EXHIBIT NO. _____ (AML-7)
DOCKET NOS. UE-200115
COLSTRIP UNIT 4 SALE
WITNESS: AMANDA MARIE LEVIN

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, Complainant, v. PUGET SOUND ENERGY, Respondent.	DOCKET NO. UE-200115

SEVENTH EXHIBIT TO THE

PREFILED RESPONSE TESTIMONY OF

AMANDA LEVIN

ON BEHALF OF

THE NATURAL RESOURCES DEFENSE COUNCIL

October 2, 2020

Independent Statistics & Analysis
U.S. Energy Information Administration

September 2020

Short-Term Energy Outlook (STEO)

Forecast highlights

Global liquid fuels

- The September *Short-Term Energy Outlook* (STEO) remains subject to heightened levels of uncertainty because mitigation and reopening efforts related to the 2019 novel coronavirus disease (COVID-19) continue to evolve. Reduced economic activity related to the COVID-19 pandemic has caused changes in energy demand and supply patterns in 2020. This STEO assumes U.S. gross domestic product declined by 4.6% in the first half of 2020 from the same period a year ago and will rise beginning in the third quarter of 2020, with year-over-year growth of 3.1% in 2021. The U.S. macroeconomic assumptions in this outlook are based on forecasts by IHS Markit.

- Brent crude oil spot prices averaged $45 per barrel (b) in August, up $2/b from the average in July. Brent prices in August were up $26/b from the multiyear low monthly average price in April. The increase in oil prices has occurred as EIA estimates global oil markets have shifted from global liquid fuels inventories building at a rate of 7.2 million barrels per day (b/d) in the second quarter to drawing at a rate of 3.7 million b/d in the third quarter. EIA expects inventory draws in the fourth quarter of 3.1 million b/d before markets become relatively balanced in 2021, with forecast draws of 0.3 million b/d. Despite expected inventory draws in the coming months, EIA expects high inventory levels and surplus crude oil production capacity will limit upward pressure on oil prices. EIA forecasts monthly Brent spot prices will average $44/b during the fourth quarter of 2020 and rise to an average of $49/b in 2021 as oil markets become more balanced.

- EIA estimates that global consumption of petroleum and liquid fuels averaged 94.3 million b/d in August. Liquid fuels consumption was down 8.2 million b/d from August 2019, but it was up from an average of 85.1 million b/d during the second quarter of 2020 and 93.3 million b/d in July. EIA forecasts that consumption of petroleum and liquid fuels globally will average 93.1 million b/d for all of 2020, down 8.3 million b/d from 2019, before increasing by 6.5 million b/d in 2021. EIA's forecast for growth in 2021 is 0.5 million b/d less than in the August STEO. The downward revision is largely a result of lower expected consumption growth in China, which EIA now forecasts to grow by 1.0 million b/d in 2021.

- EIA estimates that global liquid fuels production averaged 91.5 million b/d in August, down 9.7 million b/d year over year. The decline largely reflects voluntary production

cuts by the Organization of the Petroleum Exporting Countries (OPEC) and partner countries (OPEC+), along with reductions in drilling activity and production curtailments in the United States because of low oil prices. EIA expects global liquid fuels production will rise to an annual average of 99.3 million b/d in 2021.

- Crude oil production in the United States has risen in recent months after declining from 12.7 million b/d in the first quarter of 2020 to a recent low of 10.0 million b/d in May. EIA estimates U.S. crude oil production increased to 10.8 million b/d in August. Production has risen as tight oil operators have brought wells back online in response to rising prices after curtailing production amid low oil prices in the second quarter. The increase in total U.S. production occurred despite shut-in production in the Gulf of Mexico as a result of Hurricane Laura. EIA expects production to rise to 11.2 million b/d in September as production in the Gulf of Mexico returns. However, after September, EIA expects U.S. crude oil production to decline slightly, averaging just under 11.0 million b/d during the first half of 2021 because EIA expects that new drilling activity will not generate enough production to offset declines from existing wells. EIA expects drilling activity to rise later in 2021, contributing to U.S. crude oil production reaching an average of 11.3 million b/d in the fourth quarter of 2021. On an annual average basis, EIA expects U.S. crude oil production to fall from an average of 12.2 million b/d in 2019 to 11.4 million b/d in 2020 and 11.1 million b/d in 2021.

- U.S. regular gasoline retail prices averaged $2.18 per gallon (gal) in August, largely unchanged from the average in July but 44 cents/gal lower than at the same time last year. EIA expects that gasoline prices will decrease through the rest of the year, falling to an average of $2.03/gal in December. Forecast U.S. regular gasoline retail prices average $2.16/gal in 2020 and $2.28/gal in 2021.

Natural Gas

- In August, the Henry Hub natural gas spot price averaged $2.30 per million British thermal units (MMBtu), up from an average of $1.77/MMBtu in July. Higher natural gas spot prices reflect rising demand for natural gas from the U.S. electric power sector as a result of warmer-than-normal temperatures during August and rising demand for U.S. liquefied natural gas (LNG) exports amid declining U.S. natural gas production. EIA expects that rising domestic demand and demand for LNG exports heading into winter, combined with reduced production, will cause Henry Hub spot prices to rise to a monthly average of $3.40/MMBtu in January 2021. EIA expects that monthly average spot prices will remain higher than $3.00/MMBtu for all of 2021, averaging $3.19/MMBtu for the year, up from a forecast average of $2.16/MMBtu in 2020.

- EIA estimates that total U.S. working natural gas in storage ended August at 3.5 trillion cubic feet (Tcf), 13% more than the five-year (2015–19) average. In the forecast, EIA expects inventories to reach almost 4.0 Tcf on October 31, which would be 6% more than the five-year average.

- EIA expects that total U.S. consumption of natural gas will average 82.7 billion cubic feet per day (Bcf/d) in 2020, down 2.7% from 2019. The largest decline in consumption occurs in the industrial sector. EIA forecasts industrial consumption will average 21.9 Bcf/d in 2020, down 1.0 Bcf/d from 2019 as a result of reduced manufacturing activity. The decline in total U.S. consumption also reflects lower heating demand in early 2020, contributing to residential and commercial demand in 2020 averaging 12.9 Bcf/d (down 0.8 Bcf/d from 2019) and 8.8 Bcf/d (down 0.8 Bcf/d from 2019), respectively. EIA expects U.S. natural gas consumption will average 79.1 Bcf/d in 2021, a 4.3% decline from 2020. The expected decline is the result of rising natural gas prices that will reduce demand for natural gas in the electric power sector.

- EIA forecasts U.S. dry natural gas production will average 89.9 Bcf/d in 2020 and monthly average production will fall from a record 96.2 Bcf/d in November 2019 to 85.5 Bcf/d in February 2021, before increasing slightly. Natural gas production declines the most in the Permian region, where EIA expects low crude oil prices will reduce associated natural gas output from oil-directed rigs. EIA's forecast of dry natural gas production in the United States averages 86.6 Bcf/d in 2021. EIA expects production to begin rising in the second quarter of 2021 in response to higher natural gas and crude oil prices.

- EIA estimates that U.S. LNG exports averaged 3.7 Bcf/d in August, a 19% increase from July. This increase occurred amid rising spot and forward natural gas prices in Europe and Asia, which had fallen to record lows in late May and June as COVID-19 mitigation efforts reduced global natural gas consumption. Higher global forward prices indicate improving netbacks for buyers of U.S. LNG in European and Asian markets for the upcoming fall and winter seasons amid expectations of natural gas demand recovery and potential LNG supply reduction because of maintenance at the Gorgon LNG plant in Australia. EIA forecasts that U.S. LNG exports will return to pre-COVID levels by November 2020 and will average more than 9 Bcf/d from December 2020 through February 2021.

Electricity, coal, renewables, and emissions

- EIA forecasts 2.4% less electricity consumption in the United States in 2020 compared with 2019. EIA expects retail sales of electricity to fall by 6.4% this year in the commercial sector and by 6.0% in the industrial sector. EIA forecasts residential sector retail sales will increase by 3.5% in 2020. Milder winter temperatures earlier in the year led to lower consumption for space heating, but that factor is offset by increased summer cooling demand and an increase in electricity use by more people working from home. In 2021, EIA forecasts total U.S. electricity consumption will be similar to the 2020 level of consumption.

- EIA expects the share of U.S. electric power sector generation from natural gas-fired power plants will increase from 37% in 2019 to 39% this year. In 2021, the forecast

natural gas share declines to 34% in response to higher natural gas prices. Coal's forecast share of electricity generation falls from 24% in 2019 to 20% in 2020 and then increases to 22% in 2021. Electricity generation from renewable energy sources rises from 17% in 2019 to 20% in 2020 and to 22% in 2021. The increase in the share from renewables is the result of planned additions to wind and solar generating capacity. EIA expects a decline in nuclear generation in both 2020 and 2021, reflecting recent and planned retirements of nuclear generating capacity.

- EIA forecasts that renewable energy will be the fastest-growing source of electricity generation in 2020. EIA expects the electric power sector will add 23.3 gigawatts (GW) of new wind capacity and 13.7 GW of utility-scale solar capacity in 2020.

- EIA expects total U.S. coal production in 2020 to be 511 million short tons (MMst), 194 MMst (28%) lower than in 2019. Mitigation efforts related to COVID-19 and reduced demand from the U.S. electric power sector amid low natural gas prices have both contributed to mine idling and mine closures. EIA expects production to rise to 600 MMst in 2021, up 89 MMst (17%) from 2020. This forecast increase reflects rising demand for coal from U.S. electricity generators because of higher natural gas prices compared with 2020.

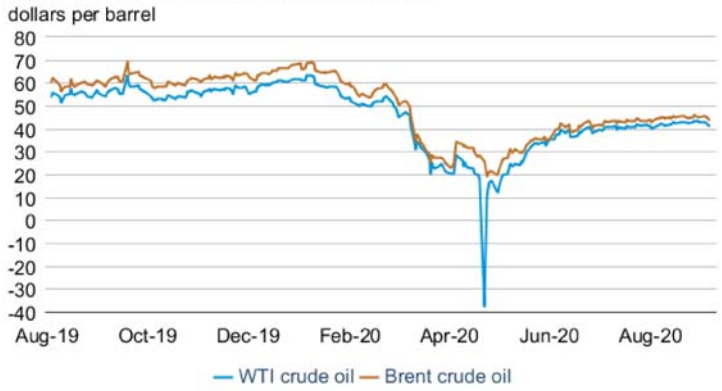
- EIA forecasts that U.S. energy-related carbon dioxide (CO_2) emissions, after decreasing by 2.8% in 2019, will decrease by 10.0% (512 million metric tons) in 2020 with reduced consumption of all fossil fuels, particularly coal (18.3%) and petroleum (11.7%). This decline in emissions is the result of less energy consumption related to restrictions on business and travel activity and slowing economic growth related to COVID-19 mitigation efforts. In 2021, EIA forecasts that energy-related CO_2 emissions will increase by 4.8% as the economy recovers and energy use increases.

Petroleum and natural gas markets review

Crude oil

Prices: The front-month futures price for Brent crude oil settled at $44.07 per barrel (b) on September 3, 2020, a decrease of 8 cents/b from August 3, 2020. The front-month futures price for West Texas Intermediate (WTI) crude oil for delivery at Cushing, Oklahoma, increased by 36 cents/b during the same period, settling at $41.37/b on September 3 **(Figure 1)**.

Figure 1. Crude oil front-month futures prices



Source: CME Group and Intercontinental Exchange, as compiled by Bloomberg L.P.
Note: WTI=West Texas Intermediate

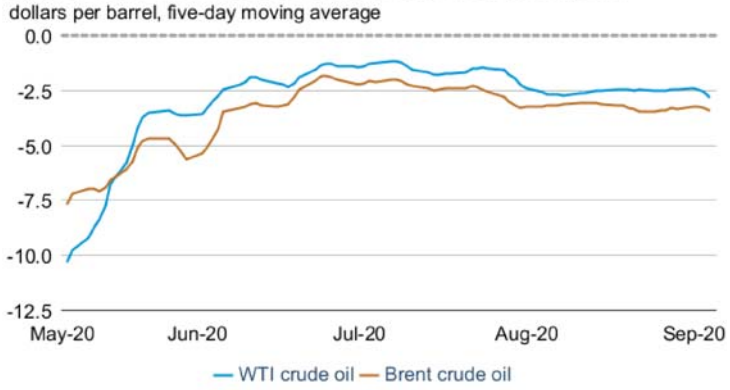
Brent crude oil prices increased for the fourth-consecutive month, driven by continued increases in global oil consumption amid reduced oil supply. As of the end of August, oil prices had moved into an increasingly narrow trading range with some of the lowest levels of price volatility since 2015. Although considerable uncertainty in the global economy and oil markets remains, price volatility may have declined primarily as a result of the large volume of oil inventories accumulated during the first half of 2020 and a slowing rate of oil consumption growth. EIA estimates that total commercial petroleum inventories in the Organization for Economic Cooperation and Development (OECD) as of the end of August 2020 were sufficient to meet 71 days of current OECD oil demand, compared with 63 days on average for August over the past five years (2015–19). However, crude oil prices fell on September 4 and 8, breaking out of the narrow trading range amid heightened volatility.

Indicators of economic activity have largely been higher than market participants' expectations, particularly in sectors such as housing and in indicators like new durable goods orders. Nonetheless, economic recovery in some sectors that are important for oil consumption, such as personal travel and tourism, has been slower. EIA estimates that global oil consumption in August grew by 1.0 million barrels per day (b/d) from July, the slowest month-over-month increase since consumption began to recover in May and the first time during that period that consumption growth was surpassed by growth in world oil production. Despite the different pace of increase between global oil production and consumption during August, EIA forecasts oil

market balances to continue tightening for the remainder of 2020 as a result of continued demand recovery, restrained production from members of the Organization of the Petroleum Exporting Countries and partner countries (OPEC+), and price-related declines in production from the United States.

Although crude oil prices have increased slightly since mid-July, crude oil futures price spreads have developed a wider contango (when near-term prices are lower than longer-dated ones) during the same period. The five-day moving average of the Brent 1st–13th spread widened by 93 cents/b since July 15 to settle at -$3.41/b on September 3, 2020, and that of the WTI 1st–13th spread widened by 99 cents/b during the same period to settle at -$2.83/b **(Figure 2)**. A wider contango can indicate reduced refiner purchases or increased oil supply availability, which could suggest some slower growth in the outlook for global oil consumption and smaller inventory withdrawals. EIA forecasts that the large inventory withdrawals during the second half of 2020, averaging 3.4 million b/d, will subside in 2021 into a more balanced market and that global inventory withdrawals will average 0.3 million b/d for the year.

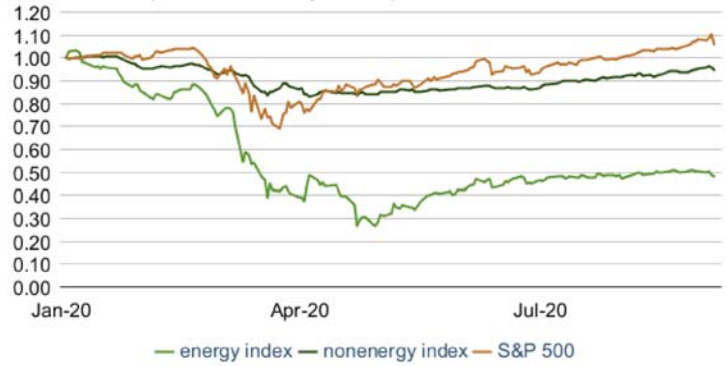
Figure 2. Crude oil front-month to 13th month futures price spread



Source: CME Group and Intercontinental Exchange, as compiled by Bloomberg L.P.
Note: WTI=West Texas Intermediate

Commodity and equity prices: Certain sectors of the global economy have recovered faster than others, which is reflected in the price trends of different assets. The S&P 500 index, for example, is up 6% year-to-date through September 3 after having declined, at one point, by 31% in March. In addition, the S&P Goldman Sachs (GSCI) nonenergy commodity price index has recovered nearly all losses from the first and second quarters of 2020, down 5% through September 3, whereas the GSCI energy commodity index remains down 52% **(Figure 3)**. These differences in price changes likely reflect the different pace of economic recovery in various sectors. The S&P 500 index of equities is heavily weighted toward information technology and consumer discretionary companies, ones that were likely less affected or even had increases in revenue and activity as a result of the recession, such as internet-based retailers or cloud computing services.

Figure 3. Energy vs nonenergy commodities and equities
sub-index level (indexed to January 2, 2020)

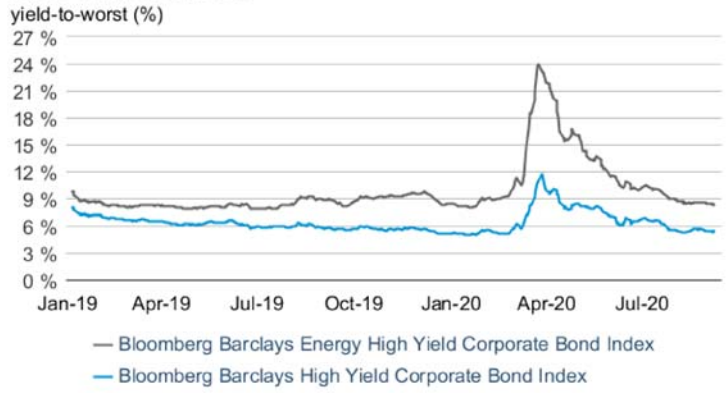


eia Source: S&P Dow Jones, Bloomberg L.P.

The GSCI nonenergy commodity index has primarily been driven by increases in precious metals prices, which have likely increased as a result of low interest rates and increased inflation expectations. Other nonenergy commodity prices, such as copper and other industrial metals, have also increased as a result of expectations that government stimulus would likely be directed to infrastructure or construction. On the other hand, little recovery and low expectations of increased transportation, travel, and tourism has likely contributed to the subdued growth in the GSCI energy commodities index, which primarily represents crude oil and petroleum products prices.

Oil company bond yields: Bond yields for companies with a credit rating lower than investment grade, called high yield bonds, have declined for both oil exploration and production companies as well as broadly across all sectors. The Bloomberg Barclays Energy High Yield Corporate Bond Index's yield-to-worst (YTW), which represents the minimum achievable yield on the bonds after accounting for early prepayment, decreased to 8.31% as of September 3, 2020, and the broader high yield index declined to 5.35% **(Figure 4)**. The decline in the overall level of interest rates among other corporate bonds and government bonds has contributed to the decline in high yield bonds. More specifically, however, some companies that used to be rated as investment grade may have been reclassified as high yield, and other companies that defaulted on bonds may have been removed from these indexes. Such changes to the holdings of the high yield index would, as a result, remove higher credit risk companies and add lower credit risk companies, which would also contribute to a reduction in the YTW of the index. Nonetheless, the decline in bond yields suggests an improvement in borrowing conditions and lower risk of default for high yield companies. The YTW for high yield energy companies has declined to levels even lower than the end of 2019, when WTI crude oil prices reached $60/b or higher on some days. The lower YTW when WTI prices are near $40/b suggests some of the reduction in capital expenditures or other cost cutting announcements from U.S. oil companies are contributing to improved investor sentiment in the energy sector.

Figure 4. High yield bonds

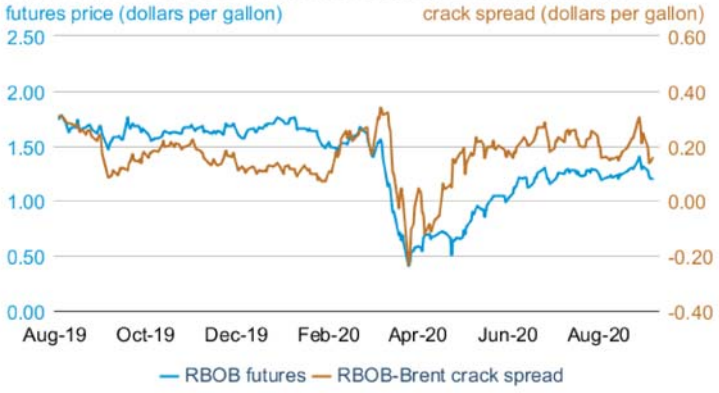


eia Bloomberg L.P., Barclays

Petroleum products

Gasoline prices: The front-month futures price of reformulated blendstock for oxygenate blending (RBOB, the petroleum component of gasoline used in many parts of the country) settled at $1.20 per gallon (gal) on September 3, down 1 cent/gal from August 3, 2020 **(Figure 5)**. The RBOB–Brent crack spread (the difference between the price of RBOB and the price of Brent crude oil) decreased by 1 cent/gal to settle at 16 cents/gal during the same period.

Figure 5. Historical RBOB front-month futures prices and crack spread



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

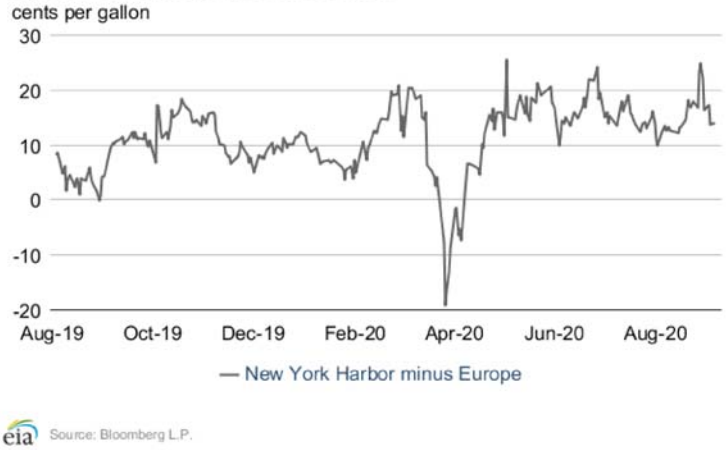
On August 24, the crack spread increased by more than 6 cents/gal, the largest one-day increase since April 22. The RBOB–Brent crack spread reached 30 cents/gal on August 25, its highest point since before the March 13 proclamation of a national state of emergency and the fifth highest for any day of the past year. The increase in the crack spread reflected expectation of lost gasoline production because of storm-related refinery closures. Hurricane Laura, which

made landfall as a Category 4 hurricane near Lake Charles, Louisiana, on early August 27, caused Gulf Coast refiners to reduce gross inputs by 1.0 million b/d for the week ending August 28 compared with a week earlier. Crack spreads declined to 14 cents/gal on September 1, reflecting both the passage of the hurricane and the front-month RBOB contract rolling to October delivery, which reflects winter grade gasoline that is cheaper for refineries to produce.

U.S. gasoline inventories decreased in August by 15 million barrels (6%) from July as finished motor gasoline consumption and net exports grew. EIA estimates that finished motor gasoline consumption increased to 8.9 million b/d for August, up 2% from 8.7 million b/d in July. Despite the larger-than-average inventory withdrawal, the August monthly average gasoline crack spread remained lower than the month's five-year (2015–2019) minimum for the sixth-consecutive month.

European gasoline: Although Northwest Europe's gasoline spot prices have risen from negative monthly average crack spreads with Brent crude oil in April and May, August's average crack spread was 4 cents/gal, which is 20 cents/gal lower than in August 2019. Furthermore, Europe's daily gasoline crack spreads during the past six months have averaged less than 1 cent/gal. Eurobob gasoline spot prices have been much lower than U.S. gasoline spot prices in New York Harbor. New York Harbor gasoline spot prices traded at a 12 to 25 cent/gal premium to Northwest Europe in August **(Figure 6)**. Since the start of 2018, only two instances of a wider crack spread have occurred. With a high premium for New York Harbor gasoline compared with Eurobob, imports of gasoline into the U.S. East Coast (Petroleum Administration for Defense District—PADD—1) averaged 613,000 b/d for the four weeks ending August 28, which would make it the first month since March in which imports were within the five-year range, if confirmed in EIA's *Petroleum Supply Monthly*. Imports from Europe to the East Coast could increase more in the coming weeks. Gulf Coast (PADD 3) refinery outages in late August and early September could contribute to reductions in supply to the East Coast via the Colonial and Plantation Pipelines, which could further increase demand for gasoline imports from Europe.

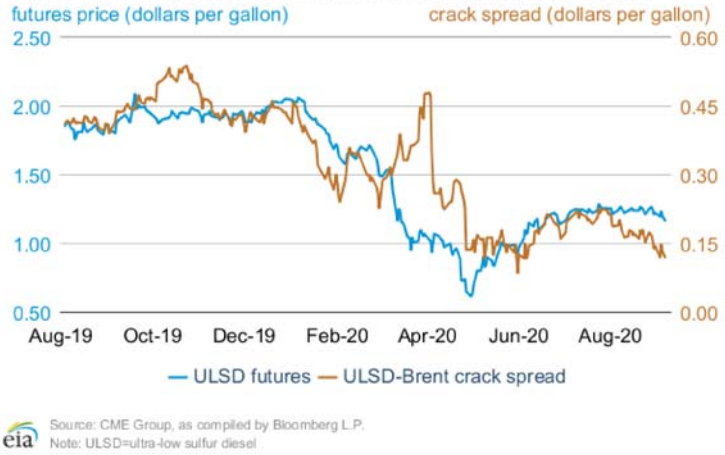
Figure 6. Gasoline spot price differentials



eia Source: Bloomberg L.P.

Ultra-low sulfur diesel prices: The ultra-low sulfur diesel (ULSD) front-month futures price for delivery in New York Harbor settled at $1.17/gal on September 3, 2020, down 7 cents/gal from August 3, 2020 **(Figure 7)**. The ULSD–Brent crack spread (the difference between the price of ULSD and the price of Brent crude oil) decreased by 7 cents/gal to settle at 12 cents/gal during the same period. The ULSD–Brent crack spread fell sharply in the last week of August.

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

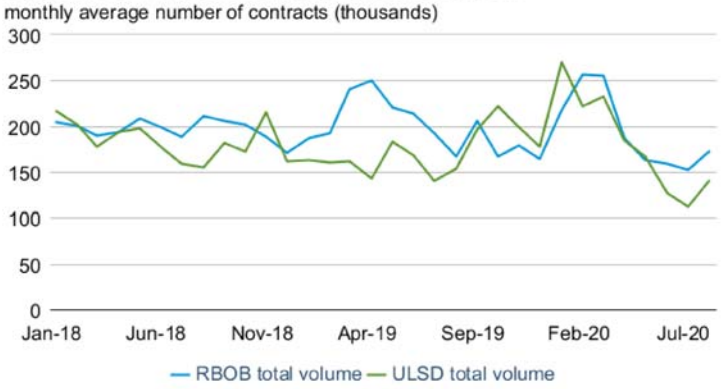


Source: CME Group, as compiled by Bloomberg L.P.
Note: ULSD=ultra-low sulfur diesel

Crack spreads likely fell in August, counter to typical seasonal patterns, as inventories during July and August remained at the highest levels since December 1982. EIA estimates that distillate consumption increased to 3.7 million b/d for August, up 6% from July's estimate of 3.5 million b/d but down 7% from a year ago.

Petroleum product trading volume: Trading volume for all futures contracts of RBOB and ULSD hit more-than-five-year lows in July and remained low in August. The monthly average numbers for all RBOB and ULSD contracts in August were 172,000 and 139,000, respectively **(Figure 8)**. Relative to their August five-year averages, trading volumes for RBOB were down 13%, and trading volumes for ULSD were down 15%. For their respective front-month contracts, volumes for RBOB and ULSD were down 19% and 21%, respectively. The reduction possibly reflects the significant decline in physical petroleum product market activity, including lower refinery runs and end-user hedging. Airlines, for example, regularly use the ULSD futures contract for hedging, and the significant declines in flight activity are likely contributing to a reduction in futures market participation among commercial airlines.

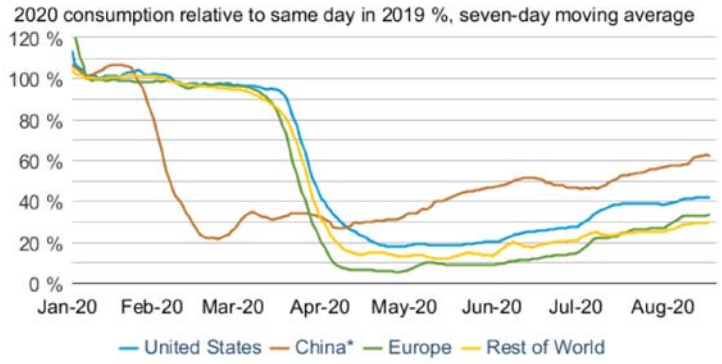
Figure 8. RBOB and ULSD total volume for all contracts



Source: CME Group, Bloomberg L.P.

U.S. and international jet fuel: Analysis of flight-level data provided by Cirium on commercial passenger flights suggest that demand for jet fuel in the United States is rising faster than in most other major aviation markets. EIA estimates that as of August 16, 2020, consumption of jet fuel by U.S. commercial passenger flights—a category of aircraft that EIA estimates accounted for 73% of total U.S. jet fuel consumption in January 2020—was about 612,000 b/d. This volume is 43% of the estimated amount consumed on the same date one year earlier **(Figure 9)**. U.S. year-on-year consumption is higher than consumption in Europe (36%), the rest of Africa (31%), the Middle East and North Africa (30%), the rest of Asia (28%), and in the rest of the Americas (24%). Year-on-year consumption in the United States was, however, lower than year-on-year consumption in China (including its Special Administrative Regions Hong Kong and Macau) (60%) and the countries of the Former Soviet Union (63%).

Figure 9. Ratio of year-to-date 2020 jet fuel consumption by commercial passenger jets to 2019 consumption



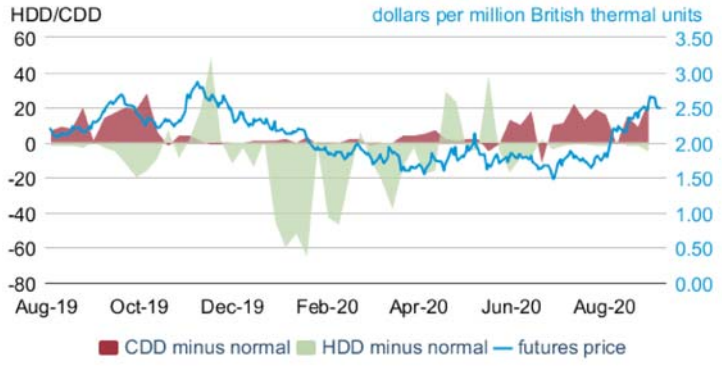
U.S. Energy Information Administration, using raw flight data from Cirium
Notes: China* inclusive of Hong Kong and Macau; consumption assigned to region of flight departure.

EIA assumes that the speed of each country's jet fuel demand recovery will depend on several factors, including the timing and intensity of each initial COVID-19 outbreak, the extent of government-required restrictions, and other non-aviation trends, such as gross domestic product growth and changes in energy intensity. Within the United States, EIA currently projects that jet fuel demand will rise from 1.1 million b/d in August 2020 to 1.5 million b/d in December 2020—59% and 85%, respectively, of the amount consumed in August and December 2019.

Natural Gas

Prices: The front-month natural gas futures contract for delivery at the Henry Hub settled at $2.49 per million British thermal units (MMBtu) on September 3, up 39 cents/MMBtu from August 3 **(Figure 10)**. The closing price on August 28 of $2.66/MMBtu was the highest price since November 22, 2019. The front-month futures price traded in a range of 89 cents/MMBtu in August, the widest trading range for August since 2010.

Figure 10. Natural gas front-month futures prices and actual minus historical average HDD and CDD

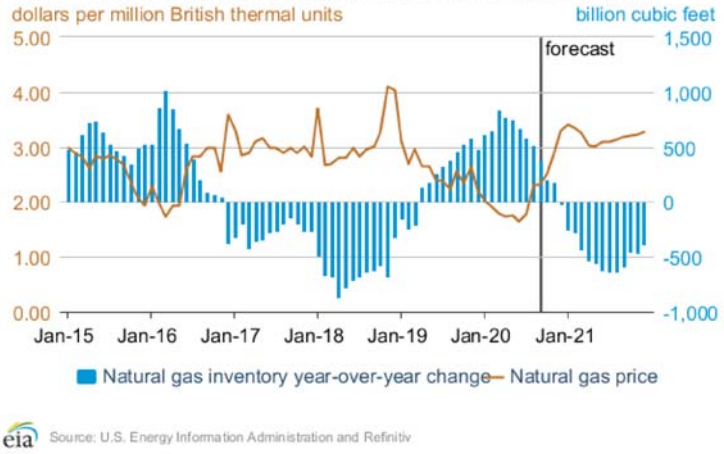


Source: CME Group and National Oceanic and Atmospheric Administration, as compiled by Bloomberg L.P.
Note: HDD=heating degree days, CDD=cooling degree days.

Higher-than-normal temperatures continued to contribute to increased consumption of natural gas for power generation. EIA estimates that natural gas consumption from the electric power sector totaled 41.0 billion cubic feet per day (Bcf/d) in August 2020, the second-highest on record for the month of August. Low natural gas prices in recent months have contributed to increase consumption for power generation, but they have also contributed to decreasing natural gas production, which declined to 88.4 Bcf/d in August, 4.9 Bcf/d lower than August 2019. EIA forecasts that production will decline by about the same amount in 2021 as consumption declines, but that liquefied natural gas (LNG) exports will increase, which will tend to lower inventories compared with 2020 and provide upward pressure on Henry Hub prices. Rising international natural gas prices are further indications of increasing international demand for natural gas and LNG. The LNG Japan/Korea Marker and Title Transfer Facility price in the Netherlands both increased in August to the highest levels since January 2020.

Natural gas spot prices and inventory changes: The monthly average Henry Hub natural gas spot price rose to $2.30/MMBtu in August 2020, 53 cents/MMBtu higher than July and the first year-on-year increase in the monthly average price since March 2019. Natural gas inventories have shown year-on-year increases since April 2019 **(Figure 11)**. However, EIA forecasts that natural gas production will decline until March 2021, averaging 3.3 Bcf/d lower in 2021 than in 2020, and that natural gas inventories will begin showing year-on-year decreases in December 2020. The decline in inventories is expected to contribute to higher prices. EIA forecasts that Henry Hub spot prices will remain higher than $3.00/MMBtu throughout 2021, averaging $3.19/MMBtu, which would be $1.02/MMBtu higher than in 2020.

Figure 11. Natural gas prices and year-over-year change in inventory



Source: U.S. Energy Information Administration and Refinitiv

Notable forecast changes

- Because of the rapidly changing situation in energy markets, the U.S. Energy Information Administration's (EIA) current forecast includes a significant number of notable forecast changes. You can find more information in the detailed table of forecast changes.
- The macroeconomic forecast EIA used for this STEO assumes U.S. gross domestic product (GDP) declines by 4.8% in 2020 compared with an assumed decline of 6.1% in the August STEO. EIA also assumes a smaller increase in GDP in 2021 of 3.1%, compared with 3.7% growth assumed in the previous forecast. The U.S. macroeconomic assumptions in this outlook are based on forecasts by IHS Markit.
- EIA expects global consumption of petroleum and other liquid fuels will average 99.6 million barrels per day (b/d) in 2021, a reduction of 0.6 million b/d from the August STEO. The downward revision primarily reflects lower expected growth in China, where EIA forecasts liquid fuels consumption to rise by 1.0 million b/d in 2021 to average 15.0

million b/d. The revised petroleum consumption reflects a more plausible assessment of the country's energy intensity of economic growth.

- Recently released EIA data show that U.S. crude oil production for June was 10.4 million b/d, 0.7 million b/d more than estimated in last month's STEO forecast. The higher-than-expected production indicates a faster return of curtailed production than previously assumed. Despite the higher realized production levels, EIA's forecast for U.S. crude oil production for the fourth quarter of 2020 and 2021 is relatively unchanged.
- EIA forecasts U.S. dry natural gas production will average 86.6 billion cubic feet per day (Bcf/d) in 2021, which is 2.6 Bcf/d (3%) higher than forecast in the August STEO. The higher forecast largely reflects higher expected natural gas prices in the second half of 2020 because prices typically affect production with a lag.
- EIA expects Henry Hub natural gas spot prices to average $2.52 per million British thermal units (MMBtu) in the second half of 2020, compared with $2.26/MMBtu forecast in last month's STEO. The higher prices reflect an increase in demand for natural gas for use in power generation during a relatively hot August and also an increase in demand for U.S. exports of liquefied natural gas.
- EIA forecasts U.S. production of coal will total 600 MMst in 2021, which is 36 MMst (6%) higher than forecast in the August STEO. The higher forecast reflects higher expected natural gas prices in 2021 that will make coal more competitive in the U.S. electric power sector.

Short-Term Energy Outlook
Chart Gallery

September 9, 2020

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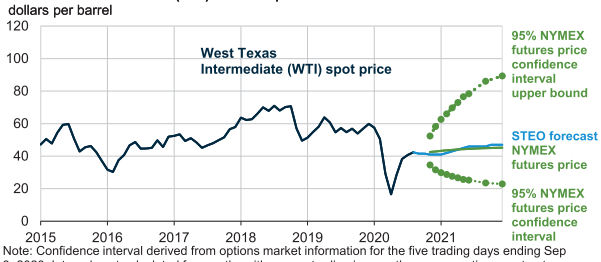
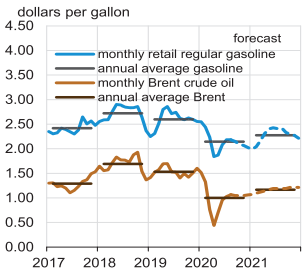
West Texas Intermediate (WTI) crude oil price and NYMEX confidence intervals



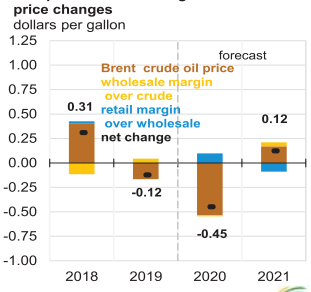
Note: Confidence interval derived from options market information for the five trading days ending Sep 3, 2020. Intervals not calculated for months with sparse trading in near-the-money options contracts.

Sources: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020, CME Group, and Bloomberg, L.P.

U.S. gasoline and crude oil prices



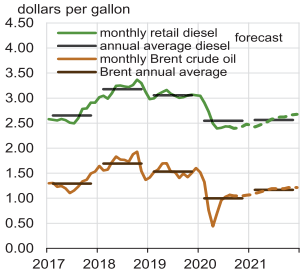
Components of annual gasoline price changes



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

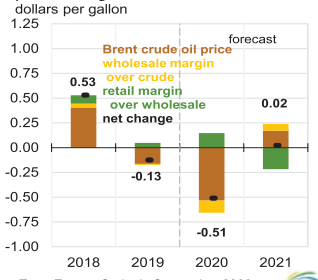
U.S. diesel and crude oil prices

dollars per gallon



Components of annual diesel prices changes

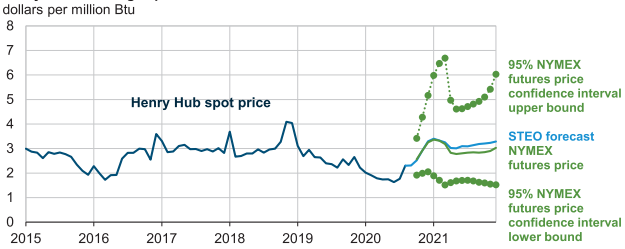
dollars per gallon



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

Henry Hub natural gas price and NYMEX confidence intervals

dollars per million Btu

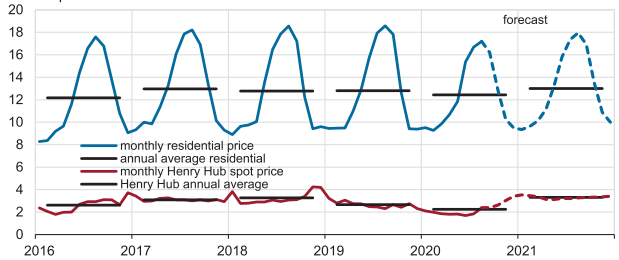


Note: Confidence interval derived from options market information for the five trading days ending Sep 3, 2020. Intervals not calculated for months with sparse trading in near-the-money options contracts.

Sources: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020, and CME Group

U.S. natural gas prices

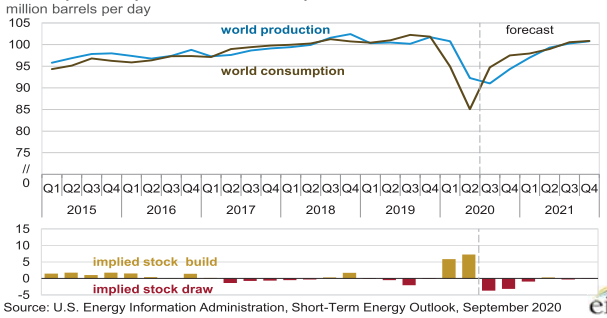
dollars per thousand cubic feet



Sources: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020, and Refinitiv

World liquid fuels production and consumption balance

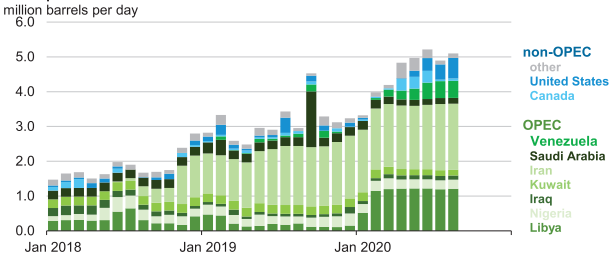
million barrels per day



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

Estimated unplanned liquid fuels production outages among OPEC and non-OPEC producers

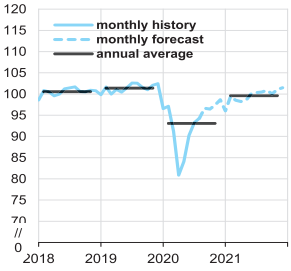
million barrels per day



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

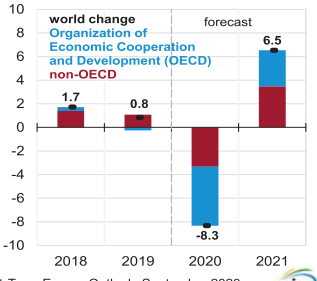
World liquid fuels consumption

million barrels per day



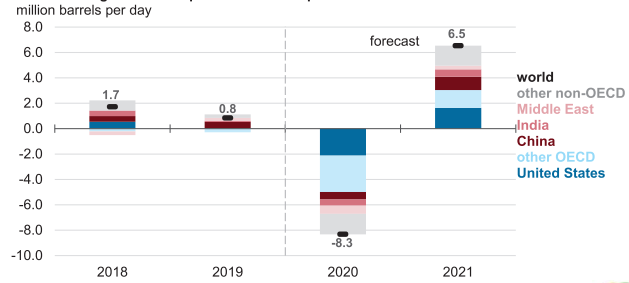
Components of annual change

million barrels per day



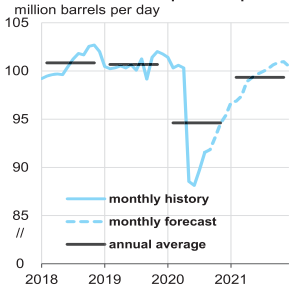
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

Annual change in world liquid fuels consumption
million barrels per day

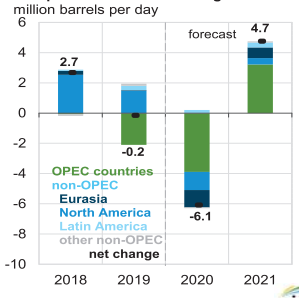


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

World crude oil and liquid fuels production
million barrels per day

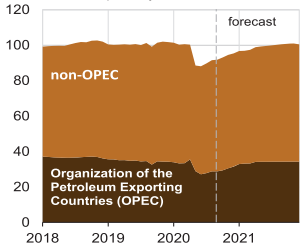


Components of annual change
million barrels per day

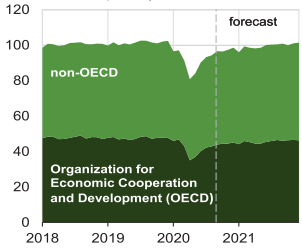


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

World liquid fuels production
million barrels per day

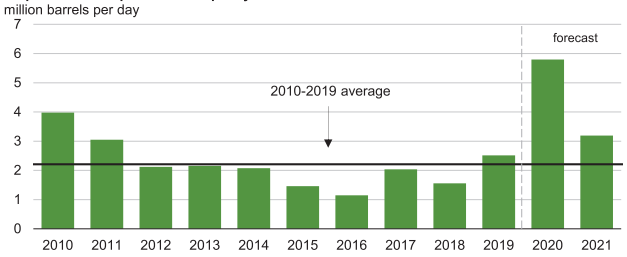


World liquid fuels consumption
million barrels per day



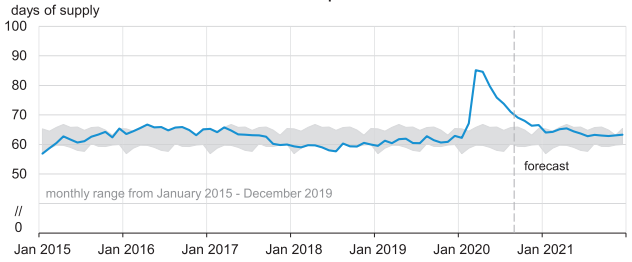
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

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



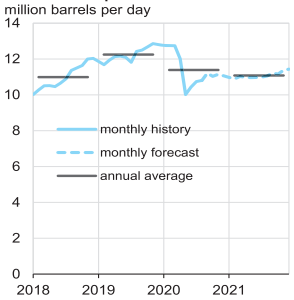
Note: Black line represents 2010-2019 average (2.2 million barrels per day).
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

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

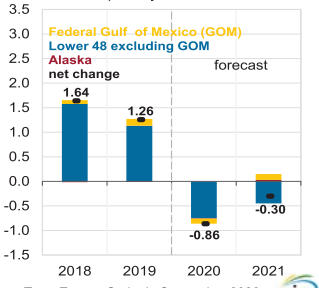


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

U.S. crude oil production
million barrels per day



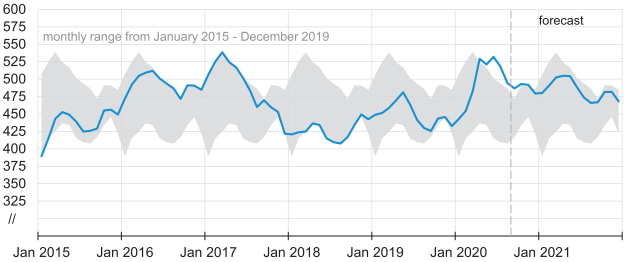
Components of annual change
million barrels per day



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

U.S. commercial crude oil inventories

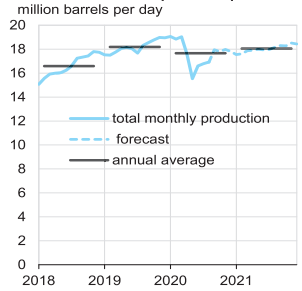
million barrels



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

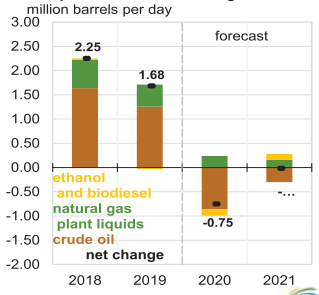
U.S. crude oil and liquid fuels production

million barrels per day



Components of annual change

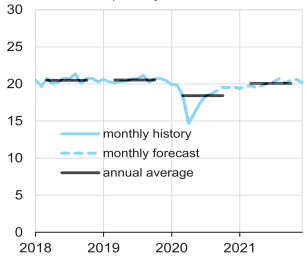
million barrels per day



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

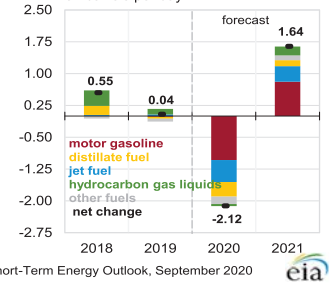
U.S. liquid fuels product supplied (consumption)

million barrels per day



Components of annual change

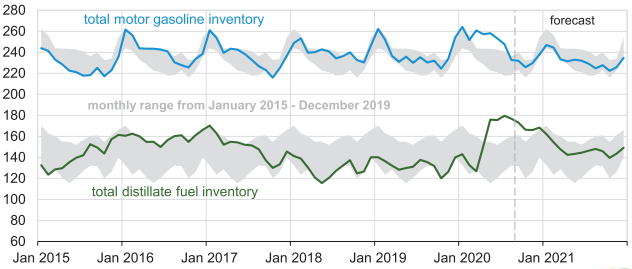
million barrels per day



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

U.S. gasoline and distillate inventories

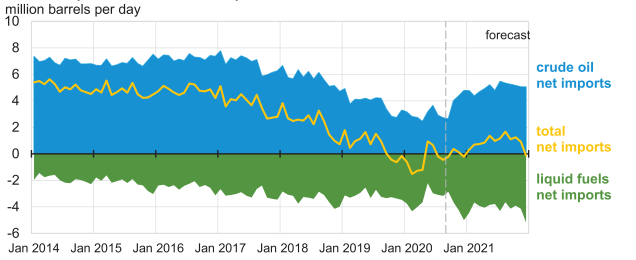
million barrels



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

U.S. net imports of crude oil and liquid fuels

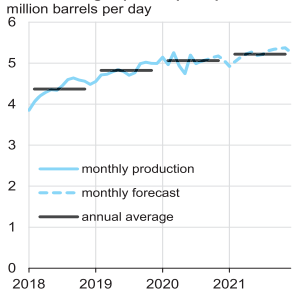
million barrels per day



Note: Liquids fuels include: gasoline, distillate fuels, hydrocarbon gas liquids, jet fuel, residual fuel oil, unfinished oils, other hydrocarbons/oxygenates, and other oils.
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

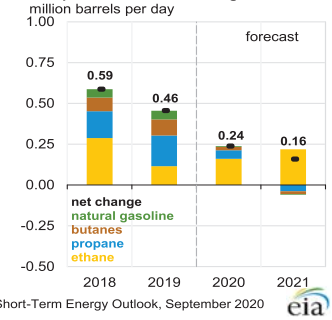
U.S. natural gas plant liquids production

million barrels per day



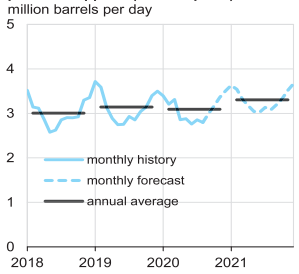
Components of annual change

million barrels per day

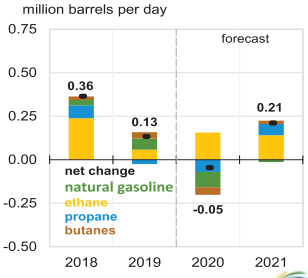


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

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

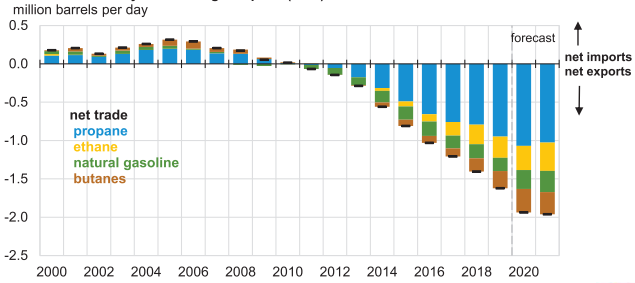


Components of annual change
million barrels per day



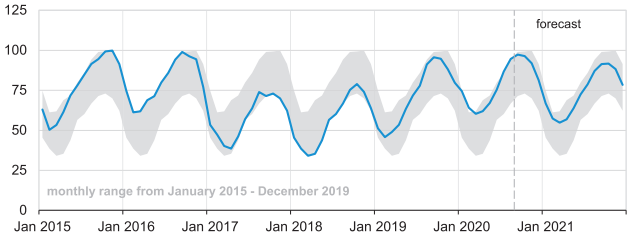
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

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



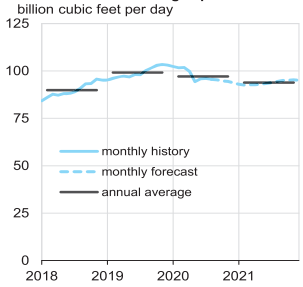
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

U.S. commercial propane inventories
million barrels

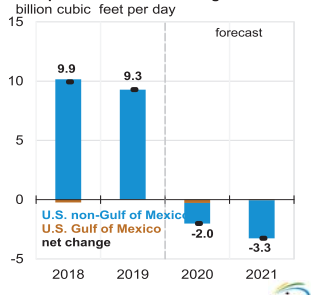


Note: Excludes propylene.
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

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

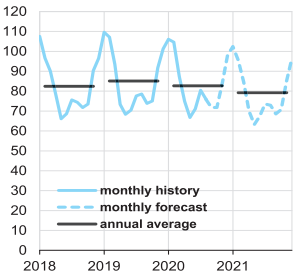


Components of annual change
billion cubic feet per day

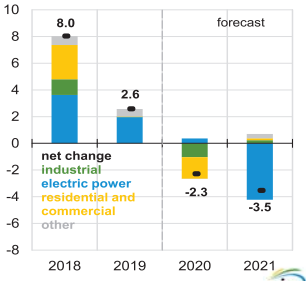


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

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

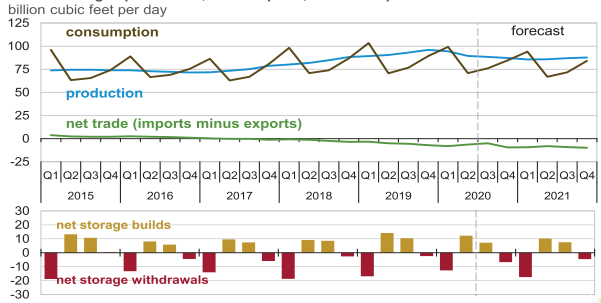


Components of annual change
billion cubic feet per day



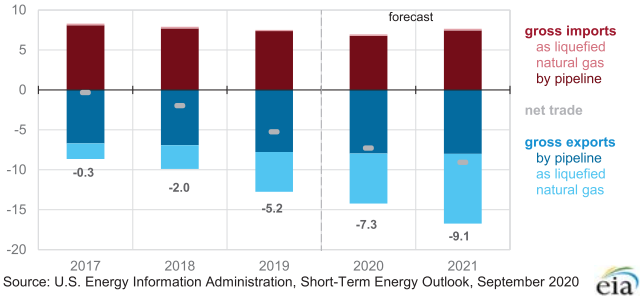
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

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



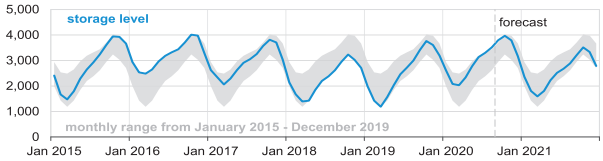
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

U.S. annual natural gas trade
billion cubic feet per day

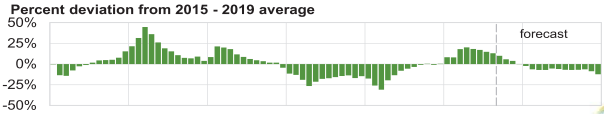


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

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

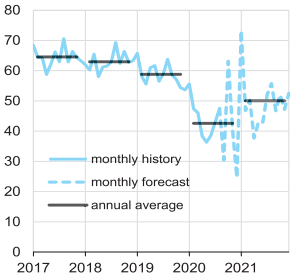


Percent deviation from 2015 - 2019 average

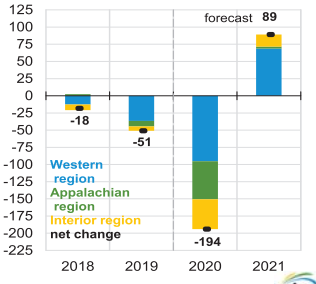


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

U.S. coal production
million short tons

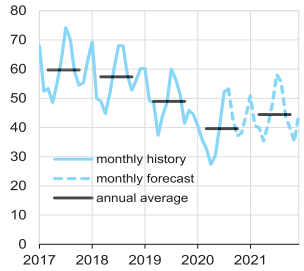


Components of annual change
million short tons

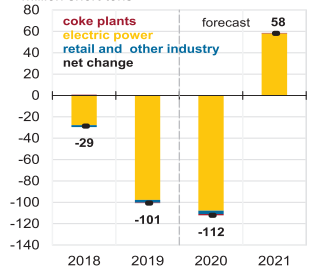


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

U.S. coal consumption
million short tons

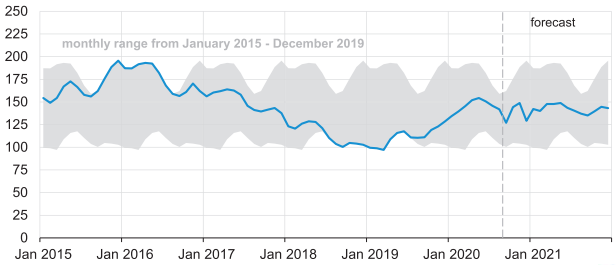


Components of annual change
million short tons



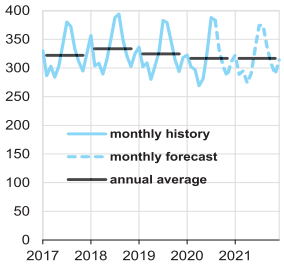
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

U.S. electric power coal inventories
million short tons

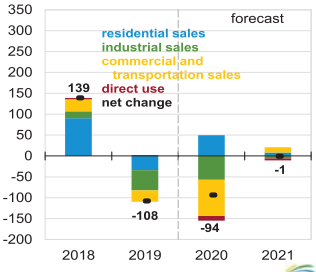


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

U.S. electricity consumption
billion kilowatthours

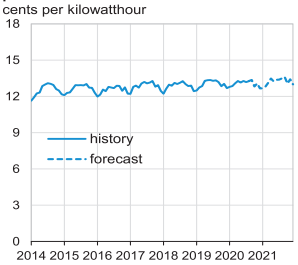


Components of annual change
billion kilowatthours

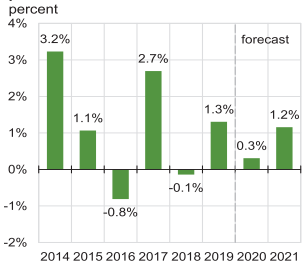


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

U.S. monthly residential electricity price
cents per kilowatthour

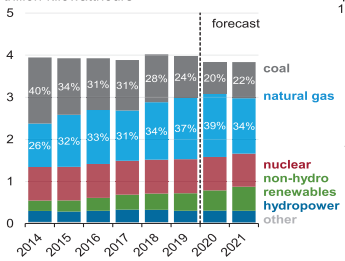


Annual growth in residential electricity prices
percent

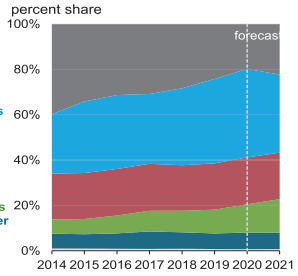


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

U.S. electricity generation by fuel, all sectors
trillion kilowatthours

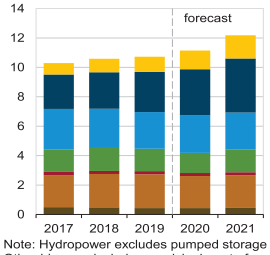


percent share

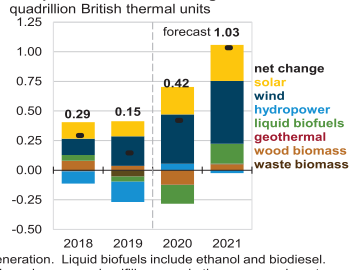


Note: Labels show percentage share of total generation provided by coal and natural gas.
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

U.S. renewable energy supply
quadrillion British thermal units

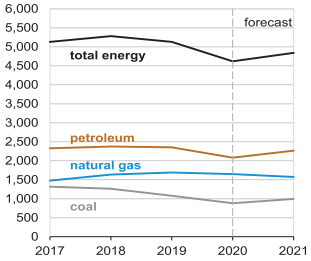


Components of annual change
quadrillion British thermal units

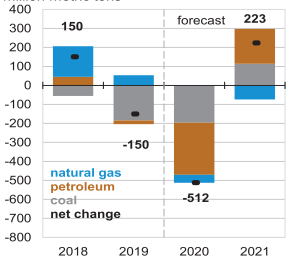


Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol and biodiesel. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste.
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

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

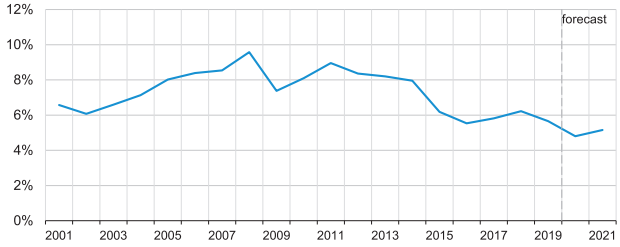


Components of annual change
million metric tons



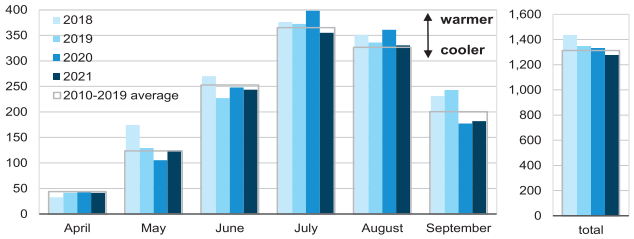
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

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



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

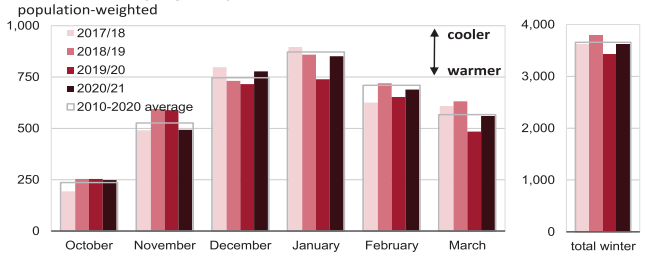
U.S. summer cooling degree days
population-weighted



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

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

U.S. winter heating degree days
population-weighted



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

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, September 2020

U.S. Census regions and divisions

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

Table 1. U.S. Energy Markets Summary

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Energy Supply															
Crude Oil Production (a)															
(million barrels per day)	**11.83**	**12.13**	**12.24**	**12.78**	**12.75**	**10.81**	*10.91*	*11.08*	*10.96*	*10.97*	*11.08*	*11.32*	**12.25**	*11.38*	*11.08*
Dry Natural Gas Production															
(billion cubic feet per day)	**89.32**	**90.50**	**92.98**	**95.97**	**94.48**	**89.50**	*88.44*	*87.14*	*85.67*	*85.87*	*87.07*	*87.73*	**92.21**	*89.88*	*86.59*
Coal Production															
(million short tons)	**180**	**179**	**181**	**165**	**149**	**113**	*121*	*128*	*170*	*124*	*155*	*152*	**705**	*511*	*600*
Energy Consumption															
Liquid Fuels															
(million barrels per day)	**20.36**	**20.46**	**20.72**	**20.63**	**19.33**	**16.08**	*18.70*	*19.56*	*19.60*	*19.82*	*20.38*	*20.44*	**20.54**	*18.42*	*20.06*
Natural Gas															
(billion cubic feet per day)	**103.32**	**70.74**	**76.74**	**89.33**	**99.25**	**70.90**	*76.07*	*84.54*	*94.18*	*66.84*	*71.71*	*84.05*	**84.97**	*82.68*	*79.14*
Coal (b)															
(million short tons)	**158**	**130**	**168**	**132**	**109**	**98**	*148*	*119*	*131*	*125*	*158*	*120*	**587**	*475*	*533*
Electricity															
(billion kilowatt hours per day)	**10.53**	**10.02**	**12.06**	**10.07**	**10.13**	**9.64**	*12.00*	*9.77*	*10.07*	*9.88*	*11.78*	*9.91*	**10.67**	*10.39*	*10.41*
Renewables (c)															
(quadrillion Btu)	**2.80**	**3.07**	**2.79**	**2.78**	**2.90**	**3.00**	*2.90*	*2.95*	*3.19*	*3.38*	*3.15*	*3.16*	**11.44**	*11.76*	*12.88*
Total Energy Consumption (d)															
(quadrillion Btu)	**26.54**	**23.43**	**24.97**	**25.22**	**25.10**	**20.60**	*23.24*	*23.83*	*24.81*	*22.59*	*24.03*	*24.34*	**100.17**	*92.77*	*95.77*
Energy Prices															
Crude Oil West Texas Intermediate Spot															
(dollars per barrel)	**54.82**	**59.88**	**56.35**	**56.86**	**45.34**	**27.96**	*41.49*	*41.17*	*42.07*	*45.02*	*46.00*	*47.00*	**56.99**	*38.99*	*45.07*
Natural Gas Henry Hub Spot															
(dollars per million Btu)	**2.92**	**2.56**	**2.38**	**2.40**	**1.91**	**1.71**	*2.13*	*2.91*	*3.33*	*3.04*	*3.14*	*3.24*	**2.57**	*2.16*	*3.19*
Coal															
(dollars per million Btu)	**2.08**	**2.05**	**2.00**	**1.95**	**1.93**	**1.90**	*2.00*	*2.00*	*2.05*	*2.05*	*2.03*	*2.03*	**2.02**	*1.96*	*2.04*
Macroeconomic															
Real Gross Domestic Product															
(billion chained 2012 dollars - SAAR)	**18,950**	**19,021**	**19,142**	**19,254**	**19,011**	**17,206**	*18,132*	*18,323*	*18,408*	*18,646*	*18,829*	*19,021*	**19,092**	*18,168*	*18,726*
Percent change from prior year	**2.3**	**2.0**	**2.1**	**2.3**	**0.3**	**-9.5**	*-5.3*	*-4.8*	*-3.2*	*8.4*	*3.8*	*3.8*	**2.2**	*-4.8*	*3.1*
GDP Implicit Price Deflator															
(Index, 2012=100)	**111.5**	**112.2**	**112.6**	**113.0**	**113.4**	**112.9**	*113.4*	*113.7*	*114.1*	*114.3*	*114.6*	*114.9*	**112.3**	*113.3*	*114.5*
Percent change from prior year	**2.0**	**1.8**	**1.7**	**1.6**	**1.7**	**0.6**	*0.7*	*0.6*	*0.6*	*1.3*	*1.1*	*1.1*	**1.8**	*0.9*	*1.0*
Real Disposable Personal Income															
(billion chained 2012 dollars - SAAR)	**14,854**	**14,818**	**14,895**	**14,965**	**15,060**	**16,524**	*16,173*	*16,216*	*14,800*	*14,944*	*15,057*	*15,125*	**14,883**	*15,993*	*14,981*
Percent change from prior year	**3.2**	**2.1**	**1.8**	**1.6**	**1.4**	**11.5**	*8.6*	*8.4*	*-1.7*	*-9.6*	*-6.9*	*-6.7*	**2.2**	*7.5*	*-6.3*
Manufacturing Production Index															
(Index, 2012=100)	**106.5**	**105.7**	**105.9**	**105.8**	**104.4**	**89.1**	*98.0*	*97.6*	*98.1*	*99.2*	*100.1*	*101.3*	**106.0**	*97.2*	*99.7*
Percent change from prior year	**1.6**	**0.1**	**-0.6**	**-1.1**	**-2.0**	**-15.7**	*-7.5*	*-7.8*	*-6.0*	*11.4*	*2.1*	*3.8*	**0.0**	*-8.2*	*2.5*
Weather															
U.S. Heating Degree-Days	**2,210**	**480**	**56**	**1,558**	**1,876**	**540**	*67*	*1,518*	*2,100*	*483*	*72*	*1,499*	**4,304**	*4,000*	*4,153*
U.S. Cooling Degree-Days	**46**	**398**	**952**	**105**	**70**	**396**	*936*	*94*	*46*	*409*	*867*	*99*	**1,500**	*1,497*	*1,421*

- = 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 (MER). Consequently, the historical data may not precisely match those published in the MER or the Annual Energy Review (AER).

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

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

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

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

Weather projections from National Oceanic and Atmospheric Administration.

Table 2. Energy Prices

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Crude Oil (dollars per barrel)															
West Texas Intermediate Spot Average	**54.82**	**59.88**	**56.35**	**56.86**	**45.34**	**27.96**	*41.49*	*41.17*	*42.07*	*45.02*	*46.00*	*47.00*	**56.99**	*38.99*	*45.07*
Brent Spot Average	**63.14**	**69.04**	**61.90**	**63.30**	**49.97**	**29.52**	*43.97*	*44.17*	*46.07*	*49.02*	*50.00*	*51.00*	**64.34**	*41.90*	*49.07*
U.S. Imported Average	**55.39**	**62.93**	**57.31**	**55.60**	**43.76**	**26.74**	*40.10*	*39.00*	*39.54*	*42.39*	*43.25*	*44.00*	**57.95**	*37.42*	*42.39*
U.S. Refiner Average Acquisition Cost	**57.08**	**63.54**	**58.67**	**58.05**	**47.48**	**28.77**	*44.10*	*41.49*	*41.04*	*43.41*	*44.25*	*45.00*	**59.36**	*40.91*	*43.48*
U.S. Liquid Fuels (cents per gallon)															
Refiner Prices for Resale															
Gasoline	**167**	**205**	**189**	**182**	**153**	**104**	*135*	*129*	*136*	*161*	*161*	*150*	**186**	*131*	*152*
Diesel Fuel	**192**	**203**	**192**	**197**	**160**	**97**	*128*	*134*	*139*	*153*	*160*	*163*	**196**	*130*	*154*
Heating Oil	**189**	**195**	**184**	**191**	**160**	**87**	*114*	*125*	*140*	*149*	*157*	*161*	**190**	*125*	*148*
Refiner Prices to End Users															
Jet Fuel	**193**	**204**	**194**	**197**	**165**	**85**	*118*	*122*	*132*	*141*	*150*	*156*	**197**	*129*	*145*
No. 6 Residual Fuel Oil (a)	**153**	**163**	**155**	**163**	**176**	**103**	*135*	*136*	*103*	*104*	*105*	*106*	**158**	*138*	*104*
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	**236**	**279**	**265**	**259**	**241**	**194**	*217*	*206*	*207*	*238*	*239*	*226*	**260**	*216*	*228*
Gasoline All Grades (b)	**245**	**288**	**274**	**269**	**251**	**203**	*227*	*218*	*219*	*251*	*252*	*240*	**269**	*226*	*241*
On-highway Diesel Fuel	**302**	**312**	**302**	**306**	**289**	**243**	*242*	*244*	*245*	*253*	*261*	*267*	**306**	*255*	*257*
Heating Oil	**300**	**305**	**290**	**301**	**280**	**200**	*217*	*237*	*245*	*249*	*257*	*271*	**300**	*246*	*256*
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	**3.03**	**2.66**	**2.47**	**2.49**	**1.98**	**1.77**	*2.21*	*3.02*	*3.46*	*3.16*	*3.26*	*3.37*	**2.67**	*2.25*	*3.31*
Henry Hub Spot (dollars per million Btu)	**2.92**	**2.56**	**2.38**	**2.40**	**1.91**	**1.71**	*2.13*	*2.91*	*3.33*	*3.04*	*3.14*	*3.24*	**2.57**	*2.16*	*3.19*
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	**4.67**	**3.74**	**3.30**	**3.74**	**3.52**	**2.86**	*2.93*	*3.98*	*4.75*	*4.11*	*4.10*	*4.55*	**3.91**	*3.36*	*4.40*
Commercial Sector	**7.59**	**7.97**	**8.40**	**7.22**	**7.21**	**7.67**	*7.95*	*7.35*	*7.61*	*8.24*	*8.71*	*8.02*	**7.62**	*7.41*	*7.96*
Residential Sector	**9.47**	**12.48**	**18.10**	**9.88**	**9.51**	**11.90**	*16.68*	*10.28*	*9.65*	*12.72*	*17.38*	*10.88*	**10.56**	*10.67*	*10.97*
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	**2.08**	**2.05**	**2.00**	**1.95**	**1.93**	**1.90**	*2.00*	*2.00*	*2.05*	*2.05*	*2.03*	*2.03*	**2.02**	*1.96*	*2.04*
Natural Gas	**3.71**	**2.73**	**2.51**	**2.78**	**2.39**	**2.10**	*2.35*	*3.26*	*3.97*	*3.33*	*3.35*	*3.62*	**2.88**	*2.49*	*3.54*
Residual Fuel Oil (c)	**12.21**	**13.39**	**12.79**	**12.52**	**12.15**	**6.75**	*7.50*	*8.12*	*8.70*	*9.92*	*9.65*	*9.58*	**12.72**	*8.58*	*9.35*
Distillate Fuel Oil	**14.83**	**15.77**	**15.01**	**15.10**	**13.29**	**8.37**	*10.02*	*10.67*	*11.03*	*12.10*	*12.49*	*12.81*	**15.16**	*10.65*	*12.14*
Retail Prices (cents per kilowatthour)															
Industrial Sector	**6.66**	**6.71**	**7.25**	**6.66**	**6.38**	**6.62**	*7.25*	*6.69*	*6.49*	*6.73*	*7.26*	*6.70*	**6.83**	*6.74*	*6.81*
Commercial Sector	**10.43**	**10.64**	**11.00**	**10.53**	**10.35**	**10.63**	*10.79*	*10.39*	*10.30*	*10.77*	*11.02*	*10.57*	**10.66**	*10.55*	*10.68*
Residential Sector	**12.68**	**13.33**	**13.27**	**12.85**	**12.90**	**13.24**	*13.27*	*12.84*	*12.85*	*13.36*	*13.49*	*13.14*	**13.04**	*13.08*	*13.23*

- = no data available

Prices are not adjusted for inflation.

(a) Average for all sulfur contents.

(b) Average self-service cash price.

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

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

Prices exclude taxes unless otherwise noted.

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Supply (million barrels per day) (a)															
OECD	**31.06**	**31.32**	**31.48**	**32.76**	**32.91**	**29.32**	*29.70*	*30.66*	*30.64*	*30.82*	*31.07*	*31.78*	**31.66**	*30.64*	*31.08*
U.S. (50 States)	**18.87**	**19.35**	**19.45**	**20.20**	**20.22**	**17.58**	*18.24*	*18.62*	*18.45*	*18.72*	*18.88*	*19.18*	**19.47**	*18.67*	*18.81*
Canada	**5.44**	**5.47**	**5.47**	**5.63**	**5.65**	**4.83**	*4.82*	*5.29*	*5.39*	*5.47*	*5.52*	*5.74*	**5.50**	*5.15*	*5.53*
Mexico	**1.91**	**1.91**	**1.93**	**1.93**	**2.00**	**1.94**	*1.82*	*1.77*	*1.80*	*1.80*	*1.76*	*1.75*	**1.92**	*1.88*	*1.78*
Other OECD	**4.85**	**4.59**	**4.63**	**4.99**	**5.03**	**4.96**	*4.82*	*4.97*	*5.01*	*4.82*	*4.91*	*5.11*	**4.77**	*4.95*	*4.96*
Non-OECD	**69.28**	**69.16**	**68.70**	**68.98**	**67.88**	**62.97**	*61.32*	*63.69*	*66.36*	*68.47*	*69.18*	*69.00*	**69.03**	*63.96*	*68.26*
OPEC	**35.41**	**34.94**	**33.90**	**34.36**	**33.56**	**30.52**	*28.48*	*30.50*	*33.13*	*34.20*	*34.27*	*34.29*	**34.65**	*30.76*	*33.98*
Crude Oil Portion	**29.94**	**29.47**	**28.66**	**29.02**	**28.28**	**25.64**	*23.65*	*25.59*	*28.09*	*29.23*	*29.31*	*29.33*	**29.27**	*25.78*	*28.99*
Other Liquids (b)	**5.47**	**5.47**	**5.24**	**5.34**	**5.28**	**4.88**	*4.83*	*4.90*	*5.04*	*4.97*	*4.96*	*4.96*	**5.38**	*4.97*	*4.98*
Eurasia	**14.85**	**14.42**	**14.58**	**14.66**	**14.76**	**13.20**	*12.74*	*13.20*	*13.73*	*14.13*	*14.30*	*14.44*	**14.63**	*13.47*	*14.15*
China	**4.89**	**4.92**	**4.89**	**4.88**	**4.94**	**4.90**	*4.92*	*4.95*	*4.92*	*4.95*	*4.96*	*5.01*	**4.89**	*4.93*	*4.96*
Other Non-OECD	**14.12**	**14.88**	**15.33**	**15.08**	**14.62**	**14.34**	*15.19*	*15.05*	*14.58*	*15.19*	*15.65*	*15.26*	**14.86**	*14.80*	*15.17*
Total World Supply	**100.34**	**100.49**	**100.18**	**101.73**	**100.78**	**92.28**	*91.02*	*94.35*	*97.00*	*99.29*	*100.25*	*100.78*	**100.69**	*94.60*	*99.34*
Non-OPEC Supply	**64.93**	**65.55**	**66.28**	**67.37**	**67.22**	**61.76**	*62.55*	*63.85*	*63.87*	*65.09*	*65.98*	*66.49*	**66.04**	*63.84*	*65.37*
Consumption (million barrels per day) (c)															
OECD	**47.56**	**46.97**	**48.08**	**47.72**	**45.25**	**37.41**	*43.01*	*44.67*	*45.10*	*44.82*	*46.20*	*46.41*	**47.58**	*42.59*	*45.64*
U.S. (50 States)	**20.36**	**20.46**	**20.72**	**20.63**	**19.33**	**16.08**	*18.70*	*19.56*	*19.60*	*19.82*	*20.38*	*20.44*	**20.54**	*18.42*	*20.06*
U.S. Territories	**0.19**	**0.17**	**0.17**	**0.18**	**0.17**	**0.15**	*0.15*	*0.16*	*0.17*	*0.15*	*0.16*	*0.17*	**0.18**	*0.16*	*0.16*
Canada	**2.31**	**2.32**	**2.57**	**2.49**	**2.33**	**1.82**	*2.21*	*2.29*	*2.36*	*2.32*	*2.43*	*2.40*	**2.42**	*2.16*	*2.38*
Europe	**14.04**	**14.18**	**14.66**	**14.06**	**13.35**	**11.04**	*12.99*	*13.00*	*13.02*	*13.35*	*13.92*	*13.69*	**14.24**	*12.60*	*13.50*
Japan	**4.05**	**3.39**	**3.43**	**3.74**	**3.69**	**2.84**	*3.04*	*3.38*	*3.63*	*3.00*	*3.10*	*3.35*	**3.65**	*3.24*	*3.27*
Other OECD	**6.61**	**6.46**	**6.54**	**6.61**	**6.38**	**5.47**	*5.92*	*6.28*	*6.31*	*6.18*	*6.22*	*6.37*	**6.55**	*6.01*	*6.27*
Non-OECD	**52.90**	**54.03**	**54.17**	**54.12**	**49.68**	**47.64**	*51.71*	*52.82*	*52.85*	*54.16*	*54.36*	*54.45*	**53.81**	*50.47*	*53.96*
Eurasia	**5.14**	**5.19**	**5.59**	**5.44**	**4.94**	**4.56**	*5.36*	*5.29*	*5.08*	*5.15*	*5.55*	*5.41*	**5.34**	*5.04*	*5.30*
Europe	**0.77**	**0.76**	**0.78**	**0.78**	**0.72**	**0.71**	*0.73*	*0.74*	*0.74*	*0.74*	*0.76*	*0.76*	**0.77**	*0.73*	*0.75*
China	**14.45**	**14.65**	**14.37**	**14.58**	**13.26**	**13.39**	*14.25*	*14.76*	*14.85*	*15.09*	*14.83*	*15.07*	**14.51**	*13.92*	*14.96*
Other Asia	**13.95**	**14.11**	**13.74**	**14.08**	**13.30**	**11.95**	*12.97*	*13.72*	*14.20*	*14.44*	*14.06*	*14.44*	**13.97**	*12.99*	*14.29*
Other Non-OECD	**18.59**	**19.31**	**19.70**	**19.24**	**17.46**	**17.03**	*18.39*	*18.32*	*17.97*	*18.73*	*19.16*	*18.76*	**19.21**	*17.81*	*18.66*
Total World Consumption	**100.45**	**100.99**	**102.25**	**101.84**	**94.92**	**85.05**	*94.72*	*97.50*	*97.95*	*98.98*	*100.56*	*100.87*	**101.39**	*93.07*	*99.60*
Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)															
U.S. (50 States)	**0.21**	**-0.60**	**0.06**	**0.29**	**-0.43**	**-1.68**	*0.66*	*0.69*	*0.36*	*-0.19*	*-0.05*	*0.41*	**-0.01**	*-0.18*	*0.13*
Other OECD	**-0.20**	**0.01**	**-0.16**	**0.24**	**-0.56**	**-0.99**	*0.97*	*0.79*	*0.19*	*-0.04*	*0.11*	*-0.11*	**-0.03**	*0.06*	*0.04*
Other Stock Draws and Balance	**0.10**	**1.09**	**2.17**	**-0.41**	**-4.87**	**-4.56**	*2.07*	*1.66*	*0.40*	*-0.09*	*0.24*	*-0.22*	**0.74**	*-1.41*	*0.08*
Total Stock Draw	**0.11**	**0.51**	**2.07**	**0.11**	**-5.86**	**-7.23**	*3.70*	*3.15*	*0.95*	*-0.31*	*0.31*	*0.09*	**0.70**	*-1.53*	*0.25*
End-of-period Commercial Crude Oil and Other Liquids Inventories (million barrels)															
U.S. Commercial Inventory	**1,245**	**1,304**	**1,298**	**1,282**	**1,321**	**1,453**	*1,407*	*1,349*	*1,325*	*1,351*	*1,355*	*1,319*	**1,282**	*1,349*	*1,319*
OECD Commercial Inventory	**2,864**	**2,922**	**2,931**	**2,893**	**2,983**	**3,205**	*3,070*	*2,939*	*2,898*	*2,927*	*2,921*	*2,895*	**2,893**	*2,939*	*2,895*

- = no data available

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

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

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
North America	**26.21**	**26.73**	**26.85**	**27.77**	**27.87**	**24.35**	*24.88*	*25.68*	*25.63*	*26.00*	*26.16*	*26.67*	**26.89**	*25.70*	*26.12*
Canada	**5.44**	**5.47**	**5.47**	**5.63**	**5.65**	**4.83**	*4.82*	*5.29*	*5.39*	*5.47*	*5.52*	*5.74*	**5.50**	*5.15*	*5.53*
Mexico	**1.91**	**1.91**	**1.93**	**1.93**	**2.00**	**1.94**	*1.82*	*1.77*	*1.80*	*1.80*	*1.76*	*1.75*	**1.92**	*1.88*	*1.78*
United States	**18.87**	**19.35**	**19.45**	**20.20**	**20.22**	**17.58**	*18.24*	*18.62*	*18.45*	*18.72*	*18.88*	*19.18*	**19.47**	*18.67*	*18.81*
Central and South America	**5.44**	**6.22**	**6.80**	**6.45**	**6.04**	**6.07**	*6.86*	*6.60*	*6.09*	*6.76*	*7.22*	*6.85*	**6.23**	*6.39*	*6.74*
Argentina	**0.66**	**0.70**	**0.70**	**0.70**	**0.68**	**0.58**	*0.67*	*0.67*	*0.66*	*0.59*	*0.68*	*0.67*	**0.69**	*0.65*	*0.65*
Brazil	**2.90**	**3.65**	**4.23**	**3.89**	**3.44**	**3.89**	*4.34*	*4.00*	*3.51*	*4.38*	*4.72*	*4.33*	**3.67**	*3.92*	*4.24*
Colombia	**0.92**	**0.92**	**0.91**	**0.91**	**0.90**	**0.78**	*0.84*	*0.88*	*0.87*	*0.78*	*0.82*	*0.85*	**0.92**	*0.85*	*0.83*
Ecuador	**0.53**	**0.53**	**0.55**	**0.52**	**0.54**	**0.35**	*0.53*	*0.53*	*0.52*	*0.51*	*0.49*	*0.48*	**0.53**	*0.49*	*0.50*
Other Central and S. America	**0.42**	**0.41**	**0.42**	**0.43**	**0.48**	**0.47**	*0.49*	*0.53*	*0.52*	*0.51*	*0.52*	*0.52*	**0.42**	*0.49*	*0.52*
Europe	**4.26**	**3.97**	**3.96**	**4.29**	**4.39**	**4.36**	*4.28*	*4.41*	*4.45*	*4.27*	*4.36*	*4.57*	**4.12**	*4.36*	*4.41*
Norway	**1.79**	**1.58**	**1.66**	**1.96**	**2.05**	**2.01**	*1.99*	*2.07*	*2.12*	*2.08*	*2.12*	*2.22*	**1.75**	*2.03*	*2.14*
United Kingdom	**1.25**	**1.17**	**1.11**	**1.15**	**1.17**	**1.21**	*1.14*	*1.17*	*1.16*	*1.03*	*1.09*	*1.18*	**1.17**	*1.17*	*1.11*
Eurasia	**14.85**	**14.42**	**14.58**	**14.66**	**14.76**	**13.20**	*12.74*	*13.20*	*13.73*	*14.13*	*14.30*	*14.44*	**14.63**	*13.47*	*14.15*
Azerbaijan	**0.81**	**0.78**	**0.77**	**0.76**	**0.77**	**0.70**	*0.67*	*0.70*	*0.72*	*0.74*	*0.75*	*0.75*	**0.78**	*0.71*	*0.74*
Kazakhstan	**2.03**	**1.85**	**1.96**	**2.02**	**2.06**	**1.86**	*1.74*	*1.87*	*1.97*	*1.90*	*1.94*	*1.98*	**1.97**	*1.88*	*1.95*
Russia	**11.58**	**11.41**	**11.48**	**11.50**	**11.55**	**10.25**	*9.93*	*10.24*	*10.67*	*11.12*	*11.25*	*11.35*	**11.49**	*10.49*	*11.10*
Turkmenistan	**0.29**	**0.23**	**0.22**	**0.23**	**0.24**	**0.24**	*0.25*	*0.25*	*0.24*	*0.24*	*0.24*	*0.24*	**0.24**	*0.25*	*0.24*
Other Eurasia	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	*0.14*	*0.14*	*0.13*	*0.13*	*0.13*	*0.13*	**0.15**	*0.14*	*0.13*
Middle East	**3.14**	**3.14**	**3.14**	**3.14**	**3.24**	**3.18**	*3.14*	*3.18*	*3.28*	*3.28*	*3.30*	*3.30*	**3.14**	*3.18*	*3.29*
Oman	**0.98**	**0.98**	**0.98**	**0.99**	**1.01**	**0.95**	*0.90*	*0.95*	*1.01*	*1.01*	*1.03*	*1.03*	**0.98**	*0.95*	*1.02*
Qatar	**2.00**	**2.00**	**2.00**	**2.00**	**2.06**	**2.06**	*2.06*	*2.06*	*2.10*	*2.10*	*2.10*	*2.10*	**2.00**	*2.06*	*2.10*
Asia and Oceania	**9.52**	**9.55**	**9.41**	**9.52**	**9.47**	**9.18**	*9.21*	*9.34*	*9.30*	*9.28*	*9.27*	*9.29*	**9.50**	*9.30*	*9.29*
Australia	**0.42**	**0.47**	**0.51**	**0.54**	**0.49**	**0.50**	*0.50*	*0.52*	*0.51*	*0.51*	*0.50*	*0.49*	**0.49**	*0.50*	*0.50*
China	**4.89**	**4.92**	**4.89**	**4.88**	**4.94**	**4.90**	*4.92*	*4.95*	*4.92*	*4.95*	*4.96*	*5.01*	**4.89**	*4.93*	*4.96*
India	**1.01**	**0.99**	**0.98**	**0.99**	**0.97**	**0.90**	*0.90*	*0.91*	*0.91*	*0.89*	*0.89*	*0.89*	**0.99**	*0.92*	*0.89*
Indonesia	**0.93**	**0.93**	**0.91**	**0.91**	**0.91**	**0.88**	*0.89*	*0.88*	*0.87*	*0.86*	*0.85*	*0.84*	**0.92**	*0.89*	*0.86*
Malaysia	**0.75**	**0.73**	**0.65**	**0.72**	**0.72**	**0.59**	*0.58*	*0.63*	*0.64*	*0.64*	*0.64*	*0.63*	**0.71**	*0.63*	*0.64*
Vietnam	**0.27**	**0.27**	**0.25**	**0.24**	**0.24**	**0.23**	*0.23*	*0.23*	*0.23*	*0.22*	*0.22*	*0.21*	**0.26**	*0.23*	*0.22*
Africa	**1.50**	**1.52**	**1.55**	**1.54**	**1.45**	**1.43**	*1.44*	*1.44*	*1.38*	*1.37*	*1.36*	*1.37*	**1.53**	*1.44*	*1.37*
Egypt	**0.66**	**0.65**	**0.65**	**0.65**	**0.60**	**0.60**	*0.61*	*0.61*	*0.57*	*0.57*	*0.57*	*0.57*	**0.65**	*0.60*	*0.57*
South Sudan	**0.15**	**0.16**	**0.18**	**0.18**	**0.18**	**0.15**	*0.16*	*0.17*	*0.17*	*0.17*	*0.17*	*0.17*	**0.17**	*0.16*	*0.17*
Total non-OPEC liquids	**64.93**	**65.55**	**66.28**	**67.37**	**67.22**	**61.76**	*62.55*	*63.85*	*63.87*	*65.09*	*65.98*	*66.49*	**66.04**	*63.84*	*65.37*
OPEC non-crude liquids	**5.47**	**5.47**	**5.24**	**5.34**	**5.28**	**4.88**	*4.83*	*4.90*	*5.04*	*4.97*	*4.96*	*4.96*	**5.38**	*4.97*	*4.98*
Non-OPEC + OPEC non-crude	**70.40**	**71.02**	**71.52**	**72.71**	**72.50**	**66.65**	*67.38*	*68.76*	*68.91*	*70.06*	*70.95*	*71.45*	**71.42**	*68.82*	*70.35*
Unplanned non-OPEC Production Outages	**0.38**	**0.28**	**0.39**	**0.31**	**0.16**	**0.88**	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	**0.34**	*n/a*	*n/a*

- = no data available

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Crude Oil															
Algeria	**1.01**	**1.02**	**1.02**	**1.02**	**1.02**	**0.90**	-	-	-	-	-	-	**1.02**	-	-
Angola	**1.50**	**1.43**	**1.40**	**1.36**	**1.36**	**1.26**	-	-	-	-	-	-	**1.42**	-	-
Congo (Brazzaville)	**0.33**	**0.33**	**0.33**	**0.32**	**0.29**	**0.29**	-	-	-	-	-	-	**0.32**	-	-
Equatorial Guinea	**0.11**	**0.11**	**0.13**	**0.13**	**0.13**	**0.12**	-	-	-	-	-	-	**0.12**	-	-
Gabon	**0.20**	**0.20**	**0.20**	**0.20**	**0.19**	**0.18**	-	-	-	-	-	-	**0.20**	-	-
Iran	**2.63**	**2.33**	**2.10**	**2.03**	**2.02**	**1.97**	-	-	-	-	-	-	**2.27**	-	-
Iraq	**4.75**	**4.70**	**4.70**	**4.65**	**4.56**	**4.16**	-	-	-	-	-	-	**4.70**	-	-
Kuwait	**2.74**	**2.72**	**2.70**	**2.70**	**2.77**	**2.48**	-	-	-	-	-	-	**2.72**	-	-
Libya	**0.93**	**1.14**	**1.13**	**1.17**	**0.35**	**0.08**	-	-	-	-	-	-	**1.09**	-	-
Nigeria	**1.58**	**1.65**	**1.71**	**1.67**	**1.72**	**1.55**	-	-	-	-	-	-	**1.65**	-	-
Saudi Arabia	**10.00**	**9.92**	**9.38**	**9.83**	**9.80**	**9.28**	-	-	-	-	-	-	**9.78**	-	-
United Arab Emirates	**3.12**	**3.12**	**3.13**	**3.20**	**3.30**	**2.88**	-	-	-	-	-	-	**3.14**	-	-
Venezuela	**1.05**	**0.79**	**0.73**	**0.73**	**0.77**	**0.50**	-	-	-	-	-	-	**0.83**	-	-
OPEC Total	**29.94**	**29.47**	**28.66**	**29.02**	**28.28**	**25.64**	*23.65*	*25.59*	*28.09*	*29.23*	*29.31*	*29.33*	**29.27**	*25.78*	*28.99*
Other Liquids (a)	**5.47**	**5.47**	**5.24**	**5.34**	**5.28**	**4.88**	*4.83*	*4.90*	*5.04*	*4.97*	*4.96*	*4.96*	**5.38**	*4.97*	*4.98*
Total OPEC Supply	**35.41**	**34.94**	**33.90**	**34.36**	**33.56**	**30.52**	*28.48*	*30.50*	*33.13*	*34.20*	*34.27*	*34.29*	**34.65**	*30.76*	*33.98*
Crude Oil Production Capacity															
Middle East	**25.66**	**25.53**	**24.58**	**24.74**	**25.61**	**26.02**	*26.06*	*26.17*	*26.27*	*26.29*	*26.28*	*26.28*	**25.12**	*25.97*	*26.28*
Other	**6.71**	**6.68**	**6.65**	**6.60**	**5.82**	**5.60**	*5.47*	*5.56*	*5.68*	*5.93*	*6.00*	*6.02*	**6.66**	*5.61*	*5.91*
OPEC Total	**32.37**	**32.22**	**31.22**	**31.34**	**31.43**	**31.63**	*31.53*	*31.73*	*31.94*	*32.22*	*32.28*	*32.30*	**31.78**	*31.58*	*32.18*
Surplus Crude Oil Production Capacity															
Middle East	**2.43**	**2.75**	**2.57**	**2.32**	**3.15**	**5.27**	*6.85*	*5.43*	*3.74*	*2.89*	*2.88*	*2.88*	**2.52**	*5.18*	*3.09*
Other	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.72**	*1.03*	*0.71*	*0.12*	*0.10*	*0.09*	*0.09*	**0.00**	*0.62*	*0.10*
OPEC Total	**2.43**	**2.75**	**2.57**	**2.32**	**3.15**	**5.99**	*7.88*	*6.13*	*3.85*	*2.99*	*2.97*	*2.97*	**2.52**	*5.80*	*3.19*
Unplanned OPEC Production Outages	**2.52**	**2.51**	**3.24**	**2.91**	**3.67**	**4.13**	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	**2.80**	*n/a*	*n/a*

- = no data available

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
North America	**24.75**	**24.86**	**25.35**	**25.12**	**23.61**	**19.43**	*22.70*	*23.74*	*23.85*	*24.04*	*24.70*	*24.75*	**25.02**	*22.38*	*24.34*
Canada	**2.31**	**2.32**	**2.57**	**2.49**	**2.33**	**1.82**	*2.21*	*2.29*	*2.36*	*2.32*	*2.43*	*2.40*	**2.42**	*2.16*	*2.38*
Mexico	**2.07**	**2.07**	**2.06**	**1.99**	**1.94**	**1.52**	*1.77*	*1.88*	*1.87*	*1.90*	*1.89*	*1.90*	**2.05**	*1.78*	*1.89*
United States	**20.36**	**20.46**	**20.72**	**20.63**	**19.33**	**16.08**	*18.70*	*19.56*	*19.60*	*19.82*	*20.38*	*20.44*	**20.54**	*18.42*	*20.06*
Central and South America	**6.70**	**6.82**	**6.92**	**6.92**	**6.22**	**5.82**	*6.32*	*6.51*	*6.47*	*6.65*	*6.79*	*6.81*	**6.84**	*6.22*	*6.68*
Brazil	**3.03**	**3.10**	**3.19**	**3.18**	**2.80**	**2.57**	*2.88*	*3.00*	*2.95*	*3.04*	*3.15*	*3.16*	**3.13**	*2.81*	*3.07*
Europe	**14.81**	**14.94**	**15.44**	**14.85**	**14.07**	**11.75**	*13.73*	*13.75*	*13.76*	*14.09*	*14.67*	*14.45*	**15.01**	*13.33*	*14.25*
Eurasia	**5.14**	**5.19**	**5.59**	**5.44**	**4.94**	**4.56**	*5.36*	*5.29*	*5.08*	*5.15*	*5.55*	*5.41*	**5.34**	*5.04*	*5.30*
Russia	**3.64**	**3.74**	**4.04**	**3.89**	**3.52**	**3.20**	*3.90*	*3.81*	*3.65*	*3.76*	*4.08*	*3.93*	**3.83**	*3.61*	*3.86*
Middle East	**8.09**	**8.65**	**9.02**	**8.37**	**7.57**	**7.54**	*8.46*	*7.96*	*7.72*	*8.28*	*8.66*	*8.04*	**8.53**	*7.89*	*8.17*
Asia and Oceania	**36.47**	**36.01**	**35.50**	**36.51**	**34.16**	**31.72**	*33.90*	*35.77*	*36.64*	*36.32*	*35.80*	*36.84*	**36.12**	*33.89*	*36.40*
China	**14.45**	**14.65**	**14.37**	**14.58**	**13.26**	**13.39**	*14.25*	*14.76*	*14.85*	*15.09*	*14.83*	*15.07*	**14.51**	*13.92*	*14.96*
Japan	**4.05**	**3.39**	**3.43**	**3.74**	**3.69**	**2.84**	*3.04*	*3.38*	*3.63*	*3.00*	*3.10*	*3.35*	**3.65**	*3.24*	*3.27*
India	**4.89**	**4.95**	**4.66**	**4.94**	**4.63**	**3.77**	*4.34*	*4.79*	*5.00*	*5.08*	*4.75*	*5.06*	**4.86**	*4.38*	*4.97*
Africa	**4.50**	**4.52**	**4.44**	**4.63**	**4.34**	**4.22**	*4.26*	*4.48*	*4.44*	*4.45*	*4.37*	*4.56*	**4.52**	*4.33*	*4.46*
Total OECD Liquid Fuels Consumption	**47.56**	**46.97**	**48.08**	**47.72**	**45.25**	**37.41**	*43.01*	*44.67*	*45.10*	*44.82*	*46.20*	*46.41*	**47.58**	*42.59*	*45.64*
Total non-OECD Liquid Fuels Consumption	**52.90**	**54.03**	**54.17**	**54.12**	**49.68**	**47.64**	*51.71*	*52.82*	*52.85*	*54.16*	*54.36*	*54.45*	**53.81**	*50.47*	*53.96*
Total World Liquid Fuels Consumption	**100.45**	**100.99**	**102.25**	**101.84**	**94.92**	**85.05**	*94.72*	*97.50*	*97.95*	*98.98*	*100.56*	*100.87*	**101.39**	*93.07*	*99.60*
Oil-weighted Real Gross Domestic Product (a)															
World Index, 2015 Q1 = 100	**112.0**	**112.8**	**112.8**	**112.4**	**109.1**	**102.1**	*107.0*	*108.9*	*111.0*	*112.5*	*113.3*	*114.0*	**112.5**	*106.8*	*112.7*
Percent change from prior year	**2.3**	**2.1**	**1.9**	**1.4**	**-2.6**	**-9.4**	*-5.1*	*-3.1*	*1.8*	*10.1*	*5.8*	*4.7*	**1.9**	*-5.1*	*5.5*
OECD Index, 2015 Q1 = 100	**108.9**	**109.8**	**110.0**	**109.4**	**108.1**	**97.1**	*103.8*	*105.2*	*107.0*	*108.6*	*109.3*	*109.6*	**109.5**	*103.6*	*108.6*
Percent change from prior year	**1.8**	**1.7**	**1.8**	**1.5**	**-0.8**	**-11.6**	*-5.6*	*-3.8*	*-1.0*	*11.8*	*5.3*	*4.2*	**1.7**	*-5.5*	*4.9*
Non-OECD Index, 2015 Q1 = 100	**115.0**	**115.6**	**115.5**	**115.3**	**110.0**	**107.1**	*110.2*	*112.5*	*114.9*	*116.2*	*117.2*	*118.4*	**115.3**	*109.9*	*116.7*
Percent change from prior year	**2.8**	**2.5**	**2.0**	**1.4**	**-4.4**	**-7.4**	*-4.6*	*-2.4*	*4.5*	*8.5*	*6.4*	*5.2*	**2.2**	*-4.7*	*6.1*
Real U.S. Dollar Exchange Rate (a)															
Index, 2015 Q1 = 100	**105.38**	**106.01**	**106.51**	**106.33**	**106.87**	**108.68**	*107.49*	*106.59*	*105.83*	*105.49*	*105.05*	*104.56*	**106.06**	*107.41*	*105.23*
Percent change from prior year	**4.6**	**3.1**	**0.8**	**0.0**	**1.4**	**2.5**	*0.9*	*0.2*	*-1.0*	*-2.9*	*-2.3*	*-1.9*	**2.1**	*1.3*	*-2.0*

- = no data available

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Supply (million barrels per day)															
Crude Oil Supply															
Domestic Production (a)	**11.83**	**12.13**	**12.24**	**12.78**	**12.75**	**10.81**	*10.91*	*11.08*	*10.96*	*10.97*	*11.08*	*11.32*	**12.25**	*11.38*	*11.08*
Alaska	**0.49**	**0.47**	**0.43**	**0.48**	**0.48**	**0.41**	*0.45*	*0.49*	*0.50*	*0.48*	*0.46*	*0.49*	**0.47**	*0.45*	*0.48*
Federal Gulf of Mexico (b)	**1.86**	**1.93**	**1.83**	**1.96**	**1.96**	**1.69**	*1.61*	*1.91*	*1.97*	*1.94*	*1.86*	*1.88*	**1.90**	*1.79*	*1.91*
Lower 48 States (excl GOM)	**9.48**	**9.73**	**9.99**	**10.33**	**10.31**	**8.71**	*8.86*	*8.68*	*8.49*	*8.55*	*8.76*	*8.95*	**9.89**	*9.14*	*8.69*
Crude Oil Net Imports (c)	**4.28**	**4.11**	**3.94**	**2.96**	**2.90**	**3.08**	*2.76*	*4.39*	*4.61*	*4.97*	*5.35*	*5.09*	**3.82**	*3.29*	*5.01*
SPR Net Withdrawals	**0.00**	**0.05**	**0.00**	**0.11**	**0.00**	**-0.23**	*0.16*	*0.06*	*0.10*	*0.09*	*0.00*	*0.03*	**0.04**	*0.00*	*0.05*
Commercial Inventory Net Withdrawals	**-0.18**	**-0.05**	**0.41**	**-0.08**	**-0.55**	**-0.54**	*0.49*	*0.08*	*-0.26*	*0.15*	*0.23*	*-0.01*	**0.03**	*-0.13*	*0.03*
Crude Oil Adjustment (d)	**0.27**	**0.53**	**0.37**	**0.55**	**0.67**	**0.04**	*0.09*	*0.15*	*0.22*	*0.22*	*0.23*	*0.16*	**0.43**	*0.24*	*0.21*
Total Crude Oil Input to Refineries	**16.20**	**16.76**	**16.96**	**16.32**	**15.77**	**13.16**	*14.41*	*15.76*	*15.63*	*16.40*	*16.89*	*16.58*	**16.56**	*14.78*	*16.38*
Other Supply															
Refinery Processing Gain	**1.05**	**1.07**	**1.06**	**1.09**	**1.02**	**0.82**	*1.01*	*1.11*	*1.10*	*1.14*	*1.13*	*1.13*	**1.07**	*0.99*	*1.12*
Natural Gas Plant Liquids Production	**4.66**	**4.81**	**4.82**	**5.00**	**5.12**	**4.96**	*5.04*	*5.13*	*5.04*	*5.23*	*5.28*	*5.33*	**4.82**	*5.06*	*5.22*
Renewables and Oxygenate Production (e)	**1.10**	**1.14**	**1.12**	**1.12**	**1.11**	**0.80**	*1.07*	*1.09*	*1.14*	*1.17*	*1.17*	*1.18*	**1.12**	*1.02*	*1.17*
Fuel Ethanol Production	**1.01**	**1.05**	**1.02**	**1.04**	**1.02**	**0.70**	*0.93*	*0.95*	*1.00*	*1.00*	*1.00*	*1.02*	**1.03**	*0.90*	*1.00*
Petroleum Products Adjustment (f)	**0.22**	**0.20**	**0.21**	**0.21**	**0.22**	**0.19**	*0.21*	*0.21*	*0.21*	*0.22*	*0.22*	*0.22*	**0.21**	*0.21*	*0.22*
Product Net Imports (c)	**-3.19**	**-2.93**	**-3.10**	**-3.37**	**-4.03**	**-2.94**	*-3.04*	*-4.30*	*-4.03*	*-3.90*	*-4.03*	*-4.41*	**-3.15**	*-3.58*	*-4.09*
Hydrocarbon Gas Liquids	**-1.31**	**-1.67**	**-1.69**	**-1.81**	**-1.99**	**-1.86**	*-1.95*	*-1.95*	*-1.87*	*-2.00*	*-2.00*	*-1.97*	**-1.62**	*-1.94*	*-1.96*
Unfinished Oils	**0.25**	**0.47**	**0.47**	**0.52**	**0.31**	**0.25**	*0.35*	*0.36*	*0.35*	*0.45*	*0.44*	*0.32*	**0.43**	*0.32*	*0.39*
Other HC/Oxygenates	**-0.08**	**-0.07**	**-0.05**	**-0.05**	**-0.10**	**-0.05**	*-0.10*	*-0.11*	*-0.14*	*-0.13*	*-0.12*	*-0.13*	**-0.06**	*-0.09*	*-0.13*
Motor Gasoline Blend Comp.	**0.46**	**0.81**	**0.71**	**0.47**	**0.39**	**0.36**	*0.49*	*0.16*	*0.41*	*0.70*	*0.50*	*0.16*	**0.61**	*0.35*	*0.44*
Finished Motor Gasoline	**-0.80**	**-0.61**	**-0.60**	**-0.87**	**-0.72**	**-0.40**	*-0.43*	*-0.67*	*-0.70*	*-0.73*	*-0.71*	*-0.79*	**-0.72**	*-0.56*	*-0.73*
Jet Fuel	**-0.08**	**-0.01**	**-0.04**	**-0.08**	**-0.07**	**0.09**	*0.12*	*-0.11*	*-0.11*	*-0.12*	*0.03*	*-0.04*	**-0.06**	*0.01*	*-0.06*
Distillate Fuel Oil	**-0.93**	**-1.22**	**-1.30**	**-0.97**	**-1.19**	**-0.86**	*-1.11*	*-1.21*	*-1.19*	*-1.30*	*-1.35*	*-1.11*	**-1.10**	*-1.09*	*-1.24*
Residual Fuel Oil	**-0.07**	**-0.15**	**-0.07**	**-0.02**	**-0.02**	**0.02**	*0.01*	*-0.02*	*-0.05*	*-0.13*	*-0.11*	*-0.02*	**-0.08**	*0.00*	*-0.08*
Other Oils (g)	**-0.63**	**-0.49**	**-0.52**	**-0.54**	**-0.65**	**-0.49**	*-0.43*	*-0.76*	*-0.72*	*-0.64*	*-0.72*	*-0.84*	**-0.55**	*-0.58*	*-0.73*
Product Inventory Net Withdrawals	**0.39**	**-0.60**	**-0.35**	**0.26**	**0.12**	**-0.91**	*0.01*	*0.55*	*0.52*	*-0.43*	*-0.28*	*0.40*	**-0.08**	*-0.06*	*0.05*
Total Supply	**20.44**	**20.46**	**20.72**	**20.63**	**19.33**	**16.08**	*18.70*	*19.56*	*19.60*	*19.82*	*20.38*	*20.44*	**20.56**	*18.42*	*20.06*
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	**3.48**	**2.79**	**2.94**	**3.35**	**3.31**	**2.83**	*2.88*	*3.35*	*3.49*	*3.08*	*3.13*	*3.51*	**3.14**	*3.09*	*3.30*
Unfinished Oils	**0.00**	**0.09**	**0.05**	**0.11**	**0.14**	**0.11**	*-0.01*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	**0.06**	*0.06*	*0.00*
Motor Gasoline	**9.01**	**9.54**	**9.52**	**9.16**	**8.49**	**7.11**	*8.75*	*8.72*	*8.75*	*9.20*	*9.30*	*9.08*	**9.31**	*8.27*	*9.08*
Fuel Ethanol blended into Motor Gasoline	**0.91**	**0.97**	**0.95**	**0.97**	**0.85**	**0.72**	*0.87*	*0.89*	*0.89*	*0.93*	*0.94*	*0.92*	**0.95**	*0.83*	*0.92*
Jet Fuel	**1.65**	**1.78**	**1.80**	**1.75**	**1.56**	**0.69**	*1.16*	*1.49*	*1.46*	*1.52*	*1.71*	*1.66*	**1.74**	*1.23*	*1.59*
Distillate Fuel Oil	**4.27**	**4.07**	**3.95**	**4.12**	**3.97**	**3.51**	*3.68*	*3.87*	*3.89*	*3.82*	*3.85*	*4.03*	**4.10**	*3.76*	*3.90*
Residual Fuel Oil	**0.27**	**0.23**	**0.33**	**0.27**	**0.17**	**0.15**	*0.27*	*0.27*	*0.26*	*0.21*	*0.26*	*0.26*	**0.28**	*0.21*	*0.25*
Other Oils (g)	**1.68**	**1.95**	**2.13**	**1.87**	**1.68**	**1.68**	*1.96*	*1.87*	*1.74*	*1.99*	*2.13*	*1.89*	**1.91**	*1.80*	*1.94*
Total Consumption	**20.36**	**20.46**	**20.72**	**20.63**	**19.33**	**16.08**	*18.70*	*19.56*	*19.60*	*19.82*	*20.38*	*20.44*	**20.54**	*18.42*	*20.06*
Total Petroleum and Other Liquids Net Imports	**1.09**	**1.18**	**0.84**	**-0.41**	**-1.13**	**0.14**	*-0.29*	*0.09*	*0.58*	*1.07*	*1.32*	*0.68*	**0.67**	*-0.29*	*0.91*
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	**458.9**	**463.4**	**425.6**	**432.8**	**482.5**	**531.9**	*486.7*	*479.3*	*502.3*	*488.4*	*466.8*	*468.1*	**432.8**	*479.3*	*468.1*
Hydrocarbon Gas Liquids	**160.3**	**224.5**	**262.8**	**211.7**	**180.8**	**233.9**	*277.1*	*231.6*	*192.0*	*238.2*	*273.9*	*230.7*	**211.7**	*231.6*	*230.7*
Unfinished Oils	**92.2**	**95.9**	**92.3**	**89.8**	**100.1**	**91.9**	*88.0*	*83.2*	*93.5*	*91.3*	*90.5*	*84.8*	**89.8**	*83.2*	*84.8*
Other HC/Oxygenates	**30.9**	**29.1**	**28.3**	**27.8**	**33.6**	**26.2**	*26.5*	*26.2*	*27.6*	*26.6*	*25.9*	*26.5*	**27.8**	*26.2*	*26.5*
Total Motor Gasoline	**236.6**	**229.9**	**232.0**	**254.1**	**260.8**	**253.3**	*231.8*	*237.9*	*233.3*	*232.1*	*227.8*	*234.7*	**254.1**	*237.9*	*234.7*
Finished Motor Gasoline	**20.9**	**21.5**	**23.0**	**26.1**	**22.6**	**23.5**	*24.3*	*24.0*	*22.8*	*21.4*	*22.3*	*22.6*	**26.1**	*24.0*	*22.6*
Motor Gasoline Blend Comp.	**215.7**	**208.4**	**209.0**	**228.0**	**238.3**	**229.8**	*207.6*	*213.9*	*210.6*	*210.7*	*205.5*	*212.2*	**228.0**	*213.9*	*212.2*
Jet Fuel	**41.6**	**40.5**	**44.3**	**40.5**	**39.9**	**41.5**	*41.2*	*39.9*	*39.7*	*40.6*	*42.8*	*39.9*	**40.5**	*39.9*	*39.9*
Distillate Fuel Oil	**132.2**	**131.1**	**131.8**	**140.1**	**126.7**	**175.4**	*173.1*	*168.3*	*147.6*	*144.4*	*145.8*	*149.2*	**140.1**	*168.3*	*149.2*
Residual Fuel Oil	**29.2**	**30.5**	**30.0**	**30.5**	**34.4**	**39.6**	*34.8*	*32.1*	*33.3*	*34.2*	*32.0*	*33.6*	**30.5**	*32.1*	*33.6*
Other Oils (g)	**63.3**	**59.2**	**51.2**	**54.6**	**62.0**	**59.2**	*47.3*	*50.0*	*55.9*	*55.0*	*49.5*	*51.9*	**54.6**	*50.0*	*51.9*
Total Commercial Inventory	**1,245**	**1,304**	**1,298**	**1,282**	**1,321**	**1,453**	*1,407*	*1,349*	*1,325*	*1,351*	*1,355*	*1,319*	**1,282**	*1,349*	*1,319*
Crude Oil in SPR	**649**	**645**	**645**	**635**	**635**	**656**	*641*	*636*	*627*	*618*	*618*	*616*	**635**	*636*	*616*

- = no data available

(a) Includes lease condensate.

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

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

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

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

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

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

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

SPR: Strategic Petroleum Reserve

HC: Hydrocarbons

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
HGL Production															
Natural Gas Processing Plants															
Ethane	**1.88**	**1.87**	**1.72**	**1.85**	**1.93**	**1.92**	*1.99*	*2.12*	*2.13*	*2.22*	*2.20*	*2.27*	**1.83**	*1.99*	*2.21*
Propane	**1.50**	**1.56**	**1.61**	**1.68**	**1.72**	**1.61**	*1.62*	*1.61*	*1.56*	*1.60*	*1.62*	*1.63*	**1.59**	*1.64*	*1.60*
Butanes	**0.79**	**0.84**	**0.87**	**0.89**	**0.91**	**0.86**	*0.86*	*0.86*	*0.82*	*0.85*	*0.87*	*0.87*	**0.85**	*0.87*	*0.85*
Natural Gasoline (Pentanes Plus)	**0.49**	**0.55**	**0.61**	**0.58**	**0.56**	**0.57**	*0.57*	*0.54*	*0.52*	*0.56*	*0.59*	*0.56*	**0.56**	*0.56*	*0.56*
Refinery and Blender Net Production															
Ethane/Ethylene	**0.00**	**0.00**	**0.01**	**0.00**	**0.01**	**0.01**	*0.00*	*0.01*	*0.01*	*0.01*	*0.01*	*0.01*	**0.01**	*0.01*	*0.01*
Propane	**0.28**	**0.30**	**0.29**	**0.29**	**0.29**	**0.24**	*0.27*	*0.28*	*0.27*	*0.30*	*0.30*	*0.30*	**0.29**	*0.27*	*0.29*
Propylene (refinery-grade)	**0.28**	**0.28**	**0.28**	**0.28**	**0.25**	**0.26**	*0.27*	*0.28*	*0.28*	*0.29*	*0.29*	*0.29*	**0.28**	*0.26*	*0.29*
Butanes/Butylenes	**-0.09**	**0.26**	**0.18**	**-0.23**	**-0.08**	**0.18**	*0.17*	*-0.20*	*-0.09*	*0.26*	*0.18*	*-0.20*	**0.03**	*0.02*	*0.04*
Renewable Fuels and Oxygenate Plant Net Production															
Natural Gasoline (Pentanes Plus)	**-0.02**	**-0.02**	**-0.02**	**-0.02**	**-0.02**	**-0.01**	*-0.02*	*-0.02*	*-0.02*	*-0.02*	*-0.02*	*-0.02*	**-0.02**	*-0.02*	*-0.02*
HGL Net Imports															
Ethane	**-0.26**	**-0.27**	**-0.28**	**-0.30**	**-0.30**	**-0.28**	*-0.33*	*-0.36*	*-0.35*	*-0.37*	*-0.38*	*-0.38*	**-0.28**	*-0.32*	*-0.37*
Propane/Propylene	**-0.75**	**-1.00**	**-0.99**	**-1.05**	**-1.12**	**-1.08**	*-1.01*	*-1.07*	*-0.99*	*-1.04*	*-1.02*	*-1.06*	**-0.95**	*-1.07*	*-1.03*
Butanes/Butylenes	**-0.14**	**-0.25**	**-0.26**	**-0.25**	**-0.30**	**-0.31**	*-0.34*	*-0.28*	*-0.25*	*-0.32*	*-0.32*	*-0.26*	**-0.23**	*-0.31*	*-0.29*
Natural Gasoline (Pentanes Plus)	**-0.17**	**-0.15**	**-0.16**	**-0.21**	**-0.27**	**-0.19**	*-0.27*	*-0.25*	*-0.28*	*-0.27*	*-0.29*	*-0.27*	**-0.17**	*-0.24*	*-0.28*
HGL Refinery and Blender Net Inputs															
Butanes/Butylenes	**0.46**	**0.29**	**0.33**	**0.54**	**0.46**	**0.25**	*0.29*	*0.49*	*0.40*	*0.29*	*0.33*	*0.51*	**0.40**	*0.37*	*0.38*
Natural Gasoline (Pentanes Plus)	**0.14**	**0.17**	**0.18**	**0.18**	**0.15**	**0.10**	*0.15*	*0.19*	*0.17*	*0.18*	*0.18*	*0.18*	**0.17**	*0.15*	*0.18*
HGL Consumption															
Ethane/Ethylene	**1.61**	**1.50**	**1.48**	**1.56**	**1.70**	**1.65**	*1.67*	*1.75*	*1.78*	*1.82*	*1.84*	*1.90*	**1.54**	*1.69*	*1.83*
Propane	**1.19**	**0.58**	**0.63**	**1.08**	**1.09**	**0.59**	*0.63*	*0.98*	*1.12*	*0.64*	*0.68*	*0.99*	**0.87**	*0.82*	*0.86*
Propylene (refinery-grade)	**0.29**	**0.30**	**0.29**	**0.31**	**0.26**	**0.27**	*0.28*	*0.29*	*0.30*	*0.30*	*0.30*	*0.30*	**0.30**	*0.28*	*0.30*
Butanes/Butylenes	**0.19**	**0.22**	**0.30**	**0.24**	**0.17**	**0.20**	*0.20*	*0.21*	*0.20*	*0.23*	*0.21*	*0.21*	**0.24**	*0.19*	*0.21*
Natural Gasoline (Pentanes Plus)	**0.19**	**0.20**	**0.23**	**0.17**	**0.09**	**0.13**	*0.11*	*0.11*	*0.09*	*0.08*	*0.10*	*0.11*	**0.20**	*0.11*	*0.10*
HGL Inventories (million barrels)															
Ethane	**49.14**	**56.54**	**56.84**	**58.84**	**52.57**	**49.54**	*50.81*	*52.95*	*51.93*	*56.23*	*55.44*	*57.02*	**55.37**	*51.47*	*55.17*
Propane	**48.94**	**71.71**	**95.61**	**79.67**	**60.28**	**75.31**	*97.26*	*81.20*	*54.78*	*72.41*	*91.33*	*78.35*	**79.67**	*81.20*	*78.35*
Propylene (at refineries only)	**1.68**	**1.76**	**2.65**	**1.66**	**1.41**	**1.50**	*2.20*	*2.75*	*2.76*	*3.21*	*3.71*	*4.13*	**1.66**	*2.75*	*4.13*
Butanes/Butylenes	**39.84**	**70.72**	**85.87**	**52.18**	**43.58**	**69.33**	*88.70*	*59.07*	*48.89*	*73.01*	*90.47*	*60.85*	**52.18**	*59.07*	*60.85*
Natural Gasoline (Pentanes Plus)	**18.43**	**19.72**	**21.26**	**20.90**	**23.99**	**35.67**	*37.72*	*36.01*	*32.51*	*32.75*	*32.71*	*31.15*	**20.90**	*36.01*	*31.15*
Refinery and Blender Net Inputs															
Crude Oil	**16.20**	**16.76**	**16.96**	**16.32**	**15.77**	**13.16**	*14.41*	*15.76*	*15.63*	*16.40*	*16.89*	*16.58*	**16.56**	*14.78*	*16.38*
Hydrocarbon Gas Liquids	**0.59**	**0.46**	**0.51**	**0.72**	**0.61**	**0.35**	*0.44*	*0.67*	*0.57*	*0.47*	*0.51*	*0.69*	**0.57**	*0.52*	*0.56*
Other Hydrocarbons/Oxygenates	**1.16**	**1.21**	**1.22**	**1.19**	**1.12**	**0.95**	*1.09*	*1.11*	*1.14*	*1.19*	*1.19*	*1.17*	**1.19**	*1.07*	*1.17*
Unfinished Oils	**0.18**	**0.34**	**0.46**	**0.43**	**0.05**	**0.23**	*0.41*	*0.42*	*0.24*	*0.47*	*0.45*	*0.38*	**0.35**	*0.28*	*0.38*
Motor Gasoline Blend Components	**0.64**	**0.94**	**0.77**	**0.40**	**0.41**	**0.48**	*0.69*	*0.26*	*0.57*	*0.84*	*0.66*	*0.26*	**0.69**	*0.46*	*0.58*
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	**18.77**	**19.71**	**19.93**	**19.06**	**17.97**	**15.17**	*17.04*	*18.23*	*18.15*	*19.37*	*19.70*	*19.09*	**19.37**	*17.10*	*19.08*
Refinery Processing Gain	**1.05**	**1.07**	**1.06**	**1.09**	**1.02**	**0.82**	*1.01*	*1.11*	*1.10*	*1.14*	*1.13*	*1.13*	**1.07**	*0.99*	*1.12*
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	**0.48**	**0.84**	**0.76**	**0.34**	**0.47**	**0.69**	*0.71*	*0.36*	*0.48*	*0.85*	*0.77*	*0.39*	**0.61**	*0.56*	*0.62*
Finished Motor Gasoline	**9.85**	**10.16**	**10.20**	**10.16**	**9.30**	**7.52**	*9.13*	*9.54*	*9.53*	*10.02*	*10.08*	*10.01*	**10.10**	*8.88*	*9.91*
Jet Fuel	**1.73**	**1.78**	**1.88**	**1.79**	**1.63**	**0.62**	*1.04*	*1.58*	*1.57*	*1.65*	*1.70*	*1.66*	**1.80**	*1.22*	*1.65*
Distillate Fuel	**5.05**	**5.21**	**5.18**	**5.11**	**4.95**	**4.83**	*4.68*	*4.95*	*4.82*	*5.02*	*5.14*	*5.10*	**5.14**	*4.85*	*5.02*
Residual Fuel	**0.36**	**0.39**	**0.39**	**0.30**	**0.23**	**0.18**	*0.21*	*0.26*	*0.33*	*0.35*	*0.34*	*0.30*	**0.36**	*0.22*	*0.33*
Other Oils (a)	**2.36**	**2.40**	**2.57**	**2.45**	**2.41**	**2.14**	*2.27*	*2.66*	*2.52*	*2.62*	*2.79*	*2.76*	**2.44**	*2.37*	*2.67*
Total Refinery and Blender Net Production	**19.82**	**20.78**	**20.99**	**20.15**	**18.99**	**15.99**	*18.04*	*19.34*	*19.25*	*20.51*	*20.83*	*20.22*	**20.44**	*18.09*	*20.21*
Refinery Distillation Inputs	**16.54**	**17.14**	**17.42**	**16.85**	**16.36**	**13.65**	*15.00*	*16.10*	*15.94*	*16.64*	*17.14*	*16.81*	**16.99**	*15.28*	*16.64*
Refinery Operable Distillation Capacity	**18.81**	**18.81**	**18.81**	**18.81**	**18.98**	**18.75**	*18.55*	*18.39*	*18.39*	*18.39*	*18.39*	*18.39*	**18.81**	*18.66*	*18.39*
Refinery Distillation Utilization Factor	**0.88**	**0.91**	**0.93**	**0.90**	**0.86**	**0.73**	*0.81*	*0.88*	*0.87*	*0.90*	*0.93*	*0.91*	**0.90**	*0.82*	*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 - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Prices (cents per gallon)															
Refiner Wholesale Price	**167**	**205**	**189**	**182**	**153**	**104**	*135*	*129*	*136*	*161*	*161*	*150*	**186**	*131*	*152*
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	**233**	**268**	**256**	**247**	**236**	**191**	*209*	*198*	*203*	*231*	*235*	*223*	**251**	*209*	*223*
PADD 2	**223**	**269**	**257**	**244**	**226**	**179**	*206*	*195*	*193*	*231*	*227*	*213*	**249**	*202*	*216*
PADD 3	**205**	**245**	**234**	**224**	**210**	**162**	*186*	*177*	*183*	*210*	*210*	*198*	**228**	*185*	*200*
PADD 4	**226**	**285**	**270**	**276**	**247**	**201**	*230*	*208*	*200*	*230*	*235*	*220*	**265**	*222*	*222*
PADD 5	**297**	**356**	**331**	**350**	**311**	**258**	*281*	*270*	*260*	*295*	*294*	*283*	**334**	*281*	*283*
U.S. Average	**236**	**279**	**265**	**259**	**241**	**194**	*217*	*206*	*207*	*238*	*239*	*226*	**260**	*216*	*228*
Gasoline All Grades Including Taxes	**245**	**288**	**274**	**269**	**251**	**203**	*227*	*218*	*219*	*251*	*252*	*240*	**269**	*226*	*241*
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	**62.5**	**59.8**	**65.0**	**65.6**	**71.0**	**73.0**	*60.4*	*59.2*	*58.7*	*60.7*	*58.0*	*58.2*	**65.6**	*59.2*	*58.2*
PADD 2	**54.5**	**49.6**	**51.0**	**55.0**	**60.2**	**52.6**	*49.2*	*51.4*	*54.3*	*53.9*	*52.8*	*50.4*	**55.0**	*51.4*	*50.4*
PADD 3	**82.3**	**82.6**	**81.6**	**92.0**	**84.8**	**90.5**	*86.6*	*88.4*	*82.4*	*80.5*	*80.3*	*86.3*	**92.0**	*88.4*	*86.3*
PADD 4	**6.9**	**7.5**	**7.7**	**8.3**	**9.2**	**7.7**	*6.9*	*7.2*	*7.6*	*7.8*	*7.4*	*7.8*	**8.3**	*7.2*	*7.8*
PADD 5	**30.4**	**30.6**	**26.8**	**33.2**	**35.6**	**29.4**	*28.8*	*31.7*	*30.3*	*29.2*	*29.3*	*32.0*	**33.2**	*31.7*	*32.0*
U.S. Total	**236.6**	**229.9**	**232.0**	**254.1**	**260.8**	**253.3**	*231.8*	*237.9*	*233.3*	*232.1*	*227.8*	*234.7*	**254.1**	*237.9*	*234.7*
Finished Gasoline Inventories															
U.S. Total	**20.9**	**21.5**	**23.0**	**26.1**	**22.6**	**23.5**	*24.3*	*24.0*	*22.8*	*21.4*	*22.3*	*22.6*	**26.1**	*24.0*	*22.6*
Gasoline Blending Components Inventories															
U.S. Total	**215.7**	**208.4**	**209.0**	**228.0**	**238.3**	**229.8**	*207.6*	*213.9*	*210.6*	*210.7*	*205.5*	*212.2*	**228.0**	*213.9*	*212.2*

- = no data available

Prices are not adjusted for inflation.

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Supply (billion cubic feet per day)															
Total Marketed Production	**96.08**	**97.44**	**99.91**	**103.16**	**101.96**	**96.66**	*95.66*	*94.33*	*92.80*	*93.06*	*94.42*	*95.19*	**99.17**	*97.14*	*93.88*
Alaska	**0.96**	**0.93**	**0.79**	**0.93**	**0.96**	**0.88**	*0.79*	*0.94*	*0.99*	*0.85*	*0.80*	*0.95*	**0.90**	*0.89*	*0.90*
Federal GOM (a)	**2.80**	**2.75**	**2.51**	**2.72**	**2.72**	**2.21**	*2.27*	*2.47*	*2.50*	*2.42*	*2.28*	*2.26*	**2.69**	*2.42*	*2.36*
Lower 48 States (excl GOM)	**92.32**	**93.76**	**96.61**	**99.51**	**98.27**	**93.57**	*92.60*	*90.92*	*89.31*	*89.80*	*91.34*	*91.98*	**95.57**	*93.83*	*90.62*
Total Dry Gas Production	**89.32**	**90.50**	**92.98**	**95.97**	**94.48**	**89.50**	*88.44*	*87.14*	*85.67*	*85.87*	*87.07*	*87.73*	**92.21**	*89.88*	*86.59*
LNG Gross Imports	**0.28**	**0.03**	**0.06**	**0.20**	**0.24**	**0.12**	*0.18*	*0.20*	*0.32*	*0.18*	*0.18*	*0.20*	**0.14**	*0.18*	*0.22*
LNG Gross Exports	**4.01**	**4.55**	**4.95**	**6.40**	**7.92**	**5.51**	*3.53*	*8.13*	*9.15*	*7.94*	*8.66*	*9.17*	**4.98**	*6.27*	*8.73*
Pipeline Gross Imports	**8.35**	**6.73**	**7.10**	**7.30**	**7.64**	**6.12**	*6.35*	*6.94*	*7.82*	*7.09*	*7.44*	*7.42*	**7.37**	*6.76*	*7.44*
Pipeline Gross Exports	**7.86**	**7.18**	**7.80**	**8.25**	**8.13**	**7.17**	*8.08*	*8.41*	*8.23*	*7.47*	*8.07*	*8.20*	**7.77**	*7.95*	*7.99*
Supplemental Gaseous Fuels	**0.20**	**0.16**	**0.15**	**0.17**	**0.19**	**0.17**	*0.16*	*0.16*	*0.16*	*0.16*	*0.16*	*0.16*	**0.17**	*0.17*	*0.16*
Net Inventory Withdrawals	**16.93**	**-14.18**	**-10.41**	**2.44**	**12.74**	**-12.24**	*-7.18*	*6.78*	*17.50*	*-10.13*	*-7.50*	*4.57*	**-1.37**	*0.02*	*1.05*
Total Supply	**103.21**	**71.52**	**77.14**	**91.42**	**99.25**	**70.99**	*76.35*	*84.68*	*94.09*	*67.76*	*70.62*	*82.70*	**85.77**	*82.80*	*78.74*
Balancing Item (b)	**0.11**	**-0.79**	**-0.39**	**-2.09**	**0.00**	**-0.09**	*-0.28*	*-0.14*	*0.09*	*-0.92*	*1.09*	*1.35*	**-0.79**	*-0.13*	*0.41*
Total Primary Supply	**103.32**	**70.74**	**76.74**	**89.33**	**99.25**	**70.90**	*76.07*	*84.54*	*94.18*	*66.84*	*71.71*	*84.05*	**84.97**	*82.68*	*79.14*
Consumption (billion cubic feet per day)															
Residential	**27.15**	**7.34**	**3.53**	**17.00**	**22.79**	**8.26**	*3.78*	*16.90*	*24.91*	*6.98*	*3.33*	*16.16*	**13.70**	*12.92*	*12.79*
Commercial	**16.19**	**6.36**	**4.68**	**11.45**	**14.07**	**5.90**	*4.62*	*10.63*	*14.71*	*6.49*	*4.73*	*10.43*	**9.65**	*8.80*	*9.07*
Industrial	**25.12**	**21.74**	**21.31**	**23.79**	**24.55**	**20.54**	*20.00*	*22.72*	*23.39*	*21.20*	*20.67*	*23.47*	**22.98**	*21.95*	*22.18*
Electric Power (c)	**26.83**	**28.13**	**39.74**	**29.09**	**29.60**	**29.04**	*40.44*	*26.26*	*22.83*	*24.61*	*35.13*	*25.76*	**30.98**	*31.35*	*27.11*
Lease and Plant Fuel	**4.93**	**5.00**	**5.13**	**5.29**	**5.23**	**4.96**	*4.91*	*4.84*	*4.76*	*4.78*	*4.84*	*4.88*	**5.09**	*4.98*	*4.82*
Pipeline and Distribution Use	**2.96**	**2.03**	**2.20**	**2.56**	**2.85**	**2.03**	*2.14*	*3.01*	*3.38*	*2.58*	*2.79*	*3.15*	**2.44**	*2.51*	*2.97*
Vehicle Use	**0.13**	**0.13**	**0.14**	**0.15**	**0.16**	**0.16**	*0.18*	*0.20*	*0.20*	*0.21*	*0.21*	*0.21*	**0.14**	*0.17*	*0.20*
Total Consumption	**103.32**	**70.74**	**76.74**	**89.33**	**99.25**	**70.90**	*76.07*	*84.54*	*94.18*	*66.84*	*71.71*	*84.05*	**84.97**	*82.68*	*79.14*
End-of-period Inventories (billion cubic feet)															
Working Gas Inventory	**1,185**	**2,461**	**3,415**	**3,189**	**2,030**	**3,133**	*3,794*	*3,170*	*1,595*	*2,517*	*3,207*	*2,787*	**3,189**	*3,170*	*2,787*
East Region (d)	**216**	**537**	**845**	**764**	**385**	**655**	*898*	*667*	*184*	*447*	*702*	*536*	**764**	*667*	*536*
Midwest Region (d)	**242**	**579**	**990**	**885**	**472**	**747**	*1,060*	*862*	*312*	*559*	*879*	*733*	**885**	*862*	*733*
South Central Region (d)	**519**	**917**	**1,049**	**1,095**	**857**	**1,221**	*1,268*	*1,154*	*756*	*1,031*	*1,080*	*1,051*	**1,095**	*1,154*	*1,051*
Mountain Region (d)	**63**	**135**	**200**	**167**	**92**	**177**	*221*	*172*	*116*	*156*	*198*	*163*	**167**	*172*	*163*
Pacific Region (d)	**115**	**259**	**294**	**245**	**200**	**308**	*320*	*287*	*199*	*296*	*320*	*276*	**245**	*287*	*276*
Alaska	**30**	**33**	**37**	**33**	**23**	**25**	*28*	*28*	*28*	*28*	*28*	*28*	**33**	*28*	*28*

- = no data available

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

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

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

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

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

LNG: liquefied natural gas.

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Wholesale/Spot															
Henry Hub Spot Price	**3.03**	**2.66**	**2.47**	**2.49**	**1.98**	**1.77**	*2.21*	*3.02*	*3.46*	*3.16*	*3.26*	*3.37*	**2.67**	*2.25*	*3.31*
Residential Retail															
New England	**14.44**	**15.56**	**19.31**	**14.05**	**13.80**	**14.55**	*17.06*	*12.97*	*12.85*	*13.98*	*17.01*	*13.23*	**14.78**	*13.93*	*13.42*
Middle Atlantic	**10.79**	**13.08**	**18.50**	**11.38**	**10.80**	**11.85**	*16.13*	*10.38*	*9.89*	*12.43*	*17.13*	*11.46*	**11.74**	*11.20*	*11.19*
E. N. Central	**7.27**	**10.48**	**19.03**	**7.68**	**6.99**	**9.51**	*16.74*	*8.46*	*7.93*	*10.90*	*16.63*	*8.46*	**8.41**	*8.35*	*9.05*
W. N. Central	**7.93**	**10.67**	**18.16**	**8.16**	**7.30**	**9.88**	*16.48*	*8.55*	*7.82*	*10.91*	*17.11*	*9.18*	**8.81**	*8.50*	*9.17*
S. Atlantic	**11.63**	**18.34**	**26.03**	**12.90**	**12.17**	**15.41**	*21.60*	*11.81*	*10.89*	*16.36*	*22.60*	*12.79*	**13.83**	*13.26*	*13.04*
E. S. Central	**9.64**	**14.84**	**21.40**	**10.43**	**9.74**	**13.23**	*20.09*	*12.58*	*10.65*	*15.43*	*22.29*	*13.78*	**11.05**	*11.53*	*12.89*
W. S. Central	**8.29**	**13.38**	**21.45**	**10.54**	**8.55**	**14.25**	*20.04*	*11.75*	*9.59*	*15.12*	*20.79*	*12.22*	**10.54**	*11.42*	*12.09*
Mountain	**7.73**	**9.46**	**13.40**	**7.75**	**7.52**	**9.70**	*12.84*	*7.88*	*7.97*	*9.98*	*13.81*	*8.73*	**8.37**	*8.34*	*8.98*
Pacific	**12.44**	**12.75**	**13.50**	**12.06**	**13.41**	**14.32**	*13.84*	*12.74*	*13.28*	*14.17*	*14.93*	*13.88*	**12.50**	*13.44*	*13.82*
U.S. Average	**9.47**	**12.48**	**18.10**	**9.88**	**9.51**	**11.90**	*16.68*	*10.28*	*9.65*	*12.72*	*17.38*	*10.88*	**10.56**	*10.67*	*10.97*
Commercial Retail															
New England	**11.21**	**11.42**	**11.61**	**10.13**	**10.38**	**10.78**	*10.19*	*9.45*	*10.02*	*10.36*	*10.54*	*10.61*	**10.95**	*10.18*	*10.32*
Middle Atlantic	**8.43**	**7.72**	**6.86**	**7.47**	**7.91**	**7.02**	*6.38*	*7.18*	*7.55*	*7.51*	*7.00*	*7.58*	**7.85**	*7.33*	*7.48*
E. N. Central	**6.27**	**7.19**	**8.85**	**6.04**	**5.75**	**6.74**	*8.36*	*6.51*	*6.63*	*7.81*	*9.19*	*7.23*	**6.51**	*6.34*	*7.19*
W. N. Central	**6.79**	**7.11**	**8.20**	**6.16**	**5.97**	**6.52**	*7.88*	*6.71*	*7.33*	*7.88*	*9.06*	*7.55*	**6.73**	*6.42*	*7.61*
S. Atlantic	**8.85**	**9.54**	**9.64**	**8.82**	**8.56**	**9.20**	*9.34*	*8.72*	*8.77*	*9.58*	*9.85*	*8.89*	**9.05**	*8.82*	*9.07*
E. S. Central	**8.61**	**9.78**	**10.06**	**8.54**	**8.36**	**9.23**	*9.22*	*8.23*	*8.22*	*9.47*	*10.08*	*9.16*	**8.91**	*8.54*	*8.91*
W. S. Central	**6.02**	**6.57**	**7.42**	**6.38**	**5.70**	**6.82**	*7.47*	*7.06*	*7.22*	*7.80*	*8.41*	*7.89*	**6.41**	*6.49*	*7.69*
Mountain	**6.40**	**6.72**	**7.41**	**6.16**	**6.07**	**7.49**	*7.61*	*6.70*	*7.11*	*7.53*	*8.39*	*7.47*	**6.47**	*6.65*	*7.43*
Pacific	**9.08**	**8.82**	**9.14**	**8.90**	**9.60**	**9.30**	*8.52*	*8.24*	*8.74*	*8.99*	*9.30*	*9.00*	**8.99**	*8.95*	*8.95*
U.S. Average	**7.59**	**7.97**	**8.40**	**7.22**	**7.21**	**7.67**	*7.95*	*7.35*	*7.61*	*8.24*	*8.71*	*8.02*	**7.62**	*7.41*	*7.96*
Industrial Retail															
New England	**9.17**	**8.27**	**6.92**	**7.29**	**8.09**	**7.38**	*6.45*	*7.77*	*8.44*	*7.70*	*7.00*	*7.93*	**8.08**	*7.54*	*7.88*
Middle Atlantic	**8.76**	**7.65**	**6.99**	**6.95**	**7.46**	**6.76**	*6.47*	*7.04*	*7.80*	*7.35*	*7.44*	*7.72*	**7.86**	*7.08*	*7.66*
E. N. Central	**5.75**	**5.38**	**5.64**	**5.14**	**4.88**	**5.09**	*5.53*	*5.45*	*6.46*	*6.27*	*6.25*	*6.24*	**5.49**	*5.17*	*6.34*
W. N. Central	**5.16**	**3.94**	**3.37**	**4.19**	**3.94**	**3.27**	*3.23*	*4.51*	*5.48*	*4.76*	*4.68*	*5.38*	**4.24**	*3.80*	*5.12*
S. Atlantic	**5.52**	**4.60**	**4.40**	**4.52**	**4.17**	**3.71**	*3.92*	*4.89*	*5.61*	*4.98*	*4.96*	*5.33*	**4.80**	*4.20*	*5.25*
E. S. Central	**4.93**	**4.04**	**3.59**	**4.07**	**3.90**	**3.18**	*3.62*	*4.70*	*5.30*	*4.77*	*4.70*	*5.14*	**4.20**	*3.89*	*5.00*
W. S. Central	**3.47**	**2.88**	**2.53**	**2.64**	**2.17**	**1.91**	*2.27*	*3.10*	*3.65*	*3.31*	*3.48*	*3.61*	**2.89**	*2.41*	*3.52*
Mountain	**5.31**	**4.80**	**5.00**	**4.72**	**4.41**	**4.61**	*5.16*	*5.32*	*5.77*	*5.60*	*5.95*	*6.07*	**4.96**	*4.83*	*5.85*
Pacific	**7.68**	**6.66**	**6.49**	**6.83**	**7.54**	**6.35**	*5.77*	*6.09*	*7.02*	*6.65*	*6.80*	*6.92*	**6.97**	*6.47*	*6.86*
U.S. Average	**4.67**	**3.74**	**3.30**	**3.74**	**3.52**	**2.86**	*2.93*	*3.98*	*4.75*	*4.11*	*4.10*	*4.55*	**3.91**	*3.36*	*4.40*

- = no data available

Prices are not adjusted for inflation.

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

Regions refer to U.S. Census divisions.

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Supply (million short tons)															
Production	**179.5**	**179.2**	**181.4**	**165.2**	**149.1**	**113.1**	*121.0*	*128.0*	*170.3*	*123.8*	*154.6*	*151.7*	**705.3**	*511.2*	*600.4*
Appalachia	**49.6**	**52.5**	**46.6**	**44.3**	**39.7**	**32.0**	*33.1*	*32.8*	*39.0*	*33.3*	*35.0*	*33.0*	**193.0**	*137.6*	*140.3*
Interior	**35.4**	**32.3**	**32.4**	**30.6**	**25.8**	**20.2**	*20.0*	*21.3*	*33.8*	*19.0*	*24.5*	*27.5*	**130.7**	*87.2*	*104.8*
Western	**94.5**	**94.4**	**102.4**	**90.3**	**83.6**	**60.9**	*67.9*	*74.0*	*97.5*	*71.5*	*95.0*	*91.3*	**381.7**	*286.4*	*355.2*
Primary Inventory Withdrawals	**-1.5**	**1.3**	**-1.2**	**-1.4**	**-0.5**	**0.8**	*-1.4*	*-1.4*	*0.7*	*1.5*	*1.9*	*-2.1*	**-2.7**	*-2.4*	*2.0*
Imports	**1.7**	**1.6**	**1.7**	**1.7**	**1.3**	**1.1**	*1.1*	*1.2*	*1.0*	*1.0*	*1.3*	*1.3*	**6.7**	*4.8*	*4.6*
Exports	**25.2**	**25.3**	**21.9**	**20.4**	**20.0**	**14.8**	*13.4*	*13.2*	*22.5*	*17.0*	*14.2*	*13.5*	**92.9**	*61.3*	*67.2*
Metallurgical Coal	**13.9**	**15.1**	**13.5**	**12.6**	**11.7**	**9.0**	*8.7*	*9.3*	*14.2*	*11.1*	*9.4*	*9.0*	**55.1**	*38.7*	*43.8*
Steam Coal	**11.3**	**10.2**	**8.4**	**7.8**	**8.3**	**5.8**	*4.7*	*3.9*	*8.3*	*5.9*	*4.8*	*4.4*	**37.7**	*22.6*	*23.5*
Total Primary Supply	**154.5**	**156.7**	**159.9**	**145.2**	**129.9**	**100.3**	*107.3*	*114.7*	*149.4*	*109.3*	*143.6*	*137.5*	**616.4**	*452.2*	*539.7*
Secondary Inventory Withdrawals	**5.9**	**-21.0**	**6.4**	**-17.5**	**-16.5**	**-5.8**	*23.6*	*-2.0*	*-18.3*	*3.8*	*8.3*	*-7.6*	**-26.2**	*-0.7*	*-13.8*
Waste Coal (a)	**2.3**	**2.3**	**2.3**	**2.3**	**2.3**	**2.3**	*2.3*	*2.3*	*2.0*	*2.0*	*2.0*	*2.0*	**9.3**	*9.2*	*8.0*
Total Supply	**162.8**	**138.0**	**168.6**	**130.0**	**115.7**	**96.8**	*133.2*	*115.0*	*133.1*	*115.1*	*153.8*	*131.8*	**599.5**	*460.6*	*533.9*
Consumption (million short tons)															
Coke Plants	**4.5**	**4.7**	**4.5**	**4.3**	**4.2**	**4.4**	*4.6*	*3.4*	*5.6*	*4.8*	*3.8*	*2.8*	**17.9**	*16.7*	*17.0*
Electric Power Sector (b)	**145.3**	**118.0**	**156.2**	**119.9**	**97.6**	**87.2**	*137.3*	*109.5*	*119.0*	*113.3*	*147.3*	*110.3*	**539.4**	*431.6*	*489.7*
Retail and Other Industry	**8.1**	**7.2**	**7.2**	**7.5**	**7.4**	**6.6**	*6.3*	*6.6*	*6.7*	*6.5*	*6.5*	*6.8*	**30.0**	*26.8*	*26.4*
Residential and Commercial	**0.3**	**0.2**	**0.2**	**0.2**	**0.3**	**0.1**	*0.2*	*0.3*	*0.2*	*0.2*	*0.2*	*0.2*	**0.9**	*0.9*	*0.9*
Other Industrial	**7.8**	**7.0**	**7.0**	**7.3**	**7.1**	**6.4**	*6.1*	*6.3*	*6.5*	*6.3*	*6.3*	*6.5*	**29.1**	*25.9*	*25.5*
Total Consumption	**157.9**	**129.9**	**167.8**	**131.8**	**109.2**	**98.2**	*148.2*	*119.5*	*131.3*	*124.6*	*157.5*	*119.8*	**587.3**	*475.1*	*533.2*
Discrepancy (c)	**5.0**	**8.2**	**0.8**	**-1.9**	**6.4**	**-1.3**	*-15.1*	*-4.5*	*1.8*	*-9.4*	*-3.7*	*12.0*	**12.1**	*-14.5*	*0.7*
End-of-period Inventories (million short tons)															
Primary Inventories (d)	**23.2**	**21.9**	**23.1**	**24.4**	**24.9**	**24.1**	*25.5*	*26.9*	*26.2*	*24.7*	*22.8*	*24.8*	**24.4**	*26.9*	*24.8*
Secondary Inventories	**102.2**	**123.2**	**116.8**	**134.3**	**150.8**	**156.6**	*133.1*	*135.1*	*153.3*	*149.5*	*141.2*	*148.9*	**134.3**	*135.1*	*148.9*
Electric Power Sector	**97.1**	**117.7**	**111.0**	**128.5**	**145.5**	**150.7**	*127.0*	*129.3*	*147.7*	*143.5*	*135.1*	*143.1*	**128.5**	*129.3*	*143.1*
Retail and General Industry	**2.8**	**3.0**	**3.2**	**3.3**	**3.0**	**3.6**	*3.7*	*3.5*	*3.8*	*3.7*	*3.8*	*3.6*	**3.3**	*3.5*	*3.6*
Coke Plants	**2.0**	**2.3**	**2.5**	**2.3**	**2.2**	**2.1**	*2.2*	*2.1*	*1.7*	*2.1*	*2.2*	*2.0*	**2.3**	*2.1*	*2.0*
Coal Market Indicators															
Coal Miner Productivity (Tons per hour)	**6.37**	**6.37**	**6.37**	**6.37**	**6.37**	**6.37**	*6.37*	*6.37*	*6.32*	*6.32*	*6.32*	*6.32*	**6.37**	*6.37*	*6.32*
Total Raw Steel Production (Million short tons per day)	**0.273**	**0.271**	**0.264**	**0.265**	**0.268**	**0.174**	*0.195*	*0.214*	*0.256*	*0.228*	*0.234*	*0.275*	**0.268**	*0.213*	*0.248*
Cost of Coal to Electric Utilities (Dollars per million Btu)	**2.08**	**2.05**	**2.00**	**1.95**	**1.93**	**1.90**	*2.00*	*2.00*	*2.05*	*2.05*	*2.03*	*2.03*	**2.02**	*1.96*	*2.04*

- = no data available

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

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 7a. U.S. Electricity Industry Overview

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Electricity Supply (billion kilowatthours)															
Electricity Generation	**995**	**974**	**1,173**	**976**	**962**	**931**	*1,150*	*943*	*938*	*953*	*1,127*	*954*	**4,118**	*3,986*	*3,973*
Electric Power Sector (a)	**955**	**935**	**1,131**	**934**	**921**	**894**	*1,112*	*908*	*903*	*918*	*1,089*	*917*	**3,956**	*3,835*	*3,828*
Industrial Sector (b)	**37**	**36**	**38**	**38**	**38**	**34**	*34*	*31*	*32*	*32*	*34*	*34*	**149**	*137*	*132*
Commercial Sector (b)	**3**	**3**	**4**	**3**	**3**	**3**	*4*	*3*	*3*	*3*	*4*	*3*	**14**	*13*	*13*
Net Imports	**9**	**9**	**11**	**10**	**10**	**11**	*13*	*10*	*12*	*12*	*14*	*11*	**39**	*44*	*49*
Total Supply	**1,004**	**983**	**1,184**	**986**	**972**	**942**	*1,163*	*953*	*950*	*965*	*1,141*	*965*	**4,157**	*4,029*	*4,022*
Losses and Unaccounted for (c)	**57**	**71**	**74**	**59**	**50**	**65**	*59*	*54*	*44*	*66*	*57*	*54*	**262**	*227*	*221*
Electricity Consumption (billion kilowatthours unless noted)															
Retail Sales	**911**	**877**	**1072**	**889**	**885**	**844**	*1059*	*868*	*875*	*868*	*1050*	*878*	**3750**	*3655*	*3670*
Residential Sector	**361**	**309**	**434**	**331**	**340**	**334**	*469*	*343*	*355*	*338*	*455*	*345*	**1435**	*1485*	*1493*
Commercial Sector	**320**	**328**	**382**	**325**	**313**	**293**	*355*	*308*	*303*	*308*	*358*	*312*	**1355**	*1268*	*1280*
Industrial Sector	**228**	**238**	**254**	**232**	**231**	**216**	*233*	*216*	*215*	*220*	*235*	*219*	**952**	*895*	*889*
Transportation Sector	**2**	**2**	**2**	**2**	**2**	**1**	*2*	*2*	*2*	*2*	*2*	*2*	**8**	*7*	*8*
Direct Use (d)	**36**	**35**	**38**	**37**	**37**	**34**	*33*	*31*	*32*	*32*	*34*	*33*	**146**	*135*	*131*
Total Consumption	**948**	**912**	**1110**	**927**	**922**	**878**	*1104*	*899*	*906*	*899*	*1084*	*911*	**3896**	*3802*	*3801*
Average residential electricity usage per customer (kWh)	**2,676**	**2,289**	**3,212**	**2,449**	**2,496**	**2,455**	*3,482*	*2,517*	*2,598*	*2,472*	*3,329*	*2,523*	**10,627**	*10,950*	*10,922*
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	**2.08**	**2.05**	**2.00**	**1.95**	**1.93**	**1.90**	*2.00*	*2.00*	*2.05*	*2.05*	*2.03*	*2.03*	**2.02**	*1.96*	*2.04*
Natural Gas	**3.71**	**2.73**	**2.51**	**2.78**	**2.39**	**2.10**	*2.35*	*3.26*	*3.97*	*3.33*	*3.35*	*3.62*	**2.88**	*2.49*	*3.54*
Residual Fuel Oil	**12.21**	**13.39**	**12.79**	**12.52**	**12.15**	**6.75**	*7.50*	*8.12*	*8.70*	*9.92*	*9.65*	*9.58*	**12.72**	*8.58*	*9.35*
Distillate Fuel Oil	**14.83**	**15.77**	**15.01**	**15.10**	**13.29**	**8.37**	*10.02*	*10.67*	*11.03*	*12.10*	*12.49*	*12.81*	**15.16**	*10.65*	*12.14*
Retail Prices (cents per kilowatthour)															
Residential Sector	**12.68**	**13.33**	**13.27**	**12.85**	**12.90**	**13.24**	*13.27*	*12.84*	*12.85*	*13.36*	*13.49*	*13.14*	**13.04**	*13.08*	*13.23*
Commercial Sector	**10.43**	**10.64**	**11.00**	**10.53**	**10.35**	**10.63**	*10.79*	*10.39*	*10.30*	*10.77*	*11.02*	*10.57*	**10.66**	*10.55*	*10.68*
Industrial Sector	**6.66**	**6.71**	**7.25**	**6.66**	**6.38**	**6.62**	*7.25*	*6.69*	*6.49*	*6.73*	*7.26*	*6.70*	**6.83**	*6.74*	*6.81*
Wholesale Electricity Prices (dollars per megawatthour)															
ERCOT North hub	**28.41**	**28.34**	**139.81**	**28.40**	**23.41**	**24.00**	*36.06*	*29.60*	*29.05*	*30.08*	*33.62*	*29.87*	**56.24**	*28.27*	*30.65*
CAISO SP15 zone	**50.42**	**23.30**	**37.32**	**41.57**	**28.64**	**19.21**	*57.40*	*39.11*	*36.16*	*34.83*	*35.81*	*38.28*	**38.15**	*36.09*	*36.27*
ISO-NE Internal hub	**47.40**	**27.15**	**29.52**	**35.48**	**24.61**	**20.25**	*26.99*	*33.46*	*45.85*	*28.03*	*28.28*	*34.06*	**34.89**	*26.33*	*34.06*
NYISO Hudson Valley zone	**41.77**	**25.68**	**27.76**	**27.04**	**21.82**	**18.13**	*25.12*	*24.78*	*27.15*	*25.60*	*26.97*	*27.07*	**30.56**	*22.46*	*26.70*
PJM Western hub	**33.79**	**28.54**	**31.17**	**29.89**	**22.47**	**20.79**	*29.72*	*26.72*	*28.43*	*27.32*	*31.31*	*28.94*	**30.85**	*24.93*	*29.00*
Midcontinent ISO Illinois hub	**31.44**	**27.81**	**30.71**	**28.09**	**24.43**	**23.00**	*31.24*	*28.97*	*28.87*	*28.87*	*32.81*	*30.43*	**29.51**	*26.91*	*30.24*
SPP ISO South hub	**29.15**	**27.14**	**31.51**	**23.64**	**20.06**	**19.54**	*26.70*	*23.87*	*22.45*	*23.22*	*28.92*	*24.68*	**27.86**	*22.54*	*24.82*
SERC index, Into Southern	**30.74**	**29.87**	**31.08**	**29.31**	**23.58**	**18.23**	*26.06*	*27.44*	*26.15*	*26.30*	*30.82*	*28.39*	**30.25**	*23.83*	*27.92*
FRCC index, Florida Reliability	**30.71**	**29.57**	**30.64**	**29.47**	**26.24**	**18.53**	*26.30*	*30.46*	*30.27*	*30.33*	*30.69*	*31.83*	**30.10**	*25.38*	*30.78*
Northwest index, Mid-Columbia	**55.74**	**18.55**	**32.74**	**37.47**	**22.77**	**14.49**	*28.42*	*29.17*	*26.72*	*25.47*	*26.61*	*28.53*	**36.12**	*23.71*	*26.83*
Southwest index, Palo Verde	**44.23**	**18.45**	**42.00**	**36.37**	**22.07**	**19.60**	*74.37*	*34.45*	*34.66*	*34.12*	*34.24*	*36.92*	**35.26**	*37.62*	*34.99*

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

kWh = kilowatthours. Btu = British thermal units.

Prices are not adjusted for inflation.

(a) Generation supplied by power plants with capacity of at least 1 megawatt operated by electric utilities and independent power producers.

(b) Generation supplied by power plants with capacity of at least 1 megawatt operated by businesses in the commercial and industrial sectors, primarily for onsite use.

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

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

Historical data sources:

(1) Electricity supply, consumption, fuel costs, and retail electricity prices: Latest data available from U.S. Energy Information Administration databases supporting the following reports: Electric Power Monthly, DOE/EIA-0226; and Electric Power Annual, DOE/EIA-0348

(2) Wholesale electricity prices (except for PJM RTO price): S&P Global Market Intelligence, SNL Energy Data

(3) PJM ISO Western Hub wholesale electricity prices: PJM Data Miner website

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 (billion kilowatthours)

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Residential Sector															
New England	**12.4**	**9.7**	**13.1**	**10.9**	**11.7**	**10.9**	*15.0*	*11.8*	*12.5*	*11.1*	*13.9*	*11.9*	**46.1**	*49.3*	*49.4*
Middle Atlantic	**35.3**	**27.7**	**40.3**	**29.8**	**32.2**	**30.6**	*44.9*	*31.0*	*34.0*	*30.4*	*40.6*	*30.9*	**133.1**	*138.5*	*136.0*
E. N. Central	**50.0**	**38.1**	**54.3**	**43.4**	**46.4**	**43.7**	*61.4*	*46.5*	*48.9*	*43.9*	*58.1*	*46.9*	**185.9**	*198.0*	*197.8*
W. N. Central	**29.9**	**21.6**	**29.0**	**24.9**	**27.6**	**23.7**	*32.2*	*24.8*	*28.1*	*25.3*	*33.8*	*26.8*	**105.4**	*108.3*	*114.0*
S. Atlantic	**88.3**	**84.5**	**111.4**	**84.4**	**83.7**	**86.3**	*117.0*	*85.6*	*90.0*	*87.9*	*114.4*	*85.6*	**368.5**	*372.6*	*377.9*
E. S. Central	**30.6**	**25.9**	**36.9**	**27.8**	**29.0**	**26.0**	*37.8*	*27.3*	*31.5*	*27.0*	*38.1*	*27.3*	**121.1**	*120.2*	*123.9*
W. S. Central	**51.7**	**49.0**	**75.8**	**50.6**	**48.6**	**52.7**	*77.7*	*50.6*	*49.3*	*53.2*	*76.9*	*50.4*	**227.1**	*229.7*	*229.8*
Mountain	**23.1**	**22.0**	**33.0**	**22.1**	**22.5**	**25.7**	*36.9*	*23.6*	*22.6*	*25.1*	*34.8*	*23.6*	**100.2**	*108.7*	*106.2*
Pacific contiguous	**39.0**	**29.6**	**38.7**	**35.8**	**36.7**	**33.2**	*44.6*	*40.1*	*37.0*	*32.9*	*43.2*	*40.0*	**143.1**	*154.5*	*153.2*
AK and HI	**1.2**	**1.1**	**1.2**	**1.3**	**1.3**	**1.1**	*1.3*	*1.3*	*1.3*	*1.1*	*1.3*	*1.3*	**4.7**	*5.0*	*4.9*
Total	**361.4**	**309.2**	**433.8**	**330.7**	**339.7**	**334.0**	*468.7*	*342.6*	*355.1*	*338.0*	*455.1*	*344.9*	**1,435.1**	*1,485.0*	*1,493.0*
Commercial Sector															
New England	**12.8**	**12.1**	**13.9**	**12.4**	**12.2**	**10.6**	*12.9*	*11.7*	*11.8*	*10.8*	*12.5*	*11.8*	**51.2**	*47.4*	*46.8*
Middle Atlantic	**38.6**	**36.3**	**41.9**	**35.9**	**35.9**	**31.0**	*37.5*	*32.5*	*33.2*	*33.8*	*37.3*	*33.1*	**152.6**	*136.9*	*137.4*
E. N. Central	**44.6**	**43.1**	**50.4**	**43.5**	**43.1**	**38.3**	*47.2*	*41.5*	*41.9*	*41.3*	*47.8*	*42.2*	**181.6**	*170.1*	*173.2*
W. N. Central	**25.6**	**24.2**	**27.9**	**24.8**	**24.7**	**21.6**	*25.7*	*23.9*	*24.2*	*22.1*	*26.2*	*24.4*	**102.5**	*96.0*	*97.0*
S. Atlantic	**72.1**	**79.4**	**90.1**	**75.5**	**71.4**	**70.0**	*83.5*	*71.0*	*69.3*	*74.0*	*84.6*	*72.4*	**317.0**	*295.9*	*300.1*
E. S. Central	**21.0**	**22.5**	**27.0**	**21.8**	**20.7**	**19.4**	*25.4*	*20.9*	*20.5*	*20.6*	*25.8*	*21.1*	**92.3**	*86.4*	*88.0*
W. S. Central	**43.2**	**47.6**	**58.0**	**46.9**	**43.9**	**44.5**	*55.7*	*45.8*	*43.5*	*46.4*	*56.4*	*46.6*	**195.7**	*189.9*	*193.0*
Mountain	**22.6**	**23.9**	**28.3**	**23.4**	**22.5**	**22.1**	*26.5*	*22.6*	*22.0*	*23.1*	*26.4*	*23.0*	**98.2**	*93.7*	*94.5*
Pacific contiguous	**38.0**	**37.9**	**42.9**	**39.0**	**36.9**	**33.9**	*39.4*	*36.5*	*34.9*	*34.3*	*39.1*	*36.2*	**157.9**	*146.8*	*144.5*
AK and HI	**1.4**	**1.4**	**1.5**	**1.4**	**1.4**	**1.2**	*1.2*	*1.3*	*1.4*	*1.4*	*1.5*	*1.5*	**5.7**	*5.1*	*5.7*
Total	**319.9**	**328.2**	**381.8**	**324.6**	**312.7**	**292.6**	*354.8*	*307.9*	*302.7*	*307.7*	*357.6*	*312.3*	**1,354.5**	*1,268.0*	*1,280.3*
Industrial Sector															
New England	**3.8**	**3.8**	**4.0**	**3.8**	**3.7**	**3.5**	*3.7*	*3.5*	*3.4*	*3.5*	*3.6*	*3.5*	**15.4**	*14.5*	*14.1*
Middle Atlantic	**17.7**	**17.5**	**19.8**	**18.2**	**18.0**	**16.2**	*18.2*	*17.3*	*17.0*	*16.7*	*18.6*	*17.7*	**73.2**	*69.7*	*70.0*
E. N. Central	**44.8**	**45.4**	**47.7**	**43.6**	**44.0**	**37.7**	*40.5*	*37.7*	*38.5*	*36.8*	*38.8*	*36.5*	**181.5**	*160.0*	*150.7*
W. N. Central	**21.1**	**22.0**	**23.4**	**21.8**	**21.7**	**20.3**	*22.1*	*20.3*	*20.3*	*21.4*	*22.8*	*21.2*	**88.3**	*84.5*	*85.7*
S. Atlantic	**33.0**	**34.8**	**36.2**	**33.4**	**33.0**	**31.0**	*33.6*	*31.3*	*31.2*	*31.9*	*34.1*	*31.9*	**137.5**	*128.9*	*129.1*
E. S. Central	**23.4**	**23.9**	**24.5**	**22.9**	**23.3**	**21.4**	*22.5*	*21.1*	*21.5*	*22.1*	*22.9*	*21.6*	**94.7**	*88.3*	*88.1*
W. S. Central	**44.8**	**47.7**	**50.2**	**46.6**	**46.5**	**44.7**	*46.5*	*44.0*	*44.0*	*46.5*	*47.7*	*45.7*	**189.5**	*181.6*	*183.9*
Mountain	**19.2**	**21.1**	**23.5**	**20.2**	**20.0**	**20.3**	*21.9*	*19.5*	*19.4*	*20.9*	*22.5*	*20.1*	**84.1**	*81.7*	*82.8*
Pacific contiguous	**19.1**	**20.4**	**23.4**	**20.2**	**19.2**	**19.7**	*22.9*	*19.6*	*18.4*	*19.5*	*22.7*	*19.4*	**83.1**	*81.4*	*80.0*
AK and HI	**1.1**	**1.2**	**1.3**	**1.3**	**1.2**	**1.0**	*1.3*	*1.2*	*1.1*	*1.1*	*1.3*	*1.2*	**4.9**	*4.7*	*4.7*
Total	**228.2**	**237.7**	**254.2**	**232.1**	**230.5**	**215.9**	*233.2*	*215.6*	*214.9*	*220.3*	*235.1*	*219.0*	**952.1**	*895.3*	*889.3*
Total All Sectors (a)															
New England	**29.1**	**25.6**	**31.3**	**27.2**	**27.7**	**25.1**	*31.7*	*27.2*	*27.8*	*25.5*	*30.2*	*27.3*	**113.3**	*111.7*	*110.9*
Middle Atlantic	**92.6**	**82.4**	**103.0**	**84.8**	**87.0**	**78.5**	*101.6*	*81.7*	*85.3*	*81.9*	*97.5*	*82.7*	**362.8**	*348.8*	*347.4*
E. N. Central	**139.6**	**126.7**	**152.6**	**130.7**	**133.7**	**119.8**	*149.3*	*125.8*	*129.5*	*122.1*	*144.9*	*125.8*	**549.6**	*528.7*	*522.2*
W. N. Central	**76.7**	**67.7**	**80.4**	**71.5**	**74.0**	**65.7**	*80.0*	*69.0*	*72.6*	*68.8*	*82.8*	*72.5*	**296.2**	*288.8*	*296.8*
S. Atlantic	**193.7**	**199.0**	**238.1**	**193.6**	**188.4**	**187.6**	*234.4*	*188.3*	*190.8*	*194.1*	*233.4*	*190.2*	**824.3**	*798.7*	*808.5*
E. S. Central	**75.0**	**72.3**	**88.3**	**72.4**	**73.0**	**66.9**	*85.7*	*69.3*	*73.4*	*69.7*	*86.8*	*70.1*	**308.1**	*294.9*	*300.1*
W. S. Central	**139.8**	**144.3**	**184.1**	**144.2**	**139.1**	**142.0**	*179.9*	*140.5*	*136.9*	*146.2*	*181.0*	*142.7*	**612.4**	*601.4*	*606.8*
Mountain	**65.0**	**67.1**	**84.8**	**65.7**	**65.0**	**68.2**	*85.3*	*65.8*	*64.0*	*69.1*	*83.7*	*66.8*	**282.7**	*284.3*	*283.7*
Pacific contiguous	**96.3**	**88.1**	**105.2**	**95.2**	**93.1**	**86.9**	*107.1*	*96.4*	*90.5*	*87.0*	*105.3*	*95.9*	**384.9**	*383.5*	*378.6*
AK and HI	**3.7**	**3.6**	**4.0**	**4.0**	**3.8**	**3.4**	*3.7*	*3.9*	*3.8*	*3.6*	*4.0*	*4.0*	**15.2**	*14.8*	*15.4*
Total	**911.5**	**876.9**	**1,071.8**	**889.3**	**884.8**	**843.9**	*1,058.7*	*868.0*	*874.7*	*867.9*	*1,049.7*	*878.0*	**3,749.5**	*3,655.5*	*3,670.4*

- = 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 U.S. Energy Information Administration databases supporting the following reports: *Electric Power Monthly* , DOE/EIA-0226; and *Electric Power Annual* , DOE/EIA-0348.

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Residential Sector															
New England	**21.53**	**21.57**	**20.70**	**20.87**	**21.76**	*21.33*	*20.09*	*20.47*	*21.61*	*21.68*	*20.95*	*21.75*	**21.14**	*20.85*	*21.47*
Middle Atlantic	**15.19**	**16.06**	**16.15**	**15.78**	**15.47**	*15.97*	*15.90*	*15.57*	*15.42*	*16.21*	*16.33*	*15.96*	**15.79**	*15.74*	*15.99*
E. N. Central	**12.92**	**13.86**	**13.27**	**13.29**	**13.10**	*13.73*	*13.11*	*13.24*	*13.11*	*13.94*	*13.46*	*13.52*	**13.30**	*13.27*	*13.49*
W. N. Central	**10.71**	**12.78**	**12.93**	**11.24**	**10.99**	*12.59*	*12.97*	*11.53*	*11.15*	*12.55*	*12.93*	*11.38*	**11.87**	*12.05*	*12.04*
S. Atlantic	**11.70**	**12.17**	**12.11**	**11.87**	**11.80**	*11.80*	*11.86*	*11.72*	*11.56*	*11.81*	*12.07*	*12.02*	**11.97**	*11.80*	*11.88*
E. S. Central	**11.10**	**11.70**	**11.37**	**11.23**	**11.25**	*11.57*	*11.26*	*11.25*	*11.13*	*11.65*	*11.51*	*11.55*	**11.34**	*11.32*	*11.45*
W. S. Central	**10.88**	**11.50**	**11.36**	**11.24**	**11.05**	*11.41*	*11.21*	*10.92*	*10.76*	*11.32*	*11.38*	*11.22*	**11.25**	*11.16*	*11.20*
Mountain	**11.51**	**12.18**	**12.23**	**11.59**	**11.42**	*12.08*	*12.17*	*11.53*	*11.38*	*12.11*	*12.28*	*11.67*	**11.91**	*11.85*	*11.91*
Pacific	**14.86**	**15.88**	**17.31**	**14.64**	**15.69**	*16.18*	*18.15*	*15.13*	*16.28*	*17.01*	*18.70*	*15.47*	**15.68**	*16.36*	*16.91*
U.S. Average	**12.68**	**13.33**	**13.27**	**12.85**	**12.90**	*13.24*	*13.27*	*12.84*	*12.85*	*13.36*	*13.49*	*13.14*	**13.04**	*13.08*	*13.23*
Commercial Sector															
New England	**16.83**	**16.24**	**15.97**	**15.76**	**16.23**	*15.66*	*15.23*	*15.33*	*16.06*	*15.82*	*15.76*	*15.99*	**16.19**	*15.61*	*15.91*
Middle Atlantic	**11.57**	**12.18**	**13.03**	**11.97**	**11.69**	*12.54*	*12.74*	*11.48*	*11.41*	*12.69*	*12.89*	*11.66*	**12.21**	*12.12*	*12.19*
E. N. Central	**10.14**	**10.29**	**10.09**	**10.05**	**9.95**	*10.37*	*10.03*	*10.04*	*10.07*	*10.60*	*10.29*	*10.29*	**10.14**	*10.09*	*10.31*
W. N. Central	**8.98**	**10.04**	**10.41**	**9.11**	**9.07**	*10.12*	*10.71*	*9.36*	*9.28*	*10.18*	*10.75*	*9.34*	**9.65**	*9.82*	*9.90*
S. Atlantic	**9.44**	**9.37**	**9.35**	**9.35**	**9.26**	*9.02*	*9.11*	*9.08*	*9.10*	*9.01*	*9.25*	*9.29*	**9.37**	*9.12*	*9.17*
E. S. Central	**10.70**	**10.70**	**10.65**	**10.62**	**10.75**	*10.83*	*10.64*	*10.63*	*10.79*	*10.88*	*10.87*	*10.90*	**10.67**	*10.71*	*10.86*
W. S. Central	**8.12**	**8.00**	**8.30**	**8.06**	**7.89**	*7.86*	*7.94*	*8.14*	*8.06*	*8.17*	*8.25*	*8.10*	**8.13**	*7.96*	*8.15*
Mountain	**9.20**	**9.71**	**10.00**	**9.18**	**8.99**	*9.82*	*10.03*	*9.22*	*9.04*	*9.94*	*10.22*	*9.33*	**9.55**	*9.54*	*9.66*
Pacific	**12.98**	**14.15**	**16.35**	**14.44**	**13.52**	*14.79*	*16.24*	*14.38*	*13.50*	*15.11*	*16.76*	*14.76*	**14.54**	*14.76*	*15.08*
U.S. Average	**10.43**	**10.64**	**11.00**	**10.53**	**10.35**	*10.63*	*10.79*	*10.39*	*10.30*	*10.77*	*11.02*	*10.57*	**10.66**	*10.55*	*10.68*
Industrial Sector															
New England	**13.45**	**12.89**	**12.66**	**12.70**	**12.74**	*12.63*	*12.17*	*12.48*	*12.69*	*12.78*	*12.41*	*12.76*	**12.92**	*12.50*	*12.66*
Middle Atlantic	**6.73**	**6.52**	**6.54**	**6.40**	**6.34**	*6.35*	*6.42*	*6.21*	*6.34*	*6.36*	*6.31*	*6.11*	**6.55**	*6.33*	*6.28*
E. N. Central	**7.03**	**6.84**	**6.83**	**6.76**	**6.51**	*6.79*	*6.94*	*6.83*	*6.66*	*6.95*	*7.02*	*6.91*	**6.87**	*6.76*	*6.88*
W. N. Central	**7.13**	**7.33**	**8.09**	**6.87**	**6.94**	*7.31*	*8.31*	*7.09*	*7.19*	*7.45*	*8.44*	*7.19*	**7.37**	*7.42*	*7.59*
S. Atlantic	**6.22**	**6.28**	**6.72**	**6.18**	**5.97**	*6.07*	*6.60*	*6.16*	*6.02*	*6.32*	*6.69*	*6.19*	**6.36**	*6.20*	*6.31*
E. S. Central	**5.69**	**5.78**	**5.95**	**5.61**	**5.45**	*5.49*	*5.86*	*5.56*	*5.47*	*5.60*	*5.91*	*5.56*	**5.76**	*5.59*	*5.64*
W. S. Central	**5.25**	**5.28**	**6.05**	**5.29**	**5.05**	*4.94*	*5.53*	*5.27*	*5.11*	*4.85*	*5.38*	*5.11*	**5.48**	*5.20*	*5.11*
Mountain	**6.14**	**6.25**	**6.78**	**5.89**	**5.73**	*6.16*	*6.80*	*5.87*	*5.80*	*6.29*	*6.75*	*5.93*	**6.29**	*6.16*	*6.21*
Pacific	**8.65**	**9.45**	**11.26**	**10.16**	**8.97**	*10.33*	*12.11*	*10.54*	*9.36*	*10.83*	*12.34*	*10.89*	**9.95**	*10.56*	*10.94*
U.S. Average	**6.66**	**6.71**	**7.25**	**6.66**	**6.38**	*6.62*	*7.25*	*6.69*	*6.49*	*6.73*	*7.26*	*6.70*	**6.83**	*6.74*	*6.81*
All Sectors (a)															
New England	**18.35**	**17.72**	**17.50**	**17.34**	**18.07**	*17.67*	*17.14*	*17.14*	*18.09*	*17.90*	*17.72*	*18.04*	**17.73**	*17.49*	*17.93*
Middle Atlantic	**12.01**	**12.27**	**12.99**	**12.10**	**11.97**	*12.58*	*12.98*	*11.90*	*11.99*	*12.70*	*13.05*	*12.07*	**12.37**	*12.39*	*12.47*
E. N. Central	**10.13**	**10.12**	**10.20**	**10.03**	**9.91**	*10.46*	*10.45*	*10.26*	*10.20*	*10.70*	*10.68*	*10.51*	**10.12**	*10.27*	*10.52*
W. N. Central	**9.14**	**10.03**	**10.64**	**9.17**	**9.15**	*10.14*	*10.95*	*9.47*	*9.42*	*10.20*	*11.00*	*9.46*	**9.76**	*9.95*	*10.05*
S. Atlantic	**9.92**	**10.01**	**10.24**	**9.90**	**9.80**	*9.82*	*10.12*	*9.79*	*9.76*	*9.84*	*10.26*	*10.00*	**10.03**	*9.90*	*9.98*
E. S. Central	**9.30**	**9.43**	**9.65**	**9.27**	**9.25**	*9.41*	*9.66*	*9.34*	*9.38*	*9.50*	*9.85*	*9.50*	**9.42**	*9.43*	*9.57*
W. S. Central	**8.22**	**8.28**	**8.94**	**8.28**	**8.04**	*8.26*	*8.73*	*8.24*	*8.08*	*8.26*	*8.82*	*8.24*	**8.47**	*8.34*	*8.38*
Mountain	**9.12**	**9.43**	**9.98**	**8.98**	**8.83**	*9.58*	*10.12*	*9.06*	*8.88*	*9.63*	*10.15*	*9.14*	**9.42**	*9.45*	*9.50*
Pacific	**12.87**	**13.63**	**15.55**	**13.60**	**13.42**	*14.30*	*16.15*	*13.90*	*13.79*	*14.86*	*16.59*	*14.26*	**13.96**	*14.50*	*14.93*
U.S. Average	**10.37**	**10.52**	**11.03**	**10.38**	**10.29**	*10.64*	*11.10*	*10.44*	*10.40*	*10.75*	*11.25*	*10.61*	**10.60**	*10.64*	*10.78*

- = 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 part 1. U.S. Regional Electricity Generation, Electric Power Sector (billion kilowatthours), *continues on Table 7d part 2*

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
United States															
Natural Gas	**317.1**	**330.9**	**473.7**	**353.0**	**355.0**	**343.1**	*480.5*	*323.4*	*279.9*	*300.4*	*419.3*	*319.5*	**1,474.7**	*1,502.0*	*1,319.2*
Coal	**257.9**	**208.9**	**279.4**	**213.3**	**170.2**	**151.2**	*242.7*	*194.2*	*207.1*	*196.0*	*258.9*	*193.3*	**959.5**	*758.3*	*855.3*
Nuclear	**203.5**	**196.5**	**210.2**	**199.2**	**204.2**	**190.7**	*201.4*	*196.8*	*198.2*	*189.5*	*204.9*	*194.3*	**809.4**	*793.1*	*786.9*
Renewable Energy Sources:	**169.9**	**192.9**	**161.3**	**163.9**	**185.5**	**203.8**	*182.0*	*188.5*	*211.8*	*227.0*	*200.4*	*205.1*	**688.0**	*759.8*	*844.3*
Conventional Hydropower	**71.2**	**81.7**	**60.8**	**58.7**	**71.3**	**78.5**	*67.9*	*62.2*	*72.3*	*76.0*	*64.8*	*63.5*	**272.4**	*280.0*	*276.6*
Wind	**74.2**	**78.6**	**66.2**	**80.8**	**87.0**	**87.7**	*73.8*	*96.9*	*106.2*	*104.1*	*86.8*	*106.6*	**299.8**	*345.5*	*403.8*
Solar (a)	**13.3**	**21.8**	**22.6**	**13.9**	**16.4**	**27.0**	*28.7*	*18.4*	*21.6*	*35.6*	*36.9*	*23.5*	**71.5**	*90.5*	*117.7*
Biomass	**7.2**	**7.0**	**7.6**	**6.9**	**7.0**	**6.5**	*7.4*	*7.2*	*8.0*	*7.1*	*7.7*	*7.7*	**28.8**	*28.1*	*30.6*
Geothermal	**4.0**	**3.9**	**4.1**	**3.6**	**3.8**	**4.0**	*4.2*	*3.8*	*3.6*	*4.1*	*4.2*	*3.7*	**15.6**	*15.7*	*15.6*
Pumped Storage Hydropower	**-1.1**	**-0.9**	**-1.9**	**-1.4**	**-1.0**	**-1.2**	*-1.8*	*-1.4*	*-1.1*	*-1.2*	*-1.8*	*-1.3*	**-5.3**	*-5.3*	*-5.4*
Petroleum (b)	**4.9**	**4.2**	**4.8**	**3.5**	**4.0**	**4.0**	*4.4*	*3.9*	*4.5*	*4.4*	*4.4*	*3.8*	**17.3**	*16.4*	*17.1*
Other Gases	**1.1**	**1.0**	**1.2**	**1.0**	**1.1**	**0.4**	*1.1*	*0.9*	*1.0*	*0.4*	*1.0*	*0.9*	**4.3**	*3.6*	*3.3*
Other Nonrenewable Fuels (c)	**1.9**	**1.9**	**2.0**	**1.9**	**1.9**	**1.8**	*2.0*	*1.8*	*1.7*	*1.8*	*1.8*	*1.8*	**7.7**	*7.5*	*7.1*
Total Generation	**955.2**	**935.5**	**1,130.7**	**934.4**	**920.9**	**893.9**	*1,112.4*	*908.1*	*903.2*	*918.2*	*1,089.0*	*917.3*	**3,955.8**	*3,835.3*	*3,827.7*
New England (ISO-NE)															
Natural Gas	**10.6**	**10.0**	**14.8**	**11.5**	**11.1**	**10.4**	*14.6*	*11.0*	*7.2*	*7.2*	*13.5*	*12.0*	**46.9**	*47.0*	*40.0*
Coal	**0.3**	**0.0**	**0.1**	**0.1**	**0.1**	**0.0**	*0.1*	*0.0*	*0.5*	*0.0*	*0.1*	*0.1*	**0.5**	*0.2*	*0.7*
Nuclear	**8.6**	**6.8**	**7.3**	**7.1**	**7.3**	**4.9**	*7.3*	*6.2*	*7.0*	*7.1*	*7.2*	*5.6*	**29.8**	*25.7*	*26.9*
Conventional hydropower	**2.1**	**1.9**	**1.5**	**1.6**	**2.1**	**2.0**	*1.5*	*1.6*	*2.1*	*2.0*	*1.5*	*1.5*	**7.0**	*7.2*	*7.1*
Nonhydro renewables (d)	**2.6**	**2.7**	**2.6**	**2.5**	**2.6**	**2.6**	*2.7*	*2.8*	*3.4*	*2.7*	*2.8*	*3.0*	**10.3**	*10.7*	*11.9*
Other energy sources (e)	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	*0.4*	*0.5*	*1.3*	*0.3*	*0.4*	*0.4*	**1.5**	*1.6*	*2.4*
Total generation	**24.5**	**21.7**	**26.5**	**23.3**	**23.5**	**20.3**	*26.5*	*22.1*	*21.7*	*19.4*	*25.4*	*22.6*	**96.1**	*92.5*	*89.0*
Net energy for load (f)	**29.5**	**25.8**	**31.9**	**28.0**	**27.8**	**25.2**	*33.3*	*28.3*	*28.7*	*26.6*	*31.5*	*28.2*	**115.2**	*114.5*	*115.0*
New York (NYISO)															
Natural Gas	**11.9**	**11.1**	**18.4**	**12.6**	**12.8**	**11.7**	*24.4*	*16.7*	*14.1*	*16.0*	*25.0*	*19.3*	**54.0**	*65.6*	*74.4*
Coal	**0.3**	**0.0**	**0.1**	**0.0**	**0.1**	**0.0**	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	**0.4**	*0.1*	*0.0*
Nuclear	**10.4**	**10.8**	**11.8**	**11.8**	**10.7**	**9.2**	*9.0*	*9.1*	*8.8*	*7.5*	*7.1*	*6.8*	**44.9**	*38.1*	*30.3*
Conventional hydropower	**7.4**	**7.3**	**7.4**	**7.4**	**7.8**	**7.8**	*8.0*	*7.3*	*7.9*	*8.0*	*7.6*	*7.1*	**29.5**	*30.9*	*30.6*
Nonhydro renewables (d)	**1.6**	**1.8**	**1.5**	**1.6**	**1.9**	**1.8**	*1.6*	*1.8*	*2.1*	*2.1*	*2.0*	*2.6*	**6.5**	*7.2*	*8.8*
Other energy sources (e)	**0.4**	**0.1**	**0.2**	**0.2**	**0.2**	**0.1**	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	**0.9**	*0.7*	*0.8*
Total generation	**32.1**	**31.1**	**39.3**	**33.6**	**33.5**	**30.7**	*43.2*	*35.1*	*33.2*	*33.8*	*41.9*	*35.8*	**136.2**	*142.6*	*144.8*
Net energy for load (f)	**37.4**	**34.3**	**43.3**	**35.7**	**35.2**	**32.5**	*44.9*	*36.0*	*36.1*	*35.6*	*42.6*	*36.1*	**150.6**	*148.6*	*150.4*
Mid-Atlantic (PJM)															
Natural Gas	**69.3**	**64.2**	**90.9**	**70.7**	**77.9**	**69.7**	*97.8*	*68.8*	*70.6*	*69.1*	*92.3*	*68.3*	**295.1**	*314.2*	*300.3*
Coal	**53.5**	**39.9**	**52.0**	**38.9**	**33.7**	**29.9**	*32.5*	*35.4*	*45.2*	*39.5*	*26.3*	*31.8*	**184.3**	*131.6*	*142.8*
Nuclear	**69.6**	**68.5**	**71.7**	**68.1**	**68.9**	**67.1**	*70.4*	*69.4*	*67.6*	*65.7*	*71.8*	*68.3*	**277.9**	*275.8*	*273.3*
Conventional hydropower	**3.4**	**3.0**	**1.9**	**2.2**	**3.2**	**3.1**	*1.8*	*2.2*	*3.3*	*3.1*	*1.7*	*2.1*	**10.6**	*10.3*	*10.2*
Nonhydro renewables (d)	**8.8**	**9.3**	**7.1**	**8.9**	**10.3**	**10.1**	*8.1*	*10.5*	*11.8*	*11.7*	*9.2*	*11.3*	**34.1**	*38.9*	*44.0*
Other energy sources (e)	**0.9**	**0.7**	**0.5**	**0.4**	**0.6**	**0.6**	*0.5*	*0.4*	*0.8*	*0.6*	*0.4*	*0.3*	**2.5**	*2.2*	*2.1*
Total generation	**205.4**	**185.6**	**224.1**	**189.2**	**194.6**	**180.5**	*211.0*	*186.8*	*199.2*	*189.8*	*201.7*	*182.1*	**804.4**	*772.9*	*772.8*
Net energy for load (f)	**195.1**	**173.0**	**212.3**	**180.4**	**181.9**	**164.1**	*214.5*	*177.9*	*186.2*	*171.7*	*202.8*	*177.7*	**760.9**	*738.3*	*738.5*
Southeast (SERC)															
Natural Gas	**56.3**	**59.2**	**77.8**	**59.6**	**61.9**	**59.1**	*75.0*	*59.3*	*55.5*	*56.8*	*74.0*	*61.6*	**252.9**	*255.3*	*247.9*
Coal	**35.1**	**38.0**	**53.3**	**33.5**	**23.9**	**22.1**	*45.1*	*28.9*	*26.9*	*28.6*	*50.2*	*29.9*	**159.8**	*120.0*	*135.6*
Nuclear	**52.3**	**52.8**	**53.7**	**52.2**	**53.0**	**50.5**	*53.7*	*52.0*	*52.2*	*52.2*	*55.4*	*53.5*	**211.0**	*209.2*	*213.3*
Conventional hydropower	**10.9**	**9.3**	**7.1**	**8.2**	**11.1**	**10.3**	*6.8*	*8.0*	*11.2*	*10.4*	*6.5*	*7.6*	**35.5**	*36.1*	*35.7*
Nonhydro renewables (d)	**2.6**	**3.8**	**3.9**	**2.8**	**3.3**	**4.8**	*4.8*	*3.3*	*3.8*	*5.7*	*5.7*	*3.9*	**13.2**	*16.2*	*19.1*
Other energy sources (e)	**0.0**	**-0.2**	**-0.6**	**-0.4**	**-0.1**	**-0.3**	*-0.6*	*-0.4*	*-0.1*	*-0.3*	*-0.6*	*-0.4*	**-1.2**	*-1.4*	*-1.4*
Total generation	**157.2**	**162.9**	**195.2**	**155.8**	**153.1**	**146.6**	*184.7*	*151.1*	*149.5*	*153.4*	*191.1*	*156.1*	**671.1**	*635.5*	*650.1*
Net energy for load (f)	**162.3**	**164.6**	**195.0**	**157.6**	**159.2**	**148.4**	*180.3*	*149.5*	*154.2*	*155.0*	*185.2*	*153.9*	**679.5**	*637.4*	*648.3*
Florida (FRCC)															
Natural Gas	**35.5**	**46.4**	**52.6**	**39.9**	**40.1**	**45.8**	*52.3*	*36.4*	*32.9*	*39.2*	*47.2*	*36.4*	**174.4**	*174.6*	*155.7*
Coal	**3.7**	**4.8**	**5.3**	**4.8**	**2.1**	**3.5**	*5.2*	*5.6*	*6.4*	*7.8*	*7.8*	*6.1*	**18.6**	*16.4*	*28.1*
Nuclear	**7.6**	**6.4**	**7.7**	**7.3**	**7.3**	**7.6**	*7.1*	*7.7*	*7.8*	*7.0*	*7.8*	*6.8*	**29.1**	*29.6*	*29.3*
Conventional hydropower	**0.1**	**0.1**	**0.0**	**0.1**	**0.1**	**0.1**	*0.0*	*0.1*	*0.1*	*0.1*	*0.0*	*0.0*	**0.2**	*0.2*	*0.2*
Nonhydro renewables (d)	**1.5**	**1.7**	**1.6**	**1.4**	**1.8**	**2.4**	*2.4*	*2.1*	*2.6*	*3.2*	*3.2*	*2.8*	**6.2**	*8.6*	*11.8*
Other energy sources (e)	**0.8**	**0.9**	**0.8**	**0.7**	**0.9**	**0.8**	*0.8*	*0.7*	*0.9*	*0.7*	*0.8*	*0.7*	**3.1**	*3.1*	*3.0*
Total generation	**49.3**	**60.2**	**68.1**	**54.1**	**52.2**	**60.1**	*67.7*	*52.5*	*50.6*	*58.0*	*66.8*	*52.7*	**231.7**	*232.5*	*228.0*
Net energy for load (f)	**47.6**	**60.6**	**68.4**	**53.2**	**48.2**	**59.7**	*68.1*	*51.5*	*46.7*	*57.6*	*66.6*	*51.9*	**229.8**	*227.5*	*222.8*

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

Data reflect generation supplied by power plants with a combined capacity of at least 1 megawatt operated by electric utilities and independent power producers.

(a) Solar generation from large-scale power plants with more than 1 megawatt of capacity. Excludes generation from small-scale solar photovoltaic systems.

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

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

(d) Wind, large-scale solar, biomass, and geothermal

(e) Pumped storage hydroelectric, petroleum, other gases, batteries, and other nonrenewable fuels. See notes (b) and (c).

(f) Regional generation from generating units operated by electric power sector, plus energy receipts from minus energy deliveries to U.S. balancing authorities outside region.

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

Projections: EIA Regional Short-Term Energy Model.

Table 7d part 2. U.S. Regional Electricity Generation, Electric Power Sector (billion kilowatthours), *continued from Table 7d part 1*

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Midwest (MISO)															
Natural Gas	**35.9**	**40.9**	**58.1**	**42.3**	**44.1**	**43.3**	*58.6*	*38.7*	*33.7*	*35.4*	*50.0*	*37.0*	**177.2**	*184.7*	*156.1*
Coal	**77.5**	**61.2**	**76.2**	**61.3**	**51.1**	**41.2**	*69.0*	*57.5*	*57.4*	*51.5*	*74.2*	*58.5*	**276.2**	*218.8*	*241.7*
Nuclear	**25.3**	**23.2**	**27.1**	**26.7**	**26.6**	**22.9**	*23.8*	*24.1*	*24.9*	*23.9*	*25.0*	*24.4*	**102.3**	*97.4*	*98.2*
Conventional hydropower	**2.2**	**2.3**	**1.7**	**1.8**	**2.3**	**2.5**	*1.7*	*1.8*	*2.4*	*2.6*	*1.6*	*1.8*	**8.0**	*8.3*	*8.4*
Nonhydro renewables (d)	**16.7**	**17.3**	**13.5**	**18.6**	**19.9**	**19.6**	*15.7*	*23.4*	*24.8*	*24.0*	*19.2*	*25.8*	**66.1**	*78.6*	*93.8*
Other energy sources (e)	**2.0**	**1.4**	**1.7**	**0.9**	**1.4**	**1.3**	*1.7*	*1.4*	*0.8*	*1.7*	*1.5*	*1.4*	**6.0**	*5.8*	*5.4*
Total generation	**159.5**	**146.3**	**178.2**	**151.7**	**145.6**	**130.7**	*170.5*	*147.0*	*144.0*	*139.1*	*171.5*	*148.9*	**635.7**	*593.7*	*603.4*
Net energy for load (f)	**159.6**	**151.5**	**180.6**	**153.8**	**152.4**	**140.3**	*178.7*	*152.1*	*150.1*	*149.9*	*174.5*	*152.0*	**645.6**	*623.5*	*626.5*
Central (Southwest Power Pool)															
Natural Gas	**14.0**	**15.8**	**26.1**	**15.3**	**17.3**	**16.1**	*23.0*	*13.3*	*11.1*	*12.4*	*19.8*	*12.8*	**71.1**	*69.7*	*56.1*
Coal	**27.3**	**19.1**	**27.3**	**19.5**	**17.0**	**15.7**	*28.3*	*13.5*	*15.2*	*15.5*	*28.4*	*13.6*	**93.3**	*74.5*	*72.7*
Nuclear	**4.4**	**4.4**	**4.1**	**3.4**	**4.4**	**4.4**	*4.4*	*3.5*	*3.9*	*3.3*	*4.4*	*4.4*	**16.2**	*16.6*	*16.0*
Conventional hydropower	**3.9**	**4.1**	**2.7**	**3.0**	**4.2**	**4.5**	*2.8*	*2.9*	*4.2*	*4.4*	*2.6*	*2.8*	**13.7**	*14.4*	*14.1*
Nonhydro renewables (d)	**18.1**	**18.5**	**17.5**	**20.9**	**20.6**	**21.7**	*19.0*	*24.1*	*26.2*	*26.6*	*23.5*	*27.2*	**75.0**	*85.3*	*103.5*
Other energy sources (e)	**0.2**	**0.3**	**0.1**	**0.1**	**0.1**	**0.1**	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	**0.8**	*0.4*	*0.4*
Total generation	**68.0**	**62.1**	**77.7**	**62.3**	**63.6**	**62.4**	*77.5*	*57.4*	*60.7*	*62.2*	*78.9*	*60.9*	**270.1**	*261.0*	*262.8*
Net energy for load (f)	**64.6**	**60.0**	**77.5**	**61.5**	**61.5**	**59.8**	*72.9*	*56.8*	*56.8*	*59.3*	*74.0*	*59.4*	**263.5**	*251.0*	*249.5*
Texas (ERCOT)															
Natural Gas	**34.7**	**43.1**	**62.3**	**40.1**	**36.8**	**41.7**	*55.5*	*28.1*	*20.9*	*27.5*	*40.4*	*23.6*	**180.1**	*162.1*	*112.4*
Coal	**18.1**	**18.3**	**21.6**	**17.2**	**13.1**	**15.8**	*19.9*	*16.2*	*15.9*	*20.6*	*25.7*	*18.9*	**75.2**	*65.1*	*81.1*
Nuclear	**10.4**	**9.8**	**11.0**	**10.2**	**10.4**	**9.7**	*11.0*	*10.0*	*10.7*	*9.9*	*10.3*	*9.6*	**41.3**	*41.1*	*40.5*
Conventional hydropower	**0.3**	**0.2**	**0.1**	**0.1**	**0.3**	**0.2**	*0.1*	*0.1*	*0.3*	*0.2*	*0.1*	*0.1*	**0.7**	*0.7*	*0.7*
Nonhydro renewables (d)	**19.3**	**21.4**	**19.5**	**20.9**	**22.7**	**25.1**	*23.9*	*26.0*	*28.2*	*31.5*	*29.6*	*29.6*	**81.1**	*97.7*	*119.0*
Other energy sources (e)	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.3**	*0.4*	*0.4*	*0.4*	*0.3*	*0.4*	*0.4*	**1.6**	*1.5*	*1.4*
Total generation	**83.2**	**93.2**	**114.9**	**88.9**	**83.8**	**92.9**	*110.7*	*80.9*	*76.4*	*90.0*	*106.5*	*82.2*	**380.2**	*368.2*	*355.1*
Net energy for load (f)	**83.2**	**93.2**	**114.9**	**88.9**	**83.8**	**92.9**	*110.7*	*80.9*	*76.4*	*90.0*	*106.5*	*82.2*	**380.2**	*368.2*	*355.1*
Northwest															
Natural Gas	**20.1**	**16.7**	**29.4**	**23.1**	**23.5**	**17.0**	*21.8*	*15.4*	*11.5*	*10.3*	*14.7*	*14.6*	**89.2**	*77.7*	*51.1*
Coal	**29.7**	**18.0**	**29.4**	**27.9**	**22.0**	**15.9**	*32.2*	*28.7*	*31.8*	*23.8*	*35.6*	*27.2*	**105.1**	*98.8*	*118.4*
Nuclear	**2.5**	**1.3**	**2.5**	**2.6**	**2.4**	**2.0**	*2.4*	*2.4*	*2.4*	*1.2*	*2.4*	*2.4*	**8.9**	*9.4*	*8.4*
Conventional hydropower	**30.5**	**36.5**	**24.6**	**26.4**	**33.9**	**38.1**	*30.8*	*30.0*	*34.8*	*35.0*	*29.5*	*32.4*	**118.0**	*132.7*	*131.7*
Nonhydro renewables (d)	**11.2**	**13.4**	**12.0**	**11.8**	**13.8**	**14.3**	*13.4*	*14.8*	*17.4*	*17.5*	*15.8*	*16.4*	**48.4**	*56.3*	*67.1*
Other energy sources (e)	**0.2**	**0.2**	**0.3**	**0.2**	**0.3**	**0.2**	*0.3*	*0.1*	*0.2*	*0.1*	*0.2*	*0.1*	**0.9**	*0.8*	*0.7*
Total generation	**94.3**	**86.2**	**98.1**	**92.0**	**95.9**	**87.4**	*100.9*	*91.5*	*98.1*	*87.9*	*98.2*	*93.3*	**370.5**	*375.7*	*377.5*
Net energy for load (f)	**94.5**	**83.1**	**92.2**	**87.7**	**87.8**	**78.9**	*92.2*	*86.4*	*85.4*	*80.5*	*90.6*	*86.6*	**357.4**	*345.2*	*343.1*
Southwest															
Natural Gas	**10.4**	**12.7**	**19.1**	**14.3**	**11.9**	**14.8**	*19.7*	*12.8*	*8.2*	*13.3*	*18.9*	*12.1*	**56.5**	*59.2*	*52.5*
Coal	**9.7**	**7.9**	**11.8**	**7.4**	**5.3**	**5.3**	*8.3*	*5.5*	*5.5*	*5.4*	*8.0*	*4.5*	**36.7**	*24.4*	*23.4*
Nuclear	**8.6**	**7.6**	**8.6**	**7.2**	**8.3**	**7.6**	*8.7*	*7.6*	*8.4*	*7.6*	*8.6*	*7.7*	**31.9**	*32.2*	*32.3*
Conventional hydropower	**3.0**	**4.3**	**4.0**	**2.6**	**2.6**	**3.9**	*4.2*	*2.6*	*2.7*	*4.0*	*3.9*	*2.5*	**13.9**	*13.4*	*13.0*
Nonhydro renewables (d)	**2.1**	**2.8**	**2.7**	**2.4**	**2.5**	**3.2**	*2.8*	*2.8*	*4.0*	*4.4*	*3.8*	*3.7*	**9.9**	*11.3*	*16.0*
Other energy sources (e)	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.1**	*0.1*	*0.0*	*0.0*	*0.1*	*0.1*	*0.0*	**0.0**	*0.1*	*0.1*
Total generation	**33.8**	**35.3**	**46.1**	**33.7**	**30.6**	**34.9**	*43.7*	*31.3*	*28.7*	*34.8*	*43.3*	*30.5*	**148.9**	*140.5*	*137.3*
Net energy for load (f)	**18.2**	**23.1**	**34.0**	**22.3**	**21.8**	**26.6**	*35.6*	*23.3*	*22.0*	*26.9*	*34.5*	*23.5*	**97.7**	*107.3*	*106.9*
California															
Natural Gas	**17.7**	**10.2**	**23.4**	**22.9**	**16.8**	**12.9**	*25.8*	*22.1*	*13.3*	*12.6*	*22.7*	*21.0*	**74.2**	*77.6*	*69.7*
Coal	**2.2**	**1.2**	**1.9**	**2.2**	**1.4**	**1.2**	*1.8*	*2.3*	*1.9*	*2.8*	*1.9*	*2.3*	**7.5**	*6.7*	*9.0*
Nuclear	**3.8**	**4.9**	**4.7**	**2.8**	**4.8**	**4.9**	*3.7*	*4.7*	*4.4*	*4.1*	*4.9*	*4.9*	**16.2**	*18.1*	*18.3*
Conventional hydropower	**7.1**	**12.4**	**9.6**	**4.9**	**3.2**	**5.7**	*10.0*	*5.2*	*3.1*	*5.9*	*9.5*	*5.0*	**34.0**	*24.1*	*23.5*
Nonhydro renewables (d)	**13.8**	**18.3**	**18.5**	**13.1**	**14.5**	**19.3**	*19.4*	*14.3*	*14.8*	*20.9*	*20.4*	*14.9*	**63.7**	*67.4*	*71.0*
Other energy sources (e)	**-0.2**	**0.2**	**0.2**	**0.0**	**0.0**	**0.1**	*0.2*	*0.0*	*-0.1*	*0.1*	*0.2*	*0.0*	**0.2**	*0.3*	*0.2*
Total generation	**44.4**	**47.2**	**58.3**	**45.9**	**40.7**	**44.0**	*60.8*	*48.6*	*37.4*	*46.4*	*59.7*	*48.2*	**195.8**	*194.2*	*191.7*
Net energy for load (f)	**59.9**	**62.5**	**76.3**	**61.6**	**57.6**	**60.9**	*77.6*	*61.6*	*56.8*	*61.7*	*76.1*	*61.9*	**260.2**	*257.8*	*256.5*

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

Data reflect generation supplied by power plants with a combined capacity of at least 1 megawatt operated by electric utilities and independent power producers.

(a) Large-scale solar generation from power plants with more than 1 megawatt of capacity. Excludes generation from small-scale solar photovoltaic systems.

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

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

(d) Wind, large-scale solar, biomass, and geothermal

(e) Pumped storage hydroelectric, petroleum, other gases, batteries, and other nonrenewable fuels. See notes (b) and (c).

(f) Regional generation from generating units operated by electric power sector, plus energy receipts from minus energy deliveries to U.S. balancing authorities outside region.

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Electric Power Sector															
Geothermal	**0.037**	**0.035**	**0.037**	**0.033**	**0.034**	**0.036**	*0.038*	*0.034*	*0.033*	*0.037*	*0.038*	*0.034*	**0.142**	*0.143*	*0.142*
Hydroelectric Power (a)	**0.649**	**0.743**	**0.553**	**0.534**	**0.649**	**0.715**	*0.608*	*0.561*	*0.666*	*0.694*	*0.578*	*0.570*	**2.480**	*2.533*	*2.508*
Solar (b)	**0.121**	**0.199**	**0.206**	**0.126**	**0.149**	**0.246**	*0.262*	*0.167*	*0.197*	*0.324*	*0.336*	*0.214*	**0.651**	*0.824*	*1.071*
Waste Biomass (c)	**0.059**	**0.058**	**0.059**	**0.060**	**0.060**	**0.056**	*0.060*	*0.059*	*0.062*	*0.060*	*0.060*	*0.061*	**0.236**	*0.235*	*0.243*
Wood Biomass	**0.053**	**0.052**	**0.058**	**0.048**	**0.050**	**0.045**	*0.054*	*0.053*	*0.063*	*0.050*	*0.060*	*0.059*	**0.211**	*0.202*	*0.232*
Wind	**0.675**	**0.715**	**0.603**	**0.736**	**0.792**	**0.799**	*0.672*	*0.882*	*0.967*	*0.947*	*0.791*	*0.971*	**2.729**	*3.145*	*3.676*
Subtotal	**1.594**	**1.803**	**1.517**	**1.537**	**1.735**	**1.896**	*1.694*	*1.758*	*1.987*	*2.114*	*1.863*	*1.909*	**6.450**	*7.082*	*7.873*
Industrial Sector															
Biofuel Losses and Co-products (d)	**0.194**	**0.203**	**0.199**	**0.203**	**0.197**	**0.135**	*0.181*	*0.185*	*0.190*	*0.193*	*0.196*	*0.198*	**0.799**	*0.698*	*0.777*
Geothermal	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	**0.004**	*0.004*	*0.004*
Hydroelectric Power (a)	**0.003**	**0.003**	**0.002**	**0.003**	**0.003**	**0.003**	*0.002*	*0.003*	*0.003*	*0.003*	*0.002*	*0.003*	**0.010**	*0.010*	*0.010*
Solar (b)	**0.006**	**0.008**	**0.009**	**0.006**	**0.006**	**0.010**	*0.010*	*0.007*	*0.007*	*0.011*	*0.011*	*0.008*	**0.028**	*0.033*	*0.037*
Waste Biomass (c)	**0.042**	**0.038**	**0.037**	**0.043**	**0.043**	**0.040**	*0.040*	*0.042*	*0.042*	*0.040*	*0.040*	*0.042*	**0.160**	*0.165*	*0.164*
Wood Biomass	**0.373**	**0.363**	**0.369**	**0.368**	**0.343**	**0.337**	*0.341*	*0.350*	*0.342*	*0.339*	*0.352*	*0.356*	**1.473**	*1.371*	*1.389*
Subtotal	**0.617**	**0.613**	**0.614**	**0.622**	**0.591**	**0.520**	*0.570*	*0.585*	*0.581*	*0.581*	*0.596*	*0.604*	**2.466**	*2.266*	*2.363*
Commercial Sector															
Geothermal	**0.006**	**0.006**	**0.006**	**0.006**	**0.005**	**0.005**	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	**0.024**	*0.021*	*0.021*
Solar (b)	**0.022**	**0.032**	**0.032**	**0.021**	**0.025**	**0.037**	*0.036*	*0.025*	*0.028*	*0.040*	*0.041*	*0.028*	**0.107**	*0.122*	*0.137*
Waste Biomass (c)	**0.010**	**0.008**	**0.009**	**0.009**	**0.009**	**0.008**	*0.009*	*0.009*	*0.009*	*0.008*	*0.009*	*0.009*	**0.036**	*0.035*	*0.035*
Wood Biomass	**0.021**	**0.021**	**0.021**	**0.021**	**0.021**	**0.021**	*0.022*	*0.021*	*0.021*	*0.020*	*0.022*	*0.021*	**0.084**	*0.085*	*0.085*
Subtotal	**0.065**	**0.074**	**0.075**	**0.065**	**0.067**	**0.076**	*0.079*	*0.066*	*0.069*	*0.081*	*0.084*	*0.070*	**0.278**	*0.287*	*0.305*
Residential Sector															
Geothermal	**0.010**	**0.010**	**0.010**	**0.010**	**0.010**	**0.010**	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	**0.040**	*0.040*	*0.040*
Solar (e)	**0.050**	**0.076**	**0.078**	**0.052**	**0.058**	**0.088**	*0.089*	*0.060*	*0.065*	*0.099*	*0.101*	*0.069*	**0.257**	*0.296*	*0.333*
Wood Biomass	**0.130**	**0.132**	**0.133**	**0.133**	**0.124**	**0.126**	*0.133*	*0.133*	*0.124*	*0.126*	*0.133*	*0.133*	**0.529**	*0.517*	*0.517*
Subtotal	**0.190**	**0.218**	**0.221**	**0.195**	**0.192**	**0.224**	*0.232*	*0.204*	*0.199*	*0.235*	*0.244*	*0.212*	**0.825**	*0.852*	*0.890*
Transportation Sector															
Biomass-based Diesel (f)	**0.058**	**0.071**	**0.071**	**0.066**	**0.061**	**0.064**	*0.062*	*0.069*	*0.084*	*0.089*	*0.079*	*0.085*	**0.265**	*0.256*	*0.337*
Ethanol (f)	**0.273**	**0.295**	**0.291**	**0.297**	**0.257**	**0.220**	*0.267*	*0.272*	*0.265*	*0.283*	*0.287*	*0.283*	**1.155**	*1.015*	*1.118*
Subtotal	**0.331**	**0.365**	**0.362**	**0.362**	**0.318**	**0.284**	*0.328*	*0.340*	*0.350*	*0.371*	*0.366*	*0.368*	**1.421**	*1.271*	*1.455*
All Sectors Total															
Biomass-based Diesel (f)	**0.058**	**0.071**	**0.071**	**0.066**	**0.061**	**0.064**	*0.062*	*0.069*	*0.084*	*0.089*	*0.079*	*0.085*	**0.265**	*0.256*	*0.337*
Biofuel Losses and Co-products (d)	**0.194**	**0.203**	**0.199**	**0.203**	**0.197**	**0.135**	*0.181*	*0.185*	*0.190*	*0.193*	*0.196*	*0.198*	**0.799**	*0.698*	*0.777*
Ethanol (f)	**0.284**	**0.306**	**0.302**	**0.308**	**0.267**	**0.228**	*0.277*	*0.282*	*0.276*	*0.293*	*0.298*	*0.293*	**1.200**	*1.054*	*1.161*
Geothermal	**0.054**	**0.052**	**0.054**	**0.050**	**0.050**	**0.052**	*0.055*	*0.051*	*0.049*	*0.054*	*0.055*	*0.050*	**0.209**	*0.208*	*0.207*
Hydroelectric Power (a)	**0.652**	**0.747**	**0.556**	**0.537**	**0.652**	**0.718**	*0.611*	*0.564*	*0.669*	*0.697*	*0.581*	*0.573*	**2.492**	*2.545*	*2.520*
Solar (b)(e)	**0.198**	**0.315**	**0.324**	**0.206**	**0.239**	**0.380**	*0.396*	*0.259*	*0.297*	*0.474*	*0.488*	*0.319*	**1.043**	*1.274*	*1.578*
Waste Biomass (c)	**0.111**	**0.105**	**0.105**	**0.112**	**0.112**	**0.104**	*0.108*	*0.111*	*0.113*	*0.109*	*0.109*	*0.112*	**0.433**	*0.435*	*0.442*
Wood Biomass	**0.578**	**0.568**	**0.582**	**0.570**	**0.538**	**0.529**	*0.551*	*0.557*	*0.549*	*0.536*	*0.568*	*0.569*	**2.297**	*2.175*	*2.223*
Wind	**0.675**	**0.715**	**0.603**	**0.736**	**0.792**	**0.799**	*0.672*	*0.882*	*0.967*	*0.947*	*0.791*	*0.971*	**2.729**	*3.145*	*3.676*
Total Consumption	**2.797**	**3.073**	**2.789**	**2.782**	**2.902**	**2.999**	*2.903*	*2.954*	*3.186*	*3.383*	*3.153*	*3.163*	**11.440**	*11.758*	*12.885*

- = no data available

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

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

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

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Renewable Energy Electric Generating Capacity (megawatts, end of period)															
Electric Power Sector (a)															
Biomass	**6,807**	**6,761**	**6,662**	**6,672**	**6,672**	**6,590**	*6,595*	*6,628*	*6,628*	*6,630*	*6,550*	*6,638*	**6,672**	*6,628*	*6,638*
Waste	**4,005**	**3,973**	**3,963**	**3,945**	**3,946**	**3,864**	*3,868*	*3,902*	*3,902*	*3,904*	*3,824*	*3,912*	**3,945**	*3,902*	*3,912*
Wood	**2,803**	**2,788**	**2,699**	**2,727**	**2,727**	**2,727**	*2,727*	*2,727*	*2,727*	*2,727*	*2,727*	*2,727*	**2,727**	*2,727*	*2,727*
Conventional Hydroelectric	**79,511**	**79,490**	**79,314**	**79,370**	**79,383**	**79,393**	*79,545*	*79,569*	*79,651*	*79,600*	*79,676*	*79,700*	**79,370**	*79,569*	*79,700*
Geothermal	**2,486**	**2,486**	**2,486**	**2,506**	**2,506**	**2,506**	*2,506*	*2,506*	*2,506*	*2,506*	*2,506*	*2,548*	**2,506**	*2,506*	*2,548*
Large-Scale Solar (b)	**32,707**	**33,156**	**33,943**	**36,998**	**38,822**	**41,272**	*43,441*	*50,655*	*51,126*	*54,610*	*56,442*	*62,464*	**36,998**	*50,655*	*62,464*
Wind	**96,504**	**97,980**	**99,560**	**103,392**	**105,739**	**107,193**	*112,873*	*126,670*	*127,656*	*128,175*	*128,796*	*133,951*	**103,392**	*126,670*	*133,951*
Other Sectors (c)															
Biomass	**6,541**	**6,490**	**6,490**	**6,424**	**6,432**	**6,432**	*6,448*	*6,428*	*6,428*	*6,428*	*6,428*	*6,428*	**6,424**	*6,428*	*6,428*
Waste	**785**	**786**	**786**	**786**	**786**	**786**	*802*	*802*	*802*	*802*	*802*	*802*	**786**	*802*	*802*
Wood	**5,756**	**5,704**	**5,704**	**5,637**	**5,646**	**5,646**	*5,646*	*5,626*	*5,626*	*5,626*	*5,626*	*5,626*	**5,637**	*5,626*	*5,626*
Conventional Hydroelectric	**289**	**289**	**289**	**289**	**289**	**289**	*289*	*289*	*289*	*292*	*290*	*290*	**289**	*289*	*290*
Large-Scale Solar (b)	**409**	**414**	**426**	**432**	**432**	**443**	*443*	*445*	*445*	*445*	*446*	*446*	**432**	*445*	*446*
Small-Scale Solar (d)	**20,284**	**21,137**	**22,103**	**23,211**	**24,259**	**25,192**	*25,712*	*26,481*	*27,395*	*28,453*	*29,633*	*30,905*	**23,211**	*26,481*	*30,905*
Residential Sector	**12,271**	**12,840**	**13,526**	**14,229**	**14,963**	**15,582**	*16,028*	*16,529*	*17,092*	*17,778*	*18,532*	*19,353*	**14,229**	*16,529*	*19,353*
Commercial Sector	**6,402**	**6,609**	**6,841**	**7,186**	**7,429**	**7,679**	*7,716*	*7,930*	*8,221*	*8,531*	*8,891*	*9,274*	**7,186**	*7,930*	*9,274*
Industrial Sector	**1,611**	**1,688**	**1,736**	**1,796**	**1,867**	**1,931**	*1,969*	*2,022*	*2,082*	*2,144*	*2,210*	*2,279*	**1,796**	*2,022*	*2,279*
Wind	**118**	**118**	**118**	**118**	**118**	**344**	*353*	*353*	*353*	*353*	*353*	*353*	**118**	*353*	*353*
Renewable Electricity Generation (billion kilowatthours)															
Electric Power Sector (a)															
Biomass	**7.2**	**7.0**	**7.6**	**6.9**	**7.0**	**6.5**	*7.4*	*7.2*	*8.0*	*7.1*	*7.7*	*7.7*	**28.8**	*28.1*	*30.6*
Waste	**3.9**	**3.9**	**4.0**	**3.9**	**4.0**	**3.8**	*4.0*	*4.0*	*4.2*	*4.0*	*4.0*	*4.1*	**15.7**	*15.7*	*16.3*
Wood	**3.3**	**3.1**	**3.6**	**3.0**	**3.1**	**2.7**	*3.4*	*3.3*	*3.9*	*3.1*	*3.7*	*3.6*	**13.0**	*12.4*	*14.3*
Conventional Hydroelectric	**71.2**	**81.7**	**60.8**	**58.7**	**71.3**	**78.5**	*67.9*	*62.2*	*72.3*	*76.0*	*64.8*	*63.5*	**272.4**	*280.0*	*276.6*
Geothermal	**4.0**	**3.9**	**4.1**	**3.6**	**3.8**	**4.0**	*4.2*	*3.8*	*3.6*	*4.1*	*4.2*	*3.7*	**15.6**	*15.7*	*15.6*
Large-Scale Solar (b)	**13.3**	**21.8**	**22.6**	**13.9**	**16.4**	**27.0**	*28.7*	*18.4*	*21.6*	*35.6*	*36.9*	*23.5*	**71.5**	*90.5*	*117.7*
Wind	**74.2**	**78.6**	**66.2**	**80.8**	**87.0**	**87.7**	*73.8*	*96.9*	*106.2*	*104.1*	*86.8*	*106.6*	**299.8**	*345.5*	*403.8*
Other Sectors (c)															
Biomass	**7.4**	**7.3**	**7.6**	**7.4**	**7.4**	**7.0**	*7.6*	*7.4*	*7.3*	*7.0*	*7.6*	*7.4*	**29.7**	*29.4*	*29.3*
Waste	**0.8**	**0.7**	**0.7**	**0.7**	**0.7**	**0.7**	*0.7*	*0.7*	*0.7*	*0.7*	*0.7*	*0.7*	**2.8**	*2.8*	*2.8*
Wood	**6.7**	**6.6**	**6.9**	**6.6**	**6.7**	**6.4**	*6.9*	*6.6*	*6.6*	*6.4*	*6.9*	*6.6*	**26.8**	*26.6*	*26.5*
Conventional Hydroelectric	**0.3**	**0.4**	**0.3**	**0.3**	**0.4**	**0.4**	*0.3*	*0.3*	*0.4*	*0.4*	*0.3*	*0.3*	**1.3**	*1.3*	*1.3*
Large-Scale Solar (b)	**0.1**	**0.2**	**0.2**	**0.1**	**0.1**	**0.2**	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	**0.7**	*0.8*	*0.7*
Small-Scale Solar (d)	**6.9**	**10.4**	**10.6**	**7.1**	**8.3**	**12.3**	*12.3*	*8.4*	*9.4*	*14.0*	*14.2*	*9.8*	**35.0**	*41.3*	*47.4*
Residential Sector	**4.0**	**6.2**	**6.4**	**4.3**	**5.0**	**7.5**	*7.5*	*5.1*	*5.7*	*8.6*	*8.7*	*6.0*	**20.9**	*25.1*	*29.1*
Commercial Sector	**2.3**	**3.3**	**3.3**	**2.2**	**2.6**	**3.8**	*3.7*	*2.6*	*2.9*	*4.2*	*4.3*	*3.0*	**11.1**	*12.8*	*14.4*
Industrial Sector	**0.6**	**0.9**	**0.9**	**0.6**	**0.7**	**1.0**	*1.0*	*0.7*	*0.8*	*1.1*	*1.2*	*0.8*	**3.0**	*3.5*	*3.9*
Wind	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	**0.3**	*0.7*	*0.9*

-- = no data available

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

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

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

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

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

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

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

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

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

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Macroeconomic															
Real Gross Domestic Product															
(billion chained 2012 dollars - SAAR)	**18,950**	**19,021**	**19,142**	**19,254**	**19,011**	**17,206**	*18,132*	*18,323*	*18,408*	*18,646*	*18,829*	*19,021*	**19,092**	*18,168*	*18,726*
Real Personal Consumption Expend.															
(billion chained 2012 dollars - SAAR)	**13,093**	**13,213**	**13,301**	**13,354**	**13,118**	**11,797**	*12,602*	*12,703*	*12,686*	*12,841*	*12,953*	*13,090*	**13,240**	*12,555*	*12,893*
Real Private Fixed Investment															
(billion chained 2012 dollars - SAAR)	**3,362**	**3,359**	**3,379**	**3,387**	**3,375**	**3,089**	*3,109*	*3,137*	*3,142*	*3,163*	*3,187*	*3,215*	**3,372**	*3,177*	*3,177*
Business Inventory Change															
(billion chained 2012 dollars - SAAR)	**99**	**53**	**41**	**3**	**-52**	**-322**	*-244*	*-143*	*-72*	*2*	*62*	*112*	**49**	*-190*	*26*
Real Government Expenditures															
(billion chained 2012 dollars - SAAR)	**3,260**	**3,300**	**3,318**	**3,337**	**3,348**	**3,370**	*3,386*	*3,365*	*3,369*	*3,376*	*3,382*	*3,384*	**3,304**	*3,367*	*3,378*
Real Exports of Goods & Services															
(billion chained 2012 dollars - SAAR)	**2,560**	**2,531**	**2,537**	**2,558**	**2,495**	**1,932**	*2,135*	*2,228*	*2,329*	*2,368*	*2,429*	*2,491*	**2,547**	*2,197*	*2,404*
Real Imports of Goods & Services															
(billion chained 2012 dollars - SAAR)	**3,468**	**3,483**	**3,487**	**3,419**	**3,283**	**2,712**	*2,879*	*2,987*	*3,058*	*3,110*	*3,185*	*3,268*	**3,464**	*2,965*	*3,155*
Real Disposable Personal Income															
(billion chained 2012 dollars - SAAR)	**14,854**	**14,818**	**14,895**	**14,965**	**15,060**	**16,524**	*16,173*	*16,216*	*14,800*	*14,944*	*15,057*	*15,125*	**14,883**	*15,993*	*14,981*
Non-Farm Employment															
(millions)	**150.2**	**150.6**	**151.2**	**151.8**	**151.9**	**133.7**	*141.0*	*143.9*	*144.8*	*145.7*	*146.5*	*147.3*	**150.9**	*142.6*	*146.1*
Civilian Unemployment Rate															
(percent)	**3.9**	**3.6**	**3.6**	**3.5**	**3.8**	**13.0**	*9.5*	*8.3*	*8.1*	*7.7*	*7.5*	*7.1*	**3.7**	*8.6*	*7.6*
Housing Starts															
(millions - SAAR)	**1.20**	**1.26**	**1.29**	**1.43**	**1.48**	**1.06**	*1.37*	*1.29*	*1.30*	*1.31*	*1.31*	*1.31*	**1.30**	*1.30*	*1.31*
Industrial Production Indices (Index, 2012=100)															
Total Industrial Production	**109.8**	**109.2**	**109.5**	**109.6**	**107.7**	**93.5**	*100.0*	*99.0*	*99.7*	*101.0*	*102.3*	*103.8*	**109.5**	*100.0*	*101.7*
Manufacturing	**106.5**	**105.7**	**105.9**	**105.8**	**104.4**	**89.1**	*98.0*	*97.6*	*98.1*	*99.2*	*100.1*	*101.3*	**106.0**	*97.2*	*99.7*
Food	**115.1**	**115.3**	**114.6**	**116.1**	**116.5**	**107.9**	*113.1*	*115.5*	*117.9*	*120.0*	*121.7*	*122.6*	**115.3**	*113.3*	*120.5*
Paper	**94.2**	**91.8**	**92.6**	**93.6**	**94.7**	**87.6**	*88.6*	*90.2*	*90.4*	*91.3*	*92.2*	*93.1*	**93.0**	*90.3*	*91.8*
Petroleum and Coal Products	**106.3**	**104.9**	**106.7**	**104.9**	**104.9**	**84.0**	*90.0*	*93.8*	*98.0*	*101.3*	*103.2*	*104.5*	**105.7**	*93.2*	*101.8*
Chemicals	**101.4**	**99.9**	**100.6**	**100.3**	**99.8**	**93.7**	*95.1*	*95.6*	*96.9*	*98.9*	*101.1*	*103.2*	**100.5**	*96.1*	*100.0*
Nonmetallic Mineral Products	**119.7**	**119.0**	**119.7**	**119.3**	**122.2**	**106.2**	*110.9*	*109.3*	*109.7*	*111.1*	*112.7*	*114.6*	**119.4**	*112.1*	*112.0*
Primary Metals	**97.9**	**96.7**	**96.4**	**96.6**	**94.4**	**69.3**	*70.4*	*70.1*	*71.4*	*73.4*	*75.1*	*76.8*	**96.9**	*76.1*	*74.2*
Coal-weighted Manufacturing (a)	**106.9**	**105.6**	**106.0**	**106.4**	**106.5**	**94.3**	*99.4*	*99.1*	*99.9*	*101.4*	*102.8*	*104.1*	**106.2**	*99.8*	*102.1*
Distillate-weighted Manufacturing (a)	**98.5**	**97.9**	**98.3**	**98.6**	**98.8**	**85.6**	*89.7*	*90.1*	*91.6*	*93.3*	*94.8*	*96.0*	**98.3**	*91.1*	*93.9*
Electricity-weighted Manufacturing (a)	**106.5**	**105.3**	**105.6**	**105.9**	**105.1**	**89.5**	*94.0*	*93.8*	*95.3*	*97.3*	*99.1*	*100.7*	**105.8**	*95.6*	*98.1*
Natural Gas-weighted Manufacturing (a)	**108.7**	**107.7**	**108.0**	**108.2**	**107.8**	**94.0**	*98.0*	*98.4*	*100.0*	*102.3*	*104.0*	*105.5*	**108.1**	*99.5*	*103.0*
Price Indexes															
Consumer Price Index (all urban consumers)															
(index, 1982-1984=1.00)	**2.53**	**2.55**	**2.56**	**2.58**	**2.59**	**2.56**	*2.59*	*2.59*	*2.61*	*2.63*	*2.65*	*2.66*	**2.56**	*2.58*	*2.64*
Producer Price Index: All Commodities															
(index, 1982=1.00)	**2.01**	**2.00**	**1.99**	**2.00**	**1.98**	**1.88**	*1.94*	*1.96*	*1.99*	*2.01*	*2.02*	*2.03*	**2.00**	*1.94*	*2.01*
Producer Price Index: Petroleum															
(index, 1982=1.00)	**1.81**	**2.08**	**1.95**	**1.93**	**1.74**	**1.09**	*1.50*	*1.50*	*1.46*	*1.61*	*1.64*	*1.60*	**1.94**	*1.46*	*1.58*
GDP Implicit Price Deflator															
(index, 2012=100)	**111.5**	**112.2**	**112.6**	**113.0**	**113.4**	**112.9**	*113.4*	*113.7*	*114.1*	*114.3*	*114.6*	*114.9*	**112.3**	*113.3*	*114.5*
Miscellaneous															
Vehicle Miles Traveled (b)															
(million miles/day)	**8,295**	**9,328**	**9,292**	**8,901**	**7,754**	**6,874**	*8,425*	*8,431*	*8,024*	*9,007*	*9,070*	*8,803*	**8,957**	*7,874*	*8,729*
Air Travel Capacity															
(Available ton-miles/day, thousands)	**643**	**685**	**712**	**688**	**615**	**380**	*595*	*648*	*575*	*601*	*671*	*674*	**682**	*560*	*630*
Aircraft Utilization															
(Revenue ton-miles/day, thousands)	**380**	**426**	**427**	**406**	**320**	**156**	*289*	*334*	*308*	*335*	*388*	*387*	**410**	*275*	*355*
Airline Ticket Price Index															
(index, 1982-1984=100)	**255.7**	**278.3**	**263.8**	**263.8**	**250.8**	**203.7**	*173.6*	*159.1*	*154.3*	*161.9*	*151.8*	*156.8*	**265.4**	*196.8*	*156.2*
Raw Steel Production															
(million short tons per day)	**0.273**	**0.271**	**0.264**	**0.265**	**0.268**	**0.174**	*0.195*	*0.214*	*0.256*	*0.228*	*0.234*	*0.275*	**0.268**	*0.213*	*0.248*
Carbon Dioxide (CO2) Emissions (million metric tons)															
Petroleum	**575**	**587**	**597**	**596**	**552**	**442**	*528*	*558*	*546*	*557*	*578*	*582*	**2,354**	*2,080*	*2,263*
Natural Gas	**507**	**350**	**384**	**448**	**492**	**351**	*381*	*424*	*462*	*331*	*359*	*421*	**1,689**	*1,648*	*1,574*
Coal	**289**	**239**	**307**	**242**	**201**	**182**	*274*	*222*	*246*	*234*	*291*	*223*	**1,076**	*879*	*993*
Total Energy (c)	**1,374**	**1,178**	**1,291**	**1,288**	**1,248**	**978**	*1,186*	*1,206*	*1,257*	*1,125*	*1,231*	*1,229*	**5,130**	*4,618*	*4,841*

- = no data available

SAAR = Seasonally-adjusted annual rate

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

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

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

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

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

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

Table 9b. U.S. Regional Macroeconomic Data

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Real Gross State Product (Billion $2009)															
New England	**997**	**999**	**1,005**	**1,011**	**997**	**889**	*942*	*951*	*957*	*970*	*980*	*991*	**1,003**	*945*	*974*
Middle Atlantic	**2,776**	**2,782**	**2,794**	**2,806**	**2,756**	**2,394**	*2,538*	*2,588*	*2,615*	*2,661*	*2,697*	*2,735*	**2,790**	*2,569*	*2,677*
E. N. Central	**2,531**	**2,535**	**2,548**	**2,561**	**2,524**	**2,249**	*2,395*	*2,426*	*2,440*	*2,476*	*2,499*	*2,526*	**2,544**	*2,399*	*2,485*
W. N. Central	**1,183**	**1,187**	**1,194**	**1,200**	**1,189**	**1,104**	*1,158*	*1,165*	*1,166*	*1,179*	*1,189*	*1,199*	**1,191**	*1,154*	*1,183*
S. Atlantic	**3,357**	**3,367**	**3,386**	**3,408**	**3,367**	**3,090**	*3,273*	*3,293*	*3,301*	*3,339*	*3,367*	*3,398*	**3,380**	*3,256*	*3,351*
E. S. Central	**833**	**835**	**840**	**845**	**833**	**770**	*815*	*820*	*823*	*833*	*840*	*847*	**839**	*810*	*835*
W. S. Central	**2,350**	**2,370**	**2,394**	**2,410**	**2,391**	**2,210**	*2,306*	*2,296*	*2,290*	*2,308*	*2,324*	*2,343*	**2,381**	*2,301*	*2,316*
Mountain	**1,253**	**1,261**	**1,270**	**1,279**	**1,265**	**1,175**	*1,236*	*1,244*	*1,248*	*1,262*	*1,272*	*1,283*	**1,266**	*1,230*	*1,266*
Pacific	**3,705**	**3,719**	**3,743**	**3,767**	**3,722**	**3,357**	*3,502*	*3,572*	*3,600*	*3,652*	*3,694*	*3,733*	**3,734**	*3,538*	*3,670*
Industrial Output, Manufacturing (Index, Year 2012=100)															
New England	**99.4**	**98.6**	**98.8**	**98.8**	**97.6**	**83.5**	*91.9*	*91.9*	*92.5*	*93.4*	*94.1*	*95.1*	**98.9**	*91.2*	*93.8*
Middle Atlantic	**99.1**	**98.2**	**98.1**	**98.1**	**97.2**	**80.3**	*87.8*	*87.5*	*87.9*	*89.1*	*90.5*	*91.9*	**98.4**	*88.2*	*89.8*
E. N. Central	**108.4**	**107.1**	**107.0**	**106.7**	**105.1**	**85.5**	*94.7*	*94.8*	*95.6*	*96.9*	*97.4*	*99.3*	**107.3**	*95.0*	*97.3*
W. N. Central	**106.0**	**105.2**	**105.3**	**105.2**	**103.7**	**90.2**	*98.6*	*98.4*	*99.5*	*100.8*	*101.6*	*102.6*	**105.4**	*97.7*	*101.1*
S. Atlantic	**111.0**	**110.3**	**110.8**	**111.1**	**109.3**	**93.8**	*103.5*	*102.6*	*103.0*	*104.1*	*105.1*	*106.3*	**110.8**	*102.3*	*104.6*
E. S. Central	**110.8**	**109.8**	**110.2**	**110.0**	**109.0**	**89.2**	*100.0*	*100.0*	*100.7*	*101.7*	*102.3*	*103.8*	**110.2**	*99.5*	*102.1*
W. S. Central	**101.7**	**101.1**	**101.4**	**101.5**	**99.8**	**87.5**	*94.9*	*93.9*	*94.3*	*95.0*	*95.8*	*97.0*	**101.4**	*94.0*	*95.5*
Mountain	**116.5**	**115.8**	**116.6**	**116.2**	**114.7**	**102.0**	*111.5*	*111.1*	*111.7*	*112.8*	*113.8*	*114.8*	**116.3**	*109.8*	*113.3*
Pacific	**105.1**	**104.2**	**104.1**	**104.3**	**102.4**	**87.3**	*96.6*	*95.8*	*95.9*	*96.8*	*97.9*	*98.9*	**104.4**	*95.5*	*97.4*
Real Personal Income (Billion $2009)															
New England	**898**	**895**	**891**	**894**	**901**	**956**	*948*	*949*	*876*	*885*	*892*	*896*	**895**	*939*	*887*
Middle Atlantic	**2,285**	**2,288**	**2,285**	**2,287**	**2,297**	**2,424**	*2,394*	*2,402*	*2,220*	*2,244*	*2,260*	*2,269*	**2,286**	*2,379*	*2,248*
E. N. Central	**2,442**	**2,433**	**2,443**	**2,453**	**2,466**	**2,653**	*2,607*	*2,622*	*2,420*	*2,447*	*2,465*	*2,477*	**2,443**	*2,587*	*2,452*
W. N. Central	**1,151**	**1,147**	**1,161**	**1,164**	**1,173**	**1,268**	*1,244*	*1,246*	*1,149*	*1,162*	*1,172*	*1,179*	**1,156**	*1,233*	*1,166*
S. Atlantic	**3,200**	**3,202**	**3,211**	**3,229**	**3,258**	**3,579**	*3,506*	*3,511*	*3,231*	*3,261*	*3,284*	*3,300*	**3,211**	*3,464*	*3,269*
E. S. Central	**890**	**888**	**892**	**893**	**899**	**1,007**	*970*	*967*	*891*	*900*	*907*	*911*	**890**	*961*	*902*
W. S. Central	**1,995**	**1,993**	**2,006**	**2,009**	**2,027**	**2,199**	*2,165*	*2,150*	*1,977*	*1,990*	*2,004*	*2,012*	**2,001**	*2,135*	*1,996*
Mountain	**1,178**	**1,180**	**1,191**	**1,197**	**1,207**	**1,320**	*1,299*	*1,301*	*1,198*	*1,208*	*1,218*	*1,222*	**1,187**	*1,282*	*1,212*
Pacific	**2,786**	**2,799**	**2,792**	**2,829**	**2,848**	**3,006**	*2,986*	*3,014*	*2,793*	*2,823*	*2,848*	*2,862*	**2,801**	*2,964*	*2,831*
Households (Thousands)															
New England	**5,940**	**5,947**	**5,963**	**5,970**	**5,976**	**5,974**	*5,966*	*5,966*	*5,963*	*5,962*	*5,973*	*5,987*	**5,970**	*5,966*	*5,987*
Middle Atlantic	**16,253**	**16,279**	**16,322**	**16,341**	**16,355**	**16,353**	*16,337*	*16,342*	*16,336*	*16,335*	*16,363*	*16,402*	**16,341**	*16,342*	*16,402*
E. N. Central	**19,099**	**19,132**	**19,186**	**19,212**	**19,235**	**19,247**	*19,239*	*19,253*	*19,253*	*19,256*	*19,296*	*19,348*	**19,212**	*19,253*	*19,348*
W. N. Central	**8,694**	**8,716**	**8,749**	**8,767**	**8,782**	**8,788**	*8,786*	*8,795*	*8,796*	*8,802*	*8,824*	*8,851*	**8,767**	*8,795*	*8,851*
S. Atlantic	**25,706**	**25,788**	**25,904**	**25,985**	**26,058**	**26,089**	*26,099*	*26,142*	*26,171*	*26,212*	*26,301*	*26,414*	**25,985**	*26,142*	*26,414*
E. S. Central	**7,656**	**7,671**	**7,697**	**7,712**	**7,725**	**7,729**	*7,727*	*7,735*	*7,737*	*7,742*	*7,762*	*7,788*	**7,712**	*7,735*	*7,788*
W. S. Central	**14,822**	**14,871**	**14,938**	**14,985**	**15,027**	**15,048**	*15,058*	*15,089*	*15,110*	*15,140*	*15,197*	*15,264*	**14,985**	*15,089*	*15,264*
Mountain	**9,411**	**9,458**	**9,515**	**9,559**	**9,597**	**9,619**	*9,633*	*9,660*	*9,678*	*9,701*	*9,742*	*9,790*	**9,559**	*9,660*	*9,790*
Pacific	**18,916**	**18,951**	**19,013**	**19,049**	**19,079**	**19,087**	*19,085*	*19,114*	*19,132*	*19,157*	*19,216*	*19,284*	**19,049**	*19,114*	*19,284*
Total Non-farm Employment (Millions)															
New England	**7.5**	**7.5**	**7.5**	**7.5**	**7.5**	**6.4**	*6.8*	*6.9*	*7.0*	*7.1*	*7.1*	*7.2*	**7.5**	*6.9*	*7.1*
Middle Atlantic	**20.0**	**20.0**	**20.1**	**20.1**	**20.1**	**16.7**	*17.8*	*18.3*	*18.5*	*18.7*	*18.9*	*19.0*	**20.0**	*18.3*	*18.8*
E. N. Central	**22.3**	**22.3**	**22.3**	**22.3**	**22.3**	**19.3**	*20.6*	*21.0*	*21.2*	*21.4*	*21.5*	*21.6*	**22.3**	*20.8*	*21.4*
W. N. Central	**10.8**	**10.8**	**10.8**	**10.8**	**10.8**	**9.8**	*10.3*	*10.4*	*10.4*	*10.5*	*10.5*	*10.6*	**10.8**	*10.3*	*10.5*
S. Atlantic	**29.0**	**29.1**	**29.2**	**29.3**	**29.4**	**26.3**	*27.8*	*28.2*	*28.4*	*28.5*	*28.7*	*28.8*	**29.1**	*27.9*	*28.6*
E. S. Central	**8.3**	**8.3**	**8.3**	**8.3**	**8.3**	**7.5**	*7.9*	*8.1*	*8.1*	*8.1*	*8.2*	*8.2*	**8.3**	*8.0*	*8.1*
W. S. Central	**17.6**	**17.7**	**17.8**	**17.9**	**18.0**	**16.4**	*17.2*	*17.4*	*17.4*	*17.4*	*17.4*	*17.5*	**17.8**	*17.2*	*17.4*
Mountain	**11.0**	**11.0**	**11.1**	**11.2**	**11.2**	**10.2**	*10.7*	*10.9*	*10.9*	*11.0*	*11.0*	*11.1*	**11.1**	*10.8*	*11.0*
Pacific	**23.6**	**23.7**	**23.9**	**24.0**	**24.0**	**20.9**	*21.7*	*22.5*	*22.7*	*22.8*	*23.0*	*23.1*	**23.8**	*22.3*	*22.9*

- = no data available

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

Regions refer to U.S. Census divisions.

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

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

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

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

Table 9c. U.S. Regional Weather Data

U.S. Energy Information Administration | Short-Term Energy Outlook - September 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Heating Degree Days															
New England	**3,225**	**890**	**135**	**2,274**	**2,730**	**969**	*120*	*2,155*	*3,165*	*877*	*125*	*2,128*	**6,523**	*5,974*	*6,296*
Middle Atlantic	**2,986**	**634**	**68**	**2,062**	**2,470**	**834**	*73*	*1,980*	*2,933*	*700*	*75*	*1,947*	**5,749**	*5,357*	*5,655*
E. N. Central	**3,326**	**760**	**64**	**2,277**	**2,787**	**845**	*115*	*2,243*	*3,153*	*732*	*121*	*2,235*	**6,427**	*5,990*	*6,241*
W. N. Central	**3,645**	**772**	**107**	**2,546**	**3,039**	**799**	*138*	*2,418*	*3,238*	*703*	*158*	*2,432*	**7,070**	*6,394*	*6,531*
South Atlantic	**1,334**	**127**	**2**	**919**	**1,108**	**251**	*12*	*962*	*1,385*	*184*	*11*	*923*	**2,382**	*2,333*	*2,503*
E. S. Central	**1,711**	**193**	**1**	**1,274**	**1,483**	**338**	*20*	*1,294*	*1,778*	*231*	*18*	*1,269*	**3,179**	*3,135*	*3,296*
W. S. Central	**1,211**	**91**	**0**	**851**	**975**	**103**	*4*	*758*	*1,090*	*76*	*4*	*760*	**2,153**	*1,839*	*1,930*
Mountain	**2,428**	**786**	**127**	**1,966**	**2,217**	**674**	*123*	*1,803*	*2,197*	*687*	*147*	*1,810*	**5,307**	*4,817*	*4,841*
Pacific	**1,687**	**575**	**96**	**1,183**	**1,538**	**525**	*85*	*1,209*	*1,525*	*579*	*86*	*1,188*	**3,540**	*3,356*	*3,379*
U.S. Average	**2,210**	**480**	**56**	**1,558**	**1,876**	**540**	*67*	*1,518*	*2,100*	*483*	*72*	*1,499*	**4,304**	*4,000*	*4,153*
Heating Degree Days, Prior 10-year Average															
New England	**3,165**	**820**	**111**	**2,122**	**3,152**	**822**	*105*	*2,127*	*3,132*	*855*	*108*	*2,115*	**6,218**	*6,206*	*6,210*
Middle Atlantic	**2,956**	**650**	**76**	**1,941**	**2,949**	**644**	*69*	*1,944*	*2,913*	*677*	*70*	*1,926*	**5,623**	*5,606*	*5,586*
E. N. Central	**3,196**	**697**	**112**	**2,198**	**3,198**	**698**	*102*	*2,197*	*3,157*	*731*	*103*	*2,184*	**6,203**	*6,195*	*6,175*
W. N. Central	**3,255**	**702**	**140**	**2,380**	**3,287**	**702**	*131*	*2,379*	*3,247*	*728*	*130*	*2,377*	**6,477**	*6,500*	*6,482*
South Atlantic	**1,480**	**176**	**11**	**964**	**1,459**	**169**	*10*	*952*	*1,393*	*180*	*10*	*923*	**2,631**	*2,589*	*2,506*
E. S. Central	**1,861**	**222**	**17**	**1,292**	**1,849**	**214**	*15*	*1,277*	*1,771*	*232*	*16*	*1,256*	**3,392**	*3,356*	*3,275*
W. S. Central	**1,183**	**85**	**4**	**808**	**1,199**	**83**	*3*	*794*	*1,140*	*86*	*3*	*788*	**2,079**	*2,079*	*2,018*
Mountain	**2,164**	**714**	**139**	**1,855**	**2,192**	**718**	*135*	*1,844*	*2,182*	*701*	*133*	*1,846*	**4,873**	*4,890*	*4,863*
Pacific	**1,444**	**582**	**83**	**1,175**	**1,456**	**580**	*85*	*1,162*	*1,462*	*552*	*82*	*1,159*	**3,283**	*3,283*	*3,256*
U.S. Average	**2,150**	**475**	**68**	**1,518**	**2,149**	**472**	*64*	*1,509*	*2,108*	*481*	*64*	*1,494*	**4,212**	*4,194*	*4,148*
Cooling Degree Days															
New England	**0**	**68**	**469**	**0**	**0**	**105**	*554*	*1*	*0*	*84*	*418*	*2*	**537**	*660*	*504*
Middle Atlantic	**0**	**145**	**632**	**8**	**0**	**159**	*711*	*4*	*0*	*153*	*547*	*5*	**784**	*874*	*706*
E. N. Central	**0**	**175**	**650**	**7**	**2**	**219**	*631*	*7*	*0*	*217*	*542*	*7*	**832**	*858*	*767*
W. N. Central	**0**	**223**	**729**	**2**	**6**	**296**	*703*	*11*	*3*	*265*	*674*	*10*	**954**	*1,015*	*953*
South Atlantic	**154**	**755**	**1,296**	**308**	**195**	**621**	*1,236*	*230*	*127*	*671*	*1,185*	*249*	**2,513**	*2,282*	*2,231*
E. S. Central	**29**	**549**	**1,215**	**87**	**72**	**423**	*1,075*	*65*	*30*	*538*	*1,079*	*72*	**1,880**	*1,635*	*1,718*
W. S. Central	**72**	**817**	**1,689**	**167**	**172**	**835**	*1,546*	*210*	*98*	*892*	*1,530*	*212*	**2,745**	*2,764*	*2,732*
Mountain	**10**	**342**	**985**	**59**	**9**	**467**	*1,037*	*78*	*19*	*430*	*934*	*80*	**1,397**	*1,591*	*1,463*
Pacific	**22**	**166**	**589**	**67**	**24**	**197**	*644*	*59*	*27*	*168*	*585*	*59*	**844**	*924*	*840*
U.S. Average	**46**	**398**	**952**	**105**	**70**	**396**	*936*	*94*	*46*	*409*	*867*	*99*	**1,500**	*1,497*	*1,421*
Cooling Degree Days, Prior 10-year Average															
New England	**0**	**79**	**455**	**1**	**0**	**83**	*471*	*1*	*0*	*81*	*475*	*1*	**536**	*554*	*557*
Middle Atlantic	**0**	**165**	**589**	**6**	**0**	**170**	*609*	*6*	*0*	*163*	*613*	*6*	**760**	*786*	*782*
E. N. Central	**3**	**242**	**548**	**7**	**3**	**240**	*579*	*8*	*3*	*234*	*574*	*7*	**799**	*829*	*819*
W. N. Central	**7**	**298**	**669**	**11**	**7**	**296**	*697*	*11*	*7*	*294*	*690*	*11*	**985**	*1,011*	*1,003*
South Atlantic	**120**	**684**	**1,180**	**239**	**127**	**696**	*1,202*	*247*	*143*	*680*	*1,196*	*254*	**2,224**	*2,272*	*2,273*
E. S. Central	**36**	**555**	**1,049**	**67**	**36**	**557**	*1,082*	*72*	*42*	*532*	*1,066*	*73*	**1,706**	*1,746*	*1,712*
W. S. Central	**103**	**897**	**1,552**	**205**	**100**	**891**	*1,575*	*207*	*114*	*879*	*1,571*	*210*	**2,757**	*2,773*	*2,774*
Mountain	**25**	**438**	**932**	**81**	**24**	**433**	*939*	*81*	*24*	*445*	*949*	*82*	**1,476**	*1,476*	*1,500*
Pacific	**31**	**185**	**631**	**76**	**31**	**185**	*624*	*78*	*31*	*193*	*640*	*79*	**923**	*918*	*943*
U.S. Average	**46**	**417**	**873**	**97**	**47**	**420**	*892*	*100*	*52*	*415*	*894*	*102*	**1,433**	*1,459*	*1,463*

- = no data available

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

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

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

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

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

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