Independent Statistics & Analysis
U.S. Energy Information Administration

March 2021

# Short-Term Energy Outlook

## Forecast highlights

***Global liquid fuels***

- The March *Short-Term Energy Outlook* (STEO) remains subject to heightened levels of uncertainty because responses to COVID-19 continue to evolve. Reduced economic activity related to the COVID-19 pandemic has caused changes in energy demand and supply during the past year and will continue to affect these patterns in the future. U.S. gross domestic product (GDP) declined by 3.5% in 2020 from 2019 levels. This STEO assumes U.S. GDP will grow by 5.5% in 2021 and by 4.2% in 2022, compared with an assumption of 3.8% in 2021 and 4.2% in 2022 in last month's STEO. The U.S. macroeconomic assumptions in this outlook are based on forecasts by IHS Markit.

- Brent crude oil spot prices averaged $62 per barrel (b) in February, up $8/b from January's average and up $7/b from February 2020. Rising Brent prices in February continued to reflect expectations of rising oil demand as both COVID-19 vaccination rates and global economic activity have increased, combined with ongoing petroleum supply limitations by the Organization of the Petroleum Exporting Countries (OPEC) and partner countries (OPEC+). In addition, disruptions to petroleum supply from extreme winter weather in the United States (notably in Texas) put upward pressure on crude oil prices during February.

- The U.S. Energy Information Administration (EIA) expects OPEC crude oil production will average 25.3 million barrels per day (b/d) in April, which is similar to expected production for March and down 1.6 million b/d from EIA's forecast for April OPEC production in last month's STEO. EIA expects OPEC crude oil production will rise to 26.6 million b/d in May. This increase reflects Saudi Arabia ending voluntary cuts of 1.0 million b/d, along with the relaxation of cuts that were extended through April at the March 4 OPEC+ meeting. This forecast assumes OPEC will produce 27.9 million b/d on average in the second half of 2021, as OPEC+ generally increases crude oil output to supply rising global oil consumption.

- The OPEC+ extension of existing supply cuts through April added significantly to near-term upward oil price pressures. Following the meeting, the Brent crude oil spot price settled at $67/b on March 4, up 4% from the day before. EIA expects Brent prices will average between $65-$70/b during March and April, more than $10/b above EIA's expectation last month. EIA continues to expect downward crude oil price pressures will emerge in the coming months as the oil market becomes more balanced. Brent crude oil prices in the forecast average $58/b in the second half of 2021.


Note: EIA completed modeling and analysis for this report on Thursday March 4, 2021

- EIA's forecast of declining crude oil prices and a more balanced oil market reflect global oil supply surpassing oil demand during the second half of 2021. Although EIA expects inventories to fall by 1.2 million b/d in the first half of 2021, increases in global oil supply will contribute to inventories rising by almost 0.4 million b/d in the second half of 2021 and a mostly balanced market in 2022. However, the forecast depends heavily on future production decisions by OPEC+, the responsiveness of U.S. tight oil production to higher oil prices, and the pace of oil demand growth, among other factors. EIA expects Brent prices will average $59/b in 2022.

- EIA estimates that the world consumed 95.9 million b/d of petroleum and liquid fuels in February, which is down 1.6 million b/d from February 2020. If confirmed by final consumption data, the 1.6 million b/d decline would represent the smallest year-over-year decline since the COVID-19 outbreak began affecting oil consumption in January 2020. EIA forecasts that global consumption of petroleum and liquid fuels will average 97.5 million b/d for all of 2021, which is up by 5.3 million b/d from 2020. EIA forecasts that consumption will increase by another 3.8 million b/d in 2022 to average 101.3 million b/d.

- EIA estimates that U.S. crude oil production averaged 10.4 million b/d in February, which is down 0.5 million b/d from estimated January production. Most of the decline reflects the cold temperatures that affected much of the country, particularly Texas. Unlike the relatively winterized oil production infrastructure in northern areas of the country, infrastructure in Texas, such as wellheads, gathering lines, and processing facilities, are more susceptible to the effects of extremely cold weather. Following the freeze-offs, EIA forecasts crude oil production will rise to almost 11.0 million b/d in March. EIA expects U.S. crude oil production will average 11.1 million b/d in 2021 and 12.0 million b/d in 2022. In 2020, production averaged 11.3 million b/d, down from 12.2 million b/d in 2019. EIA's current forecast for U.S. crude oil production in 2022 is 0.5 million b/d higher than in last month's STEO because of higher expected crude oil prices.

***Natural Gas***

- In February, the Henry Hub natural gas spot price averaged $5.35 per million British thermal units (MMBtu), which was up from the January average of $2.71/MMBtu and the highest nominal monthly average Henry Hub spot price since February 2014. Higher prices in February reflect increased demand for natural gas because of much colder-than-normal temperatures throughout most of the country. Price effects were amplified because the rise in demand occurred amid a drop in natural gas production due to well freeze-offs. EIA expects Henry Hub spot prices to decline to an average of $2.88/MMBtu in the second quarter of 2021. EIA expects that Henry Hub spot prices will average $3.14/MMBtu in 2021, which is up from the 2020 average of $2.03/MMBtu. EIA expects that continued growth in liquefied natural gas (LNG) exports, along with relatively flat production, will contribute to Henry Hub spot prices rising to an average of $3.16/MMBtu in 2022.

- EIA expects that U.S. consumption of natural gas will average 82.5 billion cubic feet per day (Bcf/d) in 2021, down 0.9% from 2020. The decline in U.S. natural gas consumption reflects less natural gas consumed for electric power generation because of higher natural gas prices compared with last year. In 2021, EIA expects residential natural gas consumption to average 13.1 Bcf/d (up 0.4 Bcf/d from 2020) and commercial consumption to average 9.3 Bcf/d (up 0.7 Bcf/d from 2020). EIA forecasts industrial consumption will average 23.8 Bcf/d in 2021 (up 1.3 Bcf/d from 2020) as a result of increasing manufacturing activity amid a recovering economy. EIA estimates that total natural gas consumption in February was the highest on record, at 111.8 Bcf/d, because cold weather affected much of the United States and increased natural gas demand for heating and power generation. However, EIA expects natural gas consumption in March to decline from February levels as temperatures return closer to normal, based on forecasts by the National Oceanic and Atmospheric Administration. EIA expects U.S. natural gas consumption will average 81.6 Bcf/d in 2022.

- The United States ended October 2020 with more than 3.9 trillion cubic feet (Tcf) in working natural gas storage, 5% more than the 2015–19 average and the fourth-highest end-of-October level on record. EIA estimates that inventory withdrawals were 829 billion cubic feet (Bcf) in February, the largest February withdrawal on record. The February 2021 withdrawal was significantly larger than the five-year (2016–20) average February withdrawal of 452 Bcf. In mid-February, the combination of strong natural gas demand and lower production led to the second-largest weekly storage withdrawal on record, including a record weekly withdrawal of 156 Bcf in the South Central region, which includes Texas. The large February withdrawal has resulted in end-of-month storage levels falling lower than their five-year average. EIA forecasts that natural gas inventories will end March 2021 at 1.6 Tcf, which is 13% lower than the five-year average. EIA forecasts that natural gas inventories will ultimately end the 2021 injection season (end of October) at almost 3.7 Tcf, which is 2% less than the five-year average.

- EIA forecasts that U.S. production of dry natural gas averaged 87.8 Bcf/d in February, which is down from 92.4 Bcf/d in December (the most recent month that has final data). The decline in natural gas production was mostly a result of freeze-offs, which occur when water and other liquids in the raw natural gas stream freeze at the wellhead or in natural gas gathering lines near production activities. Unlike the relatively winterized natural gas production infrastructure in northern areas of the country, natural gas production infrastructure, such as wellheads, gathering lines, and processing facilities, in Texas are more susceptible to the effects of extremely cold weather. For 2021, EIA expects that overall dry natural gas production will average 91.4 Bcf/d, which is 0.9 Bcf/d more than the February STEO forecast. The higher forecast largely reflects higher forecast crude oil prices, which EIA expects will contribute to more associated natural gas production.

- In February, U.S. LNG exports averaged 7.5 Bcf/d, a 2.3 Bcf/d (23%) decline from January. LNG exports were affected by the logistical constraints associated with suspending piloting

services on several days at some U.S. LNG export ports located in the Gulf of Mexico because of inclement weather. In addition, several U.S. LNG export facilities (including Freeport, Cameron, and Corpus Christi) experienced lower natural gas feedstock supply in mid-February following declines in natural gas production because of extremely cold weather. EIA expects U.S. LNG exports to continue their seasonal decline from March through May, averaging 7.8 Bcf/d in this period.

***Electricity, coal, renewables, and emissions***

- EIA forecasts that electricity consumption in the United States will increase by 2.1% in 2021 after it fell 3.8% in 2020. EIA forecasts residential sector retail electricity sales will grow by 2.7% in 2021. This increase is primarily a result of colder temperatures in the first quarter of 2021 compared with the same period in 2020. Despite rolling power outages in Texas and some other states in February, estimated U.S. residential consumption during the first quarter of 2021 is 10% higher than at the same time in 2020. EIA expects retail sales of electricity in the commercial and industrial sectors in 2021 will increase by 0.7% and 3.7%, respectively. For 2022, EIA forecasts total electricity consumption will grow by another 1.4%.

- EIA expects the share of U.S. electric power generated with natural gas will average 36% in 2021 and 35% in 2022, which is down from 39% in 2020. The forecast natural gas share declines in response to a forecast increase in the price of natural gas delivered to electricity generators from an average of $2.40/MMBtu in 2020 to $3.46/MMBtu in 2021 (a 44% increase). Coal's forecast share of electricity generation averages 23% in both 2021 and 2022, up from 20% in 2020. Electricity generation from renewable energy sources rises from 20% in 2020 to 21% in 2021 and to 23% in 2022. The nuclear share of U.S. generation declines from 21% in 2020 to 20% in 2021 and to 19% in 2022.

- EIA expects U.S. coal production to total 581 MMst in 2021, 42 MMst (8%) more than in 2020. In 2022, EIA expects coal production to rise by a further 29 MMst (5%). Recent extreme cold weather in much of the country contributed to an increase in coal use for power generation. EIA expects that coal use for power generation will increase by 16% to 505 MMst in 2021. Supply for rising coal-fired generation will be partly met by draws from on-site stockpiles at power plants.

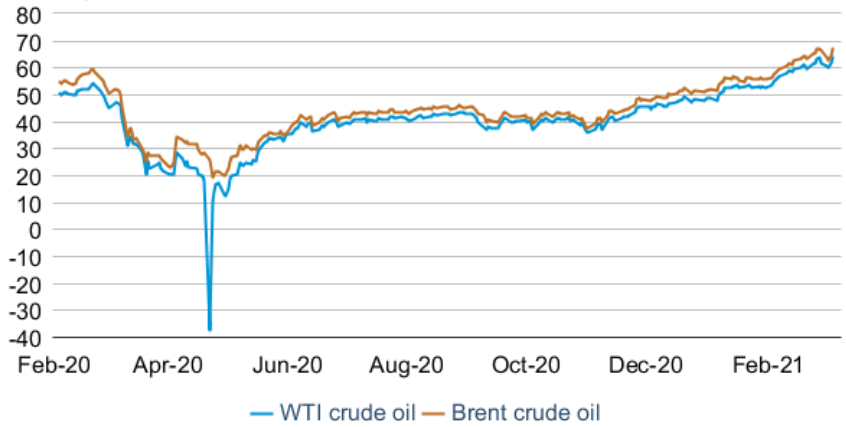
- EIA estimates that U.S. energy-related carbon dioxide ($CO_2$) emissions decreased by 11% in 2020. This decline in emissions was the result of less energy consumption related to economic contraction resulting from the COVID-19 pandemic. In 2021, EIA forecasts energy-related $CO_2$ emissions will increase by about 6% from the 2020 level as economic activity increases and leads to rising energy use. EIA also expects energy-related $CO_2$ emissions to rise in 2022, but by a slower rate of 2%. EIA forecasts coal-related $CO_2$ emissions will rise by 14% in 2021 and by 2% in 2022.

# Petroleum and natural gas markets review

## Crude oil

***Prices:*** The front-month futures price for Brent crude oil settled at $66.74 per barrel (b) on March 4, 2021, an increase of $10.39/b from February 1, 2021. The front-month futures price for West Texas Intermediate (WTI) crude oil for delivery at Cushing, Oklahoma, increased by $10.28/b during the same period, settling at $63.83/b on March 4 **(Figure 1).**

**Figure 1. Crude oil front-month futures prices**




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

The increase in crude oil prices during February reflects continuing global oil inventory draws following production cuts by the Organization of the Petroleum Exporting Countries (OPEC), partner countries (OPEC+), as well as a further, unilateral 1.0 million barrels per day (b/d) production cut from Saudi Arabia. In addition, EIA estimates U.S. crude oil production declined by 0.5 million b/d in February as a result of extremely cold weather that caused well freeze-offs. This reduction in supply occurred against a backdrop of rising global oil demand.

Global oil markets significantly tightened in February. EIA estimates February global liquid fuels supply fell by 1.8 million b/d from January while liquid fuels consumption rose 2.2 million b/d, resulting in the strongest monthly global oil inventory draw since inventories began falling in mid-2020. Initial estimates by EIA show February global oil inventory draws were 0.6 million b/d larger than forecast last month.

At its meeting on March 4, OPEC+ announced its member countries would maintain crude oil production cuts through April, except for relatively small production increases from Russia and Kazakhstan. The announcement also noted that Saudi Arabia would maintain its voluntary production cut going into April. The announcement from OPEC+ put further upward pressure on crude oil prices, and front-month Brent futures on March 4 increased by $2.67/b compared with the previous day. The sustained production curtailment suggests that supply will remain

constrained in the near term even as demand continues to increase. As a result, EIA expects that further inventory withdrawals to meet rising crude oil demand will support crude oil prices through at least the end of April. In last month's outlook, EIA had forecast that OPEC would begin relaxing production cuts in April, but following the March 4 announcement, EIA now expects that to happen beginning in May. EIA expects OPEC crude oil production will increase to an average 26.6 million b/d in May, which would be an increase of 1.5 million b/d compared with the January–April average. The supply increase contributes to easing pressure on global crude oil prices in the forecast, with global oil inventory draws averaging 0.3 million b/d in May and June compared with 1.7 million b/d in the first four months of the year.

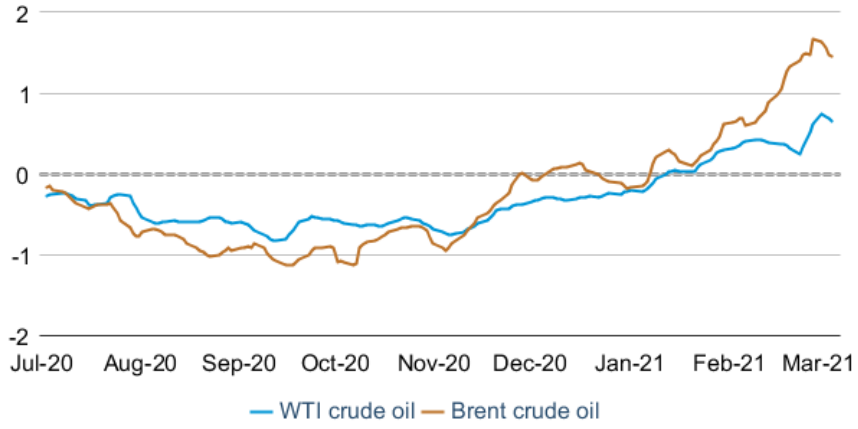
EIA forecasts Brent crude oil prices will average $67/b in March and April 2021. EIA continues to expect downward crude oil price pressures will emerge in the coming months as the oil market becomes more balanced, with EIA's forecast Brent price falling to $65/b in May and then $58/b over the second half of 2021. Even at $58/b, prices would be higher than they were at the end of 2020. The higher crude oil prices also result in rising forecast U.S. crude oil production by the second half of 2021, and particularly in 2022. Rising U.S. production, along with higher production from OPEC+, and continuing high OPEC spare production capacity contributes to EIA's forecast of relatively balanced oil markets during the second half of 2021 and 2022, which moderate price pressures over that period.

EIA's forecast of downward oil price pressure and increased crude oil availability has several key uncertainties. The speed of actual demand recovery, based on vaccination rates and the degree to which travel and employment conditions return to pre-COVID levels, remains an important uncertainty on the demand side. At the same time, the degree to which OPEC+ production cuts will continue after April remains a source of uncertainty on the supply side, especially because increasing crude oil prices will continue to provide an incentive for OPEC+ participants to agree to production increases in later meetings. Finally, the responsiveness of U.S. tight oil production to higher oil prices is also uncertain.

***Crude oil futures price spreads:*** The spread between front-month and 3rd month futures contract prices for Brent and WTI diverged in mid-February, suggesting substantially different market expectations for crude oil availability in the months of March and April **(Figure 2)**. The Brent front-month to 3rd month spread has been climbing steadily since January, exceeding $1/b beginning on February 16. At the same time, the backwardation (when near-term prices are higher than longer-dated ones) in WTI decreased from the beginning of the month, reaching a low point in the aftermath of the extreme cold weather across much of the United States, particularly in Texas. As the WTI front-month contract rolled over from March delivery to April delivery and as the disruptive market effects of the U.S. Gulf Coast weather conditions lessened, the backwardation of the WTI front-month to 3rd month spread contract began to increase in line with the trend in Brent, reaching 66 cents/b as of March 4.

**Figure 2. Crude oil front-month to 3rd month futures price spread**

dollars per barrel, five-day moving average



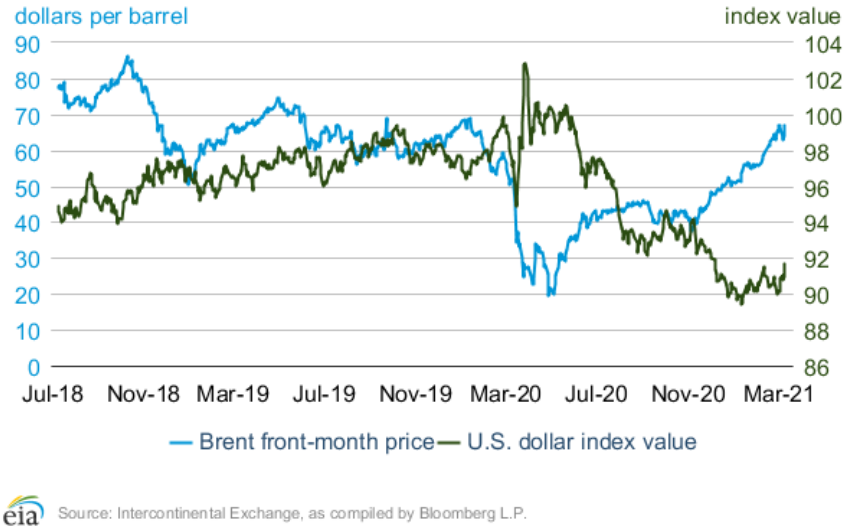

Sources: CME Group, Dubai Mercantile Exchange, and Intercontinental Exchange, as compiled by Bloomberg L.P.
Note: WTI=West Texas Intermediate.

The difference between the contracts for the two crude oil grades reflects both a difference in market demand for crude oil in March compared with April and the relatively longer lead time for global crude oil deliveries, which puts more upward pressure on Brent. Differences in the delivery dates between the Brent and WTI front month contracts suggest that crude oil for April delivery was in higher demand, compared to March. The Brent futures contract trades for April delivery throughout February, but WTI trades for March delivery during most of February. The difference in the front-month to 3rd-month spread likely reflects differing market expectations about crude oil availability during the respective front-month contract periods. April became the front-month for the Brent contract sooner, resulting in increasing front-month prices for Brent because of expectations of higher refinery demand for crude oil in preparation for increased summer demand. The WTI front-month contract, conversely, did not shift to April delivery until near the end of February, and after a brief period of disruption because of weather outages, the WTI front-month contract began to increase at the end of the month, which also likely reflects reports of major inventory draws and greater expected refinery demand in April.

The difference in value between the Brent and WTI front-month to 3rd-month spreads is not necessarily a seasonal one and does not always occur in preparation for summer demand. Lower OPEC+ production through April means many buyers will need to turn to crude oil inventories to acquire product in time for April delivery. As the global benchmark, Brent is likely to reflect substantial international crude oil movements by waterborne cargos that can take weeks or months to arrive at their destinations. WTI, conversely, remains the benchmark of choice for many refiners located closer to the Permian Basin and nearby refining hubs in the U.S. Midwest and Gulf Coast. The relatively shorter supply chain for WTI from production sites in the U.S. Midcontinent to nearby customers, combined with shorter expected lead times to increase crude oil production, could result in a lower call on crude oil inventories from refiners and, therefore, less upward price pressure on WTI compared with Brent.

***Brent and the U.S. dollar index:*** The U.S. dollar index, which measures the relative value of the U.S. dollar against the values of several foreign currencies, has decreased since November 2020, meaning the U.S. dollar has depreciated against other currencies **(Figure 3)**. Most international benchmark crude oils, including Brent crude oil and WTI, are priced in U.S. dollars, so the U.S. dollar's value can meaningfully affect crude oil acquisition costs in other countries where currencies are appreciating or depreciating.

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

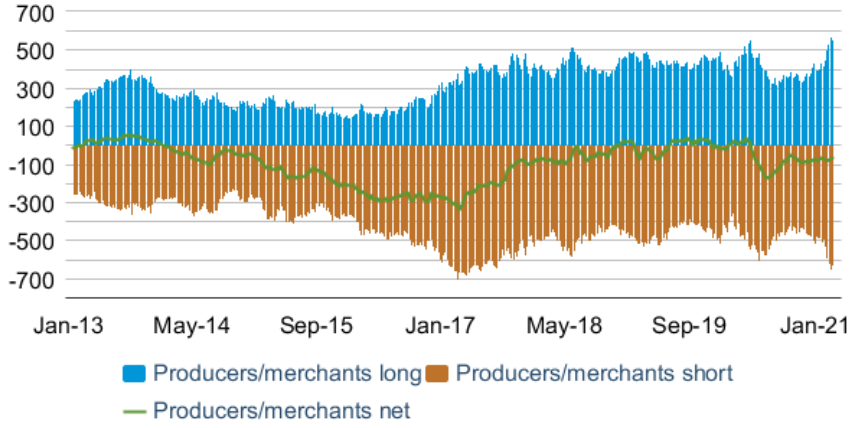



eia Source: Intercontinental Exchange, as compiled by Bloomberg L.P.

Because a strong currency can indicate higher demand for a country's goods and services, a weaker U.S. dollar may indicate strong economic growth in the rest of the world, which would also correlate with stronger crude oil demand. Even in cases where independent monetary policy decisions, rather than underlying economic growth, may be driving the relative value of the dollar, relatively cheaper crude oil acquisition costs allow those actors to pay a higher dollar-denominated price for crude oil by benefitting from the dollar's reduced exchange rate. These factors may help to explain instances of inverse correlations between crude oil prices and the value of the U.S. dollar. The current period of relative weakness in the dollar also corresponds with rising demand and higher prices for other commodities in the agricultural and industrial metals sectors, which suggests expectations for broad economic expansion. The U.S. dollar index was showing signs of relative strength during the height of COVID-19 disruptions, regularly reaching or exceeding 100 from March through May 2020. The strength corresponds to increased demand for dollars as a financial safe haven during a period of increased uncertainty. However, the index hasn't exceeded 100 since May 15, 2020, and averaged 93 each month from August through November 2020. Since December, the U.S. dollar index has averaged 91. The rising demand for crude oil and other commodities, combined with the weaker dollar, reflects an increasing risk tolerance in the market and high economic growth expectations among market participants.

***WTI crude oil producer/merchant positions:*** Rising producer/merchant open interest in WTI futures contracts indicates increased futures market activity in the petroleum market after a period of reduced interest during 2020 **(Figure 4)**. In February 2021, the average total monthly contracts (long position contracts plus short position contracts) for producers/merchants increased to more than 1 million contracts for the first time since May 2020. The Commodity Futures Trading Commission (CFTC) defines producers/merchants as entities engaged in handling the physical commodity. The rise in producer/merchant contracts reflects increased business activity among crude oil producers, shippers, refiners, or other physical market participants. Crude oil producers use short position futures contracts to serve as a hedge against the risk that prices will decrease in the future. Refiners or shippers use long positions to hedge against higher crude oil prices. The increases in Brent and WTI prices since the fourth quarter of 2020 may be contributing to the rising contract open interest. The current prices provide an incentive for crude oil producers to secure a contract rate based on present highs in case prices decrease by expiration. Conversely, the potential for continued crude oil price increases is an incentive for physical market buyers to secure a contract rate at present levels in case prices continue to rise. Despite the increase in open interest contracts overall, the net position of producer/merchant contracts has remained short, suggesting that more producer/merchant contracts continue to serve as a hedge against decreasing crude oil prices rather than rising crude oil prices (long). On a monthly average basis, producer/merchant open interest has been in a net short position since April, and has remained relatively steady at a net short position of between 70,000 and 90,000 contracts since October 2020.

**Figure 4. Producer / merchant open interest in WTI futures contracts**



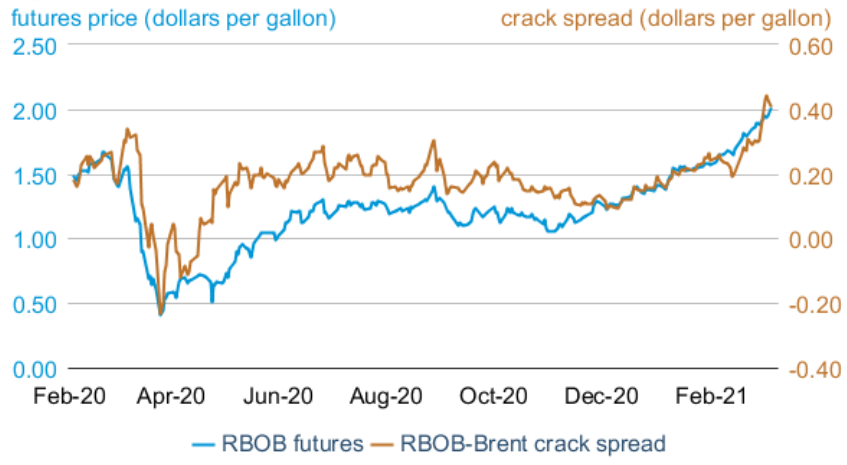

eia U.S. Commodity Futures Trading Commission, Commitment of Traders Report; WTI=West Texas Intermediate

## Petroleum products

***Gasoline prices:*** The front-month futures price of reformulated blendstock for oxygenate blending (RBOB, the petroleum component of gasoline used in many parts of the country) settled at $2.00 per gallon (gal) on March 4, up 41 cents/gal from February 1 **(Figure 5)**. The RBOB–Brent crack spread (the difference between the price of RBOB and the price of Brent

crude oil) increased by 16 cents/gal to settle at 41 cents/gal during the same period. On March 2, the crack spread closed at 44 cents/gal, the highest since September 1, 2017.

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

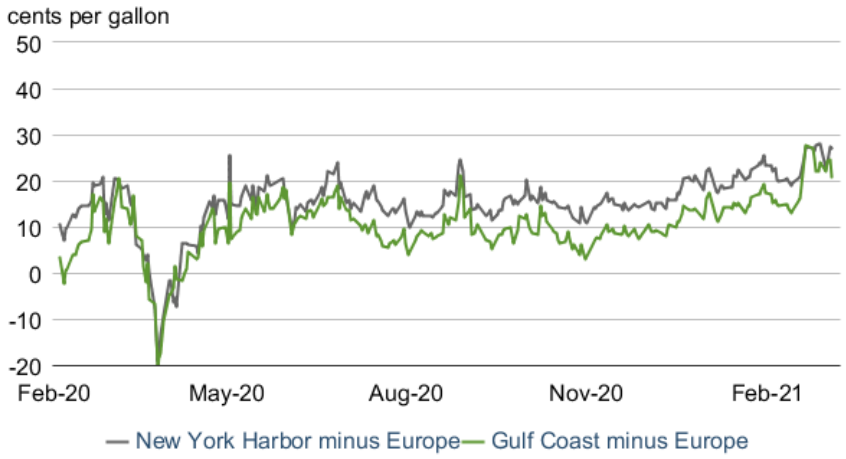



Source: CME Group, as compiled by Bloomberg L.P.
Note: RBOB=reformulated blendstock for oxygenate blending

The increase in the RBOB–Brent crack spread likely reflects unplanned refinery outages in mid-February combined with expectations of increased consumption. The crack spread increased 12 cents/gal from February 10 to February 19 when the extreme cold disrupted energy supply—particularly in Texas, where several refineries fully or partially shut down. Refining activity is not likely to fully recover immediately because the cold weather damaged some refining units, which in some cases, might require longer or more complicated restart processes. EIA estimates that March gasoline production will remain subdued as gasoline demand increases. Expectations of higher gasoline demand and subdued supply likely contributed to the crack spread increase at the end of February.

***Gasoline spot prices:*** Because the refining disruptions were concentrated on the Gulf Coast, that region experienced the highest gasoline spot price increases during the cold spell. These supply disruptions also affected the gasoline spot market more broadly. New York Harbor gasoline spot prices increased and, to a lesser degree, European gasoline spot prices also increased. Spot prices for New York Harbor gasoline were trading at a 6 cent/gal premium to Gulf Coast conventional gasoline on February 10. As Gulf Coast spot prices increased, the spread between the two spot prices decreased, and on February 19, New York Harbor prices were selling at a discount to Gulf Coast conventional gasoline spot prices **(Figure 6)**. Furthermore, both New York Harbor and Gulf Coast spot prices increased relative to Eurobob spot prices, increasing from premiums of 20 cents/gal and 14 cents/gal on February 10, respectively, to both selling at premiums of more than 27 cents/gal on February 19. At the end of the month, Gulf Coast conventional gasoline prices and then New York Harbor gasoline prices decreased slightly as some of the shut-down refining capacity on the Gulf Coast came back online.

**Figure 6. Gasoline spot price differentials**

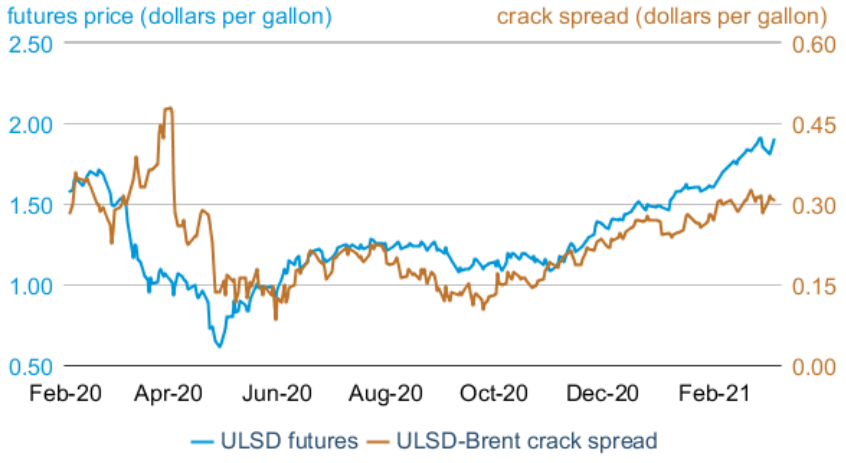



Source: Bloomberg L.P.

Because New York Harbor and Gulf Coast gasoline spot prices continue to sell at relatively high premiums to Eurobob spot prices, the United States will likely import more European gasoline in the near future to make up for reduced refining. EIA forecasts the United States will be a net importer of 0.2 million b/d of gasoline in March, which would be the first time the United States is a net importer of gasoline in March since 2015.

***Ultra-low sulfur diesel prices:*** The front-month futures price for ultra-low sulfur diesel (ULSD) for delivery in New York Harbor settled at $1.90/gal on March 4, up 25 cents/gal from February 1 **(Figure 7)**. The ULSD–Brent crack spread (the difference between the price of ULSD and the price of Brent crude oil) was unchanged, settling at 31 cents/gal during the same period.

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

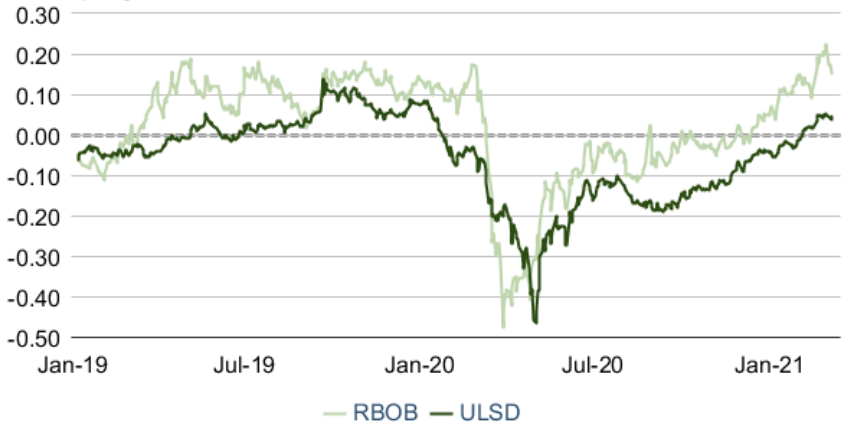



Source: CME Group, as compiled by Bloomberg L.P.
Note: ULSD=ultra-low sulfur diesel

The ULSD–Brent crack spread traded within a narrow 4 cent/gal range in February, but an estimated distillate inventory draw of 20.8 million barrels contributed to the February crack spread averaging 4 cents/gal higher than in January. EIA estimates that distillate consumption increased to 4.09 million b/d for February, which is up 1% from 4.05 in January and up 2% from February 2020. Decreases in distillate net imports and production also contributed to the highest February inventory draw since 1986. EIA estimates that distillate inventories decreased to 141.3 million barrels in February, which is 4% lower than the five-year (2016–20) average.

***ULSD 1st to 13th contract spread:*** The ULSD 1st to 13th futures price spread became backwardated (where near-term contract prices are higher than farther-dated ones) on February 1 for the first time since January 2020, but the backwardation is narrower than RBOB's backwardation **(Figure 8)**. The ULSD 1st-13th spread has been increasing as distillate inventories have been decreasing from their high summer 2020 levels. Since August 2020, distillate inventories have decreased from 178.9 million barrels to 141.3 million barrels, a 21% decrease.

**Figure 8. Petroleum product front-month to 13th month futures price spread**



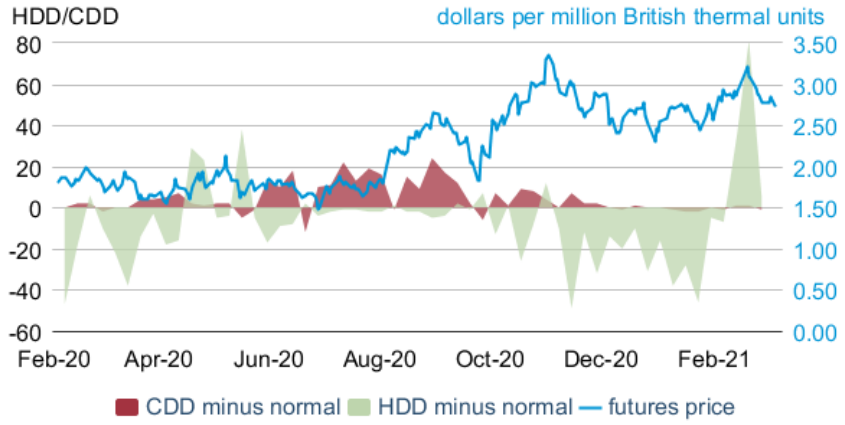

eia U.S. EIA, Bloomberg LP, RBOB=reformulated blendstock for oxygenate blending, ULSD=ultra-low sulfur diesel

Recent inventory draws reflected a tightening distillate market and coincided with a shift into backwardation on February 1 as well as the increasing backwardation throughout the month. However, ULSD's backwardation remains narrower than RBOB's because distillate inventories remain close to their seasonal average and are not forecasted to decrease by as much as gasoline inventories in March. EIA forecasts that there will be a substantial gasoline inventory draw in March because of refinery outages and an expected increase in consumption. The expected tightness in the gasoline market is likely contributing to the wider backwardation.

## Natural Gas

***Prices:*** The front-month natural gas futures contract for delivery at the Henry Hub settled at $2.75 per million British thermal units (MMBtu) on March 4, 2021, which is down 10 cents/MMBtu from February 1, 2021 **(Figure 9)**.

**Figure 9. Natural gas front-month futures prices and actual minus historical average HDD and CDD**

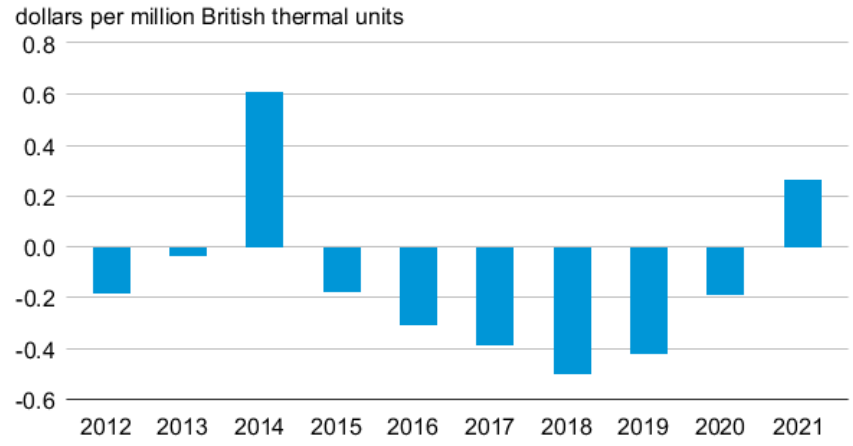



Sources: CME Group and National Oceanic and Atmospheric Administration, as compiled by Bloomberg L.P.
Note: HDD=heating degree days, CDD=cooling degree days.

Despite February front-month futures prices increasing 37 cents/MMBtu from February 1 to February 17, futures prices ended the month lower than they started after the contract rolled to April delivery, indicating market participants did not expect the weather effects that disrupted natural gas markets last month to be lasting. During the coldest week in the United States since the week ending January 6, 2018, natural gas futures prices peaked at $3.22/MMBtu on February 17. The futures price decreased in all seven of the remaining February trading days, decreasing 45 cents/MMBtu from February 17 to February 26. Disruptions to the production and flow of natural gas during the cold spell also supported a record Henry Hub spot price of $23.86/MMBtu on February 17.

February's combination of cold weather and large inventory draws contributed to the front-month futures price averaging 27 cents/MMBtu higher in February than in January. This increase reflects a 29 cent/MMBtu increase on February 1 and the cold spell in mid-February. The last time the average February front-month futures price was higher than the average January front-month futures price was in 2014, also a colder-than-normal winter **(Figure 10)**.

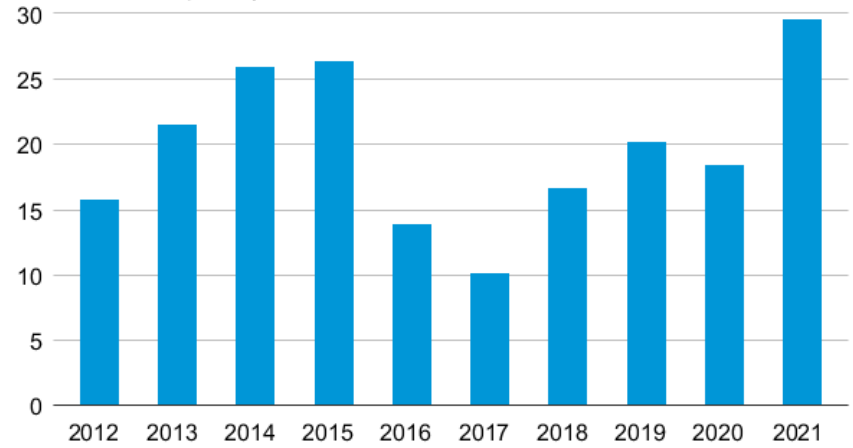
**Figure 10. January to February average front-month natural gas contract price change**




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

EIA estimates U.S. natural gas inventory draws totaled 29.6 billion cubic feet per day (Bcf/d) in February **(Figure 11)**. The draw was a February record and the second-fastest withdrawal rate for any month on record. The cold weather, especially in Texas and the Midwest, contributed to high natural gas consumption. EIA estimates U.S. natural gas consumption was 111.8 Bcf/d in February, which, if confirmed in monthly data, is a record level of U.S. natural gas consumption for any month. Furthermore, production decreased because of weather-related outages in Texas and natural gas exports increased compared with last February's levels. The combination of increased consumption, decreased production, and relatively high exports all contributed to February's high inventory draws.

**Figure 11. February natural gas net inventory withdrawal**




eia U.S. Energy Information Administration

Although February's cold weather reduced EIA's end-of-March inventory forecast by 178 Bcf compared with last month's forecast, EIA's forecast for the end of 2021 was relatively unchanged from last month's forecast. EIA forecasts that inventories will be 68 Bcf lower than last month's forecast at the end of December 2021, primarily because of higher crude oil prices leading to more drilling activity and higher natural gas production. During the final three quarters of 2021, EIA now expects 1.3 Bcf/d more dry gas production than forecast in February, while forecast demand remains relatively unchanged.

## Notable forecast changes

- Based on forecasts from IHS Markit, this STEO includes an increased assumption of economic activity compared with last month's STEO. This forecast assumes that U.S. gross domestic product (GDP) will grow by 5.5% in 2021, which is up from the expected growth of 3.8% in the February STEO, and by 4.2% in 2022, which is largely unchanged from the February STEO.

- EIA forecasts Brent crude oil prices will average $61 per barrel (b) in 2021 and $59/b in 2022. Those forecasts are $7/b and $3/b higher, respectively, than in the February STEO. The increase largely reflects less expected OPEC crude oil production in this STEO.

- This STEO includes a stronger assumption of global GDP from Oxford Economics than in last month's forecast. The increase in expected economic activity contributes to 0.3 million b/d more growth in global liquid fuels consumption in 2022 in this STEO compared with last month. In 2021, however, EIA forecasts similar forecast overall consumption growth compared with the February STEO because the effects of stronger economic activity are offset by a reduced expectation for global jet fuel consumption. EIA reduced expectations for jet fuel consumption in 2021 in response to lower than expected first-quarter flight activity, along with reduced air travel expectations from the International Civil Aviation Organization during the second quarter of 2021.

- EIA expects U.S. crude oil production to average 11.1 million barrels per day (b/d) in 2021, 0.1 million b/d more than in the February STEO. Forecast production rises to 12.0 million b/d in 2022, which is up 0.5 million b/d from the February STEO. The increase in EIA's U.S. crude oil production forecast reflects higher expected crude oil prices.

- In this STEO, EIA included initial adjustments arising from the effects of the pause on federal oil and natural gas leasing outlined in Executive Order 14008. EIA assumes that no new federal leases are granted during the STEO forecast period but that permitting and drilling on currently held federal leases continues pursuant to Section 3, Subsection G of Department of Interior Order SO-3395. No effects will likely occur until 2022 because there is roughly a minimum eight-to-ten month delay from leasing to production in onshore areas

and longer in offshore areas. Incorporating this change reduced U.S. crude oil production by less than 0.1 million b/d on average in 2022.

- Higher GDP assumptions in this forecast contribute to higher forecast U.S. distillate fuel consumption. In this STEO, EIA forecasts that distillate consumption in 2021 will average 4.1 million b/d and 4.2 million b/d in 2022. Both forecasts are 0.1 million b/d higher than in the February STEO.

- EIA expects U.S. dry natural gas production will average 91.4 billion cubic feet per day (Bcf/d) in 2021, which is up 0.9 Bcf/d from the February STEO. EIA expects production to rise to 92.8 Bcf/d in 2022, which is up 1.9 Bcf/d from last month's forecast. The higher forecast mostly reflects increased associated natural gas production because of the upward revision to EIA's crude oil production forecast.

- EIA expects natural gas storage inventories to be 13% lower than the five-year average for March, compared with 3% lower than the end-of-March five-year average in the February STEO forecast. The lower storage forecast reflects large natural gas withdrawals during mid-February.

- EIA forecasts industrial natural gas consumption to increase to 23.8 Bcf/d in 2021, a 0.8 Bcf/d increase from the February STEO forecast. This increase reflects increased manufacturing activity because of improved economic conditions expected in 2021.

- EIA expects coal-fired electric power generation will total 887 billion kilowatthours in 2021, which is up 6% from last month's forecast. The increase mostly reflects more coal use in the first quarter because of extremely cold weather that raised natural gas prices and made coal more competitive compared with natural gas for electricity generation.

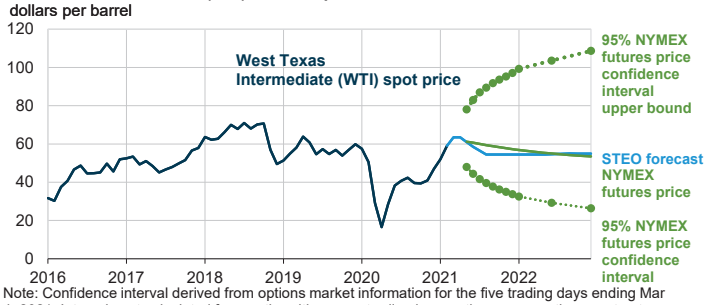
- Secondary forecast coal inventories are lower by 40 million short tons (MMst) (27%) in 2021 and by 36 MMst (32%) in 2022 compared with the February forecast. Lower expected inventories reflect EIA's expectation that coal-fired electricity generation will increase at a faster rate than the forecast increase in coal production, which reflects a general decline in coal production capacity coupled with historically high on-site coal inventories.

# Short-Term Energy Outlook
# Chart Gallery

*March 9, 2021*

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

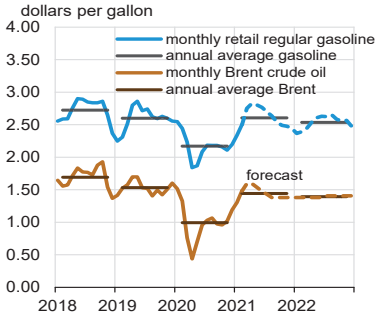
**West Texas Intermediate (WTI) crude oil price and NYMEX confidence intervals**
dollars per barrel



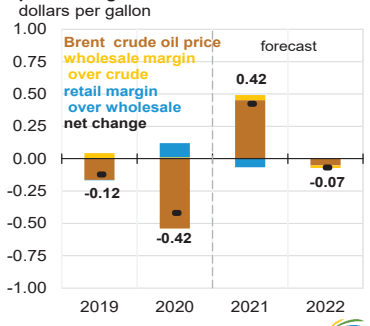

Note: Confidence interval derived from options market information for the five trading days ending Mar 4, 2021. Intervals not calculated for months with sparse trading in near-the-money options contracts.

Sources: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021, CME Group, and Bloomberg, L.P.

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

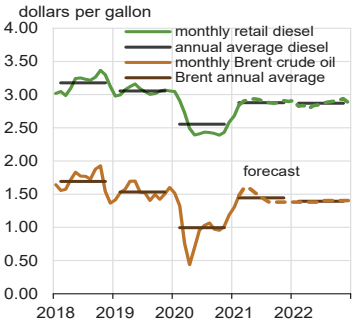



**Components of annual gasoline price changes**
dollars per gallon

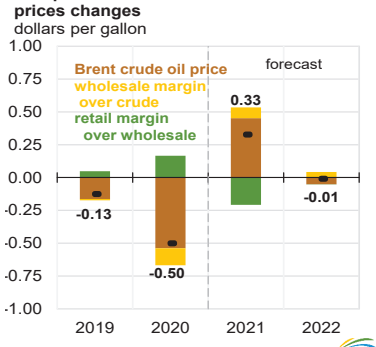



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

**U.S. diesel and crude oil prices**



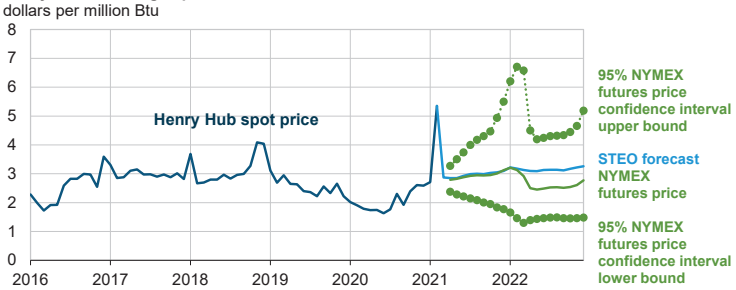

**Components of annual diesel prices changes**




Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

**Henry Hub natural gas price and NYMEX confidence intervals**

dollars per million Btu

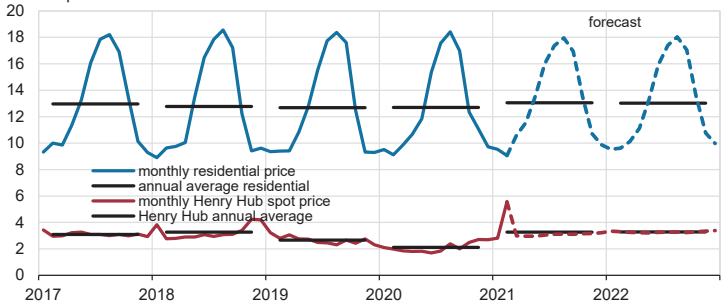



Note: Confidence interval derived from options market information for the five trading days ending Mar 4, 2021. Intervals not calculated for months with sparse trading in near-the-money options contracts.

Sources: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021, and CME Group

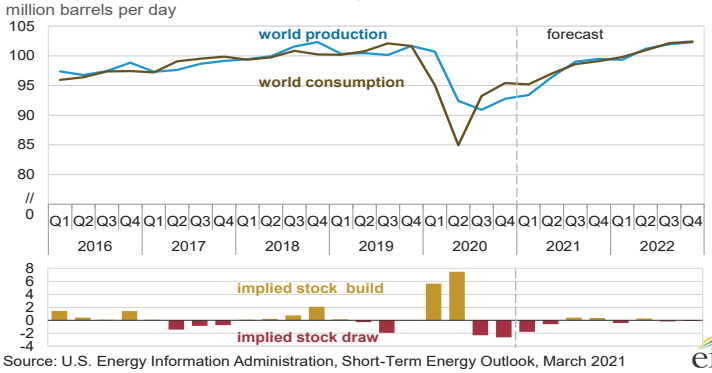
**U.S. natural gas prices**

dollars per thousand cubic feet



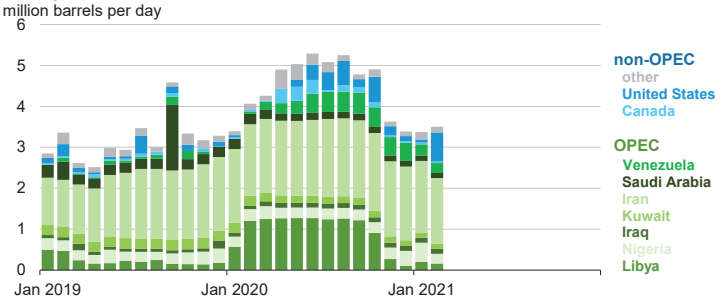

Sources: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021, and Refinitiv

**World liquid fuels production and consumption balance**
million barrels per day



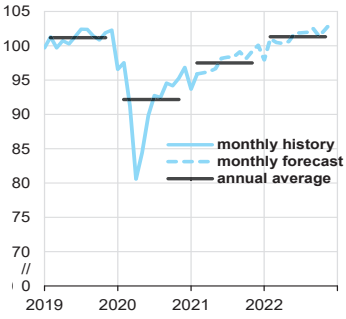

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

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

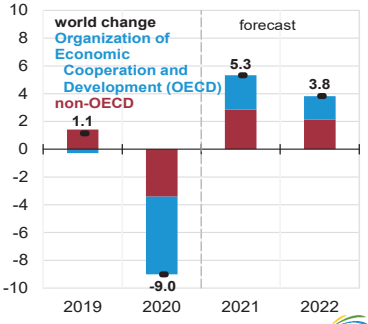



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

**World liquid fuels consumption**
million barrels per day

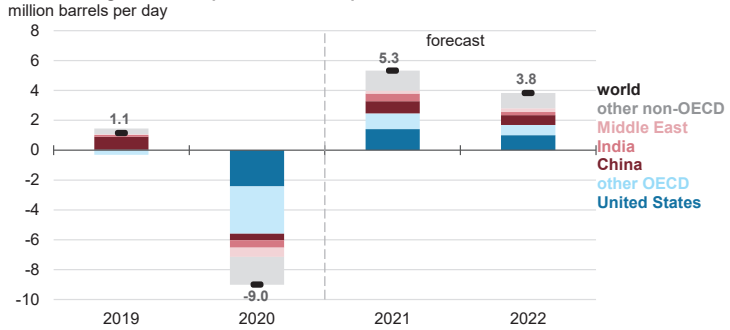



**Components of annual change**
million barrels per day



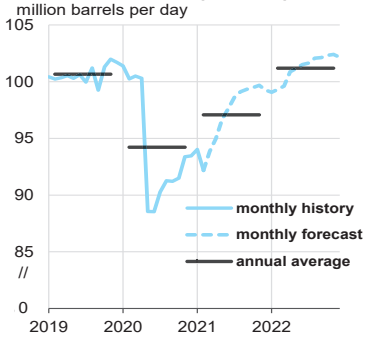

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

**Annual change in world liquid fuels consumption**
million barrels per day

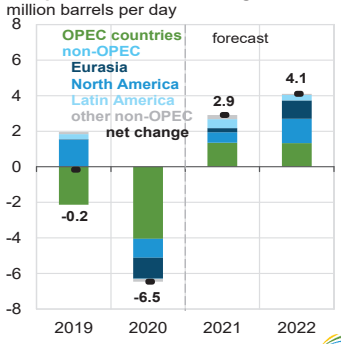



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

**World crude oil and liquid fuels production**
million barrels per day

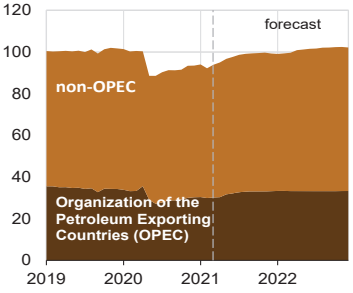



**Components of annual change**
million barrels per day

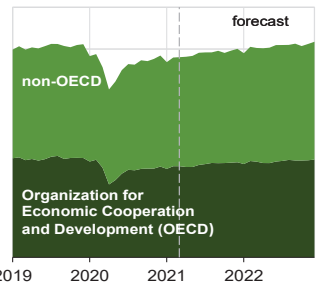



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

**World liquid fuels production**
million barrels per day

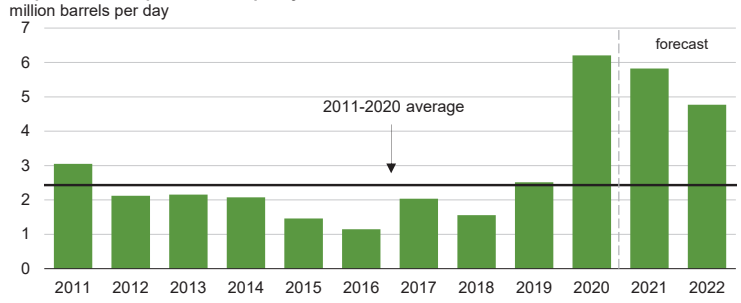



**World liquid fuels consumption**
million barrels per day



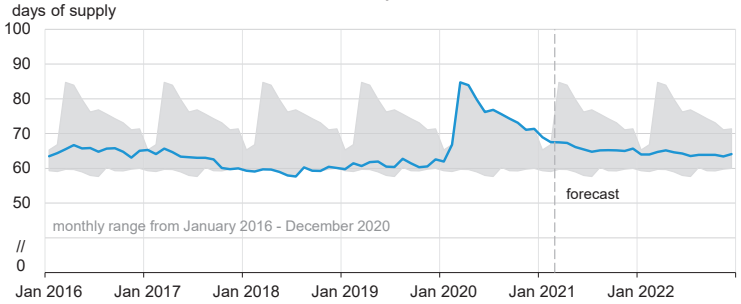

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

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



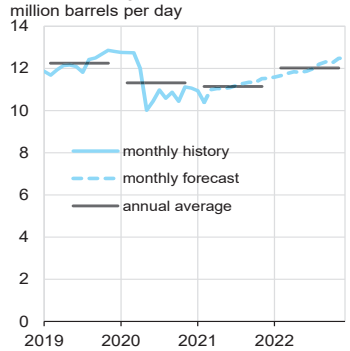

Note: Black line represents 2011-2020 average (2.4 million barrels per day).
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

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

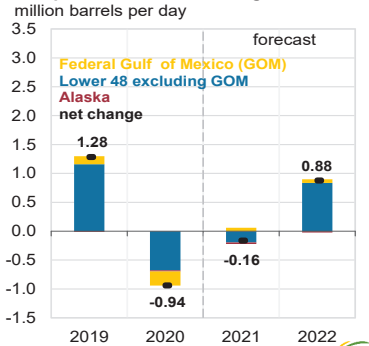



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

**U.S. crude oil production**
million barrels per day



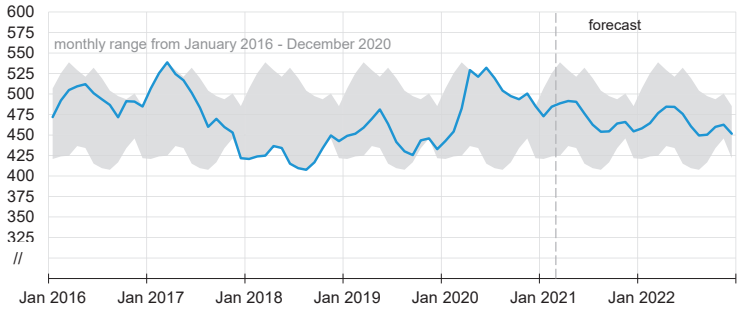

**Components of annual change**
million barrels per day




Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

**U.S. commercial crude oil inventories**

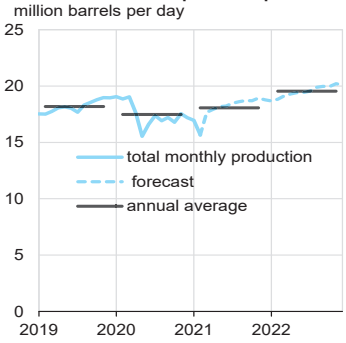
million barrels




Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

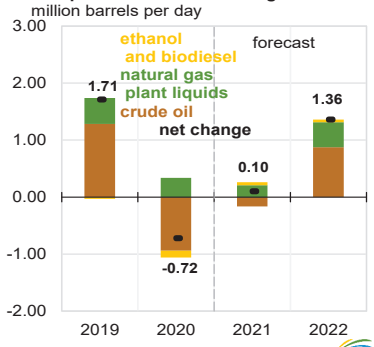
**U.S. crude oil and liquid fuels production**

million barrels per day




**Components of annual change**

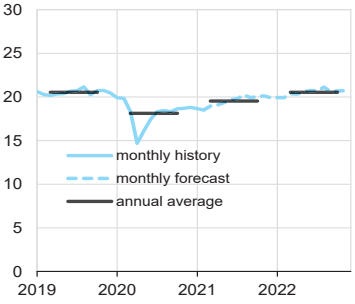
million barrels per day




Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

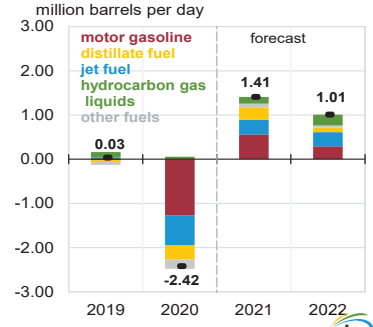
**U.S. liquid fuels product supplied (consumption)**

million barrels per day



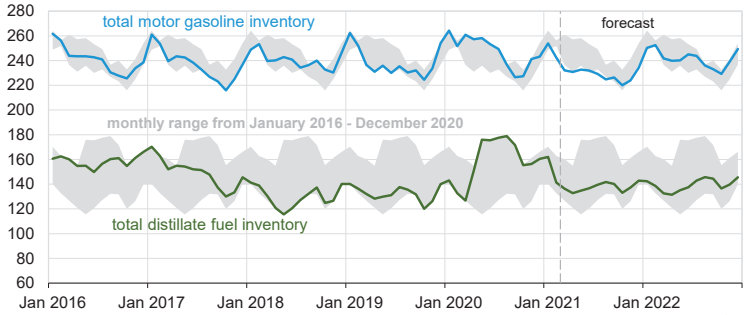

**Components of annual change**

million barrels per day



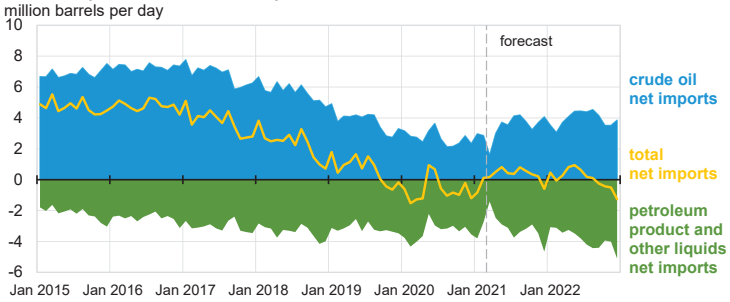

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

**U.S. gasoline and distillate inventories**
million barrels



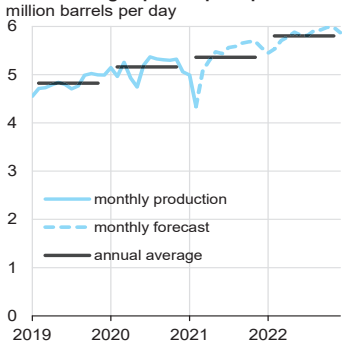

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

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

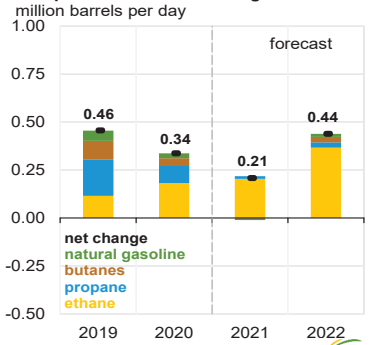



Note: Petroleum product and other liquids include: gasoline, distillate fuels, hydrocarbon gas liquids, jet fuel, residual fuel oil, unfinished oils, other hydrocarbons/oxygenates, and other oils.
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

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

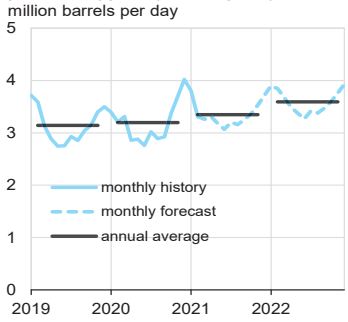



**Components of annual change**
million barrels per day

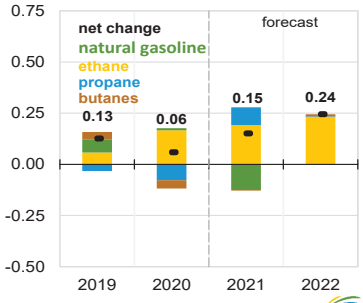



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

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

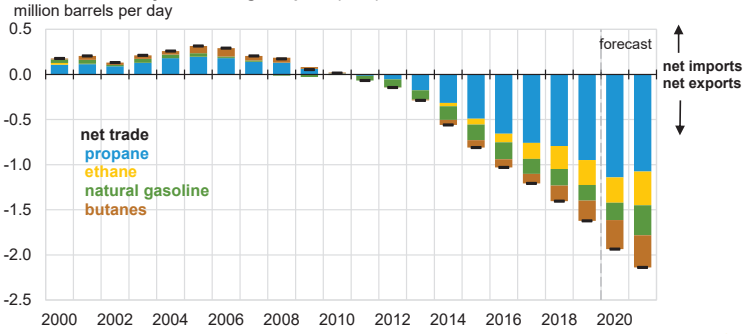



**Components of annual change**
million barrels per day



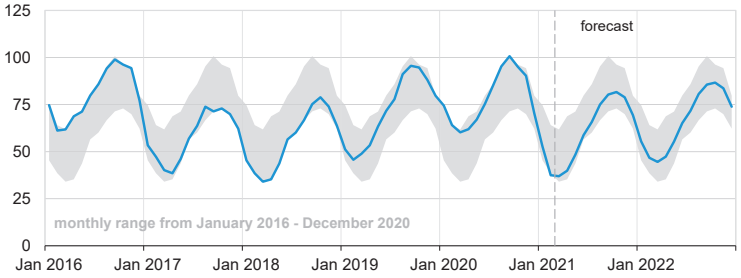

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

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



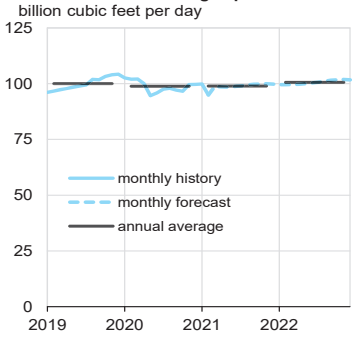

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

**U.S. commercial propane inventories**
million barrels

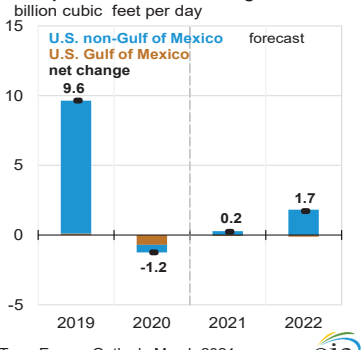



Note: Excludes propylene.
Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

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

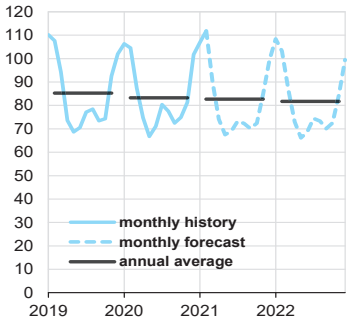



**Components of annual change**
billion cubic feet per day

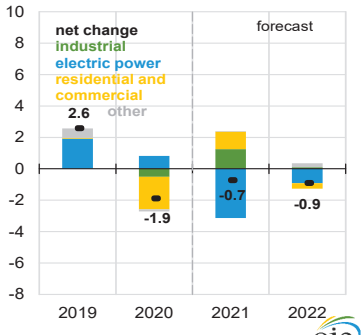



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

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

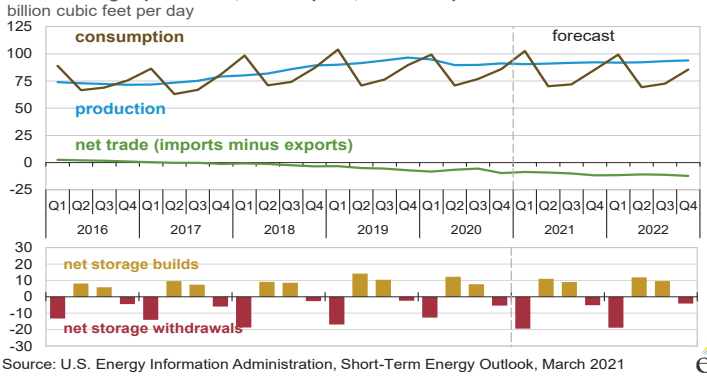



**Components of annual change**
billion cubic feet per day



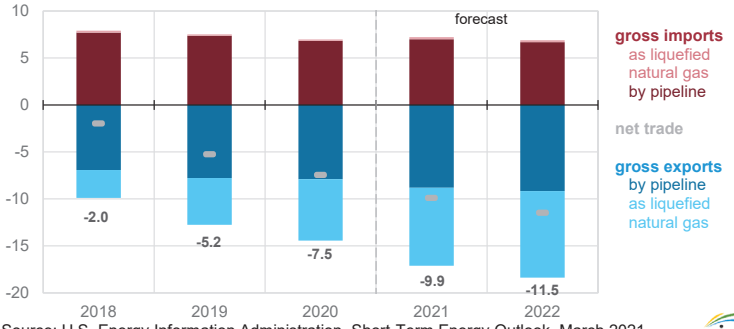

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

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



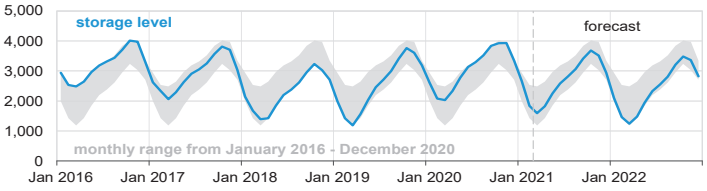

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

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

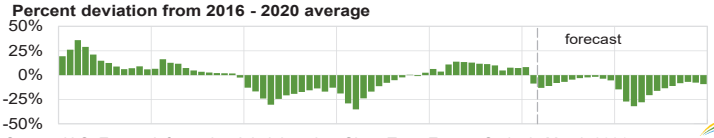



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

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

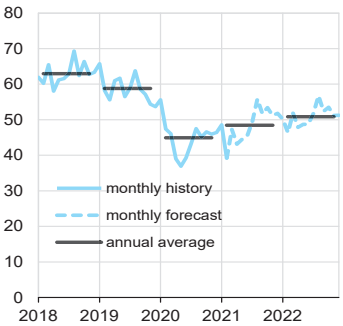



**Percent deviation from 2016 - 2020 average**

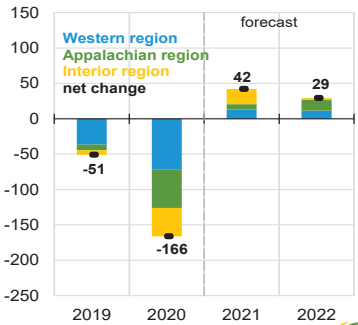



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

**U.S. coal production**
million short tons

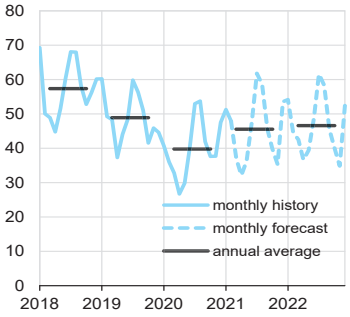



**Components of annual change**
million short tons

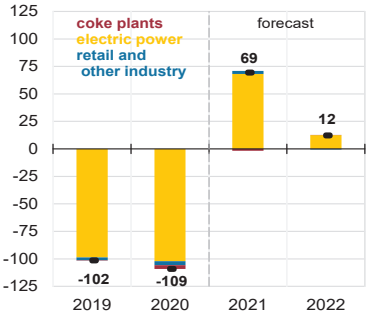



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

**U.S. coal consumption**
million short tons

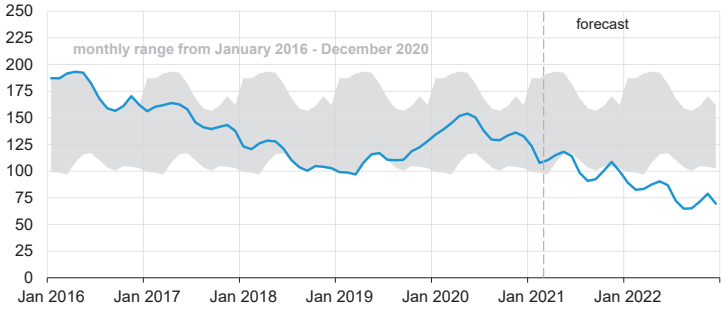



**Components of annual change**
million short tons



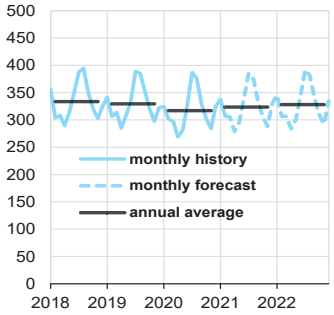

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

**U.S. electric power coal inventories**
million short tons

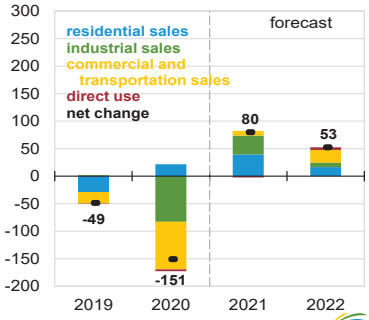



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

**U.S. electricity consumption**
billion kilowatthours



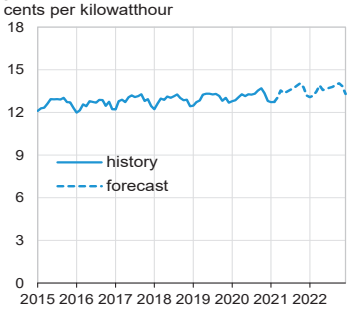

**Components of annual change**
billion kilowatthours




Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

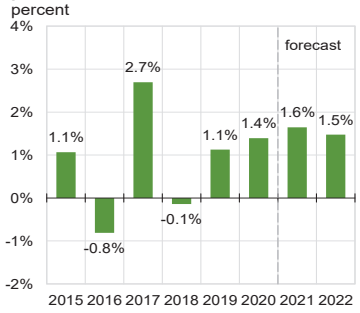
**U.S. monthly residential electricity price**

cents per kilowatthour




**Annual growth in residential electricity prices**

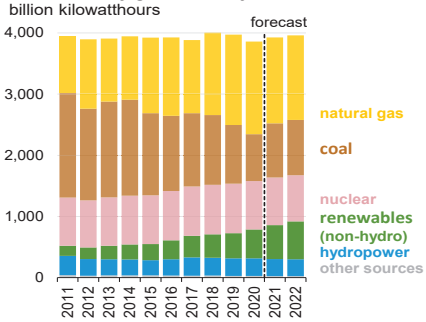
percent



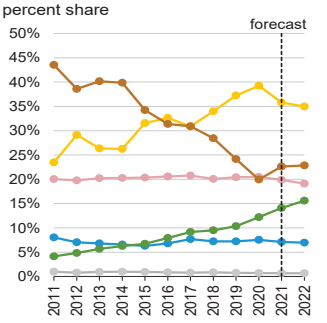

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

**U.S. electricity generation by fuel, all sectors**

billion kilowatthours



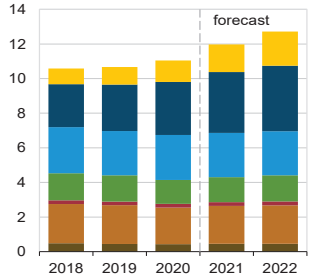

percent share




Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

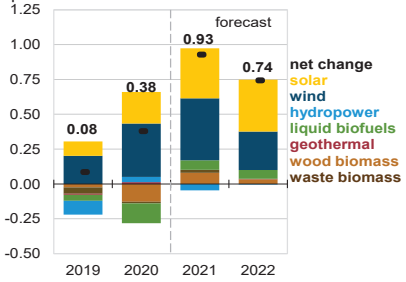
**U.S. renewable energy supply**

quadrillion British thermal units




**Components of annual change**

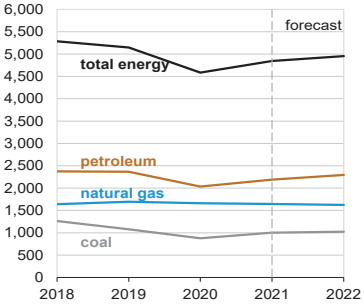
quadrillion British thermal units



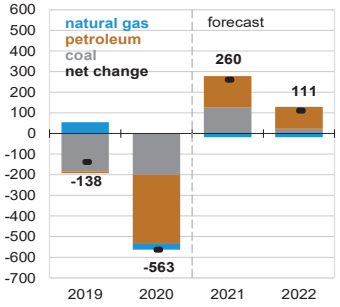

Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol and biodiesel. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste.

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

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

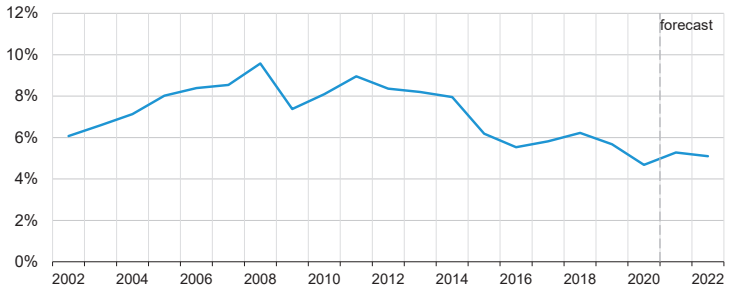



**Components of annual change**
million metric tons



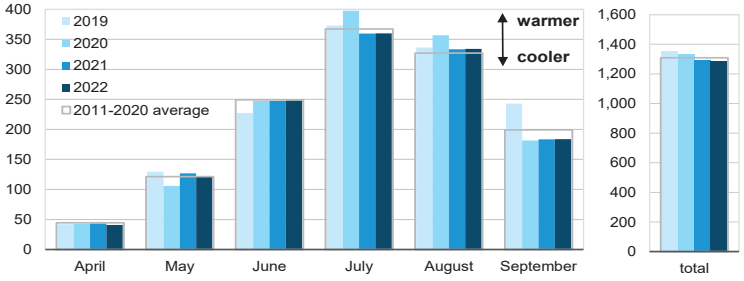

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

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




Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

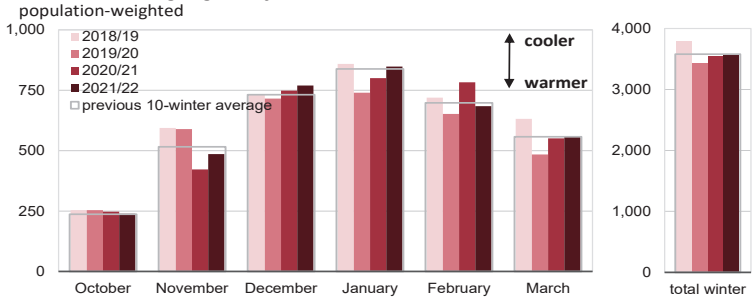
**U.S. summer cooling degree days**
population-weighted




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

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

**U.S. winter heating degree days**
population-weighted

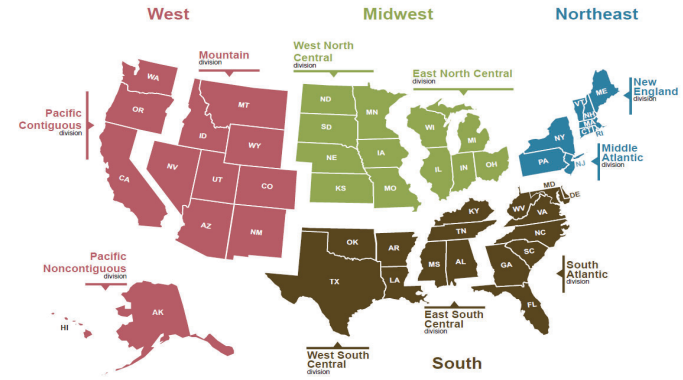



Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2021

eia

## U.S. Census regions and divisions




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

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## Table WF01. Average Consumer Prices and Expenditures for Heating Fuels During the Winter

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| Fuel / Region | Winter of | | | | | | | Forecast | |
|---|---|---|---|---|---|---|---|---|---|
| | 13-14 | 14-15 | 15-16 | 16-17 | 17-18 | 18-19 | 19-20 | 20-21 | % Change |
| **Natural Gas** | | | | | | | | | |
| **Northeast** | | | | | | | | | |
| Consumption (Mcf**) | 71.7 | 72.3 | 57.4 | 61.5 | 65.3 | 66.8 | 61.2 | 65.5 | 7.0 |
| Price ($/mcf) | 11.52 | 10.80 | 10.18 | 10.70 | 11.37 | 11.67 | 11.69 | 11.72 | 0.3 |
| Expenditures ($) | 826 | 780 | 584 | 659 | 742 | 779 | 715 | 767 | 7.3 |
| **Midwest** | | | | | | | | | |
| Consumption (Mcf) | 84.2 | 79.1 | 63.6 | 64.8 | 73.9 | 76.9 | 69.7 | 75.1 | 7.7 |
| Price ($/mcf) | 8.68 | 8.54 | 7.55 | 8.28 | 7.83 | 7.82 | 7.39 | 7.86 | 6.3 |
| Expenditures ($) | 731 | 676 | 480 | 536 | 578 | 601 | 515 | 590 | 14.4 |
| **South** | | | | | | | | | |
| Consumption (Mcf) | 52.7 | 50.9 | 40.3 | 37.9 | 45.5 | 45.9 | 41.4 | 47.0 | 13.3 |
| Price ($/mcf) | 10.71 | 10.75 | 10.72 | 12.04 | 11.23 | 10.61 | 11.10 | 11.10 | -0.1 |
| Expenditures ($) | 564 | 547 | 432 | 457 | 512 | 488 | 460 | 521 | 13.2 |
| **West** | | | | | | | | | |
| Consumption (Mcf) | 45.2 | 40.1 | 44.7 | 45.6 | 43.8 | 48.8 | 47.5 | 47.0 | -0.9 |
| Price ($/mcf) | 9.96 | 10.71 | 9.92 | 10.68 | 10.25 | 10.15 | 10.56 | 11.56 | 9.4 |
| Expenditures ($) | 450 | 430 | 443 | 487 | 449 | 495 | 501 | 544 | 8.4 |
| **U.S. Average** | | | | | | | | | |
| Consumption (Mcf) | 63.9 | 60.7 | 51.8 | 52.9 | 57.6 | 60.2 | 55.5 | 59.0 | 6.3 |
| Price ($/mcf) | 9.95 | 9.89 | 9.28 | 10.06 | 9.82 | 9.72 | 9.73 | 10.11 | 4.0 |
| Expenditures ($) | 636 | 600 | 481 | 533 | 565 | 586 | 540 | 597 | 10.5 |
| **Heating Oil** | | | | | | | | | |
| **U.S. Average** | | | | | | | | | |
| Consumption (gallons) | 547.5 | 548.2 | 436.6 | 468.3 | 495.6 | 512.0 | 468.3 | 501.0 | 7.0 |
| Price ($/gallon) | 3.87 | 3.04 | 2.06 | 2.41 | 2.78 | 3.07 | 2.89 | 2.53 | -12.5 |
| Expenditures ($) | 2,122 | 1,668 | 900 | 1,128 | 1,376 | 1,570 | 1,354 | 1,267 | -6.4 |
| **Electricity** | | | | | | | | | |
| **Northeast** | | | | | | | | | |
| Consumption (kWh***) | 8,879 | 8,927 | 7,705 | 8,050 | 8,346 | 8,481 | 8,020 | 8,479 | 5.7 |
| Price ($/kwh) | 0.163 | 0.168 | 0.164 | 0.165 | 0.169 | 0.169 | 0.171 | 0.172 | 0.1 |
| Expenditures ($) | 1,448 | 1,501 | 1,263 | 1,324 | 1,407 | 1,435 | 1,375 | 1,456 | 5.9 |
| **Midwest** | | | | | | | | | |
| Consumption (kWh) | 11,362 | 10,816 | 9,365 | 9,479 | 10,381 | 10,709 | 10,004 | 10,626 | 6.2 |
| Price ($/kwh) | 0.112 | 0.118 | 0.122 | 0.124 | 0.124 | 0.123 | 0.124 | 0.126 | 1.4 |
| Expenditures ($) | 1,275 | 1,274 | 1,138 | 1,172 | 1,289 | 1,319 | 1,245 | 1,342 | 7.8 |
| **South** | | | | | | | | | |
| Consumption (kWh) | 10,489 | 10,302 | 8,782 | 8,511 | 9,544 | 9,536 | 8,893 | 9,791 | 10.1 |
| Price ($/kwh) | 0.109 | 0.111 | 0.110 | 0.111 | 0.112 | 0.113 | 0.115 | 0.113 | -1.1 |
| Expenditures ($) | 1,141 | 1,141 | 968 | 948 | 1,065 | 1,073 | 1,020 | 1,110 | 8.9 |
| **West** | | | | | | | | | |
| Consumption (kWh) | 8,488 | 7,831 | 8,442 | 8,561 | 8,330 | 8,989 | 8,818 | 8,873 | 0.6 |
| Price ($/kwh) | 0.123 | 0.127 | 0.130 | 0.132 | 0.136 | 0.136 | 0.138 | 0.146 | 6.0 |
| Expenditures ($) | 1,045 | 993 | 1,095 | 1,128 | 1,130 | 1,223 | 1,217 | 1,298 | 6.7 |
| **U.S. Average** | | | | | | | | | |
| Consumption (kWh) | 9,729 | 9,418 | 8,456 | 8,424 | 9,049 | 9,256 | 8,764 | 9,379 | 7.0 |
| Price ($/kwh) | 0.120 | 0.123 | 0.124 | 0.125 | 0.126 | 0.127 | 0.129 | 0.130 | 0.9 |
| Expenditures ($) | 1,163 | 1,158 | 1,044 | 1,055 | 1,142 | 1,173 | 1,128 | 1,218 | 8.0 |

## Table WF01. Average Consumer Prices and Expenditures for Heating Fuels During the Winter

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| Fuel / Region | Winter of | | | | | | | Forecast | |
|---|---|---|---|---|---|---|---|---|---|
| | 13-14 | 14-15 | 15-16 | 16-17 | 17-18 | 18-19 | 19-20 | 20-21 | % Change |
| **Propane** | | | | | | | | | |
| **Northeast** | | | | | | | | | |
| **Consumption (gallons)** | **624.5** | **629.7** | **505.7** | **542.6** | **569.3** | **585.8** | **539.0** | 573.1 | 6.3 |
| **Price* ($/gallon)** | **3.56** | **3.00** | **2.71** | **3.06** | **3.26** | **3.22** | **2.61** | 2.68 | 2.7 |
| **Expenditures ($)** | **2,223** | **1,889** | **1,371** | **1,660** | **1,856** | **1,886** | **1,407** | 1,536 | 9.2 |
| **Midwest** | | | | | | | | | |
| **Consumption (gallons)** | **808.4** | **755.9** | **618.2** | **628.9** | **715.1** | **746.8** | **679.3** | 725.8 | 6.8 |
| **Price* ($/gallon)** | **2.61** | **1.91** | **1.47** | **1.73** | **1.95** | **1.83** | **1.58** | 1.62 | 2.8 |
| **Expenditures ($)** | **2,110** | **1,444** | **909** | **1,088** | **1,394** | **1,367** | **1,071** | 1,176 | 9.8 |
| **Number of households by primary space heating fuel (thousands)** | | | | | | | | | |
| **Northeast** | | | | | | | | | |
| **Natural gas** | **11,529** | **11,705** | **11,802** | **11,918** | **12,063** | **12,167** | **12,389** | 12,516 | 1.0 |
| **Heating oil** | **5,244** | **5,097** | **4,923** | **4,774** | **4,724** | **4,604** | **4,464** | 4,306 | -3.5 |
| **Propane** | **846** | **856** | **884** | **933** | **977** | **1,018** | **1,042** | 1,042 | 0.0 |
| **Electricity** | **3,038** | **3,093** | **3,253** | **3,326** | **3,387** | **3,478** | **3,597** | 3,713 | 3.2 |
| **Wood** | **585** | **569** | **511** | **471** | **469** | **461** | **352** | 218 | -37.9 |
| **Other/None** | **436** | **437** | **433** | **433** | **441** | **446** | **470** | 508 | 8.0 |
| **Midwest** | | | | | | | | | |
| **Natural gas** | **18,083** | **18,206** | **18,241** | **18,236** | **18,319** | **18,405** | **18,371** | 18,164 | -1.1 |
| **Heating oil** | **336** | **319** | **301** | **286** | **278** | **273** | **264** | 249 | -5.7 |
| **Propane** | **2,089** | **2,085** | **2,077** | **2,057** | **2,115** | **2,187** | **2,237** | 2,261 | 1.1 |
| **Electricity** | **5,425** | **5,514** | **5,747** | **5,871** | **5,978** | **6,036** | **6,273** | 6,545 | 4.3 |
| **Wood** | **632** | **617** | **587** | **552** | **527** | **508** | **476** | 429 | -9.7 |
| **Other/None** | **353** | **351** | **354** | **359** | **361** | **349** | **366** | 397 | 8.7 |
| **South** | | | | | | | | | |
| **Natural gas** | **13,802** | **13,919** | **13,948** | **13,913** | **13,970** | **14,026** | **14,207** | 14,280 | 0.5 |
| **Heating oil** | **699** | **681** | **653** | **619** | **609** | **583** | **556** | 534 | -4.0 |
| **Propane** | **1,944** | **1,925** | **1,899** | **1,858** | **1,852** | **1,861** | **1,899** | 1,903 | 0.2 |
| **Electricity** | **28,247** | **28,843** | **29,509** | **29,873** | **30,326** | **30,694** | **31,090** | 31,296 | 0.7 |
| **Wood** | **616** | **593** | **552** | **509** | **484** | **474** | **466** | 451 | -3.2 |
| **Other/None** | **419** | **407** | **413** | **426** | **434** | **454** | **485** | 506 | 4.2 |
| **West** | | | | | | | | | |
| **Natural gas** | **15,068** | **15,227** | **15,312** | **15,427** | **15,570** | **15,653** | **15,738** | 15,636 | -0.6 |
| **Heating oil** | **235** | **225** | **219** | **214** | **214** | **217** | **205** | 187 | -8.6 |
| **Propane** | **930** | **915** | **923** | **935** | **963** | **988** | **973** | 944 | -3.0 |
| **Electricity** | **8,759** | **8,927** | **9,228** | **9,351** | **9,490** | **9,648** | **9,905** | 10,118 | 2.1 |
| **Wood** | **744** | **749** | **719** | **700** | **689** | **677** | **670** | 667 | -0.6 |
| **Other/None** | **1,016** | **1,075** | **1,087** | **1,058** | **1,089** | **1,091** | **1,128** | 1,226 | 8.6 |
| **U.S. Totals** | | | | | | | | | |
| **Natural gas** | **58,481** | **59,057** | **59,303** | **59,494** | **59,922** | **60,250** | **60,705** | 60,597 | -0.2 |
| **Heating oil** | **6,513** | **6,322** | **6,095** | **5,893** | **5,825** | **5,678** | **5,489** | 5,276 | -3.9 |
| **Propane** | **5,810** | **5,781** | **5,783** | **5,784** | **5,906** | **6,054** | **6,151** | 6,150 | 0.0 |
| **Electricity** | **45,470** | **46,377** | **47,737** | **48,420** | **49,180** | **49,857** | **50,865** | 51,672 | 1.6 |
| **Wood** | **2,578** | **2,528** | **2,369** | **2,232** | **2,170** | **2,122** | **1,964** | 1,765 | -10.1 |
| **Other/None** | **2,223** | **2,271** | **2,287** | **2,277** | **2,326** | **2,340** | **2,449** | 2,637 | 7.6 |
| **Heating degree days** | | | | | | | | | |
| **Northeast** | **5,597** | **5,648** | **4,322** | **4,700** | **5,015** | **5,166** | **4,665** | 4,821 | 3.3 |
| **Midwest** | **6,451** | **6,002** | **4,688** | **4,792** | **5,577** | **5,845** | **5,227** | 5,430 | 3.9 |
| **South** | **2,784** | **2,690** | **2,013** | **1,881** | **2,350** | **2,357** | **2,070** | 2,312 | 11.7 |
| **West** | **2,992** | **2,569** | **2,957** | **3,041** | **2,888** | **3,298** | **3,191** | 3,026 | -5.2 |
| **U.S. Average** | **4,111** | **3,882** | **3,202** | **3,255** | **3,611** | **3,788** | **3,434** | 3,551 | 3.4 |

Note: Winter covers the period October 1 through March 31. Fuel prices are nominal prices. Fuel consumption per household is based only on households that use that fuel as the primary space-heating fuel. Included in fuel consumption is consumption for water heating, appliances, electronics, and lighting (electricity). Per-household consumption based on EIA's 2015 Residential Energy Consumption Surveys corrected for actual and projected heating degree days. Number of households using heating oil includes kerosene.

* Prices exclude taxes
** thousand cubic feet
*** kilowatthour

**Table 1. U.S. Energy Markets Summary**

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **Energy Supply** | | | | | | | | | | | | | | | |
| Crude Oil Production (a) | | | | | | | | | | | | | | | |
| (million barrels per day) | **12.75** | **10.81** | **10.81** | **10.87** | *10.79* | *11.06* | *11.27* | *11.46* | *11.67* | *11.84* | *12.16* | *12.41* | **11.31** | *11.15* | *12.02* |
| Dry Natural Gas Production | | | | | | | | | | | | | | | |
| (billion cubic feet per day) | **94.79** | **89.68** | **89.82** | **91.08** | *90.50* | *91.04* | *91.71* | *92.13* | *91.87* | *92.25* | *93.28* | *93.90* | **91.34** | *91.35* | *92.83* |
| Coal Production | | | | | | | | | | | | | | | |
| (million short tons) | **149** | **115** | **136** | **139** | *135* | *133* | *157* | *156* | *148* | *145* | *161* | *156* | **539** | *581* | *610* |
| **Energy Consumption** | | | | | | | | | | | | | | | |
| Liquid Fuels | | | | | | | | | | | | | | | |
| (million barrels per day) | **19.33** | **16.08** | **18.36** | **18.71** | *18.72* | *19.37* | *19.98* | *20.02* | *20.07* | *20.56* | *20.81* | *20.69* | **18.12** | *19.53* | *20.53* |
| Natural Gas | | | | | | | | | | | | | | | |
| (billion cubic feet per day) | **99.31** | **70.84** | **76.84** | **86.05** | *102.60* | *70.25* | *71.96* | *85.57* | *99.29* | *69.25* | *72.67* | *85.46* | **83.25** | *82.52* | *81.60* |
| Coal (b) | | | | | | | | | | | | | | | |
| (million short tons) | **110** | **96** | **149** | **123** | *136* | *116* | *166* | *129* | *141* | *125* | *165* | *127* | **477** | *547* | *559* |
| Electricity | | | | | | | | | | | | | | | |
| (billion kilowatt hours per day) | **10.14** | **9.64** | **11.87** | **9.91** | *10.57* | *10.04* | *11.89* | *10.05* | *10.65* | *10.21* | *12.08* | *10.18* | **10.39** | *10.64* | *10.78* |
| Renewables (c) | | | | | | | | | | | | | | | |
| (quadrillion Btu) | **2.92** | **3.00** | **2.83** | **2.92** | *3.08* | *3.34* | *3.07* | *3.15* | *3.28* | *3.58* | *3.27* | *3.30* | **11.68** | *12.63* | *13.42* |
| Total Energy Consumption (d) | | | | | | | | | | | | | | | |
| (quadrillion Btu) | **25.11** | **20.65** | **23.44** | **23.71** | *25.11* | *22.41* | *23.89* | *24.34* | *25.59* | *23.21* | *24.39* | *24.67* | **92.91** | *95.75* | *97.85* |
| **Energy Prices** | | | | | | | | | | | | | | | |
| Crude Oil West Texas Intermediate Spot | | | | | | | | | | | | | | | |
| (dollars per barrel) | **45.34** | **27.96** | **40.89** | **42.50** | *58.53* | *60.96* | *55.18* | *54.50* | *54.50* | *54.50* | *55.00* | *55.00* | **39.17** | *57.24* | *54.75* |
| Natural Gas Henry Hub Spot | | | | | | | | | | | | | | | |
| (dollars per million Btu) | **1.91** | **1.71** | **2.00** | **2.53** | *3.64* | *2.88* | *2.99* | *3.06* | *3.18* | *3.11* | *3.13* | *3.22* | **2.03** | *3.14* | *3.16* |
| Coal | | | | | | | | | | | | | | | |
| (dollars per million Btu) | **1.92** | **1.90** | **1.93** | **1.91** | *1.95* | *1.99* | *1.98* | *1.95* | *1.96* | *1.98* | *1.96* | *1.93* | **1.91** | *1.97* | *1.96* |
| **Macroeconomic** | | | | | | | | | | | | | | | |
| Real Gross Domestic Product | | | | | | | | | | | | | | | |
| (billion chained 2012 dollars - SAAR) | **19,011** | **17,303** | **18,597** | **18,780** | *18,981* | *19,267* | *19,633* | *19,895* | *20,080* | *20,222* | *20,331* | *20,438* | **18,423** | *19,444* | *20,268* |
| Percent change from prior year | **0.3** | **-9.0** | **-2.8** | **-2.5** | *-0.2* | *11.4* | *5.6* | *5.9* | *5.8* | *5.0* | *3.6* | *2.7* | **-3.5** | *5.5* | *4.2* |
| GDP Implicit Price Deflator | | | | | | | | | | | | | | | |
| (Index, 2012=100) | **113.4** | **112.9** | **113.8** | **114.4** | *115.0* | *115.4* | *115.9* | *116.4* | *116.8* | *117.5* | *118.1* | *118.8* | **113.6** | *115.6* | *117.8* |
| Percent change from prior year | **1.7** | **0.6** | **1.1** | **1.3** | *1.4* | *2.2* | *1.8* | *1.7* | *1.6* | *1.8* | *2.0* | *2.1* | **1.2** | *1.8* | *1.9* |
| Real Disposable Personal Income | | | | | | | | | | | | | | | |
| (billion chained 2012 dollars - SAAR) | **15,061** | **16,630** | **15,905** | **15,512** | *16,284* | *16,973* | *15,771* | *15,533* | *15,634* | *15,691* | *15,767* | *15,856* | **15,777** | *16,140* | *15,737* |
| Percent change from prior year | **1.4** | **12.2** | **6.8** | **3.7** | *8.1* | *2.1* | *-0.8* | *0.1* | *-4.0* | *-7.6* | *0.0* | *2.1* | **6.0** | *2.3* | *-2.5* |
| Manufacturing Production Index | | | | | | | | | | | | | | | |
| (Index, 2012=100) | **104.4** | **89.3** | **100.1** | **103.2** | *105.3* | *105.4* | *107.0* | *108.5* | *110.0* | *111.2* | *111.8* | *112.2* | **99.2** | *106.6* | *111.3* |
| Percent change from prior year | **-2.0** | **-15.5** | **-5.5** | **-2.5** | *0.9* | *18.0* | *6.9* | *5.1* | *4.5* | *5.5* | *4.4* | *3.5* | **-6.3** | *7.4* | *4.4* |
| **Weather** | | | | | | | | | | | | | | | |
| U.S. Heating Degree-Days | **1,875** | **540** | **70** | **1,418** | *2,134* | *467* | *69* | *1,494* | *2,089* | *482* | *69* | *1,493* | **3,903** | *4,164* | *4,133* |
| U.S. Cooling Degree-Days | **71** | **396** | **936** | **122** | *46* | *418* | *877* | *100* | *46* | *410* | *878* | *100* | **1,525** | *1,441* | *1,434* |

(a) Includes lease condensate.

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

(c) Renewable energy includes minor components of non-marketed renewable energy that is neither bought nor sold, either directly or indirectly, as inputs to marketed energy.
EIA does not estimate or project end-use consumption of non-marketed renewable energy.

(d) The conversion from physical units to Btu is calculated using a subset of conversion factors used in the calculations of gross energy consumption in EIA's Monthly Energy Review (MER).
Consequently, the historical data may not precisely match those published in the MER or the Annual Energy Review (AER).

(e) Refers to the refiner average acquisition cost (RAC) of crude oil.

- = no data available

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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

Prices are not adjusted for inflation.

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

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

**Forecasts:** EIA Short-Term Integrated Forecasting System. U.S. macroeconomic forecasts are based on the IHS Markit model of the U.S. Economy.

Weather forecasts from National Oceanic and Atmospheric Administration.

**Table 2. Energy Prices**

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **Crude Oil** (dollars per barrel) | | | | | | | | | | | | | | | |
| West Texas Intermediate Spot Average | **45.34** | **27.96** | **40.89** | **42.50** | *58.53* | *60.96* | *55.18* | *54.50* | *54.50* | *54.50* | *55.00* | *55.00* | **39.17** | *57.24* | *54.75* |
| Brent Spot Average | **49.97** | **29.52** | **42.97** | **44.34** | *61.72* | *64.46* | *58.68* | *58.00* | *58.00* | *58.00* | *59.00* | *59.00* | **41.69** | *60.67* | *58.51* |
| U.S. Imported Average | **43.76** | **26.33** | **39.90** | **40.41** | *55.10* | *58.87* | *53.19* | *52.50* | *52.25* | *52.25* | *52.50* | *52.50* | **37.20** | *54.77* | *52.38* |
| U.S. Refiner Average Acquisition Cost | **47.48** | **26.88** | **40.79** | **41.96** | *56.84* | *59.93* | *54.18* | *53.50* | *53.25* | *53.25* | *53.50* | *53.50* | **39.72** | *56.03* | *53.38* |
| **U.S. Liquid Fuels** (cents per gallon) | | | | | | | | | | | | | | | |
| **Refiner Prices for Resale** | | | | | | | | | | | | | | | |
| Gasoline | **153** | **104** | **137** | **133** | *179* | *199* | *182* | *168* | *165* | *179* | *183* | *171* | **133** | *182* | *175* |
| Diesel Fuel | **160** | **97** | **124** | **133** | *178* | *191* | *181* | *181* | *179* | *180* | *184* | *184* | **129** | *183* | *182* |
| Fuel Oil | **160** | **87** | **113** | **121** | *167* | *182* | *174* | *177* | *175* | *170* | *172* | *175* | **125** | *174* | *173* |
| **Refiner Prices to End Users** | | | | | | | | | | | | | | | |
| Jet Fuel | **165** | **85** | **116** | **125** | *168* | *182* | *175* | *176* | *178* | *178* | *181* | *182* | **131** | *176* | *180* |
| No. 6 Residual Fuel Oil (a) | **176** | **93** | **116** | **119** | *133* | *145* | *131* | *127* | *125* | *128* | *127* | *127* | **125** | *134* | *127* |
| **Retail Prices Including Taxes** | | | | | | | | | | | | | | | |
| Gasoline Regular Grade (b) | **241** | **194** | **218** | **215** | *253* | *280* | *262* | *247* | *240* | *259* | *262* | *253* | **218** | *261* | *254* |
| Gasoline All Grades (b) | **251** | **203** | **227** | **224** | *262* | *291* | *275* | *260* | *254* | *273* | *276* | *267* | **227** | *272* | *268* |
| On-highway Diesel Fuel | **289** | **243** | **243** | **246** | *281* | *293* | *288* | *289* | *286* | *282* | *289* | *291* | **255** | *288* | *287* |
| Heating Oil | **280** | **200** | **214** | **230** | *268* | *286* | *288* | *307* | *300* | *279* | *268* | *270* | **244** | *284* | *286* |
| **Natural Gas** | | | | | | | | | | | | | | | |
| Henry Hub Spot (dollars per thousand cubic feet) | **1.98** | **1.77** | **2.07** | **2.63** | *3.79* | *2.99* | *3.11* | *3.18* | *3.30* | *3.23* | *3.26* | *3.34* | **2.11** | *3.27* | *3.28* |
| Henry Hub Spot (dollars per million Btu) | **1.91** | **1.71** | **2.00** | **2.53** | *3.64* | *2.88* | *2.99* | *3.06* | *3.18* | *3.11* | *3.13* | *3.22* | **2.03** | *3.14* | *3.16* |
| **U.S. Retail Prices** (dollars per thousand cubic feet) | | | | | | | | | | | | | | | |
| Industrial Sector | **3.52** | **2.85** | **2.88** | **3.77** | *4.92* | *3.97* | *4.05* | *4.38* | *4.60* | *4.17* | *4.09* | *4.44* | **3.29** | *4.36* | *4.34* |
| Commercial Sector | **7.13** | **7.63** | **8.48** | **7.53** | *7.58* | *8.51* | *8.95* | *8.00* | *7.77* | *8.23* | *8.68* | *7.80* | **7.48** | *8.01* | *7.96* |
| Residential Sector | **9.46** | **11.89** | **17.63** | **10.56** | *9.63* | *13.01* | *17.39* | *10.72* | *9.72* | *12.65* | *17.47* | *10.78* | **10.82** | *10.94* | *11.01* |
| **U.S. Electricity** | | | | | | | | | | | | | | | |
| **Power Generation Fuel Costs** (dollars per million Btu) | | | | | | | | | | | | | | | |
| Coal | **1.92** | **1.90** | **1.93** | **1.91** | *1.95* | *1.99* | *1.98* | *1.95* | *1.96* | *1.98* | *1.96* | *1.93* | **1.91** | *1.97* | *1.96* |
| Natural Gas | **2.41** | **2.10** | **2.27** | **2.87** | *4.15* | *3.10* | *3.22* | *3.43* | *3.75* | *3.37* | *3.36* | *3.58* | **2.40** | *3.46* | *3.50* |
| Residual Fuel Oil (c) | **12.15** | **6.65** | **8.85** | **8.87** | *10.01* | *12.58* | *11.43* | *10.80* | *11.05* | *11.68* | *11.12* | *10.98* | **9.14** | *11.10* | *11.20* |
| Distillate Fuel Oil | **13.27** | **8.39** | **10.38** | **10.63** | *13.52* | *14.82* | *14.12* | *14.15* | *14.05* | *14.11* | *14.27* | *14.35* | **10.75** | *14.10* | *14.20* |
| **Retail Prices** (cents per kilowatthour) | | | | | | | | | | | | | | | |
| Industrial Sector | **6.38** | **6.63** | **7.08** | **6.53** | *6.61* | *6.70* | *7.09* | *6.54* | *6.45* | *6.71* | *7.10* | *6.55* | **6.66** | *6.74* | *6.71* |
| Commercial Sector | **10.33** | **10.63** | **10.97** | **10.62** | *10.38* | *10.85* | *11.31* | *10.86* | *10.50* | *10.91* | *11.32* | *10.92* | **10.65** | *10.87* | *10.93* |
| Residential Sector | **12.90** | **13.24** | **13.35** | **13.25** | *12.82* | *13.45* | *13.72* | *13.62* | *13.22* | *13.69* | *13.81* | *13.69* | **13.20** | *13.41* | *13.61* |

(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.

- = no data available

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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

Prices are not adjusted for inflation; 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.

Natural gas Henry Hub and WTI crude oil spot prices from Reuter's News Service (http://www.reuters.com).

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

**Forecasts:** EIA Short-Term Integrated Forecasting System.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **Supply (million barrels per day) (a)** | | | | | | | | | | | | | | | |
| OECD | **32.93** | **29.42** | **29.97** | **30.74** | *30.43* | *31.13* | *31.78* | *32.15* | *32.28* | *32.62* | *32.95* | *33.47* | **30.76** | *31.38* | *32.83* |
| U.S. (50 States) | **20.22** | **17.58** | **18.30** | **18.28** | *17.76* | *18.77* | *19.24* | *19.46* | *19.57* | *20.07* | *20.52* | *20.84* | **18.60** | *18.81* | *20.25* |
| Canada | **5.65** | **4.92** | **4.95** | **5.66** | *5.77* | *5.59* | *5.77* | *5.80* | *5.83* | *5.80* | *5.83* | *5.85* | **5.30** | *5.73* | *5.83* |
| Mexico | **2.00** | **1.94** | **1.91** | **1.90** | *1.93* | *1.92* | *1.87* | *1.82* | *1.78* | *1.73* | *1.69* | *1.65* | **1.94** | *1.89* | *1.71* |
| Other OECD | **5.05** | **4.98** | **4.80** | **4.89** | *4.97* | *4.85* | *4.90* | *5.07* | *5.10* | *5.02* | *4.91* | *5.13* | **4.93** | *4.95* | *5.04* |
| Non-OECD | **67.79** | **63.00** | **60.95** | **62.04** | *62.96* | *65.30* | *67.24* | *67.33* | *67.06* | *68.57* | *68.99* | *68.82* | **63.43** | *65.72* | *68.37* |
| OPEC | **33.48** | **30.58** | **28.45** | **29.82** | *30.17* | *31.39* | *32.93* | *33.15* | *33.31* | *33.21* | *33.25* | *33.27* | **30.57** | *31.92* | *33.26* |
| Crude Oil Portion | **28.28** | **25.64** | **23.61** | **24.88** | *25.13* | *26.34* | *27.78* | *27.97* | *27.99* | *27.99* | *27.99* | *27.99* | **25.59** | *26.81* | *27.99* |
| Other Liquids (b) | **5.20** | **4.94** | **4.84** | **4.94** | *5.05* | *5.05* | *5.15* | *5.19* | *5.32* | *5.23* | *5.25* | *5.28* | **4.98** | *5.11* | *5.27* |
| Eurasia | **14.76** | **13.19** | **12.73** | **13.15** | *13.39* | *13.65* | *13.72* | *13.88* | *14.07* | *14.80* | *14.86* | *15.00* | **13.46** | *13.66* | *14.68* |
| China | **4.96** | **4.91** | **4.95** | **4.90** | *4.95* | *4.96* | *4.96* | *5.00* | *4.95* | *4.98* | *4.98* | *5.03* | **4.93** | *4.97* | *4.99* |
| Other Non-OECD | **14.59** | **14.32** | **14.81** | **14.17** | *14.45* | *15.31* | *15.63* | *15.30* | *14.73* | *15.58* | *15.90* | *15.53* | **14.47** | *15.17* | *15.44* |
| Total World Supply | **100.72** | **92.42** | **90.91** | **92.78** | *93.39* | *96.43* | *99.02* | *99.47* | *99.34* | *101.19* | *101.94* | *102.30* | **94.20** | *97.10* | *101.20* |
| Non-OPEC Supply | **67.24** | **61.85** | **62.46** | **62.96** | *63.22* | *65.04* | *66.09* | *66.32* | *66.03* | *67.98* | *68.70* | *69.03* | **63.62** | *65.18* | *67.94* |
| **Consumption (million barrels per day) (c)** | | | | | | | | | | | | | | | |
| OECD | **45.27** | **37.43** | **42.10** | **42.95** | *43.32* | *43.71* | *45.10* | *45.46* | *45.64* | *45.50* | *46.53* | *46.67* | **41.94** | *44.40* | *46.09* |
| U.S. (50 States) | **19.33** | **16.08** | **18.36** | **18.71** | *18.72* | *19.37* | *19.98* | *20.02* | *20.07* | *20.56* | *20.81* | *20.69* | **18.12** | *19.53* | *20.53* |
| U.S. Territories | **0.17** | **0.15** | **0.16** | **0.17** | *0.18* | *0.16* | *0.16* | *0.17* | *0.18* | *0.16* | *0.16* | *0.17* | **0.16** | *0.17* | *0.17* |
| Canada | **2.33** | **1.88** | **2.16** | **2.10** | *2.17* | *2.17* | *2.27* | *2.27* | *2.28* | *2.23* | *2.33* | *2.32* | **2.12** | *2.22* | *2.29* |
| Europe | **13.34** | **11.03** | **12.85** | **12.62** | *12.59* | *12.96* | *13.50* | *13.32* | *13.19* | *13.42* | *13.98* | *13.76* | **12.46** | *13.10* | *13.59* |
| Japan | **3.69** | **2.89** | **3.03** | **3.44** | *3.55* | *2.97* | *3.07* | *3.40* | *3.63* | *2.98* | *3.06* | *3.38* | **3.26** | *3.24* | *3.26* |
| Other OECD | **6.41** | **5.41** | **5.55** | **5.93** | *6.12* | *6.09* | *6.12* | *6.28* | *6.29* | *6.15* | *6.20* | *6.36* | **5.82** | *6.15* | *6.25* |
| Non-OECD | **49.79** | **47.52** | **51.15** | **52.47** | *51.87* | *53.33* | *53.51* | *53.66* | *54.15* | *55.44* | *55.60* | *55.75* | **50.24** | *53.10* | *55.24* |
| Eurasia | **4.86** | **4.48** | **5.28** | **5.17** | *4.91* | *5.00* | *5.39* | *5.24* | *5.07* | *5.14* | *5.54* | *5.40* | **4.95** | *5.13* | *5.29* |
| Europe | **0.71** | **0.69** | **0.71** | **0.72** | *0.71* | *0.72* | *0.73* | *0.73* | *0.74* | *0.74* | *0.75* | *0.76* | **0.71** | *0.72* | *0.75* |
| China | **13.79** | **13.98** | **14.55** | **15.01** | *14.92* | *15.27* | *15.03* | *15.36* | *15.69* | *15.94* | *15.66* | *15.93* | **14.33** | *15.15* | *15.80* |
| Other Asia | **13.16** | **11.64** | **12.60** | **13.61** | *13.70* | *14.01* | *13.59* | *13.96* | *14.51* | *14.72* | *14.30* | *14.72* | **12.75** | *13.81* | *14.56* |
| Other Non-OECD | **17.29** | **16.72** | **18.01** | **17.96** | *17.63* | *18.34* | *18.77* | *18.36* | *18.15* | *18.90* | *19.35* | *18.93* | **17.50** | *18.28* | *18.84* |
| Total World Consumption | **95.06** | **84.95** | **93.25** | **95.42** | *95.19* | *97.04* | *98.61* | *99.12* | *99.79* | *100.94* | *102.13* | *102.42* | **92.18** | *97.50* | *101.33* |
| **Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)** | | | | | | | | | | | | | | | |
| U.S. (50 States) | **-0.43** | **-1.68** | **0.49** | **0.89** | *0.93* | *-0.21* | *-0.07* | *0.41* | *0.05* | *-0.53* | *0.05* | *0.41* | **-0.18** | *0.26* | *0.00* |
| Other OECD | **-0.54** | **-1.15** | **0.06** | **0.62** | *0.29* | *0.25* | *-0.11* | *-0.25* | *0.13* | *0.09* | *0.04* | *-0.09* | **-0.25** | *0.04* | *0.04* |
| Other Stock Draws and Balance | **-4.69** | **-4.64** | **1.79** | **1.14** | *0.59* | *0.56* | *-0.23* | *-0.52* | *0.27* | *0.19* | *0.09* | *-0.20* | **-1.58** | *0.10* | *0.09* |
| Total Stock Draw | **-5.66** | **-7.48** | **2.33** | **2.64** | *1.80* | *0.61* | *-0.41* | *-0.35* | *0.45* | *-0.25* | *0.18* | *0.12* | **-2.01** | *0.40* | *0.13* |
| **End-of-period Commercial Crude Oil and Other Liquids Inventories (million barrels)** | | | | | | | | | | | | | | | |
| U.S. Commercial Inventory | **1,321** | **1,453** | **1,422** | **1,344** | *1,263* | *1,290* | *1,303* | *1,269* | *1,269* | *1,322* | *1,320* | *1,292* | **1,344** | *1,269* | *1,292* |
| OECD Commercial Inventory | **2,967** | **3,204** | **3,168** | **3,033** | *2,926* | *2,930* | *2,953* | *2,942* | *2,930* | *2,975* | *2,969* | *2,949* | **3,033** | *2,942* | *2,949* |

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

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

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

- = 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.

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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.

**Forecasts:** EIA Short-Term Integrated Forecasting System.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **North America** | **27.87** | **24.44** | **25.17** | **25.85** | *25.46* | *26.28* | *26.88* | *27.08* | *27.18* | *27.61* | *28.03* | *28.34* | **25.83** | *26.43* | *27.79* |
| Canada | **5.65** | **4.92** | **4.95** | **5.66** | *5.77* | *5.59* | *5.77* | *5.80* | *5.83* | *5.80* | *5.83* | *5.85* | **5.30** | *5.73* | *5.83* |
| Mexico | **2.00** | **1.94** | **1.91** | **1.90** | *1.93* | *1.92* | *1.87* | *1.82* | *1.78* | *1.73* | *1.69* | *1.65* | **1.94** | *1.89* | *1.71* |
| United States | **20.22** | **17.58** | **18.30** | **18.28** | *17.76* | *18.77* | *19.24* | *19.46* | *19.57* | *20.07* | *20.52* | *20.84* | **18.60** | *18.81* | *20.25* |
| **Central and South America** | **6.05** | **6.09** | **6.62** | **5.91** | *6.01* | *6.85* | *7.15* | *6.84* | *6.26* | *7.14* | *7.51* | *7.18* | **6.17** | *6.72* | *7.03* |
| Argentina | **0.69** | **0.58** | **0.57** | **0.54** | *0.69* | *0.71* | *0.72* | *0.71* | *0.73* | *0.74* | *0.74* | *0.73* | **0.60** | *0.71* | *0.73* |
| Brazil | **3.43** | **3.89** | **4.29** | **3.52** | *3.45* | *4.34* | *4.66* | *4.29* | *3.60* | *4.51* | *4.86* | *4.41* | **3.78** | *4.19* | *4.35* |
| Colombia | **0.91** | **0.78** | **0.77** | **0.83** | *0.88* | *0.78* | *0.75* | *0.81* | *0.84* | *0.75* | *0.72* | *0.77* | **0.82** | *0.80* | *0.77* |
| Ecuador | **0.54** | **0.36** | **0.52** | **0.51** | *0.53* | *0.53* | *0.52* | *0.53* | *0.54* | *0.54* | *0.53* | *0.53* | **0.48** | *0.53* | *0.53* |
| Other Central and S. America | **0.48** | **0.47** | **0.47** | **0.50** | *0.47* | *0.50* | *0.50* | *0.51* | *0.55* | *0.61* | *0.68* | *0.73* | **0.48** | *0.50* | *0.64* |
| **Europe** | **4.40** | **4.32** | **4.14** | **4.27** | *4.43* | *4.29* | *4.33* | *4.51* | *4.54* | *4.46* | *4.36* | *4.59* | **4.28** | *4.39* | *4.49* |
| Norway | **2.05** | **2.00** | **1.96** | **2.02** | *2.17* | *2.13* | *2.17* | *2.28* | *2.30* | *2.24* | *2.23* | *2.35* | **2.01** | *2.19* | *2.28* |
| United Kingdom | **1.17** | **1.16** | **1.00** | **1.08** | *1.09* | *1.00* | *1.00* | *1.06* | *1.07* | *1.05* | *0.95* | *1.04* | **1.10** | *1.04* | *1.03* |
| **Eurasia** | **14.76** | **13.19** | **12.73** | **13.15** | *13.39* | *13.65* | *13.72* | *13.88* | *14.07* | *14.80* | *14.86* | *15.00* | **13.46** | *13.66* | *14.68* |
| Azerbaijan | **0.77** | **0.70** | **0.67** | **0.69** | *0.75* | *0.76* | *0.77* | *0.79* | *0.81* | *0.82* | *0.81* | *0.83* | **0.71** | *0.77* | *0.82* |
| Kazakhstan | **2.06** | **1.86** | **1.71** | **1.81** | *1.85* | *1.87* | *1.84* | *1.90* | *1.92* | *2.00* | *1.96* | *2.02* | **1.86** | *1.87* | *1.97* |
| Russia | **11.55** | **10.25** | **9.98** | **10.27** | *10.41* | *10.64* | *10.74* | *10.82* | *10.99* | *11.63* | *11.75* | *11.81* | **10.51** | *10.66* | *11.55* |
| Turkmenistan | **0.24** | **0.23** | **0.23** | **0.24** | *0.24* | *0.24* | *0.24* | *0.24* | *0.23* | *0.23* | *0.23* | *0.23* | **0.23** | *0.24* | *0.23* |
| Other Eurasia | **0.15** | **0.15** | **0.15** | **0.14** | *0.13* | *0.13* | *0.13* | *0.13* | *0.12* | *0.12* | *0.12* | *0.12* | **0.15** | *0.13* | *0.12* |
| **Middle East** | **3.24** | **3.18** | **3.15** | **3.18** | *3.23* | *3.26* | *3.32* | *3.32* | *3.37* | *3.37* | *3.37* | *3.37* | **3.19** | *3.28* | *3.37* |
| Oman | **1.01** | **0.95** | **0.92** | **0.95** | *0.96* | *0.98* | *1.04* | *1.04* | *1.05* | *1.05* | *1.05* | *1.05* | **0.96** | *1.01* | *1.05* |
| Qatar | **2.06** | **2.06** | **2.06** | **2.06** | *2.10* | *2.10* | *2.10* | *2.10* | *2.12* | *2.12* | *2.12* | *2.12* | **2.06** | *2.10* | *2.12* |
| **Asia and Oceania** | **9.45** | **9.17** | **9.24** | **9.20** | *9.26* | *9.27* | *9.25* | *9.26* | *9.22* | *9.22* | *9.19* | *9.19* | **9.27** | *9.26* | *9.21* |
| Australia | **0.49** | **0.50** | **0.50** | **0.49** | *0.49* | *0.50* | *0.51* | *0.50* | *0.50* | *0.49* | *0.48* | *0.47* | **0.49** | *0.50* | *0.49* |
| China | **4.96** | **4.91** | **4.95** | **4.90** | *4.95* | *4.96* | *4.96* | *5.00* | *4.95* | *4.98* | *4.98* | *5.03* | **4.93** | *4.97* | *4.99* |
| India | **0.96** | **0.90** | **0.92** | **0.91** | *0.90* | *0.89* | *0.89* | *0.88* | *0.88* | *0.88* | *0.88* | *0.87* | **0.92** | *0.89* | *0.88* |
| Indonesia | **0.91** | **0.89** | **0.88** | **0.88** | *0.87* | *0.86* | *0.85* | *0.84* | *0.84* | *0.83* | *0.82* | *0.81* | **0.89** | *0.85* | *0.83* |
| Malaysia | **0.71** | **0.60** | **0.63** | **0.64** | *0.63* | *0.63* | *0.63* | *0.62* | *0.62* | *0.62* | *0.61* | *0.60* | **0.64** | *0.63* | *0.61* |
| Vietnam | **0.24** | **0.23** | **0.22** | **0.23** | *0.22* | *0.23* | *0.23* | *0.22* | *0.22* | *0.22* | *0.21* | *0.21* | **0.23** | *0.22* | *0.21* |
| **Africa** | **1.46** | **1.45** | **1.42** | **1.40** | *1.45* | *1.44* | *1.44* | *1.44* | *1.39* | *1.38* | *1.37* | *1.36* | **1.43** | *1.44* | *1.37* |
| Egypt | **0.62** | **0.61** | **0.59** | **0.57** | *0.61* | *0.61* | *0.61* | *0.61* | *0.57* | *0.57* | *0.57* | *0.57* | **0.60** | *0.61* | *0.57* |
| South Sudan | **0.15** | **0.15** | **0.17** | **0.17** | *0.17* | *0.17* | *0.18* | *0.18* | *0.18* | *0.18* | *0.18* | *0.18* | **0.16** | *0.17* | *0.18* |
| **Total non-OPEC liquids** | **67.24** | **61.85** | **62.46** | **62.96** | *63.22* | *65.04* | *66.09* | *66.32* | *66.03* | *67.98* | *68.70* | *69.03* | **63.62** | *65.18* | *67.94* |
| **OPEC non-crude liquids** | **5.20** | **4.94** | **4.84** | **4.94** | *5.05* | *5.05* | *5.15* | *5.19* | *5.32* | *5.23* | *5.25* | *5.28* | **4.98** | *5.11* | *5.27* |
| **Non-OPEC + OPEC non-crude** | **72.44** | **66.79** | **67.31** | **67.90** | *68.27* | *70.09* | *71.24* | *71.51* | *71.34* | *73.21* | *73.95* | *74.30* | **68.60** | *70.29* | *73.21* |
| **Unplanned non-OPEC Production Outages** | **0.18** | **0.90** | **0.69** | **0.53** | - | - | - | - | - | - | - | - | **0.57** | - | - |

- = no data available

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

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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.

**Forecasts:** EIA Short-Term Integrated Forecasting System.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **Crude Oil** | | | | | | | | | | | | | | | |
| Algeria | **1.02** | **0.90** | **0.84** | **0.86** | - | - | - | - | - | - | - | - | **0.90** | - | - |
| Angola | **1.36** | **1.26** | **1.17** | **1.12** | - | - | - | - | - | - | - | - | **1.23** | - | - |
| Congo (Brazzaville) | **0.29** | **0.29** | **0.28** | **0.26** | - | - | - | - | - | - | - | - | **0.28** | - | - |
| Equatorial Guinea | **0.13** | **0.12** | **0.11** | **0.11** | - | - | - | - | - | - | - | - | **0.11** | - | - |
| Gabon | **0.19** | **0.18** | **0.15** | **0.17** | - | - | - | - | - | - | - | - | **0.17** | - | - |
| Iran | **2.02** | **1.97** | **1.90** | **1.95** | - | - | - | - | - | - | - | - | **1.96** | - | - |
| Iraq | **4.56** | **4.16** | **3.70** | **3.84** | - | - | - | - | - | - | - | - | **4.06** | - | - |
| Kuwait | **2.77** | **2.48** | **2.25** | **2.30** | - | - | - | - | - | - | - | - | **2.45** | - | - |
| Libya | **0.35** | **0.08** | **0.11** | **0.92** | - | - | - | - | - | - | - | - | **0.37** | - | - |
| Nigeria | **1.72** | **1.55** | **1.44** | **1.44** | - | - | - | - | - | - | - | - | **1.54** | - | - |
| Saudi Arabia | **9.80** | **9.28** | **8.77** | **9.01** | - | - | - | - | - | - | - | - | **9.21** | - | - |
| United Arab Emirates | **3.30** | **2.88** | **2.55** | **2.50** | - | - | - | - | - | - | - | - | **2.81** | - | - |
| Venezuela | **0.77** | **0.50** | **0.35** | **0.40** | - | - | - | - | - | - | - | - | **0.50** | - | - |
| OPEC Total | **28.28** | **25.64** | **23.61** | **24.88** | *25.13* | *26.34* | *27.78* | *27.97* | *27.99* | *27.99* | *27.99* | *27.99* | **25.59** | *26.81* | *27.99* |
| **Other Liquids (a)** | **5.20** | **4.94** | **4.84** | **4.94** | *5.05* | *5.05* | *5.15* | *5.19* | *5.32* | *5.23* | *5.25* | *5.28* | **4.98** | *5.11* | *5.27* |
| **Total OPEC Supply** | **33.48** | **30.58** | **28.45** | **29.82** | *30.17* | *31.39* | *32.93* | *33.15* | *33.31* | *33.21* | *33.25* | *33.27* | **30.57** | *31.92* | *33.26* |
| **Crude Oil Production Capacity** | | | | | | | | | | | | | | | |
| Middle East | **25.61** | **26.02** | **26.06** | **26.22** | *26.51* | *26.59* | *26.58* | *26.58* | *26.68* | *26.69* | *26.69* | *26.69* | **25.98** | *26.57* | *26.69* |
| Other | **5.84** | **5.60** | **5.48** | **6.34** | *5.78* | *6.16* | *6.17* | *6.16* | *6.07* | *6.07* | *6.07* | *6.07* | **5.82** | *6.07* | *6.07* |
| OPEC Total | **31.45** | **31.63** | **31.54** | **32.56** | *32.29* | *32.75* | *32.75* | *32.74* | *32.76* | *32.75* | *32.76* | *32.77* | **31.80** | *32.63* | *32.76* |
| **Surplus Crude Oil Production Capacity** | | | | | | | | | | | | | | | |
| Middle East | **3.15** | **5.27** | **6.90** | **6.62** | *7.01* | *6.28* | *4.88* | *4.68* | *4.68* | *4.69* | *4.69* | *4.69* | **5.49** | *5.70* | *4.69* |
| Other | **0.02** | **0.72** | **1.04** | **1.07** | *0.16* | *0.13* | *0.09* | *0.09* | *0.08* | *0.08* | *0.08* | *0.08* | **0.71** | *0.12* | *0.08* |
| OPEC Total | **3.17** | **5.99** | **7.94** | **7.68** | *7.17* | *6.41* | *4.97* | *4.77* | *4.76* | *4.77* | *4.77* | *4.78* | **6.20** | *5.82* | *4.77* |
| **Unplanned OPEC Production Outages** | **3.72** | **4.18** | **4.35** | **3.45** | - | - | - | - | - | - | - | - | **3.92** | - | - |

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

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).

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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

Forecasts are not published for individual OPEC countries.

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

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

**Forecasts:** EIA Short-Term Integrated Forecasting System.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **North America** | **23.64** | **19.44** | **22.12** | **22.55** | *22.73* | *23.43* | *24.13* | *24.18* | *24.21* | *24.68* | *25.01* | *24.89* | **21.94** | *23.62* | *24.70* |
| Canada | **2.33** | **1.88** | **2.16** | **2.10** | *2.17* | *2.17* | *2.27* | *2.27* | *2.28* | *2.23* | *2.33* | *2.32* | **2.12** | *2.22* | *2.29* |
| Mexico | **1.97** | **1.48** | **1.59** | **1.74** | *1.83* | *1.88* | *1.87* | *1.88* | *1.86* | *1.88* | *1.87* | *1.88* | **1.69** | *1.87* | *1.87* |
| United States | **19.33** | **16.08** | **18.36** | **18.71** | *18.72* | *19.37* | *19.98* | *20.02* | *20.07* | *20.56* | *20.81* | *20.69* | **18.12** | *19.53* | *20.53* |
| **Central and South America** | **6.14** | **5.61** | **6.04** | **6.31** | *6.23* | *6.43* | *6.56* | *6.57* | *6.42* | *6.58* | *6.72* | *6.74* | **6.03** | *6.45* | *6.62* |
| Brazil | **2.89** | **2.67** | **2.97** | **3.06** | *2.95* | *3.06* | *3.16* | *3.16* | *3.03* | *3.12* | *3.22* | *3.23* | **2.90** | *3.08* | *3.15* |
| **Europe** | **14.05** | **11.73** | **13.56** | **13.34** | *13.31* | *13.68* | *14.23* | *14.05* | *13.93* | *14.16* | *14.73* | *14.52* | **13.17** | *13.82* | *14.34* |
| **Eurasia** | **4.86** | **4.48** | **5.28** | **5.17** | *4.91* | *5.00* | *5.39* | *5.24* | *5.07* | *5.14* | *5.54* | *5.40* | **4.95** | *5.13* | *5.29* |
| Russia | **3.65** | **3.33** | **4.04** | **3.92** | *3.70* | *3.81* | *4.13* | *3.98* | *3.82* | *3.93* | *4.26* | *4.11* | **3.74** | *3.91* | *4.03* |
| **Middle East** | **7.67** | **7.60** | **8.48** | **8.03** | *7.75* | *8.22* | *8.62* | *8.00* | *7.93* | *8.50* | *8.90* | *8.26* | **7.95** | *8.15* | *8.40* |
| **Asia and Oceania** | **34.54** | **32.04** | **33.69** | **35.73** | *35.95* | *35.93* | *35.41* | *36.62* | *37.76* | *37.40* | *36.82* | *38.01* | **34.00** | *35.98* | *37.50* |
| China | **13.79** | **13.98** | **14.55** | **15.01** | *14.92* | *15.27* | *15.03* | *15.36* | *15.69* | *15.94* | *15.66* | *15.93* | **14.33** | *15.15* | *15.80* |
| Japan | **3.69** | **2.89** | **3.03** | **3.44** | *3.55* | *2.97* | *3.07* | *3.40* | *3.63* | *2.98* | *3.06* | *3.38* | **3.26** | *3.24* | *3.26* |
| India | **4.63** | **3.77** | **4.17** | **4.93** | *4.95* | *5.01* | *4.66* | *4.92* | *5.14* | *5.21* | *4.86* | *5.18* | **4.37** | *4.89* | *5.10* |
| **Africa** | **4.18** | **4.05** | **4.07** | **4.29** | *4.32* | *4.36* | *4.28* | *4.46* | *4.48* | *4.48* | *4.41* | *4.59* | **4.15** | *4.35* | *4.49* |
| **Total OECD Liquid Fuels Consumption** | **45.27** | **37.43** | **42.10** | **42.95** | *43.32* | *43.71* | *45.10* | *45.46* | *45.64* | *45.50* | *46.53* | *46.67* | **41.94** | *44.40* | *46.09* |
| **Total non-OECD Liquid Fuels Consumption** | **49.79** | **47.52** | **51.15** | **52.47** | *51.87* | *53.33* | *53.51* | *53.66* | *54.15* | *55.44* | *55.60* | *55.75* | **50.24** | *53.10* | *55.24* |
| **Total World Liquid Fuels Consumption** | **95.06** | **84.95** | **93.25** | **95.42** | *95.19* | *97.04* | *98.61* | *99.12* | *99.79* | *100.94* | *102.13* | *102.42* | **92.18** | *97.50* | *101.33* |
| **Real Gross Domestic Product (a)** | | | | | | | | | | | | | | | |
| World Index, 2015 Q1 = 100 | **110.1** | **107.4** | **112.1** | **113.1** | *115.3* | *116.6* | *117.8* | *118.7* | *121.5* | *122.1* | *122.6* | *123.2* | **110.7** | *117.1* | *122.3* |
| Percent change from prior year | **-3.5** | **-6.2** | **-2.5** | **-2.0** | *4.7* | *8.5* | *5.1* | *5.0* | *5.4* | *4.7* | *4.1* | *3.7* | **-3.6** | *5.8* | *4.5* |
| OECD Index, 2015 = 100 | | | | | | | | | | | | | **103.6** | *108.3* | *112.2* |
| Percent change from prior year | | | | | | | | | | | | | **-4.8** | *4.5* | *3.6* |
| Non-OECD Index, 2015 = 100 | | | | | | | | | | | | | **115.7** | *123.3* | *129.6* |
| Percent change from prior year | | | | | | | | | | | | | **-2.4** | *6.6* | *5.1* |
| **Real U.S. Dollar Exchange Rate (b)** | | | | | | | | | | | | | | | |
| Index, 2015 Q1 = 100 | **106.4** | **108.2** | **106.8** | **105.5** | *103.9* | *104.0* | *103.8* | *103.5* | *103.2* | *103.4* | *103.2* | *103.0* | **106.7** | *103.8* | *103.2* |
| Percent change from prior year | **0.9** | **2.0** | **0.3** | **-0.7** | *-2.3* | *-3.9* | *-2.9* | *-1.8* | *-0.7* | *-0.6* | *-0.6* | *-0.5* | **0.6** | *-2.7* | *-0.6* |

(a) GDP values for the individual countries in the indexes are converted to U.S. dollars at purchasing power parity and then summed to create values for the world, OECD, and non-OECD. GDP data are from Oxford Economics.

(b) 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. Exchange rate data are from Oxford Economics, and oil consumption data are from EIA.

- = 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.

Notes: EIA completed modeling and analysis for this report on .

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.

**Forecasts:** EIA Short-Term Integrated Forecasting System.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **Supply (million barrels per day)** | | | | | | | | | | | | | | | |
| Crude Oil Supply | | | | | | | | | | | | | | | |
| Domestic Production (a) | **12.75** | **10.81** | **10.81** | **10.87** | *10.79* | *11.06* | *11.27* | *11.46* | *11.67* | *11.84* | *12.16* | *12.41* | **11.31** | *11.15* | *12.02* |
| Alaska | **0.48** | **0.41** | **0.44** | **0.46** | *0.46* | *0.38* | *0.41* | *0.43* | *0.43* | *0.36* | *0.40* | *0.40* | **0.45** | *0.42* | *0.40* |
| Federal Gulf of Mexico (b) | **1.96** | **1.69** | **1.45** | **1.51** | *1.71* | *1.77* | *1.69* | *1.69* | *1.75* | *1.74* | *1.77* | *1.84* | **1.65** | *1.71* | *1.77* |
| Lower 48 States (excl GOM) | **10.31** | **8.71** | **8.92** | **8.90** | *8.62* | *8.91* | *9.18* | *9.34* | *9.49* | *9.74* | *9.99* | *10.17* | **9.21** | *9.01* | *9.85* |
| Crude Oil Net Imports (c) | **2.90** | **3.08** | **2.31** | **2.51** | *2.46* | *3.42* | *4.02* | *3.67* | *3.44* | *4.32* | *4.36* | *3.63* | **2.70** | *3.40* | *3.94* |
| SPR Net Withdrawals | **0.00** | **-0.23** | **0.15** | **0.04** | *0.02* | *0.10* | *0.07* | *0.05* | *0.05* | *0.05* | *0.03* | *0.11* | **-0.01** | *0.06* | *0.06* |
| Commercial Inventory Net Withdrawals | **-0.55** | **-0.54** | **0.38** | **0.13** | *-0.04* | *0.14* | *0.24* | *0.00* | *-0.25* | *0.01* | *0.28* | *-0.01* | **-0.14** | *0.08* | *0.01* |
| Crude Oil Adjustment (d) | **0.67** | **0.03** | **0.38** | **0.34** | *0.22* | *0.22* | *0.23* | *0.16* | *0.22* | *0.22* | *0.23* | *0.16* | **0.36** | *0.21* | *0.21* |
| Total Crude Oil Input to Refineries | **15.77** | **13.16** | **14.03** | **13.90** | *13.45* | *14.93* | *15.82* | *15.34* | *15.13* | *16.43* | *17.05* | *16.29* | **14.21** | *14.89* | *16.23* |
| Other Supply | | | | | | | | | | | | | | | |
| Refinery Processing Gain | **1.02** | **0.82** | **0.94** | **0.92** | *0.97* | *1.06* | *1.07* | *1.05* | *1.06* | *1.08* | *1.14* | *1.14* | **0.92** | *1.04* | *1.11* |
| Natural Gas Plant Liquids Production | **5.12** | **4.96** | **5.33** | **5.23** | *4.82* | *5.40* | *5.60* | *5.64* | *5.56* | *5.83* | *5.88* | *5.94* | **5.16** | *5.37* | *5.81* |
| Renewables and Oxygenate Production (e) | **1.11** | **0.80** | **1.03** | **1.07** | *0.99* | *1.05* | *1.10* | *1.09* | *1.08* | *1.10* | *1.11* | *1.12* | **1.01** | *1.06* | *1.10* |
| Fuel Ethanol Production | **1.02** | **0.70** | **0.92** | **0.97** | *0.90* | *0.95* | *0.99* | *0.99* | *0.98* | *0.99* | *1.00* | *1.01* | **0.91** | *0.96* | *0.99* |
| Petroleum Products Adjustment (f) | **0.22** | **0.19** | **0.20** | **0.19** | *0.20* | *0.20* | *0.21* | *0.21* | *0.20* | *0.22* | *0.22* | *0.22* | **0.20** | *0.20* | *0.22* |
| Product Net Imports (c) | **-4.03** | **-2.94** | **-3.12** | **-3.32** | *-2.65* | *-2.84* | *-3.44* | *-3.68* | *-3.21* | *-3.52* | *-4.35* | *-4.36* | **-3.35** | *-3.15* | *-3.86* |
| Hydrocarbon Gas Liquids | **-1.99** | **-1.86** | **-1.86** | **-2.03** | *-1.99* | *-2.15* | *-2.19* | *-2.23* | *-2.13* | *-2.29* | *-2.30* | *-2.31* | **-1.94** | *-2.14* | *-2.26* |
| Unfinished Oils | **0.31** | **0.25** | **0.34** | **0.19** | *0.36* | *0.43* | *0.43* | *0.30* | *0.20* | *0.26* | *0.30* | *0.20* | **0.27** | *0.38* | *0.24* |
| Other HC/Oxygenates | **-0.10** | **-0.05** | **-0.04** | **-0.04** | *-0.10* | *-0.08* | *-0.08* | *-0.09* | *-0.09* | *-0.07* | *-0.07* | *-0.08* | **-0.06** | *-0.09* | *-0.08* |
| Motor Gasoline Blend Comp. | **0.39** | **0.36** | **0.48** | **0.43** | *0.36* | *0.68* | *0.51* | *0.15* | *0.53* | *0.75* | *0.43* | *0.22* | **0.42** | *0.42* | *0.48* |
| Finished Motor Gasoline | **-0.72** | **-0.40** | **-0.58** | **-0.78** | *-0.52* | *-0.75* | *-0.73* | *-0.63* | *-0.76* | *-0.66* | *-0.83* | *-0.78* | **-0.62** | *-0.66* | *-0.76* |
| Jet Fuel | **-0.07** | **0.09** | **0.12** | **0.07** | *0.03* | *-0.04* | *0.01* | *0.00* | *0.07* | *0.12* | *0.12* | *0.17* | **0.05** | *0.00* | *0.12* |
| Distillate Fuel Oil | **-1.19** | **-0.86** | **-1.15** | **-0.74** | *-0.34* | *-0.47* | *-0.82* | *-0.59* | *-0.52* | *-0.94* | *-1.27* | *-1.16* | **-0.98** | *-0.55* | *-0.98* |
| Residual Fuel Oil | **-0.02** | **0.02** | **0.05** | **0.05** | *0.07* | *-0.02* | *-0.01* | *0.05* | *-0.03* | *-0.07* | *-0.06* | *0.04* | **0.02** | *0.03* | *-0.03* |
| Other Oils (g) | **-0.65** | **-0.49** | **-0.49** | **-0.48** | *-0.52* | *-0.45* | *-0.57* | *-0.65* | *-0.48* | *-0.60* | *-0.67* | *-0.66* | **-0.52** | *-0.55* | *-0.60* |
| Product Inventory Net Withdrawals | **0.12** | **-0.91** | **-0.04** | **0.71** | *0.94* | *-0.44* | *-0.38* | *0.37* | *0.25* | *-0.59* | *-0.26* | *0.32* | **-0.03** | *0.12* | *-0.07* |
| Total Supply | **19.33** | **16.08** | **18.36** | **18.71** | *18.72* | *19.37* | *19.98* | *20.02* | *20.07* | *20.56* | *20.81* | *20.69* | **18.12** | *19.53* | *20.53* |
| **Consumption (million barrels per day)** | | | | | | | | | | | | | | | |
| Hydrocarbon Gas Liquids | **3.31** | **2.83** | **2.95** | **3.70** | *3.46* | *3.19* | *3.20* | *3.53* | *3.80* | *3.38* | *3.42* | *3.76* | **3.20** | *3.35* | *3.59* |
| Unfinished Oils | **0.14** | **0.11** | **0.01** | **0.03** | *0.00* | *0.00* | *0.00* | *0.00* | *0.00* | *0.00* | *0.00* | *0.00* | **0.07** | *0.00* | *0.00* |
| Motor Gasoline | **8.49** | **7.11** | **8.50** | **8.02** | *8.02* | *8.66* | *8.93* | *8.76* | *8.45* | *9.11* | *9.12* | *8.86* | **8.03** | *8.60* | *8.89* |
| Fuel Ethanol blended into Motor Gasoline | **0.85** | **0.72** | **0.87** | **0.84** | *0.82* | *0.88* | *0.91* | *0.90* | *0.86* | *0.93* | *0.92* | *0.92* | **0.82** | *0.88* | *0.91* |
| Jet Fuel | **1.56** | **0.69** | **0.97** | **1.09** | *1.20* | *1.39* | *1.52* | *1.50* | *1.60* | *1.73* | *1.79* | *1.79* | **1.08** | *1.40* | *1.73* |
| Distillate Fuel Oil | **3.97** | **3.51** | **3.70** | **3.92** | *4.10* | *3.98* | *3.98* | *4.17* | *4.24* | *4.16* | *4.09* | *4.16* | **3.78** | *4.06* | *4.16* |
| Residual Fuel Oil | **0.17** | **0.15** | **0.32** | **0.23** | *0.25* | *0.23* | *0.28* | *0.25* | *0.23* | *0.21* | *0.25* | *0.26* | **0.22** | *0.25* | *0.24* |
| Other Oils (g) | **1.68** | **1.68** | **1.91** | **1.71** | *1.69* | *1.92* | *2.06* | *1.81* | *1.75* | *1.98* | *2.13* | *1.85* | **1.75** | *1.87* | *1.93* |
| Total Consumption | **19.33** | **16.08** | **18.36** | **18.71** | *18.72* | *19.37* | *19.98* | *20.02* | *20.07* | *20.56* | *20.81* | *20.69* | **18.12** | *19.53* | *20.53* |
| **Total Petroleum and Other Liquids Net Imports** | **-1.13** | **0.14** | **-0.81** | **-0.81** | *-0.19* | *0.59* | *0.58* | *-0.01* | *0.23* | *0.81* | *0.02* | *-0.73* | **-0.65** | *0.24* | *0.08* |
| **End-of-period Inventories (million barrels)** | | | | | | | | | | | | | | | |
| Commercial Inventory | | | | | | | | | | | | | | | |
| Crude Oil (excluding SPR) | **482.5** | **531.9** | **497.3** | **485.3** | *488.5* | *476.1* | *454.3* | *454.3* | *476.6* | *475.6* | *450.3* | *451.6* | **485.3** | *454.3* | *451.6* |
| Hydrocarbon Gas Liquids | **180.8** | **233.9** | **299.1** | **229.2** | *158.8* | *199.5* | *242.5* | *204.4* | *164.4* | *213.6* | *252.1* | *211.6* | **229.2** | *204.4* | *211.6* |
| Unfinished Oils | **100.1** | **91.9** | **81.4** | **78.2** | *92.4* | *91.0* | *90.2* | *83.0* | *93.0* | *91.0* | *90.0* | *83.2* | **78.2** | *83.0* | *83.2* |
| Other HC/Oxygenates | **33.6** | **26.2** | **25.2** | **29.9** | *27.1* | *26.0* | *25.8* | *26.1* | *28.2* | *26.9* | *26.6* | *26.9* | **29.9** | *26.1* | *26.9* |
| Total Motor Gasoline | **260.8** | **253.3** | **226.5** | **243.2** | *232.1* | *231.9* | *226.3* | *234.2* | *241.7* | *245.0* | *233.0* | *249.3* | **243.2** | *234.2* | *249.3* |
| Finished Motor Gasoline | **22.6** | **23.5** | **22.4** | **25.3** | *21.0* | *23.2* | *22.2* | *24.4* | *24.1* | *23.8* | *23.1* | *26.1* | **25.3** | *24.4* | *26.1* |
| Motor Gasoline Blend Comp. | **238.3** | **229.8** | **204.1** | **217.9** | *211.1* | *208.7* | *204.1* | *209.8* | *217.6* | *221.2* | *210.0* | *223.2* | **217.9** | *209.8* | *223.2* |
| Jet Fuel | **39.9** | **41.5** | **40.1** | **38.6** | *38.3* | *39.5* | *42.0* | *39.1* | *38.8* | *39.7* | *42.1* | *39.1* | **38.6** | *39.1* | *39.1* |
| Distillate Fuel Oil | **126.7** | **175.4** | **171.7** | **160.4** | *136.4* | *136.8* | *140.1* | *142.9* | *132.5* | *137.5* | *144.5* | *145.6* | **160.4** | *142.9* | *145.6* |
| Residual Fuel Oil | **34.4** | **39.6** | **32.1** | **30.2** | *32.0* | *33.4* | *31.4* | *32.6* | *32.2* | *32.9* | *31.1* | *32.6* | **30.2** | *32.6* | *32.6* |
| Other Oils (g) | **62.0** | **59.2** | **48.6** | **49.3** | *57.0* | *56.0* | *50.4* | *52.7* | *61.8* | *59.6* | *50.3* | *51.8* | **49.3** | *52.7* | *51.8* |
| Total Commercial Inventory | **1320.8** | **1452.8** | **1422.0** | **1344.3** | *1262.7* | *1290.2* | *1303.1* | *1269.4* | *1269.2* | *1321.7* | *1320.1* | *1291.7* | **1344.3** | *1269.4* | *1291.7* |
| Crude Oil in SPR | **635.0** | **656.0** | **642.2** | **638.1** | *636.2* | *627.4* | *621.1* | *616.9* | *612.6* | *608.3* | *605.6* | *596.0* | **638.1** | *616.9* | *596.0* |

(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

- = no data available

SPR: Strategic Petroleum Reserve

HC: Hydrocarbons

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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; and *Weekly Petroleum Status Report* , DOE/EIA-0208.

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

**Forecasts:** EIA Short-Term Integrated Forecasting System.

**Table 4b. U.S. Hydrocarbon Gas Liquids (HGL) and Petroleum Refinery Balances (million barrels per day, except inventories and utilization factor)**
U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **HGL Production** | | | | | | | | | | | | | | | |
| **Natural Gas Processing Plants** | | | | | | | | | | | | | | | |
| Ethane | **1.93** | **1.92** | **2.14** | **2.06** | *1.84* | *2.24* | *2.35* | *2.42* | *2.45* | *2.59* | *2.60* | *2.68* | **2.01** | *2.21* | *2.58* |
| Propane | **1.72** | **1.61** | **1.68** | **1.70** | *1.64* | *1.69* | *1.72* | *1.72* | *1.67* | *1.72* | *1.74* | *1.75* | **1.68** | *1.69* | *1.72* |
| Butanes | **0.91** | **0.86** | **0.90** | **0.89** | *0.83* | *0.89* | *0.92* | *0.92* | *0.89* | *0.92* | *0.93* | *0.93* | **0.89** | *0.89* | *0.91* |
| Natural Gasoline (Pentanes Plus) | **0.56** | **0.57** | **0.62** | **0.58** | *0.51* | *0.59* | *0.62* | *0.59* | *0.55* | *0.60* | *0.62* | *0.59* | **0.58** | *0.58* | *0.59* |
| **Refinery and Blender Net Production** | | | | | | | | | | | | | | | |
| Ethane/Ethylene | **0.01** | **0.01** | **0.01** | **0.01** | *0.00* | *0.00* | *0.01* | *0.01* | *0.00* | *0.01* | *0.01* | *0.01* | **0.01** | *0.00* | *0.01* |
| Propane | **0.29** | **0.24** | **0.27** | **0.27** | *0.25* | *0.29* | *0.29* | *0.29* | *0.30* | *0.32* | *0.32* | *0.31* | **0.26** | *0.28* | *0.31* |
| Propylene (refinery-grade) | **0.25** | **0.26** | **0.26** | **0.29** | *0.26* | *0.28* | *0.28* | *0.28* | *0.28* | *0.28* | *0.28* | *0.28* | **0.26** | *0.28* | *0.28* |
| Butanes/Butylenes | **-0.08** | **0.18** | **0.13** | **-0.19** | *-0.09* | *0.26* | *0.18* | *-0.20* | *-0.08* | *0.26* | *0.19* | *-0.20* | **0.01** | *0.04* | *0.04* |
| **Renewable Fuels and Oxygenate Plant Net Production** | | | | | | | | | | | | | | | |
| Natural Gasoline (Pentanes Plus) | **-0.02** | **-0.01** | **-0.02** | **-0.02** | *-0.02* | *-0.02* | *-0.02* | *-0.02* | *-0.02* | *-0.02* | *-0.02* | *-0.02* | **-0.02** | *-0.02* | *-0.02* |
| **HGL Net Imports** | | | | | | | | | | | | | | | |
| Ethane | **-0.30** | **-0.28** | **-0.27** | **-0.28** | *-0.36* | *-0.37* | *-0.38* | *-0.40* | *-0.44* | *-0.45* | *-0.45* | *-0.47* | **-0.28** | *-0.38* | *-0.45* |
| Propane/Propylene | **-1.12** | **-1.08** | **-1.08** | **-1.29** | *-1.01* | *-1.05* | *-1.08* | *-1.15* | *-1.01* | *-1.13* | *-1.13* | *-1.20* | **-1.14** | *-1.07* | *-1.12* |
| Butanes/Butylenes | **-0.30** | **-0.31** | **-0.36** | **-0.33** | *-0.29* | *-0.39* | *-0.40* | *-0.34* | *-0.35* | *-0.40* | *-0.40* | *-0.34* | **-0.32** | *-0.36* | *-0.37* |
| Natural Gasoline (Pentanes Plus) | **-0.27** | **-0.19** | **-0.16** | **-0.14** | *-0.33* | *-0.34* | *-0.33* | *-0.33* | *-0.33* | *-0.31* | *-0.32* | *-0.30* | **-0.19** | *-0.33* | *-0.32* |
| **HGL Refinery and Blender Net Inputs** | | | | | | | | | | | | | | | |
| Butanes/Butylenes | **0.46** | **0.25** | **0.32** | **0.47** | *0.42* | *0.27* | *0.31* | *0.49* | *0.39* | *0.28* | *0.32* | *0.50* | **0.37** | *0.37* | *0.37* |
| Natural Gasoline (Pentanes Plus) | **0.15** | **0.10** | **0.15** | **0.13** | *0.14* | *0.17* | *0.17* | *0.16* | *0.17* | *0.18* | *0.19* | *0.18* | **0.13** | *0.16* | *0.18* |
| **HGL Consumption** | | | | | | | | | | | | | | | |
| Ethane/Ethylene | **1.70** | **1.65** | **1.66** | **1.81** | *1.73* | *1.93* | *1.93* | *1.98* | *2.04* | *2.11* | *2.15* | *2.20* | **1.70** | *1.90* | *2.13* |
| Propane | **1.09** | **0.59** | **0.58** | **0.99** | *1.23* | *0.67* | *0.68* | *0.96* | *1.21* | *0.66* | *0.68* | *0.97* | **0.81** | *0.88* | *0.88* |
| Propylene (refinery-grade) | **0.26** | **0.27** | **0.27** | **0.30** | *0.28* | *0.30* | *0.29* | *0.30* | *0.30* | *0.30* | *0.30* | *0.30* | **0.28** | *0.29* | *0.30* |
| Butanes/Butylenes | **0.17** | **0.20** | **0.17** | **0.24** | *0.15* | *0.22* | *0.20* | *0.20* | *0.18* | *0.23* | *0.20* | *0.20* | **0.20** | *0.19* | *0.20* |
| Natural Gasoline (Pentanes Plus) | **0.09** | **0.13** | **0.26** | **0.35** | *0.06* | *0.07* | *0.10* | *0.09* | *0.07* | *0.07* | *0.09* | *0.10* | **0.21** | *0.08* | *0.08* |
| **HGL Inventories (million barrels)** | | | | | | | | | | | | | | | |
| Ethane | **52.6** | **49.5** | **62.5** | **74.9** | *51.5* | *43.5* | *45.1* | *51.1* | *48.5* | *52.0* | *51.5* | *54.4* | **59.9** | *47.8* | *51.6* |
| Propane | **60.3** | **75.3** | **100.7** | **70.4** | *36.9* | *58.8* | *80.3* | *69.4* | *44.5* | *65.1* | *85.6* | *73.9* | **70.4** | *69.4* | *73.9* |
| Propylene (at refineries only) | **1.4** | **1.5** | **1.5** | **1.5** | *1.5* | *1.7* | *2.0* | *2.0* | *1.8* | *1.9* | *2.1* | *2.0* | **1.5** | *2.0* | *2.0* |
| Butanes/Butylenes | **43.6** | **69.3** | **86.0** | **54.7** | *43.9* | *68.0* | *85.5* | *55.9* | *45.9* | *70.0* | *87.6* | *58.2* | **54.7** | *55.9* | *58.2* |
| Natural Gasoline (Pentanes Plus) | **24.0** | **35.7** | **38.6** | **32.9** | *29.4* | *28.6* | *27.9* | *26.3* | *23.4* | *24.1* | *24.5* | *23.4* | **32.9** | *26.3* | *23.4* |
| **Refinery and Blender Net Inputs** | | | | | | | | | | | | | | | |
| Crude Oil | **15.77** | **13.16** | **14.03** | **13.90** | *13.45* | *14.93* | *15.82* | *15.34* | *15.13* | *16.43* | *17.05* | *16.29* | **14.21** | *14.89* | *16.23* |
| Hydrocarbon Gas Liquids | **0.61** | **0.35** | **0.47** | **0.60** | *0.56* | *0.43* | *0.48* | *0.65* | *0.55* | *0.47* | *0.51* | *0.69* | **0.51** | *0.53* | *0.55* |
| Other Hydrocarbons/Oxygenates | **1.12** | **0.95** | **1.11** | **1.08** | *1.06* | *1.13* | *1.17* | *1.15* | *1.13* | *1.19* | *1.19* | *1.18* | **1.06** | *1.13* | *1.17* |
| Unfinished Oils | **0.05** | **0.23** | **0.44** | **0.20** | *0.20* | *0.45* | *0.44* | *0.37* | *0.09* | *0.28* | *0.31* | *0.27* | **0.23** | *0.37* | *0.24* |
| Motor Gasoline Blend Components | **0.41** | **0.48** | **0.85** | **0.46** | *0.56* | *0.84* | *0.66* | *0.26* | *0.56* | *0.81* | *0.65* | *0.30* | **0.55** | *0.58* | *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 | **17.97** | **15.17** | **16.90** | **16.23** | *15.83* | *17.78* | *18.57* | *17.77* | *17.47* | *19.18* | *19.72* | *18.73* | **16.57** | *17.50* | *18.78* |
| **Refinery Processing Gain** | **1.02** | **0.82** | **0.94** | **0.92** | *0.97* | *1.06* | *1.07* | *1.05* | *1.06* | *1.08* | *1.14* | *1.14* | **0.92** | *1.04* | *1.11* |
| **Refinery and Blender Net Production** | | | | | | | | | | | | | | | |
| Hydrocarbon Gas Liquids | **0.47** | **0.69** | **0.67** | **0.36** | *0.43* | *0.84* | *0.76* | *0.37* | *0.50* | *0.87* | *0.79* | *0.40* | **0.55** | *0.60* | *0.64* |
| Finished Motor Gasoline | **9.30** | **7.52** | **9.14** | **8.98** | *8.57* | *9.56* | *9.74* | *9.58* | *9.30* | *9.84* | *10.00* | *9.85* | **8.74** | *9.37* | *9.75* |
| Jet Fuel | **1.63** | **0.62** | **0.83** | **1.00** | *1.16* | *1.45* | *1.54* | *1.46* | *1.52* | *1.62* | *1.69* | *1.59* | **1.02** | *1.41* | *1.60* |
| Distillate Fuel | **4.95** | **4.83** | **4.72** | **4.46** | *4.14* | *4.38* | *4.76* | *4.71* | *4.63* | *5.10* | *5.38* | *5.27* | **4.74** | *4.50* | *5.10* |
| Residual Fuel | **0.23** | **0.18** | **0.19** | **0.15** | *0.19* | *0.26* | *0.26* | *0.21* | *0.25* | *0.29* | *0.29* | *0.23* | **0.19** | *0.23* | *0.27* |
| Other Oils (a) | **2.41** | **2.14** | **2.28** | **2.19** | *2.29* | *2.35* | *2.58* | *2.49* | *2.33* | *2.56* | *2.70* | *2.53* | **2.26** | *2.43* | *2.53* |
| Total Refinery and Blender Net Production | **18.99** | **15.99** | **17.84** | **17.15** | *16.79* | *18.84* | *19.64* | *18.82* | *18.53* | *20.27* | *20.86* | *19.87* | **17.49** | *18.53* | *19.89* |
| **Refinery Distillation Inputs** | **16.36** | **13.65** | **14.55** | **14.32** | *13.93* | *15.34* | *16.20* | *15.72* | *15.49* | *16.65* | *17.27* | *16.55* | **14.72** | *15.30* | *16.49* |
| **Refinery Operable Distillation Capacity** | **18.98** | **18.75** | **18.55** | **18.39** | *18.39* | *18.39* | *18.39* | *18.39* | *18.39* | *18.39* | *18.39* | *18.39* | **18.66** | *18.39* | *18.39* |
| **Refinery Distillation Utilization Factor** | **0.86** | **0.73** | **0.78** | **0.78** | *0.76* | *0.83* | *0.88* | *0.85* | *0.84* | *0.91* | *0.94* | *0.90* | **0.79** | *0.83* | *0.90* |

(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.

- = no data available

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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

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

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

**Forecasts:** EIA Short-Term Integrated Forecasting System.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **Prices (cents per gallon)** | | | | | | | | | | | | | | | |
| **Refiner Wholesale Price** | **153** | **104** | **137** | **133** | *179* | *199* | *182* | *168* | *165* | *179* | *183* | *171* | **133** | *182* | *175* |
| **Gasoline Regular Grade Retail Prices Including Taxes** | | | | | | | | | | | | | | | |
| PADD 1 | **236** | **191** | **211** | **212** | *249* | *271* | *258* | *242* | *233* | *247* | *255* | *245* | **214** | *255* | *245* |
| PADD 2 | **226** | **179** | **207** | **202** | *244* | *271* | *247* | *230* | *218* | *247* | *248* | *234* | **204** | *248* | *237* |
| PADD 3 | **210** | **162** | **186** | **183** | *225* | *249* | *231* | *216* | *213* | *227* | *230* | *220* | **187** | *230* | *223* |
| PADD 4 | **247** | **201** | **233** | **221** | *239* | *278* | *268* | *251* | *242* | *264* | *270* | *256* | **226** | *260* | *258* |
| PADD 5 | **311** | **258** | **283** | **278** | *309* | *341* | *327* | *314* | *316* | *333* | *327* | *335* | **284** | *323* | *328* |
| U.S. Average | **241** | **194** | **218** | **215** | *253* | *280* | *262* | *247* | *240* | *259* | *262* | *253* | **218** | *261* | *254* |
| **Gasoline All Grades Including Taxes** | **251** | **203** | **227** | **224** | *262* | *291* | *275* | *260* | *254* | *273* | *276* | *267* | **227** | *272* | *268* |
| | | | | | | | | | | | | | | | |
| **End-of-period Inventories (million barrels)** | | | | | | | | | | | | | | | |
| **Total Gasoline Inventories** | | | | | | | | | | | | | | | |
| PADD 1 | **71.0** | **73.0** | **61.6** | **68.5** | *63.3* | *61.8* | *58.2* | *59.6* | *65.5* | *67.9* | *62.8* | *68.8* | **68.5** | *59.6* | *68.8* |
| PADD 2 | **60.2** | **52.6** | **46.2** | **50.9** | *51.2* | *53.2* | *50.7* | *50.3* | *53.3* | *52.7* | *51.0* | *51.2* | **50.9** | *50.3* | *51.2* |
| PADD 3 | **84.8** | **90.5** | **79.7** | **83.7** | *79.0* | *79.8* | *80.5* | *85.3* | *85.0* | *87.2* | *82.2* | *89.4* | **83.7** | *85.3* | *89.4* |
| PADD 4 | **9.2** | **7.7** | **7.6** | **8.7** | *8.4* | *8.0* | *7.5* | *8.0* | *7.9* | *7.9* | *7.7* | *8.2* | **8.7** | *8.0* | *8.2* |
| PADD 5 | **35.6** | **29.4** | **31.5** | **31.4** | *30.1* | *29.1* | *29.4* | *31.0* | *30.0* | *29.3* | *29.3* | *31.6* | **31.4** | *31.0* | *31.6* |
| U.S. Total | **260.8** | **253.3** | **226.5** | **243.2** | *232.1* | *231.9* | *226.3* | *234.2* | *241.7* | *245.0* | *233.0* | *249.3* | **243.2** | *234.2* | *249.3* |
| **Finished Gasoline Inventories** | | | | | | | | | | | | | | | |
| U.S. Total | **22.6** | **23.5** | **22.4** | **25.3** | *21.0* | *23.2* | *22.2* | *24.4* | *24.1* | *23.8* | *23.1* | *26.1* | **25.3** | *24.4* | *26.1* |
| **Gasoline Blending Components Inventories** | | | | | | | | | | | | | | | |
| U.S. Total | **238.3** | **229.8** | **204.1** | **217.9** | *211.1* | *208.7* | *204.1* | *209.8* | *217.6* | *221.2* | *210.0* | *223.2* | **217.9** | *209.8* | *223.2* |

- = no data available

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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

Prices are not adjusted for inflation.

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.

**Forecasts:** EIA Short-Term Integrated Forecasting System.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **Supply (billion cubic feet per day)** | | | | | | | | | | | | | | | |
| Total Marketed Production | **102.27** | **96.83** | **97.55** | **98.64** | *97.97* | *98.58* | *99.36* | *99.86* | *99.58* | *100.01* | *101.12* | *101.79* | **98.82** | *98.95* | *100.63* |
| Alaska | **0.96** | **0.88** | **0.88** | **0.98** | *0.97* | *0.75* | *0.73* | *0.88* | *0.92* | *0.75* | *0.72* | *0.85* | **0.92** | *0.83* | *0.81* |
| Federal GOM (a) | **2.72** | **2.22** | **1.72** | **1.69** | *2.09* | *2.09* | *1.98* | *1.94* | *1.98* | *1.94* | *1.86* | *1.86* | **2.08** | *2.02* | *1.91* |
| Lower 48 States (excl GOM) | **98.58** | **93.74** | **94.95** | **95.97** | *94.92* | *95.74* | *96.65* | *97.04* | *96.69* | *97.31* | *98.54* | *99.08* | **95.81** | *96.09* | *97.91* |
| Total Dry Gas Production | **94.79** | **89.68** | **89.82** | **91.08** | *90.50* | *91.04* | *91.71* | *92.13* | *91.87* | *92.25* | *93.28* | *93.90* | **91.34** | *91.35* | *92.83* |
| LNG Gross Imports | **0.24** | **0.12** | **0.09** | **0.09** | *0.32* | *0.18* | *0.18* | *0.20* | *0.32* | *0.18* | *0.18* | *0.20* | **0.13** | *0.22* | *0.22* |
| LNG Gross Exports | **7.92** | **5.51** | **3.91** | **8.78** | *8.67* | *7.59* | *7.66* | *9.26* | *9.96* | *8.83* | *8.33* | *9.78* | **6.53** | *8.29* | *9.22* |
| Pipeline Gross Imports | **7.60** | **6.08** | **6.39** | **7.27** | *8.06* | *6.51* | *6.69* | *6.76* | *7.32* | *6.35* | *6.36* | *6.70* | **6.84** | *7.00* | *6.68* |
| Pipeline Gross Exports | **8.15** | **7.17** | **8.09** | **8.18** | *8.41* | *8.21* | *9.19* | *9.44* | *9.26* | *8.62* | *9.36* | *9.37* | **7.90** | *8.82* | *9.15* |
| Supplemental Gaseous Fuels | **0.19** | **0.17** | **0.15** | **0.18** | *0.17* | *0.17* | *0.17* | *0.18* | *0.17* | *0.18* | *0.18* | *0.18* | **0.17** | *0.17* | *0.18* |
| Net Inventory Withdrawals | **12.74** | **-12.24** | **-7.68** | **5.36** | *19.44* | *-10.90* | *-9.01* | *5.11* | *18.87* | *-11.91* | *-9.55* | *4.16* | **-0.46** | *1.09* | *0.33* |
| Total Supply | **99.49** | **71.12** | **76.78** | **87.03** | *101.42* | *71.21* | *72.89* | *85.68* | *99.34* | *69.60* | *72.77* | *85.98* | **83.60** | *82.73* | *81.86* |
| Balancing Item (b) | **-0.18** | **-0.29** | **0.06** | **-0.97** | *1.18* | *-0.95* | *-0.93* | *-0.11* | *-0.04* | *-0.35* | *-0.10* | *-0.52* | **-0.35** | *-0.21* | *-0.26* |
| Total Primary Supply | **99.31** | **70.84** | **76.84** | **86.05** | *102.60* | *70.25* | *71.96* | *85.57* | *99.29* | *69.25* | *72.67* | *85.46* | **83.25** | *82.52* | *81.60* |
| **Consumption (billion cubic feet per day)** | | | | | | | | | | | | | | | |
| Residential | **22.83** | **8.20** | **3.83** | **15.99** | *26.29* | *7.24* | *3.44* | *15.74* | *25.13* | *7.91* | *3.48* | *15.52* | **12.70** | *13.12* | *12.96* |
| Commercial | **13.93** | **5.82** | **4.36** | **10.30** | *15.22* | *6.53* | *4.74* | *10.75* | *14.83* | *6.22* | *4.66* | *10.77* | **8.60** | *9.29* | *9.10* |
| Industrial | **24.65** | **20.62** | **21.15** | **23.84** | *25.48* | *22.69* | *22.17* | *24.95* | *25.68* | *22.97* | *22.30* | *24.76* | **22.56** | *23.81* | *23.92* |
| Electric Power (c) | **29.55** | **29.05** | **40.10** | **28.19** | *27.62* | *26.41* | *34.16* | *26.17* | *25.37* | *24.49* | *34.54* | *26.25* | **31.74** | *28.60* | *27.68* |
| Lease and Plant Fuel | **5.17** | **4.90** | **4.93** | **4.99** | *4.95* | *4.98* | *5.02* | *5.05* | *5.04* | *5.06* | *5.11* | *5.15* | **5.00** | *5.00* | *5.09* |
| Pipeline and Distribution Use | **3.02** | **2.15** | **2.33** | **2.61** | *2.91* | *2.25* | *2.29* | *2.76* | *3.08* | *2.45* | *2.41* | *2.85* | **2.53** | *2.55* | *2.70* |
| Vehicle Use | **0.16** | **0.10** | **0.13** | **0.13** | *0.14* | *0.15* | *0.15* | *0.15* | *0.16* | *0.16* | *0.16* | *0.16* | **0.13** | *0.15* | *0.16* |
| Total Consumption | **99.31** | **70.84** | **76.84** | **86.05** | *102.60* | *70.25* | *71.96* | *85.57* | *99.29* | *69.25* | *72.67* | *85.46* | **83.25** | *82.52* | *81.60* |
| **End-of-period Inventories (billion cubic feet)** | | | | | | | | | | | | | | | |
| Working Gas Inventory | **2,030** | **3,133** | **3,840** | **3,341** | *1,591* | *2,583* | *3,412* | *2,942* | *1,243* | *2,327* | *3,206* | *2,823* | **3,341** | *2,942* | *2,823* |
| East Region (d) | **385** | **655** | **890** | **763** | *261* | *538* | *816* | *615* | *93* | *396* | *667* | *488* | **763** | *615* | *488* |
| Midwest Region (d) | **472** | **747** | **1,053** | **918** | *360* | *620* | *990* | *841* | *206* | *506* | *883* | *765* | **918** | *841* | *765* |
| South Central Region (d) | **857** | **1,221** | **1,313** | **1,155** | *654* | *985* | *1,086* | *1,041* | *625* | *936* | *1,056* | *1,015* | **1,155** | *1,041* | *1,015* |
| Mountain Region (d) | **92** | **177** | **235** | **195** | *99* | *130* | *177* | *148* | *100* | *152* | *219* | *201* | **195** | *148* | *201* |
| Pacific Region (d) | **200** | **308** | **318** | **282** | *196* | *289* | *321* | *276* | *199* | *316* | *359* | *332* | **282** | *276* | *332* |
| Alaska | **23** | **25** | **31** | **28** | *21* | *21* | *21* | *21* | *21* | *21* | *21* | *21* | **28** | *21* | *21* |

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

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

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

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

- = no data available

LNG: liquefied natural gas.

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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: *Natural Gas Monthly* , DOE/EIA-0130; and *Electric Power Monthly* , Minor discrepancies with published historical data are due to independent rounding.

**Forecasts:** EIA Short-Term Integrated Forecasting System.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **Wholesale/Spot** | | | | | | | | | | | | | | | |
| Henry Hub Spot Price | **1.98** | **1.77** | **2.07** | **2.63** | *3.79* | *2.99* | *3.11* | *3.18* | *3.30* | *3.23* | *3.26* | *3.34* | **2.11** | *3.27* | *3.28* |
| **Residential Retail** | | | | | | | | | | | | | | | |
| New England | **13.77** | **14.50** | **18.28** | **14.63** | *14.24* | *14.86* | *17.42* | *13.39* | *13.02* | *13.96* | *16.98* | *13.16* | **14.47** | *14.26* | *13.47* |
| Middle Atlantic | **10.77** | **11.85** | **17.85** | **11.77** | *10.50* | *12.52* | *16.94* | *11.02* | *10.12* | *12.47* | *17.25* | *11.44* | **11.76** | *11.37* | *11.32* |
| E. N. Central | **6.99** | **9.50** | **18.15** | **7.87** | *7.53* | *11.13* | *16.77* | *8.52* | *7.80* | *10.75* | *16.50* | *8.30* | **8.34** | *8.80* | *8.88* |
| W. N. Central | **6.85** | **9.89** | **17.26** | **8.66** | *7.81* | *11.31* | *17.27* | *9.31* | *8.05* | *10.90* | *17.07* | *9.17* | **8.48** | *9.16* | *9.26* |
| S. Atlantic | **12.12** | **15.52** | **24.15** | **14.20** | *11.53* | *16.78* | *22.72* | *12.63* | *11.25* | *16.43* | *22.66* | *12.68* | **14.23** | *13.38* | *13.21* |
| E. S. Central | **9.69** | **13.34** | **20.85** | **10.63** | *9.31* | *15.26* | *22.15* | *13.52* | *10.58* | *15.05* | *22.21* | *13.55* | **11.15** | *11.63* | *12.72* |
| W. S. Central | **8.52** | **14.22** | **20.60** | **11.67** | *8.57* | *14.78* | *20.57* | *11.80* | *8.91* | *14.42* | *20.50* | *11.69* | **11.40** | *11.19* | *11.40* |
| Mountain | **7.55** | **9.37** | **12.60** | **8.14** | *7.67* | *9.94* | *13.58* | *8.34* | *7.90* | *9.76* | *13.70* | *8.62* | **8.43** | *8.66* | *8.85* |
| Pacific | **13.41** | **14.47** | **14.50** | **13.70** | *14.02* | *14.58* | *15.01* | *13.80* | *13.91* | *14.63* | *15.42* | *14.38* | **13.82** | *14.17* | *14.36* |
| U.S. Average | **9.46** | **11.89** | **17.63** | **10.56** | *9.63* | *13.01* | *17.39* | *10.72* | *9.72* | *12.65* | *17.47* | *10.78* | **10.82** | *10.94* | *11.01* |
| **Commercial Retail** | | | | | | | | | | | | | | | |
| New England | **9.93** | **10.40** | **10.99** | **10.06** | *10.08* | *10.47* | *10.79* | *10.20* | *10.53* | *10.63* | *10.39* | *10.22* | **10.16** | *10.25* | *10.43* |
| Middle Atlantic | **7.91** | **7.00** | **6.78** | **7.53** | *7.91* | *7.69* | *7.06* | *7.53* | *7.90* | *7.71* | *7.28* | *7.81* | **7.50** | *7.65* | *7.76* |
| E. N. Central | **5.75** | **6.73** | **8.79** | **6.21** | *6.34* | *8.23* | *9.51* | *7.24* | *6.93* | *7.71* | *8.76* | *6.63* | **6.28** | *7.12* | *7.08* |
| W. N. Central | **5.43** | **6.53** | **8.12** | **6.55** | *7.07* | *8.02* | *9.08* | *7.35* | *7.16* | *7.67* | *8.96* | *7.13* | **6.14** | *7.43* | *7.35* |
| S. Atlantic | **8.51** | **9.21** | **9.53** | **8.87** | *8.70* | *9.84* | *10.05* | *8.99* | *8.54* | *9.31* | *9.61* | *8.62* | **8.86** | *9.13* | *8.82* |
| E. S. Central | **8.38** | **9.20** | **10.10** | **8.69** | *8.18* | *9.65* | *10.35* | *9.15* | *8.48* | *9.48* | *10.08* | *8.99* | **8.78** | *8.93* | *8.96* |
| W. S. Central | **5.99** | **7.18** | **8.05** | **7.46** | *6.99* | *8.01* | *8.72* | *8.03* | *7.16* | *7.65* | *8.17* | *7.47* | **6.90** | *7.68* | *7.47* |
| Mountain | **6.09** | **6.85** | **7.42** | **6.45** | *6.71* | *7.29* | *8.23* | *7.17* | *6.95* | *7.35* | *8.24* | *7.11* | **6.46** | *7.11* | *7.20* |
| Pacific | **9.58** | **9.30** | **9.59** | **9.70** | *9.88* | *9.82* | *10.04* | *9.39* | *9.29* | *9.14* | *9.64* | *9.31* | **9.57** | *9.74* | *9.32* |
| U.S. Average | **7.13** | **7.63** | **8.48** | **7.53** | *7.58* | *8.51* | *8.95* | *8.00* | *7.77* | *8.23* | *8.68* | *7.80* | **7.48** | *8.01* | *7.96* |
| **Industrial Retail** | | | | | | | | | | | | | | | |
| New England | **8.15** | **7.41** | **6.16** | **7.67** | *8.53* | *7.82* | *6.84* | *7.79* | *8.22* | *7.68* | *6.78* | *7.80* | **7.54** | *7.88* | *7.74* |
| Middle Atlantic | **7.43** | **6.76** | **7.00** | **7.61** | *8.07* | *7.56* | *7.40* | *7.54* | *8.05* | *7.82* | *7.74* | *8.15* | **7.28** | *7.75* | *7.99* |
| E. N. Central | **4.84** | **5.10** | **4.15** | **5.10** | *6.08* | *5.97* | *5.81* | *5.69* | *5.96* | *5.79* | *5.73* | *5.71* | **4.86** | *5.91* | *5.83* |
| W. N. Central | **3.97** | **3.30** | **3.15** | **4.13** | *5.17* | *4.59* | *4.53* | *5.01* | *5.25* | *4.66* | *4.56* | *5.06* | **3.68** | *4.86* | *4.92* |
| S. Atlantic | **4.15** | **3.70** | **3.72** | **4.56** | *5.83* | *4.99* | *4.93* | *5.21* | *5.38* | *4.90* | *4.85* | *5.11* | **4.06** | *5.27* | *5.08* |
| E. S. Central | **3.92** | **3.24** | **3.23** | **4.04** | *5.33* | *4.61* | *4.53* | *4.94* | *5.09* | *4.64* | *4.46* | *4.82* | **3.65** | *4.88* | *4.77* |
| W. S. Central | **2.19** | **1.92** | **2.19** | **2.89** | *3.91* | *3.09* | *3.37* | *3.40* | *3.43* | *3.39* | *3.44* | *3.50* | **2.31** | *3.44* | *3.44* |
| Mountain | **4.40** | **4.59** | **4.67** | **4.91** | *5.43* | *5.65* | *6.03* | *5.96* | *5.89* | *5.62* | *5.77* | *5.61* | **4.64** | *5.75* | *5.73* |
| Pacific | **7.46** | **6.28** | **6.18** | **7.23** | *7.79* | *7.04* | *7.11* | *7.12* | *7.15* | *6.66* | *6.95* | *7.00* | **6.86** | *7.29* | *6.95* |
| U.S. Average | **3.52** | **2.85** | **2.88** | **3.77** | *4.92* | *3.97* | *4.05* | *4.38* | *4.60* | *4.17* | *4.09* | *4.44* | **3.29** | *4.36* | *4.34* |

- = no data available

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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

Prices are not adjusted for inflation.

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.

**Forecasts:** EIA Short-Term Integrated Forecasting System.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **Supply (million short tons)** | | | | | | | | | | | | | | | |
| Production | **149.1** | **115.2** | **135.8** | **139.0** | *135.0* | *133.0* | *156.8* | *156.3* | *148.4* | *145.3* | *160.7* | *155.9* | **539.1** | *581.2* | *610.3* |
| Appalachia | **39.7** | **29.3** | **33.9** | **35.5** | *34.7* | *36.7* | *36.5* | *37.9* | *39.0* | *40.7* | *39.9* | *41.0* | **138.3** | *145.8* | *160.7* |
| Interior | **25.8** | **19.2** | **23.2** | **22.3** | *23.0* | *27.6* | *31.2* | *30.3* | *29.2* | *27.9* | *29.3* | *28.3* | **90.4** | *112.0* | *114.7* |
| Western | **83.6** | **66.7** | **78.8** | **81.2** | *77.4* | *68.7* | *89.2* | *88.1* | *80.2* | *76.6* | *91.5* | *86.6* | **310.3** | *323.3* | *334.9* |
| Primary Inventory Withdrawals | **0.5** | **1.3** | **2.0** | **-0.9** | *0.5* | *2.0* | *2.6* | *-0.7* | *-0.7* | *-0.6* | *-0.5* | *-3.7* | **2.8** | *4.4* | *-5.4* |
| Imports | **1.3** | **1.1** | **1.3** | **1.3** | *1.0* | *1.0* | *1.3* | *1.3* | *1.0* | *1.0* | *1.3* | *1.3* | **5.1** | *4.6* | *4.6* |
| Exports | **20.0** | **14.8** | **15.3** | **19.1** | *25.1* | *17.8* | *18.5* | *23.1* | *26.1* | *19.1* | *19.5* | *23.8* | **69.1** | *84.5* | *88.6* |
| Metallurgical Coal | **11.7** | **9.0** | **10.2** | **11.3** | *14.8* | *11.2* | *12.7* | *13.7* | *15.5* | *11.7* | *12.9* | *13.5* | **42.1** | *52.4* | *53.6* |
| Steam Coal | **8.3** | **5.8** | **5.1** | **7.8** | *10.4* | *6.7* | *5.7* | *9.4* | *10.6* | *7.4* | *6.6* | *10.3* | **27.0** | *32.2* | *35.0* |
| Total Primary Supply | **130.9** | **102.9** | **123.8** | **120.3** | *111.4* | *118.2* | *142.3* | *133.8* | *122.6* | *126.6* | *142.1* | *129.7* | **477.9** | *505.6* | *521.0* |
| Secondary Inventory Withdrawals | **-16.6** | **-5.0** | **21.5** | **-4.3** | *22.6* | *-4.2* | *21.7* | *-7.2* | *16.8* | *-3.6* | *21.5* | *-4.2* | **-4.5** | *33.0* | *30.4* |
| Waste Coal (a) | **1.9** | **1.5** | **2.0** | **2.3** | *2.0* | *2.0* | *2.0* | *2.0* | *1.8* | *1.8* | *1.8* | *1.8* | **7.7** | *8.0* | *7.4* |
| Total Supply | **116.2** | **99.4** | **147.3** | **118.3** | *136.0* | *116.1* | *165.9* | *128.6* | *141.2* | *124.8* | *165.4* | *127.4* | **481.1** | *546.6* | *558.8* |
| **Consumption (million short tons)** | | | | | | | | | | | | | | | |
| Coke Plants | **4.3** | **3.5** | **3.2** | **3.7** | *2.8* | *2.6* | *3.0* | *4.5* | *2.9* | *2.6* | *3.0* | *4.5* | **14.5** | *12.8* | *12.9* |
| Electric Power Sector (b) | **97.9** | **87.2** | **139.3** | **112.1** | *125.8* | *106.3* | *155.8* | *116.8* | *130.9* | *115.1* | *155.4* | *115.7* | **436.5** | *504.6* | *517.2* |
| Retail and Other Industry | **7.4** | **5.7** | **6.1** | **7.1** | *7.5* | *7.2* | *7.1* | *7.3* | *7.4* | *7.1* | *7.0* | *7.2* | **26.3** | *29.1* | *28.7* |
| Residential and Commercial | **0.3** | **0.1** | **0.1** | **0.2** | *0.3* | *0.2* | *0.2* | *0.3* | *0.2* | *0.2* | *0.2* | *0.2* | **0.8** | *0.9* | *0.8* |
| Other Industrial | **7.1** | **5.6** | **5.9** | **6.9** | *7.2* | *7.0* | *6.9* | *7.1* | *7.2* | *7.0* | *6.8* | *7.0* | **25.5** | *28.2* | *27.9* |
| Total Consumption | **109.5** | **96.4** | **148.6** | **122.8** | *136.0* | *116.1* | *165.9* | *128.6* | *141.2* | *124.8* | *165.4* | *127.4* | **477.3** | *546.6* | *558.8* |
| Discrepancy (c) | **6.7** | **2.9** | **-1.3** | **-4.6** | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | **3.8** | *0.0* | *0.0* |
| **End-of-period Inventories (million short tons)** | | | | | | | | | | | | | | | |
| Primary Inventories (d) | **30.8** | **29.5** | **27.5** | **28.5** | *28.0* | *26.0* | *23.4* | *24.1* | *24.8* | *25.4* | *25.8* | *29.5* | **28.5** | *24.1* | *29.5* |
| Secondary Inventories | **150.6** | **155.6** | **134.2** | **138.5** | *115.8* | *120.0* | *98.3* | *105.5* | *88.7* | *92.3* | *70.9* | *75.1* | **138.5** | *105.5* | *75.1* |
| Electric Power Sector | **145.2** | **150.4** | **129.1** | **132.7** | *110.3* | *114.2* | *92.4* | *99.9* | *83.3* | *86.7* | *65.1* | *69.6* | **132.7** | *99.9* | *69.6* |
| Retail and General Industry | **3.0** | **3.0** | **2.9** | **3.5** | *3.8* | *3.7* | *3.8* | *3.6* | *3.9* | *3.9* | *3.9* | *3.7* | **3.5** | *3.6* | *3.7* |
| Coke Plants | **2.1** | **2.0** | **2.0** | **2.1** | *1.5* | *1.8* | *1.9* | *1.8* | *1.3* | *1.6* | *1.7* | *1.6* | **2.1** | *1.8* | *1.6* |
| Commercial & Institutional | **0.2** | **0.2** | **0.2** | **0.2** | *0.2* | *0.2* | *0.2* | *0.1* | *0.1* | *0.1* | *0.1* | *0.1* | **0.2** | *0.1* | *0.1* |
| **Coal Market Indicators** | | | | | | | | | | | | | | | |
| Coal Miner Productivity (Tons per hour) | **6.37** | **6.37** | **6.37** | **6.37** | *6.32* | *6.32* | *6.32* | *6.32* | *6.30* | *6.30* | *6.30* | *6.30* | **6.37** | *6.32* | *6.30* |
| Total Raw Steel Production (Million short tons per day) | **0.268** | **0.174** | **0.197** | **0.224** | *0.250* | *0.250* | *0.257* | *0.291* | *0.281* | *0.252* | *0.247* | *0.255* | **0.216** | *0.262* | *0.259* |
| Cost of Coal to Electric Utilities (Dollars per million Btu) | **1.92** | **1.90** | **1.93** | **1.91** | *1.95* | *1.99* | *1.98* | *1.95* | *1.96* | *1.98* | *1.96* | *1.93* | **1.91** | *1.97* | *1.96* |

(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.

- = no data available

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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

**Forecasts:** EIA Short-Term Integrated Forecasting System.

**Table 7a. U.S. Electricity Industry Overview**

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **Electricity Supply (billion kilowatthours)** | | | | | | | | | | | | | | | |
| Electricity Generation | **966** | **933** | **1,148** | **962** | *1,001* | *968* | *1,138* | *968* | *993* | *985* | *1,156* | *980* | **4,009** | *4,075* | *4,114* |
| Electric Power Sector (a) | **925** | **896** | **1,109** | **923** | *962* | *931* | *1,099* | *930* | *953* | *946* | *1,115* | *941* | **3,853** | *3,921* | *3,955* |
| Industrial Sector (b) | **38** | **34** | **36** | **36** | *36* | *34* | *35* | *35* | *36* | *35* | *38* | *37* | **143** | *141* | *146* |
| Commercial Sector (b) | **3** | **3** | **4** | **3** | *3* | *3* | *4* | *3* | *3* | *3* | *4* | *3* | **13** | *13* | *13* |
| Net Imports | **13** | **14** | **15** | **12** | *12* | *13* | *15* | *11* | *12* | *12* | *14* | *11* | **54** | *51* | *50* |
| Total Supply | **980** | **947** | **1,163** | **973** | *1,013* | *981* | *1,152* | *979* | *1,005* | *998* | *1,171* | *991* | **4,063** | *4,126* | *4,165* |
| Losses and Unaccounted for (c) | **57** | **70** | **72** | **62** | *62* | *67* | *58* | *55* | *46* | *68* | *59* | *55* | **259** | *242* | *229* |
| **Electricity Consumption (billion kilowatthours unless noted)** | | | | | | | | | | | | | | | |
| Retail Sales | **887** | **844** | **1,057** | **876** | *916* | *881* | *1,060* | *889* | *924* | *895* | *1,075* | *899* | **3,664** | *3,746* | *3,794* |
| Residential Sector | **340** | **334** | **453** | **334** | *376* | *341* | *445* | *339* | *376* | *347* | *452* | *344* | **1,462** | *1,501* | *1,518* |
| Commercial Sector | **314** | **293** | **360** | **309** | *305* | *304* | *362* | *313* | *311* | *310* | *369* | *318* | **1,276** | *1,284* | *1,307* |
| Industrial Sector | **231** | **216** | **242** | **231** | *234* | *234* | *251* | *235* | *236* | *236* | *253* | *237* | **920** | *954* | *962* |
| Transportation Sector | **2** | **1** | **2** | **2** | *2* | *2* | *2* | *2* | *2* | *2* | *2* | *2* | **7** | *7* | *6* |
| Direct Use (d) | **36** | **33** | **35** | **36** | *34* | *33* | *35* | *35* | *35* | *34* | *37* | *37* | **140** | *137* | *142* |
| Total Consumption | **923** | **877** | **1,092** | **912** | *951* | *914* | *1,094* | *925* | *959* | *929* | *1,112* | *936* | **3,804** | *3,883* | *3,936* |
| Average residential electricity usage per customer (kWh) | **2,527** | **2,480** | **3,366** | **2,481** | *2,747* | *2,495* | *3,256* | *2,483* | *2,716* | *2,507* | *3,266* | *2,484* | **10,854** | *10,981* | *10,973* |
| **End-of-period Fuel Inventories Held by Electric Power Sector** | | | | | | | | | | | | | | | |
| Coal (mmst) | **145.2** | **150.4** | **129.1** | **132.7** | *110.3* | *114.2* | *92.4* | *99.9* | *83.3* | *86.7* | *65.1* | *69.6* | **132.7** | *99.9* | *69.6* |
| Residual Fuel (mmb) | **8.3** | **8.5** | **8.2** | **8.3** | *8.0* | *8.2* | *8.4* | *8.9* | *8.4* | *8.3* | *8.4* | *8.8* | **8.3** | *8.9* | *8.8* |
| Distillate Fuel (mmb) | **16.5** | **16.5** | **17.0** | **16.8** | *16.8* | *16.7* | *16.6* | *16.8* | *16.7* | *16.5* | *16.5* | *16.8* | **16.8** | *16.8* | *16.8* |
| **Prices** | | | | | | | | | | | | | | | |
| **Power Generation Fuel Costs (dollars per million Btu)** | | | | | | | | | | | | | | | |
| Coal | **1.92** | **1.90** | **1.93** | **1.91** | *1.95* | *1.99* | *1.98* | *1.95* | *1.96* | *1.98* | *1.96* | *1.93* | **1.91** | *1.97* | *1.96* |
| Natural Gas | **2.41** | **2.10** | **2.27** | **2.87** | *4.15* | *3.10* | *3.22* | *3.43* | *3.75* | *3.37* | *3.36* | *3.58* | **2.40** | *3.46* | *3.50* |
| Residual Fuel Oil | **12.15** | **6.65** | **8.85** | **8.87** | *10.01* | *12.58* | *11.43* | *10.80* | *11.05* | *11.68* | *11.12* | *10.98* | **9.14** | *11.10* | *11.20* |
| Distillate Fuel Oil | **13.27** | **8.39** | **10.38** | **10.63** | *13.52* | *14.82* | *14.12* | *14.15* | *14.05* | *14.11* | *14.27* | *14.35* | **10.75** | *14.10* | *14.20* |
| **Retail Prices (cents per kilowatthour)** | | | | | | | | | | | | | | | |
| Residential Sector | **12.90** | **13.24** | **13.35** | **13.25** | *12.82* | *13.45* | *13.72* | *13.62* | *13.22* | *13.69* | *13.81* | *13.69* | **13.20** | *13.41* | *13.61* |
| Commercial Sector | **10.33** | **10.63** | **10.97** | **10.62** | *10.38* | *10.85* | *11.31* | *10.86* | *10.50* | *10.91* | *11.32* | *10.92* | **10.65** | *10.87* | *10.93* |
| Industrial Sector | **6.38** | **6.63** | **7.08** | **6.53** | *6.61* | *6.70* | *7.09* | *6.54* | *6.45* | *6.71* | *7.10* | *6.55* | **6.66** | *6.74* | *6.71* |
| **Wholesale Electricity Prices (dollars per megawatthour)** | | | | | | | | | | | | | | | |
| ERCOT North hub | **23.41** | **24.03** | **34.12** | **26.41** | *616.62* | *26.06* | *31.14* | *25.63* | *25.01* | *25.08* | *27.20* | *24.74* | **26.99** | *174.86* | *25.51* |
| CAISO SP15 zone | **28.64** | **19.21** | **61.94** | **42.80** | *46.18* | *33.86* | *43.24* | *35.87* | *36.25* | *33.53* | *45.09* | *35.59* | **38.15** | *39.79* | *37.61* |
| ISO-NE Internal hub | **24.61** | **20.25** | **27.20** | **34.03** | *55.56* | *29.35* | *32.10* | *37.83* | *44.16* | *28.87* | *31.75* | *34.04* | **26.52** | *38.71* | *34.71* |
| NYISO Hudson Valley zone | **21.82** | **18.13** | **24.38** | **27.05** | *43.08* | *26.07* | *29.01* | *28.49* | *30.71* | *27.36* | *29.66* | *26.90* | **22.85** | *31.66* | *28.66* |
| PJM Western hub | **22.47** | **20.79** | **28.24** | **26.44** | *35.40* | *27.79* | *31.79* | *28.18* | *31.05* | *29.08* | *32.60* | *28.86* | **24.49** | *30.79* | *30.40* |
| Midcontinent ISO Illinois hub | **24.43** | **23.00** | **29.35** | **24.94** | *45.86* | *28.07* | *30.59* | *28.16* | *29.98* | *29.62* | *32.01* | *29.45* | **25.43** | *33.17* | *30.27* |
| SPP ISO South hub | **20.06** | **19.54** | **26.27** | **24.34** | *251.85* | *23.96* | *28.48* | *24.46* | *25.31* | *25.70* | *30.63* | *25.87* | **22.55** | *82.19* | *26.88* |
| SERC index, Into Southern | **23.58** | **18.23** | **23.47** | **25.21** | *25.43* | *24.43* | *27.78* | *25.69* | *25.74* | *25.69* | *27.76* | *26.07* | **22.62** | *25.83* | *26.32* |
| FRCC index, Florida Reliability | **26.24** | **18.53** | **23.75** | **25.39** | *27.42* | *26.21* | *28.09* | *28.20* | *27.81* | *27.62* | *28.88* | *28.36* | **23.48** | *27.48* | *28.17* |
| Northwest index, Mid-Columbia | **22.77** | **14.49** | **33.56** | **31.00** | *33.65* | *23.77* | *30.17* | *27.47* | *26.59* | *23.09* | *30.64* | *27.16* | **25.46** | *28.77* | *26.87* |
| Southwest index, Palo Verde | **22.07** | **19.60** | **80.81** | **36.10** | *42.66* | *28.11* | *33.09* | *29.47* | *30.09* | *26.17* | *33.60* | *29.15* | **39.64** | *33.33* | *29.75* |

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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.

**Forecasts:** EIA Short-Term Integrated Forecasting System.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **Residential Sector** | | | | | | | | | | | | | | | |
| New England | **11.7** | **10.9** | **14.6** | **11.0** | *12.9* | *11.0* | *13.7* | *11.2* | *13.0* | *11.2* | *13.7* | *11.1* | **48.2** | *48.8* | *49.1* |
| Middle Atlantic | **32.2** | **30.6** | **43.5** | **30.9** | *35.8* | *30.5* | *40.5* | *31.4* | *36.0* | *30.9* | *40.6* | *31.4* | **137.1** | *138.2* | *138.9* |
| E. N. Central | **46.4** | **43.7** | **56.5** | **43.4** | *50.2* | *44.0* | *54.7* | *44.8* | *50.5* | *44.8* | *55.2* | *45.0* | **190.0** | *193.7* | *195.6* |
| W. N. Central | **27.6** | **23.7** | **30.0** | **24.5** | *29.9* | *24.3* | *30.4* | *26.0* | *32.3* | *27.0* | *33.0* | *27.5* | **105.8** | *110.6* | *119.7* |
| S. Atlantic | **84.3** | **86.3** | **114.7** | **85.3** | *94.7* | *88.5* | *113.2* | *85.5* | *94.2* | *89.7* | *114.2* | *86.3* | **370.6** | *382.1* | *384.5* |
| E. S. Central | **29.0** | **26.0** | **37.2** | **26.6** | *33.6* | *27.2* | *38.1* | *27.3* | *33.0* | *27.6* | *38.5* | *27.5* | **118.8** | *126.2* | *126.6* |
| W. S. Central | **48.8** | **52.9** | **76.4** | **48.5** | *55.6* | *55.3* | *77.7* | *50.3* | *53.0* | *55.1* | *79.2* | *51.3* | **226.5** | *238.9* | *238.5* |
| Mountain | **22.5** | **25.7** | **36.2** | **24.0** | *23.2* | *25.8* | *34.2* | *24.0* | *23.3* | *26.0* | *34.6* | *24.3* | **108.4** | *107.2* | *108.3* |
| Pacific contiguous | **36.7** | **33.2** | **43.0** | **38.6** | *38.4* | *33.3* | *41.5* | *37.6* | *39.1* | *33.5* | *41.6* | *37.8* | **151.5** | *150.8* | *151.9* |
| AK and HI | **1.3** | **1.1** | **1.2** | **1.3** | *1.3* | *1.1* | *1.2* | *1.3* | *1.3* | *1.1* | *1.2* | *1.3* | **4.9** | *4.9* | *4.9* |
| Total | **340.3** | **334.1** | **453.4** | **334.1** | *375.6* | *341.2* | *445.2* | *339.4* | *375.7* | *346.9* | *451.9* | *343.6* | **1,462.0** | *1,501.5* | *1,518.1* |
| **Commercial Sector** | | | | | | | | | | | | | | | |
| New England | **12.3** | **10.6** | **13.2** | **11.4** | *11.9* | *10.7* | *12.8* | *11.5* | *12.0* | *10.7* | *12.9* | *11.5* | **47.5** | *46.8* | *47.1* |
| Middle Atlantic | **35.9** | **31.0** | **38.9** | **33.2** | *34.2* | *33.4* | *38.5* | *34.0* | *35.4* | *34.5* | *39.6* | *34.8* | **138.9** | *140.1* | *144.3* |
| E. N. Central | **43.1** | **38.3** | **47.3** | **41.0** | *42.2* | *40.5* | *47.5* | *42.0* | *43.3* | *41.6* | *48.7* | *42.8* | **169.7** | *172.2* | *176.4* |
| W. N. Central | **24.7** | **21.6** | **26.3** | **23.4** | *24.6* | *22.0* | *26.7* | *23.8* | *25.2* | *22.7* | *27.6* | *24.5* | **96.0** | *97.0* | *100.1* |
| S. Atlantic | **72.0** | **70.0** | **85.7** | **72.4** | *70.4* | *73.0* | *86.6* | *73.0* | *71.9* | *74.5* | *88.1* | *74.1* | **300.2** | *302.9* | *308.6* |
| E. S. Central | **20.7** | **19.4** | **25.3** | **20.4** | *20.4* | *20.4* | *25.8* | *20.7* | *20.6* | *20.6* | *26.2* | *20.9* | **85.8** | *87.3* | *88.3* |
| W. S. Central | **44.3** | **44.6** | **55.0** | **45.4** | *43.4* | *46.2* | *56.4* | *46.9* | *43.8* | *47.0* | *57.6* | *47.8* | **189.4** | *192.8* | *196.2* |
| Mountain | **22.4** | **22.1** | **27.4** | **22.8** | *21.7* | *22.9* | *27.1* | *23.0* | *22.2* | *23.5* | *27.8* | *23.6* | **94.7** | *94.7* | *97.1* |
| Pacific contiguous | **37.0** | **33.9** | **39.8** | **37.6** | *35.3* | *33.8* | *39.0* | *36.6* | *35.0* | *33.7* | *38.8* | *36.3* | **148.3** | *144.7* | *143.8* |
| AK and HI | **1.4** | **1.2** | **1.3** | **1.3** | *1.3* | *1.4* | *1.5* | *1.5* | *1.4* | *1.4* | *1.4* | *1.4* | **5.2** | *5.6* | *5.7* |
| Total | **313.7** | **292.7** | **360.3** | **308.9** | *305.2* | *304.1* | *361.9* | *313.0* | *310.8* | *310.2* | *368.7* | *317.6* | **1,275.7** | *1,284.2* | *1,307.4* |
| **Industrial Sector** | | | | | | | | | | | | | | | |
| New England | **3.7** | **3.5** | **3.9** | **3.7** | *3.6* | *3.6* | *4.0* | *3.7* | *3.6* | *3.6* | *3.9* | *3.6* | **14.8** | *14.9* | *14.6* |
| Middle Atlantic | **18.0** | **16.2** | **18.6** | **17.6** | *19.0* | *17.5* | *19.1* | *17.8* | *19.2* | *17.7* | *19.3* | *18.0* | **70.4** | *73.4* | *74.1* |
| E. N. Central | **44.0** | **37.7** | **44.5** | **42.5** | *45.2* | *41.4* | *46.8* | *43.3* | *45.5* | *41.8* | *47.0* | *43.4* | **168.7** | *176.7* | *177.6* |
| W. N. Central | **21.7** | **20.3** | **23.2** | **22.1** | *22.1* | *22.8* | *24.5* | *22.8* | *22.6* | *23.3* | *25.0* | *23.1* | **87.3** | *92.2* | *94.0* |
| S. Atlantic | **32.8** | **31.0** | **34.2** | **33.6** | *33.3* | *33.4* | *35.5* | *34.0* | *33.2* | *33.5* | *35.4* | *33.9* | **131.7** | *136.2* | *135.9* |
| E. S. Central | **23.3** | **21.4** | **23.4** | **22.9** | *23.2* | *23.4* | *24.3* | *23.3* | *23.3* | *23.6* | *24.4* | *23.3* | **91.1** | *94.2* | *94.6* |
| W. S. Central | **46.6** | **44.9** | **47.9** | **48.7** | *47.5* | *48.8* | *49.9* | *50.0* | *48.5* | *50.0* | *51.1* | *51.0* | **188.1** | *196.2* | *200.6* |
| Mountain | **20.1** | **20.3** | **22.6** | **19.9** | *19.9* | *21.3* | *23.3* | *20.3* | *20.2* | *21.7* | *23.7* | *20.6* | **82.9** | *84.7* | *86.1* |
| Pacific contiguous | **19.2** | **19.7** | **22.1** | **19.0** | *18.9* | *20.4* | *22.4* | *18.9* | *18.7* | *20.2* | *22.1* | *18.7* | **80.1** | *80.6* | *79.7* |
| AK and HI | **1.2** | **1.0** | **1.2** | **1.2** | *1.1* | *1.1* | *1.2* | *1.2* | *1.1* | *1.1* | *1.2* | *1.2* | **4.5** | *4.6* | *4.6* |
| Total | **230.7** | **216.0** | **241.6** | **231.2** | *233.9* | *233.6* | *251.0* | *235.2* | *235.9* | *236.4* | *253.0* | *236.6* | **919.5** | *953.7* | *961.9* |
| **Total All Sectors** (a) | | | | | | | | | | | | | | | |
| New England | **27.8** | **25.1** | **31.9** | **26.3** | *28.6* | *25.4* | *30.6* | *26.4* | *28.7* | *25.6* | *30.6* | *26.4* | **111.0** | *111.0* | *111.3* |
| Middle Atlantic | **86.9** | **78.5** | **101.8** | **82.5** | *90.0* | *82.1* | *98.9* | *84.0* | *91.4* | *83.8* | *100.3* | *84.9* | **349.7** | *355.0* | *360.4* |
| E. N. Central | **133.7** | **119.7** | **148.4** | **127.0** | *137.8* | *126.0* | *149.2* | *130.2* | *139.4* | *128.3* | *151.0* | *131.3* | **528.8** | *543.2* | *550.1* |
| W. N. Central | **74.0** | **65.7** | **79.5** | **70.0** | *76.6* | *69.1* | *81.6* | *72.6* | *80.1* | *73.1* | *85.7* | *75.0* | **289.2** | *299.9* | *313.9* |
| S. Atlantic | **189.5** | **187.6** | **235.0** | **191.6** | *198.7* | *195.2* | *235.6* | *192.8* | *199.6* | *197.9* | *238.0* | *194.5* | **803.7** | *822.3* | *830.1* |
| E. S. Central | **73.0** | **66.8** | **85.9** | **69.9** | *77.2* | *71.0* | *88.3* | *71.2* | *77.0* | *71.8* | *89.0* | *71.7* | **295.7** | *307.7* | *309.5* |
| W. S. Central | **139.8** | **142.4** | **179.4** | **142.7** | *146.4* | *150.4* | *184.1* | *147.3* | *145.4* | *152.2* | *187.9* | *150.2* | **604.2** | *628.2* | *635.6* |
| Mountain | **65.0** | **68.2** | **86.3** | **66.7** | *64.7* | *70.0* | *84.6* | *67.3* | *65.7* | *71.2* | *86.1* | *68.5* | **286.2** | *286.7* | *291.6* |
| Pacific contiguous | **93.1** | **87.0** | **105.1** | **95.4** | *92.8* | *87.7* | *103.0* | *93.3* | *93.0* | *87.5* | *102.7* | *93.0* | **380.6** | *376.9* | *376.1* |
| AK and HI | **3.8** | **3.4** | **3.6** | **3.8** | *3.7* | *3.6* | *3.8* | *4.0* | *3.8* | *3.6* | *3.8* | *3.9* | **14.6** | *15.2* | *15.2* |
| Total | **886.6** | **844.3** | **1,056.9** | **875.9** | *916.5* | *880.5* | *1,059.7* | *889.2* | *924.1* | *895.0* | *1,075.1* | *899.4* | **3,663.7** | *3,745.9* | *3,793.7* |

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

- = no data available

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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 Energy Information Administration databases supporting the following reports: *Electric Power Monthly* , DOE/EIA-0226; and *Electric*

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

**Forecasts:** EIA Short-Term Integrated Forecasting System.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **Residential Sector** | | | | | | | | | | | | | | | |
| New England | **21.76** | **21.33** | **20.96** | **20.79** | *21.53* | *21.72* | *21.97* | *22.29* | *23.38* | *23.56* | *23.63* | *23.64* | **21.20** | *21.87* | *23.55* |
| Middle Atlantic | **15.47** | **15.97** | **16.18** | **15.98** | *15.54* | *16.37* | *16.81* | *16.53* | *15.85* | *16.48* | *16.87* | *16.60* | **15.92** | *16.32* | *16.46* |
| E. N. Central | **13.13** | **13.76** | **13.34** | **13.74** | *13.20* | *13.99* | *13.69* | *14.03* | *13.51* | *14.22* | *13.86* | *14.21* | **13.48** | *13.71* | *13.93* |
| W. N. Central | **10.98** | **12.59** | **12.89** | **11.46** | *11.11* | *13.08* | *13.53* | *11.61* | *10.78* | *12.68* | *13.04* | *11.43* | **11.99** | *12.33* | *11.98* |
| S. Atlantic | **11.79** | **11.80** | **12.05** | **11.83** | *11.53* | *11.74* | *12.19* | *12.08* | *11.90* | *12.07* | *12.45* | *12.23* | **11.88** | *11.90* | *12.18* |
| E. S. Central | **11.24** | **11.56** | **11.28** | **11.41** | *10.99* | *11.61* | *11.48* | *11.65* | *11.28* | *11.79* | *11.60* | *11.76* | **11.36** | *11.42* | *11.59* |
| W. S. Central | **11.04** | **11.42** | **11.30** | **11.38** | *10.72* | *11.59* | *11.88* | *12.05* | *11.17* | *11.39* | *11.45* | *11.65* | **11.29** | *11.58* | *11.42* |
| Mountain | **11.42** | **12.08** | **12.19** | **11.63** | *11.63* | *12.31* | *12.46* | *11.86* | *11.83* | *12.44* | *12.52* | *11.90* | **11.88** | *12.11* | *12.21* |
| Pacific | **15.69** | **16.18** | **17.78** | **16.79** | *16.32* | *17.05* | *18.36* | *17.17* | *17.00* | *18.01* | *19.01* | *17.45* | **16.67** | *17.25* | *17.88* |
| U.S. Average | **12.90** | **13.24** | **13.35** | **13.25** | *12.82* | *13.45* | *13.72* | *13.62* | *13.22* | *13.69* | *13.81* | *13.69* | **13.20** | *13.41* | *13.61* |
| **Commercial Sector** | | | | | | | | | | | | | | | |
| New England | **16.24** | **15.66** | **15.98** | **15.67** | *16.03* | *15.86* | *16.61* | *16.45* | *16.87* | *16.57* | *17.15* | *16.83* | **15.90** | *16.25* | *16.87* |
| Middle Atlantic | **11.69** | **12.53** | **13.21** | **12.40** | *11.72* | *12.85* | *13.61* | *12.77* | *11.86* | *12.92* | *13.53* | *12.69* | **12.47** | *12.76* | *12.77* |
| E. N. Central | **9.95** | **10.37** | **10.19** | **10.29** | *10.06* | *10.63* | *10.52* | *10.60* | *10.22* | *10.69* | *10.57* | *10.67* | **10.19** | *10.46* | *10.54* |
| W. N. Central | **9.07** | **10.12** | **10.33** | **9.11** | *9.36* | *10.76* | *11.14* | *9.47* | *9.08* | *10.28* | *10.61* | *9.25* | **9.66** | *10.19* | *9.82* |
| S. Atlantic | **9.23** | **9.02** | **9.09** | **9.20** | *9.03* | *8.93* | *9.18* | *9.40* | *9.18* | *9.00* | *9.22* | *9.41* | **9.13** | *9.14* | *9.21* |
| E. S. Central | **10.75** | **10.83** | **10.60** | **10.67** | *10.73* | *10.85* | *10.79* | *10.92* | *10.93* | *10.99* | *10.92* | *11.06* | **10.70** | *10.82* | *10.97* |
| W. S. Central | **7.84** | **7.87** | **7.90** | **7.98** | *8.07* | *8.28* | *8.30* | *7.91* | *7.94* | *8.33* | *8.42* | *8.17* | **7.90** | *8.15* | *8.23* |
| Mountain | **9.01** | **9.82** | **10.09** | **9.30** | *9.16* | *10.02* | *10.33* | *9.39* | *9.15* | *9.95* | *10.21* | *9.36* | **9.58** | *9.76* | *9.70* |
| Pacific | **13.50** | **14.79** | **17.20** | **15.05** | *13.79* | *15.23* | *17.93* | *15.49* | *14.13* | *15.57* | *18.12* | *15.74* | **15.18** | *15.67* | *15.95* |
| U.S. Average | **10.33** | **10.63** | **10.97** | **10.62** | *10.38* | *10.85* | *11.31* | *10.86* | *10.50* | *10.91* | *11.32* | *10.92* | **10.65** | *10.87* | *10.93* |
| **Industrial Sector** | | | | | | | | | | | | | | | |
| New England | **12.30** | **12.23** | **12.40** | **12.00** | *11.91* | *12.26* | *12.63* | *12.28* | *12.18* | *12.47* | *12.77* | *12.40* | **12.23** | *12.28* | *12.46* |
| Middle Atlantic | **6.36** | **6.36** | **6.41** | **6.29** | *6.47* | *6.37* | *6.33* | *6.18* | *6.24* | *6.25* | *6.20* | *6.04* | **6.35** | *6.34* | *6.18* |
| E. N. Central | **6.51** | **6.78** | **6.75** | **6.62** | *6.72* | *6.92* | *6.82* | *6.71* | *6.68* | *6.99* | *6.89* | *6.77* | **6.66** | *6.79* | *6.83* |
| W. N. Central | **6.94** | **7.32** | **7.89** | **6.62** | *7.25* | *7.37* | *7.99* | *6.74* | *7.21* | *7.50* | *8.13* | *6.86* | **7.20** | *7.35* | *7.44* |
| S. Atlantic | **5.99** | **6.10** | **6.50** | **6.08** | *6.02* | *6.30* | *6.60* | *6.13* | *6.03* | *6.32* | *6.61* | *6.13* | **6.17** | *6.27* | *6.28* |
| E. S. Central | **5.45** | **5.51** | **5.70** | **5.52** | *5.48* | *5.60* | *5.74* | *5.51* | *5.47* | *5.60* | *5.73* | *5.51* | **5.54** | *5.59* | *5.58* |
| W. S. Central | **5.05** | **4.98** | **5.21** | **5.03** | *5.56* | *4.79* | *5.05* | *4.89* | *4.85* | *4.67* | *4.90* | *4.77* | **5.07** | *5.07* | *4.80* |
| Mountain | **5.73** | **6.16** | **6.91** | **5.94** | *5.84* | *6.29* | *6.84* | *5.95* | *5.84* | *6.31* | *6.88* | *5.98* | **6.21** | *6.25* | *6.28* |
| Pacific | **8.97** | **10.33** | **12.38** | **10.94** | *9.71* | *10.87* | *12.60* | *11.24* | *9.95* | *11.20* | *13.01* | *11.59* | **10.71** | *11.16* | *11.50* |
| U.S. Average | **6.38** | **6.63** | **7.08** | **6.53** | *6.61* | *6.70* | *7.09* | *6.54* | *6.45* | *6.71* | *7.10* | *6.55* | **6.66** | *6.74* | *6.71* |
| **All Sectors** (a) | | | | | | | | | | | | | | | |
| New England | **18.02** | **17.62** | **17.79** | **17.44** | *18.12* | *17.94* | *18.52* | *18.34* | *19.24* | *19.05* | *19.49* | *19.08* | **17.72** | *18.24* | *19.22* |
| Middle Atlantic | **11.97** | **12.58** | **13.23** | **12.43** | *12.13* | *12.78* | *13.51* | *12.78* | *12.25* | *12.82* | *13.47* | *12.74* | **12.58** | *12.82* | *12.84* |
| E. N. Central | **9.92** | **10.47** | **10.36** | **10.24** | *10.11* | *10.58* | *10.52* | *10.48* | *10.25* | *10.71* | *10.62* | *10.59* | **10.24** | *10.42* | *10.54* |
| W. N. Central | **9.16** | **10.15** | **10.58** | **9.15** | *9.43* | *10.46* | *11.09* | *9.38* | *9.24* | *10.28* | *10.82* | *9.31* | **9.77** | *10.11* | *9.93* |
| S. Atlantic | **9.80** | **9.82** | **10.16** | **9.82** | *9.72* | *9.76* | *10.24* | *10.01* | *9.94* | *9.94* | *10.38* | *10.09* | **9.91** | *9.94* | *10.10* |
| E. S. Central | **9.25** | **9.41** | **9.56** | **9.26** | *9.27* | *9.41* | *9.70* | *9.44* | *9.43* | *9.52* | *9.79* | *9.53* | **9.38** | *9.46* | *9.58* |
| W. S. Central | **8.03** | **8.28** | **8.63** | **8.12** | *8.26* | *8.37* | *8.93* | *8.30* | *8.08* | *8.23* | *8.74* | *8.21* | **8.29** | *8.49* | *8.34* |
| Mountain | **8.83** | **9.58** | **10.14** | **9.14** | *9.03* | *9.73* | *10.23* | *9.24* | *9.09* | *9.75* | *10.22* | *9.25* | **9.48** | *9.60* | *9.62* |
| Pacific | **13.41** | **14.30** | **16.41** | **14.92** | *14.00* | *14.90* | *16.93* | *15.29* | *14.48* | *15.48* | *17.36* | *15.59* | **14.82** | *15.33* | *15.77* |
| U.S. Average | **10.29** | **10.63** | **11.11** | **10.56** | *10.42* | *10.76* | *11.32* | *10.77* | *10.57* | *10.88* | *11.37* | *10.83* | **10.67** | *10.84* | *10.93* |

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

- = no data available

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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

Prices are not adjusted for inflation.

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*

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

**Forecasts:** EIA Short-Term Integrated Forecasting System.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **United States** | | | | | | | | | | | | | | | |
| Natural Gas | **354.7** | **342.6** | **474.2** | **340.7** | *338.9* | *323.2* | *418.0* | *323.5* | *316.7* | *308.3* | *427.2* | *330.1* | **1,512.2** | *1,403.6* | *1,382.3* |
| Coal | **170.3** | **151.2** | **248.2** | **198.6** | *216.9* | *183.4* | *278.1* | *209.1* | *225.8* | *197.3* | *276.4* | *204.1* | **768.2** | *887.4* | *903.6* |
| Nuclear | **204.1** | **190.7** | **204.1** | **191.0** | *197.9* | *187.7* | *205.3* | *188.1* | *188.9* | *185.2* | *196.8* | *184.7* | **789.9** | *779.0* | *755.6* |
| Renewable Energy Sources: | **190.1** | **206.5** | **176.9** | **187.0** | *202.5* | *231.9* | *192.9* | *203.7* | *216.8* | *250.8* | *210.0* | *215.7* | **760.6** | *831.1* | *893.3* |
| Conventional Hydropower | **75.0** | **81.3** | **70.6** | **63.0** | *73.1* | *81.6* | *65.1* | *58.7* | *69.6* | *81.3* | *65.5* | *59.2* | **289.9** | *278.3* | *275.7* |
| Wind | **87.4** | **87.1** | **67.5** | **94.7** | *94.1* | *102.6* | *80.0* | *108.8* | *105.8* | *109.2* | *86.0* | *114.9* | **336.7** | *385.6* | *415.9* |
| Solar (a) | **16.7** | **27.3** | **27.6** | **18.5** | *21.9* | *35.1* | *36.2* | *24.7* | *28.7* | *45.8* | *46.4* | *29.7* | **90.1** | *117.9* | *150.7* |
| Biomass | **7.1** | **6.7** | **7.0** | **6.7** | *9.4* | *8.4* | *7.3* | *7.4* | *8.6* | *10.1* | *7.8* | *7.6* | **27.5** | *32.7* | *34.2* |
| Geothermal | **3.9** | **4.2** | **4.2** | **4.2** | *4.0* | *4.2* | *4.2* | *4.2* | *4.1* | *4.3* | *4.3* | *4.3* | **16.5** | *16.6* | *16.9* |
| Pumped Storage Hydropower | **-1.0** | **-1.2** | **-2.0** | **-1.2** | *-1.2* | *-1.3* | *-2.1* | *-1.1* | *-0.9* | *-1.3* | *-2.2* | *-1.1* | **-5.3** | *-5.6* | *-5.5* |
| Petroleum (b) | **4.0** | **3.9** | **4.5** | **4.0** | *4.3* | *3.8* | *4.1* | *3.7* | *3.5* | *4.1* | *4.3* | *4.2* | **16.5** | *16.0* | *16.0* |
| Other Gases | **1.0** | **0.4** | **0.8** | **0.9** | *1.1* | *0.3* | *0.6* | *0.9* | *1.0* | *0.3* | *0.7* | *0.9* | **3.1** | *2.9* | *2.8* |
| Other Nonrenewable Fuels (c) | **1.9** | **1.8** | **1.9** | **1.9** | *1.8* | *1.8* | *1.7* | *1.8* | *1.7* | *1.8* | *1.7* | *1.9* | **7.5** | *7.2* | *7.2* |
| Total Generation | **925.2** | **896.1** | **1,108.5** | **922.9** | *962.2* | *930.8* | *1,098.6* | *929.7* | *953.5* | *946.5* | *1,114.8* | *940.5* | **3,852.8** | *3,921.4* | *3,955.3* |
| **New England (ISO-NE)** | | | | | | | | | | | | | | | |
| Natural Gas | **10.8** | **10.0** | **16.1** | **10.8** | *10.7* | *9.5* | *16.1* | *12.0* | *11.2* | *12.1* | *17.2* | *12.0* | **47.7** | *48.3* | *52.5* |
| Coal | **0.1** | **0.0** | **0.0** | **0.1** | *0.3* | *0.0* | *0.0* | *0.1* | *0.1* | *0.0* | *0.0* | *0.1* | **0.2** | *0.4* | *0.2* |
| Nuclear | **7.3** | **4.9** | **7.3** | **6.1** | *7.1* | *7.1* | *7.2* | *5.6* | *7.0* | *6.2* | *7.2* | *7.2* | **25.6** | *27.0* | *27.6* |
| Conventional hydropower | **2.2** | **2.1** | **1.8** | **1.7** | *2.0* | *2.3* | *1.3* | *1.8* | *2.0* | *2.3* | *1.3* | *1.8* | **7.8** | *7.4* | *7.4* |
| Nonhydro renewables (d) | **2.6** | **2.7** | **2.4** | **2.6** | *3.6* | *3.0* | *2.6* | *3.3* | *3.6* | *3.4* | *2.8* | *3.4* | **10.3** | *12.5* | *13.2* |
| Other energy sources (e) | **0.3** | **0.3** | **0.4** | **0.4** | *0.8* | *0.4* | *0.3* | *0.4* | *0.4* | *0.4* | *0.4* | *0.4* | **1.4** | *1.9* | *1.6* |
| Total generation | **23.2** | **20.1** | **28.0** | **21.7** | *24.5* | *22.3* | *27.5* | *23.1* | *24.2* | *24.3* | *28.9* | *24.9* | **92.9** | *97.5* | *102.4* |
| Net energy for load (f) | **27.9** | **25.2** | **32.3** | **27.6** | *30.1* | *27.0* | *31.9* | *28.2* | *29.7* | *27.2* | *32.1* | *28.4* | **113.0** | *117.2* | *117.4* |
| **New York (NYISO)** | | | | | | | | | | | | | | | |
| Natural Gas | **12.4** | **11.4** | **20.6** | **12.8** | *15.5* | *15.8* | *19.7* | *14.8* | *18.3* | *15.3* | *21.3* | *17.0* | **57.1** | *65.8* | *71.8* |
| Coal | **0.1** | **0.0** | **0.0** | **0.0** | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | *0.0* | **0.1** | *0.0* | *0.0* |
| Nuclear | **10.7** | **9.2** | **9.0** | **9.6** | *9.3* | *7.5* | *7.1* | *6.8* | *6.5* | *7.0* | *6.7* | *7.0* | **38.5** | *30.7* | *27.2* |
| Conventional hydropower | **8.0** | **8.0** | **7.8** | **7.6** | *7.3* | *7.2* | *7.1* | *7.3* | *7.0* | *7.0* | *7.0* | *7.2* | **31.4** | *28.9* | *28.3* |
| Nonhydro renewables (d) | **2.0** | **1.9** | **1.7** | **2.1** | *2.3* | *2.1* | *1.8* | *2.3* | *2.4* | *2.3* | *2.1* | *2.9* | **7.6** | *8.6* | *9.7* |
| Other energy sources (e) | **0.2** | **0.1** | **0.1** | **0.2** | *0.2* | *0.2* | *0.1* | *0.1* | *0.2* | *0.1* | *0.1* | *0.2* | **0.6** | *0.6* | *0.6* |
| Total generation | **33.4** | **30.6** | **39.2** | **32.2** | *34.6* | *32.9* | *35.9* | *31.3* | *34.4* | *31.8* | *37.3* | *34.2* | **135.4** | *134.6* | *137.6* |
| Net energy for load (f) | **35.3** | **32.4** | **42.9** | **34.7** | *37.5* | *35.4* | *42.5* | *36.2* | *37.4* | *36.0* | *43.1* | *36.7* | **145.3** | *151.6* | *153.2* |
| **Mid-Atlantic (PJM)** | | | | | | | | | | | | | | | |
| Natural Gas | **78.4** | **69.9** | **97.6** | **69.9** | *79.9* | *74.3* | *83.3* | *72.2* | *74.5* | *75.7* | *91.6* | *82.5* | **315.8** | *309.7* | *324.3* |
| Coal | **33.7** | **29.7** | **46.8** | **38.1** | *45.6* | *39.0* | *57.7* | *47.7* | *52.5* | *41.6* | *53.8* | *38.8* | **148.3** | *190.0* | *186.6* |
| Nuclear | **68.9** | **67.1** | **70.9** | **68.9** | *68.3* | *65.8* | *72.4* | *62.4* | *59.0* | *59.2* | *62.8* | *58.0* | **275.7** | *269.0* | *239.0* |
| Conventional hydropower | **3.1** | **2.9** | **2.1** | **1.9** | *2.6* | *2.7* | *1.6* | *2.1* | *2.6* | *2.7* | *1.6* | *2.1* | **9.9** | *9.0* | *9.1* |
| Nonhydro renewables (d) | **10.4** | **10.2** | **7.5** | **10.9** | *11.9* | *12.2* | *8.9* | *12.3* | *12.6* | *13.2* | *9.6* | *13.0* | **39.1** | *45.3* | *48.4* |
| Other energy sources (e) | **0.6** | **0.5** | **0.4** | **0.7** | *0.6* | *0.3* | *0.1* | *0.9* | *0.7* | *0.4* | *0.3* | *0.9* | **2.2** | *1.9* | *2.3* |
| Total generation | **195.1** | **180.2** | **225.3** | **190.5** | *208.9* | *194.3* | *224.1* | *197.6* | *202.0* | *192.8* | *219.7* | *195.3* | **791.1** | *824.9* | *809.7* |
| Net energy for load (f) | **182.5** | **163.5** | **209.4** | **177.0** | *198.6* | *173.2* | *205.3* | *180.6* | *196.5* | *176.2* | *208.1* | *182.7* | **732.4** | *757.7* | *763.5* |
| **Southeast (SERC)** | | | | | | | | | | | | | | | |
| Natural Gas | **61.9** | **59.1** | **74.7** | **58.5** | *61.7* | *56.5* | *68.4* | *55.3* | *61.2* | *54.3* | *68.3* | *51.3* | **254.2** | *241.9* | *235.1* |
| Coal | **23.8** | **22.1** | **44.4** | **28.0** | *30.7* | *28.1* | *49.0* | *33.0* | *31.9* | *32.8* | *51.9* | *37.5* | **118.3** | *140.7* | *154.0* |
| Nuclear | **53.0** | **50.5** | **54.1** | **52.5** | *53.2* | *52.3* | *55.3* | *53.5* | *54.0* | *55.1* | *58.2* | *55.8* | **210.1** | *214.3* | *223.1* |
| Conventional hydropower | **11.1** | **10.2** | **8.8** | **8.6** | *10.3* | *7.6* | *6.7* | *7.8* | *10.2* | *7.6* | *6.7* | *7.9* | **38.7** | *32.5* | *32.4* |
| Nonhydro renewables (d) | **3.4** | **5.0** | **5.0** | **3.9** | *4.3* | *5.8* | *5.8* | *4.4* | *4.7* | *7.3* | *7.7* | *5.4* | **17.4** | *20.4* | *25.1* |
| Other energy sources (e) | **-0.1** | **-0.3** | **-0.6** | **-0.2** | *-0.1* | *-0.4* | *-0.6* | *-0.2* | *0.0* | *-0.5* | *-0.9* | *-0.2* | **-1.1** | *-1.4* | *-1.6* |
| Total generation | **153.1** | **146.7** | **186.5** | **151.3** | *160.1* | *149.9* | *184.6* | *153.9* | *161.9* | *156.6* | *191.9* | *157.6* | **637.6** | *648.5* | *668.1* |
| Net energy for load (f) | **156.8** | **152.5** | **186.5** | **153.0** | *162.0* | *155.3* | *186.0* | *155.4* | *163.0* | *160.0* | *190.1* | *158.2* | **648.7** | *658.8* | *671.5* |
| **Florida (FRCC)** | | | | | | | | | | | | | | | |
| Natural Gas | **40.0** | **45.7** | **52.8** | **41.0** | *35.7* | *42.3* | *46.7* | *36.0* | *36.1* | *41.3* | *46.7* | *36.4* | **179.5** | *160.7* | *160.5* |
| Coal | **2.1** | **3.5** | **5.7** | **4.6** | *4.2* | *5.4* | *5.4* | *4.4* | *3.6* | *5.0* | *5.4* | *3.8* | **15.9** | *19.5* | *17.8* |
| Nuclear | **7.3** | **7.6** | **7.6** | **7.0** | *7.9* | *7.1* | *7.9* | *6.9* | *7.9* | *7.3* | *8.1* | *7.2* | **29.4** | *29.8* | *30.4* |
| Conventional hydropower | **0.1** | **0.1** | **0.0** | **0.0** | *0.1* | *0.0* | *0.0* | *0.0* | *0.1* | *0.0* | *0.0* | *0.0* | **0.2** | *0.2* | *0.2* |
| Nonhydro renewables (d) | **1.8** | **2.4** | **2.3** | **1.9** | *2.8* | *4.2* | *3.0* | *2.6* | *3.3* | *6.0* | *3.4* | *2.7* | **8.4** | *12.6* | *15.4* |
| Other energy sources (e) | **0.9** | **0.8** | **0.9** | **0.7** | *0.9* | *0.7* | *0.8* | *0.6* | *0.9* | *0.7* | *0.8* | *0.6* | **3.3** | *3.1* | *3.1* |
| Total generation | **52.1** | **60.0** | **69.3** | **55.2** | *51.5* | *59.8* | *63.9* | *50.6* | *51.9* | *60.3* | *64.3* | *50.8* | **236.7** | *225.9* | *227.3* |
| Net energy for load (f) | **49.9** | **54.2** | **72.0** | **56.2** | *49.0* | *58.0* | *66.8* | *52.3* | *48.2* | *58.5* | *67.3* | *52.7* | **232.4** | *226.0* | *226.7* |

(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.

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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; and *Electric Power Annual*, DOE/EIA-0348.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **Midwest (MISO)** | | | | | | | | | | | | | | | |
| Natural Gas | **43.9** | **43.2** | **53.4** | **37.7** | *39.8* | *38.8* | *44.0* | *34.4* | *35.8* | *37.5* | *49.8* | *38.8* | **178.3** | *157.0* | *161.9* |
| Coal | **51.0** | **41.1** | **68.5** | **57.8** | *64.8* | *50.5* | *78.0* | *57.6* | *67.5* | *54.0* | *77.3* | *54.8* | **218.4** | *250.9* | *253.6* |
| Nuclear | **26.6** | **22.9** | **24.4** | **21.2** | *22.8* | *21.3* | *24.8* | *24.2* | *24.0* | *22.3* | *23.5* | *22.7* | **95.1** | *93.1* | *92.4* |
| Conventional hydropower | **3.1** | **3.2** | **2.8** | **2.7** | *2.8* | *3.0* | *2.4* | *2.2* | *2.4* | *2.8* | *2.3* | *2.2* | **11.8** | *10.4* | *9.7* |
| Nonhydro renewables (d) | **20.8** | **20.1** | **16.2** | **24.2** | *23.0* | *24.5* | *19.1* | *26.6* | *24.6* | *25.9* | *20.6* | *27.5* | **81.3** | *93.2* | *98.6* |
| Other energy sources (e) | **1.4** | **1.3** | **1.3** | **1.2** | *1.3* | *1.2* | *1.0* | *0.9* | *0.8* | *1.5* | *1.1* | *1.3* | **5.2** | *4.4* | *4.7* |
| Total generation | **146.9** | **131.8** | **166.6** | **144.8** | *154.6* | *139.2* | *169.2* | *145.8* | *155.2* | *144.0* | *174.6* | *147.2* | **590.0** | *608.9* | *621.0* |
| Net energy for load (f) | **153.0** | **141.5** | **174.5** | **149.8** | *160.6* | *151.0* | *175.5* | *154.0* | *157.9* | *153.9* | *178.8* | *156.5* | **618.8** | *641.2* | *647.1* |
| **Central (Southwest Power Pool)** | | | | | | | | | | | | | | | |
| Natural Gas | **17.5** | **16.3** | **24.2** | **13.7** | *15.7* | *13.0* | *20.9* | *14.4* | *15.4* | *12.6* | *22.7* | *14.7* | **71.6** | *64.1* | *65.4* |
| Coal | **17.0** | **15.7** | **26.7** | **19.8** | *21.0* | *14.8* | *26.4* | *16.3* | *20.8* | *16.6* | *27.2* | *18.9* | **79.2** | *78.5* | *83.5* |
| Nuclear | **4.4** | **4.4** | **4.2** | **3.8** | *4.0* | *3.3* | *4.4* | *4.4* | *4.3* | *4.4* | *3.9* | *2.8* | **16.8** | *16.1* | *15.4* |
| Conventional hydropower | **5.9** | **6.0** | **5.1** | **4.8** | *4.9* | *4.9* | *4.2* | *3.3* | *3.6* | *4.3* | *4.0* | *3.2* | **21.8** | *17.3* | *15.0* |
| Nonhydro renewables (d) | **20.3** | **21.4** | **16.7** | **22.2** | *21.4* | *26.0* | *20.5* | *26.4* | *24.0* | *28.2* | *22.8* | *28.5* | **80.6** | *94.3* | *103.6* |
| Other energy sources (e) | **0.1** | **0.1** | **0.1** | **0.2** | *0.1* | *0.1* | *0.1* | *0.2* | *0.1* | *0.1* | *0.1* | *0.2* | **0.5** | *0.4* | *0.5* |
| Total generation | **65.2** | **63.9** | **77.0** | **64.4** | *67.2* | *62.0* | *76.5* | *64.9* | *68.3* | *66.3* | *80.7* | *68.2* | **270.5** | *270.7* | *283.5* |
| Net energy for load (f) | **62.6** | **63.6** | **74.9** | **60.7** | *63.6* | *60.5* | *73.8* | *60.5* | *65.0* | *64.2* | *77.9* | *63.1* | **261.8** | *258.5* | *270.2* |
| **Texas (ERCOT)** | | | | | | | | | | | | | | | |
| Natural Gas | **37.2** | **42.1** | **59.3** | **36.0** | *34.1* | *34.6* | *46.5* | *29.0* | *23.5* | *26.5* | *39.8* | *23.5* | **174.6** | *144.2* | *113.4* |
| Coal | **13.1** | **15.8** | **20.3** | **17.9** | *18.1* | *20.5* | *26.7* | *18.2* | *17.2* | *20.5* | *25.9* | *19.0* | **67.2** | *83.5* | *82.6* |
| Nuclear | **10.4** | **9.7** | **11.0** | **10.3** | *10.8* | *9.9* | *10.3* | *9.6* | *10.7* | *10.0* | *11.0* | *10.0* | **41.4** | *40.6* | *41.7* |
| Conventional hydropower | **0.3** | **0.3** | **0.3** | **0.2** | *0.2* | *0.2* | *0.2* | *0.1* | *0.2* | *0.2* | *0.2* | *0.1* | **1.1** | *0.7* | *0.7* |
| Nonhydro renewables (d) | **22.6** | **24.8** | **20.8** | **24.4** | *24.8* | *31.5* | *28.5* | *30.8* | *32.6* | *38.1* | *34.6* | *34.0* | **92.6** | *115.6* | *139.3* |
| Other energy sources (e) | **0.4** | **0.3** | **0.4** | **0.4** | *0.4* | *0.3* | *0.4* | *0.4* | *0.4* | *0.3* | *0.4* | *0.4* | **1.5** | *1.6* | *1.5* |
| Total generation | **84.1** | **93.1** | **112.1** | **89.1** | *88.5* | *97.0* | *112.6* | *88.1* | *84.6* | *95.6* | *111.8* | *87.1* | **378.4** | *386.2* | *379.1* |
| Net energy for load (f) | **84.1** | **93.1** | **112.1** | **89.1** | *88.5* | *97.0* | *112.6* | *88.1* | *84.6* | *95.6* | *111.8* | *87.1* | **378.4** | *386.2* | *379.1* |
| **Northwest** | | | | | | | | | | | | | | | |
| Natural Gas | **23.7** | **17.1** | **27.3** | **21.6** | *20.5* | *14.9* | *28.4* | *21.1* | *17.2* | *12.2* | *27.1* | *20.6* | **89.6** | *85.0* | *77.1* |
| Coal | **22.3** | **16.1** | **24.5** | **23.2** | *23.7* | *17.8* | *24.5* | *23.2* | *24.6* | *19.0* | *25.2* | *23.6* | **86.1** | *89.2* | *92.4* |
| Nuclear | **2.4** | **2.0** | **2.4** | **2.5** | *2.5* | *1.2* | *2.4* | *2.4* | *2.4* | *2.4* | *2.4* | *2.4* | **9.4** | *8.6* | *9.7* |
| Conventional hydropower | **35.0** | **38.7** | **32.4** | **29.9** | *36.8* | *42.9* | *31.4* | *28.1* | *34.2* | *42.6* | *31.5* | *28.2* | **136.0** | *139.2* | *136.4* |
| Nonhydro renewables (d) | **13.9** | **14.2** | **12.6** | **14.9** | *16.4* | *16.5* | *14.5* | *17.2* | *18.6* | *18.3* | *15.9* | *18.4* | **55.6** | *64.5* | *71.2* |
| Other energy sources (e) | **0.2** | **0.2** | **0.1** | **0.2** | *0.1* | *0.1* | *0.1* | *0.1* | *0.1* | *0.1* | *0.1* | *0.2* | **0.6** | *0.6* | *0.5* |
| Total generation | **97.5** | **88.3** | **99.4** | **92.2** | *100.1* | *93.4* | *101.4* | *92.2* | *97.0* | *94.6* | *102.3* | *93.4* | **377.4** | *387.1* | *387.3* |
| Net energy for load (f) | **91.0** | **82.1** | **92.5** | **87.7** | *91.2* | *84.5* | *94.6* | *89.3* | *90.4* | *85.2* | *95.2* | *89.8* | **353.4** | *359.6* | *360.6* |
| **Southwest** | | | | | | | | | | | | | | | |
| Natural Gas | **11.8** | **14.7** | **20.4** | **14.8** | *9.7* | *11.2* | *19.8* | *12.3* | *7.8* | *8.8* | *19.2* | *11.8* | **61.7** | *52.9* | *47.6* |
| Coal | **5.3** | **5.3** | **8.8** | **6.6** | *6.5* | *5.2* | *7.9* | *6.7* | *6.0* | *5.9* | *7.1* | *5.7* | **25.9** | *26.3* | *24.8* |
| Nuclear | **8.3** | **7.6** | **8.7** | **7.0** | *8.5* | *7.6* | *8.6* | *7.7* | *8.4* | *7.5* | *8.6* | *7.7* | **31.6** | *32.4* | *32.2* |
| Conventional hydropower | **2.7** | **4.0** | **3.7** | **2.5** | *2.7* | *3.9* | *3.8* | *2.6* | *2.9* | *4.0* | *3.9* | *2.6* | **12.8** | *13.0* | *13.5* |
| Nonhydro renewables (d) | **2.5** | **3.1** | **2.5** | **2.3** | *3.4* | *3.8* | *3.2* | *3.3* | *4.4* | *4.8* | *4.1* | *4.2* | **10.5** | *13.7* | *17.5* |
| Other energy sources (e) | **0.0** | **0.1** | **0.1** | **0.0** | *0.0* | *0.1* | *0.1* | *0.0* | *0.0* | *0.1* | *0.1* | *0.0* | **0.2** | *0.2* | *0.2* |
| Total generation | **30.5** | **34.8** | **44.2** | **33.1** | *30.7* | *31.8* | *43.4* | *32.5* | *29.6* | *31.1* | *43.1* | *32.0* | **142.7** | *138.4* | *135.8* |
| Net energy for load (f) | **19.7** | **23.8** | **32.5** | **21.1** | *19.6* | *24.1* | *31.3* | *20.8* | *19.4* | *24.3* | *31.6* | *20.9* | **97.2** | *95.8* | *96.3* |
| **California** | | | | | | | | | | | | | | | |
| Natural Gas | **16.7** | **12.6** | **27.0** | **23.6** | *14.9* | *11.6* | *23.4* | *21.1* | *14.8* | *11.4* | *22.8* | *20.8* | **79.9** | *71.1* | *69.8* |
| Coal | **1.4** | **1.2** | **2.1** | **2.0** | *1.5* | *1.6* | *2.1* | *1.5* | *1.4* | *1.5* | *2.1* | *1.5* | **6.7** | *6.7* | *6.4* |
| Nuclear | **4.8** | **4.9** | **4.5** | **2.1** | *3.4* | *4.6* | *4.7* | *4.7* | *4.6* | *3.8* | *4.4* | *4.0* | **16.3** | *17.4* | *16.8* |
| Conventional hydropower | **3.1** | **5.6** | **5.4** | **2.7** | *2.9* | *6.5* | *5.8* | *3.0* | *4.0* | *7.3* | *6.6* | *3.5* | **16.8** | *18.2* | *21.5* |
| Nonhydro renewables (d) | **14.3** | **18.9** | **18.1** | **14.4** | *15.3* | *20.2* | *19.4* | *15.4* | *16.0* | *21.4* | *20.4* | *16.0* | **65.8** | *70.4* | *73.7* |
| Other energy sources (e) | **0.0** | **0.1** | **0.1** | **0.1** | *-0.1* | *0.0* | *0.1* | *0.1* | *0.0* | *0.1* | *0.1* | *0.2* | **0.2** | *0.1* | *0.4* |
| Total generation | **40.3** | **43.3** | **57.3** | **44.9** | *37.9* | *44.6* | *55.6* | *45.7* | *40.7* | *45.5* | *56.4* | *45.9* | **185.8** | *183.9* | *188.6* |
| Net energy for load (f) | **57.6** | **60.5** | **75.9** | **61.4** | *58.0* | *61.2* | *74.5* | *60.3* | *57.5* | *61.7* | *75.0* | *60.6* | **255.4** | *254.0* | *254.8* |

(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.

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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; and *Electric Power Annual* , DOE/EIA-0348.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **Electric Power Sector** | | | | | | | | | | | | | | | |
| Geothermal | **0.035** | **0.037** | **0.037** | **0.038** | *0.036* | *0.037* | *0.038* | *0.037* | *0.036* | *0.038* | *0.038* | *0.038* | **0.147** | *0.148* | *0.150* |
| Hydroelectric Power (a) | **0.667** | **0.724** | **0.631** | **0.568** | *0.691* | *0.694* | *0.599* | *0.559* | *0.691* | *0.694* | *0.597* | *0.556* | **2.590** | *2.543* | *2.538* |
| Solar (b) | **0.152** | **0.248** | **0.252** | **0.168** | *0.200* | *0.319* | *0.330* | *0.224* | *0.261* | *0.417* | *0.423* | *0.270* | **0.820** | *1.073* | *1.372* |
| Waste Biomass (c) | **0.063** | **0.058** | **0.059** | **0.059** | *0.073* | *0.064* | *0.060* | *0.062* | *0.068* | *0.066* | *0.063* | *0.063* | **0.238** | *0.259* | *0.260* |
| Wood Biomass | **0.049** | **0.043** | **0.048** | **0.046** | *0.073* | *0.067* | *0.054* | *0.053* | *0.065* | *0.092* | *0.059* | *0.054* | **0.185** | *0.246* | *0.270* |
| Wind | **0.796** | **0.793** | **0.615** | **0.862** | *0.856* | *0.934* | *0.729* | *0.991* | *0.963* | *0.995* | *0.783* | *1.046* | **3.065** | *3.510* | *3.786* |
| Subtotal | **1.761** | **1.904** | **1.641** | **1.740** | *1.929* | *2.116* | *1.809* | *1.926* | *2.085* | *2.301* | *1.962* | *2.027* | **7.045** | *7.780* | *8.376* |
| **Industrial Sector** | | | | | | | | | | | | | | | |
| Biofuel Losses and Co-products (d) | **0.197** | **0.135** | **0.179** | **0.188** | *0.171* | *0.182* | *0.192* | *0.191* | *0.185* | *0.191* | *0.193* | *0.196* | **0.698** | *0.736* | *0.765* |
| 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** | **0.002** | **0.002** | **0.002** | *0.003* | *0.003* | *0.002* | *0.002* | *0.003* | *0.003* | *0.002* | *0.002* | **0.009** | *0.009* | *0.009* |
| Solar (b) | **0.007** | **0.010** | **0.010** | **0.007** | *0.007* | *0.011* | *0.011* | *0.008* | *0.008* | *0.012* | *0.012* | *0.009* | **0.033** | *0.037* | *0.041* |
| Waste Biomass (c) | **0.041** | **0.039** | **0.036** | **0.041** | *0.040* | *0.038* | *0.037* | *0.040* | *0.040* | *0.039* | *0.038* | *0.039* | **0.156** | *0.155* | *0.155* |
| Wood Biomass | **0.350** | **0.341** | **0.337** | **0.353** | *0.347* | *0.343* | *0.354* | *0.357* | *0.348* | *0.345* | *0.357* | *0.360* | **1.381** | *1.401* | *1.410* |
| Subtotal | **0.596** | **0.522** | **0.559** | **0.589** | *0.565* | *0.570* | *0.591* | *0.596* | *0.581* | *0.583* | *0.596* | *0.603* | **2.267** | *2.323* | *2.362* |
| **Commercial Sector** | | | | | | | | | | | | | | | |
| Geothermal | **0.006** | **0.006** | **0.006** | **0.006** | *0.006* | *0.006* | *0.006* | *0.006* | *0.006* | *0.006* | *0.006* | *0.006* | **0.024** | *0.024* | *0.024* |
| Solar (b) | **0.025** | **0.037** | **0.037** | **0.025** | *0.029* | *0.043* | *0.044* | *0.030* | *0.035* | *0.050* | *0.050* | *0.035* | **0.123** | *0.147* | *0.170* |
| Waste Biomass (c) | **0.010** | **0.008** | **0.009** | **0.009** | *0.009* | *0.009* | *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** | *0.020* | *0.020* | *0.021* | *0.021* | *0.020* | *0.020* | *0.021* | *0.021* | **0.083** | *0.082* | *0.082* |
| Subtotal | **0.068** | **0.077** | **0.078** | **0.067** | *0.071* | *0.084* | *0.086* | *0.073* | *0.076* | *0.092* | *0.093* | *0.077* | **0.290** | *0.314* | *0.338* |
| **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) | **0.058** | **0.087** | **0.087** | **0.062** | *0.068* | *0.103* | *0.104* | *0.072* | *0.077* | *0.117* | *0.118* | *0.081* | **0.293** | *0.347* | *0.393* |
| Wood Biomass | **0.114** | **0.114** | **0.115** | **0.122** | *0.114* | *0.114* | *0.115* | *0.122* | *0.114* | *0.114* | *0.115* | *0.122* | **0.465** | *0.465* | *0.465* |
| Subtotal | **0.181** | **0.210** | **0.212** | **0.194** | *0.191* | *0.227* | *0.229* | *0.204* | *0.201* | *0.241* | *0.243* | *0.213* | **0.797** | *0.851* | *0.897* |
| **Transportation Sector** | | | | | | | | | | | | | | | |
| Biomass-based Diesel (f) | **0.061** | **0.064** | **0.073** | **0.076** | *0.073* | *0.074* | *0.073* | *0.079* | *0.081* | *0.084* | *0.089* | *0.092* | **0.275** | *0.300* | *0.345* |
| Ethanol (f) | **0.257** | **0.220** | **0.267** | **0.258** | *0.247* | *0.266* | *0.280* | *0.274* | *0.257* | *0.282* | *0.283* | *0.282* | **1.002** | *1.067* | *1.105* |
| Subtotal | **0.318** | **0.284** | **0.340** | **0.334** | *0.320* | *0.340* | *0.353* | *0.353* | *0.338* | *0.366* | *0.372* | *0.375* | **1.277** | *1.367* | *1.450* |
| **All Sectors Total** | | | | | | | | | | | | | | | |
| Biomass-based Diesel (f) | **0.061** | **0.064** | **0.073** | **0.076** | *0.073* | *0.074* | *0.073* | *0.079* | *0.081* | *0.084* | *0.089* | *0.092* | **0.275** | *0.300* | *0.345* |
| Biofuel Losses and Co-products (d) | **0.197** | **0.135** | **0.179** | **0.188** | *0.171* | *0.182* | *0.192* | *0.191* | *0.185* | *0.191* | *0.193* | *0.196* | **0.698** | *0.736* | *0.765* |
| Ethanol (f) | **0.267** | **0.228** | **0.278** | **0.268** | *0.256* | *0.276* | *0.291* | *0.285* | *0.267* | *0.293* | *0.294* | *0.293* | **1.041** | *1.108* | *1.148* |
| Geothermal | **0.052** | **0.054** | **0.054** | **0.055** | *0.052* | *0.054* | *0.054* | *0.054* | *0.053* | *0.055* | *0.055* | *0.055* | **0.214** | *0.215* | *0.218* |
| Hydroelectric Power (a) | **0.670** | **0.727** | **0.634** | **0.570** | *0.694* | *0.697* | *0.602* | *0.562* | *0.694* | *0.697* | *0.600* | *0.558* | **2.601** | *2.554* | *2.549* |
| Solar (b)(e) | **0.238** | **0.373** | **0.376** | **0.258** | *0.304* | *0.477* | *0.489* | *0.334* | *0.382* | *0.597* | *0.603* | *0.395* | **1.245** | *1.604* | *1.976* |
| Waste Biomass (c) | **0.113** | **0.105** | **0.104** | **0.108** | *0.122* | *0.111* | *0.106* | *0.111* | *0.117* | *0.113* | *0.110* | *0.111* | **0.430** | *0.450* | *0.451* |
| Wood Biomass | **0.534** | **0.519** | **0.520** | **0.542** | *0.554* | *0.543* | *0.544* | *0.554* | *0.547* | *0.571* | *0.552* | *0.558* | **2.115** | *2.194* | *2.228* |
| Wind | **0.796** | **0.793** | **0.615** | **0.862** | *0.856* | *0.934* | *0.729* | *0.991* | *0.963* | *0.995* | *0.783* | *1.046* | **3.065** | *3.510* | *3.786* |
| **Total Consumption** | **2.924** | **2.997** | **2.831** | **2.924** | *3.076* | *3.337* | *3.069* | *3.152* | *3.281* | *3.582* | *3.265* | *3.295* | **11.676** | *12.635* | *13.424* |

(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)

(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

- = no data available

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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*

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

**Forecasts:** EIA Short-Term Integrated Forecasting System.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **Renewable Energy Electric Generating Capacity (megawatts, end of period)** | | | | | | | | | | | | | | | |
| **Electric Power Sector (a)** | | | | | | | | | | | | | | | |
| Biomass | **6,632** | **6,615** | **6,589** | **6,591** | *6,591* | *6,485* | *6,485* | *6,495* | *6,540* | *6,541* | *6,541* | *6,541* | **6,591** | *6,495* | *6,541* |
| Waste | **3,943** | **3,926** | **3,863** | **3,864** | *3,865* | *3,901* | *3,901* | *3,911* | *3,914* | *3,916* | *3,916* | *3,916* | **3,864** | *3,911* | *3,916* |
| Wood | **2,689** | **2,689** | **2,727** | **2,727** | *2,727* | *2,584* | *2,584* | *2,584* | *2,626* | *2,626* | *2,626* | *2,626* | **2,727** | *2,584* | *2,626* |
| Conventional Hydroelectric | **79,494** | **79,498** | **79,652** | **79,658** | *79,740* | *79,738* | *79,744* | *79,783* | *79,794* | *79,799* | *79,834* | *79,837* | **79,658** | *79,783* | *79,837* |
| Geothermal | **2,506** | **2,538** | **2,538** | **2,538** | *2,538* | *2,538* | *2,538* | *2,576* | *2,576* | *2,576* | *2,576* | *2,576* | **2,538** | *2,576* | *2,576* |
| Large-Scale Solar (b) | **39,045** | **41,294** | **42,921** | **47,385** | *50,564* | *53,120* | *56,200* | *63,950* | *65,393* | *70,423* | *71,753* | *77,750* | **47,385** | *63,950* | *77,750* |
| Wind | **105,772** | **107,336** | **108,872** | **117,391** | *125,503* | *127,054* | *128,326* | *133,345* | *134,407* | *136,278* | *136,358* | *139,055* | **117,391** | *133,345* | *139,055* |
| **Other Sectors (c)** | | | | | | | | | | | | | | | |
| Biomass | **6,443** | **6,443** | **6,443** | **6,458** | *6,460* | *6,440* | *6,440* | *6,440* | *6,440* | *6,444* | *6,444* | *6,444* | **6,458** | *6,440* | *6,444* |
| Waste | **786** | **786** | **786** | **802** | *804* | *804* | *804* | *804* | *804* | *804* | *804* | *804* | **802** | *804* | *804* |
| Wood | **5,656** | **5,656** | **5,656** | **5,656** | *5,656* | *5,636* | *5,636* | *5,636* | *5,636* | *5,641* | *5,641* | *5,641* | **5,656** | *5,636* | *5,641* |
| Conventional Hydroelectric | **289** | **289** | **289** | **289** | *289* | *292* | *290* | *290* | *290* | *290* | *290* | *290* | **289** | *290* | *290* |
| Large-Scale Solar (b) | **441** | **453** | **458** | **459** | *471* | *471* | *471* | *486* | *486* | *486* | *486* | *486* | **459** | *486* | *486* |
| Small-Scale Solar (d) | **24,355** | **25,255** | **26,264** | **27,724** | *28,994* | *30,213* | *31,348* | *32,527* | *33,687* | *34,875* | *36,065* | *37,296* | **27,724** | *32,527* | *37,296* |
| Residential Sector | **15,071** | **15,689** | **16,373** | **17,238** | *18,061* | *18,849* | *19,535* | *20,246* | *20,984* | *21,749* | *22,541* | *23,362* | **17,238** | *20,246* | *23,362* |
| Commercial Sector | **7,425** | **7,642** | **7,910** | **8,430** | *8,812* | *9,180* | *9,563* | *9,964* | *10,323* | *10,683* | *11,019* | *11,366* | **8,430** | *9,964* | *11,366* |
| Industrial Sector | **1,859** | **1,924** | **1,981** | **2,056** | *2,121* | *2,185* | *2,250* | *2,317* | *2,380* | *2,443* | *2,505* | *2,568* | **2,056** | *2,317* | *2,568* |
| Wind | **118** | **344** | **353** | **353** | *353* | *353* | *353* | *353* | *353* | *353* | *353* | *353* | **353** | *353* | *353* |
| **Renewable Electricity Generation (billion kilowatthours)** | | | | | | | | | | | | | | | |
| **Electric Power Sector (a)** | | | | | | | | | | | | | | | |
| Biomass | **7.1** | **6.7** | **7.0** | **6.7** | *9.4* | *8.4* | *7.3* | *7.4* | *8.6* | *10.1* | *7.8* | *7.6* | **27.5** | *32.7* | *34.2* |
| Waste | **4.1** | **4.0** | **4.0** | **3.9** | *4.9* | *4.3* | *4.0* | *4.2* | *4.6* | *4.4* | *4.2* | *4.2* | **16.1** | *17.5* | *17.5* |
| Wood | **3.0** | **2.7** | **3.0** | **2.7** | *4.5* | *4.1* | *3.3* | *3.2* | *4.0* | *5.7* | *3.6* | *3.3* | **11.4** | *15.2* | *16.6* |
| Conventional Hydroelectric | **75.0** | **81.3** | **70.6** | **63.0** | *73.1* | *81.6* | *65.1* | *58.7* | *69.6* | *81.3* | *65.5* | *59.2* | **289.9** | *278.3* | *275.7* |
| Geothermal | **3.9** | **4.2** | **4.2** | **4.2** | *4.0* | *4.2* | *4.2* | *4.2* | *4.1* | *4.3* | *4.3* | *4.3* | **16.5** | *16.6* | *16.9* |
| Large-Scale Solar (b) | **16.7** | **27.3** | **27.6** | **18.5** | *21.9* | *35.1* | *36.2* | *24.7* | *28.7* | *45.8* | *46.4* | *29.7* | **90.1** | *117.9* | *150.7* |
| Wind | **87.4** | **87.1** | **67.5** | **94.7** | *94.1* | *102.6* | *80.0* | *108.8* | *105.8* | *109.2* | *86.0* | *114.9* | **336.7** | *385.6* | *415.9* |
| **Other Sectors (c)** | | | | | | | | | | | | | | | |
| Biomass | **7.4** | **7.1** | **7.0** | **7.1** | *7.3* | *7.1* | *7.0* | *7.1* | *7.3* | *7.1* | *7.0* | *7.1* | **28.6** | *28.5* | *28.5* |
| Waste | **0.7** | **0.7** | **0.7** | **0.7** | *0.7* | *0.7* | *0.7* | *0.7* | *0.7* | *0.7* | *0.7* | *0.7* | **2.7** | *2.7* | *2.7* |
| Wood | **6.7** | **6.4** | **6.4** | **6.4** | *6.6* | *6.4* | *6.4* | *6.4* | *6.6* | *6.4* | *6.4* | *6.4* | **25.8** | *25.8* | *25.8* |
| Conventional Hydroelectric | **0.3** | **0.3** | **0.3** | **0.3** | *0.3* | *0.3* | *0.3* | *0.3* | *0.3* | *0.3* | *0.3* | *0.3* | **1.2** | *1.2* | *1.2* |
| Large-Scale Solar (b) | **0.2** | **0.2** | **0.2** | **0.2** | *0.2* | *0.2* | *0.2* | *0.2* | *0.2* | *0.2* | *0.2* | *0.2* | **0.8** | *0.7* | *0.8* |
| Small-Scale Solar (d) | **8.4** | **12.4** | **12.3** | **8.7** | *9.9* | *14.9* | *15.0* | *10.4* | *11.6* | *17.2* | *17.3* | *11.9* | **41.7** | *50.1* | *58.0* |
| Residential Sector | **5.0** | **7.5** | **7.5** | **5.4** | *6.0* | *9.1* | *9.2* | *6.3* | *7.0* | *10.6* | *10.6* | *7.3* | **25.4** | *30.7* | *35.6* |
| Commercial Sector | **2.7** | **3.8** | **3.8** | **2.6** | *3.1* | *4.6* | *4.6* | *3.2* | *3.7* | *5.3* | *5.3* | *3.7* | **12.9** | *15.5* | *18.0* |
| Industrial Sector | **0.7** | **1.0** | **1.0** | **0.7** | *0.8* | *1.2* | *1.2* | *0.8* | *0.9* | *1.3* | *1.3* | *0.9* | **3.5** | *4.0* | *4.5* |
| Wind | **0.1** | **0.1** | **0.2** | **0.4** | *0.3* | *0.2* | *0.2* | *0.2* | *0.2* | *0.2* | *0.2* | *0.2* | **0.8** | *1.0* | *0.9* |

(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 1 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 1 megawatt).

(d) Solar photovoltaic systems smaller than one megawatt.

- = no data available

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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.

**Forecasts:** EIA Short-Term Integrated Forecasting System.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **Macroeconomic** | | | | | | | | | | | | | | | |
| Real Gross Domestic Product | | | | | | | | | | | | | | | |
| (billion chained 2012 dollars - SAAR) | **19,011** | **17,303** | **18,597** | **18,780** | *18,981* | *19,267* | *19,633* | *19,895* | *20,080* | *20,222* | *20,331* | *20,438* | **18,423** | *19,444* | *20,268* |
| Real Personal Consumption Expend. | | | | | | | | | | | | | | | |
| (billion chained 2012 dollars - SAAR) | **13,118** | **11,860** | **12,925** | **13,005** | *13,231* | *13,336* | *13,551* | *13,745* | *13,895* | *14,022* | *14,110* | *14,207* | **12,727** | *13,466* | *14,058* |
| Real Private Fixed Investment | | | | | | | | | | | | | | | |
| (billion chained 2012 dollars - SAAR) | **3,375** | **3,096** | **3,315** | **3,458** | *3,539* | *3,562* | *3,606* | *3,642* | *3,670* | *3,696* | *3,721* | *3,742* | **3,311** | *3,587* | *3,707* |
| Business Inventory Change | | | | | | | | | | | | | | | |
| (billion chained 2012 dollars - SAAR) | **-52** | **-298** | **-1** | **43** | *-19* | *64* | *132* | *176* | *201* | *188* | *166* | *145* | **-77** | *88* | *175* |
| Real Government Expenditures | | | | | | | | | | | | | | | |
| (billion chained 2012 dollars - SAAR) | **3,348** | **3,369** | **3,327** | **3,317** | *3,337* | *3,442* | *3,497* | *3,505* | *3,468* | *3,423* | *3,395* | *3,383* | **3,340** | *3,445* | *3,417* |
| Real Exports of Goods & Services | | | | | | | | | | | | | | | |
| (billion chained 2012 dollars - SAAR) | **2,495** | **1,927** | **2,167** | **2,277** | *2,370* | *2,419* | *2,468* | *2,528* | *2,585* | *2,636* | *2,677* | *2,714* | **2,217** | *2,446* | *2,653* |
| Real Imports of Goods & Services | | | | | | | | | | | | | | | |
| (billion chained 2012 dollars - SAAR) | **3,283** | **2,702** | **3,186** | **3,398** | *3,581* | *3,657* | *3,714* | *3,792* | *3,818* | *3,811* | *3,797* | *3,808* | **3,142** | *3,686* | *3,809* |
| Real Disposable Personal Income | | | | | | | | | | | | | | | |
| (billion chained 2012 dollars - SAAR) | **15,061** | **16,630** | **15,905** | **15,512** | *16,284* | *16,973* | *15,771* | *15,533* | *15,634* | *15,691* | *15,767* | *15,856* | **15,777** | *16,140* | *15,737* |
| Non-Farm Employment | | | | | | | | | | | | | | | |
| (millions) | **151.9** | **133.7** | **140.9** | **142.6** | *142.8* | *144.0* | *145.6* | *147.2* | *148.7* | *150.0* | *151.0* | *151.8* | **142.3** | *144.9* | *150.4* |
| Civilian Unemployment Rate | | | | | | | | | | | | | | | |
| (percent) | **3.8** | **13.1** | **8.8** | **6.8** | *6.3* | *5.9* | *5.5* | *5.0* | *4.6* | *4.2* | *4.0* | *3.8* | **8.1** | *5.7* | *4.1* |
| Housing Starts | | | | | | | | | | | | | | | |
| (millions - SAAR) | **1.48** | **1.08** | **1.43** | **1.59** | *1.55* | *1.49* | *1.45* | *1.42* | *1.39* | *1.37* | *1.34* | *1.30* | **1.40** | *1.48* | *1.35* |
| **Industrial Production Indices (Index, 2012=100)** | | | | | | | | | | | | | | | |
| Total Industrial Production | **107.7** | **93.7** | **102.5** | **105.0** | *107.2* | *107.8* | *109.4* | *110.7* | *112.2* | *113.5* | *114.2* | *114.6* | **102.2** | *108.8* | *113.6* |
| Manufacturing | **104.4** | **89.3** | **100.1** | **103.2** | *105.3* | *105.4* | *107.0* | *108.5* | *110.0* | *111.2* | *111.8* | *112.2* | **99.2** | *106.6* | *111.3* |
| Food | **116.5** | **107.9** | **113.5** | **115.8** | *117.8* | *117.7* | *117.8* | *117.9* | *118.0* | *118.5* | *118.9* | *119.4* | **113.5** | *117.8* | *118.7* |
| Paper | **94.7** | **87.2** | **87.0** | **91.8** | *92.7* | *93.0* | *93.6* | *94.0* | *94.7* | *95.2* | *95.5* | *95.6* | **90.2** | *93.3* | *95.2* |
| Petroleum and Coal Products | **105.0** | **82.7** | **89.8** | **92.9** | *95.2* | *95.7* | *97.1* | *98.5* | *99.4* | *99.9* | *100.0* | *100.0* | **92.6** | *96.6* | *99.8* |
| Chemicals | **99.8** | **93.7** | **96.4** | **99.5** | *104.0* | *108.5* | *112.6* | *114.3* | *114.8* | *115.1* | *115.2* | *115.7* | **97.3** | *109.8* | *115.2* |
| Nonmetallic Mineral Products | **122.2** | **106.3** | **113.7** | **118.1** | *121.1* | *122.2* | *122.6* | *122.5* | *122.6* | *122.4* | *122.2* | *122.0* | **115.1** | *122.1* | *122.3* |
| Primary Metals | **94.4** | **69.6** | **79.3** | **87.7** | *91.0* | *89.2* | *90.3* | *90.4* | *91.4* | *92.1* | *92.1* | *91.8* | **82.8** | *90.2* | *91.8* |
| Coal-weighted Manufacturing (a) | **106.5** | **94.1** | **100.9** | **105.4** | *107.5* | *107.5* | *108.8* | *109.5* | *110.4* | *111.2* | *111.5* | *111.8* | **101.7** | *108.3* | *111.2* |
| Distillate-weighted Manufacturing (a) | **98.8** | **85.6** | **92.5** | **95.8** | *97.9* | *98.4* | *99.2* | *99.8* | *100.3* | *100.5* | *100.6* | *100.5* | **93.2** | *98.8* | *100.5* |
| Electricity-weighted Manufacturing (a) | **105.1** | **89.4** | **98.4** | **103.1** | *105.4* | *105.4* | *106.6* | *107.3* | *108.3* | *109.1* | *109.3* | *109.5* | **99.0** | *106.2* | *109.1* |
| Natural Gas-weighted Manufacturing (a) | **107.8** | **94.0** | **100.3** | **105.4** | *107.5* | *107.3* | *108.8* | *109.6* | *110.6* | *111.4* | *111.8* | *112.1* | **101.9** | *108.3* | *111.5* |
| **Price Indexes** | | | | | | | | | | | | | | | |
| Consumer Price Index (all urban consumers) | | | | | | | | | | | | | | | |
| (index, 1982-1984=1.00) | **2.59** | **2.56** | **2.59** | **2.61** | *2.63* | *2.64* | *2.65* | *2.66* | *2.67* | *2.69* | *2.71* | *2.72* | **2.59** | *2.65* | *2.70* |
| Producer Price Index: All Commodities | | | | | | | | | | | | | | | |
| (index, 1982=1.00) | **1.97** | **1.88** | **1.94** | **1.98** | *2.05* | *2.06* | *2.06* | *2.05* | *2.06* | *2.08* | *2.08* | *2.08* | **1.94** | *2.05* | *2.08* |
| Producer Price Index: Petroleum | | | | | | | | | | | | | | | |
| (index, 1982=1.00) | **1.71** | **1.05** | **1.47** | **1.50** | *1.81* | *2.00* | *1.86* | *1.78* | *1.76* | *1.83* | *1.86* | *1.81* | **1.43** | *1.87* | *1.81* |
| GDP Implicit Price Deflator | | | | | | | | | | | | | | | |
| (index, 2012=100) | **113.4** | **112.9** | **113.8** | **114.4** | *115.0* | *115.4* | *115.9* | *116.4* | *116.8* | *117.5* | *118.1* | *118.8* | **113.6** | *115.6* | *117.8* |
| **Miscellaneous** | | | | | | | | | | | | | | | |
| Vehicle Miles Traveled (b) | | | | | | | | | | | | | | | |
| (million miles/day) | **7,766** | **6,879** | **8,261** | **8,012** | *7,599* | *8,500* | *8,789* | *8,737* | *8,099* | *9,123* | *9,118* | *8,909* | **7,731** | *8,410* | *8,815* |
| Air Travel Capacity | | | | | | | | | | | | | | | |
| (Available ton-miles/day, thousands) | **628** | **362** | **475** | **566** | *597* | *579* | *609* | *651* | *649* | *707* | *723* | *695* | **508** | *609* | *694* |
| Aircraft Utilization | | | | | | | | | | | | | | | |
| (Revenue ton-miles/day, thousands) | **328** | **152** | **208** | **269** | *303* | *308* | *354* | *382* | *404* | *450* | *458* | *435* | **239** | *337* | *437* |
| Airline Ticket Price Index | | | | | | | | | | | | | | | |
| (index, 1982-1984=100) | **250.8** | **203.7** | **200.6** | **215.1** | *194.6* | *191.0* | *184.3* | *192.8* | *191.7* | *212.4* | *218.6* | *234.8* | **217.5** | *190.7* | *214.4* |
| Raw Steel Production | | | | | | | | | | | | | | | |
| (million short tons per day) | **0.268** | **0.174** | **0.197** | **0.224** | *0.250* | *0.250* | *0.257* | *0.291* | *0.281* | *0.252* | *0.247* | *0.255* | **0.216** | *0.262* | *0.259* |
| **Carbon Dioxide (CO2) Emissions (million metric tons)** | | | | | | | | | | | | | | | |
| Petroleum | **552** | **442** | **518** | **522** | *520* | *540* | *562* | *566* | *555* | *574* | *583* | *582* | **2,034** | *2,187* | *2,293* |
| Natural Gas | **493** | **351** | **385** | **432** | *504* | *349* | *361* | *430* | *488* | *344* | *365* | *429* | **1,662** | *1,643* | *1,625* |
| Coal | **202** | **177** | **271** | **225** | *251* | *213* | *300* | *238* | *261* | *229* | *299* | *235* | **876** | *1,001* | *1,024* |
| Total Energy (c) | **1,250** | **973** | **1,177** | **1,182** | *1,277* | *1,104* | *1,226* | *1,236* | *1,306* | *1,149* | *1,250* | *1,249* | **4,583** | *4,843* | *4,954* |

(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.

- = no data available

SAAR = Seasonally-adjusted annual rate

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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

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

**Forecasts:** EIA Short-Term Integrated Forecasting System. U.S. macroeconomic forecasts are based on the IHS Markit model of the U.S. Economy.

**Table 9b. U.S. Regional Macroeconomic Data**

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **Real Gross State Product (Billion $2009)** | | | | | | | | | | | | | | | |
| New England | **993** | **901** | **969** | **977** | *986* | *1,000* | *1,018* | *1,032* | *1,041* | *1,047* | *1,053* | *1,057* | **960** | *1,009* | *1,049* |
| Middle Atlantic | **2,774** | **2,486** | **2,669** | **2,706** | *2,732* | *2,781* | *2,836* | *2,881* | *2,915* | *2,940* | *2,961* | *2,978* | **2,659** | *2,807* | *2,948* |
| E. N. Central | **2,502** | **2,266** | **2,458** | **2,474** | *2,496* | *2,534* | *2,580* | *2,613* | *2,632* | *2,648* | *2,659* | *2,667* | **2,425** | *2,556* | *2,652* |
| W. N. Central | **1,188** | **1,084** | **1,168** | **1,174** | *1,185* | *1,199* | *1,220* | *1,235* | *1,244* | *1,252* | *1,259* | *1,264* | **1,154** | *1,210* | *1,255* |
| S. Atlantic | **3,388** | **3,114** | **3,337** | **3,366** | *3,399* | *3,447* | *3,512* | *3,553* | *3,584* | *3,606* | *3,622* | *3,641* | **3,301** | *3,478* | *3,613* |
| E. S. Central | **828** | **742** | **809** | **816** | *825* | *837* | *852* | *863* | *870* | *876* | *880* | *884* | **799** | *844* | *878* |
| W. S. Central | **2,317** | **2,125** | **2,267** | **2,300** | *2,332* | *2,361* | *2,407* | *2,439* | *2,462* | *2,482* | *2,498* | *2,514* | **2,252** | *2,385* | *2,489* |
| Mountain | **1,283** | **1,177** | **1,265** | **1,278** | *1,291* | *1,309* | *1,335* | *1,350* | *1,362* | *1,369* | *1,375* | *1,383* | **1,251** | *1,321* | *1,372* |
| Pacific | **3,769** | **3,436** | **3,684** | **3,721** | *3,767* | *3,830* | *3,906* | *3,962* | *4,004* | *4,035* | *4,059* | *4,085* | **3,653** | *3,866* | *4,046* |
| **Industrial Output, Manufacturing (Index, Year 2012=100)** | | | | | | | | | | | | | | | |
| New England | **97.6** | **83.5** | **92.7** | **96.2** | *98.0* | *98.3* | *99.9* | *101.2* | *102.4* | *103.4* | *103.8* | *104.1* | **92.5** | *99.4* | *103.4* |
| Middle Atlantic | **97.1** | **80.3** | **91.2** | **93.5** | *95.4* | *95.8* | *97.4* | *99.0* | *100.6* | *102.0* | *102.7* | *103.4* | **90.5** | *96.9* | *102.2* |
| E. N. Central | **105.1** | **86.1** | **99.5** | **102.3** | *104.3* | *104.7* | *106.3* | *108.2* | *109.7* | *111.0* | *111.6* | *112.1* | **98.2** | *105.9* | *111.1* |
| W. N. Central | **103.7** | **90.3** | **100.6** | **103.6** | *105.8* | *105.9* | *107.2* | *108.6* | *110.0* | *110.9* | *111.6* | *112.0* | **99.6** | *106.9* | *111.1* |
| S. Atlantic | **109.2** | **94.4** | **105.2** | **108.9** | *111.2* | *111.2* | *113.0* | *114.4* | *116.0* | *117.1* | *117.6* | *118.0* | **104.4** | *112.5* | *117.2* |
| E. S. Central | **109.0** | **90.1** | **104.4** | **108.0** | *110.6* | *110.6* | *112.1* | *113.5* | *114.6* | *115.8* | *116.3* | *116.4* | **102.9** | *111.7* | *115.8* |
| W. S. Central | **99.8** | **87.8** | **95.7** | **98.6** | *100.5* | *100.5* | *102.1* | *103.6* | *105.3* | *106.7* | *107.4* | *107.8* | **95.5** | *101.7* | *106.8* |
| Mountain | **114.7** | **102.7** | **114.2** | **118.1** | *120.4* | *120.3* | *121.9* | *123.2* | *124.7* | *125.7* | *126.2* | *126.6* | **112.4** | *121.5* | *125.8* |
| Pacific | **102.4** | **86.8** | **95.7** | **97.9** | *99.5* | *99.6* | *101.4* | *102.8* | *104.7* | *106.2* | *106.9* | *107.7* | **95.7** | *100.8* | *106.4* |
| **Real Personal Income (Billion $2009)** | | | | | | | | | | | | | | | |
| New England | **890** | **978** | **937** | **905** | *944* | *985* | *919* | *908* | *914* | *918* | *923* | *928* | **927** | *939* | *921* |
| Middle Atlantic | **2,305** | **2,509** | **2,426** | **2,347** | *2,445* | *2,544* | *2,375* | *2,347* | *2,366* | *2,377* | *2,391* | *2,403* | **2,397** | *2,428* | *2,384* |
| E. N. Central | **2,453** | **2,695** | **2,577** | **2,509** | *2,628* | *2,751* | *2,553* | *2,515* | *2,529* | *2,540* | *2,551* | *2,563* | **2,558** | *2,612* | *2,546* |
| W. N. Central | **1,158** | **1,259** | **1,190** | **1,179** | *1,229* | *1,273* | *1,200* | *1,184* | *1,189* | *1,192* | *1,197* | *1,203* | **1,196** | *1,221* | *1,195* |
| S. Atlantic | **3,272** | **3,511** | **3,416** | **3,358** | *3,507* | *3,647* | *3,433* | *3,391* | *3,411* | *3,422* | *3,439* | *3,461* | **3,389** | *3,495* | *3,433* |
| E. S. Central | **909** | **989** | **937** | **924** | *973* | *1,017* | *951* | *937* | *942* | *944* | *948* | *953* | **940** | *970* | *947* |
| W. S. Central | **2,037** | **2,201** | **2,115** | **2,078** | *2,173* | *2,260* | *2,122* | *2,096* | *2,114* | *2,124* | *2,137* | *2,153* | **2,108** | *2,163* | *2,132* |
| Mountain | **1,216** | **1,322** | **1,267** | **1,242** | *1,297* | *1,353* | *1,269* | *1,253* | *1,260* | *1,265* | *1,271* | *1,279* | **1,262** | *1,293* | *1,269* |
| Pacific | **2,833** | **3,042** | **2,988** | **2,942** | *3,068* | *3,148* | *2,964* | *2,929* | *2,950* | *2,964* | *2,982* | *3,002* | **2,951** | *3,027* | *2,975* |
| **Households (Thousands)** | | | | | | | | | | | | | | | |
| New England | **5,896** | **5,877** | **5,900** | **5,924** | *5,938* | *5,950* | *5,961* | *5,970* | *5,981* | *5,993* | *6,005* | *6,016* | **5,924** | *5,970* | *6,016* |
| Middle Atlantic | **16,161** | **16,102** | **16,164** | **16,234** | *16,277* | *16,313* | *16,338* | *16,364* | *16,396* | *16,423* | *16,450* | *16,477* | **16,234** | *16,364* | *16,477* |
| E. N. Central | **18,864** | **18,814** | **18,901** | **18,988** | *19,045* | *19,097* | *19,137* | *19,176* | *19,217* | *19,248* | *19,278* | *19,312* | **18,988** | *19,176* | *19,312* |
| W. N. Central | **8,646** | **8,631** | **8,677** | **8,732** | *8,766* | *8,795* | *8,818* | *8,839* | *8,861* | *8,885* | *8,909* | *8,929* | **8,732** | *8,839* | *8,929* |
| S. Atlantic | **25,669** | **25,649** | **25,815** | **26,000** | *26,131* | *26,244* | *26,341* | *26,435* | *26,531* | *26,633* | *26,729* | *26,822* | **26,000** | *26,435* | *26,822* |
| E. S. Central | **7,659** | **7,647** | **7,689** | **7,738** | *7,769* | *7,796* | *7,817* | *7,838* | *7,858* | *7,881* | *7,902* | *7,921* | **7,738** | *7,838* | *7,921* |
| W. S. Central | **14,887** | **14,880** | **14,981** | **15,097** | *15,177* | *15,246* | *15,308* | *15,366* | *15,428* | *15,490* | *15,552* | *15,609* | **15,097** | *15,366* | *15,609* |
| Mountain | **9,464** | **9,470** | **9,544** | **9,628** | *9,690* | *9,746* | *9,796* | *9,844* | *9,893* | *9,939* | *9,985* | *10,026* | **9,628** | *9,844* | *10,026* |
| Pacific | **18,779** | **18,739** | **18,838** | **18,950** | *19,016* | *19,069* | *19,113* | *19,157* | *19,208* | *19,256* | *19,305* | *19,344* | **18,950** | *19,157* | *19,344* |
| **Total Non-farm Employment (Millions)** | | | | | | | | | | | | | | | |
| New England | **7.5** | **6.4** | **6.8** | **6.9** | *6.9* | *7.0* | *7.1* | *7.2* | *7.2* | *7.3* | *7.4* | *7.4* | **6.9** | *7.0* | *7.3* |
| Middle Atlantic | **20.1** | **16.8** | **18.0** | **18.3** | *18.3* | *18.5* | *18.7* | *19.0* | *19.3* | *19.5* | *19.7* | *19.8* | **18.3** | *18.6* | *19.6* |
| E. N. Central | **22.3** | **19.3** | **20.6** | **20.8** | *20.8* | *21.0* | *21.2* | *21.4* | *21.7* | *21.9* | *22.0* | *22.1* | **20.7** | *21.1* | *21.9* |
| W. N. Central | **10.8** | **9.8** | **10.2** | **10.3** | *10.3* | *10.3* | *10.4* | *10.5* | *10.6* | *10.7* | *10.7* | *10.8* | **10.3** | *10.4* | *10.7* |
| S. Atlantic | **29.4** | **26.4** | **27.6** | **28.0** | *28.1* | *28.3* | *28.6* | *28.9* | *29.1* | *29.3* | *29.5* | *29.6* | **27.8** | *28.5* | *29.4* |
| E. S. Central | **8.3** | **7.5** | **7.9** | **8.0** | *8.1* | *8.1* | *8.2* | *8.2* | *8.3* | *8.3* | *8.3* | *8.4* | **8.0** | *8.1* | *8.3* |
| W. S. Central | **17.9** | **16.4** | **16.9** | **17.2** | *17.2* | *17.3* | *17.5* | *17.7* | *17.9* | *18.0* | *18.1* | *18.2* | **17.1** | *17.4* | *18.0* |
| Mountain | **11.2** | **10.2** | **10.6** | **10.8** | *10.8* | *10.8* | *11.0* | *11.1* | *11.2* | *11.2* | *11.3* | *11.4* | **10.7** | *10.9* | *11.3* |
| Pacific | **24.0** | **20.9** | **21.8** | **22.1** | *22.2* | *22.4* | *22.7* | *23.0* | *23.3* | *23.5* | *23.7* | *23.9* | **22.2** | *22.6* | *23.6* |

- = no data available

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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.

**Forecasts:** U.S. macroeconomic forecasts are based on the IHS Markit model of the U.S. Economy.

**Table 9c. U.S. Regional Weather Data**

U.S. Energy Information Administration | Short-Term Energy Outlook - March 2021

| | 2020 | | | | 2021 | | | | 2022 | | | | Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2020 | 2021 | 2022 |
| **Heating Degree Days** | | | | | | | | | | | | | | | |
| New England | **2,735** | **971** | **115** | **1,998** | *3,077* | *855* | *124* | *2,097* | *3,074* | *859* | *124* | *2,097* | **5,819** | *6,153* | *6,154* |
| Middle Atlantic | **2,473** | **837** | **85** | **1,835** | *2,893* | *677* | *75* | *1,918* | *2,868* | *687* | *75* | *1,918* | **5,230** | *5,563* | *5,548* |
| E. N. Central | **2,787** | **846** | **125** | **2,098** | *3,221* | *699* | *112* | *2,232* | *3,145* | *729* | *112* | *2,232* | **5,856** | *6,263* | *6,219* |
| W. N. Central | **3,037** | **799** | **168** | **2,311** | *3,362* | *657* | *152* | *2,451* | *3,248* | *701* | *152* | *2,452* | **6,315** | *6,622* | *6,553* |
| South Atlantic | **1,106** | **251** | **17** | **873** | *1,380* | *185* | *10* | *907* | *1,367* | *191* | *10* | *905* | **2,246** | *2,482* | *2,473* |
| E. S. Central | **1,483** | **337** | **20** | **1,226** | *1,870* | *232* | *17* | *1,257* | *1,805* | *248* | *17* | *1,257* | **3,065** | *3,375* | *3,327* |
| W. S. Central | **973** | **102** | **8** | **737** | *1,307* | *67* | *4* | *773* | *1,158* | *83* | *4* | *772* | **1,820** | *2,151* | *2,017* |
| Mountain | **2,215** | **673** | **127** | **1,771** | *2,232* | *644* | *144* | *1,824* | *2,187* | *670* | *143* | *1,823* | **4,785** | *4,844* | *4,823* |
| Pacific | **1,540** | **525** | **65** | **1,088** | *1,474* | *581* | *85* | *1,198* | *1,518* | *587* | *85* | *1,198* | **3,218** | *3,338* | *3,389* |
| U.S. Average | **1,875** | **540** | **70** | **1,418** | *2,134* | *467* | *69* | *1,494* | *2,089* | *482* | *69* | *1,493* | **3,903** | *4,164* | *4,133* |
| **Heating Degree Days, Prior 10-year Average** | | | | | | | | | | | | | | | |
| New England | **3,152** | **823** | **105** | **2,128** | *3,133* | *856* | *107* | *2,100* | *3,107* | *860* | *111* | *2,121* | **6,207** | *6,196* | *6,199* |
| Middle Atlantic | **2,948** | **644** | **69** | **1,944** | *2,913* | *677* | *72* | *1,912* | *2,895* | *685* | *73* | *1,928* | **5,606** | *5,574* | *5,581* |
| E. N. Central | **3,197** | **698** | **102** | **2,197** | *3,157* | *731* | *104* | *2,170* | *3,146* | *727* | *101* | *2,196* | **6,194** | *6,161* | *6,170* |
| W. N. Central | **3,287** | **702** | **132** | **2,379** | *3,247* | *728* | *133* | *2,367* | *3,232* | *719* | *131* | *2,398* | **6,500** | *6,475* | *6,481* |
| South Atlantic | **1,459** | **169** | **10** | **952** | *1,393* | *180* | *11* | *914* | *1,381* | *184* | *11* | *914* | **2,589** | *2,498* | *2,490* |
| E. S. Central | **1,850** | **214** | **15** | **1,277** | *1,772* | *231* | *16* | *1,249* | *1,771* | *235* | *14* | *1,250* | **3,356** | *3,268* | *3,271* |
| W. S. Central | **1,199** | **83** | **3** | **794** | *1,140* | *86* | *3* | *786* | *1,146* | *88* | *3* | *782* | **2,078** | *2,015* | *2,019* |
| Mountain | **2,192** | **718** | **135** | **1,844** | *2,182* | *701* | *134* | *1,843* | *2,167* | *680* | *135* | *1,829* | **4,889** | *4,859* | *4,812* |
| Pacific | **1,456** | **580** | **85** | **1,162** | *1,462* | *553* | *81* | *1,148* | *1,447* | *532* | *80* | *1,136* | **3,284** | *3,243* | *3,195* |
| U.S. Average | **2,149** | **472** | **64** | **1,509** | *2,108* | *481* | *65* | *1,484* | *2,094* | *477* | *64* | *1,488* | **4,194** | *4,138* | *4,123* |
| **Cooling Degree Days** | | | | | | | | | | | | | | | |
| New England | **0** | **102** | **542** | **0** | *0* | *88* | *422* | *2* | *0* | *87* | *422* | *2* | **644** | *512* | *511* |
| Middle Atlantic | **0** | **157** | **679** | **4** | *0* | *158* | *555* | *5* | *0* | *156* | *556* | *5* | **841** | *719* | *717* |
| E. N. Central | **2** | **217** | **610** | **2** | *0* | *231* | *562* | *7* | *0* | *223* | *562* | *7* | **831** | *801* | *792* |
| W. N. Central | **6** | **295** | **663** | **3** | *3* | *290* | *696* | *10* | *3* | *278* | *696* | *10* | **966** | *999* | *987* |
| South Atlantic | **196** | **619** | **1,235** | **302** | *138* | *662* | *1,187* | *250* | *133* | *663* | *1,188* | *251* | **2,352** | *2,236* | *2,234* |
| E. S. Central | **73** | **423** | **1,061** | **82** | *26* | *532* | *1,088* | *75* | *28* | *520* | *1,088* | *75* | **1,638** | *1,721* | *1,711* |
| W. S. Central | **172** | **838** | **1,499** | **211** | *88* | *925* | *1,537* | *214* | *87* | *881* | *1,538* | *214* | **2,721** | *2,764* | *2,720* |
| Mountain | **9** | **467** | **1,083** | **117** | *16* | *449* | *945* | *79* | *20* | *447* | *946* | *79* | **1,677** | *1,490* | *1,492* |
| Pacific | **24** | **198** | **719** | **125** | *28* | *169* | *588* | *60* | *27* | *168* | *588* | *59* | **1,067** | *844* | *842* |
| U.S. Average | **71** | **396** | **936** | **122** | *46* | *418* | *877* | *100* | *46* | *410* | *878* | *100* | **1,525** | *1,441* | *1,434* |
| **Cooling Degree Days, Prior 10-year Average** | | | | | | | | | | | | | | | |
| New England | **0** | **83** | **471** | **1** | *0* | *80* | *474* | *1* | *0* | *82* | *468* | *1* | **554** | *555* | *551* |
| Middle Atlantic | **0** | **170** | **609** | **6** | *0* | *163* | *609* | *6* | *0* | *160* | *601* | *7* | **785** | *779* | *767* |
| E. N. Central | **3** | **240** | **579** | **8** | *3* | *234* | *572* | *7* | *3* | *236* | *565* | *7* | **829** | *816* | *810* |
| W. N. Central | **7** | **296** | **696** | **11** | *7* | *294* | *686* | *10* | *7* | *297* | *676* | *10* | **1,010** | *998* | *990* |
| South Atlantic | **127** | **696** | **1,202** | **247** | *143* | *680* | *1,196* | *261* | *146* | *673* | *1,192* | *266* | **2,272** | *2,279* | *2,277* |
| E. S. Central | **36** | **557** | **1,082** | **72** | *42* | *532* | *1,065* | *74* | *42* | *528* | *1,064* | *79* | **1,747** | *1,713* | *1,713* |
| W. S. Central | **100** | **892** | **1,576** | **207** | *114* | *880* | *1,567* | *210* | *113* | *868* | *1,542* | *213* | **2,774** | *2,771* | *2,736* |
| Mountain | **24** | **432** | **939** | **81** | *24* | *445* | *954* | *86* | *24* | *454* | *949* | *86* | **1,476** | *1,508* | *1,512* |
| Pacific | **31** | **185** | **624** | **78** | *31* | *193* | *647* | *85* | *31* | *199* | *652* | *85* | **917** | *957* | *968* |
| U.S. Average | **47** | **420** | **892** | **100** | *52* | *415* | *894* | *105* | *53* | *415* | *889* | *107* | **1,459** | *1,466* | *1,463* |

- = no data available

Notes: EIA completed modeling and analysis for this report on Thursday March 4, 2021.

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

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

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

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

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

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

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