Short-Term Energy Outlook (STEO)

Forecast highlights

Global liquid fuels

- Although revisions to EIA's forecasts in the June STEO are generally smaller than
 they have been in recent months, this forecast 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 supply and
 demand patterns in 2020, particularly for petroleum and other liquid fuels.
 Uncertainties persist across EIA's outlook for other energy sources, including natural
 gas, electricity, coal, and renewables.
- Daily Brent crude oil spot prices averaged \$29 per barrel (b) in May, up \$11/b from the average in April. Oil prices rose in May as initial data show global oil demand was higher than EIA had forecast and as adherence to announced production cuts by Organization of the Petroleum Exporting Countries (OPEC) and partner countries (OPEC+) was high. EIA expects monthly Brent prices will average \$37/b during the second half of 2020 and rise to an average of \$48/b in 2021. The forecast of rising crude oil prices reflects expected declines in global oil inventories during the second half of 2020 and through 2021. EIA expects high inventory levels and spare 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 forecasts that demand for global petroleum and liquid fuels will average 83.8 million barrels per day (b/d) in the second quarter of 2020, 16.6 million b/d lower than at the same time last year. Lower demand is the result of COVID-19-related shutdowns throughout much of the world. As stay-at-home orders are eased, EIA expects liquid fuels consumption will rise to an average of 94.9 million b/d in the third quarter (down 6.7 million b/d year over year). EIA forecasts that consumption of petroleum and liquid fuels globally will average 92.5 million b/d for all of 2020, down 8.3 million b/d from 2019, before increasing by 7.2 million b/d in 2021.
- EIA expects the supply of liquid fuels globally will average 92.6 million b/d in the second quarter of 2020, down 7.9 million b/d year over year. The declines reflect voluntary supply cuts by OPEC+ and reductions in drilling activity in the United States because of low oil prices. Supply of oil fell by less than demand in the second

quarter, and EIA expects supply to be slower to increase. In the forecast, the global supply of oil declines to 92.0 million b/d in the third quarter before rising to an annual average of 97.4 million b/d in 2021. EIA expects OPEC to drive supply growth in 2021.

- EIA expects that global liquid fuels inventories will grow by an average of 2.2 million b/d in 2020. EIA estimates inventories rose from January through May at an average rate of 9.4 million b/d. The builds, which peaked during April, were the result of a sharp decline in global oil demand because of widespread travel limitations and reduced economic activity. EIA estimates that global oil inventories at the end of May stood 1.4 billion barrels higher than they were at the end of 2019. However, EIA now expects global oil inventories will begin declining in June, a month earlier than previously forecast, with draws continuing through the end of 2021. The sooner-than-expected draws are the result of sharper declines in global oil production during June and higher global oil demand than previously expected. EIA expects global liquid fuels inventories will fall at an average rate of 2.5 million b/d from June 2020 through the end of 2021.
- EIA forecasts U.S. liquid fuels consumption will average 15.7 million b/d in the second quarter of 2020, down 4.6 million b/d (23%) from the same period in 2019. The decline reflects travel restrictions and reduced economic activity related to COVID-19 mitigation efforts. EIA expects the largest declines in U.S. oil consumption have already occurred and demand will generally rise during the next 18 months. EIA forecasts U.S. liquid fuels consumption will average 18.4 million b/d in the third quarter of 2020 (down 2.3 million b/d year-over-year) before rising to an average of 19.5 million b/d in 2021. Although that level would be 1.4 million b/d more than EIA's forecast 2020 consumption, it would be 1.0 million b/d less than the 2019 average.
- Declines in U.S. liquid fuels consumption vary across products. EIA expects jet fuel
 consumption to fall by 64% year-over-year in the second quarter of 2020, while
 gasoline consumption falls by 26% and distillate consumption falls by 17%. EIA
 forecasts the consumption of all three fuels to rise in the third quarter and into 2021
 but to remain lower than 2019 levels.
- EIA estimates U.S. crude oil production fell from a record 12.9 million b/d in November 2019 to 11.4 million b/d in May 2020 as Baker Hughes reported the fewest active drilling wells in the United States in their records which go back to 1987. EIA expects U.S. crude oil production will continue to decline, to 10.6 million b/d in March 2021, then increase slightly through the end of 2021. EIA forecasts that U.S. crude oil production will average 11.6 million b/d in 2020, down 0.7 million b/d from 2019. In 2021, EIA expects U.S. crude oil production will average 10.8 million b/d. This 2020 production decline would mark the first annual decline since 2016. Typically, price changes affect production after about a six-month lag.

However, current market conditions have shortened this lag as many producers have already curtailed production and reduced capital spending and drilling in response to lower prices.

Natural Gas

- In May, the Henry Hub natural gas spot price averaged \$1.75 per million British thermal units (MMBtu). EIA forecasts that relatively low natural gas demand will keep spot prices lower than \$2/MMBtu through August. However, EIA expects prices will generally rise through the end of 2021. EIA expects that natural gas price increases will be sharpest this fall and winter when they rise from an average of \$2.06/MMBtu in September to \$3.08/MMBtu in January. Despite EIA's forecast of record end-of-October storage levels, 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 \$2.04/MMBtu in 2020 and \$3.08/MMBtu in 2021.
- EIA expects that total U.S. consumption of natural gas will average 81.9 billion cubic feet per day (Bcf/d) in 2020, down 3.6% from 2019. The decline primarily reflects less consumption in the industrial-sector, which EIA forecasts will average 21.0 Bcf/d in 2020, down 8.7% from 2019 as a result of reduced manufacturing activity.
- 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 89.7 Bcf/d in 2020, with monthly production falling from 96.2 Bcf/d in November 2019 to 83.6 Bcf/d in March 2021, before increasing slightly. Natural gas production declines the most in the Appalachian and Permian regions. In the Appalachian region, low natural gas prices are discouraging producers from engaging in natural gas-directed drilling, and in the Permian region, low crude oil prices reduce associated natural gas output from oil-directed wells. In 2021, EIA's forecast production of dry natural gas in the United States averages 85.4 Bcf/d. EIA expects production to begin rising in the second quarter of 2021 in response to higher prices.
- EIA estimates that total U.S. working natural gas in storage ended May at almost 2.8 trillion cubic feet (Tcf), 18% more than the five-year (2015–19) average. In the forecast, inventories rise by 2.1 Tcf during the April-through-October injection season to reach more than 4.1 Tcf on October 31, which would be a record.
- EIA forecasts that U.S. liquefied natural gas exports will average 5.6 Bcf/d in the second quarter of 2020 and 3.7 Bcf/d in the third quarter of 2020. EIA expects that U.S. liquefied natural gas exports will decline through the end of the summer as a result of reduced global demand for natural gas.

Electricity, coal, renewables, and emissions

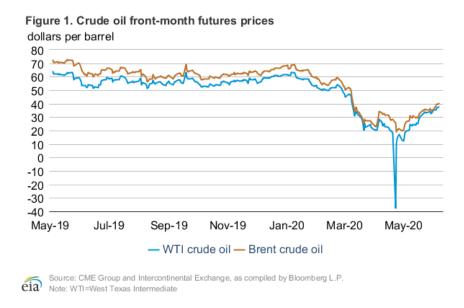
- EIA forecasts 5.7% less electricity consumption in the United States in 2020, compared with 2019. The largest decline by consumption sector on a percentage basis occurs in the commercial sector, where EIA expects retail sales of electricity to fall by 9.1% this year. Forecast industrial retail electricity sales fall by 6.7%. EIA forecasts residential sector retail sales will decrease by 1.5% in 2020. Milder expected temperatures compared with 2019 reduce EIA's forecast of electricity consumption for space heating and cooling, but that effect is partly offset by an assumed increase in electricity use by more people who are working from home. In 2021, EIA forecasts total U.S. electricity consumption will rise by 1.0%.
- EIA expects the share of U.S. utility-scale electricity generation from natural gasfired power plants will increase from 37% in 2019 to 41% this year. In 2021, the forecast natural gas share declines to 36% in response to higher natural gas prices. Coal's forecast share of electricity generation falls from 24% in 2019 to 17% in 2020 and then increases to 20% in 2021. Electricity generation from renewable energy sources rise from 17% in 2019 to 21% in 2020 and to 23% in 2021. The increase in the share from renewables is the result of expected additions to wind and solar generating capacity. Expected nuclear generation declines slightly in both 2020 and 2021, but its generation share rises from 20% in 2019 to an average of 22% in 2020 and 21% in 2021 because total U.S. generation falls by more than nuclear generation.
- 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 of new wind capacity and 12.6 gigawatts 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.
- EIA expects coal production will decrease by 25% to 530 million short tons (MMst) in 2020. Metallurgical coal mines in Appalachia have slowed production based on reduced demand from global steel production and coking coal, and EIA forecasts production in that region will decline by 35% this year. EIA forecasts Western region production to decline by 25%, partly because of slowing demand for steam coal from key importers such as India and a decline in U.S. coal-fired generation in 2020. In 2021, EIA forecasts coal production will rise to 549 MMst because of forecast rising natural gas prices and rising demand for U.S. exports.
- After decreasing by 2.8% in 2019, EIA forecasts that U.S. energy-related carbon dioxide (CO2) emissions will decrease by 14% (714 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 (33%) and petroleum (13%). In 2021, EIA forecasts that energy-related CO2 emissions will increase by 5%, as the economy recovers and stay-at-home orders are lifted, for a net decrease in energy-related CO2 emissions of 9% for 2020 and 2021 combined. 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 \$39.99 per barrel (b) on June 4, 2020, an increase of \$13.55/b from May 1, 2020. The front-month futures price for West Texas Intermediate (WTI) crude oil for delivery at Cushing, Oklahoma, increased by \$17.63/b during the same period, settling at \$37.41/b on June 4 **(Figure 1)**.



The average daily settlement price for Brent front-month futures contracts increased by 22% from April to May, the largest percentage increase for any month since March 1999. However, even with this increase, prices remain significantly lower than the first-quarter 2020 average. Several factors likely provided support to crude oil prices. Initial oil consumption data and additional efforts by major oil producers indicate that the oversupply in global oil markets has not been as severe as EIA had forecast in the May STEO. As U.S. states and countries in the Organization of Economic Cooperation and Development (OECD) began to reopen from lockdown, early indicators of petroleum consumption have shown increases from the low April levels. EIA estimates that the global consumption of petroleum and other liquid fuels averaged 82.9 million barrels per day (b/d) in May, up 3.7 million b/d from April consumption and 2.9 million b/d more than forecast in the May STEO.

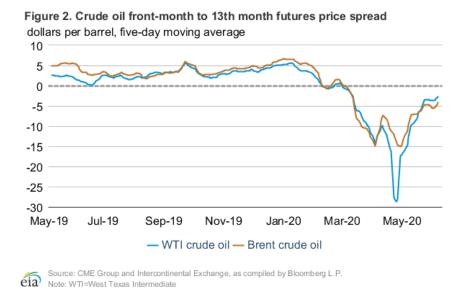
In addition, global oil production has been declining as a result of voluntary production cuts from members of the Organization of the Petroleum Exporting Countries and partner countries

(OPEC+), as well as from rapid declines in tight oil production in the United States. EIA's estimate of global liquid fuels supply in May is 0.5 million b/d lower than forecast in last month's STEO. In addition to OPEC+'s initial production cuts—totaling 9.7 million b/d—Saudi Arabia, Kuwait, and the United Arab Emirates announced additional reductions of approximately 1.2 million b/d for June 2020 beyond their initial commitments. Partly based on these cuts, EIA has revised down the forecast for supply of petroleum liquids globally during June by 2.2 million b/d compared with last month's forecast.

EIA completed this forecast before OPEC+ announced on June 6 that it would extend production cuts from May and June through July. Leading up to this decision, talks of extended production management contributed to higher crude oil prices. This STEO does not reflect an extension of the May and June cuts.

Taken together, the faster recovery of global oil demand and steeper declines in global oil production are bringing markets closer to balance sooner than EIA forecast in the May STEO. EIA forecasts global petroleum inventory withdrawals in June 2020, averaging 1.9 million b/d, compared with a 1.6 million b/d inventory build EIA had forecast in the May STEO. EIA forecasts global inventory withdrawals will average 3.0 million b/d for the second half of 2020.

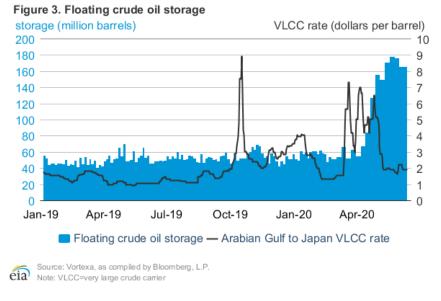
The Brent and WTI futures curves have returned to shapes similar to those observed in early March, before many countries entered lockdown and before the OPEC+ production agreement. From May 1 to June 4, the five-day moving average of the Brent 1st–13th spreads increased by \$8.19/b to settle at -\$4.27/b and WTI 1st–13th spreads increased by \$13.17/b to settle at -\$2.79/b, respectively (Figure 2). The structure of the futures curve remains in contango (when near-term prices are lower than longer-dated ones), reflecting high levels of oil inventories but also suggesting that storing oil on vessels may no longer be necessary to balance the markets.



Floating crude oil stocks: According to energy analytics company Vortexa, global stocks of crude oil stored in waterborne tankers reached 181 million barrels in May 2020, the most since

data collection began in January 2016 (Figure 3). Storing crude oil in tankers is more expensive than storing it onshore, and floating storage is typically only used as a last resort because tanker owners must be compensated for both the operational costs of their vessels and the revenues they would have otherwise collected from delivering crude oil. The rapid increase of relatively expensive floating storage volumes is further evidence of the magnitude and speed of the global liquid fuels stock builds in the first half of 2020, which EIA estimates peaked in April at 21.5 million b/d.

Floating storage volumes have already begun declining as global supply and demand balances return to equilibrium. After reaching 181 million barrels in the week of May 15, floating volumes fell to 178 million barrels on May 22 and 164 million barrels on May 29. Tanker rates have also declined, which is often a leading indicator of floating storage volumes because charter rates are set in advance of physical loading. Although tanker rates rose in March and remained elevated throughout most of April, rates declined sharply in late April. The benchmark rate to ship crude oil on the Arabian Gulf to Japan route aboard a Very Large Crude Carrier (VLCC) declined from \$6.48/b on April 22 to \$1.97/b on June 4.



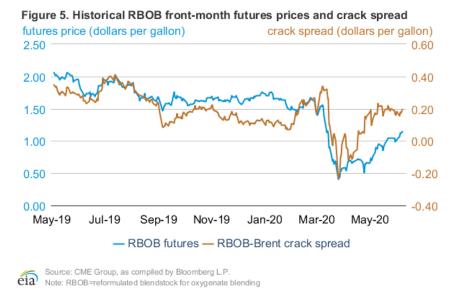
Brent–WTI spread: Rapid declines in U.S. crude oil production could be contributing to a narrowing of the Brent–WTI futures price spread. The Brent–WTI spread decreased by \$1.88/b since May 1, 2020, settling at \$2.27/b on June 4 (Figure 4). The Brent–WTI spread (calculated as front-month Brent crude oil futures prices minus second-month WTI prices, which compares crude oils by aligned delivery date) generally reflects the cost of exporting U.S. crude oil to Asia relative to the cost of exporting North Sea crude oil to Asia. This spread regularly traded lower than \$2/b in 2016, another year in which U.S. crude oil production declined. This year, the rapid decline in U.S. crude oil production is reducing the supply of exportable crude oil and could be increasing the relative value of U.S. crude oil compared with other waterborne crude oils such as Brent, particularly now that European and Asian refiners have begun increasing crude oil runs. In addition, crude oil production from the North Sea is generally less price responsive than onshore

U.S. crude oil production, keeping Brent-linked crude oil production comparatively elevated. EIA estimates that, of the 4.5 million b/d decline in total non-OPEC liquids production from April to May, 1.0 million b/d of the decline was from United States crude oil production. EIA forecasts further declines in U.S. crude oil production through March 2021, when it will average 10.6 million b/d, a decline of 2.2 million b/d from its November 2019 peak.



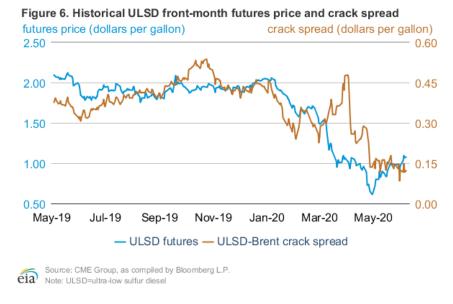
Petroleum products

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 \$1.15 per gallon (gal) on June 4, up 38 cents/gal from May 1, 2020 (Figure 5). The RBOB—Brent crack spread (the difference between the price of RBOB and the price of Brent crude oil) increased by 6 cents/gal to settle at 20 cents/gal during the same period. In May, crack spreads ranged from a minimum of 14 cents/gal, a record-low crack spread for that month since 2006 (when RBOB contracts began selling), to a maximum of 23 cents/gal.



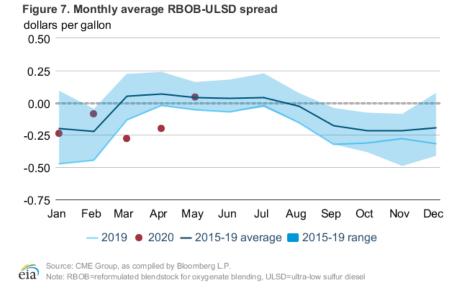
May marked the first time the crack spread was positive for each trading day of a month since February, the last complete month before the March 13 proclamation of a national state of emergency in the United States. Increasing gasoline demand and relaxed lockdowns related to COVID-19 mitigation efforts provided some strength to the crack spread. EIA estimates that the consumption of finished motor gasoline increased to 7.3 million b/d in May from 5.7 million b/d in April. Personal travel numbers matched the trend of motor gasoline consumption. According to INRIX, compared with the last pre-lockdown week ending February 29, weekly personal travel was down 16% on May 29—compared with 47% on April 3. This increase in consumption, along with reduced refinery runs, contributed to gasoline inventories decreasing from record high levels in mid-April to an estimated 256 million barrels at the end of May. Increased net imports of gasoline partly offset the effect of rising consumption on gasoline inventories. EIA estimates a 0.7 million b/d increase in month-over-month net imports to 0.3 million b/d.

Ultra-low sulfur diesel prices: The ultra-low sulfur diesel (ULSD) front-month futures price for delivery in New York Harbor settled at \$1.07/gal on June 4, 2020, up 28 cents/gal from May 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 4 cents/gal to settle at 12 cents/gal during the same period. The average ULSD—Brent crack spread for May at 14 cents/gal was less than the five-year (2015—19) average of 34 cents/gal.



EIA estimates May 2020 distillate consumption was 3.4 million b/d, down 0.7 million b/d (17%) from May 2019, but up 0.3 million b/d (11%) from April 2020. This increase can partially be explained by the increase in long-haul trucking as economic activity begins to recover. According to INRIX, which compared traffic data for the week ending May 22 with that of the week ending February 29, trucking was down 5% from pre-lockdown levels. Meanwhile, if confirmed by EIA's *Petroleum Supply Monthly*, distillate imports for the four weeks ending May 29 increased to their highest May levels since 2007, and exports decreased to their lowest May levels since 2011. Overall, net exports of distillate in May were 0.8 million b/d, down 0.6 million b/d from April. This decrease likely contributed to the increase in inventories, with distillate inventories rising to 174 million barrels at the end of May, 44 million barrels more than in May 2019 and the highest May-ending level since 1980.

RBOB–ULSD product spread: RBOB front-month futures averaged 4 cents/gal more than ULSD front-month futures in May 2020 after averaging 20 cents/gal less in April **(Figure 7)**. Although a positive spread has historically occurred during the summer months, the monthly average RBOB–ULSD front-month futures spread has not been positive since March 2018.



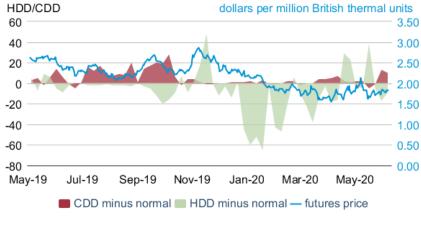
The reversion to the five-year average, after two consecutive months of being lower than it had been in the past five years, indicates a shift in the relative strength of gasoline markets compared with diesel markets. Although diesel demand decreased less than gasoline demand during the initial stages of COVID-19-related restrictions, gasoline demand has recently begun to increase more than diesel. This shift back toward gasoline demand is also reflected by refinery yields.

April refinery yields were unusual because the initial drop in distillate consumption relative to gasoline consumption was small, which supported distillate refining margins that encouraged refineries to increase distillate production. May refinery gasoline yields reverted back to levels similar to historical yields as the recent shift toward gasoline demand has supported increased gasoline production. EIA estimates that the May refinery gasoline yield increased to 46% compared with 40% in April, while the refinery distillate yield decreased to 36%, compared with 39% a month ago. Retail prices have reflected the same trend as front-month futures prices. Regular gasoline retail prices have increased every week in May, but regular diesel retail prices decreased every week until May 25.

Natural Gas

Prices: The front-month natural gas futures contract at the Henry Hub settled at \$1.82 per million British thermal units (MMBtu) on June 4, down 7 cents/MMBtu compared with May 1 (Figure 8).

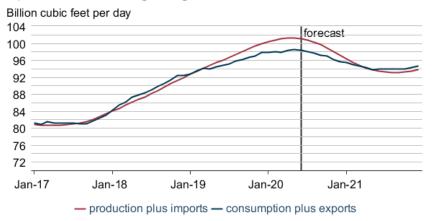
Figure 8. Natural gas front-month futures prices and actual minus historical average HDD and CDD



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

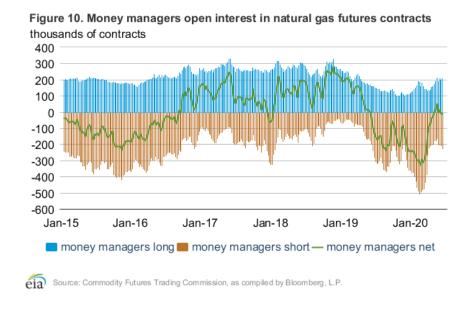
EIA estimates that total U.S. natural gas consumption in May 2020 was slightly higher than in May 2019 because of more residential and electric power sector natural gas consumption relative to the same time in 2019. These increases were partly offset by year-over-year decreases in industrial natural gas consumption, which likely occurred because of a slowdown in economic activity related to COVID-19 mitigation efforts. EIA forecasts that both production (including imports) and consumption (including exports) will begin to decline from the middle of 2020 to the end of 2021 and that this version of consumption will exceed production by the end of 2021 (seen as a 12-month moving average in Figure 9). The more rapid decline in production plus imports is expected to provide support for natural gas prices. EIA forecasts that Henry Hub natural gas spot prices will increase for the rest of 2020 and will average \$3.08 /MMBtu in 2021, which is higher than the \$2.04/MMBtu average for 2020.

Figure 9. Natural gas production plus imports and consumption plus exports, 12-month moving average



eia Source: U.S. Energy Information Administration

Money managers open interest: The net positions taken by money managers in natural gas futures markets reveal these traders' expectations regarding future movements in contract prices for this market participant category. A short position—selling a futures contract—typically indicates expected price declines because the trader would profit from a decline in prices. Meanwhile, a long position—buying a futures contract—typically indicates expected price increases because a trader would profit from the higher price in the future. On February 4, 2020, following a very mild winter, money managers had accumulated the largest net short position in the history of the Commodity Futures Trading Commission's (CFTC) weekly report on the commitments of traders. Over the course of April and May 2020, net positions reversed from net short to a marginal net long (Figure 10). The movement was fueled primarily by reduced gross short positions, and the relatively even split between gross short and gross long positions indicates the likely heightened uncertainty in futures markets at the present time.



Notable forecast changes

- Because of the rapidly changing situation in energy markets, EIA's 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 May 2020 IHS Markit macroeconomic forecast in this STEO. Using this forecast, EIA assumes U.S. gross domestic product (GDP) will decline by 7.4% in 2020, compared with a decline of 5.4% in the May STEO. In addition, the IHS forecast used in the June STEO includes average non-farm employment of 130.6 million for 2020 and 136.0 for 2021, down by 13.0 million jobs and 6.3 million jobs, respectively, from the May STEO.
- The Brent crude oil spot price forecast for 2020 in this month's STEO is \$38 per barrel (b), up from a forecast of \$34/b last month. The higher Brent crude oil price forecast reflects

increases in crude oil prices during May from their multiyear low levels in April. The higher prices were driven by a combination of announced OPEC+ cuts to oil production, declining U.S. crude oil production, and rising oil demand related to relaxed COVID-19 stay-at-home orders.

- In the June STEO, EIA forecasts U.S. crude oil production to average 11.6 million b/d in 2020 and 10.8 million b/d in 2021. Both forecasts are about 0.1 million b/d lower than in the May STEO. Lower drilling activity offsets the effect of higher forecast crude oil prices, resulting in the lower forecast production. Drilling activity during May fell by more than EIA expected, lowering the starting point for active drilling rigs in the forecast.
- EIA expects U.S. gasoline consumption to average 8.1 million b/d in 2020 and 8.7 million b/d
 in 2021. These forecasts are 0.2 million b/d and 0.1 million b/d lower, respectively, than
 forecast in the May STEO and reflect lower assumed employment levels compared with last
 month.
- Overall U.S. petroleum and other liquids consumption in this forecast averages 18.1 million b/d in 2020 (0.2 million b/d lower than in the May STEO) and 19.5 million b/d in 2021 (0.3 million b/d lower than in the May STEO). The lower forecast is the result of both less gasoline consumption and less distillate and jet fuel consumption, which results from a lower assumed GDP.
- EIA forecasts industrial natural gas consumption to decline 8.7% in 2020 in the June STEO.
 This change compares with a forecast 7.1% decline in the May STEO. The downward revision in industrial natural gas consumption is primarily driven by lower levels of assumed economic activity in this forecast, with the natural gas-weighted manufacturing index declining by 11% in 2020 in the June STEO compared with a 9% decline in the May STEO.
- EIA forecasts that U.S. liquefied natural gas exports will average 3.7 Bcf/d in the third quarter of 2020, down by 1.2 Bcf/d from the May STEO, based on lower global demand for natural gas.
- EIA lowered its forecast for Henry Hub natural gas spot prices for the rest of 2020, while raising the price forecast for 2021. EIA forecast prices to average \$2.26/MMBtu for the second half of 2020, down 15 cents/MMBtu from the May STEO. The lower forecast is the result of lower-than-expected natural gas consumption (including exports) during this period. For 2021, EIA expects Henry Hub prices to average \$3.08/MMBtu, up 19 cents/MMBtu from the May STEO. With lower production in 2020 because of lower prices, EIA expects prices will move higher to encourage more production to balance the market in 2021.
- EIA forecasts that total U.S. retail sales electricity in 2020 will decline by 5.5% relative to 2019 in the current STEO, compared with a forecast decline of 4.5% in the previous STEO.
 Most of the decline is attributable to the updated macroeconomic projections, which assume a larger decline in the GDP than previously expected. EIA continues to assume that

social distancing guidelines will magnify the economic-related decline in retail sales of electricity to the commercial sector. EIA believes that the forecast decline in industrial electricity sales this year is fully captured by the assumed decline in overall manufacturing activity. An assumption about increased use by households of electricity for electronics, appliances, and other devices is reflected in EIA's forecast for residential retail electricity sales, as in the previous STEO.

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

Short-Term Energy Outlook **Chart Gallery**















June 9, 2020

eia U.S. Energy Information Administration

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

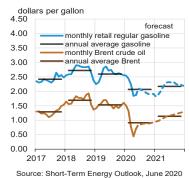


Note: Confidence interval derived from options market information for the five trading days ending Jun 4, 2020. Intervals not calculated for months with sparse trading in near-the-money options contracts.

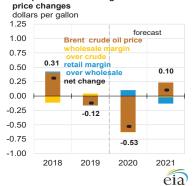
Sources: Short-Term Energy Outlook, June 2020, CME Group, and Bloomberg, L.P.

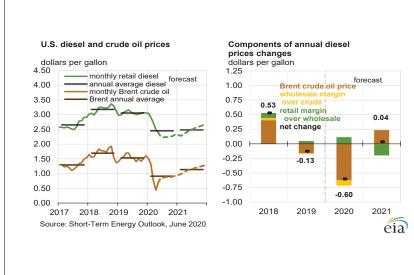


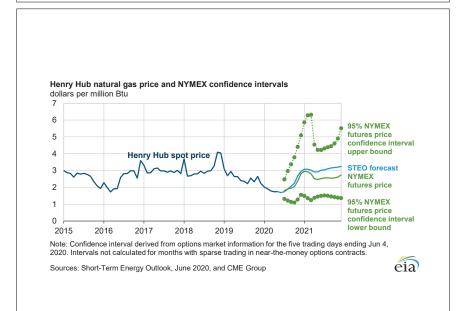
U.S. gasoline and crude oil prices

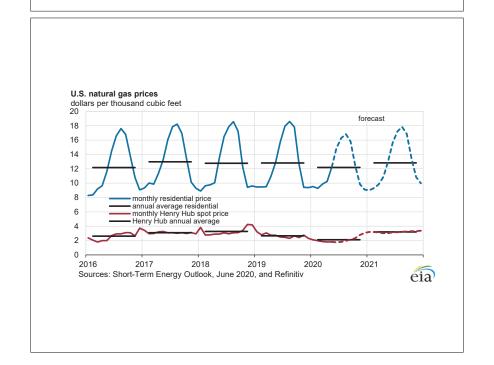


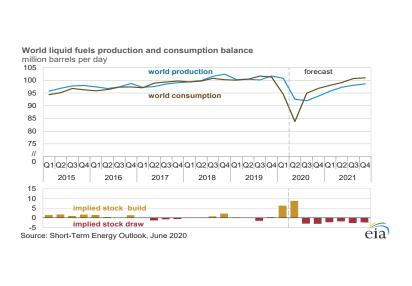
Components of annual gasoline

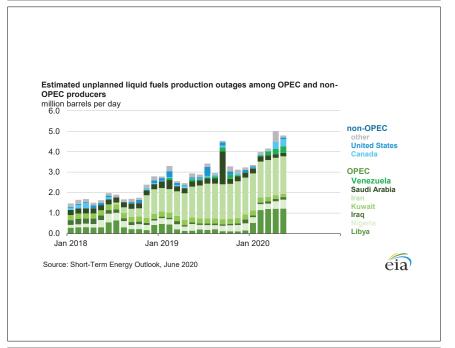


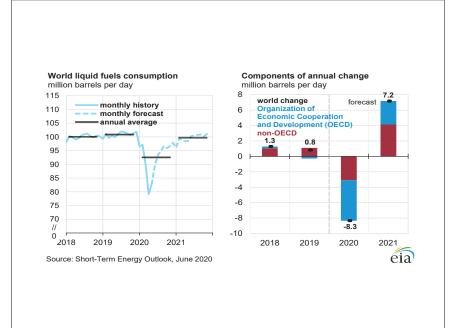


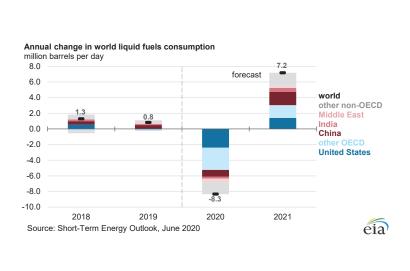


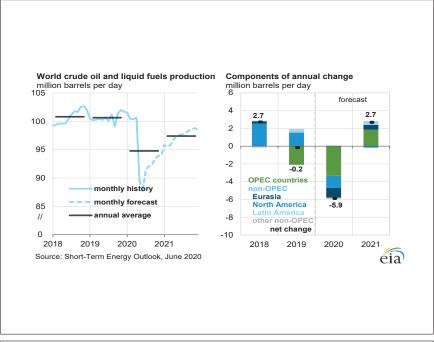


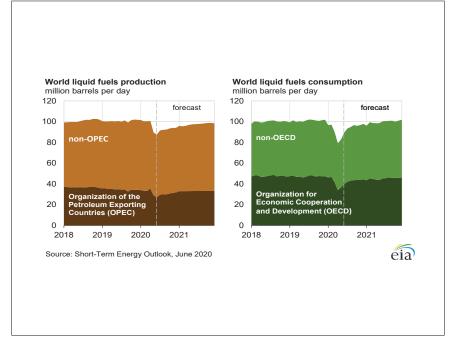


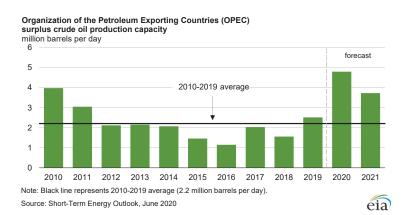


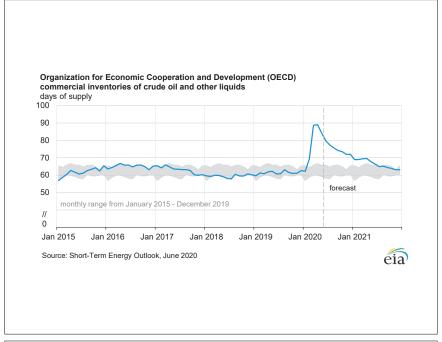


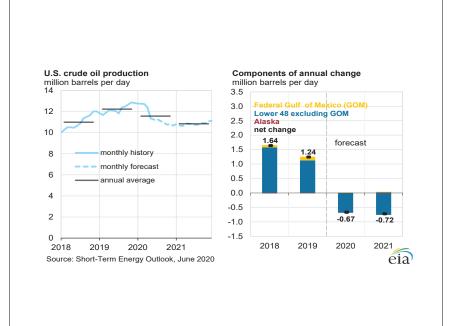


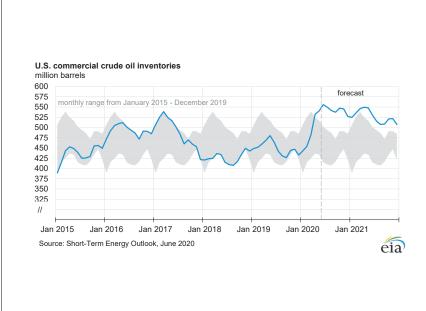


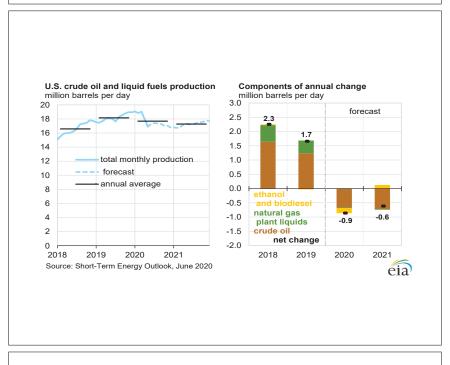


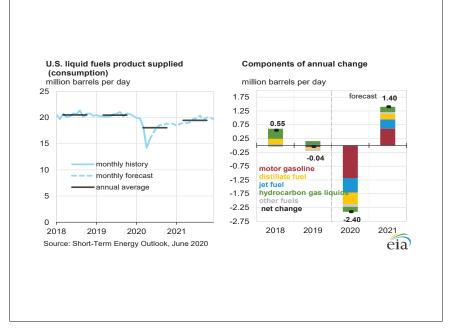


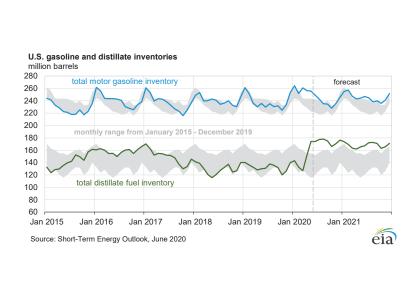


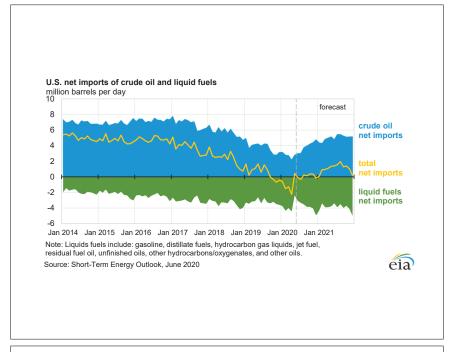


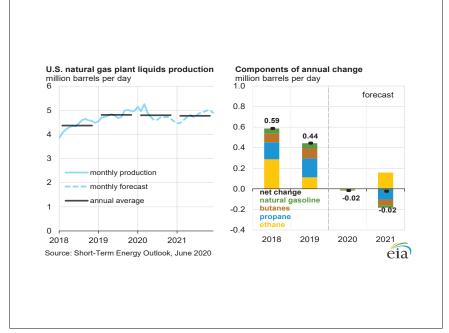


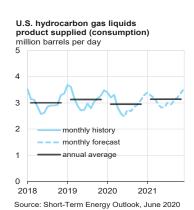




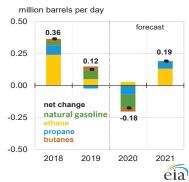


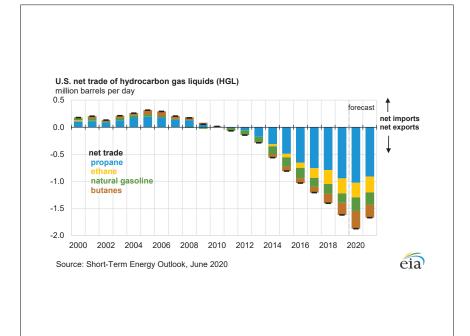


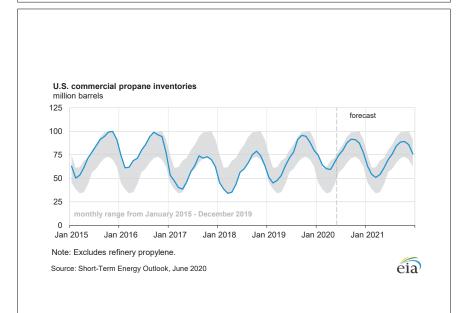


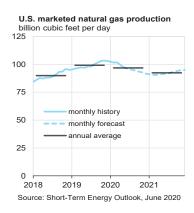


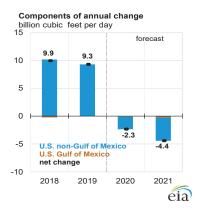
Components of annual change

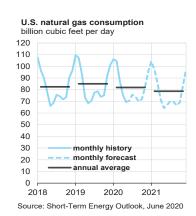


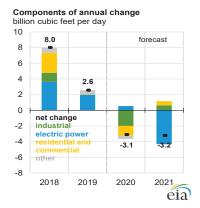


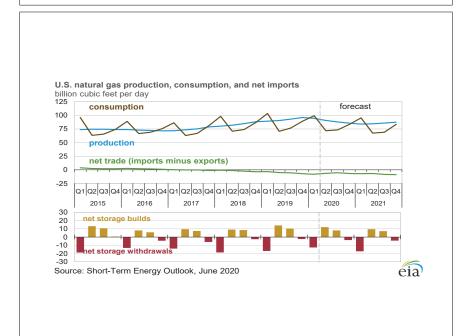


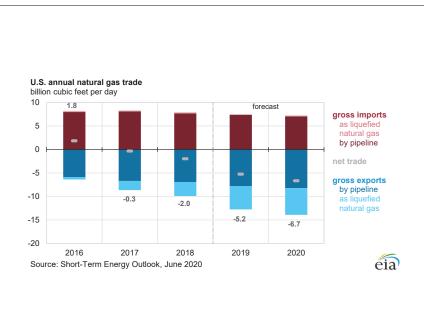


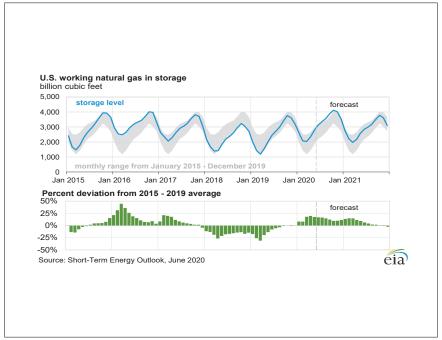


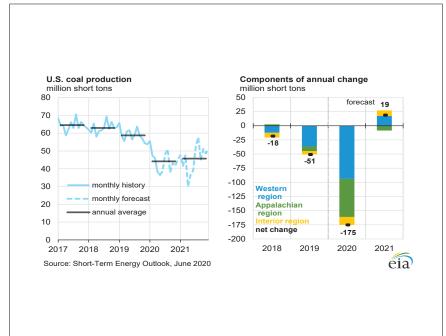


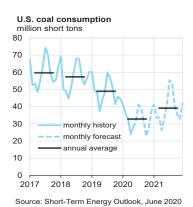


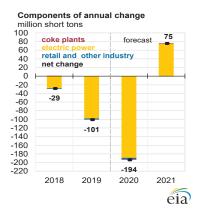


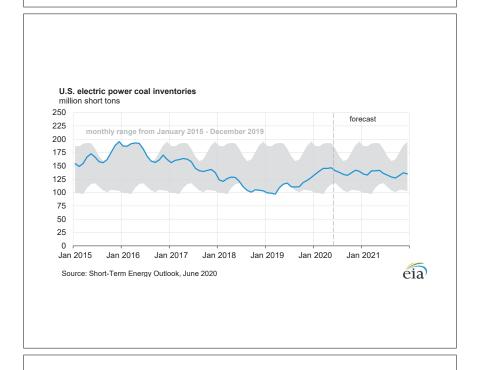


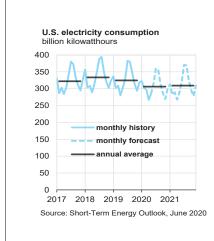


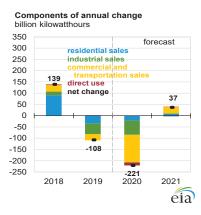


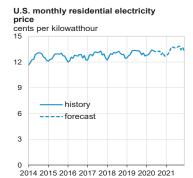






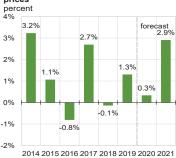






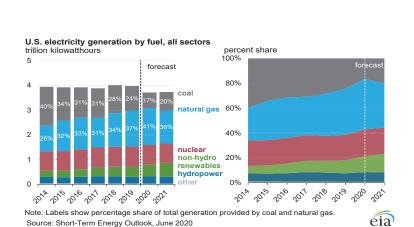
Source: Short-Term Energy Outlook, June 2020

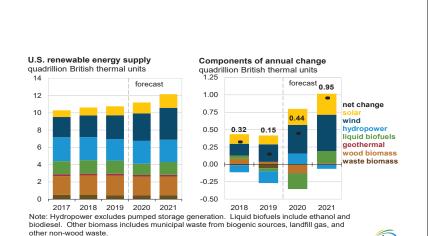




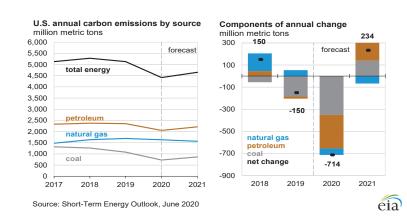
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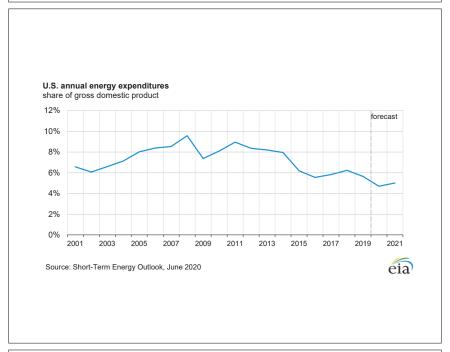
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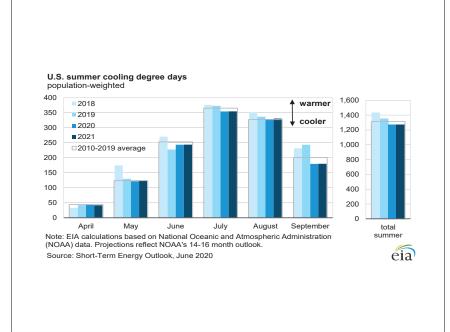


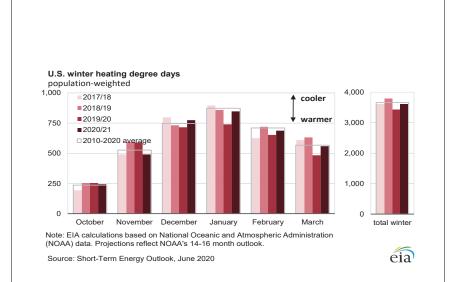


Source: Short-Term Energy Outlook, June 2020









U.S. Census regions and divisions



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

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Table 1. U.S. Energy Markets Summary

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

U.S. Energy Information Administra	uon S	ion Short-Term Energy Outlook - June 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)	11.81	12.10	12.23	12.78	12.74	11.65	11.13	10.74	10.71	10.83	10.80	11.02	12.23	11.56	10.84		
Dry Natural Gas Production (billion cubic feet per day)	89.32	90.50	92.98	95.97	94.47	90.60	87.95	85.66	83.96	84.44	85.75	87.34	92.21	89.65	85.39		
Coal Production (million short tons)	180	179	181	165	149	113	137	130	137	106	155	151	705	530	549		
Energy Consumption																	
Liquid Fuels (million barrels per day)	20.30	20.31	20.67	20.57	19.33	15.72	18.39	18.79	18.73	19.24	19.95	19.90	20.46	18.06	19.46		
Natural Gas (billion cubic feet per day)	103.32	70.74	76.74	89.33	99.25	71.78	73.24	83.30	95.27	67.37	68.91	83.35	84.97	81.87	78.66		
Coal (b) (million short tons)	158	130	168	132	110	84	112	88	108	101	149	110	587	394	469		
Electricity (billion kilowatt hours per day)	10.53	10.02	12.06	10.07	10.13	9.53	11.19	9.30	9.83	9.65	11.57	9.61	10.67	10.04	10.17		
Renewables (c) (quadrillion Btu)	2.81	3.08	2.80	2.79	2.92	3.07	2.88	2.94	3.18	3.40	3.13	3.14	11.48	11.81	12.84		
Total Energy Consumption (d) (quadrillion Btu)	26.54	23.43	24.97	25.22	25.01	20.16	22.23	22.81	24.12	21.97	23.42	23.83	100.17	90.22	93.34		
Energy Prices																	
Crude Oil West Texas Intermediate Spot (dollars per barrel)	54.82	59.94	56.35	56.86	45.34	26.47	34.57	34.50	37.44	42.66	45.98	49.03	57.02	35.14	43.88		
Natural Gas Henry Hub Spot (dollars per million Btu)	2.92	2.56	2.38	2.40	1.91	1.73	1.90	2.62	3.06	2.96	3.10	3.21	2.57	2.04	3.08		
Coal (dollars per million Btu)	2.08	2.05	2.00	1.95	1.92	2.04	2.00	2.00	2.03	2.04	2.03	2.04	2.02	1.98	2.03		
Macroeconomic																	
Real Gross Domestic Product (billion chained 2012 dollars - SAAR) Percent change from prior year	18,927 2.7	19,022 2.3	19,121 2.1	19,222 2.3	18,988 0.3	16,940 -10.9	17,175 -10.2	17,551 -8.7	18,064 -4.9	18,487 9.1	18,753 9.2	18,928 7.8	19,073 2.3	17,664 -7.4	18,558 5.1		
GDP Implicit Price Deflator (Index, 2012=100)	111.5 2.0	112.2 1.8	112.7 1.7	113.0 1.6	113.4 1.7	113.2 0.9	113.6 0.8	113.7 0.6	113.8 0.3	113.9 0.7	114.0 0.4	114.1 0.3	112.3 1.8	113.5 1.0	114.0 0.4		
Real Disposable Personal Income (billion chained 2012 dollars - SAAR) Percent change from prior year	14,878 3.3	14,934 3.0	15,012 2.7	15,073 2.4	15,093 1.4	15,380 3.0	15,851 5.6	15,407 2.2	15,327 1.6	15,452 0.5	15,532 -2.0	15,511 0.7	14,974 2.9	15,433 3.1	15,455 0.1		
Manufacturing Production Index (Index, 2012=100)	106.5 1.6	105.7 0.1	105.9 -0.6	105.8 -1.1	104.1 -2.2	81.4 -23.0	87.2 -17.6	89.4 -15.5	93.3 -10.3	97.0 19.2	98.9 13.4	99.9 11.7	106.0 0.0	90.5 -14.6	97.3 7.5		
Weather		•	0.3			_0.0	5	.0.0				,	3.3	5	0		
U.S. Heating Degree-Days	2,210	480	56	1,558	1,875	547	70	1,509	2,093	<i>4</i> 83	72	1,507	4,305	4,001	4,154		
O.O. Floating Degree-Days	٠,٤١٥	400	30	1,330	1,013	547	70	1,509	2,033	403	12	1,507	7,303	7,001	7,104		

^{- =} no data available

Prices are not adjusted for inflation.

U.S. Cooling Degree-Days

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.

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

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 $Petroleum\ Supply\ Annual,\ DOE/EIA-0340/2;\ Weekly\ Petroleum\ Status\ Report,\ DOE/EIA-0208;\ Petroleum\ Marketing\ Monthly,\ DOE/EIA-0380;\ Natural\ Gas\ Monthly,\ DOE/EIA-0300;$

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.

⁽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).

Table 2. Energy Prices

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

		201	19			202			20	21	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	26.47	34.57	34.50	37.44	42.66	45.98	49.03	57.02	35.14	43.88
Brent Spot Average	63.14	69.07	61.90	63.30	49.97	27.87	36.65	38.00	41.44	46.66	49.98	53.03	64.37	38.02	47.88
U.S. Imported Average	55.25	62.98	57.30	55.57	43.45	23.88	31.54	31.45	34.91	40.17	43.49	46.51	57.94	32.55	41.54
U.S. Refiner Average Acquisition Cost	56.93	63.55	58.67	58.05	47.51	25.59	34.02	33.94	36.35	41.70	44.99	48.03	59.33	35.71	42.91
U.S. Liquid Fuels (cents per gallon)															
Refiner Prices for Resale															
Gasoline	167	205	189	182	152	98	120	117	122	151	154	147	186	123	144
Diesel Fuel	192	203	192	197	160	99	114	119	125	144	154	161	196	124	147
Heating Oil	189	195	184	191	160	90	101	111	126	138	150	160	190	116	135
Refiner Prices to End Users															
Jet Fuel	193	204	194	197	165	76	93	97	115	132	143	154	197	115	137
No. 6 Residual Fuel Oil (a)	153	163	155	162	176	97	113	117	90	98	105	112	158	122	102
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	236	279	265	259	241	195	201	191	191	226	230	221	260	207	218
Gasoline All Grades (b)	245	288	274	269	251	204	213	204	204	239	243	235	269	218	231
On-highway Diesel Fuel	302	312	302	306	289	237	224	229	231	243	254	264	306	245	249
Heating Oil	300	305	290	301	280	206	207	225	233	240	253	273	300	243	250
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	3.03	2.66	2.47	2.49	1.98	1.79	1.97	2.72	3.17	3.07	3.22	3.33	2.66	2.12	3.20
Henry Hub Spot (dollars per million Btu)	2.92	2.56	2.38	2.40	1.91	1.73	1.90	2.62	3.06	2.96	3.10	3.21	2.57	2.04	3.08
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	4.67	3.74	3.30	3.74	3.52	2.65	2.69	3.65	4.41	3.94	4.03	4.51	3.91	3.16	4.24
Commercial Sector	7.59	7.97	8.40	7.22	7.21	7.39	7.71	7.09	7.35	8.07	8.66	7.99	7.62	7.26	7.80
Residential Sector	9.47	12.48	18.10	9.88	9.51	11.62	16.29	9.87	9.32	12.28	17.26	10.82	10.56	10.46	10.67
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.08	2.05	2.00	1.95	1.92	2.04	2.00	2.00	2.03	2.04	2.03	2.04	2.02	1.98	2.03
Natural Gas	3.71	2.73	2.51	2.78	2.40	1.79	1.82	2.83	3.59	3.18	3.29	3.59	2.88	2.17	3.40
Residual Fuel Oil (c)	12.21	13.39	12.79	12.52	12.50	7.47	6.84	7.09	7.79	9.29	9.31	9.60	12.72	8.29	8.85
Distillate Fuel Oil	14.83	15.77	15.01	15.10	13.45	8.35	9.15	9.60	9.99	11.34	11.99	12.68	15.16	10.09	11.54
Retail Prices (cents per kilowatthour)															
Industrial Sector	6.66	6.71	7.25	6.66	6.38	6.62	7.25	6.79	6.69	6.92	7.59	6.94	6.83	6.76	7.05
Commercial Sector	10.43	10.64	11.00	10.53	10.35	10.54	10.88	10.47	10.42	10.75	11.24	10.90	10.66	10.57	10.85
Residential Sector	12.68	13.33	13.27	12.85	12.90	13.31	13.21	12.87	12.92	13.70	13.73	13.45	13.04	13.08	13.46

^{- =} 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.

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.

⁽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.

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

o.e. Energy information right		20	19	3) -	atiooit c	202	20			202	21			Year	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Supply (million barrels per day) (a)															
OECD	31.04	31.29	31.45	32.76	32.88	29.62	29.47	29.75	29.74	30.13	30.32	31.05	31.64	30.42	30.32
U.S. (50 States)	18.85	19.32	19.42	20.21	20.22	18.33	18.01	17.75	17.57	18.06	18.14	18.46	19.45	18.57	18.06
Canada	5.44	5.47	5.47	5.63	5.63	4.60	4.84	5.29	5.36	5.45	5.49	5.71	5.50	5.09	5.50
Mexico	1.91	1.91	1.93	1.93	2.00	1.86	1.77	1.74	1.79	1.80	1.76	1.74	1.92	1.84	1.77
Other OECD	4.85	4.59	4.63	4.99	5.03	4.83	4.85	4.96	5.02	4.84	4.94	5.14	4.77	4.92	4.98
Non-OECD	69.27	69.15	68.68	68.94	67.89	62.94	62.49	64.03	66.00	67.13	67.72	67.55	69.01	64.33	67.11
OPEC	35.44	34.97	33.93	34.38	33.63	30.57	29.84	31.33	33.04	33.18	33.22	33.25	34.67	31.34	33.17
Crude Oil Portion	29.94	29.47	28.66	29.02	28.29	25.79	25.15	26.64	28.26	28.46	28.51	28.54	29.27	26.46	28.44
Other Liquids (b)	5.50	5.50	5.27	5.37	5.34	4.77	4.69	4.69	4.78	4.72	4.71	4.71	5.41	4.87	4.73
Eurasia	14.87	14.43	14.59	14.67	14.74	13.15	12.98	13.24	13.69	14.01	14.19	14.33	14.64	13.53	14.06
China	4.89	4.92	4.89	4.88	4.96	4.83	4.80	4.82	4.82	4.85	4.85	4.89	4.89	4.85	4.85
Other Non-OECD	14.07	14.83	15.27	15.01	14.56	14.39	14.88	14.64	14.46	15.10	15.46	15.08	14.80	14.62	15.03
Total World Supply	100.31	100.44	100.13	101.70	100.77	92.56	91.97	93.78	95.74	97.27	98.04	98.60	100.65	94.76	97.42
Non-OPEC Supply	64.87	65.48	66.20	67.32	67.14	61.99	62.13	62.45	62.71	64.09	64.82	65.36	65.98	63.42	64.25
Consumption (million barrels per day	/) (c)														
OECD	47.44	46.74	47.84	47.51	44.80	36.84	42.89	44.01	44.52	44.37	45.83	45.99	47.38	42.14	45.18
U.S. (50 States)	20.30	20.31	20.67	20.57	19.33	15.72	18.39	18.79	18.73	19.24	19.95	19.90	20.46	18.06	19.46
U.S. Territories	0.15	0.13	0.14	0.15	0.15	0.13	0.14	0.15	0.15	0.14	0.14	0.15	0.14	0.14	0.14
Canada	2.45	2.44	2.57	2.54	2.44	1.76	2.24	2.27	2.39	2.34	2.44	2.42	2.50	2.18	2.40
Europe	13.91	14.04	14.52	13.94	12.98	11.18	13.09	13.12	13.19	13.42	13.94	13.68	14.10	12.60	13.56
Japan	4.09	3.41	3.44	3.76	3.69	2.67	3.07	3.43	3.75	3.08	3.17	3.49	3.67	3.22	3.37
Other OECD	6.55	6.40	6.49	6.55	6.20	5.39	5.96	6.26	6.30	6.16	6.19	6.35	6.50	5.95	6.25
Non-OECD	52.59	53.72	53.82	53.78	49.68	46.97	52.03	52.82	53.50	54.74	54.89	54.96	53.48	50.39	54.53
Eurasia	4.94	5.00	5.38	5.23	4.77	4.35	5.16	5.11	4.95	5.02	5.42	5.27	5.14	4.85	5.17
Europe	0.77	0.76	0.78	0.78	0.74	0.72	0.75	0.76	0.75	0.75	0.77	0.77	0.77	0.74	0.76
China	14.45	14.65	14.37	14.58	13.07	12.73	14.16	14.58	15.22	15.45	15.17	15.42	14.51	13.64	15.32
Other Asia	13.84	14.00	13.60	13.94	13.26	12.28	13.13	13.73	14.36	14.54	14.14	14.51	13.84	13.10	14.39
Other Non-OECD	18.60	19.31	19.70	19.24	17.84	16.89	18.84	18.65	18.21	18.96	19.40	18.98	19.21	18.06	18.89
Total World Consumption	100.04	100.46	101.66	101.29	94.48	83.81	94.92	96.83	98.02	99.11	100.72	100.95	100.87	92.53	99.71
Total Crude Oil and Other Liquids Inv	entory Ne	et Withdra	wals (milli	ion barrel	s per day))									
U.S. (50 States)	0.26	-0.64	0.05	0.29	-0.43	-1.86	0.15	0.69	0.31	-0.32	-0.01	0.42	-0.01	-0.36	0.10
Other OECD	-0.23	0.01	-0.16	0.27	-0.95	-2.10	0.90	0.76	0.64	0.68	0.86	0.62	-0.03	-0.34	0.70
Other Stock Draws and Balance	-0.31	0.64	1.64	-0.98	-4.91	-4.79	1.91	1.60	1.32	1.48	1.83	1.31	0.25	-1.53	1.49
Total Stock Draw	-0.27	0.01	1.53	-0.41	-6.29	-8.75	2.96	3.06	2.27	1.84	2.68	2.35	0.22	-2.23	2.29
End-of-period Commercial Crude Oil	and Other	r Liquids I	nventorie	s (million	barrels)										
U.S. Commercial Inventory	1,241	1,304	1,299	1,282	1,321	1,465	1,451	1,400	1,386	1,418	1,420	1,384	1,282	1,400	1,384
OECD Commercial Inventory	2,860	2,921	2,932	2,890	3,016	3,351	3,254	3,133	3,060	3,031	2,953	2,860	2,890	3,133	2,860

^{- =} 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.

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.

⁽c) Consumption of petroleum by the OECD countries is synonymous with "petroleum product supplied," defined in the glossary of the EIA Petroleum Supply Monthly,

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

U.S. Energy Information Administration	Short-Term Energy Outlook - June 2020										04		Vee			
	Q1	20 Q2	19 Q3	Q4	Q1	Q2	20 Q3	Q4	Q1	20 Q2	21 Q3	Q4	2019	Year 2020	2021	
	QΊ	Ų2	ųз	Q4	ŲΊ	Q2	ųз	Q4	QΊ	Q2	Ų3	Q4	2019	2020	2021	
North America	26.19	26.70	26.82	27.77	27.85	24.79	24.62	24.78	24.72	25.30	25.38	25.92	26.87	25.51	25.33	
Canada	5.44	5.47	5.47	5.63	5.63	4.60	4.84	5.29	5.36	5.45	5.49	5.71	5.50	5.09	5.50	
Mexico	1.91	1.91	1.93	1.93	2.00	1.86	1.77	1.74	1.79	1.80	1.76	1.74	1.92	1.84	1.77	
United States	18.85	19.32	19.42	20.21	20.22	18.33	18.01	17.75	17.57	18.06	18.14	18.46	19.45	18.57	18.06	
Central and South America	5.44	6.22	6.80	6.45	6.03	6.10	6.63	6.32	6.06	6.77	7.14	6.79	6.23	6.27	6.69	
Argentina	0.66	0.70	0.70	0.70	0.67	0.58	0.67	0.67	0.66	0.67	0.68	0.67	0.69	0.65	0.67	
Brazil	2.90	3.65	4.23	3.89	3.43	3.79	4.07	3.72	3.48	4.27	4.64	4.26	3.67	3.75	4.17	
Colombia	0.92	0.92	0.91	0.91	0.90	0.84	0.84	0.88	0.87	0.81	0.82	0.85	0.92	0.86	0.84	
Ecuador	0.53	0.53	0.55	0.52	0.54	0.39	0.53	0.53	0.52	0.51	0.49	0.48	0.53	0.50	0.50	
Other Central and S. America		0.41	0.42	0.43	0.49	0.50	0.52	0.53	0.52	0.51	0.51	0.52	0.42	0.51	0.52	
Europe	4.26	3.97	3.96	4.29	4.42	4.31	4.29	4.38	4.44	4.26	4.37	4.57	4.12	4.35	4.41	
Norway	1.79	1.58	1.66	1.96	2.06	2.04	2.03	2.06	2.13	2.09	2.13	2.23	1.75	2.04	2.14	
United Kingdom	1.25	1.17	1.11	1.15	1.19	1.14	1.11	1.15	1.14	1.01	1.07	1.16	1.17	1.15	1.09	
Eurasia	14.87	14.43	14.59	14.67	14.74	13.15	12.98	13.24	13.69	14.01	14.19	14.33	14.64	13.53	14.06	
Azerbaijan	0.82	0.79	0.78	0.77	0.78	0.71	0.70	0.72	0.75	0.75	0.75	0.75	0.79	0.73	0.75	
Kazakhstan	2.03	1.85	1.96	2.02	2.06	1.82	1.85	1.89	1.97	1.91	1.94	1.98	1.97	1.91	1.95	
Russia	11.58	11.41	11.48	11.50	11.52	10.23	10.04	10.24	10.61	10.98	11.13	11.23	11.49	10.51	10.99	
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	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.15	0.14	0.13	
Middle East	3.11	3.11	3.12	3.12	3.20	3.14	3.10	3.13	3.19	3.19	3.19	3.19	3.11	3.14	3.19	
Oman	0.98	0.98	0.98	0.99	1.01	0.93	0.89	0.92	0.94	0.94	0.94	0.94	0.98	0.94	0.94	
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	9.43	9.05	9.06	9.16	9.23	9.21	9.20	9.21	9.46	9.18	9.21	
Australia	0.42	0.47	0.51	0.54	0.50	0.51	0.52	0.54	0.54	0.53	0.53	0.52	0.49	0.52	0.53	
China	4.89	4.92	4.89	4.88	4.96	4.83	4.80	4.82	4.82	4.85	4.85	4.89	4.89	4.85	4.85	
India	1.01	0.99	0.98	0.99	0.96	0.84	0.82	0.88	0.92	0.90	0.92	0.91	0.99	0.87	0.91	
Indonesia		0.94	0.92	0.91	0.88	0.89	0.88	0.87	0.86	0.85	0.84	0.83	0.93	0.88	0.84	
Malaysia	0.75	0.73	0.65	0.72	0.73	0.61	0.65	0.66	0.68	0.67	0.67	0.66	0.71	0.66	0.67	
Vietnam	0.25	0.25	0.23	0.22	0.22	0.21	0.21	0.21	0.20	0.20	0.19	0.19	0.24	0.21	0.20	
Africa	1.52	1.54	1.55	1.54	1.47	1.45	1.44	1.43	1.37	1.36	1.36	1.36	1.54	1.45	1.36	
Egypt		0.65	0.65	0.65	0.60	0.60	0.60	0.60	0.56	0.56	0.56	0.56	0.65	0.60	0.56	
South Sudan	0.17	0.18	0.18	0.18	0.18	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.18	0.17	0.17	
Total non-OPEC liquids	64.87	65.48	66.20	67.32	67.14	61.99	62.13	62.45	62.71	64.09	64.82	65.36	65.98	63.42	64.25	
OPEC non-crude liquids	5.50	5.50	5.27	5.37	5.34	4.77	4.69	4.69	4.78	4.72	4.71	4.71	5.41	4.87	4.73	
Non-OPEC + OPEC non-crude	70.37	70.97	71.48	72.69	72.48	66.77	66.82	67.14	67.48	68.80	69.53	70.07	71.38	68.29	68.98	
Unplanned non-OPEC Production Outages	0.35	0.26	0.39	0.31	0.16	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.33	n/a	n/a	

^{- =} 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.

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.

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.

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

	2019					20	020			20	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	1.03	-	-	-	-	-	-	-	1.02	-	-
Angola	1.50	1.43	1.40	1.36	1.36	-	-	-	-	-	-	-	1.42	-	-
Congo (Brazzaville)	0.33	0.33	0.33	0.32	0.29	-	-	-	-	-	-	-	0.32	-	-
Equatorial Guinea	0.11	0.11	0.13	0.13	0.13	-	-	-	-	-	-	-	0.12	-	-
Gabon	0.20	0.20	0.20	0.20	0.19	-	-	-	-	-	-	-	0.20	-	-
Iran	2.63	2.33	2.10	2.03	2.02	-	-	-	-	-	-	-	2.27	-	-
Iraq	4.75	4.70	4.70	4.65	4.56	-	-	-	-	-	-	-	4.70	-	-
Kuwait	2.74	2.72	2.70	2.70	2.77	-	-	-	-	-	-	-	2.72	-	-
Libya	0.93	1.14	1.13	1.17	0.35	-	-	-	-	-	-	-	1.09	-	-
Nigeria	1.58	1.65	1.71	1.67	1.72	-	-	-	-	-	-	-	1.65	-	-
Saudi Arabia	10.00	9.92	9.38	9.83	9.80	-	-	-	-	-	-	-	9.78	-	-
United Arab Emirates	3.12	3.12	3.13	3.20	3.30	-	-	-	-	-	-	-	3.14	-	-
Venezuela	1.05	0.79	0.73	0.73	0.77	-	-	-	-	-	-	-	0.83	-	-
OPEC Total	29.94	29.47	28.66	29.02	28.29	25.79	25.15	26.64	28.26	28.46	28.51	28.54	29.27	26.46	28.44
Other Liquids (a)	5.50	5.50	5.27	5.37	5.34	4.77	4.69	4.69	4.78	4.72	4.71	4.71	5.41	4.87	4.73
Total OPEC Supply	35.44	34.97	33.93	34.38	33.63	30.57	29.84	31.33	33.04	33.18	33.22	33.25	34.67	31.34	33.17
Crude Oil Production Capacity															
Middle East	25.66	25.53	24.58	24.74	25.61	26.01	26.06	26.17	26.27	26.29	26.28	26.28	25.12	25.96	26.28
Other	6.71	6.68	6.65	6.60	5.83	4.95	4.91	5.49	5.86	5.86	5.91	5.94	6.66	5.30	5.89
OPEC Total	32.37	32.22	31.22	31.34	31.44	30.96	30.98	31.66	32.13	32.15	32.19	32.22	31.78	31.26	32.17
Surplus Crude Oil Production Capacity															
Middle East	2.43	2.75	2.57	2.32	3.15	5.17	5.83	5.03	3.87	3.69	3.68	3.68	2.52	4.80	3.73
Other	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
OPEC Total	2.43	2.75	2.57	2.32	3.15	5.17	5.83	5.03	3.87	3.69	3.68	3.68	2.52	4.80	3.73
Unplanned OPEC Production Outages	2.52	2.51	3.24	2.91	3.67	n/a	2.80	n/a	n/a						

^{- =} 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.

 $\textbf{Historical data:} \ Latest \ data \ available \ from \ Energy \ Information \ Administration \ international \ energy \ statistics.$

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

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.

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

C.C. Energy information / termination	Jiloit Tel	20	·			20	20		2021						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
	•			-					-	-				·	
North America	24.69	24.70	25.19	24.98	23.57	19.02	22.34	22.86	22.89	23.37	24.18	24.12	24.89	21.95	23.64
Canada	2.45	2.44	2.57	2.54	2.44	1.76	2.24	2.27	2.39	2.34	2.44	2.42	2.50	2.18	2.40
Mexico	1.93	1.94	1.93	1.86	1.78	1.53	1.70	1.80	1.77	1.79	1.78	1.79	1.92	1.70	1.78
United States	20.30	20.31	20.67	20.57	19.33	15.72	18.39	18.79	18.73	19.24	19.95	19.90	20.46	18.06	19.46
Central and South America	6.70	6.82	6.92	6.93	6.32	5.78	6.57	6.66	6.57	6.73	6.87	6.89	6.84	6.33	6.77
Brazil	3.03	3.10	3.19	3.18	2.84	2.44	2.99	3.05	2.98	3.07	3.17	3.17	3.13	2.83	3.10
Europe	14.67	14.81	15.30	14.72	13.72	11.90	13.84	13.88	13.95	14.18	14.71	14.45	14.88	13.34	14.32
Eurasia	4.94	5.00	5.38	5.23	4.77	4.35	5.16	5.11	4.95	5.02	5.42	5.27	5.14	4.85	5.17
Russia	3.64	3.74	4.04	3.89	3.50	3.13	3.85	3.79	3.66	3.76	4.08	3.93	3.83	3.57	3.86
Middle East	8.11	8.67	9.04	8.39	7.82	7.54	8.65	8.13	7.84	8.40	8.79	8.15	8.55	8.04	8.30
Asia and Oceania	36.42	35.94	35.39	36.41	33.89	30.99	34.05	35.66	37.32	36.89	36.32	37.44	36.04	33.65	36.99
China	14.45	14.65	14.37	14.58	13.07	12.73	14.16	14.58	15.22	15.45	15.17	15.42	14.51	13.64	15.32
Japan	4.09	3.41	3.44	3.76	3.69	2.67	3.07	3.43	3.75	3.08	3.17	3.49	3.67	3.22	3.37
India	4.74	4.80	4.48	4.77	4.58	4.17	4.38	4.75	5.04	5.11	4.78	5.08	4.70	4.47	5.00
Africa	4.50	4.52	4.44	4.63	4.38	4.24	4.31	4.53	4.50	4.51	4.43	4.63	4.52	4.37	4.52
Total OECD Liquid Fuels Consumption	47.44	46.74	47.84	47.51	44.80	36.84	42.89	44.01	44.52	44.37	45.83	45.99	47.38	42.14	45.18
Total non-OECD Liquid Fuels Consumption	52.59	53.72	53.82	53.78	49.68	46.97	52.03	52.82	53.50	54.74	54.89	54.96	53.48	50.39	54.53
Total World Liquid Fuels Consumption	100.04	100.46	101.66	101.29	94.48	83.81	94.92	96.83	98.02	99.11	100.72	100.95	100.87	92.53	99.71
Oil-weighted Real Gross Domestic Product (a)															
World Index, 2015 Q1 = 100	111.8	112.7	112.9	112.7	109.5	103.0	106.3	108.7	111.5	113.7	115.0	115.8	112.5	106.9	114.0
Percent change from prior year	2.3	2.1	1.9	1.6	-2.1	-8.6	-5.8	-3.5	1.8	10.4	8.2	6.5	2.0	-5.0	6.7
OECD Index, 2015 Q1 = 100	108.7	109.7	110.1	109.6	107.9	97.4	100.4	103.1	106.4	109.1	110.6	111.1	109.6	102.2	109.3
Percent change from prior year	1.8	1.8	1.8	1.5	-0.8	-11.3	-8.8	-6.0	-1.4	12.0	10.2	7.8	1.7	-6.7	7.0
Non-OECD Index, 2015 Q1 = 100	114.8	115.6	115.6	115.6	111.1	108.6	112.2	114.3	116.6	118.2	119.3	120.5	115.4	111.6	118.7
Percent change from prior year	2.7	2.5	2.1	1.7	-3.2	-6.0	-2.9	-1.1	4.9	8.8	6.4	5.4	2.2	-3.3	6.4
Real U.S. Dollar Exchange Rate (a)															
Index, 2015 Q1 = 100	105.27	105.91	106.45	106.32	106.97	109.06	108.89	107.90	106.99	106.45	105.97	105.14	105.99	108.20	106.14
Percent change from prior year	4.5	3.0	0.8	0.0	1.6	3.0	2.3	1.5	0.0	-2.4	-2.7	-2.6	2.0	2.1	-1.9

^{- =} 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.

 $\textbf{Historical data:} \ Latest \ data \ available \ from \ Energy \ Information \ Administration \ international \ energy \ statistics.$

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

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

0.5. Energy information Administration Short	2019					202	20		2021					Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021	
Supply (million barrels per day)	I		· ·		ı											
Crude Oil Supply																
Domestic Production (a)	11.81	12.10	12.23	12.78	12.74	11.65	11.13	10.74	10.71	10.83	10.80	11.02	12.23	11.56	10.84	
Alaska		0.47	0.43	0.48	0.48	0.44	0.45	0.49	0.50	0.50	0.46	0.49	0.47	0.46	0.49	
Federal Gulf of Mexico (b)	1.85	1.93	1.82	1.94	1.96	1.84	1.91	1.91	1.97	1.95	1.86	1.88	1.88	1.90	1.92	
Lower 48 States (excl GOM)		9.70	9.98	10.36	10.30	9.38	8.78	8.35	8.24	8.39	8.48	8.65	9.88	9.20	8.44	
Crude Oil Net Imports (c)	. 4.25	4.14	3.95	2.94	2.90	2.66	3.58	4.47	4.52	4.98	5.39	5.14	3.82	3.41	5.01	
SPR Net Withdrawals		0.05	0.00	0.11	0.00	-0.27	0.00	0.14	0.14	0.03	0.01	0.03	0.04	-0.03	0.05	
Commercial Inventory Net Withdrawals	0.19	-0.05	0.41	-0.07	-0.54	-0.81	0.20	0.11	-0.21	0.17	0.24	0.01	0.03	-0.26	0.05	
Crude Oil Adjustment (d)	0.33	0.53	0.38	0.56	0.67	-0.13	0.21	0.15	0.22	0.22	0.23	0.16	0.45	0.23	0.21	
Total Crude Oil Input to Refineries	. 16.20	16.76	16.97	16.32	15.77	13.11	15.12	15.62	15.38	16.23	16.67	16.36	16.56	14.91	16.16	
Other Supply																
Refinery Processing Gain	1.06	1.07	1.07	1.10	1.02	0.93	1.03	1.10	1.08	1.13	1.12	1.12	1.08	1.02	1.11	
Natural Gas Plant Liquids Production	4.66	4.81	4.80	4.99	5.12	4.74	4.68	4.65	4.51	4.75	4.87	4.96	4.81	4.80	4.77	
Renewables and Oxygenate Production (e)	1.10	1.14	1.12	1.12	1.11	0.81	0.97	1.04	1.07	1.13	1.13	1.15	1.12	0.98	1.12	
Fuel Ethanol Production	1.01	1.05	1.02	1.04	1.02	0.67	0.83	0.90	0.92	0.96	0.97	0.98	1.03	0.85	0.96	
Petroleum Products Adjustment (f)	0.22	0.20	0.21	0.21	0.22	0.19	0.21	0.21	0.20	0.21	0.21	0.21	0.21	0.21	0.21	
Product Net Imports (c)		-3.04	-3.13	-3.43	-4.03	-3.29	-3.57	-4.28	-3.90	-3.70	-3.79	-4.28	-3.22	-3.79	-3.92	
Hydrocarbon Gas Liquids		-1.65	-1.66	-1.83	-1.99	-1.99	-1.84	-1.68	-1.54	-1.70	-1.72	-1.71	-1.62	-1.87	-1.67	
Unfinished Oils	0.21	0.47	0.47	0.50	0.31	0.20	0.45	0.37	0.35	0.44	0.44	0.32	0.41	0.33	0.39	
Other HC/Oxygenates		-0.07	-0.05	-0.05	-0.10	-0.09	-0.10	-0.11	-0.14	-0.12	-0.12	-0.13	-0.06	-0.10	-0.13	
Motor Gasoline Blend Comp	. 0.43	0.79	0.70	0.46	0.39	0.15	0.40	0.21	0.47	0.71	0.47	0.21	0.60	0.29	0.47	
Finished Motor Gasoline	0.82	-0.63	-0.62	-0.87	-0.72	-0.02	-0.46	-0.82	-1.08	-0.96	-0.90	-0.99	-0.74	-0.51	-0.98	
Jet Fuel	0.08	-0.01	-0.05	-0.09	-0.07	0.00	-0.13	-0.15	-0.15	-0.14	0.01	-0.06	-0.06	-0.09	-0.08	
Distillate Fuel Oil	0.91	-1.29	-1.30	-0.99	-1.19	-1.10	-1.28	-1.25	-1.09	-1.16	-1.23	-1.10	-1.12	-1.20	-1.15	
Residual Fuel Oil	0.08	-0.15	-0.08	-0.03	-0.02	0.04	-0.02	-0.01	-0.02	-0.11	-0.05	0.00	-0.08	0.00	-0.04	
Other Oils (g)	0.64	-0.50	-0.52	-0.54	-0.65	-0.48	-0.58	-0.84	-0.69	-0.65	-0.70	-0.81	-0.55	-0.64	-0.71	
Product Inventory Net Withdrawals	0.44	-0.64	-0.36	0.26	0.11	-0.78	-0.05	0.44	0.37	-0.52	-0.27	0.39	-0.07	-0.07	-0.01	
Total Supply	20.38	20.31	20.67	20.57	19.33	15.72	18.39	18.79	18.73	19.24	19.95	19.90	20.48	18.06	19.46	
Consumption (million barrels per day)																
Hydrocarbon Gas Liquids		2.78	2.94	3.31	3.31	2.63	2.75	3.12	3.29	2.88	3.01	3.38	3.13	2.95	3.14	
Unfinished Oils	0.03	0.09	0.04	0.10	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.04	0.00	
Motor Gasoline		9.48	9.49	9.16	8.49	6.98	8.42	8.48	8.22	8.86	8.97	8.75	9.27	8.09	8.70	
Fuel Ethanol blended into Motor Gasoline		0.97	0.95	0.96	0.85	0.70	0.82	0.85	0.82	0.90	0.90	0.89	0.95	0.80	0.88	
Jet Fuel		1.78	1.79	1.74	1.56	0.65	1.22	1.39	1.38	1.49	1.68	1.62	1.74	1.20	1.54	
Distillate Fuel Oil		4.01	3.94	4.10	3.97	3.31	3.61	3.76	3.82	3.82	3.86	3.98	4.08	3.66	3.87	
Residual Fuel Oil		0.23	0.32	0.27	0.17	0.21	0.31	0.28	0.29	0.23	0.31	0.27	0.27	0.24	0.27	
Other Oils (g)		1.95	2.14	1.88	1.68	1.93	2.07	1.77	1.73	1.96	2.12	1.89	1.91	1.86	1.92	
Total Consumption	20.30	20.31	20.67	20.57	19.33	15.72	18.39	18.79	18.73	19.24	19.95	19.90	20.46	18.06	19.46	
Total Petroleum and Other Liquids Net Imports	. 0.95	1.10	0.83	-0.49	-1.13	-0.62	0.01	0.19	0.62	1.29	1.60	0.86	0.59	-0.38	1.09	
End-of-period Inventories (million barrels)																
Commercial Inventory																
Crude Oil (excluding SPR)		464.0	426.5	432.9	482.5	555.8	537.3	527.0	545.9	530.6	508.4	507.5	432.9	527.0	507.5	
Hydrocarbon Gas Liquids		224.1	262.8	211.7	180.8	225.6	257.8	214.2	175.0	222.3	257.6	214.9	211.7	214.2	214.9	
Unfinished Oils		95.9	92.2	89.4	100.1	90.5	89.5	83.5	93.6	91.3	90.8	85.0	89.4	83.5	85.0	
Other HC/Oxygenates		29.0	28.4	27.8	33.6	26.8	22.2	21.2	21.6	20.5	19.8	20.5	27.8	21.2	20.5	
Total Motor Gasoline		229.7	231.9	253.8	260.8	249.2	234.5	245.4	247.2	246.9	240.0	251.5	253.8	245.4	251.5	
Finished Motor Gasoline		21.0	23.0	26.0	22.6	26.0	24.8	25.0	24.1	22.6	23.6	24.1	26.0	25.0	24.1	
Motor Gasoline Blend Comp.		208.8	208.9	227.9	238.3	223.3	209.7	220.4	223.1	224.3	216.4	227.4	227.9	220.4	227.4	
Jet Fuel		40.6	44.4	40.5	39.9	40.8	42.8	41.2	40.6	41.4	43.5	40.5	40.5	41.2	40.5	
Distillate Fuel Oil		130.8	131.7	140.0	126.7	174.0	175.1	176.3	163.3	167.2	170.9	171.1	140.0	176.3	171.1	
Residual Fuel Oil		30.3	29.9	30.9	34.4	37.0	32.8	31.0	32.7	33.8	31.5	33.1	30.9	31.0	33.1	
Other Oils (g)		59.1	51.2	54.6	62.0	65.5	59.0	60.6	65.5	63.8	57.7	59.6	54.6	60.6	59.6	
Total Commercial Inventory		1,304	1,299	1,282	1,321	1,465	1, 4 51	1,400	1,386	1,418	1,420	1,384	1,282	1,400	1,384	
Crude Oil in SPR	649	645	645	635	635	660	660	647	634	631	630	628	635	647	628	

^{- =} 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.

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.

⁽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.

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 En		tlook - Ju	ine 2020		20	1		000	.4			V	
•	Q1	201	Q3	04	01	202 Q2		Q4	Q1	202 Q2	21 Q3	Q4	2019	Year 2020	2021
HGL Production	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	ŲΊ	Q2	Ų3	Q4	2019	2020	2021
Natural Gas Processing Plants															
Ethane	1.87	1.87	1.71	1.85	1.93	1.75	1.75	1.85	1.86	1.98	1.99	2.07	1.83	1.82	1.98
Propane	1.50	1.56	1.61	1.67	1.72	1.59	1.54	1.49	1.42	1.46	1.51	1.53	1.59	1.58	1.48
Butanes	0.79	0.84	0.87	0.89	0.91	0.85	0.83	0.80	0.75	0.78	0.81	0.82	0.85	0.85	0.79
Natural Gasoline (Pentanes Plus)	0.49	0.55	0.60	0.57	0.56	0.54	0.56	0.52	0.48	0.52	0.56	0.53	0.55	0.55	0.52
Refinery and Blender Net Production	00	0.00	0.00	0.0.	0.00	0.07	0.00	0.02	00	0.02	0.00	0.00	0.00	0.00	0.02
Ethane/Ethylene	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01
Propane	0.28	0.30	0.29	0.29	0.29	0.24	0.27	0.29	0.28	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	0.24	0.27	0.28	0.28	0.29	0.28	0.29	0.28	0.26	0.29
Butanes/Butylenes	-0.09	0.26	0.18	-0.23	-0.08	0.24	0.18	-0.20	-0.09	0.26	0.18	-0.20	0.03	0.04	0.04
Renewable Fuels and Oxygenate Plant Net Pro															
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	-0.25	-0.25	-0.28	-0.27	-0.29	-0.31	-0.30	-0.28	-0.27	-0.29
Propane/Propylene	-0.75	-0.99	-0.97	-1.07	-1.12	-1.04	-0.95	-0.98	-0.86	-0.93	-0.89	-0.96	-0.94	-1.03	-0.91
Butanes/Butylenes	-0.14	-0.26	-0.26	-0.25	-0.30	-0.44	-0.36	-0.22	-0.19	-0.25	-0.27	-0.22	-0.23	-0.33	-0.24
Natural Gasoline (Pentanes Plus)	-0.17	-0.14	-0.15	-0.21	-0.27	-0.25	-0.27	-0.20	-0.22	-0.22	-0.24	-0.23	-0.17	-0.25	-0.23
HGL Refinery and Blender Net Inputs				. = ء											
Butanes/Butylenes	0.46	0.29	0.33	0.54	0.46	0.16	0.26	0.48	0.39	0.29	0.32	0.51	0.40	0.34	0.38
Natural Gasoline (Pentanes Plus)	0.14	0.17	0.18	0.18	0.15	0.16	0.18	0.19	0.17	0.18	0.19	0.18	0.17	0.17	0.18
HGL Consumption															
Ethane/Ethylene	1.61	1.49	1.47	1.55	1.70	1.43	1.53	1.56	1.59	1.66	1.72	1.78	1.53	1.56	1.69
Propane	1.20	0.58	0.65	1.05	1.09	0.61	0.66	0.94	1.11	0.60	0.69	0.99	0.87	0.82	0.85
Propylene (refinery-grade)	0.29	0.30	0.29	0.31	0.26	0.25	0.28	0.29	0.30	0.30	0.30	0.30	0.30	0.27	0.30
Butanes/Butylenes	0.20	0.21	0.30	0.24	0.17	0.24	0.20	0.22	0.20	0.24	0.21	0.21	0.24	0.21	0.21
Natural Gasoline (Pentanes Plus)	0.20	0.20	0.23	0.17	0.09	0.10	0.09	0.12	0.09	0.09	0.10	0.10	0.20	0.10	0.10
HGL Inventories (million barrels)															
Ethane	48.14	56.18	56.46	58.84	52.57	56.69	55.06	56.99	55.46	58.93	57.71	58.93	54.94	55.33	57.77
Propane	47.77	71.72	95.60	79.63	60.28	74.75	91.44	77.05	51.05	69.81	88.57	75.97	79.63	77.05	75.97
Propylene (at refineries only)	1.68	1.76	2.65	1.66	1.41	2.13	2.66	3.18	3.16	3.63	4.07	4.47	1.66	3.18	4.47
Butanes/Butylenes	39.30	70.72	85.88	52.15	43.58	67.29	84.75	55.13	44.95	69.07	86.53	56.90	52.15	55.13	56.90
Natural Gasoline (Pentanes Plus)	18.12	19.71	21.28	20.90	23.99	25.13	25.88	25.00	22.29	23.34	24.16	23.40	20.90	25.00	23.40
Refinery and Blender Net Inputs															
Crude OII	16.20	16.76	16.97	16.32	15.77	13.11	15.12	15.62	15.38	16.23	16.67	16.36	16.56	14.91	16.16
Hydrocarbon Gas Liquids	0.59	0.46	0.51	0.72	0.61	0.32	0.44	0.67	0.57	0.47	0.51	0.69	0.57	0.51	0.56
Other Hydrocarbons/Oxygenates	1.16	1.21	1.22	1.19	1.12	0.91	1.04	1.07	1.08	1.16	1.15	1.14	1.19	1.04	1.13
Unfinished Oils	0.18	0.34	0.46	0.43	0.05	0.31	0.46	0.43	0.24	0.47	0.45	0.38	0.35	0.31	0.38
Motor Gasoline Blend Components	0.63	0.94	0.77	0.40	0.41	0.37	0.65	0.26	0.57	0.84	0.66	0.26	0.68	0.42	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	15.01	17.71	18.06	17.84	19.17	19.44	18.83	19.37	17.19	18.82
Refinery Processing Gain	1.06	1.07	1.07	1.10	1.02	0.93	1.03	1.10	1.08	1.13	1.12	1.12	1.08	1.02	1.11
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	0.48	0.84	0.76	0.34	0.47	0.72	0.73	0.37	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	7.05	8.94	9.44	9.38	9.91	9.95	9.88	10.09	8.69	9.78
Jet Fuel	1.73	1.78	1.88	1.79	1.63	0.66	1.37	1.52	1.53	1.63	1.69	1.65	1.80	1.30	1.62
Distillate Fuel	5.05	5.21	5.18	5.11	4.95	4.86	4.83	4.94	4.73	4.97	5.06	5.02	5.14	4.90	4.95
Residual Fuel	0.36	0.39	0.39	0.31	0.23	0.20	0.29	0.26	0.32	0.34	0.34	0.29	0.36	0.25	0.32
Other Oils (a)	2.37	2.40	2.58	2.46	2.41	2.45	2.58	2.62	2.48	2.59	2.75	2.72	2.45	2.52	2.64
Total Refinery and Blender Net Production	19.82	20.78	21.00	20.17	18.99	15.95	18.74	19.16	18.92	20.30	20.56	19.95	20.44	18.21	19.94
Refinery Distillation Inputs	16.48	17.14	17.44	16.86	16.36	13.60	15.58	15.97	15.72	16.49	16.94	16.62	16.98	15.38	16.45
Refinery Operable Distillation Capacity	18.78	18.80	18.81	18.81	18.98	18.98	18.98	19.00	19.00	19.00	19.00	19.03	18.80	18.98	19.01
Refinery Distillation Utilization Factor	0.88	0.91	0.93	0.90	0.86	0.72	0.82	0.84	0.83	0.87	0.89	0.87	0.90	0.81	0.87
Tremory Distinguion Guilzaughi actor	0.00	0.31	0.33	0.30	0.00	0.12	0.02	0.04	0.03	0.07	0.03	0.07	0.30	0.01	0.07

^{- =} no data available

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

⁽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.

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

U.S. Energy information Administrati		OIL- I CIII	Lileig	Cutioui	N - Julie	2020									
		201	19			202	20			20:	21			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	152	98	120	117	122	151	154	147	186	123	144
Gasoline Regular Grade Retail Prices Incl	uding Tax	es													
PADD 1	233	268	256	247	236	191	191	182	186	216	223	216	251	200	211
PADD 2	223	269	257	244	226	178	188	179	178	220	221	210	249	193	208
PADD 3	206	246	234	224	210	164	175	165	169	199	203	194	228	179	192
PADD 4	226	285	270	276	247	191	196	185	186	219	228	216	265	205	213
PADD 5	297	356	331	350	311	261	268	256	245	284	288	280	334	275	275
U.S. Average	236	279	265	259	241	195	201	191	191	226	230	221	260	207	218
Gasoline All Grades Including Taxes	245	288	274	269	251	204	213	204	204	239	243	235	269	218	231
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	62.4	59.7	64.9	65.6	71.0	68.7	59.9	62.5	66.6	69.1	63.3	67.8	65.6	62.5	67.8
PADD 2	53.9	49.6	51.0	55.0	60.2	52.8	49.9	51.5	54.3	53.5	52.9	50.5	55.0	51.5	50.5
PADD 3	82.5	82.4	81.5	91.8	84.8	90.5	88.4	92.2	88.3	87.3	87.0	93.2	91.8	92.2	93.2
PADD 4	6.9	7.5	7.7	8.3	9.2	7.5	6.9	7.2	7.6	7.8	7.5	7.8	8.3	7.2	7.8
PADD 5	30.4	30.6	26.8	33.2	35.6	29.7	29.5	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	249.2	234.5	245.4	247.2	246.9	240.0	251.5	253.8	245.4	251.5
Finished Gasoline Inventories															
U.S. Total	21.7	21.0	23.0	26.0	22.6	26.0	24.8	25.0	24.1	22.6	23.6	24.1	26.0	25.0	24.1
Gasoline Blending Components Inventori	es														
U.S. Total	214.4	208.8	208.9	227.9	238.3	223.3	209.7	220.4	223.1	224.3	216.4	227.4	227.9	220.4	227.4

^{- =} 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 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.

Prices are not adjusted for inflation.

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

C.C. Energy information 7 turns		20	19			202				202	<u>.</u>			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	101.90	97.78	94.98	92.55	90.78	91.35	92.82	94.60	99.17	96.79	92.40
Alaska	0.96	0.93	0.79	0.93	0.96	0.80	0.77	0.94	0.99	0.87	0.80	0.95	0.90	0.87	0.90
Federal GOM (a)	2.80	2.75	2.51	2.72	2.72	2.56	2.53	2.46	2.46	2.36	2.21	2.17	2.69	2.57	2.30
Lower 48 States (excl GOM)	92.32	93.76	96.61	99.51	98.21	94.42	91.68	89.16	87.33	88.12	89.81	91.48	95.57	93.35	89.20
Total Dry Gas Production	89.32	90.50	92.98	95.97	94.47	90.60	87.95	85.66	83.96	84.44	85.75	87.34	92.21	89.65	85.39
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	5.64	3.66	5.60	7.07	6.42	7.56	8.20	4.98	5.70	7.31
Pipeline Gross Imports	8.35	6.73	7.10	7.30	7.64	6.66	6.55	7.38	8.45	7.50	7.68	8.06	7.37	7.06	7.92
Pipeline Gross Exports	7.86	7.18	7.80	8.25	8.13	7.53	8.46	8.69	8.85	7.94	8.73	8.85	7.77	8.20	8.59
Supplemental Gaseous Fuels	0.20	0.16	0.15	0.17	0.19	0.16	0.16	0.15	0.15	0.15	0.15	0.16	0.17	0.17	0.15
Net Inventory Withdrawals	16.93	-14.18	-10.41	2.44	12.74	-12.08	-8.09	3.69	17.36	-9.63	-7.16	4.41	-1.37	-0.94	1.19
Total Supply	103.21	71.52	77.14	91.43	99.24	72.28	74.64	82.78	94.33	68.28	70.31	83.13	85.77	82.21	78.96
Balancing Item (b)	0.11	-0.79	-0.39	-2.10	0.01	-0.51	-1.40	0.53	0.94	-0.91	-1.40	0.23	-0.80	-0.34	-0.29
Total Primary Supply	103.32	70.74	76.74	89.33	99.25	71.78	73.24	83.30	95.27	67.37	68.91	83.35	84.97	81.87	78.66
Consumption (billion cubic feet per	day)														
Residential	27.15	7.34	3.53	17.00	22.79	8.61	3.69	16.81	26.47	7.33	3.18	16.64	13.70	12.96	13.35
Commercial	16.19	6.36	4.68	11.45	14.07	6.83	4.80	10.88	15.35	6.61	4.79	10.53	9.65	9.14	9.30
Industrial	25.12	21.74	21.31	23.79	24.55	19.40	18.66	21.34	22.30	20.55	20.27	23.32	22.98	20.98	21.61
Electric Power (c)	26.83	28.13	39.74	29.09	29.60	29.83	39.39	27.24	23.80	26.05	33.58	25.35	30.98	31.52	27.21
Lease and Plant Fuel	4.93	5.00	5.13	5.29	5.23	5.02	4.87	4.75	4.66	4.69	4.76	4.85	5.09	4.97	4.74
Pipeline and Distribution Use	2.96	2.03	2.20	2.56	2.85	1.92	1.66	2.11	2.53	1.97	2.16	2.49	2.44	2.13	2.29
Vehicle Use	0.13	0.13	0.14	0.15	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.14	0.16	0.16
Total Consumption	103.32	70.74	76.74	89.33	99.25	71.78	73.24	83.30	95.27	67.37	68.91	83.35	84.97	81.87	78.66
End-of-period Inventories (billion cu	ıbic feet)														
Working Gas Inventory	1,185	2,461	3,415	3,189	2,030	3,129	3,873	3,534	1,971	2,847	3,506	3,100	3,189	3,534	3,100
East Region (d)	216	537	845	764	385	662	937	798	319	573	813	643	764	798	643
Midwest Region (d)	242	579	990	885	472	770	1,106	993	433	654	953	809	885	993	809
South Central Region (d)	519	917	1,049	1,095	857	1,199	1,262	1,246	865	1,132	1,190	1,179	1,095	1,246	1,179
Mountain Region (d)	63	135	200	167	92	167	216	178	124	162	202	165	167	178	165
Pacific Region (d)	115	259	294	245	200	306	328	294	205	300	324	279	245	294	279
Alaska	30	33	37	33	23	25	25	25	25	25	25	25	33	25	25

^{- =} no data available

(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.

⁽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.

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

U.S. Energy information	, willing	20°		CIIII EII	ergy Out	202		1		202	21			Year	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Wholesale/Spot	1 7. 1														
Henry Hub Spot Price	3.03	2.66	2.47	2.49	1.98	1.79	1.97	2.72	3.17	3.07	3.22	3.33	2.66	2.12	3.20
Residential Retail															
New England	14.44	15.56	19.31	14.05	13.80	14.13	16.61	12.66	12.61	13.87	17.00	13.26	14.78	13.69	13.28
Middle Atlantic		13.08	18.50	11.38	10.80	11.95	15.75	10.01	9.40	12.01	16.76	11.15	11.74	11.04	10.75
E. N. Central	7.27	10.48	19.03	7.68	6.99	9.58	15.68	7.82	7.53	10.74	16.62	8.48	8.41	8.11	8.80
W. N. Central	7.93	10.67	18.16	8.16	7.30	9.86	16.08	8.33	7.59	10.79	17.06	9.24	8.81	8.42	9.02
S. Atlantic	11.63	18.34	26.03	12.90	12.17	16.33	21.88	11.84	10.79	16.22	22.49	12.66	13.83	13.36	12.92
E. S. Central	9.64	14.84	21.40	10.43	9.74	13.96	20.61	12.44	10.44	15.34	22.31	13.85	11.05	11.62	12.72
W. S. Central	8.29	13.38	21.45	10.54	8.55	13.91	19.79	11.60	9.46	15.11	20.93	12.50	10.54	11.32	12.04
Mountain	7.73	9.46	13.40	7.75	7.52	9.10	12.75	7.71	7.78	9.80	13.71	8.72	8.37	8.17	8.85
Pacific	12.44	12.75	13.50	12.06	13.41	13.21	13.52	12.48	13.02	13.97	14.80	13.80	12.50	13.11	13.64
U.S. Average	9.47	12.48	18.10	9.88	9.51	11.62	16.29	9.87	9.32	12.28	17.26	10.82	10.56	10.46	10.67
Commercial Retail															
New England	11.21	11.42	11.61	10.13	10.38	9.63	8.48	8.56	9.09	9.46	9.81	10.04	10.95	9.92	9.61
Middle Atlantic	8.43	7.72	6.86	7.47	7.91	7.32	6.50	7.15	7.50	7.54	7.10	7.70	7.85	7.40	7.52
E. N. Central	6.27	7.19	8.85	6.04	5.75	6.62	8.05	6.23	6.38	7.63	9.12	7.20	6.51	6.20	7.03
W. N. Central	6.79	7.11	8.20	6.16	5.97	6.08	7.50	6.37	6.96	7.59	8.89	7.45	6.73	6.21	7.36
S. Atlantic	8.85	9.54	9.64	8.82	8.56	9.07	9.37	8.68	8.85	9.83	10.19	9.15	9.05	8.78	9.27
E. S. Central	8.61	9.78	10.06	8.54	8.36	8.63	8.79	7.91	7.87	9.16	9.87	9.00	8.91	8.31	8.65
W. S. Central	6.02	6.57	7.42	6.38	5.70	6.29	6.95	6.75	6.89	7.55	8.28	7.83	6.41	6.23	7.48
Mountain	6.40	6.72	7.41	6.16	6.07	6.30	7.15	6.32	6.77	7.24	8.19	7.35	6.47	6.29	7.18
Pacific	9.08	8.82	9.14	8.90	9.60	8.87	8.46	8.07	8.54	8.80	9.19	8.92	8.99	8.81	8.81
U.S. Average	7.59	7.97	8.40	7.22	7.21	7.39	7.71	7.09	7.35	8.07	8.66	7.99	7.62	7.26	7.80
Industrial Retail															
New England	9.17	8.27	6.92	7.29	8.09	7.32	6.47	7.70	8.49	7.91	7.30	8.22	8.08	7.53	8.07
Middle Atlantic	8.76	7.65	6.99	6.95	7.46	6.81	6.47	6.87	7.58	7.19	7.37	7.71	7.86	7.04	7.52
E. N. Central	5.75	5.38	5.64	5.14	4.88	4.49	4.53	4.95	5.98	5.88	5.99	6.07	5.49	4.79	5.99
W. N. Central	5.16	3.94	3.37	4.19	3.94	3.09	3.03	4.18	5.06	4.45	4.49	5.28	4.24	3.64	4.87
S. Atlantic	5.52	4.60	4.40	4.52	4.17	3.77	3.80	4.66	5.41	4.95	4.99	5.36	4.80	4.13	5.19
E. S. Central	4.93	4.04	3.59	4.07	3.90	3.48	3.49	4.42	5.05	4.70	4.72	5.17	4.20	3.84	4.93
W. S. Central	3.47	2.88	2.53	2.64	2.17	1.89	2.09	2.82	3.33	3.16	3.41	3.56	2.89	2.24	3.36
Mountain	5.31	4.80	5.00	4.72	4.41	4.22	4.57	4.90	5.39	5.32	5.76	5.95	4.96	4.53	5.60
Pacific	7.68	6.66	6.49	6.83	7.54	6.02	5.67	5.88	6.76	6.45	6.70	6.86	6.97	6.34	6.70
U.S. Average	4.67	3.74	3.30	3.74	3.52	2.65	2.69	3.65	4.41	3.94	4.03	4.51	3.91	3.16	4.24

^{- =} 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.

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

U.S. Energy Information Administr	ation	Short-Te	erm Ene	rgy Outl	ook - Jur	ne 2020									
		201				202				202				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	113.4	137.3	130.2	136.6	105.8	155.1	151.2	705.3	530.0	548.7
Appalachia	49.6	52.5	46.6	44.3	39.7	30.6	29.9	25.5	26.9	24.5	33.5	32.4	193.0	125.7	117.2
Interior	35.4	32.3	32.4	30.6	25.8	22.0	33.5	35.3	35.9	25.5	31.9	33.0	130.7	116.6	126.3
Western	94.5	94.4	102.4	90.3	83.6	60.8	73.9	69.4	73.9	55.8	89.7	85.7	381.7	287.7	305.1
Primary Inventory Withdrawals	-1.5	1.3	-1.2	-1.4	-0.1	1.3	1.8	-2.0	0.0	1.4	1.7	-2.3	-2.7	1.0	0.8
Imports	1.7	1.6	1.7	1.7	1.3	1.3	1.5	1.4	1.2	1.3	1.5	1.4	6.7	5.5	5.4
Exports	25.2	25.3	21.9	20.4	20.0	16.3	14.0	13.3	22.6	17.7	15.2	14.5	92.9	63.6	70.0
Metallurgical Coal	13.9	15.1	13.5	12.6	11.7	10.0	8.1	7.6	13.0	10.4	9.0	8.3	55.1	37.3	40.8
Steam Coal	11.3	10.2	8.4	7.8	8.3	6.3	5.9	5.7	9.5	7.2	6.3	6.2	37.7	26.3	29.2
Total Primary Supply	154.5	156.7	159.9	145.2	130.3	99.7	126.6	116.3	115.3	90.7	143.0	135.9	616.4	472.9	484.9
Secondary Inventory Withdrawals	6.2	-21.0	6.4	-17.5	-16.7	4.2	8.5	-7.3	-0.6	4.4	8.6	-7.6	-26.0	-11.3	4.8
Waste Coal (a)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.0	2.0	2.0	2.0	9.3	9.2	8.0
Total Supply	163.1	138.0	168.6	130.0	115.9	106.2	137.4	111.3	116.7	97.1	153.6	130.3	599.7	470.8	497.6
Consumption (million short tons)															
Coke Plants	4.5	4.7	4.5	4.3	4.9	3.5	3.8	4.4	4.3	4.2	4.2	5.2	17.9	16.6	18.0
Electric Power Sector (b)	145.3	118.0	156.2	119.9	97.5	73.6	102.3	77.1	97.7	90.6	139.0	98.0	539.4	350.5	425.4
Retail and Other Industry	8.1	7.2	7.2	7.5	7.6	6.5	6.1	6.3	6.4	6.2	6.3	6.7	30.0	26.5	25.6
Residential and Commercial	0.3	0.2	0.2	0.2	0.2	0.4	0.6	0.6	0.5	0.3	0.3	0.3	0.9	1.9	1.4
Other Industrial	7.8	7.0	7.0	7.3	7.5	6.0	5.5	5.7	5.9	5.9	6.0	6.4	29.1	24.6	24.2
Total Consumption	157.9	129.9	167.8	131.8	110.0	83.6	112.2	87.8	108.5	101.1	149.5	109.9	587.3	393.6	469.0
Discrepancy (c)	5.2	8.2	0.8	-1.9	5.9	22.7	25.2	23.5	8.2	-4.0	4.1	20.4	12.4	77.2	28.6
End-of-period Inventories (million short	tons)														
Primary Inventories (d)	23.2	21.9	23.1	24.4	24.6	23.3	21.5	23.5	23.5	22.1	20.4	22.7	24.4	23.5	22.7
Secondary Inventories	102.2	123.2	116.8	134.3	151.0	146.8	138.3	145.6	146.2	141.9	133.3	140.9	134.3	145.6	140.9
Electric Power Sector	97.1	117.7	111.0	128.5	145.5	141.0	132.4	139.9	140.7	136.1	127.4	135.2	128.5	139.9	135.2
Retail and General Industry	2.8	3.0	3.2	3.3	3.7	3.6	3.6	3.5	3.8	3.7	3.7	3.6	3.3	3.5	3.6
Coke Plants	2.0	2.3	2.5	2.3	1.7	2.0	2.1	2.0	1.6	2.0	2.1	2.0	2.3	2.0	2.0
Coal Market Indicators															
Coal Miner Productivity															
(Tons per hour) Total Raw Steel Production	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
(Million short tons per day)	0.273	0.271	0.264	0.265	0.268	0.183	0.230	0.264	0.261	0.255	0.258	0.267	0.268	0.236	0.260
Cost of Coal to Electric Utilities	0.273	0.211	0.204	0.203	0.200	0.103	0.230	0.204	0.201	0.200	0.200	0.207	0.200	0.230	0.200
(Dollars per million Btu)	2.08	2.05	2.00	1.95	1.92	2.04	2.00	2.00	2.03	2.04	2.03	2.04	2.02	1.98	2.03

^{- =} 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.

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.

⁽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.

Table 7a. U.S. Electricity Industry Overview

U.S. Energy Information Admini	stration		Term En	ergy Ou	tiook - Ji			1							
		20				202				202				Year	
El	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Electricity Supply (billion kilowatthou	•		4 470			0.17	4.070	000	0.15	000	4 400	00.5	4.440	0.050	0.077
Electricity Generation	995	974	1,173	976	962	917	1,079	896	915	930	1,106	925	4,118	3,853	3,877
Electric Power Sector (a)	955	935	1,131	934	921	882	1,042	861	879	894	1,067	887	3,956	3,706	3,728
Industrial Sector (b)	37	36	38	38	38	32	33	32	33	33	35	35	149	135	136
Commercial Sector (b)	3	3	4	3	3	3	3	3	3	3	4	3	14	13	13
Net Imports	9	9	11	10	12	13	15	11	12	13	14	11	39	51	50
Total Supply	1,004	983	1,184	986	974	930	1,094	907	927	943	1,121	936	4,157	3,904	3,927
Losses and Unaccounted for (c)	57	71	74	59	52	62	64	51	43	64	56	52	262	230	216
Electricity Consumption (billion kilow	atthours u	nless not	ed)												
Retail Sales	911	877	1072	889	885	835	997	825	853	846	1029	850	3750	3542	3577
Residential Sector	361	309	434	331	340	323	430	322	352	319	432	321	1435	1414	1424
Commercial Sector	320	328	382	325	313	295	334	290	287	307	359	309	1355	1232	1261
Industrial Sector	228	238	254	232	231	215	231	211	211	218	237	218	952	888	885
Transportation Sector	2	2	2	2	2	2	2	2	2	2	2	2	8	8	8
Direct Use (d)	36	35	38	37	37	32	33	31	32	33	35	34	146	133	134
Total Consumption	948	912	1110	927	922	867	1030	856	885	879	1064	884	3896	3675	3711
Average residential electricity															
usage per customer (kWh)	2,677	2,290	3,213	2,450	2,495	2,371	3,159	2,362	2,570	2,330	3,149	2,341	10,631	10,386	10,389
Prices															
Power Generation Fuel Costs (dolla	rs per milli	ion Btu)													
Coal	2.08	2.05	2.00	1.95	1.92	2.04	2.00	2.00	2.03	2.04	2.03	2.04	2.02	1.98	2.03
Natural Gas	3.71	2.73	2.51	2.78	2.40	1.79	1.82	2.83	3.59	3.18	3.29	3.59	2.88	2.17	3.40
Residual Fuel Oil	12.21	13.39	12.79	12.52	12.50	7.47	6.84	7.09	7.79	9.29	9.31	9.60	12.72	8.29	8.85
Distillate Fuel Oil	14.83	15.77	15.01	15.10	13.45	8.35	9.15	9.60	9.99	11.34	11.99	12.68	15.16	10.09	11.54
Retail Prices (cents per kilowatthou	r)														
Residential Sector	12.68	13.33	13.27	12.85	12.90	13.31	13.21	12.87	12.92	13.70	13.73	13.45	13.04	13.08	13.46
Commercial Sector	10.43	10.64	11.00	10.53	10.35	10.54	10.88	10.47	10.42	10.75	11.24	10.90	10.66	10.57	10.85
Industrial Sector	6.66	6.71	7.25	6.66	6.38	6.62	7.25	6.79	6.69	6.92	7.59	6.94	6.83	6.76	7.05
Wholesale Electricity Prices (dollars	s per mega	watthour))												
ERCOT North hub	28.41	28.34	139.81	28.40	23.41	24.91	27.99	27.78	28.58	31.54	35.78	30.84	56.24	26.02	31.68
CAISO SP15 zone	50.42	23.30	37.32	41.57	28.64	19.50	27.79	30.13	32.10	29.19	32.34	33.90	38.15	26.51	31.88
ISO-NE Internal hub	47.40	27.15	29.52	35.48	24.61	19.68	19.70	26.42	37.34	21.42	24.36	28.46	34.89	22.60	27.90
NYISO Hudson Valley zone	41.77	25.68	27.76	27.04	21.82	18.04	19.45	20.05	22.36	21.84	24.15	22.91	30.56	19.84	22.82
PJM Western hub	33.79	28.54	31.17	29.89	22.47	22.28	28.28	26.52	27.82	28.55	31.46	28.59	30.85	24.89	29.11
Midcontinent ISO Illinois hub	31.44	27.81	30.71	28.09	24.43	23.91	30.27	28.15	28.62	29.80	32.61	30.22	29.51	26.69	30.31
SPP ISO South hub	29.15	27.14	31.51	23.64	20.06	20.38	26.58	23.38	22.38	24.30	28.37	24.93	27.86	22.60	25.00
SERC index, Into Southern	30.74	29.87	31.08	29.31	23.58	21.95	31.40	28.84	29.41	31.35	34.80	31.21	30.25	26.44	31.69
FRCC index, Florida Reliability	30.71	29.57	30.64	29.47	26.24	21.03	26.76	29.19	30.12	30.30	32.13	32.04	30.10	25.80	31.15
Northwest index, Mid-Columbia	55.74	18.55	32.74	37.47	22.77	15.97	22.96	25.60	26.95	23.00	27.21	28.70	36.12	21.83	26.46
Southwest index, Palo Verde	44.23	18.45	42.00	36.37	22.07	18.87	24.52	25.61	26.76	26.91	28.38	27.81	35.26	22.77	27.47
Notes: The approximate break between			at valuas is		ith historia							-			

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.

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

Persidential Sector	U.S. Energy Informat	ion Admi			rt- I erm	Energy C			20							
Residential Sector New England 12,4																
New England 124 97 131 109 117 10.3 13.3 11.0 12.4 10.1 13.1 10.9 16.1 13.1 13.0 13.1		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Model Allamic																
E. N. Central 299 216 290 249 276 224 270 242 270 242 428 483 40.0 40.6 40.6 40.7 180.5 18	=															
W. N. Central S. Allanic																
S. Allantic 68.3 84.5 111.4 84.4 83.7 85.0 109.3 81.0 89.6 82.1 110.5 80.7 368.5 39.0 27.8 220.0 26.4 36.2 28.1 31.1 22.0 75.0 48.1 411.1 117.8 20.2 24.7 22.4 32.0 22.1 22.5 24.3 75.2 48.1 49.1 25.0 75.9 48.2 22.7.1 22.4 32.2 20.0 100.2 101.6 22.5 24.5 24.2 48.1 49.1 22.2 24.1 22.1 12.1 12.2 11.3 13.3 13.1 11.2 1.3 12.2 11.3 12.2 11.5 11.5 11.1 12.1 11.5 14.2 41.2 41.2 42.0 42.1 43.1 43.8 43.0 21.0 82.1 14.2 41.2 43.0 12.1 11.5 11.5 11.1 13.1 11.8 11.2 12.1 14.2 42.2 43.																
E. S. Central. 19.6 25.9 36.9 27.8 29.0 26.4 36.2 26.1 31.1 26.1 37.0 26.1 21.1 17.8 120.2 W. S. Central. 19.1 49.0 75.8 50.6 48.6 52.3 75.2 48.1 49.1 52.6 75.9 48.2 227.1 224.3 225.8 Mouniain																
M. S. Contral 517 49,0 75,8 50,6 48,6 52,3 75,2 48,1 49,1 52,6 75,9 49,2 227,1 224,3 225,6 Mountain 23,1 22,0 33,0 22,6 38,7 35,8 36,7 30,8 39,5 35,8 36,4 30,9 39,2 35,9 143,1 142,6 142,6 AK and HI 31,2 11,1 12,2 13,3 31,3 1,1 12,2 13,8 31,1 12,2 11,2 11,2 11,2 12,2 14,7 4,9 4,8 Total 36,4 36,3 34,3 33,8 33,7 32,8 49,0 32,6 36,2 31,9 34,5 30,0 1,435,1 14,42 142,8 Commercial Sector New England 38,6 36,3 41,9 35,9 35,9 30,2 33,2 22,5 31,1 32,0 31,1 31,1 11		88.3							81.0	89.6	83.1			368.5	359.0	
Mountain													-			
Paelic contiguous 39.0 29.6 38.7 35.8 36.7 30.8 36.5 35.8 36.4 30.9 30.2 35.9 14.31 142.8 44.2 4.8 AK and H 12 12 13.9 34.38 30.7 33.7 32.8 49.01 321.6 322.2 31.9 34.5 30.0 1,435.1 1,442 4.28 4.	W. S. Central	51.7	49.0	75.8	50.6	48.6	52.3	75.2	48.1	49.1	52.6	75.9	48.2	227.1	224.3	225.8
Name	Mountain	23.1	22.0	33.0			24.2	33.4	21.9				22.0		102.0	
Total	•	39.0	29.6	38.7	35.8	36.7	30.8	39.5	35.8	36.4	30.9	39.2	35.9	143.1	142.8	142.4
New England 12.8 12.1 13.9 12.4 12.2 11.0 12.7 11.5 11.5 11.1 13.1 13.1 13.5 12.6 12.9 13.2	AK and HI	1.2	1.1	1.2	1.3	1.3	1.1	1.2	1.3	1.2	1.1	1.2	1.2	4.7	4.9	4.8
New England	Total	361.4	309.2	433.8	330.7	339.7	322.8	430.1	321.6	352.2	319.3	431.5	320.8	1,435.1	1,414.2	1,423.8
Middle Allantic 38.6 36.3 41.9 35.9 35.9 30.2 33.2 20.5 31.1 32.0 37.1 32.5 152.6 128.0 132.8 E.N. Central 44.6 43.1 50.4 43.5 50.4 43.5 37.8 42.1 37.9 38.9 40.0 46.5 41.2 181.6 161.0 166.5 18.1 18.	Commercial Sector															
E. N. Central 44.6	New England	12.8	12.1	13.9	12.4	12.2	11.0	12.7	11.5	11.5	11.1	13.1	11.8	51.2	47.4	47.5
N. N. Central	Middle Atlantic	38.6	36.3	41.9	35.9	35.9	30.2	33.2	29.5	31.1	32.0	37.1	32.5	152.6	128.9	132.8
S. Allantic 72.1 79.4 90.1 75.5 71.4 68.0 77.0 66.2 65.1 70.9 84.2 71.7 317.0 28.6 291.8 E. S. Central 21.0 22.5 27.0 21.8 20.7 22.8 19.7 19.4 21.0 25.5 20.7 92.3 84.4 86.6 94.3 45.5 28.8 130.1 21.0 56.0 21.4 20.8 24.0 27.4 22.9 98.2 29.6 95.2 Pacific contiguous 38.0 37.9 28.0 35.1 36.9 35.7 33.9 35.3 39.8 36.4 157.9 146.6 14.1 14.1 1.6 1.7 1.6 1.5 1.5 5.7 6.3 6.1 15.1 1.5 5.7 6.3 6.1 15.2 17.7 15.6 15.7 1.6 15.7 1.6 15.5 15.7 1.6 15.7 6.3 4.1 12.1 12.0 18.0 18.2	E. N. Central	44.6	43.1	50.4	43.5	43.1	37.8	42.1	37.9	38.9	40.0	46.5	41.2	181.6	161.0	166.5
Restantion	W. N. Central	25.6	24.2	27.9	24.8	24.7	22.7	25.9	23.5	23.6	23.3	27.0	24.4	102.5	96.8	98.3
Mountain March M	S. Atlantic	72.1	79.4	90.1	75.5	71.4	68.0	77.0	66.2	65.1	70.9	84.2	71.7	317.0	282.6	291.8
Mountain	E. S. Central	21.0	22.5	27.0	21.8	20.7	20.2	23.8	19.7	19.4	21.0	25.5	20.7	92.3	84.4	86.6
Pacific contiguous 38.0 37.9 42.9 39.0 36.9 35.1 38.9 35.7 33.9 35.3 39.8 36.4 157.9 146.6 145.4 AK and HI 1.4 1.4 1.5 1.4 1.4 1.5 1.2 295.2 33.7 290.1 287.1 306.6 358.7 306.6 1,354.5 1,231.7 1,260.9 Industrial Sector New England 38.8 3.8 4.0 3.8 3.7 3.3 3.7 3.5 3.4 3.3 3.3 3.7 3.5 3.5 3.6 3.7 3.5 3.6 3.7 3.5 3.6 3.7 3.5 3.8 3.8 3.8 4.0 3.8	W. S. Central	43.2	47.6	58.0	46.9	43.9	45.5	52.8	43.0	41.3	47.4	56.5	45.4	195.7	185.2	190.6
AK and HI	Mountain	22.6	23.9	28.3	23.4	22.5	23.0	25.6	21.4	20.8	24.0	27.4	22.9	98.2	92.6	95.2
Total	Pacific contiguous	38.0	37.9	42.9	39.0	36.9	35.1	38.9	35.7	33.9	35.3	39.8	36.4	157.9	146.6	145.4
Total	AK and HI	1.4	1.4	1.5	1.4	1.4	1.6	1.7	1.6	1.5	1.5	1.5	1.5	5.7	6.3	6.1
New England 17.7 17.5 19.8 18.2 18.0 3.8 3.8 4.0 3.8 18.2 18.0 3.8 3.8 4.0 3.8 3.8 4.0 3.8 3.8 4.0 3.8 3.8 4.0 3.8 3.8 4.0 3.8 3.8 3.8 4.0 3.8 3.8 3.8 4.0 3.8 3.8 3.8 3.8 4.0 3.8 3.8 3.8 3.8 3.8 3.8 4.0 3.8 3		319.9	328.2	381.8	324.6	312.7	295.2	333.7	290.1	287.1	306.6		308.6	1,354.5	1,231.7	1,260.9
Middle Atlantic 17.7 17.5 19.8 18.2 18.0 16.4 18.5 17.0 16.6 19.0 17.6 73.2 69.9 69.8 E. N. Central 44.8 45.4 47.7 43.6 44.0 37.9 39.8 36.6 37.6 36.7 39.2 36.3 181.5 158.2 149.9 W. N. Central 21.1 22.0 23.4 21.8 21.7 19.4 21.0 19.6 19.8 20.2 22.3 21.0 88.3 81.7 83.3 S. Atlantic 33.0 34.8 36.2 23.3 20.8 21.3 20.2 20.9 21.2 22.1 21.2 29.4 85.5 85.3 W. S. Central 44.8 47.7 50.2 46.6 46.5 45.0 46.8 43.5 43.5 46.6 49.2 46.0 189.5 181.8 185.4 W. S. Central 19.2 21.1 23.5 20.2 20.0 29.9 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																
Middle Atlantic 17.7 17.5 19.8 18.2 18.0 16.4 18.5 17.0 16.6 19.0 17.6 73.2 69.9 69.8 E. N. Central 44.8 45.4 47.7 43.6 44.0 37.9 39.8 36.6 37.6 36.7 39.2 36.3 181.5 158.2 149.9 W. N. Central 21.1 22.0 23.4 21.8 21.7 19.4 21.0 19.6 19.8 20.2 22.3 21.0 88.3 81.7 83.3 S. Atlantic 33.0 34.8 36.2 23.3 20.8 21.3 20.2 20.9 21.2 22.1 21.2 29.4 85.5 85.3 W. S. Central 44.8 47.7 50.2 46.6 46.5 45.0 46.8 43.5 43.5 46.6 49.2 46.0 189.5 181.8 185.4 W. S. Central 19.2 21.1 23.5 20.2 20.0 29.9 <t< td=""><td>New England</td><td>3.8</td><td>3.8</td><td>4.0</td><td>3.8</td><td>3.7</td><td>3.3</td><td>3.7</td><td>3.5</td><td>3.4</td><td>3.3</td><td>3.7</td><td>3.5</td><td>15.4</td><td>14.2</td><td>13.9</td></t<>	New England	3.8	3.8	4.0	3.8	3.7	3.3	3.7	3.5	3.4	3.3	3.7	3.5	15.4	14.2	13.9
E. N. Central 44.8 45.4 47.7 43.6 44.0 37.9 39.8 36.6 37.6 36.7 39.2 36.3 181.5 158.2 149.9 W. N. Central 21.1 22.0 23.4 21.8 21.7 19.4 21.0 19.6 19.8 20.2 22.3 21.0 88.3 81.7 83.3 S. Atlantic 33.0 33.0 33.8 36.2 33.4 33.0 30.8 33.0 30.8 30.0 30.6 30.6 31.4 31.1 31.7 137.5 127.4 127.8 E. S. Central 23.4 23.9 24.5 22.9 23.3 20.8 21.3 20.2 20.9 21.2 22.1 21.2 94.7 85.5 85.3 W. S. Central 44.8 47.7 50.2 46.6 46.5 45.0 46.8 43.5 43.5 46.6 49.2 46.0 189.5 181.8 185.4 Mountain 19.2 21.1 23.5 20.2 20.0 20.9 23.0 19.7 19.4 21.6 23.8 20.5 84.1 83.6 85.2 Pacific contiguous 19.1 20.4 23.4 20.2 19.2 19.8 22.7 19.4 18.2 19.6 22.5 19.3 83.1 81.1 79.6 AK and HI 22.2 237.2 254.2 237.2 254.2 232.1 230.5 21.4 231.1 211.1 211.2 218.2 237.2 218.3 952.1 888.1 884.9 Total All Sectors (a) New England 29.1 25.6 31.3 27.2 27.7 24.8 29.8 26.1 27.5 24.6 30.1 26.3 113.3 108.5 Middle Atlantic 92.6 82.4 103.0 84.8 87.0 77.3 92.6 76.8 82.5 78.5 96.4 80.2 362.8 333.7 337.7 E. N. Central 139.6 126.7 152.6 130.7 133.7 116.6 134.8 117.4 124.9 116.8 138.5 120.2 549.6 502.5 500.5 W. N. Central 75.0 72.3 88.3 72.4 73.0 67.4 81.3 129.7 178.1 185.6 185.7 22.9 1 184.5 824.3 770.3 784.9 E. S. Central 193.7 199.0 238.1 193.6 188.4 184.1 219.7 178.1 185.6 185.7 22.9 1 184.5 824.3 770.3 784.9 E. S. Central 139.8 144.3 184.1 144.2 139.1 142.9 175.0 134.6 134.0 146.6 134.6 67.9 308.1 287.7 278.3 882.1 P. S. Central 139.8 144.3 184.1 144.2 139.1 142.9 175.0 134.6 134.0 146.6 134.6 67.9 308.1 287.7 278.3 882.1 P. S. Central 139.8 144.3 184.1 144.2 139.1 142.9 175.0 134.6 134.0 146.6 134.6 139.7 612.4 591.5 601.9 P. S. Central 139.8 144.3 184.1 144.2 139.1 142.9 175.0 134.6 134.0 146.6 134.0 140.6 139.7 612.4 591.5 601.9 P. S. Central 139.8 144.3 184.1 144.2 139.1 142.9 175.0 134.6 134.0 146.6 134.0 140.6 139.7 612.4 591.5 601.9 P. S. Central 139.8 144.3 184.1 144.2 139.1 142.9 175.0 134.6 134.0 146.6 134.0 140.6 139.7 612.4 591.5 601.9 P. S. Central 139.8 144.3 184.1 144.2 139.1 142.9 175.0 134.6 134.0 146.6 134.0 140.6 139.7 612.4 591.5 601.9 P. S. Central	Middle Atlantic	17.7	17.5	19.8	18.2	18.0	16.4	18.5	17.0	16.7	16.6	19.0	17.6	73.2	69.9	69.8
W. N. Central 21.1 22.0 23.4 21.8 21.7 19.4 21.0 19.6 19.8 20.2 22.3 21.0 88.3 81.7 83.3 S. Atlantic 33.0 34.8 36.2 33.4 33.0 30.8 33.0 30.6 30.6 31.4 34.1 31.7 137.5 127.4 127.8 E. S. Central 23.4 23.9 24.5 22.9 23.3 20.8 21.3 20.2 20.9 21.2 22.1 21.2 94.7 85.5 85.3 W. S. Central 44.8 47.7 50.2 46.6 46.5 45.0 46.8 43.5 43.5 46.6 49.2 46.8 43.5 43.5 46.6 49.2 46.0 189.5 181.8 185.4 W. M. Central 19.1 23.4 20.2 29.0 29.0 23.0 19.7 19.4 21.6 23.8 20.5 84.1 83.6 85.2 Pacific contiguous		44.8	45.4	47.7	43.6	44.0	37.9	39.8	36.6	37.6	36.7	39.2	36.3	181.5	158.2	149.9
E. S. Central		21.1	22.0	23.4	21.8	21.7	19.4	21.0	19.6	19.8	20.2	22.3	21.0	88.3	81.7	83.3
E. S. Central	S. Atlantic	33.0	34.8	36.2	33.4	33.0	30.8	33.0	30.6	30.6	31.4	34.1	31.7	137.5	127.4	127.8
Mountain 19.2 21.1 23.5 20.2 20.0 20.9 23.0 19.7 19.4 21.6 23.8 20.5 84.1 83.6 85.2 Pacific contiguous 19.1 20.4 23.4 20.2 19.2 19.8 22.7 19.4 18.2 19.6 22.5 19.3 83.1 81.1 79.6 AK and HI 1.1 1.2 1.3 1.2 1.2 1.3 1.2 1.1 1.2 1.3 1.2 4.9 4.8 4.8 Total 228.2 237.7 254.2 232.1 230.5 215.4 231.1 211.1 211.2 218.2 237.2 218.3 952.1 888.1 884.9 Total All Sectors (a) 8 29.1 25.6 31.3 27.2 27.7 24.8 29.8 26.1 27.5 24.6 30.1 26.3 113.3 108.5 Moultain (a) 92.6 82.4 103.0 84.8 87.0 77.3 <td></td> <td>23.4</td> <td>23.9</td> <td>24.5</td> <td>22.9</td> <td>23.3</td> <td>20.8</td> <td>21.3</td> <td>20.2</td> <td>20.9</td> <td>21.2</td> <td>22.1</td> <td>21.2</td> <td>94.7</td> <td>85.5</td> <td>85.3</td>		23.4	23.9	24.5	22.9	23.3	20.8	21.3	20.2	20.9	21.2	22.1	21.2	94.7	85.5	85.3
Mountain 19.2 21.1 23.5 20.2 20.0 20.9 23.0 19.7 19.4 21.6 23.8 20.5 84.1 83.6 85.2 Pacific contiguous 19.1 20.4 23.4 20.2 19.2 19.8 22.7 19.4 18.2 19.6 22.5 19.3 83.1 81.1 79.6 AK and HI 1.1 1.2 1.3 1.2 1.2 1.3 1.2 1.1 1.2 1.3 1.2 4.9 4.8 4.8 Total 228.2 237.7 254.2 232.1 230.5 215.4 231.1 211.1 211.2 218.2 237.2 218.3 952.1 888.1 884.9 Total All Sectors (a) 8 29.1 25.6 31.3 27.2 27.7 24.8 29.8 26.1 27.5 24.6 30.1 26.3 113.3 108.5 Moultain (a) 92.6 82.4 103.0 84.8 87.0 77.3 <td>W. S. Central</td> <td>44.8</td> <td>47.7</td> <td>50.2</td> <td>46.6</td> <td>46.5</td> <td>45.0</td> <td>46.8</td> <td>43.5</td> <td>43.5</td> <td>46.6</td> <td>49.2</td> <td>46.0</td> <td>189.5</td> <td>181.8</td> <td>185.4</td>	W. S. Central	44.8	47.7	50.2	46.6	46.5	45.0	46.8	43.5	43.5	46.6	49.2	46.0	189.5	181.8	185.4
Pacific contiguous 19.1 20.4 23.4 20.2 19.2 19.8 22.7 19.4 18.2 19.6 22.5 19.3 83.1 81.1 79.6 AK and HI 1.1 1.2 1.3 1.2 1.2 1.3 1.2 1.1 1.2 1.3 1.2 4.9 4.8 4.8 Total 228.2 237.7 254.2 232.1 230.5 215.4 231.1 211.1 211.2 218.2 237.2 218.3 952.1 888.1 884.9 Total All Sectors (a) 29.1 25.6 31.3 27.2 27.7 24.8 29.8 26.1 27.5 24.6 30.1 26.3 113.3 108.5 Middle Atlantic 92.6 82.4 103.0 84.8 87.0 77.3 92.6 76.8 82.5 78.5 96.4 80.2 362.8 333.7 337.7 E. N. Central 139.6 126.7 152.6 130.7 133.7 116.6		19.2	21.1	23.5	20.2	20.0	20.9	23.0	19.7	19.4	21.6	23.8	20.5	84.1	83.6	85.2
AK and HI		19.1	20.4	23.4	20.2	19.2	19.8	22.7	19.4	18.2	19.6	22.5	19.3	83.1	81.1	79.6
Total 228.2 237.7 254.2 232.1 230.5 215.4 231.1 211.1 211.2 218.2 237.2 218.3 952.1 888.1 884.9 Total All Sectors (a) New England 29.1 25.6 31.3 27.2 27.7 24.8 29.8 26.1 27.5 24.6 30.1 26.3 113.3 108.3 108.5 Middle Atlantic 92.6 82.4 103.0 84.8 87.0 77.3 92.6 76.8 82.5 78.5 96.4 80.2 362.8 333.7 337.7 E. N. Central 139.6 126.7 152.6 130.7 133.7 116.6 134.8 117.4 124.9 116.8 138.5 120.2 549.6 502.5 500.5 W. N. Central 76.7 67.7 80.4 71.5 74.0 64.5 76.3 67.5 71.3 65.9 78.8 69.8 296.2 282.4 285.8 S. Atlantic 193.7	•			1.3	1.3	1.2			1.2	1.1			1.2	4.9		
Total All Sectors (a) New England																
New England 29.1 25.6 31.3 27.2 27.7 24.8 29.8 26.1 27.5 24.6 30.1 26.3 113.3 108.3 108.5 Middle Atlantic 92.6 82.4 103.0 84.8 87.0 77.3 92.6 76.8 82.5 78.5 96.4 80.2 362.8 333.7 337.7 E. N. Central 139.6 126.7 152.6 130.7 133.7 116.6 134.8 117.4 124.9 116.8 138.5 120.2 549.6 502.5 500.5 W. N. Central 76.7 67.7 80.4 71.5 74.0 64.5 76.3 67.5 71.3 65.9 78.8 69.8 296.2 282.4 285.8 S. Atlantic 193.7 199.0 238.1 193.6 188.4 184.1 219.7 178.1 185.6 185.7 229.1 184.5 824.3 770.3 784.9 E. S. Central 75.0 72.3 88.3																
Middle Atlantic 92.6 82.4 103.0 84.8 87.0 77.3 92.6 76.8 82.5 78.5 96.4 80.2 362.8 333.7 337.7 E. N. Central 139.6 126.7 152.6 130.7 133.7 116.6 134.8 117.4 124.9 116.8 138.5 120.2 549.6 502.5 500.5 W. N. Central 76.7 67.7 80.4 71.5 74.0 64.5 76.3 67.5 71.3 65.9 78.8 69.8 296.2 282.4 285.8 S. Atlantic 193.7 199.0 238.1 193.6 188.4 184.1 219.7 178.1 185.6 185.7 229.1 184.5 824.3 770.3 784.9 E. S. Central 75.0 72.3 88.3 72.4 73.0 67.4 81.3 65.9 71.4 68.3 84.6 67.9 308.1 287.6 292.1 W. S. Central 139.8 144.3 184.1<	` '	29.1	25.6	31.3	27.2	27.7	24.8	29.8	26.1	27.5	24.6	30.1	26.3	113.3	108.3	108.5
E. N. Central	•															
W. N. Central 76.7 67.7 80.4 71.5 74.0 64.5 76.3 67.5 71.3 65.9 78.8 69.8 296.2 282.4 285.8 S. Atlantic 193.7 199.0 238.1 193.6 188.4 184.1 219.7 178.1 185.6 185.7 229.1 184.5 824.3 770.3 784.9 E. S. Central 75.0 72.3 88.3 72.4 73.0 67.4 81.3 65.9 71.4 68.3 84.6 67.9 308.1 287.6 292.1 W. S. Central 139.8 144.3 184.1 144.2 139.1 142.9 175.0 134.6 134.0 146.6 181.6 139.7 612.4 591.5 601.9 Mountain 65.0 67.1 84.8 65.7 65.0 68.2 82.0 63.0 62.5 69.7 84.5 65.4 282.7 278.3 282.1 Pacific contiguous 96.3 88.1 105.2																
S. Atlantic 193.7 199.0 238.1 193.6 188.4 184.1 219.7 178.1 185.6 185.7 229.1 184.5 824.3 770.3 784.9 E. S. Central 75.0 72.3 88.3 72.4 73.0 67.4 81.3 65.9 71.4 68.3 84.6 67.9 308.1 287.6 292.1 W. S. Central 139.8 144.3 184.1 144.2 139.1 142.9 175.0 134.6 134.0 146.6 181.6 139.7 612.4 591.5 601.9 Mountain 65.0 67.1 84.8 65.7 65.0 68.2 82.0 63.0 62.5 69.7 84.5 65.4 282.7 278.3 282.1 Pacific contiguous 96.3 88.1 105.2 95.2 93.1 85.9 101.3 91.1 88.8 86.0 101.8 91.8 384.9 371.4 368.3 AK and HI 3.7 3.6 4.0 4.0 3.8 3.8 4.2 4.1 3.9 3.8 4.0 4																
E. S. Central																
W. S. Central 139.8 144.3 184.1 144.2 139.1 142.9 175.0 134.6 134.0 146.6 181.6 139.7 612.4 591.5 601.9 Mountain 65.0 67.1 84.8 65.7 65.0 68.2 82.0 63.0 62.5 69.7 84.5 65.4 282.7 278.3 282.1 Pacific contiguous 96.3 88.1 105.2 95.2 93.1 85.9 101.3 91.1 88.8 86.0 101.8 91.8 384.9 371.4 368.3 AK and HI 3.7 3.6 4.0 4.0 3.8 3.8 4.2 4.1 3.9 3.8 4.0 4.0 15.2 15.9 15.7																
Mountain																
Pacific contiguous 96.3 88.1 105.2 95.2 93.1 85.9 101.3 91.1 88.8 86.0 101.8 91.8 384.9 371.4 368.3 AK and HI																
AK and HI																
	•															

^{- =} 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.

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.

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

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

O.O. Energy informa		2019			Liloigy	202	20			202	1			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	21.75	21.10	20.11	20.15	21.06	21.21	20.99	21.95	21.14	20.75	21.28
Middle Atlantic	15.19	16.06	16.15	15.78	15.47	15.92	15.89	15.65	15.62	16.68	16.95	16.61	15.79	15.74	16.47
E. N. Central	12.92	13.86	13.27	13.29	13.10	13.77	13.34	13.56	13.50	14.46	14.04	14.15	13.30	13.43	14.01
W. N. Central	10.71	12.78	12.93	11.24	10.99	12.92	13.20	11.66	11.43	13.57	13.82	12.08	11.87	12.19	12.72
S. Atlantic	11.70	12.17	12.11	11.87	11.80	12.02	11.88	11.63	11.47	12.11	12.16	12.09	11.97	11.84	11.96
E. S. Central	11.10	11.70	11.37	11.23	11.25	11.71	11.64	11.86	11.65	12.22	12.02	12.18	11.34	11.61	12.00
W. S. Central	10.88	11.50	11.36	11.24	11.05	11.30	11.14	11.11	10.98	11.56	11.65	11.75	11.25	11.15	11.50
Mountain	11.51	12.18	12.23	11.59	11.42	12.13	12.20	11.66	11.65	12.56	12.71	12.12	11.91	11.90	12.31
Pacific	14.86	15.88	17.31	14.64	15.69	16.64	17.57	14.56	15.68	17.16	18.10	15.01	15.68	16.13	16.50
U.S. Average	12.68	13.33	13.27	12.85	12.90	13.31	13.21	12.87	12.92	13.70	13.73	13.45	13.04	13.08	13.46
Commercial Sector															
New England	16.83	16.24	15.97	15.76	16.23	15.68	15.57	15.44	16.05	15.77	16.01	16.24	16.19	15.73	16.02
Middle Atlantic	11.57	12.18	13.03	11.97	11.69	11.74	12.18	11.32	11.44	12.20	13.03	12.05	12.21	11.74	12.22
E. N. Central	10.14	10.29	10.09	10.05	9.95	10.21	10.08	10.14	10.17	10.53	10.48	10.51	10.14	10.09	10.42
W. N. Central	8.98	10.04	10.41	9.11	9.07	10.19	10.72	9.52	9.59	10.76	11.28	9.87	9.65	9.88	10.40
S. Atlantic	9.44	9.37	9.35	9.35	9.26	9.25	9.20	9.21	9.20	9.26	9.37	9.53	9.37	9.23	9.34
E. S. Central	10.70	10.70	10.65	10.62	10.75	10.96	11.14	11.36	11.49	11.38	11.43	11.58	10.67	11.05	11.47
W. S. Central	8.12	8.00	8.30	8.06	7.89	7.83	8.18	8.03	7.95	7.94	8.39	8.22	8.13	7.99	8.14
Mountain	9.20	9.71	10.00	9.18	8.99	9.62	9.97	9.21	9.12	9.89	10.32	9.53	9.55	9.47	9.76
Pacific	12.98	14.15	16.35	14.44	13.52	14.23	16.08	14.17	13.39	14.53	16.85	15.19	14.54	14.53	15.07
U.S. Average	10.43	10.64	11.00	10.53	10.35	10.54	10.88	10.47	10.42	10.75	11.24	10.90	10.66	10.57	10.85
Industrial Sector															
New England	13.45	12.89	12.66	12.70	12.74	12.28	12.26	12.59	12.95	12.78	12.77	12.82	12.92	12.47	12.83
Middle Atlantic	6.73	6.52	6.54	6.40	6.34	6.16	6.24	6.37	6.63	6.54	6.64	6.47	6.55	6.28	6.57
E. N. Central	7.03	6.84	6.83	6.76	6.51	6.66	6.83	6.96	6.88	7.00	7.18	7.15	6.87	6.73	7.05
W. N. Central	7.13	7.33	8.09	6.87	6.94	7.59	8.46	7.22	7.33	7.84	8.72	7.40	7.37	7.55	7.84
S. Atlantic	6.22	6.28	6.72	6.18	5.97	6.03	6.52	6.14	6.10	6.28	6.80	6.25	6.36	6.17	6.37
E. S. Central	5.69	5.78	5.95	5.61	5.45	5.67	5.93	5.72	5.69	5.88	6.14	5.77	5.76	5.68	5.87
W. S. Central	5.25	5.28	6.05	5.29	5.05	5.20	5.97	5.44	5.49	5.55	6.41	5.60	5.48	5.42	5.78
Mountain	6.14	6.25	6.78	5.89	5.73	5.93	6.59	5.86	5.84	6.16	6.86	6.00	6.29	6.05	6.24
Pacific	8.65	9.45	11.26	10.16	8.97	9.93	11.65	10.57	9.45	10.41	12.24	10.98	9.95	10.33	10.85
U.S. Average	6.66	6.71	7.25	6.66	6.38	6.62	7.25	6.79	6.69	6.92	7.59	6.94	6.83	6.76	7.05
All Sectors (a)															
New England	18.35	17.72	17.50	17.34	18.07	17.45	17.15	17.01	17.90	17.56	17.76	18.09	17.73	17.42	17.83
Middle Atlantic	12.01	12.27	12.99	12.10	11.97	12.14	12.57	11.87	12.16	12.64	13.35	12.47	12.37	12.15	12.69
E. N. Central	10.13	10.12	10.20	10.03	9.91	10.30	10.39	10.39	10.46	10.76	10.89	10.78	10.12	10.24	10.73
W. N. Central	9.14	10.03	10.64	9.17	9.16	10.35	11.05	9.63	9.68	10.82	11.51	9.90	9.76	10.06	10.50
S. Atlantic	9.92	10.01	10.24	9.90	9.80	9.99	10.13	9.78	9.78	10.03	10.33	10.08	10.03	9.94	10.07
E. S. Central	9.30	9.43	9.65	9.27	9.26	9.62	10.00	9.83	9.86	10.00	10.31	10.00	9.42	9.68	10.05
W. S. Central	8.22	8.28	8.94	8.28	8.04	8.27	8.86	8.30	8.26	8.48	9.22	8.57	8.47	8.40	8.67
Mountain	9.12	9.43	9.98	8.98	8.83	9.38	9.93	9.02	9.01	9.66	10.28	9.30	9.42	9.33	9.62
Pacific	12.87	13.63	15.55	13.60	13.42	14.09	15.65	13.54	13.51	14.52	16.30	14.22	13.96	14.22	14.69
U.S. Average	10.37	10.52	11.03	10.38	10.29	10.60	11.04	10.46	10.53	10.87	11.44	10.84	10.60	10.61	10.95

^{- =} 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 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.

Prices are not adjusted for inflation.

⁽a) Volume-weighted average of retail prices to residential, commercial, industrial, and transportation sectors.

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

U.S. Effergy information Admir	iistratioi	20.		Tiergy O	atiook	20:		Ī		20:	21			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	345.6	469.3	335.3	291.5	310.7	414.9	318.3	1,474.7	1,505.2	1,335.4
Coal	257.9	208.9	279.4	213.3	170.2	129.4	179.3	133.8	169.0	158.5	245.3	170.3	959.5	612.7	743.1
Nuclear	203.5	196.5	210.2	199.2	204.2	189.0	206.9	198.3	198.3	189.6	204.3	192.1	809.4	798.3	784.3
Renewable Energy Sources:	169.9	192.9	161.3	163.9	185.5	210.8	181.2	189.1	213.9	228.9	197.3	202.2	688.0	766.6	842.2
Conventional Hydropower	71.2	81.7	60.8	58.7	71.3	86.5	68.7	63.5	74.8	81.6	63.7	61.5	272.4	290.0	281.6
Wind	74.2	78.6	66.2	80.8	87.0	88.1	73.0	96.7	106.5	102.9	85.5	106.6	299.8	344.8	401.5
Solar (a)	13.3	21.8	22.6	13.9	16.4	26.0	28.5	18.4	21.3	34.0	36.6	23.1	71.5	89.2	115.0
Biomass	7.2	7.0	7.6	6.9	7.0	6.5	6.7	6.7	7.6	6.7	7.3	7.1	28.8	26.9	28.8
Geothermal	4.0	3.9	4.1	3.6	3.8	3.8	4.3	3.8	3.6	3.8	4.2	3.8	15.6	15.6	15.4
Pumped Storage Hydropower	-1.1	-0.9	-1.9	-1.4	-1.0	-0.7	-1.8	-1.3	-1.1	-0.7	-1.8	-1.3	-5.3	-4.8	-4.8
Petroleum (b)	4.9	4.2	4.8	3.5	4.0	4.5	4.5	3.4	5.0	4.2	4.4	3.1	17.3	16.3	16.8
Other Gases	1.1	1.0	1.2	1.0	1.1	1.1	1.1	0.7	0.9	1.1	1.1	0.9	4.3	4.0	3.9
Other Nonrenewable Fuels (c)	1.9	1.9	2.0	1.9	1.9	2.0	1.9	1.8	1.7	1.9	1.7	1.7	7.7	7.6	7.0
Total Generation	955.2	935.5	1,130.7	934.4	920.9	881.6	1,042.5	861.1	879.3	894.2	1,067.3	887.2	3,955.8	3,706.0	3,727.9
New England (ISO-NE)															
Natural Gas	10.6	10.0	14.8	11.5	11.1	10.5	14.7	9.9	7.1	8.9	13.8	10.9	46.9	46.2	40.8
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	0.6
Nuclear	8.6	6.8	7.3	7.1	7.3	5.2	7.2	6.2	7.0	7.1	7.2	5.6	29.8	26.0	26.9
Conventional hydropower	2.1	1.9	1.5	1.6	2.1	1.9	1.5	1.6	2.1	1.8	1.4	1.5	7.0	7.1	6.9
Nonhydro renewables (d)	2.6	2.7	2.6	2.5	2.6	2.7	2.7	2.7	3.5	2.9	2.7	2.9	10.3	10.7	12.0
Other energy sources (e)	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	1.2	0.3	0.4	0.4	1.5	1.5	2.3
Total generation	24.5	21.7	26.5	23.3	23.5	20.8	26.5	20.9	21.3	21.1	25.6	21.4	96.1	91.7	89.4
Net energy for load (f)	29.5	25.8	31.9	28.0	27.7	25.7	31.1	26.9	28.1	25.7	31.1	27.3	115.2	111.4	112.3
New York (NYISO)															
Natural Gas	11.9	11.1	18.4	12.6	12.8	15.3	21.5	16.7	14.5	18.1	22.8	18.9	54.0	66.2	74.4
Coal	0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.1	0.0
Nuclear	10.4	10.8	11.8	11.8	10.7	9.3	8.8	9.1	8.8	7.5	7.1	6.8	44.9	37.9	30.2
Conventional hydropower	7.4	7.3	7.4	7.4	7.8	7.0	7.9	7.4	8.0	6.6	7.4	7.1	29.5	30.1	29.1
Nonhydro renewables (d)	1.6	1.8	1.5	1.6	1.9	1.9	1.6	1.8	2.2	2.1	2.0	2.6	6.5	7.2	8.8
Other energy sources (e)	0.4	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.9	0.7	0.7
Total generation	32.1	31.1	39.3	33.6	33.5	33.6	40.0	35.1	33.7	34.5	39.5	35.5	136.2	142.2	143.2
Net energy for load (f)	37.4	34.3	43.3	35.7	35.2	33.7	41.8	34.3	35.3	34.6	42.0	35.2	150.6	145.0	147.0
Mid-Atlantic (PJM)															
Natural Gas	69.3	64.2	90.9	70.7	77.9	73.9	100.6	70.7	74.1	74.4	92.2	68.8	295.1	323.1	309.5
Coal	53.5	39.9	52.0	38.9	33.7	22.8	23.6	20.5	36.3	22.7	32.6	26.5	184.3	100.6	118.2
Nuclear	69.6	68.5	71.7	68.1	68.9	66.4	71.0	69.4	67.5	65.7	71.8	68.2	277.9	275.7	273.2
Conventional hydropower	3.4	3.0	1.9	2.2	3.2	2.6	1.8	2.2	3.3	2.4	1.7	2.1	10.6	9.8	9.6
Nonhydro renewables (d)	8.8	9.3	7.1	8.9	10.0	10.6	7.9	10.4	11.7	12.1	9.1	11.2	34.1	39.0	44.1
Other energy sources (e)	0.9	0.7	0.5	0.4	0.6	0.8	0.4	0.4	0.7	0.8	0.4	0.3	2.5	2.2	2.2
Total generation	205.4	185.6	224.1	189.2	194.4	177.2	205.3	173.5	193.6	178.2	207.8	177.1	804.4	750.4	756.7
Net energy for load (f)	195.1	173.0	212.3	180.4	181.9	164.3	195.3	167.1	180.6	165.6	198.3	171.8	760.9	708.6	716.2
Southeast (SERC)															
Natural Gas		59.2	77.8	59.6	61.9	61.1	77.6	62.1	58.1	57.3	72.6	63.0		262.7	251.0
Coal	35.1	38.0	53.3	33.5	23.9	22.2	29.0	20.3	22.0	28.8	41.6	25.9		95.4	118.4
Nuclear	52.3	52.8	53.7	52.2	53.0	50.2	54.9	52.6	52.3	52.3	55.4	52.5	211.0	210.7	212.5
Conventional hydropower	10.9	9.3	7.1	8.2	11.1	7.9	6.7	8.0	11.3	7.3	6.4	7.6	35.5	33.7	32.5
Nonhydro renewables (d)	2.6	3.8	3.9	2.8	3.3	4.5	4.4	3.2	3.7	5.2	5.2	3.6	13.2	15.3	17.6
Other energy sources (e)	0.0	-0.2	-0.6	-0.4	-0.1	0.0	-0.6	-0.4	-0.1	0.0	-0.6	-0.4	-1.2	-0.9	-1.1
Total generation	157.2	162.9	195.2	155.8	153.1	145.9	172.0	145.9	147.2	151.0	180.6	152.2	671.1	616.9	630.9
Net energy for load (f)	163.9	158.5	197.9	157.3	160.3	142.9	173.2	142.7	151.1	149.7	182.1	149.6	677.6	619.1	632.4
Florida (FRCC)						.= -		c= =					4	4	4===
Natural Gas	35.5	46.4	52.6	39.9	40.1	45.8	51.9	37.7	34.0	39.8	46.5	35.9	174.4	175.5	156.2
Coal	3.7	4.8	5.3	4.8	2.1	1.9	1.9	2.4	4.3	7.2	6.6	4.8	18.6	8.2	22.8
Nuclear	7.6	6.4	7.7	7.3	7.3	7.5	7.5	7.7	7.8	7.0	7.2	7.4	29.1	29.9	29.4
Conventional hydropower	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.2	0.2	0.2
Nonhydro renewables (d)	1.5	1.7	1.6	1.4	1.8	2.4	2.3	2.0	2.5	3.2	3.0	2.5	6.2	8.4	11.2
Other energy sources (e)	0.8	0.9	0.8	0.7	0.9	0.9	0.7	0.7	0.8	0.8	0.7	0.7	3.1	3.1	3.0
Total generation	49.3	60.2	68.1	54.1	52.2	58.5	64.3	50.4	49.5	58.0	64.0	51.3	231.7	225.4	222.8
Net energy for load (f)	48.0	58.4	69.4	53.1	48.6	56.6	65.2	49.3	45.7	56.2	65.7	50.3	229.0	219.7	217.9

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

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

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

⁽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.

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

Midwest (MISO) Natural Gas 35.9 40.9 58.1 42.3 44.1 43.6 58.5 43.5 34.8 37.7 49.7 39.4 1 Coal 77.5 61.2 76.2 61.3 51.1 43.2 56.8 39.8 47.8 48.9 71.6 49.4 2 Nuclear 25.3 23.2 27.1 26.7 26.6 22.2 26.3 24.8 24.9 23.9 25.0 23.5 23.5 2.0 20.2 26.6 22.2 26.3 24.8 24.9 23.9 25.0 23.5 23.5 2.0 23.5 23.2 23.1 1.7 1.8 2.4 2.2 1.6 1.8 1.8 1.8 1.7 1.8 2.4 2.2 1.6 1.8 1.8 1.8 1.1 1.8 1.2 23.2 24.9 23.7 19.2 25.6 25.6 25.6 20.2 19.6 16.1 23.2 24.9 23.7 19.2 25.6 25.6 25.6 25.6 22.2 1.4 1.8	276.2 19 102.3 9 8.0	89.7 161.6 90.8 217.6 99.8 97.3
Midwest (MISO) Natural Gas 35.9 40.9 58.1 42.3 44.1 43.6 58.5 43.5 34.8 37.7 49.7 39.4 1 Coal 77.5 61.2 76.2 61.3 51.1 43.2 56.8 39.8 47.8 48.9 71.6 49.4 2 Nuclear 25.3 23.2 27.1 26.7 26.6 22.2 26.3 24.8 24.9 23.9 25.0 23.5 1 Conventional hydropower 2.2 2.3 1.7 1.8 2.3 2.3 1.7 1.8 2.4 2.2 1.6 1.8 Nonhydro renewables (d) 16.7 17.3 13.5 18.6 20.2 19.6 16.1 23.2 24.9 23.7 19.2 25.6 Other energy sources (e) 2.0 1.4 1.7 0.9 1.4 1.8 1.7 0.8 1.3 1.6 1.6 0.9 Total generation 159.5 </th <th>177.2 18 276.2 19 102.3 9 8.0</th> <th>89.7 161.6 90.8 217.6 99.8 97.3</th>	177.2 18 276.2 19 102.3 9 8.0	89.7 161.6 90.8 217.6 99.8 97.3
Coal 77.5 61.2 76.2 61.3 51.1 43.2 56.8 39.8 47.8 48.9 71.6 49.4 49.4 20.2 20.3	276.2 19 102.3 9 8.0	90.8 217.6 99.8 97.3
Nuclear 25.3 23.2 27.1 26.7 26.6 22.2 26.3 24.8 24.9 23.9 25.0 23.5 1 Conventional hydropower 2.2 2.3 1.7 1.8 2.3 2.3 1.7 1.8 2.4 2.2 1.6 1.8 Nonhydro renewables (d) 16.7 17.3 13.5 18.6 20.2 19.6 16.1 23.2 24.9 23.7 19.2 25.6 Other energy sources (e) 2.0 1.4 1.7 0.9 1.4 1.8 1.7 0.8 1.3 1.6 1.6 0.9 Total generation 159.5 146.3 178.2 151.7 145.8 132.6 161.1 133.9 136.1 138.1 168.7 140.4 Net energy for load (f) 159.6 151.5 180.6 153.8 152.5 138.7 163.5 139.7 142.9 142.8 168.0 144.8 168.0 144.8 Central (Southwest Power Pool)	1 02.3 9 8.0	99.8 97.3
Conventional hydropower 2.2 2.3 1.7 1.8 2.3 2.3 1.7 1.8 2.4 2.2 1.6 1.8 Nonhydro renewables (d) 16.7 17.3 13.5 18.6 20.2 19.6 16.1 23.2 24.9 23.7 19.2 25.6 Other energy sources (e) 2.0 1.4 1.7 0.9 1.4 1.8 1.7 0.8 1.3 1.6 1.6 0.9 Total generation 159.5 146.3 178.2 151.7 145.8 132.6 161.1 133.9 136.1 138.1 168.7 140.4 Net energy for load (f) 159.6 151.5 180.6 153.8 152.5 138.7 163.5 139.7 142.9 142.8 168.0 144.8 Central (Southwest Power Pool)	8.0	
Nonhydro renewables (d)		
Other energy sources (e) 2.0 1.4 1.7 0.9 1.4 1.8 1.7 0.8 1.3 1.6 1.6 0.9 Total generation 159.5 146.3 178.2 151.7 145.8 132.6 161.1 133.9 136.1 138.1 168.7 140.4 Net energy for load (f) 159.6 151.5 180.6 153.8 152.5 138.7 163.5 139.7 142.9 142.8 168.0 144.8 Central (Southwest Power Pool)	66.1 7	8.2 8.0
Total generation		79.0 93.4
Net energy for load (f)	6.0	5.7 5.4
Central (Southwest Power Pool)	635.7 <i>57</i>	73.4 583.3
	645.6 <i>59</i>	94.4 598.5
·		
Natural Gas	71.1 6	69.7 55.6
Coal	93.3 5	57.3 52.3
Nuclear	16.2 1	16.7 16.0
Conventional hydropower	13.7 1	13.3 12.8
Nonhydro renewables (d)	75.0 8	80.8 98.1
Other energy sources (e)	0.8	0.7 0.5
	270.1 23	38.4 235.4
	266.2 24	43.3 237.4
Texas (ERCOT)		
	180.1 16	63.0 115.7
Coal		46.9 72.0
Nuclear	41.3 4	41.0 40.4
Conventional hydropower	0.7	0.7 0.7
Nonhydro renewables (d)		00.0 121.9
Other energy sources (e)		1.5 1.5
		53.2 352.2
		53.2 352.2
Northwest		
Natural Gas	89.2 7	76.8 52.2
	1 05.1 8	80.2 105.4
Nuclear		9.8 8.4
	118.0 14	42.2 139.6
Nonhydro renewables (d)		57.0 68.2
Other energy sources (e)		0.8 0.8
		66.9 374.8
		41.1 339.3
Southwest		
Natural Gas	56.5 5	55.7 50.5
Coal		24.7 25.5
Nuclear		32.1 32.3
Conventional hydropower		13.2 12.4
Nonhydro renewables (d)		10.9 15.6
Other energy sources (e)		0.0 0.0
		36.8 136.3
Net energy for load (f)		04.7 106.0
California	01.0	700.0
Natural Gas	74.2 7	73.6 64.8
Coal		6.3 8.5
Nuclear		18.6 17.6
Conventional hydropower		29.9 28.3
Nonhydro renewables (d)		66.4 67.8
Other energy sources (e)		0.4 0.3
		95.1 187.3
		52.9 253.0

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

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

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

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

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

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

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

⁽f) Regional generation from generating units operated by electric power sector, plus energy receipts from minus energy deliveries to U.S. balancing authorities outside region. Historical data: Latest data available from U.S. Energy Information Administration databases supporting the following reports: Electric Power Monthly, DOE/EIA-0226;

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

C.C. Energy information / turningt		201		J)	JOIC GUIT	202	20			202	21			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	0.035	0.039	0.035	0.033	0.034	0.038	0.035	0.142	0.143	0.140
Hydroelectric Power (a)	0.649	0.743	0.553	0.534	0.651	0.789	0.620	0.574	0.687	0.745	0.582	0.560	2.480	2.634	2.573
Solar (b)	0.122	0.201	0.208	0.128	0.151	0.239	0.263	0.169	0.196	0.313	0.337	0.213	0.659	0.822	1.059
Waste Biomass (c)	0.059	0.058	0.059	0.060	0.060	0.055	0.057	0.057	0.060	0.057	0.059	0.059	0.236	0.229	0.235
Wood Biomass	0.053	0.052	0.058	0.048	0.050	0.045	0.047	0.048	0.059	0.048	0.055	0.052	0.211	0.190	0.214
Wind	0.683	0.724	0.610	0.745	0.802	0.811	0.673	0.891	0.982	0.948	0.788	0.982	2.762	3.177	3.699
Subtotal	1.603	1.813	1.526	1.547	1.748	1.974	1.698	1.774	2.017	2.144	1.859	1.901	6.490	7.195	7.920
Industrial Sector															
Biofuel Losses and Co-products (d)	0.194	0.203	0.199	0.203	0.197	0.129	0.162	0.175	0.175	0.186	0.189	0.192	0.799	0.663	0.742
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	0.040	0.040	0.042	0.042	0.040	0.040	0.042	0.160	0.164	0.164
Wood Biomass	0.373	0.363	0.369	0.368	0.343	0.338	0.346	0.345	0.335	0.333	0.346	0.349	1.473	1.372	1.363
Subtotal	0.617	0.613	0.614	0.622	0.591	0.514	0.554	0.571	0.560	0.567	0.582	0.591	2.466	2.230	2.301
Commercial Sector															
Geothermal	0.006	0.006	0.006	0.006	0.005	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.024	0.022	0.022
Solar (b)	0.022	0.032	0.032	0.022	0.026	0.036	0.036	0.025	0.029	0.041	0.042	0.029	0.108	0.123	0.141
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	0.036	0.036
Wood Biomass	0.021	0.021	0.021	0.021	0.021	0.020	0.022	0.021	0.021	0.020	0.022	0.021	0.084	0.084	0.084
Subtotal	0.065	0.074	0.075	0.065	0.067	0.076	0.079	0.067	0.070	0.082	0.085	0.071	0.280	0.289	0.309
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	0.059	0.088	0.088	0.060	0.065	0.100	0.102	0.070	0.257	0.295	0.337
Wood Biomass	0.130	0.132	0.133	0.133	0.127	0.132	0.133	0.133	0.127	0.132	0.133	0.133	0.529	0.525	0.525
Subtotal	0.190	0.218	0.221	0.195	0.195	0.229	0.232	0.203	0.202	0.242	0.245	0.213	0.825	0.860	0.902
Transportation Sector													*****		
Biomass-based Diesel (f)	0.058	0.071	0.070	0.066	0.061	0.065	0.063	0.069	0.084	0.089	0.079	0.085	0.265	0.258	0.337
Ethanol (f)	0.274	0.293	0.291	0.296	0.257	0.213	0.253	0.260	0.247	0.273	0.277	0.273	1.154	0.982	1.071
Subtotal	0.333	0.365	0.361	0.361	0.318	0.277	0.316	0.328	0.332	0.362	0.356	0.358	1.419	1.240	1.408
All Sectors Total															
Biomass-based Diesel (f)	0.058	0.071	0.070	0.066	0.061	0.065	0.063	0.069	0.084	0.089	0.079	0.085	0.265	0.258	0.337
Biofuel Losses and Co-products (d)	0.194	0.203	0.199	0.203	0.197	0.129	0.162	0.175	0.175	0.186	0.189	0.192	0.799	0.663	0.742
Ethanol (f)	0.285	0.305	0.302	0.307	0.267	0.221	0.263	0.270	0.257	0.284	0.288	0.284	1.199	1.020	1.112
Geothermal	0.054	0.052	0.054	0.050	0.050	0.051	0.055	0.051	0.049	0.051	0.055	0.051	0.209	0.208	0.206
Hydroelectric Power (a)	0.652	0.747	0.556	0.537	0.655	0.792	0.623	0.577	0.690	0.748	0.585	0.563	2.492	2.646	2.585
Solar (b)(e)	0.198	0.315	0.324	0.206	0.240	0.373	0.397	0.261	0.297	0.465	0.492	0.320	1.043	1.272	1.574
Waste Biomass (c)	0.130	0.105	0.105	0.112	0.112	0.103	0.105	0.108	0.237	0.105	0.107	0.110	0.433	0.429	0.434
Wood Biomass	0.578	0.163	0.582	0.112	0.540	0.705	0.703	0.700	0.542	0.703	0.556	0.556	2.297	2.171	2.186
Wind	0.683	0.724	0.610	0.745	0.802	0.811	0.673	0.891	0.982	0.948	0.788	0.982	2.762	3.177	3.699
Total Consumption	2.809	3.084	2.798	2.791	2.920	3.072	2.879	2.943	3.180	3.397	3.127	3.136	11.481	11.814	12.840
no data evallable	2.009	3.004	2.730	4.131	2.320	5.072	2.019	2.343	5.100	5.391	J. 121	5.130	11.401	11.014	12.040

^{- =} 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.

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.

⁽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.

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

U.S. Energy Information Administr	ation S	Short-Te		gy Outlo	ok - Jun										
		201					20			20				Year	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Renewable Energy Electric Generating C	apacity (n	negawatts	, end of p	eriod)											
Electric Power Sector (a)															
Biomass	6,913	6,866	6,767	6,775	6,775	6,701	6,734	6,736	6,736	6,738	6,658	6,746	6,775	6,736	6,746
Waste	4,110	4,078	4,069	4,048	4,049	3,975	4,008	4,009	4,009	4,011	3,931	4,019	4,048	4,009	4,019
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	79,627	79,605	79,479	79,536	79,549	79,585	79,709	79,735	79,817	79,775	79,852	79,871	79,536	79,735	79,871
Geothermal	2,488	2,488	2,488	2,508	2,508	2,508	2,508	2,508	2,508	2,508	2,508	2,550	2,508	2,508	2,550
Large-Scale Solar (b)	32,781	33,243	33,903	36,985	38,768	41,649	43,199	49,584	50,007	54,219	55,475	60,278	36,985	49,584	60,278
Wind	96,612	98,087	99,668	103,501	105,848	108,561	112,664	126,747	127,283	128,368	128,894	132,975	103,501	126,747	132,975
Other Sectors (c)															
Biomass	6,569	6,518	6,518	6,452	6,460	6,460	6,476	6,456	6,468	6,415	6,415	6,415	6,452	6,456	6,415
Waste	782	784	784	784	784	784	800	800	800	799	799	799	784	800	799
Wood	5,787	5,734	5,734	5,668	5,676	5,676	5,676	5,656	5,668	5,616	5,616	5,616	5,668	5,656	5,616
Conventional Hydroelectric	289	289	289	289	289	289	289	289	289	292	290	290	289	289	290
Large-Scale Solar (b)	408	414	425	431	431	441	441	443	443	443	444	444	431	443	444
Small-Scale Solar (d)	20,284	21,137	22,103	23,211	24,259	24,818	25,451	26,352	27,405	28,607	29,913	31,297	23,211	26,352	31,297
Residential Sector	12,271	12,840	13,526	14,229	14,963	15,326	15,734	16,296	16,981	17,803	18,673	19,595	14,229	16,296	19,595
Commercial Sector	6,402	6,609	6,841	7,186	7,429	7,578	7,754	8,034	8,341	8,661	9,031	9,426	7,186	8,034	9,426
Industrial Sector	1,611	1,688	1,736	1,796	1,867	1,914	1,964	2,022	2,082	2,143	2,209	2,277	1,796	2,022	2,277
Wind	118	118	118	118	118	353	353	353	353	353	353	353	118	353	353
Renewable Electricity Generation (billion Electric Power Sector (a)		,													
Biomass	7.2	7.0	7.6	6.9	7.0	6.5	6.7	6.7	7.6	6.7	7.3	7.1	28.8	26.9	28.8
Waste	3.9	3.9	4.0	3.9	4.0	3.7	3.8	3.8	4.0	3.8	3.9	3.9	15.7	15.2	15.5
Wood	3.3	3.1	3.6	3.0	3.1	2.8	2.9	3.0	3.7	2.9	3.4	3.2	13.0	11.7	13.2
Conventional Hydroelectric	71.2	81.7	60.8	58.7	71.3	86.5	68.7	63.5	74.8	81.6	63.7	61.5	272.4	290.0	281.6
Geothermal	4.0	3.9	4.1	3.6	3.8	3.8	4.3	3.8	3.6	3.8	4.2	3.8	15.6	15.6	15.4
Large-Scale Solar (b)	13.3	21.8	22.6	13.9	16.4	26.0	28.5	18.4	21.3	34.0	36.6	23.1	71.5	89.2	115.0
Wind	74.2	78.6	66.2	80.8	87.0	88.1	73.0	96.7	106.5	102.9	85.5	106.6	299.8	344.8	401.5
Other Sectors (c)															
Biomass	7.4	7.3	7.6	7.4	7.4	7.3	7.6	7.4	7.3	7.3	7.6	7.4	29.7	29.6	29.6
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	6.6	6.9	6.6	6.6	6.6	6.9	6.6	26.8	26.8	26.8
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	0.7	0.7
Small-Scale Solar (d)	6.9	10.4	10.6	7.1	8.3	12.1	12.2	8.4	9.4	14.1	14.3	9.9	35.0	41.0	47.7
Residential Sector	4.0	6.2	6.4	4.3	5.0	7.3	7.4	5.0	5.6	8.6	8.8	6.1	20.9	24.7	29.1
Commercial Sector	2.3	3.3	3.3	2.2	2.6	3.8	3.8	2.6	3.0	4.3	4.4	3.0	11.1	12.8	14.7
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.

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.

⁽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.

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

U.S. Energy Information Administration	Short-	-Term Er	nergy Ou	ıtlook	June 202	0									
		201	9			202	20			202	21			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	18,988	16,940	17,175	17,551	18,064	18,487	18,753	18,928	19,073	17,664	18,558
Real Personal Consumption Expend.															
(billion chained 2012 dollars - SAAR)	13,103	13,250	13,353	13,414	13,153	11,442	11,823	12,259	12,484	12,705	12,887	13,046	13,280	12,169	12,781
Real Private Fixed Investment															
(billion chained 2012 dollars - SAAR)	3,349	3,337	3,330	3,326	3,304	2,932	2,780	2,825	2,916	3,020	3,096	3,139	3,336	2,960	3,043
Business Inventory Change															
(billion chained 2012 dollars - SAAR)	113	75	67	18	-9	-114	-289	-392	-116	48	124	161	68	-201	54
Real Government Expenditures															
(billion chained 2012 dollars - SAAR)	3,258	3,297	3,310	3,331	3,337	3,309	3,349	3,373	3,402	3,417	3,433	3,447	3,299	3,342	3,425
Real Exports of Goods & Services															
(billion chained 2012 dollars - SAAR)	2,554	2,517	2,523	2,536	2,479	2,181	2,161	2,270	2,377	2,466	2,540	2,593	2,533	2,273	2,494
Real Imports of Goods & Services	•	•	,	•	•		,		•	ŕ	•	·	,		
(billion chained 2012 dollars - SAAR)	3,498	3,498	3,514	3,437	3,297	2,843	2,652	2,809	3,019	3,184	3,350	3,491	3,487	2,900	3,261
Real Disposable Personal Income	-,	-,	-,	-,	-,	_,	_,	_,	-,	-,	-,	-,	-,	_,	-,
(billion chained 2012 dollars - SAAR)	14,878	14,934	15,012	15,073	15,093	15,380	15,851	15,407	15,327	15,452	15,532	15,511	14,974	15,433	15,455
Non-Farm Employment	14,010	14,004	10,012	10,010	10,000	10,000	10,001	10,401	10,021	10,402	10,002	10,011	14,514	10,100	10,100
(millions)	150.2	150.6	151.2	151.8	152.1	124.7	121.1	124.7	130.2	135.0	138.3	140.7	150.9	130.6	136.0
Civilian Unemployment Rate	130.2	130.0	131.2	151.0	132.1	124.7	121.1	124.7	150.2	155.0	130.5	140.7	130.3	150.0	130.0
(percent)	3.9	3.6	3.6	3.5	3.8	18.0	19.6	18.3	15.8	13.9	12.6	11.7	3.7	14.9	13.5
Housing Starts	3.9	3.0	3.0	3.3	3.0	16.0	19.0	10.3	13.6	13.9	12.0	11.7	3.7	14.9	13.5
· ·	4 24	1 26	1 20	1 11	1 17	0.06	0.04	1.04	1 16	124	1 20	1 20	1 20	1 10	1 25
(millions - SAAR)	1.21	1.26	1.28	1.44	1.47	0.96	0.94	1.04	1.16	1.24	1.28	1.30	1.30	1.10	1.25
Industrial Deadustion Indiana (Index 2012, 100)															
Industrial Production Indices (Index, 2012=100)		400.0	400.5	400.0	407.0	00.0	00.0	00.0	00.0	400.0	400.0	400.4	400 5	05.5	400.5
Total Industrial Production	109.8	109.2	109.5	109.6	107.6	88.6	92.0	93.6	96.8	100.0	102.0	103.1	109.5	95.5	100.5
Manufacturing	106.5	105.7	105.9	105.8	104.1	81.4	87.2	89.4	93.3	97.0	98.9	99.9	106.0	90.5	97.3
Food	115.1	115.3	114.6	116.1	116.6	112.8	117.0	118.3	119.6	120.8	121.6	122.3	115.3	116.2	121.1
Paper	94.2	91.8	92.6	93.6	94.6	89.2	85.7	85.1	85.5	86.6	88.0	88.8	93.0	88.7	87.2
Petroleum and Coal Products	106.3	104.9	106.7	104.9	105.0	91.7	94.7	94.7	96.8	100.0	101.6	102.5	105.7	96.5	100.2
Chemicals	101.4	99.9	100.6	100.3	99.0	94.2	94.5	94.9	97.1	99.8	101.7	102.8	100.5	95.6	100.3
Nonmetallic Mineral Products	119.7	119.0	119.7	119.3	121.4	100.0	95.5	94.3	96.1	98.6	101.8	105.6	119.4	102.8	100.5
Primary Metals	97.9	96.7	96.4	96.6	94.3	77.2	77.8	77.5	79.5	83.4	85.7	86.8	96.9	81.7	83.8
Coal-weighted Manufacturing (a)	106.9	105.6	106.0	106.4	106.2	89.8	90.0	90.4	93.2	96.7	99.2	100.8	106.2	94.1	97.5
Distillate-weighted Manufacturing (a)	98.5	97.9	98.3	98.6	98.5	84.7	84.3	84.4	86.4	89.0	91.1	92.9	98.3	88.0	89.9
Electricity-weighted Manufacturing (a)	106.5	105.3	105.6	105.9	104.9	89.5	89.1	89.3	92.0	95.8	98.4	100.0	105.8	93.2	96.5
Natural Gas-weighted Manufacturing (a)	108.7	107.7	108.0	108.2	107.4	93.9	92.9	92.7	95.5	99.6	102.3	103.9	108.1	96.7	100.3
Price Indexes															
Consumer Price Index (all urban consumers)															
(index, 1982-1984=1.00)	2.53	2.55	2.56	2.58	2.59	2.57	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	1.90	1.93	1.96	1.99	2.03	2.04	2.05	2.00	1.94	2.03
Producer Price Index: Petroleum															
(index, 1982=1.00)	1.81	2.08	1.95	1.93	1.74	1.11	1.34	1.36	1.32	1.52	1.59	1.60	1.94	1.39	1.51
GDP Implicit Price Deflator															
(index, 2012=100)	111.5	112.2	112.7	113.0	113.4	113.2	113.6	113.7	113.8	113.9	114.0	114.1	112.3	113.5	114.0
Miscellaneous															
Vehicle Miles Traveled (b)															
(million miles/day)	8,295	9,331	9,286	8,899	7,764	6,561	8,161	8,208	7,776	8,871	8,929	8,676	8,955	7,676	8,567
Air Travel Capacity															
(Available ton-miles/day, thousands)	643	685	707	688	599	495	702	665	665	698	735	723	681	616	705
Aircraft Utilization															
(Revenue ton-miles/day, thousands)	380	426	427	406	334	218	368	367	386	425	434	416	410	322	415
Airline Ticket Price Index		3													
(index, 1982-1984=100)	255.7	278.3	263.8	263.8	250.8	213.1	175.5	172.9	172.2	182.3	175.4	182.8	265.4	203.1	178.2
Raw Steel Production		_, 0.0	_,,,,	_,,,,	_,,,,					. 32.0		. 52.5			
(million short tons per day)	0.273	0.271	0.264	0.265	0.268	0.183	0.230	0.264	0.261	0.255	0.258	0.267	0.268	0.236	0.260
	5.2.0	J.E. 1	J.207	5.200	5.205	5.700	5.200	J.207	5.207	0.200	5.200	5.207	5.200	5.200	5.200
Carbon Dioxide (CO2) Emissions (million metri	c tons)														
Petroleum	575	587	597	596	552	435	524	538	526	546	570	570	2,354	2,050	2,212
Natural Gas	507	350	384	448	492	355	366	417	468	333	345	418	1,689	1,631	1,563
Coal	289	239	307	242	202	154	205	163	201	186	273	203	1,003	724	864
Total Energy (c)	1,374	1,178	1,291	1,288	1,250	946	1,099	1,121	1,197	1,068	1,191	1,194	5,131	4,416	4,650
. o.corg) (0)	1,514	.,170	1,231	1,200	1,230	370	1,000	1,121	1,131	1,000	1,101	1,104	0,101	7,710	7,000

^{- =} no data available

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.

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.

Table 9b. U.S. Regional Macroeconomic Data

U.S. Energy informati	on Admi	201	_	t-Tellill	2020			2021				Year			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021
Real Gross State Product															
New England	996	999	1,004	1,009	994	883	897	918	944	966	981	991	1,002	923	970
Middle Atlantic	2,772	2,782	2,791	2,802	2,765	2,449	2.487	2,548	2,632	2,700	2,744	2,776	2,787	2,562	2,713
E. N. Central	2,528	2,535	2,545	2,557	2,522	2,246	2,280	2,332	2,390	2,443	2,476	2,493	2,541	2,345	2,450
W. N. Central	1,181	1,187	1,193	1,198	1,183	1,065	1,081	1,104	1,132	1,155	1,170	1,179	1,190	1,108	1,159
S. Atlantic	3,353	3,367	3,383	3,403	3,366	3,008	3,050	3,119	3,217	3,295	3,347	3,380	3,376	3,136	3,310
E. S. Central	832	835	840	844	834	746	759	776	797	816	826	832	838	779	818
W. S. Central	2,347	2,370	2,392	2,406	2,376	2,119	2,123	2,160	2,215	2,262	2,288	2,307	2,379	2,194	2,268
Mountain	1,252	1,261	1,269	1,277	1,261	1,122	1,139	1,160	1,196	1,225	1,247	1,262	1,265	1,171	1,232
Pacific	3,700	3,719	3,739	3,761	3,721	3,332	3,390	3,468	3,574	3,657	3,707	3,742	3,730	3,478	3,670
Industrial Output, Manufa		•	•	,	-,	-,	-,	-,	-,-	-,	-, -	-,	,	-, -	-,-
New England	99.4	98.6	98.8	98.8	96.3	74.5	79.9	81.8	85.5	89.0	91.0	92.0	98.9	83.1	89.4
Middle Atlantic	99.1	98.2	98.1	98.1	96.5	75.7	81.0	82.9	86.6	89.7	91.4	92.2	98.4	84.0	90.0
E. N. Central	108.4	107.1	107.0	106.7	104.7	80.9	86.1	88.0	91.0	94.4	96.2	97.2	107.3	89.9	94.7
W. N. Central	106.0	105.2	105.3	105.2	103.2	80.5	86.7	89.2	93.5	97.3	99.3	100.3	105.4	89.9	97.6
S. Atlantic	111.0	110.3	110.8	111.1	109.3	85.6	91.4	93.5	97.7	101.3	103.3	104.4	110.8	95.0	101.7
E. S. Central	110.8	109.8	110.2	110.0	108.1	84.1	89.7	91.6	94.9	98.3	100.4	101.6	110.2	93.4	98.8
W. S. Central	101.7	101.1	101.4	101.5	100.4	79.1	84.5	86.3	90.3	93.9	95.6	96.4	101.4	87.6	94.0
Mountain	116.5	115.8	116.6	116.2	114.9	90.5	97.7	100.2	104.8	109.0	111.2	112.2	116.3	100.8	109.3
Pacific	105.1	104.2	104.1	104.3	102.9	80.3	86.8	89.4	93.9	97.8	99.8	100.7	104.4	89.9	98.0
Real Personal Income (Bi															
New England	904	905	901	904	905	876	896	884	886	897	904	909	903	890	899
Middle Atlantic	2,302	2,315	2,312	2,317	2,319	2,243	2,292	2,258	2,267	2,297	2,313	2,321	2,312	2,278	2,299
E. N. Central	2,428	2,432	2,442	2,454	2,452	2,397	2,445	2,400	2,393	2,418	2,436	2,445	2,439	2,424	2,423
W. N. Central	1,146	1,147	1,162	1,166	1,164	1,138	1,157	1,137	1,135	1,146	1,157	1,164	1,155	1,149	1,150
S. Atlantic	3,214	3,231	3,241	3,256	3,267	3,221	3,288	3,217	3,214	3,251	3,280	3,300	3,235	3,248	3,261
E. S. Central	887	890	894	899	901	891	913	890	888	897	902	904	893	899	898
W. S. Central	1,985	1,993	2,005	2,015	2,022	1,972	2,006	1,967	1,969	1.989	2.000	2.008	1,999	1.992	1,992
Mountain	1,168	1,177	1,188	1,193	1,194	1,168	1,192	1,170	1,170	1,185	1,197	1,205	1,181	1,181	1,189
Pacific	2,807	2,834	2,828	2,842	2,848	2,764	2,824	2,784	2,791	2,829	2,856	2,873	2,828	2,805	2,837
Households (Thousands)		_,	_,	_,	_,	_,	_,	_,	_,	_,	_,	_,	_,	_,	_,
New England	5,936	5,941	5.957	5,966	5,972	5.971	5.970	5.972	5,973	5.976	5.984	5.996	5.966	5.972	5,996
Middle Atlantic	16,243	16,263	16,305	16,328	16,343	16,339	16,335	16,340	16,344	16,352	16,374	16,406	16,328	16,340	16,406
E. N. Central	19,087	19,112	19,166	19,197	19,221	19,227	19,231	19,245	19,255	19,267	19,297	19,338	19,197	19,245	19,338
W. N. Central	8,688	8,708	8,740	8,760	8,776	8,781	8,787	8,796	8,803	8,814	8,832	8,855	8,760	8,796	8,855
S. Atlantic	25,689	25,762	25,877	25,965	26,046	26,095	26,141	26,200	26,256	26,320	26,404	26,506	25,965	26,200	26,506
E. S. Central	7,651	7,663	7,689	7,706	7,720	7,725	7,729	7,738	7,745	7,754	7,772	7,793	7,706	7,738	7,793
W. S. Central	14,813	14,856	14,923	14,974	15,021	15,050	15,080	15,119	15,155	15,196	15,250	15,312	14,974	15,119	15,312
Mountain	9,404	9,448	9,506	9,551	9,593	9,622	9,651	9,683	9,711	9,742	9,780	9,823	9,551	9.683	9,823
Pacific	18,903	18,932	18,994	19,034	19,071	19.087	19,109	19,146	19,182	19,220	19,273	19,333	19,034	19,146	19,333
Total Non-farm Employm	-	-	•	,	•		,	•	*	•	,	,	•	,	,
New England	7.5	7.5	7.5	7.5	7.6	6.2	6.0	6.2	6.5	6.7	6.9	7.0	7.5	6.5	6.8
Middle Atlantic	20.0	20.0	20.1	20.1	20.1	16.5	16.0	16.5	17.2	17.8	18.3	18.6	20.0	17.3	18.0
E. N. Central	22.3	22.3	22.3	22.3	22.3	18.3	17.8	18.3	19.1	19.8	20.2	20.5	22.3	19.2	19.9
W. N. Central	10.8	10.8	10.8	10.8	10.8	8.9	8.7	9.0	9.4	9.7	9.9	10.0	10.8	9.4	9.7
S. Atlantic	29.0	29.1	29.2	29.3	29.4	24.0	23.3	24.0	25.1	26.1	26.8	27.4	29.1	25.2	26.4
E. S. Central	8.3	8.3	8.3	8.3	8.3	6.9	6.7	6.9	7.2	7.5	7.6	7.7	8.3	7.2	7.5
W. S. Central	17.6	17.7	17.8	17.9	18.0	14.8	14.3	14.7	15.3	15.9	16.2	16.5	17.8	15.5	16.0
Mountain	11.0	11.0	11.1	11.2	11.2	9.2	8.9	9.1	9.6	9.9	10.2	10.5	11.1	9.6	10.1
Pacific	23.6	23.7	23.9	24.0	24.0	19.7	19.2	19.8	20.7	21.4	21.9	22.3	23.8	20.7	21.6
. 23110	20.0	20.1	20.0	2-7.0	2-1.0	10.1	70.2	, 0.0	20.7	21.7	21.0	22.0	20.0	20.7	27.0

^{- =} 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 Informat	2019			t-Term	2020				2021				Voor			
				04	04 1			0.4	04 1			- 04	2040	Year	2024	
Heating Danies Davis	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2019	2020	2021	
Heating Degree Days	3,222	893	135	2,277	2,726	996	124	2,161	3,171	878	127	2,161	6,527	6.007	6,336	
New England Middle Atlantic	2,988	633	68	2,065	2,726	996 843	78	1,982	2,931	703	78	1,982	5,754	5,377	5,693	
E. N. Central	3,326	761	64	2,003	2,473	643 878	76 115	2,228	2,931 3,151	703 731	76 119	2,228	6,430	6.006	6,229	
W. N. Central	3,647	772	107	2,546	3,037	834	152	2,220	3,234	731 701	154	2,226	7,072	6,423	6,490	
South Atlantic	,	127	2	2,546 917	1,103	270	132	2,400 951	3,23 4 1,379	184	134	949	2,379	2,337	2,524	
E. S. Central	1,333 1,713	193	1	1,275	1,103	366	19	1,284	1,379	231	19	1,284	3,182	2,337 3,155	3,317	
W. S. Central	1,713	90	0	852	973	112	4	757	1,783	77	4	757	2,149	1,846	1,927	
Mountain	2,432	787	127	1.967	2,217	647	136	1,796	2,183	689	142	1.795	5,313	4,796	4,810	
Pacific	1,689	576	95	1,185	1,542	483	84	1,195	1,503	577	90	1,196	3,545	3,305	3,367	
U.S. Average	2,210	480	56	1,558	1,875	547	70	1,509	2.093	483	72	1,190	4,305	4,001	4,154	
Heating Degree Days, Pr	-		30	1,556	1,073	547	70	1,509	2,093	403	12	1,507	4,303	4,001	4, 154	
New England	3,166	820	111	2,122	3,152	822	105	2,127	3,132	858	108	2,116	6,218	6,206	6,213	
Middle Atlantic	2,956	650	76	1,941	2,949	644	69	1,944	2,913	678	71	1,926	5,623	5,606	5,588	
E. N. Central	3,196	697	112	2,198	3,198	698	102	2,197	3,157	734	103	2,183	6,203	6,195	6,177	
W. N. Central	3,255	702	140	2,380	3,287	702	131	2,379	3,247	732	131	2,376	6,477	6.500	6,486	
South Atlantic	1,480	176	11	964	1,459	169	10	951	1,392	182	10	922	2,631	2,589	2,506	
E. S. Central	1,861	222	17	1,292	1,850	214	15	1,278	1,772	234	16	1,255	3,392	3,357	3,277	
W. S. Central	1,183	85	4	808	1,199	83	3	794	1,140	87	3	788	2,079	2.079	2,018	
Mountain	2,164	714	139	1,856	2,193	718	135	1,844	2,182	699	135	1,846	4,873	4.890	4,862	
Pacific	1,444	582	83	1,175	1,456	580	85	1,162	1,463	548	82	1,158	3,283	3,284	3,252	
U.S. Average	2,151	475	68	1,518	2,149	472	64	1,509	2,108	482	64	1,493	4,212	4,194	4,148	
Cooling Degree Days	_,		-	.,	_,		-	,,,,,,,	_,		-	.,	-,	.,	.,	
New England	0	68	469	0	0	113	429	1	0	84	416	1	538	543	502	
Middle Atlantic	0	145	629	8	0	170	553	4	0	153	543	4	782	727	700	
E. N. Central	0	175	650	7	2	214	540	7	0	218	541	7	832	763	766	
W. N. Central	0	223	728	2	6	234	671	11	3	267	675	11	954	923	956	
South Atlantic	153	757	1,301	309	199	675	1,167	235	128	672	1,181	236	2,520	2,277	2,217	
E. S. Central	29	547	1,213	86	72	483	1,040	68	30	538	1,073	68	1,875	1,663	1,708	
W. S. Central	72	819	1,692	169	174	860	1,515	211	99	890	1,532	211	2,753	2,760	2,732	
Mountain	10	342	988	60	9	454	949	79	19	428	935	79	1,400	1,491	1,461	
Pacific	22	167	589	67	24	187	595	59	27	168	577	58	845	865	831	
U.S. Average	46	399	953	106	71	408	862	95	46	409	865	96	1,503	1,437	1,416	
Cooling Degree Days, Pr	ior 10-yea	r Average														
New England	0	79	455	1	0	83	471	1	0	82	462	1	536	555	545	
Middle Atlantic	0	165	589	6	0	170	609	6	0	164	597	6	760	785	767	
E. N. Central	3	242	548	7	3	240	579	8	3	234	565	8	799	829	809	
W. N. Central	7	298	669	11	7	296	696	11	7	288	687	11	985	1,011	994	
South Atlantic	120	684	1,180	239	127	696	1,202	247	143	686	1,189	254	2,224	2,273	2,273	
E. S. Central	36	555	1,049	67	36	556	1,082	72	42	537	1,062	73	1,706	1,746	1,715	
W. S. Central	103	897	1,552	205	100	892	1,576	207	114	882	1,568	210	2,758	2,774	2,775	
Mountain	25	438	932	81	24	433	939	81	24	443	941	82	1,476	1,477	1,490	
Pacific	31	185	631	76	31	185	624	78	31	192	635	79	923	918	937	
U.S. Average	46	417	873	97	47	420	892	100	52	416	887	102	1,433	1, 4 59	1,457	

^{- =} 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).

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

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 June 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

	Apr-2020	May-2020	April - May 2020 Average	April - May 2019 Average	2017- 2019 Average
Global Petroleum and Other Liquids (million barrels per o	lay)				
Global Petroleum and Other Liquids Production (a)	100.6	89.6	95.0	100.4	99.9
Global Petroleum and Other Liquids Consumption (b)	79.2	82.9	81.0	100.2	99.9
Biofuels Production (c)	2.3	2.4	2.4	2.6	2.5
Biofuels Consumption (c)	2.0	2.1	2.0	2.4	2.3
Iran Liquid Fuels Production	2.8	2.8	2.8	3.4	4.1
Iran Liquid Fuels Consumption	1.4	1.5	1.4	1.9	1.8
Petroleum and Petroleum Products Produced and Consu	med in Countri	es Other Than	Iran (million barrels p	er day)	
Production (d)	95.5	84.3	89.9	94.4	93.2
Consumption (d)	75.8	79.3	77.6	95.9	95.7
Production minus Consumption	19.7	5.0	12.3	-1.6	-2.5
World Inventory Net Withdrawals Including Iran	-21.5	-6.7	-14.0	-0.2	0.0
Estimated OECD Inventory Level (e) (million barrels)	3,264	3,358	3,311	2,891	2,912
Surplus Production Capacity (million barrels per day)					
OPEC Surplus Crude Oil Production Capacity (f)	1.0	6.6	3.8	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

	Apr-2020	May-2020	April - May 2020 Average	April - May 2019 Average	2017- 2019 Average
Item	Apr 2020	May 2020	Aveluge	Aveluge	Average
Brent Front Month Futures Price (\$ per barrel)	26.63	32.41	29.45	70.95	63.53
WTI Front Month Futures Price (\$ per barrel)	16.70	28.53	22.47	62.34	57.60
Dubai Front Month Futures Price (\$ per barrel)	23.93	33.91	28.80	70.65	62.36
Brent 1st - 13th Month Futures Spread (\$ per barrel)	-11.56	-6.21	-8.95	4.73	2.02
WTI 1st - 13th Month Futures Spread (\$ per barrel)	-17.43	-6.37	-12.03	2.51	1.39
RBOB Front Month Futures Price (\$ per gallon)	0.67	0.95	0.81	2.01	1.76
Heating Oil Front Month Futures Price (\$ per gallon)	0.87	0.91	0.89	2.05	1.90
RBOB - Brent Futures Crack Spread (\$ per gallon)	0.03	0.18	0.11	0.32	0.24
Heating Oil - Brent Futures Crack Spread (\$ per gallon)	0.23	0.14	0.19	0.36	0.39

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

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

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

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