Independent Statistics & Analysis
U.S. Energy Information Administration

August 2020

Short-Term Energy Outlook (STEO)

Forecast highlights

Global liquid fuels

- The August *Short-Term Energy Outlook* (STEO) remains subject to heightened levels of uncertainty because mitigation and reopening efforts related to the 2019 novel coronavirus disease (COVID-19) continue to evolve. Reduced economic activity related to the COVID-19 pandemic has caused changes in energy demand and supply patterns in 2020. Uncertainties persist across the U.S. Energy Information Administration's (EIA) outlook for all energy sources, including liquid fuels, natural gas, electricity, coal, and renewables. The STEO is based on U.S. macroeconomic forecasts by IHS Markit, which assume U.S. gross domestic product declined by 5.2% in the first half of 2020 from the same period a year ago and will rise from the third quarter of 2020 through 2021.

- Daily Brent crude oil spot prices averaged $43 per barrel (b) in July, up $3/b from the average in June and up $25/b from the multiyear low monthly average price in April. EIA expects monthly Brent spot prices will average $43/b during the second half of 2020 and rise to an average of $50/b in 2021.

- U.S. regular gasoline retail prices averaged $2.18 per gallon (gal) in July, an increase of 10 cents/gal from the average in June but 56 cents/gal lower than at the same time last year. EIA expects that gasoline prices will gradually decrease through the rest of the summer to reach an average of $2.04/gal in September before falling to an average of $1.99/gal in the fourth quarter. Forecast U.S. regular gasoline retail prices will average $2.23/gal in 2021, compared with an average of $2.12/gal in 2020.

- EIA expects high inventory levels and surplus crude oil production capacity will limit upward price pressures in the coming months, but as inventories decline into 2021, those upward price pressures will increase. EIA estimates global liquid fuels inventories rose at a rate of 6.4 million barrels per day (b/d) in the first half of 2020 and expects they will decline at a rate of 4.2 million b/d in the second half of 2020 and then decline by 0.8 million b/d in 2021.

- EIA estimates that demand for global petroleum and liquid fuels averaged 93.4 million b/d in July. Demand was down 9.1 million b/d from July 2019, but it was up

from an average of 85.0 million b/d during the second quarter of 2020, which was down 15.8 million b/d from year-ago levels. EIA forecasts that consumption of petroleum and liquid fuels globally will average 93.1 million b/d for all of 2020, down 8.1 million b/d from 2019, before increasing by 7.0 million b/d in 2021. Reduced economic activity related to the COVID-19 pandemic has caused changes in energy supply and demand patterns in 2020.

- EIA estimates that global liquid fuels production averaged 91.8 million b/d in the second quarter of 2020, down 8.6 million b/d year over year. The decline reflects voluntary production cuts by the Organization of the Petroleum Exporting Countries (OPEC) and partner countries (OPEC+), and reductions in drilling activity and production curtailments in the United States because of low oil prices. In the forecast, the global supply of oil continues to decline to 90.4 million b/d in the third quarter of 2020 before rising to an annual average of 99.4 million b/d in 2021.

- EIA estimates that U.S. liquid fuels consumption averaged 16.2 million b/d in the second quarter of 2020, down 4.1 million b/d (20%) from the same period in 2019. The decline reflects travel restrictions and reduced economic activity related to COVID-19 mitigation efforts. EIA expects U.S. oil consumption will generally rise through the end of 2021. EIA forecasts U.S. liquid fuels consumption will average 18.9 million b/d in the third quarter of 2020 (down 1.8 million b/d year over year) before rising to an average of 20.0 million b/d in 2021. Although the 2021 forecast level is 1.6 million b/d more than EIA's forecast 2020 consumption, it is 0.4 million b/d less than the 2019 average.

- EIA has lowered U.S. crude oil production estimates for 2020 by 370,000 b/d from the previous STEO. EIA expects crude production to average 11.3 million b/d in 2020 and 11.1 million b/d in 2021, down from 12.2 million b/d in 2019. Recently released EIA data show that average monthly U.S. oil production for May was 1.2 million b/d lower than the July STEO forecast, indicating more extensive production curtailments than previously estimated. Also, EIA's August STEO assumes that the Dakota Access Pipeline will remain operational. A U.S. District Court ordered on July 6 the temporary closure of the Dakota Access Pipeline beginning in early August. A U.S. appeals court has overturned the lower court decision, allowing the pipeline to remain running while further litigation proceedings continue.

Natural Gas

- In July, the Henry Hub natural gas spot price averaged $1.77 per million British thermal units (MMBtu). EIA expects natural gas prices will generally rise through the end of 2021 but the sharpest increases will be during this fall and winter when they rise from an average of $2.11/MMBtu in September to $3.14/MMBtu in February. EIA expects that rising demand heading into winter, combined with reduced

production, will cause upward price pressures. EIA forecasts that Henry Hub natural gas spot prices will average $2.03/MMBtu in 2020 and $3.14/MMBtu in 2021.

- EIA estimates that total U.S. working natural gas in storage ended July at about 3.3 trillion cubic feet (Tcf), 15% more than the five-year (2015–19) average. In the forecast, inventories rise by 2.0 Tcf during the April-through-October injection season to reach nearly 4.0 Tcf on October 31.

- EIA expects that total U.S. consumption of natural gas will average 82.4 billion cubic feet per day (Bcf/d) in 2020, down 3.0% from 2019. The largest decline in consumption occurs in the industrial sector, which EIA forecasts will average 22.0 Bcf/d in 2020, down 1.0 Bcf/d from 2019, as a result of reduced manufacturing activity. The decline in total U.S. consumption also reflects lower heating demand in early 2020, contributing to residential and commercial demand in 2020 averaging 12.8 Bcf/d (down 0.9 Bcf/d from 2019) and 8.8 Bcf/d (down 0.8 Bcf/d from 2019), respectively.

- U.S. dry natural gas production set an annual record in 2019, averaging 92.2 Bcf/d. EIA forecasts dry natural gas production will average 88.7 Bcf/d in 2020, with monthly production falling from its monthly average peak of 96.2 Bcf/d in November 2019 to 82.7 Bcf/d by April 2021, before increasing slightly. Natural gas production declines the most in the Permian region, where EIA expects low crude oil prices will reduce associated natural gas output from oil-directed rigs. EIA's forecast of dry natural gas production in the United States averages 84.0 Bcf/d in 2021. EIA expects production to begin rising in the second quarter of 2021 in response to higher natural gas and crude oil prices.

- EIA estimates that U.S. liquefied natural gas (LNG) exports will average 5.5 Bcf/d in 2020 and will average 7.3 Bcf/d in 2021. EIA expects that U.S. LNG exports will decline through the end of the summer as a result of reduced global demand for natural gas. U.S. exports of LNG in July 2020 averaged 3.1 Bcf/d, which is about the same as in May 2018, when the available liquefaction capacity was about one-third of the current capacity. Declines in global natural gas demand associated with COVID-19 mitigation efforts, high natural gas storage inventories in Europe and Asia, and an on-going expansion in LNG liquefaction capacity have contributed to natural gas and LNG prices reaching all-time historical lows. Low international prices have affected the economic competitiveness of U.S. LNG exports and have led to numerous cargo cancellations, particularly at the Sabine Pass, Corpus Christi, and Freeport LNG export terminals. EIA expects LNG exports from the United States to remain low in the next few months. Based on numerous trade press reports, EIA estimates about 45 cargoes have been canceled for upcoming August shipments and about 30 cargoes have been canceled for September shipments.

Electricity, coal, renewables, and emissions

- EIA forecasts 3.6% less electricity consumption in the United States in 2020 compared with 2019. The largest decline on a percentage basis is in the commercial sector, where EIA expects retail sales of electricity to fall by 7.4% this year. Forecast industrial retail electricity sales fall by 5.8%. EIA forecasts residential sector retail sales will increase by 2.0% in 2020. Milder winter temperatures earlier in the year led to lower consumption for space heating, but that factor is offset by increased summer cooling demand and an assumed increase in electricity use by more people working from home. In 2021, EIA forecasts total U.S. electricity consumption will rise by 0.8%.

- EIA expects the share of U.S. electric power sector generation from natural gas-fired power plants will increase from 37% in 2019 to 40% this year. In 2021, the forecast natural gas share declines to 35% in response to higher natural gas prices. Coal's forecast share of electricity generation falls from 24% in 2019 to 18% in 2020 and then increases to 22% in 2021. Electricity generation from renewable energy sources rises from 17% in 2019 to 20% in 2020 and to 22% in 2021. The increase in the share from renewables is the result of expected additions to wind and solar generating capacity. EIA expects a decline in nuclear generation in both 2020 and 2021, reflecting recent and upcoming retirements of nuclear generating capacity.

- EIA forecasts that renewable energy will be the fastest-growing source of electricity generation in 2020. EIA expects the electric power sector will add 23.2 gigawatts (GW) of new wind capacity and 12.9 GW of utility-scale solar capacity in 2020. However, these future capacity additions are subject to a high degree of uncertainty, and EIA continues to monitor reported planned capacity builds.

- U.S. coal consumption, which dropped to its lowest point since April, totaled 95 MMst in the second quarter of 2020. EIA expects coal consumption to rise to a seasonal peak of 127 MMst in the third quarter but remain lower than 2019 levels through the end of 2020. EIA estimates that U.S. coal consumption will decrease by 26% in 2020 and increase by 20% in 2021. EIA estimates that total U.S. coal production in 2020 will decrease by 29% from 2019 levels to 502 MMst. In 2021, EIA expects higher demand and rising natural gas prices to a lead to a recovery in coal production of 12%, with a total annual production level of 564 MMst.

- EIA forecasts that U.S. energy-related carbon dioxide (CO2) emissions, after decreasing by 2.8% in 2019, will decrease by 11.5% (588 million metric tons) in 2020. This record decline is the result of less energy consumption related to restrictions on business and travel activity and slowing economic growth related to COVID-19 mitigation efforts. CO2 emissions decline with reduced consumption of all fossil fuels, particularly coal (24.9%) and petroleum (11.6%). In 2021, EIA forecasts that energy-related CO2 emissions will increase by 5.6%, as the economy recovers

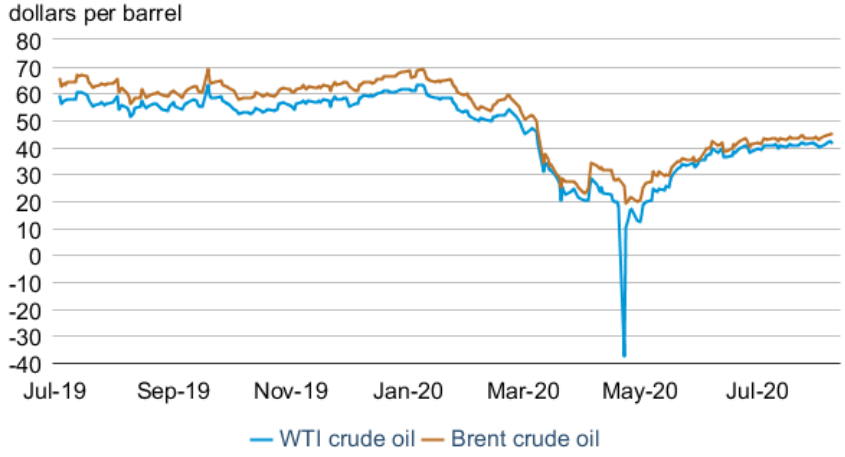
and stay-at-home orders are lifted. Energy-related CO2 emissions are sensitive to changes in weather, economic growth, energy prices, and fuel mix.

Petroleum and natural gas markets review

Crude oil

Prices: The front-month futures price for Brent crude oil settled at $45.09 per barrel (b) on August 6, 2020, an increase of $3.06/b from July 1, 2020. The front-month futures price for West Texas Intermediate (WTI) crude oil for delivery at Cushing, Oklahoma, increased by $2.13/b during the same period, settling at $41.95/b on August 6 **(Figure 1)**.

Figure 1. Crude oil front-month futures prices



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

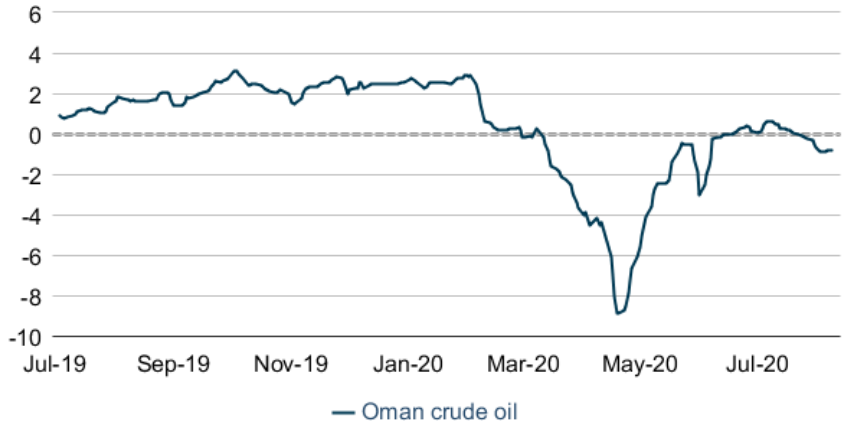
Crude oil prices developed a narrow trading range in July as price volatility declined to the lowest levels since January 2020. Global petroleum demand continued to recover in July, but continued growth in global coronavirus cases could bring renewed lockdown measures and presents considerable uncertainty to global oil demand for the remainder of the year. World oil-weighted real gross domestic product (GDP) declined 9.3% in the second quarter of 2020—one of the largest declines for any quarter on record—however, a number of leading indicators suggest increases in economic activity since then in some sectors, such as manufacturing. Despite the continued demand-side uncertainty, global petroleum production remains subdued from rapid declines in U.S. crude oil production as well as oil supply management from members of the Organization of the Petroleum Exporting Countries (OPEC) and partner countries (OPEC+). The group plans to ease production cuts by nearly 2 million barrels per day (b/d) in August, but it is committed to monitoring global inventory levels and could adjust production levels lower if global demand growth slows.

The U.S. Energy Information Administration (EIA) forecasts high petroleum stock withdrawal rates will put modest upward price pressure from current prices through the end of 2020. However, the currently high inventory levels (as a result of the large stock builds from January through May 2020) are forecast to mitigate any significant increase in prices. EIA forecasts Brent crude oil prices will increase to $44/b by the end of the year, slightly higher than the July 2020 average price. Global inventory withdrawals through the end of 2021 will put upward pressure on crude oil prices, which EIA forecasts will average $50/b in 2021.

Oman crude oil price spreads: Recent movements in crude oil price spreads could indicate a slowdown in refinery purchases and demand in Asia. The Dubai Mercantile Exchange's Oman crude oil futures contract is a benchmark crude oil contract that reflects oil produced in the Middle East and exported to Asia. The five-day moving average of Oman crude oil's 1st–3rd futures contract price spread developed slight backwardation (when near-term prices are higher than longer-dated ones) from mid-June through mid-July, but it declined to -79 cents/b as of August 6 **(Figure 2)**. The contract may have developed backwardation as a result of increased crude oil purchases and refinery runs among Chinese refiners, who increased refinery runs to more than 14 million b/d in June, an all-time high for any month. Since mid-July, however, extreme flooding in the Yangtze region is contributing to declines in Chinese economic activity and refinery utilization, which is likely contributing to declines in the Oman 1st–3rd spread. In addition, the planned increase in several Middle Eastern OPEC members' crude oil production in August is also likely contributing to reduced Oman crude oil futures price spreads.

Figure 2. Oman crude oil front-month to 3rd month futures price spread

dollars per barrel, five-day moving average

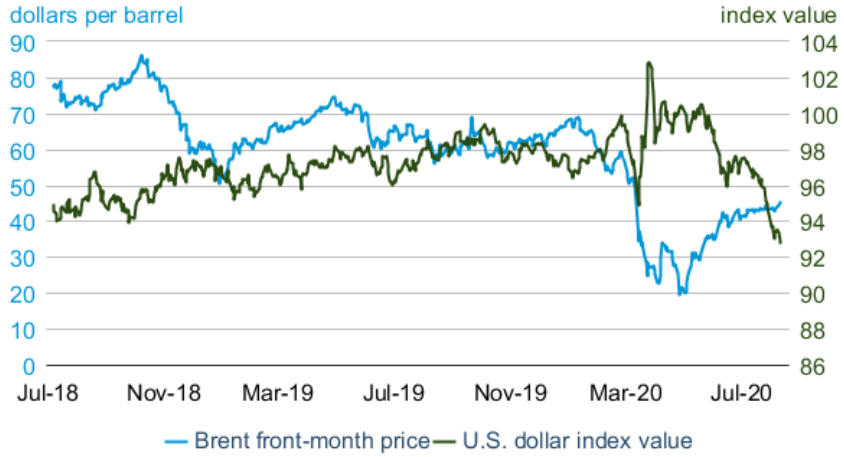


eia Source: Dubai Mercantile Exchange, as compiled by Bloomberg L.P.

Crude oil prices and the U.S. dollar index: Brent crude oil prices have exhibited high negative correlation with the U.S. dollar index since the end of June. The U.S. dollar index measures the value of the U.S. dollar against six currencies' exchange rates: the euro, Japanese yen, British pound, Canadian dollar, Swiss franc, and Swedish krona. A decrease in the index means the dollar is depreciating against this group of currencies. The U.S. dollar index declined to 92.8 as of August 6, the lowest level in more than two years **(Figure 3)**. In general, a depreciation of the

U.S. dollar index with other currencies reflects differences in market participants' expectations of economic growth in the United States compared with other countries. The euro represents 58% of the currency weighting in the U.S. dollar index, and suggests economic growth expectations are increasing in Eurozone countries, supported by a combination of the €750 billion fiscal stimulus package, European Central Bank monetary policy support, and slowing growth in COVID-19 cases. Because Brent crude oil is priced in U.S. dollars, a depreciation in the U.S. dollar also makes crude oil imports relatively less expensive for countries that use the euro, which tend to be net crude oil importers. From June 1 to August 6, for example, Brent crude oil prices increased 18% in U.S. dollars but only 10% in euros as a result of the euro's appreciation against the U.S. dollar.

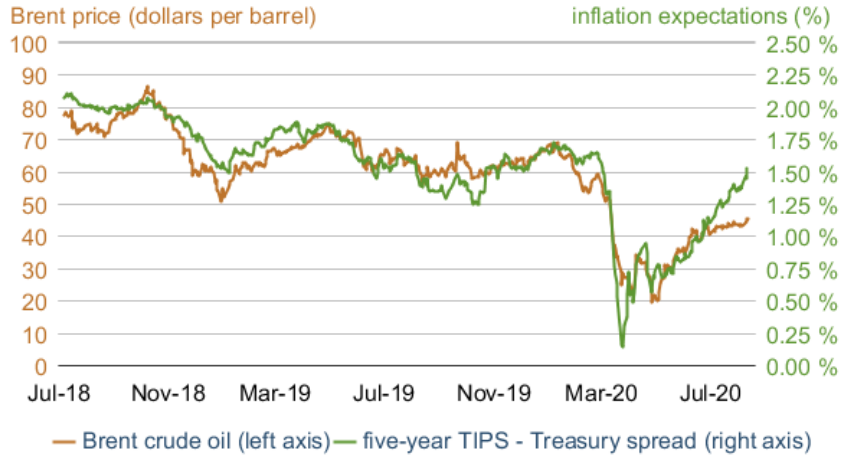
Figure 3. Brent crude oil price vs. the value of the U.S. dollar



eia Source: Bloomberg L.P.

Inflation expectations: Because energy is a significant input into other areas of the economy and is an important variable cost for businesses and consumers, changes in crude oil prices affect market participants' expectations of future rates of inflation. The difference in yield between the five-year Treasury rate and five-year Treasury Inflation Protected Securities (TIPS) is an indicator of market participants' inflation expectations during the next five years, and the difference increased from 1.17% on July 1 to 1.52% on August 5 **(Figure 4)**. According to the latest Federal Open Market Committee meeting, the U.S. Federal Reserve plans to target interest rates near 0% until its targets of full employment and inflation of 2% are met. Partially as a result of accommodative monetary policy, market expectations for inflation during the next five years have increased from March's low of near 0%. However, inflation expectations remain less than the Federal Reserve's 2% target and are still at some of the lowest levels in the past five years.

Figure 4. Crude oil and inflation expectations

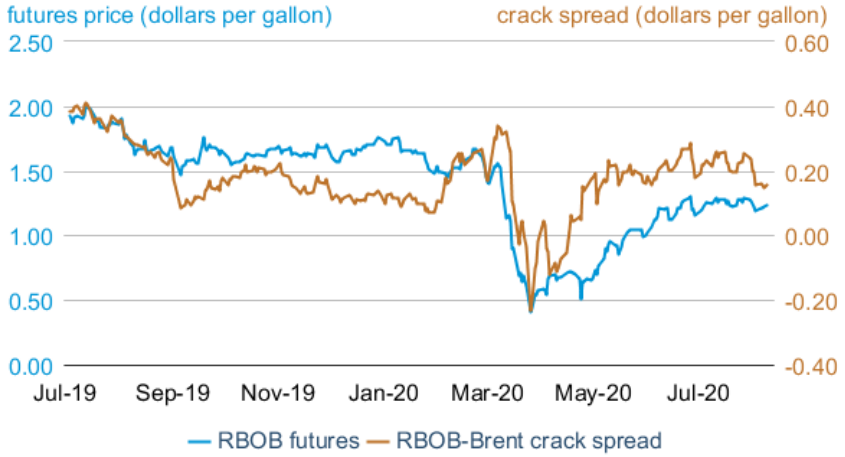


Source: Bloomberg L.P., Federal Reserve Bank of St. Louis
Note: TIPS=Treasury Inflation Protected Securities

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 $1.23 per gallon (gal) on August 6, up 1 cent/gal from July 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 6 cents/gal to settle at 15 cents/gal during the same period. The crack spread averaged lower than the five-year (2015–19) minimum for the fifth consecutive month in July.

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



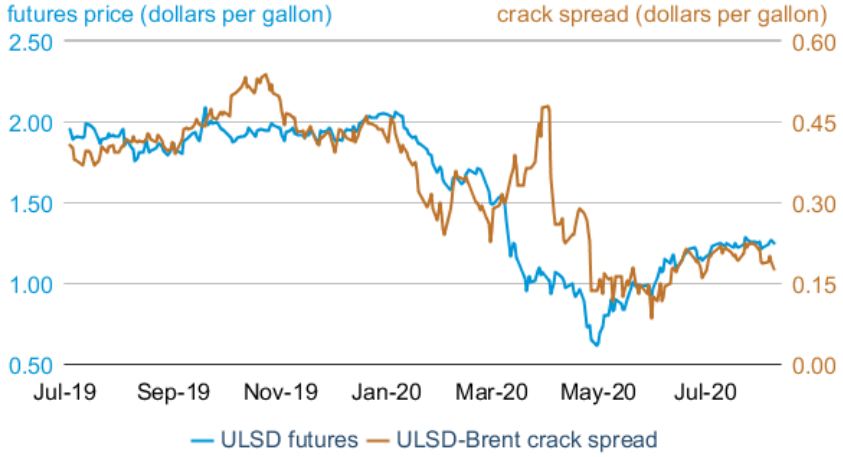
Source: CME Group, as compiled by Bloomberg L.P.
Note: RBOB=reformulated blendstock for oxygenate blending

Gasoline consumption, production, and inventory levels moved toward pre-COVID-19 levels in July. Meanwhile, the crack spread traded in a narrow 6 cent/gal range from July 1 to July 30 before declining 4 cents/gal on July 31. EIA estimates that July 2020 gasoline consumption was

8.7 million barrels per day (b/d), an increase of 0.2 million b/d (2%) from June 2020 and a decrease of 0.8 million b/d (9%) from July 2019. July 2020 gasoline consumption was 9% lower than the month's five-year (2015–19) average but marked a modest return toward normal levels when compared with June 2020, which was 12% lower than its five-year average, and April 2020, which bottomed out at 37% lower than its five-year average. Similarly, EIA estimates July production closer to its five-year average. July 2020 gasoline production was 12% lower than the month's five-year average, but June was 15% lower than its five-year average and April troughed at 36% lower than its five-year average. Inventories of total gasoline in July decreased 3.9 million barrels (2%) from June to 248 million barrels. As consumption, production, and inventories have moved closer to their five-year averages, U.S. average retail gasoline prices have stabilized. Four of the five weeks from June 29 to August 3 had less than 1 cent/gal week-to-week changes. Before the week starting June 29, there were only two such weeks in 2020.

Ultra-low sulfur diesel prices: The ultra-low sulfur diesel (ULSD) front-month futures price for delivery in New York Harbor settled at $1.25/gal on August 6, 2020, up 5 cents/gal from July 1, 2020 **(Figure 6)**. The ULSD–Brent crack spread (the difference between the price of ULSD and the price of Brent crude oil) decreased by 2 cents/gal to settle at 18 cents/gal during the same period.

Figure 6. Historical ULSD front-month futures price and crack spread

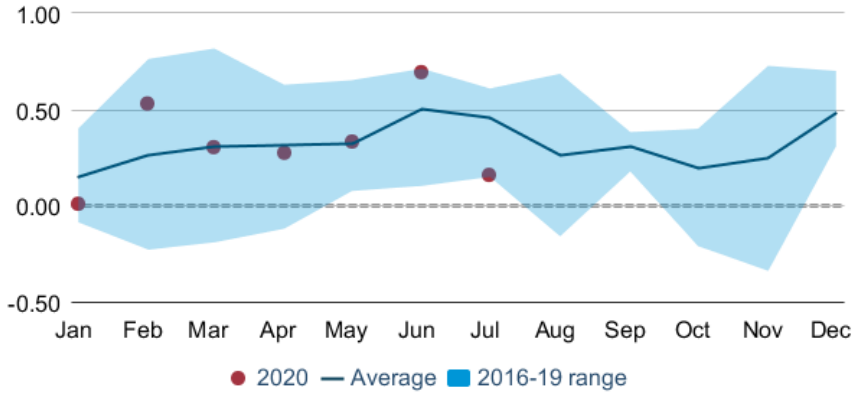


Source: CME Group, as compiled by Bloomberg L.P.
Note: ULSD=ultra-low sulfur diesel

The July ULSD–Brent crack spread traded in its narrowest range in 2020 so far, ranging from $0.19 to $0.22. Part of this stability in the crack spread can likely be attributed to the fact that distillate consumption changed very little from June to July. However, July 2020 consumption was 0.4 million b/d lower (10%) than the year ago levels, and it was also the month's lowest consumption level since 2009. Meanwhile, net exports of distillate increased from June by 5% to an estimated 1.2 million b/d. Inventory levels increased by 2.7 million barrels from June to 180.0 million barrels in July, the highest for any month since 1982. Compared with July 2019, inventory levels are up 31%.

***Crack spread correlations*:** Historically, a day-to-day change in the RBOB–Brent crack spread tends to correlate positively with the day-to-day change in the ULSD–Brent crack spread. That is, both RBOB and ULSD crack spreads tend to increase or decrease on a daily basis and it is less likely for one to increase and the other to decrease on a given day. As a result of several factors—including economic trends, refining yields, and seasonality—one month may have a stronger correlation than others. Based on the average from 2016 (the first year of the current Brent futures expiration calendar) to 2019, June and July correlations are typically some of the highest for the year **(Figure 7)**. In 2020, June and July had correlation coefficients of 0.69 and 0.16, respectively.

Figure 7. Monthly correlation of daily changes in RBOB crack spread to daily changes in ULSD crack spread



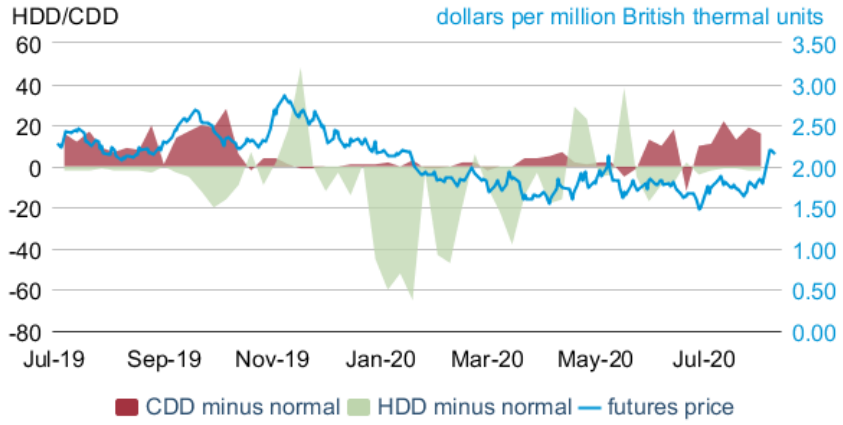
Note: RBOB=reformulated blendstock for oxygenate blending, ULSD=ultra-low sulfur diesel
Note: The correlations use crack spreads between 2nd month product contracts and 1st month Brent contracts.

In June 2020, the strength of the relationship between the day-to-day changes of the two crack spreads was stronger than usual. June's correlation coefficient of 0.69 was higher than that for 43 of the 48 months (90%) from 2016 to 2019. Meanwhile, July 2020 showed a weaker-than-usual correlation coefficient of 0.16, which was greater than only 13 of the 48 months (27%). The high correlation in June can likely be attributed in part to the fact that as more of the economy opened up, expectations for economic activity likely drove both crack spreads upward. As economic optimism subsided in July with increasing COVID-19 cases, the prospect of further economic lockdowns may be having a greater effect on RBOB crack spreads.

Natural Gas

Prices: The front-month natural gas futures contract for delivery at the Henry Hub settled at $2.17 per million British thermal units (MMBtu) on August 6, up 49 cents/MMBtu from July 1 **(Figure 8)**. Futures prices increased substantially at the beginning of August. Before August 3, the front-month futures price had settled higher than $2/MMBtu only once since January 17, 2020.

Figure 8. Natural gas front-month futures prices and actual minus historical average HDD and CDD



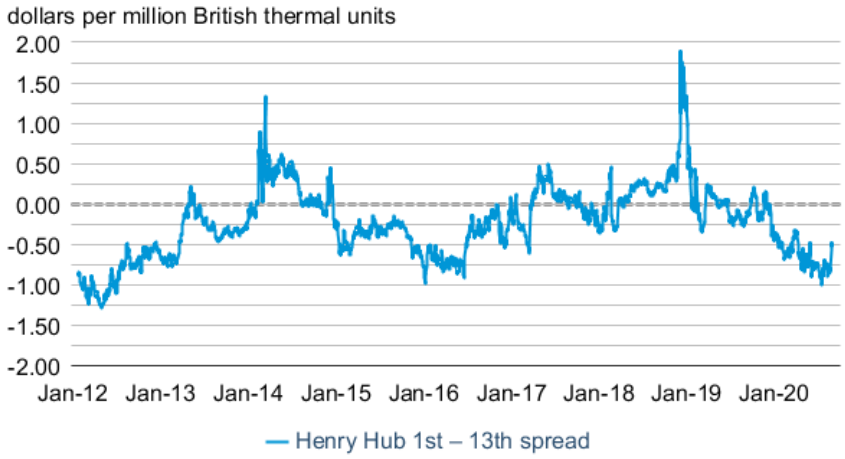
Source: CME Group and National Oceanic and Atmospheric Administration, as compiled by Bloomberg L.P.
Note: HDD stands for heating degree days, CDD stands for cooling degree days.

Natural gas prices received support from strong demand from natural gas-fired power generation. EIA estimates that natural gas consumption for power generation rose to 43.6 billion cubic feet per day (Bcf/d) in July 2020, higher than any month on record. Consumption from the electric power sector was partially offset by a decrease in industrial natural gas consumption, which declined 1.4 Bcf/d in July compared with the previous year, likely because of slower economic activity. Liquefied natural gas (LNG) exports also fell substantially as international natural gas demand growth slowed. EIA estimates that in July U.S. LNG exports decreased 5.0 Bcf/d (62%) from their peak in January 2020.

Natural gas production has also fallen as producers have cut back on drilling and completion activities as a result of lower oil and natural gas prices. EIA estimates that U.S. natural gas production declined to 86.8 Bcf/d in July, down 9.5 Bcf/d from the peak in November 2019. The decrease in natural gas production and the increase in consumption for power generation contributed to lower-than-average natural gas injections into inventory in July. However, much more natural gas is currently in storage than average. For the week ending July 31, natural gas inventories were 3,274 billion cubic feet (Bcf), 429 Bcf (15%) higher than the five-year (2015–19) average.

Natural gas futures contract price spreads: The natural gas 1st–13th futures contract price spread fell to -$1.02/MMBtu on June 25, 2020 **(Figure 9)**, the lowest level since June 13, 2012. A negative 1st–13th futures price spread typically indicates that current inventories and supplies are ample to meet expected demand. This price spread declined in January and February 2020 after mild winter weather reduced natural gas demand, and it fell further in the spring after responses to the coronavirus pandemic lowered expectations for natural gas consumption and LNG exports. However, the 1st–13th futures price spread reversed course and increased sharply in the first week of August, settling -$0.52/MMBtu on August 6, 2020. Declining natural gas production and robust demand for natural gas for power generation contributed to higher near-term prices.

Figure 9. Natural gas 1st – 13th futures price spread



eia Source: CME Group, as compiled by Bloomberg L.P.

Notable forecast changes

- Because of the rapidly changing situation in energy markets, the U.S. Energy Information Administration's (EIA) current forecast includes a significant number of notable forecast changes. You can find more information in the detailed table of forecast changes.

- EIA used the July 2020 IHS Markit macroeconomic forecast in this *Short-Term Energy Outlook* (STEO). The macroeconomic forecast assumes a smaller decline in U.S. gross domestic product (GDP) in 2020 of 6.1% compared with an assumed decline of 8.2% in the July STEO. EIA also assumes smaller increase in GDP in 2021 of 3.7% compared with 5.1% growth assumed in the previous forecast. In addition, the IHS forecast used in the August STEO includes average non-farm employment of 143.0 million for 2020 and 149.4 for 2021, up by 2.6 million jobs and 2.0 million jobs, respectively, from the previous forecast.

- EIA forecasts Brent crude oil spot prices will average $41 per barrel (b) in 2020 and $50/b in 2021 and West Texas Intermediate spot prices will average $39/b in 2020 and $46/b in 2021. The slight increase in 2020 prices reflect larger forecast stock draws in the second half of 2020.

- EIA expects U.S. consumption of petroleum and other liquid fuels will average 18.5 million barrels per day (b/d) in 2020 and 20.0 million b/d in 2021. The August STEO forecast is 120,000 b/d more in 2020 and 90,000 more in 2021 than the July STEO forecast. This August STEO reflects higher forecast consumption of gasoline, hydrocarbon gas liquids, and distillate. Higher assumed 2020 and 2021 employment levels in the August STEO, contribute to higher forecast gasoline consumption. Stronger assumed petrochemical industry growth and higher-than-anticipated ethane consumption data for May from EIA's *Petroleum Supply Monthly* contribute to higher forecast hydrocarbon gas liquids consumption in 2020 and

2021 in this STEO. Also, stronger assumed U.S. GDP growth for 2020 contributes to the higher distillate consumption forecast in the August STEO. Reduced economic activity related to the COVID-19 pandemic has caused changes in energy supply and demand patterns in 2020.

- EIA estimates that liquefied natural gas (LNG) exports were 3.6 billion cubic feet per day (Bcf/d) in June (32 loaded cargoes) and 3.1 Bcf/d in July (28 loaded cargoes). Based on the available liquefaction capacity in operation, EIA estimates that about 46 cargoes were canceled in June and about 50 cargoes were canceled in July 2020, exceeding the reported number of canceled cargoes from earlier this summer for both months.

- EIA has extended its assumptions for the effect of increased working from home on retail sales of electricity to the commercial sector and the residential sector through the end of 2020. In previous STEO forecasts, this assumption only applied through the end of the third quarter of this year.

- EIA has increased the amount of electric power sector solar photovoltaic generating capacity expected to come online in 2021 to 12.2 gigawatts compared with expected additions of 11.4 gigawatts in the previous STEO. This change reflects new information received on the Form EIA-860 survey.

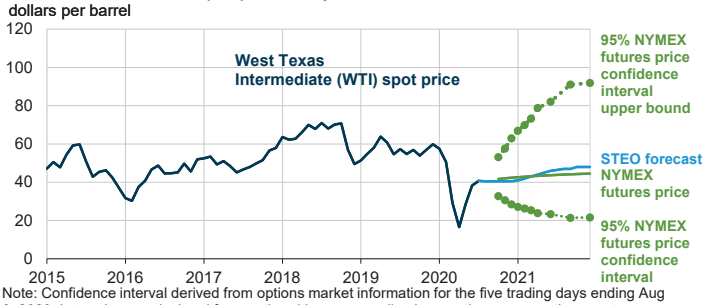
- EIA expects global consumption of petroleum and other liquid fuels will average 93.1 million b/d in 2020 and 100.2 million b/d in 2021. Those forecasts are 240,000 b/d and 290,000 b/d more, respectively, than in the July STEO. Factors driving the change in the forecast are adjustments to assumptions about lockdown restrictions in a number of countries and the construction of a number of new petrochemical crackers in China during the second half of 2020.

Short-Term Energy Outlook
Chart Gallery

August 11, 2020

eia | U.S. Energy Information Administration Independent Statistics & Analysis | www.eia.gov

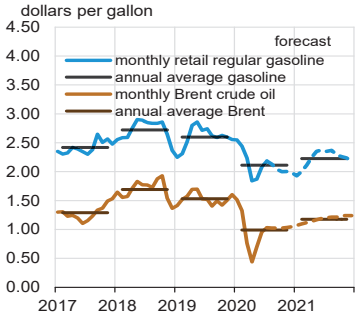
West Texas Intermediate (WTI) crude oil price and NYMEX confidence intervals
dollars per barrel



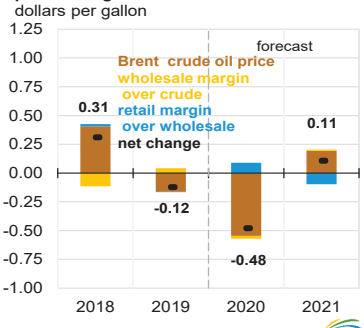
Note: Confidence interval derived from options market information for the five trading days ending Aug 6, 2020. Intervals not calculated for months with sparse trading in near-the-money options contracts.

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

U.S. gasoline and crude oil prices
dollars per gallon



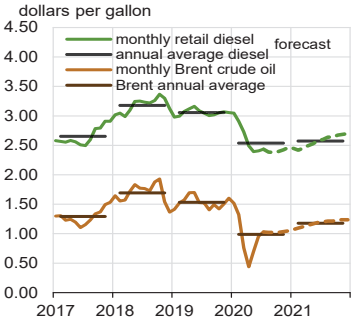
Components of annual gasoline price changes
dollars per gallon



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

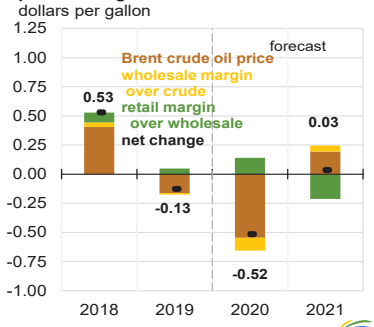
U.S. diesel and crude oil prices

dollars per gallon



Components of annual diesel prices changes

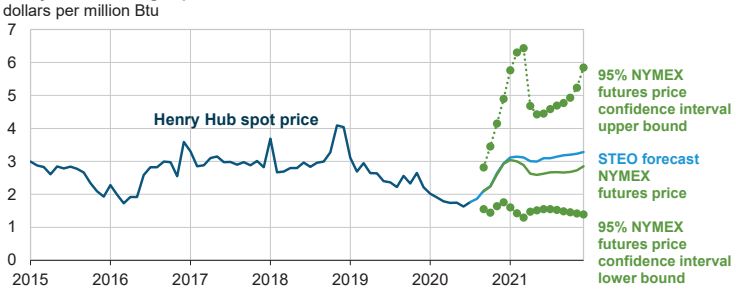
dollars per gallon



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

Henry Hub natural gas price and NYMEX confidence intervals

dollars per million Btu

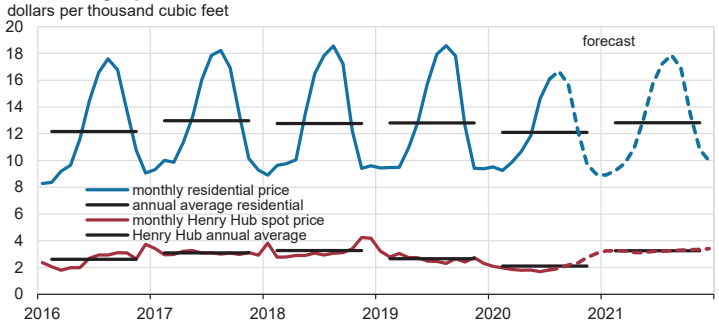


Note: Confidence interval derived from options market information for the five trading days ending Aug 6, 2020. Intervals not calculated for months with sparse trading in near-the-money options contracts.

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

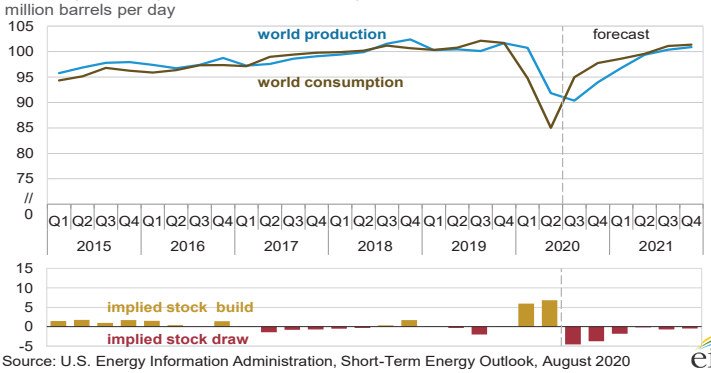
U.S. natural gas prices

dollars per thousand cubic feet



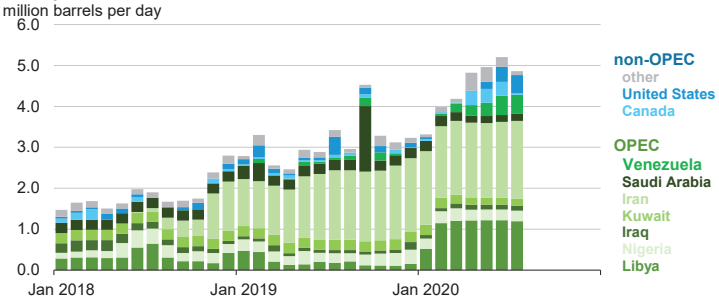
Sources: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020, and Refinitiv

World liquid fuels production and consumption balance
million barrels per day



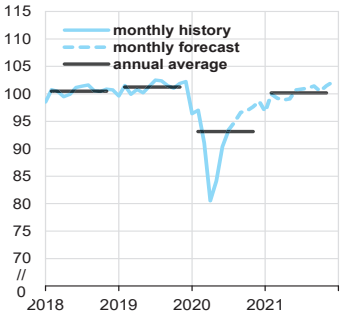
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

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

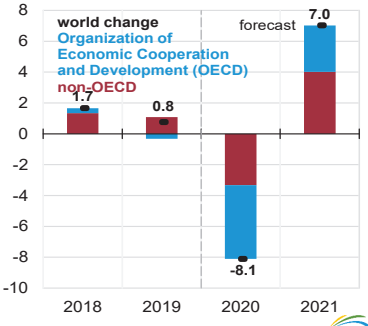


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

World liquid fuels consumption
million barrels per day

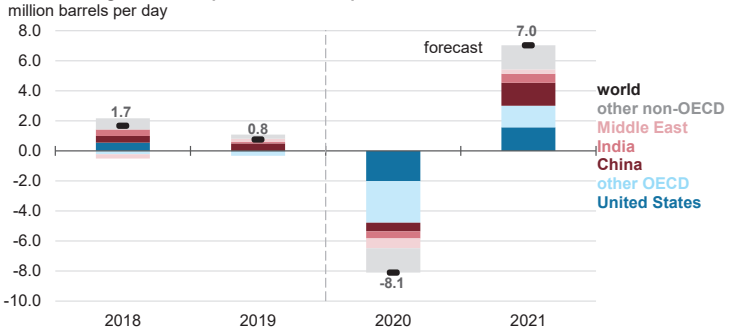


Components of annual change
million barrels per day



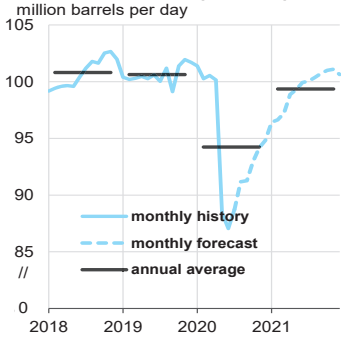
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

Annual change in world liquid fuels consumption
million barrels per day

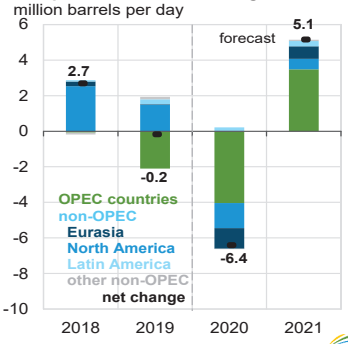


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

World crude oil and liquid fuels production
million barrels per day

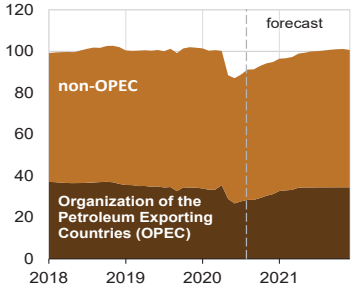


Components of annual change
million barrels per day

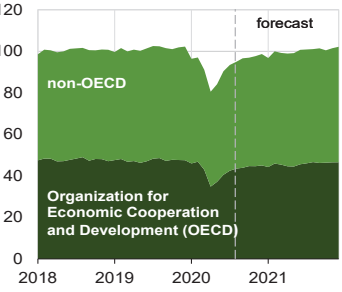


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

World liquid fuels production
million barrels per day

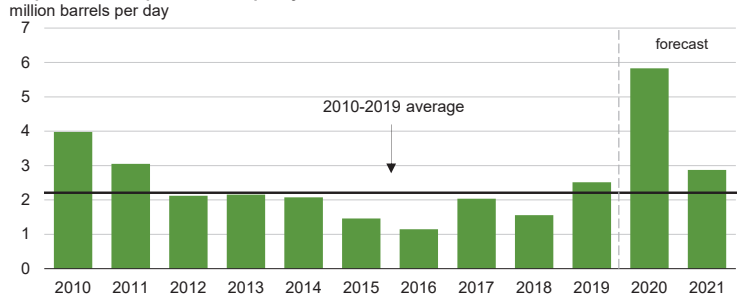


World liquid fuels consumption
million barrels per day



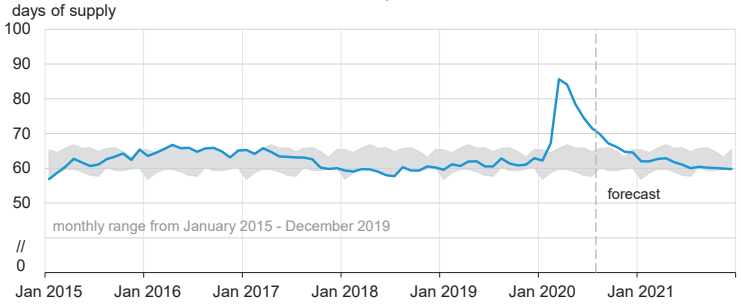
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

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



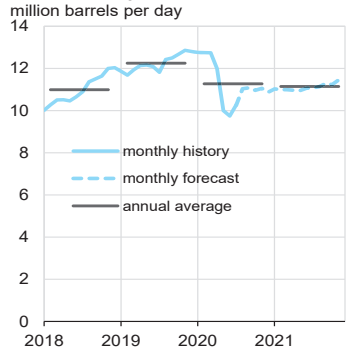
Note: Black line represents 2010-2019 average (2.2 million barrels per day).
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

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

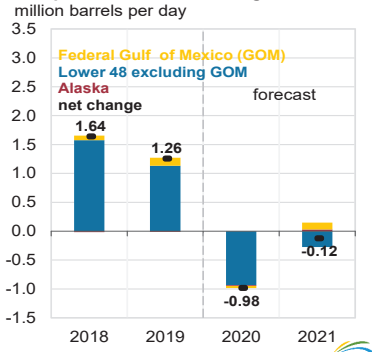


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

U.S. crude oil production
million barrels per day



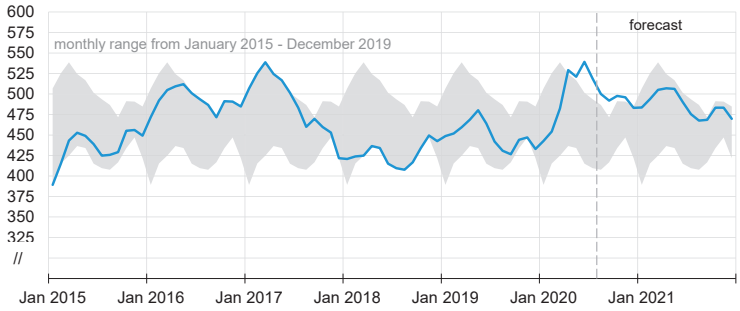
Components of annual change
million barrels per day



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

U.S. commercial crude oil inventories

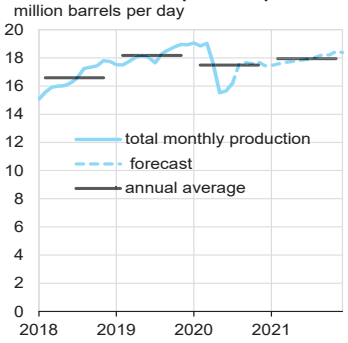
million barrels



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

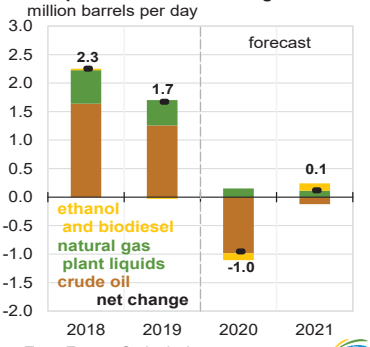
U.S. crude oil and liquid fuels production

million barrels per day



Components of annual change

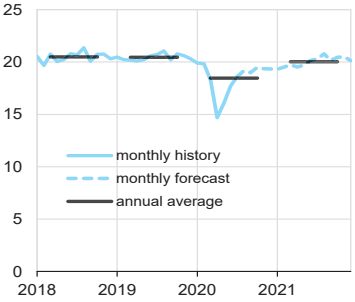
million barrels per day



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

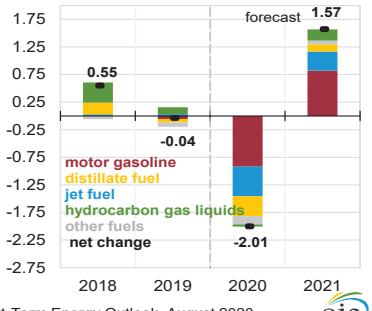
U.S. liquid fuels product supplied (consumption)

million barrels per day



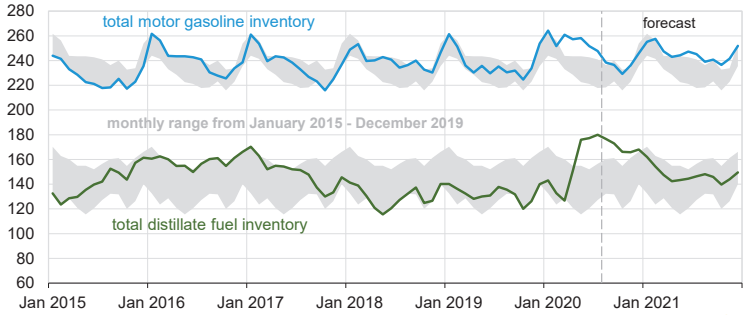
Components of annual change

million barrels per day



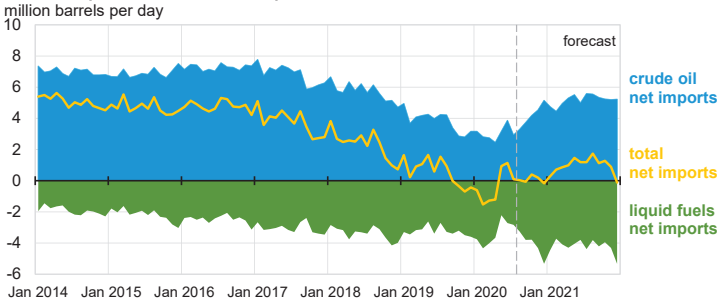
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

U.S. gasoline and distillate inventories
million barrels



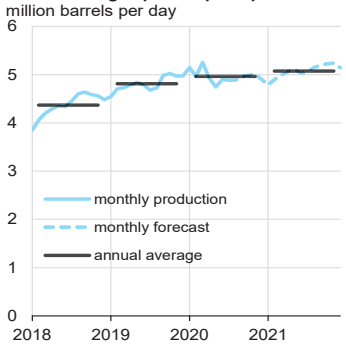
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

U.S. net imports of crude oil and liquid fuels
million barrels per day

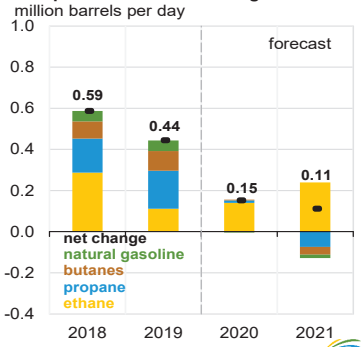


Note: Liquids fuels include: gasoline, distillate fuels, hydrocarbon gas liquids, jet fuel, residual fuel oil, unfinished oils, other hydrocarbons/oxygenates, and other oils.
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

U.S. natural gas plant liquids production
million barrels per day

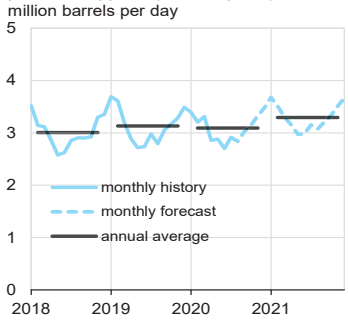


Components of annual change
million barrels per day

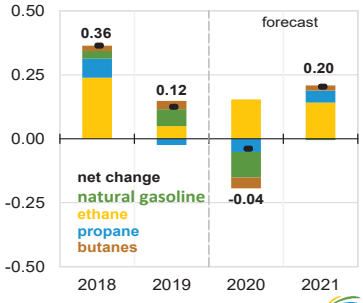


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

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

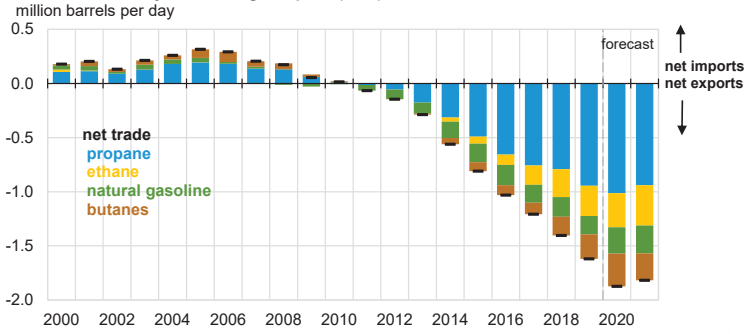


Components of annual change
million barrels per day



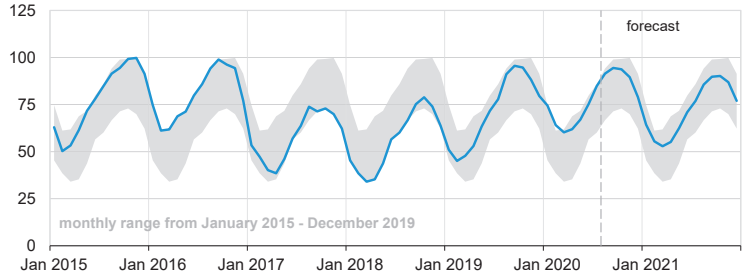
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

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



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

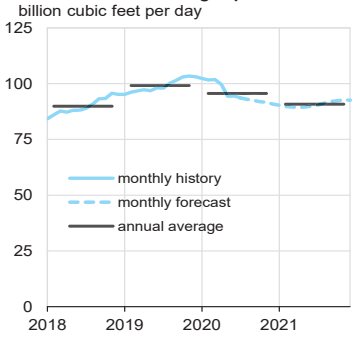
U.S. commercial propane inventories
million barrels



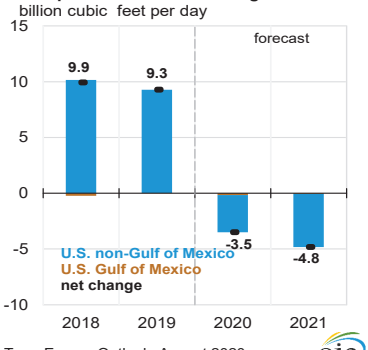
Note: Excludes refinery propylene.

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

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

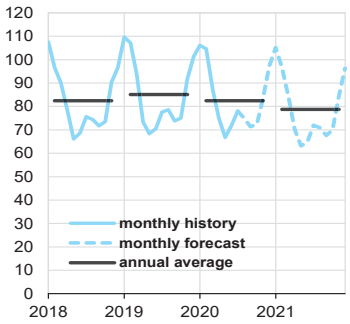


Components of annual change
billion cubic feet per day

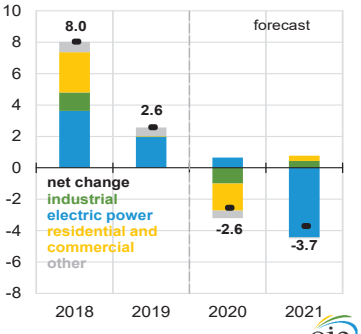


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

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

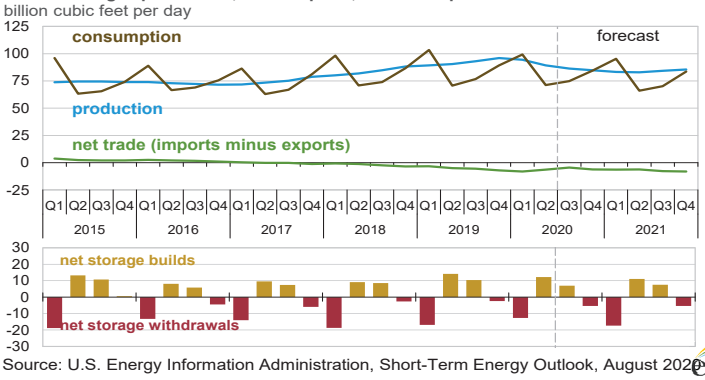


Components of annual change
billion cubic feet per day



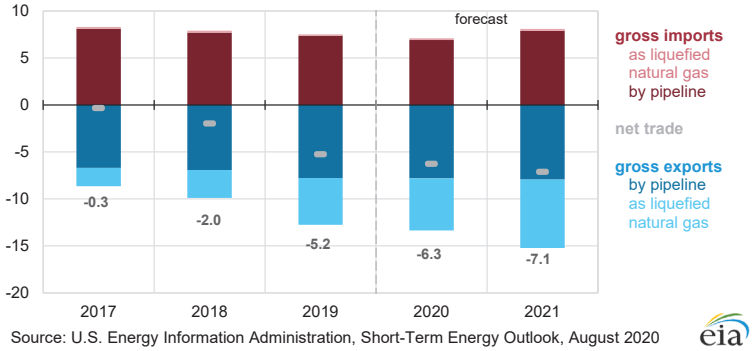
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

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



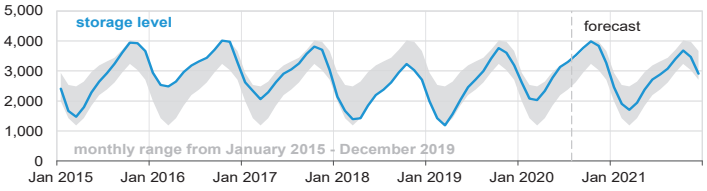
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

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

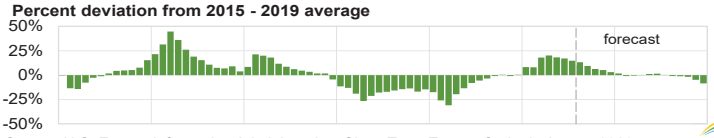


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

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

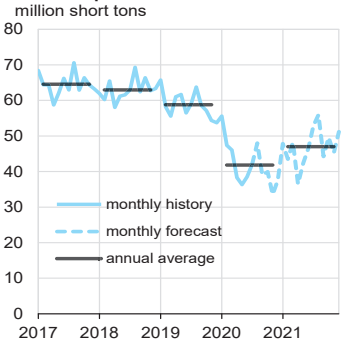


Percent deviation from 2015 - 2019 average

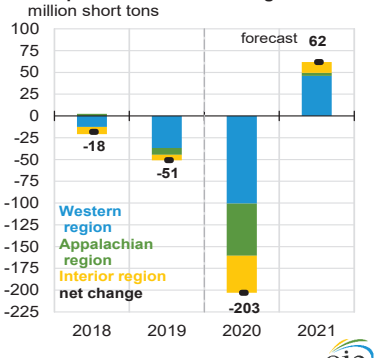


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

U.S. coal production
million short tons

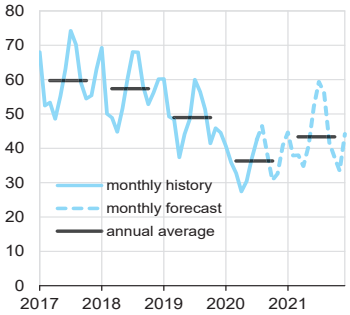


Components of annual change
million short tons

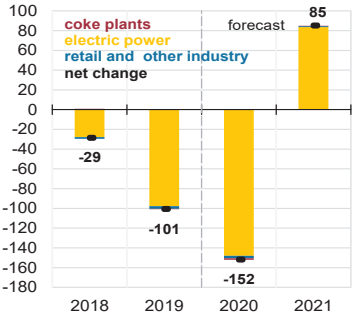


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

U.S. coal consumption
million short tons

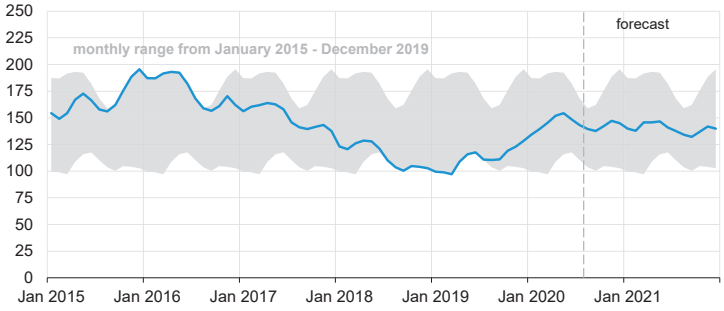


Components of annual change
million short tons



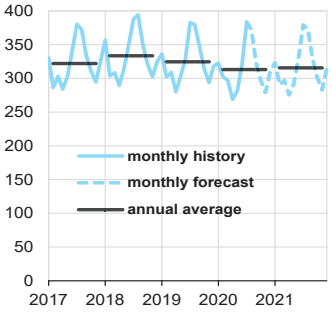
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

U.S. electric power coal inventories
million short tons

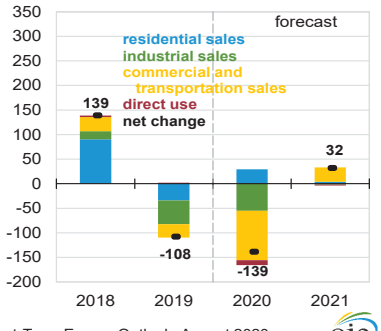


Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

U.S. electricity consumption
billion kilowatthours



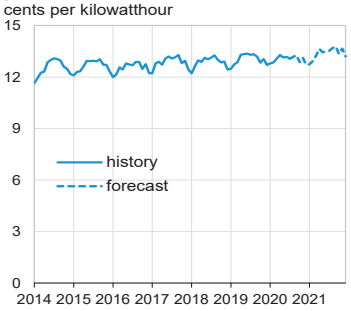
Components of annual change
billion kilowatthours



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

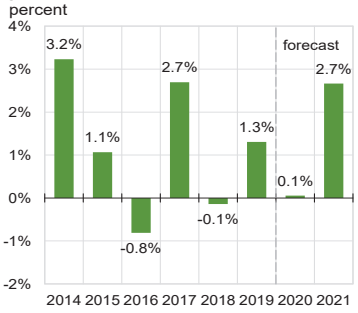
U.S. monthly residential electricity price

cents per kilowatthour



Annual growth in residential electricity prices

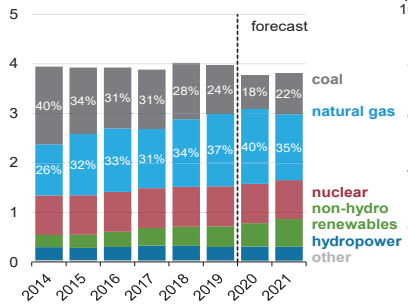
percent



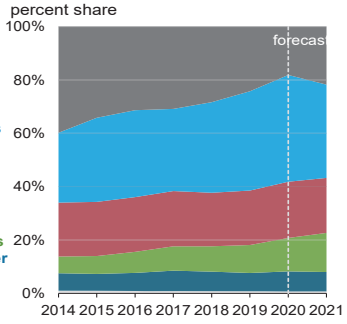
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

U.S. electricity generation by fuel, all sectors

trillion kilowatthours



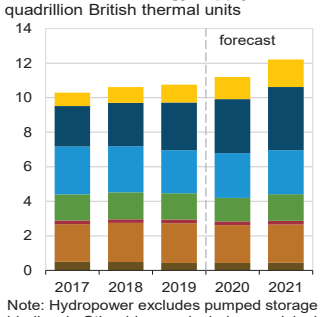
percent share



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

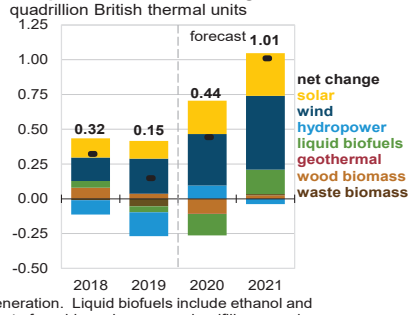
U.S. renewable energy supply

quadrillion British thermal units



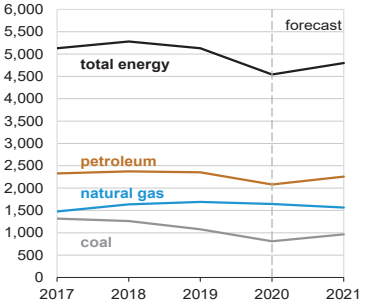
Components of annual change

quadrillion British thermal units

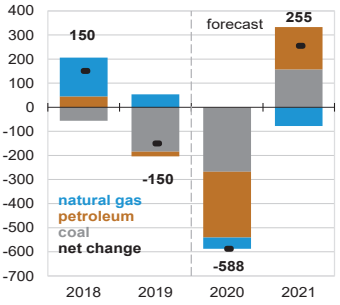


Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol and biodiesel. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste.
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

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

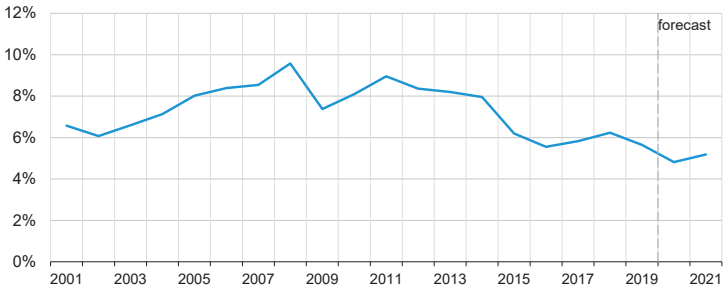


Components of annual change
million metric tons



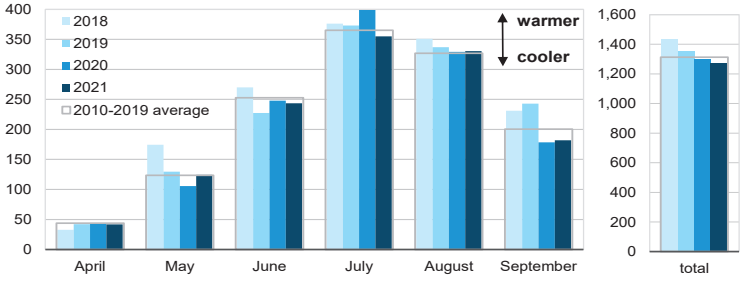
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, August 2020

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



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

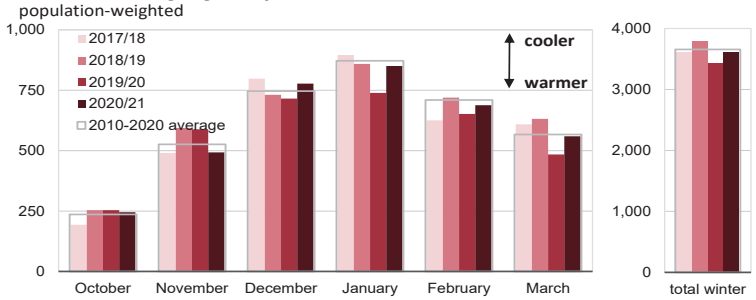
U.S. summer cooling degree days
population-weighted



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, August 2020

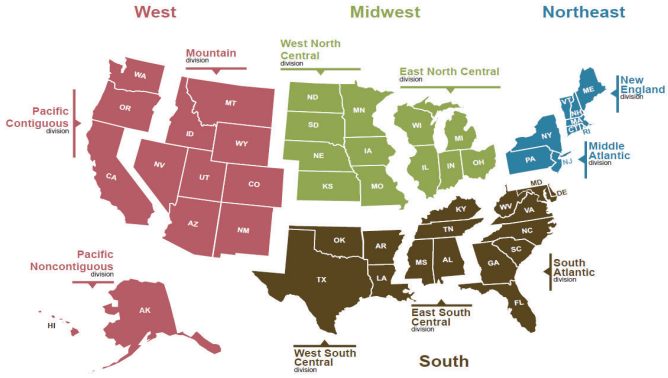
U.S. winter heating degree days
population-weighted



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, August 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 - August 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**	**10.57**	*10.79*	*10.96*	*11.00*	*10.99*	*11.16*	*11.40*	**12.25**	*11.26*	*11.14*
Dry Natural Gas Production															
(billion cubic feet per day)	**89.32**	**90.50**	**92.98**	**95.97**	**94.48**	**89.20**	*86.27*	*84.73*	*83.21*	*82.93*	*84.35*	*85.55*	**92.21**	*88.65*	*84.02*
Coal Production															
(million short tons)	**180**	**179**	**181**	**165**	**149**	**113**	*129*	*111*	*140*	*125*	*153*	*146*	**705**	*502*	*564*
Energy Consumption															
Liquid Fuels															
(million barrels per day)	**20.30**	**20.31**	**20.67**	**20.57**	**19.33**	**16.17**	*18.92*	*19.39*	*19.52*	*19.79*	*20.41*	*20.37*	**20.46**	*18.46*	*20.03*
Natural Gas															
(billion cubic feet per day)	**103.32**	**70.74**	**76.74**	**89.33**	**99.25**	**71.13**	*74.85*	*84.51*	*95.33*	*66.01*	*70.19*	*83.52*	**84.97**	*82.42*	*78.71*
Coal (b)															
(million short tons)	**158**	**130**	**168**	**132**	**109**	**95**	*127*	*104*	*120*	*128*	*157*	*115*	**587**	*435*	*520*
Electricity															
(billion kilowatt hours per day)	**10.53**	**10.02**	**12.06**	**10.07**	**10.13**	**9.56**	*11.73*	*9.64*	*10.11*	*9.88*	*11.75*	*9.77*	**10.67**	*10.26*	*10.38*
Renewables (c)															
(quadrillion Btu)	**2.81**	**3.08**	**2.80**	**2.79**	**2.91**	**3.00**	*2.93*	*2.98*	*3.22*	*3.37*	*3.16*	*3.17*	**11.48**	*11.83*	*12.92*
Total Energy Consumption (d)															
(quadrillion Btu)	**26.54**	**23.43**	**24.97**	**25.22**	**25.10**	**20.51**	*22.90*	*23.48*	*24.69*	*22.54*	*23.89*	*24.17*	**100.17**	*92.00*	*95.29*
Energy Prices															
Crude Oil West Texas Intermediate Spot															
(dollars per barrel)	**54.82**	**59.94**	**56.35**	**56.86**	**45.34**	**27.78**	*40.57*	*40.50*	*42.07*	*45.00*	*46.83*	*48.00*	**57.02**	*38.50*	*45.53*
Natural Gas Henry Hub Spot															
(dollars per million Btu)	**2.92**	**2.56**	**2.38**	**2.40**	**1.91**	**1.71**	*1.91*	*2.61*	*3.13*	*3.03*	*3.14*	*3.24*	**2.57**	*2.03*	*3.14*
Coal															
(dollars per million Btu)	**2.08**	**2.05**	**2.00**	**1.95**	**1.93**	**1.94**	*2.00*	*2.00*	*2.03*	*2.05*	*2.03*	*2.03*	**2.02**	*1.97*	*2.03*
Macroeconomic															
Real Gross Domestic Product															
(billion chained 2012 dollars - SAAR)	**18,927**	**19,022**	**19,121**	**19,222**	**18,977**	**17,000**	*17,710*	*17,926*	*18,263*	*18,488*	*18,676*	*18,809*	**19,073**	*17,904*	*18,559*
Percent change from prior year	**2.7**	**2.3**	**2.1**	**2.3**	**0.3**	**-10.6**	*-7.4*	*-6.7*	*-3.8*	*8.8*	*5.5*	*4.9*	**2.3**	*-6.1*	*3.7*
GDP Implicit Price Deflator															
(Index, 2012=100)	**111.5**	**112.2**	**112.7**	**113.0**	**113.4**	**113.2**	*113.6*	*113.7*	*113.9*	*114.2*	*114.6*	*115.0*	**112.3**	*113.5*	*114.4*
Percent change from prior year	**2.0**	**1.8**	**1.7**	**1.6**	**1.7**	**0.9**	*0.8*	*0.6*	*0.4*	*0.9*	*0.9*	*1.1*	**1.8**	*1.0*	*0.8*
Real Disposable Personal Income															
(billion chained 2012 dollars - SAAR)	**14,878**	**14,934**	**15,012**	**15,091**	**15,125**	**16,574**	*15,475*	*15,079*	*15,248*	*15,335*	*15,422*	*15,380*	**14,979**	*15,563*	*15,346*
Percent change from prior year	**3.3**	**3.0**	**2.7**	**2.6**	**1.7**	**11.0**	*3.1*	*-0.1*	*0.8*	*-7.5*	*-0.3*	*2.0*	**2.9**	*3.9*	*-1.4*
Manufacturing Production Index															
(Index, 2012=100)	**106.5**	**105.7**	**105.9**	**105.8**	**104.3**	**89.0**	*96.4*	*99.1*	*102.4*	*104.6*	*106.1*	*107.1*	**106.0**	*97.2*	*105.1*
Percent change from prior year	**1.6**	**0.1**	**-0.6**	**-1.1**	**-2.0**	**-15.8**	*-9.0*	*-6.3*	*-1.8*	*17.5*	*10.1*	*8.0*	**0.0**	*-8.3*	*8.1*
Weather															
U.S. Heating Degree-Days	**2,210**	**480**	**56**	**1,558**	**1,875**	**539**	*68*	*1,515*	*2,098*	*482*	*71*	*1,508*	**4,304**	*3,998*	*4,160*
U.S. Cooling Degree-Days	**46**	**399**	**953**	**106**	**71**	**397**	*907*	*95*	*46*	*409*	*867*	*97*	**1,503**	*1,469*	*1,420*

- = 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 - August 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**	**59.94**	**56.35**	**56.86**	**45.34**	**27.78**	*40.57*	*40.50*	*42.07*	*45.00*	*46.83*	*48.00*	**57.02**	*38.50*	*45.53*
Brent Spot Average	**63.14**	**69.07**	**61.90**	**63.30**	**49.97**	**29.34**	*43.08*	*43.50*	*46.07*	*49.00*	*50.83*	*52.00*	**64.37**	*41.42*	*49.53*
U.S. Imported Average	**55.35**	**62.98**	**57.30**	**55.57**	**43.76**	**28.19**	*39.12*	*38.34*	*39.57*	*42.38*	*44.08*	*45.00*	**57.97**	*37.37*	*42.87*
U.S. Refiner Average Acquisition Cost	**57.08**	**63.54**	**58.67**	**58.05**	**47.48**	**29.77**	*43.14*	*40.83*	*41.05*	*43.41*	*45.08*	*46.00*	**59.36**	*40.73*	*43.95*
U.S. Liquid Fuels (cents per gallon)															
Refiner Prices for Resale															
Gasoline	**167**	**205**	**189**	**182**	**153**	**102**	*131*	*125*	*133*	*157*	*158*	*148*	**186**	*129*	*149*
Diesel Fuel	**192**	**203**	**192**	**197**	**160**	**98**	*128*	*132*	*139*	*153*	*161*	*165*	**196**	*130*	*155*
Heating Oil	**189**	**195**	**184**	**191**	**160**	**89**	*114*	*124*	*140*	*149*	*158*	*164*	**190**	*124*	*148*
Refiner Prices to End Users															
Jet Fuel	**193**	**204**	**194**	**197**	**165**	**86**	*118*	*121*	*132*	*141*	*151*	*158*	**197**	*129*	*146*
No. 6 Residual Fuel Oil (a)	**153**	**163**	**155**	**162**	**176**	**102**	*133*	*134*	*102*	*104*	*106*	*109*	**158**	*136*	*105*
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	**236**	**279**	**265**	**259**	**241**	**194**	*212*	*199*	*202*	*233*	*234*	*222*	**260**	*212*	*223*
Gasoline All Grades (b)	**245**	**288**	**274**	**269**	**251**	**204**	*222*	*212*	*215*	*246*	*247*	*236*	**269**	*223*	*236*
On-highway Diesel Fuel	**302**	**312**	**302**	**306**	**289**	**243**	*240*	*243*	*244*	*253*	*263*	*269*	**306**	*254*	*257*
Heating Oil	**300**	**305**	**290**	**301**	**280**	**200**	*215*	*236*	*244*	*248*	*258*	*274*	**300**	*246*	*257*
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	**3.03**	**2.66**	**2.47**	**2.49**	**1.98**	**1.77**	*1.99*	*2.71*	*3.25*	*3.15*	*3.26*	*3.36*	**2.66**	*2.11*	*3.25*
Henry Hub Spot (dollars per million Btu)	**2.92**	**2.56**	**2.38**	**2.40**	**1.91**	**1.71**	*1.91*	*2.61*	*3.13*	*3.03*	*3.14*	*3.24*	**2.57**	*2.03*	*3.14*
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	**4.67**	**3.74**	**3.30**	**3.74**	**3.52**	**2.80**	*2.74*	*3.70*	*4.51*	*4.07*	*4.11*	*4.57*	**3.91**	*3.23*	*4.33*
Commercial Sector	**7.59**	**7.97**	**8.40**	**7.22**	**7.21**	**7.63**	*7.79*	*7.11*	*7.35*	*8.10*	*8.69*	*8.03*	**7.62**	*7.31*	*7.83*
Residential Sector	**9.47**	**12.48**	**18.10**	**9.88**	**9.51**	**11.74**	*16.15*	*9.77*	*9.24*	*12.43*	*17.29*	*10.84*	**10.56**	*10.44*	*10.71*
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	**2.08**	**2.05**	**2.00**	**1.95**	**1.93**	**1.94**	*2.00*	*2.00*	*2.03*	*2.05*	*2.03*	*2.03*	**2.02**	*1.97*	*2.03*
Natural Gas	**3.71**	**2.73**	**2.51**	**2.78**	**2.39**	**2.04**	*2.13*	*2.99*	*3.73*	*3.32*	*3.38*	*3.63*	**2.88**	*2.36*	*3.50*
Residual Fuel Oil (c)	**12.21**	**13.39**	**12.79**	**12.52**	**12.15**	**6.90**	*7.52*	*7.98*	*8.64*	*9.92*	*9.70*	*9.72*	**12.72**	*8.60*	*9.41*
Distillate Fuel Oil	**14.83**	**15.77**	**15.01**	**15.10**	**13.29**	**8.49**	*10.06*	*10.59*	*10.99*	*12.10*	*12.59*	*12.96*	**15.16**	*10.68*	*12.20*
Retail Prices (cents per kilowatthour)															
Industrial Sector	**6.66**	**6.71**	**7.25**	**6.66**	**6.38**	**6.56**	*7.26*	*6.78*	*6.69*	*6.85*	*7.54*	*6.92*	**6.83**	*6.75*	*7.01*
Commercial Sector	**10.43**	**10.64**	**11.00**	**10.53**	**10.35**	**10.58**	*10.86*	*10.48*	*10.44*	*10.87*	*11.29*	*10.90*	**10.66**	*10.58*	*10.89*
Residential Sector	**12.68**	**13.33**	**13.27**	**12.85**	**12.90**	**13.20**	*13.16*	*12.88*	*12.96*	*13.52*	*13.65*	*13.38*	**13.04**	*13.04*	*13.39*

- = 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 - August 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**	**31.47**	**32.75**	**32.92**	**28.89**	*29.34*	*30.42*	*30.58*	*30.73*	*31.06*	*31.78*	**31.66**	*30.39*	*31.04*
U.S. (50 States)	**18.87**	**19.35**	**19.44**	**20.20**	**20.22**	**17.31**	*18.00*	*18.38*	*18.37*	*18.62*	*18.84*	*19.16*	**19.47**	*18.48*	*18.75*
Canada	**5.44**	**5.47**	**5.47**	**5.63**	**5.64**	**4.82**	*4.73*	*5.29*	*5.39*	*5.47*	*5.52*	*5.74*	**5.50**	*5.12*	*5.53*
Mexico	**1.91**	**1.91**	**1.93**	**1.93**	**2.00**	**1.94**	*1.80*	*1.77*	*1.80*	*1.80*	*1.76*	*1.75*	**1.92**	*1.88*	*1.78*
Other OECD	**4.85**	**4.59**	**4.63**	**4.99**	**5.05**	**4.83**	*4.81*	*4.98*	*5.02*	*4.84*	*4.93*	*5.13*	**4.77**	*4.92*	*4.98*
Non-OECD	**69.24**	**69.12**	**68.65**	**68.92**	**67.82**	**62.94**	*61.04*	*63.56*	*66.19*	*68.63*	*69.33*	*69.12*	**68.98**	*63.83*	*68.33*
OPEC	**35.41**	**34.94**	**33.90**	**34.36**	**33.57**	**30.38**	*28.19*	*30.34*	*32.99*	*34.40*	*34.47*	*34.49*	**34.65**	*30.61*	*34.09*
Crude Oil Portion	**29.94**	**29.47**	**28.66**	**29.02**	**28.28**	**25.64**	*23.50*	*25.61*	*28.16*	*29.63*	*29.71*	*29.73*	**29.27**	*25.75*	*29.31*
Other Liquids (b)	**5.47**	**5.47**	**5.24**	**5.34**	**5.29**	**4.74**	*4.69*	*4.72*	*4.83*	*4.77*	*4.76*	*4.77*	**5.38**	*4.86*	*4.78*
Eurasia	**14.85**	**14.42**	**14.58**	**14.66**	**14.74**	**13.19**	*12.73*	*13.20*	*13.73*	*14.13*	*14.30*	*14.44*	**14.63**	*13.46*	*14.15*
China	**4.89**	**4.92**	**4.89**	**4.88**	**4.95**	**4.93**	*4.90*	*4.95*	*4.88*	*4.92*	*4.93*	*4.97*	**4.89**	*4.93*	*4.93*
Other Non-OECD	**14.08**	**14.84**	**15.28**	**15.03**	**14.56**	**14.44**	*15.21*	*15.07*	*14.58*	*15.19*	*15.63*	*15.22*	**14.81**	*14.82*	*15.16*
Total World Supply	**100.30**	**100.44**	**100.12**	**101.68**	**100.74**	**91.84**	*90.38*	*93.98*	*96.77*	*99.37*	*100.39*	*100.90*	**100.64**	*94.22*	*99.37*
Non-OPEC Supply	**64.89**	**65.50**	**66.22**	**67.32**	**67.17**	**61.46**	*62.19*	*63.64*	*63.77*	*64.97*	*65.91*	*66.41*	**65.99**	*63.61*	*65.28*
Consumption (million barrels per day) (c)															
OECD	**47.48**	**46.81**	**48.03**	**47.64**	**45.22**	**37.50**	*43.29*	*44.80*	*45.18*	*44.90*	*46.30*	*46.47*	**47.49**	*42.71*	*45.72*
U.S. (50 States)	**20.30**	**20.31**	**20.67**	**20.57**	**19.33**	**16.17**	*18.92*	*19.39*	*19.52*	*19.79*	*20.41*	*20.37*	**20.46**	*18.46*	*20.03*
U.S. Territories	**0.18**	**0.16**	**0.16**	**0.17**	**0.15**	**0.13**	*0.14*	*0.15*	*0.16*	*0.14*	*0.15*	*0.16*	**0.17**	*0.15*	*0.15*
Canada	**2.31**	**2.32**	**2.57**	**2.49**	**2.33**	**1.86**	*2.21*	*2.29*	*2.36*	*2.31*	*2.41*	*2.39*	**2.42**	*2.17*	*2.37*
Europe	**14.04**	**14.18**	**14.66**	**14.06**	**13.34**	**11.01**	*13.02*	*13.22*	*13.14*	*13.43*	*13.97*	*13.73*	**14.24**	*12.65*	*13.57*
Japan	**4.05**	**3.39**	**3.43**	**3.74**	**3.69**	**2.82**	*3.03*	*3.43*	*3.65*	*3.02*	*3.11*	*3.43*	**3.65**	*3.24*	*3.30*
Other OECD	**6.61**	**6.46**	**6.54**	**6.61**	**6.38**	**5.50**	*5.97*	*6.32*	*6.35*	*6.21*	*6.25*	*6.40*	**6.55**	*6.05*	*6.30*
Non-OECD	**52.84**	**53.97**	**54.11**	**54.07**	**49.55**	**47.51**	*51.67*	*52.94*	*53.41*	*54.66*	*54.81*	*54.89*	**53.75**	*50.43*	*54.45*
Eurasia	**5.07**	**5.13**	**5.52**	**5.37**	**4.86**	**4.48**	*5.29*	*5.23*	*5.02*	*5.09*	*5.49*	*5.35*	**5.27**	*4.97*	*5.24*
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**	*0.73*	*0.75*
China	**14.45**	**14.65**	**14.37**	**14.58**	**13.26**	**13.39**	*14.27*	*14.83*	*15.37*	*15.61*	*15.33*	*15.58*	**14.51**	*13.94*	*15.47*
Other Asia	**13.96**	**14.13**	**13.75**	**14.09**	**13.28**	**11.93**	*12.99*	*13.81*	*14.30*	*14.49*	*14.08*	*14.46*	**13.98**	*13.00*	*14.33*
Other Non-OECD	**18.59**	**19.31**	**19.70**	**19.24**	**17.43**	**16.99**	*18.39*	*18.34*	*17.98*	*18.72*	*19.15*	*18.75*	**19.21**	*17.79*	*18.65*
Total World Consumption	**100.32**	**100.78**	**102.14**	**101.71**	**94.77**	**85.01**	*94.96*	*97.74*	*98.60*	*99.56*	*101.10*	*101.36*	**101.25**	*93.14*	*100.16*
Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)															
U.S. (50 States)	**0.26**	**-0.64**	**0.05**	**0.29**	**-0.43**	**-1.76**	*0.57*	*0.72*	*0.32*	*-0.26*	*-0.01*	*0.37*	**-0.01**	*-0.22*	*0.10*
Other OECD	**-0.20**	**0.01**	**-0.16**	**0.24**	**-0.56**	**-0.53**	*1.29*	*0.99*	*0.49*	*0.14*	*0.23*	*0.03*	**-0.03**	*0.30*	*0.22*
Other Stock Draws and Balance	**-0.03**	**0.97**	**2.13**	**-0.49**	**-4.98**	**-4.54**	*2.73*	*2.06*	*1.02*	*0.31*	*0.49*	*0.06*	**0.65**	*-1.16*	*0.47*
Total Stock Draw	**0.02**	**0.34**	**2.02**	**0.04**	**-5.97**	**-6.83**	*4.58*	*3.76*	*1.83*	*0.19*	*0.72*	*0.45*	**0.61**	*-1.08*	*0.79*
End-of-period Commercial Crude Oil and Other Liquids Inventories (million barrels)															
U.S. Commercial Inventory	**1,241**	**1,304**	**1,299**	**1,282**	**1,321**	**1,460**	*1,413*	*1,358*	*1,340*	*1,366*	*1,368*	*1,337*	**1,282**	*1,358*	*1,337*
OECD Commercial Inventory	**2,860**	**2,921**	**2,932**	**2,893**	**2,983**	**3,170**	*3,005*	*2,859*	*2,797*	*2,810*	*2,791*	*2,757*	**2,893**	*2,859*	*2,757*

- = 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 - August 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
North America	**26.22**	**26.73**	**26.84**	**27.77**	**27.86**	**24.07**	*24.54*	*25.44*	*25.55*	*25.90*	*26.12*	*26.65*	**26.89**	*25.47*	*26.06*
Canada	**5.44**	**5.47**	**5.47**	**5.63**	**5.64**	**4.82**	*4.73*	*5.29*	*5.39*	*5.47*	*5.52*	*5.74*	**5.50**	*5.12*	*5.53*
Mexico	**1.91**	**1.91**	**1.93**	**1.93**	**2.00**	**1.94**	*1.80*	*1.77*	*1.80*	*1.80*	*1.76*	*1.75*	**1.92**	*1.88*	*1.78*
United States	**18.87**	**19.35**	**19.44**	**20.20**	**20.22**	**17.31**	*18.00*	*18.38*	*18.37*	*18.62*	*18.84*	*19.16*	**19.47**	*18.48*	*18.75*
Central and South America	**5.44**	**6.22**	**6.80**	**6.45**	**6.04**	**6.09**	*6.86*	*6.61*	*6.09*	*6.76*	*7.20*	*6.80*	**6.23**	*6.40*	*6.72*
Argentina	**0.66**	**0.70**	**0.70**	**0.70**	**0.67**	**0.59**	*0.67*	*0.67*	*0.66*	*0.61*	*0.68*	*0.67*	**0.69**	*0.65*	*0.65*
Brazil	**2.90**	**3.65**	**4.23**	**3.89**	**3.43**	**3.88**	*4.31*	*4.01*	*3.51*	*4.33*	*4.70*	*4.28*	**3.67**	*3.91*	*4.21*
Colombia	**0.92**	**0.92**	**0.91**	**0.91**	**0.90**	**0.80**	*0.84*	*0.88*	*0.87*	*0.80*	*0.82*	*0.85*	**0.92**	*0.86*	*0.83*
Ecuador	**0.53**	**0.53**	**0.55**	**0.52**	**0.54**	**0.35**	*0.53*	*0.53*	*0.52*	*0.51*	*0.49*	*0.48*	**0.53**	*0.49*	*0.50*
Other Central and S. America	**0.42**	**0.41**	**0.42**	**0.43**	**0.49**	**0.46**	*0.52*	*0.53*	*0.52*	*0.51*	*0.52*	*0.52*	**0.42**	*0.50*	*0.52*
Europe	**4.26**	**3.97**	**3.96**	**4.29**	**4.40**	**4.31**	*4.26*	*4.41*	*4.46*	*4.27*	*4.37*	*4.58*	**4.12**	*4.34*	*4.42*
Norway	**1.79**	**1.58**	**1.66**	**1.96**	**2.06**	**2.01**	*1.97*	*2.07*	*2.13*	*2.09*	*2.13*	*2.23*	**1.75**	*2.03*	*2.14*
United Kingdom	**1.25**	**1.17**	**1.11**	**1.15**	**1.17**	**1.18**	*1.12*	*1.17*	*1.16*	*1.03*	*1.09*	*1.18*	**1.17**	*1.16*	*1.11*
Eurasia	**14.85**	**14.42**	**14.58**	**14.66**	**14.74**	**13.19**	*12.73*	*13.20*	*13.73*	*14.13*	*14.30*	*14.44*	**14.63**	*13.46*	*14.15*
Azerbaijan	**0.81**	**0.78**	**0.77**	**0.76**	**0.77**	**0.69**	*0.67*	*0.70*	*0.72*	*0.74*	*0.75*	*0.75*	**0.78**	*0.71*	*0.74*
Kazakhstan	**2.03**	**1.85**	**1.96**	**2.02**	**2.06**	**1.86**	*1.77*	*1.87*	*1.97*	*1.91*	*1.94*	*1.98*	**1.97**	*1.89*	*1.95*
Russia	**11.58**	**11.41**	**11.48**	**11.50**	**11.53**	**10.24**	*9.90*	*10.24*	*10.67*	*11.12*	*11.25*	*11.35*	**11.49**	*10.48*	*11.10*
Turkmenistan	**0.29**	**0.23**	**0.22**	**0.23**	**0.24**	**0.25**	*0.25*	*0.25*	*0.24*	*0.24*	*0.24*	*0.24*	**0.24**	*0.25*	*0.24*
Other Eurasia	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.14**	*0.14*	*0.14*	*0.13*	*0.13*	*0.13*	*0.13*	**0.15**	*0.14*	*0.13*
Middle East	**3.13**	**3.13**	**3.13**	**3.14**	**3.22**	**3.18**	*3.14*	*3.18*	*3.28*	*3.28*	*3.30*	*3.30*	**3.13**	*3.18*	*3.29*
Oman	**0.98**	**0.98**	**0.98**	**0.99**	**1.01**	**0.95**	*0.90*	*0.95*	*1.01*	*1.01*	*1.03*	*1.03*	**0.98**	*0.95*	*1.02*
Qatar	**2.00**	**2.00**	**2.00**	**2.00**	**2.06**	**2.06**	*2.06*	*2.06*	*2.10*	*2.10*	*2.10*	*2.10*	**2.00**	*2.06*	*2.10*
Asia and Oceania	**9.48**	**9.51**	**9.37**	**9.47**	**9.45**	**9.18**	*9.22*	*9.36*	*9.28*	*9.26*	*9.24*	*9.28*	**9.46**	*9.30*	*9.26*
Australia	**0.42**	**0.47**	**0.51**	**0.54**	**0.50**	**0.50**	*0.52*	*0.53*	*0.52*	*0.52*	*0.51*	*0.50*	**0.49**	*0.51*	*0.51*
China	**4.89**	**4.92**	**4.89**	**4.88**	**4.95**	**4.93**	*4.90*	*4.95*	*4.88*	*4.92*	*4.93*	*4.97*	**4.89**	*4.93*	*4.93*
India	**1.01**	**0.99**	**0.98**	**0.99**	**0.98**	**0.89**	*0.90*	*0.91*	*0.91*	*0.89*	*0.88*	*0.89*	**0.99**	*0.92*	*0.89*
Indonesia	**0.93**	**0.94**	**0.92**	**0.91**	**0.89**	**0.88**	*0.89*	*0.88*	*0.87*	*0.86*	*0.85*	*0.84*	**0.93**	*0.88*	*0.85*
Malaysia	**0.75**	**0.73**	**0.65**	**0.72**	**0.73**	**0.58**	*0.59*	*0.64*	*0.65*	*0.64*	*0.64*	*0.63*	**0.71**	*0.63*	*0.64*
Vietnam	**0.25**	**0.25**	**0.23**	**0.22**	**0.22**	**0.23**	*0.23*	*0.23*	*0.23*	*0.22*	*0.22*	*0.21*	**0.24**	*0.23*	*0.22*
Africa	**1.50**	**1.52**	**1.55**	**1.54**	**1.45**	**1.44**	*1.44*	*1.44*	*1.38*	*1.37*	*1.36*	*1.37*	**1.53**	*1.44*	*1.37*
Egypt	**0.66**	**0.65**	**0.65**	**0.65**	**0.60**	**0.61**	*0.61*	*0.61*	*0.57*	*0.57*	*0.57*	*0.57*	**0.65**	*0.61*	*0.57*
South Sudan	**0.15**	**0.16**	**0.18**	**0.18**	**0.18**	**0.15**	*0.16*	*0.17*	*0.17*	*0.17*	*0.17*	*0.17*	**0.17**	*0.17*	*0.17*
Total non-OPEC liquids	**64.89**	**65.50**	**66.22**	**67.32**	**67.17**	**61.46**	*62.19*	*63.64*	*63.77*	*64.97*	*65.91*	*66.41*	**65.99**	*63.61*	*65.28*
OPEC non-crude liquids	**5.47**	**5.47**	**5.24**	**5.34**	**5.29**	**4.74**	*4.69*	*4.72*	*4.83*	*4.77*	*4.76*	*4.77*	**5.38**	*4.86*	*4.78*
Non-OPEC + OPEC non-crude	**70.36**	**70.97**	**71.47**	**72.66**	**72.46**	**66.20**	*66.88*	*68.37*	*68.61*	*69.74*	*70.68*	*71.18*	**71.37**	*68.47*	*70.06*
Unplanned non-OPEC Production Outages	**0.35**	**0.26**	**0.39**	**0.31**	**0.15**	**0.87**	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	**0.33**	*n/a*	*n/a*

- = no data available

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Crude Oil															
Algeria	**1.01**	**1.02**	**1.02**	**1.02**	**1.02**	**0.90**	-	-	-	-	-	-	**1.02**	-	-
Angola	**1.50**	**1.43**	**1.40**	**1.36**	**1.36**	**1.26**	-	-	-	-	-	-	**1.42**	-	-
Congo (Brazzaville)	**0.33**	**0.33**	**0.33**	**0.32**	**0.29**	**0.29**	-	-	-	-	-	-	**0.32**	-	-
Equatorial Guinea	**0.11**	**0.11**	**0.13**	**0.13**	**0.13**	**0.12**	-	-	-	-	-	-	**0.12**	-	-
Gabon	**0.20**	**0.20**	**0.20**	**0.20**	**0.19**	**0.18**	-	-	-	-	-	-	**0.20**	-	-
Iran	**2.63**	**2.33**	**2.10**	**2.03**	**2.02**	**1.97**	-	-	-	-	-	-	**2.27**	-	-
Iraq	**4.75**	**4.70**	**4.70**	**4.65**	**4.56**	**4.16**	-	-	-	-	-	-	**4.70**	-	-
Kuwait	**2.74**	**2.72**	**2.70**	**2.70**	**2.77**	**2.48**	-	-	-	-	-	-	**2.72**	-	-
Libya	**0.93**	**1.14**	**1.13**	**1.17**	**0.35**	**0.08**	-	-	-	-	-	-	**1.09**	-	-
Nigeria	**1.58**	**1.65**	**1.71**	**1.67**	**1.72**	**1.55**	-	-	-	-	-	-	**1.65**	-	-
Saudi Arabia	**10.00**	**9.92**	**9.38**	**9.83**	**9.80**	**9.28**	-	-	-	-	-	-	**9.78**	-	-
United Arab Emirates	**3.12**	**3.12**	**3.13**	**3.20**	**3.30**	**2.88**	-	-	-	-	-	-	**3.14**	-	-
Venezuela	**1.05**	**0.79**	**0.73**	**0.73**	**0.77**	**0.50**	-	-	-	-	-	-	**0.83**	-	-
OPEC Total	**29.94**	**29.47**	**28.66**	**29.02**	**28.28**	**25.64**	*23.50*	*25.61*	*28.16*	*29.63*	*29.71*	*29.73*	**29.27**	*25.75*	*29.31*
Other Liquids (a)	**5.47**	**5.47**	**5.24**	**5.34**	**5.29**	**4.74**	*4.69*	*4.72*	*4.83*	*4.77*	*4.76*	*4.77*	**5.38**	*4.86*	*4.78*
Total OPEC Supply	**35.41**	**34.94**	**33.90**	**34.36**	**33.57**	**30.38**	*28.19*	*30.34*	*32.99*	*34.40*	*34.47*	*34.49*	**34.65**	*30.61*	*34.09*
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*	*5.56*	*5.68*	*5.93*	*6.00*	*6.02*	**6.66**	*5.61*	*5.91*
OPEC Total	**32.37**	**32.22**	**31.22**	**31.34**	**31.43**	**31.63**	*31.54*	*31.73*	*31.94*	*32.22*	*32.28*	*32.30*	**31.78**	*31.58*	*32.18*
Surplus Crude Oil Production Capacity															
Middle East	**2.43**	**2.75**	**2.57**	**2.32**	**3.15**	**5.27**	*6.92*	*5.43*	*3.67*	*2.49*	*2.48*	*2.48*	**2.52**	*5.20*	*2.77*
Other	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.72**	*1.11*	*0.69*	*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**	*8.04*	*6.11*	*3.78*	*2.59*	*2.57*	*2.57*	**2.52**	*5.83*	*2.87*
Unplanned OPEC Production Outages	**2.52**	**2.51**	**3.24**	**2.91**	**3.67**	**4.13**	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	**2.80**	*n/a*	*n/a*

- = no data available

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2019				2020				2021						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
North America	**24.68**	**24.71**	**25.31**	**25.06**	**23.61**	**19.63**	*22.92*	*23.59*	*23.76*	*24.01*	*24.72*	*24.67*	**24.94**	*22.44*	*24.29*
Canada	**2.31**	**2.32**	**2.57**	**2.49**	**2.33**	**1.86**	*2.21*	*2.29*	*2.36*	*2.31*	*2.41*	*2.39*	**2.42**	*2.17*	*2.37*
Mexico	**2.07**	**2.07**	**2.06**	**1.99**	**1.94**	**1.60**	*1.78*	*1.90*	*1.88*	*1.90*	*1.89*	*1.90*	**2.05**	*1.80*	*1.89*
United States	**20.30**	**20.31**	**20.67**	**20.57**	**19.33**	**16.17**	*18.92*	*19.39*	*19.52*	*19.79*	*20.41*	*20.37*	**20.46**	*18.46*	*20.03*
Central and South America	**6.70**	**6.82**	**6.92**	**6.92**	**6.20**	**5.82**	*6.31*	*6.51*	*6.46*	*6.63*	*6.76*	*6.78*	**6.84**	*6.21*	*6.66*
Brazil	**3.03**	**3.10**	**3.19**	**3.18**	**2.78**	**2.53**	*2.87*	*2.99*	*2.93*	*3.01*	*3.11*	*3.12*	**3.13**	*2.79*	*3.05*
Europe	**14.81**	**14.94**	**15.44**	**14.85**	**14.06**	**11.72**	*13.76*	*13.96*	*13.88*	*14.18*	*14.73*	*14.49*	**15.01**	*13.38*	*14.32*
Eurasia	**5.07**	**5.13**	**5.52**	**5.37**	**4.86**	**4.48**	*5.29*	*5.23*	*5.02*	*5.09*	*5.49*	*5.35*	**5.27**	*4.97*	*5.24*
Russia	**3.64**	**3.74**	**4.04**	**3.89**	**3.50**	**3.18**	*3.88*	*3.81*	*3.65*	*3.75*	*4.07*	*3.92*	**3.83**	*3.60*	*3.85*
Middle East	**8.09**	**8.65**	**9.02**	**8.37**	**7.57**	**7.54**	*8.46*	*7.97*	*7.73*	*8.28*	*8.67*	*8.04*	**8.53**	*7.89*	*8.18*
Asia and Oceania	**36.47**	**36.01**	**35.50**	**36.51**	**34.14**	**31.59**	*33.97*	*36.00*	*37.29*	*36.92*	*36.36*	*37.47*	**36.12**	*33.93*	*37.01*
China	**14.45**	**14.65**	**14.37**	**14.58**	**13.26**	**13.39**	*14.27*	*14.83*	*15.37*	*15.61*	*15.33*	*15.58*	**14.51**	*13.94*	*15.47*
Japan	**4.05**	**3.39**	**3.43**	**3.74**	**3.69**	**2.82**	*3.03*	*3.43*	*3.65*	*3.02*	*3.11*	*3.43*	**3.65**	*3.24*	*3.30*
India	**4.89**	**4.95**	**4.66**	**4.94**	**4.63**	**3.77**	*4.34*	*4.79*	*5.01*	*5.08*	*4.75*	*5.05*	**4.86**	*4.38*	*4.97*
Africa	**4.50**	**4.52**	**4.44**	**4.63**	**4.34**	**4.22**	*4.26*	*4.49*	*4.44*	*4.46*	*4.38*	*4.57*	**4.52**	*4.33*	*4.46*
Total OECD Liquid Fuels Consumption	**47.48**	**46.81**	**48.03**	**47.64**	**45.22**	**37.50**	*43.29*	*44.80*	*45.18*	*44.90*	*46.30*	*46.47*	**47.49**	*42.71*	*45.72*
Total non-OECD Liquid Fuels Consumption	**52.84**	**53.97**	**54.11**	**54.07**	**49.55**	**47.51**	*51.67*	*52.94*	*53.41*	*54.66*	*54.81*	*54.89*	**53.75**	*50.43*	*54.45*
Total World Liquid Fuels Consumption	**100.32**	**100.78**	**102.14**	**101.71**	**94.77**	**85.01**	*94.96*	*97.74*	*98.60*	*99.56*	*101.10*	*101.36*	**101.25**	*93.14*	*100.16*
Oil-weighted Real Gross Domestic Product (a)															
World Index, 2015 Q1 = 100	**112.0**	**112.8**	**112.8**	**112.4**	**109.0**	**102.3**	*106.8*	*108.6*	*110.9*	*112.4*	*113.3*	*114.0*	**112.5**	*106.7*	*112.6*
Percent change from prior year	**2.4**	**2.2**	**1.9**	**1.4**	**-2.7**	**-9.3**	*-5.3*	*-3.4*	*1.7*	*9.9*	*6.1*	*5.0*	**2.0**	*-5.2*	*5.6*
OECD Index, 2015 Q1 = 100	**108.9**	**109.8**	**110.0**	**109.4**	**108.1**	**97.6**	*103.5*	*104.7*	*106.6*	*108.2*	*109.1*	*109.5*	**109.5**	*103.5*	*108.4*
Percent change from prior year	**1.9**	**1.8**	**1.8**	**1.5**	**-0.8**	**-11.1**	*-5.9*	*-4.3*	*-1.4*	*10.9*	*5.4*	*4.6*	**1.7**	*-5.5*	*4.7*
Non-OECD Index, 2015 Q1 = 100	**115.0**	**115.6**	**115.5**	**115.3**	**109.9**	**107.0**	*109.9*	*112.4*	*115.0*	*116.5*	*117.4*	*118.4*	**115.3**	*109.8*	*116.8*
Percent change from prior year	**2.8**	**2.5**	**2.0**	**1.4**	**-4.4**	**-7.5**	*-4.8*	*-2.5*	*4.7*	*8.9*	*6.8*	*5.4*	**2.2**	*-4.8*	*6.4*
Real U.S. Dollar Exchange Rate (a)															
Index, 2015 Q1 = 100	**105.37**	**106.01**	**106.51**	**106.34**	**106.91**	**108.76**	*108.02*	*107.33*	*106.50*	*106.11*	*105.71*	*105.12*	**106.06**	*107.75*	*105.86*
Percent change from prior year	**4.6**	**3.1**	**0.8**	**0.0**	**1.5**	**2.6**	*1.4*	*0.9*	*-0.4*	*-2.4*	*-2.1*	*-2.1*	**2.1**	*1.6*	*-1.8*

- = 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 - August 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**	**10.57**	*10.79*	*10.96*	*11.00*	*10.99*	*11.16*	*11.40*	**12.25**	*11.26*	*11.14*
Alaska	**0.49**	**0.47**	**0.43**	**0.48**	**0.48**	**0.41**	*0.45*	*0.49*	*0.50*	*0.48*	*0.46*	*0.49*	**0.47**	*0.45*	*0.48*
Federal Gulf of Mexico (b)	**1.86**	**1.93**	**1.83**	**1.96**	**1.96**	**1.69**	*1.82*	*1.97*	*2.04*	*2.01*	*1.93*	*1.95*	**1.90**	*1.86*	*1.98*
Lower 48 States (excl GOM)	**9.48**	**9.73**	**9.99**	**10.33**	**10.31**	**8.47**	*8.52*	*8.51*	*8.47*	*8.50*	*8.78*	*8.95*	**9.89**	*8.95*	*8.68*
Crude Oil Net Imports (c)	**4.25**	**4.14**	**3.95**	**2.94**	**2.90**	**3.15**	*3.31*	*4.62*	*4.72*	*5.27*	*5.49*	*5.21*	**3.82**	*3.50*	*5.17*
SPR Net Withdrawals	**0.00**	**0.05**	**0.00**	**0.11**	**0.00**	**-0.23**	*0.06*	*0.12*	*0.12*	*0.03*	*0.01*	*0.03*	**0.04**	*-0.01*	*0.05*
Commercial Inventory Net Withdrawals	**-0.19**	**-0.05**	**0.41**	**-0.07**	**-0.54**	**-0.62**	*0.51*	*0.10*	*-0.24*	*0.16*	*0.24*	*-0.01*	**0.03**	*-0.14*	*0.04*
Crude Oil Adjustment (d)	**0.31**	**0.50**	**0.36**	**0.56**	**0.67**	**0.33**	*0.33*	*0.15*	*0.22*	*0.22*	*0.23*	*0.16*	**0.43**	*0.37*	*0.21*
Total Crude Oil Input to Refineries	**16.20**	**16.76**	**16.97**	**16.32**	**15.77**	**13.20**	*15.00*	*15.95*	*15.82*	*16.67*	*17.12*	*16.79*	**16.56**	*14.98*	*16.60*
Other Supply															
Refinery Processing Gain	**1.06**	**1.07**	**1.07**	**1.10**	**1.02**	**0.85**	*1.02*	*1.12*	*1.11*	*1.16*	*1.14*	*1.14*	**1.08**	*1.01*	*1.14*
Natural Gas Plant Liquids Production	**4.66**	**4.81**	**4.80**	**4.99**	**5.12**	**4.86**	*4.91*	*4.97*	*4.89*	*5.07*	*5.13*	*5.20*	**4.81**	*4.96*	*5.08*
Renewables and Oxygenate Production (e)	**1.10**	**1.14**	**1.12**	**1.12**	**1.11**	**0.82**	*1.07*	*1.11*	*1.15*	*1.18*	*1.18*	*1.19*	**1.12**	*1.03*	*1.18*
Fuel Ethanol Production	**1.01**	**1.05**	**1.02**	**1.04**	**1.02**	**0.71**	*0.93*	*0.97*	*1.00*	*1.01*	*1.02*	*1.02*	**1.03**	*0.91*	*1.01*
Petroleum Products Adjustment (f)	**0.22**	**0.20**	**0.21**	**0.21**	**0.22**	**0.20**	*0.21*	*0.22*	*0.21*	*0.22*	*0.22*	*0.22*	**0.21**	*0.21*	*0.22*
Product Net Imports (c)	**-3.30**	**-3.04**	**-3.13**	**-3.43**	**-4.03**	**-2.86**	*-3.29*	*-4.48*	*-4.10*	*-4.05*	*-4.14*	*-4.53*	**-3.22**	*-3.67*	*-4.21*
Hydrocarbon Gas Liquids	**-1.33**	**-1.65**	**-1.66**	**-1.83**	**-1.99**	**-1.86**	*-1.85*	*-1.80*	*-1.71*	*-1.87*	*-1.84*	*-1.84*	**-1.62**	*-1.87*	*-1.82*
Unfinished Oils	**0.21**	**0.47**	**0.47**	**0.50**	**0.31**	**0.26**	*0.43*	*0.37*	*0.35*	*0.45*	*0.44*	*0.32*	**0.41**	*0.34*	*0.39*
Other HC/Oxygenates	**-0.08**	**-0.07**	**-0.05**	**-0.05**	**-0.10**	**-0.06**	*-0.10*	*-0.11*	*-0.14*	*-0.13*	*-0.12*	*-0.14*	**-0.06**	*-0.09*	*-0.13*
Motor Gasoline Blend Comp.	**0.43**	**0.79**	**0.70**	**0.46**	**0.39**	**0.35**	*0.39*	*0.19*	*0.47*	*0.71*	*0.48*	*0.20*	**0.60**	*0.33*	*0.46*
Finished Motor Gasoline	**-0.82**	**-0.63**	**-0.62**	**-0.87**	**-0.72**	**-0.36**	*-0.26*	*-0.53*	*-0.65*	*-0.69*	*-0.63*	*-0.74*	**-0.74**	*-0.47*	*-0.68*
Jet Fuel	**-0.08**	**-0.01**	**-0.05**	**-0.09**	**-0.07**	**0.09**	*-0.05*	*-0.23*	*-0.22*	*-0.18*	*-0.03*	*-0.10*	**-0.06**	*-0.07*	*-0.13*
Distillate Fuel Oil	**-0.91**	**-1.29**	**-1.30**	**-0.99**	**-1.19**	**-0.85**	*-1.31*	*-1.42*	*-1.34*	*-1.45*	*-1.51*	*-1.30*	**-1.12**	*-1.19*	*-1.40*
Residual Fuel Oil	**-0.08**	**-0.15**	**-0.08**	**-0.03**	**-0.02**	**0.04**	*-0.04*	*-0.03*	*-0.06*	*-0.14*	*-0.12*	*-0.02*	**-0.08**	*-0.01*	*-0.08*
Other Oils (g)	**-0.64**	**-0.50**	**-0.52**	**-0.54**	**-0.65**	**-0.47**	*-0.50*	*-0.93*	*-0.79*	*-0.74*	*-0.81*	*-0.92*	**-0.55**	*-0.63*	*-0.82*
Product Inventory Net Withdrawals	**0.44**	**-0.64**	**-0.36**	**0.26**	**0.11**	**-0.91**	*0.00*	*0.51*	*0.44*	*-0.45*	*-0.26*	*0.36*	**-0.07**	*-0.07*	*0.02*
Total Supply	**20.38**	**20.31**	**20.67**	**20.57**	**19.33**	**16.17**	*18.92*	*19.39*	*19.52*	*19.79*	*20.41*	*20.37*	**20.48**	*18.46*	*20.03*
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	**3.49**	**2.78**	**2.94**	**3.31**	**3.31**	**2.81**	*2.93*	*3.32*	*3.50*	*3.04*	*3.14*	*3.50*	**3.13**	*3.09*	*3.29*
Unfinished Oils	**-0.03**	**0.09**	**0.04**	**0.10**	**0.14**	**0.11**	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	**0.05**	*0.06*	*0.00*
Motor Gasoline	**8.96**	**9.48**	**9.49**	**9.16**	**8.49**	**7.17**	*8.84*	*8.91*	*8.84*	*9.29*	*9.41*	*9.16*	**9.27**	*8.36*	*9.18*
Fuel Ethanol blended into Motor Gasoline	**0.91**	**0.97**	**0.95**	**0.96**	**0.85**	**0.72**	*0.88*	*0.91*	*0.89*	*0.94*	*0.95*	*0.93*	**0.95**	*0.84*	*0.93*
Jet Fuel	**1.65**	**1.78**	**1.79**	**1.74**	**1.56**	**0.68**	*1.18*	*1.39*	*1.38*	*1.49*	*1.68*	*1.62*	**1.74**	*1.20*	*1.54*
Distillate Fuel Oil	**4.28**	**4.01**	**3.94**	**4.10**	**3.97**	**3.50**	*3.64*	*3.78*	*3.84*	*3.81*	*3.82*	*3.95*	**4.08**	*3.72*	*3.86*
Residual Fuel Oil	**0.27**	**0.23**	**0.32**	**0.27**	**0.17**	**0.16**	*0.28*	*0.26*	*0.26*	*0.21*	*0.25*	*0.26*	**0.27**	*0.22*	*0.25*
Other Oils (g)	**1.68**	**1.95**	**2.14**	**1.88**	**1.68**	**1.74**	*2.06*	*1.74*	*1.71*	*1.96*	*2.10*	*1.86*	**1.91**	*1.80*	*1.91*
Total Consumption	**20.30**	**20.31**	**20.67**	**20.57**	**19.33**	**16.17**	*18.92*	*19.39*	*19.52*	*19.79*	*20.41*	*20.37*	**20.46**	*18.46*	*20.03*
Total Petroleum and Other Liquids Net Imports	**0.95**	**1.10**	**0.83**	**-0.49**	**-1.13**	**0.29**	*0.02*	*0.14*	*0.62*	*1.22*	*1.35*	*0.68*	**0.59**	*-0.17*	*0.97*
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	**459.3**	**464.0**	**426.5**	**432.9**	**482.5**	**539.2**	*491.9*	*483.0*	*504.9*	*490.2*	*468.4*	*469.6*	**432.9**	*483.0*	*469.6*
Hydrocarbon Gas Liquids	**156.9**	**224.1**	**262.8**	**211.7**	**180.8**	**231.1**	*269.1*	*225.4*	*186.7*	*234.0*	*269.7*	*226.8*	**211.7**	*225.4*	*226.8*
Unfinished Oils	**92.0**	**95.9**	**92.2**	**89.4**	**100.1**	**90.2**	*89.1*	*83.4*	*93.6*	*91.3*	*90.6*	*84.9*	**89.4**	*83.4*	*84.9*
Other HC/Oxygenates	**30.8**	**29.0**	**28.4**	**27.8**	**33.6**	**27.1**	*25.8*	*25.5*	*26.8*	*25.8*	*25.1*	*25.7*	**27.8**	*25.5*	*25.7*
Total Motor Gasoline	**236.1**	**229.7**	**231.9**	**253.8**	**260.8**	**251.7**	*236.4*	*245.8*	*247.3*	*247.2*	*240.8*	*251.9*	**253.8**	*245.8*	*251.9*
Finished Motor Gasoline	**21.7**	**21.0**	**23.0**	**26.0**	**22.6**	**22.8**	*24.9*	*24.8*	*24.1*	*22.7*	*23.6*	*24.2*	**26.0**	*24.8*	*24.2*
Motor Gasoline Blend Comp.	**214.4**	**208.8**	**208.9**	**227.9**	**238.3**	**228.9**	*211.5*	*221.0*	*223.2*	*224.5*	*217.2*	*227.7*	**227.9**	*221.0*	*227.7*
Jet Fuel	**41.6**	**40.6**	**44.4**	**40.5**	**39.9**	**42.6**	*41.4*	*40.1*	*39.8*	*40.8*	*42.9*	*40.0*	**40.5**	*40.1*	*40.0*
Distillate Fuel Oil	**132.4**	**130.8**	**131.7**	**140.0**	**126.7**	**177.3**	*172.9*	*168.1*	*147.5*	*144.4*	*145.9*	*149.5*	**140.0**	*168.1*	*149.5*
Residual Fuel Oil	**28.7**	**30.3**	**29.9**	**30.9**	**34.4**	**40.4**	*33.6*	*31.4*	*32.9*	*33.9*	*31.8*	*33.3*	**30.9**	*31.4*	*33.3*
Other Oils (g)	**63.2**	**59.1**	**51.2**	**54.6**	**62.0**	**60.7**	*52.6*	*54.8*	*60.3*	*59.0*	*53.2*	*55.3*	**54.6**	*54.8*	*55.3*
Total Commercial Inventory	**1,241**	**1,304**	**1,299**	**1,282**	**1,321**	**1,460**	*1,413*	*1,358*	*1,340*	*1,366*	*1,368*	*1,337*	**1,282**	*1,358*	*1,337*
Crude Oil in SPR	**649**	**645**	**645**	**635**	**635**	**656**	*651*	*640*	*629*	*626*	*625*	*623*	**635**	*640*	*623*

- = no data available

(a) Includes lease condensate.

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

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

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

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

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

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

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

SPR: Strategic Petroleum Reserve

HC: Hydrocarbons

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - August 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	**1.87**	**1.87**	**1.71**	**1.85**	**1.93**	**1.84**	*1.98*	*2.11*	*2.13*	*2.22*	*2.20*	*2.27*	**1.83**	*1.97*	*2.20*
Propane	**1.50**	**1.56**	**1.61**	**1.67**	**1.72**	**1.59**	*1.55*	*1.52*	*1.48*	*1.51*	*1.54*	*1.56*	**1.59**	*1.60*	*1.52*
Butanes	**0.79**	**0.84**	**0.87**	**0.89**	**0.91**	**0.85**	*0.83*	*0.82*	*0.78*	*0.81*	*0.83*	*0.84*	**0.85**	*0.85*	*0.81*
Natural Gasoline (Pentanes Plus)	**0.49**	**0.55**	**0.60**	**0.57**	**0.56**	**0.57**	*0.55*	*0.52*	*0.50*	*0.53*	*0.57*	*0.54*	**0.55**	*0.55*	*0.53*
Refinery and Blender Net Production															
Ethane/Ethylene	**0.00**	**0.00**	**0.01**	**0.00**	**0.01**	**0.01**	*0.00*	*0.01*	*0.01*	*0.01*	*0.01*	*0.01*	**0.01**	*0.01*	*0.01*
Propane	**0.28**	**0.30**	**0.29**	**0.29**	**0.29**	**0.24**	*0.27*	*0.28*	*0.27*	*0.30*	*0.30*	*0.30*	**0.29**	*0.27*	*0.29*
Propylene (refinery-grade)	**0.28**	**0.28**	**0.28**	**0.28**	**0.25**	**0.26**	*0.27*	*0.28*	*0.28*	*0.29*	*0.29*	*0.29*	**0.28**	*0.27*	*0.29*
Butanes/Butylenes	**-0.09**	**0.26**	**0.18**	**-0.23**	**-0.08**	**0.21**	*0.18*	*-0.20*	*-0.09*	*0.26*	*0.18*	*-0.20*	**0.03**	*0.03*	*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	**-0.27**	**-0.27**	**-0.28**	**-0.31**	**-0.30**	**-0.28**	*-0.33*	*-0.35*	*-0.35*	*-0.37*	*-0.38*	*-0.38*	**-0.28**	*-0.32*	*-0.37*
Propane/Propylene	**-0.75**	**-0.99**	**-0.97**	**-1.07**	**-1.12**	**-1.04**	*-0.92*	*-0.98*	*-0.89*	*-0.98*	*-0.91*	*-0.98*	**-0.94**	*-1.01*	*-0.94*
Butanes/Butylenes	**-0.14**	**-0.26**	**-0.26**	**-0.25**	**-0.30**	**-0.33**	*-0.34*	*-0.24*	*-0.21*	*-0.27*	*-0.28*	*-0.23*	**-0.23**	*-0.30*	*-0.25*
Natural Gasoline (Pentanes Plus)	**-0.17**	**-0.14**	**-0.15**	**-0.21**	**-0.27**	**-0.20**	*-0.27*	*-0.23*	*-0.26*	*-0.25*	*-0.27*	*-0.25*	**-0.17**	*-0.24*	*-0.26*
HGL Refinery and Blender Net Inputs															
Butanes/Butylenes	**0.46**	**0.29**	**0.33**	**0.54**	**0.46**	**0.23**	*0.28*	*0.49*	*0.40*	*0.30*	*0.33*	*0.52*	**0.40**	*0.36*	*0.39*
Natural Gasoline (Pentanes Plus)	**0.14**	**0.17**	**0.18**	**0.18**	**0.15**	**0.10**	*0.15*	*0.18*	*0.17*	*0.18*	*0.18*	*0.18*	**0.17**	*0.15*	*0.18*
HGL Consumption															
Ethane/Ethylene	**1.61**	**1.49**	**1.47**	**1.55**	**1.70**	**1.63**	*1.67*	*1.73*	*1.77*	*1.80*	*1.83*	*1.89*	**1.53**	*1.68*	*1.82*
Propane	**1.20**	**0.58**	**0.65**	**1.05**	**1.09**	**0.62**	*0.67*	*0.98*	*1.14*	*0.61*	*0.70*	*1.00*	**0.87**	*0.84*	*0.86*
Propylene (refinery-grade)	**0.29**	**0.30**	**0.29**	**0.31**	**0.26**	**0.27**	*0.28*	*0.29*	*0.30*	*0.30*	*0.30*	*0.30*	**0.30**	*0.28*	*0.30*
Butanes/Butylenes	**0.20**	**0.21**	**0.30**	**0.24**	**0.17**	**0.20**	*0.20*	*0.21*	*0.19*	*0.23*	*0.21*	*0.21*	**0.24**	*0.19*	*0.21*
Natural Gasoline (Pentanes Plus)	**0.20**	**0.20**	**0.23**	**0.17**	**0.09**	**0.09**	*0.11*	*0.10*	*0.09*	*0.08*	*0.10*	*0.11*	**0.20**	*0.10*	*0.09*
HGL Inventories (million barrels)															
Ethane	**48.14**	**56.18**	**56.46**	**58.84**	**52.57**	**47.36**	*44.20*	*47.41*	*47.04*	*52.11*	*51.65*	*53.41*	**54.94**	*47.87*	*51.07*
Propane	**47.77**	**71.72**	**95.60**	**79.63**	**60.28**	**75.24**	*94.50*	*78.94*	*52.89*	*70.99*	*89.79*	*77.00*	**79.63**	*78.94*	*77.00*
Propylene (at refineries only)	**1.68**	**1.76**	**2.65**	**1.66**	**1.41**	**1.58**	*2.19*	*2.74*	*2.76*	*3.21*	*3.71*	*4.13*	**1.66**	*2.74*	*4.13*
Butanes/Butylenes	**39.30**	**70.72**	**85.88**	**52.15**	**43.58**	**70.48**	*89.05*	*59.43*	*49.24*	*73.36*	*90.83*	*61.20*	**52.15**	*59.43*	*61.20*
Natural Gasoline (Pentanes Plus)	**18.12**	**19.71**	**21.28**	**20.90**	**23.99**	**38.33**	*38.71*	*36.93*	*33.37*	*33.55*	*33.42*	*31.79*	**20.90**	*36.93*	*31.79*
Refinery and Blender Net Inputs															
Crude Oil	**16.20**	**16.76**	**16.97**	**16.32**	**15.77**	**13.20**	*15.00*	*15.95*	*15.82*	*16.67*	*17.12*	*16.79*	**16.56**	*14.98*	*16.60*
Hydrocarbon Gas Liquids	**0.59**	**0.46**	**0.51**	**0.72**	**0.61**	**0.33**	*0.43*	*0.67*	*0.57*	*0.47*	*0.51*	*0.70*	**0.57**	*0.51*	*0.56*
Other Hydrocarbons/Oxygenates	**1.16**	**1.21**	**1.22**	**1.19**	**1.12**	**0.95**	*1.09*	*1.14*	*1.15*	*1.20*	*1.20*	*1.19*	**1.19**	*1.07*	*1.19*
Unfinished Oils	**0.18**	**0.34**	**0.46**	**0.43**	**0.05**	**0.26**	*0.44*	*0.43*	*0.24*	*0.47*	*0.45*	*0.38*	**0.35**	*0.30*	*0.39*
Motor Gasoline Blend Components	**0.63**	**0.94**	**0.77**	**0.40**	**0.41**	**0.43**	*0.61*	*0.26*	*0.57*	*0.84*	*0.66*	*0.26*	**0.68**	*0.43*	*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	**18.76**	**19.70**	**19.93**	**19.07**	**17.97**	**15.18**	*17.57*	*18.45*	*18.35*	*19.66*	*19.95*	*19.31*	**19.37**	*17.29*	*19.32*
Refinery Processing Gain	**1.06**	**1.07**	**1.07**	**1.10**	**1.02**	**0.85**	*1.02*	*1.12*	*1.11*	*1.16*	*1.14*	*1.14*	**1.08**	*1.01*	*1.14*
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	**0.48**	**0.84**	**0.76**	**0.34**	**0.47**	**0.71**	*0.73*	*0.36*	*0.48*	*0.85*	*0.77*	*0.39*	**0.61**	*0.57*	*0.62*
Finished Motor Gasoline	**9.84**	**10.15**	**10.20**	**10.16**	**9.30**	**7.48**	*9.12*	*9.58*	*9.57*	*10.08*	*10.12*	*10.04*	**10.09**	*8.87*	*9.95*
Jet Fuel	**1.73**	**1.78**	**1.88**	**1.79**	**1.63**	**0.62**	*1.22*	*1.60*	*1.60*	*1.68*	*1.73*	*1.69*	**1.80**	*1.27*	*1.68*
Distillate Fuel	**5.05**	**5.21**	**5.18**	**5.11**	**4.95**	**4.83**	*4.82*	*5.06*	*4.92*	*5.17*	*5.27*	*5.22*	**5.14**	*4.92*	*5.15*
Residual Fuel	**0.36**	**0.39**	**0.39**	**0.31**	**0.23**	**0.19**	*0.24*	*0.27*	*0.33*	*0.36*	*0.35*	*0.30*	**0.36**	*0.23*	*0.34*
Other Oils (a)	**2.37**	**2.40**	**2.58**	**2.46**	**2.41**	**2.19**	*2.46*	*2.69*	*2.57*	*2.68*	*2.84*	*2.81*	**2.45**	*2.44*	*2.73*
Total Refinery and Blender Net Production	**19.82**	**20.78**	**21.00**	**20.17**	**18.99**	**16.03**	*18.60*	*19.57*	*19.46*	*20.81*	*21.09*	*20.45*	**20.44**	*18.30*	*20.46*
Refinery Distillation Inputs	**16.48**	**17.14**	**17.44**	**16.86**	**16.36**	**13.65**	*15.46*	*16.26*	*16.11*	*16.87*	*17.34*	*17.00*	**16.98**	*15.43*	*16.83*
Refinery Operable Distillation Capacity	**18.78**	**18.80**	**18.81**	**18.81**	**18.98**	**18.75**	*18.64*	*18.67*	*18.67*	*18.67*	*18.67*	*18.70*	**18.80**	*18.76*	*18.68*
Refinery Distillation Utilization Factor	**0.88**	**0.91**	**0.93**	**0.90**	**0.86**	**0.73**	*0.83*	*0.87*	*0.86*	*0.90*	*0.93*	*0.91*	**0.90**	*0.82*	*0.90*

- = no data available

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - August 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**	**102**	*131*	*125*	*133*	*157*	*158*	*148*	**186**	*129*	*149*
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	**233**	**268**	**256**	**247**	**236**	**191**	*201*	*190*	*196*	*223*	*227*	*216*	**251**	*205*	*216*
PADD 2	**223**	**269**	**257**	**244**	**226**	**179**	*202*	*188*	*189*	*226*	*224*	*211*	**249**	*199*	*213*
PADD 3	**206**	**246**	**234**	**224**	**210**	**163**	*184*	*174*	*180*	*205*	*206*	*195*	**228**	*183*	*197*
PADD 4	**226**	**285**	**270**	**276**	**247**	**200**	*218*	*195*	*196*	*226*	*232*	*218*	**265**	*215*	*218*
PADD 5	**297**	**356**	**331**	**350**	**311**	**258**	*277*	*265*	*256*	*290*	*291*	*281*	**334**	*278*	*280*
U.S. Average	**236**	**279**	**265**	**259**	**241**	**194**	*212*	*199*	*202*	*233*	*234*	*222*	**260**	*212*	*223*
Gasoline All Grades Including Taxes	**245**	**288**	**274**	**269**	**251**	**204**	*222*	*212*	*215*	*246*	*247*	*236*	**269**	*223*	*236*
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	**62.4**	**59.7**	**64.9**	**65.6**	**71.0**	**72.4**	*61.5*	*62.9*	*66.7*	*69.2*	*64.0*	*68.2*	**65.6**	*62.9*	*68.2*
PADD 2	**53.9**	**49.6**	**51.0**	**55.0**	**60.2**	**50.6**	*49.7*	*51.5*	*54.2*	*53.8*	*52.8*	*50.5*	**55.0**	*51.5*	*50.5*
PADD 3	**82.5**	**82.4**	**81.5**	**91.8**	**84.8**	**91.6**	*89.0*	*92.3*	*88.3*	*87.2*	*87.2*	*93.3*	**91.8**	*92.3*	*93.3*
PADD 4	**6.9**	**7.5**	**7.7**	**8.3**	**9.2**	**7.6**	*6.8*	*7.2*	*7.6*	*7.8*	*7.4*	*7.8*	**8.3**	*7.2*	*7.8*
PADD 5	**30.4**	**30.6**	**26.8**	**33.2**	**35.6**	**29.6**	*29.4*	*32.0*	*30.4*	*29.2*	*29.4*	*32.1*	**33.2**	*32.0*	*32.1*
U.S. Total	**236.1**	**229.7**	**231.9**	**253.8**	**260.8**	**251.7**	*236.4*	*245.8*	*247.3*	*247.2*	*240.8*	*251.9*	**253.8**	*245.8*	*251.9*
Finished Gasoline Inventories															
U.S. Total	**21.7**	**21.0**	**23.0**	**26.0**	**22.6**	**22.8**	*24.9*	*24.8*	*24.1*	*22.7*	*23.6*	*24.2*	**26.0**	*24.8*	*24.2*
Gasoline Blending Components Inventories															
U.S. Total	**214.4**	**208.8**	**208.9**	**227.9**	**238.3**	**228.9**	*211.5*	*221.0*	*223.2*	*224.5*	*217.2*	*227.7*	**227.9**	*221.0*	*227.7*

- = 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 - August 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Supply (billion cubic feet per day)															
Total Marketed Production	**96.08**	**97.44**	**99.91**	**103.16**	**101.96**	**96.15**	*93.07*	*91.47*	*89.88*	*89.62*	*91.22*	*92.57*	**99.17**	*95.64*	*90.83*
Alaska	**0.96**	**0.93**	**0.79**	**0.93**	**0.96**	**0.84**	*0.77*	*0.94*	*0.99*	*0.85*	*0.80*	*0.95*	**0.90**	*0.88*	*0.90*
Federal GOM (a)	**2.80**	**2.75**	**2.51**	**2.72**	**2.72**	**2.30**	*2.52*	*2.57*	*2.60*	*2.52*	*2.39*	*2.37*	**2.69**	*2.53*	*2.47*
Lower 48 States (excl GOM)	**92.32**	**93.76**	**96.61**	**99.51**	**98.27**	**93.01**	*89.78*	*87.96*	*86.28*	*86.25*	*88.03*	*89.25*	**95.57**	*92.24*	*87.46*
Total Dry Gas Production	**89.32**	**90.50**	**92.98**	**95.97**	**94.48**	**89.20**	*86.27*	*84.73*	*83.21*	*82.93*	*84.35*	*85.55*	**92.21**	*88.65*	*84.02*
LNG Gross Imports	**0.28**	**0.03**	**0.06**	**0.20**	**0.24**	**0.10**	*0.18*	*0.20*	*0.32*	*0.18*	*0.18*	*0.20*	**0.14**	*0.18*	*0.22*
LNG Gross Exports	**4.01**	**4.55**	**4.95**	**6.40**	**7.92**	**5.50**	*3.23*	*5.53*	*7.07*	*6.42*	*7.56*	*8.07*	**4.98**	*5.54*	*7.28*
Pipeline Gross Imports	**8.35**	**6.73**	**7.10**	**7.30**	**7.64**	**6.16**	*6.48*	*7.38*	*8.45*	*7.50*	*7.68*	*7.93*	**7.37**	*6.92*	*7.89*
Pipeline Gross Exports	**7.86**	**7.18**	**7.80**	**8.25**	**8.13**	**7.09**	*7.86*	*8.20*	*8.12*	*7.42*	*8.04*	*8.19*	**7.77**	*7.82*	*7.94*
Supplemental Gaseous Fuels	**0.20**	**0.16**	**0.15**	**0.17**	**0.19**	**0.17**	*0.16*	*0.16*	*0.15*	*0.15*	*0.16*	*0.16*	**0.17**	*0.17*	*0.16*
Net Inventory Withdrawals	**16.93**	**-14.18**	**-10.41**	**2.44**	**12.74**	**-12.23**	*-6.89*	*5.40*	*17.41*	*-11.09*	*-7.49*	*5.39*	**-1.37**	*-0.25*	*1.00*
Total Supply	**103.20**	**71.52**	**77.14**	**91.42**	**99.25**	**70.81**	*75.11*	*84.13*	*94.35*	*65.83*	*69.28*	*82.97*	**85.77**	*82.31*	*78.05*
Balancing Item (b)	**0.11**	**-0.79**	**-0.39**	**-2.09**	**0.00**	**0.32**	*-0.26*	*0.38*	*0.98*	*0.17*	*0.91*	*0.56*	**-0.79**	*0.11*	*0.65*
Total Primary Supply	**103.32**	**70.74**	**76.74**	**89.33**	**99.25**	**71.13**	*74.85*	*84.51*	*95.33*	*66.01*	*70.19*	*83.52*	**84.97**	*82.42*	*78.71*
Consumption (billion cubic feet per day)															
Residential	**27.15**	**7.34**	**3.53**	**17.00**	**22.79**	**8.19**	*3.75*	*16.47*	*25.08*	*6.97*	*3.34*	*16.30*	**13.70**	*12.79*	*12.87*
Commercial	**16.19**	**6.36**	**4.68**	**11.45**	**14.07**	**6.02**	*4.61*	*10.64*	*14.84*	*6.46*	*4.71*	*10.42*	**9.65**	*8.83*	*9.08*
Industrial	**25.12**	**21.74**	**21.31**	**23.79**	**24.55**	**20.56**	*19.83*	*22.98*	*23.64*	*21.40*	*20.89*	*23.72*	**22.98**	*21.98*	*22.41*
Electric Power (c)	**26.83**	**28.13**	**39.74**	**29.09**	**29.60**	**29.37**	*40.09*	*27.43*	*24.44*	*24.45*	*34.20*	*25.65*	**30.98**	*31.63*	*27.21*
Lease and Plant Fuel	**4.93**	**5.00**	**5.13**	**5.29**	**5.23**	**4.93**	*4.78*	*4.69*	*4.61*	*4.60*	*4.68*	*4.75*	**5.09**	*4.91*	*4.66*
Pipeline and Distribution Use	**2.96**	**2.03**	**2.20**	**2.56**	**2.85**	**1.91**	*1.66*	*2.17*	*2.58*	*1.99*	*2.22*	*2.52*	**2.44**	*2.15*	*2.33*
Vehicle Use	**0.13**	**0.13**	**0.14**	**0.15**	**0.16**	**0.14**	*0.12*	*0.14*	*0.14*	*0.15*	*0.15*	*0.15*	**0.14**	*0.14*	*0.14*
Total Consumption	**103.32**	**70.74**	**76.74**	**89.33**	**99.25**	**71.13**	*74.85*	*84.51*	*95.33*	*66.01*	*70.19*	*83.52*	**84.97**	*82.42*	*78.71*
End-of-period Inventories (billion cubic feet)															
Working Gas Inventory	**1,185**	**2,461**	**3,415**	**3,189**	**2,030**	**3,136**	*3,770*	*3,273*	*1,707*	*2,716*	*3,404*	*2,908*	**3,189**	*3,273*	*2,908*
East Region (d)	**216**	**537**	**845**	**764**	**385**	**649**	*879*	*691*	*218*	*527*	*783*	*581*	**764**	*691*	*581*
Midwest Region (d)	**242**	**579**	**990**	**885**	**472**	**752**	*1,050*	*888*	*339*	*609*	*924*	*759*	**885**	*888*	*759*
South Central Region (d)	**519**	**917**	**1,049**	**1,095**	**857**	**1,224**	*1,268*	*1,196*	*796*	*1,092*	*1,146*	*1,099*	**1,095**	*1,196*	*1,099*
Mountain Region (d)	**63**	**135**	**200**	**167**	**92**	**177**	*227*	*185*	*128*	*165*	*204*	*167*	**167**	*185*	*167*
Pacific Region (d)	**115**	**259**	**294**	**245**	**200**	**307**	*318*	*286*	*199*	*296*	*320*	*276*	**245**	*286*	*276*
Alaska	**30**	**33**	**37**	**33**	**23**	**26**	*27*	*27*	*27*	*27*	*27*	*27*	**33**	*27*	*27*

- = no data available

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

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

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

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

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

LNG: liquefied natural gas.

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

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

Projections: EIA Regional Short-Term Energy Model.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - August 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**	*1.99*	*2.71*	*3.25*	*3.15*	*3.26*	*3.36*	**2.66**	*2.11*	*3.25*
Residential Retail															
New England	**14.44**	**15.56**	**19.31**	**14.05**	**13.80**	**14.42**	*16.51*	*12.57*	*12.49*	*13.74*	*16.95*	*13.24*	**14.78**	*13.72*	*13.20*
Middle Atlantic	**10.79**	**13.08**	**18.50**	**11.38**	**10.80**	**11.57**	*15.33*	*9.92*	*9.48*	*12.19*	*16.93*	*11.25*	**11.74**	*10.96*	*10.87*
E. N. Central	**7.27**	**10.48**	**19.03**	**7.68**	**6.99**	**9.17**	*15.24*	*7.55*	*7.31*	*10.56*	*16.50*	*8.43*	**8.41**	*7.97*	*8.65*
W. N. Central	**7.93**	**10.67**	**18.16**	**8.16**	**7.30**	**9.70**	*16.28*	*8.34*	*7.56*	*10.74*	*17.05*	*9.18*	**8.81**	*8.41*	*9.00*
S. Atlantic	**11.63**	**18.34**	**26.03**	**12.90**	**12.17**	**15.08**	*20.86*	*11.35*	*10.49*	*16.13*	*22.48*	*12.65*	**13.83**	*12.99*	*12.74*
E. S. Central	**9.64**	**14.84**	**21.40**	**10.43**	**9.74**	**13.25**	*20.35*	*12.39*	*10.39*	*15.31*	*22.31*	*13.81*	**11.05**	*11.55*	*12.67*
W. S. Central	**8.29**	**13.38**	**21.45**	**10.54**	**8.55**	**14.10**	*19.79*	*11.53*	*9.34*	*15.00*	*20.89*	*12.35*	**10.54**	*11.32*	*11.97*
Mountain	**7.73**	**9.46**	**13.40**	**7.75**	**7.52**	**9.63**	*13.11*	*7.94*	*7.90*	*9.91*	*13.80*	*8.75*	**8.37**	*8.35*	*8.94*
Pacific	**12.44**	**12.75**	**13.50**	**12.06**	**13.41**	**14.34**	*13.82*	*12.58*	*13.05*	*14.00*	*14.85*	*13.84*	**12.50**	*13.39*	*13.68*
U.S. Average	**9.47**	**12.48**	**18.10**	**9.88**	**9.51**	**11.74**	*16.15*	*9.77*	*9.24*	*12.43*	*17.29*	*10.84*	**10.56**	*10.44*	*10.71*
Commercial Retail															
New England	**11.21**	**11.42**	**11.61**	**10.13**	**10.38**	**10.45**	*8.89*	*8.86*	*9.55*	*10.00*	*10.17*	*10.23*	**10.95**	*9.84*	*9.92*
Middle Atlantic	**8.43**	**7.72**	**6.86**	**7.47**	**7.91**	**6.99**	*6.24*	*6.96*	*7.32*	*7.39*	*7.00*	*7.65*	**7.85**	*7.24*	*7.39*
E. N. Central	**6.27**	**7.19**	**8.85**	**6.04**	**5.75**	**6.61**	*7.98*	*6.20*	*6.33*	*7.61*	*9.14*	*7.23*	**6.51**	*6.20*	*7.02*
W. N. Central	**6.79**	**7.11**	**8.20**	**6.16**	**5.97**	**6.49**	*7.77*	*6.48*	*7.06*	*7.72*	*8.99*	*7.51*	**6.73**	*6.33*	*7.44*
S. Atlantic	**8.85**	**9.54**	**9.64**	**8.82**	**8.56**	**9.26**	*9.35*	*8.50*	*8.55*	*9.55*	*10.04*	*9.10*	**9.05**	*8.76*	*9.06*
E. S. Central	**8.61**	**9.78**	**10.06**	**8.54**	**8.36**	**9.27**	*9.25*	*8.07*	*7.97*	*9.27*	*9.98*	*9.08*	**8.91**	*8.50*	*8.73*
W. S. Central	**6.02**	**6.57**	**7.42**	**6.38**	**5.70**	**6.59**	*7.05*	*6.77*	*6.91*	*7.63*	*8.36*	*7.88*	**6.41**	*6.32*	*7.53*
Mountain	**6.40**	**6.72**	**7.41**	**6.16**	**6.07**	**7.45**	*7.47*	*6.50*	*6.88*	*7.33*	*8.27*	*7.40*	**6.47**	*6.56*	*7.27*
Pacific	**9.08**	**8.82**	**9.14**	**8.90**	**9.60**	**9.46**	*8.79*	*8.18*	*8.56*	*8.86*	*9.24*	*8.97*	**8.99**	*9.01*	*8.85*
U.S. Average	**7.59**	**7.97**	**8.40**	**7.22**	**7.21**	**7.63**	*7.79*	*7.11*	*7.35*	*8.10*	*8.69*	*8.03*	**7.62**	*7.31*	*7.83*
Industrial Retail															
New England	**9.17**	**8.27**	**6.92**	**7.29**	**8.09**	**7.32**	*6.35*	*7.51*	*8.21*	*7.66*	*7.17*	*8.17*	**8.08**	*7.44*	*7.89*
Middle Atlantic	**8.76**	**7.65**	**6.99**	**6.95**	**7.46**	**6.77**	*6.45*	*6.85*	*7.57*	*7.21*	*7.41*	*7.74*	**7.86**	*7.02*	*7.52*
E. N. Central	**5.75**	**5.38**	**5.64**	**5.14**	**4.88**	**4.69**	*4.62*	*5.03*	*6.13*	*6.08*	*6.13*	*6.13*	**5.49**	*4.87*	*6.12*
W. N. Central	**5.16**	**3.94**	**3.37**	**4.19**	**3.94**	**3.31**	*3.15*	*4.25*	*5.20*	*4.64*	*4.61*	*5.33*	**4.24**	*3.72*	*4.99*
S. Atlantic	**5.52**	**4.60**	**4.40**	**4.52**	**4.17**	**3.73**	*3.77*	*4.61*	*5.36*	*4.96*	*5.02*	*5.39*	**4.80**	*4.09*	*5.20*
E. S. Central	**4.93**	**4.04**	**3.59**	**4.07**	**3.90**	**3.30**	*3.48*	*4.42*	*5.06*	*4.74*	*4.74*	*5.18*	**4.20**	*3.81*	*4.95*
W. S. Central	**3.47**	**2.88**	**2.53**	**2.64**	**2.17**	**1.90**	*2.08*	*2.81*	*3.40*	*3.27*	*3.47*	*3.60*	**2.89**	*2.26*	*3.43*
Mountain	**5.31**	**4.80**	**5.00**	**4.72**	**4.41**	**4.46**	*4.76*	*4.96*	*5.42*	*5.36*	*5.82*	*5.99*	**4.96**	*4.63*	*5.65*
Pacific	**7.68**	**6.66**	**6.49**	**6.83**	**7.54**	**6.39**	*5.77*	*5.90*	*6.76*	*6.50*	*6.75*	*6.90*	**6.97**	*6.42*	*6.74*
U.S. Average	**4.67**	**3.74**	**3.30**	**3.74**	**3.52**	**2.80**	*2.74*	*3.70*	*4.51*	*4.07*	*4.11*	*4.57*	**3.91**	*3.23*	*4.33*

- = 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 - August 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**	*129.0*	*111.0*	*139.6*	*125.4*	*153.0*	*146.1*	**705.3**	*502.2*	*564.1*
Appalachia	**49.6**	**52.5**	**46.6**	**44.3**	**39.7**	**32.0**	*34.3*	*27.1*	*32.1*	*34.5*	*36.3*	*33.4*	**193.0**	*133.0*	*136.4*
Interior	**35.4**	**32.3**	**32.4**	**30.6**	**25.8**	**20.2**	*22.6*	*19.5*	*29.5*	*19.8*	*24.6*	*26.7*	**130.7**	*88.1*	*100.6*
Western	**94.5**	**94.4**	**102.4**	**90.3**	**83.6**	**60.9**	*72.2*	*64.3*	*77.9*	*71.1*	*92.2*	*86.0*	**381.7**	*281.1*	*327.1*
Primary Inventory Withdrawals	**-1.5**	**1.3**	**-1.2**	**-1.4**	**-0.5**	**1.0**	*-1.5*	*-1.1*	*1.2*	*1.4*	*1.8*	*-2.1*	**-2.7**	*-2.1*	*2.3*
Imports	**1.7**	**1.6**	**1.7**	**1.7**	**1.3**	**1.1**	*1.1*	*1.2*	*1.0*	*1.0*	*1.3*	*1.3*	**6.7**	*4.8*	*4.6*
Exports	**25.2**	**25.3**	**21.9**	**20.4**	**20.0**	**14.8**	*13.1*	*12.0*	*20.9*	*15.9*	*13.5*	*12.7*	**92.9**	*59.8*	*63.0*
Metallurgical Coal	**13.9**	**15.1**	**13.5**	**12.6**	**11.7**	**9.0**	*8.4*	*8.8*	*13.7*	*10.8*	*9.1*	*8.8*	**55.1**	*37.9*	*42.4*
Steam Coal	**11.3**	**10.2**	**8.4**	**7.8**	**8.3**	**5.8**	*4.7*	*3.2*	*7.2*	*5.1*	*4.4*	*3.9*	**37.7**	*21.9*	*20.6*
Total Primary Supply	**154.5**	**156.7**	**159.9**	**145.2**	**129.9**	**100.5**	*115.5*	*99.1*	*120.8*	*111.9*	*142.7*	*132.5*	**616.4**	*445.0*	*507.9*
Secondary Inventory Withdrawals	**5.9**	**-21.0**	**6.4**	**-17.5**	**-16.5**	**-3.5**	*10.6*	*-7.1*	*-0.5*	*4.4*	*8.7*	*-7.4*	**-26.2**	*-16.5*	*5.2*
Waste Coal (a)	**2.3**	**2.3**	**2.3**	**2.3**	**2.3**	**2.3**	*2.3*	*2.3*	*2.0*	*2.0*	*2.0*	*2.0*	**9.3**	*9.2*	*8.0*
Total Supply	**162.8**	**138.0**	**168.6**	**130.0**	**115.7**	**99.3**	*128.4*	*94.3*	*122.4*	*118.3*	*153.4*	*127.1*	**599.5**	*437.7*	*521.1*
Consumption (million short tons)															
Coke Plants	**4.5**	**4.7**	**4.5**	**4.3**	**4.2**	**4.4**	*4.5*	*3.4*	*4.5*	*4.4*	*4.1*	*4.0*	**17.9**	*16.6*	*17.0*
Electric Power Sector (b)	**145.3**	**118.0**	**156.2**	**119.9**	**97.6**	**83.7**	*116.2*	*93.7*	*108.8*	*116.4*	*146.0*	*103.8*	**539.4**	*391.3*	*475.0*
Retail and Other Industry	**8.1**	**7.2**	**7.2**	**7.5**	**7.4**	**6.7**	*6.5*	*7.0*	*7.1*	*6.9*	*7.0*	*7.3*	**30.0**	*27.5*	*28.3*
Residential and Commercial	**0.3**	**0.2**	**0.2**	**0.2**	**0.3**	**0.2**	*0.2*	*0.3*	*0.2*	*0.1*	*0.2*	*0.2*	**0.9**	*0.9*	*0.7*
Other Industrial	**7.8**	**7.0**	**7.0**	**7.3**	**7.1**	**6.5**	*6.3*	*6.7*	*6.9*	*6.8*	*6.8*	*7.1*	**29.1**	*26.6*	*27.6*
Total Consumption	**157.9**	**129.9**	**167.8**	**131.8**	**109.2**	**94.8**	*127.3*	*104.1*	*120.5*	*127.7*	*157.1*	*115.1*	**587.3**	*435.4*	*520.4*
Discrepancy (c)	**5.0**	**8.2**	**0.8**	**-1.9**	**6.4**	**4.5**	*1.0*	*-9.8*	*1.9*	*-9.4*	*-3.7*	*12.0*	**12.1**	*2.3*	*0.8*
End-of-period Inventories (million short tons)															
Primary Inventories (d)	**23.2**	**21.9**	**23.1**	**24.4**	**24.9**	**23.9**	*25.5*	*26.5*	*25.4*	*24.0*	*22.2*	*24.2*	**24.4**	*26.5*	*24.2*
Secondary Inventories	**102.2**	**123.2**	**116.8**	**134.3**	**150.8**	**154.4**	*143.8*	*150.8*	*151.3*	*146.9*	*138.2*	*145.7*	**134.3**	*150.8*	*145.7*
Electric Power Sector	**97.1**	**117.7**	**111.0**	**128.5**	**145.5**	**148.5**	*137.7*	*145.1*	*145.7*	*141.0*	*132.2*	*139.9*	**128.5**	*145.1*	*139.9*
Retail and General Industry	**2.8**	**3.0**	**3.2**	**3.3**	**3.0**	**3.6**	*3.7*	*3.5*	*3.8*	*3.7*	*3.8*	*3.6*	**3.3**	*3.5*	*3.6*
Coke Plants	**2.0**	**2.3**	**2.5**	**2.3**	**2.2**	**2.1**	*2.2*	*2.1*	*1.6*	*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**	*0.198*	*0.225*	*0.222*	*0.209*	*0.210*	*0.231*	**0.268**	*0.216*	*0.218*
Cost of Coal to Electric Utilities (Dollars per million Btu)	**2.08**	**2.05**	**2.00**	**1.95**	**1.93**	**1.94**	*2.00*	*2.00*	*2.03*	*2.05*	*2.03*	*2.03*	**2.02**	*1.97*	*2.03*

- = no data available

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

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

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

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 7a. U.S. Electricity Industry Overview

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

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Electricity Supply (billion kilowatthours)															
Electricity Generation	**995**	**974**	**1,173**	**976**	**962**	**919**	*1,109*	*928*	*942*	*952*	*1,124*	*941*	**4,118**	*3,918*	*3,959*
Electric Power Sector (a)	**955**	**935**	**1,131**	**934**	**921**	**882**	*1,071*	*892*	*906*	*916*	*1,085*	*903*	**3,956**	*3,767*	*3,810*
Industrial Sector (b)	**37**	**36**	**38**	**38**	**38**	**34**	*34*	*32*	*33*	*33*	*35*	*35*	**149**	*138*	*136*
Commercial Sector (b)	**3**	**3**	**4**	**3**	**3**	**3**	*4*	*3*	*3*	*3*	*4*	*3*	**14**	*13*	*13*
Net Imports	**9**	**9**	**11**	**10**	**10**	**12**	*15*	*11*	*12*	*13*	*14*	*11*	**39**	*49*	*50*
Total Supply	**1,004**	**983**	**1,184**	**986**	**972**	**931**	*1,124*	*939*	*954*	*965*	*1,138*	*952*	**4,157**	*3,966*	*4,009*
Losses and Unaccounted for (c)	**57**	**71**	**74**	**59**	**50**	**61**	*45*	*53*	*44*	*66*	*57*	*53*	**262**	*209*	*220*
Electricity Consumption (billion kilowatthours unless noted)															
Retail Sales	**911**	**877**	**1072**	**889**	**885**	**839**	*1045*	*854*	*878*	*866*	*1046*	*864*	**3750**	*3623*	*3655*
Residential Sector	**361**	**309**	**434**	**331**	**340**	**336**	*458*	*330*	*354*	*338*	*447*	*330*	**1435**	*1464*	*1468*
Commercial Sector	**320**	**328**	**382**	**325**	**313**	**286**	*350*	*306*	*306*	*306*	*359*	*312*	**1355**	*1255*	*1283*
Industrial Sector	**228**	**238**	**254**	**232**	**231**	**215**	*235*	*217*	*215*	*221*	*239*	*220*	**952**	*897*	*895*
Transportation Sector	**2**	**2**	**2**	**2**	**2**	**2**	*2*	*2*	*2*	*2*	*2*	*2*	**8**	*7*	*8*
Direct Use (d)	**36**	**35**	**38**	**37**	**37**	**33**	*33*	*32*	*33*	*32*	*35*	*34*	**146**	*136*	*134*
Total Consumption	**948**	**912**	**1110**	**927**	**922**	**870**	*1079*	*886*	*910*	*899*	*1081*	*899*	**3896**	*3757*	*3789*
Average residential electricity usage per customer (kWh)	**2,677**	**2,290**	**3,213**	**2,449**	**2,494**	**2,460**	*3,365*	*2,425*	*2,584*	*2,464*	*3,258*	*2,407*	**10,629**	*10,744*	*10,712*
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	**2.08**	**2.05**	**2.00**	**1.95**	**1.93**	**1.94**	*2.00*	*2.00*	*2.03*	*2.05*	*2.03*	*2.03*	**2.02**	*1.97*	*2.03*
Natural Gas	**3.71**	**2.73**	**2.51**	**2.78**	**2.39**	**2.04**	*2.13*	*2.99*	*3.73*	*3.32*	*3.38*	*3.63*	**2.88**	*2.36*	*3.50*
Residual Fuel Oil	**12.21**	**13.39**	**12.79**	**12.52**	**12.15**	**6.90**	*7.52*	*7.98*	*8.64*	*9.92*	*9.70*	*9.72*	**12.72**	*8.60*	*9.41*
Distillate Fuel Oil	**14.83**	**15.77**	**15.01**	**15.10**	**13.29**	**8.49**	*10.06*	*10.59*	*10.99*	*12.10*	*12.59*	*12.96*	**15.16**	*10.68*	*12.20*
Retail Prices (cents per kilowatthour)															
Residential Sector	**12.68**	**13.33**	**13.27**	**12.85**	**12.90**	**13.20**	*13.16*	*12.88*	*12.96*	*13.52*	*13.65*	*13.38*	**13.04**	*13.04*	*13.39*
Commercial Sector	**10.43**	**10.64**	**11.00**	**10.53**	**10.35**	**10.58**	*10.86*	*10.48*	*10.44*	*10.87*	*11.29*	*10.90*	**10.66**	*10.58*	*10.89*
Industrial Sector	**6.66**	**6.71**	**7.25**	**6.66**	**6.38**	**6.56**	*7.26*	*6.78*	*6.69*	*6.85*	*7.54*	*6.92*	**6.83**	*6.75*	*7.01*
Wholesale Electricity Prices (dollars per megawatthour)															
ERCOT North hub	**28.41**	**28.34**	**139.81**	**28.40**	**23.41**	**24.00**	*28.54*	*29.85*	*29.10*	*31.04*	*35.31*	*31.88*	**56.24**	*26.45*	*31.83*
CAISO SP15 zone	**50.42**	**23.30**	**37.32**	**41.57**	**28.64**	**19.21**	*31.54*	*37.06*	*34.31*	*33.04*	*34.78*	*37.35*	**38.15**	*29.11*	*34.87*
ISO-NE Internal hub	**47.40**	**27.15**	**29.52**	**35.48**	**24.61**	**20.25**	*24.98*	*33.06*	*45.28*	*28.27*	*28.97*	*35.14*	**34.89**	*25.73*	*34.42*
NYISO Hudson Valley zone	**41.77**	**25.68**	**27.76**	**27.04**	**21.82**	**18.13**	*24.11*	*23.98*	*26.26*	*25.59*	*26.91*	*26.95*	**30.56**	*22.01*	*26.43*
PJM Western hub	**33.79**	**28.54**	**31.17**	**29.89**	**22.47**	**20.79**	*29.67*	*26.17*	*27.68*	*27.26*	*30.91*	*28.28*	**30.85**	*24.78*	*28.53*
Midcontinent ISO Illinois hub	**31.44**	**27.81**	**30.71**	**28.09**	**24.43**	**23.00**	*31.18*	*28.23*	*27.22*	*27.78*	*31.88*	*29.44*	**29.51**	*26.71*	*29.08*
SPP ISO South hub	**29.15**	**27.14**	**31.51**	**23.64**	**20.06**	**19.54**	*26.66*	*23.59*	*21.13*	*22.26*	*28.02*	*24.21*	**27.86**	*22.46*	*23.91*
SERC index, Into Southern	**30.74**	**29.87**	**31.08**	**29.31**	**23.58**	**18.23**	*27.82*	*26.74*	*25.94*	*26.87*	*30.85*	*28.08*	**30.25**	*24.09*	*27.93*
FRCC index, Florida Reliability	**30.71**	**29.57**	**30.64**	**29.47**	**26.24**	**18.53**	*26.07*	*29.19*	*29.68*	*30.87*	*31.32*	*32.08*	**30.10**	*25.00*	*30.99*
Northwest index, Mid-Columbia	**55.74**	**18.55**	**32.74**	**37.47**	**22.77**	**14.49**	*22.42*	*27.73*	*25.39*	*23.63*	*25.89*	*27.92*	**36.12**	*21.85*	*25.71*
Southwest index, Palo Verde	**44.23**	**18.45**	**42.00**	**36.37**	**22.07**	**19.60**	*32.06*	*32.64*	*32.06*	*32.04*	*32.90*	*35.09*	**35.26**	*26.59*	*33.02*

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

kWh = kilowatthours. Btu = British thermal units.

Prices are not adjusted for inflation.

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

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

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

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

Historical data sources:

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

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

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

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

Projections: EIA Regional Short-Term Energy Model.

Table 7b. U.S. Regional Electricity Retail Sales (billion kilowatthours)

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

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Residential Sector															
New England	**12.4**	**9.7**	**13.1**	**10.9**	**11.7**	**10.9**	*14.7*	*11.3*	*12.4*	*11.0*	*13.8*	*11.2*	**46.1**	*48.6*	*48.4*
Middle Atlantic	**35.3**	**27.7**	**40.3**	**29.8**	**32.2**	**30.8**	*44.5*	*30.3*	*34.0*	*30.7*	*41.0*	*30.2*	**133.1**	*137.8*	*135.8*
E. N. Central	**50.0**	**38.1**	**54.3**	**43.4**	**46.4**	**44.5**	*60.3*	*44.7*	*48.7*	*44.2*	*56.3*	*44.4*	**185.9**	*195.8*	*193.6*
W. N. Central	**29.9**	**21.6**	**29.0**	**24.9**	**27.6**	**24.4**	*32.7*	*25.1*	*27.8*	*24.5*	*31.4*	*25.0*	**105.4**	*109.7*	*108.7*
S. Atlantic	**88.3**	**84.5**	**111.4**	**84.4**	**83.7**	**86.2**	*113.5*	*82.1*	*89.9*	*87.7*	*111.7*	*82.0*	**368.5**	*365.5*	*371.3*
E. S. Central	**30.6**	**25.9**	**36.9**	**27.8**	**29.0**	**26.0**	*37.6*	*26.4*	*31.2*	*26.7*	*37.4*	*26.5*	**121.1**	*119.0*	*121.7*
W. S. Central	**51.7**	**49.0**	**75.8**	**50.6**	**48.6**	**53.4**	*77.5*	*49.3*	*49.5*	*53.8*	*77.3*	*49.5*	**227.1**	*228.9*	*230.1*
Mountain	**23.1**	**22.0**	**33.0**	**22.1**	**22.5**	**26.2**	*35.4*	*22.9*	*22.7*	*25.7*	*35.3*	*23.0*	**100.2**	*107.0*	*106.7*
Pacific contiguous	**39.0**	**29.6**	**38.7**	**35.8**	**36.7**	**32.5**	*40.9*	*37.0*	*36.8*	*32.3*	*41.1*	*36.9*	**143.1**	*147.1*	*147.2*
AK and HI	**1.2**	**1.1**	**1.2**	**1.3**	**1.3**	**1.2**	*1.3*	*1.3*	*1.3*	*1.1*	*1.2*	*1.3*	**4.7**	*5.0*	*4.9*
Total	**361.4**	**309.2**	**433.8**	**330.7**	**339.7**	**336.0**	*458.4*	*330.4*	*354.2*	*337.8*	*446.6*	*330.0*	**1,435.1**	*1,464.4*	*1,468.4*
Commercial Sector															
New England	**12.8**	**12.1**	**13.9**	**12.4**	**12.2**	**10.5**	*12.7*	*11.5*	*11.8*	*10.8*	*12.6*	*11.6*	**51.2**	*46.9*	*46.8*
Middle Atlantic	**38.6**	**36.3**	**41.9**	**35.9**	**35.9**	**30.2**	*37.4*	*32.6*	*34.1*	*34.1*	*38.5*	*33.8*	**152.6**	*136.2*	*140.6*
E. N. Central	**44.6**	**43.1**	**50.4**	**43.5**	**43.1**	**38.1**	*47.3*	*41.5*	*42.7*	*42.1*	*48.7*	*42.7*	**181.6**	*170.0*	*176.1*
W. N. Central	**25.6**	**24.2**	**27.9**	**24.8**	**24.7**	**20.8**	*24.9*	*23.4*	*24.2*	*21.2*	*25.1*	*23.7*	**102.5**	*93.7*	*94.3*
S. Atlantic	**72.1**	**79.4**	**90.1**	**75.5**	**71.4**	**68.8**	*83.6*	*71.2*	*70.5*	*74.2*	*86.2*	*73.4*	**317.0**	*294.9*	*304.3*
E. S. Central	**21.0**	**22.5**	**27.0**	**21.8**	**20.7**	**18.6**	*24.3*	*20.3*	*20.4*	*19.9*	*24.8*	*20.6*	**92.3**	*83.9*	*85.7*
W. S. Central	**43.2**	**47.6**	**58.0**	**46.9**	**43.9**	**43.1**	*54.2*	*45.1*	*43.8*	*45.6*	*55.5*	*46.0*	**195.7**	*186.3*	*190.9*
Mountain	**22.6**	**23.9**	**28.3**	**23.4**	**22.5**	**21.7**	*26.2*	*22.6*	*22.2*	*22.8*	*26.9*	*23.1*	**98.2**	*92.9*	*95.0*
Pacific contiguous	**38.0**	**37.9**	**42.9**	**39.0**	**36.9**	**33.1**	*38.5*	*36.2*	*35.1*	*33.9*	*38.9*	*36.1*	**157.9**	*144.7*	*144.0*
AK and HI	**1.4**	**1.4**	**1.5**	**1.4**	**1.4**	**1.1**	*1.2*	*1.3*	*1.4*	*1.4*	*1.4*	*1.4*	**5.7**	*5.0*	*5.6*
Total	**319.9**	**328.2**	**381.8**	**324.6**	**312.7**	**285.9**	*350.3*	*305.7*	*306.3*	*306.0*	*358.7*	*312.4*	**1,354.5**	*1,254.6*	*1,283.3*
Industrial Sector															
New England	**3.8**	**3.8**	**4.0**	**3.8**	**3.7**	**3.4**	*3.7*	*3.6*	*3.4*	*3.4*	*3.7*	*3.5*	**15.4**	*14.4*	*14.1*
Middle Atlantic	**17.7**	**17.5**	**19.8**	**18.2**	**18.0**	**16.1**	*18.5*	*17.3*	*16.9*	*16.5*	*18.8*	*17.7*	**73.2**	*69.8*	*69.9*
E. N. Central	**44.8**	**45.4**	**47.7**	**43.6**	**44.0**	**36.9**	*40.5*	*37.8*	*38.5*	*36.3*	*39.4*	*36.7*	**181.5**	*159.1*	*151.0*
W. N. Central	**21.1**	**22.0**	**23.4**	**21.8**	**21.7**	**20.2**	*21.9*	*20.3*	*20.4*	*21.4*	*22.9*	*21.3*	**88.3**	*84.1*	*85.9*
S. Atlantic	**33.0**	**34.8**	**36.2**	**33.4**	**33.0**	**31.5**	*33.6*	*31.3*	*31.1*	*32.6*	*34.4*	*32.0*	**137.5**	*129.4*	*130.1*
E. S. Central	**23.4**	**23.9**	**24.5**	**22.9**	**23.3**	**21.4**	*22.7*	*21.3*	*21.6*	*22.3*	*23.4*	*21.9*	**94.7**	*88.7*	*89.2*
W. S. Central	**44.8**	**47.7**	**50.2**	**46.6**	**46.5**	**44.8**	*47.4*	*44.5*	*44.4*	*47.0*	*49.2*	*46.3*	**189.5**	*183.2*	*186.9*
Mountain	**19.2**	**21.1**	**23.5**	**20.2**	**20.0**	**20.6**	*22.8*	*19.9*	*19.5*	*21.3*	*23.5*	*20.4*	**84.1**	*83.3*	*84.8*
Pacific contiguous	**19.1**	**20.4**	**23.4**	**20.2**	**19.2**	**19.2**	*22.4*	*19.4*	*18.2*	*18.9*	*22.2*	*19.2*	**83.1**	*80.2*	*78.5*
AK and HI	**1.1**	**1.2**	**1.3**	**1.3**	**1.2**	**1.1**	*1.3*	*1.2*	*1.1*	*1.1*	*1.3*	*1.2*	**4.9**	*4.7*	*4.8*
Total	**228.2**	**237.7**	**254.2**	**232.1**	**230.5**	**215.1**	*234.9*	*216.5*	*215.3*	*220.8*	*238.9*	*220.2*	**952.1**	*897.0*	*895.2*
Total All Sectors (a)															
New England	**29.1**	**25.6**	**31.3**	**27.2**	**27.7**	**24.9**	*31.3*	*26.5*	*27.8*	*25.4*	*30.3*	*26.5*	**113.3**	*110.4*	*109.9*
Middle Atlantic	**92.6**	**82.4**	**103.0**	**84.8**	**87.0**	**77.9**	*101.4*	*81.2*	*86.1*	*82.2*	*99.2*	*82.6*	**362.8**	*347.4*	*350.2*
E. N. Central	**139.6**	**126.7**	**152.6**	**130.7**	**133.7**	**119.6**	*148.2*	*124.1*	*130.1*	*122.8*	*144.5*	*124.0*	**549.6**	*525.6*	*521.3*
W. N. Central	**76.7**	**67.7**	**80.4**	**71.5**	**74.0**	**65.3**	*79.5*	*68.8*	*72.4*	*67.0*	*79.5*	*70.1*	**296.2**	*287.6*	*289.0*
S. Atlantic	**193.7**	**199.0**	**238.1**	**193.6**	**188.4**	**186.8**	*231.1*	*184.9*	*191.8*	*194.9*	*232.7*	*187.6*	**824.3**	*791.1*	*807.0*
E. S. Central	**75.0**	**72.3**	**88.3**	**72.4**	**73.0**	**66.0**	*84.6*	*68.0*	*73.2*	*68.8*	*85.5*	*69.0*	**308.1**	*291.6*	*296.5*
W. S. Central	**139.8**	**144.3**	**184.1**	**144.2**	**139.1**	**141.4**	*179.2*	*138.9*	*137.7*	*146.5*	*182.1*	*141.8*	**612.4**	*598.6*	*608.2*
Mountain	**65.0**	**67.1**	**84.8**	**65.7**	**65.0**	**68.5**	*84.4*	*65.4*	*64.5*	*69.9*	*85.7*	*66.6*	**282.7**	*283.3*	*286.7*
Pacific contiguous	**96.3**	**88.1**	**105.2**	**95.2**	**93.1**	**84.9**	*102.0*	*92.8*	*90.4*	*85.3*	*102.4*	*92.4*	**384.9**	*372.8*	*370.6*
AK and HI	**3.7**	**3.6**	**4.0**	**4.0**	**3.8**	**3.3**	*3.8*	*3.9*	*3.8*	*3.6*	*4.0*	*3.9*	**15.2**	*14.8*	*15.3*
Total	**911.5**	**876.9**	**1,071.8**	**889.3**	**884.8**	**838.6**	*1,045.5*	*854.4*	*877.8*	*866.4*	*1,046.0*	*864.5*	**3,749.5**	*3,623.3*	*3,654.7*

- = no data available

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

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

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

Regions refer to U.S. Census divisions.

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

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

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

Projections: EIA Regional Short-Term Energy Model.

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

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

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Residential Sector															
New England	**21.53**	**21.57**	**20.70**	**20.87**	**21.76**	*21.54*	*20.39*	*20.56*	*21.60*	*21.85*	*21.21*	*21.84*	**21.14**	*21.02*	*21.60*
Middle Atlantic	**15.19**	**16.06**	**16.15**	**15.78**	**15.47**	*15.88*	*15.81*	*15.54*	*15.39*	*16.08*	*16.20*	*15.93*	**15.79**	*15.69*	*15.91*
E. N. Central	**12.92**	**13.86**	**13.27**	**13.29**	**13.10**	*13.66*	*13.15*	*13.49*	*13.49*	*14.38*	*13.95*	*14.10*	**13.30**	*13.33*	*13.97*
W. N. Central	**10.71**	**12.78**	**12.93**	**11.24**	**10.99**	*12.58*	*12.92*	*11.59*	*11.43*	*13.18*	*13.63*	*12.02*	**11.87**	*12.05*	*12.59*
S. Atlantic	**11.70**	**12.17**	**12.11**	**11.87**	**11.80**	*11.68*	*11.74*	*11.63*	*11.50*	*11.68*	*12.06*	*12.08*	**11.97**	*11.71*	*11.84*
E. S. Central	**11.10**	**11.70**	**11.37**	**11.23**	**11.25**	*11.58*	*11.45*	*11.77*	*11.72*	*12.20*	*11.99*	*12.14*	**11.34**	*11.50*	*12.00*
W. S. Central	**10.88**	**11.50**	**11.36**	**11.24**	**11.05**	*11.28*	*11.14*	*11.20*	*11.10*	*11.62*	*11.64*	*11.73*	**11.25**	*11.17*	*11.54*
Mountain	**11.51**	**12.18**	**12.23**	**11.59**	**11.42**	*12.04*	*12.15*	*11.65*	*11.65*	*12.46*	*12.66*	*12.11*	**11.91**	*11.86*	*12.28*
Pacific	**14.86**	**15.88**	**17.31**	**14.64**	**15.69**	*16.54*	*17.70*	*14.60*	*15.69*	*16.86*	*18.18*	*15.08*	**15.68**	*16.17*	*16.49*
U.S. Average	**12.68**	**13.33**	**13.27**	**12.85**	**12.90**	*13.20*	*13.16*	*12.88*	*12.96*	*13.52*	*13.65*	*13.38*	**13.04**	*13.04*	*13.39*
Commercial Sector															
New England	**16.83**	**16.24**	**15.97**	**15.76**	**16.23**	*15.80*	*15.55*	*15.49*	*16.10*	*15.94*	*16.05*	*16.16*	**16.19**	*15.77*	*16.07*
Middle Atlantic	**11.57**	**12.18**	**13.03**	**11.97**	**11.69**	*12.31*	*12.72*	*11.68*	*11.71*	*12.89*	*13.35*	*12.20*	**12.21**	*12.11*	*12.56*
E. N. Central	**10.14**	**10.29**	**10.09**	**10.05**	**9.95**	*10.26*	*10.05*	*10.15*	*10.19*	*10.60*	*10.46*	*10.50*	**10.14**	*10.10*	*10.44*
W. N. Central	**8.98**	**10.04**	**10.41**	**9.11**	**9.07**	*10.20*	*10.73*	*9.52*	*9.55*	*10.76*	*11.32*	*9.89*	**9.65**	*9.87*	*10.38*
S. Atlantic	**9.44**	**9.37**	**9.35**	**9.35**	**9.26**	*9.03*	*9.16*	*9.20*	*9.22*	*9.09*	*9.40*	*9.53*	**9.37**	*9.17*	*9.31*
E. S. Central	**10.70**	**10.70**	**10.65**	**10.62**	**10.75**	*10.94*	*10.93*	*11.20*	*11.42*	*11.47*	*11.48*	*11.58*	**10.67**	*10.95*	*11.49*
W. S. Central	**8.12**	**8.00**	**8.30**	**8.06**	**7.89**	*7.86*	*8.16*	*8.02*	*7.91*	*7.94*	*8.38*	*8.19*	**8.13**	*7.99*	*8.12*
Mountain	**9.20**	**9.71**	**10.00**	**9.18**	**8.99**	*9.82*	*10.08*	*9.29*	*9.16*	*10.09*	*10.41*	*9.56*	**9.55**	*9.56*	*9.83*
Pacific	**12.98**	**14.15**	**16.35**	**14.44**	**13.52**	*14.58*	*16.20*	*14.29*	*13.57*	*15.03*	*17.05*	*15.27*	**14.54**	*14.67*	*15.28*
U.S. Average	**10.43**	**10.64**	**11.00**	**10.53**	**10.35**	*10.58*	*10.86*	*10.48*	*10.44*	*10.87*	*11.29*	*10.90*	**10.66**	*10.58*	*10.89*
Industrial Sector															
New England	**13.45**	**12.89**	**12.66**	**12.70**	**12.74**	*12.97*	*12.74*	*12.69*	*12.76*	*13.15*	*13.00*	*12.99*	**12.92**	*12.78*	*12.98*
Middle Atlantic	**6.73**	**6.52**	**6.54**	**6.40**	**6.34**	*6.21*	*6.33*	*6.39*	*6.66*	*6.52*	*6.62*	*6.47*	**6.55**	*6.32*	*6.57*
E. N. Central	**7.03**	**6.84**	**6.83**	**6.76**	**6.51**	*6.72*	*6.90*	*6.96*	*6.88*	*7.05*	*7.21*	*7.15*	**6.87**	*6.76*	*7.07*
W. N. Central	**7.13**	**7.33**	**8.09**	**6.87**	**6.94**	*7.44*	*8.39*	*7.18*	*7.29*	*7.68*	*8.66*	*7.38*	**7.37**	*7.49*	*7.77*
S. Atlantic	**6.22**	**6.28**	**6.72**	**6.18**	**5.97**	*6.05*	*6.59*	*6.17*	*6.12*	*6.25*	*6.81*	*6.26*	**6.36**	*6.20*	*6.37*
E. S. Central	**5.69**	**5.78**	**5.95**	**5.61**	**5.45**	*5.44*	*5.80*	*5.64*	*5.65*	*5.59*	*5.96*	*5.69*	**5.76**	*5.58*	*5.73*
W. S. Central	**5.25**	**5.28**	**6.05**	**5.29**	**5.05**	*4.89*	*5.84*	*5.36*	*5.45*	*5.26*	*6.16*	*5.49*	**5.48**	*5.29*	*5.60*
Mountain	**6.14**	**6.25**	**6.78**	**5.89**	**5.73**	*6.18*	*6.78*	*5.94*	*5.88*	*6.41*	*7.01*	*6.06*	**6.29**	*6.18*	*6.37*
Pacific	**8.65**	**9.45**	**11.26**	**10.16**	**8.97**	*10.08*	*11.86*	*10.65*	*9.49*	*10.64*	*12.41*	*11.05*	**9.95**	*10.45*	*10.97*
U.S. Average	**6.66**	**6.71**	**7.25**	**6.66**	**6.38**	*6.56*	*7.26*	*6.78*	*6.69*	*6.85*	*7.54*	*6.92*	**6.83**	*6.75*	*7.01*
All Sectors (a)															
New England	**18.35**	**17.72**	**17.50**	**17.34**	**18.07**	*17.89*	*17.45*	*17.23*	*18.10*	*18.09*	*17.99*	*18.10*	**17.73**	*17.65*	*18.07*
Middle Atlantic	**12.01**	**12.27**	**12.99**	**12.10**	**11.97**	*12.44*	*12.89*	*11.98*	*12.16*	*12.79*	*13.24*	*12.33*	**12.37**	*12.35*	*12.65*
E. N. Central	**10.13**	**10.12**	**10.20**	**10.03**	**9.91**	*10.43*	*10.45*	*10.38*	*10.44*	*10.91*	*10.93*	*10.79*	**10.12**	*10.29*	*10.77*
W. N. Central	**9.14**	**10.03**	**10.64**	**9.17**	**9.15**	*10.24*	*10.99*	*9.58*	*9.63*	*10.66*	*11.46*	*9.89*	**9.76**	*10.01*	*10.44*
S. Atlantic	**9.92**	**10.01**	**10.24**	**9.90**	**9.80**	*9.75*	*10.05*	*9.77*	*9.78*	*9.78*	*10.29*	*10.08*	**10.03**	*9.85*	*10.00*
E. S. Central	**9.30**	**9.43**	**9.65**	**9.27**	**9.25**	*9.41*	*9.78*	*9.68*	*9.84*	*9.85*	*10.19*	*9.92*	**9.42**	*9.54*	*9.96*
W. S. Central	**8.22**	**8.28**	**8.94**	**8.28**	**8.04**	*8.21*	*8.83*	*8.29*	*8.26*	*8.43*	*9.16*	*8.55*	**8.47**	*8.38*	*8.64*
Mountain	**9.12**	**9.43**	**9.98**	**8.98**	**8.83**	*9.58*	*10.05*	*9.10*	*9.04*	*9.84*	*10.40*	*9.37*	**9.42**	*9.44*	*9.72*
Pacific	**12.87**	**13.63**	**15.55**	**13.60**	**13.42**	*14.30*	*15.84*	*13.64*	*13.60*	*14.73*	*16.48*	*14.30*	**13.96**	*14.34*	*14.83*
U.S. Average	**10.37**	**10.52**	**11.03**	**10.38**	**10.29**	*10.60*	*11.06*	*10.47*	*10.53*	*10.87*	*11.44*	*10.83*	**10.60**	*10.63*	*10.94*

- = 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 - August 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
United States															
Natural Gas	**317.1**	**330.9**	**473.7**	**353.0**	**355.0**	**342.1**	*476.0*	*337.0*	*298.7*	*297.5*	*418.8*	*319.1*	**1,474.7**	*1,510.2*	*1,334.2*
Coal	**257.9**	**208.9**	**279.4**	**213.3**	**170.2**	**143.4**	*204.8*	*164.8*	*189.0*	*200.8*	*258.2*	*181.4*	**959.5**	*683.3*	*829.4*
Nuclear	**203.5**	**196.5**	**210.2**	**199.2**	**204.2**	**190.6**	*203.7*	*196.9*	*198.3*	*189.5*	*204.9*	*194.3*	**809.4**	*795.3*	*787.1*
Renewable Energy Sources:	**169.9**	**192.9**	**161.3**	**163.9**	**185.5**	**200.4**	*181.6*	*188.8*	*213.7*	*222.7*	*197.8*	*203.1*	**688.0**	*756.2*	*837.3*
Conventional Hydropower	**71.2**	**81.7**	**60.8**	**58.7**	**71.3**	**80.2**	*68.8*	*62.9*	*74.5*	*77.5*	*63.7*	*61.8*	**272.4**	*283.1*	*277.5*
Wind	**74.2**	**78.6**	**66.2**	**80.8**	**87.0**	**82.5**	*73.4*	*97.0*	*106.5*	*98.6*	*85.8*	*106.6*	**299.8**	*339.9*	*397.5*
Solar (a)	**13.3**	**21.8**	**22.6**	**13.9**	**16.4**	**27.0**	*28.4*	*18.2*	*21.4*	*35.3*	*36.5*	*23.4*	**71.5**	*90.0*	*116.6*
Biomass	**7.2**	**7.0**	**7.6**	**6.9**	**7.0**	**6.6**	*6.9*	*6.9*	*7.8*	*7.2*	*7.6*	*7.5*	**28.8**	*27.4*	*30.1*
Geothermal	**4.0**	**3.9**	**4.1**	**3.6**	**3.8**	**4.0**	*4.2*	*3.7*	*3.6*	*4.1*	*4.2*	*3.8*	**15.6**	*15.7*	*15.6*
Pumped Storage Hydropower	**-1.1**	**-0.9**	**-1.9**	**-1.4**	**-1.0**	**-1.1**	*-1.8*	*-1.4*	*-1.1*	*-1.0*	*-1.8*	*-1.3*	**-5.3**	*-5.2*	*-5.2*
Petroleum (b)	**4.9**	**4.2**	**4.8**	**3.5**	**4.0**	**3.7**	*4.2*	*3.7*	*4.3*	*4.1*	*4.3*	*3.6*	**17.3**	*15.6*	*16.4*
Other Gases	**1.1**	**1.0**	**1.2**	**1.0**	**1.1**	**0.7**	*1.0*	*0.9*	*0.9*	*0.6*	*1.0*	*0.9*	**4.3**	*3.6*	*3.4*
Other Nonrenewable Fuels (c)	**1.9**	**1.9**	**2.0**	**1.9**	**1.9**	**1.9**	*2.0*	*1.8*	*1.7*	*1.9*	*1.8*	*1.8*	**7.7**	*7.6*	*7.2*
Total Generation	**955.2**	**935.5**	**1,130.7**	**934.4**	**920.9**	**881.8**	*1,071.4*	*892.5*	*905.6*	*916.1*	*1,085.1*	*902.9*	**3,955.8**	*3,766.6*	*3,809.7*
New England (ISO-NE)															
Natural Gas	**10.6**	**10.0**	**14.8**	**11.5**	**11.1**	**9.5**	*14.3*	*10.4*	*7.6*	*7.1*	*13.5*	*11.3*	**46.9**	*45.3*	*39.5*
Coal	**0.3**	**0.0**	**0.1**	**0.1**	**0.1**	**0.0**	*0.1*	*0.1*	*0.4*	*0.0*	*0.1*	*0.1*	**0.5**	*0.3*	*0.5*
Nuclear	**8.6**	**6.8**	**7.3**	**7.1**	**7.3**	**4.9**	*7.2*	*6.2*	*7.0*	*7.1*	*7.2*	*5.6*	**29.8**	*25.7*	*26.9*
Conventional hydropower	**2.1**	**1.9**	**1.5**	**1.6**	**2.1**	**2.0**	*1.5*	*1.6*	*2.1*	*1.9*	*1.4*	*1.5*	**7.0**	*7.2*	*7.0*
Nonhydro renewables (d)	**2.6**	**2.7**	**2.6**	**2.5**	**2.6**	**2.7**	*2.6*	*2.7*	*3.4*	*2.8*	*2.7*	*2.9*	**10.3**	*10.7*	*11.7*
Other energy sources (e)	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.3**	*0.4*	*0.4*	*1.0*	*0.3*	*0.4*	*0.4*	**1.5**	*1.5*	*2.1*
Total generation	**24.5**	**21.7**	**26.5**	**23.3**	**23.5**	**19.5**	*26.1*	*21.4*	*21.5*	*19.4*	*25.3*	*21.7*	**96.1**	*90.5*	*87.8*
Net energy for load (f)	**29.5**	**25.8**	**31.9**	**28.0**	**27.8**	**24.9**	*31.7*	*27.5*	*28.6*	*26.4*	*31.4*	*27.6*	**115.2**	*111.8*	*114.1*
New York (NYISO)															
Natural Gas	**11.9**	**11.1**	**18.4**	**12.6**	**12.8**	**12.3**	*23.5*	*17.0*	*15.2*	*16.3*	*24.8*	*19.4*	**54.0**	*65.6*	*75.7*
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**	**9.3**	*9.0*	*9.1*	*8.8*	*7.5*	*7.1*	*6.8*	**44.9**	*38.0*	*30.2*
Conventional hydropower	**7.4**	**7.3**	**7.4**	**7.4**	**7.8**	**7.7**	*7.9*	*7.3*	*8.0*	*7.8*	*7.5*	*7.1*	**29.5**	*30.7*	*30.3*
Nonhydro renewables (d)	**1.6**	**1.8**	**1.5**	**1.6**	**1.9**	**1.9**	*1.6*	*1.8*	*2.1*	*2.1*	*2.0*	*2.6*	**6.5**	*7.2*	*8.8*
Other energy sources (e)	**0.4**	**0.1**	**0.2**	**0.2**	**0.2**	**0.2**	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	**0.9**	*0.7*	*0.8*
Total generation	**32.1**	**31.1**	**39.3**	**33.6**	**33.5**	**31.3**	*42.2*	*35.4*	*34.4*	*33.9*	*41.5*	*36.0*	**136.2**	*142.4*	*145.8*
Net energy for load (f)	**37.4**	**34.3**	**43.3**	**35.7**	**35.2**	**32.1**	*43.3*	*35.4*	*36.2*	*35.5*	*42.7*	*35.7*	**150.6**	*145.9*	*150.0*
Mid-Atlantic (PJM)															
Natural Gas	**69.3**	**64.2**	**90.9**	**70.7**	**77.9**	**71.0**	*104.3*	*71.8*	*75.3*	*69.5*	*92.8*	*69.1*	**295.1**	*324.9*	*306.8*
Coal	**53.5**	**39.9**	**52.0**	**38.9**	**33.7**	**26.5**	*29.9*	*28.1*	*40.8*	*37.7*	*37.1*	*28.9*	**184.3**	*118.2*	*144.6*
Nuclear	**69.6**	**68.5**	**71.7**	**68.1**	**68.9**	**66.9**	*70.7*	*69.4*	*67.5*	*65.7*	*71.8*	*68.3*	**277.9**	*275.9*	*273.3*
Conventional hydropower	**3.4**	**3.0**	**1.9**	**2.2**	**3.2**	**2.9**	*1.8*	*2.2*	*3.3*	*2.9*	*1.7*	*2.1*	**10.6**	*10.1*	*10.0*
Nonhydro renewables (d)	**8.8**	**9.3**	**7.1**	**8.9**	**10.2**	**9.9**	*8.1*	*10.5*	*11.8*	*11.5*	*9.3*	*11.3*	**34.1**	*38.8*	*43.9*
Other energy sources (e)	**0.9**	**0.7**	**0.5**	**0.4**	**0.6**	**0.7**	*0.4*	*0.4*	*0.7*	*0.7*	*0.4*	*0.4*	**2.5**	*2.2*	*2.2*
Total generation	**205.4**	**185.6**	**224.1**	**189.2**	**194.6**	**177.8**	*215.3*	*182.3*	*199.5*	*187.9*	*213.2*	*180.1*	**804.4**	*770.1*	*780.8*
Net energy for load (f)	**195.1**	**173.0**	**212.3**	**180.4**	**181.9**	**161.6**	*204.2*	*174.2*	*186.4*	*171.5*	*203.1*	*175.6*	**760.9**	*722.0*	*736.7*
Southeast (SERC)															
Natural Gas	**56.3**	**59.2**	**77.8**	**59.6**	**61.9**	**60.3**	*80.1*	*63.4*	*58.7*	*58.2*	*74.1*	*61.7*	**252.9**	*265.6*	*252.6*
Coal	**35.1**	**38.0**	**53.3**	**33.5**	**23.9**	**19.5**	*34.0*	*25.6*	*26.5*	*29.6*	*45.2*	*28.6*	**159.8**	*102.9*	*129.9*
Nuclear	**52.3**	**52.8**	**53.7**	**52.2**	**53.0**	**50.5**	*54.5*	*52.1*	*52.2*	*52.3*	*55.4*	*53.6*	**211.0**	*210.1*	*213.5*
Conventional hydropower	**10.9**	**9.3**	**7.1**	**8.2**	**11.1**	**9.6**	*6.7*	*8.0*	*11.2*	*9.6*	*6.4*	*7.6*	**35.5**	*35.4*	*34.7*
Nonhydro renewables (d)	**2.6**	**3.8**	**3.9**	**2.8**	**3.3**	**4.8**	*4.4*	*3.3*	*3.8*	*5.6*	*5.5*	*3.9*	**13.2**	*15.8*	*18.8*
Other energy sources (e)	**0.0**	**-0.2**	**-0.6**	**-0.4**	**-0.1**	**-0.2**	*-0.6*	*-0.4*	*-0.1*	*-0.2*	*-0.6*	*-0.4*	**-1.2**	*-1.3*	*-1.3*
Total generation	**157.2**	**162.9**	**195.2**	**155.8**	**153.1**	**144.3**	*179.1*	*151.9*	*152.3*	*155.0*	*185.9*	*154.9*	**671.1**	*628.5*	*648.1*
Net energy for load (f)	**162.3**	**164.6**	**195.0**	**157.6**	**159.2**	**144.8**	*178.6*	*149.4*	*156.7*	*156.2*	*185.4*	*152.4*	**679.5**	*632.1*	*650.7*
Florida (FRCC)															
Natural Gas	**35.5**	**46.4**	**52.6**	**39.9**	**40.1**	**45.3**	*52.7*	*38.4*	*34.3*	*38.1*	*47.4*	*36.0*	**174.4**	*176.4*	*155.9*
Coal	**3.7**	**4.8**	**5.3**	**4.8**	**2.1**	**3.1**	*2.0*	*2.9*	*5.1*	*8.6*	*6.6*	*5.6*	**18.6**	*10.1*	*25.9*
Nuclear	**7.6**	**6.4**	**7.7**	**7.3**	**7.3**	**7.5**	*7.2*	*7.7*	*7.8*	*7.0*	*7.8*	*6.8*	**29.1**	*29.7*	*29.3*
Conventional hydropower	**0.1**	**0.1**	**0.0**	**0.1**	**0.1**	**0.1**	*0.0*	*0.1*	*0.1*	*0.1*	*0.0*	*0.0*	**0.2**	*0.2*	*0.2*
Nonhydro renewables (d)	**1.5**	**1.7**	**1.6**	**1.4**	**1.8**	**2.3**	*2.3*	*2.0*	*2.5*	*3.2*	*3.2*	*2.7*	**6.2**	*8.5*	*11.6*
Other energy sources (e)	**0.8**	**0.9**	**0.8**	**0.7**	**0.9**	**0.7**	*0.7*	*0.7*	*0.9*	*0.7*	*0.7*	*0.7*	**3.1**	*3.0*	*2.9*
Total generation	**49.3**	**60.2**	**68.1**	**54.1**	**52.2**	**59.1**	*65.0*	*51.6*	*50.7*	*57.7*	*65.7*	*51.9*	**231.7**	*227.9*	*225.9*
Net energy for load (f)	**47.6**	**60.6**	**68.4**	**53.2**	**48.2**	**58.3**	*65.0*	*50.6*	*46.7*	*57.5*	*66.4*	*51.1*	**229.8**	*222.0*	*221.6*

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 - August 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Midwest (MISO)															
Natural Gas	**35.9**	**40.9**	**58.1**	**42.3**	**44.1**	**44.2**	*59.4*	*42.1*	*36.3*	*35.9*	*50.6*	*38.2*	**177.2**	*189.8*	*161.1*
Coal	**77.5**	**61.2**	**76.2**	**61.3**	**51.1**	**39.8**	*60.3*	*48.6*	*52.6*	*52.6*	*70.8*	*53.8*	**276.2**	*199.8*	*229.9*
Nuclear	**25.3**	**23.2**	**27.1**	**26.7**	**26.6**	**22.8**	*24.9*	*24.1*	*24.9*	*23.9*	*25.0*	*24.4*	**102.3**	*98.5*	*98.3*
Conventional hydropower	**2.2**	**2.3**	**1.7**	**1.8**	**2.3**	**2.3**	*1.6*	*1.8*	*2.4*	*2.3*	*1.6*	*1.8*	**8.0**	*8.1*	*8.1*
Nonhydro renewables (d)	**16.7**	**17.3**	**13.5**	**18.6**	**20.0**	**18.9**	*15.5*	*23.3*	*24.8*	*23.3*	*18.9*	*25.7*	**66.1**	*77.7*	*92.7*
Other energy sources (e)	**2.0**	**1.4**	**1.7**	**0.9**	**1.4**	**1.3**	*1.4*	*1.4*	*0.9*	*1.6*	*1.5*	*1.3*	**6.0**	*5.6*	*5.3*
Total generation	**159.5**	**146.3**	**178.2**	**151.7**	**145.6**	**129.3**	*163.3*	*141.4*	*142.1*	*139.7*	*168.4*	*145.2*	**635.7**	*579.5*	*595.3*
Net energy for load (f)	**159.6**	**151.5**	**180.6**	**153.8**	**152.5**	**138.2**	*170.5*	*147.5*	*149.3*	*149.0*	*173.4*	*149.0*	**645.6**	*608.7*	*620.7*
Central (Southwest Power Pool)															
Natural Gas	**14.0**	**15.8**	**26.1**	**15.3**	**17.3**	**16.6**	*24.0*	*13.2*	*12.5*	*12.2*	*20.2*	*12.2*	**71.1**	*71.2*	*57.1*
Coal	**27.3**	**19.1**	**27.3**	**19.5**	**17.0**	**16.1**	*22.5*	*12.6*	*13.0*	*16.7*	*23.8*	*11.9*	**93.3**	*68.1*	*65.4*
Nuclear	**4.4**	**4.4**	**4.1**	**3.4**	**4.4**	**4.4**	*4.4*	*3.5*	*3.9*	*3.3*	*4.4*	*4.4*	**16.2**	*16.7*	*16.0*
Conventional hydropower	**3.9**	**4.1**	**2.7**	**3.0**	**4.2**	**3.9**	*2.8*	*2.9*	*4.2*	*3.9*	*2.5*	*2.8*	**13.7**	*13.8*	*13.5*
Nonhydro renewables (d)	**18.1**	**18.5**	**17.5**	**20.9**	**20.6**	**19.3**	*18.4*	*23.9*	*26.2*	*24.0*	*22.6*	*27.0*	**75.0**	*82.3*	*99.8*
Other energy sources (e)	**0.2**	**0.3**	**0.1**	**0.1**	**0.1**	**0.2**	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	**0.8**	*0.5*	*0.4*
Total generation	**68.0**	**62.1**	**77.7**	**62.3**	**63.6**	**60.5**	*72.2*	*56.3*	*60.0*	*60.2*	*73.6*	*58.5*	**270.1**	*252.6*	*252.3*
Net energy for load (f)	**64.6**	**60.0**	**77.5**	**61.5**	**61.5**	**58.3**	*69.6*	*55.7*	*56.5*	*57.7*	*71.2*	*56.9*	**263.5**	*245.2*	*242.3*
Texas (ERCOT)															
Natural Gas	**34.7**	**43.1**	**62.3**	**40.1**	**36.8**	**43.7**	*54.3*	*29.7*	*22.7*	*27.1*	*40.8*	*23.1*	**180.1**	*164.4*	*113.7*
Coal	**18.1**	**18.3**	**21.6**	**17.2**	**13.1**	**15.2**	*16.1*	*13.8*	*14.5*	*22.3*	*25.9*	*18.8*	**75.2**	*58.2*	*81.5*
Nuclear	**10.4**	**9.8**	**11.0**	**10.2**	**10.4**	**9.7**	*11.0*	*10.0*	*10.7*	*9.8*	*10.3*	*9.6*	**41.3**	*41.1*	*40.5*
Conventional hydropower	**0.3**	**0.2**	**0.1**	**0.1**	**0.3**	**0.2**	*0.1*	*0.1*	*0.3*	*0.2*	*0.1*	*0.1*	**0.7**	*0.7*	*0.7*
Nonhydro renewables (d)	**19.3**	**21.4**	**19.5**	**20.9**	**22.7**	**23.9**	*23.8*	*26.0*	*28.3*	*30.4*	*29.7*	*29.6*	**81.1**	*96.5*	*118.0*
Other energy sources (e)	**0.4**	**0.4**	**0.4**	**0.4**	**0.4**	**0.3**	*0.4*	*0.4*	*0.4*	*0.3*	*0.4*	*0.4*	**1.6**	*1.5*	*1.4*
Total generation	**83.2**	**93.2**	**114.9**	**88.9**	**83.8**	**93.0**	*105.6*	*80.0*	*76.9*	*90.2*	*107.1*	*81.6*	**380.2**	*362.3*	*355.8*
Net energy for load (f)	**83.2**	**93.2**	**114.9**	**88.9**	**83.8**	**93.0**	*105.6*	*80.0*	*76.9*	*90.2*	*107.1*	*81.6*	**380.2**	*362.3*	*355.8*
Northwest															
Natural Gas	**20.1**	**16.7**	**29.4**	**23.1**	**23.5**	**15.6**	*20.2*	*15.9*	*12.8*	*8.9*	*14.3*	*14.5*	**89.2**	*75.2*	*50.6*
Coal	**29.7**	**18.0**	**29.4**	**27.9**	**22.0**	**15.7**	*29.6*	*25.7*	*28.5*	*24.4*	*36.3*	*26.7*	**105.1**	*93.0*	*115.9*
Nuclear	**2.5**	**1.3**	**2.5**	**2.6**	**2.4**	**2.1**	*2.4*	*2.4*	*2.4*	*1.2*	*2.4*	*2.4*	**8.9**	*9.3*	*8.4*
Conventional hydropower	**30.5**	**36.5**	**24.6**	**26.4**	**33.9**	**40.0**	*31.9*	*30.7*	*36.7*	*37.3*	*28.8*	*30.8*	**118.0**	*136.4*	*133.6*
Nonhydro renewables (d)	**11.2**	**13.4**	**12.0**	**11.8**	**13.8**	**14.2**	*13.5*	*15.0*	*17.4*	*17.4*	*15.8*	*16.7*	**48.4**	*56.5*	*67.3*
Other energy sources (e)	**0.2**	**0.2**	**0.3**	**0.2**	**0.3**	**0.2**	*0.2*	*0.1*	*0.2*	*0.2*	*0.2*	*0.1*	**0.9**	*0.8*	*0.8*
Total generation	**94.3**	**86.2**	**98.1**	**92.0**	**95.9**	**87.7**	*97.9*	*89.8*	*98.1*	*89.4*	*98.0*	*91.3*	**370.5**	*371.3*	*376.7*
Net energy for load (f)	**94.5**	**83.1**	**92.2**	**87.7**	**87.8**	**78.5**	*90.4*	*85.1*	*85.8*	*80.5*	*90.3*	*85.1*	**357.4**	*341.8*	*341.6*
Southwest															
Natural Gas	**10.4**	**12.7**	**19.1**	**14.3**	**11.9**	**14.6**	*18.4*	*13.0*	*8.6*	*13.0*	*17.1*	*12.3*	**56.5**	*57.9*	*51.0*
Coal	**9.7**	**7.9**	**11.8**	**7.4**	**5.3**	**6.1**	*8.1*	*4.9*	*5.3*	*6.1*	*9.9*	*4.1*	**36.7**	*24.3*	*25.4*
Nuclear	**8.6**	**7.6**	**8.6**	**7.2**	**8.3**	**7.6**	*8.6*	*7.6*	*8.4*	*7.6*	*8.6*	*7.7*	**31.9**	*32.2*	*32.3*
Conventional hydropower	**3.0**	**4.3**	**4.0**	**2.6**	**2.6**	**3.8**	*4.2*	*2.6*	*2.7*	*3.8*	*3.9*	*2.5*	**13.9**	*13.3*	*12.9*
Nonhydro renewables (d)	**2.1**	**2.8**	**2.7**	**2.4**	**2.5**	**3.1**	*2.8*	*2.8*	*4.0*	*4.3*	*3.9*	*3.7*	**9.9**	*11.2*	*15.9*
Other energy sources (e)	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	*0.1*	*0.0*	*0.0*	*0.0*	*0.1*	*0.0*	**0.0**	*0.0*	*0.0*
Total generation	**33.8**	**35.3**	**46.1**	**33.7**	**30.6**	**35.2**	*42.1*	*30.9*	*29.0*	*34.8*	*43.4*	*30.3*	**148.9**	*138.8*	*137.5*
Net energy for load (f)	**18.2**	**23.1**	**34.0**	**22.3**	**21.8**	**26.6**	*34.2*	*23.1*	*22.1*	*26.9*	*34.6*	*23.3*	**97.7**	*105.6*	*106.9*
California															
Natural Gas	**17.7**	**10.2**	**23.4**	**22.9**	**16.8**	**10.6**	*24.5*	*21.4*	*13.7*	*10.5*	*22.5*	*20.6*	**74.2**	*73.4*	*67.3*
Coal	**2.2**	**1.2**	**1.9**	**2.2**	**1.4**	**1.1**	*1.7*	*2.3*	*1.8*	*2.5*	*1.9*	*2.4*	**7.5**	*6.6*	*8.6*
Nuclear	**3.8**	**4.9**	**4.7**	**2.8**	**4.8**	**4.9**	*3.7*	*4.7*	*4.4*	*4.1*	*4.9*	*4.9*	**16.2**	*18.1*	*18.3*
Conventional hydropower	**7.1**	**12.4**	**9.6**	**4.9**	**3.2**	**7.4**	*9.9*	*5.1*	*3.2*	*7.3*	*9.5*	*5.0*	**34.0**	*25.7*	*25.0*
Nonhydro renewables (d)	**13.8**	**18.3**	**18.5**	**13.1**	**14.5**	**18.8**	*19.1*	*14.1*	*14.6*	*20.0*	*20.1*	*14.6*	**63.7**	*66.4*	*69.3*
Other energy sources (e)	**-0.2**	**0.2**	**0.2**	**0.0**	**0.0**	**0.0**	*0.2*	*0.0*	*-0.1*	*0.0*	*0.2*	*0.0*	**0.2**	*0.2*	*0.2*
Total generation	**44.4**	**47.2**	**58.3**	**45.9**	**40.7**	**42.9**	*59.2*	*47.7*	*37.6*	*44.4*	*59.1*	*47.5*	**195.8**	*190.4*	*188.6*
Net energy for load (f)	**59.9**	**62.5**	**76.3**	**61.6**	**57.6**	**60.8**	*74.5*	*60.2*	*56.7*	*61.3*	*75.6*	*60.7*	**260.2**	*253.1*	*254.3*

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 - August 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Electric Power Sector															
Geothermal	**0.037**	**0.035**	**0.037**	**0.033**	**0.034**	**0.036**	*0.038*	*0.034*	*0.032*	*0.037*	*0.038*	*0.034*	**0.142**	*0.143*	*0.142*
Hydroelectric Power (a)	**0.649**	**0.743**	**0.553**	**0.534**	**0.649**	**0.733**	*0.622*	*0.571*	*0.685*	*0.713*	*0.579*	*0.561*	**2.480**	*2.575*	*2.538*
Solar (b)	**0.122**	**0.201**	**0.208**	**0.128**	**0.151**	**0.249**	*0.261*	*0.168*	*0.197*	*0.325*	*0.336*	*0.216*	**0.659**	*0.829*	*1.074*
Waste Biomass (c)	**0.059**	**0.058**	**0.059**	**0.060**	**0.060**	**0.057**	*0.058*	*0.058*	*0.061*	*0.061*	*0.060*	*0.060*	**0.236**	*0.232*	*0.242*
Wood Biomass	**0.053**	**0.052**	**0.058**	**0.048**	**0.050**	**0.045**	*0.049*	*0.050*	*0.060*	*0.051*	*0.059*	*0.057*	**0.211**	*0.193*	*0.226*
Wind	**0.683**	**0.724**	**0.610**	**0.745**	**0.802**	**0.760**	*0.676*	*0.893*	*0.981*	*0.909*	*0.791*	*0.982*	**2.762**	*3.132*	*3.662*
Subtotal	**1.603**	**1.813**	**1.526**	**1.547**	**1.746**	**1.880**	*1.704*	*1.774*	*2.016*	*2.096*	*1.862*	*1.910*	**6.490**	*7.105*	*7.884*
Industrial Sector															
Biofuel Losses and Co-products (d)	**0.194**	**0.203**	**0.199**	**0.203**	**0.197**	**0.137**	*0.181*	*0.189*	*0.192*	*0.195*	*0.198*	*0.200*	**0.799**	*0.703*	*0.785*
Geothermal	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	**0.004**	*0.004*	*0.004*
Hydroelectric Power (a)	**0.003**	**0.003**	**0.002**	**0.003**	**0.003**	**0.003**	*0.002*	*0.003*	*0.003*	*0.003*	*0.002*	*0.003*	**0.010**	*0.010*	*0.010*
Solar (b)	**0.006**	**0.008**	**0.009**	**0.006**	**0.007**	**0.010**	*0.010*	*0.007*	*0.007*	*0.011*	*0.011*	*0.008*	**0.029**	*0.033*	*0.037*
Waste Biomass (c)	**0.042**	**0.038**	**0.037**	**0.043**	**0.043**	**0.041**	*0.040*	*0.043*	*0.042*	*0.041*	*0.040*	*0.043*	**0.160**	*0.166*	*0.166*
Wood Biomass	**0.373**	**0.363**	**0.369**	**0.368**	**0.343**	**0.345**	*0.352*	*0.352*	*0.341*	*0.338*	*0.351*	*0.354*	**1.473**	*1.392*	*1.385*
Subtotal	**0.617**	**0.613**	**0.614**	**0.622**	**0.591**	**0.530**	*0.580*	*0.591*	*0.583*	*0.582*	*0.598*	*0.605*	**2.466**	*2.292*	*2.368*
Commercial Sector															
Geothermal	**0.006**	**0.006**	**0.006**	**0.006**	**0.005**	**0.005**	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	**0.024**	*0.021*	*0.021*
Solar (b)	**0.022**	**0.032**	**0.032**	**0.022**	**0.026**	**0.037**	*0.036*	*0.025*	*0.028*	*0.041*	*0.041*	*0.029*	**0.108**	*0.124*	*0.139*
Waste Biomass (c)	**0.010**	**0.008**	**0.009**	**0.009**	**0.009**	**0.008**	*0.009*	*0.009*	*0.009*	*0.009*	*0.009*	*0.009*	**0.036**	*0.035*	*0.035*
Wood Biomass	**0.021**	**0.021**	**0.021**	**0.021**	**0.021**	**0.021**	*0.022*	*0.021*	*0.021*	*0.020*	*0.022*	*0.021*	**0.084**	*0.085*	*0.085*
Subtotal	**0.065**	**0.074**	**0.075**	**0.065**	**0.067**	**0.076**	*0.079*	*0.067*	*0.070*	*0.082*	*0.084*	*0.071*	**0.280**	*0.289*	*0.307*
Residential Sector															
Geothermal	**0.010**	**0.010**	**0.010**	**0.010**	**0.010**	**0.010**	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	**0.040**	*0.040*	*0.040*
Solar (e)	**0.050**	**0.076**	**0.078**	**0.052**	**0.058**	**0.089**	*0.091*	*0.062*	*0.066*	*0.101*	*0.103*	*0.070*	**0.257**	*0.300*	*0.340*
Wood Biomass	**0.130**	**0.132**	**0.133**	**0.133**	**0.124**	**0.129**	*0.133*	*0.133*	*0.124*	*0.129*	*0.133*	*0.133*	**0.529**	*0.520*	*0.520*
Subtotal	**0.190**	**0.218**	**0.221**	**0.195**	**0.192**	**0.228**	*0.234*	*0.205*	*0.200*	*0.240*	*0.246*	*0.214*	**0.825**	*0.859*	*0.899*
Transportation Sector															
Biomass-based Diesel (f)	**0.058**	**0.071**	**0.070**	**0.066**	**0.061**	**0.063**	*0.063*	*0.069*	*0.084*	*0.089*	*0.079*	*0.085*	**0.265**	*0.256*	*0.337*
Ethanol (f)	**0.274**	**0.293**	**0.291**	**0.296**	**0.257**	**0.220**	*0.271*	*0.278*	*0.268*	*0.285*	*0.291*	*0.285*	**1.154**	*1.026*	*1.129*
Subtotal	**0.333**	**0.365**	**0.361**	**0.361**	**0.318**	**0.283**	*0.334*	*0.347*	*0.353*	*0.374*	*0.369*	*0.370*	**1.419**	*1.282*	*1.466*
All Sectors Total															
Biomass-based Diesel (f)	**0.058**	**0.071**	**0.070**	**0.066**	**0.061**	**0.063**	*0.063*	*0.069*	*0.084*	*0.089*	*0.079*	*0.085*	**0.265**	*0.256*	*0.337*
Biofuel Losses and Co-products (d)	**0.194**	**0.203**	**0.199**	**0.203**	**0.197**	**0.137**	*0.181*	*0.189*	*0.192*	*0.195*	*0.198*	*0.200*	**0.799**	*0.703*	*0.785*
Ethanol (f)	**0.285**	**0.305**	**0.302**	**0.307**	**0.267**	**0.228**	*0.281*	*0.289*	*0.279*	*0.296*	*0.302*	*0.296*	**1.199**	*1.066*	*1.173*
Geothermal	**0.054**	**0.052**	**0.054**	**0.050**	**0.050**	**0.053**	*0.055*	*0.050*	*0.049*	*0.053*	*0.055*	*0.051*	**0.209**	*0.208*	*0.207*
Hydroelectric Power (a)	**0.652**	**0.747**	**0.556**	**0.537**	**0.652**	**0.737**	*0.625*	*0.574*	*0.688*	*0.717*	*0.581*	*0.564*	**2.492**	*2.587*	*2.550*
Solar (b)(e)	**0.198**	**0.315**	**0.324**	**0.206**	**0.239**	**0.384**	*0.398*	*0.261*	*0.299*	*0.477*	*0.491*	*0.323*	**1.043**	*1.282*	*1.590*
Waste Biomass (c)	**0.111**	**0.105**	**0.105**	**0.112**	**0.112**	**0.106**	*0.106*	*0.109*	*0.112*	*0.111*	*0.109*	*0.111*	**0.433**	*0.434*	*0.443*
Wood Biomass	**0.578**	**0.568**	**0.582**	**0.570**	**0.538**	**0.539**	*0.556*	*0.556*	*0.545*	*0.538*	*0.566*	*0.566*	**2.297**	*2.189*	*2.215*
Wind	**0.683**	**0.724**	**0.610**	**0.745**	**0.802**	**0.760**	*0.676*	*0.893*	*0.981*	*0.909*	*0.791*	*0.982*	**2.762**	*3.132*	*3.662*
Total Consumption	**2.809**	**3.084**	**2.798**	**2.791**	**2.914**	**2.998**	*2.932*	*2.984*	*3.221*	*3.375*	*3.160*	*3.169*	**11.481**	*11.827*	*12.925*

- = 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 - August 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Renewable Energy Electric Generating Capacity (megawatts, end of period)															
Electric Power Sector (a)															
Biomass	**6,804**	**6,757**	**6,658**	**6,668**	**6,669**	**6,587**	*6,592*	*6,625*	*6,625*	*6,627*	*6,547*	*6,635*	**6,668**	*6,625*	*6,635*
Waste	**4,001**	**3,969**	**3,960**	**3,942**	**3,942**	**3,860**	*3,865*	*3,899*	*3,899*	*3,901*	*3,821*	*3,909*	**3,942**	*3,899*	*3,909*
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	**79,592**	**79,571**	**79,395**	**79,451**	**79,464**	**79,474**	*79,626*	*79,650*	*79,732*	*79,681*	*79,757*	*79,782*	**79,451**	*79,650*	*79,782*
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)	**32,690**	**33,142**	**33,809**	**36,916**	**38,730**	**40,921**	*42,990*	*49,853*	*50,290*	*53,993*	*55,837*	*62,037*	**36,916**	*49,853*	*62,037*
Wind	**96,470**	**97,945**	**99,526**	**103,359**	**105,706**	**107,160**	*112,840*	*126,534*	*127,519*	*128,038*	*128,660*	*133,521*	**103,359**	*126,534*	*133,521*
Other Sectors (c)															
Biomass	**6,541**	**6,490**	**6,490**	**6,424**	**6,432**	**6,432**	*6,448*	*6,428*	*6,428*	*6,428*	*6,428*	*6,428*	**6,424**	*6,428*	*6,428*
Waste	**785**	**786**	**786**	**786**	**786**	**786**	*802*	*802*	*802*	*802*	*802*	*802*	**786**	*802*	*802*
Wood	**5,756**	**5,704**	**5,704**	**5,637**	**5,646**	**5,646**	*5,646*	*5,626*	*5,626*	*5,626*	*5,626*	*5,626*	**5,637**	*5,626*	*5,626*
Conventional Hydroelectric	**289**	**289**	**289**	**289**	**289**	**289**	*289*	*289*	*289*	*292*	*290*	*290*	**289**	*289*	*290*
Large-Scale Solar (b)	**407**	**413**	**424**	**430**	**430**	**442**	*442*	*446*	*446*	*446*	*446*	*446*	**430**	*446*	*446*
Small-Scale Solar (d)	**20,284**	**21,137**	**22,103**	**23,211**	**24,259**	**25,030**	*25,712*	*26,512*	*27,459*	*28,554*	*29,775*	*31,091*	**23,211**	*26,512*	*31,091*
Residential Sector	**12,271**	**12,840**	**13,526**	**14,229**	**14,963**	**15,564**	*16,075*	*16,612*	*17,212*	*17,941*	*18,741*	*19,612*	**14,229**	*16,612*	*19,612*
Commercial Sector	**6,402**	**6,609**	**6,841**	**7,186**	**7,429**	**7,561**	*7,686*	*7,898*	*8,186*	*8,494*	*8,852*	*9,233*	**7,186**	*7,898*	*9,233*
Industrial Sector	**1,611**	**1,688**	**1,736**	**1,796**	**1,867**	**1,905**	*1,950*	*2,002*	*2,060*	*2,119*	*2,182*	*2,246*	**1,796**	*2,002*	*2,246*
Wind	**118**	**118**	**118**	**118**	**118**	**344**	*353*	*353*	*353*	*353*	*353*	*353*	**118**	*353*	*353*
Renewable Electricity Generation (billion kilowatthours)															
Electric Power Sector (a)															
Biomass	**7.2**	**7.0**	**7.6**	**6.9**	**7.0**	**6.6**	*6.9*	*6.9*	*7.8*	*7.2*	*7.6*	*7.5*	**28.8**	*27.4*	*30.1*
Waste	**3.9**	**3.9**	**4.0**	**3.9**	**4.0**	**3.9**	*3.9*	*3.8*	*4.1*	*4.1*	*4.0*	*4.0*	**15.7**	*15.5*	*16.2*
Wood	**3.3**	**3.1**	**3.6**	**3.0**	**3.1**	**2.7**	*3.0*	*3.1*	*3.7*	*3.1*	*3.6*	*3.5*	**13.0**	*11.9*	*13.9*
Conventional Hydroelectric	**71.2**	**81.7**	**60.8**	**58.7**	**71.3**	**80.2**	*68.8*	*62.9*	*74.5*	*77.5*	*63.7*	*61.8*	**272.4**	*283.1*	*277.5*
Geothermal	**4.0**	**3.9**	**4.1**	**3.6**	**3.8**	**4.0**	*4.2*	*3.7*	*3.6*	*4.1*	*4.2*	*3.8*	**15.6**	*15.7*	*15.6*
Large-Scale Solar (b)	**13.3**	**21.8**	**22.6**	**13.9**	**16.4**	**27.0**	*28.4*	*18.2*	*21.4*	*35.3*	*36.5*	*23.4*	**71.5**	*90.0*	*116.6*
Wind	**74.2**	**78.6**	**66.2**	**80.8**	**87.0**	**82.5**	*73.4*	*97.0*	*106.5*	*98.6*	*85.8*	*106.6*	**299.8**	*339.9*	*397.5*
Other Sectors (c)															
Biomass	**7.4**	**7.3**	**7.6**	**7.4**	**7.4**	**7.2**	*7.6*	*7.4*	*7.3*	*7.2*	*7.6*	*7.4*	**29.7**	*29.6*	*29.5*
Waste	**0.8**	**0.7**	**0.7**	**0.7**	**0.7**	**0.7**	*0.7*	*0.7*	*0.7*	*0.7*	*0.7*	*0.7*	**2.8**	*2.8*	*2.8*
Wood	**6.7**	**6.6**	**6.9**	**6.6**	**6.7**	**6.5**	*6.9*	*6.6*	*6.6*	*6.5*	*6.9*	*6.6*	**26.8**	*26.8*	*26.7*
Conventional Hydroelectric	**0.3**	**0.4**	**0.3**	**0.3**	**0.4**	**0.4**	*0.3*	*0.3*	*0.4*	*0.4*	*0.3*	*0.3*	**1.3**	*1.3*	*1.3*
Large-Scale Solar (b)	**0.1**	**0.2**	**0.2**	**0.1**	**0.1**	**0.2**	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	**0.7**	*0.8*	*0.8*
Small-Scale Solar (d)	**6.9**	**10.4**	**10.6**	**7.1**	**8.3**	**12.3**	*12.4*	*8.5*	*9.4*	*14.1*	*14.3*	*9.9*	**35.0**	*41.5*	*47.7*
Residential Sector	**4.0**	**6.2**	**6.4**	**4.3**	**5.0**	**7.5**	*7.6*	*5.2*	*5.7*	*8.7*	*8.9*	*6.1*	**20.9**	*25.3*	*29.5*
Commercial Sector	**2.3**	**3.3**	**3.3**	**2.2**	**2.6**	**3.8**	*3.7*	*2.5*	*2.9*	*4.2*	*4.3*	*3.0*	**11.1**	*12.7*	*14.4*
Industrial Sector	**0.6**	**0.9**	**0.9**	**0.6**	**0.7**	**1.0**	*1.0*	*0.7*	*0.8*	*1.1*	*1.2*	*0.8*	**3.0**	*3.5*	*3.9*
Wind	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*	**0.3**	*0.6*	*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 - August 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)	**18,927**	**19,022**	**19,121**	**19,222**	**18,977**	**17,000**	*17,710*	*17,926*	*18,263*	*18,488*	*18,676*	*18,809*	**19,073**	*17,904*	*18,559*
Real Personal Consumption Expend.															
(billion chained 2012 dollars - SAAR)	**13,103**	**13,250**	**13,353**	**13,414**	**13,179**	**11,568**	*12,481*	*12,577*	*12,698*	*12,805*	*12,923*	*13,049*	**13,280**	*12,451*	*12,868*
Real Private Fixed Investment															
(billion chained 2012 dollars - SAAR)	**3,349**	**3,337**	**3,330**	**3,326**	**3,315**	**2,977**	*2,939*	*3,003*	*3,054*	*3,085*	*3,113*	*3,135*	**3,336**	*3,059*	*3,097*
Business Inventory Change															
(billion chained 2012 dollars - SAAR)	**113**	**75**	**67**	**18**	**-50**	**-215**	*-297*	*-232*	*-117*	*5*	*82*	*103*	**68**	*-199*	*18*
Real Government Expenditures															
(billion chained 2012 dollars - SAAR)	**3,258**	**3,297**	**3,310**	**3,331**	**3,340**	**3,287**	*3,304*	*3,317*	*3,312*	*3,310*	*3,309*	*3,306*	**3,299**	*3,312*	*3,309*
Real Exports of Goods & Services															
(billion chained 2012 dollars - SAAR)	**2,554**	**2,517**	**2,523**	**2,536**	**2,477**	**1,830**	*1,862*	*2,003*	*2,247*	*2,350*	*2,423*	*2,484*	**2,533**	*2,043*	*2,376*
Real Imports of Goods & Services															
(billion chained 2012 dollars - SAAR)	**3,498**	**3,498**	**3,514**	**3,437**	**3,294**	**2,692**	*2,593*	*2,767*	*2,942*	*3,071*	*3,173*	*3,270*	**3,487**	*2,836*	*3,114*
Real Disposable Personal Income															
(billion chained 2012 dollars - SAAR)	**14,878**	**14,934**	**15,012**	**15,091**	**15,125**	**16,574**	*15,475*	*15,079*	*15,248*	*15,335*	*15,422*	*15,380*	**14,979**	*15,563*	*15,346*
Non-Farm Employment															
(millions)	**150.2**	**150.6**	**151.2**	**151.8**	**151.9**	**133.7**	*141.7*	*144.7*	*147.4*	*149.1*	*150.2*	*150.7*	**150.9**	*143.0*	*149.4*
Civilian Unemployment Rate															
(percent)	**3.9**	**3.6**	**3.6**	**3.5**	**3.8**	**13.0**	*9.3*	*8.3*	*7.0*	*6.3*	*6.0*	*5.9*	**3.7**	*8.6*	*6.3*
Housing Starts															
(millions - SAAR)	**1.20**	**1.26**	**1.29**	**1.43**	**1.48**	**1.04**	*1.27*	*1.32*	*1.33*	*1.32*	*1.32*	*1.32*	**1.30**	*1.28*	*1.32*
Industrial Production Indices (Index, 2012=100)															
Total Industrial Production	**109.8**	**109.2**	**109.5**	**109.6**	**107.7**	**93.7**	*98.6*	*101.1*	*104.0*	*106.2*	*107.9*	*109.2*	**109.5**	*100.3*	*106.8*
Manufacturing	**106.5**	**105.7**	**105.9**	**105.8**	**104.3**	**89.0**	*96.4*	*99.1*	*102.4*	*104.6*	*106.1*	*107.1*	**106.0**	*97.2*	*105.1*
Food	**115.1**	**115.3**	**114.6**	**116.1**	**116.4**	**106.9**	*112.0*	*115.0*	*117.4*	*119.5*	*121.2*	*122.1*	**115.3**	*112.6*	*120.1*
Paper	**94.2**	**91.8**	**92.6**	**93.6**	**94.7**	**88.5**	*89.0*	*89.2*	*89.4*	*90.3*	*91.3*	*92.2*	**93.0**	*90.4*	*90.8*
Petroleum and Coal Products	**106.3**	**104.9**	**106.7**	**104.9**	**104.8**	**84.8**	*90.6*	*96.0*	*100.1*	*103.3*	*105.3*	*106.7*	**105.7**	*94.0*	*103.9*
Chemicals	**101.4**	**99.9**	**100.6**	**100.3**	**99.7**	**94.5**	*95.9*	*96.9*	*98.2*	*100.1*	*102.3*	*104.3*	**100.5**	*96.8*	*101.2*
Nonmetallic Mineral Products	**119.7**	**119.0**	**119.7**	**119.3**	**122.1**	**106.2**	*110.2*	*110.2*	*110.5*	*111.9*	*113.5*	*115.3*	**119.4**	*112.2*	*112.8*
Primary Metals	**97.9**	**96.7**	**96.4**	**96.6**	**94.4**	**68.8**	*69.9*	*70.4*	*71.4*	*73.2*	*75.0*	*76.9*	**96.9**	*75.9*	*74.1*
Coal-weighted Manufacturing (a)	**106.9**	**105.6**	**106.0**	**106.4**	**106.4**	**94.2**	*98.5*	*99.9*	*101.6*	*103.5*	*105.2*	*106.5*	**106.2**	*99.7*	*104.2*
Distillate-weighted Manufacturing (a)	**98.5**	**97.9**	**98.3**	**98.6**	**98.8**	**85.5**	*89.3*	*91.2*	*93.0*	*94.9*	*96.5*	*97.7*	**98.3**	*91.2*	*95.5*
Electricity-weighted Manufacturing (a)	**106.5**	**105.3**	**105.6**	**105.9**	**105.0**	**89.1**	*92.9*	*94.5*	*96.2*	*98.2*	*100.1*	*101.7*	**105.8**	*95.4*	*99.0*
Natural Gas-weighted Manufacturing (a)	**108.7**	**107.7**	**108.0**	**108.2**	**107.7**	**93.9**	*97.3*	*99.0*	*100.8*	*103.0*	*104.8*	*106.4*	**108.1**	*99.5*	*103.7*
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**	*2.58*	*2.59*	*2.60*	*2.62*	*2.63*	*2.64*	**2.56**	*2.58*	*2.62*
Producer Price Index: All Commodities															
(index, 1982=1.00)	**2.01**	**2.00**	**1.99**	**2.00**	**1.97**	**1.91**	*1.94*	*1.98*	*2.01*	*2.03*	*2.05*	*2.05*	**2.00**	*1.95*	*2.04*
Producer Price Index: Petroleum															
(index, 1982=1.00)	**1.81**	**2.08**	**1.95**	**1.93**	**1.74**	**1.09**	*1.48*	*1.48*	*1.44*	*1.59*	*1.63*	*1.60*	**1.94**	*1.45*	*1.57*
GDP Implicit Price Deflator															
(index, 2012=100)	**111.5**	**112.2**	**112.7**	**113.0**	**113.4**	**113.2**	*113.6*	*113.7*	*113.9*	*114.2*	*114.6*	*115.0*	**112.3**	*113.5*	*114.4*
Miscellaneous															
Vehicle Miles Traveled (b)															
(million miles/day)	**8,295**	**9,328**	**9,292**	**8,901**	**7,753**	**6,863**	*8,483*	*8,593*	*8,131*	*9,110*	*9,152*	*8,908*	**8,957**	*7,926*	*8,828*
Air Travel Capacity															
(Available ton-miles/day, thousands)	**643**	**685**	**712**	**688**	**629**	**354**	*539*	*626*	*562*	*589*	*659*	*662*	**682**	*537*	*618*
Aircraft Utilization															
(Revenue ton-miles/day, thousands)	**380**	**426**	**427**	**406**	**328**	**138**	*278*	*326*	*302*	*329*	*382*	*381*	**410**	*268*	*348*
Airline Ticket Price Index															
(index, 1982-1984=100)	**255.7**	**278.3**	**263.8**	**263.8**	**250.8**	**203.7**	*174.2*	*163.7*	*159.8*	*165.5*	*152.8*	*158.5*	**265.4**	*198.1*	*159.1*
Raw Steel Production															
(million short tons per day)	**0.273**	**0.271**	**0.264**	**0.265**	**0.268**	**0.174**	*0.198*	*0.225*	*0.222*	*0.209*	*0.210*	*0.231*	**0.268**	*0.216*	*0.218*
Carbon Dioxide (CO2) Emissions (million metric tons)															
Petroleum	**575**	**587**	**597**	**596**	**552**	**446**	*534*	*549*	*542*	*557*	*578*	*579*	**2,354**	*2,081*	*2,257*
Natural Gas	**507**	**350**	**384**	**448**	**492**	**352**	*374*	*424*	*468*	*327*	*351*	*419*	**1,689**	*1,642*	*1,564*
Coal	**289**	**239**	**307**	**242**	**201**	**176**	*237*	*194*	*225*	*238*	*289*	*214*	**1,076**	*808*	*966*
Total Energy (c)	**1,374**	**1,178**	**1,291**	**1,288**	**1,248**	**976**	*1,148*	*1,170*	*1,237*	*1,124*	*1,221*	*1,214*	**5,130**	*4,543*	*4,798*

- = 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 - August 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	**996**	**999**	**1,004**	**1,009**	**996**	**878**	*920*	*931*	*949*	*962*	*972*	*980*	**1,002**	*931*	*966*
Middle Atlantic	**2,772**	**2,782**	**2,791**	**2,802**	**2,751**	**2,366**	*2,479*	*2,532*	*2,595*	*2,638*	*2,676*	*2,705*	**2,787**	*2,532*	*2,653*
E. N. Central	**2,528**	**2,535**	**2,545**	**2,557**	**2,520**	**2,222**	*2,339*	*2,374*	*2,421*	*2,455*	*2,479*	*2,498*	**2,541**	*2,364*	*2,463*
W. N. Central	**1,181**	**1,187**	**1,193**	**1,198**	**1,187**	**1,091**	*1,131*	*1,140*	*1,157*	*1,169*	*1,180*	*1,185*	**1,190**	*1,137*	*1,173*
S. Atlantic	**3,353**	**3,367**	**3,383**	**3,403**	**3,361**	**3,053**	*3,197*	*3,221*	*3,275*	*3,311*	*3,340*	*3,360*	**3,376**	*3,208*	*3,322*
E. S. Central	**832**	**835**	**840**	**844**	**832**	**761**	*796*	*803*	*816*	*826*	*833*	*837*	**838**	*798*	*828*
W. S. Central	**2,347**	**2,370**	**2,392**	**2,406**	**2,387**	**2,184**	*2,252*	*2,246*	*2,272*	*2,288*	*2,305*	*2,317*	**2,379**	*2,267*	*2,296*
Mountain	**1,252**	**1,261**	**1,269**	**1,277**	**1,263**	**1,161**	*1,208*	*1,217*	*1,238*	*1,251*	*1,262*	*1,269*	**1,265**	*1,212*	*1,255*
Pacific	**3,700**	**3,719**	**3,739**	**3,761**	**3,715**	**3,316**	*3,420*	*3,495*	*3,572*	*3,621*	*3,664*	*3,692*	**3,730**	*3,487*	*3,637*
Industrial Output, Manufacturing (Index, Year 2012=100)															
New England	**99.4**	**98.6**	**98.8**	**98.8**	**97.6**	**83.4**	*90.3*	*93.4*	*96.5*	*98.5*	*99.8*	*100.5*	**98.9**	*91.2*	*98.8*
Middle Atlantic	**99.1**	**98.2**	**98.1**	**98.1**	**97.1**	**80.2**	*86.3*	*88.9*	*91.7*	*93.9*	*95.9*	*97.1*	**98.4**	*88.1*	*94.7*
E. N. Central	**108.4**	**107.1**	**107.0**	**106.7**	**105.0**	**85.5**	*93.2*	*96.3*	*99.8*	*102.2*	*103.2*	*105.0*	**107.3**	*95.0*	*102.5*
W. N. Central	**106.0**	**105.2**	**105.3**	**105.2**	**103.7**	**90.1**	*97.0*	*100.0*	*103.9*	*106.3*	*107.7*	*108.5*	**105.4**	*97.7*	*106.6*
S. Atlantic	**111.0**	**110.3**	**110.8**	**111.1**	**109.2**	**93.7**	*101.8*	*104.3*	*107.5*	*109.8*	*111.4*	*112.4*	**110.8**	*102.2*	*110.3*
E. S. Central	**110.8**	**109.8**	**110.2**	**110.0**	**109.0**	**89.1**	*98.3*	*101.6*	*105.1*	*107.2*	*108.5*	*109.7*	**110.2**	*99.5*	*107.6*
W. S. Central	**101.7**	**101.1**	**101.4**	**101.5**	**99.8**	**87.5**	*93.3*	*95.4*	*98.4*	*100.2*	*101.6*	*102.6*	**101.4**	*94.0*	*100.7*
Mountain	**116.5**	**115.8**	**116.6**	**116.2**	**114.6**	**101.9**	*109.6*	*112.9*	*116.6*	*119.0*	*120.6*	*121.4*	**116.3**	*109.8*	*119.4*
Pacific	**105.1**	**104.2**	**104.1**	**104.3**	**102.3**	**87.3**	*95.0*	*97.3*	*100.1*	*102.1*	*103.8*	*104.6*	**104.4**	*95.5*	*102.6*
Real Personal Income (Billion $2009)															
New England	**899**	**900**	**896**	**900**	**902**	**953**	*900*	*883*	*894*	*900*	*905*	*906*	**899**	*909*	*901*
Middle Atlantic	**2,287**	**2,302**	**2,298**	**2,302**	**2,300**	**2,414**	*2,273*	*2,234*	*2,266*	*2,281*	*2,293*	*2,295*	**2,297**	*2,305*	*2,284*
E. N. Central	**2,444**	**2,448**	**2,458**	**2,469**	**2,469**	**2,643**	*2,475*	*2,439*	*2,471*	*2,488*	*2,501*	*2,505*	**2,454**	*2,506*	*2,491*
W. N. Central	**1,152**	**1,154**	**1,168**	**1,172**	**1,174**	**1,263**	*1,181*	*1,159*	*1,173*	*1,181*	*1,190*	*1,192*	**1,162**	*1,194*	*1,184*
S. Atlantic	**3,203**	**3,221**	**3,230**	**3,251**	**3,262**	**3,565**	*3,329*	*3,266*	*3,298*	*3,315*	*3,333*	*3,337*	**3,226**	*3,356*	*3,321*
E. S. Central	**890**	**893**	**897**	**899**	**901**	**1,003**	*921*	*900*	*910*	*915*	*920*	*921*	**895**	*931*	*917*
W. S. Central	**1,997**	**2,005**	**2,017**	**2,022**	**2,030**	**2,190**	*2,056*	*2,000*	*2,018*	*2,024*	*2,033*	*2,035*	**2,010**	*2,069*	*2,027*
Mountain	**1,180**	**1,187**	**1,198**	**1,205**	**1,208**	**1,315**	*1,233*	*1,210*	*1,223*	*1,229*	*1,236*	*1,236*	**1,192**	*1,242*	*1,231*
Pacific	**2,788**	**2,815**	**2,809**	**2,847**	**2,852**	**2,994**	*2,835*	*2,804*	*2,851*	*2,871*	*2,890*	*2,894*	**2,815**	*2,871*	*2,876*
Households (Thousands)															
New England	**5,936**	**5,941**	**5,957**	**5,966**	**5,973**	**5,973**	*5,972*	*5,972*	*5,974*	*5,977*	*5,987*	*5,999*	**5,966**	*5,972*	*5,999*
Middle Atlantic	**16,243**	**16,263**	**16,305**	**16,328**	**16,346**	**16,351**	*16,352*	*16,360*	*16,366*	*16,377*	*16,402*	*16,434*	**16,328**	*16,360*	*16,434*
E. N. Central	**19,087**	**19,112**	**19,166**	**19,197**	**19,225**	**19,245**	*19,255*	*19,275*	*19,289*	*19,306*	*19,342*	*19,386*	**19,197**	*19,275*	*19,386*
W. N. Central	**8,688**	**8,708**	**8,740**	**8,760**	**8,777**	**8,787**	*8,794*	*8,805*	*8,812*	*8,825*	*8,845*	*8,869*	**8,760**	*8,805*	*8,869*
S. Atlantic	**25,689**	**25,762**	**25,877**	**25,965**	**26,043**	**26,085**	*26,122*	*26,171*	*26,220*	*26,280*	*26,364*	*26,465*	**25,965**	*26,171*	*26,465*
E. S. Central	**7,651**	**7,663**	**7,689**	**7,706**	**7,721**	**7,728**	*7,734*	*7,743*	*7,751*	*7,762*	*7,781*	*7,803*	**7,706**	*7,743*	*7,803*
W. S. Central	**14,813**	**14,856**	**14,923**	**14,974**	**15,019**	**15,046**	*15,071*	*15,106*	*15,138*	*15,179*	*15,233*	*15,294*	**14,974**	*15,106*	*15,294*
Mountain	**9,404**	**9,448**	**9,506**	**9,551**	**9,592**	**9,617**	*9,642*	*9,671*	*9,696*	*9,727*	*9,765*	*9,809*	**9,551**	*9,671*	*9,809*
Pacific	**18,903**	**18,932**	**18,994**	**19,034**	**19,069**	**19,084**	*19,102*	*19,135*	*19,167*	*19,207*	*19,261*	*19,322*	**19,034**	*19,135*	*19,322*
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*	*7.3*
Middle Atlantic	**20.0**	**20.0**	**20.1**	**20.1**	**20.1**	**16.7**	*17.9*	*18.4*	*18.9*	*19.1*	*19.3*	*19.5*	**20.0**	*18.3*	*19.2*
E. N. Central	**22.3**	**22.3**	**22.3**	**22.3**	**22.3**	**19.3**	*20.7*	*21.1*	*21.6*	*21.9*	*22.0*	*22.1*	**22.3**	*20.9*	*21.9*
W. N. Central	**10.8**	**10.8**	**10.8**	**10.8**	**10.8**	**9.8**	*10.3*	*10.5*	*10.6*	*10.7*	*10.8*	*10.8*	**10.8**	*10.3*	*10.7*
S. Atlantic	**29.0**	**29.1**	**29.2**	**29.3**	**29.4**	**26.3**	*27.9*	*28.4*	*28.9*	*29.2*	*29.4*	*29.5*	**29.1**	*28.0*	*29.2*
E. S. Central	**8.3**	**8.3**	**8.3**	**8.3**	**8.3**	**7.5**	*8.0*	*8.1*	*8.2*	*8.3*	*8.4*	*8.4*	**8.3**	*8.0*	*8.3*
W. S. Central	**17.6**	**17.7**	**17.8**	**17.9**	**18.0**	**16.4**	*17.3*	*17.5*	*17.7*	*17.8*	*17.9*	*17.9*	**17.8**	*17.3*	*17.8*
Mountain	**11.0**	**11.0**	**11.1**	**11.2**	**11.2**	**10.2**	*10.8*	*10.9*	*11.1*	*11.2*	*11.3*	*11.3*	**11.1**	*10.8*	*11.3*
Pacific	**23.6**	**23.7**	**23.9**	**24.0**	**24.0**	**20.9**	*21.8*	*22.6*	*23.1*	*23.4*	*23.6*	*23.7*	**23.8**	*22.3*	*23.4*

- = 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 - August 2020

	2019				2020				2021				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Heating Degree Days															
New England	**3,225**	**893**	**135**	**2,277**	**2,727**	**967**	*121*	*2,155*	*3,167*	*876*	*125*	*2,146*	**6,530**	*5,971*	*6,314*
Middle Atlantic	**2,987**	**634**	**68**	**2,065**	**2,472**	**833**	*72*	*1,978*	*2,932*	*699*	*76*	*1,970*	**5,753**	*5,356*	*5,677*
E. N. Central	**3,326**	**759**	**64**	**2,276**	**2,785**	**844**	*112*	*2,240*	*3,152*	*730*	*120*	*2,237*	**6,425**	*5,982*	*6,239*
W. N. Central	**3,647**	**772**	**107**	**2,547**	**3,038**	**796**	*142*	*2,415*	*3,236*	*701*	*157*	*2,421*	**7,073**	*6,391*	*6,514*
South Atlantic	**1,335**	**127**	**2**	**919**	**1,106**	**251**	*13*	*960*	*1,385*	*184*	*11*	*949*	**2,382**	*2,329*	*2,529*
E. S. Central	**1,711**	**192**	**1**	**1,273**	**1,481**	**340**	*20*	*1,293*	*1,779*	*231*	*18*	*1,283*	**3,178**	*3,134*	*3,310*
W. S. Central	**1,208**	**90**	**0**	**854**	**973**	**103**	*4*	*757*	*1,090*	*76*	*4*	*758*	**2,153**	*1,838*	*1,928*
Mountain	**2,431**	**786**	**127**	**1,968**	**2,217**	**675**	*131*	*1,800*	*2,195*	*686*	*147*	*1,807*	**5,312**	*4,823*	*4,836*
Pacific	**1,687**	**577**	**95**	**1,182**	**1,539**	**520**	*89*	*1,204*	*1,517*	*578*	*84*	*1,192*	**3,540**	*3,352*	*3,371*
U.S. Average	**2,210**	**480**	**56**	**1,558**	**1,875**	**539**	*68*	*1,515*	*2,098*	*482*	*71*	*1,508*	**4,304**	*3,998*	*4,160*
Heating Degree Days, Prior 10-year Average															
New England	**3,165**	**820**	**111**	**2,122**	**3,152**	**822**	*105*	*2,127*	*3,132*	*855*	*108*	*2,115*	**6,218**	*6,206*	*6,210*
Middle Atlantic	**2,956**	**650**	**76**	**1,941**	**2,949**	**644**	*69*	*1,944*	*2,913*	*677*	*70*	*1,926*	**5,623**	*5,606*	*5,586*
E. N. Central	**3,196**	**697**	**112**	**2,198**	**3,198**	**698**	*102*	*2,197*	*3,156*	*730*	*103*	*2,184*	**6,203**	*6,194*	*6,174*
W. N. Central	**3,255**	**702**	**140**	**2,380**	**3,287**	**702**	*132*	*2,379*	*3,247*	*728*	*131*	*2,377*	**6,477**	*6,500*	*6,482*
South Atlantic	**1,480**	**176**	**11**	**964**	**1,459**	**169**	*10*	*952*	*1,393*	*180*	*10*	*923*	**2,631**	*2,589*	*2,506*
E. S. Central	**1,861**	**222**	**17**	**1,292**	**1,849**	**214**	*15*	*1,277*	*1,771*	*232*	*16*	*1,256*	**3,392**	*3,356*	*3,274*
W. S. Central	**1,183**	**85**	**4**	**808**	**1,199**	**83**	*3*	*794*	*1,140*	*86*	*3*	*789*	**2,079**	*2,079*	*2,018*
Mountain	**2,164**	**714**	**139**	**1,855**	**2,192**	**718**	*135*	*1,844*	*2,182*	*701*	*134*	*1,846*	**4,873**	*4,890*	*4,864*
Pacific	**1,444**	**582**	**83**	**1,175**	**1,456**	**580**	*85*	*1,161*	*1,462*	*552*	*83*	*1,159*	**3,283**	*3,283*	*3,256*
U.S. Average	**2,150**	**475**	**68**	**1,518**	**2,149**	**472**	*64*	*1,509*	*2,108*	*481*	*64*	*1,494*	**4,212**	*4,194*	*4,148*
Cooling Degree Days															
New England	**0**	**68**	**469**	**0**	**0**	**105**	*506*	*1*	*0*	*84*	*418*	*2*	**537**	*613*	*504*
Middle Atlantic	**0**	**144**	**630**	**8**	**0**	**159**	*667*	*4*	*0*	*153*	*548*	*5*	**782**	*830*	*706*
E. N. Central	**0**	**176**	**653**	**7**	**2**	**220**	*624*	*7*	*0*	*218*	*543*	*7*	**835**	*853*	*768*
W. N. Central	**0**	**223**	**727**	**2**	**6**	**296**	*715*	*11*	*3*	*266*	*675*	*10*	**952**	*1,028*	*955*
South Atlantic	**154**	**758**	**1,300**	**308**	**197**	**620**	*1,216*	*233*	*127*	*671*	*1,184*	*241*	**2,519**	*2,266*	*2,224*
E. S. Central	**29**	**551**	**1,216**	**88**	**73**	**424**	*1,093*	*66*	*30*	*538*	*1,080*	*71*	**1,884**	*1,657*	*1,719*
W. S. Central	**73**	**817**	**1,692**	**169**	**174**	**837**	*1,540*	*210*	*98*	*892*	*1,530*	*211*	**2,750**	*2,760*	*2,731*
Mountain	**10**	**342**	**984**	**60**	**9**	**463**	*946*	*79*	*19*	*430*	*934*	*79*	**1,396**	*1,498*	*1,462*
Pacific	**22**	**167**	**591**	**67**	**24**	**200**	*572*	*59*	*27*	*168*	*586*	*59*	**846**	*856*	*841*
U.S. Average	**46**	**399**	**953**	**106**	**71**	**397**	*907*	*95*	*46*	*409*	*867*	*97*	**1,503**	*1,469*	*1,420*
Cooling Degree Days, Prior 10-year Average															
New England	**0**	**79**	**455**	**1**	**0**	**83**	*471*	*1*	*0*	*81*	*470*	*1*	**536**	*554*	*552*
Middle Atlantic	**0**	**165**	**589**	**6**	**0**	**170**	*609*	*6*	*0*	*163*	*608*	*6*	**760**	*785*	*778*
E. N. Central	**3**	**242**	**548**	**7**	**3**	**240**	*579*	*8*	*3*	*234*	*574*	*7*	**799**	*830*	*819*
W. N. Central	**7**	**298**	**669**	**11**	**7**	**296**	*696*	*11*	*7*	*294*	*691*	*11*	**985**	*1,011*	*1,004*
South Atlantic	**120**	**684**	**1,180**	**239**	**127**	**696**	*1,202*	*247*	*143*	*680*	*1,194*	*254*	**2,224**	*2,272*	*2,272*
E. S. Central	**36**	**555**	**1,049**	**67**	**36**	**557**	*1,082*	*72*	*42*	*532*	*1,068*	*73*	**1,706**	*1,747*	*1,715*
W. S. Central	**103**	**897**	**1,552**	**205**	**100**	**891**	*1,575*	*207*	*114*	*880*	*1,570*	*210*	**2,757**	*2,774*	*2,774*
Mountain	**25**	**438**	**932**	**81**	**24**	**433**	*938*	*81*	*24*	*444*	*940*	*82*	**1,476**	*1,476*	*1,490*
Pacific	**31**	**185**	**631**	**76**	**31**	**185**	*624*	*78*	*31*	*193*	*633*	*79*	**923**	*918*	*936*
U.S. Average	**46**	**417**	**873**	**97**	**47**	**420**	*892*	*100*	*52*	*415*	*891*	*102*	**1,433**	*1,459*	*1,460*

- = no data available

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

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

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

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

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

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

Appendix to the August 2020 *Short-Term Energy Outlook*

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

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

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

Table a1. Summary of Estimated Petroleum and Other Liquids Quantities

	June 2020	July 2020	June - July 2020 Average	June - July 2019 Average	2017–2019 Average
Global Petroleum and Other Liquids (million barrels per day)					
Global Petroleum and Other Liquids Production (a)	87.1	88.7	87.9	100.3	99.9
Global Petroleum and Other Liquids Consumption (b)	90.4	93.4	91.9	102.0	100.2
Biofuels Production (c)	2.6	2.8	2.7	3.0	2.5
Biofuels Consumption (c)	2.3	2.2	2.2	2.4	2.3
Iran Liquid Fuels Production	2.8	2.7	2.7	3.1	4.1
Iran Liquid Fuels Consumption	1.7	1.7	1.7	1.9	1.8
Petroleum and Petroleum Products Produced and Consumed in Countries Other Than Iran (million barrels per day)					
Production (d)	81.7	83.2	82.5	94.2	93.2
Consumption (d)	86.4	89.5	88.0	97.7	96.0
Production minus Consumption	-4.7	-6.3	-5.5	-3.5	-2.8
World Inventory Net Withdrawals Including Iran	3.3	4.7	4.0	1.6	0.3
Estimated OECD Inventory Level (e) (million barrels)	3,170	3,113	3,142	2,931	2,912
Surplus Production Capacity (million barrels per day)					
OPEC Surplus Crude Oil Production Capacity (f)	9.2	8.5	8.8	2.8	2.0

Note: The term “petroleum and other liquids” encompasses crude oil, lease condensate, natural gas liquids, biofuels, coal-to-liquids, gas-to-liquids, and refinery processing gains, which are important to consider in concert due to the inter-related supply, demand, and price dynamics of petroleum, petroleum products, and related fuels.
(a) Production includes crude oil (including lease condensates), natural gas liquids, other liquids, and refinery processing gains.
(b) Consumption of petroleum by the OECD countries is synonymous with “products supplied," defined in the glossary of the EIA Petroleum Supply Monthly, DOE/EIA-0109. Consumption of petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel, and loss, and bunkering.
(c) Biofuels production and consumption are based on EIA estimates as published in the International Energy Statistics. Biofuels production in the third quarter tends to be at its highest level in the year as ethanol production in Brazil reaches its seasonal peak and is typically lowest in the first quarter as seasonal production falls in the South/South-Central region of Brazil.
(d) Global production of petroleum and petroleum products outside of Iran is derived by subtracting biofuels production and Iran liquid fuels production from global liquid fuels production. The same method is used to calculate global consumption outside of Iran.
(e) Estimated inventory level is for OECD countries only.
(f) EIA defines surplus oil production capacity as potential oil production that could be brought online within 30 days and sustained for at least 90 days, consistent with sound business practices. This does not include oil production increases that could not be sustained without degrading the future production capacity of a field.
Source: U.S. Energy Information Administration.

Table a2. Crude Oil and Petroleum Product Price Data

Item	June 2020	July 2020	June - July 2020 Average	June - July 2019 Average	2017–2019 Average
Brent Front Month Futures Price ($ per barrel)	40.77	43.22	42.00	63.65	63.53
WTI Front Month Futures Price ($ per barrel)	38.31	40.77	39.54	56.20	57.60
Dubai Front Month Futures Price ($ per barrel)	41.77	43.72	42.75	62.69	62.36
Brent 1st - 13th Month Futures Spread ($ per barrel)	-2.75	-2.57	-2.66	2.89	2.02
WTI 1st - 13th Month Futures Spread ($ per barrel)	-1.91	-1.75	-1.83	1.65	1.39
RBOB Front Month Futures Price ($ per gallon)	1.19	1.25	1.22	1.84	1.76
Heating Oil Front Month Futures Price ($ per gallon)	1.14	1.24	1.19	1.89	1.90
RBOB - Brent Futures Crack Spread ($ per gallon)	0.22	0.22	0.22	0.33	0.24
Heating Oil - Brent Futures Crack Spread ($ per gallon)	0.17	0.21	0.19	0.37	0.39

(a) Brent refers to Brent crude oil traded on the Intercontinental Exchange (ICE).
(b) WTI refers to West Texas Intermediate crude oil traded on the New York Mercantile Exchange (NYMEX), owned by Chicago Mercantile Exchange (CME) Group.
(c) RBOB refers to r*eformulated blendstock for oxygenate blending traded on the NYMEX.*
Source: U.S. Energy Information Administration, based on Chicago Mercantile Exchange (CME), Intercontinental Exchange (ICE), and Dubai Mercantile Exchange (DME).

Appendix to the August 2020 *Short-Term Energy Outlook*

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

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

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

Table a1. Summary of Estimated Petroleum and Other Liquids Quantities

	June 2020	July 2020	June - July 2020 Average	June - July 2019 Average	2017–2019 Average
Global Petroleum and Other Liquids (million barrels per day)					
Global Petroleum and Other Liquids Production (a)	87.1	88.7	87.9	100.3	99.9
Global Petroleum and Other Liquids Consumption (b)	90.4	93.4	91.9	102.0	100.2
Biofuels Production (c)	2.6	2.8	2.7	3.0	2.5
Biofuels Consumption (c)	2.3	2.2	2.2	2.4	2.3
Iran Liquid Fuels Production	2.8	2.7	2.7	3.1	4.1
Iran Liquid Fuels Consumption	1.7	1.7	1.7	1.9	1.8
Petroleum and Petroleum Products Produced and Consumed in Countries Other Than Iran (million barrels per day)					
Production (d)	81.7	83.2	82.5	94.2	93.2
Consumption (d)	86.4	89.5	88.0	97.7	96.0
Production minus Consumption	-4.7	-6.3	-5.5	-3.5	-2.8
World Inventory Net Withdrawals Including Iran	3.3	4.7	4.0	1.6	0.3
Estimated OECD Inventory Level (e) (million barrels)	3,170	3,113	3,142	2,931	2,912
Surplus Production Capacity (million barrels per day)					
OPEC Surplus Crude Oil Production Capacity (f)	9.2	8.5	8.8	2.8	2.0

Note: The term “petroleum and other liquids” encompasses crude oil, lease condensate, natural gas liquids, biofuels, coal-to-liquids, gas-to-liquids, and refinery processing gains, which are important to consider in concert due to the inter-related supply, demand, and price dynamics of petroleum, petroleum products, and related fuels.
(a) Production includes crude oil (including lease condensates), natural gas liquids, other liquids, and refinery processing gains.
(b) Consumption of petroleum by the OECD countries is synonymous with “products supplied," defined in the glossary of the EIA Petroleum Supply Monthly, DOE/EIA-0109. Consumption of petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel, and loss, and bunkering.
(c) Biofuels production and consumption are based on EIA estimates as published in the International Energy Statistics. Biofuels production in the third quarter tends to be at its highest level in the year as ethanol production in Brazil reaches its seasonal peak and is typically lowest in the first quarter as seasonal production falls in the South/South-Central region of Brazil.
(d) Global production of petroleum and petroleum products outside of Iran is derived by subtracting biofuels production and Iran liquid fuels production from global liquid fuels production. The same method is used to calculate global consumption outside of Iran.
(e) Estimated inventory level is for OECD countries only.
(f) EIA defines surplus oil production capacity as potential oil production that could be brought online within 30 days and sustained for at least 90 days, consistent with sound business practices. This does not include oil production increases that could not be sustained without degrading the future production capacity of a field.
Source: U.S. Energy Information Administration.

Table a2. Crude Oil and Petroleum Product Price Data

Item	June 2020	July 2020	June - July 2020 Average	June - July 2019 Average	2017–2019 Average
Brent Front Month Futures Price ($ per barrel)	40.77	43.22	42.00	63.65	63.53
WTI Front Month Futures Price ($ per barrel)	38.31	40.77	39.54	56.20	57.60
Dubai Front Month Futures Price ($ per barrel)	41.77	43.72	42.75	62.69	62.36
Brent 1st - 13th Month Futures Spread ($ per barrel)	-2.75	-2.57	-2.66	2.89	2.02
WTI 1st - 13th Month Futures Spread ($ per barrel)	-1.91	-1.75	-1.83	1.65	1.39
RBOB Front Month Futures Price ($ per gallon)	1.19	1.25	1.22	1.84	1.76
Heating Oil Front Month Futures Price ($ per gallon)	1.14	1.24	1.19	1.89	1.90
RBOB - Brent Futures Crack Spread ($ per gallon)	0.22	0.22	0.22	0.33	0.24
Heating Oil - Brent Futures Crack Spread ($ per gallon)	0.17	0.21	0.19	0.37	0.39

(a) Brent refers to Brent crude oil traded on the Intercontinental Exchange (ICE).
(b) WTI refers to West Texas Intermediate crude oil traded on the New York Mercantile Exchange (NYMEX), owned by Chicago Mercantile Exchange (CME) Group.
(c) RBOB refers to r*eformulated blendstock for oxygenate blending traded on the NYMEX.*
Source: U.S. Energy Information Administration, based on Chicago Mercantile Exchange (CME), Intercontinental Exchange (ICE), and Dubai Mercantile Exchange (DME).