



Short-Term Energy Outlook

Forecast highlights

Global liquid fuels

- The December *Short-Term Energy Outlook* (STEO) remains subject to heightened levels of uncertainty because responses to 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 and will continue to affect these patterns in the future. U.S. gross domestic product (GDP) declined by 4.4% in the first half of 2020 from the same period a year ago. GDP began rising in the third quarter of 2020, and this STEO assumes it will grow by 3.1% annually in 2021 from 2020. The U.S. macroeconomic assumptions in this outlook are based on forecasts by IHS Markit completed in early November.
- Brent crude oil spot prices averaged \$43 per barrel (b) in November, up \$3/b from the average in October. Brent prices increased in November in part because of news about the viability of multiple COVID-19 vaccines, along with market expectations that the Organization of the Petroleum Exporting Countries (OPEC) and partner countries (OPEC+) would delay or limit production increases planned for January 2021.
- The U.S. Energy Information Administration (EIA) expects that Brent prices will average \$49/b in 2021, up from an expected average of \$43/b in the fourth quarter of 2020. The forecast for higher crude oil prices next year reflects EIA's expectation that while inventories will remain high, they will decline with rising global oil demand and restrained OPEC+ oil production. EIA forecasts Brent prices will average \$47/b in the first quarter of 2021 and rise to an average of \$50/b by the fourth quarter. The first quarter 2021 average is \$5/b more than forecast in last month's STEO, and the fourth quarter average is \$1/b more. The higher expected first quarter prices reflect steeper expected global oil inventory draws as a result of the [December 3 OPEC+ decision](#) to limit its previously planned production increases in January 2021. EIA expects high global oil inventory levels and surplus crude oil production capacity will limit upward pressure on oil prices through much of 2021.
- EIA forecasts OPEC crude oil production will average 27.5 million barrels per day (b/d) in 2021, up from an estimated 25.6 million b/d in 2020. The increase reflects OPEC's announced potential increases to production targets and production increases in Libya. At the December 3 meeting, OPEC and OPEC+ participants decided to limit oil production increases planned for January 2021. OPEC+ announced it will increase its

production target by 0.5 million b/d in January 2021. The group had initially planned to increase its target by 2.0 million b/d. The group will also assess the state of global oil markets and petroleum demand monthly, adjusting targets based on market conditions. EIA now forecasts OPEC crude oil production will average 25.7 million b/d in the first quarter of 2021, which is 1.7 million b/d lower than forecast in the November STEO and reflects the announced changes to OPEC+ targets and more effective assumed compliance with targets.

- EIA estimates that the world consumed 95.6 million b/d of petroleum and liquid fuels in November, which is down 6.3 million b/d from November 2019 but up from the third-quarter 2020 average of 93.5 million b/d. EIA forecasts that global consumption of petroleum and liquid fuels will average 92.4 million b/d for all of 2020, which is down by 8.8 million b/d from 2019, before increasing by 5.8 million b/d in 2021.
- EIA estimates that U.S. crude oil production was 11.2 million b/d in November, which is up from 10.9 million b/d in September (the most recent month for which historical data are available). The increase mostly reflects greater production in the U.S. Federal Gulf of Mexico after hurricane-related disruptions. EIA expects that U.S. crude oil production will decline to less than 11.0 million b/d in March 2021 mostly because of falling production in the Lower 48 states, where EIA expects declining production rates at existing wells will outpace production from newly drilled wells in the coming months. EIA expects crude oil production in the Lower 48 states will increase from 8.7 million b/d in February 2021 to 9.1 million b/d in December 2021, as drilling increases in response to rising oil prices. This increase contributes to total U.S. crude oil production reaching 11.4 million b/d in December 2021. On an annual average basis, EIA expects U.S. crude oil production to fall from 12.2 million b/d in 2019 to 11.3 million b/d in 2020 and 11.1 million b/d in 2021.

Natural Gas

- In November, the Henry Hub natural gas spot price averaged \$2.61 per million British thermal units (MMBtu), up from the October average of \$2.39/MMBtu. Price increases last month were moderated by significantly warmer-than-normal temperatures, which reduced residential space heating demand for natural gas despite many remaining at home in response to the pandemic. EIA expects Henry Hub spot prices to reach a monthly average of \$3.10/MMBtu in January 2021, which is down from the forecast January average price of \$3.42/MMBtu in last month's STEO. Although EIA still expects prices to increase in the coming months because of rising space heating demand and rising U.S. liquefied natural gas (LNG) exports amid declining U.S. natural gas production, the lower January price forecast reflects higher forecast storage levels this winter compared with last month's forecast. EIA expects that monthly average spot prices will average \$3.01/MMBtu in 2021, which is up from the forecast average of \$2.07/MMBtu for 2020.

- U.S. working natural gas in storage ended October at almost 4.0 trillion cubic feet (Tcf), 5% more than the five-year (2015–19) average and the second-highest end-of-October level on record. EIA estimates that inventories fell by 20 billion cubic feet (Bcf) in November, compared with a five-year average November withdrawal of 103 Bcf and a forecast withdrawal of 222 Bcf in last month’s STEO. The lower-than-expected withdrawal is the result of warmer-than-normal November temperatures that reduced natural gas use for space heating. However, EIA forecasts that declines in U.S. natural gas production this winter compared with last winter will more than offset the declines in natural gas consumption, which will contribute to inventory withdrawals outpacing the five-year average during the remainder of the winter season that ends in March. Forecast natural gas inventories end March 2021 at 1.6 Tcf, 15% lower than the 2016–20 average.
- EIA expects that total U.S. consumption of natural gas will average 83.4 billion cubic feet per day (Bcf/d) in 2020, down 2.0% from 2019. The decline in total U.S. consumption reflects warmer temperatures in 2020 compared with 2019 that lowered residential space heating demand for natural gas despite many staying home in response to the pandemic. EIA expects residential demand in 2020 to average 12.9 Bcf/d (down 0.8 Bcf/d from 2019) and commercial demand in 2020 to average 8.6 Bcf/d (down 1.0 Bcf/d from 2019). EIA forecasts industrial consumption will average 22.5 Bcf/d in 2020 (down 0.5 Bcf/d from 2019) as a result of reduced manufacturing activity. EIA expects total U.S. natural gas consumption will average 79.4 Bcf/d in 2021, a 4.8% decline from 2020. The forecast decline in 2021 results from rising natural gas prices that lower forecast natural gas demand in the electric power sector.
- EIA forecasts U.S. dry natural gas production will average 90.9 Bcf/d in 2020, which is down from an average of 93.1 Bcf/d in 2019. In the forecast, monthly average production falls from a record 97.0 Bcf/d in December 2019 to 87.1 Bcf/d in April 2021 before increasing slightly. EIA forecasts dry natural gas production in the United States to average 87.9 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. The increase in crude oil prices is expected to raise associated gas production from oil-directed wells in late-2021, especially in the Permian region.
- EIA estimates that the United States exported 9.4 Bcf/d of LNG in November—the most for any month on record. International spot and forward LNG prices continued to increase in late November, supported by reduced global LNG supply because of outages at LNG export plants in several countries and reported congestion at the Panama Canal, which affected westbound U.S. LNG exports to Asia. EIA expects LNG demand to continue increasing. The primary drivers of this increase are forecasts of colder-than-normal winter weather in Northern Asia and Europe and coal plant closures in South Korea that could increase demand for natural gas for power generation. EIA forecasts that U.S. LNG exports will exceed 9.5 Bcf/d from December through February and will average 8.5 Bcf/d in 2021, a 30% increase from 2020.

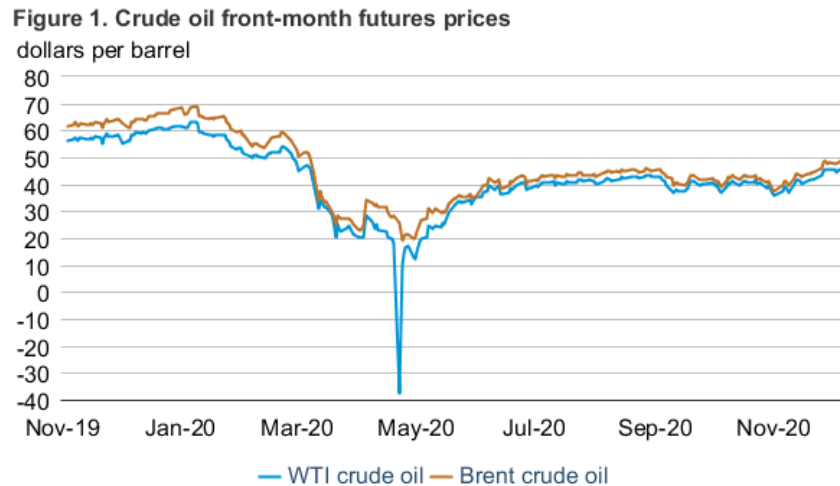
Electricity, coal, renewables, and emissions

- EIA forecasts that consumption of electricity in the United States will decrease by 3.9% in 2020. EIA expects retail sales of electricity in the commercial sector to fall this year by 5.9% and by 8.8% in the industrial sector. EIA forecasts residential sector retail sales will rise by 1.5% in 2020. Milder winter temperatures in early 2020 led to less residential consumption for space heating, but this effect was offset by increased summer cooling demand and increased electricity use by more people staying home in response to the pandemic. EIA forecasts total U.S. electricity consumption will rise by 1.3% in 2021. The increase in electricity consumption next year is a result of forecast colder temperatures in the first quarter compared with the same period last year, in addition to continued higher consumption as many people will still be at home more because of the pandemic.
- EIA expects the share of U.S. electric power sector generation from natural gas will increase from 37% in 2019 to 39% this year. In 2021, the forecast natural gas share declines to 34% in response to a forecast increase in the price of natural gas delivered to electricity generators from an average of \$2.44/MMBtu in 2020 to \$3.38/MMBtu in 2021 (an increase of 39%). Coal's forecast share of electricity generation falls from 24% in 2019 to 20% in 2020 and then returns to 24% in 2021. Electricity generation from renewable energy sources rises from 18% in 2019 to 20% in 2020 and to 21% in 2021. The nuclear share of U.S. generation remains close to 20% through the forecast period.
- In 2020, EIA expects U.S. residential electricity prices to average 13.1 cents per kilowatthour, which is 0.8% higher than the average electricity price in 2019. Annual changes in regional residential electricity prices this year range from 0.4% lower in the South Atlantic region to 3.7% higher in the Pacific region.
- EIA forecasts that planned additions to wind and solar generating capacity in 2020 and 2021 will contribute to increasing electricity generation from those sources. EIA expects the U.S. electric power sector will add 23.0 gigawatts (GW) of new wind capacity in 2020 and 9.5 GW of new capacity in 2021. Expected utility-scale solar capacity rises by 12.8 GW in 2020 and by 14.0 GW in 2021.
- EIA forecasts U.S. coal production to total 521 million short tons (MMst) in 2020, a 26% decline from 2019. Forecast coal production rises to 624 MMst in 2021, a 20% increase from 2020 levels. EIA expects coal production to grow because of increased coal demand from the electric power sector amid higher natural gas prices in 2021.
- EIA expects that U.S. energy-related carbon dioxide (CO₂) emissions, after [decreasing by almost 3% in 2019](#) from the previous year's level, will decrease by 11% in 2020. This decline in emissions is the result of less energy consumption related to slowing economic growth in response to the COVID-19 pandemic. EIA expects emissions from coal will be down 19% from 2019 and emissions from petroleum will be down 13% from 2019. In 2021, EIA forecasts that energy-related CO₂ emissions will increase by 6% from the 2020 level 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 \$48.71 per barrel (b) on December 3, 2020, an increase of \$9.74/b from November 2, 2020. The front-month futures price for West Texas Intermediate (WTI) crude oil for delivery at Cushing, Oklahoma, increased by \$8.83/b during the same period, settling at \$45.64/b on December 3 (Figure 1).



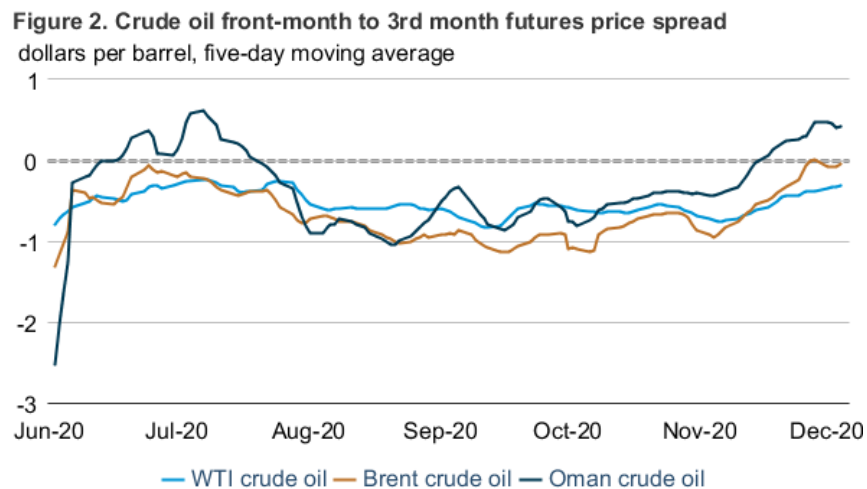
Sources: CME Group and Intercontinental Exchange, as compiled by Bloomberg L.P.
Note: WTI=West Texas Intermediate.

In late November, crude oil prices reached their highest levels since early March, before responses to COVID-19 affected worldwide economies. Prices for crude oil as well as other risk assets such as equities and industrial metals all increased in response to optimism following the announcement of the efficacy of several COVID-19 vaccine candidates, and the price increase likely reflects solidified market expectations for economic recovery during 2021. This optimism came despite record highs in daily cases of COVID-19 during November, which is slowing the recovery in transportation demand in the near term, particularly in Europe and regions of the United States.

The [meeting on December 3](#) between members of the Organization of the Petroleum Exporting Countries (OPEC) and partner countries (OPEC+) resulted in a change to their production cuts beginning in January 2021. The group had initially planned to raise production by 2.0 million barrels per day (b/d) in January 2021 but will instead raise production by 0.5 million b/d. In addition, the group will assess the state of global oil markets and petroleum demand monthly, adjusting production targets based on prevailing oil market conditions. The U.S. Energy Information Administration (EIA) assumes the OPEC+ group will be highly compliant with this agreement in early 2021. EIA forecasts crude oil production from OPEC to average 25.7 million b/d in the first quarter of 2021, a 1.7 million b/d reduction from the November STEO. Partly because of EIA's forecast of more restrained OPEC+ production in 2021, EIA forecasts tighter oil markets next year, particularly in the first quarter. EIA now forecasts first-quarter 2021 global oil

inventory draws to average 1.8 million b/d, which is 1.0 million b/d more than previously forecast.

The combined effect of lower supply expectations from OPEC+ countries as well as firmer market expectations for a recovery in global oil demand is contributing to higher prices for near-term oil deliveries relative to prices for delivery further in the future. The five-day moving averages for the Oman crude oil 1st–3rd spread approached 50 cents/b in late November, and Brent’s spread settled at -4 cents/b on December 3. The WTI spread also increased, but by less than the other crude oils (**Figure 2**).

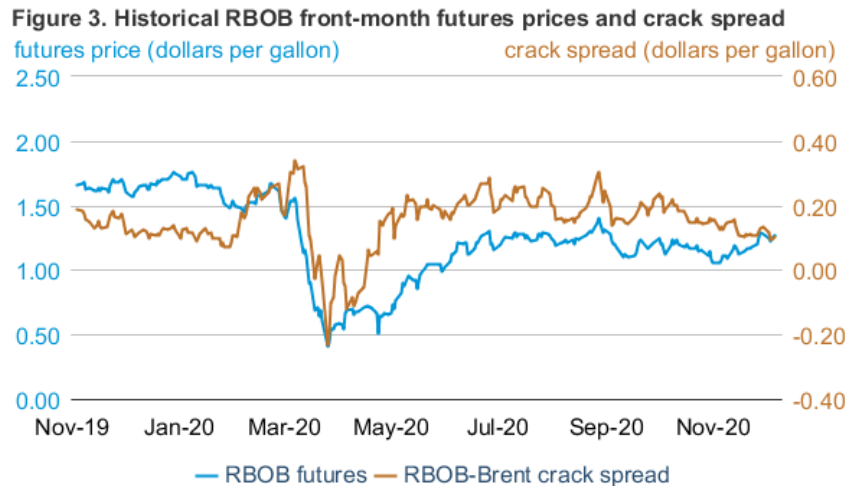


Sources: CME Group, Dubai Mercantile Exchange, and Intercontinental Exchange, as compiled by Bloomberg L.P.
Note: WTI=West Texas Intermediate.

The increasing crude oil price spreads reflect both the global oil inventory drawdown since June 2020 as well as expectations for increasing demand and continued stock draws in the coming months. Higher Oman crude oil price spreads, which generally reflect Middle Eastern crude oil exported to Asia, could reflect increasing demand and refinery runs from China, India, or other Asian countries. China’s National Bureau of Statistics reported that crude oil refinery runs in China reached an all-time high of 14.1 million b/d in October. Based on data from India’s Ministry of Petroleum & Natural Gas, EIA estimates that India’s total petroleum consumption was 4.6 million b/d in October 2020, the most of any month since February.

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 \$1.26 per gallon (gal) on December 3, up 21 cents/gal from November 2, 2020 (**Figure 3**). The RBOB–Brent crack spread (the difference between the price of RBOB and the price of Brent crude oil) decreased by 2 cents/gal to settle at 10 cents/gal during the same period.

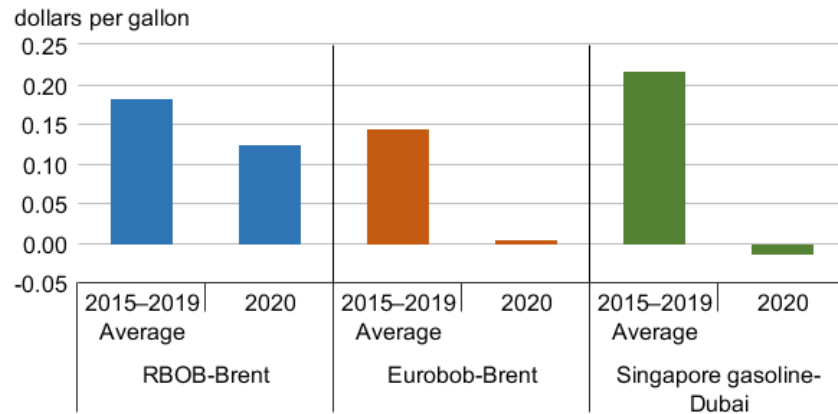


Source: CME Group, as compiled by Bloomberg L.P.
 Note: RBOB=reformulated blendstock for oxygenate blending

The gasoline crack spread started November at a six-month low of 12 cents/gal and traded within a 5-cent range during the month, the narrowest range for any month in 2020. The month’s average crack spread of 12 cents/gal was within the five-year (2015–2019) range and was down 5 cents/gal from October 2020. The crack spread decrease likely reflects higher inventories and lower consumption than in October. In this STEO, the U.S. Energy Information Administration (EIA) estimates gasoline inventories increased by 7.4 million barrels (3.3%) from October, which is slightly higher than the average five-year increase of 2.7% from October to November. EIA estimates November gasoline consumption averaged 8.2 million barrels per day (b/d), a decrease of 3.2% from October.

International gasoline crack spreads: Gasoline crack spreads in both Europe and Asia declined to historically low levels, based on the Eurobob–Brent crack spread for Europe and the Singapore gasoline–Dubai crack spread for Singapore. The European monthly average gasoline crack spread was less than 1 cent/gal, and Singapore’s was -1 cent/gal in November. Meanwhile, the RBOB–Brent crack spread averaged 12 cents/gal for the month. Although the RBOB–Brent crack spread was 6 cents/gal less than the five-year average, it remained high relative to the crack spreads for Europe and Singapore, which were 14 cents/gal and 22 cents/gal less than their five-year averages, respectively (**Figure 4**).

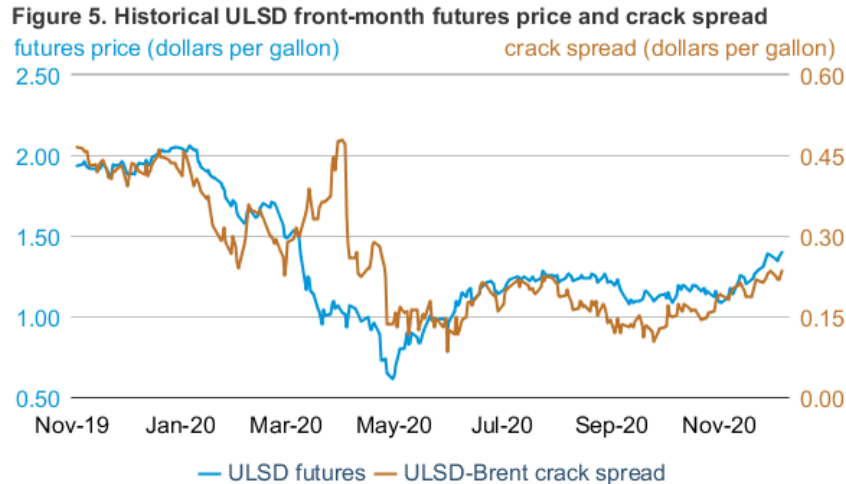
Figure 4. November gasoline crack spreads



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

Although U.S. gasoline crack spreads are less than their five-year average, gasoline crack spreads in Europe and Singapore have decreased more relative to their five-year averages. In Europe, especially high gasoline inventories likely explain the greater decrease. Gasoline inventories at the Amsterdam-Rotterdam-Antwerp hub for the week ending November 19 were at their highest November level in more than 10 years and were 68% higher than the same week a year ago. In Asia, crack spreads have decreased more than U.S. crack spreads because China increased refinery runs to 14.1 million b/d in October, up 5% from a year ago. In contrast to China, U.S. refiners have maintained low refinery runs and gasoline production levels. Furthermore, according to trade press, China exported record levels of gasoline in October, increasing product supplies throughout Asian markets.

Ultra-low sulfur diesel prices: The ultra-low sulfur diesel (ULSD) front-month futures price for delivery in New York Harbor settled at \$1.39/gal on December 3, 2020, up 28 cents/gal from November 2, 2020 (**Figure 5**). The ULSD–Brent crack spread (the difference between the price of ULSD and the price of Brent crude oil) increased by 5 cents/gal to settle at 23 cents/gal during the same period.

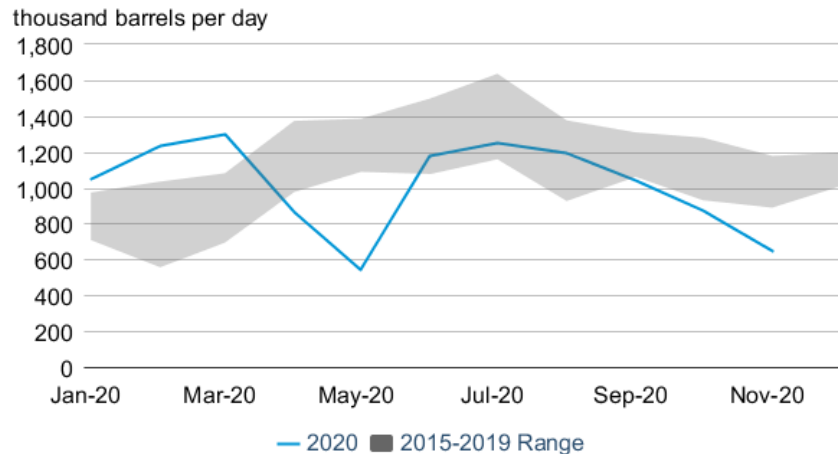


Source: CME Group, as compiled by Bloomberg L.P.
 Note: ULSD=ultra-low sulfur diesel

The average ULSD–Brent crack spread in November increased to 21 cents/gal, up 4 cents/gal from October 2020 but down 23 cents/gal from last November. EIA estimates that distillate consumption increased from October to November by 0.1 million b/d (2.6%) to 4.0 million b/d. If confirmed by monthly data, it will mark the fifth consecutive month of distillate consumption increases. In addition, since August, distillate consumption has increased by 0.4 million b/d. As distillate production has decreased to their lowest levels since 2009 in October and November, according to EIA estimates, demand has been increasingly met by distillate inventories, which have fallen by 32.8 million barrels since August 2020, the largest three-month decrease since March 2003.

Reduced net exports of distillate have provided an additional supply source. EIA estimates net exports of distillate fuel were 0.6 million b/d in November, the lowest level for November since 2010 (**Figure 6**). EIA data for the week ending November 27 show that four-week average distillate imports were 60% higher than the five-year average and four-week average exports were 20% lower than the five-year average. In addition to increased distillate consumption, the widening spread between the ULSD front-month futures price and European distillate spot price is likely contributing to the increase in net imports. The spread in November averaged 13 cents/gal, the highest monthly average since December 2017. The high spread has facilitated imports of distillate on the East Coast ([Petroleum Administration for Defense District–PADD–1](#)). Weekly EIA estimates the week ending November 27 showed East Coast distillate imports of 575,000 b/d, the highest for any week since the week ending February 5, 2010.

Figure 6. Monthly distillate net exports

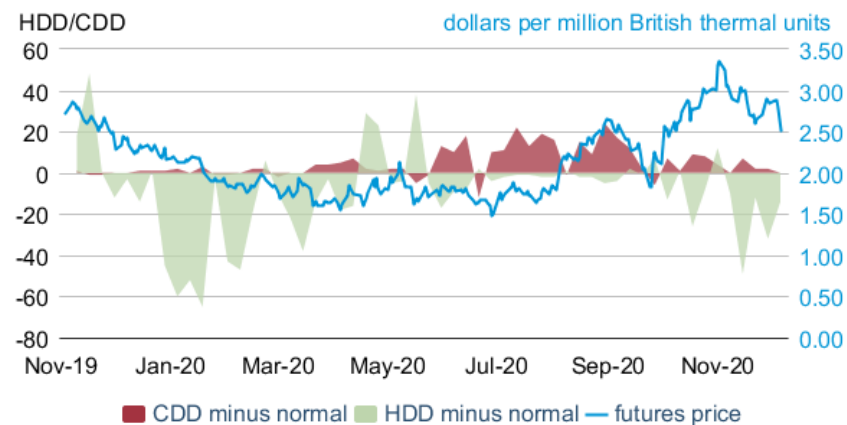


eia Source: U.S. Energy Information Administration

Natural Gas

Prices: The front-month natural gas futures contract for delivery at the Henry Hub settled at \$2.51 per million British thermal units (MMBtu) on December 3, which is down 74 cents/MMBtu from November 2 (Figure 7). The warmest November since 2001 lessened concerns of a tight natural gas market this winter and helped lower prices.

Figure 7. Natural gas front-month futures prices and actual minus historical average HDD and CDD

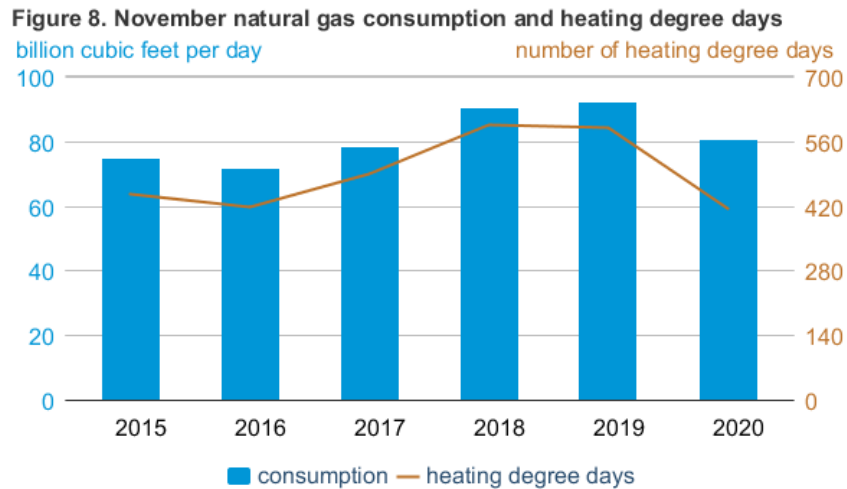


eia Sources: CME Group and National Oceanic and Atmospheric Administration, as compiled by Bloomberg L.P.
Note: HDD=heating degree days, CDD=cooling degree days.

The U.S. Energy Information Administration (EIA) estimates that natural gas inventories declined by 20 billion cubic feet (Bcf) in November, the smallest November draw since 2015. Compared with November 2019, lower natural gas consumption because of warmer temperatures helped to moderate the seasonal decline in inventories in November, even with lower natural gas production and higher liquefied natural gas (LNG) exports. Natural gas production decreased 7.1 Bcf per day (Bcf/d) from November 2019, and U.S. LNG exports rose to a record high in

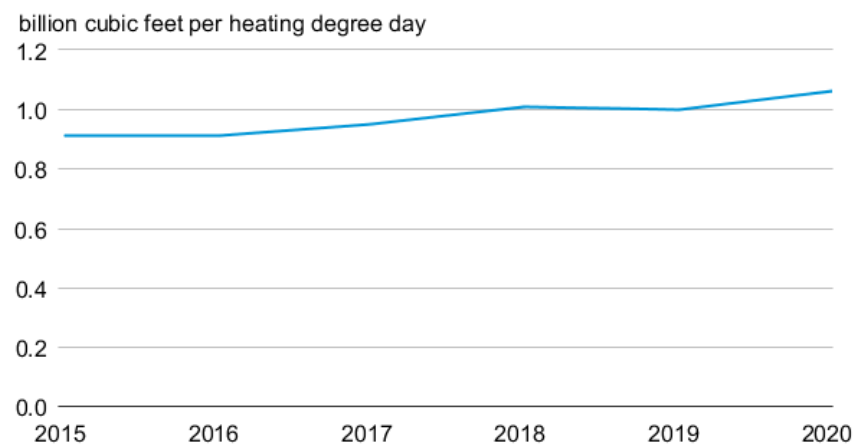
November, up 3.0 Bcf/d from November 2019. Despite lower production and higher LNG exports, natural gas inventories remain 281 Bcf (8%) higher than the five-year (2015–19) average.

Natural gas consumption and heating degree days: U.S. heating degree days (HDD) in November were 21% less than the 2010–19 average (and 30% less than in November 2019), which contributed to an estimate of the lowest natural gas consumption in November since 2017 (**Figure 8**). EIA forecasts that consumption in the commercial sector fell 29% from November 2019, in the residential sector by 25%, and in the power generation sector by 6%. Even though temperatures in November 2020 were the warmest since 2001, estimated consumption in 2020 still remained higher than in any previous November except 2018 and 2019 because the size of the overall natural gas market in the United States has increased. Much of this growth has been in the industrial and electric power sectors. Considering the longer-term trends, EIA estimates that U.S. natural gas consumption for the full year 2020 increased 56% compared with 2010 in the electric power sector and 21% in the industrial sector. In addition, responses to COVID-19 in 2020 that have resulted in more people working, attending school, and spending more time at home have likely contributed to greater residential consumption relative to the level of HDD. Compared with the five-year average, residential consumption per HDD increased 11% in November 2020 (**Figure 9**).



 Sources: U.S. Energy Information Administration and National Oceanic and Atmospheric Administration

Figure 9. November residential natural gas consumption per heating degree day



 Sources: U.S. Energy Information Administration and National Oceanic and Atmospheric Administration

Notable forecast changes

- The U.S. Energy Information Administration (EIA) updated its *International Energy Statistics* (IES) database during November to include 2018 data for petroleum consumption from countries outside of the Organization for Economic Cooperation and Development. The *Short-Term Energy Outlook* (STEO) uses IES for its historical global liquid fuels consumption and production data. Based on this IES update, EIA reports that global liquid fuels consumption averaged 100.4 million barrels per day (b/d) in 2018, 0.2 million b/d lower than estimated in the November STEO. This lower historical baseline for 2018 carries through to estimates and forecasts for 2019 through 2021. EIA now estimates global liquid fuels consumption averaged 101.2 million b/d in 2019, which is 0.3 million b/d less than estimated in the November STEO. EIA forecasts global liquid fuels consumption will average 92.4 million b/d in 2020 and 98.2 million b/d in 2021.
- EIA forecasts OPEC crude oil production will average 27.5 million b/d in 2021, which is 1.0 million b/d lower than previously forecast. The reduction in the forecast reflects EIA's updated assumptions about OPEC production and compliance following the group's December 3 meeting at which OPEC and partner countries announced they were limiting production increases planned for January 2021 to 0.5 million b/d from the previously announced 2.0 million b/d.
- EIA forecasts Henry Hub natural gas spot prices will average \$3.01 per million British thermal units (MMBtu) in 2021, which is down from a forecast of \$3.14/MMBtu in the November STEO. The lower forecast reflects EIA's expectation of higher inventory levels during 2021 compared with last month's forecast.

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

Short-Term Energy Outlook Chart Gallery



December 8, 2020

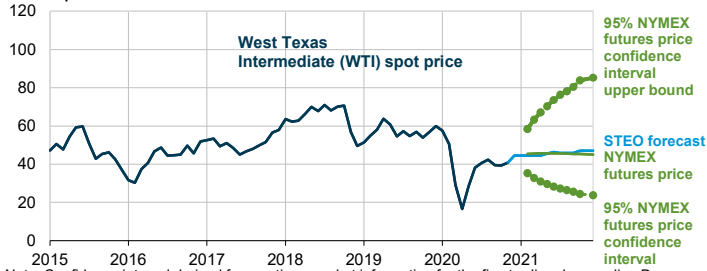


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West Texas Intermediate (WTI) crude oil price and NYMEX confidence intervals

dollars per barrel



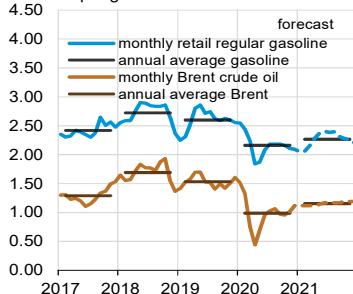
Note: Confidence interval derived from options market information for the five trading days ending Dec 3, 2020. Intervals not calculated for months with sparse trading in near-the-money options contracts.

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



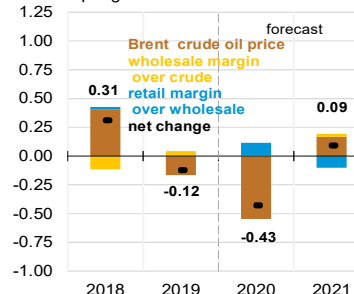
U.S. gasoline and crude oil prices

dollars per gallon



Components of annual gasoline price changes

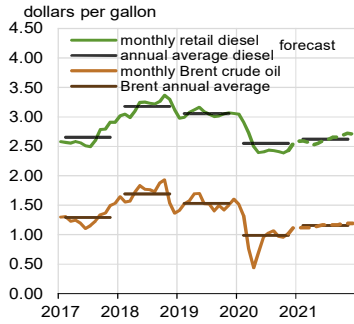
dollars per gallon



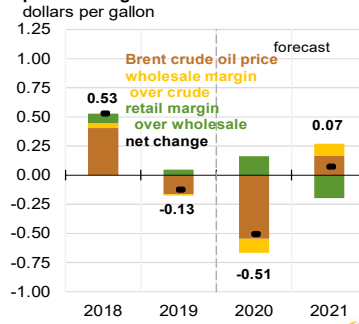
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2020



U.S. diesel and crude oil prices



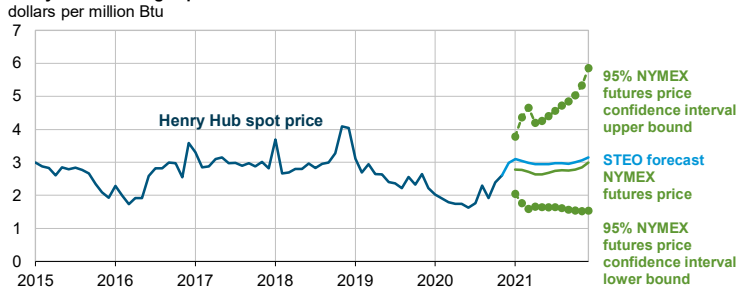
Components of annual diesel prices changes



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



Henry Hub natural gas price and NYMEX confidence intervals

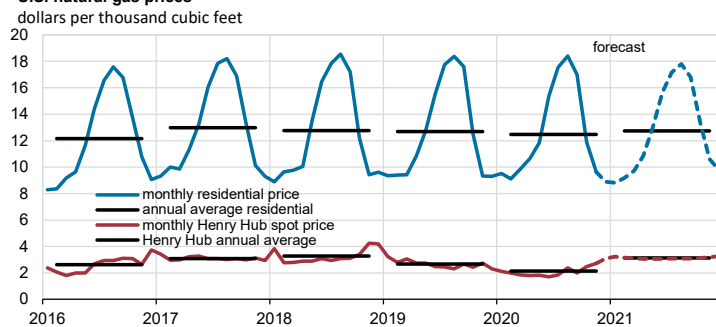


Note: Confidence interval derived from options market information for the five trading days ending Dec 3, 2020. Intervals not calculated for months with sparse trading in near-the-money options contracts.

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



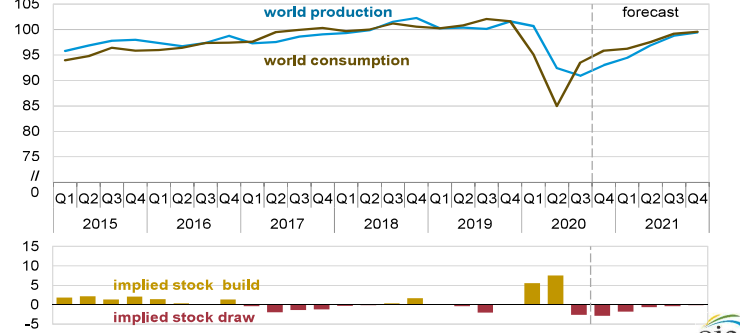
U.S. natural gas prices



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



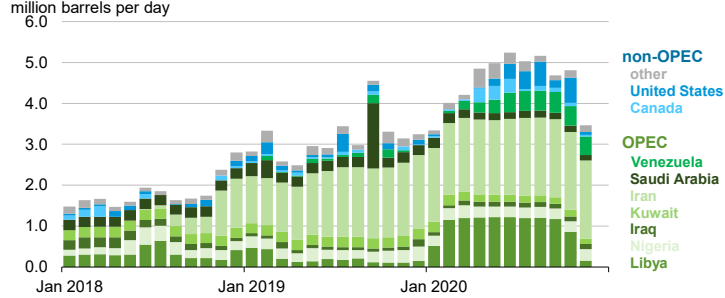
World liquid fuels production and consumption balance
million barrels per day



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



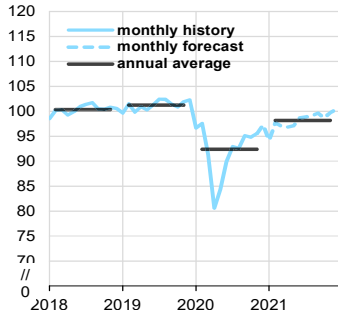
Estimated unplanned liquid fuels production outages among OPEC and non-OPEC producers
million barrels per day



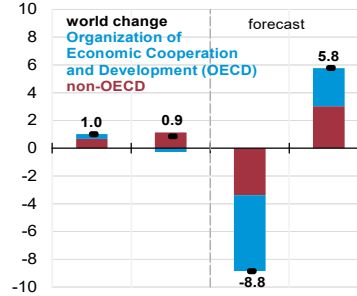
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2020



World liquid fuels consumption
million barrels per day



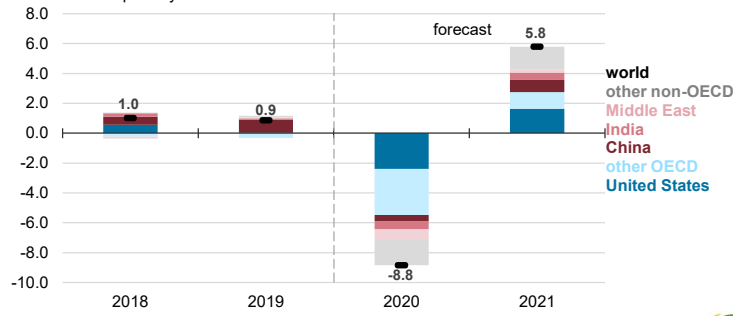
Components of annual change
million barrels per day



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



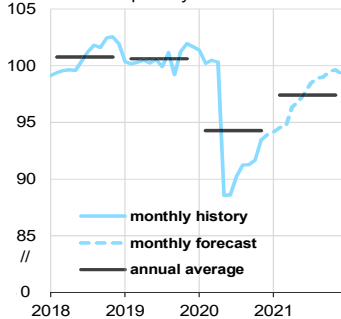
Annual change in world liquid fuels consumption
million barrels per day



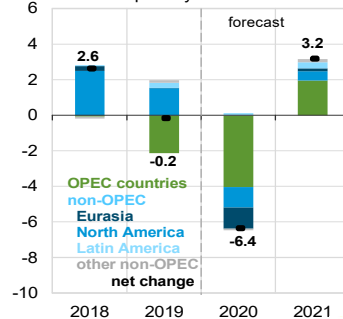
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2020



World crude oil and liquid fuels production
million barrels per day



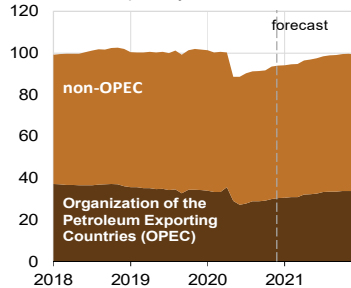
Components of annual change
million barrels per day



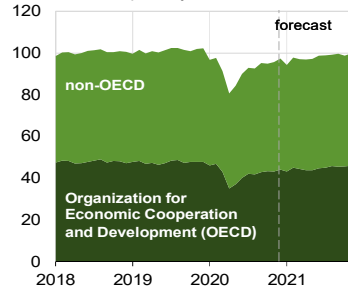
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2020



World liquid fuels production
million barrels per day



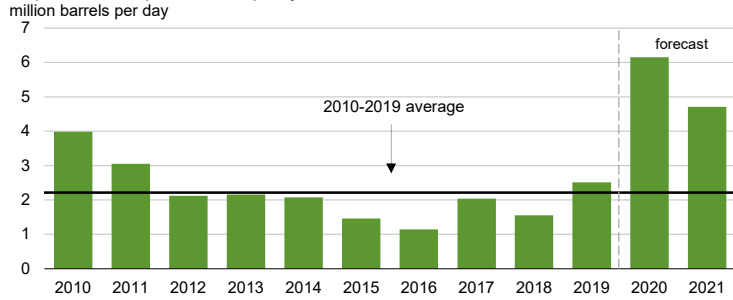
World liquid fuels consumption
million barrels per day



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



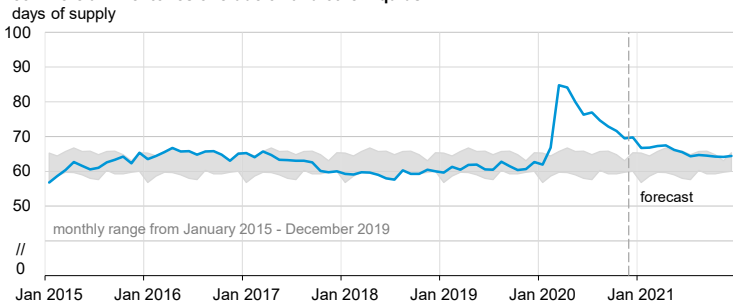
**Organization of the Petroleum Exporting Countries (OPEC)
surplus crude oil production capacity**



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



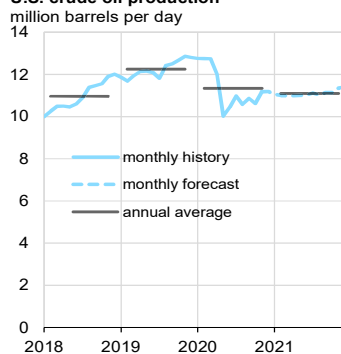
**Organization for Economic Cooperation and Development (OECD)
commercial inventories of crude oil and other liquids**



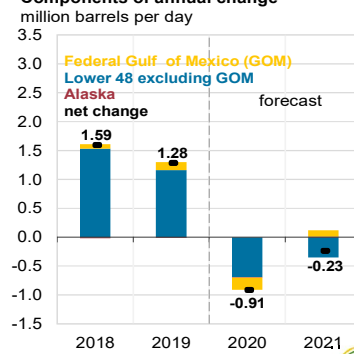
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2020



U.S. crude oil production



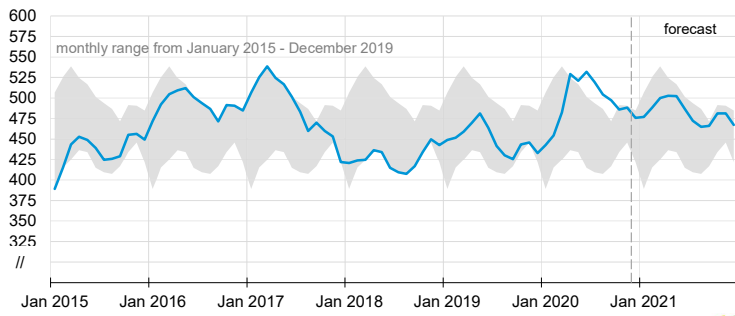
Components of annual change



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



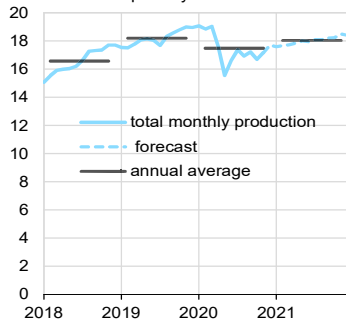
U.S. commercial crude oil inventories
million barrels



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

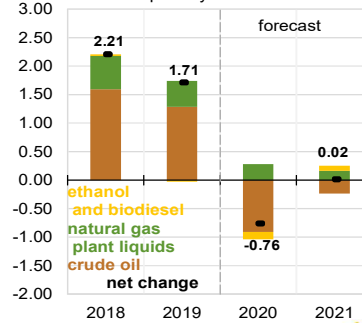


U.S. crude oil and liquid fuels production
million barrels per day

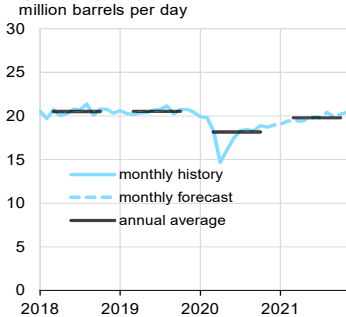


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2020

Components of annual change
million barrels per day

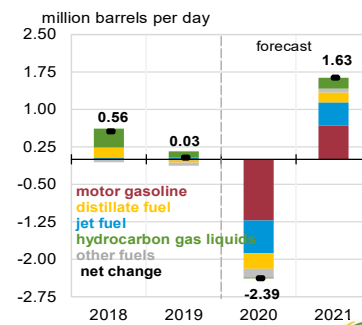


U.S. liquid fuels product supplied (consumption)
million barrels per day

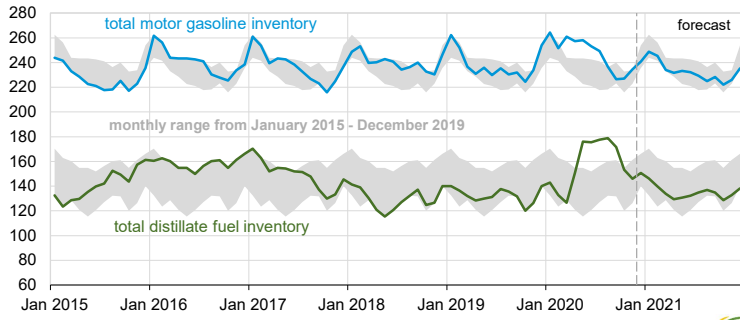


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2020

Components of annual change
million barrels per day



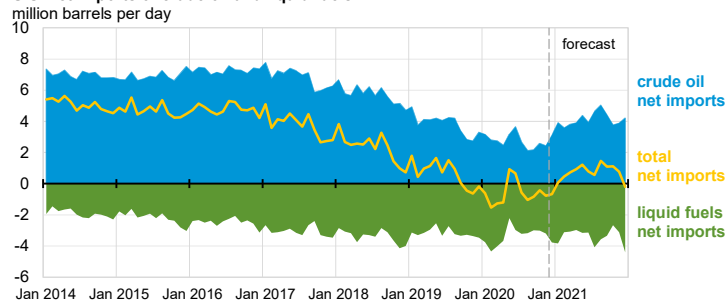
U.S. gasoline and distillate inventories
million barrels



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



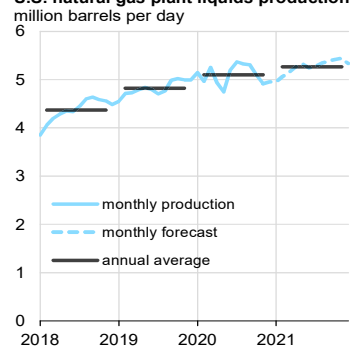
U.S. net imports of crude oil and liquid fuels



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, December 2020

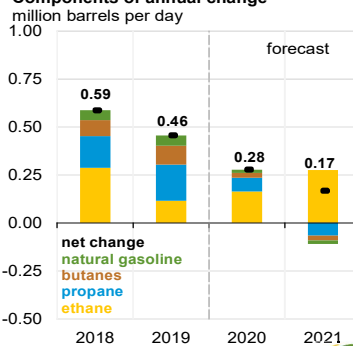


U.S. natural gas plant liquids production

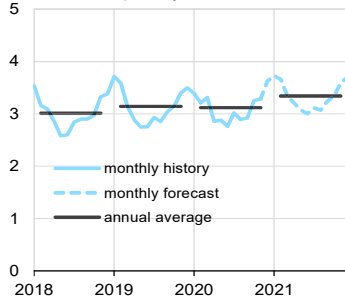


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2020

Components of annual change

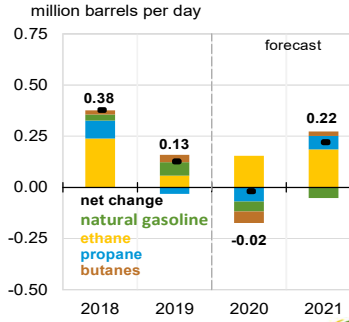


U.S. hydrocarbon gas liquids product supplied (consumption)
million barrels per day

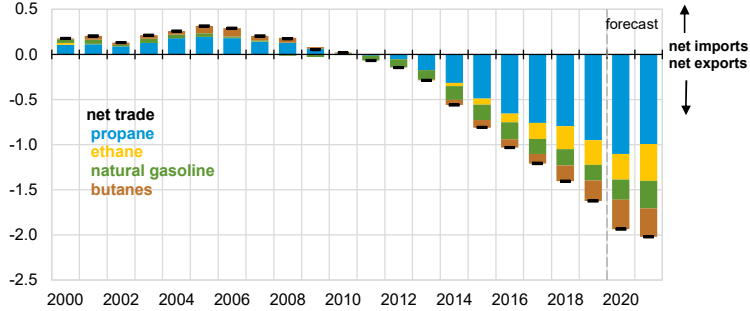


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2020

Components of annual change



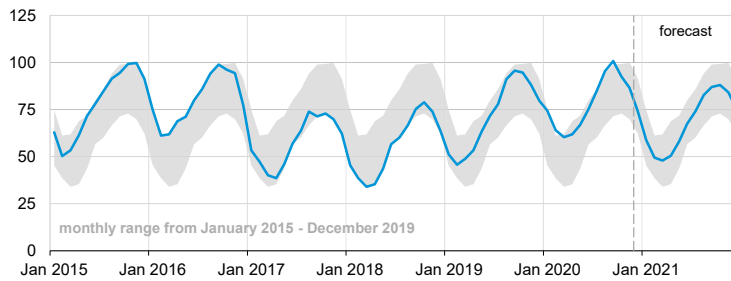
U.S. net trade of hydrocarbon gas liquids (HGL)
million barrels per day



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



U.S. commercial propane inventories
million barrels

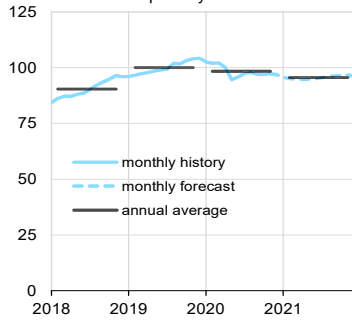


Note: Excludes propylene.

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



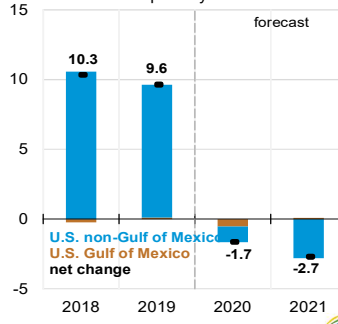
U.S. marketed natural gas production
billion cubic feet per day



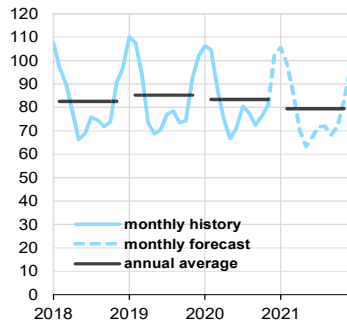
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2020



Components of annual change
billion cubic feet per day



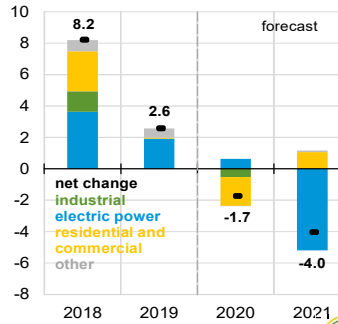
U.S. natural gas consumption
billion cubic feet per day



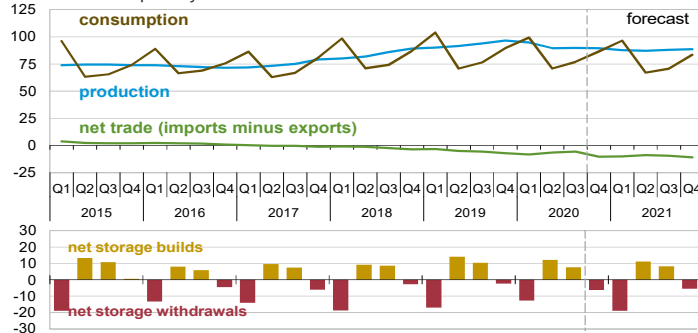
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2020



Components of annual change
billion cubic feet per day



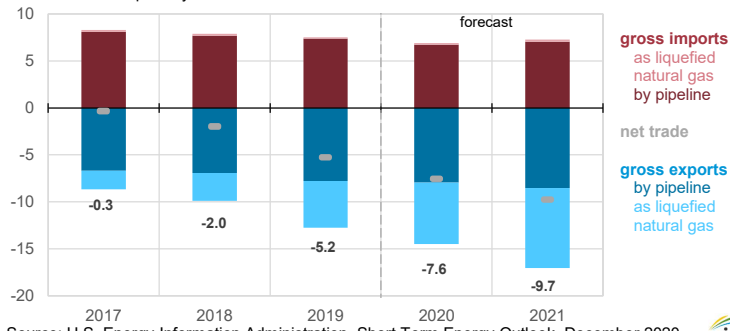
U.S. natural gas production, consumption, and net imports
billion cubic feet per day



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



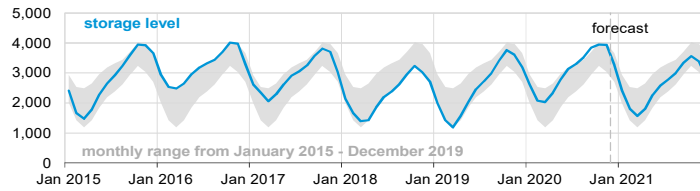
U.S. annual natural gas trade
billion cubic feet per day



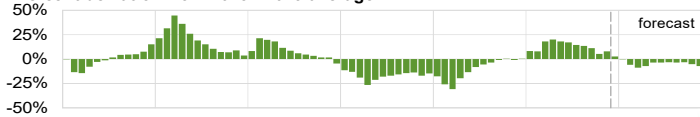
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2020



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



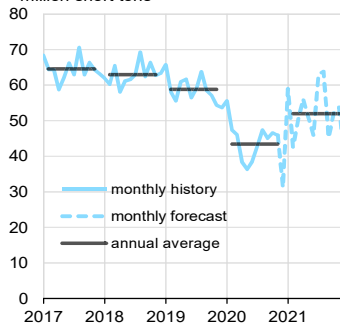
Percent deviation from 2015 - 2019 average



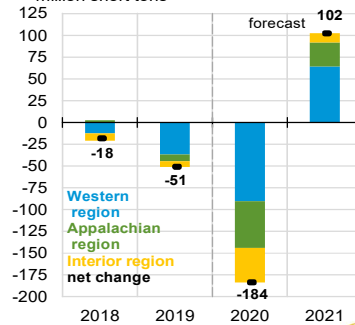
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2020



U.S. coal production
million short tons



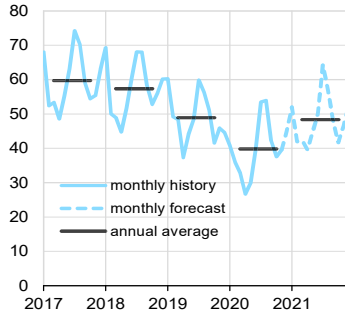
Components of annual change
million short tons



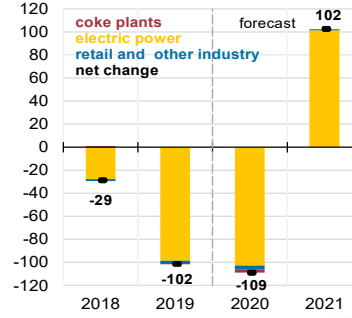
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2020



U.S. coal consumption
million short tons



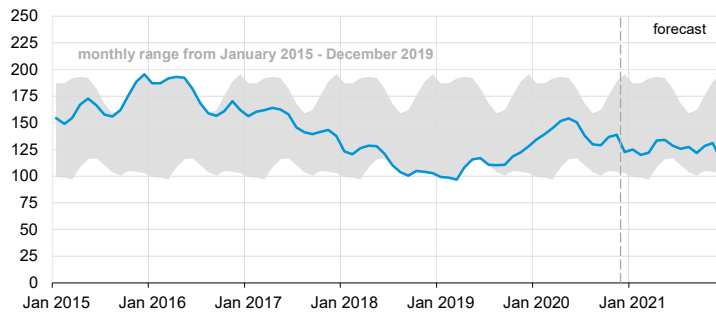
Components of annual change
million short tons



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



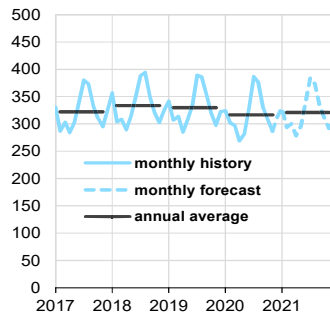
U.S. electric power coal inventories
million short tons



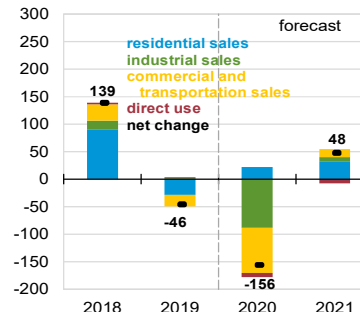
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2020



U.S. electricity consumption
billion kilowatthours



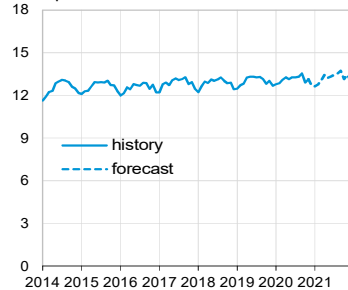
Components of annual change
billion kilowatthours



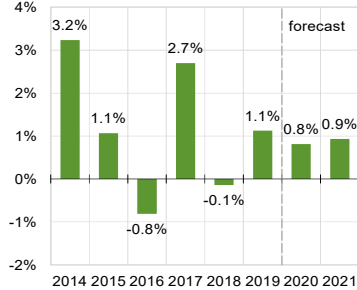
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2020



U.S. monthly residential electricity price
cents per kilowatthour



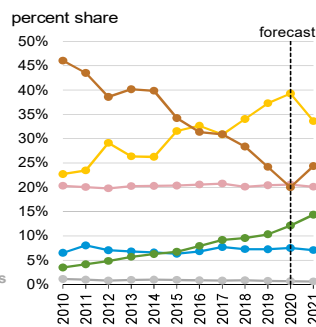
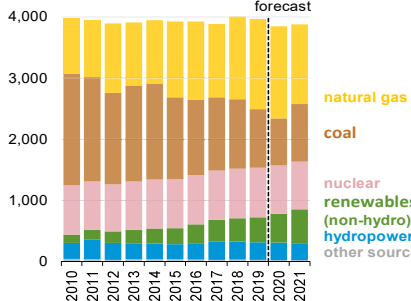
Annual growth in residential electricity prices
percent



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



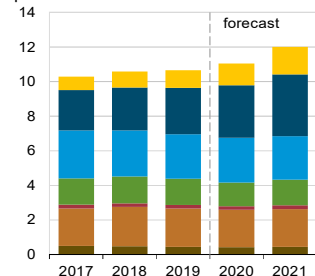
U.S. electricity generation by fuel, all sectors
billion kilowatthours



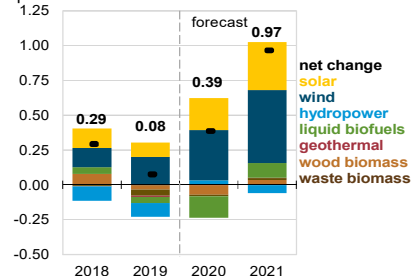
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2020



U.S. renewable energy supply
quadrillion British thermal units



Components of annual change
quadrillion British thermal units

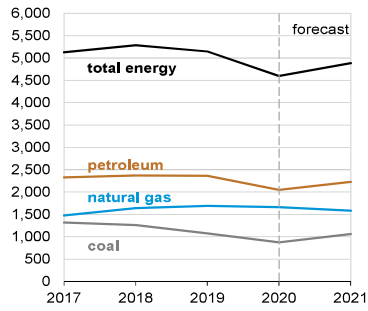


Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol and biodiesel. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste.

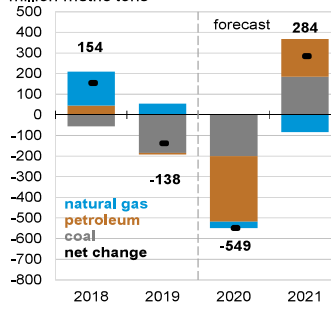
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2020



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



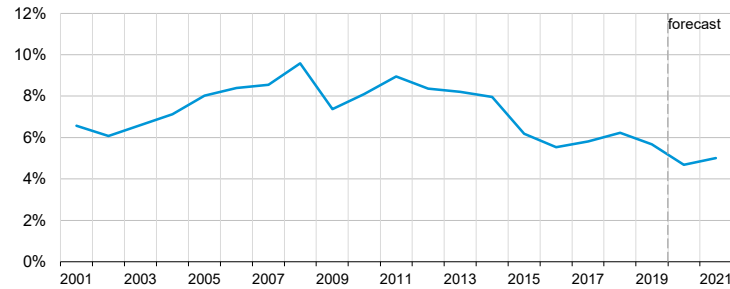
Components of annual change
million metric tons



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



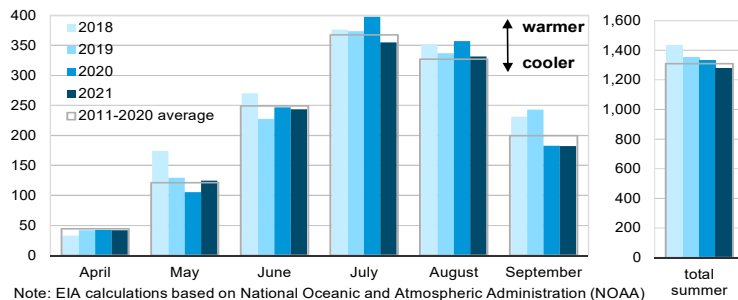
U.S. annual energy expenditures
share of gross domestic product



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



U.S. summer cooling degree days
population-weighted

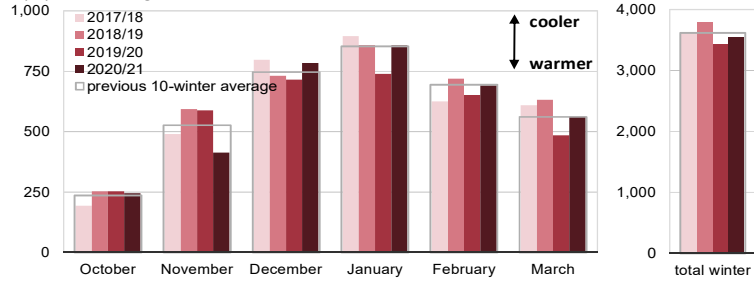


Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

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



U.S. winter heating degree days
population-weighted

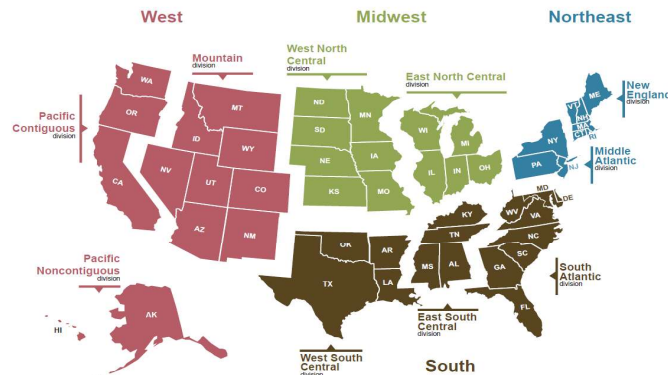


Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 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 - December 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	10.80	10.99	11.02	11.00	11.09	11.29	12.25	<i>11.34</i>	<i>11.10</i>
Dry Natural Gas Production (billion cubic feet per day)	90.01	91.57	94.00	96.58	94.79	89.67	89.72	89.36	87.65	87.25	88.13	88.61	93.06	<i>90.88</i>	<i>87.91</i>
Coal Production (million short tons)	180	179	181	165	149	113	135	124	152	153	172	147	705	<i>521</i>	<i>624</i>
Energy Consumption															
Liquid Fuels (million barrels per day)	20.36	20.46	20.72	20.63	19.33	16.08	18.36	18.85	19.30	19.61	20.03	20.21	20.54	<i>18.16</i>	<i>19.79</i>
Natural Gas (billion cubic feet per day)	103.92	70.95	76.35	89.62	99.31	70.89	76.89	86.59	96.56	67.00	70.67	83.48	85.15	<i>83.41</i>	<i>79.37</i>
Coal (b) (million short tons)	158	130	167	132	109	96	149	122	136	134	168	141	587	<i>478</i>	<i>580</i>
Electricity (billion kilowatt hours per day)	10.69	10.19	12.26	10.22	10.15	9.64	11.87	9.87	10.26	10.03	11.86	10.02	10.84	<i>10.39</i>	<i>10.54</i>
Renewables (c) (quadrillion Btu)	2.77	3.07	2.81	2.75	2.93	3.01	2.85	2.88	3.15	3.34	3.07	3.10	11.39	<i>11.67</i>	<i>12.66</i>
Total Energy Consumption (d) (quadrillion Btu)	26.60	23.50	24.95	25.23	25.12	20.66	23.37	23.58	24.89	22.61	23.87	24.41	100.27	<i>92.72</i>	<i>95.78</i>
Energy Prices															
Crude Oil West Texas Intermediate Spot (dollars per barrel)	54.82	59.88	56.35	56.86	45.34	27.96	40.89	41.63	44.50	45.52	46.00	47.00	56.99	<i>38.96</i>	<i>45.78</i>
Natural Gas Henry Hub Spot (dollars per million Btu)	2.92	2.56	2.38	2.40	1.91	1.71	2.00	2.66	3.05	2.95	2.97	3.07	2.57	<i>2.07</i>	<i>3.01</i>
Coal (dollars per million Btu)	2.07	2.04	1.99	1.93	1.92	1.90	1.91	2.01	2.05	2.06	2.04	2.04	2.01	<i>1.94</i>	<i>2.05</i>
Macroeconomic															
Real Gross Domestic Product (billion chained 2012 dollars - SAAR)	18,950	19,021	19,142	19,254	19,011	17,303	18,584	18,749	18,872	18,923	19,014	19,109	19,092	<i>18,412</i>	<i>18,979</i>
Percent change from prior year	2.3	2.0	2.1	2.3	0.3	-9.0	-2.9	-2.6	-0.7	9.4	2.3	1.9	2.2	<i>-3.6</i>	<i>3.1</i>
GDP Implicit Price Deflator (Index, 2012=100)	111.5	112.2	112.6	113.0	113.4	112.9	113.9	114.3	114.8	115.4	115.9	116.5	112.3	<i>113.6</i>	<i>115.7</i>
Percent change from prior year	2.0	1.8	1.7	1.6	1.7	0.6	1.1	1.2	1.2	2.3	1.8	1.9	1.8	<i>1.1</i>	<i>1.8</i>
Real Disposable Personal Income (billion chained 2012 dollars - SAAR)	14,854	14,818	14,895	14,965	15,061	16,576	15,852	15,283	15,079	15,054	15,071	15,074	14,883	<i>15,693</i>	<i>15,070</i>
Percent change from prior year	3.2	2.1	1.8	1.6	1.4	11.9	6.4	2.1	0.1	-9.2	-4.9	-1.4	2.2	<i>5.4</i>	<i>-4.0</i>
Manufacturing Production Index (Index, 2012=100)	106.5	105.7	105.9	105.8	104.4	89.2	99.8	100.9	101.2	100.8	100.5	100.7	106.0	<i>98.6</i>	<i>100.8</i>
Percent change from prior year	1.6	0.1	-0.6	-1.1	-2.0	-15.5	-5.8	-4.6	-3.1	12.9	0.7	-0.2	0.0	<i>-7.0</i>	<i>2.2</i>
Weather															
U.S. Heating Degree-Days	2,209	480	56	1,557	1,875	541	70	1,443	2,109	483	70	1,494	4,302	<i>3,929</i>	<i>4,157</i>
U.S. Cooling Degree-Days	45	399	954	105	70	395	937	127	45	410	869	99	1,503	<i>1,529</i>	<i>1,424</i>

- = no data available

Prices are not adjusted for inflation.

(a) Includes lease condensate.

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

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

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

(d) The conversion from physical units to Btu is calculated using a subset of conversion factors used in the calculations of gross energy consumption in EIA's Monthly Energy Review (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 - December 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	40.89	41.63	44.50	45.52	46.00	47.00	56.99	38.96	45.78
Brent Spot Average	63.14	69.04	61.90	63.30	49.97	29.52	42.97	43.31	47.00	48.02	49.00	50.00	64.34	41.43	48.53
U.S. Imported Average	55.39	62.93	57.31	55.60	43.76	26.33	39.58	39.66	42.05	42.90	43.25	44.00	57.95	37.01	43.07
U.S. Refiner Average Acquisition Cost	57.08	63.54	58.67	58.05	47.48	26.88	41.26	42.04	43.55	43.92	44.25	45.00	59.36	39.87	44.19
U.S. Liquid Fuels (cents per gallon)															
Refiner Prices for Resale															
Gasoline	167	205	189	182	153	104	137	129	139	159	159	148	186	132	151
Diesel Fuel	192	203	192	197	160	97	124	133	148	154	159	162	196	129	156
Fuel Oil	189	195	184	191	160	87	113	126	143	145	152	158	190	126	150
Refiner Prices to End Users															
Jet Fuel	193	204	194	197	165	85	116	128	144	146	153	157	197	132	150
No. 6 Residual Fuel Oil (a)	153	163	155	163	176	93	116	133	109	106	105	107	158	129	106
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	236	279	265	259	241	194	218	212	209	235	236	225	260	217	227
Gasoline All Grades (b)	245	288	274	269	251	203	227	222	221	248	250	238	269	227	240
On-highway Diesel Fuel	302	312	302	306	289	243	243	245	258	256	264	271	306	255	262
Heating Oil	300	305	290	301	280	200	214	237	256	258	268	289	300	247	268
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	3.03	2.66	2.47	2.49	1.98	1.77	2.07	2.76	3.17	3.07	3.08	3.19	2.67	2.15	3.13
Henry Hub Spot (dollars per million Btu)	2.92	2.56	2.38	2.40	1.91	1.71	2.00	2.66	3.05	2.95	2.97	3.07	2.57	2.07	3.01
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	4.66	3.73	3.29	3.74	3.52	2.85	2.88	3.68	4.43	3.99	3.98	4.30	3.90	3.27	4.19
Commercial Sector	7.55	7.95	8.41	7.20	7.13	7.63	8.48	7.51	7.52	8.19	8.81	7.91	7.59	7.47	7.89
Residential Sector	9.39	12.36	17.90	9.78	9.46	11.89	17.62	9.65	9.18	12.47	17.23	10.66	10.46	10.51	10.65
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.07	2.04	1.99	1.93	1.92	1.90	1.91	2.01	2.05	2.06	2.04	2.04	2.01	1.94	2.05
Natural Gas	3.72	2.73	2.51	2.79	2.41	2.10	2.27	3.08	3.69	3.24	3.22	3.48	2.89	2.44	3.38
Residual Fuel Oil (c)	12.22	13.39	12.80	12.53	12.15	6.65	8.51	7.87	8.90	9.81	9.44	9.37	12.73	8.81	9.37
Distillate Fuel Oil	14.85	15.76	14.99	15.11	13.27	8.39	10.31	10.59	11.70	12.17	12.48	12.80	15.16	10.73	12.31
Retail Prices (cents per kilowatthour)															
Industrial Sector	6.67	6.69	7.20	6.65	6.37	6.63	7.09	6.71	6.44	6.72	7.10	6.74	6.81	6.71	6.76
Commercial Sector	10.43	10.66	11.00	10.55	10.33	10.63	10.97	10.47	10.27	10.76	11.20	10.64	10.67	10.61	10.74
Residential Sector	12.67	13.30	13.24	12.83	12.90	13.24	13.36	12.90	12.82	13.34	13.57	13.18	13.01	13.12	13.24

- = no data available

Prices are not adjusted for inflation.

(a) Average for all sulfur contents.

(b) Average self-service cash price.

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

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

Prices exclude taxes unless otherwise noted.

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - December 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	32.90	29.42	29.87	30.33	30.90	30.95	31.21	31.69	31.66	30.63	31.19
U.S. (50 States)	18.87	19.35	19.45	20.20	20.22	17.58	18.30	18.23	18.37	18.64	18.82	19.06	19.47	18.58	18.72
Canada	5.44	5.47	5.47	5.63	5.65	4.94	4.89	5.42	5.71	5.69	5.70	5.71	5.50	5.22	5.70
Mexico	1.91	1.91	1.93	1.93	2.00	1.94	1.91	1.87	1.84	1.85	1.82	1.82	1.92	1.93	1.83
Other OECD	4.85	4.59	4.63	4.99	5.03	4.96	4.77	4.82	4.97	4.78	4.88	5.10	4.77	4.89	4.93
Non-OECD	69.21	69.09	68.62	68.87	67.79	63.03	61.04	62.67	63.56	65.96	67.58	67.76	68.95	63.62	66.23
OPEC	35.38	34.91	33.89	34.33	33.49	30.59	28.45	29.85	30.72	32.24	33.41	33.69	34.63	30.58	32.53
Crude Oil Portion	29.94	29.47	28.66	29.02	28.28	25.64	23.61	24.95	25.68	27.27	28.45	28.73	29.27	25.61	27.54
Other Liquids (b)	5.44	5.44	5.24	5.31	5.21	4.95	4.84	4.90	5.04	4.97	4.96	4.96	5.36	4.97	4.98
Eurasia	14.85	14.42	14.58	14.66	14.76	13.20	12.74	13.09	13.31	13.54	13.69	13.81	14.63	13.44	13.59
China	4.89	4.92	4.89	4.88	4.94	4.90	4.95	4.96	4.95	4.99	5.00	5.05	4.89	4.94	5.00
Other Non-OECD	14.09	14.84	15.26	15.00	14.61	14.34	14.90	14.77	14.57	15.19	15.47	15.21	14.80	14.66	15.11
Total World Supply	100.28	100.42	100.10	101.63	100.69	92.45	90.91	93.00	94.46	96.91	98.79	99.45	100.61	94.25	97.42
Non-OPEC Supply	64.89	65.51	66.21	67.30	67.21	61.86	62.47	63.16	63.73	64.68	65.37	65.76	65.98	63.67	64.89
Consumption (million barrels per day) (c)															
OECD	47.51	46.94	48.07	47.69	45.24	37.37	42.20	43.51	44.13	44.04	45.39	45.75	47.55	42.08	44.83
U.S. (50 States)	20.36	20.46	20.72	20.63	19.33	16.08	18.36	18.85	19.30	19.61	20.03	20.21	20.54	18.16	19.79
U.S. Territories	0.16	0.14	0.15	0.15	0.13	0.12	0.12	0.13	0.14	0.12	0.13	0.14	0.15	0.13	0.13
Canada	2.30	2.31	2.57	2.49	2.33	1.88	2.15	2.24	2.24	2.21	2.34	2.33	2.42	2.15	2.28
Europe	14.03	14.18	14.66	14.06	13.35	10.98	12.90	12.76	12.66	13.04	13.68	13.41	14.24	12.50	13.20
Japan	4.05	3.39	3.43	3.74	3.69	2.89	3.01	3.36	3.63	2.99	3.07	3.38	3.65	3.24	3.27
Other OECD	6.61	6.46	6.54	6.62	6.42	5.43	5.66	6.17	6.16	6.07	6.13	6.28	6.56	5.92	6.16
Non-OECD	52.76	53.90	54.04	53.98	49.87	47.58	51.33	52.38	52.13	53.51	53.80	53.85	53.67	50.30	53.33
Eurasia	5.01	5.08	5.47	5.31	4.87	4.50	5.30	5.18	4.90	5.00	5.44	5.31	5.22	4.96	5.17
Europe	0.75	0.75	0.76	0.77	0.71	0.69	0.72	0.72	0.72	0.72	0.73	0.74	0.76	0.71	0.73
China	14.70	14.90	14.61	14.83	13.76	13.97	14.56	15.03	15.06	15.29	15.00	15.22	14.76	14.33	15.14
Other Asia	13.97	14.15	13.76	14.11	13.25	11.72	12.71	13.54	13.90	14.18	13.82	14.18	14.00	12.81	14.02
Other Non-OECD	18.33	19.03	19.43	18.96	17.28	16.69	18.04	17.91	17.55	18.31	18.80	18.40	18.94	17.48	18.27
Total World Consumption	100.28	100.84	102.10	101.68	95.11	84.94	93.53	95.89	96.26	97.56	99.19	99.61	101.23	92.38	98.16
Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)															
U.S. (50 States)	0.15	-0.60	0.06	0.29	-0.43	-1.68	0.49	1.16	0.29	-0.23	-0.05	0.44	-0.02	-0.11	0.11
Other OECD	-0.20	0.01	-0.16	0.39	-0.54	-1.15	0.18	0.55	0.49	0.27	0.14	-0.09	0.01	-0.24	0.20
Other Stock Draws and Balance	0.05	1.01	2.10	-0.63	-4.61	-4.67	1.95	1.17	1.02	0.60	0.31	-0.19	0.63	-1.52	0.43
Total Stock Draw	0.00	0.42	2.00	0.05	-5.58	-7.51	2.62	2.88	1.80	0.64	0.41	0.16	0.62	-1.87	0.75
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	1,422	1,322	1,304	1,332	1,339	1,301	1,282	1,322	1,301
OECD Commercial Inventory	2,864	2,922	2,931	2,879	2,967	3,204	3,156	3,006	2,943	2,946	2,940	2,910	2,879	3,006	2,910

- = 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 - December 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	24.46	25.10	<i>25.52</i>	<i>25.93</i>	<i>26.18</i>	<i>26.33</i>	<i>26.59</i>	26.89	<i>25.73</i>	<i>26.26</i>
Canada	5.44	5.47	5.47	5.63	5.65	4.94	4.89	<i>5.42</i>	<i>5.71</i>	<i>5.69</i>	<i>5.70</i>	<i>5.71</i>	5.50	<i>5.22</i>	<i>5.70</i>
Mexico	1.91	1.91	1.93	1.93	2.00	1.94	1.91	<i>1.87</i>	<i>1.84</i>	<i>1.85</i>	<i>1.82</i>	<i>1.82</i>	1.92	<i>1.93</i>	<i>1.83</i>
United States	18.87	19.35	19.45	20.20	20.22	17.58	18.30	<i>18.23</i>	<i>18.37</i>	<i>18.64</i>	<i>18.82</i>	<i>19.06</i>	19.47	<i>18.58</i>	<i>18.72</i>
Central and South America	5.44	6.22	6.80	6.45	6.05	6.09	6.64	<i>6.42</i>	<i>6.14</i>	<i>6.77</i>	<i>7.05</i>	<i>6.82</i>	6.23	<i>6.30</i>	<i>6.70</i>
Argentina	0.66	0.70	0.70	0.70	0.69	0.58	0.57	<i>0.63</i>	<i>0.66</i>	<i>0.63</i>	<i>0.62</i>	<i>0.67</i>	0.69	<i>0.62</i>	<i>0.65</i>
Brazil	2.90	3.65	4.23	3.89	3.44	3.89	4.32	<i>3.93</i>	<i>3.57</i>	<i>4.34</i>	<i>4.67</i>	<i>4.29</i>	3.67	<i>3.90</i>	<i>4.22</i>
Colombia	0.92	0.92	0.91	0.91	0.90	0.78	0.77	<i>0.84</i>	<i>0.87</i>	<i>0.78</i>	<i>0.75</i>	<i>0.82</i>	0.92	<i>0.82</i>	<i>0.80</i>
Ecuador	0.53	0.53	0.55	0.52	0.54	0.35	0.52	<i>0.52</i>	<i>0.53</i>	<i>0.53</i>	<i>0.52</i>	<i>0.53</i>	0.53	<i>0.48</i>	<i>0.53</i>
Other Central and S. America	0.42	0.41	0.42	0.43	0.48	0.48	0.46	<i>0.48</i>	<i>0.51</i>	<i>0.50</i>	<i>0.49</i>	<i>0.51</i>	0.42	<i>0.48</i>	<i>0.50</i>
Europe	4.27	3.97	3.96	4.29	4.39	4.31	4.15	<i>4.28</i>	<i>4.43</i>	<i>4.24</i>	<i>4.34</i>	<i>4.57</i>	4.12	<i>4.28</i>	<i>4.40</i>
Norway	1.79	1.58	1.66	1.96	2.06	2.01	1.96	<i>2.02</i>	<i>2.16</i>	<i>2.09</i>	<i>2.13</i>	<i>2.26</i>	1.75	<i>2.01</i>	<i>2.16</i>
United Kingdom	1.25	1.17	1.11	1.15	1.17	1.16	1.03	<i>1.10</i>	<i>1.11</i>	<i>1.00</i>	<i>1.05</i>	<i>1.14</i>	1.17	<i>1.11</i>	<i>1.08</i>
Eurasia	14.85	14.42	14.58	14.66	14.76	13.20	12.74	<i>13.09</i>	<i>13.31</i>	<i>13.54</i>	<i>13.69</i>	<i>13.81</i>	14.63	<i>13.44</i>	<i>13.59</i>
Azerbaijan	0.81	0.78	0.77	0.76	0.77	0.70	0.67	<i>0.68</i>	<i>0.69</i>	<i>0.72</i>	<i>0.73</i>	<i>0.74</i>	0.78	<i>0.70</i>	<i>0.72</i>
Kazakhstan	2.03	1.85	1.96	2.02	2.06	1.86	1.71	<i>1.79</i>	<i>1.83</i>	<i>1.81</i>	<i>1.86</i>	<i>1.89</i>	1.97	<i>1.85</i>	<i>1.85</i>
Russia	11.58	11.41	11.48	11.50	11.55	10.25	9.98	<i>10.23</i>	<i>10.42</i>	<i>10.65</i>	<i>10.74</i>	<i>10.82</i>	11.49	<i>10.50</i>	<i>10.66</i>
Turkmenistan	0.29	0.23	0.22	0.23	0.24	0.24	0.24	<i>0.25</i>	<i>0.24</i>	<i>0.24</i>	<i>0.24</i>	<i>0.24</i>	0.24	<i>0.24</i>	<i>0.24</i>
Other Eurasia	0.15	0.15	0.15	0.15	0.15	0.15	0.14	<i>0.14</i>	<i>0.13</i>	<i>0.13</i>	<i>0.13</i>	<i>0.13</i>	0.15	<i>0.14</i>	<i>0.13</i>
Middle East	3.14	3.14	3.14	3.14	3.24	3.18	3.15	<i>3.16</i>	<i>3.23</i>	<i>3.27</i>	<i>3.29</i>	<i>3.29</i>	3.14	<i>3.18</i>	<i>3.27</i>
Oman	0.98	0.98	0.98	0.99	1.01	0.95	0.92	<i>0.92</i>	<i>0.96</i>	<i>1.00</i>	<i>1.02</i>	<i>1.02</i>	0.98	<i>0.95</i>	<i>1.00</i>
Qatar	2.00	2.00	2.00	2.00	2.06	2.06	2.06	<i>2.06</i>	<i>2.10</i>	<i>2.10</i>	<i>2.10</i>	<i>2.10</i>	2.00	<i>2.06</i>	<i>2.10</i>
Asia and Oceania	9.50	9.53	9.38	9.49	9.44	9.17	9.26	<i>9.26</i>	<i>9.28</i>	<i>9.27</i>	<i>9.27</i>	<i>9.28</i>	9.48	<i>9.28</i>	<i>9.28</i>
Australia	0.42	0.47	0.51	0.54	0.49	0.50	0.50	<i>0.50</i>	<i>0.50</i>	<i>0.49</i>	<i>0.49</i>	<i>0.48</i>	0.49	<i>0.49</i>	<i>0.49</i>
China	4.89	4.92	4.89	4.88	4.94	4.90	4.95	<i>4.96</i>	<i>4.95</i>	<i>4.99</i>	<i>5.00</i>	<i>5.05</i>	4.89	<i>4.94</i>	<i>5.00</i>
India	1.01	0.99	0.97	0.98	0.96	0.90	0.92	<i>0.90</i>	<i>0.91</i>	<i>0.89</i>	<i>0.89</i>	<i>0.88</i>	0.99	<i>0.92</i>	<i>0.89</i>
Indonesia	0.93	0.93	0.91	0.91	0.91	0.89	0.88	<i>0.88</i>	<i>0.87</i>	<i>0.86</i>	<i>0.85</i>	<i>0.84</i>	0.92	<i>0.89</i>	<i>0.85</i>
Malaysia	0.75	0.73	0.65	0.72	0.72	0.61	0.63	<i>0.61</i>	<i>0.63</i>	<i>0.62</i>	<i>0.62</i>	<i>0.61</i>	0.71	<i>0.64</i>	<i>0.62</i>
Vietnam	0.27	0.27	0.25	0.24	0.24	0.23	0.22	<i>0.22</i>	<i>0.22</i>	<i>0.22</i>	<i>0.22</i>	<i>0.21</i>	0.26	<i>0.23</i>	<i>0.22</i>
Africa	1.48	1.50	1.50	1.49	1.46	1.45	1.43	<i>1.43</i>	<i>1.40</i>	<i>1.40</i>	<i>1.40</i>	<i>1.40</i>	1.49	<i>1.44</i>	<i>1.40</i>
Egypt	0.65	0.64	0.64	0.63	0.62	0.61	0.59	<i>0.60</i>	<i>0.57</i>	<i>0.57</i>	<i>0.57</i>	<i>0.57</i>	0.64	<i>0.60</i>	<i>0.57</i>
South Sudan	0.15	0.16	0.16	0.16	0.15	0.15	0.17	<i>0.16</i>	<i>0.17</i>	<i>0.17</i>	<i>0.18</i>	<i>0.18</i>	0.16	<i>0.16</i>	<i>0.17</i>
Total non-OPEC liquids	64.89	65.51	66.21	67.30	67.21	61.86	62.47	<i>63.16</i>	<i>63.73</i>	<i>64.68</i>	<i>65.37</i>	<i>65.76</i>	65.98	<i>63.67</i>	<i>64.89</i>
OPEC non-crude liquids	5.44	5.44	5.24	5.31	5.21	4.95	4.84	<i>4.90</i>	<i>5.04</i>	<i>4.97</i>	<i>4.96</i>	<i>4.96</i>	5.36	<i>4.97</i>	<i>4.98</i>
Non-OPEC + OPEC non-crude	70.33	70.95	71.45	72.61	72.41	66.81	67.30	<i>68.06</i>	<i>68.77</i>	<i>69.64</i>	<i>70.34</i>	<i>70.72</i>	71.34	<i>68.64</i>	<i>69.87</i>
Unplanned non-OPEC Production Outages	0.38	0.28	0.41	0.33	0.18	0.90	0.66	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	0.35	<i>n/a</i>	<i>n/a</i>

- = 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 - December 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	0.84	-	-	-	-	-	1.02	-	-
Angola	1.50	1.43	1.40	1.36	1.36	1.26	1.17	-	-	-	-	-	1.42	-	-
Congo (Brazzaville)	0.33	0.33	0.33	0.32	0.29	0.29	0.28	-	-	-	-	-	0.32	-	-
Equatorial Guinea	0.11	0.11	0.13	0.13	0.13	0.12	0.11	-	-	-	-	-	0.12	-	-
Gabon	0.20	0.20	0.20	0.20	0.19	0.18	0.15	-	-	-	-	-	0.20	-	-
Iran	2.63	2.33	2.10	2.03	2.02	1.97	1.90	-	-	-	-	-	2.27	-	-
Iraq	4.75	4.70	4.70	4.65	4.56	4.16	3.70	-	-	-	-	-	4.70	-	-
Kuwait	2.74	2.72	2.70	2.70	2.77	2.48	2.25	-	-	-	-	-	2.72	-	-
Libya	0.93	1.14	1.13	1.17	0.35	0.08	0.11	-	-	-	-	-	1.09	-	-
Nigeria	1.58	1.65	1.71	1.67	1.72	1.55	1.44	-	-	-	-	-	1.65	-	-
Saudi Arabia	10.00	9.92	9.38	9.83	9.80	9.28	8.77	-	-	-	-	-	9.78	-	-
United Arab Emirates	3.12	3.12	3.13	3.20	3.30	2.88	2.55	-	-	-	-	-	3.14	-	-
Venezuela	1.05	0.79	0.73	0.73	0.77	0.50	0.35	-	-	-	-	-	0.83	-	-
OPEC Total	29.94	29.47	28.66	29.02	28.28	25.64	23.61	24.95	25.68	27.27	28.45	28.73	29.27	25.61	27.54
Other Liquids (a)	5.44	5.44	5.24	5.31	5.21	4.95	4.84	4.90	5.04	4.97	4.96	4.96	5.36	4.97	4.98
Total OPEC Supply	35.38	34.91	33.89	34.33	33.49	30.59	28.45	29.85	30.72	32.24	33.41	33.69	34.63	30.58	32.53
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	5.48	6.27	5.88	6.00	6.01	6.02	6.66	5.79	5.98
OPEC Total	32.37	32.22	31.22	31.34	31.43	31.63	31.54	32.44	32.14	32.29	32.29	32.30	31.78	31.76	32.25
Surplus Crude Oil Production Capacity															
Middle East	2.43	2.75	2.57	2.32	3.15	5.27	6.90	6.56	6.33	4.92	3.75	3.48	2.52	5.48	4.61
Other	0.00	0.00	0.00	0.00	0.00	0.72	1.04	0.93	0.13	0.10	0.09	0.09	0.00	0.67	0.10
OPEC Total	2.43	2.75	2.57	2.32	3.15	5.99	7.94	7.49	6.46	5.02	3.84	3.57	2.52	6.15	4.71
Unplanned OPEC Production Outages	2.52	2.51	3.24	2.91	3.67	4.13	4.30	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	2.80	<i>n/a</i>	<i>n/a</i>

- = 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 - December 2020

	2019				2020				2021				2019	2020	2021
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
North America	24.74	24.85	25.36	25.13	23.65	19.46	22.18	<i>22.95</i>	<i>23.37</i>	<i>23.70</i>	<i>24.25</i>	<i>24.42</i>	25.02	<i>22.06</i>	<i>23.94</i>
Canada	2.30	2.31	2.57	2.49	2.33	1.88	2.15	<i>2.24</i>	<i>2.24</i>	<i>2.21</i>	<i>2.34</i>	<i>2.33</i>	2.42	<i>2.15</i>	<i>2.28</i>
Mexico	2.07	2.07	2.06	2.00	1.98	1.50	1.66	<i>1.84</i>	<i>1.82</i>	<i>1.87</i>	<i>1.86</i>	<i>1.87</i>	2.05	<i>1.75</i>	<i>1.86</i>
United States	20.36	20.46	20.72	20.63	19.33	16.08	18.36	<i>18.85</i>	<i>19.30</i>	<i>19.61</i>	<i>20.03</i>	<i>20.21</i>	20.54	<i>18.16</i>	<i>19.79</i>
Central and South America	6.63	6.75	6.85	6.86	6.26	5.72	6.21	<i>6.42</i>	<i>6.30</i>	<i>6.48</i>	<i>6.62</i>	<i>6.63</i>	6.78	<i>6.15</i>	<i>6.51</i>
Brazil	3.09	3.16	3.25	3.24	2.88	2.65	2.97	<i>3.07</i>	<i>2.94</i>	<i>3.05</i>	<i>3.15</i>	<i>3.16</i>	3.18	<i>2.89</i>	<i>3.08</i>
Europe	14.78	14.93	15.43	14.83	14.05	11.67	13.62	<i>13.48</i>	<i>13.38</i>	<i>13.76</i>	<i>14.42</i>	<i>14.15</i>	14.99	<i>13.21</i>	<i>13.93</i>
Eurasia	5.01	5.08	5.47	5.31	4.87	4.50	5.30	<i>5.18</i>	<i>4.90</i>	<i>5.00</i>	<i>5.44</i>	<i>5.31</i>	5.22	<i>4.96</i>	<i>5.17</i>
Russia	3.77	3.86	4.18	4.02	3.66	3.34	4.06	<i>3.93</i>	<i>3.67</i>	<i>3.80</i>	<i>4.17</i>	<i>4.04</i>	3.96	<i>3.75</i>	<i>3.92</i>
Middle East	8.11	8.67	9.05	8.39	7.59	7.52	8.41	<i>7.89</i>	<i>7.58</i>	<i>8.14</i>	<i>8.58</i>	<i>7.97</i>	8.56	<i>7.85</i>	<i>8.07</i>
Asia and Oceania	36.69	36.24	35.72	36.74	34.57	32.08	33.78	<i>35.73</i>	<i>36.38</i>	<i>36.12</i>	<i>35.60</i>	<i>36.66</i>	36.35	<i>34.04</i>	<i>36.19</i>
China	14.70	14.90	14.61	14.83	13.76	13.97	14.56	<i>15.03</i>	<i>15.06</i>	<i>15.29</i>	<i>15.00</i>	<i>15.22</i>	14.76	<i>14.33</i>	<i>15.14</i>
Japan	4.05	3.39	3.43	3.74	3.69	2.89	3.01	<i>3.36</i>	<i>3.63</i>	<i>2.99</i>	<i>3.07</i>	<i>3.38</i>	3.65	<i>3.24</i>	<i>3.27</i>
India	4.89	4.95	4.66	4.94	4.63	3.77	4.17	<i>4.70</i>	<i>4.86</i>	<i>4.91</i>	<i>4.59</i>	<i>4.86</i>	4.86	<i>4.32</i>	<i>4.81</i>
Africa	4.30	4.31	4.23	4.41	4.13	3.99	4.03	<i>4.24</i>	<i>4.34</i>	<i>4.35</i>	<i>4.28</i>	<i>4.46</i>	4.31	<i>4.10</i>	<i>4.36</i>
Total OECD Liquid Fuels Consumption	47.51	46.94	48.07	47.69	45.24	37.37	42.20	<i>43.51</i>	<i>44.13</i>	<i>44.04</i>	<i>45.39</i>	<i>45.75</i>	47.55	<i>42.08</i>	<i>44.83</i>
Total non-OECD Liquid Fuels Consumption	52.76	53.90	54.04	53.98	49.87	47.58	51.33	<i>52.38</i>	<i>52.13</i>	<i>53.51</i>	<i>53.80</i>	<i>53.85</i>	53.67	<i>50.30</i>	<i>53.33</i>
Total World Liquid Fuels Consumption	100.28	100.84	102.10	101.68	95.11	84.94	93.53	<i>95.89</i>	<i>96.26</i>	<i>97.56</i>	<i>99.19</i>	<i>99.61</i>	101.23	<i>92.38</i>	<i>98.16</i>
Oil-weighted Real Gross Domestic Product (a)															
World Index, 2015 Q1 = 100	112.0	112.9	112.8	112.4	109.0	102.2	107.9	<i>108.4</i>	<i>110.3</i>	<i>111.6</i>	<i>112.7</i>	<i>113.7</i>	112.5	<i>106.9</i>	<i>112.1</i>
Percent change from prior year	2.3	2.2	1.9	1.5	-2.7	-9.5	-4.3	<i>-3.6</i>	<i>1.2</i>	<i>9.1</i>	<i>4.4</i>	<i>4.9</i>	2.0	<i>-5.0</i>	<i>4.8</i>
OECD Index, 2015 Q1 = 100	108.9	109.8	110.0	109.5	108.1	97.6	105.3	<i>104.8</i>	<i>106.2</i>	<i>107.6</i>	<i>108.6</i>	<i>109.2</i>	109.6	<i>103.9</i>	<i>107.9</i>
Percent change from prior year	1.8	1.7	1.7	1.5	-0.8	-11.1	-4.3	<i>-4.3</i>	<i>-1.7</i>	<i>10.2</i>	<i>3.2</i>	<i>4.3</i>	1.7	<i>-5.1</i>	<i>3.8</i>
Non-OECD Index, 2015 Q1 = 100	115.0	115.9	115.5	115.3	109.9	106.7	110.5	<i>111.9</i>	<i>114.3</i>	<i>115.4</i>	<i>116.6</i>	<i>118.0</i>	115.4	<i>109.7</i>	<i>116.1</i>
Percent change from prior year	2.9	2.8	2.1	1.5	-4.4	-7.9	-4.4	<i>-3.0</i>	<i>4.0</i>	<i>8.1</i>	<i>5.5</i>	<i>5.5</i>	2.3	<i>-4.9</i>	<i>5.8</i>
Real U.S. Dollar Exchange Rate (a)															
Index, 2015 Q1 = 100	105.52	106.10	106.55	106.28	106.53	108.29	106.91	<i>106.76</i>	<i>106.01</i>	<i>105.72</i>	<i>105.30</i>	<i>104.94</i>	106.11	<i>107.12</i>	<i>105.49</i>
Percent change from prior year	4.7	3.1	0.8	-0.1	1.0	2.1	0.3	<i>0.4</i>	<i>-0.5</i>	<i>-2.4</i>	<i>-1.5</i>	<i>-1.7</i>	2.1	<i>1.0</i>	<i>-1.5</i>

- = no data available

OECD = Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, 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 - December 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	10.80	10.99	11.02	11.00	11.09	11.29	12.25	11.34	11.10
Alaska	0.49	0.47	0.43	0.48	0.48	0.41	0.44	0.48	0.49	0.44	0.44	0.48	0.47	0.45	0.46
Federal Gulf of Mexico (b)	1.86	1.93	1.83	1.96	1.96	1.69	1.45	1.64	1.86	1.82	1.74	1.76	1.90	1.69	1.79
Lower 48 States (excl GOM)	9.48	9.73	9.99	10.33	10.31	8.71	8.91	8.88	8.67	8.74	8.91	9.05	9.89	9.20	8.84
Crude Oil Net Imports (c)	4.28	4.11	3.94	2.96	2.90	3.08	2.31	2.70	3.77	4.07	4.70	3.95	3.82	2.75	4.12
SPR Net Withdrawals	0.00	0.05	0.00	0.11	0.00	-0.23	0.15	0.07	0.08	0.08	0.03	0.03	0.04	0.00	0.05
Commercial Inventory Net Withdrawals	-0.18	-0.05	0.41	-0.08	-0.55	-0.54	0.38	0.23	-0.27	0.15	0.23	-0.02	0.03	-0.12	0.02
Crude Oil Adjustment (d)	0.27	0.53	0.37	0.55	0.67	0.03	0.38	0.09	0.22	0.22	0.23	0.16	0.43	0.29	0.21
Total Crude Oil Input to Refineries	16.20	16.76	16.96	16.32	15.77	13.16	14.03	14.10	14.82	15.52	16.27	15.41	16.56	14.26	15.51
Other Supply															
Refinery Processing Gain	1.05	1.07	1.06	1.09	1.02	0.82	0.94	1.02	1.05	1.08	1.09	1.06	1.07	0.95	1.07
Natural Gas Plant Liquids Production	4.66	4.81	4.82	5.00	5.12	4.96	5.33	4.99	5.06	5.28	5.33	5.40	4.82	5.10	5.27
Renewables and Oxygenate Production (e)	1.10	1.14	1.12	1.12	1.11	0.80	1.03	1.02	1.06	1.06	1.10	1.10	1.12	0.99	1.08
Fuel Ethanol Production	1.01	1.05	1.02	1.04	1.02	0.70	0.92	0.94	0.96	0.96	0.99	0.99	1.03	0.90	0.98
Petroleum Products Adjustment (f)	0.22	0.20	0.21	0.21	0.22	0.19	0.20	0.21	0.20	0.21	0.21	0.21	0.21	0.20	0.21
Product Net Imports (c)	-3.19	-2.93	-3.10	-3.37	-4.03	-2.94	-3.12	-3.33	-3.35	-3.08	-3.67	-3.39	-3.15	-3.36	-3.37
Hydrocarbon Gas Liquids	-1.31	-1.67	-1.69	-1.81	-1.99	-1.86	-1.86	-2.03	-1.89	-2.07	-2.08	-2.04	-1.62	-1.94	-2.02
Unfinished Oils	0.25	0.47	0.47	0.52	0.31	0.25	0.34	0.41	0.40	0.46	0.44	0.30	0.43	0.33	0.40
Other HC/Oxygenates	-0.08	-0.07	-0.05	-0.05	-0.10	-0.05	-0.04	-0.05	-0.10	-0.08	-0.08	-0.09	-0.06	-0.06	-0.09
Motor Gasoline Blend Comp.	0.46	0.81	0.71	0.47	0.39	0.36	0.48	0.19	0.38	0.69	0.51	0.16	0.61	0.36	0.44
Finished Motor Gasoline	-0.80	-0.61	-0.60	-0.87	-0.72	-0.40	-0.58	-0.64	-0.69	-0.71	-0.78	-0.58	-0.72	-0.59	-0.69
Jet Fuel	-0.08	-0.01	-0.04	-0.08	-0.07	0.09	0.12	-0.01	-0.13	-0.03	0.00	0.00	-0.06	0.03	-0.04
Distillate Fuel Oil	-0.93	-1.22	-1.30	-0.97	-1.19	-0.86	-1.15	-0.70	-0.69	-0.78	-1.01	-0.56	-1.10	-0.97	-0.76
Residual Fuel Oil	-0.07	-0.15	-0.07	-0.02	-0.02	0.02	0.05	0.04	-0.05	-0.08	-0.06	0.00	-0.08	0.02	-0.05
Other Oils (g)	-0.63	-0.49	-0.52	-0.54	-0.65	-0.49	-0.49	-0.54	-0.60	-0.48	-0.61	-0.59	-0.55	-0.54	-0.57
Product Inventory Net Withdrawals	0.33	-0.60	-0.35	0.26	0.12	-0.91	-0.04	0.85	0.47	-0.46	-0.30	0.43	-0.09	0.01	0.03
Total Supply	20.38	20.46	20.72	20.63	19.33	16.08	18.36	18.86	19.30	19.61	20.03	20.21	20.55	18.16	19.79
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	3.48	2.79	2.94	3.35	3.31	2.83	2.95	3.39	3.57	3.10	3.14	3.54	3.14	3.12	3.34
Unfinished Oils	0.00	0.09	0.05	0.11	0.14	0.11	0.01	0.01	0.00	0.00	0.00	0.00	0.06	0.07	0.00
Motor Gasoline	9.01	9.54	9.52	9.16	8.49	7.11	8.50	8.23	8.41	8.84	8.97	8.84	9.31	8.09	8.76
Fuel Ethanol blended into Motor Gasoline	0.91	0.97	0.95	0.97	0.85	0.72	0.87	0.85	0.85	0.89	0.91	0.90	0.95	0.82	0.89
Jet Fuel	1.65	1.78	1.80	1.75	1.56	0.69	0.97	1.12	1.38	1.55	1.65	1.60	1.74	1.09	1.54
Distillate Fuel Oil	4.27	4.07	3.95	4.12	3.97	3.51	3.70	3.98	4.01	3.96	3.91	4.10	4.10	3.79	3.99
Residual Fuel Oil	0.27	0.23	0.33	0.27	0.17	0.15	0.32	0.26	0.24	0.23	0.28	0.25	0.28	0.23	0.25
Other Oils (g)	1.68	1.95	2.13	1.87	1.68	1.68	1.91	1.86	1.68	1.95	2.10	1.88	1.91	1.78	1.90
Total Consumption	20.36	20.46	20.72	20.63	19.33	16.08	18.36	18.85	19.30	19.61	20.03	20.21	20.54	18.16	19.79
Total Petroleum and Other Liquids Net Imports	1.09	1.18	0.84	-0.41	-1.13	0.14	-0.81	-0.63	0.41	0.99	1.03	0.55	0.67	-0.61	0.75
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	458.9	463.4	425.6	432.8	482.5	531.9	497.3	475.9	499.9	486.7	465.9	467.4	432.8	475.9	467.4
Hydrocarbon Gas Liquids	160.3	224.5	262.8	211.7	180.8	233.9	299.1	234.5	192.1	237.0	271.2	227.6	211.7	234.5	227.6
Unfinished Oils	92.2	95.9	92.3	89.8	100.1	91.9	81.4	77.3	92.1	90.9	90.1	82.9	89.8	77.3	82.9
Other HC/Oxygenates	30.9	29.1	28.3	27.8	33.6	26.2	25.2	26.4	27.3	26.2	26.0	26.2	27.8	26.4	26.2
Total Motor Gasoline	236.6	229.9	232.0	254.1	260.8	253.3	226.5	240.8	233.9	232.2	228.3	235.2	254.1	240.8	235.2
Finished Motor Gasoline	20.9	21.5	23.0	26.1	22.6	23.5	22.4	24.4	23.0	21.5	22.4	22.6	26.1	24.4	22.6
Motor Gasoline Blend Comp.	215.7	208.4	209.0	228.0	238.3	229.8	204.1	216.4	210.9	210.6	205.9	212.6	228.0	216.4	212.6
Jet Fuel	41.6	40.5	44.3	40.5	39.9	41.5	40.1	37.7	37.9	39.3	41.8	38.9	40.5	37.7	38.9
Distillate Fuel Oil	132.2	131.1	131.8	140.1	126.7	175.4	171.7	150.7	133.8	132.4	134.9	138.2	140.1	150.7	138.2
Residual Fuel Oil	29.2	30.5	30.0	30.5	34.4	39.6	32.1	28.4	30.4	32.3	30.8	32.2	30.5	28.4	32.2
Other Oils (g)	63.3	59.2	51.2	54.6	62.0	59.2	48.6	50.6	56.5	55.5	50.0	52.4	54.6	50.6	52.4
Total Commercial Inventory	1,245	1,304	1,298	1,282	1,321	1,453	1,422	1,322	1,304	1,332	1,339	1,301	1,282	1,322	1,301
Crude Oil in SPR	649	645	645	635	635	656	642	635	628	620	618	616	635	635	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" includes aviation gasoline blend components, finished aviation gasoline, kerosene, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, and miscellaneous products.

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

SPR: Strategic Petroleum Reserve

HC: Hydrocarbons

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - December 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	2.14	1.98	2.17	2.28	2.26	2.36	1.83	1.99	2.27
Propane	1.50	1.56	1.61	1.68	1.72	1.61	1.68	1.63	1.54	1.60	1.62	1.62	1.59	1.66	1.60
Butanes	0.79	0.84	0.87	0.89	0.91	0.86	0.90	0.83	0.82	0.84	0.87	0.86	0.85	0.87	0.85
Natural Gasoline (Pentanes Plus)	0.49	0.55	0.61	0.58	0.56	0.57	0.62	0.54	0.52	0.56	0.59	0.56	0.56	0.57	0.55
Refinery and Blender Net Production															
Ethane/Ethylene	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00
Propane	0.28	0.30	0.29	0.29	0.29	0.24	0.27	0.27	0.26	0.29	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	0.26	0.27	0.28	0.29	0.28	0.28	0.28	0.26	0.28
Butanes/Butylenes	-0.09	0.26	0.18	-0.23	-0.08	0.18	0.13	-0.20	-0.09	0.26	0.18	-0.20	0.03	0.01	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	-0.27	-0.28	-0.37	-0.41	-0.42	-0.44	-0.28	-0.28	-0.41
Propane/Propylene	-0.75	-1.00	-0.99	-1.05	-1.12	-1.08	-1.08	-1.14	-0.88	-1.04	-1.03	-1.02	-0.95	-1.10	-0.99
Butanes/Butylenes	-0.14	-0.25	-0.26	-0.25	-0.30	-0.31	-0.36	-0.33	-0.31	-0.33	-0.34	-0.29	-0.23	-0.32	-0.32
Natural Gasoline (Pentanes Plus)	-0.17	-0.15	-0.16	-0.21	-0.27	-0.19	-0.16	-0.29	-0.33	-0.30	-0.30	-0.29	-0.17	-0.23	-0.30
HGL Refinery and Blender Net Inputs															
Butanes/Butylenes	0.46	0.29	0.33	0.54	0.46	0.25	0.32	0.46	0.38	0.27	0.31	0.49	0.40	0.37	0.36
Natural Gasoline (Pentanes Plus)	0.14	0.17	0.18	0.18	0.15	0.10	0.15	0.14	0.12	0.16	0.17	0.16	0.17	0.14	0.15
HGL Consumption															
Ethane/Ethylene	1.61	1.50	1.48	1.56	1.70	1.65	1.66	1.76	1.84	1.85	1.88	1.93	1.54	1.69	1.88
Propane	1.19	0.58	0.63	1.08	1.09	0.59	0.58	1.04	1.20	0.62	0.65	1.01	0.87	0.82	0.87
Propylene (refinery-grade)	0.29	0.30	0.29	0.31	0.26	0.27	0.27	0.28	0.30	0.30	0.29	0.29	0.30	0.27	0.30
Butanes/Butylenes	0.19	0.22	0.30	0.24	0.17	0.20	0.17	0.18	0.16	0.23	0.21	0.21	0.24	0.18	0.20
Natural Gasoline (Pentanes Plus)	0.19	0.20	0.23	0.17	0.09	0.13	0.26	0.12	0.08	0.09	0.11	0.10	0.20	0.15	0.10
HGL Inventories (million barrels)															
Ethane	49.14	56.54	56.84	58.84	52.57	49.54	62.45	71.44	64.93	66.93	64.61	65.43	55.37	59.05	65.48
Propane	48.94	71.71	95.61	79.67	60.28	75.31	100.71	73.82	47.90	67.41	87.09	74.68	79.67	73.82	74.68
Propylene (at refineries only)	1.68	1.76	2.65	1.66	1.41	1.50	1.51	1.97	1.88	2.26	2.64	3.06	1.66	1.97	3.06
Butanes/Butylenes	39.84	70.72	85.87	52.18	43.58	69.33	86.03	54.72	44.54	68.66	86.12	56.50	52.18	54.72	56.50
Natural Gasoline (Pentanes Plus)	18.43	19.72	21.26	20.90	23.99	35.67	38.63	36.27	32.76	31.81	30.85	29.02	20.90	36.27	29.02
Refinery and Blender Net Inputs															
Crude Oil	16.20	16.76	16.96	16.32	15.77	13.16	14.03	14.10	14.82	15.52	16.27	15.41	16.56	14.26	15.51
Hydrocarbon Gas Liquids	0.59	0.46	0.51	0.72	0.61	0.35	0.47	0.60	0.50	0.43	0.48	0.65	0.57	0.51	0.52
Other Hydrocarbons/Oxygenates	1.16	1.21	1.22	1.19	1.12	0.95	1.11	1.08	1.11	1.15	1.17	1.15	1.19	1.06	1.15
Unfinished Oils	0.18	0.34	0.46	0.43	0.05	0.23	0.44	0.45	0.24	0.47	0.45	0.38	0.35	0.29	0.38
Motor Gasoline Blend Components	0.64	0.94	0.77	0.40	0.41	0.48	0.85	0.15	0.57	0.84	0.66	0.26	0.69	0.47	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	16.90	16.37	17.24	18.40	19.03	17.85	19.37	16.60	18.14
Refinery Processing Gain	1.05	1.07	1.06	1.09	1.02	0.82	0.94	1.02	1.05	1.08	1.09	1.06	1.07	0.95	1.07
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	0.48	0.84	0.76	0.34	0.47	0.69	0.67	0.35	0.46	0.84	0.77	0.38	0.61	0.54	0.61
Finished Motor Gasoline	9.85	10.16	10.20	10.16	9.30	7.52	9.14	8.96	9.19	9.66	9.84	9.58	10.10	8.74	9.57
Jet Fuel	1.73	1.78	1.88	1.79	1.63	0.62	0.83	1.11	1.52	1.59	1.67	1.56	1.80	1.04	1.59
Distillate Fuel	5.05	5.21	5.18	5.11	4.95	4.83	4.72	4.38	4.47	4.65	4.87	4.63	5.14	4.72	4.66
Residual Fuel	0.36	0.39	0.39	0.30	0.23	0.18	0.19	0.18	0.30	0.33	0.32	0.26	0.36	0.20	0.30
Other Oils (a)	2.36	2.40	2.57	2.45	2.41	2.14	2.28	2.41	2.35	2.42	2.65	2.49	2.44	2.31	2.48
Total Refinery and Blender Net Production	19.82	20.78	20.99	20.15	18.99	15.99	17.84	17.39	18.29	19.49	20.12	18.91	20.44	17.55	19.21
Refinery Distillation Inputs	16.54	17.14	17.42	16.85	16.36	13.65	14.55	14.58	15.23	15.86	16.59	15.79	16.99	14.78	15.87
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	0.78	0.79	0.83	0.86	0.90	0.86	0.90	0.79	0.86

- = no data available

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - December 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	137	129	139	159	159	148	186	132	151
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	233	268	256	247	236	191	211	204	195	216	222	211	251	212	211
PADD 2	223	269	257	244	226	179	207	198	189	222	218	205	249	203	209
PADD 3	205	245	234	224	210	162	186	179	182	203	203	192	228	186	195
PADD 4	226	285	270	276	247	201	233	221	214	241	245	230	265	226	233
PADD 5	297	356	331	350	311	258	283	284	296	327	326	318	334	285	317
U.S. Average	236	279	265	259	241	194	218	212	209	235	236	225	260	217	227
Gasoline All Grades Including Taxes	245	288	274	269	251	203	227	222	221	248	250	238	269	227	240
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	62.5	59.8	65.0	65.6	71.0	73.0	61.6	63.5	59.7	60.9	58.1	59.3	65.6	63.5	59.3
PADD 2	54.5	49.6	51.0	55.0	60.2	52.6	46.2	52.6	54.6	53.9	52.8	50.6	55.0	52.6	50.6
PADD 3	82.3	82.6	81.6	92.0	84.8	90.5	79.7	86.0	82.0	80.4	80.6	85.3	92.0	86.0	85.3
PADD 4	6.9	7.5	7.7	8.3	9.2	7.7	7.6	7.7	7.7	7.8	7.5	8.0	8.3	7.7	8.0
PADD 5	30.4	30.6	26.8	33.2	35.6	29.4	31.5	30.9	30.0	29.1	29.3	32.1	33.2	30.9	32.1
U.S. Total	236.6	229.9	232.0	254.1	260.8	253.3	226.5	240.8	233.9	232.2	228.3	235.2	254.1	240.8	235.2
Finished Gasoline Inventories															
U.S. Total	20.9	21.5	23.0	26.1	22.6	23.5	22.4	24.4	23.0	21.5	22.4	22.6	26.1	24.4	22.6
Gasoline Blending Components Inventories															
U.S. Total	215.7	208.4	209.0	228.0	238.3	229.8	204.1	216.4	210.9	210.6	205.9	212.6	228.0	216.4	212.6

- = no data available

Prices are not adjusted for inflation.

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 5a. U.S. Natural Gas Supply, Consumption, and Inventories
 U.S. Energy Information Administration | Short-Term Energy Outlook - December 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	96.76	98.44	101.05	103.83	102.27	96.83	97.43	<i>97.08</i>	<i>95.27</i>	<i>94.90</i>	<i>95.90</i>	<i>96.48</i>	100.04	<i>98.40</i>	<i>95.64</i>
Alaska	0.96	0.93	0.79	0.93	0.96	0.88	0.88	<i>0.93</i>	<i>0.98</i>	<i>0.81</i>	<i>0.77</i>	<i>0.93</i>	0.90	<i>0.91</i>	<i>0.87</i>
Federal GOM (a)	2.88	2.82	2.63	2.80	2.72	2.22	1.71	<i>2.29</i>	<i>2.44</i>	<i>2.37</i>	<i>2.25</i>	<i>2.23</i>	2.78	<i>2.23</i>	<i>2.32</i>
Lower 48 States (excl GOM)	92.92	94.69	97.63	100.10	98.58	93.74	94.84	<i>93.87</i>	<i>91.85</i>	<i>91.72</i>	<i>92.88</i>	<i>93.33</i>	96.36	<i>95.25</i>	<i>92.45</i>
Total Dry Gas Production	90.01	91.57	94.00	96.58	94.79	89.67	89.72	<i>89.36</i>	<i>87.65</i>	<i>87.25</i>	<i>88.13</i>	<i>88.61</i>	93.06	<i>90.88</i>	<i>87.91</i>
LNG Gross Imports	0.28	0.03	0.06	0.20	0.24	0.12	0.09	<i>0.20</i>	<i>0.32</i>	<i>0.18</i>	<i>0.18</i>	<i>0.20</i>	0.14	<i>0.16</i>	<i>0.22</i>
LNG Gross Exports	4.01	4.55	4.95	6.40	7.92	5.51	3.91	<i>8.77</i>	<i>9.49</i>	<i>7.59</i>	<i>7.66</i>	<i>9.26</i>	4.98	<i>6.53</i>	<i>8.50</i>
Pipeline Gross Imports	8.35	6.73	7.10	7.30	7.64	6.17	6.45	<i>6.77</i>	<i>7.75</i>	<i>6.52</i>	<i>6.85</i>	<i>7.13</i>	7.37	<i>6.76</i>	<i>7.06</i>
Pipeline Gross Exports	7.86	7.18	7.80	8.25	8.15	7.17	8.07	<i>8.37</i>	<i>8.49</i>	<i>7.91</i>	<i>8.78</i>	<i>8.93</i>	7.77	<i>7.94</i>	<i>8.53</i>
Supplemental Gaseous Fuels	0.16	0.17	0.17	0.18	0.19	0.17	0.15	<i>0.17</i>	<i>0.16</i>	<i>0.16</i>	<i>0.16</i>	<i>0.17</i>	0.17	<i>0.17</i>	<i>0.16</i>
Net Inventory Withdrawals	16.93	-14.18	-10.41	2.45	12.74	-12.24	-7.68	<i>6.29</i>	<i>18.86</i>	<i>-11.19</i>	<i>-8.25</i>	<i>5.44</i>	-1.37	<i>-0.23</i>	<i>1.15</i>
Total Supply	103.87	72.60	78.18	92.05	99.53	71.22	76.74	<i>85.64</i>	<i>96.76</i>	<i>67.43</i>	<i>70.63</i>	<i>83.35</i>	86.62	<i>83.27</i>	<i>79.48</i>
Balancing Item (b)	0.05	-1.65	-1.83	-2.43	-0.23	-0.33	0.15	<i>0.95</i>	<i>-0.20</i>	<i>-0.43</i>	<i>0.03</i>	<i>0.13</i>	-1.47	<i>0.14</i>	<i>-0.11</i>
Total Primary Supply	103.92	70.95	76.35	89.62	99.31	70.89	76.89	<i>86.59</i>	<i>96.56</i>	<i>67.00</i>	<i>70.67</i>	<i>83.48</i>	85.15	<i>83.41</i>	<i>79.37</i>
Consumption (billion cubic feet per day)															
Residential	27.22	7.36	3.51	17.09	22.83	8.20	3.84	<i>16.92</i>	<i>25.81</i>	<i>7.13</i>	<i>3.63</i>	<i>16.93</i>	13.74	<i>12.93</i>	<i>13.32</i>
Commercial	16.11	6.33	4.62	11.53	13.93	5.82	4.37	<i>10.29</i>	<i>15.20</i>	<i>6.66</i>	<i>4.72</i>	<i>10.61</i>	9.62	<i>8.59</i>	<i>9.27</i>
Industrial	25.24	21.82	21.38	23.89	24.65	20.62	21.15	<i>23.76</i>	<i>24.27</i>	<i>21.61</i>	<i>20.77</i>	<i>23.47</i>	23.07	<i>22.54</i>	<i>22.52</i>
Electric Power (c)	27.12	28.20	39.27	28.99	29.55	29.04	40.12	<i>27.49</i>	<i>22.90</i>	<i>24.18</i>	<i>33.98</i>	<i>24.37</i>	30.92	<i>31.56</i>	<i>26.38</i>
Lease and Plant Fuel	4.89	4.98	5.11	5.25	5.17	4.90	4.93	<i>4.91</i>	<i>4.82</i>	<i>4.80</i>	<i>4.85</i>	<i>4.88</i>	5.06	<i>4.98</i>	<i>4.84</i>
Pipeline and Distribution Use	3.19	2.13	2.31	2.73	3.02	2.15	2.33	<i>3.05</i>	<i>3.38</i>	<i>2.46</i>	<i>2.55</i>	<i>3.06</i>	2.59	<i>2.64</i>	<i>2.86</i>
Vehicle Use	0.14	0.14	0.14	0.14	0.16	0.16	0.16	<i>0.17</i>	<i>0.17</i>	<i>0.18</i>	<i>0.18</i>	<i>0.18</i>	0.14	<i>0.16</i>	<i>0.17</i>
Total Consumption	103.92	70.95	76.35	89.62	99.31	70.89	76.89	<i>86.59</i>	<i>96.56</i>	<i>67.00</i>	<i>70.67</i>	<i>83.48</i>	85.15	<i>83.41</i>	<i>79.37</i>
End-of-period Inventories (billion cubic feet)															
Working Gas Inventory	1,185	2,461	3,415	3,188	2,030	3,133	3,840	<i>3,262</i>	<i>1,564</i>	<i>2,582</i>	<i>3,342</i>	<i>2,842</i>	3,188	<i>3,262</i>	<i>2,842</i>
East Region (d)	216	537	845	764	385	655	890	<i>712</i>	<i>190</i>	<i>478</i>	<i>742</i>	<i>542</i>	764	<i>712</i>	<i>542</i>
Midwest Region (d)	242	579	990	885	472	747	1,053	<i>894</i>	<i>290</i>	<i>575</i>	<i>918</i>	<i>772</i>	885	<i>894</i>	<i>772</i>
South Central Region (d)	519	917	1,049	1,095	857	1,221	1,313	<i>1,159</i>	<i>739</i>	<i>1,046</i>	<i>1,126</i>	<i>1,054</i>	1,095	<i>1,159</i>	<i>1,054</i>
Mountain Region (d)	63	135	200	167	92	177	235	<i>195</i>	<i>134</i>	<i>169</i>	<i>208</i>	<i>170</i>	167	<i>195</i>	<i>170</i>
Pacific Region (d)	115	259	294	245	200	308	318	<i>272</i>	<i>181</i>	<i>284</i>	<i>318</i>	<i>273</i>	245	<i>272</i>	<i>273</i>
Alaska	30	33	37	33	23	25	31	<i>30</i>	<i>30</i>	<i>30</i>	<i>30</i>	<i>30</i>	33	<i>30</i>	<i>30</i>

- = no data available

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

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

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

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

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

LNG: liquefied natural gas.

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - December 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	2.07	2.76	3.17	3.07	3.08	3.19	2.67	2.15	3.13
Residential Retail															
New England	14.42	15.46	19.05	14.02	13.77	14.50	18.28	13.75	13.13	14.01	16.98	13.12	14.72	14.22	13.50
Middle Atlantic	10.70	12.97	18.34	11.29	10.77	11.85	17.85	11.24	9.90	12.13	16.88	11.10	11.64	11.62	11.03
E. N. Central	7.26	10.47	19.05	7.67	6.99	9.50	18.15	6.68	7.00	10.60	16.48	8.27	8.39	7.96	8.41
W. N. Central	7.88	10.61	18.10	8.06	6.85	9.89	17.36	7.43	7.23	10.63	16.95	8.95	8.75	8.09	8.69
S. Atlantic	11.42	17.86	25.10	12.62	12.12	15.52	24.11	13.15	11.35	16.42	22.58	12.56	13.52	13.91	13.20
E. S. Central	9.68	14.93	21.63	10.45	9.69	13.34	20.92	10.42	9.68	14.97	22.19	13.52	11.09	11.10	12.04
W. S. Central	8.24	13.34	21.45	10.46	8.52	14.22	20.58	9.97	8.73	14.72	20.71	11.89	10.46	10.83	11.35
Mountain	7.64	9.36	13.16	7.66	7.55	9.37	12.56	7.51	7.45	9.56	13.57	8.43	8.25	8.26	8.54
Pacific	12.17	12.47	13.20	11.81	13.41	14.47	14.50	13.20	13.26	13.99	14.74	13.67	12.23	13.69	13.69
U.S. Average	9.39	12.36	17.90	9.78	9.46	11.89	17.62	9.65	9.18	12.47	17.23	10.66	10.46	10.51	10.65
Commercial Retail															
New England	10.81	11.05	11.37	9.85	9.93	10.40	10.99	10.38	10.08	10.33	10.79	10.23	10.60	10.25	10.24
Middle Atlantic	8.31	7.66	6.81	7.43	7.91	7.00	6.78	7.30	7.51	7.39	6.93	7.47	7.71	7.43	7.41
E. N. Central	6.23	7.14	8.79	6.00	5.75	6.73	8.79	6.55	6.60	7.89	9.37	7.07	6.46	6.39	7.14
W. N. Central	6.75	7.07	8.17	6.05	5.43	6.53	8.14	6.72	7.10	7.78	9.00	7.29	6.66	6.19	7.39
S. Atlantic	8.80	9.50	9.73	8.72	8.51	9.21	9.53	8.59	8.44	9.44	9.83	8.78	9.00	8.77	8.87
E. S. Central	8.63	9.82	10.13	8.47	8.38	9.20	10.10	8.71	8.31	9.50	10.30	9.13	8.90	8.79	8.96
W. S. Central	6.30	6.93	7.85	6.66	5.99	7.18	8.05	7.61	7.26	7.92	8.74	8.03	6.71	6.94	7.80
Mountain	6.40	6.73	7.33	6.15	6.09	6.85	7.41	6.15	6.47	7.00	8.07	7.08	6.46	6.36	6.91
Pacific	9.07	8.82	9.14	9.01	9.58	9.30	9.59	9.02	9.05	9.19	9.69	9.19	9.01	9.36	9.21
U.S. Average	7.55	7.95	8.41	7.20	7.13	7.63	8.48	7.51	7.52	8.19	8.81	7.91	7.59	7.47	7.89
Industrial Retail															
New England	9.24	8.32	6.96	7.34	8.15	7.41	6.16	7.41	8.25	7.44	6.68	7.63	8.14	7.47	7.64
Middle Atlantic	8.80	7.49	6.72	7.04	7.43	6.76	7.00	7.13	7.64	7.34	7.44	7.67	7.83	7.17	7.56
E. N. Central	5.66	5.31	5.56	5.05	4.84	5.10	4.15	4.91	5.82	5.72	5.74	5.62	5.41	4.81	5.73
W. N. Central	5.24	4.01	3.48	4.32	3.97	3.30	3.15	4.23	5.04	4.47	4.51	5.02	4.34	3.72	4.80
S. Atlantic	5.43	4.54	4.35	4.45	4.15	3.70	3.72	4.58	5.42	4.89	4.89	5.15	4.73	4.06	5.11
E. S. Central	4.99	4.09	3.62	4.12	3.92	3.24	3.23	4.28	5.01	4.56	4.54	4.93	4.25	3.72	4.78
W. S. Central	3.49	2.89	2.54	2.65	2.19	1.92	2.19	2.80	3.33	3.25	3.34	3.39	2.91	2.31	3.33
Mountain	5.23	4.71	4.88	4.64	4.40	4.59	4.67	4.83	5.31	5.49	5.95	5.92	4.88	4.61	5.64
Pacific	7.61	6.58	6.37	6.88	7.46	6.28	6.18	6.28	6.97	6.48	6.89	7.02	6.91	6.58	6.85
U.S. Average	4.66	3.73	3.29	3.74	3.52	2.85	2.88	3.68	4.43	3.99	3.98	4.30	3.90	3.27	4.19

- = no data available

Prices are not adjusted for inflation.

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

Regions refer to U.S. Census divisions.

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 6. U.S. Coal Supply, Consumption, and Inventories
 U.S. Energy Information Administration | Short-Term Energy Outlook - December 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	135.5	123.8	151.7	153.0	172.1	147.0	705.3	521.5	623.8
Appalachia	49.6	52.5	46.6	44.3	39.7	32.0	36.0	31.7	39.0	42.3	47.8	37.3	193.0	139.4	166.5
Interior	35.4	32.3	32.4	30.6	25.8	20.2	22.6	22.3	22.9	23.5	27.5	27.6	130.7	90.9	101.5
Western	94.5	94.4	102.4	90.3	83.6	60.9	76.8	69.8	89.7	87.2	96.8	82.1	381.7	291.2	355.8
Primary Inventory Withdrawals	-2.5	-0.4	-3.2	-3.6	0.5	1.3	2.0	-1.0	0.4	2.0	2.5	-0.7	-9.6	2.8	4.3
Imports	1.7	1.6	1.7	1.7	1.3	1.1	1.3	1.4	1.1	1.1	1.3	1.3	6.7	5.2	4.7
Exports	25.2	25.3	21.9	20.4	20.0	14.8	15.3	13.9	19.7	17.0	16.0	14.8	92.9	63.9	67.5
Metallurgical Coal	13.9	15.1	13.5	12.6	11.7	9.0	9.8	10.2	12.1	11.1	10.5	10.1	55.1	40.7	43.8
Steam Coal	11.3	10.2	8.4	7.8	8.3	5.8	4.9	3.6	7.6	5.9	5.5	4.6	37.7	22.7	23.6
Total Primary Supply	153.5	155.1	157.9	142.9	130.9	100.8	123.5	110.4	133.5	139.1	159.9	132.9	609.5	465.6	565.4
Secondary Inventory Withdrawals	6.1	-20.4	5.9	-17.5	-16.6	-5.0	20.5	6.8	0.7	-6.7	6.5	6.1	-25.9	5.6	6.7
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	162.0	137.1	166.1	127.7	116.6	98.1	146.3	119.4	136.2	134.3	168.5	141.0	592.9	480.4	580.0
Consumption (million short tons)															
Coke Plants	4.5	4.7	4.5	4.4	4.3	3.5	3.9	3.8	4.0	3.9	4.1	4.0	18.0	15.4	16.0
Electric Power Sector (b)	145.2	117.8	155.6	120.0	97.8	87.2	139.2	111.5	125.2	123.7	157.9	130.3	538.6	435.6	537.0
Retail and Other Industry	8.1	7.2	7.2	7.5	7.4	5.7	6.4	7.0	7.0	6.7	6.5	6.8	30.0	26.5	27.0
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	0.8
Other Industrial	7.8	7.0	7.0	7.3	7.1	5.6	6.2	6.7	6.8	6.5	6.4	6.5	29.1	25.6	26.2
Total Consumption	157.7	129.6	167.2	132.0	109.5	96.4	149.5	122.3	136.2	134.3	168.5	141.0	586.5	477.6	580.0
Discrepancy (c)	4.2	7.5	-1.1	-4.2	7.1	1.7	-3.1	-2.8	0.0	0.0	0.0	0.0	6.4	2.8	0.0
End-of-period Inventories (million short tons)															
Primary Inventories (d)	24.2	24.5	27.7	31.3	30.8	29.5	27.5	28.5	28.1	26.1	23.5	24.2	31.3	28.5	24.2
Secondary Inventories	102.0	122.4	116.5	134.0	150.6	155.7	135.1	128.4	127.6	134.4	127.8	121.7	134.0	128.4	121.7
Electric Power Sector	96.9	116.9	110.6	128.2	145.2	150.4	129.1	122.6	122.1	128.5	121.8	116.0	128.2	122.6	116.0
Retail and General Industry	2.8	3.0	3.2	3.3	3.0	3.0	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	2.1	2.0	2.2	2.1	1.6	2.0	2.1	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	0.196	0.219	0.270	0.240	0.241	0.282	0.268	0.214	0.258
Cost of Coal to Electric Utilities															
(Dollars per million Btu)	2.07	2.04	1.99	1.93	1.92	1.90	1.91	2.01	2.05	2.06	2.04	2.04	2.01	1.94	2.05

- = no data available

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

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 7a. U.S. Electricity Industry Overview

U.S. Energy Information Administration | Short-Term Energy Outlook - December 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	1,001	980	1,172	974	965	933	1,149	950	<i>955</i>	<i>967</i>	<i>1,134</i>	<i>965</i>	4,127	<i>3,997</i>	<i>4,021</i>
Electric Power Sector (a)	961	941	1,129	933	924	896	1,109	914	<i>919</i>	<i>931</i>	<i>1,097</i>	<i>928</i>	3,965	<i>3,843</i>	<i>3,876</i>
Industrial Sector (b)	36	35	39	38	38	34	36	33	<i>33</i>	<i>32</i>	<i>33</i>	<i>34</i>	149	<i>141</i>	<i>132</i>
Commercial Sector (b)	3	3	4	3	3	3	4	3	<i>3</i>	<i>3</i>	<i>4</i>	<i>3</i>	14	<i>13</i>	<i>13</i>
Net Imports	11	12	15	11	13	13	15	12	<i>12</i>	<i>13</i>	<i>15</i>	<i>11</i>	49	<i>53</i>	<i>51</i>
Total Supply	1,012	992	1,186	985	978	946	1,164	962	<i>967</i>	<i>980</i>	<i>1,149</i>	<i>976</i>	4,176	<i>4,050</i>	<i>4,072</i>
Losses and Unaccounted for (c)	50	65	59	45	55	69	72	54	<i>44</i>	<i>67</i>	<i>58</i>	<i>54</i>	219	<i>249</i>	<i>223</i>
Electricity Consumption (billion kilowatthours unless noted)															
Retail Sales	926	892	1089	904	887	844	1057	875	<i>891</i>	<i>881</i>	<i>1058</i>	<i>889</i>	3811	<i>3663</i>	<i>3718</i>
Residential Sector	363	311	435	332	340	334	453	335	<i>365</i>	<i>344</i>	<i>446</i>	<i>340</i>	1440	<i>1462</i>	<i>1495</i>
Commercial Sector	322	329	384	326	314	293	360	313	<i>302</i>	<i>308</i>	<i>366</i>	<i>319</i>	1361	<i>1280</i>	<i>1295</i>
Industrial Sector	240	250	268	244	231	216	241	226	<i>222</i>	<i>227</i>	<i>245</i>	<i>228</i>	1002	<i>914</i>	<i>921</i>
Transportation Sector	2	2	2	2	2	1	2	2	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	8	<i>6</i>	<i>6</i>
Direct Use (d)	36	35	38	37	37	33	35	33	<i>32</i>	<i>32</i>	<i>33</i>	<i>33</i>	146	<i>139</i>	<i>131</i>
Total Consumption	962	927	1128	941	924	878	1092	908	<i>923</i>	<i>913</i>	<i>1091</i>	<i>922</i>	3957	<i>3801</i>	<i>3849</i>
Average residential electricity usage per customer (kWh)	2,680	2,298	3,219	2,451	2,518	2,472	3,353	2,475	<i>2,661</i>	<i>2,509</i>	<i>3,250</i>	<i>2,481</i>	10,649	<i>10,818</i>	<i>10,901</i>
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.07	2.04	1.99	1.93	1.92	1.90	1.91	2.01	<i>2.05</i>	<i>2.06</i>	<i>2.04</i>	<i>2.04</i>	2.01	<i>1.94</i>	<i>2.05</i>
Natural Gas	3.72	2.73	2.51	2.79	2.41	2.10	2.27	3.08	<i>3.69</i>	<i>3.24</i>	<i>3.22</i>	<i>3.48</i>	2.89	<i>2.44</i>	<i>3.38</i>
Residual Fuel Oil	12.22	13.39	12.80	12.53	12.15	6.65	8.51	7.87	<i>8.90</i>	<i>9.81</i>	<i>9.44</i>	<i>9.37</i>	12.73	<i>8.81</i>	<i>9.37</i>
Distillate Fuel Oil	14.85	15.76	14.99	15.11	13.27	8.39	10.31	10.59	<i>11.70</i>	<i>12.17</i>	<i>12.48</i>	<i>12.80</i>	15.16	<i>10.73</i>	<i>12.31</i>
Retail Prices (cents per kilowatthour)															
Residential Sector	12.67	13.30	13.24	12.83	12.90	13.24	13.36	12.90	<i>12.82</i>	<i>13.34</i>	<i>13.57</i>	<i>13.18</i>	13.01	<i>13.12</i>	<i>13.24</i>
Commercial Sector	10.43	10.66	11.00	10.55	10.33	10.63	10.97	10.47	<i>10.27</i>	<i>10.76</i>	<i>11.20</i>	<i>10.64</i>	10.67	<i>10.61</i>	<i>10.74</i>
Industrial Sector	6.67	6.69	7.20	6.65	6.37	6.63	7.09	6.71	<i>6.44</i>	<i>6.72</i>	<i>7.10</i>	<i>6.74</i>	6.81	<i>6.71</i>	<i>6.76</i>
Wholesale Electricity Prices (dollars per megawatthour)															
ERCOT North hub	28.41	28.34	139.81	28.40	23.41	24.03	34.12	27.61	<i>28.95</i>	<i>31.83</i>	<i>33.95</i>	<i>30.01</i>	56.24	<i>27.29</i>	<i>31.18</i>
CAISO SP15 zone	50.42	23.30	37.32	41.57	28.64	19.21	61.94	40.99	<i>32.75</i>	<i>33.18</i>	<i>36.89</i>	<i>33.98</i>	38.15	<i>37.70</i>	<i>34.20</i>
ISO-NE Internal hub	47.40	27.15	29.52	35.48	24.61	20.25	27.20	35.67	<i>50.52</i>	<i>31.73</i>	<i>33.19</i>	<i>35.95</i>	34.89	<i>26.93</i>	<i>37.85</i>
NYISO Hudson Valley zone	41.77	25.68	27.76	27.04	21.82	18.13	24.38	23.53	<i>25.95</i>	<i>26.44</i>	<i>27.63</i>	<i>25.94</i>	30.56	<i>21.97</i>	<i>26.49</i>
PJM Western hub	33.79	28.54	31.17	29.89	22.47	20.79	28.24	25.31	<i>27.30</i>	<i>27.30</i>	<i>30.47</i>	<i>27.34</i>	30.85	<i>24.20</i>	<i>28.10</i>
Midcontinent ISO Illinois hub	31.44	27.81	30.71	28.09	24.43	23.00	29.35	24.97	<i>27.21</i>	<i>26.86</i>	<i>30.22</i>	<i>28.87</i>	29.51	<i>25.44</i>	<i>28.29</i>
SPP ISO South hub	29.15	27.14	31.51	23.64	20.06	19.54	26.27	24.27	<i>23.27</i>	<i>23.94</i>	<i>28.72</i>	<i>24.61</i>	27.86	<i>22.54</i>	<i>25.14</i>
SERC index, Into Southern	30.74	29.87	31.08	29.31	23.58	18.23	23.47	24.49	<i>24.24</i>	<i>24.43</i>	<i>26.93</i>	<i>25.71</i>	30.25	<i>22.44</i>	<i>25.33</i>
FRCC index, Florida Reliability	30.71	29.57	30.64	29.47	26.24	18.53	23.75	25.01	<i>26.01</i>	<i>27.02</i>	<i>27.89</i>	<i>26.95</i>	30.10	<i>23.38</i>	<i>26.97</i>
Northwest index, Mid-Columbia	55.74	18.55	32.74	37.47	22.77	14.49	33.56	29.28	<i>24.53</i>	<i>24.33</i>	<i>24.72</i>	<i>25.76</i>	36.12	<i>25.03</i>	<i>24.84</i>
Southwest index, Palo Verde	44.23	18.45	42.00	36.37	22.07	19.60	80.81	35.53	<i>27.93</i>	<i>28.26</i>	<i>28.28</i>	<i>29.07</i>	35.26	<i>39.50</i>	<i>28.39</i>

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 collocated 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 - December 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Residential Sector															
New England	12.5	9.7	13.1	10.8	11.7	10.9	14.6	11.4	12.9	11.4	13.8	11.6	46.2	48.6	49.7
Middle Atlantic	35.3	27.7	40.4	29.8	32.2	30.6	43.5	30.1	34.8	31.0	40.5	30.8	133.1	136.3	137.2
E. N. Central	50.0	38.3	54.4	43.4	46.4	43.7	56.5	43.9	49.5	44.6	54.6	44.9	186.2	190.4	193.8
W. N. Central	30.3	21.9	29.3	25.1	27.6	23.7	30.0	25.2	29.1	25.7	31.7	26.9	106.6	106.5	113.3
S. Atlantic	88.7	84.9	112.0	84.7	84.3	86.3	114.7	82.6	92.5	89.0	113.5	83.1	370.4	367.9	378.1
E. S. Central	30.3	25.9	36.7	27.5	29.0	26.0	37.2	26.3	32.5	27.3	38.0	27.2	120.3	118.6	125.1
W. S. Central	52.1	49.4	76.5	51.0	48.8	52.9	76.3	52.3	51.4	54.7	77.2	54.1	229.0	230.2	237.5
Mountain	23.2	22.2	33.0	22.1	22.5	25.7	36.2	23.0	22.9	25.6	33.9	22.7	100.5	107.4	105.1
Pacific contiguous	39.1	29.7	38.7	35.8	36.7	33.2	43.0	38.8	37.9	33.5	41.3	37.6	143.3	151.7	150.4
AK and HI	1.2	1.1	1.2	1.2	1.3	1.1	1.2	1.3	1.3	1.1	1.2	1.3	4.7	4.9	4.8
Total	362.5	310.8	435.4	331.5	340.4	334.1	453.3	334.7	364.8	344.1	445.7	340.2	1,440.3	1,462.5	1,494.9
Commercial Sector															
New England	12.8	12.1	14.0	12.6	12.3	10.6	13.2	11.7	11.7	10.8	12.9	11.8	51.5	47.7	47.1
Middle Atlantic	38.7	36.4	42.0	36.0	35.9	31.0	38.9	33.3	33.5	34.2	39.5	34.6	153.2	139.0	141.8
E. N. Central	44.2	42.8	50.0	43.2	43.1	38.3	47.3	42.4	42.0	41.3	48.5	43.8	180.2	171.1	175.5
W. N. Central	25.6	24.2	27.9	24.8	24.7	21.6	26.3	23.8	24.1	22.1	26.9	24.3	102.6	96.5	97.3
S. Atlantic	72.3	79.7	90.4	75.8	72.0	70.0	85.7	72.3	69.5	73.6	87.3	73.3	318.1	300.0	303.6
E. S. Central	21.2	22.7	27.2	21.9	20.7	19.4	25.3	20.7	20.3	20.5	25.9	21.1	93.1	86.1	87.8
W. S. Central	44.0	47.8	58.9	47.6	44.3	44.6	55.0	47.4	43.6	46.6	56.6	49.1	198.3	191.4	195.9
Mountain	22.7	23.8	28.2	23.3	22.4	22.1	27.4	23.1	22.0	23.2	27.3	23.5	98.1	95.1	96.0
Pacific contiguous	38.4	38.4	43.6	39.5	37.0	33.9	39.8	37.1	34.4	34.3	39.4	36.3	160.0	147.8	144.4
AK and HI	1.4	1.4	1.5	1.5	1.4	1.2	1.3	1.3	1.3	1.4	1.5	1.5	5.7	5.1	5.6
Total	321.6	329.4	383.8	326.1	313.7	292.7	360.2	313.3	302.4	307.9	365.6	319.2	1,360.9	1,279.9	1,295.2
Industrial Sector															
New England	4.0	4.0	4.3	4.0	3.7	3.5	3.9	3.8	3.5	3.6	3.9	3.7	16.2	14.9	14.6
Middle Atlantic	18.1	17.9	20.3	18.6	18.0	16.2	18.6	17.7	17.3	17.0	18.8	17.8	75.0	70.5	70.8
E. N. Central	47.5	47.9	50.6	46.3	44.0	37.7	44.5	40.4	42.1	40.1	45.4	40.7	192.3	166.5	168.3
W. N. Central	22.4	23.3	24.8	23.0	21.7	20.3	23.2	22.0	20.9	22.0	23.7	22.4	93.6	87.3	88.9
S. Atlantic	33.9	35.7	37.2	34.4	32.8	31.0	34.2	33.1	31.7	32.7	34.6	33.2	141.2	131.2	132.2
E. S. Central	24.5	24.9	25.5	23.9	23.3	21.4	23.4	22.5	21.9	22.6	23.5	22.5	98.9	90.6	90.4
W. S. Central	49.1	52.4	55.5	50.9	46.7	44.9	47.7	45.5	45.6	47.6	48.6	46.3	207.8	184.9	188.2
Mountain	19.4	21.3	23.7	20.4	20.0	20.3	22.6	19.9	19.6	21.1	23.0	20.2	84.8	82.8	83.8
Pacific contiguous	20.2	21.5	24.7	21.3	19.2	19.7	22.1	19.8	18.2	19.7	22.0	19.6	87.6	80.8	79.4
AK and HI	1.1	1.2	1.3	1.3	1.2	1.0	1.2	1.2	1.1	1.1	1.2	1.2	4.9	4.6	4.6
Total	240.1	250.1	268.0	244.1	230.6	216.0	241.4	225.9	221.8	227.3	244.6	227.5	1,002.4	913.9	921.3
Total All Sectors (a)															
New England	29.5	26.0	31.5	27.5	27.8	25.1	31.8	27.0	28.2	25.8	30.6	27.2	114.5	111.6	111.9
Middle Atlantic	93.1	83.0	103.6	85.4	86.9	78.5	101.8	81.9	86.5	82.9	99.5	84.0	365.1	349.0	352.9
E. N. Central	141.9	129.1	155.2	133.0	133.7	119.7	148.4	126.8	133.7	126.2	148.6	129.5	559.4	528.6	538.1
W. N. Central	78.3	69.4	82.1	73.0	74.0	65.7	79.5	71.1	74.0	69.7	82.3	73.6	302.8	290.3	299.6
S. Atlantic	195.3	200.7	240.1	195.2	189.4	187.6	235.0	188.3	194.0	195.5	235.7	189.9	831.2	800.3	815.1
E. S. Central	76.0	73.5	89.4	73.3	73.0	66.8	85.9	69.5	74.7	70.5	87.4	70.7	312.2	295.3	303.3
W. S. Central	145.2	149.7	190.9	149.5	139.8	142.4	179.1	145.3	140.7	149.0	182.4	149.6	635.4	606.6	621.7
Mountain	65.4	67.3	85.0	65.8	64.9	68.2	86.3	66.0	64.4	69.9	84.3	66.4	283.5	285.4	285.0
Pacific contiguous	97.9	89.8	107.2	96.9	93.1	87.0	105.1	95.9	90.8	87.7	102.9	93.7	391.8	381.1	375.0
AK and HI	3.7	3.6	4.0	4.0	3.8	3.4	3.6	3.7	3.7	3.6	3.8	3.9	15.3	14.5	15.0
Total	926.3	892.2	1,089.1	903.6	886.6	844.3	1,056.5	875.4	890.7	880.8	1,057.6	888.5	3,811.2	3,662.7	3,717.7

- = 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 - December 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Residential Sector															
New England	21.34	21.52	20.70	20.93	21.76	21.33	20.96	20.91	21.79	21.82	22.04	22.48	21.10	21.22	22.03
Middle Atlantic	15.20	16.05	16.16	15.79	15.47	15.97	16.18	15.79	15.41	16.15	16.59	16.18	15.80	15.88	16.10
E. N. Central	13.00	13.93	13.37	13.38	13.13	13.75	13.33	13.47	13.10	13.89	13.60	13.68	13.39	13.41	13.56
W. N. Central	10.69	12.76	12.93	11.24	10.99	12.59	12.89	11.43	11.09	12.62	13.09	11.52	11.86	11.98	12.10
S. Atlantic	11.68	12.12	12.07	11.82	11.80	11.81	12.06	11.77	11.48	11.72	12.17	12.00	11.93	11.88	11.86
E. S. Central	11.14	11.70	11.38	11.28	11.25	11.56	11.29	11.36	11.06	11.59	11.48	11.58	11.36	11.36	11.42
W. S. Central	10.80	11.42	11.28	11.16	11.04	11.43	11.30	10.87	10.67	11.26	11.42	11.13	11.17	11.18	11.15
Mountain	11.44	12.06	12.11	11.51	11.42	12.08	12.19	11.69	11.54	12.22	12.37	11.83	11.81	11.89	12.04
Pacific	14.86	15.85	17.24	14.63	15.69	16.18	17.79	15.07	16.32	17.05	18.35	15.48	15.65	16.23	16.83
U.S. Average	12.67	13.30	13.24	12.83	12.90	13.24	13.36	12.90	12.82	13.34	13.57	13.18	13.01	13.12	13.24
Commercial Sector															
New England	16.91	16.37	16.10	15.97	16.24	15.66	15.96	15.79	16.24	15.92	16.64	16.62	16.33	15.92	16.37
Middle Atlantic	11.57	12.17	13.02	11.97	11.69	12.53	13.22	11.74	11.43	12.68	13.43	11.98	12.21	12.32	12.42
E. N. Central	10.19	10.33	10.16	10.11	9.95	10.37	10.19	10.14	10.00	10.51	10.38	10.35	10.20	10.16	10.31
W. N. Central	8.97	10.05	10.42	9.12	9.07	10.12	10.33	9.32	9.31	10.32	10.67	9.52	9.66	9.71	9.96
S. Atlantic	9.43	9.35	9.33	9.32	9.24	9.02	9.09	9.02	8.98	8.91	9.16	9.20	9.36	9.09	9.07
E. S. Central	10.78	10.77	10.72	10.70	10.75	10.83	10.60	10.68	10.73	10.81	10.76	10.90	10.74	10.70	10.80
W. S. Central	8.13	8.13	8.33	8.17	7.84	7.87	7.90	8.26	8.03	8.22	8.26	8.24	8.20	7.97	8.19
Mountain	9.18	9.74	10.01	9.20	9.01	9.82	10.09	9.33	9.11	9.96	10.26	9.35	9.56	9.59	9.70
Pacific	12.92	14.05	16.16	14.32	13.50	14.79	17.20	14.54	13.50	15.15	17.74	14.76	14.42	15.05	15.37
U.S. Average	10.43	10.66	11.00	10.55	10.33	10.63	10.97	10.47	10.27	10.76	11.20	10.64	10.67	10.61	10.74
Industrial Sector															
New England	13.63	12.97	12.80	12.91	12.29	12.23	12.51	12.65	12.25	12.40	12.79	12.98	13.07	12.43	12.62
Middle Atlantic	6.75	6.54	6.57	6.43	6.36	6.36	6.42	6.24	6.33	6.37	6.32	6.14	6.57	6.34	6.29
E. N. Central	7.10	6.92	6.85	6.78	6.51	6.78	6.75	6.78	6.62	6.91	6.82	6.88	6.91	6.70	6.81
W. N. Central	7.05	7.23	7.96	6.78	6.94	7.32	7.89	6.94	7.15	7.41	8.03	7.09	7.27	7.28	7.43
S. Atlantic	6.37	6.40	6.86	6.32	5.99	6.10	6.50	6.21	5.98	6.30	6.59	6.25	6.50	6.20	6.29
E. S. Central	5.71	5.77	5.95	5.61	5.45	5.51	5.70	5.46	5.43	5.59	5.73	5.46	5.76	5.53	5.56
W. S. Central	5.23	5.21	5.92	5.30	5.04	4.98	5.23	5.43	5.06	4.89	5.13	5.33	5.43	5.17	5.10
Mountain	6.17	6.30	6.82	5.95	5.73	6.16	6.91	5.98	5.79	6.28	6.80	5.99	6.33	6.22	6.24
Pacific	8.42	9.21	10.91	9.87	8.97	10.34	12.37	10.57	9.37	10.82	12.51	10.85	9.67	10.63	10.96
U.S. Average	6.67	6.69	7.20	6.65	6.37	6.63	7.09	6.71	6.44	6.72	7.10	6.74	6.81	6.71	6.76
All Sectors (a)															
New England	18.32	17.74	17.53	17.44	18.01	17.61	17.80	17.48	18.26	18.01	18.55	18.59	17.76	17.73	18.36
Middle Atlantic	12.00	12.24	12.97	12.09	11.97	12.58	13.23	12.03	12.01	12.69	13.37	12.29	12.35	12.49	12.62
E. N. Central	10.14	10.13	10.20	10.01	9.92	10.47	10.35	10.22	10.08	10.56	10.47	10.41	10.13	10.24	10.38
W. N. Central	9.09	9.96	10.58	9.11	9.16	10.15	10.58	9.33	9.40	10.25	10.84	9.51	9.70	9.81	10.02
S. Atlantic	9.92	9.99	10.23	9.88	9.81	9.82	10.16	9.73	9.68	9.75	10.23	9.91	10.02	9.90	9.91
E. S. Central	9.29	9.40	9.63	9.25	9.26	9.41	9.56	9.25	9.32	9.44	9.72	9.44	9.40	9.38	9.49
W. S. Central	8.11	8.19	8.81	8.21	8.02	8.28	8.63	8.31	8.03	8.27	8.76	8.38	8.36	8.33	8.39
Mountain	9.09	9.42	9.93	8.97	8.84	9.58	10.14	9.14	8.96	9.68	10.17	9.18	9.39	9.48	9.54
Pacific	12.75	13.47	15.33	13.45	13.41	14.30	16.42	13.93	13.84	14.89	16.86	14.22	13.79	14.57	15.01
U.S. Average	10.32	10.47	10.96	10.33	10.29	10.64	11.11	10.43	10.36	10.72	11.25	10.61	10.54	10.64	10.76

- = 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 - December 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
United States															
Natural Gas	323.2	333.2	467.8	352.8	354.7	342.5	474.4	337.9	283.8	298.2	415.3	305.3	1,477.0	1,509.5	1,302.5
Coal	257.5	208.9	279.0	213.4	170.3	151.1	248.0	198.3	219.1	213.2	280.4	230.6	958.7	767.7	943.2
Nuclear	203.5	196.5	210.2	199.2	204.1	190.7	204.1	191.9	197.9	188.6	205.1	187.9	809.4	790.8	779.5
Renewable Energy Sources:	170.3	196.6	166.2	162.6	189.1	206.5	177.4	181.5	212.4	226.7	191.9	200.0	695.7	754.4	831.0
Conventional Hydropower	73.6	87.5	65.8	59.7	74.9	81.3	70.9	60.6	74.1	75.4	63.0	61.8	286.7	287.7	274.2
Wind	72.4	76.9	66.4	79.0	86.4	87.2	68.1	92.7	103.6	103.8	80.7	103.9	294.6	334.4	392.0
Solar (a)	13.2	21.7	22.6	13.8	16.7	27.1	27.3	18.0	22.4	35.6	36.1	23.7	71.3	89.0	117.8
Biomass	7.1	6.7	7.4	6.9	7.2	6.7	7.0	6.9	8.4	7.7	7.8	7.4	28.1	27.7	31.3
Geothermal	4.0	3.8	4.0	3.2	3.9	4.2	4.2	3.3	3.9	4.3	4.2	3.2	15.0	15.6	15.6
Pumped Storage Hydropower	-1.1	-0.9	-1.9	-1.4	-1.0	-1.2	-2.0	-1.3	-1.0	-1.2	-2.1	-1.3	-5.3	-5.5	-5.6
Petroleum (b)	4.9	4.1	4.7	3.6	4.0	4.0	4.6	3.0	4.0	3.9	4.5	2.8	17.3	15.6	15.2
Other Gases	1.1	1.0	1.1	0.9	1.0	0.4	0.8	0.8	1.0	0.3	0.6	0.8	4.0	3.0	2.7
Other Nonrenewable Fuels (c)	1.8	1.9	2.0	1.9	1.9	1.8	1.9	1.8	1.7	1.8	1.7	1.8	7.7	7.4	7.0
Total Generation	961.3	941.4	1,129.3	933.1	924.1	895.8	1,109.2	913.8	918.8	931.5	1,097.3	928.0	3,965.1	3,842.9	3,875.6
New England (ISO-NE)															
Natural Gas	10.3	9.8	15.3	11.3	10.8	10.0	16.1	12.0	9.1	9.2	16.1	12.5	46.7	48.9	47.0
Coal	0.3	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.5	0.1	0.1
Nuclear	8.6	6.8	7.3	7.1	7.3	4.9	7.3	6.1	7.0	7.1	7.2	5.6	29.8	25.6	27.0
Conventional hydropower	2.5	2.5	0.9	1.7	2.2	2.1	1.8	1.5	2.1	2.1	1.5	1.4	7.6	7.5	7.2
Nonhydro renewables (d)	2.7	2.3	2.2	2.5	2.6	2.7	2.4	2.6	3.4	3.0	2.6	2.8	9.8	10.4	11.8
Other energy sources (e)	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.4	1.4	1.4	1.5
Total generation	24.7	21.8	26.1	23.2	23.3	20.1	28.0	22.6	22.2	21.8	27.8	22.8	95.7	94.0	94.6
Net energy for load (f)	29.7	25.9	31.6	28.1	27.8	25.3	32.3	27.6	28.9	26.8	31.8	28.3	115.2	113.0	115.9
New York (NYISO)															
Natural Gas	11.9	10.7	17.8	12.0	12.4	11.4	20.6	14.1	14.1	14.8	21.7	17.2	52.4	58.5	67.8
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	9.6	8.8	7.5	7.1	6.8	44.9	38.5	30.2
Conventional hydropower	7.4	7.4	7.9	7.8	8.0	8.0	7.8	7.3	7.9	7.9	7.3	7.0	30.5	31.1	30.2
Nonhydro renewables (d)	1.8	1.6	1.4	1.8	2.0	2.0	1.7	1.8	2.1	2.2	2.0	2.4	6.5	7.5	8.7
Other energy sources (e)	0.5	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.9	0.6	0.6
Total generation	32.5	30.6	39.1	33.5	33.4	30.7	39.2	33.0	33.1	32.6	38.3	33.5	135.6	136.3	137.6
Net energy for load (f)	37.7	34.4	42.8	35.8	35.2	32.6	43.0	35.2	36.4	35.9	43.0	36.4	150.6	146.0	151.7
Mid-Atlantic (PJM)															
Natural Gas	70.1	65.0	90.6	70.9	78.4	69.9	97.6	65.8	70.6	69.8	90.0	61.5	296.6	311.7	291.9
Coal	53.3	39.7	51.6	38.6	33.7	29.6	46.6	36.6	50.0	41.4	49.7	46.4	183.3	146.6	187.5
Nuclear	69.6	68.5	71.7	68.1	68.9	67.1	70.9	68.4	67.5	65.7	72.3	62.3	277.9	275.2	267.9
Conventional hydropower	3.2	2.9	2.0	2.1	3.1	2.9	2.1	2.2	3.2	3.1	1.8	2.1	10.2	10.2	10.2
Nonhydro renewables (d)	9.6	9.2	6.6	9.3	10.3	10.2	7.8	10.8	11.8	11.9	9.0	11.7	34.7	39.2	44.4
Other energy sources (e)	0.7	0.6	0.5	0.4	0.6	0.5	0.4	0.5	0.7	0.5	0.3	0.4	2.3	2.0	2.0
Total generation	206.5	186.0	223.0	189.5	195.0	180.2	225.4	184.3	203.9	192.4	223.2	184.4	805.0	784.9	803.9
Net energy for load (f)	196.6	173.4	210.0	181.0	182.2	164.2	209.6	174.5	188.7	174.4	206.1	180.4	760.9	730.6	749.5
Southeast (SERC)															
Natural Gas	57.5	59.1	75.9	59.8	61.9	59.1	74.7	59.1	56.6	55.5	69.6	55.9	252.4	254.8	237.6
Coal	35.1	38.0	53.3	33.5	23.8	22.1	44.4	32.0	30.9	32.5	50.4	36.1	159.8	122.3	149.8
Nuclear	52.3	52.8	53.7	52.2	53.0	50.5	54.1	52.4	52.0	52.1	55.2	53.4	211.0	210.0	212.7
Conventional hydropower	10.8	10.8	7.5	7.9	11.1	10.2	8.8	8.0	11.2	10.5	7.1	7.6	37.0	38.1	36.5
Nonhydro renewables (d)	2.7	3.8	3.9	3.0	3.5	5.0	5.0	3.5	4.0	6.0	6.1	4.1	13.4	16.9	20.1
Other energy sources (e)	0.0	-0.2	-0.6	-0.4	-0.1	-0.3	-0.6	-0.4	-0.1	-0.4	-0.7	-0.4	-1.3	-1.4	-1.5
Total generation	158.4	164.3	193.6	155.9	153.2	146.7	186.4	154.6	154.7	156.1	187.8	156.6	672.3	640.9	655.2
Net energy for load (f)	163.2	166.6	193.3	157.0	160.3	150.1	185.9	155.4	161.5	159.5	189.0	155.8	680.1	651.7	665.9
Florida (FRCC)															
Natural Gas	35.7	46.7	52.6	40.0	40.0	45.7	52.8	40.3	31.7	36.5	45.0	37.1	174.9	178.7	150.4
Coal	3.7	4.8	5.3	4.8	2.1	3.5	5.7	5.0	7.6	9.6	8.4	5.8	18.6	16.2	31.5
Nuclear	7.6	6.4	7.7	7.3	7.3	7.6	7.6	7.0	7.8	6.9	7.8	6.7	29.1	29.5	29.2
Conventional hydropower	0.1	0.1	0.0	0.0	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	2.3	2.0	2.6	3.5	3.0	2.7	6.1	8.5	11.8
Other energy sources (e)	0.8	0.9	0.8	0.7	0.9	0.8	0.9	0.7	0.9	0.7	0.8	0.7	3.1	3.3	3.0
Total generation	49.4	60.5	68.1	54.2	52.1	60.0	69.3	54.9	50.6	57.3	65.2	53.1	232.1	236.4	226.1
Net energy for load (f)	47.8	61.3	67.8	53.0	48.5	60.4	70.8	53.9	47.1	57.8	67.0	52.1	230.0	233.6	224.0

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 - December 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Midwest (MISO)															
Natural Gas	37.2	42.2	54.7	42.7	43.9	43.2	53.4	37.9	33.9	33.3	44.6	32.0	176.8	178.4	143.7
Coal	77.3	61.2	76.1	61.3	51.0	41.1	68.5	60.9	57.8	56.8	76.5	72.3	275.9	221.7	263.4
Nuclear	25.3	23.2	27.1	26.7	26.6	22.9	24.4	21.9	24.8	23.3	24.9	24.3	102.3	95.8	97.3
Conventional hydropower	2.9	3.1	2.5	2.4	3.1	3.2	2.9	1.8	2.4	2.6	2.2	1.7	10.9	10.8	8.9
Nonhydro renewables (d)	16.4	15.9	12.5	18.7	20.3	20.1	16.3	23.4	24.7	24.7	19.4	25.5	63.5	80.1	94.4
Other energy sources (e)	2.0	1.5	1.7	1.0	1.5	1.3	1.4	0.4	1.4	1.1	1.3	0.3	6.2	4.6	4.1
Total generation	161.0	147.0	174.7	152.8	146.4	131.7	166.8	146.3	145.0	141.8	168.9	156.1	635.5	591.2	611.8
Net energy for load (f)	160.8	151.8	178.7	154.3	152.8	140.4	174.7	147.9	150.9	151.3	175.8	154.4	645.6	615.8	632.4
Central (Southwest Power Pool)															
Natural Gas	14.4	16.0	24.3	14.7	17.5	16.3	24.2	15.0	11.4	11.0	20.7	13.8	69.4	72.9	57.0
Coal	24.7	17.2	24.9	17.2	17.0	15.7	26.7	11.0	16.4	18.1	25.8	10.8	83.9	70.4	71.1
Nuclear	4.4	4.4	4.1	3.4	4.4	4.4	4.2	3.8	3.9	3.3	4.4	4.4	16.2	16.8	16.0
Conventional hydropower	5.8	6.7	4.2	3.8	5.9	6.0	5.2	3.1	4.3	4.5	3.6	3.0	20.5	20.1	15.3
Nonhydro renewables (d)	18.3	18.8	18.2	22.0	20.3	21.4	16.6	25.2	26.0	26.9	21.0	29.3	77.2	83.4	103.2
Other energy sources (e)	0.4	0.4	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	1.3	0.5	0.5
Total generation	68.0	63.6	75.8	61.2	65.1	63.8	77.0	58.3	62.2	63.9	75.6	61.5	268.6	264.2	263.1
Net energy for load (f)	64.6	60.3	76.2	61.3	61.6	60.0	74.5	59.1	58.1	60.3	73.9	60.6	262.4	255.2	252.9
Texas (ERCOT)															
Natural Gas	35.0	43.4	63.8	39.7	37.2	42.1	59.3	34.2	21.5	27.1	40.6	26.1	181.7	172.8	115.3
Coal	17.6	17.8	20.9	16.6	13.1	15.8	20.3	16.3	18.4	23.2	28.2	20.8	72.8	65.6	90.6
Nuclear	10.4	9.8	11.0	10.2	10.4	9.7	11.0	10.2	10.7	9.9	10.3	9.6	41.3	41.3	40.5
Conventional hydropower	0.3	0.3	0.2	0.1	0.3	0.3	0.3	0.1	0.2	0.2	0.2	0.1	0.9	1.0	0.7
Nonhydro renewables (d)	18.9	21.0	18.9	20.1	22.5	24.8	20.8	24.4	27.5	31.3	27.7	29.2	78.9	92.5	115.7
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	1.5
Total generation	82.5	92.6	115.2	87.1	84.1	93.0	112.1	85.6	78.8	91.9	107.4	86.1	377.2	374.8	364.2
Net energy for load (f)	82.5	92.6	115.2	87.1	84.1	93.0	112.1	85.6	78.8	91.9	107.4	86.1	377.2	374.8	364.2
Northwest															
Natural Gas	21.9	16.8	30.2	23.9	23.7	17.1	27.5	23.3	12.3	16.1	24.7	16.6	92.9	91.6	69.6
Coal	32.3	20.1	31.9	30.6	22.2	16.1	24.5	27.0	29.6	23.1	28.8	29.5	114.9	89.9	111.1
Nuclear	2.5	1.3	2.5	2.6	2.4	2.0	2.4	2.5	2.4	1.2	2.4	2.4	8.9	9.4	8.4
Conventional hydropower	30.5	37.1	27.1	26.2	35.0	38.7	32.6	28.6	36.5	34.7	30.2	31.0	120.8	134.9	132.4
Nonhydro renewables (d)	9.7	13.1	13.1	10.1	13.7	14.4	12.7	12.1	17.3	17.3	15.0	13.7	46.1	52.8	63.3
Other energy sources (e)	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.6	0.6	0.6
Total generation	97.1	88.6	104.9	93.5	97.2	88.5	99.9	93.6	98.3	92.6	101.3	93.3	384.1	379.2	385.5
Net energy for load (f)	95.6	84.5	95.5	87.8	88.2	78.9	88.5	85.2	86.0	81.1	89.9	85.6	363.4	340.8	342.7
Southwest															
Natural Gas	10.4	12.7	18.9	14.1	11.8	14.7	20.4	13.4	6.8	12.2	17.5	11.2	56.1	60.2	47.7
Coal	10.2	8.5	12.4	8.0	5.3	5.3	8.8	6.6	5.3	5.9	9.8	6.3	39.1	26.0	27.3
Nuclear	8.6	7.6	8.6	7.2	8.3	7.6	8.7	7.1	8.4	7.6	8.6	7.7	31.9	31.7	32.3
Conventional hydropower	3.0	4.3	4.1	2.6	2.7	4.0	3.7	2.8	2.4	3.7	3.5	2.6	14.0	13.1	12.2
Nonhydro renewables (d)	2.1	2.8	2.7	2.5	2.5	3.1	2.5	2.9	3.1	3.9	3.2	3.8	10.1	11.0	13.9
Other energy sources (e)	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.2	0.2	0.2
Total generation	34.4	35.9	46.7	34.4	30.5	34.8	44.2	32.8	26.1	33.4	42.6	31.6	151.4	142.3	133.7
Net energy for load (f)	18.4	23.5	35.2	22.3	21.9	26.5	35.5	23.6	22.0	27.1	34.3	23.3	99.4	107.5	106.7
California															
Natural Gas	18.0	10.2	23.1	22.8	16.7	12.6	27.0	22.6	14.9	12.0	24.2	20.5	74.1	78.9	71.5
Coal	2.2	1.2	1.9	2.2	1.4	1.2	2.1	2.3	2.5	2.2	2.2	2.2	7.5	7.0	9.1
Nuclear	3.8	4.9	4.7	2.8	4.8	4.9	4.5	2.8	4.4	4.0	4.8	4.8	16.2	17.0	18.0
Conventional hydropower	6.8	11.7	9.1	4.8	3.1	5.6	5.4	4.8	3.3	5.7	5.2	4.7	32.4	18.9	18.8
Nonhydro renewables (d)	12.6	18.7	19.2	11.3	14.3	18.9	18.0	11.9	15.4	20.2	19.3	12.7	61.7	63.1	67.7
Other energy sources (e)	-0.2	0.2	0.2	0.0	0.0	0.1	0.1	0.0	-0.1	0.1	0.1	0.1	0.2	0.2	0.2
Total generation	43.2	46.9	58.2	43.9	40.3	43.2	57.1	44.5	40.3	44.2	55.8	45.1	192.2	185.1	185.3
Net energy for load (f)	60.6	63.5	79.1	61.7	57.9	61.0	77.2	62.2	56.7	61.9	75.4	61.0	265.0	258.2	255.0

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 - December 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Electric Power Sector															
Geothermal	0.035	0.034	0.036	0.028	0.036	0.038	0.038	<i>0.030</i>	<i>0.036</i>	<i>0.039</i>	<i>0.038</i>	<i>0.029</i>	0.134	<i>0.141</i>	<i>0.142</i>
Hydroelectric Power (a)	0.656	0.779	0.585	0.532	0.667	0.724	0.635	<i>0.554</i>	<i>0.675</i>	<i>0.691</i>	<i>0.592</i>	<i>0.562</i>	2.552	<i>2.580</i>	<i>2.520</i>
Solar (b)	0.120	0.197	0.206	0.126	0.152	0.246	0.248	<i>0.164</i>	<i>0.204</i>	<i>0.324</i>	<i>0.329</i>	<i>0.215</i>	0.649	<i>0.810</i>	<i>1.072</i>
Waste Biomass (c)	0.062	0.061	0.062	0.062	0.062	0.058	0.059	<i>0.059</i>	<i>0.066</i>	<i>0.065</i>	<i>0.062</i>	<i>0.061</i>	0.248	<i>0.238</i>	<i>0.254</i>
Wood Biomass	0.052	0.046	0.055	0.048	0.049	0.043	0.048	<i>0.048</i>	<i>0.063</i>	<i>0.053</i>	<i>0.058</i>	<i>0.054</i>	0.201	<i>0.187</i>	<i>0.228</i>
Wind	0.659	0.700	0.604	0.719	0.786	0.794	0.620	<i>0.844</i>	<i>0.943</i>	<i>0.945</i>	<i>0.735</i>	<i>0.946</i>	2.682	<i>3.045</i>	<i>3.569</i>
Subtotal	1.584	1.817	1.548	1.515	1.752	1.904	1.647	<i>1.698</i>	<i>1.987</i>	<i>2.117</i>	<i>1.814</i>	<i>1.867</i>	6.465	<i>7.001</i>	<i>7.784</i>
Industrial Sector															
Biofuel Losses and Co-products (d)	0.194	0.203	0.199	0.203	0.197	0.135	0.179	<i>0.183</i>	<i>0.184</i>	<i>0.184</i>	<i>0.192</i>	<i>0.193</i>	0.800	<i>0.694</i>	<i>0.753</i>
Geothermal	0.001	0.001	0.001	0.001	0.001	0.001	0.001	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	0.004	<i>0.004</i>	<i>0.004</i>
Hydroelectric Power (a)	0.003	0.003	0.002	0.002	0.003	0.002	0.002	<i>0.002</i>	<i>0.002</i>	<i>0.002</i>	<i>0.002</i>	<i>0.002</i>	0.009	<i>0.009</i>	<i>0.009</i>
Solar (b)	0.006	0.008	0.009	0.006	0.007	0.010	0.010	<i>0.007</i>	<i>0.007</i>	<i>0.011</i>	<i>0.011</i>	<i>0.008</i>	0.028	<i>0.033</i>	<i>0.037</i>
Waste Biomass (c)	0.041	0.038	0.037	0.041	0.041	0.039	0.036	<i>0.040</i>	<i>0.039</i>	<i>0.038</i>	<i>0.037</i>	<i>0.040</i>	0.156	<i>0.156</i>	<i>0.155</i>
Wood Biomass	0.357	0.345	0.356	0.356	0.350	0.341	0.337	<i>0.350</i>	<i>0.339</i>	<i>0.336</i>	<i>0.348</i>	<i>0.351</i>	1.413	<i>1.378</i>	<i>1.373</i>
Subtotal	0.599	0.594	0.600	0.608	0.596	0.522	0.560	<i>0.580</i>	<i>0.570</i>	<i>0.566</i>	<i>0.585</i>	<i>0.591</i>	2.401	<i>2.258</i>	<i>2.312</i>
Commercial Sector															
Geothermal	0.006	0.006	0.006	0.006	0.006	0.006	0.006	<i>0.006</i>	<i>0.006</i>	<i>0.006</i>	<i>0.006</i>	<i>0.006</i>	0.024	<i>0.024</i>	<i>0.024</i>
Solar (b)	0.021	0.031	0.032	0.021	0.025	0.037	0.037	<i>0.026</i>	<i>0.029</i>	<i>0.042</i>	<i>0.042</i>	<i>0.030</i>	0.106	<i>0.125</i>	<i>0.143</i>
Waste Biomass (c)	0.010	0.009	0.010	0.010	0.010	0.008	0.009	<i>0.009</i>	<i>0.009</i>	<i>0.009</i>	<i>0.009</i>	<i>0.009</i>	0.039	<i>0.036</i>	<i>0.036</i>
Wood Biomass	0.021	0.021	0.021	0.021	0.021	0.021	0.021	<i>0.021</i>	<i>0.020</i>	<i>0.020</i>	<i>0.021</i>	<i>0.021</i>	0.084	<i>0.083</i>	<i>0.082</i>
Subtotal	0.065	0.074	0.075	0.065	0.068	0.077	0.079	<i>0.068</i>	<i>0.071</i>	<i>0.083</i>	<i>0.085</i>	<i>0.072</i>	0.280	<i>0.292</i>	<i>0.311</i>
Residential Sector															
Geothermal	0.010	0.010	0.010	0.010	0.010	0.010	0.010	<i>0.010</i>	<i>0.010</i>	<i>0.010</i>	<i>0.010</i>	<i>0.010</i>	0.040	<i>0.040</i>	<i>0.040</i>
Solar (e)	0.049	0.075	0.077	0.051	0.058	0.087	0.087	<i>0.060</i>	<i>0.065</i>	<i>0.100</i>	<i>0.101</i>	<i>0.069</i>	0.252	<i>0.292</i>	<i>0.336</i>
Wood Biomass	0.130	0.132	0.133	0.133	0.124	0.124	0.128	<i>0.133</i>	<i>0.124</i>	<i>0.124</i>	<i>0.128</i>	<i>0.133</i>	0.529	<i>0.509</i>	<i>0.509</i>
Subtotal	0.189	0.217	0.220	0.195	0.191	0.220	0.225	<i>0.203</i>	<i>0.199</i>	<i>0.234</i>	<i>0.239</i>	<i>0.212</i>	0.821	<i>0.840</i>	<i>0.884</i>
Transportation Sector															
Biomass-based Diesel (f)	0.058	0.071	0.071	0.066	0.061	0.064	0.073	<i>0.071</i>	<i>0.071</i>	<i>0.072</i>	<i>0.072</i>	<i>0.078</i>	0.265	<i>0.269</i>	<i>0.292</i>
Ethanol (f)	0.273	0.295	0.291	0.297	0.257	0.220	0.267	<i>0.262</i>	<i>0.255</i>	<i>0.269</i>	<i>0.280</i>	<i>0.275</i>	1.155	<i>1.006</i>	<i>1.079</i>
Subtotal	0.331	0.365	0.362	0.362	0.318	0.284	0.340	<i>0.333</i>	<i>0.326</i>	<i>0.342</i>	<i>0.351</i>	<i>0.353</i>	1.421	<i>1.275</i>	<i>1.372</i>
All Sectors Total															
Biomass-based Diesel (f)	0.058	0.071	0.071	0.066	0.061	0.064	0.073	<i>0.071</i>	<i>0.071</i>	<i>0.072</i>	<i>0.072</i>	<i>0.078</i>	0.265	<i>0.269</i>	<i>0.292</i>
Biofuel Losses and Co-products (d)	0.194	0.203	0.199	0.203	0.197	0.135	0.179	<i>0.183</i>	<i>0.184</i>	<i>0.184</i>	<i>0.192</i>	<i>0.193</i>	0.800	<i>0.694</i>	<i>0.753</i>
Ethanol (f)	0.284	0.306	0.302	0.308	0.267	0.228	0.278	<i>0.272</i>	<i>0.265</i>	<i>0.280</i>	<i>0.290</i>	<i>0.286</i>	1.200	<i>1.045</i>	<i>1.121</i>
Geothermal	0.052	0.051	0.053	0.045	0.052	0.054	0.054	<i>0.047</i>	<i>0.053</i>	<i>0.056</i>	<i>0.055</i>	<i>0.046</i>	0.201	<i>0.207</i>	<i>0.209</i>
Hydroelectric Power (a)	0.659	0.782	0.587	0.534	0.670	0.727	0.637	<i>0.556</i>	<i>0.678</i>	<i>0.694</i>	<i>0.595</i>	<i>0.564</i>	2.563	<i>2.590</i>	<i>2.531</i>
Solar (b)(e)	0.193	0.307	0.317	0.201	0.238	0.373	0.378	<i>0.256</i>	<i>0.306</i>	<i>0.477</i>	<i>0.483</i>	<i>0.322</i>	1.018	<i>1.245</i>	<i>1.588</i>
Waste Biomass (c)	0.113	0.108	0.108	0.113	0.113	0.105	0.104	<i>0.108</i>	<i>0.115</i>	<i>0.111</i>	<i>0.108</i>	<i>0.110</i>	0.442	<i>0.430</i>	<i>0.444</i>
Wood Biomass	0.560	0.543	0.565	0.558	0.544	0.529	0.533	<i>0.551</i>	<i>0.546</i>	<i>0.533</i>	<i>0.555</i>	<i>0.558</i>	2.227	<i>2.157</i>	<i>2.192</i>
Wind	0.659	0.700	0.604	0.719	0.786	0.794	0.620	<i>0.844</i>	<i>0.943</i>	<i>0.945</i>	<i>0.735</i>	<i>0.946</i>	2.682	<i>3.045</i>	<i>3.569</i>
Total Consumption	2.769	3.068	2.806	2.745	2.926	3.007	2.851	<i>2.882</i>	<i>3.152</i>	<i>3.341</i>	<i>3.075</i>	<i>3.095</i>	11.388	<i>11.666</i>	<i>12.663</i>

- = 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 - December 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	6,805	6,758	6,659	6,669	6,670	6,588	6,589	6,625	6,627	6,629	6,554	6,640	6,669	6,625	6,640
Waste	4,002	3,970	3,960	3,942	3,943	3,861	3,863	3,899	3,901	3,903	3,828	3,913	3,942	3,899	3,913
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	79,611	79,590	79,485	79,470	79,483	79,470	79,640	79,596	79,733	79,682	79,758	79,800	79,470	79,596	79,800
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)	32,763	33,213	33,952	37,045	38,876	41,100	42,694	49,796	51,036	53,767	56,433	63,760	37,045	49,796	63,760
Wind	96,514	97,989	99,570	103,651	105,999	107,453	109,049	126,685	127,934	129,073	129,261	136,187	103,651	126,685	136,187
Other Sectors (c)															
Biomass	6,552	6,501	6,501	6,434	6,443	6,443	6,443	6,440	6,440	6,440	6,440	6,440	6,434	6,440	6,440
Waste	785	786	786	786	786	786	786	804	804	804	804	804	786	804	804
Wood	5,767	5,715	5,715	5,648	5,656	5,656	5,656	5,636	5,636	5,636	5,636	5,636	5,648	5,636	5,636
Conventional Hydroelectric	289	289	289	289	289	289	289	289	289	292	290	290	289	289	290
Large-Scale Solar (b)	414	421	432	439	441	453	458	461	461	461	461	476	439	461	476
Small-Scale Solar (d)	20,254	21,073	22,031	23,214	24,434	25,370	26,506	27,379	28,292	29,284	30,391	31,498	23,214	27,379	31,498
Residential Sector	12,281	12,847	13,534	14,249	15,072	15,700	16,428	17,027	17,595	18,200	18,863	19,550	14,249	17,027	19,550
Commercial Sector	6,362	6,538	6,761	7,168	7,486	7,730	8,079	8,300	8,586	8,912	9,290	9,646	7,168	8,300	9,646
Industrial Sector	1,611	1,688	1,736	1,797	1,875	1,939	1,998	2,052	2,110	2,172	2,238	2,302	1,797	2,052	2,302
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	7.1	6.7	7.4	6.9	7.2	6.7	7.0	6.9	8.4	7.7	7.8	7.4	28.1	27.7	31.3
Waste	4.0	4.0	4.1	4.0	4.1	4.0	4.0	3.9	4.5	4.4	4.2	4.1	16.1	16.1	17.1
Wood	3.0	2.7	3.4	2.9	3.0	2.7	3.0	3.0	3.9	3.3	3.6	3.3	12.0	11.7	14.2
Conventional Hydroelectric	73.6	87.5	65.8	59.7	74.9	81.3	70.9	60.6	74.1	75.4	63.0	61.8	286.7	287.7	274.2
Geothermal	4.0	3.8	4.0	3.2	3.9	4.2	4.2	3.3	3.9	4.3	4.2	3.2	15.0	15.6	15.6
Large-Scale Solar (b)	13.2	21.7	22.6	13.8	16.7	27.1	27.3	18.0	22.4	35.6	36.1	23.7	71.3	89.0	117.8
Wind	72.4	76.9	66.4	79.0	86.4	87.2	68.1	92.7	103.6	103.8	80.7	103.9	294.6	334.4	392.0
Other Sectors (c)															
Biomass	7.5	7.0	7.6	7.4	7.4	7.1	7.0	7.4	7.3	7.1	7.0	7.4	29.4	28.8	28.7
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	2.9	2.8	2.8
Wood	6.7	6.3	6.9	6.6	6.7	6.4	6.3	6.6	6.6	6.4	6.3	6.6	26.5	26.0	26.0
Conventional Hydroelectric	0.4	0.4	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.2	1.2	1.2
Large-Scale Solar (b)	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.8	0.8
Small-Scale Solar (d)	6.9	10.4	10.6	7.1	8.4	12.4	12.4	8.5	9.6	14.4	14.5	10.0	35.0	41.7	48.4
Residential Sector	4.0	6.2	6.4	4.3	5.0	7.5	7.5	5.1	5.7	8.8	8.8	6.1	20.9	25.1	29.4
Commercial Sector	2.2	3.3	3.3	2.2	2.7	3.8	3.9	2.7	3.1	4.4	4.5	3.1	11.0	13.0	15.1
Industrial Sector	0.6	0.9	0.9	0.6	0.7	1.0	1.1	0.7	0.8	1.2	1.2	0.8	3.0	3.5	4.0
Wind	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	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 - December 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	17,303	18,584	18,749	18,872	18,923	19,014	19,109	19,092	18,412	18,979
Real Personal Consumption Expend. (billion chained 2012 dollars - SAAR)	13,093	13,213	13,301	13,354	13,118	11,860	12,917	13,022	13,072	13,134	13,199	13,274	13,240	12,729	13,170
Real Private Fixed Investment (billion chained 2012 dollars - SAAR)	3,362	3,359	3,379	3,387	3,375	3,096	3,297	3,353	3,364	3,350	3,345	3,350	3,372	3,280	3,352
Business Inventory Change (billion chained 2012 dollars - SAAR)	99	53	41	3	-52	-298	0	38	68	80	76	66	49	-78	72
Real Government Expenditures (billion chained 2012 dollars - SAAR)	3,260	3,300	3,318	3,337	3,348	3,369	3,330	3,305	3,315	3,320	3,326	3,327	3,304	3,338	3,322
Real Exports of Goods & Services (billion chained 2012 dollars - SAAR)	2,560	2,531	2,537	2,558	2,495	1,927	2,167	2,232	2,321	2,331	2,393	2,460	2,547	2,205	2,376
Real Imports of Goods & Services (billion chained 2012 dollars - SAAR)	3,468	3,483	3,487	3,419	3,283	2,702	3,177	3,250	3,312	3,338	3,367	3,407	3,464	3,103	3,356
Real Disposable Personal Income (billion chained 2012 dollars - SAAR)	14,854	14,818	14,895	14,965	15,061	16,576	15,852	15,283	15,079	15,054	15,071	15,074	14,883	15,693	15,070
Non-Farm Employment (millions)	150.2	150.6	151.2	151.8	151.9	133.7	140.8	143.2	145.7	147.0	148.1	149.0	150.9	142.4	147.5
Civilian Unemployment Rate (percent)	3.9	3.6	3.6	3.5	3.8	13.0	8.8	6.7	6.0	5.8	5.6	5.4	3.7	8.1	5.7
Housing Starts (millions - SAAR)	1.20	1.26	1.29	1.43	1.48	1.08	1.44	1.48	1.39	1.38	1.35	1.34	1.30	1.37	1.37
Industrial Production Indices (Index, 2012=100)															
Total Industrial Production	109.8	109.2	109.5	109.6	107.7	93.6	102.1	103.1	103.4	103.6	103.8	104.3	109.5	101.6	103.8
Manufacturing	106.5	105.7	105.9	105.8	104.4	89.2	99.8	100.9	101.2	100.8	100.5	100.7	106.0	98.6	100.8
Food	115.1	115.3	114.6	116.1	116.5	107.9	113.3	114.7	115.9	117.1	118.2	118.9	115.3	113.1	117.5
Paper	94.2	91.8	92.6	93.6	94.7	87.2	88.0	89.1	88.0	88.5	88.9	89.5	93.0	89.7	88.7
Petroleum and Coal Products	106.3	104.9	106.7	104.9	105.0	82.7	89.3	90.8	92.7	93.9	94.7	95.4	105.7	91.9	94.2
Chemicals	101.4	99.9	100.6	100.3	99.8	93.7	96.5	99.0	101.1	103.5	105.4	106.8	100.5	97.2	104.2
Nonmetallic Mineral Products	119.7	119.0	119.7	119.3	122.2	106.3	112.8	112.9	111.5	111.2	111.1	111.3	119.4	113.5	111.3
Primary Metals	97.9	96.7	96.4	96.6	94.4	69.7	79.3	82.2	80.3	80.6	80.7	81.2	96.9	81.4	80.7
Coal-weighted Manufacturing (a)	106.9	105.6	106.0	106.4	106.5	94.1	100.7	102.0	101.7	102.0	102.3	102.8	106.2	100.8	102.2
Distillate-weighted Manufacturing (a)	98.5	97.9	98.3	98.6	98.8	85.5	92.2	93.5	93.8	94.2	94.4	94.7	98.3	92.5	94.3
Electricity-weighted Manufacturing (a)	106.5	105.3	105.6	105.9	105.1	89.3	98.3	100.0	100.0	100.8	101.3	102.1	105.8	98.2	101.0
Natural Gas-weighted Manufacturing (a)	108.7	107.7	108.0	108.2	107.8	94.0	100.5	102.2	102.2	103.3	104.1	104.9	108.1	101.1	103.6
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	2.60	2.61	2.62	2.64	2.66	2.67	2.56	2.59	2.65
Producer Price Index: All Commodities (index, 1982=1.00)	2.01	2.00	1.99	2.00	1.97	1.87	1.94	1.99	2.02	2.05	2.05	2.06	2.00	1.94	2.05
Producer Price Index: Petroleum (index, 1982=1.00)	1.81	2.08	1.95	1.93	1.74	1.09	1.45	1.49	1.51	1.61	1.63	1.59	1.94	1.44	1.58
GDP Implicit Price Deflator (index, 2012=100)	111.5	112.2	112.6	113.0	113.4	112.9	113.9	114.3	114.8	115.4	115.9	116.5	112.3	113.6	115.7
Miscellaneous															
Vehicle Miles Traveled (b) (million miles/day)	8,293	9,323	9,281	8,897	7,756	6,872	8,282	8,021	7,786	8,703	8,865	8,704	8,951	7,735	8,518
Air Travel Capacity (Available ton-miles/day, thousands)	643	685	712	688	628	362	487	546	566	552	569	639	682	506	581
Aircraft Utilization (Revenue ton-miles/day, thousands)	380	426	427	406	328	152	211	273	306	308	349	374	410	241	335
Airline Ticket Price Index (index, 1982-1984=100)	255.7	278.3	263.8	263.8	250.8	203.7	200.6	204.4	188.8	192.0	190.8	198.9	265.4	214.9	192.7
Raw Steel Production (million short tons per day)	0.273	0.271	0.264	0.265	0.268	0.174	0.196	0.219	0.270	0.240	0.241	0.282	0.268	0.214	0.258
Carbon Dioxide (CO2) Emissions (million metric tons)															
Petroleum	578	592	599	597	552	442	518	534	534	552	567	575	2,365	2,046	2,229
Natural Gas	511	351	382	450	493	351	385	434	474	332	354	419	1,694	1,663	1,579
Coal	289	238	306	242	202	177	273	224	252	247	304	259	1,076	876	1,062
Total Energy (c)	1,380	1,184	1,290	1,292	1,250	973	1,179	1,195	1,263	1,134	1,228	1,256	5,146	4,597	4,881

- = 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 - December 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	999	999	1,003	1,005	993	901	972	980	986	989	993	997	1,001	962	991
Middle Atlantic	2,786	2,799	2,804	2,813	2,774	2,486	2,679	2,704	2,725	2,737	2,755	2,774	2,801	2,661	2,748
E. N. Central	2,524	2,522	2,538	2,545	2,502	2,266	2,465	2,482	2,491	2,497	2,505	2,515	2,532	2,429	2,502
W. N. Central	1,187	1,189	1,196	1,201	1,188	1,084	1,160	1,169	1,175	1,176	1,182	1,185	1,193	1,150	1,180
S. Atlantic	3,372	3,382	3,405	3,426	3,388	3,114	3,332	3,356	3,371	3,377	3,389	3,402	3,396	3,297	3,385
E. S. Central	826	829	834	836	828	742	804	811	815	817	821	824	831	796	819
W. S. Central	2,330	2,331	2,355	2,358	2,317	2,125	2,264	2,282	2,292	2,298	2,309	2,321	2,344	2,247	2,305
Mountain	1,259	1,267	1,283	1,294	1,283	1,177	1,257	1,269	1,277	1,280	1,285	1,289	1,276	1,247	1,283
Pacific	3,698	3,735	3,755	3,808	3,769	3,436	3,681	3,728	3,772	3,785	3,809	3,832	3,749	3,654	3,799
Industrial Output, Manufacturing (Index, Year 2012=100)															
New England	99.5	98.6	98.8	98.8	97.6	83.4	92.4	93.9	94.2	94.2	94.0	94.2	98.9	91.8	94.2
Middle Atlantic	99.1	98.2	98.1	98.1	97.1	80.3	90.9	91.9	91.8	91.5	91.7	92.1	98.4	90.1	91.8
E. N. Central	108.4	107.1	107.0	106.7	105.1	86.0	99.3	100.6	100.8	100.6	99.9	100.6	107.3	97.7	100.5
W. N. Central	106.0	105.2	105.3	105.2	103.7	90.2	100.3	101.6	102.0	101.6	101.3	101.4	105.4	99.0	101.6
S. Atlantic	111.0	110.4	110.8	111.1	109.2	94.3	104.9	106.4	106.7	106.2	105.8	106.0	110.8	103.7	106.2
E. S. Central	110.8	109.8	110.2	110.0	109.0	90.1	104.1	105.7	106.4	106.0	105.5	105.6	110.2	102.2	105.9
W. S. Central	101.7	101.1	101.4	101.5	99.8	87.7	95.3	96.0	95.8	95.2	95.0	95.3	101.4	94.7	95.3
Mountain	116.5	115.8	116.6	116.2	114.7	102.7	113.8	114.8	115.0	114.4	113.9	114.0	116.3	111.5	114.3
Pacific	105.1	104.2	104.1	104.3	102.4	86.7	95.4	96.3	96.4	95.9	95.8	96.0	104.4	95.2	96.0
Real Personal Income (Billion \$2009)															
New England	889	885	883	885	892	992	938	903	890	889	890	891	886	931	890
Middle Atlantic	2,280	2,284	2,286	2,294	2,308	2,507	2,395	2,319	2,288	2,288	2,292	2,294	2,286	2,382	2,291
E. N. Central	2,432	2,426	2,433	2,441	2,449	2,683	2,572	2,491	2,453	2,452	2,454	2,454	2,433	2,549	2,453
W. N. Central	1,145	1,139	1,150	1,152	1,160	1,252	1,212	1,171	1,156	1,152	1,152	1,151	1,146	1,199	1,153
S. Atlantic	3,212	3,213	3,220	3,237	3,269	3,477	3,407	3,305	3,279	3,273	3,276	3,276	3,220	3,364	3,276
E. S. Central	891	890	893	896	904	968	947	913	904	902	903	901	893	933	902
W. S. Central	2,006	2,005	2,014	2,022	2,027	2,194	2,124	2,046	2,023	2,014	2,017	2,017	2,012	2,098	2,018
Mountain	1,183	1,184	1,192	1,199	1,211	1,312	1,269	1,231	1,216	1,213	1,215	1,215	1,190	1,256	1,215
Pacific	2,788	2,798	2,801	2,830	2,852	3,065	2,935	2,870	2,853	2,854	2,861	2,863	2,804	2,931	2,858
Households (Thousands)															
New England	5,948	5,958	5,973	5,968	5,909	5,931	5,934	5,942	5,964	5,976	5,988	6,000	5,968	5,942	6,000
Middle Atlantic	16,285	16,326	16,369	16,352	16,190	16,254	16,276	16,314	16,383	16,418	16,450	16,481	16,352	16,314	16,481
E. N. Central	19,041	19,058	19,112	19,097	18,913	19,002	19,032	19,081	19,162	19,209	19,252	19,297	19,097	19,081	19,297
W. N. Central	8,689	8,713	8,745	8,744	8,665	8,706	8,722	8,745	8,795	8,824	8,851	8,879	8,744	8,745	8,879
S. Atlantic	25,670	25,735	25,851	25,876	25,668	25,804	25,864	25,949	26,109	26,221	26,334	26,455	25,876	25,949	26,455
E. S. Central	7,689	7,714	7,740	7,738	7,668	7,703	7,715	7,735	7,776	7,800	7,822	7,845	7,738	7,735	7,845
W. S. Central	14,856	14,913	14,981	14,996	14,876	14,957	15,003	15,070	15,157	15,231	15,301	15,373	14,996	15,070	15,373
Mountain	9,399	9,443	9,500	9,523	9,458	9,518	9,550	9,595	9,670	9,725	9,777	9,830	9,523	9,595	9,830
Pacific	18,920	18,954	19,015	19,010	18,834	18,919	18,968	19,043	19,156	19,223	19,282	19,341	19,010	19,043	19,341
Total Non-farm Employment (Millions)															
New England	7.5	7.5	7.5	7.5	7.5	6.4	6.8	7.0	7.1	7.2	7.2	7.3	7.5	6.9	7.2
Middle Atlantic	20.0	20.0	20.1	20.1	20.1	16.8	18.0	18.4	18.7	19.0	19.2	19.4	20.0	18.3	19.1
E. N. Central	22.3	22.3	22.3	22.3	22.3	19.3	20.6	21.0	21.4	21.6	21.7	21.9	22.3	20.8	21.6
W. N. Central	10.8	10.8	10.8	10.8	10.8	9.8	10.2	10.4	10.5	10.5	10.6	10.6	10.8	10.3	10.6
S. Atlantic	29.0	29.1	29.2	29.3	29.4	26.4	27.6	28.0	28.5	28.7	28.9	29.0	29.1	27.8	28.8
E. S. Central	8.3	8.3	8.3	8.3	8.3	7.5	7.9	8.0	8.1	8.2	8.2	8.2	8.3	8.0	8.2
W. S. Central	17.6	17.7	17.8	17.9	18.0	16.4	16.9	17.1	17.3	17.5	17.6	17.6	17.8	17.1	17.5
Mountain	11.0	11.0	11.1	11.2	11.2	10.2	10.6	10.8	11.0	11.1	11.1	11.2	11.1	10.7	11.1
Pacific	23.6	23.7	23.9	24.0	24.0	20.9	21.8	22.3	22.9	23.1	23.4	23.5	23.8	22.3	23.2

- = 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 - December 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	3,227	895	135	2,278	2,730	971	111	2,038	3,173	869	125	2,096	6,535	5,851	6,263
Middle Atlantic	2,988	633	68	2,064	2,471	838	85	1,835	2,942	698	73	1,920	5,752	5,229	5,632
E. N. Central	3,326	760	64	2,278	2,789	848	126	2,190	3,162	733	117	2,225	6,428	5,953	6,237
W. N. Central	3,644	772	107	2,547	3,038	799	168	2,460	3,258	704	158	2,448	7,070	6,465	6,568
South Atlantic	1,335	128	2	919	1,109	253	17	844	1,401	190	10	910	2,384	2,223	2,512
E. S. Central	1,713	194	1	1,273	1,482	336	19	1,198	1,797	236	17	1,257	3,180	3,036	3,308
W. S. Central	1,207	90	0	847	973	102	8	727	1,071	69	4	775	2,144	1,809	1,920
Mountain	2,428	786	127	1,965	2,217	673	126	1,791	2,191	671	147	1,825	5,306	4,807	4,834
Pacific	1,684	573	94	1,178	1,534	521	64	1,131	1,547	584	86	1,193	3,530	3,249	3,411
U.S. Average	2,209	480	56	1,557	1,875	541	70	1,443	2,109	483	70	1,494	4,302	3,929	4,157
Heating Degree Days, Prior 10-year Average															
New England	3,165	820	111	2,122	3,152	822	105	2,127	3,133	855	107	2,103	6,218	6,207	6,198
Middle Atlantic	2,956	650	76	1,941	2,949	644	69	1,944	2,913	677	72	1,911	5,623	5,606	5,573
E. N. Central	3,196	697	112	2,198	3,198	698	102	2,197	3,157	731	105	2,179	6,203	6,195	6,171
W. N. Central	3,255	702	140	2,380	3,287	702	131	2,379	3,247	728	133	2,382	6,477	6,500	6,490
South Atlantic	1,480	176	11	964	1,459	169	10	952	1,393	181	11	911	2,631	2,589	2,496
E. S. Central	1,861	222	17	1,292	1,850	214	15	1,277	1,772	232	16	1,246	3,392	3,356	3,265
W. S. Central	1,183	85	4	808	1,199	83	3	794	1,140	86	3	785	2,079	2,078	2,014
Mountain	2,164	714	139	1,855	2,192	718	135	1,844	2,182	701	134	1,845	4,873	4,890	4,862
Pacific	1,444	582	83	1,175	1,456	580	85	1,161	1,461	552	80	1,151	3,283	3,282	3,244
U.S. Average	2,150	475	68	1,518	2,149	472	64	1,509	2,108	482	64	1,486	4,212	4,194	4,140
Cooling Degree Days															
New England	0	67	469	0	0	103	544	0	0	85	419	2	536	647	506
Middle Atlantic	0	144	631	8	0	155	677	5	0	153	551	5	783	837	708
E. N. Central	0	175	651	7	2	217	607	3	0	217	546	7	833	829	771
W. N. Central	0	222	729	2	6	295	662	3	3	268	670	10	954	966	951
South Atlantic	152	755	1,297	307	195	617	1,233	315	124	659	1,188	249	2,511	2,361	2,220
E. S. Central	29	550	1,217	87	72	422	1,062	79	28	530	1,080	73	1,882	1,637	1,711
W. S. Central	72	821	1,696	167	174	839	1,499	215	101	918	1,530	212	2,757	2,727	2,761
Mountain	10	341	987	60	9	463	1,081	125	20	440	935	80	1,399	1,678	1,475
Pacific	22	166	595	68	24	199	735	130	27	168	586	59	852	1,089	841
U.S. Average	45	399	954	105	70	395	937	127	45	410	869	99	1,503	1,529	1,424
Cooling Degree Days, Prior 10-year Average															
New England	0	79	455	1	0	83	471	1	0	81	474	1	536	554	556
Middle Atlantic	0	165	589	6	0	170	609	6	0	163	609	6	760	785	778
E. N. Central	3	242	548	7	3	240	579	8	3	234	572	7	799	829	816
W. N. Central	7	298	669	11	7	296	697	11	7	294	686	10	985	1,011	998
South Atlantic	120	684	1,180	239	127	696	1,202	247	143	680	1,196	262	2,224	2,272	2,280
E. S. Central	36	555	1,049	67	36	557	1,082	72	42	532	1,065	74	1,706	1,747	1,713
W. S. Central	103	897	1,552	205	100	892	1,576	207	114	880	1,567	210	2,757	2,774	2,772
Mountain	25	438	932	81	24	432	939	81	24	444	954	87	1,476	1,476	1,509
Pacific	31	185	631	76	31	185	625	78	31	193	650	86	923	919	960
U.S. Average	46	417	873	97	47	420	892	100	52	415	894	105	1,433	1,459	1,466

- = no data available

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

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

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

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

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

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

Appendix to the December 2020 Short-Term Energy Outlook

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

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

This appendix is published in the *Short-Term Energy Outlook* in even numbered months.

Table a1. Summary of Estimated Petroleum and Other Liquids Quantities

	October 2020	November 2020	October- November 2020 Average	October- November 2019 Average	2017–2019 Average
Global Petroleum and Other Liquids (million barrels per day)					
Global Petroleum and Other Liquids Production (a)	91.7	93.4	92.5	101.6	99.8
Global Petroleum and Other Liquids Consumption (b)	94.8	95.6	95.2	101.4	100.3
Biofuels Production (c)	2.6	2.4	2.5	2.7	2.5
Biofuels Consumption (c)	2.3	2.3	2.3	2.4	2.3
Iran Liquid Fuels Production	2.6	2.7	2.7	3.0	4.1
Iran Liquid Fuels Consumption	1.7	1.7	1.7	1.8	1.8
Petroleum and Petroleum Products Produced and Consumed in Countries Other Than Iran (million barrels per day)					
Production (d)	86.4	88.4	87.4	96.0	93.2
Consumption (d)	90.8	91.6	91.2	97.2	96.2
Production minus Consumption	-4.5	-3.2	-3.8	-1.2	-2.9
World Inventory Net Withdrawals Including Iran	3.2	2.1	2.7	-0.2	0.5
Estimated OECD Inventory Level (e) (million barrels)	3,091	3,057	3,074	2,885	2,910
Surplus Production Capacity (million barrels per day)					
OPEC Surplus Crude Oil Production Capacity (f)	7.7	7.7	7.7	2.1	2.0

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

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

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

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

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

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

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

Source: U.S. Energy Information Administration.

Table a2. Crude Oil and Petroleum Product Price Data

Item	October 2020	November 2020	October- November 2020 Average	October- November 2019 Average	2017–2019 Average
Brent Front Month Futures Price (\$ per barrel)	41.52	43.98	42.69	61.06	63.53
WTI Front Month Futures Price (\$ per barrel)	39.55	41.35	40.41	55.43	57.60
Dubai Front Month Futures Price (\$ per barrel)	41.13	44.22	42.60	61.56	62.36
Brent 1st - 13th Month Futures Spread (\$ per barrel)	-3.06	-1.64	-2.39	3.70	2.02
WTI 1st - 13th Month Futures Spread (\$ per barrel)	-2.56	-1.78	-2.19	2.98	1.39
RBOB Front Month Futures Price (\$ per gallon)	1.16	1.17	1.16	1.63	1.76
Heating Oil Front Month Futures Price (\$ per gallon)	1.15	1.25	1.20	1.93	1.90
RBOB - Brent Futures Crack Spread (\$ per gallon)	0.17	0.12	0.15	0.18	0.24
Heating Oil - Brent Futures Crack Spread (\$ per gallon)	0.16	0.20	0.18	0.47	0.39
Heating Oil - Brent Futures Crack Spread (\$ per gallon)	0.16	0.20	0.18	0.47	0.39

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

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

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

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