b>	<b>24.92</b>	<b>24.19</b>	<b>27.50</b>	<b>34.91</b>	<i>23.78</i>	<i>22.99</i>	<i>25.95</i>	<i>33.46</i>	<i>24.50</i>	<b>26.34</b>	<i>27.60</i>	<i>26.75</i>
Lease and Plant Fuel .....	<b>4.31</b>	<b>4.37</b>	<b>4.37</b>	<b>4.34</b>	<b>4.34</b>	<b>4.28</b>	<b>4.24</b>	<i>4.24</i>	<i>4.32</i>	<i>4.39</i>	<i>4.44</i>	<i>4.49</i>	<b>4.35</b>	<i>4.28</i>	<i>4.41</i>
Pipeline and Distribution Use .....	<b>2.37</b>	<b>1.53</b>	<b>1.59</b>	<b>1.81</b>	<b>2.18</b>	<b>1.63</b>	<b>1.69</b>	<i>1.88</i>	<i>2.31</i>	<i>1.68</i>	<i>1.76</i>	<i>2.03</i>	<b>1.83</b>	<i>1.84</i>	<i>1.94</i>
Vehicle Use .....	<b>0.11</b>	<b>0.11</b>	<b>0.11</b>	<b>0.11</b>	<b>0.11</b>	<b>0.11</b>	<b>0.12</b>	<i>0.12</i>	<i>0.12</i>	<i>0.12</i>	<i>0.12</i>	<i>0.12</i>	<b>0.11</b>	<i>0.11</i>	<i>0.12</i>
Total Consumption .....	<b>95.88</b>	<b>63.40</b>	<b>65.48</b>	<b>74.19</b>	<b>89.30</b>	<b>66.81</b>	<b>69.24</b>	<i>75.57</i>	<i>91.73</i>	<i>65.84</i>	<i>67.89</i>	<i>78.59</i>	<b>74.65</b>	<i>75.22</i>	<i>75.96</i>
<b>End-of-period Inventories (billion cubic feet)</b>															
Working Gas Inventory .....	<b>1,480</b>	<b>2,656</b>	<b>3,622</b>	<b>3,675</b>	<b>2,496</b>	<b>3,197</b>	<b>3,717</b>	<i>3,477</i>	<i>1,946</i>	<i>2,804</i>	<i>3,590</i>	<i>3,372</i>	<b>3,675</b>	<i>3,477</i>	<i>3,372</i>
East Region (d) .....	<b>239</b>	<b>573</b>	<b>856</b>	<b>853</b>	<b>436</b>	<b>655</b>	<b>899</b>	<i>758</i>	<i>304</i>	<i>597</i>	<i>828</i>	<i>732</i>	<b>853</b>	<i>758</i>	<i>732</i>
Midwest Region (d) .....	<b>253</b>	<b>566</b>	<b>973</b>	<b>989</b>	<b>543</b>	<b>763</b>	<b>1,042</b>	<i>931</i>	<i>398</i>	<i>631</i>	<i>974</i>	<i>863</i>	<b>989</b>	<i>931</i>	<i>863</i>
South Central Region (d) .....	<b>575</b>	<b>1,002</b>	<b>1,206</b>	<b>1,304</b>	<b>1,080</b>	<b>1,236</b>	<b>1,185</b>	<i>1,245</i>	<i>832</i>	<i>1,029</i>	<i>1,159</i>	<i>1,186</i>	<b>1,304</b>	<i>1,245</i>	<i>1,186</i>
Mountain Region (d) .....	<b>113</b>	<b>155</b>	<b>203</b>	<b>186</b>	<b>145</b>	<b>197</b>	<b>234</b>	<i>233</i>	<i>169</i>	<i>196</i>	<i>243</i>	<i>223</i>	<b>186</b>	<i>233</i>	<i>223</i>
Pacific Region (d) .....	<b>276</b>	<b>336</b>	<b>359</b>	<b>320</b>	<b>266</b>	<b>316</b>	<b>321</b>	<i>274</i>	<i>207</i>	<i>315</i>	<i>350</i>	<i>331</i>	<b>320</b>	<i>274</i>	<i>331</i>
Alaska .....	<b>24</b>	<b>24</b>	<b>25</b>	<b>24</b>	<b>25</b>	<b>30</b>	<b>36</b>	<i>35</i>	<i>35</i>	<i>35</i>	<i>35</i>	<i>35</i>	<b>24</b>	<i>35</i>	<i>35</i>

- = no data available

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

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

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

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

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

LNG: liquefied natural gas.

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

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

**Projections:** EIA Regional Short-Term Energy Model.

**Table 5b. U.S. Regional Natural Gas Prices (dollars per thousand cubic feet)**  
 U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Wholesale/Spot</b>															
Henry Hub Spot Price .....	<b>2.99</b>	<b>2.84</b>	<b>2.85</b>	<b>2.19</b>	<b>2.06</b>	<b>2.21</b>	<b>2.97</b>	<b>3.02</b>	<i>3.47</i>	<i>3.31</i>	<i>3.29</i>	<i>3.42</i>	<b>2.72</b>	<i>2.57</i>	<i>3.37</i>
<b>Residential Retail</b>															
New England .....	<b>13.14</b>	<b>13.34</b>	<b>16.17</b>	<b>12.58</b>	<b>11.79</b>	<b>13.13</b>	<b>17.81</b>	<b>13.65</b>	<i>13.13</i>	<i>14.23</i>	<i>17.02</i>	<i>13.59</i>	<b>13.23</b>	<i>12.92</i>	<i>13.71</i>
Middle Atlantic .....	<b>9.44</b>	<b>11.17</b>	<b>16.22</b>	<b>10.98</b>	<b>8.84</b>	<b>10.70</b>	<b>16.17</b>	<b>11.16</b>	<i>10.37</i>	<i>12.58</i>	<i>16.76</i>	<i>11.33</i>	<b>10.45</b>	<i>10.31</i>	<i>11.40</i>
E. N. Central .....	<b>7.80</b>	<b>10.62</b>	<b>16.84</b>	<b>7.98</b>	<b>6.78</b>	<b>9.31</b>	<b>17.80</b>	<b>9.36</b>	<i>8.31</i>	<i>11.15</i>	<i>16.69</i>	<i>9.28</i>	<b>8.70</b>	<i>8.57</i>	<i>9.48</i>
W. N. Central .....	<b>8.63</b>	<b>11.77</b>	<b>17.63</b>	<b>9.02</b>	<b>7.38</b>	<b>10.77</b>	<b>17.94</b>	<b>9.85</b>	<i>8.78</i>	<i>11.36</i>	<i>17.41</i>	<i>9.83</i>	<b>9.64</b>	<i>9.23</i>	<i>9.97</i>
S. Atlantic .....	<b>10.64</b>	<b>16.49</b>	<b>22.22</b>	<b>13.88</b>	<b>10.22</b>	<b>15.30</b>	<b>23.46</b>	<b>13.52</b>	<i>11.74</i>	<i>16.71</i>	<i>22.26</i>	<i>13.07</i>	<b>12.80</b>	<i>12.76</i>	<i>13.43</i>
E. S. Central .....	<b>9.33</b>	<b>14.40</b>	<b>19.22</b>	<b>11.82</b>	<b>8.52</b>	<b>13.12</b>	<b>19.54</b>	<b>12.19</b>	<i>10.15</i>	<i>14.79</i>	<i>20.26</i>	<i>12.72</i>	<b>10.93</b>	<i>10.71</i>	<i>11.95</i>
W. S. Central .....	<b>8.51</b>	<b>14.01</b>	<b>19.98</b>	<b>12.09</b>	<b>8.27</b>	<b>14.10</b>	<b>20.94</b>	<b>12.27</b>	<i>9.67</i>	<i>14.69</i>	<i>20.04</i>	<i>12.21</i>	<b>10.81</b>	<i>11.32</i>	<i>11.97</i>
Mountain .....	<b>9.66</b>	<b>10.95</b>	<b>14.64</b>	<b>8.60</b>	<b>8.21</b>	<b>9.65</b>	<b>13.73</b>	<b>8.99</b>	<i>8.97</i>	<i>10.67</i>	<i>14.22</i>	<i>9.75</i>	<b>9.84</b>	<i>9.11</i>	<i>9.91</i>
Pacific .....	<b>11.55</b>	<b>11.68</b>	<b>12.39</b>	<b>10.95</b>	<b>10.97</b>	<b>11.26</b>	<b>13.02</b>	<b>11.50</b>	<i>11.26</i>	<i>11.95</i>	<i>12.68</i>	<i>11.59</i>	<b>11.47</b>	<i>11.45</i>	<i>11.67</i>
U.S. Average .....	<b>9.29</b>	<b>12.02</b>	<b>16.52</b>	<b>10.08</b>	<b>8.53</b>	<b>11.16</b>	<b>16.99</b>	<b>10.80</b>	<i>9.84</i>	<i>12.45</i>	<i>16.68</i>	<i>10.89</i>	<b>10.36</b>	<i>10.24</i>	<i>11.02</i>
<b>Commercial Retail</b>															
New England .....	<b>10.80</b>	<b>10.14</b>	<b>9.72</b>	<b>9.15</b>	<b>8.76</b>	<b>9.58</b>	<b>10.50</b>	<b>10.47</b>	<i>10.67</i>	<i>10.54</i>	<i>10.33</i>	<i>10.56</i>	<b>10.24</b>	<i>9.58</i>	<i>10.59</i>
Middle Atlantic .....	<b>7.87</b>	<b>7.41</b>	<b>6.57</b>	<b>6.97</b>	<b>6.84</b>	<b>6.41</b>	<b>6.02</b>	<b>7.15</b>	<i>7.91</i>	<i>7.88</i>	<i>7.41</i>	<i>8.16</i>	<b>7.44</b>	<i>6.74</i>	<i>7.91</i>
E. N. Central .....	<b>6.90</b>	<b>7.46</b>	<b>8.78</b>	<b>6.26</b>	<b>5.86</b>	<b>6.58</b>	<b>8.77</b>	<b>6.62</b>	<i>6.67</i>	<i>7.93</i>	<i>9.32</i>	<i>7.30</i>	<b>6.96</b>	<i>6.43</i>	<i>7.23</i>
W. N. Central .....	<b>7.63</b>	<b>7.94</b>	<b>9.04</b>	<b>6.69</b>	<b>6.27</b>	<b>6.98</b>	<b>8.69</b>	<b>7.35</b>	<i>7.54</i>	<i>8.06</i>	<i>9.14</i>	<i>7.57</i>	<b>7.53</b>	<i>6.92</i>	<i>7.75</i>
S. Atlantic .....	<b>8.52</b>	<b>9.25</b>	<b>9.58</b>	<b>8.93</b>	<b>7.54</b>	<b>8.32</b>	<b>9.27</b>	<b>8.88</b>	<i>8.83</i>	<i>9.68</i>	<i>10.05</i>	<i>9.17</i>	<b>8.86</b>	<i>8.27</i>	<i>9.21</i>
E. S. Central .....	<b>8.56</b>	<b>9.64</b>	<b>9.99</b>	<b>8.90</b>	<b>7.49</b>	<b>8.57</b>	<b>9.73</b>	<b>8.94</b>	<i>8.52</i>	<i>9.57</i>	<i>9.99</i>	<i>9.11</i>	<b>8.94</b>	<i>8.32</i>	<i>9.00</i>
W. S. Central .....	<b>7.23</b>	<b>7.25</b>	<b>8.07</b>	<b>7.31</b>	<b>6.29</b>	<b>6.89</b>	<b>8.27</b>	<b>7.63</b>	<i>7.26</i>	<i>7.67</i>	<i>8.23</i>	<i>7.72</i>	<b>7.37</b>	<i>7.07</i>	<i>7.60</i>
Mountain .....	<b>8.31</b>	<b>8.56</b>	<b>9.06</b>	<b>7.23</b>	<b>6.94</b>	<b>7.10</b>	<b>7.99</b>	<b>7.33</b>	<i>7.54</i>	<i>7.80</i>	<i>8.62</i>	<i>7.60</i>	<b>8.07</b>	<i>7.20</i>	<i>7.72</i>
Pacific .....	<b>9.42</b>	<b>8.75</b>	<b>9.00</b>	<b>8.29</b>	<b>8.38</b>	<b>8.13</b>	<b>9.14</b>	<b>9.01</b>	<i>8.64</i>	<i>8.49</i>	<i>8.76</i>	<i>8.85</i>	<b>8.85</b>	<i>8.65</i>	<i>8.70</i>
U.S. Average .....	<b>7.94</b>	<b>8.17</b>	<b>8.45</b>	<b>7.40</b>	<b>6.84</b>	<b>7.25</b>	<b>8.21</b>	<b>7.75</b>	<i>7.83</i>	<i>8.37</i>	<i>8.80</i>	<i>8.17</i>	<b>7.90</b>	<i>7.34</i>	<i>8.12</i>
<b>Industrial Retail</b>															
New England .....	<b>9.09</b>	<b>7.59</b>	<b>6.10</b>	<b>6.77</b>	<b>7.07</b>	<b>6.88</b>	<b>6.27</b>	<b>7.88</b>	<i>8.59</i>	<i>8.03</i>	<i>7.92</i>	<i>8.72</i>	<b>7.76</b>	<i>7.10</i>	<i>8.39</i>
Middle Atlantic .....	<b>7.96</b>	<b>7.47</b>	<b>6.85</b>	<b>6.83</b>	<b>6.73</b>	<b>6.18</b>	<b>5.83</b>	<b>7.03</b>	<i>7.77</i>	<i>7.31</i>	<i>7.69</i>	<i>8.21</i>	<b>7.54</b>	<i>6.58</i>	<i>7.78</i>
E. N. Central .....	<b>6.35</b>	<b>5.61</b>	<b>5.48</b>	<b>5.12</b>	<b>5.05</b>	<b>4.73</b>	<b>5.32</b>	<b>5.84</b>	<i>6.60</i>	<i>6.41</i>	<i>6.46</i>	<i>6.47</i>	<b>5.84</b>	<i>5.28</i>	<i>6.51</i>
W. N. Central .....	<b>5.76</b>	<b>4.48</b>	<b>4.34</b>	<b>4.34</b>	<b>4.28</b>	<b>3.56</b>	<b>3.99</b>	<b>5.03</b>	<i>5.61</i>	<i>4.97</i>	<i>4.93</i>	<i>5.41</i>	<b>4.82</b>	<i>4.28</i>	<i>5.27</i>
S. Atlantic .....	<b>5.68</b>	<b>4.58</b>	<b>4.64</b>	<b>4.38</b>	<b>4.40</b>	<b>3.84</b>	<b>4.44</b>	<b>5.17</b>	<i>5.58</i>	<i>5.27</i>	<i>5.31</i>	<i>5.52</i>	<b>4.86</b>	<i>4.47</i>	<i>5.43</i>
E. S. Central .....	<b>5.32</b>	<b>4.40</b>	<b>4.27</b>	<b>3.95</b>	<b>3.96</b>	<b>3.38</b>	<b>4.09</b>	<b>4.81</b>	<i>5.28</i>	<i>4.89</i>	<i>4.91</i>	<i>5.17</i>	<b>4.53</b>	<i>4.08</i>	<i>5.08</i>
W. S. Central .....	<b>3.22</b>	<b>2.94</b>	<b>3.07</b>	<b>2.51</b>	<b>2.28</b>	<b>2.15</b>	<b>3.07</b>	<b>3.29</b>	<i>3.69</i>	<i>3.47</i>	<i>3.60</i>	<i>3.64</i>	<b>2.93</b>	<i>2.71</i>	<i>3.60</i>
Mountain .....	<b>6.65</b>	<b>6.22</b>	<b>6.17</b>	<b>5.51</b>	<b>5.26</b>	<b>4.96</b>	<b>5.38</b>	<b>5.58</b>	<i>5.92</i>	<i>5.69</i>	<i>6.03</i>	<i>6.03</i>	<b>6.14</b>	<i>5.31</i>	<i>5.93</i>
Pacific .....	<b>7.33</b>	<b>6.58</b>	<b>6.64</b>	<b>6.50</b>	<b>6.65</b>	<b>6.04</b>	<b>6.68</b>	<b>6.73</b>	<i>6.91</i>	<i>6.43</i>	<i>6.76</i>	<i>6.85</i>	<b>6.78</b>	<i>6.54</i>	<i>6.76</i>
U.S. Average .....	<b>4.67</b>	<b>3.75</b>	<b>3.71</b>	<b>3.41</b>	<b>3.44</b>	<b>2.93</b>	<b>3.62</b>	<b>4.18</b>	<i>4.84</i>	<i>4.25</i>	<i>4.29</i>	<i>4.62</i>	<b>3.91</b>	<i>3.56</i>	<i>4.52</i>

- = no data available

Prices are not adjusted for inflation.

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

Regions refer to U.S. Census divisions.

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

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

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

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

**Projections:** EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Supply (million short tons)</b>															
Production .....	<b>240.3</b>	<b>212.5</b>	<b>237.0</b>	<b>207.2</b>	<b>173.0</b>	<b>160.5</b>	<b>204.6</b>	<i>220.2</i>	<i>194.4</i>	<i>175.9</i>	<i>200.4</i>	<i>201.5</i>	<b>897.0</b>	<i>758.4</i>	<i>772.1</i>
Appalachia .....	<b>62.4</b>	<b>54.7</b>	<b>56.7</b>	<b>48.2</b>	<b>44.3</b>	<b>43.2</b>	<b>47.5</b>	<i>52.9</i>	<i>45.9</i>	<i>43.8</i>	<i>46.4</i>	<i>46.1</i>	<b>222.0</b>	<i>187.9</i>	<i>182.1</i>
Interior .....	<b>45.2</b>	<b>39.8</b>	<b>45.1</b>	<b>37.5</b>	<b>36.9</b>	<b>34.4</b>	<b>38.7</b>	<i>44.1</i>	<i>38.0</i>	<i>35.6</i>	<i>41.0</i>	<i>42.9</i>	<b>167.6</b>	<i>154.2</i>	<i>157.4</i>
Western .....	<b>132.7</b>	<b>118.0</b>	<b>135.3</b>	<b>121.5</b>	<b>91.8</b>	<b>82.8</b>	<b>118.4</b>	<i>123.3</i>	<i>110.6</i>	<i>96.5</i>	<i>113.0</i>	<i>112.6</i>	<b>507.4</b>	<i>416.3</i>	<i>432.6</i>
Primary Inventory Withdrawals .....	<b>-0.7</b>	<b>0.2</b>	<b>3.2</b>	<b>0.3</b>	<b>-1.4</b>	<b>0.2</b>	<b>3.6</b>	<i>-0.1</i>	<i>-1.0</i>	<i>0.5</i>	<i>2.9</i>	<i>-0.8</i>	<b>3.0</b>	<i>2.2</i>	<i>1.6</i>
Imports .....	<b>3.0</b>	<b>2.6</b>	<b>3.0</b>	<b>2.7</b>	<b>2.7</b>	<b>2.3</b>	<b>2.7</b>	<i>2.5</i>	<i>2.1</i>	<i>2.4</i>	<i>3.3</i>	<i>2.9</i>	<b>11.3</b>	<i>10.2</i>	<i>10.6</i>
Exports .....	<b>22.0</b>	<b>19.8</b>	<b>16.9</b>	<b>15.3</b>	<b>14.2</b>	<b>14.2</b>	<b>12.6</b>	<i>15.8</i>	<i>13.6</i>	<i>15.0</i>	<i>14.6</i>	<i>15.2</i>	<b>74.0</b>	<i>56.8</i>	<i>58.5</i>
Metallurgical Coal .....	<b>13.5</b>	<b>12.7</b>	<b>10.3</b>	<b>9.4</b>	<b>10.2</b>	<b>10.1</b>	<b>9.1</b>	<i>10.3</i>	<i>9.5</i>	<i>10.1</i>	<i>8.6</i>	<i>9.6</i>	<b>46.0</b>	<i>39.5</i>	<i>37.8</i>
Steam Coal .....	<b>8.5</b>	<b>7.0</b>	<b>6.6</b>	<b>5.9</b>	<b>4.0</b>	<b>4.2</b>	<b>3.5</b>	<i>5.6</i>	<i>4.2</i>	<i>4.9</i>	<i>6.0</i>	<i>5.7</i>	<b>28.0</b>	<i>17.2</i>	<i>20.7</i>
Total Primary Supply .....	<b>220.6</b>	<b>195.5</b>	<b>226.2</b>	<b>195.0</b>	<b>160.1</b>	<b>148.8</b>	<b>198.3</b>	<i>206.8</i>	<i>181.9</i>	<i>163.7</i>	<i>191.9</i>	<i>188.4</i>	<b>837.4</b>	<i>714.0</i>	<i>725.9</i>
Secondary Inventory Withdrawals .....	<b>-1.8</b>	<b>-12.8</b>	<b>3.5</b>	<b>-33.0</b>	<b>3.8</b>	<b>8.5</b>	<b>24.4</b>	<i>-15.4</i>	<i>1.4</i>	<i>4.6</i>	<i>16.9</i>	<i>-4.1</i>	<b>-44.1</b>	<i>21.3</i>	<i>18.8</i>
Waste Coal (a) .....	<b>2.7</b>	<b>2.1</b>	<b>2.9</b>	<b>2.2</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>	<i>2.5</i>	<i>2.6</i>	<i>2.6</i>	<i>2.6</i>	<i>2.6</i>	<b>9.9</b>	<i>9.8</i>	<i>10.2</i>
Total Supply .....	<b>221.6</b>	<b>184.8</b>	<b>232.7</b>	<b>164.1</b>	<b>166.4</b>	<b>159.7</b>	<b>225.2</b>	<i>193.9</i>	<i>185.8</i>	<i>170.8</i>	<i>211.4</i>	<i>186.9</i>	<b>803.2</b>	<i>745.1</i>	<i>754.9</i>
<b>Consumption (million short tons)</b>															
Coke Plants .....	<b>5.2</b>	<b>5.0</b>	<b>5.0</b>	<b>4.5</b>	<b>4.2</b>	<b>4.0</b>	<b>5.1</b>	<i>5.0</i>	<i>4.3</i>	<i>4.1</i>	<i>5.2</i>	<i>4.9</i>	<b>19.7</b>	<i>18.3</i>	<i>18.5</i>
Electric Power Sector (b) .....	<b>196.7</b>	<b>174.4</b>	<b>214.8</b>	<b>152.6</b>	<b>152.2</b>	<b>147.1</b>	<b>210.3</b>	<i>171.2</i>	<i>172.3</i>	<i>158.2</i>	<i>197.5</i>	<i>172.9</i>	<b>738.4</b>	<i>680.9</i>	<i>700.9</i>
Retail and Other Industry .....	<b>11.0</b>	<b>9.6</b>	<b>9.6</b>	<b>9.8</b>	<b>11.0</b>	<b>9.3</b>	<b>8.7</b>	<i>8.6</i>	<i>9.2</i>	<i>8.6</i>	<i>8.7</i>	<i>9.1</i>	<b>40.0</b>	<i>37.7</i>	<i>35.5</i>
Residential and Commercial .....	<b>0.6</b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>0.8</b>	<b>0.4</b>	<b>0.2</b>	<i>0.2</i>	<i>0.4</i>	<i>0.2</i>	<i>0.2</i>	<i>0.3</i>	<b>1.5</b>	<i>1.6</i>	<i>1.1</i>
Other Industrial .....	<b>10.4</b>	<b>9.3</b>	<b>9.3</b>	<b>9.5</b>	<b>10.2</b>	<b>8.9</b>	<b>8.5</b>	<i>8.4</i>	<i>8.8</i>	<i>8.4</i>	<i>8.5</i>	<i>8.8</i>	<b>38.5</b>	<i>36.0</i>	<i>34.4</i>
Total Consumption .....	<b>212.8</b>	<b>189.0</b>	<b>229.4</b>	<b>167.0</b>	<b>167.4</b>	<b>160.5</b>	<b>224.1</b>	<i>184.9</i>	<i>185.8</i>	<i>170.8</i>	<i>211.4</i>	<i>186.9</i>	<b>798.1</b>	<i>736.8</i>	<i>754.9</i>
Discrepancy (c) .....	<b>8.8</b>	<b>-4.2</b>	<b>3.3</b>	<b>-2.8</b>	<b>-1.0</b>	<b>-0.8</b>	<b>1.1</b>	<i>9.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<b>5.1</b>	<i>8.3</i>	<i>0.0</i>
<b>End-of-period Inventories (million short tons)</b>															
Primary Inventories (d) .....	<b>39.6</b>	<b>39.4</b>	<b>36.2</b>	<b>35.9</b>	<b>37.3</b>	<b>37.1</b>	<b>33.6</b>	<i>33.7</i>	<i>34.7</i>	<i>34.2</i>	<i>31.3</i>	<i>32.1</i>	<b>35.9</b>	<i>33.7</i>	<i>32.1</i>
Secondary Inventories .....	<b>160.6</b>	<b>173.4</b>	<b>169.9</b>	<b>202.9</b>	<b>199.1</b>	<b>190.7</b>	<b>166.2</b>	<i>181.6</i>	<i>180.2</i>	<i>175.7</i>	<i>158.8</i>	<i>162.8</i>	<b>202.9</b>	<i>181.6</i>	<i>162.8</i>
Electric Power Sector .....	<b>154.4</b>	<b>166.6</b>	<b>162.2</b>	<b>195.9</b>	<b>192.3</b>	<b>183.2</b>	<b>158.2</b>	<i>173.3</i>	<i>172.9</i>	<i>167.7</i>	<i>150.3</i>	<i>154.1</i>	<b>195.9</b>	<i>173.3</i>	<i>154.1</i>
Retail and General Industry .....	<b>3.6</b>	<b>3.9</b>	<b>4.3</b>	<b>4.4</b>	<b>4.8</b>	<b>5.1</b>	<b>5.7</b>	<i>6.0</i>	<i>5.3</i>	<i>5.5</i>	<i>6.1</i>	<i>6.4</i>	<b>4.4</b>	<i>6.0</i>	<i>6.4</i>
Coke Plants .....	<b>2.1</b>	<b>2.6</b>	<b>3.0</b>	<b>2.2</b>	<b>1.5</b>	<b>1.9</b>	<b>1.8</b>	<i>1.8</i>	<i>1.5</i>	<i>1.9</i>	<i>1.8</i>	<i>1.8</i>	<b>2.2</b>	<i>1.8</i>	<i>1.8</i>
<b>Coal Market Indicators</b>															
Coal Miner Productivity															
(Tons per hour) .....	<b>6.28</b>	<b>6.28</b>	<b>6.28</b>	<b>6.28</b>	<b>6.11</b>	<b>6.11</b>	<b>6.11</b>	<i>6.11</i>	<i>5.96</i>	<i>5.96</i>	<i>5.96</i>	<i>5.96</i>	<b>6.28</b>	<i>6.11</i>	<i>5.96</i>
Total Raw Steel Production															
(Million short tons per day) .....	<b>0.247</b>	<b>0.242</b>	<b>0.248</b>	<b>0.226</b>	<b>0.238</b>	<b>0.247</b>	<b>0.238</b>	<i>0.226</i>	<i>0.224</i>	<i>0.232</i>	<i>0.208</i>	<i>0.176</i>	<b>0.241</b>	<i>0.237</i>	<i>0.210</i>
Cost of Coal to Electric Utilities															
(Dollars per million Btu) .....	<b>2.27</b>	<b>2.25</b>	<b>2.22</b>	<b>2.15</b>	<b>2.13</b>	<b>2.14</b>	<b>2.12</b>	<i>2.19</i>	<i>2.17</i>	<i>2.20</i>	<i>2.23</i>	<i>2.21</i>	<b>2.23</b>	<i>2.14</i>	<i>2.21</i>

- = no data available

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

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

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

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

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

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

**Projections:** EIA Regional Short-Term Energy Model.

**Table 7a. U.S. Electricity Industry Overview**

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Electricity Supply (billion kilowatthours per day)</b>															
Electricity Generation .....	<b>11.32</b>	<b>10.75</b>	<b>12.42</b>	<b>10.19</b>	<b>10.66</b>	<b>10.75</b>	<b>12.76</b>	<i>10.57</i>	<i>10.90</i>	<i>10.88</i>	<i>12.51</i>	<i>10.74</i>	<b>11.17</b>	<i>11.19</i>	<i>11.26</i>
Electric Power Sector (a) .....	<b>10.90</b>	<b>10.34</b>	<b>11.96</b>	<b>9.75</b>	<b>10.23</b>	<b>10.32</b>	<b>12.31</b>	<i>10.13</i>	<i>10.46</i>	<i>10.45</i>	<i>12.05</i>	<i>10.30</i>	<b>10.74</b>	<i>10.75</i>	<i>10.82</i>
Comm. and Indus. Sectors (b) .....	<b>0.42</b>	<b>0.42</b>	<b>0.46</b>	<b>0.44</b>	<b>0.44</b>	<b>0.43</b>	<b>0.45</b>	<i>0.44</i>	<i>0.45</i>	<i>0.43</i>	<i>0.46</i>	<i>0.44</i>	<b>0.43</b>	<i>0.44</i>	<i>0.44</i>
Net Imports .....	<b>0.17</b>	<b>0.20</b>	<b>0.20</b>	<b>0.16</b>	<b>0.18</b>	<b>0.18</b>	<b>0.22</b>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	<i>0.19</i>	<i>0.14</i>	<b>0.18</b>	<i>0.18</i>	<i>0.16</i>
Total Supply .....	<b>11.49</b>	<b>10.95</b>	<b>12.62</b>	<b>10.35</b>	<b>10.85</b>	<b>10.93</b>	<b>12.98</b>	<i>10.72</i>	<i>11.06</i>	<i>11.04</i>	<i>12.70</i>	<i>10.88</i>	<b>11.35</b>	<i>11.37</i>	<i>11.42</i>
Losses and Unaccounted for (c) .....	<b>0.62</b>	<b>0.82</b>	<b>0.73</b>	<b>0.53</b>	<b>0.66</b>	<b>0.97</b>	<b>0.89</b>	<i>0.65</i>	<i>0.60</i>	<i>0.93</i>	<i>0.80</i>	<i>0.73</i>	<b>0.67</b>	<i>0.79</i>	<i>0.76</i>
<b>Electricity Consumption (billion kilowatthours per day unless noted)</b>															
Retail Sales .....	<b>10.50</b>	<b>9.77</b>	<b>11.49</b>	<b>9.44</b>	<b>9.81</b>	<b>9.58</b>	<b>11.69</b>	<i>9.68</i>	<i>10.06</i>	<i>9.73</i>	<i>11.49</i>	<i>9.76</i>	<b>10.30</b>	<i>10.19</i>	<i>10.26</i>
Residential Sector .....	<b>4.21</b>	<b>3.36</b>	<b>4.52</b>	<b>3.30</b>	<b>3.81</b>	<b>3.37</b>	<b>4.77</b>	<i>3.43</i>	<i>3.97</i>	<i>3.42</i>	<i>4.56</i>	<i>3.46</i>	<b>3.85</b>	<i>3.85</i>	<i>3.85</i>
Commercial Sector .....	<b>3.64</b>	<b>3.65</b>	<b>4.11</b>	<b>3.51</b>	<b>3.49</b>	<b>3.62</b>	<b>4.20</b>	<i>3.59</i>	<i>3.54</i>	<i>3.64</i>	<i>4.13</i>	<i>3.59</i>	<b>3.73</b>	<i>3.73</i>	<i>3.73</i>
Industrial Sector .....	<b>2.62</b>	<b>2.74</b>	<b>2.84</b>	<b>2.61</b>	<b>2.48</b>	<b>2.57</b>	<b>2.70</b>	<i>2.64</i>	<i>2.53</i>	<i>2.65</i>	<i>2.78</i>	<i>2.68</i>	<b>2.70</b>	<i>2.60</i>	<i>2.66</i>
Transportation Sector .....	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<b>0.02</b>	<i>0.02</i>	<i>0.02</i>
Direct Use (d) .....	<b>0.38</b>	<b>0.37</b>	<b>0.41</b>	<b>0.39</b>	<b>0.39</b>	<b>0.38</b>	<b>0.40</b>	<i>0.39</i>	<i>0.39</i>	<i>0.38</i>	<i>0.41</i>	<i>0.39</i>	<b>0.38</b>	<i>0.39</i>	<i>0.39</i>
Total Consumption .....	<b>10.87</b>	<b>10.14</b>	<b>11.89</b>	<b>9.82</b>	<b>10.19</b>	<b>9.96</b>	<b>12.09</b>	<i>10.07</i>	<i>10.45</i>	<i>10.11</i>	<i>11.90</i>	<i>10.15</i>	<b>10.68</b>	<i>10.58</i>	<i>10.66</i>
Average residential electricity usage per customer (kWh) .....	<b>2,918</b>	<b>2,355</b>	<b>3,204</b>	<b>2,340</b>	<b>2,645</b>	<b>2,342</b>	<b>3,349</b>	<i>2,403</i>	<i>2,699</i>	<i>2,350</i>	<i>3,169</i>	<i>2,407</i>	<b>10,816</b>	<i>10,738</i>	<i>10,626</i>
<b>Prices</b>															
<b>Power Generation Fuel Costs (dollars per million Btu)</b>															
Coal .....	<b>2.27</b>	<b>2.25</b>	<b>2.22</b>	<b>2.15</b>	<b>2.13</b>	<b>2.14</b>	<b>2.12</b>	<i>2.19</i>	<i>2.17</i>	<i>2.20</i>	<i>2.23</i>	<i>2.21</i>	<b>2.23</b>	<i>2.14</i>	<i>2.21</i>
Natural Gas .....	<b>4.10</b>	<b>3.12</b>	<b>3.10</b>	<b>2.72</b>	<b>2.65</b>	<b>2.51</b>	<b>3.00</b>	<i>3.62</i>	<i>4.25</i>	<i>3.71</i>	<i>3.52</i>	<i>4.00</i>	<b>3.23</b>	<i>2.94</i>	<i>3.83</i>
Residual Fuel Oil .....	<b>10.82</b>	<b>11.64</b>	<b>10.49</b>	<b>7.76</b>	<b>6.15</b>	<b>8.51</b>	<b>9.85</b>	<i>8.98</i>	<i>9.29</i>	<i>10.07</i>	<i>9.82</i>	<i>10.03</i>	<b>10.36</b>	<i>8.44</i>	<i>9.80</i>
Distillate Fuel Oil .....	<b>15.61</b>	<b>15.17</b>	<b>13.19</b>	<b>11.76</b>	<b>9.02</b>	<b>11.03</b>	<b>11.79</b>	<i>12.99</i>	<i>13.58</i>	<i>13.55</i>	<i>13.91</i>	<i>14.97</i>	<b>14.44</b>	<i>11.12</i>	<i>13.99</i>
<b>Retail Prices (cents per kilowatthour)</b>															
Residential Sector .....	<b>12.23</b>	<b>12.83</b>	<b>12.96</b>	<b>12.57</b>	<b>12.20</b>	<b>12.66</b>	<b>12.81</b>	<i>12.36</i>	<i>12.33</i>	<i>12.93</i>	<i>13.32</i>	<i>12.84</i>	<b>12.65</b>	<i>12.53</i>	<i>12.87</i>
Commercial Sector .....	<b>10.42</b>	<b>10.62</b>	<b>11.03</b>	<b>10.43</b>	<b>10.12</b>	<b>10.34</b>	<b>10.67</b>	<i>10.16</i>	<i>10.14</i>	<i>10.55</i>	<i>11.03</i>	<i>10.50</i>	<b>10.64</b>	<i>10.34</i>	<i>10.58</i>
Industrial Sector .....	<b>6.79</b>	<b>6.83</b>	<b>7.34</b>	<b>6.65</b>	<b>6.42</b>	<b>6.67</b>	<b>7.20</b>	<i>6.66</i>	<i>6.49</i>	<i>6.82</i>	<i>7.37</i>	<i>6.75</i>	<b>6.91</b>	<i>6.75</i>	<i>6.87</i>

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

Prices are not adjusted for inflation.

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

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

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

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

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

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

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

**Projections:** EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Residential Sector</b>															
New England .....	153	112	144	112	133	109	152	114	143	111	143	116	130	127	128
Middle Atlantic .....	423	322	424	307	367	309	461	317	386	311	421	318	369	364	359
E. N. Central .....	588	429	557	435	522	447	619	455	546	445	574	463	502	511	507
W. N. Central .....	327	233	310	245	298	243	322	264	321	245	329	277	278	282	293
S. Atlantic .....	1,084	894	1,145	815	969	874	1,223	865	1,008	883	1,124	870	984	983	971
E. S. Central .....	388	275	382	253	337	274	412	280	356	279	381	280	324	326	324
W. S. Central .....	607	508	790	485	526	518	810	513	543	540	799	506	597	592	597
Mountain .....	234	240	332	237	240	251	337	233	244	253	356	238	261	265	273
Pacific contiguous .....	393	336	424	400	406	336	422	377	409	339	420	382	388	386	388
AK and HI .....	13	12	13	14	13	12	12	14	13	12	12	14	13	13	13
Total .....	4,209	3,359	4,521	3,301	3,810	3,373	4,771	3,433	3,970	3,418	4,560	3,463	3,847	3,848	3,853
<b>Commercial Sector</b>															
New England .....	148	140	160	137	141	137	160	136	145	136	151	132	146	143	141
Middle Atlantic .....	445	418	479	406	422	408	488	402	423	410	472	403	437	430	427
E. N. Central .....	508	490	542	470	488	493	567	476	495	493	552	478	503	506	505
W. N. Central .....	280	268	303	263	271	271	308	273	277	272	311	276	279	281	284
S. Atlantic .....	809	863	943	801	792	843	977	817	793	843	944	817	854	858	849
E. S. Central .....	244	249	289	231	231	242	295	245	239	247	289	246	253	254	255
W. S. Central .....	493	522	616	496	473	519	625	519	480	531	623	517	532	534	538
Mountain .....	242	258	292	248	240	258	290	249	242	260	299	250	260	259	263
Pacific contiguous .....	458	425	471	440	418	428	475	454	426	432	476	457	448	444	448
AK and HI .....	16	16	17	16	16	16	16	17	16	16	16	16	16	16	16
Total .....	3,644	3,647	4,111	3,508	3,494	3,616	4,201	3,589	3,535	3,639	4,133	3,592	3,728	3,726	3,726
<b>Industrial Sector</b>															
New England .....	49	52	54	50	45	47	49	49	45	46	50	49	51	48	48
Middle Atlantic .....	201	199	207	191	192	191	202	193	199	198	210	197	199	195	201
E. N. Central .....	542	547	550	513	502	504	528	517	517	524	539	519	538	513	525
W. N. Central .....	247	251	263	241	223	228	246	247	225	231	248	249	250	236	239
S. Atlantic .....	375	406	407	382	362	384	391	380	361	386	394	384	392	379	381
E. S. Central .....	281	288	290	264	258	269	274	272	259	266	271	269	281	268	266
W. S. Central .....	462	492	524	488	456	471	485	491	465	494	525	519	491	476	501
Mountain .....	217	236	252	224	214	232	247	225	221	240	256	231	232	229	237
Pacific contiguous .....	235	259	275	242	215	236	262	251	224	247	272	254	253	241	250
AK and HI .....	13	13	15	14	13	14	15	14	13	14	14	14	14	14	14
Total .....	2,623	2,743	2,835	2,608	2,480	2,574	2,699	2,638	2,530	2,647	2,779	2,685	2,703	2,598	2,661
<b>Total All Sectors (a)</b>															
New England .....	352	305	360	300	320	294	362	301	335	295	346	299	329	319	319
Middle Atlantic .....	1,081	948	1,120	914	993	918	1,162	923	1,020	930	1,115	929	1,016	999	999
E. N. Central .....	1,640	1,467	1,651	1,419	1,514	1,446	1,716	1,450	1,560	1,465	1,667	1,461	1,544	1,532	1,538
W. N. Central .....	854	752	876	749	792	742	877	784	824	748	889	802	808	799	816
S. Atlantic .....	2,272	2,166	2,499	2,001	2,126	2,106	2,595	2,067	2,165	2,115	2,466	2,074	2,234	2,224	2,205
E. S. Central .....	913	813	961	747	827	785	981	797	854	791	940	795	858	848	845
W. S. Central .....	1,563	1,522	1,930	1,469	1,455	1,509	1,920	1,523	1,489	1,566	1,947	1,541	1,621	1,602	1,637
Mountain .....	693	734	876	709	694	741	875	708	708	754	911	720	753	755	774
Pacific contiguous .....	1,088	1,023	1,172	1,084	1,042	1,002	1,162	1,085	1,062	1,020	1,170	1,096	1,092	1,073	1,087
AK and HI .....	43	41	44	44	42	41	43	44	42	41	43	44	43	43	43
Total .....	10,498	9,769	11,488	9,438	9,805	9,583	11,692	9,681	10,058	9,726	11,494	9,761	10,299	10,193	10,262

- = 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 - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Residential Sector</b>															
New England .....	<b>20.43</b>	<b>20.28</b>	<b>18.35</b>	<b>18.65</b>	<b>19.08</b>	<b>19.30</b>	<b>18.47</b>	<i>18.59</i>	<i>18.98</i>	<i>19.51</i>	<i>19.23</i>	<i>19.30</i>	<b>19.43</b>	<i>18.83</i>	<i>19.24</i>
Middle Atlantic .....	<b>15.67</b>	<b>15.98</b>	<b>16.30</b>	<b>15.90</b>	<b>15.28</b>	<b>15.88</b>	<b>16.08</b>	<i>15.61</i>	<i>15.48</i>	<i>16.37</i>	<i>16.90</i>	<i>16.31</i>	<b>15.97</b>	<i>15.73</i>	<i>16.28</i>
E. N. Central .....	<b>12.29</b>	<b>13.25</b>	<b>13.25</b>	<b>13.18</b>	<b>12.51</b>	<b>13.25</b>	<b>12.90</b>	<i>12.98</i>	<i>12.86</i>	<i>13.85</i>	<i>13.64</i>	<i>13.65</i>	<b>12.96</b>	<i>12.90</i>	<i>13.48</i>
W. N. Central .....	<b>10.23</b>	<b>12.14</b>	<b>12.45</b>	<b>11.20</b>	<b>10.61</b>	<b>12.31</b>	<b>12.67</b>	<i>11.21</i>	<i>10.75</i>	<i>12.62</i>	<i>12.97</i>	<i>11.46</i>	<b>11.47</b>	<i>11.71</i>	<i>11.94</i>
S. Atlantic .....	<b>11.33</b>	<b>11.87</b>	<b>12.08</b>	<b>11.65</b>	<b>11.41</b>	<b>11.75</b>	<b>11.88</b>	<i>11.35</i>	<i>11.50</i>	<i>11.92</i>	<i>12.35</i>	<i>11.78</i>	<b>11.74</b>	<i>11.62</i>	<i>11.91</i>
E. S. Central .....	<b>10.38</b>	<b>11.14</b>	<b>10.91</b>	<b>10.98</b>	<b>10.35</b>	<b>10.94</b>	<b>10.89</b>	<i>10.35</i>	<i>9.95</i>	<i>11.02</i>	<i>11.35</i>	<i>10.65</i>	<b>10.82</b>	<i>10.65</i>	<i>10.75</i>
W. S. Central .....	<b>10.66</b>	<b>11.34</b>	<b>11.01</b>	<b>10.77</b>	<b>10.34</b>	<b>10.69</b>	<b>10.64</b>	<i>10.40</i>	<i>10.37</i>	<i>11.00</i>	<i>11.29</i>	<i>11.04</i>	<b>10.95</b>	<i>10.53</i>	<i>10.97</i>
Mountain .....	<b>11.30</b>	<b>12.19</b>	<b>12.30</b>	<b>11.33</b>	<b>11.04</b>	<b>11.91</b>	<b>12.12</b>	<i>11.33</i>	<i>11.19</i>	<i>12.17</i>	<i>12.44</i>	<i>11.63</i>	<b>11.83</b>	<i>11.65</i>	<i>11.92</i>
Pacific .....	<b>13.77</b>	<b>13.46</b>	<b>15.74</b>	<b>13.88</b>	<b>14.13</b>	<b>13.95</b>	<b>16.09</b>	<i>14.46</i>	<i>14.49</i>	<i>13.94</i>	<i>16.14</i>	<i>14.77</i>	<b>14.28</b>	<i>14.71</i>	<i>14.89</i>
U.S. Average .....	<b>12.23</b>	<b>12.83</b>	<b>12.96</b>	<b>12.57</b>	<b>12.20</b>	<b>12.66</b>	<b>12.81</b>	<i>12.36</i>	<i>12.33</i>	<i>12.93</i>	<i>13.32</i>	<i>12.84</i>	<b>12.65</b>	<i>12.53</i>	<i>12.87</i>
<b>Commercial Sector</b>															
New England .....	<b>16.82</b>	<b>15.27</b>	<b>14.92</b>	<b>14.87</b>	<b>15.33</b>	<b>15.01</b>	<b>15.19</b>	<i>14.73</i>	<i>15.14</i>	<i>15.20</i>	<i>15.91</i>	<i>15.34</i>	<b>15.46</b>	<i>15.07</i>	<i>15.41</i>
Middle Atlantic .....	<b>13.15</b>	<b>13.14</b>	<b>13.64</b>	<b>12.51</b>	<b>12.01</b>	<b>12.48</b>	<b>13.29</b>	<i>11.96</i>	<i>11.94</i>	<i>12.71</i>	<i>13.67</i>	<i>12.34</i>	<b>13.13</b>	<i>12.48</i>	<i>12.70</i>
E. N. Central .....	<b>9.82</b>	<b>10.00</b>	<b>10.11</b>	<b>9.85</b>	<b>9.65</b>	<b>9.87</b>	<b>9.91</b>	<i>9.63</i>	<i>9.68</i>	<i>10.08</i>	<i>10.18</i>	<i>9.87</i>	<b>9.95</b>	<i>9.77</i>	<i>9.96</i>
W. N. Central .....	<b>8.58</b>	<b>9.55</b>	<b>9.98</b>	<b>8.90</b>	<b>8.86</b>	<b>9.70</b>	<b>10.15</b>	<i>8.70</i>	<i>8.96</i>	<i>9.97</i>	<i>10.47</i>	<i>8.96</i>	<b>9.27</b>	<i>9.38</i>	<i>9.62</i>
S. Atlantic .....	<b>9.63</b>	<b>9.42</b>	<b>9.57</b>	<b>9.32</b>	<b>9.37</b>	<b>9.27</b>	<b>9.26</b>	<i>9.45</i>	<i>9.53</i>	<i>9.50</i>	<i>9.64</i>	<i>9.90</i>	<b>9.49</b>	<i>9.33</i>	<i>9.64</i>
E. S. Central .....	<b>10.18</b>	<b>10.30</b>	<b>10.32</b>	<b>10.12</b>	<b>9.93</b>	<b>9.99</b>	<b>10.12</b>	<i>9.58</i>	<i>9.58</i>	<i>10.19</i>	<i>10.57</i>	<i>9.92</i>	<b>10.24</b>	<i>9.92</i>	<i>10.09</i>
W. S. Central .....	<b>8.35</b>	<b>8.17</b>	<b>8.22</b>	<b>7.97</b>	<b>7.80</b>	<b>7.79</b>	<b>7.85</b>	<i>7.86</i>	<i>7.80</i>	<i>7.97</i>	<i>8.23</i>	<i>8.23</i>	<b>8.18</b>	<i>7.83</i>	<i>8.07</i>
Mountain .....	<b>9.34</b>	<b>9.91</b>	<b>10.15</b>	<b>9.34</b>	<b>9.02</b>	<b>9.75</b>	<b>10.02</b>	<i>9.35</i>	<i>9.05</i>	<i>9.88</i>	<i>10.18</i>	<i>9.54</i>	<b>9.71</b>	<i>9.56</i>	<i>9.70</i>
Pacific .....	<b>11.36</b>	<b>13.63</b>	<b>15.96</b>	<b>13.78</b>	<b>12.20</b>	<b>13.08</b>	<b>14.69</b>	<i>12.70</i>	<i>12.15</i>	<i>13.23</i>	<i>15.03</i>	<i>13.04</i>	<b>13.71</b>	<i>13.21</i>	<i>13.41</i>
U.S. Average .....	<b>10.42</b>	<b>10.62</b>	<b>11.03</b>	<b>10.43</b>	<b>10.12</b>	<b>10.34</b>	<b>10.67</b>	<i>10.16</i>	<i>10.14</i>	<i>10.55</i>	<i>11.03</i>	<i>10.50</i>	<b>10.64</b>	<i>10.34</i>	<i>10.58</i>
<b>Industrial Sector</b>															
New England .....	<b>13.34</b>	<b>12.01</b>	<b>12.11</b>	<b>11.98</b>	<b>12.23</b>	<b>11.86</b>	<b>12.25</b>	<i>11.75</i>	<i>12.24</i>	<i>11.85</i>	<i>12.21</i>	<i>11.74</i>	<b>12.34</b>	<i>12.02</i>	<i>12.01</i>
Middle Atlantic .....	<b>7.73</b>	<b>7.20</b>	<b>7.35</b>	<b>7.01</b>	<b>7.05</b>	<b>7.01</b>	<b>7.17</b>	<i>6.71</i>	<i>7.08</i>	<i>7.19</i>	<i>7.29</i>	<i>6.79</i>	<b>7.32</b>	<i>6.99</i>	<i>7.09</i>
E. N. Central .....	<b>6.98</b>	<b>6.85</b>	<b>7.19</b>	<b>6.85</b>	<b>6.73</b>	<b>6.87</b>	<b>7.03</b>	<i>6.84</i>	<i>6.74</i>	<i>6.98</i>	<i>7.19</i>	<i>6.91</i>	<b>6.97</b>	<i>6.87</i>	<i>6.96</i>
W. N. Central .....	<b>6.52</b>	<b>6.90</b>	<b>7.53</b>	<b>6.51</b>	<b>6.65</b>	<b>7.08</b>	<b>7.75</b>	<i>6.60</i>	<i>6.70</i>	<i>7.19</i>	<i>7.91</i>	<i>6.69</i>	<b>6.88</b>	<i>7.03</i>	<i>7.13</i>
S. Atlantic .....	<b>6.58</b>	<b>6.43</b>	<b>6.95</b>	<b>6.32</b>	<b>6.14</b>	<b>6.34</b>	<b>6.80</b>	<i>6.49</i>	<i>6.31</i>	<i>6.59</i>	<i>7.06</i>	<i>6.58</i>	<b>6.58</b>	<i>6.45</i>	<i>6.65</i>
E. S. Central .....	<b>5.74</b>	<b>5.92</b>	<b>6.53</b>	<b>5.71</b>	<b>5.45</b>	<b>5.72</b>	<b>6.14</b>	<i>5.62</i>	<i>5.53</i>	<i>5.96</i>	<i>6.46</i>	<i>5.76</i>	<b>5.98</b>	<i>5.74</i>	<i>5.93</i>
W. S. Central .....	<b>5.71</b>	<b>5.58</b>	<b>5.77</b>	<b>5.30</b>	<b>5.06</b>	<b>5.03</b>	<b>5.45</b>	<i>5.36</i>	<i>5.19</i>	<i>5.31</i>	<i>5.76</i>	<i>5.52</i>	<b>5.59</b>	<i>5.23</i>	<i>5.46</i>
Mountain .....	<b>6.24</b>	<b>6.71</b>	<b>7.24</b>	<b>6.07</b>	<b>5.83</b>	<b>6.28</b>	<b>7.01</b>	<i>6.20</i>	<i>5.99</i>	<i>6.47</i>	<i>7.22</i>	<i>6.38</i>	<b>6.59</b>	<i>6.35</i>	<i>6.54</i>
Pacific .....	<b>7.85</b>	<b>8.77</b>	<b>10.25</b>	<b>9.03</b>	<b>7.99</b>	<b>9.08</b>	<b>10.54</b>	<i>8.92</i>	<i>7.83</i>	<i>8.85</i>	<i>10.33</i>	<i>8.90</i>	<b>9.03</b>	<i>9.20</i>	<i>9.04</i>
U.S. Average .....	<b>6.79</b>	<b>6.83</b>	<b>7.34</b>	<b>6.65</b>	<b>6.42</b>	<b>6.67</b>	<b>7.20</b>	<i>6.66</i>	<i>6.49</i>	<i>6.82</i>	<i>7.37</i>	<i>6.75</i>	<b>6.91</b>	<i>6.75</i>	<i>6.87</i>
<b>All Sectors (a)</b>															
New England .....	<b>17.88</b>	<b>16.52</b>	<b>15.85</b>	<b>15.76</b>	<b>16.41</b>	<b>16.07</b>	<b>16.13</b>	<i>15.67</i>	<i>16.35</i>	<i>16.26</i>	<i>16.72</i>	<i>16.25</i>	<b>16.52</b>	<i>16.08</i>	<i>16.41</i>
Middle Atlantic .....	<b>13.11</b>	<b>12.84</b>	<b>13.47</b>	<b>12.48</b>	<b>12.25</b>	<b>12.47</b>	<b>13.31</b>	<i>12.11</i>	<i>12.31</i>	<i>12.75</i>	<i>13.66</i>	<i>12.50</i>	<b>13.00</b>	<i>12.58</i>	<i>12.84</i>
E. N. Central .....	<b>9.76</b>	<b>9.77</b>	<b>10.19</b>	<b>9.78</b>	<b>9.67</b>	<b>9.87</b>	<b>10.11</b>	<i>9.68</i>	<i>9.81</i>	<i>10.12</i>	<i>10.40</i>	<i>10.01</i>	<b>9.89</b>	<i>9.84</i>	<i>10.09</i>
W. N. Central .....	<b>8.62</b>	<b>9.47</b>	<b>10.12</b>	<b>8.88</b>	<b>8.90</b>	<b>9.75</b>	<b>10.40</b>	<i>8.88</i>	<i>9.04</i>	<i>9.98</i>	<i>10.68</i>	<i>9.12</i>	<b>9.29</b>	<i>9.51</i>	<i>9.72</i>
S. Atlantic .....	<b>9.94</b>	<b>9.87</b>	<b>10.29</b>	<b>9.70</b>	<b>9.75</b>	<b>9.76</b>	<b>10.12</b>	<i>9.69</i>	<i>9.91</i>	<i>9.98</i>	<i>10.46</i>	<i>10.07</i>	<b>9.97</b>	<i>9.85</i>	<i>10.12</i>
E. S. Central .....	<b>8.90</b>	<b>9.03</b>	<b>9.41</b>	<b>8.85</b>	<b>8.70</b>	<b>8.86</b>	<b>9.34</b>	<i>8.52</i>	<i>8.51</i>	<i>9.06</i>	<i>9.70</i>	<i>8.77</i>	<b>9.06</b>	<i>8.88</i>	<i>9.04</i>
W. S. Central .....	<b>8.47</b>	<b>8.39</b>	<b>8.70</b>	<b>8.01</b>	<b>7.86</b>	<b>7.92</b>	<b>8.42</b>	<i>7.92</i>	<i>7.92</i>	<i>8.18</i>	<i>8.82</i>	<i>8.24</i>	<b>8.41</b>	<i>8.06</i>	<i>8.33</i>
Mountain .....	<b>9.03</b>	<b>9.62</b>	<b>10.13</b>	<b>8.97</b>	<b>8.73</b>	<b>9.40</b>	<b>9.98</b>	<i>9.02</i>	<i>8.84</i>	<i>9.56</i>	<i>10.24</i>	<i>9.21</i>	<b>9.48</b>	<i>9.33</i>	<i>9.52</i>
Pacific .....	<b>11.47</b>	<b>12.33</b>	<b>14.53</b>	<b>12.75</b>	<b>12.08</b>	<b>12.42</b>	<b>14.25</b>	<i>12.45</i>	<i>12.13</i>	<i>12.39</i>	<i>14.32</i>	<i>12.68</i>	<b>12.82</b>	<i>12.84</i>	<i>12.92</i>
U.S. Average .....	<b>10.24</b>	<b>10.32</b>	<b>10.88</b>	<b>10.13</b>	<b>9.99</b>	<b>10.17</b>	<b>10.74</b>	<i>10.00</i>	<i>10.08</i>	<i>10.37</i>	<i>11.05</i>	<i>10.30</i>	<b>10.41</b>	<i>10.25</i>	<i>10.48</i>

- = 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 - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>United States</b>															
Coal .....	<b>4,088</b>	<b>3,508</b>	<b>4,258</b>	<b>2,973</b>	<b>3,058</b>	<b>2,965</b>	<b>4,203</b>	<b>3,384</b>	<b>3,554</b>	<b>3,216</b>	<b>3,940</b>	<b>3,413</b>	<b>3,705</b>	<b>3,405</b>	<b>3,532</b>
Natural Gas .....	<b>3,249</b>	<b>3,470</b>	<b>4,383</b>	<b>3,500</b>	<b>3,429</b>	<b>3,767</b>	<b>4,700</b>	<b>3,360</b>	<b>3,245</b>	<b>3,556</b>	<b>4,515</b>	<b>3,438</b>	<b>3,653</b>	<b>3,815</b>	<b>3,691</b>
Petroleum (a) .....	<b>123</b>	<b>61</b>	<b>70</b>	<b>56</b>	<b>68</b>	<b>63</b>	<b>72</b>	<b>63</b>	<b>75</b>	<b>68</b>	<b>76</b>	<b>67</b>	<b>77</b>	<b>66</b>	<b>72</b>
Other Gases .....	<b>37</b>	<b>35</b>	<b>40</b>	<b>32</b>	<b>40</b>	<b>35</b>	<b>35</b>	<b>33</b>	<b>42</b>	<b>36</b>	<b>35</b>	<b>34</b>	<b>36</b>	<b>36</b>	<b>37</b>
Nuclear .....	<b>2,248</b>	<b>2,133</b>	<b>2,286</b>	<b>2,070</b>	<b>2,245</b>	<b>2,155</b>	<b>2,253</b>	<b>2,065</b>	<b>2,232</b>	<b>2,053</b>	<b>2,272</b>	<b>2,129</b>	<b>2,184</b>	<b>2,180</b>	<b>2,172</b>
Renewable Energy Sources:	<b>1,559</b>	<b>1,519</b>	<b>1,360</b>	<b>1,527</b>	<b>1,799</b>	<b>1,743</b>	<b>1,484</b>	<b>1,644</b>	<b>1,733</b>	<b>1,926</b>	<b>1,653</b>	<b>1,633</b>	<b>1,491</b>	<b>1,667</b>	<b>1,736</b>
Conventional Hydropower .....	<b>786</b>	<b>692</b>	<b>611</b>	<b>643</b>	<b>841</b>	<b>810</b>	<b>618</b>	<b>698</b>	<b>732</b>	<b>818</b>	<b>723</b>	<b>614</b>	<b>682</b>	<b>742</b>	<b>722</b>
Wind .....	<b>504</b>	<b>532</b>	<b>443</b>	<b>610</b>	<b>665</b>	<b>612</b>	<b>517</b>	<b>627</b>	<b>669</b>	<b>713</b>	<b>523</b>	<b>684</b>	<b>523</b>	<b>605</b>	<b>647</b>
Wood Biomass .....	<b>117</b>	<b>111</b>	<b>120</b>	<b>111</b>	<b>114</b>	<b>104</b>	<b>116</b>	<b>115</b>	<b>119</b>	<b>112</b>	<b>124</b>	<b>119</b>	<b>115</b>	<b>112</b>	<b>118</b>
Waste Biomass .....	<b>55</b>	<b>58</b>	<b>62</b>	<b>62</b>	<b>60</b>	<b>61</b>	<b>61</b>	<b>60</b>	<b>58</b>	<b>58</b>	<b>58</b>	<b>59</b>	<b>59</b>	<b>60</b>	<b>58</b>
Geothermal .....	<b>45</b>	<b>44</b>	<b>42</b>	<b>44</b>	<b>47</b>	<b>46</b>	<b>47</b>	<b>48</b>	<b>48</b>	<b>47</b>	<b>47</b>	<b>47</b>	<b>44</b>	<b>47</b>	<b>47</b>
Solar .....	<b>52</b>	<b>82</b>	<b>82</b>	<b>57</b>	<b>72</b>	<b>110</b>	<b>125</b>	<b>84</b>	<b>92</b>	<b>165</b>	<b>159</b>	<b>98</b>	<b>68</b>	<b>98</b>	<b>129</b>
Pumped Storage Hydropower .....	<b>-16</b>	<b>-11</b>	<b>-18</b>	<b>-11</b>	<b>-12</b>	<b>-14</b>	<b>-26</b>	<b>-17</b>	<b>-13</b>	<b>-12</b>	<b>-17</b>	<b>-15</b>	<b>-14</b>	<b>-17</b>	<b>-14</b>
Other Nonrenewable Fuels (b) .....	<b>35</b>	<b>38</b>	<b>41</b>	<b>39</b>	<b>36</b>	<b>39</b>	<b>39</b>	<b>38</b>	<b>36</b>	<b>38</b>	<b>40</b>	<b>39</b>	<b>38</b>	<b>38</b>	<b>38</b>
Total Generation .....	<b>11,324</b>	<b>10,754</b>	<b>12,420</b>	<b>10,187</b>	<b>10,663</b>	<b>10,753</b>	<b>12,760</b>	<b>10,570</b>	<b>10,904</b>	<b>10,882</b>	<b>12,515</b>	<b>10,739</b>	<b>11,172</b>	<b>11,189</b>	<b>11,263</b>
<b>Northeast Census Region</b>															
Coal .....	<b>290</b>	<b>172</b>	<b>199</b>	<b>137</b>	<b>161</b>	<b>141</b>	<b>203</b>	<b>169</b>	<b>217</b>	<b>134</b>	<b>161</b>	<b>155</b>	<b>199</b>	<b>169</b>	<b>167</b>
Natural Gas .....	<b>480</b>	<b>534</b>	<b>718</b>	<b>538</b>	<b>512</b>	<b>599</b>	<b>795</b>	<b>534</b>	<b>523</b>	<b>579</b>	<b>727</b>	<b>536</b>	<b>568</b>	<b>610</b>	<b>592</b>
Petroleum (a) .....	<b>47</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>7</b>	<b>3</b>	<b>6</b>	<b>5</b>	<b>9</b>	<b>5</b>	<b>6</b>	<b>5</b>	<b>14</b>	<b>5</b>	<b>6</b>
Other Gases .....	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>
Nuclear .....	<b>545</b>	<b>499</b>	<b>542</b>	<b>499</b>	<b>543</b>	<b>461</b>	<b>516</b>	<b>501</b>	<b>527</b>	<b>486</b>	<b>542</b>	<b>508</b>	<b>521</b>	<b>505</b>	<b>515</b>
Hydropower (c) .....	<b>87</b>	<b>100</b>	<b>92</b>	<b>93</b>	<b>111</b>	<b>94</b>	<b>78</b>	<b>96</b>	<b>100</b>	<b>98</b>	<b>84</b>	<b>96</b>	<b>93</b>	<b>95</b>	<b>94</b>
Other Renewables (d) .....	<b>73</b>	<b>62</b>	<b>56</b>	<b>71</b>	<b>76</b>	<b>62</b>	<b>60</b>	<b>76</b>	<b>82</b>	<b>72</b>	<b>69</b>	<b>82</b>	<b>66</b>	<b>68</b>	<b>76</b>
Other Nonrenewable Fuels (b) .....	<b>11</b>	<b>11</b>	<b>12</b>	<b>12</b>	<b>11</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>11</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>
Total Generation .....	<b>1,535</b>	<b>1,383</b>	<b>1,624</b>	<b>1,354</b>	<b>1,424</b>	<b>1,374</b>	<b>1,673</b>	<b>1,394</b>	<b>1,471</b>	<b>1,387</b>	<b>1,603</b>	<b>1,395</b>	<b>1,474</b>	<b>1,466</b>	<b>1,464</b>
<b>South Census Region</b>															
Coal .....	<b>1,716</b>	<b>1,542</b>	<b>1,902</b>	<b>1,163</b>	<b>1,270</b>	<b>1,345</b>	<b>1,950</b>	<b>1,340</b>	<b>1,457</b>	<b>1,481</b>	<b>1,803</b>	<b>1,332</b>	<b>1,580</b>	<b>1,477</b>	<b>1,519</b>
Natural Gas .....	<b>1,966</b>	<b>2,078</b>	<b>2,464</b>	<b>1,976</b>	<b>2,013</b>	<b>2,235</b>	<b>2,642</b>	<b>1,913</b>	<b>1,843</b>	<b>2,130</b>	<b>2,540</b>	<b>1,918</b>	<b>2,122</b>	<b>2,201</b>	<b>2,109</b>
Petroleum (a) .....	<b>42</b>	<b>24</b>	<b>28</b>	<b>21</b>	<b>29</b>	<b>30</b>	<b>35</b>	<b>24</b>	<b>30</b>	<b>29</b>	<b>31</b>	<b>24</b>	<b>29</b>	<b>30</b>	<b>28</b>
Other Gases .....	<b>15</b>	<b>13</b>	<b>15</b>	<b>14</b>	<b>15</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>15</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>15</b>	<b>14</b>	<b>14</b>
Nuclear .....	<b>974</b>	<b>956</b>	<b>1,001</b>	<b>872</b>	<b>951</b>	<b>998</b>	<b>994</b>	<b>909</b>	<b>996</b>	<b>920</b>	<b>1,025</b>	<b>961</b>	<b>951</b>	<b>963</b>	<b>976</b>
Hydropower (c) .....	<b>124</b>	<b>104</b>	<b>89</b>	<b>149</b>	<b>190</b>	<b>84</b>	<b>71</b>	<b>133</b>	<b>162</b>	<b>86</b>	<b>79</b>	<b>135</b>	<b>116</b>	<b>119</b>	<b>116</b>
Other Renewables (d) .....	<b>229</b>	<b>266</b>	<b>254</b>	<b>288</b>	<b>327</b>	<b>305</b>	<b>304</b>	<b>332</b>	<b>355</b>	<b>385</b>	<b>319</b>	<b>370</b>	<b>259</b>	<b>317</b>	<b>357</b>
Other Nonrenewable Fuels (b) .....	<b>16</b>	<b>17</b>	<b>18</b>	<b>18</b>	<b>16</b>	<b>18</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>17</b>
Total Generation .....	<b>5,081</b>	<b>5,002</b>	<b>5,771</b>	<b>4,501</b>	<b>4,812</b>	<b>5,028</b>	<b>6,028</b>	<b>4,681</b>	<b>4,874</b>	<b>5,062</b>	<b>5,830</b>	<b>4,772</b>	<b>5,089</b>	<b>5,138</b>	<b>5,136</b>
<b>Midwest Census Region</b>															
Coal .....	<b>1,577</b>	<b>1,298</b>	<b>1,572</b>	<b>1,161</b>	<b>1,201</b>	<b>1,109</b>	<b>1,498</b>	<b>1,286</b>	<b>1,338</b>	<b>1,186</b>	<b>1,499</b>	<b>1,311</b>	<b>1,402</b>	<b>1,274</b>	<b>1,334</b>
Natural Gas .....	<b>298</b>	<b>252</b>	<b>330</b>	<b>281</b>	<b>357</b>	<b>368</b>	<b>454</b>	<b>298</b>	<b>328</b>	<b>334</b>	<b>427</b>	<b>309</b>	<b>291</b>	<b>369</b>	<b>350</b>
Petroleum (a) .....	<b>12</b>	<b>11</b>	<b>13</b>	<b>9</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>11</b>	<b>13</b>	<b>10</b>	<b>11</b>	<b>9</b>	<b>11</b>
Other Gases .....	<b>14</b>	<b>14</b>	<b>15</b>	<b>9</b>	<b>16</b>	<b>13</b>	<b>14</b>	<b>10</b>	<b>17</b>	<b>14</b>	<b>14</b>	<b>11</b>	<b>13</b>	<b>13</b>	<b>14</b>
Nuclear .....	<b>553</b>	<b>528</b>	<b>570</b>	<b>547</b>	<b>573</b>	<b>543</b>	<b>572</b>	<b>501</b>	<b>545</b>	<b>495</b>	<b>536</b>	<b>502</b>	<b>550</b>	<b>547</b>	<b>520</b>
Hydropower (c) .....	<b>38</b>	<b>52</b>	<b>48</b>	<b>45</b>	<b>48</b>	<b>43</b>	<b>39</b>	<b>35</b>	<b>39</b>	<b>41</b>	<b>39</b>	<b>35</b>	<b>46</b>	<b>41</b>	<b>38</b>
Other Renewables (d) .....	<b>249</b>	<b>217</b>	<b>167</b>	<b>278</b>	<b>281</b>	<b>245</b>	<b>185</b>	<b>277</b>	<b>294</b>	<b>278</b>	<b>201</b>	<b>297</b>	<b>228</b>	<b>247</b>	<b>267</b>
Other Nonrenewable Fuels (b) .....	<b>4</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>
Total Generation .....	<b>2,745</b>	<b>2,377</b>	<b>2,721</b>	<b>2,337</b>	<b>2,492</b>	<b>2,335</b>	<b>2,774</b>	<b>2,421</b>	<b>2,576</b>	<b>2,364</b>	<b>2,734</b>	<b>2,480</b>	<b>2,544</b>	<b>2,506</b>	<b>2,539</b>
<b>West Census Region</b>															
Coal .....	<b>505</b>	<b>495</b>	<b>586</b>	<b>511</b>	<b>426</b>	<b>370</b>	<b>552</b>	<b>589</b>	<b>542</b>	<b>414</b>	<b>476</b>	<b>615</b>	<b>524</b>	<b>485</b>	<b>512</b>
Natural Gas .....	<b>505</b>	<b>606</b>	<b>871</b>	<b>705</b>	<b>546</b>	<b>566</b>	<b>809</b>	<b>615</b>	<b>551</b>	<b>512</b>	<b>821</b>	<b>675</b>	<b>673</b>	<b>634</b>	<b>641</b>
Petroleum (a) .....	<b>22</b>	<b>23</b>	<b>25</b>	<b>23</b>	<b>21</b>	<b>20</b>	<b>23</b>	<b>25</b>	<b>25</b>	<b>24</b>	<b>26</b>	<b>28</b>	<b>23</b>	<b>22</b>	<b>25</b>
Other Gases .....	<b>7</b>	<b>6</b>	<b>7</b>	<b>6</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>7</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>6</b>	<b>6</b>
Nuclear .....	<b>176</b>	<b>149</b>	<b>172</b>	<b>152</b>	<b>178</b>	<b>152</b>	<b>172</b>	<b>154</b>	<b>164</b>	<b>152</b>	<b>169</b>	<b>158</b>	<b>162</b>	<b>164</b>	<b>161</b>
Hydropower (c) .....	<b>521</b>	<b>426</b>	<b>364</b>	<b>344</b>	<b>480</b>	<b>575</b>	<b>404</b>	<b>418</b>	<b>418</b>	<b>581</b>	<b>504</b>	<b>333</b>	<b>413</b>	<b>469</b>	<b>459</b>
Other Renewables (d) .....	<b>223</b>	<b>281</b>	<b>272</b>	<b>248</b>	<b>273</b>	<b>322</b>	<b>316</b>	<b>261</b>	<b>271</b>	<b>374</b>	<b>341</b>	<b>271</b>	<b>256</b>	<b>293</b>	<b>314</b>
Other Nonrenewable Fuels (b) .....	<b>5</b>	<b>5</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>5</b>
Total Generation .....	<b>1,963</b>	<b>1,992</b>	<b>2,303</b>	<b>1,995</b>	<b>1,936</b>	<b>2,016</b>	<b>2,285</b>	<b>2,074</b>	<b>1,983</b>	<b>2,069</b>	<b>2,348</b>	<b>2,092</b>	<b>2,064</b>	<b>2,078</b>	<b>2,124</b>

(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 - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Fuel Consumption for Electricity Generation, All Sectors</b>															
<b>United States</b>															
Coal (thousand st/d) .....	<b>2,188</b>	<b>1,920</b>	<b>2,339</b>	<b>1,661</b>	<b>1,675</b>	<b>1,619</b>	<b>2,289</b>	<i>1,862</i>	<i>1,914</i>	<i>1,739</i>	<i>2,148</i>	<i>1,878</i>	<b>2,026</b>	<i>1,862</i>	<i>1,920</i>
Natural Gas (million cf/d) .....	<b>23,976</b>	<b>26,158</b>	<b>33,466</b>	<b>26,081</b>	<b>25,244</b>	<b>28,614</b>	<b>36,109</b>	<i>24,890</i>	<i>24,068</i>	<i>27,038</i>	<i>34,597</i>	<i>25,569</i>	<b>27,443</b>	<i>28,724</i>	<i>27,841</i>
Petroleum (thousand b/d) .....	<b>212</b>	<b>106</b>	<b>123</b>	<b>98</b>	<b>121</b>	<b>112</b>	<b>130</b>	<i>112</i>	<i>133</i>	<i>120</i>	<i>133</i>	<i>118</i>	<b>135</b>	<i>119</i>	<i>126</i>
Residual Fuel Oil .....	<b>74</b>	<b>25</b>	<b>31</b>	<b>25</b>	<b>29</b>	<b>22</b>	<b>35</b>	<i>26</i>	<i>31</i>	<i>28</i>	<i>31</i>	<i>27</i>	<b>39</b>	<i>28</i>	<i>30</i>
Distillate Fuel Oil .....	<b>65</b>	<b>25</b>	<b>23</b>	<b>24</b>	<b>29</b>	<b>23</b>	<b>24</b>	<i>26</i>	<i>33</i>	<i>27</i>	<i>29</i>	<i>27</i>	<b>34</b>	<i>26</i>	<i>29</i>
Petroleum Coke (a) .....	<b>61</b>	<b>52</b>	<b>64</b>	<b>45</b>	<b>57</b>	<b>63</b>	<b>66</b>	<i>55</i>	<i>62</i>	<i>61</i>	<i>68</i>	<i>58</i>	<b>55</b>	<i>60</i>	<i>62</i>
Other Petroleum Liquids (b) ....	<b>13</b>	<b>4</b>	<b>5</b>	<b>3</b>	<b>5</b>	<b>3</b>	<b>5</b>	<i>5</i>	<i>7</i>	<i>4</i>	<i>5</i>	<i>5</i>	<b>6</b>	<i>5</i>	<i>5</i>
<b>Northeast Census Region</b>															
Coal (thousand st/d) .....	<b>133</b>	<b>82</b>	<b>96</b>	<b>68</b>	<b>80</b>	<b>66</b>	<b>94</b>	<i>81</i>	<i>102</i>	<i>64</i>	<i>79</i>	<i>75</i>	<b>95</b>	<i>80</i>	<i>80</i>
Natural Gas (million cf/d) .....	<b>3,600</b>	<b>4,084</b>	<b>5,609</b>	<b>4,060</b>	<b>3,829</b>	<b>4,578</b>	<b>6,204</b>	<i>4,029</i>	<i>3,954</i>	<i>4,425</i>	<i>5,657</i>	<i>4,050</i>	<b>4,343</b>	<i>4,663</i>	<i>4,525</i>
Petroleum (thousand b/d) .....	<b>78</b>	<b>4</b>	<b>8</b>	<b>4</b>	<b>12</b>	<b>5</b>	<b>12</b>	<i>8</i>	<i>17</i>	<i>8</i>	<i>12</i>	<i>9</i>	<b>23</b>	<i>9</i>	<i>11</i>
<b>South Census Region</b>															
Coal (thousand st/d) .....	<b>888</b>	<b>817</b>	<b>1,020</b>	<b>636</b>	<b>671</b>	<b>717</b>	<b>1,035</b>	<i>717</i>	<i>758</i>	<i>777</i>	<i>956</i>	<i>716</i>	<b>840</b>	<i>786</i>	<i>802</i>
Natural Gas (million cf/d) .....	<b>14,328</b>	<b>15,620</b>	<b>18,728</b>	<b>14,714</b>	<b>14,756</b>	<b>16,918</b>	<b>20,175</b>	<i>14,111</i>	<i>13,598</i>	<i>16,171</i>	<i>19,403</i>	<i>14,225</i>	<b>15,856</b>	<i>16,493</i>	<i>15,861</i>
Petroleum (thousand b/d) .....	<b>76</b>	<b>44</b>	<b>52</b>	<b>41</b>	<b>55</b>	<b>56</b>	<b>66</b>	<i>45</i>	<i>56</i>	<i>54</i>	<i>58</i>	<i>45</i>	<b>53</b>	<i>56</i>	<i>53</i>
<b>Midwest Census Region</b>															
Coal (thousand st/d) .....	<b>881</b>	<b>740</b>	<b>893</b>	<b>665</b>	<b>680</b>	<b>627</b>	<b>848</b>	<i>728</i>	<i>749</i>	<i>666</i>	<i>845</i>	<i>740</i>	<b>795</b>	<i>721</i>	<i>750</i>
Natural Gas (million cf/d) .....	<b>2,314</b>	<b>1,958</b>	<b>2,629</b>	<b>2,162</b>	<b>2,693</b>	<b>2,910</b>	<b>3,754</b>	<i>2,305</i>	<i>2,545</i>	<i>2,662</i>	<i>3,524</i>	<i>2,439</i>	<b>2,266</b>	<i>2,916</i>	<i>2,794</i>
Petroleum (thousand b/d) .....	<b>24</b>	<b>22</b>	<b>25</b>	<b>17</b>	<b>19</b>	<b>19</b>	<b>18</b>	<i>20</i>	<i>21</i>	<i>20</i>	<i>22</i>	<i>21</i>	<b>22</b>	<i>19</i>	<i>21</i>
<b>West Census Region</b>															
Coal (thousand st/d) .....	<b>286</b>	<b>280</b>	<b>330</b>	<b>291</b>	<b>244</b>	<b>208</b>	<b>312</b>	<i>335</i>	<i>306</i>	<i>231</i>	<i>268</i>	<i>348</i>	<b>297</b>	<i>275</i>	<i>288</i>
Natural Gas (million cf/d) .....	<b>3,735</b>	<b>4,496</b>	<b>6,500</b>	<b>5,145</b>	<b>3,967</b>	<b>4,208</b>	<b>5,976</b>	<i>4,445</i>	<i>3,971</i>	<i>3,780</i>	<i>6,013</i>	<i>4,855</i>	<b>4,977</b>	<i>4,652</i>	<i>4,661</i>
Petroleum (thousand b/d) .....	<b>35</b>	<b>36</b>	<b>39</b>	<b>37</b>	<b>34</b>	<b>32</b>	<b>35</b>	<i>39</i>	<i>39</i>	<i>38</i>	<i>41</i>	<i>44</i>	<b>37</b>	<i>35</i>	<i>41</i>
<b>End-of-period U.S. Fuel Inventories Held by Electric Power Sector</b>															
Coal (million short tons) .....	<b>154.4</b>	<b>166.6</b>	<b>162.2</b>	<b>195.9</b>	<b>192.3</b>	<b>183.2</b>	<b>158.2</b>	<i>173.3</i>	<i>172.9</i>	<i>167.7</i>	<i>150.3</i>	<i>154.1</i>	<b>195.9</b>	<i>173.3</i>	<i>154.1</i>
Residual Fuel Oil (mmb) .....	<b>10.3</b>	<b>10.6</b>	<b>10.8</b>	<b>12.6</b>	<b>11.9</b>	<b>12.2</b>	<b>11.7</b>	<i>13.1</i>	<i>13.6</i>	<i>13.2</i>	<i>12.7</i>	<i>13.2</i>	<b>12.6</b>	<i>13.1</i>	<i>13.2</i>
Distillate Fuel Oil (mmb) .....	<b>17.0</b>	<b>17.5</b>	<b>18.3</b>	<b>18.0</b>	<b>17.2</b>	<b>17.3</b>	<b>20.9</b>	<i>21.0</i>	<i>20.7</i>	<i>20.3</i>	<i>20.0</i>	<i>20.2</i>	<b>18.0</b>	<i>21.0</i>	<i>20.2</i>
Petroleum Coke (mmb) .....	<b>4.1</b>	<b>5.2</b>	<b>5.5</b>	<b>6.7</b>	<b>6.2</b>	<b>4.5</b>	<b>3.8</b>	<i>3.8</i>	<i>3.8</i>	<i>3.8</i>	<i>3.8</i>	<i>3.8</i>	<b>6.7</b>	<i>3.8</i>	<i>3.8</i>

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

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

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

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

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

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

**Projections:** EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Electric Power Sector</b>															
Hydroelectric Power (a) .....	<b>0.684</b>	<b>0.594</b>	<b>0.538</b>	<b>0.560</b>	<b>0.728</b>	<b>0.701</b>	<b>0.540</b>	<i>0.607</i>	<i>0.623</i>	<i>0.704</i>	<i>0.630</i>	<i>0.534</i>	<b>2.376</b>	<i>2.577</i>	<i>2.491</i>
Wood Biomass (b) .....	<b>0.064</b>	<b>0.057</b>	<b>0.065</b>	<b>0.058</b>	<b>0.061</b>	<b>0.049</b>	<b>0.060</b>	<i>0.062</i>	<i>0.066</i>	<i>0.060</i>	<i>0.074</i>	<i>0.068</i>	<b>0.244</b>	<i>0.232</i>	<i>0.267</i>
Waste Biomass (c) .....	<b>0.066</b>	<b>0.068</b>	<b>0.074</b>	<b>0.074</b>	<b>0.070</b>	<b>0.072</b>	<b>0.072</b>	<i>0.069</i>	<i>0.066</i>	<i>0.067</i>	<i>0.070</i>	<i>0.067</i>	<b>0.281</b>	<i>0.284</i>	<i>0.271</i>
Wind .....	<b>0.431</b>	<b>0.460</b>	<b>0.387</b>	<b>0.534</b>	<b>0.575</b>	<b>0.529</b>	<b>0.452</b>	<i>0.548</i>	<i>0.572</i>	<i>0.616</i>	<i>0.457</i>	<i>0.598</i>	<b>1.812</b>	<i>2.103</i>	<i>2.244</i>
Geothermal .....	<b>0.037</b>	<b>0.037</b>	<b>0.036</b>	<b>0.038</b>	<b>0.040</b>	<b>0.039</b>	<b>0.040</b>	<i>0.041</i>	<i>0.040</i>	<i>0.040</i>	<i>0.041</i>	<i>0.040</i>	<b>0.148</b>	<i>0.161</i>	<i>0.161</i>
Solar .....	<b>0.044</b>	<b>0.069</b>	<b>0.070</b>	<b>0.049</b>	<b>0.061</b>	<b>0.093</b>	<b>0.108</b>	<i>0.072</i>	<i>0.077</i>	<i>0.140</i>	<i>0.137</i>	<i>0.084</i>	<b>0.233</b>	<i>0.334</i>	<i>0.439</i>
Subtotal .....	<b>1.326</b>	<b>1.286</b>	<b>1.170</b>	<b>1.312</b>	<b>1.535</b>	<b>1.484</b>	<b>1.272</b>	<i>1.399</i>	<i>1.445</i>	<i>1.628</i>	<i>1.409</i>	<i>1.391</i>	<b>5.094</b>	<i>5.690</i>	<i>5.873</i>
<b>Industrial Sector</b>															
Hydroelectric Power (a) .....	<b>0.004</b>	<b>0.003</b>	<b>0.002</b>	<b>0.003</b>	<b>0.004</b>	<b>0.003</b>	<b>0.002</b>	<i>0.003</i>	<i>0.004</i>	<i>0.003</i>	<i>0.002</i>	<i>0.003</i>	<b>0.013</b>	<i>0.013</i>	<i>0.012</i>
Wood Biomass (b) .....	<b>0.324</b>	<b>0.320</b>	<b>0.324</b>	<b>0.321</b>	<b>0.316</b>	<b>0.310</b>	<b>0.317</b>	<i>0.315</i>	<i>0.305</i>	<i>0.301</i>	<i>0.312</i>	<i>0.314</i>	<b>1.290</b>	<i>1.258</i>	<i>1.232</i>
Waste Biomass (c) .....	<b>0.046</b>	<b>0.049</b>	<b>0.050</b>	<b>0.049</b>	<b>0.047</b>	<b>0.047</b>	<b>0.048</b>	<i>0.051</i>	<i>0.050</i>	<i>0.049</i>	<i>0.047</i>	<i>0.052</i>	<b>0.195</b>	<i>0.193</i>	<i>0.198</i>
Geothermal .....	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<b>0.004</b>	<i>0.004</i>	<i>0.004</i>
Biofuel Losses and Co-products (f) .....	<b>0.189</b>	<b>0.192</b>	<b>0.195</b>	<b>0.199</b>	<b>0.196</b>	<b>0.193</b>	<b>0.202</b>	<i>0.203</i>	<i>0.197</i>	<i>0.199</i>	<i>0.202</i>	<i>0.203</i>	<b>0.776</b>	<i>0.794</i>	<i>0.800</i>
Subtotal .....	<b>0.568</b>	<b>0.570</b>	<b>0.576</b>	<b>0.578</b>	<b>0.567</b>	<b>0.559</b>	<b>0.574</b>	<i>0.577</i>	<i>0.561</i>	<i>0.557</i>	<i>0.568</i>	<i>0.577</i>	<b>2.292</b>	<i>2.277</i>	<i>2.263</i>
<b>Commercial Sector</b>															
Wood Biomass (b) .....	<b>0.018</b>	<b>0.018</b>	<b>0.018</b>	<b>0.018</b>	<b>0.018</b>	<b>0.018</b>	<b>0.019</b>	<i>0.019</i>	<i>0.019</i>	<i>0.019</i>	<i>0.020</i>	<i>0.019</i>	<b>0.073</b>	<i>0.074</i>	<i>0.078</i>
Waste Biomass (c) .....	<b>0.013</b>	<b>0.010</b>	<b>0.010</b>	<b>0.012</b>	<b>0.012</b>	<b>0.011</b>	<b>0.012</b>	<i>0.012</i>	<i>0.012</i>	<i>0.011</i>	<i>0.011</i>	<i>0.013</i>	<b>0.045</b>	<i>0.048</i>	<i>0.047</i>
Geothermal .....	<b>0.005</b>	<b>0.005</b>	<b>0.005</b>	<b>0.005</b>	<b>0.005</b>	<b>0.005</b>	<b>0.005</b>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<b>0.020</b>	<i>0.020</i>	<i>0.020</i>
Subtotal .....	<b>0.049</b>	<b>0.051</b>	<b>0.052</b>	<b>0.049</b>	<b>0.052</b>	<b>0.057</b>	<b>0.059</b>	<i>0.053</i>	<i>0.055</i>	<i>0.061</i>	<i>0.061</i>	<i>0.054</i>	<b>0.200</b>	<i>0.220</i>	<i>0.231</i>
<b>Residential Sector</b>															
Wood Biomass (b) .....	<b>0.106</b>	<b>0.108</b>	<b>0.109</b>	<b>0.109</b>	<b>0.096</b>	<b>0.096</b>	<b>0.100</b>	<i>0.105</i>	<i>0.106</i>	<i>0.106</i>	<i>0.106</i>	<i>0.106</i>	<b>0.432</b>	<i>0.397</i>	<i>0.426</i>
Geothermal .....	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.011</b>	<b>0.011</b>	<b>0.011</b>	<i>0.011</i>	<i>0.011</i>	<i>0.011</i>	<i>0.011</i>	<i>0.011</i>	<b>0.041</b>	<i>0.044</i>	<i>0.045</i>
Solar (d) .....	<b>0.024</b>	<b>0.037</b>	<b>0.040</b>	<b>0.029</b>	<b>0.031</b>	<b>0.047</b>	<b>0.050</b>	<i>0.036</i>	<i>0.038</i>	<i>0.058</i>	<i>0.061</i>	<i>0.045</i>	<b>0.130</b>	<i>0.165</i>	<i>0.203</i>
Subtotal .....	<b>0.140</b>	<b>0.155</b>	<b>0.159</b>	<b>0.148</b>	<b>0.138</b>	<b>0.154</b>	<b>0.161</b>	<i>0.153</i>	<i>0.155</i>	<i>0.176</i>	<i>0.179</i>	<i>0.163</i>	<b>0.602</b>	<i>0.606</i>	<i>0.674</i>
<b>Transportation Sector</b>															
Ethanol (e) .....	<b>0.267</b>	<b>0.284</b>	<b>0.293</b>	<b>0.284</b>	<b>0.283</b>	<b>0.290</b>	<b>0.300</b>	<i>0.291</i>	<i>0.277</i>	<i>0.295</i>	<i>0.299</i>	<i>0.294</i>	<b>1.129</b>	<i>1.163</i>	<i>1.165</i>
Biomass-based Diesel (e) .....	<b>0.034</b>	<b>0.059</b>	<b>0.065</b>	<b>0.057</b>	<b>0.051</b>	<b>0.066</b>	<b>0.088</b>	<i>0.076</i>	<i>0.059</i>	<i>0.071</i>	<i>0.086</i>	<i>0.087</i>	<b>0.215</b>	<i>0.281</i>	<i>0.303</i>
Subtotal .....	<b>0.301</b>	<b>0.343</b>	<b>0.359</b>	<b>0.341</b>	<b>0.334</b>	<b>0.356</b>	<b>0.385</b>	<i>0.367</i>	<i>0.336</i>	<i>0.366</i>	<i>0.385</i>	<i>0.381</i>	<b>1.344</b>	<i>1.442</i>	<i>1.468</i>
<b>All Sectors Total</b>															
Hydroelectric Power (a) .....	<b>0.687</b>	<b>0.598</b>	<b>0.540</b>	<b>0.563</b>	<b>0.732</b>	<b>0.705</b>	<b>0.543</b>	<i>0.611</i>	<i>0.627</i>	<i>0.708</i>	<i>0.632</i>	<i>0.537</i>	<b>2.389</b>	<i>2.590</i>	<i>2.504</i>
Wood Biomass (b) .....	<b>0.512</b>	<b>0.503</b>	<b>0.518</b>	<b>0.508</b>	<b>0.492</b>	<b>0.473</b>	<b>0.497</b>	<i>0.502</i>	<i>0.497</i>	<i>0.487</i>	<i>0.512</i>	<i>0.507</i>	<b>2.040</b>	<i>1.963</i>	<i>2.004</i>
Waste Biomass (c) .....	<b>0.126</b>	<b>0.125</b>	<b>0.130</b>	<b>0.132</b>	<b>0.128</b>	<b>0.129</b>	<b>0.131</b>	<i>0.133</i>	<i>0.128</i>	<i>0.127</i>	<i>0.128</i>	<i>0.132</i>	<b>0.514</b>	<i>0.521</i>	<i>0.516</i>
Wind .....	<b>0.431</b>	<b>0.460</b>	<b>0.387</b>	<b>0.534</b>	<b>0.575</b>	<b>0.529</b>	<b>0.452</b>	<i>0.548</i>	<i>0.572</i>	<i>0.616</i>	<i>0.457</i>	<i>0.598</i>	<b>1.812</b>	<i>2.103</i>	<i>2.244</i>
Geothermal .....	<b>0.057</b>	<b>0.056</b>	<b>0.056</b>	<b>0.056</b>	<b>0.057</b>	<b>0.056</b>	<b>0.057</b>	<i>0.058</i>	<i>0.058</i>	<i>0.057</i>	<i>0.058</i>	<i>0.058</i>	<b>0.224</b>	<i>0.229</i>	<i>0.230</i>
Solar .....	<b>0.086</b>	<b>0.132</b>	<b>0.136</b>	<b>0.096</b>	<b>0.112</b>	<b>0.169</b>	<b>0.185</b>	<i>0.127</i>	<i>0.136</i>	<i>0.229</i>	<i>0.229</i>	<i>0.150</i>	<b>0.450</b>	<i>0.594</i>	<i>0.744</i>
Ethanol (e) .....	<b>0.272</b>	<b>0.289</b>	<b>0.298</b>	<b>0.289</b>	<b>0.287</b>	<b>0.295</b>	<b>0.305</b>	<i>0.301</i>	<i>0.282</i>	<i>0.300</i>	<i>0.304</i>	<i>0.299</i>	<b>1.148</b>	<i>1.188</i>	<i>1.184</i>
Biomass-based Diesel (e) .....	<b>0.034</b>	<b>0.059</b>	<b>0.065</b>	<b>0.057</b>	<b>0.051</b>	<b>0.066</b>	<b>0.088</b>	<i>0.076</i>	<i>0.059</i>	<i>0.071</i>	<i>0.086</i>	<i>0.087</i>	<b>0.215</b>	<i>0.281</i>	<i>0.303</i>
Biofuel Losses and Co-products (f) .....	<b>0.189</b>	<b>0.192</b>	<b>0.195</b>	<b>0.199</b>	<b>0.196</b>	<b>0.193</b>	<b>0.202</b>	<i>0.203</i>	<i>0.197</i>	<i>0.199</i>	<i>0.202</i>	<i>0.203</i>	<b>0.776</b>	<i>0.794</i>	<i>0.800</i>
<b>Total Consumption</b> .....	<b>2.384</b>	<b>2.405</b>	<b>2.316</b>	<b>2.428</b>	<b>2.626</b>	<b>2.610</b>	<b>2.435</b>	<i>2.549</i>	<i>2.552</i>	<i>2.788</i>	<i>2.602</i>	<i>2.566</i>	<b>9.533</b>	<i>10.220</i>	<i>10.508</i>

- = no data available

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

(b) Wood and wood-derived fuels.

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

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

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

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

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

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

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

**Projections:** EIA Regional Short-Term Energy Model.

**Table 9a. U.S. Macroeconomic Indicators and CO<sub>2</sub> Emissions**

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Macroeconomic</b>															
Real Gross Domestic Product (billion chained 2009 dollars - SAAR) .....	16,269	16,374	16,455	16,491	16,525	16,583	16,702	16,786	16,880	16,968	17,060	17,142	16,397	16,649	17,013
Real Personal Consumption Expend. (billion chained 2009 dollars - SAAR) .....	11,102	11,181	11,256	11,319	11,365	11,485	11,546	11,624	11,688	11,751	11,822	11,887	11,215	11,505	11,787
Real Fixed Investment (billion chained 2009 dollars - SAAR) .....	2,727	2,756	2,795	2,793	2,787	2,779	2,775	2,818	2,855	2,892	2,922	2,946	2,768	2,789	2,904
Business Inventory Change (billion chained 2009 dollars - SAAR) .....	129	105	77	63	42	-15	10	-2	-12	-4	1	12	93	9	-1
Real Government Expenditures (billion chained 2009 dollars - SAAR) .....	2,858	2,881	2,894	2,902	2,913	2,901	2,905	2,915	2,922	2,922	2,922	2,922	2,884	2,908	2,922
Real Exports of Goods & Services (billion chained 2009 dollars - SAAR) .....	2,121	2,136	2,120	2,106	2,102	2,111	2,162	2,140	2,157	2,172	2,189	2,206	2,121	2,129	2,181
Real Imports of Goods & Services (billion chained 2009 dollars - SAAR) .....	2,642	2,660	2,668	2,672	2,668	2,670	2,685	2,696	2,720	2,755	2,786	2,821	2,661	2,680	2,770
Real Disposable Personal Income (billion chained 2009 dollars - SAAR) .....	12,183	12,300	12,399	12,491	12,556	12,621	12,688	12,747	12,839	12,918	12,988	13,064	12,343	12,653	12,952
Non-Farm Employment (millions) .....	140.8	141.5	142.2	142.9	143.5	144.0	144.6	145.1	145.6	145.9	146.2	146.5	141.8	144.3	146.1
Civilian Unemployment Rate (percent) .....	5.6	5.4	5.2	5.0	4.9	4.9	4.9	4.9	4.8	4.7	4.7	4.7	5.3	4.9	4.7
Housing Starts (millions - SAAR) .....	0.99	1.16	1.16	1.13	1.15	1.16	1.14	1.16	1.18	1.21	1.24	1.27	1.11	1.15	1.23
<b>Industrial Production Indices (Index, 2012=100)</b>															
Total Industrial Production .....	105.8	105.1	105.5	104.6	104.1	103.9	104.4	104.0	104.0	104.5	105.5	106.3	105.2	104.1	105.1
Manufacturing .....	103.2	103.4	103.9	103.7	103.9	103.6	103.9	103.9	104.3	104.5	105.1	106.0	103.6	103.8	105.0
Food .....	103.1	102.6	103.4	103.2	104.4	104.8	105.4	105.8	106.3	106.8	107.3	107.9	103.1	105.1	107.1
Paper .....	98.9	98.5	97.0	96.6	96.4	95.6	95.1	94.5	94.4	94.3	94.4	94.4	97.7	95.4	94.4
Petroleum and Coal Products .....	102.4	104.7	105.7	106.9	106.5	105.5	105.5	105.5	106.3	106.7	107.2	107.8	104.9	105.7	107.0
Chemicals .....	97.9	97.9	97.7	98.5	99.1	98.3	98.2	98.6	99.3	100.0	100.8	101.7	98.0	98.6	100.4
Nonmetallic Mineral Products .....	111.3	111.7	113.0	116.1	117.1	115.6	113.9	114.6	115.3	116.0	117.0	117.9	113.0	115.3	116.6
Primary Metals .....	98.2	97.1	96.6	95.0	94.8	95.6	93.2	92.7	92.8	92.5	92.5	92.7	96.7	94.1	92.6
Coal-weighted Manufacturing (a) .....	102.0	102.1	102.2	102.5	102.8	102.2	101.4	101.3	101.8	102.1	102.5	103.2	102.2	101.9	102.4
Distillate-weighted Manufacturing (a) .....	104.4	104.5	105.3	106.0	106.2	105.7	105.3	105.4	105.9	106.4	107.1	107.8	105.0	105.7	106.8
Electricity-weighted Manufacturing (a) .....	102.9	103.1	103.3	103.3	103.5	102.9	102.8	102.8	103.2	103.5	104.0	104.9	103.1	103.0	103.9
Natural Gas-weighted Manufacturing (a) .....	102.3	103.4	103.5	104.1	104.4	103.5	103.8	104.0	104.6	105.2	106.0	107.1	103.3	103.9	105.7
<b>Price Indexes</b>															
Consumer Price Index (all urban consumers) (index, 1982-1984=1.00) .....	2.35	2.37	2.38	2.38	2.38	2.39	2.40	2.42	2.43	2.45	2.47	2.48	2.37	2.40	2.46
Producer Price Index: All Commodities (index, 1982=1.00) .....	1.92	1.92	1.90	1.87	1.83	1.84	1.86	1.88	1.89	1.90	1.91	1.93	1.90	1.85	1.91
Producer Price Index: Petroleum (index, 1982=1.00) .....	1.71	1.96	1.85	1.52	1.21	1.46	1.53	1.60	1.60	1.69	1.73	1.71	1.76	1.45	1.68
GDP Implicit Price Deflator (index, 2009=100) .....	109.3	109.9	110.3	110.5	110.6	111.3	111.7	112.3	113.0	113.6	114.3	114.9	110.0	111.5	114.0
<b>Miscellaneous</b>															
Vehicle Miles Traveled (b) (million miles/day) .....	7,957	8,940	8,863	8,538	8,195	9,169	9,061	8,679	8,311	9,274	9,134	8,800	8,577	8,777	8,882
Air Travel Capacity (Available ton-miles/day, thousands) .....	517	574	584	562	548	602	606	590	544	579	603	593	560	587	580
Aircraft Utilization (Revenue ton-miles/day, thousands) .....	322	356	365	344	326	365	376	364	325	358	379	366	347	358	357
Airline Ticket Price Index (index, 1982-1984=100) .....	286.4	313.0	283.3	286.2	281.8	305.0	273.0	283.2	284.9	312.8	293.4	302.7	292.2	285.8	298.5
Raw Steel Production (million short tons per day) .....	0.247	0.242	0.248	0.226	0.238	0.247	0.238	0.226	0.224	0.232	0.208	0.176	0.241	0.237	0.210
<b>Carbon Dioxide (CO<sub>2</sub>) Emissions (million metric tons)</b>															
Petroleum .....	564	573	586	571	571	571	586	586	566	578	588	592	2,295	2,315	2,324
Natural Gas .....	468	312	326	369	440	328	344	376	447	324	338	391	1,476	1,489	1,501
Coal .....	394	351	426	311	312	299	422	350	344	316	392	353	1,483	1,382	1,406
Total Energy (c) .....	1,429	1,238	1,342	1,255	1,326	1,201	1,355	1,315	1,361	1,221	1,322	1,339	5,264	5,197	5,242

- = no data available

SAAR = Seasonally-adjusted annual rate

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

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

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

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

**Historical data:** Latest data available from U.S. Department of Commerce, Bureau of Economic Analysis; Federal Reserve System, Statistical release G17; Federal Highway Administration; and Federal Aviation Administration. Minor discrepancies with published historical data are due to independent rounding.

**Projections:** EIA Regional Short-Term Energy Model. Macroeconomic projections are based on Global Insight Model of the U.S. Economy.

**Table 9b. U.S. Regional Macroeconomic Data**

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Real Gross State Product (Billion \$2009)</b>															
New England .....	863	871	866	868	871	874	879	882	884	888	892	895	867	876	890
Middle Atlantic .....	2,412	2,441	2,456	2,458	2,460	2,470	2,489	2,499	2,508	2,520	2,531	2,540	2,442	2,480	2,525
E. N. Central .....	2,248	2,255	2,275	2,279	2,281	2,288	2,303	2,310	2,321	2,329	2,338	2,346	2,264	2,296	2,333
W. N. Central .....	1,054	1,057	1,059	1,059	1,056	1,059	1,066	1,071	1,076	1,081	1,086	1,090	1,057	1,063	1,083
S. Atlantic .....	2,865	2,884	2,909	2,920	2,931	2,943	2,964	2,982	3,000	3,017	3,034	3,049	2,895	2,955	3,025
E. S. Central .....	737	743	748	751	753	754	759	762	766	770	773	776	745	757	771
W. S. Central .....	2,014	1,997	2,005	2,005	2,005	2,008	2,020	2,032	2,048	2,063	2,079	2,095	2,005	2,016	2,071
Mountain .....	1,039	1,045	1,048	1,050	1,053	1,057	1,066	1,072	1,080	1,087	1,095	1,102	1,046	1,062	1,091
Pacific .....	2,935	2,979	2,986	2,996	3,011	3,026	3,051	3,070	3,091	3,108	3,126	3,141	2,974	3,040	3,117
<b>Industrial Output, Manufacturing (Index, Year 2012=100)</b>															
New England .....	99.4	99.6	99.9	99.5	99.7	100.0	100.2	100.4	100.7	100.8	101.2	102.0	99.6	100.1	101.1
Middle Atlantic .....	99.8	99.9	100.2	99.8	100.0	99.9	100.0	100.1	100.4	100.6	101.2	102.0	99.9	100.0	101.1
E. N. Central .....	105.2	105.4	106.0	106.2	106.3	106.1	105.9	105.6	105.9	106.2	106.8	107.6	105.7	106.0	106.6
W. N. Central .....	103.3	103.2	103.4	103.1	102.9	102.4	102.9	102.9	103.2	103.4	104.0	104.9	103.2	102.8	103.9
S. Atlantic .....	104.3	104.9	105.8	106.2	106.5	106.4	107.3	107.6	107.9	108.0	108.4	109.2	105.3	106.9	108.4
E. S. Central .....	105.5	106.0	107.2	107.6	108.3	108.6	109.1	109.1	109.5	109.7	110.2	111.1	106.6	108.8	110.1
W. S. Central .....	102.9	101.6	100.9	99.7	98.9	97.6	97.5	97.2	97.6	97.8	98.5	99.6	101.3	97.8	98.4
Mountain .....	104.7	105.2	106.1	106.7	107.4	107.3	107.6	107.9	108.6	109.1	109.9	111.0	105.7	107.6	109.7
Pacific .....	103.6	104.1	104.7	104.2	104.1	103.7	103.8	103.8	104.0	104.4	105.0	106.1	104.1	103.8	104.9
<b>Real Personal Income (Billion \$2009)</b>															
New England .....	752	762	768	775	775	779	783	787	791	797	802	806	764	781	799
Middle Atlantic .....	1,910	1,935	1,950	1,956	1,957	1,965	1,975	1,983	1,993	2,004	2,015	2,023	1,937	1,970	2,009
E. N. Central .....	2,028	2,045	2,060	2,084	2,082	2,093	2,103	2,111	2,123	2,137	2,147	2,157	2,054	2,097	2,141
W. N. Central .....	977	983	989	994	989	994	997	1,000	1,006	1,013	1,018	1,024	985	995	1,015
S. Atlantic .....	2,614	2,638	2,659	2,686	2,705	2,720	2,739	2,756	2,777	2,799	2,817	2,835	2,649	2,730	2,807
E. S. Central .....	750	757	762	770	771	774	778	781	786	791	796	800	760	776	793
W. S. Central .....	1,713	1,714	1,723	1,725	1,730	1,735	1,744	1,752	1,767	1,783	1,797	1,811	1,719	1,740	1,789
Mountain .....	925	936	942	948	951	957	963	969	978	987	994	1,002	938	960	990
Pacific .....	2,251	2,285	2,302	2,324	2,338	2,348	2,369	2,379	2,397	2,416	2,431	2,447	2,290	2,358	2,423
<b>Households (Thousands)</b>															
New England .....	5,808	5,808	5,815	5,821	5,828	5,834	5,837	5,841	5,848	5,856	5,864	5,874	5,821	5,841	5,874
Middle Atlantic .....	15,931	15,928	15,943	15,958	15,972	15,986	15,996	16,004	16,019	16,034	16,052	16,070	15,958	16,004	16,070
E. N. Central .....	18,661	18,693	18,709	18,729	18,744	18,760	18,770	18,779	18,801	18,819	18,840	18,864	18,729	18,779	18,864
W. N. Central .....	8,455	8,475	8,492	8,509	8,525	8,543	8,558	8,572	8,594	8,613	8,633	8,655	8,509	8,572	8,655
S. Atlantic .....	24,630	24,728	24,824	24,920	25,016	25,111	25,196	25,279	25,374	25,469	25,563	25,662	24,920	25,279	25,662
E. S. Central .....	7,532	7,546	7,557	7,570	7,581	7,595	7,607	7,618	7,633	7,649	7,664	7,681	7,570	7,618	7,681
W. S. Central .....	14,310	14,365	14,418	14,470	14,523	14,577	14,628	14,676	14,731	14,786	14,840	14,897	14,470	14,676	14,897
Mountain .....	8,779	8,812	8,848	8,884	8,922	8,957	8,992	9,026	9,064	9,103	9,143	9,184	8,884	9,026	9,184
Pacific .....	18,398	18,459	18,514	18,568	18,624	18,679	18,726	18,776	18,834	18,893	18,950	19,009	18,568	18,776	19,009
<b>Total Non-farm Employment (Millions)</b>															
New England .....	7.2	7.2	7.2	7.2	7.3	7.3	7.3	7.3	7.4	7.4	7.4	7.4	7.2	7.3	7.4
Middle Atlantic .....	18.9	19.0	19.1	19.1	19.2	19.2	19.3	19.3	19.4	19.4	19.4	19.4	19.0	19.3	19.4
E. N. Central .....	21.4	21.4	21.5	21.6	21.7	21.7	21.8	21.8	21.9	21.9	21.9	21.9	21.5	21.8	21.9
W. N. Central .....	10.4	10.5	10.5	10.5	10.5	10.5	10.6	10.6	10.6	10.6	10.7	10.7	10.5	10.5	10.6
S. Atlantic .....	26.7	26.9	27.1	27.3	27.4	27.6	27.7	27.9	28.0	28.1	28.1	28.2	27.0	27.6	28.1
E. S. Central .....	7.8	7.8	7.8	7.9	7.9	7.9	8.0	8.0	8.0	8.0	8.0	8.1	7.8	8.0	8.0
W. S. Central .....	16.6	16.6	16.7	16.7	16.8	16.8	16.9	16.9	17.0	17.0	17.1	17.2	16.6	16.8	17.1
Mountain .....	9.9	10.0	10.0	10.1	10.2	10.2	10.3	10.3	10.4	10.4	10.5	10.5	10.0	10.3	10.4
Pacific .....	21.6	21.8	22.0	22.1	22.3	22.4	22.5	22.6	22.7	22.8	22.8	22.9	21.9	22.4	22.8

- = no data available

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

Regions refer to U.S. Census divisions.

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

**Historical data:** Latest data available from U.S. Department of Commerce, Bureau of Economic Analysis; Federal Reserve System, Statistical release G17.

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

**Projections:** Macroeconomic projections are based on the Global Insight Model of the U.S. Economy.

**Table 9c. U.S. Regional Weather Data**

U.S. Energy Information Administration | Short-Term Energy Outlook - December 2016

	2015				2016				2017				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2015	2016	2017
<b>Heating Degree Days</b>															
New England .....	3,847	817	58	1,790	2,837	900	75	2,090	3,168	836	127	2,160	6,512	5,902	6,291
Middle Atlantic .....	3,578	610	40	1,544	2,663	749	39	1,880	2,913	652	81	1,959	5,771	5,330	5,604
E. N. Central .....	3,690	658	76	1,742	2,865	754	48	1,985	3,147	706	116	2,207	6,166	5,653	6,177
W. N. Central .....	3,375	654	95	1,966	2,895	659	103	2,114	3,230	663	142	2,381	6,090	5,771	6,415
South Atlantic .....	1,667	154	8	659	1,380	210	2	906	1,416	190	14	967	2,488	2,498	2,586
E. S. Central .....	2,142	184	14	876	1,751	231	5	1,143	1,816	239	19	1,297	3,216	3,130	3,372
W. S. Central .....	1,401	70	2	616	1,049	78	1	664	1,105	73	4	793	2,089	1,792	1,975
Mountain .....	1,903	705	123	1,870	2,077	676	160	1,629	2,144	621	129	1,809	4,601	4,542	4,702
Pacific .....	1,087	527	78	1,199	1,302	465	95	1,043	1,373	503	75	1,075	2,891	2,905	3,025
U.S. Average .....	2,340	442	49	1,252	1,946	480	51	1,379	2,087	455	68	1,495	4,084	3,856	4,106
<b>Heating Degree Days, Prior 10-year Average</b>															
New England .....	3,166	838	134	2,147	3,212	824	133	2,104	3,200	830	122	2,122	6,285	6,272	6,274
Middle Atlantic .....	2,935	666	90	1,976	2,982	651	90	1,926	2,982	660	81	1,938	5,667	5,649	5,661
E. N. Central .....	3,192	694	123	2,262	3,246	689	125	2,205	3,254	701	114	2,192	6,272	6,266	6,261
W. N. Central .....	3,273	691	150	2,433	3,298	693	150	2,393	3,302	707	142	2,378	6,546	6,534	6,529
South Atlantic .....	1,478	195	14	1,010	1,498	184	14	972	1,502	188	12	970	2,696	2,668	2,671
E. S. Central .....	1,853	236	19	1,358	1,898	225	19	1,307	1,905	231	16	1,291	3,466	3,450	3,442
W. S. Central .....	1,188	86	5	834	1,221	83	5	814	1,227	88	4	803	2,113	2,123	2,122
Mountain .....	2,258	730	150	1,873	2,231	725	147	1,880	2,215	733	142	1,854	5,012	4,982	4,945
Pacific .....	1,534	621	92	1,205	1,495	610	88	1,212	1,461	597	88	1,193	3,453	3,405	3,339
U.S. Average .....	2,182	493	77	1,567	2,198	483	76	1,534	2,192	487	71	1,524	4,318	4,292	4,273
<b>Cooling Degree Days</b>															
New England .....	0	72	488	0	0	80	543	0	0	94	430	1	560	624	524
Middle Atlantic .....	0	187	616	3	0	145	737	6	0	174	573	6	806	888	753
E. N. Central .....	0	221	498	9	3	230	704	20	0	228	564	9	728	957	801
W. N. Central .....	3	267	659	13	10	319	712	31	3	287	705	12	941	1,072	1,007
South Atlantic .....	137	768	1,163	338	138	654	1,348	255	125	648	1,159	231	2,407	2,396	2,163
E. S. Central .....	23	581	1,021	99	42	536	1,256	131	29	526	1,064	69	1,724	1,965	1,688
W. S. Central .....	50	853	1,570	267	122	835	1,599	325	94	909	1,535	205	2,740	2,880	2,743
Mountain .....	45	431	921	87	35	468	889	118	23	472	985	84	1,484	1,510	1,564
Pacific .....	52	227	674	121	36	228	592	75	32	201	592	76	1,074	931	900
U.S. Average .....	46	435	875	134	54	411	966	125	45	417	871	97	1,490	1,556	1,429
<b>Cooling Degree Days, Prior 10-year Average</b>															
New England .....	0	85	420	1	0	81	420	1	0	81	434	1	506	502	516
Middle Atlantic .....	0	168	557	5	0	168	549	5	0	169	567	6	731	722	742
E. N. Central .....	3	234	545	6	3	229	528	6	3	234	543	8	787	766	788
W. N. Central .....	7	282	683	9	7	279	674	9	7	281	673	12	981	969	973
South Atlantic .....	110	636	1,158	210	114	661	1,148	222	117	666	1,168	228	2,114	2,145	2,178
E. S. Central .....	33	526	1,053	52	32	541	1,038	56	33	545	1,057	66	1,663	1,668	1,700
W. S. Central .....	94	883	1,519	184	90	890	1,518	191	90	876	1,528	204	2,679	2,689	2,698
Mountain .....	17	423	930	75	21	429	930	76	23	425	931	82	1,445	1,456	1,461
Pacific .....	26	170	601	65	29	180	612	72	30	181	608	74	863	892	893
U.S. Average .....	40	396	850	84	42	404	845	89	43	406	858	93	1,370	1,380	1,399

- = 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](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**

	October 2016	November 2016	October-November 2016 Average	October-November 2015 Average	2013 – 2015 Average
<b>Global Petroleum and Other Liquids (million barrels per day)</b>					
Global Petroleum and Other Liquids Production (a)	96.8	97.5	97.2	96.5	93.4
Global Petroleum and Other Liquids Consumption (b)	96.2	96.0	96.1	94.0	92.7
Biofuels Production (c)	2.5	2.1	2.3	2.3	2.0
Biofuels Consumption (c)	2.1	2.1	2.1	2.1	2.0
Iran Liquid Fuels Production	4.5	4.6	4.5	3.5	3.3
Iran Liquid Fuels Consumption	1.7	1.7	1.7	1.8	1.9
<b>Petroleum and Petroleum Products Produced and Consumed in Countries Other Than Iran (million barrels per day)</b>					
Production (d)	89.8	90.8	90.3	90.8	88.0
Consumption (d)	92.4	92.2	92.3	90.2	88.9
Production minus Consumption	-2.6	-1.4	-2.0	0.6	-0.9
World Inventory Net Withdrawals Including Iran	-0.6	-1.5	-1.0	-2.5	-0.7
Estimated OECD Inventory Level (e) (million barrels)	3,045	3,061	3,053	2,946	2,708
<b>Surplus Production Capacity (million barrels per day)</b>					
OPEC Surplus Crude Oil Production Capacity (f)	1.0	1.1	1.1	1.5	1.9

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

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

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

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

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

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



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

Source: U.S. Energy Information Administration.

**Table a2. Crude Oil and Petroleum Product Price Data**

Item	October 2016	November 2016	October-November 2016 Average	October-November 2015 Average	2013 – 2015 Average
Brent Front Month Futures Price (\$ per barrel)	51.39	47.08	49.24	47.69	87.25
WTI Front Month Futures Price (\$ per barrel)	49.94	45.76	47.85	44.69	79.91
Dubai Front Month Futures Price (\$ per barrel)	49.08	44.42	46.75	44.16	84.58
Brent 1st - 13th Month Futures Spread (\$ per barrel)	-4.19	-5.28	-4.74	-7.10	0.15
WTI 1st - 13th Month Futures Spread (\$ per barrel)	-3.84	-4.83	-4.34	-6.04	1.52
RBOB Front Month Futures Price (\$ per gallon)	1.49	1.38	1.43	1.34	2.37
Heating Oil Front Month Futures Price (\$ per gallon)	1.57	1.47	1.52	1.46	2.47
RBOB - Brent Futures Crack Spread (\$ per gallon)	0.27	0.26	0.26	0.20	0.29
Heating Oil - Brent Futures Crack Spread (\$ per gallon)	0.34	0.35	0.34	0.33	0.40

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

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

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

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