



Short-Term Energy Outlook

Forecast highlights

Global liquid fuels

- The November *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 compared with the same period a year ago. GDP began rising in the third quarter of 2020, and this STEO assumes it will grow by 3.7% from 2020 to 2021. The U.S. macroeconomic assumptions in this outlook are based on forecasts by IHS Markit.
- Brent crude oil spot prices averaged \$40 per barrel (b) in October, down \$1/b from the average in September. Brent prices fell in October as previously disrupted crude oil production in Libya came back online and as COVID-19 cases began increasing in many countries, which could reduce oil demand in the coming months. Despite these developments, the U.S. Energy Information Administration (EIA) expects global oil inventories to continue falling in the coming months. However, EIA expects high global oil inventory levels and surplus crude oil production capacity will limit upward pressure on oil prices and that Brent prices will remain near \$40/b through the end of 2020. EIA expects that as global oil demand rises, forecast inventory draws in 2021 will cause some upward oil price pressures. EIA forecasts Brent crude oil prices will average \$47/b in 2021.
- EIA estimates that an average of 95.3 million barrels per day (b/d) of petroleum and liquid fuels was consumed globally in October. Liquid fuels consumption was down 5.9 million b/d from October 2019, but it was up from both the third-quarter 2020 average of 94.1 million b/d and the second-quarter 2020 average of 85.3 million b/d. EIA forecasts that global consumption of petroleum and liquid fuels will average 92.9 million b/d for all of 2020, down by 8.6 million b/d from 2019, before increasing by 5.9 million b/d in 2021.
- EIA reported that 10.6 million b/d of crude oil was produced in the United States in August (the most recent month for which historical data are available), down 0.4 million b/d from July. Production fell in August mainly because hurricanes disrupted production from the U.S. Gulf of Mexico. EIA reported that U.S. crude oil production in the Gulf of

Mexico averaged 1.2 million b/d in August, down 0.5 million b/d from July. Since reaching a two-and-a-half year low of 10.0 million b/d in May, when producers curtailed wells, U.S. crude oil production has increased mainly because tight oil operators have brought wells back online in response to rising prices. EIA estimates that production will rise to 11.2 million b/d in November. However, EIA expects U.S. crude oil production to generally decline to an average of 11.0 million b/d in the second quarter of 2021 because new drilling activity will not generate enough production to offset declines from existing wells. EIA expects drilling activity to rise later in 2021, contributing to U.S. crude oil production reaching 11.3 million b/d in the fourth quarter of 2021. On an annual average basis, EIA expects U.S. crude oil production to fall from 12.2 million b/d in 2019 to 11.4 million b/d in 2020 and 11.1 million b/d in 2021.

Natural Gas

- In October, the Henry Hub natural gas spot price averaged \$2.39 per million British thermal units (MMBtu), up from an average of \$1.92/MMBtu in September. Higher natural gas spot prices reflected stronger demand for liquefied natural gas (LNG) exports as LNG terminals increased liquefaction following hurricane-related disruptions in August and September. EIA expects Henry Hub spot prices to rise to a monthly average of \$3.42/MMBtu in January 2021 because of rising domestic demand for natural gas for space heating, rising U.S. LNG exports, and reduced production. EIA expects that monthly average spot prices will remain higher than \$3.00/MMBtu throughout 2021, averaging \$3.14/MMBtu for the year, up from a forecast average of \$2.14/MMBtu in 2020.
- EIA estimates that total 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. However, because EIA forecasts less U.S. natural gas production this winter than last winter, EIA forecasts that inventory draws will outpace the five-year average during the heating season (October–March) and end March 2021 at 1.5 Tcf, which would be 16% lower than the 2016–20 average.
- EIA expects that total U.S. consumption of natural gas will average 83.7 billion cubic feet per day (Bcf/d) in 2020, down 1.7% from 2019. The decline in total U.S. consumption reflects less heating demand in early 2020, contributing to residential demand in 2020 averaging 13.2 Bcf/d (down 0.6 Bcf/d from 2019) and commercial demand in 2020 averaging 8.8 Bcf/d (down 0.9 Bcf/d from 2019). EIA forecasts industrial consumption will average 22.5 Bcf/d in 2020, down 0.6 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 5.2% decline from 2020. The expected decline in 2021 is the result of rising natural gas prices that will reduce demand for natural gas in the electric power sector.

- EIA forecasts U.S. dry natural gas production will average 91.0 Bcf/d in 2020, 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 87.0 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 7.2 Bcf/d of LNG in October, an increase of 2.3 Bcf/d from September—the largest month-on-month increase since U.S. LNG exports began in 2016. Cameron LNG resumed LNG exports in October after being shut down following [Hurricane Laura](#) and [Hurricane Delta](#). Cove Point LNG completed its scheduled three-week annual maintenance and resumed LNG exports in mid-October. Higher global forward prices for LNG indicate improving netbacks for buyers of U.S. LNG in European and Asian markets for the upcoming winter season. The increased prices come amid expectations of natural gas demand recovery in those markets and potential LNG supply reductions because of outages at several LNG export facilities in the Pacific Basin and Atlantic Basin. EIA forecasts that U.S. LNG exports will be above pre-COVID levels in November 2020, averaging 8.5 Bcf/d, and will average 8.4 Bcf/d in 2021, a 31% increase from 2020.

Electricity, coal, renewables, and emissions

- EIA forecasts that the consumption of electricity in the United States will decrease by 3.6% in 2020. EIA expects retail sales of electricity to fall by 6.4% this year in the commercial sector and by 8.8% in the industrial sector. EIA forecasts residential sector retail sales will increase by 2.5% in 2020. Milder winter temperatures earlier this year led to less residential consumption for space heating, offset by increased summer cooling demand and increased electricity use by more people working and attending classes from home. In 2021, EIA forecasts total U.S. electricity consumption will increase by 0.9%. Higher forecast electricity consumption in the first half of 2021 because of increased demand for space heating will be offset slightly by less forecast electricity consumption in the third quarter of 2021 because of less cooling demand based on the NOAA forecast of fewer cooling degree days.
- EIA expects the share of U.S. electric power sector generation from natural gas-fired power plants will increase from 37% in 2019 to 39% this year. In 2021, the forecast natural gas share declines to 33% in response to higher natural gas prices. Coal's forecast share of electricity generation falls from 24% in 2019 to 20% in 2020 and then increases to 25% in 2021. Electricity generation from renewable energy sources rises from 18% in 2019 to 20% in 2020 and to 22% in 2021. The increase in renewables' share is the result of planned additions to wind and solar generating capacity. EIA expects nuclear generation to decline by about 2% in both 2020 and 2021, reflecting recent and

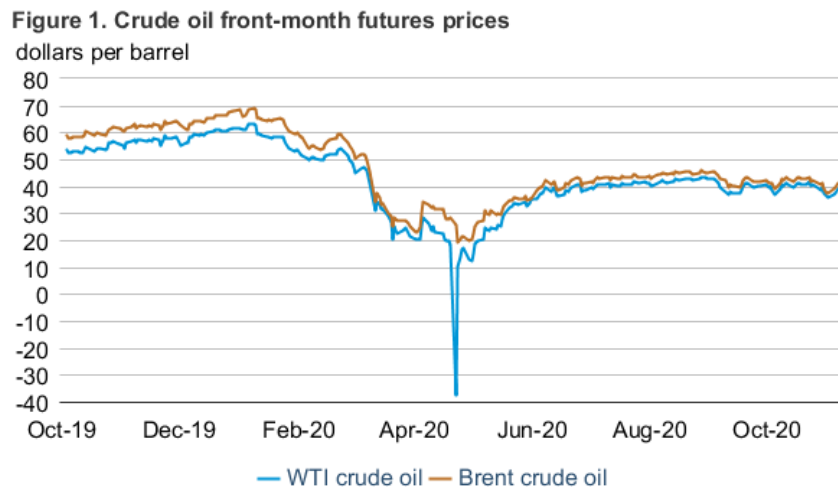
planned retirements of nuclear generating capacity. The nuclear share of U.S. generation remains close to 20% in these years.

- In 2020, EIA expects U.S. residential electricity prices to average 13.1 cents per kilowatt-hour, which is 0.7% higher than the average electricity price was in 2019. Annual changes in regional residential electricity prices this year range from 0.8% lower in the South Atlantic region to 4.0% higher in the Pacific region.
- EIA forecasts that renewable energy will be the fastest-growing source of electricity generation in 2020. EIA expects the U.S. electric power sector will add 23.2 gigawatts (GW) of new wind capacity in 2020 and 7.9 GW of new capacity in 2021. Expected utility-scale solar capacity rises by 12.8 GW in 2020 and by 13.0 GW in 2021.
- EIA expects U.S. coal production to be 521 million short tons (MMst) in 2020, a decline of 26% compared with 2019 levels. EIA forecasts production to rise to 627 MMst in 2021, an increase of 20%. EIA expects coal production to increase in 2021 in response to increased natural gas prices and increased demand in electric power consumption because of lower-than-average winter temperatures, especially in the Upper Midwest and Northwest regions of the United States. EIA expects that an 18% decline in U.S. coal consumption from the electric power sector in 2020 will be followed by a 23% increase in 2021.
- EIA forecasts that U.S. energy-related carbon dioxide (CO₂) emissions, after [decreasing by 2.6% in 2019](#) from the previous year's level, will decrease by 10% in 2020 as a result of reduced consumption of all fossil fuels. EIA expects emissions from coal will be down 18% from 2019 and emissions from petroleum will be down 13% from 2019. This decline in emissions is the result of less energy consumption related to slowing economic growth in response to the COVID-19 pandemic. 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 \$40.93 per barrel (b) on November 5, 2020, unchanged from October 1, 2020. The front-month futures price for West Texas Intermediate (WTI) crude oil for delivery at Cushing, Oklahoma, increased by 7 cents/b during the same period, settling at \$38.79/b on November 5 (Figure 1).



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

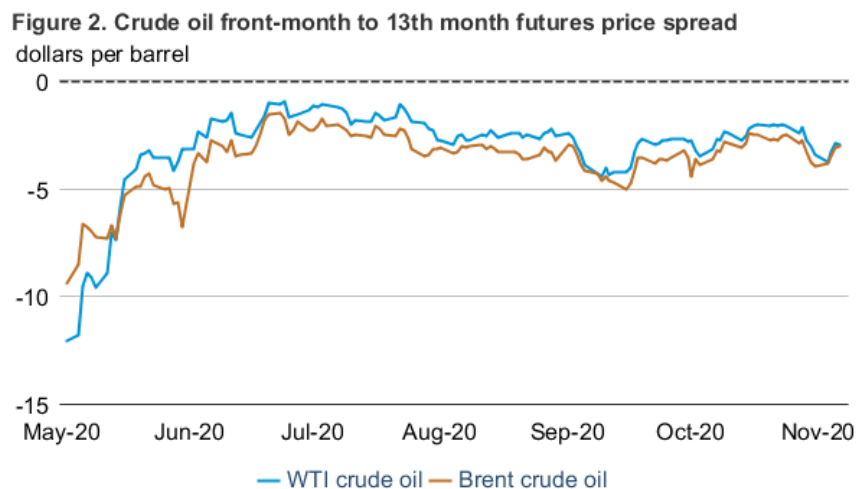
Crude oil price pressures were mostly downward in October, pushing Brent to less than \$38/b late in the month. However, prices increased during the first week of November to about \$40/b. The general downward price pressures came amid renewed crude oil price volatility that was primarily the result of a supply increase from Libya that came sooner than many market participants expected as well as responses to increasing COVID-19 cases.

Rapid increases in crude oil production in Libya likely magnified the downside price effects of reduced demand. EIA estimates that Libya's crude oil production increased to 0.4 million barrels per day (b/d) in October 2020 from 0.1 million b/d in September. In addition, trade press reports indicate that production had increased to more than 0.5 million b/d by the end of October, a level EIA had previously forecast would not be reached until the middle of 2021. The increase in crude oil production adds supply to the current market where petroleum inventories remain high, crude oil refinery runs are subdued, and the rate of increase in global oil demand growth is slowing.

Globally, daily cases of COVID-19 increased to a record high in late October, leading to renewed economic pressure. Uncertainty about responses to increasing COVID-19 cases presents downside risk to EIA's global oil demand forecast for the fourth quarter of 2020 and first half of 2021. EIA now expects global oil consumption will average 97.3 million b/d from the fourth quarter of 2020 through the first half of 2021, which is 0.4 million b/d lower than forecast in the

October *Short-Term Energy Outlook* (STEO). The pace of oil demand recovery will affect not only expectations of petroleum inventory withdrawals but also could affect planned oil supply increases from members of the Organization of the Petroleum Exporting Countries (OPEC) and partner countries (OPEC+), who are scheduled to meet on November 30. OPEC+ members currently plan to increase crude oil production by nearly 2.0 million b/d in January 2021. EIA forecasts that OPEC+ production will generally be tailored to match the pace of global oil demand recovery. As a result of EIA’s reduced demand growth expectations, EIA forecasts closer adherence to announced production targets from OPEC. For OPEC, EIA forecasts first-half 2021 crude oil production will be 27.9 million b/d, 0.5 million b/d lower than the October STEO. The lower forecast comes despite EIA’s assumption of higher production in Libya during early-2021.

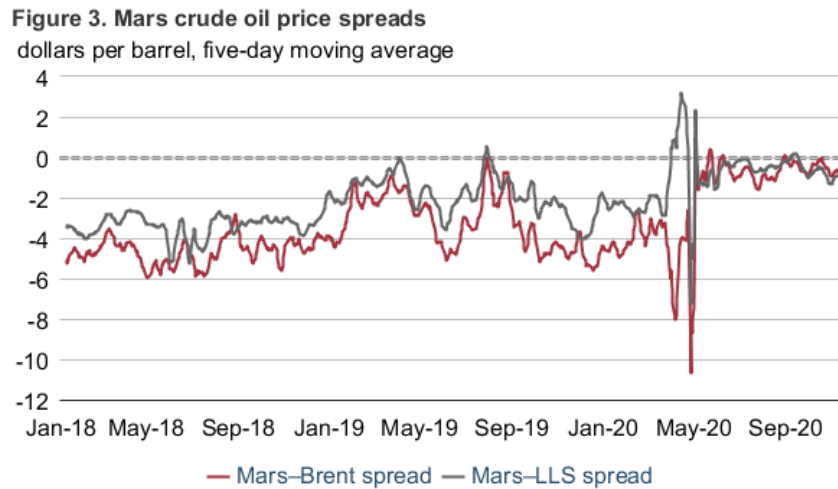
These supply and demand developments have primarily affected the front-month contracts for both Brent and WTI, initially contributing to a wider contango (when near-month prices are lower than longer-dated ones) in mid-October before narrowing slightly on the month. The 1st–13th spread for Brent narrowed to $-\$3.04/\text{b}$ on November 5 from $-\$3.64/\text{b}$ on October 1, and the WTI 1st–13th spread narrowed to $-\$2.95/\text{b}$ from $-\$3.27/\text{b}$ on October 1 (**Figure 2**). Although increases in Libya’s crude oil production may be adding supply to a market with relatively high inventory levels, increased tropical storm and hurricane activity in the U.S. Gulf Coast contributed to significant inventory withdrawals in the United States and is contributing to a narrower contango. In October, rising U.S. petroleum consumption, shutdowns on offshore crude oil production platforms, and lower refinery output in the U.S. Gulf Coast contributed to total U.S. commercial crude oil and petroleum products inventories drawing at a rate of more than 1.3 million b/d, the largest withdrawal rate for any month since February 2007.



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

Crude oil price spreads: A combination of crude oil supply disruptions in the U.S. Gulf Coast and voluntary production reductions from OPEC+ producers of primarily medium-sour crude oils have contributed to higher price spreads for Mars (a medium-sour U.S. Gulf Coast crude oil) compared with light-sweet crude oils in recent months. Mars and other medium-sour crude oils

are popular with complex refiners along the U.S. Gulf Coast, and its price spread with light-sweet crude oils (such as Light Louisiana Sweet (LLS) and Brent) can affect crack spreads and refinery purchasing decisions. The five-day moving average of the Mars-LLS price spread has traded at a premium several times in 2020 and settled at -95 cents/b on November 5, and the Mars-Brent spread settled at -80 cents/b (Figure 3).

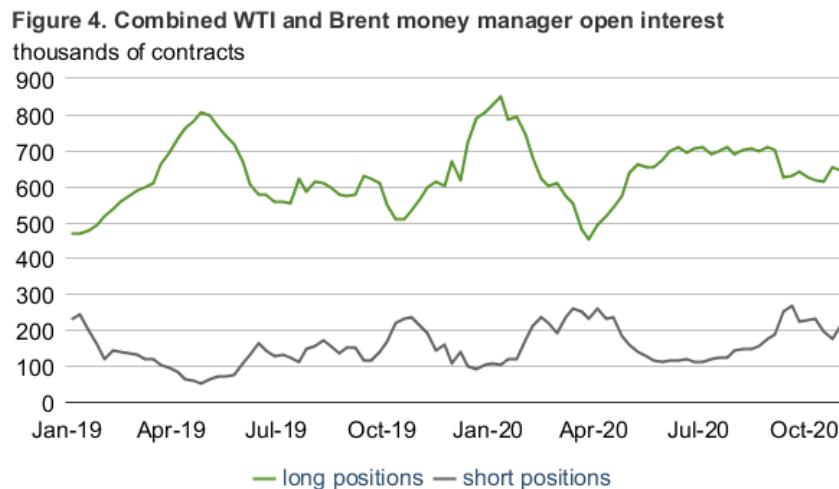


Source: Bloomberg L.P.
Note: LLS=Light Louisiana Sweet.

An active [tropical storm and hurricane](#) season in the U.S. Gulf Coast has contributed to several personnel evacuations and well shut-ins on offshore platforms, which continued into October following Hurricanes Delta and Zeta. Aside from these supply disruptions, Mars and other medium-sour crude oil prices have increased relative to light-sweet crude oils more broadly since 2018. The largest voluntary [production reductions](#) from OPEC+ members have been from countries that produce mainly medium-sour crude oil, including Saudi Arabia and Russia. In addition, lower production from Iran and Venezuela since 2019 have contributed to the loss of medium and heavy crude oil production in those countries, adding further upward price premiums on available medium-sour crude oils like Mars. Year-to-date through November 5, 2020, the Mars-LLS spread averaged -98 cents/b, up from -\$3.35/b in 2018 and from -\$1.89/b in 2019, and the Mars-Brent spread has averaged -\$2.04/b year-to-date, up from -\$4.64/b in 2018 and from -\$3.24/b in 2019. Aside from the various supply-side factors contributing to higher medium-sour crude oil price spreads, increased [refining capacity](#) in Asia in recent years has also contributed to higher medium-sour crude oil prices because the capacity has broadly been designed to process medium-sour crude oil.

Money manager positions: Money managers that hold long positions in Brent and WTI futures contracts can often be an important source of liquidity in the futures market and can often trade indirectly with producers that short crude oil futures. As of October 2020, total open interest in Brent and WTI futures contracts has declined since each of their respective 2020 highs in April, and it is at about the same level as in October 2019. Among the various [trader classifications](#) the Commodity Futures Trading Commission (CFTC) determines, WTI long positions held by money

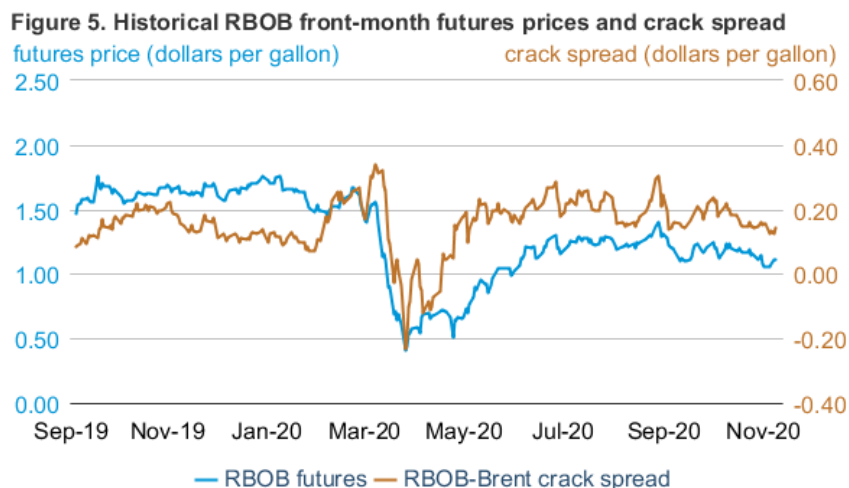
managers increased by more than any other trader’s position from the last week in October 2019 through October 27, 2020, increasing by more than 169,000 contracts (**Figure 4**). Brent money manager long positions, on the other hand, decreased by 86,000 contracts during the same period. The combined contracts’ money manager short positions nearly offset each other. WTI short positions decreased by 20,000 contracts, and Brent short positions increased by 19,000 contracts during the year. Money flowing into [exchange-traded funds](#) that hold WTI futures contracts reached record highs in the first quarter of 2020, and total assets under management remained at elevated levels, which partially explains the large increase in money manager WTI long positions.



Source: U.S. Commodity Futures Trading Commission, Intercontinental Exchange, as compiled by Bloomberg L.P.
Note: WTI=West Texas Intermediate.

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 \$1.12 per gallon (gal) on November 5, down 4 cents/gal from October 1, 2020 (**Figure 5**). The RBOB–Brent crack spread (the difference between the price of RBOB and the price of Brent crude oil) decreased by 4 cents/gal to settle at 14 cents/gal during the same period. The crack spread peaked on October 6 at 22 cents/gal and fell to 12 cents/gal on November 2.



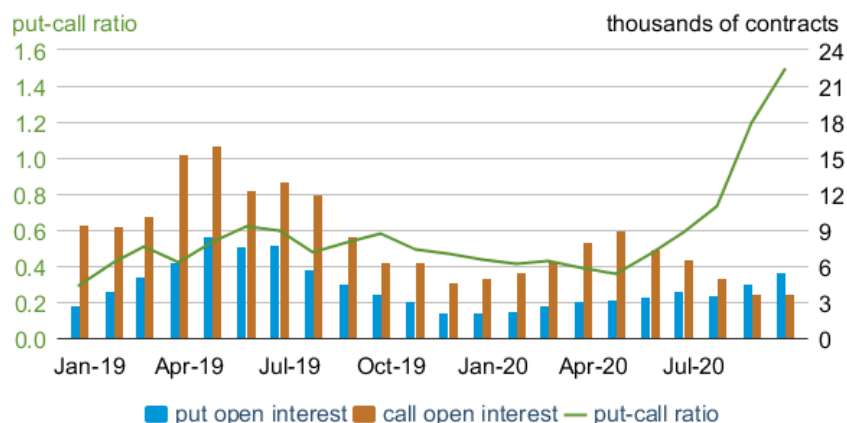
Source: CME Group, as compiled by Bloomberg L.P.
 Note: RBOB=reformulated blendstock for oxygenate blending

Despite the futures price falling as low as \$1.05/gal on October 30, the lowest since May 29, and the crack spread decreasing throughout the month, the average crack spread in October remained within the five-year (2015–19) monthly range for the second consecutive month. One factor that likely supported gasoline crack spreads was reduced production due to temporary disruptions to refineries from Hurricanes [Delta](#), which shut in 62% of gasoline production at U.S. Gulf Coast refiners at its peak on October 9, and [Zeta](#), which shut in 58% of gasoline production at U.S. Gulf Coast refiners at its peak on October 28.

RBOB put-call ratio: The put-call ratio can provide insight into the expectations of market participants. Changes in the relationships between put and call options for RBOB contracts may indicate that market participants are concerned about the continuing economic effects of COVID-19. A put option increases in value when the underlying commodity price declines, and a call option increases in value when the underlying commodity price increases. The put-call ratio is calculated by dividing the open interest (number of contracts outstanding) of put options by the open interest of call options. Put and call options can be used for hedging or mitigating price risk among refiners or other traders.

The average monthly put-call ratio for all RBOB contracts from 2015 to 2019 was 0.53, meaning market participants held almost twice as many calls as puts. After eight consecutive months of ratios that were lower than the average, the ratio increased to higher than the average in July 2020 and has increased since. In September 2020, the ratio increased to 1.20, the first time since January 2018 that the ratio was higher than 1.0 and the highest ratio since April 2012. In October, the ratio increased further to a 10-year record of 1.49. Although overall open interest for both put options and call options are down in 2020, put option open interest has generally increased since May 2020, whereas call options have generally decreased during the same period (**Figure 6**).

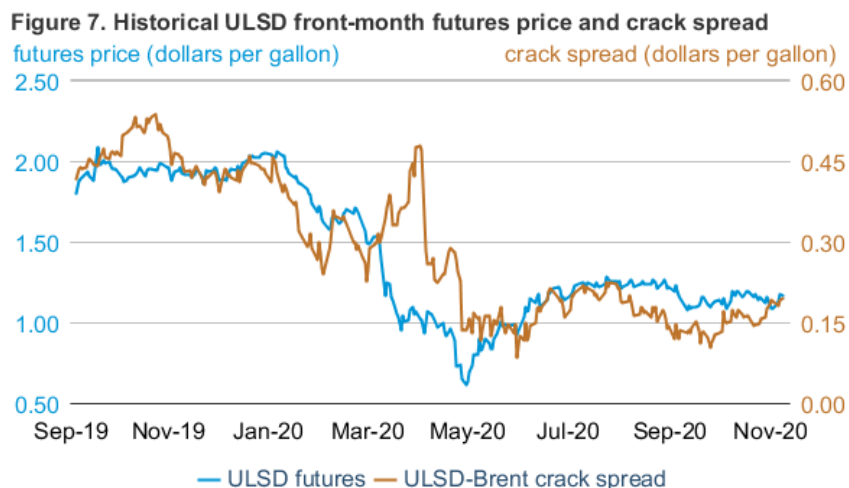
Figure 6. Put-call ratio on open interest for all RBOB contracts, monthly average



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

For RBOB options as of October 2020, 61% of the put options and 78% of the call options were for the November and December 2020 contracts. The put-call ratio in October for November contracts was 0.90, and the ratio for December contracts was 1.32. In addition, 33% of the open interest on put options was for April contracts, the first contract for delivery of summer-grade gasoline. The put-call ratio of 21.46 for April RBOB contracts drove October’s put-call ratio to 1.49. A possible explanation for this phenomenon is that market participants are hedging against a potential continuation of economic effects of COVID-19 into the 2021 summer driving season. This trend of buying or holding April puts in October is not customary. In the previous three years, the open interest for April puts in October was 0.

Ultra-low sulfur diesel prices: The ultra-low sulfur diesel (ULSD) front-month futures price for delivery in New York Harbor settled at \$1.17/gal on November 5, 2020, up 4 cents/gal from October 1, 2020 (Figure 7). The ULSD–Brent crack spread (the difference between the price of ULSD and the price of Brent crude oil) increased by 4 cents/gal to settle at 20 cents/gal during the same period.

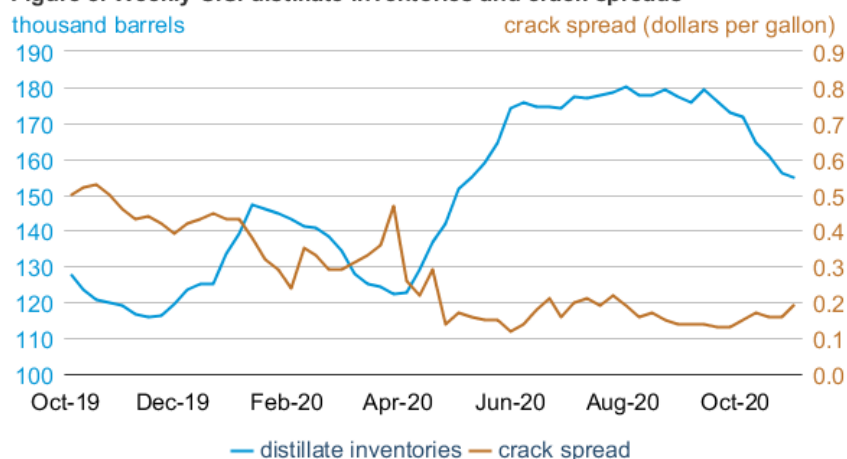


Source: CME Group, as compiled by Bloomberg L.P.
 Note: ULSD=ultra-low sulfur diesel

Inventories of distillate fuel typically decline in the United States during October because U.S. distillate demand typically increases during the fall when diesel-powered agricultural equipment is used to harvest crops, the winter heating season begins, and many refineries reduce crude oil runs to perform maintenance. This year, U.S. distillate consumption increased by 0.4 million barrels per day (b/d) from September to 3.9 million b/d in October, which is more than the five-year (2015–19) average increase of 0.1 million b/d. Whereas in the past five years, the increase in consumption and decrease in inventories led to an average September to October increase of 1 cent/gal on the ULSD–Brent crack spread, this year the average crack spread increased by 3 cents/gal.

From the week ending October 4, 2019, to the week ending October 2, 2020, distillate inventories increased 44 million barrels (35%), contributing to a decrease in the monthly average crack spread from 51 cents/gal in October 2019 to 13 cents/gal in September 2020, a decrease of 38 cents/gal (Figure 8). Although the month-over-month withdrawal from September to October is typically high, averaging 8.7 million barrels the past five years, this October saw a monthly draw of 17.6 million barrels, which was the largest draw of any month since January 2003. These inventory draws can partially be explained by the decrease in distillate production because of refinery closures in response to Hurricanes Delta and Zeta. If confirmed by monthly data, October’s distillate production of 4.1 million b/d would be the lowest since February 2011. October’s decrease in distillate inventory was met with an increase in the ULSD–Brent crack spread from 15 cents/gal on October 1 to 19 cents/gal on October 30. EIA expects further inventory decreases in the winter and spring because of lower-than-average refinery distillate production and the U.S. Department of Agriculture’s forecast of a larger-than-usual harvest season this year for corn and soybeans.

Figure 8. Weekly U.S. distillate inventories and crack spreads

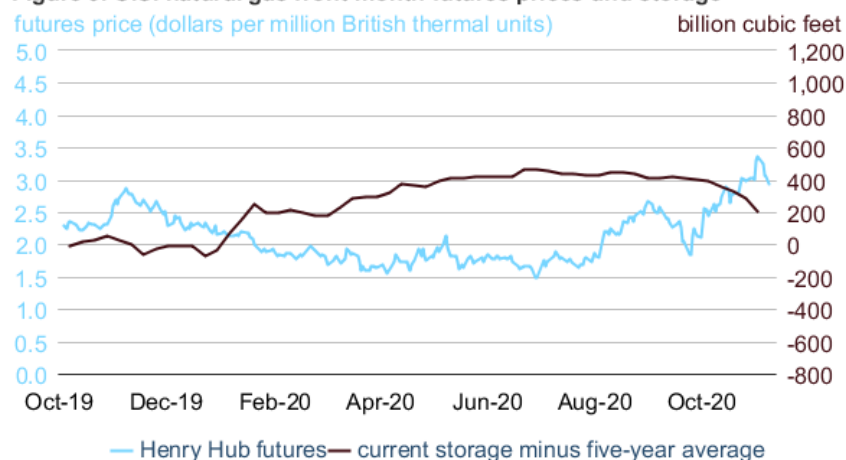


eia Source: U.S. Energy Information Administration

Natural Gas

Prices: The front-month natural gas futures contract for delivery at the Henry Hub settled at \$2.94 per million British thermal units (MMBtu) on November 5, up 42 cents/MMBtu from October 1 (**Figure 9**). The front-month contract changed from November to December delivery on October 29, 2020, and that change contributed 30 cents/MMBtu to the front-month price increase. When the front-month futures price settled at \$3.02/MMBtu on October 21, 2020, it was the first time that the front-month price had risen higher than \$3.00/MMBtu since January 25, 2019.

Figure 9. U.S. natural gas front-month futures prices and storage

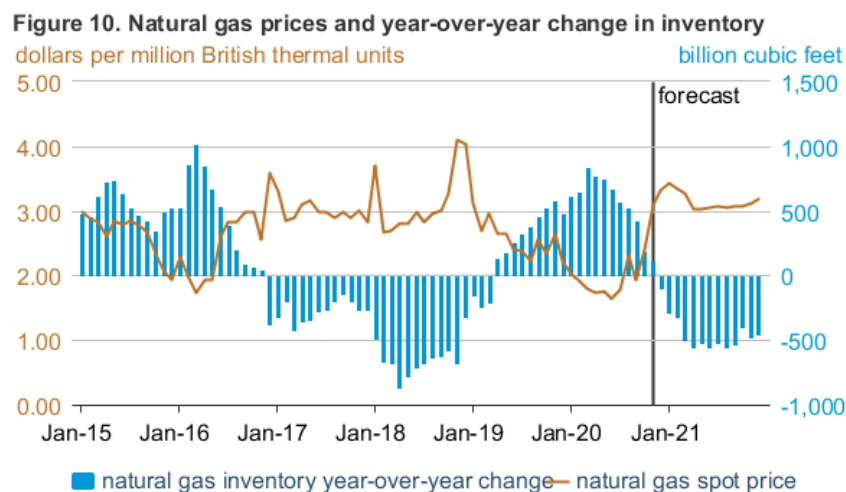


eia Source: U.S. Energy Information Administration, CME Group, as compiled by Bloomberg L.P.

Natural gas prices received support from higher U.S. LNG exports and lower natural gas production. EIA estimates that LNG exports rose to 7.2 billion cubic feet per day (Bcf/d) in October, an increase of 2.3 Bcf/d from the previous month and 1.5 Bcf/d from October 2019.

U.S. natural gas production decreased 0.7 Bcf/d in October from September, and it was 6.6 Bcf/d lower than October 2019 production. The reduction in year-on-year production in October 2020 contributed to the smallest increase in U.S. natural gas inventories in the month of October since 2002. Despite the decreased additions to storage, EIA estimates the level of natural gas inventories increased to the second-highest level on record at the end of October. Although high inventories tend to push prices lower, market participants appear to be focusing on expected changes in market balances over the next several months.

Natural gas prices and changes in inventory: EIA forecasts that natural gas inventories will decline by 2,419 Bcf from the end of October 2020 to the end of March 2021, which would be the third-largest decrease recorded during those months, and that monthly inventories will fall below the previous year’s levels by December 2020 (**Figure 10**). Decreasing natural gas production, which EIA forecasts will fall from November 2020 until May 2021, is one key factor affecting the decline in inventories, but EIA also forecasts that LNG exports will increase, rising to a record high in November 2020. Higher prices for natural gas and LNG in Europe and Asia are helping to boost U.S. LNG exports. Lower production and higher exports, combined with the usual seasonal increase in natural gas consumption, will contribute to the rapid decline in inventories during the winter. This expected change in market fundamentals contributed to the large increase in natural gas prices in October and contributed to EIA’s forecast of higher natural gas prices in 2021 compared with 2020.



 Source: U.S. Energy Information Administration and Refinitiv

Notable forecast changes

- EIA forecasts U.S. gasoline consumption will average 8.4 million barrels per day (b/d) in the fourth quarter of 2020 and 8.7 million b/d in the first half of 2021. Those forecasts are 0.3 and 0.2 million b/d less, respectively, than forecast in the October STEO.
- EIA forecasts OPEC crude oil production will average 25.4 million b/d in the fourth quarter of 2020 and 27.9 million b/d in the first half of 2021, which are 0.3 million b/d and 0.5 million b/d lower than previously forecast. The reduced forecast reflects less production in response to lower forecast global oil consumption, as EIA forecasts closer adherence to announced production targets from OPEC.
- This edition of the STEO incorporates revised historical data for electricity consumption and supply in 2019 and in 2020. Most of these data are relatively similar to the data published in the October STEO. However, retail sales of electricity to the industrial sector for 2019 are about 5% higher than previously estimated, and 2020 retail sales are about 2% higher. As a result, the current STEO forecasts industrial electricity use will fall by 9% between 2019 and 2020 compared with a forecast decline of 6% in the previous STEO.

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



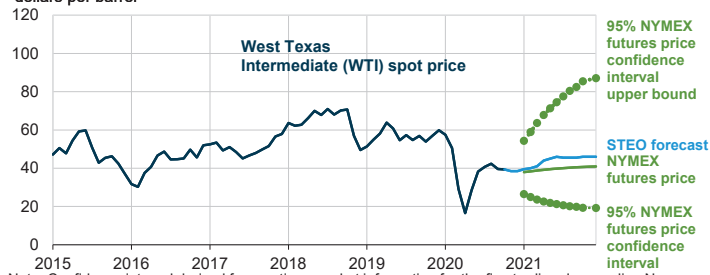
November 10, 2020



U.S. Energy Information Administration

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

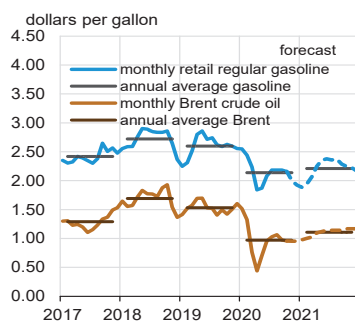


Note: Confidence interval derived from options market information for the five trading days ending Nov 5, 2020. Intervals not calculated for months with sparse trading in near-the-money options contracts.

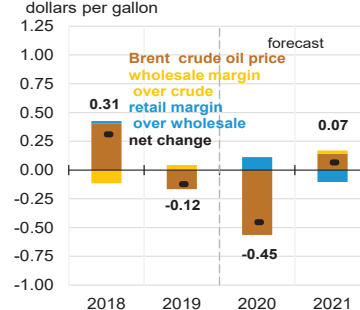
Sources: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020, CME Group, and Bloomberg, L.P.



U.S. gasoline and crude oil prices



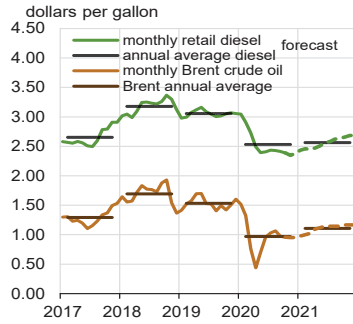
Components of annual gasoline price changes
dollars per gallon



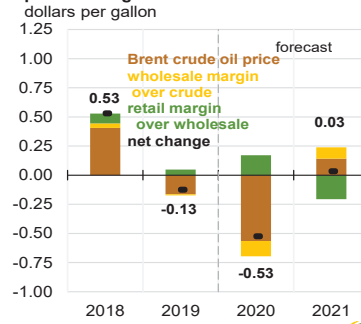
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020



U.S. diesel and crude oil prices



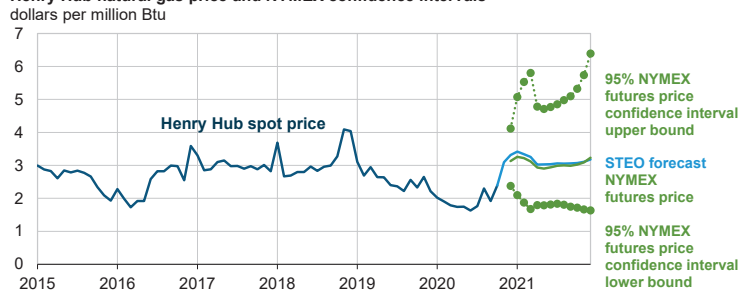
Components of annual diesel prices changes



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



Henry Hub natural gas price and NYMEX confidence intervals

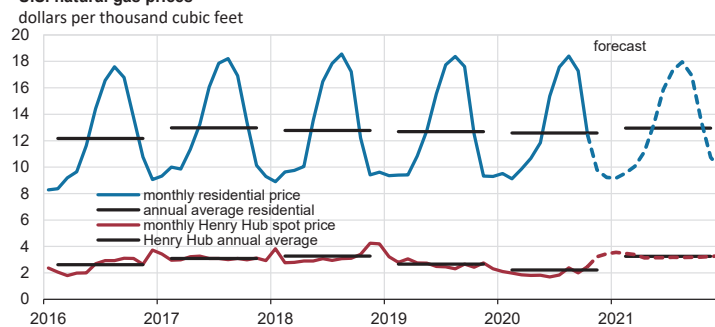


Note: Confidence interval derived from options market information for the five trading days ending Nov 5, 2020. Intervals not calculated for months with sparse trading in near-the-money options contracts.

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



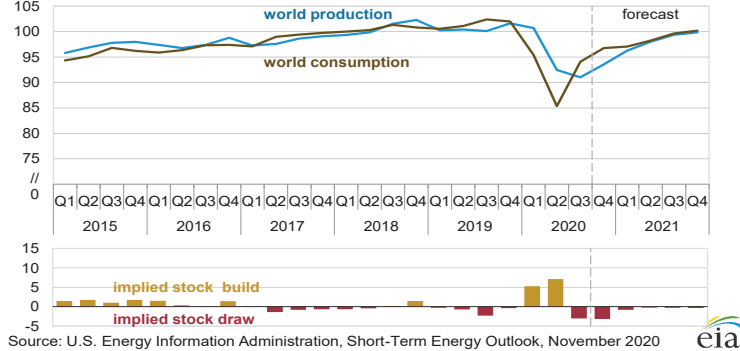
U.S. natural gas prices



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



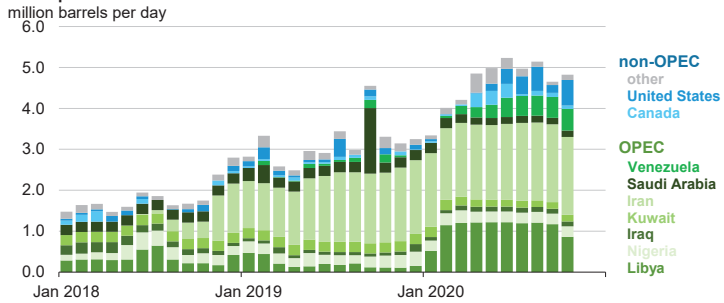
World liquid fuels production and consumption balance
million barrels per day



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



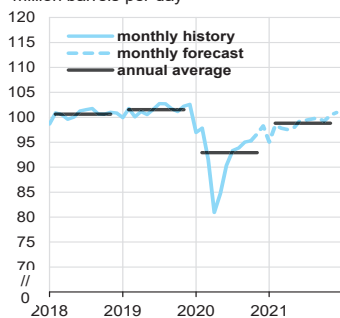
Estimated unplanned liquid fuels production outages among OPEC and non-OPEC producers
million barrels per day



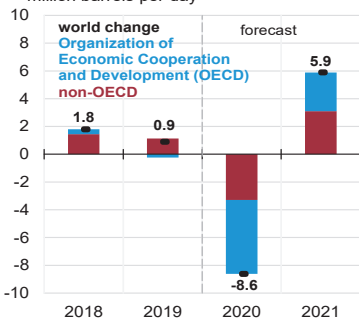
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020



World liquid fuels consumption
million barrels per day



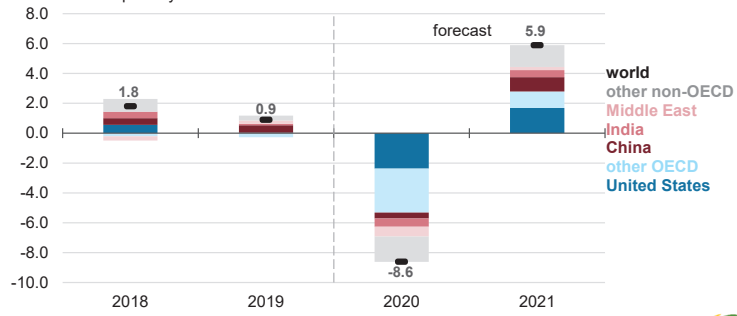
Components of annual change
million barrels per day



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



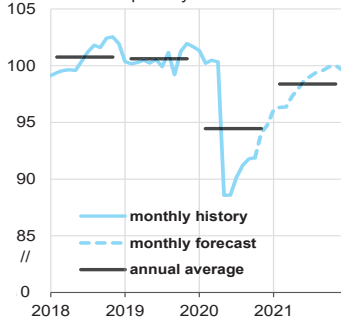
Annual change in world liquid fuels consumption
million barrels per day



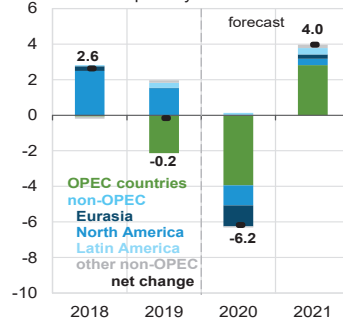
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020



World crude oil and liquid fuels production
million barrels per day



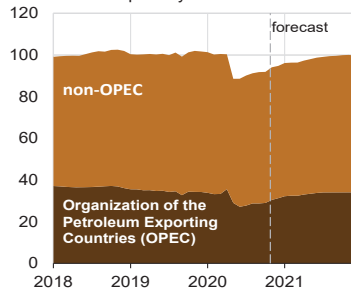
Components of annual change
million barrels per day



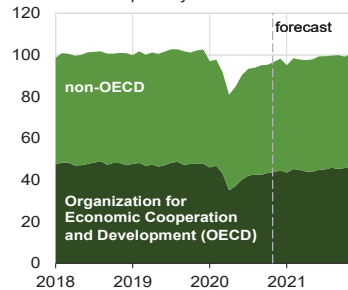
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020



World liquid fuels production
million barrels per day



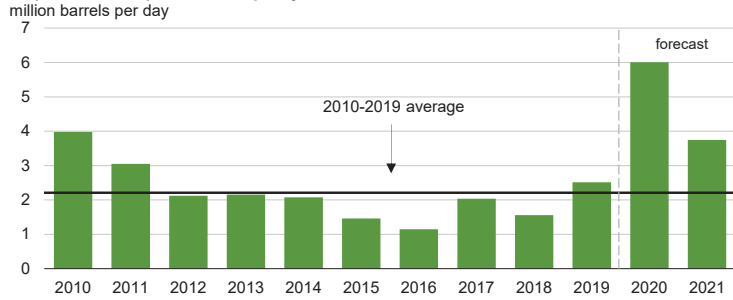
World liquid fuels consumption
million barrels per day



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



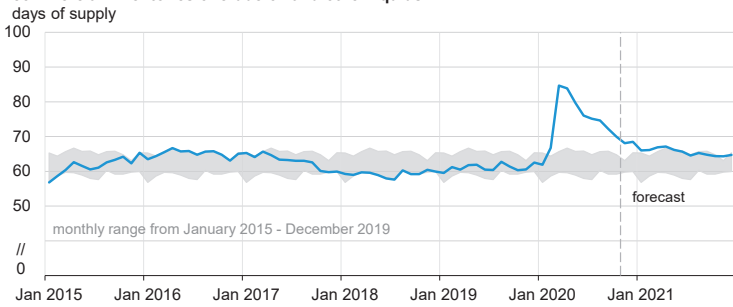
**Organization of the Petroleum Exporting Countries (OPEC)
surplus crude oil production capacity**



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



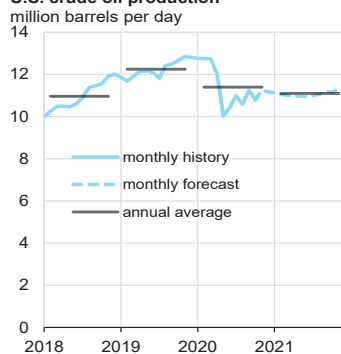
**Organization for Economic Cooperation and Development (OECD)
commercial inventories of crude oil and other liquids**



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

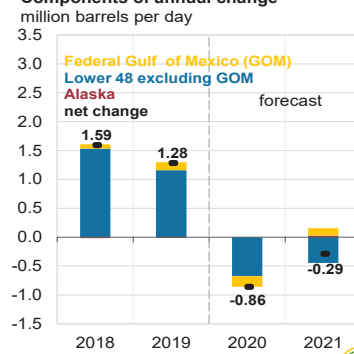


U.S. crude oil production

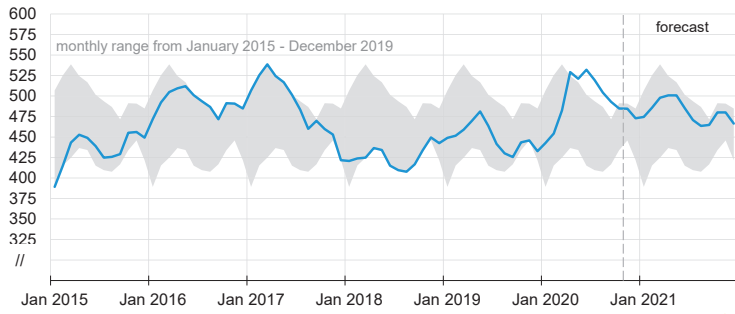


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020

Components of annual change



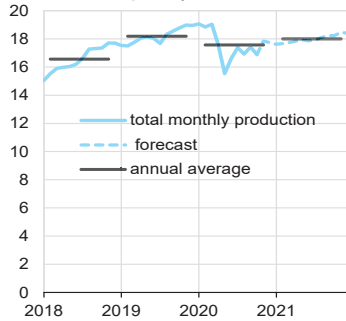
U.S. commercial crude oil inventories
million barrels



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



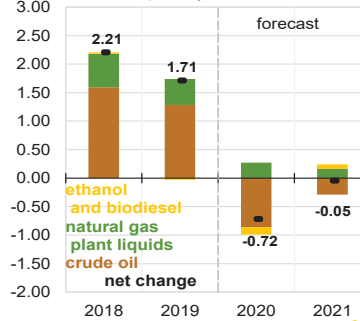
U.S. crude oil and liquid fuels production
million barrels per day



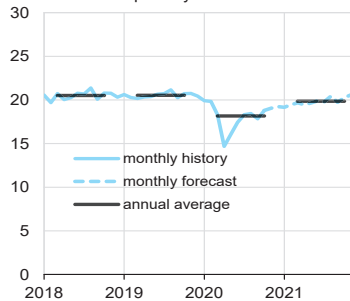
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020



Components of annual change
million barrels per day



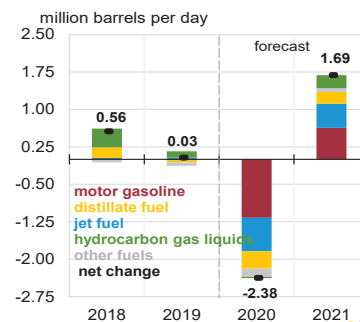
U.S. liquid fuels product supplied (consumption)
million barrels per day



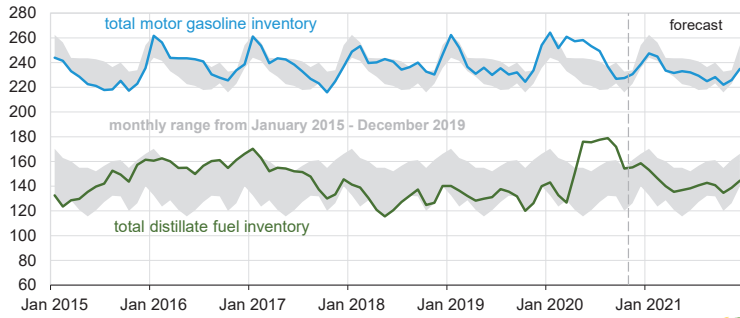
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020



Components of annual change
million barrels per day



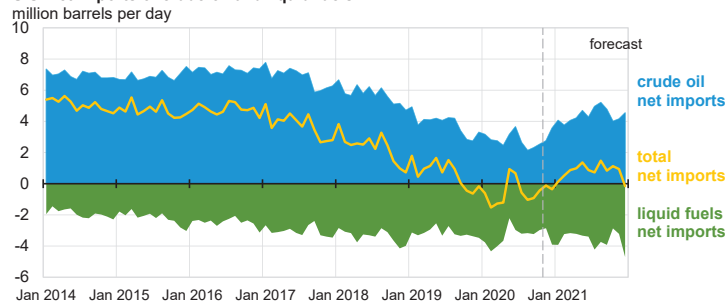
U.S. gasoline and distillate inventories
million barrels



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



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

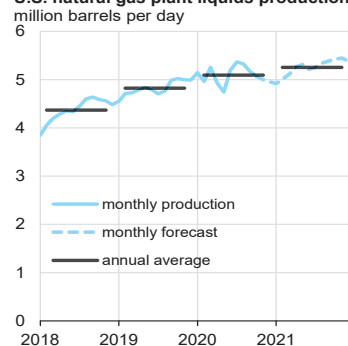


Note: Liquids fuels include: gasoline, distillate fuels, hydrocarbon gas liquids, jet fuel, residual fuel oil, unfinished oils, other hydrocarbons/oxygenates, and other oils.

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

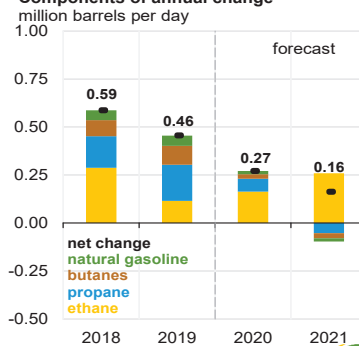


U.S. natural gas plant liquids production

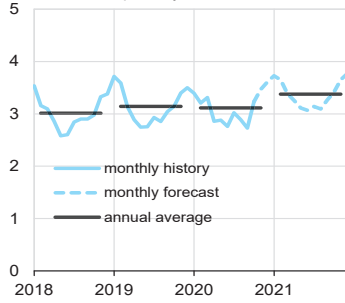


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020

Components of annual change



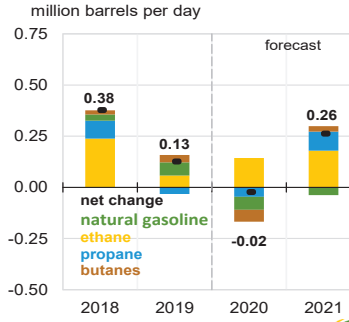
U.S. hydrocarbon gas liquids product supplied (consumption)
million barrels per day



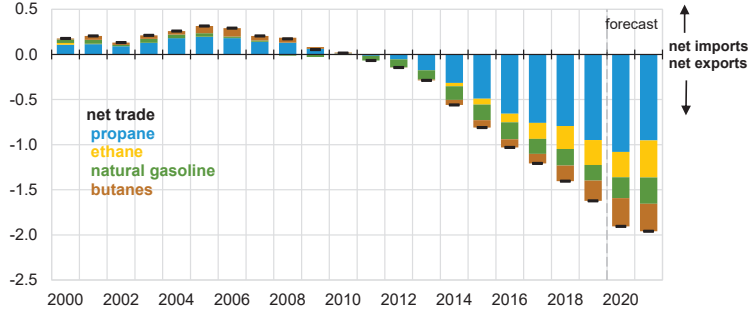
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020



Components of annual change



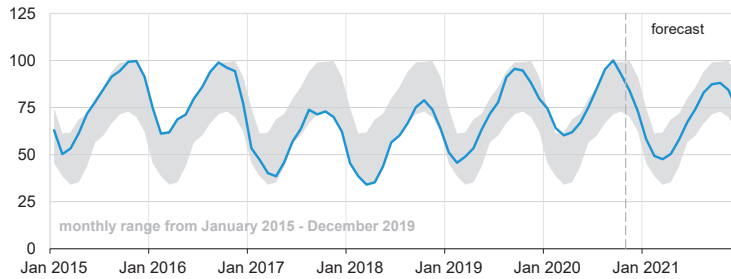
U.S. net trade of hydrocarbon gas liquids (HGL)
million barrels per day



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



U.S. commercial propane inventories
million barrels

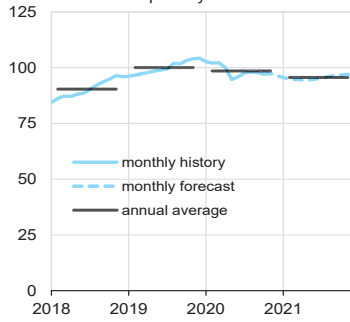


Note: Excludes propylene.

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



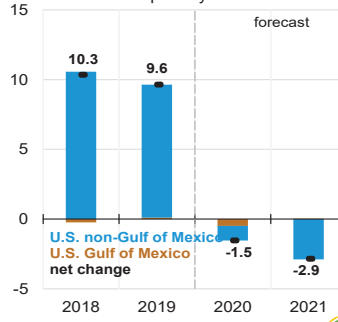
U.S. marketed natural gas production
billion cubic feet per day



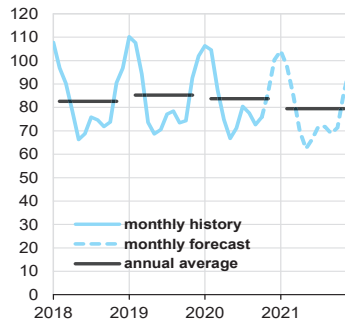
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020



Components of annual change
billion cubic feet per day



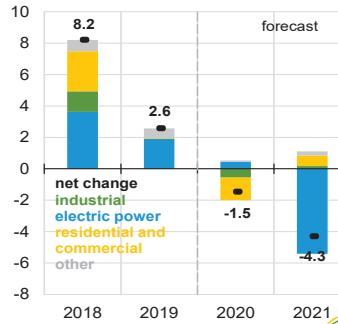
U.S. natural gas consumption
billion cubic feet per day



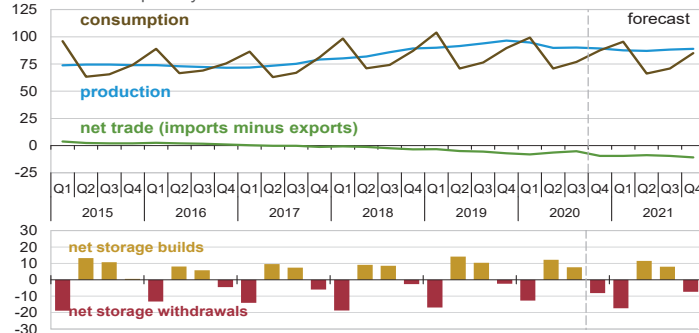
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020



Components of annual change
billion cubic feet per day



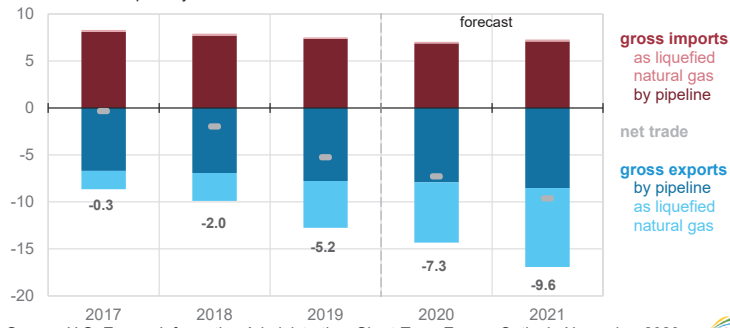
U.S. natural gas production, consumption, and net imports
billion cubic feet per day



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



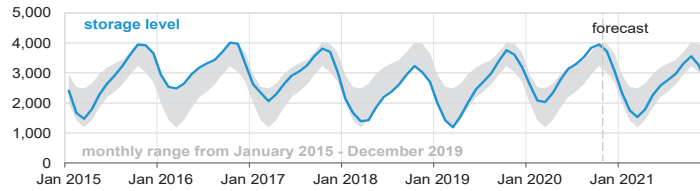
U.S. annual natural gas trade
billion cubic feet per day



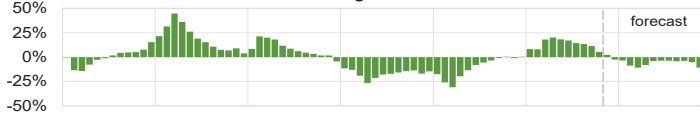
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020



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



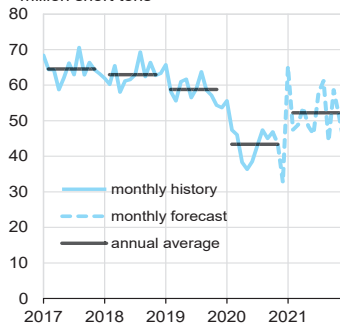
Percent deviation from 2015 - 2019 average



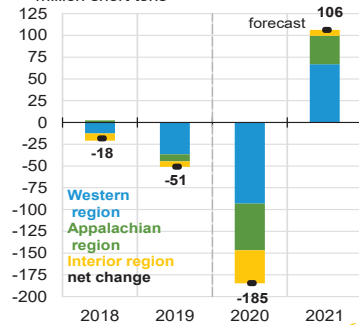
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020



U.S. coal production
million short tons



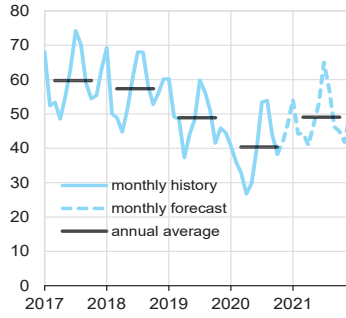
Components of annual change
million short tons



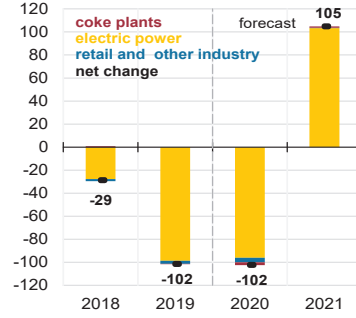
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020



U.S. coal consumption
million short tons



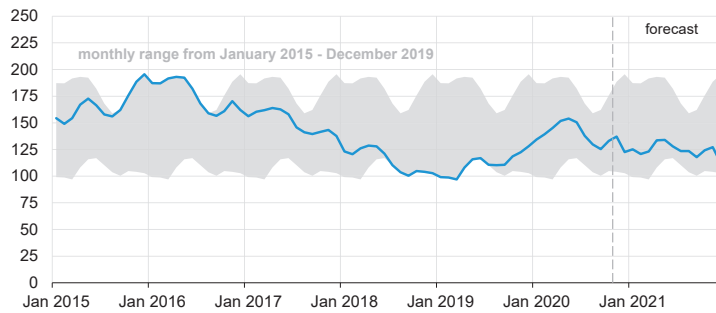
Components of annual change
million short tons



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



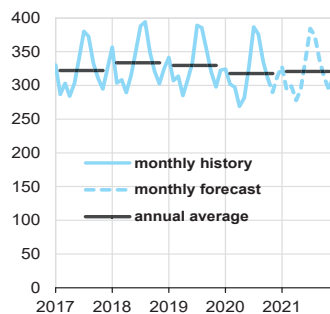
U.S. electric power coal inventories
million short tons



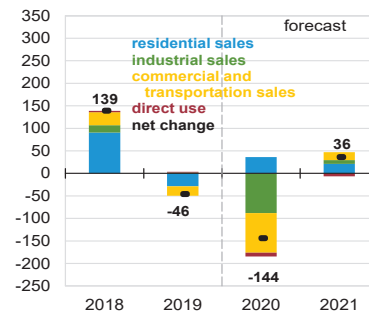
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020



U.S. electricity consumption
billion kilowatthours



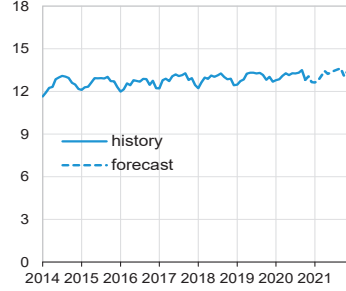
Components of annual change
billion kilowatthours



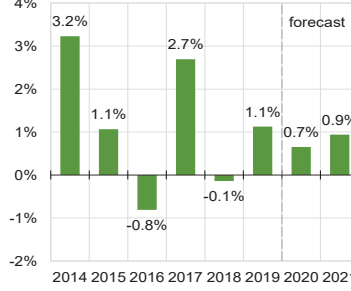
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020



U.S. monthly residential electricity price
cents per kilowatthour



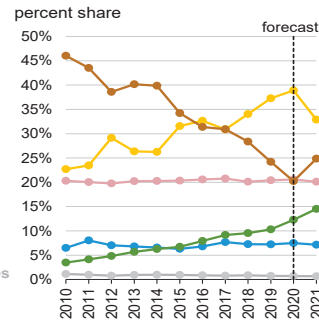
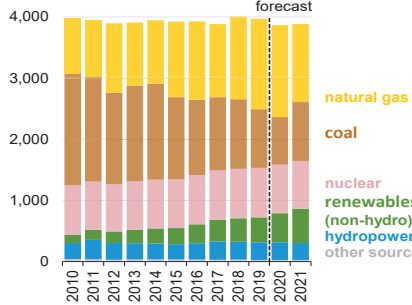
Annual growth in residential electricity prices
percent



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



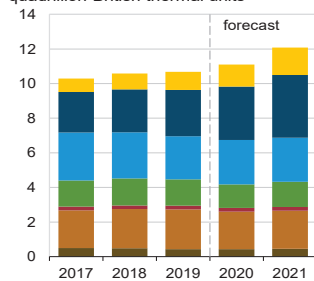
U.S. electricity generation by fuel, all sectors
billion kilowatthours



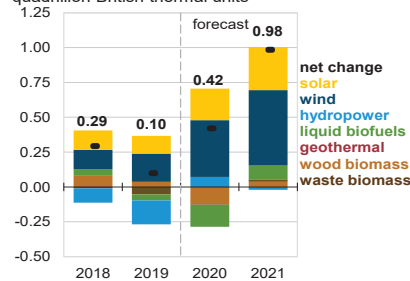
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020



U.S. renewable energy supply
quadrillion British thermal units



Components of annual change
quadrillion British thermal units

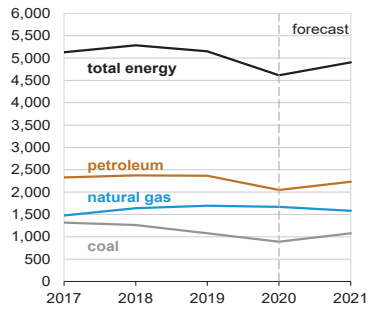


Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol and biodiesel. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste.

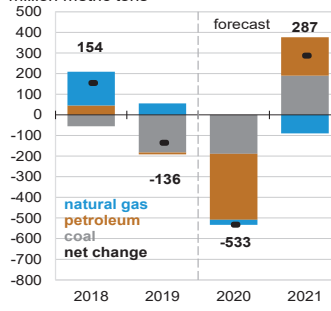
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 2020



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



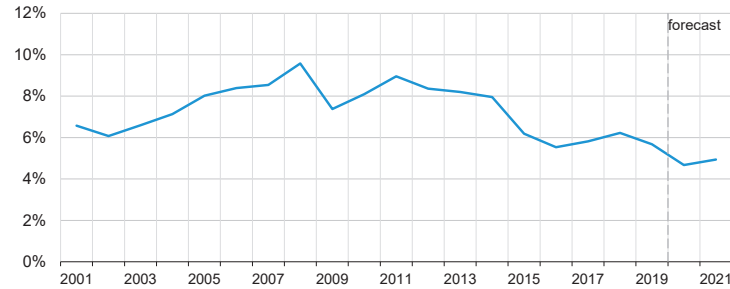
Components of annual change
million metric tons



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



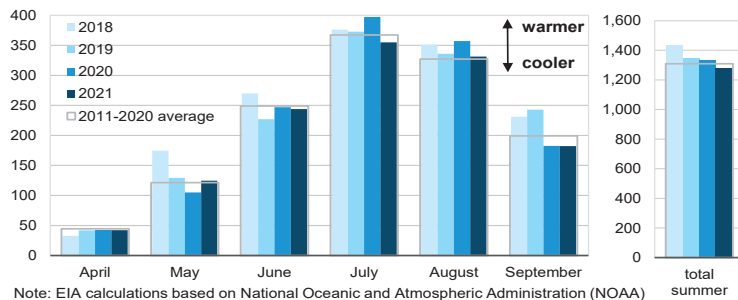
U.S. annual energy expenditures
share of gross domestic product



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



U.S. summer cooling degree days
population-weighted

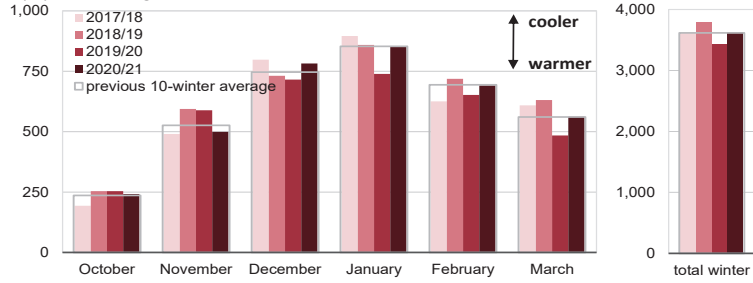


Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

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



U.S. winter heating degree days
population-weighted

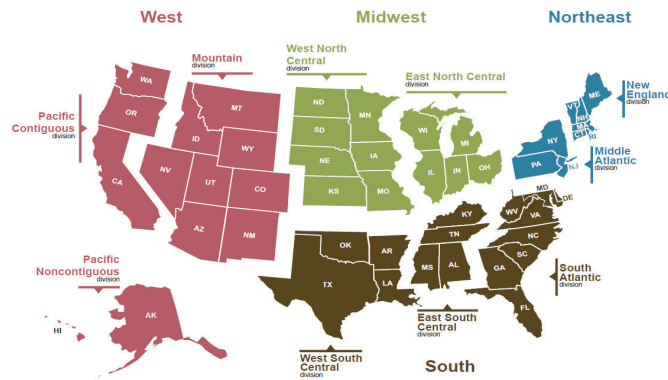


Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, November 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 - November 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	10.93	<i>11.07</i>	<i>11.06</i>	<i>10.97</i>	<i>11.08</i>	<i>11.28</i>	12.25	<i>11.39</i>	<i>11.10</i>
Dry Natural Gas Production (billion cubic feet per day)	90.01	91.57	94.00	96.58	94.85	89.73	90.14	<i>89.29</i>	<i>87.50</i>	<i>87.10</i>	<i>88.16</i>	<i>88.86</i>	93.06	<i>90.99</i>	<i>87.91</i>
Coal Production (million short tons)	180	179	181	165	149	113	135	<i>123</i>	<i>162</i>	<i>148</i>	<i>163</i>	<i>154</i>	705	<i>521</i>	<i>627</i>
Energy Consumption															
Liquid Fuels (million barrels per day)	20.36	20.46	20.72	20.63	19.33	16.08	18.21	<i>19.03</i>	<i>19.42</i>	<i>19.67</i>	<i>19.99</i>	<i>20.31</i>	20.54	<i>18.16</i>	<i>19.85</i>
Natural Gas (billion cubic feet per day)	103.92	70.95	76.35	89.62	99.31	70.89	76.96	<i>87.59</i>	<i>95.54</i>	<i>66.27</i>	<i>70.91</i>	<i>84.97</i>	85.15	<i>83.68</i>	<i>79.37</i>
Coal (b) (million short tons)	158	130	167	132	109	96	151	<i>127</i>	<i>143</i>	<i>141</i>	<i>169</i>	<i>137</i>	587	<i>484</i>	<i>589</i>
Electricity (billion kilowatt hours per day)	10.69	10.19	12.26	10.22	10.15	9.64	11.94	<i>9.93</i>	<i>10.22</i>	<i>10.02</i>	<i>11.90</i>	<i>10.03</i>	10.84	<i>10.42</i>	<i>10.55</i>
Renewables (c) (quadrillion Btu)	2.78	3.05	2.79	2.76	2.90	3.00	2.87	<i>2.95</i>	<i>3.17</i>	<i>3.35</i>	<i>3.11</i>	<i>3.11</i>	11.38	<i>11.71</i>	<i>12.74</i>
Total Energy Consumption (d) (quadrillion Btu)	26.62	23.53	25.01	25.29	25.12	20.67	23.27	<i>23.96</i>	<i>25.02</i>	<i>22.71</i>	<i>23.93</i>	<i>24.56</i>	100.45	<i>93.01</i>	<i>96.22</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	<i>38.81</i>	<i>40.22</i>	<i>45.02</i>	<i>45.50</i>	<i>46.00</i>	56.99	<i>38.24</i>	<i>44.24</i>
Natural Gas Henry Hub Spot (dollars per million Btu)	2.92	2.56	2.38	2.40	1.91	1.71	2.00	<i>2.93</i>	<i>3.34</i>	<i>3.03</i>	<i>3.06</i>	<i>3.12</i>	2.57	<i>2.14</i>	<i>3.14</i>
Coal (dollars per million Btu)	2.07	2.04	1.99	1.93	1.92	1.90	1.93	<i>2.00</i>	<i>2.04</i>	<i>2.06</i>	<i>2.03</i>	<i>2.04</i>	2.01	<i>1.94</i>	<i>2.04</i>
Macroeconomic															
Real Gross Domestic Product (billion chained 2012 dollars - SAAR)	18,950	19,021	19,142	19,254	19,011	17,303	18,583	<i>18,748</i>	<i>18,904</i>	<i>19,029</i>	<i>19,158</i>	<i>19,302</i>	19,092	<i>18,411</i>	<i>19,098</i>
Percent change from prior year	2.3	2.0	2.1	2.3	0.3	-9.0	-2.9	<i>-2.6</i>	<i>-0.6</i>	<i>10.0</i>	<i>3.1</i>	<i>3.0</i>	2.2	<i>-3.6</i>	<i>3.7</i>
GDP Implicit Price Deflator (Index, 2012=100)	111.5	112.2	112.6	113.0	113.4	112.9	113.8	<i>114.2</i>	<i>114.5</i>	<i>114.9</i>	<i>115.3</i>	<i>115.7</i>	112.3	<i>113.6</i>	<i>115.1</i>
Percent change from prior year	2.0	1.8	1.7	1.6	1.7	0.6	1.1	<i>1.0</i>	<i>1.0</i>	<i>1.8</i>	<i>1.3</i>	<i>1.4</i>	1.8	<i>1.1</i>	<i>1.4</i>
Real Disposable Personal Income (billion chained 2012 dollars - SAAR)	14,854	14,818	14,895	14,965	15,061	16,576	15,754	<i>16,443</i>	<i>15,020</i>	<i>15,062</i>	<i>15,127</i>	<i>15,182</i>	14,883	<i>15,958</i>	<i>15,098</i>
Percent change from prior year	3.2	2.1	1.8	1.6	1.4	11.9	5.8	<i>9.9</i>	<i>-0.3</i>	<i>-9.1</i>	<i>-4.0</i>	<i>-7.7</i>	2.2	<i>7.2</i>	<i>-5.4</i>
Manufacturing Production Index (Index, 2012=100)	106.5	105.7	105.9	105.8	104.4	89.2	99.5	<i>100.5</i>	<i>101.5</i>	<i>101.6</i>	<i>101.7</i>	<i>102.3</i>	106.0	<i>98.4</i>	<i>101.8</i>
Percent change from prior year	1.6	0.1	-0.6	-1.1	-2.0	-15.6	-6.1	<i>-5.0</i>	<i>-2.8</i>	<i>13.9</i>	<i>2.2</i>	<i>1.7</i>	0.0	<i>-7.2</i>	<i>3.4</i>
Weather															
U.S. Heating Degree-Days	2,209	480	56	1,558	1,875	540	70	<i>1,523</i>	<i>2,107</i>	<i>482</i>	<i>70</i>	<i>1,494</i>	4,303	<i>4,008</i>	<i>4,153</i>
U.S. Cooling Degree-Days	45	398	952	105	70	394	937	<i>118</i>	<i>45</i>	<i>410</i>	<i>869</i>	<i>99</i>	1,500	<i>1,520</i>	<i>1,423</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 - November 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	<i>38.81</i>	<i>40.22</i>	<i>45.02</i>	<i>45.50</i>	<i>46.00</i>	56.99	<i>38.24</i>	<i>44.24</i>
Brent Spot Average	63.14	69.04	61.90	63.30	49.97	29.52	42.97	<i>40.07</i>	<i>42.07</i>	<i>47.02</i>	<i>48.00</i>	<i>49.00</i>	64.34	<i>40.61</i>	<i>46.59</i>
U.S. Imported Average	55.39	62.93	57.31	55.60	43.76	26.33	39.31	<i>36.59</i>	<i>37.73</i>	<i>42.40</i>	<i>42.75</i>	<i>43.00</i>	57.95	<i>36.21</i>	<i>41.61</i>
U.S. Refiner Average Acquisition Cost	57.08	63.54	58.67	58.05	47.48	26.88	42.10	<i>39.10</i>	<i>39.22</i>	<i>43.42</i>	<i>43.75</i>	<i>44.00</i>	59.36	<i>39.34</i>	<i>42.66</i>
U.S. Liquid Fuels (cents per gallon)															
Refiner Prices for Resale															
Gasoline	167	205	189	182	153	104	135	<i>121</i>	<i>126</i>	<i>156</i>	<i>156</i>	<i>145</i>	186	<i>129</i>	<i>146</i>
Diesel Fuel	192	203	192	197	160	97	123	<i>123</i>	<i>134</i>	<i>150</i>	<i>156</i>	<i>159</i>	196	<i>126</i>	<i>150</i>
Fuel Oil	189	195	184	191	160	87	111	<i>115</i>	<i>130</i>	<i>140</i>	<i>148</i>	<i>154</i>	190	<i>121</i>	<i>143</i>
Refiner Prices to End Users															
Jet Fuel	193	204	194	197	165	85	114	<i>113</i>	<i>127</i>	<i>138</i>	<i>146</i>	<i>152</i>	197	<i>128</i>	<i>142</i>
No. 6 Residual Fuel Oil (a)	153	163	155	163	176	93	120	<i>130</i>	<i>98</i>	<i>103</i>	<i>104</i>	<i>104</i>	158	<i>129</i>	<i>102</i>
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	236	279	265	259	241	194	218	<i>203</i>	<i>197</i>	<i>233</i>	<i>234</i>	<i>221</i>	260	<i>215</i>	<i>222</i>
Gasoline All Grades (b)	245	288	274	269	251	203	227	<i>213</i>	<i>209</i>	<i>245</i>	<i>247</i>	<i>235</i>	269	<i>224</i>	<i>235</i>
On-highway Diesel Fuel	302	312	302	306	289	243	243	<i>237</i>	<i>245</i>	<i>251</i>	<i>261</i>	<i>268</i>	306	<i>253</i>	<i>256</i>
Heating Oil	300	305	290	301	280	200	214	<i>229</i>	<i>236</i>	<i>240</i>	<i>248</i>	<i>265</i>	300	<i>243</i>	<i>247</i>
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	3.03	2.66	2.47	2.49	1.98	1.77	2.07	<i>3.05</i>	<i>3.47</i>	<i>3.15</i>	<i>3.18</i>	<i>3.24</i>	2.67	<i>2.22</i>	<i>3.26</i>
Henry Hub Spot (dollars per million Btu)	2.92	2.56	2.38	2.40	1.91	1.71	2.00	<i>2.93</i>	<i>3.34</i>	<i>3.03</i>	<i>3.06</i>	<i>3.12</i>	2.57	<i>2.14</i>	<i>3.14</i>
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	4.66	3.73	3.29	3.74	3.52	2.85	2.85	<i>3.85</i>	<i>4.72</i>	<i>4.13</i>	<i>4.08</i>	<i>4.38</i>	3.90	<i>3.31</i>	<i>4.34</i>
Commercial Sector	7.55	7.95	8.41	7.20	7.13	7.63	8.39	<i>7.43</i>	<i>7.67</i>	<i>8.36</i>	<i>8.93</i>	<i>8.00</i>	7.59	<i>7.44</i>	<i>8.02</i>
Residential Sector	9.39	12.36	17.90	9.78	9.46	11.89	17.74	<i>9.93</i>	<i>9.53</i>	<i>12.74</i>	<i>17.38</i>	<i>10.78</i>	10.46	<i>10.59</i>	<i>10.90</i>
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.07	2.04	1.99	1.93	1.92	1.90	1.93	<i>2.00</i>	<i>2.04</i>	<i>2.06</i>	<i>2.03</i>	<i>2.04</i>	2.01	<i>1.94</i>	<i>2.04</i>
Natural Gas	3.72	2.73	2.51	2.79	2.41	2.10	2.18	<i>3.29</i>	<i>4.01</i>	<i>3.35</i>	<i>3.32</i>	<i>3.52</i>	2.89	<i>2.45</i>	<i>3.52</i>
Residual Fuel Oil (c)	12.22	13.39	12.80	12.52	12.15	6.65	7.21	<i>7.44</i>	<i>7.94</i>	<i>9.31</i>	<i>9.20</i>	<i>9.18</i>	12.73	<i>8.33</i>	<i>8.78</i>
Distillate Fuel Oil	14.83	15.77	15.01	15.08	13.29	8.43	10.08	<i>9.92</i>	<i>10.62</i>	<i>11.84</i>	<i>12.24</i>	<i>12.57</i>	15.16	<i>10.50</i>	<i>11.83</i>
Retail Prices (cents per kilowatthour)															
Industrial Sector	6.67	6.69	7.20	6.65	6.37	6.63	7.03	<i>6.60</i>	<i>6.42</i>	<i>6.72</i>	<i>7.03</i>	<i>6.61</i>	6.81	<i>6.66</i>	<i>6.70</i>
Commercial Sector	10.43	10.66	11.00	10.55	10.33	10.63	10.95	<i>10.48</i>	<i>10.29</i>	<i>10.78</i>	<i>11.20</i>	<i>10.68</i>	10.67	<i>10.61</i>	<i>10.76</i>
Residential Sector	12.67	13.30	13.24	12.83	12.90	13.24	13.34	<i>12.83</i>	<i>12.81</i>	<i>13.33</i>	<i>13.53</i>	<i>13.14</i>	13.01	<i>13.10</i>	<i>13.22</i>

- = no data available

Prices are not adjusted for inflation.

(a) Average for all sulfur contents.

(b) Average self-service cash price.

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

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

Prices exclude taxes unless otherwise noted.

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Supply (million barrels per day) (a)															
OECD	31.06	31.32	31.48	32.76	32.91	29.42	29.92	30.42	30.73	30.78	31.07	31.67	31.66	30.66	31.07
U.S. (50 States)	18.87	19.35	19.45	20.20	20.22	17.58	18.39	18.35	18.40	18.61	18.80	19.07	19.47	18.64	18.72
Canada	5.44	5.47	5.47	5.63	5.65	4.94	4.89	5.39	5.53	5.55	5.59	5.71	5.50	5.21	5.60
Mexico	1.91	1.91	1.93	1.93	2.00	1.94	1.91	1.82	1.82	1.82	1.78	1.77	1.92	1.92	1.80
Other OECD	4.85	4.59	4.63	4.99	5.03	4.96	4.72	4.86	4.98	4.80	4.89	5.12	4.77	4.89	4.95
Non-OECD	69.21	69.09	68.62	68.87	67.78	63.03	61.12	63.15	65.54	67.22	68.30	68.19	68.95	63.76	67.32
OPEC	35.38	34.91	33.89	34.33	33.49	30.59	28.43	30.26	32.40	33.43	34.07	34.09	34.63	30.69	33.50
Crude Oil Portion	29.94	29.47	28.66	29.02	28.28	25.64	23.61	25.36	27.36	28.46	29.11	29.13	29.27	25.71	28.52
Other Liquids (b)	5.44	5.44	5.24	5.31	5.21	4.95	4.83	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	12.75	13.07	13.54	13.59	13.74	13.83	14.63	13.44	13.67
China	4.89	4.92	4.89	4.88	4.94	4.90	4.95	4.99	4.95	4.99	5.00	5.05	4.89	4.94	5.00
Other Non-OECD	14.08	14.84	15.26	15.00	14.60	14.34	14.99	14.83	14.65	15.21	15.50	15.22	14.80	14.69	15.15
Total World Supply	100.28	100.42	100.10	101.63	100.68	92.45	91.04	93.57	96.27	98.00	99.37	99.86	100.61	94.42	98.39
Non-OPEC Supply	64.89	65.51	66.21	67.30	67.20	61.86	62.60	63.31	63.87	64.57	65.30	65.77	65.98	63.74	64.88
Consumption (million barrels per day) (c)															
OECD	47.57	46.99	48.12	47.75	45.30	37.45	42.43	43.93	44.53	44.32	45.46	45.95	47.61	42.28	45.07
U.S. (50 States)	20.36	20.46	20.72	20.63	19.33	16.08	18.21	19.03	19.42	19.67	19.99	20.31	20.54	18.16	19.85
U.S. Territories	0.22	0.19	0.20	0.21	0.20	0.17	0.18	0.19	0.20	0.18	0.18	0.19	0.20	0.18	0.19
Canada	2.30	2.31	2.57	2.49	2.33	1.88	2.18	2.26	2.27	2.23	2.37	2.35	2.42	2.16	2.31
Europe	14.03	14.18	14.66	14.06	13.34	11.01	13.07	12.89	12.84	13.20	13.73	13.44	14.24	12.58	13.30
Japan	4.05	3.39	3.43	3.74	3.69	2.89	3.03	3.36	3.63	2.98	3.06	3.37	3.65	3.24	3.26
Other OECD	6.61	6.46	6.54	6.62	6.42	5.43	5.75	6.20	6.16	6.07	6.13	6.28	6.56	5.95	6.16
Non-OECD	53.00	54.13	54.28	54.23	50.09	47.90	51.65	52.82	52.52	53.92	54.20	54.25	53.91	50.62	53.73
Eurasia	5.27	5.32	5.72	5.57	5.07	4.69	5.50	5.40	5.10	5.22	5.63	5.49	5.47	5.17	5.36
Europe	0.77	0.76	0.78	0.78	0.72	0.71	0.73	0.74	0.74	0.74	0.75	0.76	0.77	0.72	0.75
China	14.45	14.65	14.37	14.58	13.52	13.74	14.33	14.90	15.00	15.22	14.95	15.19	14.51	14.13	15.09
Other Asia	13.92	14.09	13.71	14.05	13.25	11.72	12.71	13.51	13.87	14.15	13.80	14.15	13.94	12.80	14.00
Other Non-OECD	18.59	19.31	19.70	19.24	17.52	17.04	18.38	18.27	17.81	18.58	19.06	18.67	19.21	17.81	18.53
Total World Consumption	100.57	101.12	102.39	101.98	95.40	85.34	94.08	96.75	97.05	98.24	99.65	100.20	101.52	92.91	98.80
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	0.52	0.97	0.29	-0.24	-0.05	0.44	-0.02	-0.15	0.11
Other OECD	-0.20	0.01	-0.16	0.39	-0.54	-1.14	0.42	0.71	0.16	0.15	0.11	-0.03	0.01	-0.14	0.10
Other Stock Draws and Balance	0.35	1.29	2.39	-0.32	-4.32	-4.28	2.10	1.50	0.33	0.32	0.23	-0.07	0.93	-1.23	0.20
Total Stock Draw	0.30	0.70	2.29	0.35	-5.29	-7.11	3.04	3.18	0.78	0.24	0.28	0.34	0.91	-1.52	0.41
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	1,419	1,336	1,317	1,346	1,353	1,315	1,282	1,336	1,315
OECD Commercial Inventory	2,864	2,922	2,931	2,879	2,967	3,203	3,131	2,982	2,949	2,965	2,962	2,927	2,879	2,982	2,927

- = 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 - November 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	25.19	<i>25.56</i>	<i>25.75</i>	<i>25.99</i>	<i>26.17</i>	<i>26.55</i>	26.89	<i>25.77</i>	<i>26.12</i>
Canada	5.44	5.47	5.47	5.63	5.65	4.94	4.89	<i>5.39</i>	<i>5.53</i>	<i>5.55</i>	<i>5.59</i>	<i>5.71</i>	5.50	<i>5.21</i>	<i>5.60</i>
Mexico	1.91	1.91	1.93	1.93	2.00	1.94	1.91	<i>1.82</i>	<i>1.82</i>	<i>1.82</i>	<i>1.78</i>	<i>1.77</i>	1.92	<i>1.92</i>	<i>1.80</i>
United States	18.87	19.35	19.45	20.20	20.22	17.58	18.39	<i>18.35</i>	<i>18.40</i>	<i>18.61</i>	<i>18.80</i>	<i>19.07</i>	19.47	<i>18.64</i>	<i>18.72</i>
Central and South America	5.44	6.22	6.80	6.45	6.05	6.09	6.65	<i>6.47</i>	<i>6.15</i>	<i>6.76</i>	<i>7.05</i>	<i>6.78</i>	6.23	<i>6.32</i>	<i>6.69</i>
Argentina	0.66	0.70	0.70	0.70	0.69	0.58	0.58	<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	4.31	<i>3.94</i>	<i>3.57</i>	<i>4.34</i>	<i>4.67</i>	<i>4.29</i>	3.67	<i>3.89</i>	<i>4.22</i>
Colombia	0.92	0.92	0.91	0.91	0.90	0.78	0.78	<i>0.84</i>	<i>0.87</i>	<i>0.78</i>	<i>0.76</i>	<i>0.82</i>	0.92	<i>0.83</i>	<i>0.81</i>
Ecuador	0.53	0.53	0.55	0.52	0.54	0.35	0.52	<i>0.53</i>	<i>0.52</i>	<i>0.51</i>	<i>0.49</i>	<i>0.48</i>	0.53	<i>0.49</i>	<i>0.50</i>
Other Central and S. America	0.42	0.41	0.42	0.43	0.48	0.48	0.46	<i>0.53</i>	<i>0.52</i>	<i>0.51</i>	<i>0.51</i>	<i>0.52</i>	0.42	<i>0.49</i>	<i>0.52</i>
Europe	4.26	3.97	3.96	4.29	4.39	4.31	4.20	<i>4.34</i>	<i>4.45</i>	<i>4.27</i>	<i>4.37</i>	<i>4.60</i>	4.12	<i>4.31</i>	<i>4.43</i>
Norway	1.79	1.58	1.66	1.96	2.05	2.01	1.96	<i>2.04</i>	<i>2.15</i>	<i>2.09</i>	<i>2.14</i>	<i>2.27</i>	1.75	<i>2.02</i>	<i>2.16</i>
United Kingdom	1.25	1.17	1.11	1.15	1.17	1.16	1.08	<i>1.13</i>	<i>1.14</i>	<i>1.03</i>	<i>1.08</i>	<i>1.17</i>	1.17	<i>1.13</i>	<i>1.11</i>
Eurasia	14.85	14.42	14.58	14.66	14.76	13.20	12.75	<i>13.07</i>	<i>13.54</i>	<i>13.59</i>	<i>13.74</i>	<i>13.83</i>	14.63	<i>13.44</i>	<i>13.67</i>
Azerbaijan	0.81	0.78	0.77	0.76	0.77	0.70	0.67	<i>0.69</i>	<i>0.71</i>	<i>0.73</i>	<i>0.74</i>	<i>0.74</i>	0.78	<i>0.71</i>	<i>0.73</i>
Kazakhstan	2.03	1.85	1.96	2.02	2.06	1.86	1.71	<i>1.76</i>	<i>1.83</i>	<i>1.77</i>	<i>1.82</i>	<i>1.85</i>	1.97	<i>1.85</i>	<i>1.81</i>
Russia	11.58	11.41	11.48	11.50	11.55	10.25	9.97	<i>10.24</i>	<i>10.63</i>	<i>10.72</i>	<i>10.81</i>	<i>10.88</i>	11.49	<i>10.50</i>	<i>10.76</i>
Turkmenistan	0.29	0.23	0.22	0.23	0.24	0.24	0.25	<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>3.14</i>	<i>3.27</i>	<i>3.27</i>	<i>3.29</i>	<i>3.29</i>	3.14	<i>3.18</i>	<i>3.28</i>
Oman	0.98	0.98	0.98	0.99	1.01	0.96	0.91	<i>0.91</i>	<i>1.00</i>	<i>1.00</i>	<i>1.02</i>	<i>1.02</i>	0.98	<i>0.95</i>	<i>1.01</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	9.43	9.18	9.22	<i>9.30</i>	<i>9.30</i>	<i>9.29</i>	<i>9.28</i>	<i>9.31</i>	9.48	<i>9.28</i>	<i>9.30</i>
Australia	0.42	0.47	0.51	0.54	0.49	0.49	0.49	<i>0.49</i>	<i>0.49</i>	<i>0.48</i>	<i>0.47</i>	<i>0.47</i>	0.49	<i>0.49</i>	<i>0.48</i>
China	4.89	4.92	4.89	4.88	4.94	4.90	4.95	<i>4.99</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	0.90	<i>0.91</i>	<i>0.91</i>	<i>0.89</i>	<i>0.89</i>	<i>0.89</i>	0.99	<i>0.92</i>	<i>0.89</i>
Indonesia	0.93	0.93	0.91	0.91	0.91	0.89	0.87	<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	0.61	<i>0.62</i>	<i>0.65</i>	<i>0.65</i>	<i>0.65</i>	<i>0.64</i>	0.71	<i>0.64</i>	<i>0.65</i>
Vietnam	0.27	0.27	0.25	0.24	0.24	0.23	0.22	<i>0.22</i>	<i>0.21</i>	<i>0.22</i>	<i>0.22</i>	<i>0.21</i>	0.26	<i>0.23</i>	<i>0.21</i>
Africa	1.48	1.50	1.50	1.49	1.46	1.45	1.45	<i>1.43</i>	<i>1.41</i>	<i>1.40</i>	<i>1.40</i>	<i>1.40</i>	1.49	<i>1.45</i>	<i>1.40</i>
Egypt	0.65	0.64	0.64	0.63	0.62	0.61	0.60	<i>0.60</i>	<i>0.57</i>	<i>0.57</i>	<i>0.57</i>	<i>0.57</i>	0.64	<i>0.61</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	67.20	61.86	62.60	<i>63.31</i>	<i>63.87</i>	<i>64.57</i>	<i>65.30</i>	<i>65.77</i>	65.98	<i>63.74</i>	<i>64.88</i>
OPEC non-crude liquids	5.44	5.44	5.24	5.31	5.21	4.95	4.83	<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	72.40	66.82	67.43	<i>68.21</i>	<i>68.91</i>	<i>69.54</i>	<i>70.26</i>	<i>70.73</i>	71.34	<i>68.71</i>	<i>69.87</i>
Unplanned non-OPEC Production Outages	0.38	0.28	0.41	0.33	0.18	0.90	0.62	<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 - November 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	25.36	27.36	28.46	29.11	29.13	29.27	25.71	28.52
Other Liquids (a)	5.44	5.44	5.24	5.31	5.21	4.95	4.83	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	28.43	30.26	32.40	33.43	34.07	34.09	34.63	30.69	33.50
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	6.11	5.98	5.96	6.00	6.02	6.66	5.75	5.99
OPEC Total	32.37	32.22	31.22	31.34	31.43	31.63	31.54	32.28	32.24	32.25	32.28	32.30	31.78	31.72	32.27
Surplus Crude Oil Production Capacity															
Middle East	2.43	2.75	2.57	2.32	3.15	5.27	6.90	6.16	4.77	3.69	3.08	3.08	2.52	5.37	3.65
Other	0.00	0.00	0.00	0.00	0.00	0.72	1.04	0.76	0.12	0.10	0.09	0.09	0.00	0.63	0.10
OPEC Total	2.43	2.75	2.57	2.32	3.15	5.99	7.94	6.92	4.88	3.79	3.17	3.17	2.52	6.01	3.75
Unplanned OPEC Production Outages	2.52	2.51	3.24	2.91	3.67	4.13	4.30	n/a	n/a	n/a	n/a	n/a	2.80	n/a	n/a

- = no data available

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - November 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	22.09	23.15	<i>23.54</i>	<i>23.78</i>	<i>24.23</i>	<i>24.55</i>	25.02	<i>22.09</i>	<i>24.03</i>
Canada	2.30	2.31	2.57	2.49	2.33	1.88	2.18	<i>2.26</i>	<i>2.27</i>	<i>2.23</i>	<i>2.37</i>	<i>2.35</i>	2.42	<i>2.16</i>	<i>2.31</i>
Mexico	2.07	2.07	2.06	2.00	1.98	1.50	1.70	<i>1.84</i>	<i>1.83</i>	<i>1.87</i>	<i>1.87</i>	<i>1.88</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	18.21	<i>19.03</i>	<i>19.42</i>	<i>19.67</i>	<i>19.99</i>	<i>20.31</i>	20.54	<i>18.16</i>	<i>19.85</i>
Central and South America	6.70	6.82	6.92	6.92	6.25	5.82	6.31	<i>6.51</i>	<i>6.43</i>	<i>6.62</i>	<i>6.76</i>	<i>6.77</i>	6.84	<i>6.23</i>	<i>6.65</i>
Brazil	3.03	3.10	3.19	3.18	2.83	2.59	2.91	<i>3.01</i>	<i>2.92</i>	<i>3.02</i>	<i>3.13</i>	<i>3.13</i>	3.13	<i>2.84</i>	<i>3.05</i>
Europe	14.80	14.94	15.44	14.84	14.07	11.71	13.80	<i>13.63</i>	<i>13.58</i>	<i>13.93</i>	<i>14.48</i>	<i>14.20</i>	15.01	<i>13.31</i>	<i>14.05</i>
Eurasia	5.27	5.32	5.72	5.57	5.07	4.69	5.50	<i>5.40</i>	<i>5.10</i>	<i>5.22</i>	<i>5.63</i>	<i>5.49</i>	5.47	<i>5.17</i>	<i>5.36</i>
Russia	3.64	3.74	4.04	3.89	3.54	3.22	3.92	<i>3.81</i>	<i>3.57</i>	<i>3.72</i>	<i>4.05</i>	<i>3.90</i>	3.83	<i>3.62</i>	<i>3.81</i>
Middle East	8.09	8.65	9.02	8.37	7.60	7.53	8.43	<i>7.91</i>	<i>7.59</i>	<i>8.16</i>	<i>8.59</i>	<i>7.98</i>	8.53	<i>7.87</i>	<i>8.08</i>
Asia and Oceania	36.47	36.01	35.49	36.51	34.41	31.91	33.69	<i>35.68</i>	<i>36.37</i>	<i>36.08</i>	<i>35.59</i>	<i>36.65</i>	36.12	<i>33.93</i>	<i>36.17</i>
China	14.45	14.65	14.37	14.58	13.52	13.74	14.33	<i>14.90</i>	<i>15.00</i>	<i>15.22</i>	<i>14.95</i>	<i>15.19</i>	14.51	<i>14.13</i>	<i>15.09</i>
Japan	4.05	3.39	3.43	3.74	3.69	2.89	3.03	<i>3.36</i>	<i>3.63</i>	<i>2.98</i>	<i>3.06</i>	<i>3.37</i>	3.65	<i>3.24</i>	<i>3.26</i>
India	4.89	4.95	4.66	4.94	4.63	3.77	4.17	<i>4.68</i>	<i>4.84</i>	<i>4.89</i>	<i>4.57</i>	<i>4.84</i>	4.86	<i>4.31</i>	<i>4.79</i>
Africa	4.50	4.52	4.44	4.63	4.34	4.22	4.25	<i>4.47</i>	<i>4.43</i>	<i>4.45</i>	<i>4.37</i>	<i>4.56</i>	4.52	<i>4.32</i>	<i>4.45</i>
Total OECD Liquid Fuels Consumption	47.57	46.99	48.12	47.75	45.30	37.45	42.43	<i>43.93</i>	<i>44.53</i>	<i>44.32</i>	<i>45.46</i>	<i>45.95</i>	47.61	<i>42.28</i>	<i>45.07</i>
Total non-OECD Liquid Fuels Consumption	53.00	54.13	54.28	54.23	50.09	47.90	51.65	<i>52.82</i>	<i>52.52</i>	<i>53.92</i>	<i>54.20</i>	<i>54.25</i>	53.91	<i>50.62</i>	<i>53.73</i>
Total World Liquid Fuels Consumption	100.57	101.12	102.39	101.98	95.40	85.34	94.08	<i>96.75</i>	<i>97.05</i>	<i>98.24</i>	<i>99.65</i>	<i>100.20</i>	101.52	<i>92.91</i>	<i>98.80</i>
Oil-weighted Real Gross Domestic Product (a)															
World Index, 2015 Q1 = 100	112.0	112.9	112.8	112.5	109.0	102.2	107.6	<i>108.7</i>	<i>110.7</i>	<i>112.0</i>	<i>112.9</i>	<i>113.7</i>	112.5	<i>106.9</i>	<i>112.3</i>
Percent change from prior year	2.3	2.2	1.9	1.5	-2.7	-9.5	-4.6	<i>-3.4</i>	<i>1.5</i>	<i>9.6</i>	<i>4.9</i>	<i>4.6</i>	2.0	<i>-5.0</i>	<i>5.1</i>
OECD Index, 2015 Q1 = 100	108.9	109.8	110.0	109.4	108.1	97.6	104.8	<i>105.4</i>	<i>106.8</i>	<i>108.3</i>	<i>109.1</i>	<i>109.4</i>	109.6	<i>104.0</i>	<i>108.4</i>
Percent change from prior year	1.7	1.7	1.8	1.5	-0.8	-11.1	-4.7	<i>-3.7</i>	<i>-1.2</i>	<i>10.9</i>	<i>4.0</i>	<i>3.8</i>	1.7	<i>-5.1</i>	<i>4.2</i>
Non-OECD Index, 2015 Q1 = 100	115.0	115.8	115.5	115.4	109.9	106.6	110.3	<i>111.8</i>	<i>114.4</i>	<i>115.5</i>	<i>116.6</i>	<i>117.9</i>	115.4	<i>109.7</i>	<i>116.1</i>
Percent change from prior year	2.9	2.7	2.1	1.5	-4.4	-7.9	-4.5	<i>-3.1</i>	<i>4.1</i>	<i>8.3</i>	<i>5.7</i>	<i>5.4</i>	2.3	<i>-5.0</i>	<i>5.9</i>
Real U.S. Dollar Exchange Rate (a)															
Index, 2015 Q1 = 100	105.49	106.09	106.55	106.31	106.63	108.40	107.04	<i>106.60</i>	<i>106.19</i>	<i>106.00</i>	<i>105.64</i>	<i>105.34</i>	106.11	<i>107.16</i>	<i>105.79</i>
Percent change from prior year	4.6	3.1	0.8	-0.1	1.1	2.2	0.5	<i>0.3</i>	<i>-0.4</i>	<i>-2.2</i>	<i>-1.3</i>	<i>-1.2</i>	2.1	<i>1.0</i>	<i>-1.3</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 - November 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	10.93	11.07	11.06	10.97	11.08	11.28	12.25	11.39	11.10
Alaska	0.49	0.47	0.43	0.48	0.48	0.41	0.46	0.49	0.50	0.48	0.47	0.49	0.47	0.46	0.49
Federal Gulf of Mexico (b)	1.86	1.93	1.83	1.96	1.96	1.69	1.52	1.68	1.91	1.87	1.79	1.81	1.90	1.71	1.84
Lower 48 States (excl GOM)	9.48	9.73	9.99	10.33	10.31	8.71	8.95	8.90	8.66	8.62	8.82	8.98	9.89	9.22	8.77
Crude Oil Net Imports (c)	4.28	4.11	3.94	2.96	2.90	3.08	2.36	2.95	3.96	4.40	4.98	4.23	3.82	2.82	4.39
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	0.42	0.22	-0.28	0.14	0.22	-0.02	0.03	-0.11	0.02
Crude Oil Adjustment (d)	0.27	0.53	0.37	0.55	0.67	0.03	0.14	0.01	0.22	0.22	0.23	0.16	0.43	0.21	0.21
Total Crude Oil Input to Refineries	16.20	16.76	16.96	16.32	15.77	13.16	14.00	14.31	15.05	15.81	16.53	15.68	16.56	14.31	15.77
Other Supply															
Refinery Processing Gain	1.05	1.07	1.06	1.09	1.02	0.82	0.95	1.03	1.06	1.10	1.11	1.07	1.07	0.95	1.09
Natural Gas Plant Liquids Production	4.66	4.81	4.82	5.00	5.12	4.96	5.29	5.01	5.01	5.27	5.33	5.42	4.82	5.10	5.26
Renewables and Oxygenate Production (e)	1.10	1.14	1.12	1.12	1.11	0.80	1.02	1.04	1.06	1.06	1.07	1.09	1.12	0.99	1.07
Fuel Ethanol Production	1.01	1.05	1.02	1.04	1.02	0.70	0.92	0.94	0.97	0.96	0.96	0.99	1.03	0.90	0.97
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	-3.20	-3.25	-3.45	-3.32	-3.96	-3.60	-3.15	-3.36	-3.58
Hydrocarbon Gas Liquids	-1.31	-1.67	-1.69	-1.81	-1.99	-1.86	-1.85	-1.93	-1.85	-1.99	-2.03	-1.97	-1.62	-1.91	-1.96
Unfinished Oils	0.25	0.47	0.47	0.52	0.31	0.25	0.34	0.47	0.39	0.45	0.44	0.30	0.43	0.34	0.40
Other HC/Oxygenates	-0.08	-0.07	-0.05	-0.05	-0.10	-0.05	-0.05	-0.06	-0.09	-0.08	-0.07	-0.08	-0.06	-0.06	-0.08
Motor Gasoline Blend Comp.	0.46	0.81	0.71	0.47	0.39	0.36	0.44	0.13	0.40	0.69	0.51	0.16	0.61	0.33	0.44
Finished Motor Gasoline	-0.80	-0.61	-0.60	-0.87	-0.72	-0.40	-0.51	-0.48	-0.69	-0.82	-0.93	-0.70	-0.72	-0.53	-0.78
Jet Fuel	-0.08	-0.01	-0.04	-0.08	-0.07	0.09	0.11	-0.09	-0.14	-0.03	0.01	0.00	-0.06	0.01	-0.04
Distillate Fuel Oil	-0.93	-1.22	-1.30	-0.97	-1.19	-0.86	-1.18	-0.76	-0.80	-0.89	-1.12	-0.69	-1.10	-1.00	-0.88
Residual Fuel Oil	-0.07	-0.15	-0.07	-0.02	-0.02	0.02	0.02	0.05	-0.04	-0.10	-0.09	0.01	-0.08	0.02	-0.06
Other Oils (g)	-0.63	-0.49	-0.52	-0.54	-0.65	-0.49	-0.52	-0.59	-0.64	-0.55	-0.68	-0.63	-0.55	-0.56	-0.63
Product Inventory Net Withdrawals	0.33	-0.60	-0.35	0.26	0.12	-0.91	-0.06	0.69	0.48	-0.46	-0.30	0.43	-0.09	-0.04	0.04
Total Supply	20.38	20.46	20.72	20.63	19.33	16.08	18.21	19.03	19.42	19.67	19.99	20.31	20.55	18.16	19.85
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	3.48	2.79	2.94	3.35	3.31	2.83	2.88	3.44	3.59	3.14	3.17	3.61	3.14	3.11	3.38
Unfinished Oils	0.00	0.09	0.05	0.11	0.14	0.11	0.04	0.00	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	8.49	8.45	8.50	8.84	8.90	8.82	9.31	8.14	8.77
Fuel Ethanol blended into Motor Gasoline	0.91	0.97	0.95	0.97	0.85	0.72	0.87	0.87	0.86	0.89	0.90	0.90	0.95	0.83	0.89
Jet Fuel	1.65	1.78	1.80	1.75	1.56	0.69	0.95	1.09	1.39	1.56	1.66	1.62	1.74	1.07	1.56
Distillate Fuel Oil	4.27	4.07	3.95	4.12	3.97	3.51	3.62	3.94	4.01	3.96	3.91	4.09	4.10	3.76	4.00
Residual Fuel Oil	0.27	0.23	0.33	0.27	0.17	0.15	0.30	0.27	0.25	0.21	0.26	0.26	0.28	0.22	0.25
Other Oils (g)	1.68	1.95	2.13	1.87	1.68	1.68	1.94	1.86	1.68	1.95	2.09	1.90	1.91	1.79	1.91
Total Consumption	20.36	20.46	20.72	20.63	19.33	16.08	18.21	19.03	19.42	19.67	19.99	20.31	20.54	18.16	19.85
Total Petroleum and Other Liquids Net Imports	1.09	1.18	0.84	-0.41	-1.13	0.14	-0.84	-0.30	<i>0.51</i>	<i>1.08</i>	<i>1.01</i>	<i>0.63</i>	0.67	-0.53	0.81
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	458.9	463.4	425.6	432.8	482.5	531.9	492.9	472.8	497.8	485.2	464.8	466.4	432.8	472.8	466.4
Hydrocarbon Gas Liquids	160.3	224.5	262.8	211.7	180.8	233.9	302.7	244.5	201.7	247.0	281.9	237.6	211.7	244.5	237.6
Unfinished Oils	92.2	95.9	92.3	89.8	100.1	91.9	79.7	78.7	92.4	91.0	90.2	83.1	89.8	78.7	83.1
Other HC/Oxygenates	30.9	29.1	28.3	27.8	33.6	26.2	24.7	25.2	26.5	25.5	24.8	25.5	27.8	25.2	25.5
Total Motor Gasoline	236.6	229.9	232.0	254.1	260.8	253.3	226.7	238.6	233.5	232.1	228.3	234.9	254.1	238.6	234.9
Finished Motor Gasoline	20.9	21.5	23.0	26.1	22.6	23.5	23.4	24.1	22.8	21.4	22.4	22.5	26.1	24.1	22.5
Motor Gasoline Blend Comp.	215.7	208.4	209.0	228.0	238.3	229.8	203.4	214.5	210.7	210.7	205.9	212.3	228.0	214.5	212.3
Jet Fuel	41.6	40.5	44.3	40.5	39.9	41.5	39.6	37.6	37.8	39.2	41.7	38.9	40.5	37.6	38.9
Distillate Fuel Oil	132.2	131.1	131.8	140.1	126.7	175.4	171.8	158.5	140.1	138.2	140.8	144.4	140.1	158.5	144.4
Residual Fuel Oil	29.2	30.5	30.0	30.5	34.4	39.6	32.3	29.5	31.0	32.7	31.0	32.4	30.5	29.5	32.4
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	52.3	54.6	50.6	52.3
Total Commercial Inventory	1,245	1,304	1,298	1,282	1,321	1,453	1,419	1,336	1,317	1,346	1,353	1,315	1,282	1,336	1,315
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 - November 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	2.12	2.00	2.15	2.25	2.25	2.36	1.83	1.99	2.25
Propane	1.50	1.56	1.61	1.68	1.72	1.61	1.67	1.62	1.56	1.60	1.62	1.63	1.59	1.66	1.60
Butanes	0.79	0.84	0.87	0.89	0.91	0.86	0.89	0.84	0.79	0.86	0.87	0.87	0.85	0.87	0.85
Natural Gasoline (Pentanes Plus)	0.49	0.55	0.61	0.58	0.56	0.57	0.61	0.55	0.52	0.56	0.59	0.56	0.56	0.57	0.56
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	0.01	0.01	0.01	0.01	0.01	0.01
Propane	0.28	0.30	0.29	0.29	0.29	0.24	0.27	0.28	0.27	0.29	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	0.25	0.28	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	0.14	-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	-0.28	-0.27	-0.38	-0.40	-0.41	-0.45	-0.28	-0.28	-0.41
Propane/Propylene	-0.75	-1.00	-0.99	-1.05	-1.12	-1.08	-1.03	-1.08	-0.88	-0.97	-0.99	-0.97	-0.95	-1.08	-0.95
Butanes/Butylenes	-0.14	-0.25	-0.26	-0.25	-0.30	-0.31	-0.35	-0.29	-0.26	-0.34	-0.33	-0.28	-0.23	-0.31	-0.31
Natural Gasoline (Pentanes Plus)	-0.17	-0.15	-0.16	-0.21	-0.27	-0.19	-0.18	-0.29	-0.33	-0.29	-0.29	-0.26	-0.17	-0.23	-0.29
HGL Refinery and Blender Net Inputs															
Butanes/Butylenes	0.46	0.29	0.33	0.54	0.46	0.25	0.32	0.48	0.38	0.28	0.32	0.49	0.40	0.38	0.37
Natural Gasoline (Pentanes Plus)	0.14	0.17	0.18	0.18	0.15	0.10	0.14	0.14	0.12	0.17	0.19	0.19	0.17	0.13	0.17
HGL Consumption															
Ethane/Ethylene	1.61	1.50	1.48	1.56	1.70	1.65	1.64	1.74	1.81	1.84	1.87	1.92	1.54	1.68	1.86
Propane	1.19	0.58	0.63	1.08	1.09	0.59	0.62	1.10	1.22	0.68	0.69	1.08	0.87	0.85	0.92
Propylene (refinery-grade)	0.29	0.30	0.29	0.31	0.26	0.27	0.26	0.29	0.30	0.30	0.30	0.29	0.30	0.27	0.30
Butanes/Butylenes	0.19	0.22	0.30	0.24	0.17	0.20	0.16	0.19	0.17	0.23	0.21	0.21	0.24	0.18	0.21
Natural Gasoline (Pentanes Plus)	0.19	0.20	0.23	0.17	0.09	0.13	0.19	0.13	0.10	0.08	0.10	0.11	0.20	0.13	0.10
HGL Inventories (million barrels)															
Ethane	49.14	56.54	56.84	58.84	52.57	49.54	62.03	73.06	67.71	69.06	66.40	66.92	55.37	59.35	67.52
Propane	48.94	71.71	95.61	79.67	60.28	75.31	100.06	72.97	47.56	67.26	87.37	74.63	79.67	72.97	74.63
Propylene (at refineries only)	1.68	1.76	2.65	1.66	1.41	1.50	1.78	2.21	2.10	2.47	2.84	3.24	1.66	2.21	3.24
Butanes/Butylenes	39.84	70.72	85.87	52.18	43.58	69.33	86.79	57.26	47.08	71.20	88.66	59.03	52.18	57.26	59.03
Natural Gasoline (Pentanes Plus)	18.43	19.72	21.26	20.90	23.99	35.67	43.23	41.15	37.29	37.19	36.83	34.88	20.90	41.15	34.88
Refinery and Blender Net Inputs															
Crude Oil	16.20	16.76	16.96	16.32	15.77	13.16	14.00	14.31	15.05	15.81	16.53	15.68	16.56	14.31	15.77
Hydrocarbon Gas Liquids	0.59	0.46	0.51	0.72	0.61	0.35	0.46	0.62	0.51	0.45	0.51	0.68	0.57	0.51	0.54
Other Hydrocarbons/Oxygenates	1.16	1.21	1.22	1.19	1.12	0.95	1.10	1.09	1.10	1.13	1.13	1.13	1.19	1.07	1.12
Unfinished Oils	0.18	0.34	0.46	0.43	0.05	0.23	0.44	0.48	0.24	0.47	0.45	0.38	0.35	0.30	0.38
Motor Gasoline Blend Components	0.64	0.94	0.77	0.40	0.41	0.48	0.80	0.13	0.57	0.84	0.66	0.26	0.69	0.46	0.58
Aviation Gasoline Blend Components	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Refinery and Blender Net Inputs	18.77	19.71	19.93	19.06	17.97	15.17	16.81	16.63	17.47	18.69	19.28	18.13	19.37	16.64	18.40
Refinery Processing Gain	1.05	1.07	1.06	1.09	1.02	0.82	0.95	1.03	1.06	1.10	1.11	1.07	1.07	0.95	1.09
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	0.48	0.84	0.76	0.34	0.47	0.69	0.67	0.36	0.47	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	9.05	9.03	9.27	9.75	9.91	9.66	10.10	8.73	9.65
Jet Fuel	1.73	1.78	1.88	1.79	1.63	0.62	0.82	1.15	1.53	1.60	1.68	1.58	1.80	1.05	1.60
Distillate Fuel	5.05	5.21	5.18	5.11	4.95	4.83	4.68	4.47	4.57	4.77	4.98	4.75	5.14	4.73	4.77
Residual Fuel	0.36	0.39	0.39	0.30	0.23	0.18	0.19	0.19	0.31	0.33	0.33	0.27	0.36	0.20	0.31
Other Oils (a)	2.36	2.40	2.57	2.45	2.41	2.14	2.34	2.46	2.39	2.49	2.71	2.56	2.44	2.34	2.54
Total Refinery and Blender Net Production	19.82	20.78	20.99	20.15	18.99	15.99	17.76	17.66	18.53	19.79	20.39	19.20	20.44	17.60	19.48
Refinery Distillation Inputs	16.54	17.14	17.42	16.85	16.36	13.65	14.52	14.80	15.43	16.11	16.82	16.02	16.99	14.83	16.10
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	0.80	0.84	0.88	0.92	0.87	0.90	0.79	0.88

- = 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 - November 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Prices (cents per gallon)															
Refiner Wholesale Price	167	205	189	182	153	104	135	121	126	156	156	145	186	129	146
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	233	268	256	247	236	191	211	195	193	225	230	219	251	209	217
PADD 2	223	269	257	244	226	179	207	191	183	225	222	208	249	202	210
PADD 3	205	245	234	224	210	162	186	172	174	204	205	193	228	184	194
PADD 4	226	285	270	276	247	201	233	210	191	223	230	215	265	223	215
PADD 5	297	356	331	350	311	258	283	267	250	289	290	279	334	281	277
U.S. Average	236	279	265	259	241	194	218	203	197	233	234	221	260	215	222
Gasoline All Grades Including Taxes	245	288	274	269	251	203	227	213	209	245	247	235	269	224	235
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	62.5	59.8	65.0	65.6	71.0	73.0	61.5	60.8	59.0	60.8	58.0	58.8	65.6	60.8	58.8
PADD 2	54.5	49.6	51.0	55.0	60.2	52.6	46.2	51.7	54.4	53.9	52.8	50.4	55.0	51.7	50.4
PADD 3	82.3	82.6	81.6	92.0	84.8	90.5	80.4	86.9	82.1	80.4	80.6	85.6	92.0	86.9	85.6
PADD 4	6.9	7.5	7.7	8.3	9.2	7.7	7.5	7.5	7.7	7.8	7.5	8.0	8.3	7.5	8.0
PADD 5	30.4	30.6	26.8	33.2	35.6	29.4	31.2	31.7	30.3	29.2	29.4	32.1	33.2	31.7	32.1
U.S. Total	236.6	229.9	232.0	254.1	260.8	253.3	226.7	238.6	233.5	232.1	228.3	234.9	254.1	238.6	234.9
Finished Gasoline Inventories															
U.S. Total	20.9	21.5	23.0	26.1	22.6	23.5	23.4	24.1	22.8	21.4	22.4	22.5	26.1	24.1	22.5
Gasoline Blending Components Inventories															
U.S. Total	215.7	208.4	209.0	228.0	238.3	229.8	203.4	214.5	210.7	210.7	205.9	212.3	228.0	214.5	212.3

- = 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 - November 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	102.32	96.89	97.87	<i>96.99</i>	<i>95.10</i>	<i>94.72</i>	<i>95.93</i>	<i>96.74</i>	100.04	<i>98.51</i>	<i>95.63</i>
Alaska	0.96	0.93	0.79	0.93	0.96	0.88	0.88	<i>0.94</i>	<i>0.99</i>	<i>0.85</i>	<i>0.80</i>	<i>0.95</i>	0.90	<i>0.92</i>	<i>0.90</i>
Federal GOM (a)	2.88	2.82	2.63	2.80	2.72	2.22	1.95	<i>2.29</i>	<i>2.44</i>	<i>2.37</i>	<i>2.25</i>	<i>2.23</i>	2.78	<i>2.29</i>	<i>2.32</i>
Lower 48 States (excl GOM)	92.92	94.69	97.63	100.10	98.64	93.79	95.04	<i>93.76</i>	<i>91.67</i>	<i>91.50</i>	<i>92.88</i>	<i>93.57</i>	96.36	<i>95.30</i>	<i>92.41</i>
Total Dry Gas Production	90.01	91.57	94.00	96.58	94.85	89.73	90.14	<i>89.29</i>	<i>87.50</i>	<i>87.10</i>	<i>88.16</i>	<i>88.86</i>	93.06	<i>90.99</i>	<i>87.91</i>
LNG Gross Imports	0.28	0.03	0.06	0.20	0.24	0.12	0.10	<i>0.20</i>	<i>0.32</i>	<i>0.18</i>	<i>0.18</i>	<i>0.20</i>	0.14	<i>0.17</i>	<i>0.22</i>
LNG Gross Exports	4.01	4.55	4.95	6.40	7.92	5.51	3.88	<i>8.30</i>	<i>9.15</i>	<i>7.59</i>	<i>7.66</i>	<i>9.26</i>	4.98	<i>6.40</i>	<i>8.41</i>
Pipeline Gross Imports	8.35	6.73	7.10	7.30	7.64	6.17	6.64	<i>7.00</i>	<i>7.79</i>	<i>6.52</i>	<i>6.85</i>	<i>7.13</i>	7.37	<i>6.86</i>	<i>7.07</i>
Pipeline Gross Exports	7.86	7.18	7.80	8.25	8.15	7.17	8.05	<i>8.30</i>	<i>8.45</i>	<i>7.89</i>	<i>8.77</i>	<i>8.92</i>	7.77	<i>7.92</i>	<i>8.51</i>
Supplemental Gaseous Fuels	0.16	0.17	0.17	0.18	0.19	0.17	0.16	<i>0.17</i>	<i>0.16</i>	<i>0.16</i>	<i>0.17</i>	<i>0.17</i>	0.17	<i>0.17</i>	<i>0.17</i>
Net Inventory Withdrawals	16.93	-14.18	-10.41	2.45	12.74	-12.24	-7.59	<i>8.11</i>	<i>17.34</i>	<i>-11.47</i>	<i>-8.00</i>	<i>7.30</i>	-1.37	<i>0.25</i>	<i>1.24</i>
Total Supply	103.87	72.60	78.18	92.05	99.59	71.27	77.51	<i>88.16</i>	<i>95.51</i>	<i>67.02</i>	<i>70.93</i>	<i>85.47</i>	86.62	<i>84.13</i>	<i>79.68</i>
Balancing Item (b)	0.05	-1.65	-1.83	-2.43	-0.28	-0.38	-0.56	<i>-0.57</i>	<i>0.03</i>	<i>-0.75</i>	<i>-0.02</i>	<i>-0.50</i>	-1.47	<i>-0.45</i>	<i>-0.31</i>
Total Primary Supply	103.92	70.95	76.35	89.62	99.31	70.89	76.96	<i>87.59</i>	<i>95.54</i>	<i>66.27</i>	<i>70.91</i>	<i>84.97</i>	85.15	<i>83.68</i>	<i>79.37</i>
Consumption (billion cubic feet per day)															
Residential	27.22	7.36	3.51	17.09	22.83	8.20	3.78	<i>17.94</i>	<i>25.75</i>	<i>7.17</i>	<i>3.62</i>	<i>16.99</i>	13.74	<i>13.17</i>	<i>13.33</i>
Commercial	16.11	6.33	4.62	11.53	13.93	5.82	4.37	<i>10.93</i>	<i>15.18</i>	<i>6.65</i>	<i>4.72</i>	<i>10.60</i>	9.62	<i>8.76</i>	<i>9.26</i>
Industrial	25.24	21.82	21.38	23.89	24.65	20.62	20.95	<i>23.84</i>	<i>24.33</i>	<i>21.73</i>	<i>20.99</i>	<i>23.73</i>	23.07	<i>22.51</i>	<i>22.69</i>
Electric Power (c)	27.12	28.20	39.27	28.99	29.55	29.04	40.34	<i>26.51</i>	<i>21.66</i>	<i>23.09</i>	<i>33.77</i>	<i>25.20</i>	30.92	<i>31.37</i>	<i>25.96</i>
Lease and Plant Fuel	4.89	4.98	5.11	5.25	5.17	4.90	4.95	<i>4.90</i>	<i>4.81</i>	<i>4.79</i>	<i>4.85</i>	<i>4.89</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	2.41	<i>3.29</i>	<i>3.62</i>	<i>2.65</i>	<i>2.78</i>	<i>3.37</i>	2.59	<i>2.72</i>	<i>3.10</i>
Vehicle Use	0.14	0.14	0.14	0.14	0.16	0.16	0.16	<i>0.18</i>	<i>0.18</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	0.14	<i>0.17</i>	<i>0.18</i>
Total Consumption	103.92	70.95	76.35	89.62	99.31	70.89	76.96	<i>87.59</i>	<i>95.54</i>	<i>66.27</i>	<i>70.91</i>	<i>84.97</i>	85.15	<i>83.68</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>3,094</i>	<i>1,533</i>	<i>2,576</i>	<i>3,313</i>	<i>2,641</i>	3,188	<i>3,094</i>	<i>2,641</i>
East Region (d)	216	537	845	764	385	655	887	<i>660</i>	<i>178</i>	<i>463</i>	<i>718</i>	<i>467</i>	764	<i>660</i>	<i>467</i>
Midwest Region (d)	242	579	990	885	472	747	1,054	<i>834</i>	<i>291</i>	<i>583</i>	<i>919</i>	<i>707</i>	885	<i>834</i>	<i>707</i>
South Central Region (d)	519	917	1,049	1,095	857	1,221	1,317	<i>1,121</i>	<i>736</i>	<i>1,061</i>	<i>1,131</i>	<i>1,000</i>	1,095	<i>1,121</i>	<i>1,000</i>
Mountain Region (d)	63	135	200	167	92	177	235	<i>180</i>	<i>117</i>	<i>156</i>	<i>199</i>	<i>163</i>	167	<i>180</i>	<i>163</i>
Pacific Region (d)	115	259	294	245	200	308	317	<i>268</i>	<i>180</i>	<i>283</i>	<i>317</i>	<i>273</i>	245	<i>268</i>	<i>273</i>
Alaska	30	33	37	33	23	25	30	<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 - November 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	3.05	3.47	3.15	3.18	3.24	2.67	2.22	3.26
Residential Retail															
New England	14.42	15.46	19.05	14.02	13.77	14.50	18.31	13.74	13.27	14.18	17.11	13.21	14.72	14.21	13.64
Middle Atlantic	10.70	12.97	18.34	11.29	10.77	11.85	17.73	10.89	9.93	12.26	17.00	11.22	11.64	11.49	11.10
E. N. Central	7.26	10.47	19.05	7.67	6.99	9.50	18.83	7.57	7.74	11.09	16.76	8.45	8.39	8.25	8.95
W. N. Central	7.88	10.61	18.10	8.06	6.85	9.89	17.74	7.88	7.66	10.98	17.16	9.12	8.75	8.22	9.04
S. Atlantic	11.42	17.86	25.10	12.62	12.12	15.52	24.16	12.95	11.44	16.60	22.70	12.64	13.52	13.80	13.30
E. S. Central	9.68	14.93	21.63	10.45	9.69	13.34	21.18	10.48	9.94	15.26	22.32	13.61	11.09	11.11	12.29
W. S. Central	8.24	13.34	21.45	10.46	8.52	14.22	20.39	9.63	8.88	14.98	20.83	11.99	10.46	10.68	11.48
Mountain	7.64	9.36	13.16	7.66	7.55	9.37	12.79	7.78	7.74	9.80	13.67	8.51	8.25	8.34	8.74
Pacific	12.17	12.47	13.20	11.81	13.41	14.47	14.32	12.91	13.28	14.10	14.83	13.75	12.23	13.58	13.75
U.S. Average	9.39	12.36	17.90	9.78	9.46	11.89	17.74	9.93	9.53	12.74	17.38	10.78	10.46	10.59	10.90
Commercial Retail															
New England	10.81	11.05	11.37	9.85	9.93	10.40	10.60	9.75	9.94	10.37	10.86	10.32	10.60	10.02	10.23
Middle Atlantic	8.31	7.66	6.81	7.43	7.91	7.00	6.63	7.03	7.50	7.45	7.00	7.56	7.71	7.33	7.45
E. N. Central	6.23	7.14	8.79	6.00	5.75	6.73	8.82	6.70	6.87	8.13	9.51	7.17	6.46	6.44	7.34
W. N. Central	6.75	7.07	8.17	6.05	5.43	6.53	8.00	6.64	7.29	7.97	9.12	7.38	6.66	6.16	7.54
S. Atlantic	8.80	9.50	9.73	8.72	8.51	9.21	9.44	8.44	8.57	9.60	9.92	8.83	9.00	8.71	8.97
E. S. Central	8.63	9.82	10.13	8.47	8.38	9.20	10.07	8.65	8.44	9.68	10.43	9.22	8.90	8.77	9.08
W. S. Central	6.30	6.93	7.85	6.66	5.99	7.18	7.89	7.37	7.35	8.10	8.87	8.13	6.71	6.85	7.92
Mountain	6.40	6.73	7.33	6.15	6.09	6.85	7.60	6.53	6.84	7.32	8.30	7.25	6.46	6.50	7.20
Pacific	9.07	8.82	9.14	9.01	9.58	9.30	9.49	8.84	9.09	9.30	9.79	9.29	9.01	9.29	9.30
U.S. Average	7.55	7.95	8.41	7.20	7.13	7.63	8.39	7.43	7.67	8.36	8.93	8.00	7.59	7.44	8.02
Industrial Retail															
New England	9.24	8.32	6.96	7.34	8.15	7.41	5.88	7.08	8.33	7.59	6.77	7.69	8.14	7.29	7.72
Middle Atlantic	8.80	7.49	6.72	7.04	7.43	6.76	6.77	6.84	7.79	7.53	7.59	7.80	7.83	7.05	7.72
E. N. Central	5.66	5.31	5.56	5.05	4.84	5.10	4.21	5.09	6.10	5.90	5.83	5.69	5.41	4.88	5.91
W. N. Central	5.24	4.01	3.48	4.32	3.97	3.30	3.09	4.29	5.31	4.65	4.62	5.10	4.34	3.72	4.96
S. Atlantic	5.43	4.54	4.35	4.45	4.15	3.70	3.66	4.73	5.73	5.03	4.97	5.21	4.73	4.09	5.27
E. S. Central	4.99	4.09	3.62	4.12	3.92	3.24	3.29	4.48	5.32	4.71	4.64	5.01	4.25	3.78	4.95
W. S. Central	3.49	2.89	2.54	2.65	2.19	1.92	2.18	3.03	3.64	3.36	3.43	3.46	2.91	2.38	3.47
Mountain	5.23	4.71	4.88	4.64	4.40	4.59	4.67	4.91	5.48	5.66	6.08	6.02	4.88	4.63	5.79
Pacific	7.61	6.58	6.37	6.88	7.46	6.28	6.17	6.29	7.17	6.69	7.03	7.12	6.91	6.58	7.02
U.S. Average	4.66	3.73	3.29	3.74	3.52	2.85	2.85	3.85	4.72	4.13	4.08	4.38	3.90	3.31	4.34

- = 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 - November 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	122.9	161.6	148.4	163.3	153.6	705.3	520.6	626.9
Appalachia	49.6	52.5	46.6	44.3	39.7	32.0	36.0	31.8	44.1	45.5	42.8	39.7	193.0	139.5	172.2
Interior	35.4	32.3	32.4	30.6	25.8	20.2	22.6	24.2	24.0	20.3	26.1	29.1	130.7	92.8	99.5
Western	94.5	94.4	102.4	90.3	83.6	60.9	76.8	67.0	93.5	82.6	94.3	84.9	381.7	288.4	355.3
Primary Inventory Withdrawals	-2.5	-0.4	-3.2	-3.6	0.5	1.3	2.0	-1.0	0.4	2.0	2.6	-0.7	-9.6	2.8	4.3
Imports	1.7	1.6	1.7	1.7	1.3	1.1	1.1	1.1	1.0	1.0	1.3	1.3	6.7	4.8	4.5
Exports	25.2	25.3	21.9	20.4	20.0	14.8	14.8	14.1	20.1	17.1	14.3	13.2	92.9	63.6	64.7
Metallurgical Coal	13.9	15.1	13.5	12.6	11.7	9.0	9.8	10.3	12.2	11.0	9.4	8.9	55.1	40.8	41.5
Steam Coal	11.3	10.2	8.4	7.8	8.3	5.8	4.9	3.8	8.0	6.0	4.9	4.3	37.7	22.8	23.2
Total Primary Supply	153.5	155.1	157.9	142.9	130.9	100.8	123.8	109.0	142.8	134.4	152.9	141.0	609.5	464.6	571.1
Secondary Inventory Withdrawals	6.1	-20.4	5.9	-17.5	-16.6	-5.0	24.3	3.0	-0.3	-5.1	9.9	5.9	-25.9	5.6	10.5
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	150.4	114.3	144.5	131.3	164.8	148.9	592.9	479.4	589.6
Consumption (million short tons)															
Coke Plants	4.5	4.7	4.5	4.4	4.3	3.5	3.9	3.9	4.1	4.0	4.2	4.2	18.0	15.5	16.5
Electric Power Sector (b)	145.2	117.8	155.6	120.0	97.8	87.2	141.0	116.5	131.8	130.2	157.9	126.0	538.6	442.5	545.9
Retail and Other Industry	8.1	7.2	7.2	7.5	7.4	5.7	6.3	6.7	6.8	6.5	6.4	6.6	30.0	26.1	26.4
Residential and Commercial	0.3	0.2	0.2	0.2	0.3	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.9	0.9	0.8
Other Industrial	7.8	7.0	7.0	7.3	7.1	5.6	6.1	6.4	6.6	6.4	6.2	6.4	29.1	25.2	25.6
Total Consumption	157.7	129.6	167.2	132.0	109.5	96.4	151.2	127.1	142.7	140.8	168.5	136.9	586.5	484.1	588.9
Discrepancy (c)	4.2	7.5	-1.1	-4.2	7.1	1.7	-0.8	-12.7	1.8	-9.4	-3.7	12.0	6.4	-4.7	0.7
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	131.4	128.4	128.7	133.7	123.8	117.9	134.0	128.4	117.9
Electric Power Sector	96.9	116.9	110.6	128.2	145.2	150.4	125.3	122.6	123.1	127.9	117.8	112.2	128.2	122.6	112.2
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	0.216	0.262	0.229	0.228	0.268	0.268	0.213	0.246
Cost of Coal to Electric Utilities															
(Dollars per million Btu)	2.07	2.04	1.99	1.93	1.92	1.90	1.93	2.00	2.04	2.06	2.03	2.04	2.01	1.94	2.04

- = 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 - November 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	1,157	956	<i>952</i>	<i>966</i>	<i>1,138</i>	<i>966</i>	4,127	<i>4,012</i>	<i>4,022</i>
Electric Power Sector (a)	961	941	1,129	933	924	896	1,118	921	<i>916</i>	<i>931</i>	<i>1,101</i>	<i>929</i>	3,965	<i>3,859</i>	<i>3,876</i>
Industrial Sector (b)	36	35	39	38	38	34	36	32	<i>33</i>	<i>32</i>	<i>34</i>	<i>34</i>	149	<i>140</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	11	<i>12</i>	<i>13</i>	<i>15</i>	<i>11</i>	49	<i>53</i>	<i>50</i>
Total Supply	1,012	992	1,186	985	978	946	1,173	968	<i>964</i>	<i>979</i>	<i>1,153</i>	<i>977</i>	4,176	<i>4,065</i>	<i>4,072</i>
Losses and Unaccounted for (c)	50	65	59	45	55	69	74	54	<i>44</i>	<i>67</i>	<i>58</i>	<i>54</i>	219	<i>251</i>	<i>223</i>
Electricity Consumption (billion kilowatthours unless noted)															
Retail Sales	926	892	1089	904	887	844	1060	880	<i>888</i>	<i>880</i>	<i>1061</i>	<i>889</i>	3811	<i>3671</i>	<i>3718</i>
Residential Sector	363	311	435	332	340	334	458	344	<i>360</i>	<i>342</i>	<i>450</i>	<i>346</i>	1440	<i>1476</i>	<i>1497</i>
Commercial Sector	322	329	384	326	314	293	358	309	<i>305</i>	<i>309</i>	<i>363</i>	<i>313</i>	1361	<i>1274</i>	<i>1290</i>
Industrial Sector	240	250	268	244	231	216	242	225	<i>221</i>	<i>227</i>	<i>246</i>	<i>228</i>	1002	<i>914</i>	<i>923</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>7</i>	<i>8</i>
Direct Use (d)	36	35	38	37	37	33	35	32	<i>32</i>	<i>32</i>	<i>34</i>	<i>33</i>	146	<i>138</i>	<i>131</i>
Total Consumption	962	927	1128	941	924	878	1099	913	<i>920</i>	<i>912</i>	<i>1094</i>	<i>922</i>	3957	<i>3813</i>	<i>3849</i>
Average residential electricity usage per customer (kWh)	2,680	2,298	3,219	2,451	2,518	2,472	3,399	2,551	<i>2,628</i>	<i>2,499</i>	<i>3,283</i>	<i>2,526</i>	10,649	<i>10,940</i>	<i>10,935</i>
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.07	2.04	1.99	1.93	1.92	1.90	1.93	2.00	<i>2.04</i>	<i>2.06</i>	<i>2.03</i>	<i>2.04</i>	2.01	<i>1.94</i>	<i>2.04</i>
Natural Gas	3.72	2.73	2.51	2.79	2.41	2.10	2.18	3.29	<i>4.01</i>	<i>3.35</i>	<i>3.32</i>	<i>3.52</i>	2.89	<i>2.45</i>	<i>3.52</i>
Residual Fuel Oil	12.22	13.39	12.80	12.52	12.15	6.65	7.21	7.44	<i>7.94</i>	<i>9.31</i>	<i>9.20</i>	<i>9.18</i>	12.73	<i>8.33</i>	<i>8.78</i>
Distillate Fuel Oil	14.83	15.77	15.01	15.08	13.29	8.43	10.08	9.92	<i>10.62</i>	<i>11.84</i>	<i>12.24</i>	<i>12.57</i>	15.16	<i>10.50</i>	<i>11.83</i>
Retail Prices (cents per kilowatthour)															
Residential Sector	12.67	13.30	13.24	12.83	12.90	13.24	13.34	12.83	<i>12.81</i>	<i>13.33</i>	<i>13.53</i>	<i>13.14</i>	13.01	<i>13.10</i>	<i>13.22</i>
Commercial Sector	10.43	10.66	11.00	10.55	10.33	10.63	10.95	10.48	<i>10.29</i>	<i>10.78</i>	<i>11.20</i>	<i>10.68</i>	10.67	<i>10.61</i>	<i>10.76</i>
Industrial Sector	6.67	6.69	7.20	6.65	6.37	6.63	7.03	6.60	<i>6.42</i>	<i>6.72</i>	<i>7.03</i>	<i>6.61</i>	6.81	<i>6.66</i>	<i>6.70</i>
Wholesale Electricity Prices (dollars per megawatthour)															
ERCOT North hub	28.41	28.34	139.81	28.40	23.41	24.03	34.12	29.47	<i>30.76</i>	<i>32.58</i>	<i>33.62</i>	<i>30.75</i>	56.24	<i>27.76</i>	<i>31.93</i>
CAISO SP15 zone	50.42	23.30	37.32	41.57	28.64	19.21	61.94	44.73	<i>44.36</i>	<i>42.41</i>	<i>43.81</i>	<i>44.59</i>	38.15	<i>38.63</i>	<i>43.79</i>
ISO-NE Internal hub	47.40	27.15	29.52	35.48	24.61	20.25	27.20	36.13	<i>51.28</i>	<i>29.84</i>	<i>31.32</i>	<i>34.21</i>	34.89	<i>27.05</i>	<i>36.66</i>
NYISO Hudson Valley zone	41.77	25.68	27.76	27.04	21.82	18.13	24.38	23.27	<i>26.86</i>	<i>25.65</i>	<i>27.55</i>	<i>25.70</i>	30.56	<i>21.90</i>	<i>26.44</i>
PJM Western hub	33.79	28.54	31.17	29.89	22.47	20.79	28.24	25.17	<i>27.18</i>	<i>26.60</i>	<i>30.06</i>	<i>26.85</i>	30.85	<i>24.17</i>	<i>27.67</i>
Midcontinent ISO Illinois hub	31.44	27.81	30.71	28.09	24.43	23.00	29.35	26.77	<i>27.13</i>	<i>26.76</i>	<i>30.19</i>	<i>28.63</i>	29.51	<i>25.89</i>	<i>28.18</i>
SPP ISO South hub	29.15	27.14	31.51	23.64	20.06	19.54	26.27	24.50	<i>22.55</i>	<i>23.14</i>	<i>28.22</i>	<i>24.33</i>	27.86	<i>22.59</i>	<i>24.56</i>
SERC index, Into Southern	30.74	29.87	31.08	29.31	23.58	18.23	23.47	23.25	<i>23.89</i>	<i>24.25</i>	<i>26.60</i>	<i>24.53</i>	30.25	<i>22.13</i>	<i>24.82</i>
FRCC index, Florida Reliability	30.71	29.57	30.64	29.47	26.24	18.53	23.75	24.92	<i>26.79</i>	<i>27.76</i>	<i>27.68</i>	<i>27.22</i>	30.10	<i>23.36</i>	<i>27.36</i>
Northwest index, Mid-Columbia	55.74	18.55	32.74	37.47	22.77	14.49	33.56	32.82	<i>33.03</i>	<i>31.09</i>	<i>32.98</i>	<i>33.89</i>	36.12	<i>25.91</i>	<i>32.75</i>
Southwest index, Palo Verde	44.23	18.45	42.00	36.37	22.07	19.60	80.81	41.89	<i>49.92</i>	<i>42.85</i>	<i>42.24</i>	<i>42.14</i>	35.26	<i>41.09</i>	<i>44.29</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 - November 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	14.7	11.5	12.5	11.3	13.8	11.7	46.2	48.8	49.4
Middle Atlantic	35.3	27.7	40.4	29.8	32.2	30.6	43.9	30.7	34.3	30.8	40.8	31.0	133.1	137.3	136.9
E. N. Central	50.0	38.3	54.4	43.4	46.4	43.7	58.1	46.3	49.2	44.4	56.1	47.0	186.2	194.5	196.7
W. N. Central	30.3	21.9	29.3	25.1	27.6	23.7	29.9	25.3	28.4	25.7	31.6	27.3	106.6	106.6	113.0
S. Atlantic	88.7	84.9	112.0	84.7	84.3	86.3	115.6	85.8	92.2	88.6	114.4	85.9	370.4	372.1	381.2
E. S. Central	30.3	25.9	36.7	27.5	29.0	26.0	37.2	26.7	31.9	27.2	38.0	27.1	120.3	119.0	124.3
W. S. Central	52.1	49.4	76.5	51.0	48.8	52.9	76.7	51.8	49.8	54.3	77.4	51.3	229.0	230.1	232.8
Mountain	23.2	22.2	33.0	22.1	22.5	25.7	36.6	23.9	22.8	25.5	34.2	23.8	100.5	108.8	106.2
Pacific contiguous	39.1	29.7	38.7	35.8	36.7	33.2	43.7	40.8	37.4	33.3	42.0	39.4	143.3	154.4	152.1
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	4.9
Total	362.5	310.8	435.4	331.5	340.4	334.1	457.8	344.1	359.8	342.2	449.6	345.8	1,440.3	1,476.4	1,497.5
Commercial Sector															
New England	12.8	12.1	14.0	12.6	12.3	10.6	13.0	11.9	12.0	10.8	12.7	11.9	51.5	47.8	47.4
Middle Atlantic	38.7	36.4	42.0	36.0	35.9	31.0	38.8	33.0	33.6	34.2	39.4	34.0	153.2	138.7	141.2
E. N. Central	44.2	42.8	50.0	43.2	43.1	38.3	47.2	41.4	42.1	41.5	48.4	42.3	180.2	170.0	174.3
W. N. Central	25.6	24.2	27.9	24.8	24.7	21.6	26.5	24.1	24.2	22.1	27.2	24.4	102.6	96.9	97.9
S. Atlantic	72.3	79.7	90.4	75.8	72.0	70.0	84.2	70.2	69.9	73.8	85.6	71.3	318.1	296.4	300.5
E. S. Central	21.2	22.7	27.2	21.9	20.7	19.4	25.4	20.9	20.5	20.6	26.0	21.2	93.1	86.4	88.3
W. S. Central	44.0	47.8	58.9	47.6	44.3	44.6	55.5	46.9	43.9	46.8	57.0	47.8	198.3	191.2	195.5
Mountain	22.7	23.8	28.2	23.3	22.4	22.1	27.0	22.4	22.0	23.2	26.8	22.7	98.1	93.9	94.7
Pacific contiguous	38.4	38.4	43.6	39.5	37.0	33.9	39.1	37.1	35.1	34.5	38.8	36.2	160.0	147.2	144.6
AK and HI	1.4	1.4	1.5	1.5	1.4	1.2	1.3	1.3	1.4	1.4	1.5	1.5	5.7	5.1	5.7
Total	321.6	329.4	383.8	326.1	313.7	292.7	358.1	309.2	304.6	308.9	363.3	313.3	1,360.9	1,273.7	1,290.1
Industrial Sector															
New England	4.0	4.0	4.3	4.0	3.7	3.5	3.8	3.8	3.5	3.6	3.8	3.7	16.2	14.8	14.5
Middle Atlantic	18.1	17.9	20.3	18.6	18.0	16.2	18.9	18.3	17.4	17.0	19.1	18.5	75.0	71.3	72.0
E. N. Central	47.5	47.9	50.6	46.3	44.0	37.7	44.4	40.5	42.1	40.1	45.5	41.1	192.3	166.6	168.9
W. N. Central	22.4	23.3	24.8	23.0	21.7	20.3	23.7	22.3	20.9	22.0	24.3	22.8	93.6	88.0	90.1
S. Atlantic	33.9	35.7	37.2	34.4	32.8	31.0	34.6	32.9	31.8	32.7	35.2	33.1	141.2	131.3	132.8
E. S. Central	24.5	24.9	25.5	23.9	23.3	21.4	23.3	22.4	21.9	22.6	23.5	22.6	98.9	90.4	90.6
W. S. Central	49.1	52.4	55.5	50.9	46.7	44.9	48.1	45.7	45.5	47.6	49.1	46.8	207.8	185.4	188.9
Mountain	19.4	21.3	23.7	20.4	20.0	20.3	22.6	19.8	19.6	21.1	23.0	20.1	84.8	82.6	83.7
Pacific contiguous	20.2	21.5	24.7	21.3	19.2	19.7	21.8	18.4	17.6	19.4	21.5	18.1	87.6	79.1	76.6
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	242.5	225.0	221.4	227.0	246.1	228.2	1,002.4	914.2	922.7
Total All Sectors (a)															
New England	29.5	26.0	31.5	27.5	27.8	25.1	31.7	27.3	28.1	25.8	30.5	27.5	114.5	111.9	111.9
Middle Atlantic	93.1	83.0	103.6	85.4	86.9	78.5	102.5	82.9	86.3	83.0	100.3	84.5	365.1	350.8	354.1
E. N. Central	141.9	129.1	155.2	133.0	133.7	119.7	149.9	128.3	133.6	126.2	150.2	130.6	559.4	531.6	540.5
W. N. Central	78.3	69.4	82.1	73.0	74.0	65.7	80.2	71.7	73.5	69.8	83.1	74.6	302.8	291.6	301.0
S. Atlantic	195.3	200.7	240.1	195.2	189.4	187.6	234.8	189.2	194.2	195.4	235.6	190.6	831.2	801.0	815.8
E. S. Central	76.0	73.5	89.4	73.3	73.0	66.8	85.9	70.0	74.4	70.4	87.5	70.9	312.2	295.8	303.1
W. S. Central	145.2	149.7	190.9	149.5	139.8	142.4	180.3	144.3	139.3	148.7	183.5	145.9	635.4	606.9	617.4
Mountain	65.4	67.3	85.0	65.8	64.9	68.2	86.2	66.1	64.4	69.8	84.0	66.6	283.5	285.4	284.8
Pacific contiguous	97.9	89.8	107.2	96.9	93.1	87.0	104.9	96.5	90.4	87.4	102.5	94.0	391.8	381.5	374.2
AK and HI	3.7	3.6	4.0	4.0	3.8	3.4	3.7	3.8	3.8	3.6	3.8	4.0	15.3	14.7	15.2
Total	926.3	892.2	1,089.1	903.6	886.6	844.3	1,060.0	880.3	887.9	880.0	1,060.9	889.2	3,811.2	3,671.1	3,718.0

- = 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 - November 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	20.91	20.83	21.77	21.81	21.97	22.33	21.10	21.19	21.97
Middle Atlantic	15.20	16.05	16.16	15.79	15.47	15.97	16.08	15.63	15.38	16.14	16.46	16.01	15.80	15.81	16.01
E. N. Central	13.00	13.93	13.37	13.38	13.13	13.75	13.24	13.33	13.11	13.90	13.51	13.56	13.39	13.35	13.51
W. N. Central	10.69	12.76	12.93	11.24	10.99	12.59	13.06	11.49	11.14	12.59	13.19	11.47	11.86	12.04	12.12
S. Atlantic	11.68	12.12	12.07	11.82	11.80	11.81	12.01	11.65	11.47	11.71	12.11	11.87	11.93	11.84	11.81
E. S. Central	11.14	11.70	11.38	11.28	11.25	11.56	11.26	11.29	11.07	11.59	11.44	11.54	11.36	11.33	11.40
W. S. Central	10.80	11.42	11.28	11.16	11.04	11.43	11.24	10.84	10.73	11.30	11.39	11.19	11.17	11.15	11.18
Mountain	11.44	12.06	12.11	11.51	11.42	12.08	12.12	11.51	11.43	12.19	12.33	11.74	11.81	11.83	11.97
Pacific	14.86	15.85	17.24	14.63	15.69	16.18	17.90	15.15	16.28	17.02	18.44	15.56	15.65	16.28	16.85
U.S. Average	12.67	13.30	13.24	12.83	12.90	13.24	13.34	12.83	12.81	13.33	13.53	13.14	13.01	13.10	13.22
Commercial Sector															
New England	16.91	16.37	16.10	15.97	16.24	15.66	16.05	15.92	16.28	15.95	16.74	16.73	16.33	15.98	16.44
Middle Atlantic	11.57	12.17	13.02	11.97	11.69	12.53	13.09	11.55	11.40	12.67	13.28	11.77	12.21	12.24	12.32
E. N. Central	10.19	10.33	10.16	10.11	9.95	10.37	10.05	10.08	10.02	10.53	10.25	10.28	10.20	10.10	10.27
W. N. Central	8.97	10.05	10.42	9.12	9.07	10.12	10.43	9.34	9.30	10.27	10.67	9.46	9.66	9.74	9.94
S. Atlantic	9.43	9.35	9.33	9.32	9.24	9.02	9.06	9.01	8.97	8.90	9.11	9.16	9.36	9.08	9.04
E. S. Central	10.78	10.77	10.72	10.70	10.75	10.83	10.57	10.61	10.68	10.79	10.72	10.85	10.74	10.68	10.76
W. S. Central	8.13	8.13	8.33	8.17	7.84	7.87	7.94	8.25	8.02	8.20	8.26	8.16	8.20	7.98	8.17
Mountain	9.18	9.74	10.01	9.20	9.01	9.82	10.05	9.27	9.11	10.04	10.38	9.47	9.56	9.56	9.78
Pacific	12.92	14.05	16.16	14.32	13.50	14.79	17.21	14.71	13.64	15.36	18.12	15.34	14.42	15.09	15.68
U.S. Average	10.43	10.66	11.00	10.55	10.33	10.63	10.95	10.48	10.29	10.78	11.20	10.68	10.67	10.61	10.76
Industrial Sector															
New England	13.63	12.97	12.80	12.91	12.29	12.23	12.59	12.81	12.31	12.43	12.87	13.13	13.07	12.49	12.70
Middle Atlantic	6.75	6.54	6.57	6.43	6.36	6.36	6.35	6.20	6.33	6.36	6.25	6.09	6.57	6.32	6.25
E. N. Central	7.10	6.92	6.85	6.78	6.51	6.78	6.71	6.75	6.61	6.90	6.78	6.83	6.91	6.68	6.78
W. N. Central	7.05	7.23	7.96	6.78	6.94	7.32	7.97	6.95	7.14	7.40	8.11	7.06	7.27	7.31	7.45
S. Atlantic	6.37	6.40	6.86	6.32	5.99	6.10	6.48	6.20	5.99	6.31	6.57	6.25	6.50	6.20	6.29
E. S. Central	5.71	5.77	5.95	5.61	5.45	5.51	5.74	5.49	5.44	5.59	5.77	5.49	5.76	5.55	5.58
W. S. Central	5.23	5.21	5.92	5.30	5.04	4.98	5.04	5.12	4.95	4.84	4.92	4.99	5.43	5.05	4.93
Mountain	6.17	6.30	6.82	5.95	5.73	6.16	6.87	5.94	5.85	6.33	6.83	5.98	6.33	6.20	6.27
Pacific	8.42	9.21	10.91	9.87	8.97	10.34	12.08	10.26	9.44	10.91	12.33	10.58	9.67	10.47	10.89
U.S. Average	6.67	6.69	7.20	6.65	6.37	6.63	7.03	6.60	6.42	6.72	7.03	6.61	6.81	6.66	6.70
All Sectors (a)															
New England	18.32	17.74	17.53	17.44	18.01	17.61	17.86	17.51	18.20	17.98	18.59	18.59	17.76	17.76	18.35
Middle Atlantic	12.00	12.24	12.97	12.09	11.97	12.58	13.11	11.87	11.95	12.65	13.22	12.08	12.35	12.42	12.51
E. N. Central	10.14	10.13	10.20	10.01	9.92	10.47	10.29	10.20	10.08	10.56	10.41	10.37	10.13	10.22	10.35
W. N. Central	9.09	9.96	10.58	9.11	9.16	10.15	10.68	9.36	9.40	10.22	10.88	9.46	9.70	9.85	10.01
S. Atlantic	9.92	9.99	10.23	9.88	9.81	9.82	10.13	9.72	9.67	9.74	10.19	9.88	10.02	9.89	9.89
E. S. Central	9.29	9.40	9.63	9.25	9.26	9.41	9.56	9.23	9.30	9.43	9.70	9.41	9.40	9.37	9.47
W. S. Central	8.11	8.19	8.81	8.21	8.02	8.28	8.57	8.19	7.99	8.26	8.69	8.21	8.36	8.28	8.31
Mountain	9.09	9.42	9.93	8.97	8.84	9.58	10.10	9.08	8.94	9.71	10.20	9.22	9.39	9.45	9.57
Pacific	12.75	13.47	15.33	13.45	13.41	14.30	16.42	14.04	13.91	14.99	17.01	14.50	13.79	14.60	15.16
U.S. Average	10.32	10.47	10.96	10.33	10.29	10.64	11.09	10.41	10.34	10.72	11.22	10.59	10.54	10.63	10.74

- = 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 - November 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	476.9	326.2	267.2	283.2	410.3	313.3	1,477.0	1,500.3	1,273.9
Coal	257.5	208.9	279.0	213.4	170.3	151.1	252.4	206.7	230.4	226.4	283.6	222.3	958.7	780.4	962.7
Nuclear	203.5	196.5	210.2	199.2	204.1	190.7	204.1	195.4	197.9	188.7	205.2	188.0	809.4	794.4	779.7
Renewable Energy Sources:	170.3	196.6	166.2	162.6	189.1	206.5	179.8	187.6	213.8	227.7	197.0	201.0	695.7	762.9	839.5
Conventional Hydropower	73.6	87.5	65.8	59.7	74.9	81.3	70.0	63.1	74.1	77.1	64.9	60.7	286.7	289.3	276.7
Wind	72.4	76.9	66.4	79.0	86.4	87.2	70.3	95.5	105.8	103.6	83.5	105.9	294.6	339.4	398.8
Solar (a)	13.2	21.7	22.6	13.8	16.7	27.1	28.3	18.2	21.8	35.2	36.5	23.4	71.3	90.2	116.9
Biomass	7.1	6.7	7.4	6.9	7.2	6.7	7.1	7.3	8.4	7.6	7.8	7.6	28.1	28.2	31.4
Geothermal	4.0	3.8	4.0	3.2	3.9	4.2	4.2	3.4	3.7	4.2	4.3	3.4	15.0	15.7	15.6
Pumped Storage Hydropower	-1.1	-0.9	-1.9	-1.4	-1.0	-1.2	-2.1	-1.4	-1.0	-1.2	-2.2	-1.4	-5.3	-5.6	-5.9
Petroleum (b)	4.9	4.1	4.7	3.6	4.0	4.0	4.7	3.5	5.4	3.8	4.6	2.9	17.3	16.2	16.7
Other Gases	1.1	1.0	1.1	0.9	1.0	0.4	0.6	0.8	0.9	0.4	0.7	0.7	4.0	2.9	2.6
Other Nonrenewable Fuels (c)	1.8	1.9	2.0	1.9	1.9	1.8	2.0	1.9	1.7	1.8	1.7	1.9	7.7	7.6	7.2
Total Generation	961.3	941.4	1,129.3	933.1	924.1	895.8	1,118.4	920.7	916.3	930.7	1,100.8	928.6	3,965.1	3,859.0	3,876.4
New England (ISO-NE)															
Natural Gas	10.3	9.8	15.3	11.3	10.8	10.0	16.4	12.9	8.1	9.0	16.2	14.5	46.7	50.1	47.8
Coal	0.3	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.5	0.1	0.4
Nuclear	8.6	6.8	7.3	7.1	7.3	4.9	7.3	6.4	7.0	7.1	7.2	5.6	29.8	25.9	27.0
Conventional hydropower	2.5	2.5	0.9	1.7	2.2	2.1	1.6	1.6	2.1	2.1	1.5	1.6	7.6	7.5	7.2
Nonhydro renewables (d)	2.7	2.3	2.2	2.5	2.6	2.7	2.5	2.9	3.5	3.0	2.6	3.0	9.8	10.7	12.0
Other energy sources (e)	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	1.1	0.4	0.3	0.4	1.4	1.5	2.2
Total generation	24.7	21.8	26.1	23.2	23.3	20.1	28.2	24.3	22.1	21.6	27.9	25.1	95.7	95.8	96.7
Net energy for load (f)	29.7	25.9	31.6	28.1	27.8	25.3	32.6	28.4	29.0	26.9	31.9	28.5	115.2	114.1	116.4
New York (NYISO)															
Natural Gas	11.9	10.7	17.8	12.0	12.4	11.4	21.4	14.7	13.1	14.2	22.3	17.5	52.4	59.8	67.0
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	9.1	9.4	8.8	7.5	7.1	6.8	44.9	38.3	30.2
Conventional hydropower	7.4	7.4	7.9	7.8	8.0	8.0	7.9	7.3	7.9	7.9	7.4	7.0	30.5	31.1	30.2
Nonhydro renewables (d)	1.8	1.6	1.4	1.8	2.0	2.0	1.6	1.9	2.2	2.2	2.0	2.7	6.5	7.5	9.0
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	0.7
Total generation	32.5	30.6	39.1	33.5	33.4	30.7	40.1	33.3	32.2	31.9	38.9	34.1	135.6	137.5	137.1
Net energy for load (f)	37.7	34.4	42.8	35.8	35.2	32.6	43.4	36.2	36.5	36.0	43.3	36.6	150.6	147.4	152.4
Mid-Atlantic (PJM)															
Natural Gas	70.1	65.0	90.6	70.9	78.4	69.9	97.8	65.3	66.0	64.6	89.2	65.2	296.6	311.3	285.0
Coal	53.3	39.7	51.6	38.6	33.7	29.6	46.6	38.2	52.7	47.7	48.6	40.4	183.3	148.1	189.3
Nuclear	69.6	68.5	71.7	68.1	68.9	67.1	70.7	69.3	67.5	65.7	72.3	62.3	277.9	276.0	267.8
Conventional hydropower	3.2	2.9	2.0	2.1	3.1	2.9	2.0	2.2	3.2	3.1	1.8	2.1	10.2	10.1	10.3
Nonhydro renewables (d)	9.6	9.2	6.6	9.3	10.3	10.2	7.7	11.0	11.8	11.9	9.0	12.0	34.7	39.3	44.7
Other energy sources (e)	0.7	0.6	0.5	0.4	0.6	0.5	0.3	0.5	0.8	0.5	0.2	0.4	2.3	2.0	1.9
Total generation	206.5	186.0	223.0	189.5	195.0	180.2	225.1	186.5	202.1	193.4	221.2	182.4	805.0	786.8	799.1
Net energy for load (f)	196.6	173.4	210.0	181.0	182.2	164.2	211.7	178.7	189.5	175.1	207.8	181.5	760.9	736.9	753.9
Southeast (SERC)															
Natural Gas	57.5	59.1	75.9	59.8	61.9	59.1	75.1	56.6	52.7	53.3	68.7	57.4	252.4	252.7	232.2
Coal	35.1	38.0	53.3	33.5	23.8	22.1	43.8	32.7	33.3	33.1	51.0	34.7	159.8	122.4	152.2
Nuclear	52.3	52.8	53.7	52.2	53.0	50.5	54.2	52.0	52.0	52.1	55.2	53.4	211.0	209.7	212.7
Conventional hydropower	10.8	10.8	7.5	7.9	11.1	10.2	8.0	8.0	11.2	10.4	7.1	7.7	37.0	37.3	36.4
Nonhydro renewables (d)	2.7	3.8	3.9	3.0	3.5	5.0	4.9	3.5	4.0	5.9	6.0	4.1	13.4	16.8	20.0
Other energy sources (e)	0.0	-0.2	-0.6	-0.4	-0.1	-0.3	-0.6	-0.4	-0.1	-0.4	-0.8	-0.4	-1.3	-1.4	-1.6
Total generation	158.4	164.3	193.6	155.9	153.2	146.7	185.4	152.4	153.1	154.6	187.3	156.8	672.3	637.6	651.8
Net energy for load (f)	159.7	163.2	194.2	157.8	158.4	149.1	185.2	153.0	159.1	158.0	188.4	155.8	674.9	645.6	661.3
Florida (FRCC)															
Natural Gas	35.7	46.7	52.6	40.0	40.0	45.7	53.3	37.1	31.6	36.2	44.7	36.1	174.9	176.1	148.5
Coal	3.7	4.8	5.3	4.8	2.1	3.5	5.8	7.2	8.1	10.4	10.0	7.1	18.6	18.6	35.6
Nuclear	7.6	6.4	7.7	7.3	7.3	7.6	7.6	7.4	7.8	6.9	7.8	6.7	29.1	29.8	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	2.4	2.0	2.8	3.5	3.2	2.7	6.1	8.6	12.2
Other energy sources (e)	0.8	0.9	0.8	0.7	0.9	0.8	0.9	0.7	0.9	0.7	0.9	0.7	3.1	3.3	3.1
Total generation	49.4	60.5	68.1	54.2	52.1	60.0	70.1	54.5	51.2	57.7	66.6	53.3	232.1	236.7	228.8
Net energy for load (f)	46.8	60.1	68.1	53.3	47.9	59.9	70.6	53.6	47.4	57.9	67.2	52.3	228.4	232.1	224.9

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 - November 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	38.1	31.2	33.2	48.0	35.4	176.8	178.6	147.7
Coal	77.3	61.2	76.1	61.3	51.0	41.1	71.5	60.2	61.1	56.7	76.0	69.0	275.9	223.9	262.9
Nuclear	25.3	23.2	27.1	26.7	26.6	22.9	24.4	23.3	24.8	23.3	24.9	24.3	102.3	97.1	97.3
Conventional hydropower	2.9	3.1	2.5	2.4	3.1	3.2	2.5	1.8	2.4	2.6	2.1	1.7	10.9	10.5	8.9
Nonhydro renewables (d)	16.4	15.9	12.5	18.7	20.3	20.1	15.5	24.1	25.1	24.6	18.8	26.1	63.5	80.0	94.6
Other energy sources (e)	2.0	1.5	1.7	1.0	1.5	1.3	1.4	1.1	1.8	1.1	1.4	0.3	6.2	5.2	4.6
Total generation	161.0	147.0	174.7	152.8	146.4	131.7	168.7	148.6	146.4	141.5	171.3	156.9	635.5	595.3	616.1
Net energy for load (f)	160.8	151.8	178.7	154.3	152.8	140.4	176.4	149.9	150.3	150.7	176.4	154.1	645.6	619.5	631.5
Central (Southwest Power Pool)															
Natural Gas	14.4	16.0	24.3	14.7	17.5	16.3	24.1	12.6	10.4	11.4	20.5	12.5	69.4	70.4	54.8
Coal	24.7	17.2	24.9	17.2	17.0	15.7	26.2	13.6	18.0	19.0	26.1	13.5	83.9	72.5	76.6
Nuclear	4.4	4.4	4.1	3.4	4.4	4.4	4.2	3.9	3.9	3.3	4.4	4.4	16.2	16.9	16.0
Conventional hydropower	5.8	6.7	4.2	3.8	5.9	6.0	4.5	3.1	4.2	4.5	3.6	3.0	20.5	19.4	15.3
Nonhydro renewables (d)	18.3	18.8	18.2	22.0	20.3	21.4	17.5	24.9	26.0	26.3	21.9	28.2	77.2	84.0	102.5
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	0.6	0.5
Total generation	68.0	63.6	75.8	61.2	65.1	63.8	76.7	58.2	62.6	64.6	76.7	61.8	268.6	263.9	265.6
Net energy for load (f)	63.2	59.1	76.6	61.5	60.9	59.6	74.2	59.1	57.9	60.6	74.8	61.6	260.5	253.8	254.9
Texas (ERCOT)															
Natural Gas	35.0	43.4	63.8	39.7	37.2	42.1	57.8	30.3	20.6	27.0	40.4	23.6	181.7	167.4	111.6
Coal	17.6	17.8	20.9	16.6	13.1	15.8	21.9	19.4	18.3	23.0	28.6	21.2	72.8	70.3	91.2
Nuclear	10.4	9.8	11.0	10.2	10.4	9.7	11.0	10.1	10.7	9.9	10.3	9.6	41.3	41.2	40.5
Conventional hydropower	0.3	0.3	0.2	0.1	0.3	0.3	0.2	0.1	0.2	0.2	0.1	0.1	0.9	0.9	0.6
Nonhydro renewables (d)	18.9	21.0	18.9	20.1	22.5	24.8	21.9	25.0	28.1	31.4	28.2	29.1	78.9	94.2	116.9
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	113.2	85.2	78.3	91.8	108.0	84.0	377.2	375.5	362.2
Net energy for load (f)	82.5	92.6	115.2	87.1	84.1	93.0	113.2	85.2	78.3	91.8	108.0	84.0	377.2	375.5	362.2
Northwest															
Natural Gas	21.9	16.8	30.2	23.9	23.7	17.1	26.6	20.4	12.3	8.6	17.5	17.8	92.9	87.8	56.1
Coal	32.3	20.1	31.9	30.6	22.2	16.1	25.6	26.2	30.5	27.1	30.6	27.9	114.9	90.1	116.0
Nuclear	2.5	1.3	2.5	2.6	2.4	2.0	2.5	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	32.3	30.9	36.8	36.4	30.8	29.6	120.8	136.9	133.6
Nonhydro renewables (d)	9.7	13.1	13.1	10.1	13.7	14.4	13.7	13.4	17.9	17.6	16.6	15.6	46.1	55.2	67.7
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	0.0	0.6	0.5	0.4
Total generation	97.1	88.6	104.9	93.5	97.2	88.5	100.8	93.5	99.9	91.0	98.0	93.4	384.1	379.9	382.3
Net energy for load (f)	95.6	84.5	95.6	87.8	88.2	79.0	89.7	86.0	85.3	80.6	89.4	85.5	363.5	342.8	340.9
Southwest															
Natural Gas	10.4	12.7	18.9	14.1	11.8	14.7	20.6	12.5	7.4	12.8	16.9	12.0	56.1	59.6	49.0
Coal	10.2	8.5	12.4	8.0	5.3	5.3	8.4	6.4	5.5	6.4	9.9	5.5	39.1	25.5	27.2
Nuclear	8.6	7.6	8.6	7.2	8.3	7.6	8.7	7.7	8.4	7.6	8.6	7.7	31.9	32.3	32.3
Conventional hydropower	3.0	4.3	4.1	2.6	2.7	4.0	3.7	2.7	2.5	3.8	3.5	2.6	14.0	13.0	12.3
Nonhydro renewables (d)	2.1	2.8	2.7	2.5	2.5	3.1	2.7	2.9	3.6	3.9	3.3	3.5	10.1	11.2	14.2
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	32.3	27.4	34.5	42.2	31.2	151.4	141.7	135.4
Net energy for load (f)	18.4	23.4	35.1	22.3	21.9	26.5	35.9	23.5	21.9	27.0	34.2	23.3	99.3	107.8	106.3
California															
Natural Gas	18.0	10.2	23.1	22.8	16.7	12.6	26.4	23.8	13.1	12.1	25.3	20.6	74.1	79.5	71.0
Coal	2.2	1.2	1.9	2.2	1.4	1.2	2.0	2.4	2.3	2.6	2.3	2.4	7.5	7.0	9.6
Nuclear	3.8	4.9	4.7	2.8	4.8	4.9	4.5	3.5	4.4	4.1	4.9	4.9	16.2	17.7	18.3
Conventional hydropower	6.8	11.7	9.1	4.8	3.1	5.6	6.8	5.1	3.1	5.7	6.5	4.9	32.4	20.6	20.2
Nonhydro renewables (d)	12.6	18.7	19.2	11.3	14.3	18.9	18.9	12.3	14.4	19.9	19.9	12.9	61.7	64.4	67.1
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	0.0	0.2	0.2	0.1
Total generation	43.2	46.9	58.2	43.9	40.3	43.2	58.8	47.1	37.1	44.5	59.0	45.6	192.2	189.4	186.3
Net energy for load (f)	60.6	63.5	79.1	61.7	57.9	61.0	78.2	63.4	57.4	62.4	75.6	61.4	265.0	260.5	256.8

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

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

(a) 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 - November 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>0.031</i>	<i>0.034</i>	<i>0.038</i>	<i>0.039</i>	<i>0.031</i>	0.134	<i>0.143</i>	<i>0.141</i>
Hydroelectric Power (a)	0.649	0.743	0.553	0.534	0.649	0.715	0.618	<i>0.569</i>	<i>0.681</i>	<i>0.708</i>	<i>0.591</i>	<i>0.549</i>	2.480	<i>2.551</i>	<i>2.529</i>
Solar (b)	0.120	0.197	0.206	0.126	0.152	0.246	0.257	<i>0.166</i>	<i>0.198</i>	<i>0.320</i>	<i>0.333</i>	<i>0.213</i>	0.649	<i>0.821</i>	<i>1.065</i>
Waste Biomass (c)	0.062	0.061	0.062	0.062	0.062	0.058	0.060	<i>0.061</i>	<i>0.065</i>	<i>0.064</i>	<i>0.061</i>	<i>0.062</i>	0.248	<i>0.241</i>	<i>0.253</i>
Wood Biomass	0.052	0.046	0.055	0.048	0.049	0.043	0.049	<i>0.052</i>	<i>0.066</i>	<i>0.053</i>	<i>0.059</i>	<i>0.054</i>	0.201	<i>0.193</i>	<i>0.232</i>
Wind	0.659	0.700	0.604	0.719	0.786	0.794	0.640	<i>0.870</i>	<i>0.963</i>	<i>0.943</i>	<i>0.760</i>	<i>0.964</i>	2.682	<i>3.090</i>	<i>3.631</i>
Subtotal	1.577	1.782	1.516	1.518	1.734	1.894	1.663	<i>1.748</i>	<i>2.007</i>	<i>2.127</i>	<i>1.843</i>	<i>1.874</i>	6.393	<i>7.039</i>	<i>7.851</i>
Industrial Sector															
Biofuel Losses and Co-products (d)	0.194	0.203	0.199	0.203	0.197	0.135	0.178	<i>0.182</i>	<i>0.185</i>	<i>0.185</i>	<i>0.188</i>	<i>0.192</i>	0.800	<i>0.692</i>	<i>0.750</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	0.003	0.003	0.003	0.002	<i>0.002</i>	<i>0.003</i>	<i>0.003</i>	<i>0.002</i>	<i>0.002</i>	0.010	<i>0.010</i>	<i>0.011</i>
Solar (b)	0.006	0.008	0.009	0.006	0.007	0.010	0.010	<i>0.007</i>	<i>0.008</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)	0.042	0.038	0.037	0.043	0.043	0.040	0.037	<i>0.042</i>	<i>0.041</i>	<i>0.040</i>	<i>0.038</i>	<i>0.042</i>	0.160	<i>0.162</i>	<i>0.161</i>
Wood Biomass	0.373	0.363	0.369	0.368	0.343	0.337	0.343	<i>0.357</i>	<i>0.331</i>	<i>0.332</i>	<i>0.356</i>	<i>0.363</i>	1.473	<i>1.380</i>	<i>1.382</i>
Subtotal	0.617	0.613	0.614	0.622	0.591	0.519	0.566	<i>0.590</i>	<i>0.566</i>	<i>0.565</i>	<i>0.590</i>	<i>0.605</i>	2.467	<i>2.266</i>	<i>2.326</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>0.030</i>	<i>0.043</i>	<i>0.043</i>	<i>0.030</i>	0.106	<i>0.126</i>	<i>0.145</i>
Waste Biomass (c)	0.010	0.008	0.009	0.009	0.009	0.008	0.009	<i>0.009</i>	<i>0.009</i>	<i>0.008</i>	<i>0.009</i>	<i>0.009</i>	0.036	<i>0.035</i>	<i>0.035</i>
Wood Biomass	0.021	0.021	0.021	0.021	0.021	0.021	0.021	<i>0.021</i>	<i>0.021</i>	<i>0.020</i>	<i>0.022</i>	<i>0.021</i>	0.084	<i>0.083</i>	<i>0.083</i>
Subtotal	0.065	0.073	0.074	0.065	0.068	0.077	0.080	<i>0.068</i>	<i>0.071</i>	<i>0.084</i>	<i>0.086</i>	<i>0.072</i>	0.277	<i>0.292</i>	<i>0.312</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)	0.050	0.076	0.078	0.052	0.058	0.088	0.088	<i>0.060</i>	<i>0.065</i>	<i>0.099</i>	<i>0.100</i>	<i>0.068</i>	0.257	<i>0.294</i>	<i>0.332</i>
Wood Biomass	0.130	0.132	0.133	0.133	0.124	0.124	0.131	<i>0.133</i>	<i>0.124</i>	<i>0.124</i>	<i>0.131</i>	<i>0.133</i>	0.529	<i>0.511</i>	<i>0.511</i>
Subtotal	0.190	0.218	0.221	0.195	0.192	0.221	0.229	<i>0.203</i>	<i>0.198</i>	<i>0.232</i>	<i>0.241</i>	<i>0.212</i>	0.825	<i>0.845</i>	<i>0.883</i>
Transportation Sector															
Biomass-based Diesel (f)	0.058	0.071	0.071	0.066	0.061	0.064	0.068	<i>0.070</i>	<i>0.074</i>	<i>0.074</i>	<i>0.070</i>	<i>0.073</i>	0.265	<i>0.263</i>	<i>0.292</i>
Ethanol (f)	0.273	0.295	0.291	0.297	0.257	0.220	0.266	<i>0.266</i>	<i>0.258</i>	<i>0.272</i>	<i>0.276</i>	<i>0.275</i>	1.155	<i>1.008</i>	<i>1.081</i>
Subtotal	0.331	0.365	0.362	0.362	0.318	0.284	0.333	<i>0.336</i>	<i>0.333</i>	<i>0.345</i>	<i>0.346</i>	<i>0.349</i>	1.421	<i>1.271</i>	<i>1.373</i>
All Sectors Total															
Biomass-based Diesel (f)	0.058	0.071	0.071	0.066	0.061	0.064	0.068	<i>0.070</i>	<i>0.074</i>	<i>0.074</i>	<i>0.070</i>	<i>0.073</i>	0.265	<i>0.263</i>	<i>0.292</i>
Biofuel Losses and Co-products (d)	0.194	0.203	0.199	0.203	0.197	0.135	0.178	<i>0.182</i>	<i>0.185</i>	<i>0.185</i>	<i>0.188</i>	<i>0.192</i>	0.800	<i>0.692</i>	<i>0.750</i>
Ethanol (f)	0.284	0.306	0.302	0.308	0.267	0.228	0.276	<i>0.276</i>	<i>0.268</i>	<i>0.282</i>	<i>0.286</i>	<i>0.286</i>	1.200	<i>1.047</i>	<i>1.122</i>
Geothermal	0.054	0.052	0.054	0.050	0.051	0.053	0.055	<i>0.048</i>	<i>0.050</i>	<i>0.055</i>	<i>0.056</i>	<i>0.048</i>	0.209	<i>0.208</i>	<i>0.209</i>
Hydroelectric Power (a)	0.652	0.747	0.556	0.537	0.652	0.718	0.621	<i>0.572</i>	<i>0.684</i>	<i>0.712</i>	<i>0.594</i>	<i>0.552</i>	2.492	<i>2.563</i>	<i>2.542</i>
Solar (b)(e)	0.198	0.315	0.324	0.206	0.239	0.380	0.392	<i>0.259</i>	<i>0.300</i>	<i>0.473</i>	<i>0.487</i>	<i>0.319</i>	1.043	<i>1.269</i>	<i>1.580</i>
Waste Biomass (c)	0.111	0.105	0.105	0.112	0.112	0.104	0.105	<i>0.112</i>	<i>0.115</i>	<i>0.112</i>	<i>0.108</i>	<i>0.113</i>	0.433	<i>0.433</i>	<i>0.448</i>
Wood Biomass	0.578	0.568	0.582	0.570	0.538	0.526	0.544	<i>0.563</i>	<i>0.541</i>	<i>0.529</i>	<i>0.567</i>	<i>0.571</i>	2.297	<i>2.171</i>	<i>2.208</i>
Wind	0.659	0.700	0.604	0.719	0.786	0.794	0.640	<i>0.870</i>	<i>0.963</i>	<i>0.943</i>	<i>0.760</i>	<i>0.964</i>	2.682	<i>3.090</i>	<i>3.631</i>
Total Consumption	2.781	3.052	2.788	2.762	2.903	2.996	2.871	<i>2.945</i>	<i>3.174</i>	<i>3.354</i>	<i>3.105</i>	<i>3.111</i>	11.382	<i>11.715</i>	<i>12.745</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 - November 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Renewable Electric Generating Capacity (megawatts, end of period)															
Electric Power Sector (a)															
Biomass	6,805	6,758	6,659	6,669	6,670	6,588	6,591	6,627	6,627	6,629	6,554	6,637	6,669	6,627	6,637
Waste	4,002	3,970	3,960	3,942	3,943	3,861	3,865	3,901	3,901	3,903	3,828	3,911	3,942	3,901	3,911
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	79,643	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)	32,712	33,161	33,894	36,950	38,774	40,993	42,703	49,781	50,612	53,225	55,973	62,762	36,950	49,781	62,762
Wind	96,514	97,989	99,570	103,651	105,999	107,453	112,283	126,846	127,930	128,631	129,080	134,702	103,651	126,846	134,702
Other Sectors (c)															
Biomass	6,552	6,501	6,501	6,434	6,443	6,443	6,457	6,439	6,439	6,439	6,439	6,439	6,434	6,439	6,439
Waste	785	786	786	786	786	786	800	802	802	802	802	802	786	802	802
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	439	451	451	453	453	453	453	454	439	453	454
Small-Scale Solar (d)	20,254	21,073	22,031	23,214	24,434	25,370	26,494	27,234	28,124	29,108	30,206	31,307	23,214	27,234	31,307
Residential Sector	12,281	12,847	13,534	14,249	15,072	15,700	16,338	16,749	17,292	17,886	18,537	19,213	14,249	16,749	19,213
Commercial Sector	6,362	6,538	6,761	7,168	7,486	7,730	8,147	8,417	8,705	9,031	9,408	9,766	7,168	8,417	9,766
Industrial Sector	1,611	1,688	1,736	1,797	1,875	1,939	2,008	2,067	2,128	2,192	2,260	2,327	1,797	2,067	2,327
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	7.1	7.3	8.4	7.6	7.8	7.6	28.1	28.2	31.4
Waste	4.0	4.0	4.1	4.0	4.1	4.0	4.0	4.1	4.4	4.3	4.1	4.2	16.1	16.2	17.0
Wood	3.0	2.7	3.4	2.9	3.0	2.7	3.1	3.2	4.1	3.3	3.7	3.4	12.0	12.0	14.4
Conventional Hydroelectric	73.6	87.5	65.8	59.7	74.9	81.3	70.0	63.1	74.1	77.1	64.9	60.7	286.7	289.3	276.7
Geothermal	4.0	3.8	4.0	3.2	3.9	4.2	4.2	3.4	3.7	4.2	4.3	3.4	15.0	15.7	15.6
Large-Scale Solar (b)	13.2	21.7	22.6	13.8	16.7	27.1	28.3	18.2	21.8	35.2	36.5	23.4	71.3	90.2	116.9
Wind	72.4	76.9	66.4	79.0	86.4	87.2	70.3	95.5	105.8	103.6	83.5	105.9	294.6	339.4	398.8
Other Sectors (c)															
Biomass	7.5	7.0	7.6	7.4	7.4	7.1	7.1	7.4	7.3	7.1	7.1	7.4	29.4	28.9	28.8
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	6.4	6.6	6.6	6.4	6.4	6.6	26.5	26.1	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	12.5	8.5	9.6	14.3	14.5	10.0	35.0	41.8	48.3
Residential Sector	4.0	6.2	6.4	4.3	5.0	7.5	7.5	5.1	5.7	8.6	8.7	6.0	20.9	25.1	29.0
Commercial Sector	2.2	3.3	3.3	2.2	2.7	3.8	3.9	2.7	3.1	4.5	4.5	3.1	11.0	13.1	15.3
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	0.2	0.2	0.2	0.2	0.2	0.3	0.7	0.9

-- = no data available

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

- (a) Power plants larger than or equal to one megawatt in size that are operated by electric utilities or independent power producers.
- (b) Solar thermal and photovoltaic generating units at power plants larger than or equal to one megawatt.
- (c) Businesses or individual households not primarily engaged in electric power production for sale to the public, whose generating capacity is at least one megawatt (except for small-scale solar photovoltaic data, which consists of systems smaller than one megawatt).
- (d) Solar photovoltaic systems smaller than one megawatt, as measured in alternating current.

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

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

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

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

U.S. Energy Information Administration | Short-Term Energy Outlook - November 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	18,583	18,748	18,904	19,029	19,158	19,302	19,092	18,411	19,098
Real Personal Consumption Expend. (billion chained 2012 dollars - SAAR)	13,093	13,213	13,301	13,354	13,118	11,860	12,898	12,970	13,038	13,173	13,258	13,371	13,240	12,712	13,210
Real Private Fixed Investment (billion chained 2012 dollars - SAAR)	3,362	3,359	3,379	3,387	3,375	3,096	3,315	3,350	3,361	3,356	3,359	3,375	3,372	3,284	3,363
Business Inventory Change (billion chained 2012 dollars - SAAR)	99	53	41	3	-52	-298	-29	32	65	82	100	100	49	-87	87
Real Government Expenditures (billion chained 2012 dollars - SAAR)	3,260	3,300	3,318	3,337	3,348	3,369	3,356	3,328	3,328	3,330	3,334	3,334	3,304	3,350	3,332
Real Exports of Goods & Services (billion chained 2012 dollars - SAAR)	2,560	2,531	2,537	2,558	2,495	1,927	2,211	2,297	2,399	2,416	2,481	2,551	2,547	2,232	2,462
Real Imports of Goods & Services (billion chained 2012 dollars - SAAR)	3,468	3,483	3,487	3,419	3,283	2,702	3,175	3,266	3,312	3,354	3,394	3,441	3,464	3,107	3,375
Real Disposable Personal Income (billion chained 2012 dollars - SAAR)	14,854	14,818	14,895	14,965	15,061	16,576	15,754	16,443	15,020	15,062	15,127	15,182	14,883	15,958	15,098
Non-Farm Employment (millions)	150.2	150.6	151.2	151.8	151.9	133.7	140.8	144.1	146.0	147.0	147.8	148.7	150.9	142.6	147.4
Civilian Unemployment Rate (percent)	3.9	3.6	3.6	3.5	3.8	13.0	8.8	7.3	6.7	6.5	6.3	6.0	3.7	8.2	6.4
Housing Starts (millions - SAAR)	1.20	1.26	1.29	1.43	1.48	1.08	1.47	1.41	1.36	1.34	1.32	1.32	1.30	1.36	1.33
Industrial Production Indices (Index, 2012=100)															
Total Industrial Production	109.8	109.2	109.5	109.6	107.7	93.6	101.8	102.3	103.5	104.1	104.7	105.5	109.5	101.3	104.5
Manufacturing	106.5	105.7	105.9	105.8	104.4	89.2	99.5	100.5	101.5	101.6	101.7	102.3	106.0	98.4	101.8
Food	115.1	115.3	114.6	116.1	116.5	108.0	113.2	115.8	117.7	119.3	120.4	121.1	115.3	113.4	119.6
Paper	94.2	91.8	92.6	93.6	94.7	87.2	88.0	88.2	88.4	88.8	89.2	89.7	93.0	89.5	89.0
Petroleum and Coal Products	106.3	104.9	106.7	104.9	105.0	82.5	89.7	91.7	93.3	94.6	95.6	96.4	105.7	92.2	95.0
Chemicals	101.4	99.9	100.6	100.3	99.8	94.0	96.9	98.5	100.2	102.5	104.5	106.2	100.5	97.3	103.3
Nonmetallic Mineral Products	119.7	119.0	119.7	119.3	122.2	106.1	113.3	114.8	114.7	114.6	114.6	114.9	119.4	114.1	114.7
Primary Metals	97.9	96.7	96.4	96.6	94.4	69.5	77.5	77.6	77.3	77.2	77.8	78.8	96.9	79.7	77.8
Coal-weighted Manufacturing (a)	106.9	105.6	106.0	106.4	106.5	94.3	101.0	102.2	102.9	103.5	104.0	104.7	106.2	101.0	103.8
Distillate-weighted Manufacturing (a)	98.5	97.9	98.3	98.6	98.8	85.5	92.2	93.8	94.6	95.2	95.7	96.2	98.3	92.6	95.4
Electricity-weighted Manufacturing (a)	106.5	105.3	105.6	105.9	105.1	89.5	98.3	99.2	99.9	100.8	101.6	102.6	105.8	98.0	101.2
Natural Gas-weighted Manufacturing (a)	108.7	107.7	108.0	108.2	107.8	94.3	100.9	102.0	102.8	103.9	105.0	106.0	108.1	101.2	104.4
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	2.63	2.65	2.66	2.68	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	1.88	1.94	1.97	2.00	2.03	2.03	2.04	2.00	1.94	2.02
Producer Price Index: Petroleum (index, 1982=1.00)	1.81	2.08	1.95	1.93	1.74	1.09	1.45	1.43	1.39	1.58	1.60	1.56	1.94	1.43	1.53
GDP Implicit Price Deflator (index, 2012=100)	111.5	112.2	112.6	113.0	113.4	112.9	113.8	114.2	114.5	114.9	115.3	115.7	112.3	113.6	115.1
Miscellaneous															
Vehicle Miles Traveled (b) (million miles/day)	8,293	9,323	9,281	8,897	7,754	6,870	8,328	8,246	7,900	8,747	8,839	8,686	8,951	7,802	8,546
Air Travel Capacity (Available ton-miles/day, thousands)	643	685	712	688	628	362	517	524	562	554	571	641	682	508	582
Aircraft Utilization (Revenue ton-miles/day, thousands)	380	426	427	406	328	152	235	284	312	311	352	377	410	250	338
Airline Ticket Price Index (index, 1982-1984=100)	255.7	278.3	263.8	263.8	250.8	203.7	198.4	182.9	179.1	187.6	182.3	189.0	265.4	209.0	184.5
Raw Steel Production (million short tons per day)	0.273	0.271	0.264	0.265	0.268	0.174	0.196	0.216	0.262	0.229	0.228	0.268	0.268	0.213	0.246
Carbon Dioxide (CO2) Emissions (million metric tons)															
Petroleum	578	592	599	597	552	442	514	538	538	552	565	578	2,365	2,046	2,233
Natural Gas	509	351	385	450	493	351	386	440	469	328	356	426	1,695	1,670	1,580
Coal	289	239	307	242	201	177	277	232	263	259	305	251	1,077	888	1,078
Total Energy (c)	1,379	1,184	1,293	1,292	1,249	973	1,180	1,213	1,273	1,142	1,229	1,258	5,149	4,616	4,903

- = 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 - November 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	981	990	997	1,004	1,011	1,001	962	1,000
Middle Atlantic	2,786	2,799	2,804	2,813	2,774	2,486	2,684	2,712	2,736	2,762	2,787	2,814	2,801	2,664	2,775
E. N. Central	2,524	2,522	2,538	2,545	2,502	2,266	2,465	2,480	2,493	2,510	2,525	2,542	2,532	2,428	2,517
W. N. Central	1,187	1,189	1,196	1,201	1,188	1,084	1,160	1,168	1,174	1,181	1,189	1,197	1,193	1,150	1,185
S. Atlantic	3,372	3,382	3,405	3,426	3,388	3,114	3,336	3,364	3,384	3,401	3,418	3,442	3,396	3,300	3,411
E. S. Central	826	829	834	836	828	742	803	810	814	820	825	831	831	796	823
W. S. Central	2,330	2,331	2,355	2,358	2,317	2,125	2,256	2,271	2,282	2,296	2,307	2,323	2,344	2,242	2,302
Mountain	1,259	1,267	1,283	1,294	1,283	1,177	1,258	1,270	1,280	1,287	1,294	1,303	1,276	1,247	1,291
Pacific	3,698	3,735	3,755	3,808	3,769	3,436	3,680	3,722	3,782	3,806	3,840	3,872	3,749	3,652	3,825
Industrial Output, Manufacturing (Index, Year 2012=100)															
New England	99.5	98.6	98.8	98.8	97.6	83.4	92.1	93.7	95.0	95.3	95.4	96.1	98.9	91.7	95.4
Middle Atlantic	99.1	98.2	98.1	98.1	97.1	80.2	90.8	91.6	92.2	92.3	93.0	93.7	98.4	89.9	92.8
E. N. Central	108.4	107.1	107.0	106.7	105.1	85.9	98.9	100.2	101.1	101.3	101.1	102.2	107.3	97.5	101.4
W. N. Central	106.0	105.2	105.3	105.2	103.7	90.1	100.0	100.8	102.1	102.4	102.6	103.1	105.4	98.7	102.5
S. Atlantic	111.0	110.4	110.8	111.1	109.2	94.2	104.6	106.0	106.9	106.9	107.0	107.6	110.8	103.5	107.1
E. S. Central	110.8	109.8	110.2	110.0	109.0	90.0	103.6	105.0	105.9	105.9	105.6	106.0	110.2	101.9	105.9
W. S. Central	101.7	101.1	101.4	101.5	99.8	87.7	95.2	95.6	96.1	96.0	96.3	96.9	101.4	94.6	96.3
Mountain	116.5	115.8	116.6	116.2	114.7	102.6	113.4	114.5	115.7	115.6	115.6	116.1	116.3	111.3	115.7
Pacific	105.1	104.2	104.1	104.3	102.4	86.6	95.2	96.1	96.9	96.9	97.2	97.6	104.4	95.1	97.1
Real Personal Income (Billion \$2009)															
New England	889	885	883	885	892	992	936	964	887	889	894	897	886	946	892
Middle Atlantic	2,280	2,284	2,286	2,294	2,308	2,507	2,373	2,471	2,278	2,287	2,298	2,308	2,286	2,415	2,293
E. N. Central	2,432	2,426	2,433	2,441	2,449	2,683	2,557	2,681	2,449	2,457	2,467	2,476	2,433	2,593	2,462
W. N. Central	1,145	1,139	1,150	1,152	1,160	1,252	1,205	1,249	1,150	1,153	1,157	1,162	1,146	1,217	1,155
S. Atlantic	3,212	3,213	3,220	3,237	3,269	3,477	3,395	3,520	3,271	3,282	3,295	3,308	3,220	3,415	3,289
E. S. Central	891	890	893	896	904	968	941	981	898	901	904	906	893	949	902
W. S. Central	2,006	2,005	2,014	2,022	2,027	2,194	2,104	2,175	2,004	2,005	2,013	2,022	2,012	2,125	2,011
Mountain	1,183	1,184	1,192	1,199	1,211	1,312	1,261	1,316	1,213	1,216	1,222	1,226	1,190	1,275	1,219
Pacific	2,788	2,798	2,801	2,830	2,852	3,065	2,917	3,040	2,843	2,854	2,872	2,884	2,804	2,968	2,863
Households (Thousands)															
New England	5,940	5,947	5,963	5,958	5,899	5,921	5,922	5,927	5,944	5,956	5,967	5,980	5,958	5,927	5,980
Middle Atlantic	16,253	16,279	16,322	16,305	16,144	16,208	16,227	16,255	16,311	16,346	16,381	16,418	16,305	16,255	16,418
E. N. Central	19,099	19,132	19,186	19,171	18,987	19,076	19,102	19,141	19,204	19,247	19,291	19,340	19,171	19,141	19,340
W. N. Central	8,694	8,716	8,749	8,748	8,669	8,710	8,723	8,741	8,781	8,809	8,836	8,866	8,748	8,741	8,866
S. Atlantic	25,706	25,788	25,904	25,929	25,721	25,857	25,911	25,979	26,130	26,242	26,352	26,475	25,929	25,979	26,475
E. S. Central	7,656	7,671	7,697	7,695	7,625	7,660	7,671	7,686	7,722	7,745	7,769	7,795	7,695	7,686	7,795
W. S. Central	14,822	14,871	14,938	14,953	14,833	14,914	14,956	15,009	15,099	15,167	15,234	15,304	14,953	15,009	15,304
Mountain	9,411	9,458	9,515	9,538	9,473	9,533	9,564	9,602	9,668	9,720	9,771	9,825	9,538	9,602	9,825
Pacific	18,916	18,951	19,013	19,008	18,832	18,917	18,972	19,044	19,138	19,201	19,263	19,326	19,008	19,044	19,326
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	7.3	7.3	7.5	6.9	7.2
Middle Atlantic	20.0	20.0	20.1	20.1	20.1	16.8	18.0	18.5	18.8	18.9	19.1	19.3	20.0	18.3	19.0
E. N. Central	22.3	22.3	22.3	22.3	22.3	19.3	20.6	21.2	21.4	21.6	21.7	21.8	22.3	20.9	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	28.2	28.6	28.7	28.8	29.0	29.1	27.9	28.8
E. S. Central	8.3	8.3	8.3	8.3	8.3	7.5	7.9	8.1	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	17.2	17.4	17.4	17.5	17.6	17.8	17.1	17.5
Mountain	11.0	11.0	11.1	11.2	11.2	10.2	10.6	10.9	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	22.5	22.9	23.1	23.3	23.4	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 - November 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	893	135	2,278	2,731	970	111	2,128	3,169	871	125	2,092	6,534	5,940	6,257
Middle Atlantic	2,986	633	68	2,062	2,470	835	86	1,941	2,937	699	72	1,921	5,749	5,331	5,629
E. N. Central	3,326	761	64	2,279	2,788	847	126	2,309	3,160	733	117	2,225	6,430	6,071	6,235
W. N. Central	3,643	772	107	2,546	3,039	800	167	2,588	3,254	705	159	2,445	7,068	6,592	6,563
South Atlantic	1,334	128	2	919	1,108	253	17	929	1,405	190	10	914	2,384	2,307	2,520
E. S. Central	1,712	193	1	1,274	1,482	337	20	1,276	1,799	237	18	1,264	3,180	3,115	3,318
W. S. Central	1,206	90	0	848	972	103	8	805	1,072	70	4	772	2,145	1,888	1,918
Mountain	2,425	784	126	1,968	2,217	673	124	1,814	2,182	670	147	1,822	5,303	4,828	4,821
Pacific	1,686	573	96	1,184	1,535	523	63	1,156	1,538	577	86	1,190	3,539	3,278	3,392
U.S. Average	2,209	480	56	1,558	1,875	540	70	1,523	2,107	482	70	1,494	4,303	4,008	4,153
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	2,112	6,218	6,207	6,207
Middle Atlantic	2,956	650	76	1,941	2,949	644	69	1,944	2,913	677	72	1,922	5,623	5,606	5,583
E. N. Central	3,196	697	112	2,198	3,198	698	102	2,197	3,157	731	104	2,191	6,203	6,195	6,183
W. N. Central	3,255	702	140	2,380	3,287	702	131	2,379	3,247	728	133	2,394	6,477	6,499	6,502
South Atlantic	1,480	176	11	964	1,459	169	10	952	1,393	180	11	920	2,631	2,589	2,504
E. S. Central	1,861	222	17	1,292	1,850	214	15	1,277	1,772	231	16	1,254	3,392	3,356	3,273
W. S. Central	1,183	85	4	808	1,199	83	3	794	1,140	86	3	793	2,079	2,078	2,022
Mountain	2,164	714	139	1,855	2,192	718	135	1,844	2,182	701	133	1,848	4,873	4,889	4,864
Pacific	1,444	582	83	1,175	1,456	580	85	1,162	1,462	552	80	1,154	3,283	3,283	3,248
U.S. Average	2,150	475	68	1,518	2,149	472	64	1,509	2,108	481	64	1,495	4,212	4,194	4,148
Cooling Degree Days															
New England	0	67	468	0	0	104	547	7	0	84	419	2	535	657	505
Middle Atlantic	0	143	631	8	0	156	680	5	0	153	551	5	782	841	709
E. N. Central	0	175	649	7	2	217	606	4	0	217	546	7	831	829	771
W. N. Central	0	223	729	2	6	294	663	12	3	267	671	10	955	976	951
South Atlantic	152	753	1,295	306	195	617	1,231	271	123	658	1,187	249	2,507	2,314	2,217
E. S. Central	29	550	1,217	87	72	422	1,060	73	28	530	1,080	73	1,883	1,626	1,711
W. S. Central	72	820	1,694	168	173	838	1,502	231	101	917	1,529	212	2,754	2,744	2,760
Mountain	11	340	983	58	10	465	1,085	100	20	441	935	80	1,393	1,660	1,476
Pacific	22	166	589	67	24	197	732	126	27	169	586	59	845	1,079	842
U.S. Average	45	398	952	105	70	394	937	118	45	410	869	99	1,500	1,520	1,423
Cooling Degree Days, Prior 10-year Average															
New England	0	79	455	1	0	83	471	1	0	81	474	2	536	554	557
Middle Atlantic	0	165	589	6	0	170	609	6	0	163	609	6	760	785	779
E. N. Central	3	242	548	7	3	240	578	8	3	234	572	7	799	829	816
W. N. Central	7	298	669	11	7	296	697	11	7	294	687	11	985	1,011	999
South Atlantic	120	684	1,180	239	127	696	1,201	247	143	680	1,195	257	2,224	2,271	2,275
E. S. Central	36	555	1,049	67	36	557	1,082	72	42	532	1,064	74	1,706	1,747	1,712
W. S. Central	103	897	1,552	205	100	892	1,575	207	114	880	1,567	212	2,757	2,774	2,773
Mountain	25	438	932	81	24	432	938	81	24	444	954	84	1,476	1,476	1,506
Pacific	31	185	631	76	31	185	624	78	31	193	649	86	923	918	958
U.S. Average	46	417	873	97	47	420	892	100	52	415	894	104	1,433	1,459	1,465

- = 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>).