

# **Short-Term Energy Outlook**

**STEO**

**February  
2022**



## Overview

U.S. energy market indicators	2022	2023	2024
<b>Brent crude oil spot price</b> (dollars per barrel)	<b>\$101</b>	<b>\$84</b>	<b>\$78</b>
<b>Retail gasoline price</b> (dollars per gallon)	<b>\$3.97</b>	<b>\$3.39</b>	<b>\$3.10</b>
<b>U.S. crude oil production</b> (million barrels per day)	<b>11.90</b>	<b>12.49</b>	<b>12.65</b>
<b>Natural gas price at Henry Hub</b> (dollars per million British thermal units)	<b>\$6.42</b>	<b>\$3.40</b>	<b>\$4.04</b>
<b>U.S. liquefied natural gas gross exports</b> (billion cubic feet per day)	<b>10.6</b>	<b>11.8</b>	<b>12.6</b>
<b>Shares of U.S. electricity generation</b>			
Natural gas	39%	39%	37%
Coal	20%	17%	17%
Renewables	22%	24%	26%
Nuclear	19%	20%	19%
<b>U.S. GDP</b> (percentage change)	<b>2.0%</b>	<b>0.8%</b>	<b>2.1%</b>
<b>U.S. CO<sub>2</sub> emissions</b> (billion metric tons)	<b>4.97</b>	<b>4.78</b>	<b>4.79</b>

Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, February 2023

- Natural gas prices.** We forecast that the Henry Hub natural gas spot price will average \$3.40 per million British thermal units (MMBtu) in 2023, down almost 50% from last year and about 30% from our January *Short-Term Energy Outlook* (STEO) forecast. We revised our outlook for Henry Hub prices as a result of significantly warmer-than-normal weather in January that led to less-than-normal consumption of natural gas for space heating and pushed inventories above the five-year average.
- Natural gas storage.** As a result of less-than-normal natural gas consumption in January, natural gas inventories ended the month above their five-year (2018–2022) average. We now expect inventories will close the withdrawal season at the end of March at more than 1.8 trillion cubic feet, 16% more than the five-year average.
- Global liquid fuels consumption.** We expect global liquid fuels consumption to increase by 1.1 million barrels per day (b/d) in 2023 and by 1.8 million b/d in 2024, driven primarily by growth in China and other non-OECD countries. The outcomes of our demand forecast remain uncertain as China shifts away from its zero-COVID-19 policy and global economic conditions evolve.
- Global liquid fuels production.** We expect oil production in Russia to average 9.9 million b/d in 2023, down 1.1 million b/d from 2022. Our forecast for Russia’s 2023 production is 0.4 million b/d more than in the January STEO because crude oil liftings data suggest that Russia’s exports have remained higher than we expected following the EU’s ban on seaborne imports of crude oil from Russia that began on December 5. However, we still forecast Russia’s oil production to fall

in the coming months, as we expect the EU's ban on seaborne petroleum products from Russia that began February 5 will cause refineries in Russia to reduce crude oil inputs, which will disrupt crude oil production.

- **Electricity generation.** Electricity generation in our forecast falls by 2% in 2023 and then rises by 2% 2024. The generation mix continues to shift away from coal. The share of U.S. electricity generated from coal falls from 20% in 2022 to 17% in 2024. As the share of coal declines, it will be offset by increases in the share of generation from renewable sources of energy, which rises from 22% in 2022 to 26% in 2024.
- **U.S. GDP growth.** Based on the S&P Global macroeconomic model, we assume U.S. real GDP will contract slightly in the first half of 2023 (1H23), partly resulting from a decline in [residential fixed investment](#). GDP growth picks up in 2H23 and reaches an annual average of 2.1% in 2024.

### Notable forecast changes

Current forecast: February 7, 2023; previous forecast: January 10, 2022

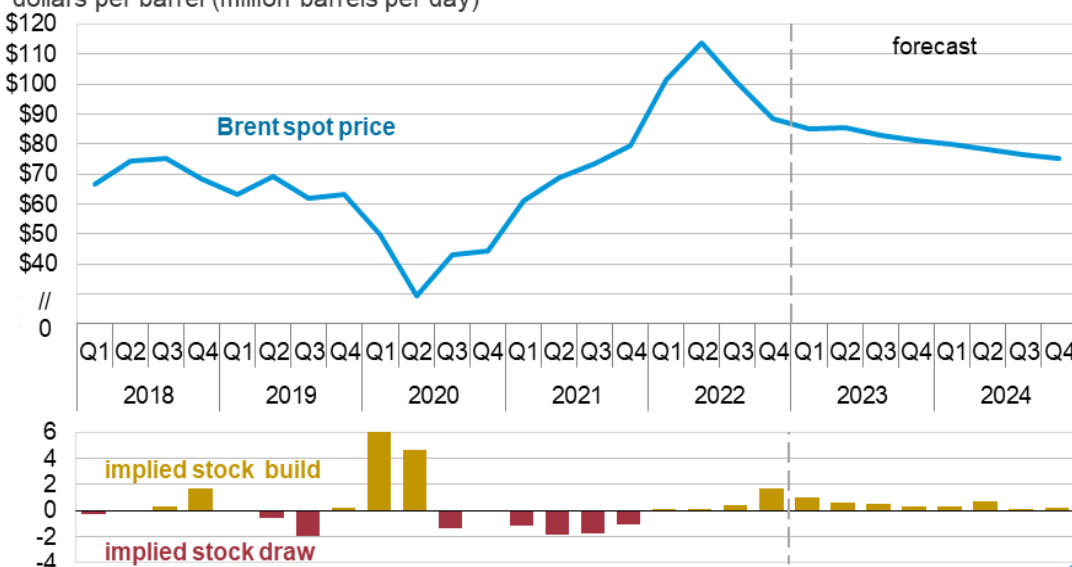
	2023	2024
<b>Natural gas price at Henry Hub (current)</b> (dollars per million British thermal units)	<b>\$3.40</b>	<b>\$4.04</b>
Previous forecast	\$4.90	\$4.80
Percentage change	-30.5%	-15.8%
<b>U.S. coal exports (current)</b> (million short tons)	<b>88.1</b>	<b>96.0</b>
Previous forecast	83.3	92.6
Percentage change	5.7%	3.7%
<b>Jet fuel margin (current)</b> (dollars per gallon)	<b>\$1.02</b>	<b>\$0.49</b>
Previous forecast	\$0.86	\$0.49
Percentage change	18.7%	0.6%
<b>U.S. crude oil production (current)</b> (million barrels)	<b>12.5</b>	<b>12.6</b>
Previous forecast	12.4	12.8
Percentage change	0.6%	-1.2%
<b>Russia petroleum and liquid fuels production (current)</b> (million barrels per day)	<b>9.9</b>	<b>9.8</b>
Previous forecast	9.5	9.4
Percentage change	3.9%	3.8%
<b>China petroleum and liquid fuels consumption (current)</b> (million barrels per day)	<b>15.8</b>	<b>16.2</b>
Previous forecast	15.7	16.1
Percentage change	1.0%	1.0%
<b>U.S. heating degree days (current)</b>	<b>4,083</b>	<b>4,201</b>
Previous forecast	4,158	4,265
Percentage change	-1.8%	-1.5%

Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, February 2023

## Global oil markets

### Brent crude oil spot price and global inventory changes

dollars per barrel (million barrels per day)



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, February 2023



**Crude oil prices:** The Brent crude oil spot price averaged \$82 per barrel (b) in January, about \$2/b higher than the average in December 2022. Oil prices rose during January in part because of the expectation of increasing oil demand as a result of relaxing COVID-19 restrictions and increasing mobility in China. Perceptions of a less severe recession and some improving macroeconomic conditions also likely contributed to rising crude oil prices over the past month.

Last month, [we highlighted](#) oil demand in China and oil production in Russia as two of the main uncertainties in the oil market this year, and we have revised our outlook for both in this month's forecast. The revisions result from China relaxing COVID restrictions, which have increased our forecast of oil demand growth. At the same time, more oil was produced in Russia than we anticipated during January, and we raised our forecast for Russia's oil production through the end of 2024. We have also lowered our forecast for oil production in OPEC because of rising global oil inventories. These changes have largely offset each other in our forecast global balances, and beyond the first quarter of 2023, we have left our crude oil price forecast largely unchanged from last month's outlook.

We expect that the Brent spot price will average \$85/b in the first half of 2023 (1H23). However, we expect global oil production to continue to outpace demand over the forecast period, leading to persistent global oil inventory builds through 2024 and falling oil prices. After increasing by an average of 0.6 million b/d in 2022, we expect global oil inventories to also build by an average of 0.6 million b/d in 2023, with builds moderating to 0.4 million b/d in 2024. Correspondingly, our forecast spot price of Brent crude oil falls to an average of \$82/b in 2H23 and \$78/b in 2024.

**Global oil demand:** Global liquids fuel consumption in the forecast increases from an average of 99.4 million barrels per day (b/d) in 2022 to 102.3 million b/d in 2024, driven primarily by growth in China and other non-OECD countries. However, significant uncertainty around our demand forecast remains

based on possible outcomes for the evolving global economic conditions and China's pivot away from a zero-COVID strategy. We forecast that the reversal of restrictions will contribute to oil demand in China increasing by 0.7 million b/d in 2023 and by 0.4 million b/d in 2024. We expect OECD oil demand to remain largely flat over the forecast period, as inflationary economic pressures continue to limit GDP and oil demand growth and as the oil intensity of OECD economies declines.

**Global oil supply:** Global liquid fuels production averaged about 100.0 million b/d in 2022, and we forecast it will increase by an average of 1.1 million b/d in 2023 and 1.5 million b/d in 2024. Growth in non-OPEC production in both 2023 and 2024, as well as increases in OPEC output in 2024, will mostly offset an approximately 1.1 million b/d decline in Russia's production over the forecast period.

We forecast Russia's production of petroleum and other liquids to decline to 9.9 million b/d in 2023 from more than 10.9 million b/d in 2022 and then average 9.8 million b/d in 2024. For both 2023 and 2024, we forecast about 0.4 million b/d more production in Russia than in last month's STEO. We had previously forecast that the majority of Russia's crude oil exports subject to EU sanctions implemented on December 5 would find new markets, but that the sanctions would lead to some decline in production. However, we assess that Russia's crude oil exports rose in January after a brief decline in December and have since begun to surpass November totals, with little impact to Russia's crude oil production.

The EU ban on seaborne imports of petroleum products from Russia that began on February 5 could be more disruptive than the ban on crude oil imports implemented in December. We assume Russia will be able to reroute some of its petroleum exports subject to EU sanctions. But we do not expect all of its refined product exports will find new destinations because of limited clean tanker availability, which will cause refiners in Russia to reduce crude oil inputs and for Russia's crude oil production to decline.

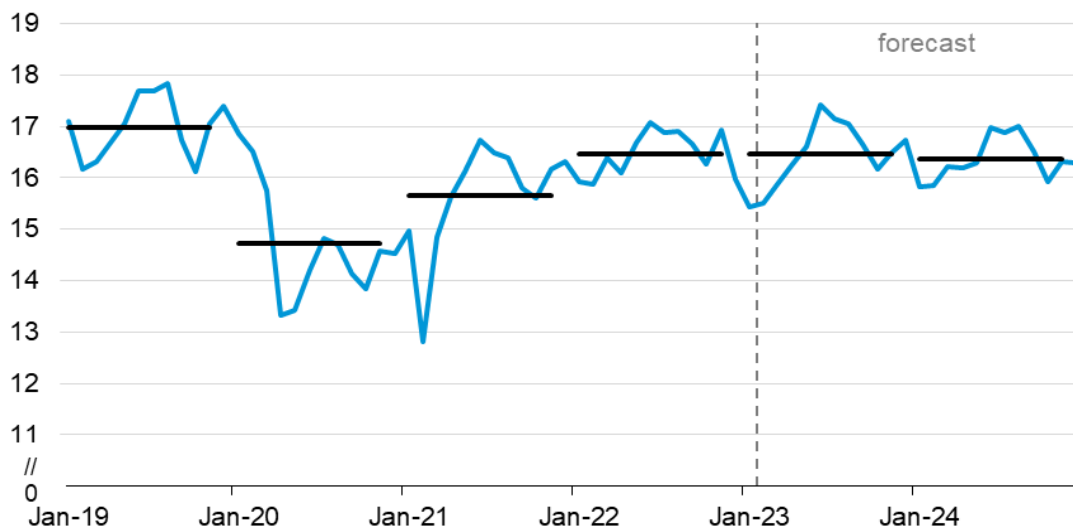
## Petroleum products

**U.S. refinery utilization:** We forecast domestic refinery maintenance will contribute to reduced refinery utilization in the United States through April. [Refinery utilization dropped](#) because of severe cold weather that swept through the midcontinent in late December, contributing to partial unit shutdowns, reductions in run rates, and a few instances of unit damage. December refinery inputs fell below 16 million barrels per day (b/d), marking the largest month-over-month decline in two years when significant cold weather [disrupted refinery operations in February 2021](#).

In 2022, many refiners postponed planned maintenance during the spring and fall as low product inventories and high refining margins encouraged refiners to maximize utilization. Although refining margins remain above normal levels, we expect more refiners will undergo deferred maintenance this season. We forecast U.S. distillation inputs will be less than 16 million b/d until April. Utilization remains below 90% until May, which we forecast will keep refining margins for gasoline and diesel above year-ago levels during February and March. However, we expect refinery inputs and utilization to increase after maintenance is completed, and 2023 inputs will likely be similar to 2022 inputs, leading to falling refining margins beginning in the second quarter of 2023. ExxonMobil's planned startup of a 250,000 b/d [capacity expansion](#) at its Beaumont refinery in the first half of this year will contribute to the

increase. We expect slightly less 2024 refinery inputs compared with 2023, partly due to the [expected closure](#) of LyondellBasell's Houston refinery at the end of 2023.

### U.S. total refinery inputs million barrels per day

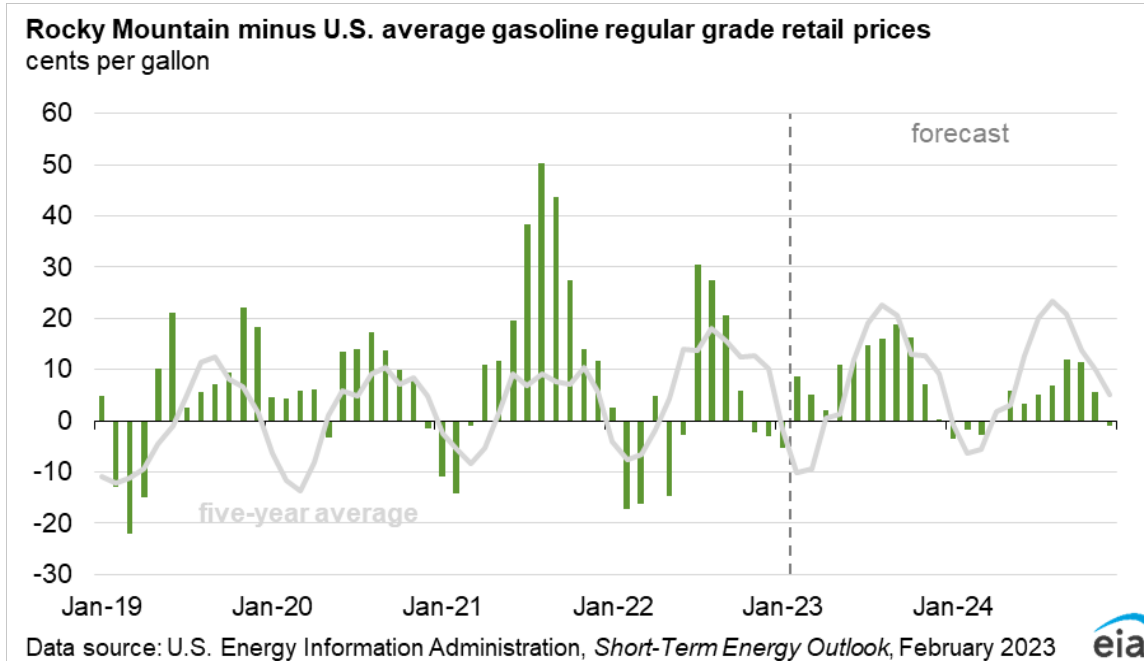


Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, February 2023

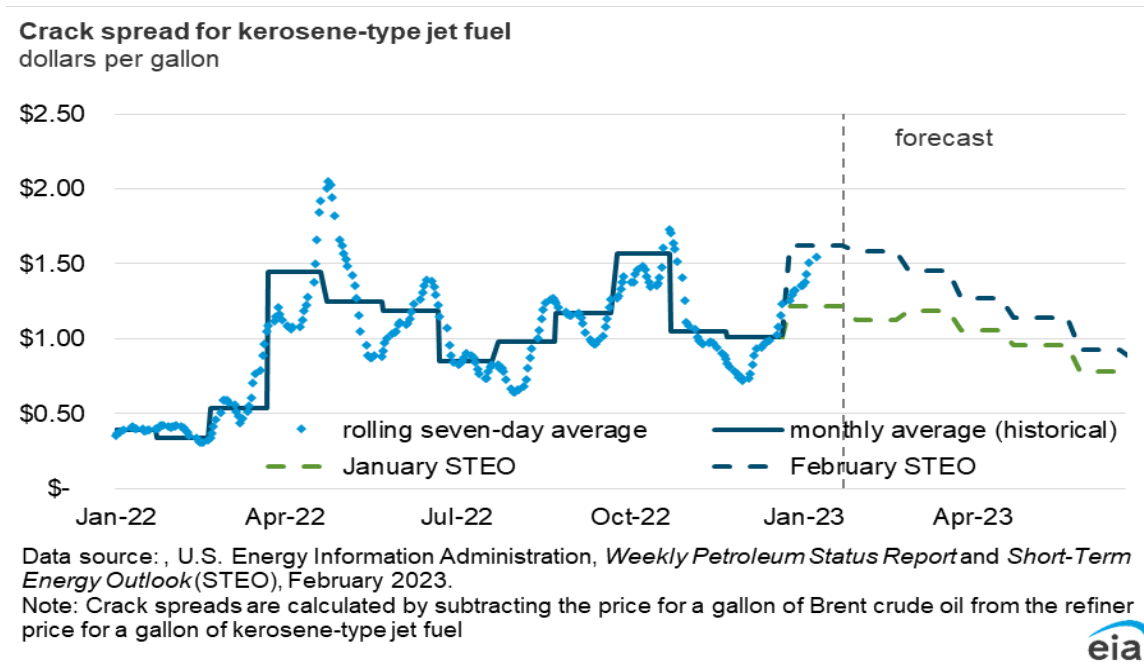


**Rocky Mountain retail prices:** On December 24, Suncor began repairing its 103,000 b/d Commerce City refinery in Colorado following unit damage related to cold weather. We expect this Colorado refinery will be unavailable until late in the [first quarter](#). This outage will contribute to reduced refinery utilization and gasoline production in the Rocky Mountain region (PADD 4) through March, which we expect will lead to higher retail fuel prices.

We forecast retail gasoline prices in the Rocky Mountains will reach \$3.58 per gallon (gal) in February, up from \$3.18/gal in December. This increase is more than our forecast increase for the U.S. average retail gasoline price, which rises from \$3.21/gal in December to \$3.49/gal in February. Rocky Mountain retail fuel prices are normally lower than the U.S. average during the winter months; however, we estimate that they will be at a premium in February and March, compared with averaging a nearly 10 cent/gal discount over the past five years. Although Colorado is more connected to the Midwest and Gulf Coast regions than other parts of the Rocky Mountains, the potential for prolonged refinery outage at the Commerce City refinery could contribute to wider changes in regional retail prices.



**Jet fuel prices:** The jet fuel crack spread increased significantly in January, leading us to revise our February STEO forecast compared with our January STEO. The increased jet fuel price is a response to low inventories, less refinery production related to recent weather, and increasing international demand. Jet fuel prices increased sharply at several times in 2022, moving in sync with similar increases in the price of distillate fuel. However, distillate fuel prices in January did not increase as much as jet fuel prices, probably because very mild weather limited demand for heating oil (a type of distillate fuel). As China lessens COVID restrictions, leading to increasing jet fuel demand, we expect jet fuel refining margins will be higher than we previously forecast in the coming months.

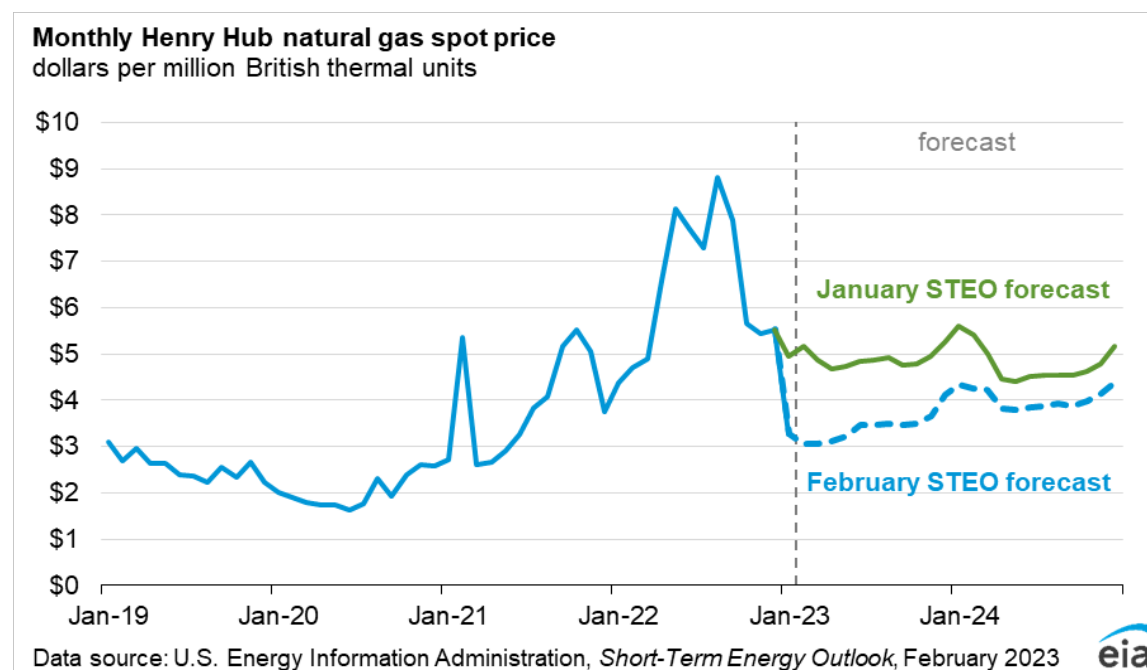


## Natural gas

**Natural gas prices:** Temperatures across the United States in January were the mildest since 2006, which reduced consumption of natural gas for space heating and significantly changed our forecast for natural gas markets in the coming months. The Henry Hub spot price averaged \$3.27 per million British thermal units (MMBtu) in January, down more than \$2/MMBtu from December. In the United States, there were 16% fewer heating degree days (HDDs) in January than the 10-year average and 9% fewer than forecast in the January STEO. With less-than-expected consumption of natural gas, U.S. stocks of natural gas ended January above our previous forecast.

These developments in January contributed to significant changes in our outlook for the February STEO. We now forecast Henry Hub natural gas prices to average about \$3.40/MMBtu for 2023 and to stay below \$4.00/MMBtu until December. Our forecast in the January STEO was for Henry Hub prices to average almost \$5.00/MMBtu in 2023.

Natural gas prices remain very volatile. Extreme weather events and production freeze-offs could still potentially cause price spikes at both the Henry Hub and in regional markets, but that potential diminishes as spring approaches, particularly now that inventories have moved back above the five-year (2018–2022) average. Although we expect close-to-normal weather for February and March, colder temperatures than expected could put upward pressure on prices. The Freeport LNG export facility, which went [offline in June due to a fire](#), is expected to come back online in the first quarter of 2023 and will likely add over 2 billion cubic feet per day (Bcf/d) of natural gas demand to the U.S. market once fully operational.

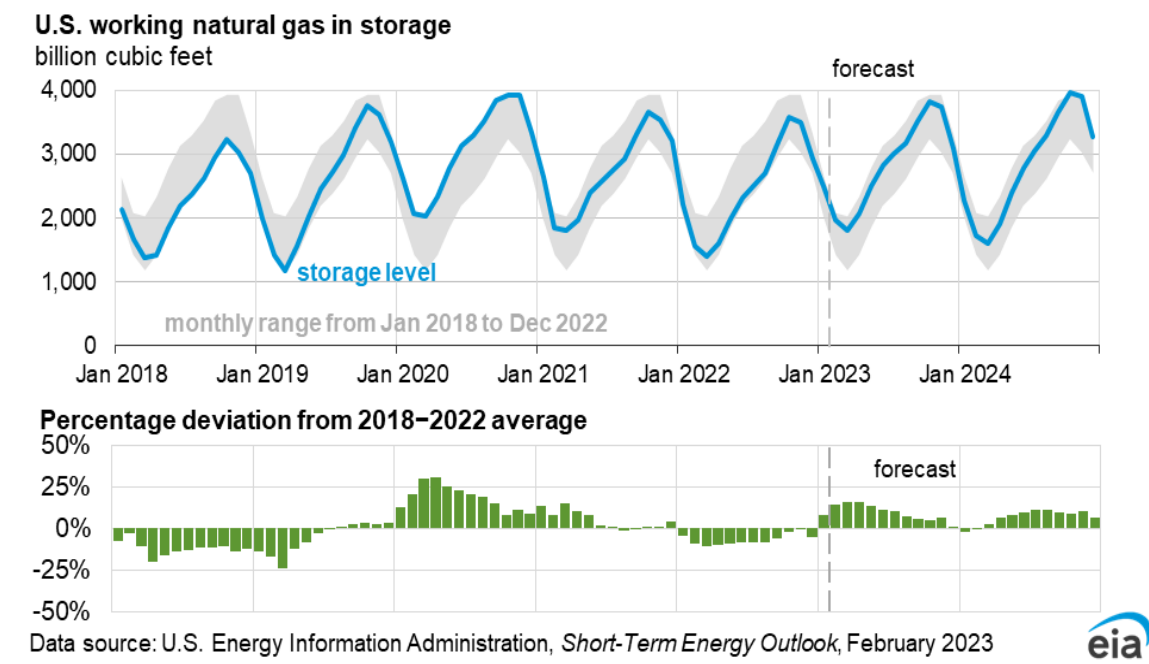


**Natural gas markets:** U.S. natural gas production growth has been outpacing demand growth the past several months, helping reduce natural gas prices. We estimate that dry natural gas production in the United States averaged 100.2 Bcf/d in January. We forecast dry natural gas production to continue to



hover around 100 Bcf/d for most of this year; overall, we expect dry natural gas production to average between 100 Bcf/d and 101 Bcf/d in 2023. U.S. consumption of natural gas was below average in January because very mild weather reduced demand for space heating. We expect less demand for natural gas than last year for most of 2023 due to decreased demand in the electric power sector as more renewable electric generation sources come online throughout the year and due to decreased demand in the industrial sector as a result of an expected drop in manufacturing activity. We expect utilization at U.S. liquefied natural gas (LNG) export facilities to be slightly lower in the next few months compared with our previous forecast because of high natural gas stock levels in Europe. But U.S. LNG exports in our forecast rise once the Freeport facility is back online, and LNG exports increase by 11% (1.2 Bcf/d) on an annual basis in 2023 compared with 2022.

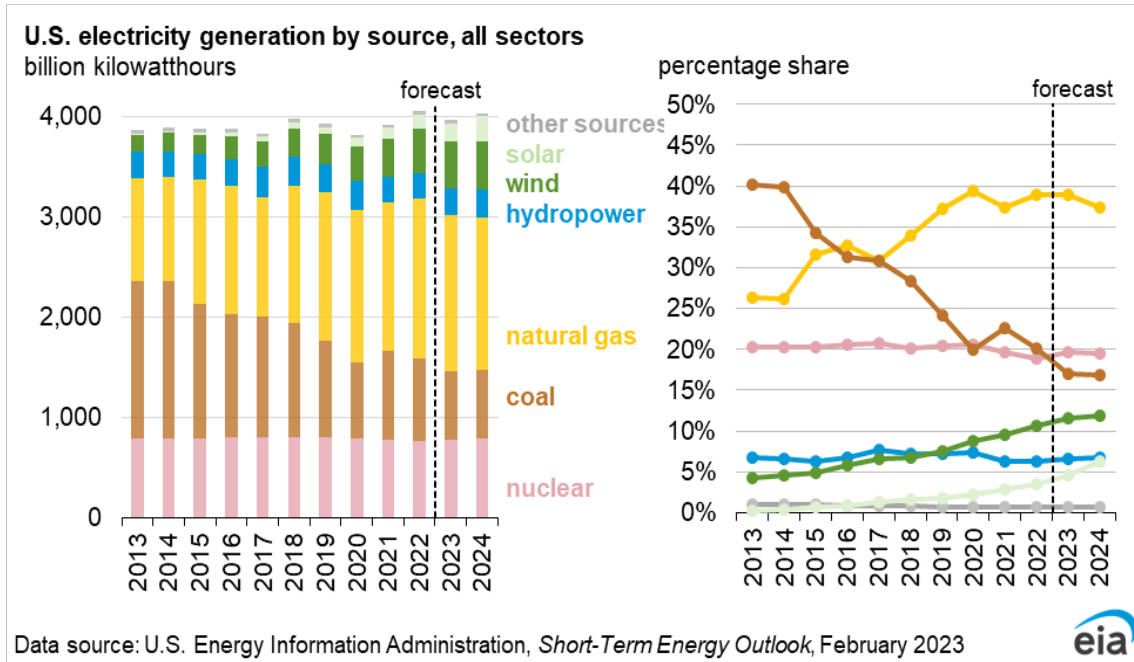
**Natural gas storage:** We forecast that natural gas storage inventories will end the withdrawal season (November through March) at more than 1.8 trillion cubic feet (Tcf), which would be 16% above the five-year average and 19% more than we had forecast in the January STEO. The warmer-than-normal January temperatures reduced natural gas storage withdrawals below average, causing storage inventories to rise above the five-year (2018–2022) average at the end of January. We expect above-average storage inventories to reduce natural gas prices in 2023 from 2022, when end-of-March storage inventories were 1.4 Tcf, 17% below the previous five-year (2017–2021) average.



## Electricity, coal, and renewables

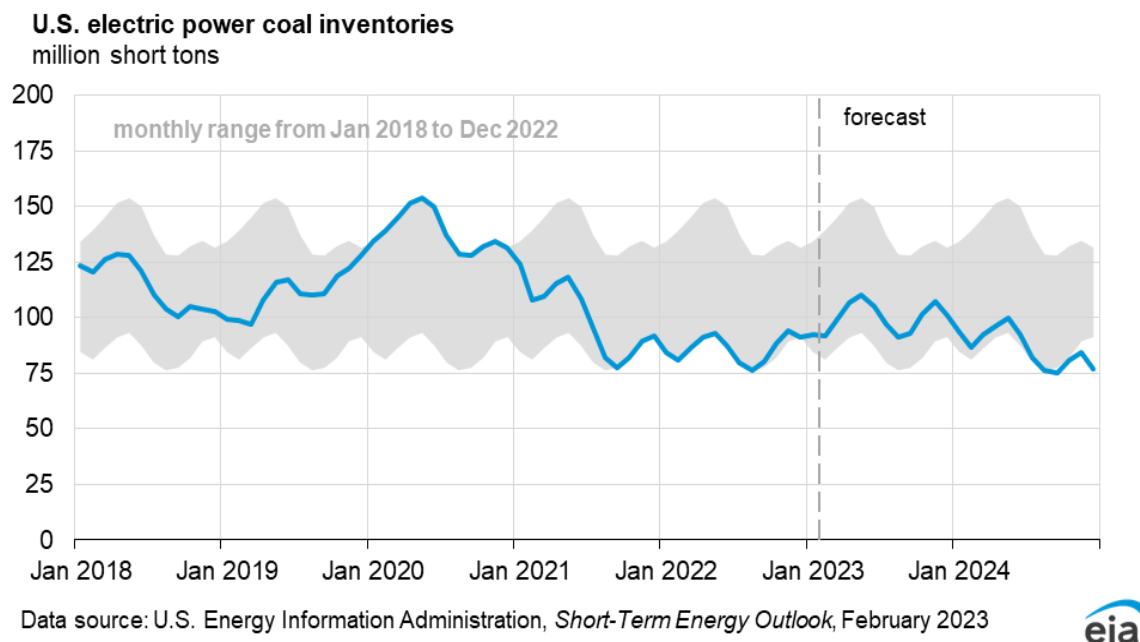
**Electricity generation:** We expect U.S. electric power generation to decline by 2% in 2023 before rising by a similar amount in 2024. At the same time, the makeup of the power generation mix will slightly shift. In our forecast, electricity produced from renewable sources rises from 22% of total generation in 2022 to 24% in 2023 and to 26% in 2024. The gains in the share of renewable energy generation will be driven by about 63 gigawatts (GW) of utility-scale solar generating capacity that

developers have scheduled to enter service by the end of 2024 and about 13 GW of wind capacity that will come online during the same two years. We expect the new generating capacity from renewable sources to reduce output from fossil fuel-fired power plants. The combined share of U.S. generation provided by natural gas and coal in our forecast falls from 59% in 2022 to 54% in 2024. Coal generation declines the most; coal’s share falls from 20% in 2022 to 17% in 2024. Natural gas-fired generation’s share drops from 39% in 2022 to 37% in 2024.



More volatility in fuel costs creates uncertainty around how natural gas and coal-fired generation will respond to increased renewable generating capacity. After lowering our February forecast for near-term natural gas prices, the forecast share of natural gas generation for 2023 is now 39%, up from a forecast 2023 share of 38% in the previous STEO. Upcoming renewable capacity additions will limit the variation in natural gas generation to changes in fuel cost.

**Coal Markets:** Coal stocks increased 4% in January 2023 with less coal-fired electricity generation after warmer-than-average temperatures reduced overall electricity generation and falling natural gas prices increased natural gas-fired electricity generation. At the same time, monthly coal production rose in late 2022.



We expect U.S. coal production to decline by 13% to 518 million short tons (MMst) in 2023, after increasing in both 2021 and 2022, with a further 5% decline to 494 MMst in 2024. Primarily, we forecast a 16% reduction in coal consumption by the electric power sector in 2023 followed by flat consumption in 2024. That decline largely reflects almost 9.6 GW of coal-fired capacity retirements in 2023, followed by another 2.8 GW closing in 2024. Two other factors will be the lower natural gas prices and 19% increase in renewable generation over those two years. Consequently, coal imports in our forecast decline by 47% from 2022 to less than 4 MMst in 2024.

Exports of steam coal in our forecast increase from 39 MMst in 2022 to 45 MMst in 2024, due largely to greater demand in Europe. Coal from the United States is helping supply Europe following the EU's ban of coal imports from Russia. U.S. coal exports also fulfill demand in Asia.

## Economy, weather, and CO<sub>2</sub>

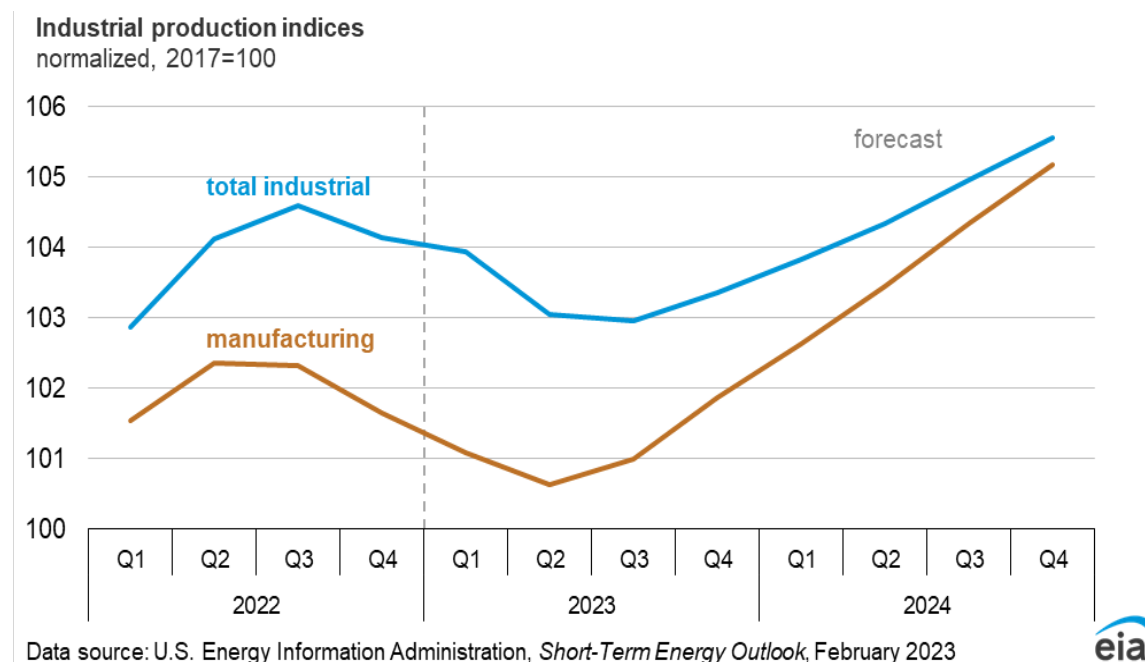
**U.S. macroeconomics:** Our U.S. macroeconomic forecasts are based on S&P Global's macroeconomic model. We incorporate STEO energy price forecasts into the model to obtain the final macroeconomic assumptions.

S&P Global continues to forecast a mild recession starting in the first quarter of 2023 (1Q23) through 2Q23. Real U.S. GDP in the forecast contracts at an annualized rate of 1.3% in 1Q23 and 0.3% in 2Q23, mostly due to a decline in residential fixed investment, private business inventories of goods, and industrial production. However, we revised our forecast of 2023 real GDP upward by 0.3 percentage points from the January STEO and 2023 GDP growth now averages 0.8%.

U.S. manufacturing production contracted in November 2022. As a result, the 4Q22 estimate of the Manufacturing Production Index was revised lower by 1.0%. The slowing of manufacturing activity is

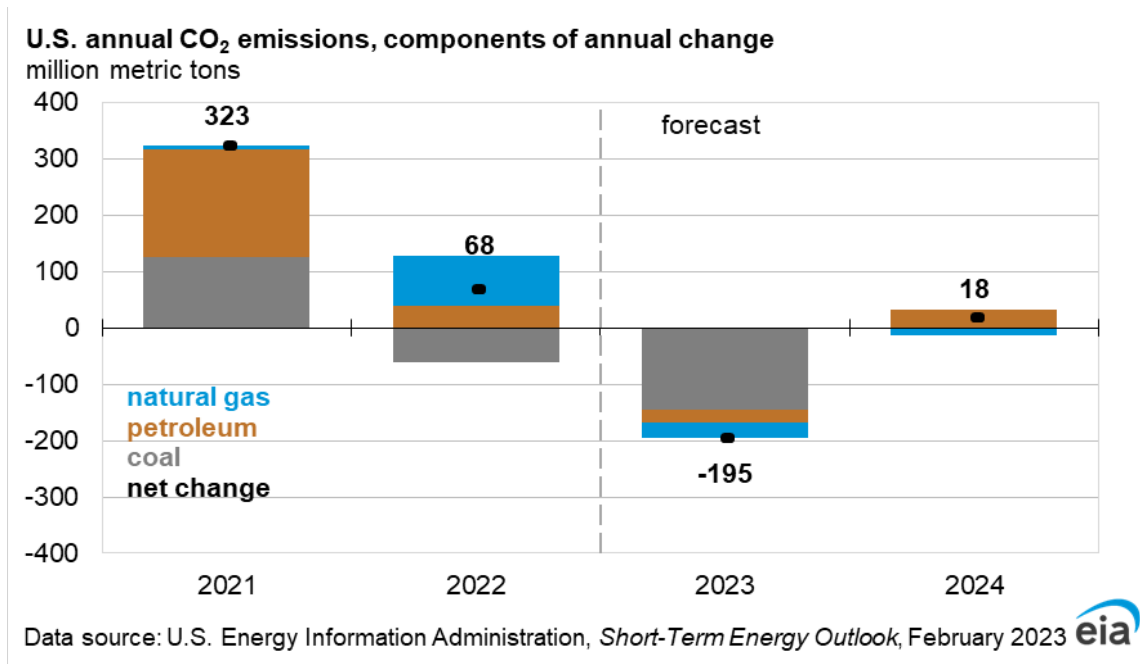
likely the result of a shift in consumer spending away from goods toward services and resulting in a reduction in diesel fuel consumption in our forecast.

S&P Global expects U.S. GDP to grow by 2.1% in 2024 as the economy shifts out of recession and returns to positive GDP growth beginning in 3Q23. In addition, GDP growth is expected to be led by net exports and personal consumption expenditures in 2Q23, with a more broad-based increase occurring later in the year.



**Emissions:** We expect U.S. energy-related carbon dioxide (CO<sub>2</sub>) emissions to decrease slightly more than previously forecast, declining by almost 4% in 2023. The decrease is driven by slow economic growth and a continuing increase in electricity generation from renewable sources, which reduces fossil fuel-fired generation and associated CO<sub>2</sub> emissions. Among the major fossil fuel categories, CO<sub>2</sub> emissions from coal decline by around 15%, mostly from decreasing coal-fired electricity generation. We forecast natural gas emissions to decrease by around 1% as natural gas-fired electricity generation also decreases. Renewable sources displace generation from both fuels. We expect petroleum emissions to fall by 1% in 2023 compared with 2022.

We expect U.S. energy-related CO<sub>2</sub> emissions in 2024 to remain almost unchanged from 2023. Petroleum CO<sub>2</sub> emissions increase slightly as a result of increases in air and road travel. Coal emissions remain flat as coal-fired electricity generation continues to decrease. Natural gas emissions fall slightly. Although natural gas consumption will likely decrease in the industrial and electric power sectors in 2024, it will be partly offset by an increase in the residential and commercial sectors, driven by our expectation of increased demand for space heating.



**Weather:** In January, weather in the United States was very mild, with 16% fewer population-weighted HDDs than the 10-year average; the mildest January since 2006. Based on forecasts from the National Oceanic and Atmospheric Administration, in 1Q23 we expect 8% fewer HDDs in the United States compared with 1Q22 and 7% fewer than the 10-year average. We have updated our expectations for [winter heating fuel expenditures](#) based on the most recent temperature and price forecasts.

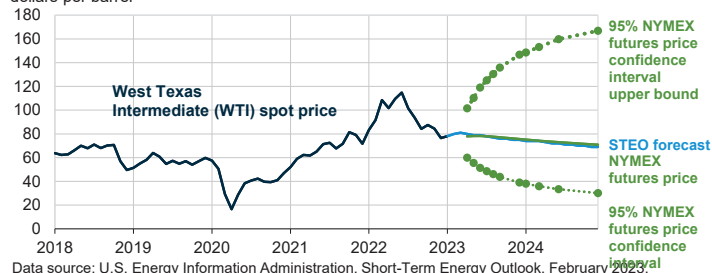
The U.S. Energy Information Administration (EIA), the statistical and analytical agency within the U.S. Department of Energy (DOE), prepared this report. By law, our data, analyses, and forecasts are independent of approval by any other officer or employee of the U.S. Government. The views in this report do not represent those of DOE or any other federal agencies.

# Short-Term Energy Outlook Chart Gallery



February 7, 2023

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

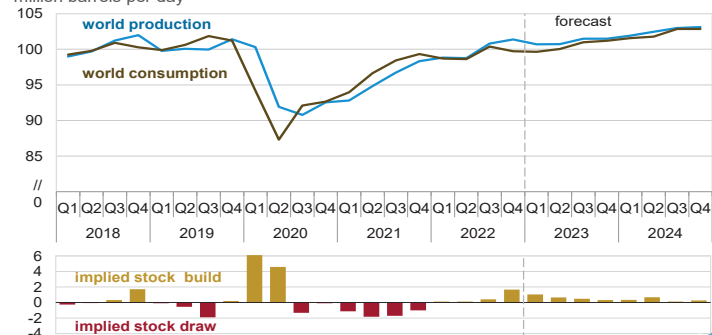


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023, CME Group, Bloomberg, L.P., and Refinitiv an LSEG Business

Note: Confidence interval derived from options market information for the five trading days ending February 2, 2023. Intervals not calculated for months with sparse trading in near-the-money options contracts.



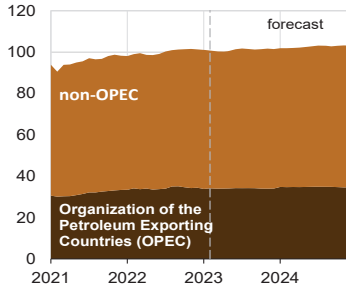
**World liquid fuels production and consumption balance**  
million barrels per day



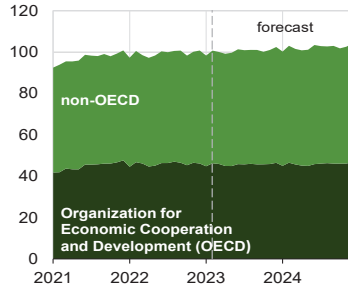
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023



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

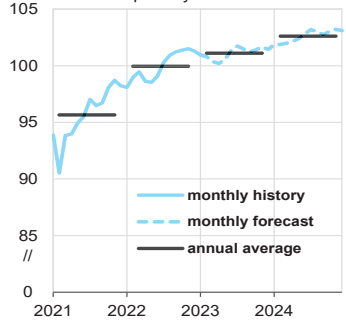


**World liquid fuels consumption**  
million barrels per day

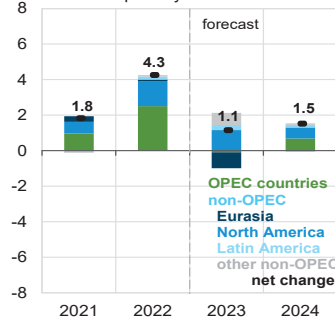


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

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

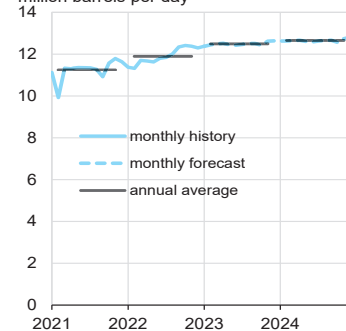


**Components of annual change**  
million barrels per day

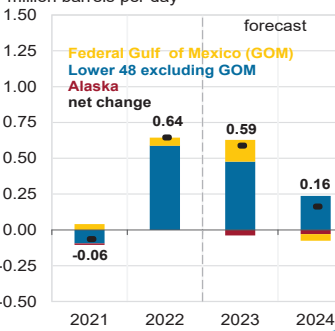


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

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

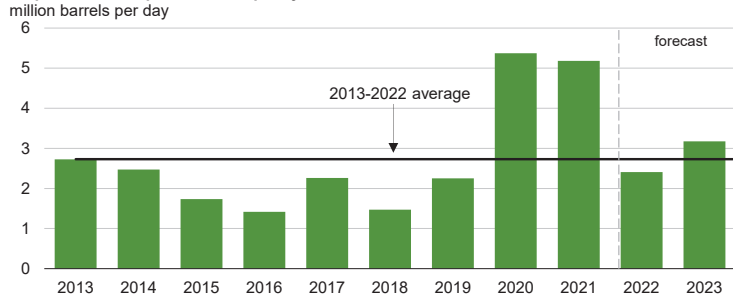


**Components of annual change**  
million barrels per day



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

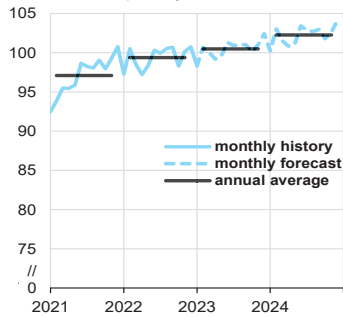
**Organization of the Petroleum Exporting Countries (OPEC)  
surplus crude oil production capacity**



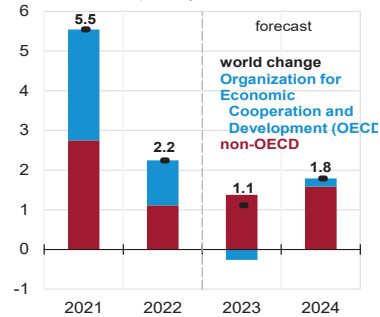
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023  
 Note: Black line represents 2013-2022 average (2.7 million barrels per day).



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



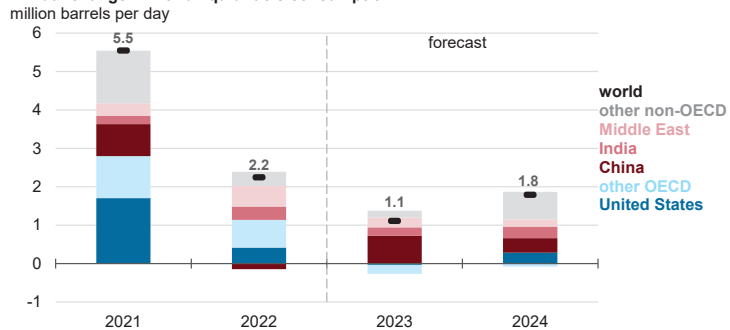
**Components of annual change**  
million barrels per day



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023



**Annual change in world liquid fuels consumption**

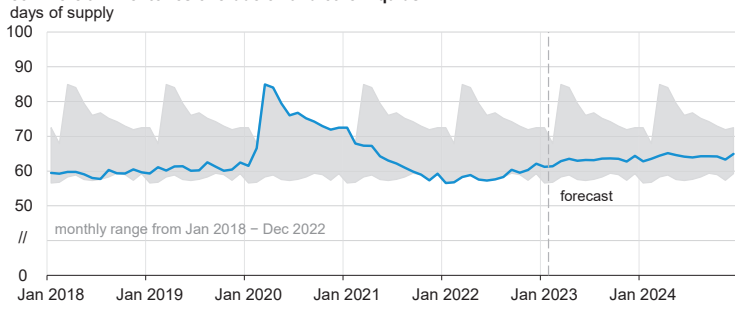


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023





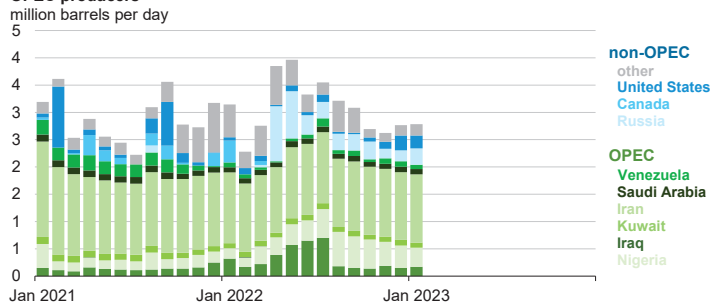
**Organization for Economic Cooperation and Development (OECD)**  
**commercial inventories of crude oil and other liquids**



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023



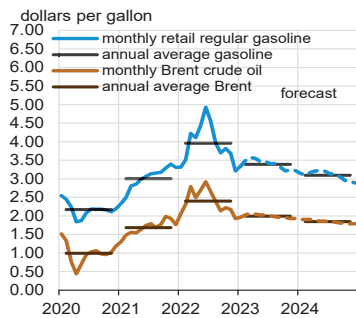
**Estimated unplanned liquid fuels production outages among OPEC and non-OPEC producers**



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

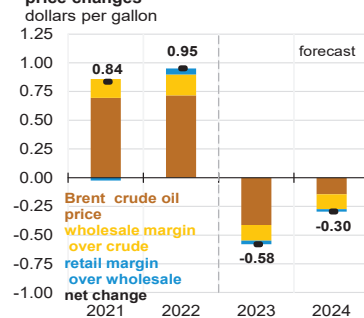


**U.S. gasoline and crude oil prices**

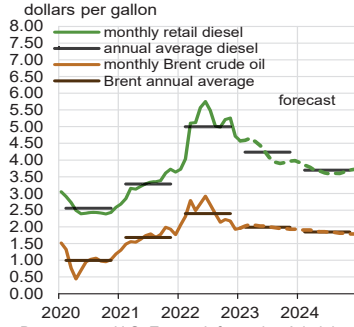


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023, and Refinitiv an LSEG Business

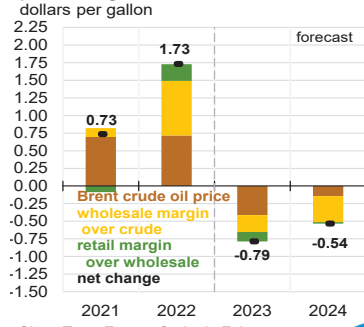
**Components of annual gasoline price changes**



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



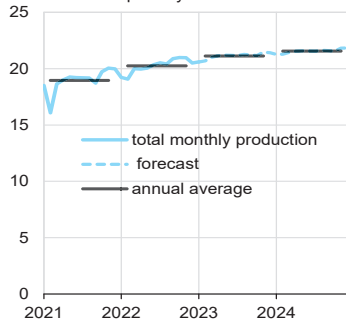
**Components of annual diesel price changes**



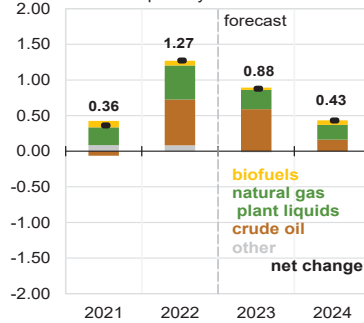
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023, and Refinitiv an LSEG Business



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



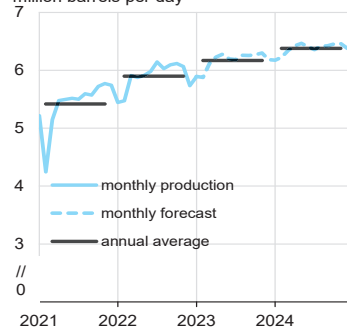
**Components of annual change**



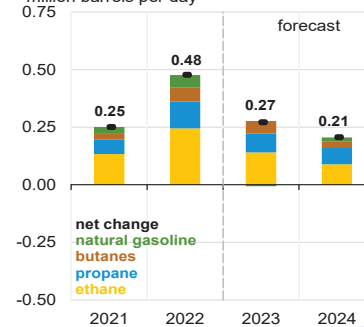
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023



**U.S. natural gas plant liquids production**



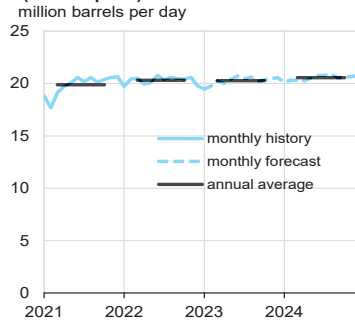
**Components of annual change**



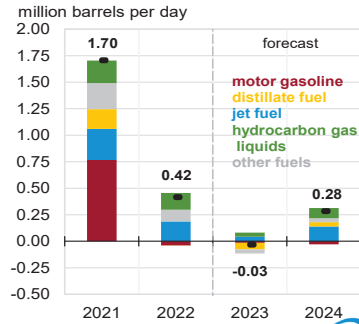
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023



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

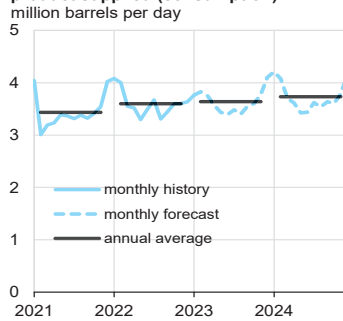


**Components of annual change**

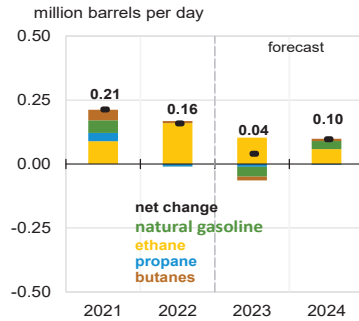


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

**U.S. hydrocarbon gas liquids product supplied (consumption)**

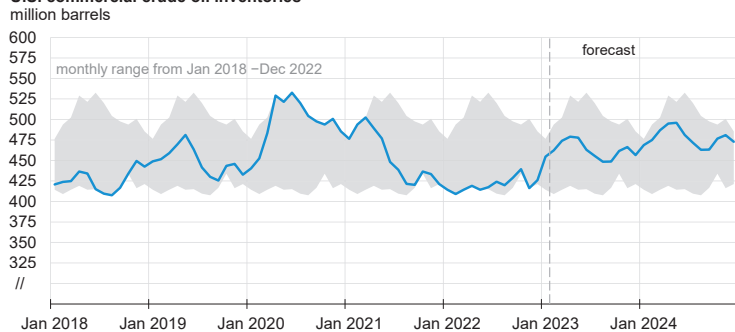


**Components of annual change**



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

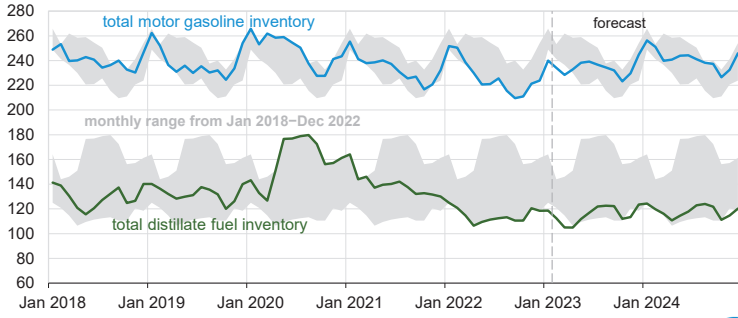
**U.S. commercial crude oil inventories**



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

### U.S. gasoline and distillate inventories

million barrels

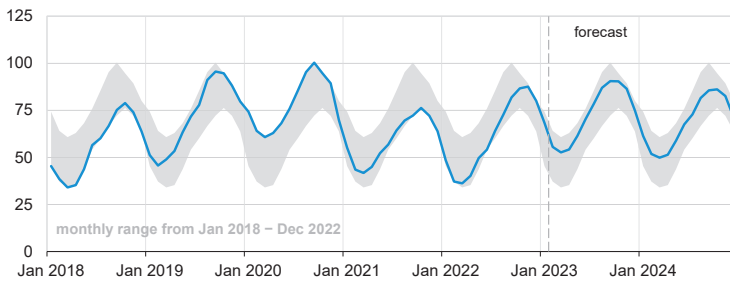


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023



### U.S. commercial propane inventories

million barrels



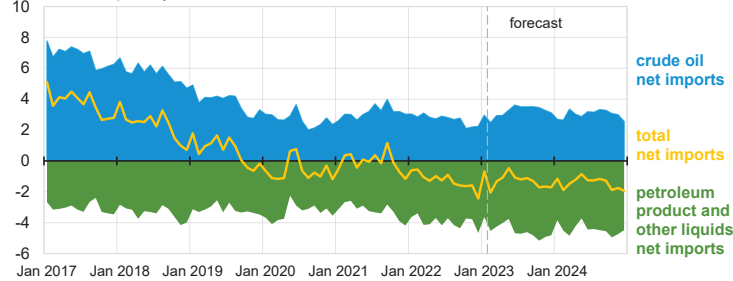
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

Note: Excludes propylene.



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

million barrels per day

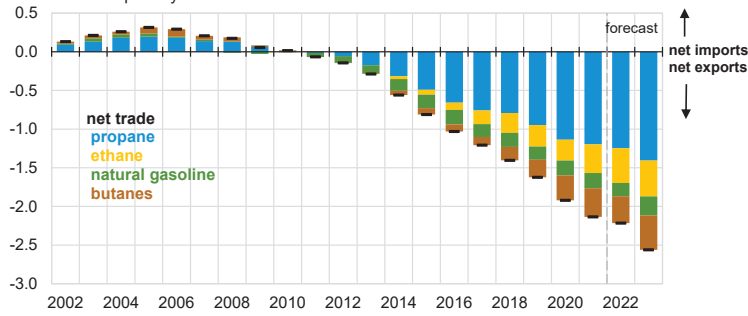


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

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.



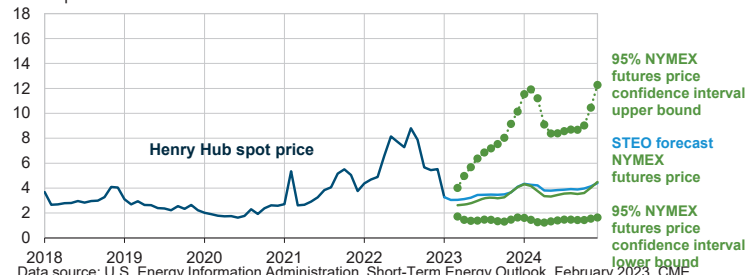
**U.S. net trade of hydrocarbon gas liquids (HGL)**  
million barrels per day



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023



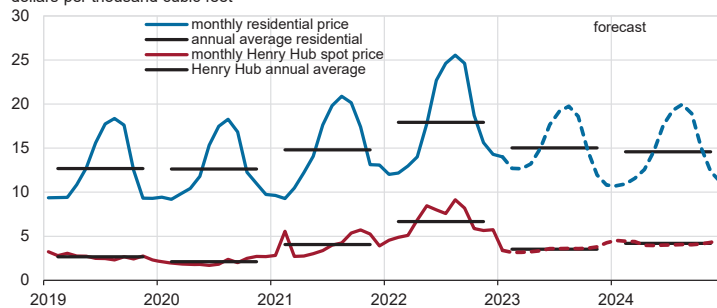
**Henry Hub natural gas price and NYMEX confidence intervals**  
dollars per million British thermal units



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023, CME Group, and Refinitiv an LSEG Business  
Note: Confidence interval derived from options market information for the five trading days ending February 2, 2023. Intervals not calculated for months with sparse trading in near-the-money options contracts.



**U.S. natural gas prices**  
dollars per thousand cubic feet

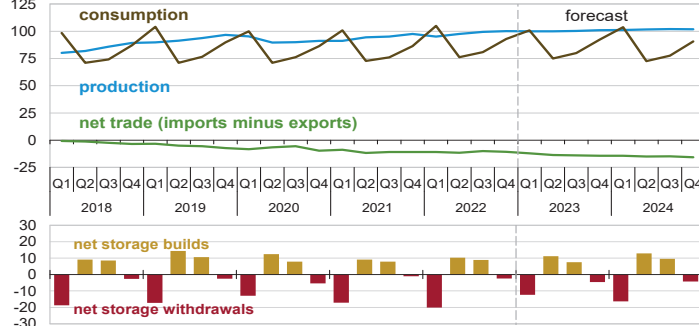


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023, and Refinitiv an LSEG Business



**U.S. natural gas production, consumption, and net imports**

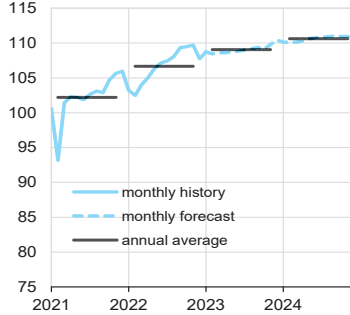
billion cubic feet per day



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

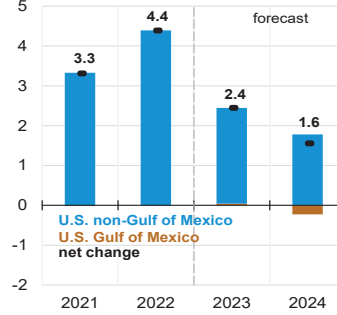
**U.S. marketed natural gas production**

billion cubic feet per day



**Components of annual change**

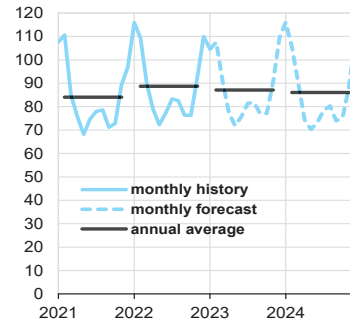
billion cubic feet per day



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

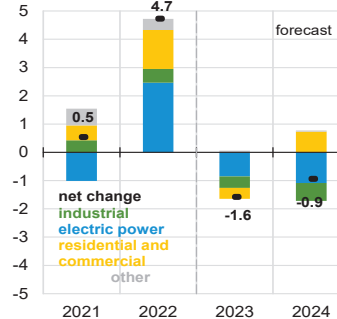
**U.S. natural gas consumption**

billion cubic feet per day



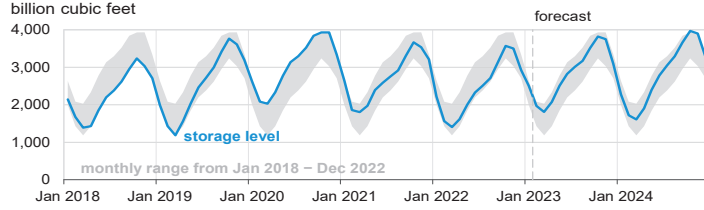
**Components of annual change**

billion cubic feet per day



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

**U.S. working natural gas in storage**

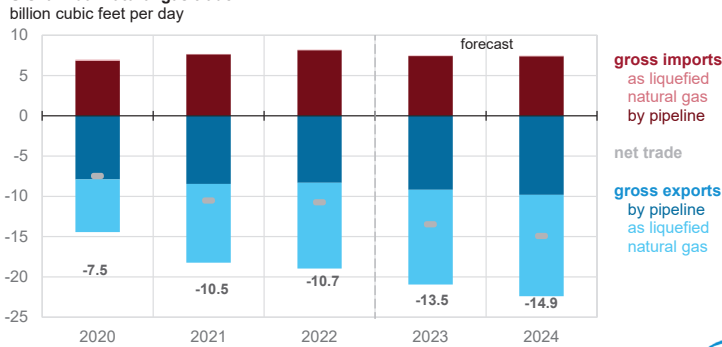


**Percentage deviation from 2018 – 2022 average**



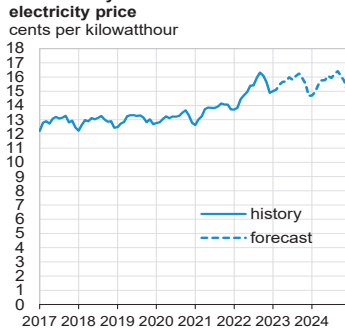
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

**U.S. annual natural gas trade**

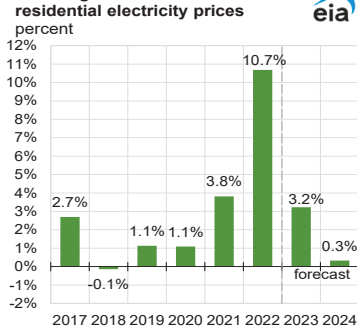


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

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

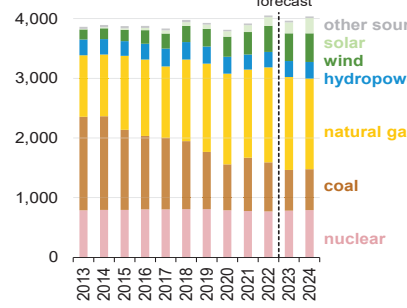


**Annual growth in nominal residential electricity prices**

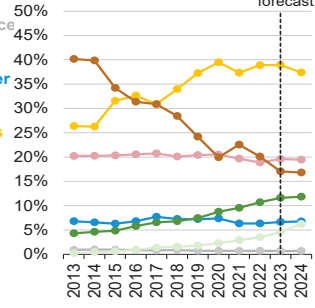


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

**U.S. electricity generation by source, all sectors**  
billion kilowatthours

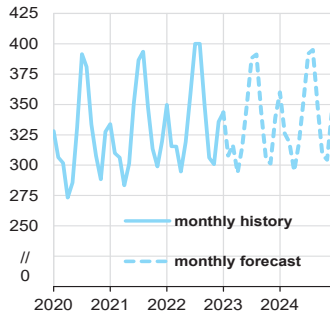


percentage share

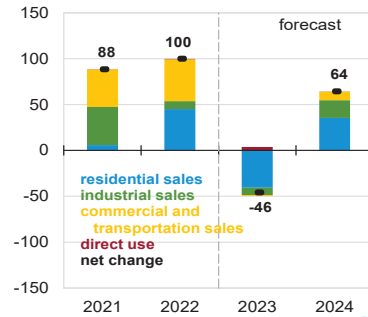


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

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

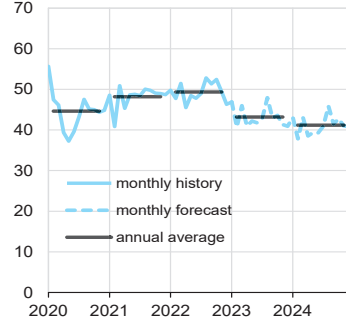


**Components of annual change**  
billion kilowatthours

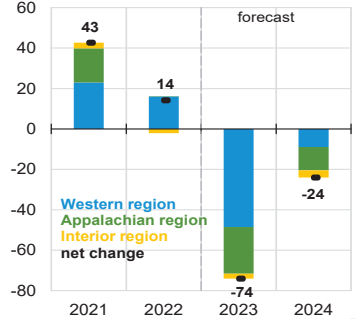


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

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



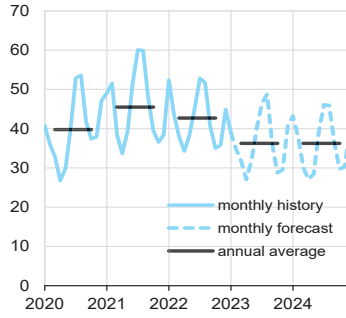
**Components of annual change**  
million short tons



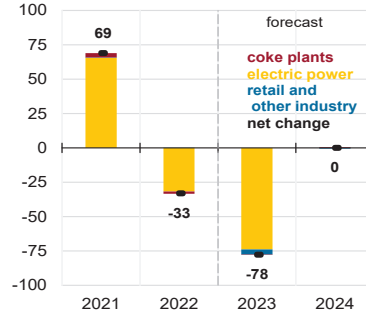
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023



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

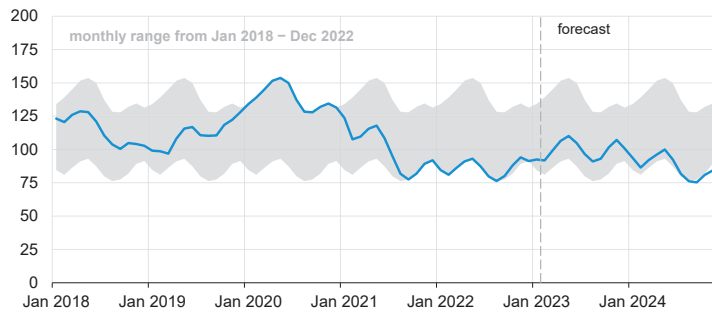


**Components of annual change**  
million short tons



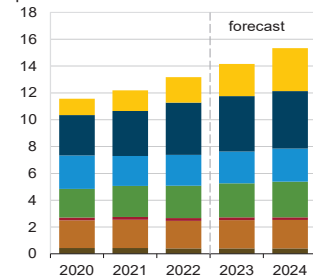
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

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

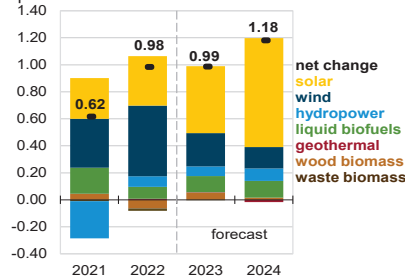


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

**U.S. renewable energy supply**  
quadrillion British thermal units



**Components of annual change**  
quadrillion British thermal units

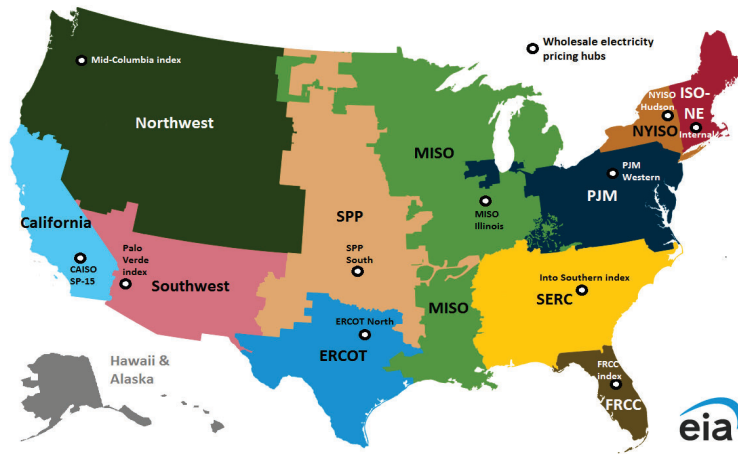


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

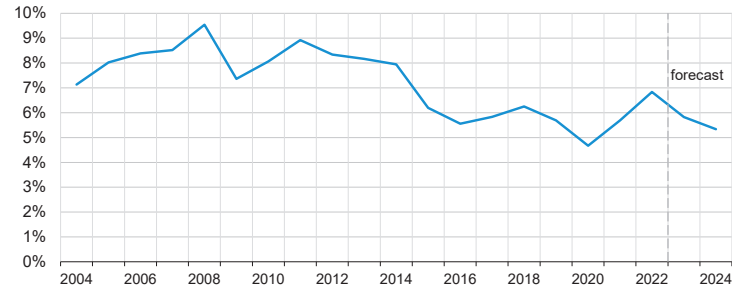
Note: Hydropower excludes pumped storage generation. Liquids include ethanol, biodiesel, renewable diesel, other biofuels, and biofuel losses and coproducts. Waste biomass includes municipal waste from biogenic sources, landfill gas, and non-wood waste.



### Short-Term Energy Outlook electricity supply regions



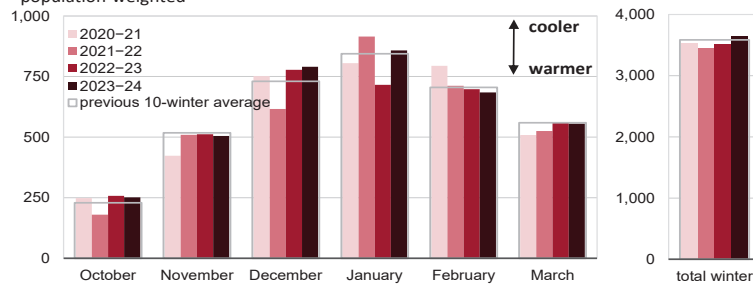
### U.S. annual energy expenditures share of gross domestic product



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023



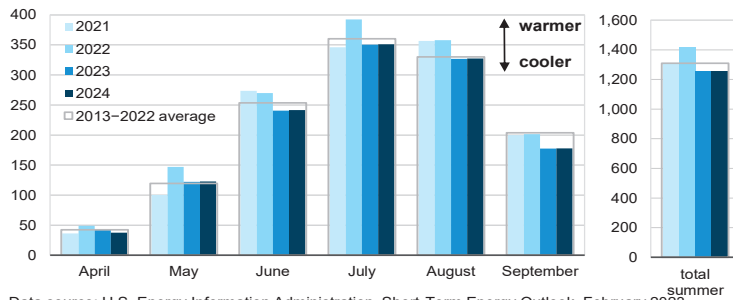
### U.S. winter heating degree days population-weighted



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023  
 Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

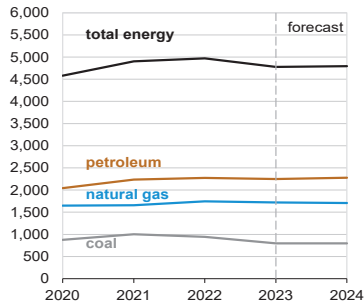


**U.S. summer cooling degree days**  
population-weighted

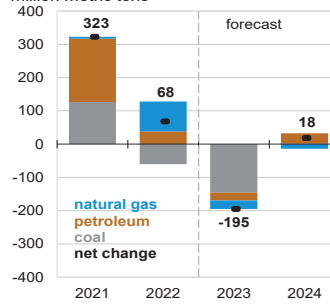


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023  
 Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

**U.S. annual CO2 emissions by source**  
million metric tons



**Components of annual change**  
million metric tons



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2023

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

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2023

	2022				2023				2024				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2022	2023	2024
<b>Energy Production</b>															
Crude Oil Production (a) (million barrels per day) .....	<b>11.47</b>	<b>11.70</b>	<b>12.06</b>	<b>12.36</b>	<i>12.44</i>	<i>12.46</i>	<i>12.49</i>	<i>12.56</i>	<i>12.63</i>	<i>12.62</i>	<i>12.65</i>	<i>12.70</i>	<b>11.90</b>	<i>12.49</i>	<i>12.65</i>
Dry Natural Gas Production (billion cubic feet per day) .....	<b>95.09</b>	<b>97.59</b>	<b>99.46</b>	<b>100.13</b>	<i>99.87</i>	<i>99.95</i>	<i>100.34</i>	<i>100.89</i>	<i>101.21</i>	<i>101.63</i>	<i>101.95</i>	<i>101.91</i>	<b>98.09</b>	<i>100.27</i>	<i>101.68</i>
Coal Production (million short tons) .....	<b>149</b>	<b>142</b>	<b>153</b>	<b>148</b>	<i>134</i>	<i>125</i>	<i>134</i>	<i>126</i>	<i>124</i>	<i>117</i>	<i>128</i>	<i>125</i>	<b>592</b>	<i>518</i>	<i>494</i>
<b>Energy Consumption</b>															
Liquid Fuels (million barrels per day) .....	<b>20.22</b>	<b>20.27</b>	<b>20.47</b>	<b>20.26</b>	<i>19.84</i>	<i>20.38</i>	<i>20.41</i>	<i>20.45</i>	<i>20.26</i>	<i>20.52</i>	<i>20.75</i>	<i>20.69</i>	<b>20.30</b>	<i>20.27</i>	<i>20.56</i>
Natural Gas (billion cubic feet per day) .....	<b>104.85</b>	<b>76.13</b>	<b>80.79</b>	<b>92.96</b>	<i>100.88</i>	<i>75.06</i>	<i>80.05</i>	<i>92.35</i>	<i>103.68</i>	<i>72.58</i>	<i>77.59</i>	<i>90.60</i>	<b>88.63</b>	<i>87.04</i>	<i>86.10</i>
Coal (b) (million short tons) .....	<b>134</b>	<b>118</b>	<b>145</b>	<b>116</b>	<i>105</i>	<i>99</i>	<i>131</i>	<i>99</i>	<i>111</i>	<i>95</i>	<i>128</i>	<i>100</i>	<b>512</b>	<i>435</i>	<i>435</i>
Electricity (billion kilowatt hours per day) .....	<b>10.90</b>	<b>10.68</b>	<b>12.50</b>	<b>10.25</b>	<i>10.76</i>	<i>10.55</i>	<i>12.22</i>	<i>10.29</i>	<i>11.05</i>	<i>10.62</i>	<i>12.34</i>	<i>10.39</i>	<b>11.08</b>	<i>10.96</i>	<i>11.10</i>
Renewables (c) (quadrillion Btu) .....	<b>3.34</b>	<b>3.54</b>	<b>3.11</b>	<b>3.18</b>	<i>3.48</i>	<i>3.84</i>	<i>3.37</i>	<i>3.45</i>	<i>3.77</i>	<i>4.16</i>	<i>3.71</i>	<i>3.70</i>	<b>13.17</b>	<i>14.15</i>	<i>15.34</i>
Total Energy Consumption (d) (quadrillion Btu) .....	<b>26.53</b>	<b>23.86</b>	<b>24.94</b>	<b>25.15</b>	<i>25.53</i>	<i>23.75</i>	<i>24.77</i>	<i>25.24</i>	<i>26.64</i>	<i>23.84</i>	<i>24.93</i>	<i>25.34</i>	<b>100.48</b>	<i>99.30</i>	<i>100.75</i>
<b>Energy Prices</b>															
Crude Oil West Texas Intermediate Spot (dollars per barrel) .....	<b>95.18</b>	<b>108.93</b>	<b>93.07</b>	<b>82.69</b>	<i>79.73</i>	<i>79.30</i>	<i>77.00</i>	<i>75.35</i>	<i>74.00</i>	<i>72.34</i>	<i>70.69</i>	<i>69.36</i>	<b>94.91</b>	<i>77.84</i>	<i>71.57</i>
Natural Gas Henry Hub Spot (dollars per million Btu) .....	<b>4.66</b>	<b>7.48</b>	<b>7.99</b>	<b>5.55</b>	<i>3.13</i>	<i>3.27</i>	<i>3.47</i>	<i>3.76</i>	<i>4.28</i>	<i>3.82</i>	<i>3.89</i>	<i>4.17</i>	<b>6.42</b>	<i>3.40</i>	<i>4.04</i>
Coal (dollars per million Btu) .....	<b>2.18</b>	<b>2.26</b>	<b>2.50</b>	<b>2.48</b>	<i>2.50</i>	<i>2.50</i>	<i>2.49</i>	<i>2.46</i>	<i>2.48</i>	<i>2.49</i>	<i>2.49</i>	<i>2.46</i>	<b>2.36</b>	<i>2.49</i>	<i>2.48</i>
<b>Macroeconomic</b>															
Real Gross Domestic Product (billion chained 2012 dollars - SAAR) .....	<b>19,924</b>	<b>19,895</b>	<b>20,055</b>	<b>20,170</b>	<i>20,103</i>	<i>20,090</i>	<i>20,184</i>	<i>20,304</i>	<i>20,412</i>	<i>20,532</i>	<i>20,650</i>	<i>20,765</i>	<b>20,011</b>	<i>20,170</i>	<i>20,590</i>
Percent change from prior year .....	<b>3.7</b>	<b>1.8</b>	<b>1.9</b>	<b>0.8</b>	<i>0.9</i>	<i>1.0</i>	<i>0.6</i>	<i>0.7</i>	<i>1.5</i>	<i>2.2</i>	<i>2.3</i>	<i>2.3</i>	<b>2.0</b>	<i>0.8</i>	<i>2.1</i>
GDP Implicit Price Deflator (Index, 2012=100) .....	<b>124.2</b>	<b>126.9</b>	<b>128.3</b>	<b>129.4</b>	<i>130.2</i>	<i>131.0</i>	<i>131.7</i>	<i>132.5</i>	<i>133.2</i>	<i>133.7</i>	<i>134.2</i>	<i>134.9</i>	<b>127.2</b>	<i>131.4</i>	<i>134.0</i>
Percent change from prior year .....	<b>6.9</b>	<b>7.6</b>	<b>7.1</b>	<b>6.3</b>	<i>4.8</i>	<i>3.2</i>	<i>2.7</i>	<i>2.4</i>	<i>2.3</i>	<i>2.1</i>	<i>1.9</i>	<i>1.8</i>	<b>7.0</b>	<i>3.3</i>	<i>2.0</i>
Real Disposable Personal Income (billion chained 2012 dollars - SAAR) .....	<b>15,109</b>	<b>15,022</b>	<b>15,059</b>	<b>15,171</b>	<i>15,400</i>	<i>15,461</i>	<i>15,612</i>	<i>15,769</i>	<i>15,938</i>	<i>16,113</i>	<i>16,249</i>	<i>16,366</i>	<b>15,090</b>	<i>15,560</i>	<i>16,166</i>
Percent change from prior year .....	<b>-12.8</b>	<b>-5.7</b>	<b>-4.3</b>	<b>-2.4</b>	<i>1.9</i>	<i>2.9</i>	<i>3.7</i>	<i>3.9</i>	<i>3.5</i>	<i>4.2</i>	<i>4.1</i>	<i>3.8</i>	<b>-6.4</b>	<i>3.1</i>	<i>3.9</i>
Manufacturing Production Index (Index, 2017=100) .....	<b>101.5</b>	<b>102.4</b>	<b>102.3</b>	<b>101.6</b>	<i>101.1</i>	<i>100.6</i>	<i>101.0</i>	<i>101.9</i>	<i>102.6</i>	<i>103.4</i>	<i>104.4</i>	<i>105.2</i>	<b>102.0</b>	<i>101.1</i>	<i>103.9</i>
Percent change from prior year .....	<b>4.8</b>	<b>4.1</b>	<b>3.1</b>	<b>1.0</b>	<i>-0.4</i>	<i>-1.7</i>	<i>-1.3</i>	<i>0.2</i>	<i>1.5</i>	<i>2.8</i>	<i>3.3</i>	<i>3.3</i>	<b>3.2</b>	<i>-0.8</i>	<i>2.7</i>
<b>Weather</b>															
U.S. Heating Degree-Days .....	<b>2,152</b>	<b>491</b>	<b>54</b>	<b>1,547</b>	<i>1,974</i>	<i>488</i>	<i>74</i>	<i>1,546</i>	<i>2,098</i>	<i>485</i>	<i>74</i>	<i>1,544</i>	<b>4,245</b>	<i>4,083</i>	<i>4,201</i>
U.S. Cooling Degree-Days .....	<b>47</b>	<b>466</b>	<b>952</b>	<b>90</b>	<i>47</i>	<i>405</i>	<i>855</i>	<i>93</i>	<i>41</i>	<i>401</i>	<i>857</i>	<i>94</i>	<b>1,554</b>	<i>1,400</i>	<i>1,393</i>

(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 February 2, 2022.

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 S&P Global 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 - February 2023

	2022				2023				2024				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2022	2023	2024
<b>Crude Oil</b> (dollars per barrel)															
West Texas Intermediate Spot Average .....	<b>95.18</b>	<b>108.93</b>	<b>93.07</b>	<b>82.69</b>	79.73	79.30	77.00	75.35	74.00	72.34	70.69	69.36	<b>94.91</b>	77.84	71.57
Brent Spot Average .....	<b>101.17</b>	<b>113.84</b>	<b>100.53</b>	<b>88.44</b>	84.88	85.30	83.00	81.35	80.00	78.34	76.69	75.36	<b>100.94</b>	83.63	77.57
U.S. Imported Average .....	<b>89.85</b>	<b>107.23</b>	<b>91.86</b>	<b>79.12</b>	76.91	76.55	74.26	72.61	71.25	69.58	67.92	66.61	<b>92.72</b>	74.98	68.82
U.S. Refiner Average Acquisition Cost .....	<b>92.62</b>	<b>109.86</b>	<b>95.20</b>	<b>83.17</b>	79.20	78.82	76.52	74.83	73.50	71.82	70.18	68.83	<b>95.25</b>	77.31	71.06
<b>U.S. Liquid Fuels</b> (cents per gallon)															
<b>Refiner Prices for Resale</b>															
Gasoline .....	<b>278</b>	<b>376</b>	<b>311</b>	<b>267</b>	266	262	252	236	231	237	227	210	<b>309</b>	254	226
Diesel Fuel .....	<b>301</b>	<b>418</b>	<b>357</b>	<b>363</b>	325	306	275	276	256	238	236	248	<b>360</b>	295	244
Fuel Oil .....	<b>284</b>	<b>419</b>	<b>344</b>	<b>359</b>	306	293	266	269	248	227	222	241	<b>352</b>	296	241
<b>Refiner Prices to End Users</b>															
Jet Fuel .....	<b>283</b>	<b>400</b>	<b>340</b>	<b>332</b>	357	314	277	264	242	229	227	239	<b>340</b>	301	234
No. 6 Residual Fuel Oil (a) .....	<b>252</b>	<b>258</b>	<b>228</b>	<b>202</b>	202	202	199	194	193	186	183	180	<b>236</b>	199	185
<b>Retail Prices Including Taxes</b>															
Gasoline Regular Grade (b) .....	<b>371</b>	<b>450</b>	<b>408</b>	<b>357</b>	347	349	338	322	314	321	310	293	<b>397</b>	339	310
Gasoline All Grades (b) .....	<b>380</b>	<b>460</b>	<b>419</b>	<b>369</b>	358	362	351	337	328	335	325	308	<b>408</b>	352	324
On-highway Diesel Fuel .....	<b>432</b>	<b>549</b>	<b>516</b>	<b>507</b>	461	441	396	396	385	366	359	369	<b>502</b>	423	370
Heating Oil .....	<b>415</b>	<b>555</b>	<b>497</b>	<b>488</b>	432	406	369	386	372	343	329	365	<b>465</b>	407	362
<b>Natural Gas</b>															
Henry Hub Spot (dollars per thousand cubic feet) .....	<b>4.84</b>	<b>7.77</b>	<b>8.30</b>	<b>5.76</b>	3.25	3.39	3.60	3.90	4.44	3.97	4.04	4.34	<b>6.67</b>	3.54	4.20
Henry Hub Spot (dollars per million Btu) .....	<b>4.66</b>	<b>7.48</b>	<b>7.99</b>	<b>5.55</b>	3.13	3.27	3.47	3.76	4.28	3.82	3.89	4.17	<b>6.42</b>	3.40	4.04
<b>U.S. Retail Prices</b> (dollars per thousand cubic feet)															
Industrial Sector .....	<b>6.82</b>	<b>8.24</b>	<b>9.26</b>	<b>7.25</b>	5.68	4.43	4.48	4.90	5.74	5.05	4.91	5.37	<b>7.83</b>	4.89	5.30
Commercial Sector .....	<b>10.00</b>	<b>11.71</b>	<b>14.10</b>	<b>11.86</b>	10.40	9.54	9.52	8.37	8.45	9.05	9.51	8.62	<b>11.28</b>	9.52	8.72
Residential Sector .....	<b>12.32</b>	<b>16.57</b>	<b>24.92</b>	<b>15.40</b>	13.17	14.66	19.14	11.81	11.02	14.26	19.36	12.20	<b>14.74</b>	13.42	12.51
<b>U.S. Electricity</b>															
<b>Power Generation Fuel Costs</b> (dollars per million Btu)															
Coal .....	<b>2.18</b>	<b>2.26</b>	<b>2.50</b>	<b>2.48</b>	2.50	2.50	2.49	2.46	2.48	2.49	2.49	2.46	<b>2.36</b>	2.49	2.48
Natural Gas .....	<b>5.95</b>	<b>7.39</b>	<b>8.23</b>	<b>5.85</b>	3.69	3.50	3.63	4.11	4.86	4.07	4.09	4.55	<b>7.00</b>	3.72	4.37
Residual Fuel Oil (c) .....	<b>16.81</b>	<b>26.17</b>	<b>26.53</b>	<b>22.00</b>	17.99	17.82	16.27	15.67	15.61	15.56	14.55	14.34	<b>22.02</b>	17.01	15.04
Distillate Fuel Oil .....	<b>21.23</b>	<b>30.70</b>	<b>26.79</b>	<b>27.19</b>	24.87	23.58	21.25	21.14	20.09	18.37	18.14	19.01	<b>25.56</b>	22.93	19.10
<b>Prices to Ultimate Customers</b> (cents per kilowatthour)															
Industrial Sector .....	<b>7.42</b>	<b>8.41</b>	<b>9.42</b>	<b>8.22</b>	7.58	8.17	9.05	8.06	7.65	8.16	9.05	8.06	<b>8.39</b>	8.23	8.24
Commercial Sector .....	<b>11.63</b>	<b>12.34</b>	<b>13.37</b>	<b>12.51</b>	12.29	12.63	13.40	12.31	12.09	12.64	13.55	12.43	<b>12.51</b>	12.69	12.71
Residential Sector .....	<b>13.97</b>	<b>15.05</b>	<b>15.85</b>	<b>15.48</b>	15.18	15.79	16.02	15.33	15.00	15.89	16.17	15.50	<b>15.12</b>	15.60	15.66

(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 February 2, 2022.

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 - February 2023

	2022				2023				2024				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2022	2023	2024
<b>Production (million barrels per day) (a)</b>															
OECD .....	<b>31.62</b>	<b>31.87</b>	<b>32.54</b>	<b>33.28</b>	33.59	33.75	33.93	34.44	34.53	34.38	34.51	35.06	<b>32.33</b>	33.93	34.62
U.S. (50 States) .....	<b>19.44</b>	<b>20.12</b>	<b>20.60</b>	<b>20.82</b>	20.77	21.18	21.21	21.34	21.33	21.56	21.59	21.73	<b>20.25</b>	21.13	21.56
Canada .....	<b>5.66</b>	<b>5.51</b>	<b>5.72</b>	<b>5.91</b>	6.00	5.72	5.93	6.14	6.21	5.92	6.13	6.34	<b>5.70</b>	5.95	6.15
Mexico .....	<b>1.91</b>	<b>1.89</b>	<b>1.90</b>	<b>1.90</b>	1.92	1.95	1.96	1.94	1.96	1.96	1.93	1.89	<b>1.90</b>	1.94	1.93
Other OECD .....	<b>4.61</b>	<b>4.35</b>	<b>4.32</b>	<b>4.64</b>	4.90	4.90	4.83	5.01	5.03	4.94	4.85	5.10	<b>4.48</b>	4.91	4.98
Non-OECD .....	<b>67.21</b>	<b>66.87</b>	<b>68.26</b>	<b>68.11</b>	67.11	66.96	67.54	67.05	67.37	68.08	68.47	68.04	<b>67.62</b>	67.17	67.99
OPEC .....	<b>33.75</b>	<b>33.76</b>	<b>34.71</b>	<b>34.44</b>	33.99	34.11	34.21	34.00	34.76	34.79	34.87	34.65	<b>34.17</b>	34.08	34.77
Crude Oil Portion .....	<b>28.19</b>	<b>28.33</b>	<b>29.23</b>	<b>28.92</b>	28.50	28.75	28.81	28.57	29.23	29.38	29.43	29.17	<b>28.67</b>	28.66	29.31
Other Liquids (b) .....	<b>5.56</b>	<b>5.43</b>	<b>5.48</b>	<b>5.52</b>	5.49	5.36	5.40	5.44	5.53	5.40	5.44	5.48	<b>5.50</b>	5.42	5.46
Eurasia .....	<b>14.39</b>	<b>13.39</b>	<b>13.56</b>	<b>13.92</b>	13.54	12.54	12.80	12.88	12.91	12.88	12.86	12.95	<b>13.81</b>	12.94	12.90
China .....	<b>5.18</b>	<b>5.18</b>	<b>5.05</b>	<b>5.09</b>	5.21	5.24	5.23	5.27	5.21	5.23	5.23	5.27	<b>5.12</b>	5.24	5.23
Other Non-OECD .....	<b>13.90</b>	<b>14.54</b>	<b>14.95</b>	<b>14.66</b>	14.38	15.08	15.31	14.90	14.49	15.18	15.50	15.18	<b>14.51</b>	14.92	15.09
Total World Production .....	<b>98.83</b>	<b>98.75</b>	<b>100.80</b>	<b>101.39</b>	100.70	100.71	101.47	101.50	101.90	102.46	102.97	103.11	<b>99.95</b>	101.10	102.61
Non-OPEC Production .....	<b>65.08</b>	<b>64.98</b>	<b>66.09</b>	<b>66.94</b>	66.71	66.60	67.26	67.49	67.14	67.68	68.10	68.46	<b>65.78</b>	67.02	67.85
<b>Consumption (million barrels per day) (c)</b>															
OECD .....	<b>45.78</b>	<b>45.37</b>	<b>46.62</b>	<b>45.97</b>	45.64	45.22	45.80	46.03	45.72	45.30	46.16	46.32	<b>45.94</b>	45.67	45.88
U.S. (50 States) .....	<b>20.22</b>	<b>20.27</b>	<b>20.47</b>	<b>20.26</b>	19.84	20.38	20.41	20.45	20.26	20.52	20.75	20.69	<b>20.30</b>	20.27	20.56
U.S. Territories .....	<b>0.14</b>	<b>0.12</b>	<b>0.12</b>	<b>0.13</b>	0.13	0.12	0.12	0.13	0.13	0.12	0.12	0.13	<b>0.13</b>	0.12	0.13
Canada .....	<b>2.24</b>	<b>2.21</b>	<b>2.38</b>	<b>2.26</b>	2.28	2.23	2.33	2.31	2.30	2.25	2.35	2.33	<b>2.27</b>	2.29	2.31
Europe .....	<b>13.19</b>	<b>13.42</b>	<b>14.09</b>	<b>13.56</b>	13.39	13.30	13.70	13.47	13.19	13.34	13.74	13.50	<b>13.57</b>	13.46	13.44
Japan .....	<b>3.70</b>	<b>3.03</b>	<b>3.19</b>	<b>3.53</b>	3.69	3.04	3.06	3.36	3.54	2.93	3.03	3.36	<b>3.36</b>	3.29	3.21
Other OECD .....	<b>6.30</b>	<b>6.33</b>	<b>6.37</b>	<b>6.23</b>	6.31	6.15	6.18	6.32	6.30	6.14	6.16	6.31	<b>6.31</b>	6.24	6.23
Non-OECD .....	<b>52.92</b>	<b>53.25</b>	<b>53.76</b>	<b>53.75</b>	54.02	54.83	55.18	55.16	55.84	56.47	56.70	56.53	<b>53.42</b>	54.80	56.39
Eurasia .....	<b>4.44</b>	<b>4.33</b>	<b>4.69</b>	<b>4.56</b>	4.20	4.35	4.67	4.58	4.38	4.53	4.85	4.76	<b>4.50</b>	4.45	4.63
Europe .....	<b>0.75</b>	<b>0.75</b>	<b>0.76</b>	<b>0.77</b>	0.74	0.76	0.76	0.76	0.74	0.76	0.77	0.77	<b>0.76</b>	0.76	0.76
China .....	<b>15.09</b>	<b>15.07</b>	<b>15.06</b>	<b>15.25</b>	15.49	15.83	15.91	16.14	15.99	16.30	16.26	16.34	<b>15.12</b>	15.85	16.22
Other Asia .....	<b>13.74</b>	<b>13.75</b>	<b>13.46</b>	<b>13.89</b>	14.30	14.27	13.69	13.99	14.88	14.85	14.25	14.56	<b>13.71</b>	14.06	14.64
Other Non-OECD .....	<b>18.91</b>	<b>19.34</b>	<b>19.79</b>	<b>19.28</b>	19.29	19.62	20.15	19.68	19.85	20.02	20.57	20.09	<b>19.33</b>	19.69	20.13
Total World Consumption .....	<b>98.71</b>	<b>98.62</b>	<b>100.38</b>	<b>99.72</b>	99.65	100.05	100.99	101.19	101.56	101.77	102.85	102.85	<b>99.36</b>	100.47	102.26
<b>Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)</b>															
U.S. (50 States) .....	<b>0.81</b>	<b>0.51</b>	<b>0.45</b>	<b>0.51</b>	-0.12	-0.49	-0.08	0.36	-0.11	-0.55	-0.11	0.37	<b>0.57</b>	-0.08	-0.10
Other OECD .....	<b>-0.09</b>	<b>-0.29</b>	<b>-0.48</b>	<b>-0.54</b>	-0.30	-0.06	-0.13	-0.21	-0.07	-0.04	0.00	-0.20	<b>-0.35</b>	-0.17	-0.08
Other Stock Draws and Balance .....	<b>-0.83</b>	<b>-0.35</b>	<b>-0.39</b>	<b>-1.63</b>	-0.63	-0.12	-0.28	-0.46	-0.16	-0.10	-0.01	-0.43	<b>-0.80</b>	-0.37	-0.17
Total Stock Draw .....	<b>-0.12</b>	<b>-0.12</b>	<b>-0.42</b>	<b>-1.67</b>	-1.04	-0.67	-0.49	-0.31	-0.34	-0.69	-0.12	-0.26	<b>-0.59</b>	-0.62	-0.35
<b>End-of-period Commercial Crude Oil and Other Liquids Inventories (million barrels)</b>															
U.S. Commercial Inventory .....	<b>1,154</b>	<b>1,180</b>	<b>1,215</b>	<b>1,213</b>	1,228	1,286	1,297	1,264	1,268	1,312	1,316	1,277	<b>1,213</b>	1,264	1,277
OECD Commercial Inventory .....	<b>2,604</b>	<b>2,656</b>	<b>2,735</b>	<b>2,783</b>	2,825	2,888	2,911	2,897	2,907	2,956	2,960	2,938	<b>2,783</b>	2,897	2,938

(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 February 2, 2022.

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 - February 2023

	2022				2023				2024				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2022	2023	2024
<b>North America</b> .....	<b>27.01</b>	<b>27.52</b>	<b>28.22</b>	<b>28.64</b>	<i>28.69</i>	<i>28.85</i>	<i>29.10</i>	<i>29.43</i>	<i>29.51</i>	<i>29.44</i>	<i>29.66</i>	<i>29.96</i>	<b>27.85</b>	<i>29.02</i>	<i>29.64</i>
Canada .....	<b>5.66</b>	<b>5.51</b>	<b>5.72</b>	<b>5.91</b>	<i>6.00</i>	<i>5.72</i>	<i>5.93</i>	<i>6.14</i>	<i>6.21</i>	<i>5.92</i>	<i>6.13</i>	<i>6.34</i>	<b>5.70</b>	<i>5.95</i>	<i>6.15</i>
Mexico .....	<b>1.91</b>	<b>1.89</b>	<b>1.90</b>	<b>1.90</b>	<i>1.92</i>	<i>1.95</i>	<i>1.96</i>	<i>1.94</i>	<i>1.96</i>	<i>1.96</i>	<i>1.93</i>	<i>1.89</i>	<b>1.90</b>	<i>1.94</i>	<i>1.93</i>
United States .....	<b>19.44</b>	<b>20.12</b>	<b>20.60</b>	<b>20.82</b>	<i>20.77</i>	<i>21.18</i>	<i>21.21</i>	<i>21.34</i>	<i>21.33</i>	<i>21.56</i>	<i>21.59</i>	<i>21.73</i>	<b>20.25</b>	<i>21.13</i>	<i>21.56</i>
<b>Central and South America</b> .....	<b>5.83</b>	<b>6.41</b>	<b>6.86</b>	<b>6.58</b>	<i>6.26</i>	<i>6.96</i>	<i>7.22</i>	<i>6.84</i>	<i>6.43</i>	<i>7.15</i>	<i>7.49</i>	<i>7.19</i>	<b>6.42</b>	<i>6.82</i>	<i>7.06</i>
Argentina .....	<b>0.77</b>	<b>0.78</b>	<b>0.79</b>	<b>0.82</b>	<i>0.85</i>	<i>0.87</i>	<i>0.88</i>	<i>0.92</i>	<i>0.89</i>	<i>0.92</i>	<i>0.93</i>	<i>0.98</i>	<b>0.79</b>	<i>0.88</i>	<i>0.93</i>
Brazil .....	<b>3.33</b>	<b>3.79</b>	<b>4.15</b>	<b>3.78</b>	<i>3.41</i>	<i>4.09</i>	<i>4.36</i>	<i>3.89</i>	<i>3.54</i>	<i>4.22</i>	<i>4.50</i>	<i>4.03</i>	<b>3.76</b>	<i>3.94</i>	<i>4.07</i>
Colombia .....	<b>0.77</b>	<b>0.77</b>	<b>0.78</b>	<b>0.79</b>	<i>0.78</i>	<i>0.78</i>	<i>0.78</i>	<i>0.79</i>	<i>0.77</i>	<i>0.77</i>	<i>0.78</i>	<i>0.79</i>	<b>0.78</b>	<i>0.78</i>	<i>0.78</i>
Ecuador .....	<b>0.48</b>	<b>0.47</b>	<b>0.49</b>	<b>0.49</b>	<i>0.50</i>	<i>0.50</i>	<i>0.51</i>	<i>0.51</i>	<i>0.55</i>	<i>0.54</i>	<i>0.54</i>	<i>0.54</i>	<b>0.48</b>	<i>0.51</i>	<i>0.54</i>
Guyana .....	<b>0.12</b>	<b>0.24</b>	<b>0.32</b>	<b>0.35</b>	<i>0.35</i>	<i>0.36</i>	<i>0.36</i>	<i>0.36</i>	<i>0.36</i>	<i>0.36</i>	<i>0.43</i>	<i>0.54</i>	<b>0.26</b>	<i>0.36</i>	<i>0.42</i>
<b>Europe</b> .....	<b>4.04</b>	<b>3.76</b>	<b>3.81</b>	<b>4.11</b>	<i>4.36</i>	<i>4.36</i>	<i>4.30</i>	<i>4.48</i>	<i>4.51</i>	<i>4.42</i>	<i>4.33</i>	<i>4.59</i>	<b>3.93</b>	<i>4.38</i>	<i>4.46</i>
Norway .....	<b>1.97</b>	<b>1.74</b>	<b>1.91</b>	<b>2.11</b>	<i>2.32</i>	<i>2.32</i>	<i>2.32</i>	<i>2.40</i>	<i>2.44</i>	<i>2.37</i>	<i>2.38</i>	<i>2.55</i>	<b>1.93</b>	<i>2.34</i>	<i>2.43</i>
United Kingdom .....	<b>0.97</b>	<b>0.91</b>	<b>0.80</b>	<b>0.88</b>	<i>0.92</i>	<i>0.91</i>	<i>0.83</i>	<i>0.92</i>	<i>0.92</i>	<i>0.91</i>	<i>0.81</i>	<i>0.90</i>	<b>0.89</b>	<i>0.89</i>	<i>0.89</i>
<b>Eurasia</b> .....	<b>14.39</b>	<b>13.39</b>	<b>13.56</b>	<b>13.92</b>	<i>13.54</i>	<i>12.54</i>	<i>12.80</i>	<i>12.88</i>	<i>12.91</i>	<i>12.88</i>	<i>12.86</i>	<i>12.95</i>	<b>13.81</b>	<i>12.94</i>	<i>12.90</i>
Azerbaijan .....	<b>0.70</b>	<b>0.67</b>	<b>0.65</b>	<b>0.67</b>	<i>0.67</i>	<i>0.65</i>	<i>0.64</i>	<i>0.65</i>	<i>0.66</i>	<i>0.66</i>	<i>0.66</i>	<i>0.67</i>	<b>0.67</b>	<i>0.65</i>	<i>0.66</i>
Kazakhstan .....	<b>2.01</b>	<b>1.77</b>	<b>1.62</b>	<b>1.92</b>	<i>2.04</i>	<i>1.96</i>	<i>1.96</i>	<i>2.03</i>	<i>2.04</i>	<i>2.02</i>	<i>2.00</i>	<i>2.08</i>	<b>1.83</b>	<i>2.00</i>	<i>2.04</i>
Russia .....	<b>11.30</b>	<b>10.59</b>	<b>10.92</b>	<b>10.95</b>	<i>10.41</i>	<i>9.52</i>	<i>9.78</i>	<i>9.78</i>	<i>9.80</i>	<i>9.80</i>	<i>9.80</i>	<i>9.80</i>	<b>10.94</b>	<i>9.87</i>	<i>9.80</i>
Turkmenistan .....	<b>0.26</b>	<b>0.26</b>	<b>0.26</b>	<b>0.26</b>	<i>0.27</i>	<i>0.27</i>	<i>0.27</i>	<i>0.27</i>	<i>0.27</i>	<i>0.27</i>	<i>0.27</i>	<i>0.27</i>	<b>0.26</b>	<i>0.27</i>	<i>0.27</i>
<b>Middle East</b> .....	<b>3.23</b>	<b>3.29</b>	<b>3.33</b>	<b>3.24</b>	<i>3.21</i>	<i>3.23</i>	<i>3.22</i>	<i>3.22</i>	<i>3.23</i>	<i>3.23</i>	<i>3.23</i>	<i>3.22</i>	<b>3.27</b>	<i>3.22</i>	<i>3.23</i>
Oman .....	<b>1.05</b>	<b>1.07</b>	<b>1.10</b>	<b>1.08</b>	<i>1.06</i>	<i>1.06</i>	<i>1.06</i>	<i>1.06</i>	<i>1.07</i>	<i>1.07</i>	<i>1.07</i>	<i>1.07</i>	<b>1.07</b>	<i>1.06</i>	<i>1.07</i>
Qatar .....	<b>1.85</b>	<b>1.86</b>	<b>1.86</b>	<b>1.86</b>	<i>1.86</i>	<i>1.86</i>	<i>1.86</i>	<i>1.86</i>	<i>1.86</i>	<i>1.86</i>	<i>1.86</i>	<i>1.86</i>	<b>1.86</b>	<i>1.86</i>	<i>1.86</i>
<b>Asia and Oceania</b> .....	<b>9.16</b>	<b>9.17</b>	<b>8.87</b>	<b>9.02</b>	<i>9.22</i>	<i>9.23</i>	<i>9.20</i>	<i>9.22</i>	<i>9.17</i>	<i>9.17</i>	<i>9.15</i>	<i>9.17</i>	<b>9.05</b>	<i>9.22</i>	<i>9.17</i>
Australia .....	<b>0.44</b>	<b>0.47</b>	<b>0.39</b>	<b>0.43</b>	<i>0.43</i>	<i>0.43</i>	<i>0.42</i>	<i>0.42</i>	<i>0.40</i>	<i>0.40</i>	<i>0.39</i>	<i>0.39</i>	<b>0.43</b>	<i>0.42</i>	<i>0.39</i>
China .....	<b>5.18</b>	<b>5.18</b>	<b>5.05</b>	<b>5.09</b>	<i>5.21</i>	<i>5.24</i>	<i>5.23</i>	<i>5.27</i>	<i>5.21</i>	<i>5.23</i>	<i>5.23</i>	<i>5.27</i>	<b>5.12</b>	<i>5.24</i>	<i>5.23</i>
India .....	<b>0.88</b>	<b>0.89</b>	<b>0.87</b>	<b>0.87</b>	<i>0.90</i>	<i>0.90</i>	<i>0.89</i>	<i>0.89</i>	<i>0.91</i>	<i>0.91</i>	<i>0.90</i>	<i>0.90</i>	<b>0.88</b>	<i>0.90</i>	<i>0.91</i>
Indonesia .....	<b>0.84</b>	<b>0.83</b>	<b>0.81</b>	<b>0.82</b>	<i>0.83</i>	<i>0.82</i>	<i>0.81</i>	<i>0.80</i>	<i>0.80</i>	<i>0.79</i>	<i>0.79</i>	<i>0.78</i>	<b>0.82</b>	<i>0.81</i>	<i>0.79</i>
Malaysia .....	<b>0.61</b>	<b>0.60</b>	<b>0.58</b>	<b>0.61</b>	<i>0.61</i>	<i>0.60</i>	<i>0.60</i>	<i>0.60</i>	<i>0.59</i>	<i>0.58</i>	<i>0.58</i>	<i>0.57</i>	<b>0.60</b>	<i>0.60</i>	<i>0.58</i>
<b>Africa</b> .....	<b>1.41</b>	<b>1.44</b>	<b>1.45</b>	<b>1.43</b>	<i>1.44</i>	<i>1.44</i>	<i>1.43</i>	<i>1.42</i>	<i>1.39</i>	<i>1.38</i>	<i>1.38</i>	<i>1.37</i>	<b>1.43</b>	<i>1.43</i>	<i>1.38</i>
Egypt .....	<b>0.66</b>	<b>0.68</b>	<b>0.67</b>	<b>0.67</b>	<i>0.69</i>	<i>0.69</i>	<i>0.69</i>	<i>0.69</i>	<i>0.66</i>	<i>0.65</i>	<i>0.65</i>	<i>0.66</i>	<b>0.67</b>	<i>0.69</i>	<i>0.65</i>
South Sudan .....	<b>0.15</b>	<b>0.15</b>	<b>0.16</b>	<b>0.15</b>	<i>0.15</i>	<i>0.16</i>	<i>0.16</i>	<i>0.16</i>	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	<b>0.16</b>	<i>0.16</i>	<i>0.17</i>
<b>Total non-OPEC liquids</b> .....	<b>65.08</b>	<b>64.98</b>	<b>66.09</b>	<b>66.94</b>	<i>66.71</i>	<i>66.60</i>	<i>67.26</i>	<i>67.49</i>	<i>67.14</i>	<i>67.68</i>	<i>68.10</i>	<i>68.46</i>	<b>65.78</b>	<i>67.02</i>	<i>67.85</i>
<b>OPEC non-crude liquids</b> .....	<b>5.56</b>	<b>5.43</b>	<b>5.48</b>	<b>5.52</b>	<i>5.49</i>	<i>5.36</i>	<i>5.40</i>	<i>5.44</i>	<i>5.53</i>	<i>5.40</i>	<i>5.44</i>	<i>5.48</i>	<b>5.50</b>	<i>5.42</i>	<i>5.46</i>
<b>Non-OPEC + OPEC non-crude</b> .....	<b>70.64</b>	<b>70.42</b>	<b>71.57</b>	<b>72.46</b>	<i>72.20</i>	<i>71.96</i>	<i>72.66</i>	<i>72.93</i>	<i>72.67</i>	<i>73.08</i>	<i>73.54</i>	<i>73.94</i>	<b>71.28</b>	<i>72.44</i>	<i>73.31</i>
<b>Unplanned non-OPEC Production Outages</b> .....	<b>0.76</b>	<b>1.31</b>	<b>0.78</b>	<b>0.56</b>	-	-	-	-	-	-	-	-	<b>0.85</b>	-	-

- = 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 February 2, 2022.

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 - February 2023

	2022				2023				2024				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2022	2023	2024
<b>Crude Oil</b>															
Algeria .....	<b>0.97</b>	<b>1.00</b>	<b>1.02</b>	<b>1.02</b>	-	-	-	-	-	-	-	-	<b>1.00</b>	-	-
Angola .....	<b>1.15</b>	<b>1.19</b>	<b>1.16</b>	<b>1.10</b>	-	-	-	-	-	-	-	-	<b>1.15</b>	-	-
Congo (Brazzaville) .....	<b>0.27</b>	<b>0.29</b>	<b>0.28</b>	<b>0.26</b>	-	-	-	-	-	-	-	-	<b>0.28</b>	-	-
Equatorial Guinea .....	<b>0.09</b>	<b>0.09</b>	<b>0.09</b>	<b>0.07</b>	-	-	-	-	-	-	-	-	<b>0.09</b>	-	-
Gabon .....	<b>0.19</b>	<b>0.19</b>	<b>0.20</b>	<b>0.21</b>	-	-	-	-	-	-	-	-	<b>0.20</b>	-	-
Iran .....	<b>2.55</b>	<b>2.53</b>	<b>2.53</b>	<b>2.56</b>	-	-	-	-	-	-	-	-	<b>2.54</b>	-	-
Iraq .....	<b>4.30</b>	<b>4.42</b>	<b>4.55</b>	<b>4.51</b>	-	-	-	-	-	-	-	-	<b>4.45</b>	-	-
Kuwait .....	<b>2.61</b>	<b>2.69</b>	<b>2.80</b>	<b>2.72</b>	-	-	-	-	-	-	-	-	<b>2.71</b>	-	-
Libya .....	<b>1.06</b>	<b>0.76</b>	<b>0.95</b>	<b>1.14</b>	-	-	-	-	-	-	-	-	<b>0.98</b>	-	-
Nigeria .....	<b>1.27</b>	<b>1.11</b>	<b>0.97</b>	<b>1.07</b>	-	-	-	-	-	-	-	-	<b>1.10</b>	-	-
Saudi Arabia .....	<b>10.08</b>	<b>10.30</b>	<b>10.85</b>	<b>10.50</b>	-	-	-	-	-	-	-	-	<b>10.43</b>	-	-
United Arab Emirates .....	<b>2.94</b>	<b>3.04</b>	<b>3.17</b>	<b>3.09</b>	-	-	-	-	-	-	-	-	<b>3.06</b>	-	-
Venezuela .....	<b>0.70</b>	<b>0.72</b>	<b>0.66</b>	<b>0.69</b>	-	-	-	-	-	-	-	-	<b>0.69</b>	-	-
OPEC Total .....	<b>28.19</b>	<b>28.33</b>	<b>29.23</b>	<b>28.92</b>	<i>28.50</i>	<i>28.75</i>	<i>28.81</i>	<i>28.57</i>	<i>29.23</i>	<i>29.38</i>	<i>29.43</i>	<i>29.17</i>	<b>28.67</b>	<i>28.66</i>	<i>29.31</i>
<b>Other Liquids (a)</b> .....	<b>5.56</b>	<b>5.43</b>	<b>5.48</b>	<b>5.52</b>	<i>5.49</i>	<i>5.36</i>	<i>5.40</i>	<i>5.44</i>	<i>5.53</i>	<i>5.40</i>	<i>5.44</i>	<i>5.48</i>	<b>5.50</b>	<i>5.42</i>	<i>5.46</i>
<b>Total OPEC Production</b> .....	<b>33.75</b>	<b>33.76</b>	<b>34.71</b>	<b>34.44</b>	<i>33.99</i>	<i>34.11</i>	<i>34.21</i>	<i>34.00</i>	<i>34.76</i>	<i>34.79</i>	<i>34.87</i>	<i>34.65</i>	<b>34.17</b>	<i>34.08</i>	<i>34.77</i>
<b>Crude Oil Production Capacity</b>															
Middle East .....	<b>25.48</b>	<b>25.46</b>	<b>25.55</b>	<b>25.66</b>	<i>25.85</i>	<i>25.98</i>	<i>25.98</i>	<i>25.98</i>	<i>26.48</i>	<i>26.58</i>	<i>26.63</i>	<i>26.63</i>	<b>25.54</b>	<i>25.95</i>	<i>26.58</i>
Other .....	<b>5.83</b>	<b>5.45</b>	<b>5.35</b>	<b>5.56</b>	<i>5.78</i>	<i>5.94</i>	<i>5.92</i>	<i>5.89</i>	<i>5.84</i>	<i>5.87</i>	<i>5.83</i>	<i>5.80</i>	<b>5.54</b>	<i>5.89</i>	<i>5.83</i>
OPEC Total .....	<b>31.31</b>	<b>30.91</b>	<b>30.89</b>	<b>31.21</b>	<i>31.63</i>	<i>31.92</i>	<i>31.90</i>	<i>31.87</i>	<i>32.32</i>	<i>32.45</i>	<i>32.46</i>	<i>32.43</i>	<b>31.08</b>	<i>31.83</i>	<i>32.42</i>
<b>Surplus Crude Oil Production Capacity</b>															
Middle East .....	<b>3.00</b>	<b>2.47</b>	<b>1.65</b>	<b>2.28</b>	<i>3.11</i>	<i>3.14</i>	<i>3.06</i>	<i>3.28</i>	<i>3.06</i>	<i>3.04</i>	<i>3.01</i>	<i>3.24</i>	<b>2.35</b>	<i>3.15</i>	<i>3.09</i>
Other .....	<b>0.12</b>	<b>0.11</b>	<b>0.01</b>	<b>0.01</b>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<b>0.06</b>	<i>0.03</i>	<i>0.02</i>
OPEC Total .....	<b>3.12</b>	<b>2.58</b>	<b>1.67</b>	<b>2.29</b>	<i>3.14</i>	<i>3.17</i>	<i>3.09</i>	<i>3.31</i>	<i>3.09</i>	<i>3.06</i>	<i>3.03</i>	<i>3.26</i>	<b>2.41</b>	<i>3.18</i>	<i>3.11</i>
<b>Unplanned OPEC Production Outages</b> .....	<b>1.98</b>	<b>2.42</b>	<b>2.50</b>	<b>2.14</b>	-	-	-	-	-	-	-	-	<b>2.26</b>	-	-

(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 February 2, 2022.

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 - February 2023

	2022				2023				2024				2022	2023	2024
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
<b>North America</b> .....	<b>24.22</b>	<b>24.47</b>	<b>24.82</b>	<b>24.32</b>	<i>23.91</i>	<i>24.42</i>	<i>24.55</i>	<i>24.58</i>	<i>24.33</i>	<i>24.56</i>	<i>24.89</i>	<i>24.82</i>	<b>24.46</b>	<i>24.37</i>	<i>24.65</i>
Canada .....	<b>2.24</b>	<b>2.21</b>	<b>2.38</b>	<b>2.26</b>	<i>2.28</i>	<i>2.23</i>	<i>2.33</i>	<i>2.31</i>	<i>2.30</i>	<i>2.25</i>	<i>2.35</i>	<i>2.33</i>	<b>2.27</b>	<i>2.29</i>	<i>2.31</i>
Mexico .....	<b>1.76</b>	<b>1.99</b>	<b>1.96</b>	<b>1.80</b>	<i>1.78</i>	<i>1.81</i>	<i>1.80</i>	<i>1.82</i>	<i>1.76</i>	<i>1.78</i>	<i>1.78</i>	<i>1.79</i>	<b>1.88</b>	<i>1.80</i>	<i>1.78</i>
United States .....	<b>20.22</b>	<b>20.27</b>	<b>20.47</b>	<b>20.26</b>	<i>19.84</i>	<i>20.38</i>	<i>20.41</i>	<i>20.45</i>	<i>20.26</i>	<i>20.52</i>	<i>20.75</i>	<i>20.69</i>	<b>20.30</b>	<i>20.27</i>	<i>20.56</i>
<b>Central and South America</b> .....	<b>6.29</b>	<b>6.42</b>	<b>6.54</b>	<b>6.53</b>	<i>6.29</i>	<i>6.42</i>	<i>6.53</i>	<i>6.46</i>	<i>6.43</i>	<i>6.56</i>	<i>6.67</i>	<i>6.61</i>	<b>6.44</b>	<i>6.43</i>	<i>6.57</i>
Brazil .....	<b>2.85</b>	<b>2.93</b>	<b>3.02</b>	<b>3.02</b>	<i>2.88</i>	<i>2.94</i>	<i>3.01</i>	<i>3.00</i>	<i>2.97</i>	<i>3.03</i>	<i>3.10</i>	<i>3.09</i>	<b>2.95</b>	<i>2.96</i>	<i>3.05</i>
<b>Europe</b> .....	<b>13.94</b>	<b>14.18</b>	<b>14.85</b>	<b>14.33</b>	<i>14.13</i>	<i>14.06</i>	<i>14.46</i>	<i>14.23</i>	<i>13.93</i>	<i>14.10</i>	<i>14.50</i>	<i>14.27</i>	<b>14.32</b>	<i>14.22</i>	<i>14.20</i>
<b>Eurasia</b> .....	<b>4.44</b>	<b>4.33</b>	<b>4.69</b>	<b>4.56</b>	<i>4.20</i>	<i>4.35</i>	<i>4.67</i>	<i>4.58</i>	<i>4.38</i>	<i>4.53</i>	<i>4.85</i>	<i>4.76</i>	<b>4.50</b>	<i>4.45</i>	<i>4.63</i>
Russia .....	<b>3.35</b>	<b>3.30</b>	<b>3.58</b>	<b>3.44</b>	<i>3.18</i>	<i>3.26</i>	<i>3.55</i>	<i>3.41</i>	<i>3.32</i>	<i>3.41</i>	<i>3.70</i>	<i>3.56</i>	<b>3.42</b>	<i>3.35</i>	<i>3.50</i>
<b>Middle East</b> .....	<b>8.89</b>	<b>9.19</b>	<b>9.63</b>	<b>8.94</b>	<i>9.17</i>	<i>9.35</i>	<i>9.87</i>	<i>9.28</i>	<i>9.48</i>	<i>9.49</i>	<i>10.03</i>	<i>9.43</i>	<b>9.16</b>	<i>9.42</i>	<i>9.61</i>
<b>Asia and Oceania</b> .....	<b>36.48</b>	<b>35.60</b>	<b>35.52</b>	<b>36.56</b>	<i>37.44</i>	<i>36.91</i>	<i>36.46</i>	<i>37.44</i>	<i>38.38</i>	<i>37.87</i>	<i>37.35</i>	<i>38.23</i>	<b>36.04</b>	<i>37.06</i>	<i>37.96</i>
China .....	<b>15.09</b>	<b>15.07</b>	<b>15.06</b>	<b>15.25</b>	<i>15.49</i>	<i>15.83</i>	<i>15.91</i>	<i>16.14</i>	<i>15.99</i>	<i>16.30</i>	<i>16.26</i>	<i>16.34</i>	<b>15.12</b>	<i>15.85</i>	<i>16.22</i>
Japan .....	<b>3.70</b>	<b>3.03</b>	<b>3.19</b>	<b>3.53</b>	<i>3.69</i>	<i>3.04</i>	<i>3.06</i>	<i>3.36</i>	<i>3.54</i>	<i>2.93</i>	<i>3.03</i>	<i>3.36</i>	<b>3.36</b>	<i>3.29</i>	<i>3.21</i>
India .....	<b>5.08</b>	<b>5.07</b>	<b>4.83</b>	<b>5.13</b>	<i>5.29</i>	<i>5.36</i>	<i>5.01</i>	<i>5.33</i>	<i>5.60</i>	<i>5.67</i>	<i>5.30</i>	<i>5.63</i>	<b>5.03</b>	<i>5.25</i>	<i>5.55</i>
<b>Africa</b> .....	<b>4.45</b>	<b>4.44</b>	<b>4.34</b>	<b>4.47</b>	<i>4.52</i>	<i>4.53</i>	<i>4.45</i>	<i>4.61</i>	<i>4.63</i>	<i>4.65</i>	<i>4.56</i>	<i>4.73</i>	<b>4.43</b>	<i>4.53</i>	<i>4.64</i>
<b>Total OECD Liquid Fuels Consumption</b> .....	<b>45.78</b>	<b>45.37</b>	<b>46.62</b>	<b>45.97</b>	<i>45.64</i>	<i>45.22</i>	<i>45.80</i>	<i>46.03</i>	<i>45.72</i>	<i>45.30</i>	<i>46.16</i>	<i>46.32</i>	<b>45.94</b>	<i>45.67</i>	<i>45.88</i>
<b>Total non-OECD Liquid Fuels Consumption</b> .....	<b>52.92</b>	<b>53.25</b>	<b>53.76</b>	<b>53.75</b>	<i>54.02</i>	<i>54.83</i>	<i>55.18</i>	<i>55.16</i>	<i>55.84</i>	<i>56.47</i>	<i>56.70</i>	<i>56.53</i>	<b>53.42</b>	<i>54.80</i>	<i>56.39</i>
<b>Total World Liquid Fuels Consumption</b> .....	<b>98.71</b>	<b>98.62</b>	<b>100.38</b>	<b>99.72</b>	<i>99.65</i>	<i>100.05</i>	<i>100.99</i>	<i>101.19</i>	<i>101.56</i>	<i>101.77</i>	<i>102.85</i>	<i>102.85</i>	<b>99.36</b>	<i>100.47</i>	<i>102.26</i>
<b>Real Gross Domestic Product (a)</b>															
World Index, 2015 Q1 = 100 .....	<b>121.7</b>	<b>121.8</b>	<b>123.1</b>	<b>123.1</b>	<i>123.5</i>	<i>124.0</i>	<i>125.0</i>	<i>126.1</i>	<i>127.0</i>	<i>128.0</i>	<i>129.3</i>	<i>130.6</i>	<b>122.4</b>	<i>124.6</i>	<i>128.7</i>
Percent change from prior year .....	<b>4.4</b>	<b>3.5</b>	<b>3.2</b>	<b>1.8</b>	<i>1.5</i>	<i>1.8</i>	<i>1.5</i>	<i>2.4</i>	<i>2.8</i>	<i>3.2</i>	<i>3.5</i>	<i>3.6</i>	<b>3.2</b>	<i>1.8</i>	<i>3.3</i>
OECD Index, 2015 = 100 .....	<b>113.3</b>	<b>113.3</b>	<b>113.5</b>	<b>115.2</b>	<i>113.3</i>	<i>113.5</i>	<i>115.2</i>	<i>113.3</i>	<i>113.5</i>	<i>113.5</i>	<i>115.2</i>	<i>115.2</i>	<b>113.3</b>	<i>113.5</i>	<i>115.2</i>
Percent change from prior year .....	<b>3.0</b>	<b>0.2</b>	<b>1.5</b>	<b>3.0</b>	<i>3.0</i>	<i>0.2</i>	<i>1.5</i>	<i>3.0</i>	<i>3.0</i>	<i>0.2</i>	<i>1.5</i>	<i>3.0</i>	<b>3.0</b>	<i>0.2</i>	<i>1.5</i>
Non-OECD Index, 2015 = 100 .....	<b>128.2</b>	<b>132.2</b>	<b>138.3</b>	<b>138.3</b>	<i>128.2</i>	<i>132.2</i>	<i>138.3</i>	<i>128.2</i>	<i>132.2</i>	<i>138.3</i>	<i>138.3</i>	<i>138.3</i>	<b>128.2</b>	<i>132.2</i>	<i>138.3</i>
Percent change from prior year .....	<b>3.4</b>	<b>3.1</b>	<b>4.7</b>	<b>3.4</b>	<i>3.4</i>	<i>3.1</i>	<i>4.7</i>	<i>3.4</i>	<i>3.1</i>	<i>4.7</i>	<i>3.4</i>	<i>3.1</i>	<b>3.4</b>	<i>3.1</i>	<i>4.7</i>
<b>Nominal U.S. Dollar Index (b)</b>															
Index, 2015 Q1 = 100 .....	<b>109.6</b>	<b>113.0</b>	<b>117.3</b>	<b>118.6</b>	<i>116.1</i>	<i>117.0</i>	<i>117.2</i>	<i>117.3</i>	<i>117.2</i>	<i>116.9</i>	<i>116.2</i>	<i>115.2</i>	<b>114.6</b>	<i>116.9</i>	<i>116.4</i>
Percent change from prior year .....	<b>2.9</b>	<b>6.5</b>	<b>9.1</b>	<b>8.7</b>	<i>6.0</i>	<i>3.6</i>	<i>-0.1</i>	<i>-1.1</i>	<i>0.9</i>	<i>-0.1</i>	<i>-0.9</i>	<i>-1.8</i>	<b>6.8</b>	<i>2.0</i>	<i>-0.5</i>

(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. Historical and forecast data are from Oxford Economics, and quarterly values are reindexed to 2015 Q1 by EIA.

(b) Data source is the Board of Governors of the U.S. Federal Reserve System Nominal Broad Trade-Weighted Dollar Index. An increase in the index indicates an appreciation of the U.S. dollar against a basket of currencies and a decrease in the index indicates a depreciation of the U.S. dollar against a basket of currencies. Historical and forecast data are from Oxford Economics, and quarterly values are reindexed to 2015 Q1 by 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 February 2, 2022.

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 - February 2023

	2022				2023				2024				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2022	2023	2024
<b>Supply (million barrels per day)</b>															
<b>Crude Oil Supply</b>															
Domestic Production (a) .....	<b>11.47</b>	<b>11.70</b>	<b>12.06</b>	<b>12.36</b>	<i>12.44</i>	<i>12.46</i>	<i>12.49</i>	<i>12.56</i>	<i>12.63</i>	<i>12.62</i>	<i>12.65</i>	<i>12.70</i>	<b>11.90</b>	<b>12.49</b>	<b>12.65</b>
Alaska .....	<b>0.45</b>	<b>0.44</b>	<b>0.42</b>	<b>0.45</b>	<i>0.43</i>	<i>0.36</i>	<i>0.39</i>	<i>0.41</i>	<i>0.40</i>	<i>0.34</i>	<i>0.36</i>	<i>0.38</i>	<b>0.44</b>	<b>0.40</b>	<b>0.37</b>
Federal Gulf of Mexico (b) .....	<b>1.67</b>	<b>1.70</b>	<b>1.80</b>	<b>1.88</b>	<i>2.00</i>	<i>1.96</i>	<i>1.86</i>	<i>1.85</i>	<i>1.91</i>	<i>1.89</i>	<i>1.83</i>	<i>1.85</i>	<b>1.76</b>	<b>1.91</b>	<b>1.87</b>
Lower 48 States (excl GOM) .....	<b>9.35</b>	<b>9.56</b>	<b>9.84</b>	<b>10.03</b>	<i>10.01</i>	<i>10.14</i>	<i>10.25</i>	<i>10.30</i>	<i>10.32</i>	<i>10.39</i>	<i>10.45</i>	<i>10.47</i>	<b>9.70</b>	<b>10.17</b>	<b>10.41</b>
Crude Oil Net Imports (c) .....	<b>3.00</b>	<b>2.81</b>	<b>2.75</b>	<b>2.17</b>	<i>2.80</i>	<i>3.28</i>	<i>3.51</i>	<i>3.28</i>	<i>2.90</i>	<i>3.02</i>	<i>3.25</i>	<i>2.87</i>	<b>2.68</b>	<b>3.22</b>	<b>3.01</b>
SPR Net Withdrawals .....	<b>0.31</b>	<b>0.80</b>	<b>0.84</b>	<b>0.48</b>	<i>0.05</i>	<i>0.15</i>	<i>0.05</i>	<i>0.00</i>	<i>-0.07</i>	<i>-0.07</i>	<i>-0.07</i>	<i>-0.07</i>	<b>0.61</b>	<b>0.06</b>	<b>-0.07</b>
Commercial Inventory Net Withdrawals .....	<b>0.08</b>	<b>-0.03</b>	<b>-0.12</b>	<b>0.03</b>	<i>-0.53</i>	<i>0.12</i>	<i>0.15</i>	<i>-0.09</i>	<i>-0.33</i>	<i>0.06</i>	<i>0.19</i>	<i>-0.10</i>	<b>-0.01</b>	<b>-0.08</b>	<b>-0.04</b>
Crude Oil Adjustment (d) .....	<b>0.71</b>	<b>0.81</b>	<b>0.74</b>	<b>0.82</b>	<i>0.52</i>	<i>0.56</i>	<i>0.50</i>	<i>0.44</i>	<i>0.54</i>	<i>0.61</i>	<i>0.50</i>	<i>0.46</i>	<b>0.77</b>	<b>0.50</b>	<b>0.53</b>
Total Crude Oil Input to Refineries .....	<b>15.56</b>	<b>16.09</b>	<b>16.26</b>	<b>15.86</b>	<i>15.28</i>	<i>16.58</i>	<i>16.69</i>	<i>16.20</i>	<i>15.68</i>	<i>16.25</i>	<i>16.52</i>	<i>15.87</i>	<b>15.94</b>	<b>16.19</b>	<b>16.08</b>
<b>Other Supply</b>															
Refinery Processing Gain .....	<b>0.95</b>	<b>1.07</b>	<b>1.05</b>	<b>1.03</b>	<i>0.95</i>	<i>1.03</i>	<i>1.04</i>	<i>1.05</i>	<i>0.99</i>	<i>1.00</i>	<i>1.02</i>	<i>1.02</i>	<b>1.03</b>	<b>1.02</b>	<b>1.01</b>
Natural Gas Plant Liquids Production .....	<b>5.61</b>	<b>5.92</b>	<b>6.09</b>	<b>5.97</b>	<i>5.97</i>	<i>6.24</i>	<i>6.23</i>	<i>6.25</i>	<i>6.25</i>	<i>6.43</i>	<i>6.40</i>	<i>6.43</i>	<b>5.90</b>	<b>6.17</b>	<b>6.38</b>
Renewables and Oxygenate Production (e) .....	<b>1.20</b>	<b>1.20</b>	<b>1.18</b>	<b>1.23</b>	<i>1.21</i>	<i>1.23</i>	<i>1.22</i>	<i>1.27</i>	<i>1.25</i>	<i>1.29</i>	<i>1.30</i>	<i>1.35</i>	<b>1.20</b>	<b>1.23</b>	<b>1.30</b>
Fuel Ethanol Production .....	<b>1.02</b>	<b>1.01</b>	<b>0.97</b>	<b>1.01</b>	<i>0.98</i>	<i>0.99</i>	<i>0.97</i>	<i>1.01</i>	<i>0.99</i>	<i>1.00</i>	<i>0.99</i>	<i>1.03</i>	<b>1.00</b>	<b>0.99</b>	<b>1.00</b>
Petroleum Products Adjustment (f) .....	<b>0.21</b>	<b>0.23</b>	<b>0.22</b>	<b>0.22</b>	<i>0.20</i>	<i>0.22</i>	<i>0.22</i>	<i>0.22</i>	<i>0.21</i>	<i>0.22</i>	<i>0.22</i>	<i>0.22</i>	<b>0.22</b>	<b>0.22</b>	<b>0.22</b>
Product Net Imports (c) .....	<b>-3.74</b>	<b>-3.99</b>	<b>-4.07</b>	<b>-4.06</b>	<i>-4.13</i>	<i>-4.15</i>	<i>-4.71</i>	<i>-4.97</i>	<i>-4.40</i>	<i>-4.13</i>	<i>-4.48</i>	<i>-4.73</i>	<b>-3.96</b>	<b>-4.49</b>	<b>-4.44</b>
Hydrocarbon Gas Liquids .....	<b>-2.14</b>	<b>-2.31</b>	<b>-2.16</b>	<b>-2.25</b>	<i>-2.52</i>	<i>-2.57</i>	<i>-2.58</i>	<i>-2.57</i>	<i>-2.53</i>	<i>-2.74</i>	<i>-2.65</i>	<i>-2.70</i>	<b>-2.21</b>	<b>-2.56</b>	<b>-2.66</b>
Unfinished Oils .....	<b>0.09</b>	<b>0.25</b>	<b>0.28</b>	<b>0.25</b>	<i>0.14</i>	<i>0.26</i>	<i>0.37</i>	<i>0.19</i>	<i>0.19</i>	<i>0.25</i>	<i>0.30</i>	<i>0.19</i>	<b>0.22</b>	<b>0.24</b>	<b>0.23</b>
Other HC/Oxygenates .....	<b>-0.09</b>	<b>-0.10</b>	<b>-0.07</b>	<b>-0.03</b>	<i>-0.06</i>	<i>-0.04</i>	<i>-0.03</i>	<i>-0.04</i>	<i>-0.06</i>	<i>-0.05</i>	<i>-0.04</i>	<i>-0.05</i>	<b>-0.07</b>	<b>-0.05</b>	<b>-0.05</b>
Motor Gasoline Blend Comp. ....	<b>0.40</b>	<b>0.60</b>	<b>0.48</b>	<b>0.37</b>	<i>0.39</i>	<i>0.71</i>	<i>0.39</i>	<i>0.41</i>	<i>0.40</i>	<i>0.65</i>	<i>0.39</i>	<i>0.37</i>	<b>0.46</b>	<b>0.48</b>	<b>0.46</b>
Finished Motor Gasoline .....	<b>-0.76</b>	<b>-0.73</b>	<b>-0.81</b>	<b>-0.80</b>	<i>-0.73</i>	<i>-0.78</i>	<i>-0.96</i>	<i>-1.17</i>	<i>-0.95</i>	<i>-0.76</i>	<i>-0.86</i>	<i>-0.98</i>	<b>-0.78</b>	<b>-0.91</b>	<b>-0.89</b>
Jet Fuel .....	<b>-0.04</b>	<b>-0.06</b>	<b>-0.11</b>	<b>-0.05</b>	<i>-0.16</i>	<i>-0.08</i>	<i>-0.05</i>	<i>0.01</i>	<i>0.14</i>	<i>0.16</i>	<i>0.18</i>	<i>0.16</i>	<b>-0.06</b>	<b>-0.07</b>	<b>0.16</b>
Distillate Fuel Oil .....	<b>-0.81</b>	<b>-1.15</b>	<b>-1.29</b>	<b>-1.02</b>	<i>-0.82</i>	<i>-1.15</i>	<i>-1.34</i>	<i>-1.29</i>	<i>-1.08</i>	<i>-1.18</i>	<i>-1.32</i>	<i>-1.30</i>	<b>-1.07</b>	<b>-1.15</b>	<b>-1.22</b>
Residual Fuel Oil .....	<b>0.14</b>	<b>0.10</b>	<b>0.10</b>	<b>0.06</b>	<i>0.09</i>	<i>0.10</i>	<i>0.08</i>	<i>0.13</i>	<i>0.06</i>	<i>0.09</i>	<i>0.08</i>	<i>0.15</i>	<b>0.10</b>	<b>0.10</b>	<b>0.10</b>
Other Oils (g) .....	<b>-0.54</b>	<b>-0.59</b>	<b>-0.49</b>	<b>-0.59</b>	<i>-0.46</i>	<i>-0.60</i>	<i>-0.58</i>	<i>-0.64</i>	<i>-0.56</i>	<i>-0.55</i>	<i>-0.56</i>	<i>-0.57</i>	<b>-0.55</b>	<b>-0.57</b>	<b>-0.56</b>
Product Inventory Net Withdrawals .....	<b>0.42</b>	<b>-0.25</b>	<b>-0.26</b>	<b>-0.01</b>	<i>0.36</i>	<i>-0.76</i>	<i>-0.28</i>	<i>0.44</i>	<i>0.28</i>	<i>-0.55</i>	<i>-0.24</i>	<i>0.53</i>	<b>-0.03</b>	<b>-0.06</b>	<b>0.01</b>
Total Supply .....	<b>20.22</b>	<b>20.27</b>	<b>20.47</b>	<b>20.26</b>	<i>19.84</i>	<i>20.38</i>	<i>20.41</i>	<i>20.45</i>	<i>20.26</i>	<i>20.52</i>	<i>20.75</i>	<i>20.69</i>	<b>20.30</b>	<b>20.27</b>	<b>20.56</b>
<b>Consumption (million barrels per day)</b>															
Hydrocarbon Gas Liquids .....	<b>3.87</b>	<b>3.43</b>	<b>3.48</b>	<b>3.61</b>	<i>3.78</i>	<i>3.47</i>	<i>3.48</i>	<i>3.83</i>	<i>4.00</i>	<i>3.49</i>	<i>3.60</i>	<i>3.85</i>	<b>3.60</b>	<b>3.64</b>	<b>3.73</b>
Other HC/Oxygenates .....	<b>0.13</b>	<b>0.17</b>	<b>0.17</b>	<b>0.20</b>	<i>0.21</i>	<i>0.20</i>	<i>0.20</i>	<i>0.22</i>	<i>0.21</i>	<i>0.24</i>	<i>0.26</i>	<i>0.28</i>	<b>0.17</b>	<b>0.21</b>	<b>0.25</b>
Unfinished Oils .....	<b>0.13</b>	<b>0.04</b>	<b>0.11</b>	<b>0.08</b>	<i>0.01</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<b>0.09</b>	<b>0.00</b>	<b>0.00</b>
Motor Gasoline .....	<b>8.47</b>	<b>9.00</b>	<b>8.88</b>	<b>8.75</b>	<i>8.45</i>	<i>8.98</i>	<i>8.90</i>	<i>8.72</i>	<i>8.43</i>	<i>8.91</i>	<i>8.86</i>	<i>8.72</i>	<b>8.78</b>	<b>8.76</b>	<b>8.73</b>
Fuel Ethanol blended into Motor Gasoline .....	<b>0.87</b>	<b>0.93</b>	<b>0.92</b>	<b>0.92</b>	<i>0.87</i>	<i>0.93</i>	<i>0.92</i>	<i>0.93</i>	<i>0.88</i>	<i>0.93</i>	<i>0.92</i>	<i>0.94</i>	<b>0.91</b>	<b>0.91</b>	<b>0.92</b>
Jet Fuel .....	<b>1.45</b>	<b>1.61</b>	<b>1.60</b>	<b>1.57</b>	<i>1.48</i>	<i>1.63</i>	<i>1.66</i>	<i>1.64</i>	<i>1.65</i>	<i>1.75</i>	<i>1.82</i>	<i>1.75</i>	<b>1.56</b>	<b>1.60</b>	<b>1.74</b>
Distillate Fuel Oil .....	<b>4.14</b>	<b>3.89</b>	<b>3.86</b>	<b>3.99</b>	<i>3.98</i>	<i>3.90</i>	<i>3.83</i>	<i>3.94</i>	<i>4.04</i>	<i>3.94</i>	<i>3.84</i>	<i>3.98</i>	<b>3.97</b>	<b>3.91</b>	<b>3.95</b>
Residual Fuel Oil .....	<b>0.38</b>	<b>0.31</b>	<b>0.39</b>	<b>0.28</b>	<i>0.34</i>	<i>0.36</i>	<i>0.37</i>	<i>0.38</i>	<i>0.32</i>	<i>0.35</i>	<i>0.38</i>	<i>0.39</i>	<b>0.34</b>	<b>0.36</b>	<b>0.36</b>
Other Oils (g) .....	<b>1.65</b>	<b>1.82</b>	<b>1.99</b>	<b>1.77</b>	<i>1.60</i>	<i>1.85</i>	<i>1.99</i>	<i>1.73</i>	<i>1.62</i>	<i>1.84</i>	<i>1.99</i>	<i>1.73</i>	<b>1.81</b>	<b>1.79</b>	<b>1.80</b>
Total Consumption .....	<b>20.22</b>	<b>20.27</b>	<b>20.47</b>	<b>20.26</b>	<i>19.84</i>	<i>20.38</i>	<i>20.41</i>	<i>20.45</i>	<i>20.26</i>	<i>20.52</i>	<i>20.75</i>	<i>20.69</i>	<b>20.30</b>	<b>20.27</b>	<b>20.56</b>
<b>Total Petroleum and Other Liquids Net Imports</b> .....	<b>-0.74</b>	<b>-1.18</b>	<b>-1.32</b>	<b>-1.88</b>	<i>-1.33</i>	<i>-0.86</i>	<i>-1.21</i>	<i>-1.69</i>	<i>-1.50</i>	<i>-1.10</i>	<i>-1.23</i>	<i>-1.86</i>	<b>-1.28</b>	<b>-1.27</b>	<b>-1.42</b>
<b>End-of-period Inventories (million barrels)</b>															
<b>Commercial Inventory</b>															
Crude Oil (excluding SPR) .....	<b>414.4</b>	<b>417.5</b>	<b>428.8</b>	<b>426.1</b>	<i>474.0</i>	<i>463.0</i>	<i>448.7</i>	<i>456.7</i>	<i>486.9</i>	<i>481.1</i>	<i>463.2</i>	<i>472.8</i>	<b>426.1</b>	<b>456.7</b>	<b>472.8</b>
Hydrocarbon Gas Liquids .....	<b>142.0</b>	<b>186.7</b>	<b>243.6</b>	<b>217.4</b>	<i>174.6</i>	<i>224.2</i>	<i>262.5</i>	<i>217.1</i>	<i>179.8</i>	<i>230.3</i>	<i>266.4</i>	<i>220.8</i>	<b>217.4</b>	<b>217.1</b>	<b>220.8</b>
Unfinished Oils .....	<b>87.9</b>	<b>88.8</b>	<b>82.3</b>	<b>83.9</b>	<i>91.2</i>	<i>89.3</i>	<i>88.9</i>	<i>81.2</i>	<i>91.1</i>	<i>88.3</i>	<i>87.3</i>	<i>79.5</i>	<b>83.9</b>	<b>81.2</b>	<b>79.5</b>
Other HC/Oxygenates .....	<b>34.1</b>	<b>29.4</b>	<b>27.3</b>	<b>30.9</b>	<i>31.7</i>	<i>30.5</i>	<i>30.2</i>	<i>30.5</i>	<i>32.5</i>	<i>31.3</i>	<i>31.0</i>	<i>31.3</i>	<b>30.9</b>	<b>30.5</b>	<b>31.3</b>
Total Motor Gasoline .....	<b>238.5</b>	<b>221.0</b>	<b>209.6</b>	<b>223.8</b>	<i>228.4</i>	<i>239.2</i>	<i>232.1</i>	<i>244.8</i>	<i>239.9</i>	<i>244.2</i>	<i>237.2</i>	<i>245.8</i>	<b>223.8</b>	<b>244.8</b>	<b>245.8</b>
Finished Motor Gasoline .....	<b>17.3</b>	<b>17.1</b>	<b>17.6</b>	<b>16.4</b>	<i>14.9</i>	<i>16.8</i>	<i>18.8</i>	<i>21.5</i>	<i>18.5</i>	<i>19.6</i>	<i>21.3</i>	<i>23.5</i>	<b>16.4</b>	<b>21.5</b>	<b>23.5</b>
Motor Gasoline Blend Comp. ....	<b>221.2</b>	<b>203.8</b>	<b>192.0</b>	<b>207.5</b>	<i>213.5</i>	<i>222.4</i>	<i>213.3</i>	<i>223.2</i>	<i>221.4</i>	<i>224.6</i>	<i>215.9</i>	<i>222.4</i>	<b>207.5</b>	<b>223.2</b>	<b>222.4</b>
Jet Fuel .....	<b>35.6</b>	<b>39.3</b>	<b>36.2</b>	<b>34.1</b>	<i>37.0</i>	<i>40.1</i>	<i>41.1</i>	<i>38.0</i>	<i>39.1</i>	<i>39.1</i>	<i>40.7</i>	<i>37.2</i>	<b>34.1</b>	<b>38.0</b>	<b>37.2</b>
Distillate Fuel Oil .....	<b>114.6</b>	<b>111.4</b>	<b>110.5</b>	<b>118.5</b>	<i>104.9</i>	<i>116.9</i>	<i>122.3</i>	<i>123.6</i>	<i>116.1</i>	<i>117.8</i>	<i>121.8</i>	<i>120.2</i>	<b>118.5</b>	<b>123.6</b>	<b>120.2</b>
Residual Fuel Oil .....	<b>27.9</b>	<b>29.2</b>	<b>27.3</b>	<b>29.9</b>	<i>31.3</i>	<i>30.5</i>	<i>28.6</i>	<i>28.0</i>	<i>29.5</i>	<i>28.8</i>	<i>27.0</i>	<i>26.4</i>	<b>29.9</b>	<b>28.0</b>	<b>26.4</b>
Other Oils (g) .....	<b>58.5</b>	<b>56.4</b>	<b>49.5</b>	<b>48.3</b>	<i>55.4</i>	<i>53.7</i>	<i>44.9</i>	<i>46.6</i>	<i>56.0</i>	<i>54.1</i>	<i>45.1</i>	<i>46.7</i>	<b>48.3</b>	<b>46.6</b>	<b>46.7</b>
Total Commercial Inventory .....	<b>1153.6</b>	<b>1179.7</b>	<b>1215.1</b>	<b>1212.8</b>	<i>1228.7</i>	<i>1287.3</i>	<i>1299.2</i>	<i>1266.4</i>	<i>1270.9</i>	<i>1315.2</i>	<i>1319.7</i>	<i>1280.8</i>	<b>1212.8</b>	<b>1266.4</b>	<b>1280.8</b>
Crude Oil in SPR .....	<b>566.1</b>	<b>493.3</b>	<b>416.4</b>	<b>372.2</b>	<i>367.3</i>	<i>353.7</i>	<i>349.5</i>	<i>349.5</i>	<i>355.6</i>	<i>361.6</i>	<i>367.6</i>	<i>373.6</i>	<b>372.2</b>	<b>349.5</b>	<b>373.6</b>

(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

**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 - February 2023

	2022				2023				2024				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2022	2023	2024
<b>HGL Production</b>															
<b>Natural Gas Processing Plants</b>															
Ethane .....	2.33	2.43	2.41	2.41	2.41	2.59	2.54	2.59	2.60	2.66	2.58	2.66	2.39	2.53	2.62
Propane .....	1.77	1.85	1.92	1.90	1.91	1.95	1.96	1.96	1.97	2.02	2.03	2.03	1.86	1.94	2.01
Butanes .....	0.93	0.98	1.02	1.00	1.02	1.03	1.05	1.04	1.05	1.07	1.08	1.07	0.98	1.04	1.07
Natural Gasoline (Pentanes Plus) .....	0.59	0.67	0.74	0.67	0.63	0.66	0.69	0.66	0.64	0.68	0.71	0.67	0.66	0.66	0.68
<b>Refinery and Blender Net Production</b>															
Ethane/Ethylene .....	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Propane .....	0.27	0.29	0.29	0.29	0.28	0.28	0.29	0.28	0.28	0.29	0.30	0.29	0.29	0.28	0.29
Propylene (refinery-grade) .....	0.28	0.28	0.26	0.25	0.28	0.29	0.28	0.28	0.28	0.28	0.28	0.28	0.27	0.28	0.28
Butanes/Butylenes .....	-0.07	0.25	0.19	-0.18	-0.08	0.26	0.19	-0.20	-0.08	0.27	0.20	-0.19	0.05	0.05	0.05
<b>Renewable Fuels and Oxygenate Plant Net Production</b>															
Natural Gasoline (Pentanes Plus) .....	-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	-0.02	-0.02
<b>HGL Net Imports</b>															
Ethane .....	-0.50	-0.40	-0.43	-0.46	-0.46	-0.47	-0.47	-0.47	-0.49	-0.49	-0.48	-0.52	-0.45	-0.46	-0.49
Propane/Propylene .....	-1.18	-1.33	-1.21	-1.28	-1.40	-1.39	-1.39	-1.45	-1.38	-1.51	-1.47	-1.56	-1.25	-1.41	-1.48
Butanes/Butylenes .....	-0.28	-0.41	-0.34	-0.36	-0.40	-0.47	-0.47	-0.43	-0.42	-0.49	-0.48	-0.42	-0.35	-0.44	-0.45
Natural Gasoline (Pentanes Plus) .....	-0.17	-0.17	-0.19	-0.16	-0.26	-0.25	-0.25	-0.23	-0.25	-0.24	-0.23	-0.20	-0.17	-0.25	-0.23
<b>HGL Refinery and Blender Net Inputs</b>															
Butanes/Butylenes .....	0.44	0.31	0.35	0.55	0.44	0.29	0.32	0.52	0.43	0.29	0.33	0.55	0.41	0.39	0.40
Natural Gasoline (Pentanes Plus) .....	0.20	0.20	0.22	0.19	0.17	0.18	0.19	0.18	0.17	0.18	0.19	0.18	0.20	0.18	0.18
<b>HGL Consumption</b>															
Ethane/Ethylene .....	1.98	2.03	1.97	1.89	1.99	2.08	2.08	2.12	2.12	2.13	2.11	2.16	1.97	2.07	2.13
Propane .....	1.16	0.60	0.69	0.92	1.08	0.63	0.62	0.95	1.12	0.59	0.66	0.89	0.84	0.82	0.81
Propylene (refinery-grade) .....	0.30	0.29	0.28	0.26	0.29	0.30	0.30	0.30	0.30	0.30	0.29	0.29	0.28	0.30	0.30
Butanes/Butylenes .....	0.23	0.26	0.29	0.22	0.21	0.26	0.26	0.22	0.22	0.26	0.27	0.22	0.25	0.23	0.24
Natural Gasoline (Pentanes Plus) .....	0.21	0.24	0.26	0.32	0.21	0.20	0.22	0.24	0.23	0.22	0.27	0.28	0.26	0.22	0.25
<b>HGL Inventories (million barrels)</b>															
Ethane .....	51.1	51.7	49.9	55.8	55.5	58.6	58.5	60.5	58.6	62.8	62.5	63.3	52.1	58.3	61.8
Propane .....	36.3	54.1	81.9	80.0	52.7	70.3	90.5	74.9	49.9	67.5	85.6	71.1	80.0	74.9	71.1
Propylene (at refineries only) .....	1.0	1.2	1.1	1.1	1.2	1.5	1.8	1.7	1.5	1.7	1.9	1.8	1.1	1.7	1.8
Butanes/Butylenes .....	35.7	58.8	81.2	52.6	43.2	69.1	87.0	57.7	48.6	76.1	94.1	65.0	52.6	57.7	65.0
Natural Gasoline (Pentanes Plus) .....	19.4	22.7	27.2	25.9	23.0	23.8	24.3	23.2	20.4	21.4	21.9	21.0	25.9	23.2	21.0
<b>Refinery and Blender Net Inputs</b>															
Crude Oil .....	15.56	16.09	16.26	15.86	15.28	16.58	16.69	16.20	15.68	16.25	16.52	15.87	15.94	16.19	16.08
Hydrocarbon Gas Liquids .....	0.64	0.50	0.57	0.74	0.61	0.47	0.51	0.70	0.59	0.47	0.52	0.73	0.61	0.57	0.58
Other Hydrocarbons/Oxygenates .....	1.12	1.20	1.19	1.17	1.11	1.20	1.20	1.19	1.15	1.21	1.21	1.21	1.17	1.18	1.19
Unfinished Oils .....	-0.12	0.21	0.24	0.15	0.06	0.28	0.38	0.28	0.08	0.28	0.31	0.27	0.12	0.25	0.23
Motor Gasoline Blend Components .....	0.33	0.84	0.66	0.26	0.42	0.72	0.59	0.53	0.55	0.72	0.59	0.53	0.52	0.56	0.59
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 .....	17.53	18.84	18.92	18.18	17.48	19.25	19.36	18.89	18.04	18.93	19.15	18.60	18.37	18.75	18.68
<b>Refinery Processing Gain</b> .....	0.95	1.07	1.05	1.03	0.95	1.03	1.04	1.05	0.99	1.00	1.02	1.02	1.03	1.02	1.01
<b>Refinery and Blender Net Production</b>															
Hydrocarbon Gas Liquids .....	0.49	0.84	0.75	0.37	0.48	0.83	0.77	0.38	0.48	0.85	0.78	0.38	0.61	0.62	0.62
Finished Motor Gasoline .....	9.22	9.74	9.73	9.56	9.23	9.84	9.94	10.09	9.44	9.74	9.80	9.89	9.56	9.78	9.72
Jet Fuel .....	1.48	1.71	1.67	1.60	1.67	1.74	1.71	1.59	1.52	1.59	1.65	1.56	1.62	1.68	1.58
Distillate Fuel .....	4.77	5.00	5.15	5.10	4.66	5.18	5.23	5.25	5.03	5.14	5.21	5.26	5.01	5.08	5.16
Residual Fuel .....	0.26	0.22	0.26	0.24	0.26	0.25	0.28	0.24	0.27	0.25	0.28	0.23	0.25	0.26	0.26
Other Oils (a) .....	2.26	2.39	2.40	2.34	2.13	2.43	2.47	2.39	2.29	2.38	2.45	2.31	2.35	2.36	2.36
Total Refinery and Blender Net Production .....	18.49	19.90	19.97	19.21	18.43	20.28	20.40	19.94	19.03	19.94	20.17	19.63	19.40	19.77	19.69
<b>Refinery Distillation Inputs</b> .....	16.07	16.61	16.82	16.38	15.61	16.77	16.96	16.46	15.96	16.49	16.80	16.17	16.47	16.45	16.36
<b>Refinery Operable Distillation Capacity</b> .....	17.94	17.94	17.98	18.01	18.06	18.27	18.27	18.27	18.05	18.00	18.00	18.00	17.97	18.21	18.01
<b>Refinery Distillation Utilization Factor</b> .....	0.90	0.93	0.94	0.91	0.86	0.92	0.93	0.90	0.88	0.92	0.93	0.90	0.92	0.90	0.91

(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 February 2, 2022.

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 - February 2023

	2022				2023				2024				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2022	2023	2024
<b>Prices (cents per gallon)</b>															
Refiner Wholesale Price .....	278	376	311	267	266	262	252	236	231	237	227	210	309	254	226
<b>Gasoline Regular Grade Retail Prices Including Taxes</b>															
PADD 1 .....	364	438	393	340	344	348	333	315	308	313	302	287	384	335	302
PADD 2 .....	352	436	397	345	335	335	323	311	302	309	300	279	383	326	297
PADD 3 .....	340	414	357	300	309	311	302	285	277	283	273	255	353	302	272
PADD 4 .....	360	446	434	359	350	357	354	330	311	324	318	298	401	348	313
PADD 5 .....	452	543	511	478	411	409	403	392	382	394	380	360	497	404	379
U.S. Average .....	371	450	408	357	347	349	338	322	314	321	310	293	397	339	310
<b>Gasoline All Grades Including Taxes</b>	<b>380</b>	<b>460</b>	<b>419</b>	<b>369</b>	<b>358</b>	<b>362</b>	<b>351</b>	<b>337</b>	<b>328</b>	<b>335</b>	<b>325</b>	<b>308</b>	<b>408</b>	<b>352</b>	<b>324</b>
<b>End-of-period Inventories (million barrels)</b>															
<b>Total Gasoline Inventories</b>															
PADD 1 .....	56.9	53.6	54.4	57.0	58.4	65.6	61.7	65.0	61.7	66.3	61.5	64.4	57.0	65.0	64.4
PADD 2 .....	56.5	46.7	44.1	46.1	48.0	47.1	45.6	50.5	52.6	49.8	47.0	51.0	46.1	50.5	51.0
PADD 3 .....	87.1	83.9	80.2	80.3	85.3	89.6	86.9	89.7	87.5	90.7	90.9	90.7	80.3	89.7	90.7
PADD 4 .....	8.1	6.4	6.4	7.3	6.7	7.1	7.6	8.4	8.1	7.6	7.7	8.4	7.3	8.4	8.4
PADD 5 .....	29.9	30.3	24.5	33.1	30.0	29.9	30.2	31.1	30.0	29.8	30.2	31.2	33.1	31.1	31.2
U.S. Total .....	238.5	221.0	209.6	223.8	228.4	239.2	232.1	244.8	239.9	244.2	237.2	245.8	223.8	244.8	245.8
<b>Finished Gasoline Inventories</b>															
U.S. Total .....	17.3	17.1	17.6	16.4	14.9	16.8	18.8	21.5	18.5	19.6	21.3	23.5	16.4	21.5	23.5
<b>Gasoline Blending Components Inventories</b>															
U.S. Total .....	221.2	203.8	192.0	207.5	213.5	222.4	213.3	223.2	221.4	224.6	215.9	222.4	207.5	223.2	222.4

- = no data available

Notes: EIA completed modeling and analysis for this report on February 2, 2022.

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 - February 2023

	2022				2023				2024				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2022	2023	2024
<b>Supply (billion cubic feet per day)</b>															
Total Marketed Production .....	<b>103.27</b>	<b>106.18</b>	<b>108.27</b>	<b>108.98</b>	<i>108.60</i>	<i>108.73</i>	<i>109.16</i>	<i>109.76</i>	<i>110.11</i>	<i>110.56</i>	<i>110.92</i>	<i>110.87</i>	<b>106.70</b>	<i>109.07</i>	<i>110.61</i>
Alaska .....	<b>1.06</b>	<b>1.00</b>	<b>0.96</b>	<b>1.02</b>	<i>1.01</i>	<i>0.93</i>	<i>0.85</i>	<i>0.98</i>	<i>1.00</i>	<i>0.92</i>	<i>0.84</i>	<i>0.97</i>	<b>1.01</b>	<i>0.94</i>	<i>0.93</i>
Federal GOM (a) .....	<b>2.05</b>	<b>2.11</b>	<b>2.19</b>	<b>2.17</b>	<i>2.28</i>	<i>2.26</i>	<i>2.11</i>	<i>2.05</i>	<i>2.07</i>	<i>2.00</i>	<i>1.87</i>	<i>1.85</i>	<b>2.13</b>	<i>2.17</i>	<i>1.95</i>
Lower 48 States (excl GOM) .....	<b>100.16</b>	<b>103.07</b>	<b>105.12</b>	<b>105.79</b>	<i>105.31</i>	<i>105.55</i>	<i>106.21</i>	<i>106.74</i>	<i>107.04</i>	<i>107.64</i>	<i>108.20</i>	<i>108.04</i>	<b>103.55</b>	<i>105.96</i>	<i>107.73</i>
Total Dry Gas Production .....	<b>95.09</b>	<b>97.59</b>	<b>99.46</b>	<b>100.13</b>	<i>99.87</i>	<i>99.95</i>	<i>100.34</i>	<i>100.89</i>	<i>101.21</i>	<i>101.63</i>	<i>101.95</i>	<i>101.91</i>	<b>98.09</b>	<i>100.27</i>	<i>101.68</i>
LNG Gross Imports .....	<b>0.15</b>	<b>0.01</b>	<b>0.06</b>	<b>0.05</b>	<i>0.10</i>	<i>0.04</i>	<i>0.04</i>	<i>0.06</i>	<i>0.10</i>	<i>0.04</i>	<i>0.04</i>	<i>0.06</i>	<b>0.07</b>	<i>0.06</i>	<i>0.06</i>
LNG Gross Exports .....	<b>11.50</b>	<b>10.80</b>	<b>9.74</b>	<b>10.49</b>	<i>11.23</i>	<i>11.63</i>	<i>11.97</i>	<i>12.27</i>	<i>12.63</i>	<i>12.50</i>	<i>12.11</i>	<i>13.14</i>	<b>10.63</b>	<i>11.78</i>	<i>12.59</i>
Pipeline Gross Imports .....	<b>8.89</b>	<b>7.73</b>	<b>7.84</b>	<b>8.15</b>	<i>8.28</i>	<i>6.86</i>	<i>7.05</i>	<i>7.50</i>	<i>8.24</i>	<i>6.81</i>	<i>7.04</i>	<i>7.49</i>	<b>8.15</b>	<i>7.42</i>	<i>7.40</i>
Pipeline Gross Exports .....	<b>8.45</b>	<b>8.46</b>	<b>8.08</b>	<b>8.32</b>	<i>9.20</i>	<i>8.79</i>	<i>9.14</i>	<i>9.56</i>	<i>9.99</i>	<i>9.38</i>	<i>9.71</i>	<i>10.14</i>	<b>8.33</b>	<i>9.17</i>	<i>9.81</i>
Supplemental Gaseous Fuels .....	<b>0.21</b>	<b>0.17</b>	<b>0.18</b>	<b>0.16</b>	<i>0.18</i>	<i>0.18</i>	<i>0.18</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<b>0.18</b>	<i>0.18</i>	<i>0.19</i>
Net Inventory Withdrawals .....	<b>20.14</b>	<b>-10.25</b>	<b>-8.94</b>	<b>2.45</b>	<i>12.37</i>	<i>-11.14</i>	<i>-7.53</i>	<i>4.54</i>	<i>16.37</i>	<i>-12.89</i>	<i>-9.57</i>	<i>4.19</i>	<b>0.78</b>	<i>-0.48</i>	<i>-0.49</i>
Total Supply .....	<b>104.54</b>	<b>75.99</b>	<b>80.78</b>	<b>92.13</b>	<i>100.38</i>	<i>75.47</i>	<i>78.97</i>	<i>91.35</i>	<i>103.48</i>	<i>73.90</i>	<i>77.83</i>	<i>90.56</i>	<b>88.30</b>	<i>86.50</i>	<i>86.43</i>
Balancing Item (b) .....	<b>0.31</b>	<b>0.14</b>	<b>0.01</b>	<b>0.83</b>	<i>0.50</i>	<i>-0.40</i>	<i>1.08</i>	<i>1.00</i>	<i>0.21</i>	<i>-1.32</i>	<i>-0.24</i>	<i>0.04</i>	<b>0.32</b>	<i>0.55</i>	<i>-0.33</i>
Total Primary Supply .....	<b>104.85</b>	<b>76.13</b>	<b>80.79</b>	<b>92.96</b>	<i>100.88</i>	<i>75.06</i>	<i>80.05</i>	<i>92.35</i>	<i>103.68</i>	<i>72.58</i>	<i>77.59</i>	<i>90.60</i>	<b>88.63</b>	<i>87.04</i>	<i>86.10</i>
<b>Consumption (billion cubic feet per day)</b>															
Residential .....	<b>26.09</b>	<b>7.85</b>	<b>3.57</b>	<b>17.39</b>	<i>23.99</i>	<i>8.02</i>	<i>4.25</i>	<i>17.53</i>	<i>25.81</i>	<i>8.01</i>	<i>4.31</i>	<i>17.58</i>	<b>13.67</b>	<i>13.41</i>	<i>13.91</i>
Commercial .....	<b>15.61</b>	<b>6.67</b>	<b>4.74</b>	<b>11.73</b>	<i>14.51</i>	<i>6.86</i>	<i>5.19</i>	<i>11.69</i>	<i>15.37</i>	<i>6.80</i>	<i>5.20</i>	<i>11.73</i>	<b>9.67</b>	<i>9.54</i>	<i>9.77</i>
Industrial .....	<b>25.46</b>	<b>22.25</b>	<b>21.47</b>	<b>23.67</b>	<i>23.85</i>	<i>21.65</i>	<i>21.66</i>	<i>24.08</i>	<i>24.49</i>	<i>20.91</i>	<i>20.49</i>	<i>22.81</i>	<b>23.21</b>	<i>22.81</i>	<i>22.17</i>
Electric Power (c) .....	<b>28.41</b>	<b>31.00</b>	<b>42.37</b>	<b>31.03</b>	<i>29.11</i>	<i>30.11</i>	<i>40.30</i>	<i>29.90</i>	<i>28.40</i>	<i>28.43</i>	<i>38.95</i>	<i>29.34</i>	<b>33.24</b>	<i>32.38</i>	<i>31.30</i>
Lease and Plant Fuel .....	<b>5.26</b>	<b>5.41</b>	<b>5.51</b>	<b>5.55</b>	<i>5.53</i>	<i>5.54</i>	<i>5.56</i>	<i>5.59</i>	<i>5.61</i>	<i>5.63</i>	<i>5.65</i>	<i>5.65</i>	<b>5.43</b>	<i>5.56</i>	<i>5.63</i>
Pipeline and Distribution Use .....	<b>3.86</b>	<b>2.80</b>	<b>2.98</b>	<b>3.44</b>	<i>3.74</i>	<i>2.75</i>	<i>2.94</i>	<i>3.42</i>	<i>3.85</i>	<i>2.66</i>	<i>2.84</i>	<i>3.35</i>	<b>3.27</b>	<i>3.21</i>	<i>3.18</i>
Vehicle Use .....	<b>0.15</b>	<b>0.15</b>	<b>0.15</b>	<b>0.15</b>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	<b>0.15</b>	<i>0.15</i>	<i>0.15</i>
Total Consumption .....	<b>104.85</b>	<b>76.13</b>	<b>80.79</b>	<b>92.96</b>	<i>100.88</i>	<i>75.06</i>	<i>80.05</i>	<i>92.35</i>	<i>103.68</i>	<i>72.58</i>	<i>77.59</i>	<i>90.60</i>	<b>88.63</b>	<i>87.04</i>	<i>86.10</i>
<b>End-of-period Inventories (billion cubic feet)</b>															
Working Gas Inventory .....	<b>1,401</b>	<b>2,325</b>	<b>3,146</b>	<b>2,922</b>	<i>1,809</i>	<i>2,823</i>	<i>3,515</i>	<i>3,097</i>	<i>1,608</i>	<i>2,780</i>	<i>3,661</i>	<i>3,276</i>	<b>2,922</b>	<i>3,097</i>	<i>3,276</i>
East Region (d) .....	<b>242</b>	<b>482</b>	<b>759</b>	<b>692</b>	<i>312</i>	<i>614</i>	<i>855</i>	<i>706</i>	<i>255</i>	<i>586</i>	<i>875</i>	<i>726</i>	<b>692</b>	<i>706</i>	<i>726</i>
Midwest Region (d) .....	<b>296</b>	<b>557</b>	<b>917</b>	<b>837</b>	<i>408</i>	<i>672</i>	<i>988</i>	<i>832</i>	<i>336</i>	<i>666</i>	<i>1,033</i>	<i>889</i>	<b>837</b>	<i>832</i>	<i>889</i>
South Central Region (d) .....	<b>587</b>	<b>885</b>	<b>1,006</b>	<b>1,044</b>	<i>848</i>	<i>1,128</i>	<i>1,150</i>	<i>1,088</i>	<i>698</i>	<i>1,053</i>	<i>1,168</i>	<i>1,129</i>	<b>1,044</b>	<i>1,088</i>	<i>1,129</i>
Mountain Region (d) .....	<b>90</b>	<b>137</b>	<b>184</b>	<b>156</b>	<i>82</i>	<i>132</i>	<i>201</i>	<i>183</i>	<i>116</i>	<i>159</i>	<i>222</i>	<i>201</i>	<b>156</b>	<i>183</i>	<i>201</i>
Pacific Region (d) .....	<b>165</b>	<b>240</b>	<b>247</b>	<b>164</b>	<i>133</i>	<i>251</i>	<i>296</i>	<i>262</i>	<i>176</i>	<i>290</i>	<i>337</i>	<i>305</i>	<b>164</b>	<i>262</i>	<i>305</i>
Alaska .....	<b>21</b>	<b>25</b>	<b>32</b>	<b>29</b>	<i>26</i>	<i>26</i>	<i>26</i>	<i>26</i>	<i>26</i>	<i>26</i>	<i>26</i>	<i>26</i>	<b>29</b>	<i>26</i>	<i>26</i>

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

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

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

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

- = no data available

LNG: liquefied natural gas.

Notes: EIA completed modeling and analysis for this report on February 2, 2022.

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 - February 2023

	2022				2023				2024				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2022	2023	2024
<b>Wholesale/Spot</b>															
Henry Hub Spot Price .....	<b>4.84</b>	<b>7.77</b>	<b>8.30</b>	<b>5.76</b>	3.25	3.39	3.60	3.90	4.44	3.97	4.04	4.34	<b>6.67</b>	3.54	4.20
<b>Residential Retail</b>															
New England .....	<b>17.69</b>	<b>20.93</b>	<b>26.83</b>	<b>21.19</b>	19.73	19.31	21.31	16.48	15.79	16.58	19.45	15.31	<b>19.70</b>	18.78	16.01
Middle Atlantic .....	<b>12.79</b>	<b>15.55</b>	<b>23.86</b>	<b>16.97</b>	13.76	14.16	18.24	11.73	10.96	13.43	18.25	11.99	<b>15.07</b>	13.47	12.12
E. N. Central .....	<b>9.81</b>	<b>14.81</b>	<b>25.79</b>	<b>13.50</b>	10.70	12.77	18.76	9.59	9.07	11.97	18.52	9.76	<b>12.49</b>	11.16	10.31
W. N. Central .....	<b>11.40</b>	<b>15.25</b>	<b>25.07</b>	<b>12.66</b>	10.28	12.26	18.39	9.90	9.11	12.09	18.56	10.23	<b>13.01</b>	10.94	10.41
S. Atlantic .....	<b>13.91</b>	<b>22.14</b>	<b>32.69</b>	<b>17.75</b>	14.63	18.12	24.28	13.43	12.00	17.21	24.10	13.56	<b>17.47</b>	15.51	14.04
E. S. Central .....	<b>11.80</b>	<b>17.16</b>	<b>26.38</b>	<b>15.75</b>	13.07	16.44	23.32	13.71	12.05	17.16	24.22	14.58	<b>14.33</b>	14.67	14.25
W. S. Central .....	<b>12.62</b>	<b>20.91</b>	<b>30.98</b>	<b>16.55</b>	11.76	15.50	21.70	12.31	9.72	15.60	22.08	12.87	<b>16.06</b>	13.36	12.35
Mountain .....	<b>10.31</b>	<b>12.87</b>	<b>19.38</b>	<b>13.89</b>	11.45	11.82	14.83	9.17	8.94	10.87	14.76	9.48	<b>12.41</b>	11.00	9.85
Pacific .....	<b>17.07</b>	<b>17.80</b>	<b>20.54</b>	<b>18.05</b>	17.34	16.57	17.04	16.10	16.72	17.49	18.32	17.46	<b>17.90</b>	16.78	17.27
U.S. Average .....	<b>12.32</b>	<b>16.57</b>	<b>24.92</b>	<b>15.40</b>	13.17	14.66	19.14	11.81	11.02	14.26	19.36	12.20	<b>14.74</b>	13.42	12.51
<b>Commercial Retail</b>															
New England .....	<b>12.62</b>	<b>14.46</b>	<b>16.18</b>	<b>15.28</b>	13.70	12.07	11.02	10.53	11.06	11.31	10.97	10.76	<b>14.07</b>	12.24	11.00
Middle Atlantic .....	<b>10.36</b>	<b>10.78</b>	<b>12.01</b>	<b>11.57</b>	10.76	9.35	8.26	8.38	8.75	8.55	8.00	8.42	<b>10.99</b>	9.50	8.54
E. N. Central .....	<b>8.12</b>	<b>10.46</b>	<b>14.23</b>	<b>10.31</b>	8.96	8.60	9.50	7.34	7.60	8.68	9.89	7.87	<b>9.56</b>	8.42	8.01
W. N. Central .....	<b>10.22</b>	<b>11.73</b>	<b>15.07</b>	<b>10.50</b>	8.99	8.35	9.43	7.60	7.89	8.58	9.84	8.07	<b>10.87</b>	8.49	8.19
S. Atlantic .....	<b>10.52</b>	<b>12.23</b>	<b>14.12</b>	<b>13.04</b>	11.25	10.48	10.57	9.42	9.41	10.49	10.88	9.89	<b>12.02</b>	10.47	9.91
E. S. Central .....	<b>10.41</b>	<b>12.80</b>	<b>15.54</b>	<b>13.47</b>	11.49	10.70	10.71	9.37	9.03	10.23	10.81	9.69	<b>12.24</b>	10.60	9.60
W. S. Central .....	<b>10.09</b>	<b>12.86</b>	<b>15.00</b>	<b>12.32</b>	9.88	8.67	8.77	7.89	7.49	8.43	9.00	8.31	<b>11.89</b>	8.96	8.09
Mountain .....	<b>8.78</b>	<b>9.98</b>	<b>12.60</b>	<b>11.42</b>	10.24	9.52	9.72	8.09	7.79	8.15	9.01	7.80	<b>10.19</b>	9.40	7.98
Pacific .....	<b>13.08</b>	<b>13.67</b>	<b>15.58</b>	<b>13.73</b>	12.26	10.51	10.08	9.23	9.18	9.13	9.51	9.12	<b>13.77</b>	10.63	9.20
U.S. Average .....	<b>10.00</b>	<b>11.71</b>	<b>14.10</b>	<b>11.86</b>	10.40	9.54	9.52	8.37	8.45	9.05	9.51	8.62	<b>11.28</b>	9.52	8.72
<b>Industrial Retail</b>															
New England .....	<b>11.11</b>	<b>12.09</b>	<b>12.03</b>	<b>13.01</b>	11.07	8.86	7.59	8.60	9.33	8.86	7.92	9.04	<b>12.00</b>	9.35	8.91
Middle Atlantic .....	<b>10.80</b>	<b>10.15</b>	<b>11.91</b>	<b>11.99</b>	10.40	8.32	7.69	8.00	8.67	8.41	8.04	8.38	<b>11.13</b>	9.14	8.48
E. N. Central .....	<b>7.66</b>	<b>8.72</b>	<b>10.75</b>	<b>9.89</b>	7.78	6.24	6.19	6.27	7.02	6.84	6.67	6.75	<b>8.80</b>	6.89	6.87
W. N. Central .....	<b>7.96</b>	<b>8.58</b>	<b>9.58</b>	<b>8.16</b>	6.63	4.94	4.82	5.42	6.16	5.51	5.29	5.87	<b>8.52</b>	5.52	5.74
S. Atlantic .....	<b>7.46</b>	<b>8.84</b>	<b>11.14</b>	<b>8.66</b>	6.31	5.09	5.31	5.69	6.52	5.89	5.76	6.16	<b>8.94</b>	5.64	6.11
E. S. Central .....	<b>6.53</b>	<b>8.70</b>	<b>10.55</b>	<b>7.70</b>	5.92	4.79	4.85	5.30	6.13	5.55	5.30	5.77	<b>8.24</b>	5.25	5.72
W. S. Central .....	<b>5.58</b>	<b>7.69</b>	<b>8.45</b>	<b>5.77</b>	3.85	3.46	3.77	3.94	4.55	4.19	4.19	4.39	<b>6.87</b>	3.75	4.33
Mountain .....	<b>7.11</b>	<b>8.39</b>	<b>10.45</b>	<b>10.20</b>	8.86	7.45	6.99	6.49	6.61	6.40	6.55	6.42	<b>8.93</b>	7.52	6.50
Pacific .....	<b>8.82</b>	<b>9.02</b>	<b>9.60</b>	<b>9.18</b>	8.49	7.02	6.77	6.79	7.37	7.19	7.18	7.27	<b>9.11</b>	7.33	7.26
U.S. Average .....	<b>6.82</b>	<b>8.24</b>	<b>9.26</b>	<b>7.25</b>	5.68	4.43	4.48	4.90	5.74	5.05	4.91	5.37	<b>7.83</b>	4.89	5.30

- = no data available

Notes: EIA completed modeling and analysis for this report on February 2, 2022.

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 - February 2023

	2022				2023				2024				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2022	2023	2024
<b>Supply (million short tons)</b>															
Production .....	<b>149.0</b>	<b>141.7</b>	<b>153.2</b>	<b>148.3</b>	133.5	124.9	133.8	125.8	123.9	117.2	128.2	124.6	<b>592.2</b>	518.0	493.9
Appalachia .....	<b>40.2</b>	<b>38.7</b>	<b>38.7</b>	<b>38.4</b>	36.6	35.2	31.0	30.1	31.9	31.6	28.5	29.3	<b>156.0</b>	132.9	121.4
Interior .....	<b>23.8</b>	<b>21.9</b>	<b>22.7</b>	<b>22.9</b>	23.2	21.9	22.7	21.1	22.3	20.6	21.6	20.7	<b>91.4</b>	88.9	85.3
Western .....	<b>85.0</b>	<b>81.1</b>	<b>91.7</b>	<b>86.9</b>	73.7	67.7	80.1	74.7	69.7	64.9	78.0	74.6	<b>344.8</b>	296.3	287.3
Primary Inventory Withdrawals .....	<b>-1.9</b>	<b>0.0</b>	<b>3.4</b>	<b>-0.2</b>	-1.7	0.1	3.5	0.0	-1.7	0.2	3.5	0.0	<b>1.3</b>	2.0	2.0
Imports .....	<b>1.3</b>	<b>1.6</b>	<b>2.0</b>	<b>1.7</b>	1.0	1.1	1.3	0.9	0.6	0.8	1.2	0.9	<b>6.6</b>	4.3	3.5
Exports .....	<b>20.2</b>	<b>23.0</b>	<b>20.7</b>	<b>22.0</b>	22.1	22.9	21.0	22.0	22.8	24.5	23.4	25.3	<b>85.9</b>	88.1	96.0
Metallurgical Coal .....	<b>10.5</b>	<b>13.1</b>	<b>11.6</b>	<b>12.2</b>	12.1	12.6	11.3	11.6	12.2	13.3	12.5	13.2	<b>47.4</b>	47.6	51.2
Steam Coal .....	<b>9.7</b>	<b>9.9</b>	<b>9.2</b>	<b>9.8</b>	10.0	10.3	9.7	10.4	10.6	11.2	10.9	12.1	<b>38.6</b>	40.5	44.8
Total Primary Supply .....	<b>128.2</b>	<b>120.4</b>	<b>137.8</b>	<b>127.7</b>	110.7	103.2	117.6	104.8	100.1	93.7	109.5	100.2	<b>514.1</b>	436.3	403.4
Secondary Inventory Withdrawals .....	<b>5.9</b>	<b>-1.1</b>	<b>7.0</b>	<b>-12.3</b>	-7.2	-5.8	11.5	-7.5	9.3	-0.6	17.0	-1.7	<b>-0.4</b>	-8.9	23.9
Waste Coal (a) .....	<b>1.9</b>	<b>1.9</b>	<b>1.9</b>	<b>1.9</b>	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	<b>7.5</b>	7.2	7.2
Total Supply .....	<b>135.9</b>	<b>121.2</b>	<b>146.7</b>	<b>117.4</b>	105.3	99.2	131.0	99.1	111.2	94.9	128.3	100.2	<b>521.3</b>	434.6	434.6
<b>Consumption (million short tons)</b>															
Coke Plants .....	<b>4.2</b>	<b>3.9</b>	<b>3.9</b>	<b>3.9</b>	3.8	3.9	3.9	4.0	4.0	4.0	4.1	4.1	<b>16.0</b>	15.7	16.2
Electric Power Sector (b) .....	<b>122.6</b>	<b>107.2</b>	<b>134.7</b>	<b>105.1</b>	95.2	89.9	121.7	89.0	101.0	85.7	119.0	90.1	<b>469.7</b>	395.7	395.7
Retail and Other Industry .....	<b>6.9</b>	<b>6.7</b>	<b>6.5</b>	<b>6.7</b>	6.3	5.4	5.4	6.1	6.2	5.2	5.2	6.0	<b>26.8</b>	23.2	22.6
Residential and Commercial .....	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.3	<b>0.8</b>	0.9	0.9
Other Industrial .....	<b>6.7</b>	<b>6.6</b>	<b>6.3</b>	<b>6.5</b>	6.0	5.2	5.2	5.9	5.9	5.0	5.1	5.7	<b>26.0</b>	22.3	21.7
Total Consumption .....	<b>133.7</b>	<b>117.9</b>	<b>145.1</b>	<b>115.7</b>	105.3	99.2	131.0	99.1	111.2	94.9	128.3	100.2	<b>512.4</b>	434.6	434.6
Discrepancy (c) .....	<b>2.2</b>	<b>3.3</b>	<b>1.6</b>	<b>1.7</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<b>8.8</b>	0.0	0.0
<b>End-of-period Inventories (million short tons)</b>															
Primary Inventories (d) .....	<b>21.0</b>	<b>20.9</b>	<b>17.5</b>	<b>17.7</b>	19.4	19.3	15.7	15.7	17.4	17.3	13.7	13.7	<b>17.7</b>	15.7	13.7
Secondary Inventories .....	<b>90.5</b>	<b>91.5</b>	<b>84.5</b>	<b>96.8</b>	104.0	109.7	98.2	105.6	96.4	97.0	80.0	81.7	<b>96.8</b>	105.6	81.7
Electric Power Sector .....	<b>86.3</b>	<b>87.4</b>	<b>80.2</b>	<b>91.3</b>	99.3	104.9	93.1	100.7	92.1	92.6	75.3	77.1	<b>91.3</b>	100.7	77.1
Retail and General Industry .....	<b>2.4</b>	<b>2.4</b>	<b>2.5</b>	<b>3.5</b>	3.0	3.0	3.2	3.2	2.7	2.8	3.0	3.0	<b>3.5</b>	3.2	3.0
Coke Plants .....	<b>1.6</b>	<b>1.6</b>	<b>1.6</b>	<b>1.8</b>	1.6	1.7	1.7	1.6	1.4	1.5	1.5	1.5	<b>1.8</b>	1.6	1.5
Commercial & Institutional .....	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	<b>0.2</b>	0.2	0.1
<b>Coal Market Indicators</b>															
Coal Miner Productivity															
(Tons per hour) .....	<b>6.05</b>	<b>6.05</b>	<b>6.05</b>	<b>6.05</b>	5.98	5.98	5.98	5.98	5.80	5.80	5.80	5.80	<b>6.05</b>	5.98	5.80
Total Raw Steel Production															
(Million short tons per day) .....	<b>0.253</b>	<b>0.253</b>	<b>0.247</b>	<b>0.235</b>	0.237	0.235	0.235	0.239	0.245	0.241	0.244	0.247	<b>0.247</b>	0.236	0.244
Cost of Coal to Electric Utilities															
(Dollars per million Btu) .....	<b>2.18</b>	<b>2.26</b>	<b>2.50</b>	<b>2.48</b>	2.50	2.50	2.49	2.46	2.48	2.49	2.49	2.46	<b>2.36</b>	2.49	2.48

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

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

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

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

- = no data available

Notes: EIA completed modeling and analysis for this report on February 2, 2022.

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 - February 2023

	2022				2023				2024				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2022	2023	2024
<b>Electricity Supply (billion kilowatthours)</b>															
Electricity Generation .....	<b>1,030</b>	<b>1,026</b>	<b>1,187</b>	<b>1,001</b>	995	1,012	1,163	987	1,036	1,020	1,175	997	<b>4,244</b>	4,157	4,228
Electric Power Sector (a) .....	<b>991</b>	<b>989</b>	<b>1,148</b>	<b>963</b>	956	974	1,122	948	997	982	1,133	958	<b>4,091</b>	4,000	4,070
Industrial Sector (b) .....	<b>36</b>	<b>34</b>	<b>36</b>	<b>36</b>	36	35	37	36	36	35	37	36	<b>141</b>	144	144
Commercial Sector (b) .....	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	3	3	4	3	3	3	4	3	<b>13</b>	13	14
Net Imports .....	<b>7</b>	<b>10</b>	<b>15</b>	<b>11</b>	12	13	14	11	12	12	14	11	<b>43</b>	50	50
Total Supply .....	<b>1,036</b>	<b>1,036</b>	<b>1,202</b>	<b>1,012</b>	1,007	1,025	1,177	998	1,048	1,032	1,189	1,008	<b>4,287</b>	4,207	4,278
Losses and Unaccounted for (c) .....	<b>56</b>	<b>64</b>	<b>53</b>	<b>70</b>	39	65	53	52	43	66	54	52	<b>242</b>	209	215
<b>Electricity Consumption (billion kilowatthours unless noted)</b>															
Sales to Ultimate Customers .....	<b>945</b>	<b>938</b>	<b>1,114</b>	<b>908</b>	933	925	1,087	911	970	931	1,098	921	<b>3,905</b>	3,856	3,920
Residential Sector .....	<b>380</b>	<b>347</b>	<b>457</b>	<b>332</b>	364	337	439	335	389	340	443	338	<b>1,516</b>	1,475	1,510
Commercial Sector .....	<b>322</b>	<b>335</b>	<b>389</b>	<b>328</b>	326	335	384	328	331	335	386	330	<b>1,374</b>	1,373	1,382
Industrial Sector .....	<b>242</b>	<b>255</b>	<b>266</b>	<b>247</b>	242	251	262	247	248	255	267	251	<b>1,009</b>	1,001	1,021
Transportation Sector .....	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	2	2	2	2	2	2	2	2	<b>7</b>	6	6
Direct Use (d) .....	<b>35</b>	<b>34</b>	<b>36</b>	<b>35</b>	35	35	37	35	36	35	37	35	<b>139</b>	143	143
Total Consumption .....	<b>981</b>	<b>972</b>	<b>1,150</b>	<b>943</b>	968	960	1,124	946	1,005	966	1,135	956	<b>4,045</b>	3,999	4,063
Average residential electricity usage per customer (kWh) .....	<b>2,711</b>	<b>2,475</b>	<b>3,265</b>	<b>2,369</b>	2,573	2,383	3,108	2,374	2,731	2,383	3,109	2,371	<b>10,821</b>	10,438	10,593
<b>End-of-period Fuel Inventories Held by Electric Power Sector</b>															
Coal (mmst) .....	<b>86.3</b>	<b>87.4</b>	<b>80.2</b>	<b>91.3</b>	99.3	104.9	93.1	100.7	92.1	92.6	75.3	77.1	<b>91.3</b>	100.7	77.1
Residual Fuel (mmb) .....	<b>5.6</b>	<b>5.9</b>	<b>5.7</b>	<b>5.8</b>	4.2	4.1	2.4	2.8	1.5	1.9	0.4	1.0	<b>5.8</b>	2.8	1.0
Distillate Fuel (mmb) .....	<b>17.6</b>	<b>17.7</b>	<b>16.7</b>	<b>17.6</b>	17.3	17.0	16.8	17.0	16.8	16.6	16.6	16.8	<b>17.6</b>	17.0	16.8
<b>Prices</b>															
<b>Power Generation Fuel Costs (dollars per million Btu)</b>															
Coal .....	<b>2.18</b>	<b>2.26</b>	<b>2.50</b>	<b>2.48</b>	2.50	2.50	2.49	2.46	2.48	2.49	2.49	2.46	<b>2.36</b>	2.49	2.48
Natural Gas .....	<b>5.95</b>	<b>7.39</b>	<b>8.23</b>	<b>5.85</b>	3.69	3.50	3.63	4.11	4.86	4.07	4.09	4.55	<b>7.00</b>	3.72	4.37
Residual Fuel Oil .....	<b>16.81</b>	<b>26.17</b>	<b>26.53</b>	<b>22.00</b>	17.99	17.82	16.27	15.67	15.61	15.56	14.55	14.34	<b>22.02</b>	17.01	15.04
Distillate Fuel Oil .....	<b>21.23</b>	<b>30.70</b>	<b>26.79</b>	<b>27.19</b>	24.87	23.58	21.25	21.14	20.09	18.37	18.14	19.01	<b>25.56</b>	22.93	19.10
<b>Prices to Ultimate Customers (cents per kilowatthour)</b>															
Residential Sector .....	<b>13.97</b>	<b>15.05</b>	<b>15.85</b>	<b>15.48</b>	15.18	15.79	16.02	15.33	15.00	15.89	16.17	15.50	<b>15.12</b>	15.60	15.66
Commercial Sector .....	<b>11.63</b>	<b>12.34</b>	<b>13.37</b>	<b>12.51</b>	12.29	12.63	13.40	12.31	12.09	12.64	13.55	12.43	<b>12.51</b>	12.69	12.71
Industrial Sector .....	<b>7.42</b>	<b>8.41</b>	<b>9.42</b>	<b>8.22</b>	7.58	8.17	9.05	8.06	7.65	8.16	9.05	8.06	<b>8.39</b>	8.23	8.24
<b>Wholesale Electricity Prices (dollars per megawatthour)</b>															
ERCOT North hub .....	<b>42.73</b>	<b>83.19</b>	<b>130.71</b>	<b>53.01</b>	28.80	32.84	41.34	30.36	30.96	26.70	35.74	27.95	<b>77.41</b>	33.34	30.34
CAISO SP15 zone .....	<b>45.20</b>	<b>60.34</b>	<b>110.03</b>	<b>135.13</b>	87.05	50.75	69.07	62.22	61.46	47.36	62.55	53.65	<b>87.67</b>	67.27	56.26
ISO-NE Internal hub .....	<b>116.48</b>	<b>73.28</b>	<b>99.14</b>	<b>80.77</b>	71.13	45.29	53.30	64.69	114.61	45.79	55.19	68.56	<b>92.42</b>	58.60	71.04
NYISO Hudson Valley zone .....	<b>100.10</b>	<b>79.72</b>	<b>104.71</b>	<b>77.17</b>	61.53	48.82	51.80	60.11	96.75	46.52	52.91	63.39	<b>90.42</b>	55.57	64.89
PJM Western hub .....	<b>58.33</b>	<b>93.00</b>	<b>110.99</b>	<b>71.60</b>	50.68	51.36	54.82	56.02	67.93	52.23	59.29	58.00	<b>83.48</b>	53.22	59.36
Midcontinent ISO Illinois hub .....	<b>47.88</b>	<b>89.21</b>	<b>101.80</b>	<b>57.87</b>	40.40	40.75	44.18	44.58	51.19	44.19	49.82	46.53	<b>74.19</b>	42.48	47.93
SPP ISO South hub .....	<b>37.25</b>	<b>72.85</b>	<b>109.97</b>	<b>56.06</b>	34.12	36.08	44.42	40.28	43.26	41.26	49.15	42.32	<b>69.03</b>	38.73	44.00
SERC index, Into Southern .....	<b>42.45</b>	<b>84.96</b>	<b>94.82</b>	<b>59.33</b>	38.90	40.99	46.04	43.82	49.52	44.84	49.72	46.51	<b>70.39</b>	42.44	47.65
FRCC index, Florida Reliability .....	<b>41.11</b>	<b>78.70</b>	<b>92.71</b>	<b>58.54</b>	40.16	44.60	47.54	44.37	46.89	45.01	46.96	45.07	<b>67.77</b>	44.17	45.98
Northwest index, Mid-Columbia .....	<b>39.85</b>	<b>59.39</b>	<b>137.82</b>	<b>151.39</b>	83.89	49.16	73.44	66.92	64.05	47.93	64.22	57.01	<b>97.11</b>	68.35	58.30
Southwest index, Palo Verde .....	<b>39.02</b>	<b>60.50</b>	<b>128.25</b>	<b>130.12</b>	77.17	48.70	73.16	57.80	55.44	48.12	64.34	52.72	<b>89.47</b>	64.21	55.15

Notes: EIA completed modeling and analysis for this report on February 2, 2022.

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

kWh = kilowatthours. Btu = British thermal units.

Prices are not adjusted for inflation.

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

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

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

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

**Historical data sources:**

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

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

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

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

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



**Table 7b. U.S. Regional Electricity Sales to Ultimate Customers (billion kilowatthours)**

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2023

	2022				2023				2024				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2022	2023	2024
<b>Residential Sector</b>															
New England .....	13.1	10.5	13.9	10.8	12.3	10.5	12.6	11.1	13.1	10.6	12.7	11.2	<b>48.3</b>	46.5	47.6
Middle Atlantic .....	36.1	30.0	42.5	29.8	34.3	30.1	39.2	30.2	36.3	30.1	39.4	30.3	<b>138.4</b>	133.8	136.0
E. N. Central .....	50.8	43.8	54.8	42.7	47.8	42.4	54.5	43.7	50.7	43.0	55.1	43.9	<b>192.1</b>	188.5	192.8
W. N. Central .....	30.6	24.7	31.3	25.0	29.8	24.3	31.3	25.4	31.1	24.7	31.9	25.9	<b>111.6</b>	110.9	113.6
S. Atlantic .....	96.0	91.5	116.2	85.4	91.5	89.1	114.1	86.9	100.9	90.0	115.3	87.6	<b>389.1</b>	381.6	393.9
E. S. Central .....	32.6	27.7	37.0	26.3	31.1	27.3	36.8	27.0	34.5	27.5	37.0	27.2	<b>123.6</b>	122.1	126.2
W. S. Central .....	56.9	58.8	81.3	49.5	52.3	54.9	76.1	51.1	58.0	55.4	76.8	51.6	<b>246.4</b>	234.4	241.8
Mountain .....	24.1	26.2	36.1	23.9	24.5	25.5	34.2	23.6	24.7	25.8	34.7	23.8	<b>110.4</b>	107.8	108.9
Pacific contiguous .....	38.4	32.4	43.1	36.9	38.7	31.7	39.2	35.2	38.8	31.6	39.2	35.2	<b>150.8</b>	144.8	144.8
AK and HI .....	1.3	1.1	1.2	1.3	1.2	1.1	1.2	1.3	1.2	1.1	1.2	1.3	<b>4.8</b>	4.8	4.8
Total .....	<b>379.8</b>	<b>346.7</b>	<b>457.3</b>	<b>331.8</b>	<b>363.6</b>	<b>336.8</b>	<b>439.2</b>	<b>335.4</b>	<b>389.4</b>	<b>339.7</b>	<b>443.2</b>	<b>338.0</b>	<b>1,515.6</b>	<b>1,475.0</b>	<b>1,510.3</b>
<b>Commercial Sector</b>															
New England .....	12.1	11.8	13.9	11.6	12.1	11.8	13.2	11.6	12.1	11.7	13.1	11.5	<b>49.4</b>	48.7	48.4
Middle Atlantic .....	36.0	34.3	40.5	34.4	36.0	34.1	38.7	33.9	36.2	33.9	38.7	33.8	<b>145.1</b>	142.8	142.6
E. N. Central .....	43.3	42.9	48.8	42.7	43.1	42.4	48.2	42.2	43.2	42.1	48.2	42.3	<b>177.6</b>	175.9	175.8
W. N. Central .....	25.1	24.6	28.1	24.5	25.3	24.6	27.9	24.4	25.5	24.5	27.9	24.5	<b>102.2</b>	102.3	102.3
S. Atlantic .....	75.1	82.5	93.5	78.9	76.9	83.9	94.8	80.7	80.3	85.9	97.5	83.1	<b>330.0</b>	336.3	346.9
E. S. Central .....	21.0	22.4	26.8	21.1	21.1	22.0	26.4	21.2	21.6	21.8	26.2	21.1	<b>91.4</b>	90.8	90.7
W. S. Central .....	47.0	52.1	61.2	49.5	48.2	52.0	60.3	49.6	49.0	51.7	60.3	49.8	<b>209.8</b>	210.0	210.8
Mountain .....	23.2	25.4	29.6	23.9	23.4	25.2	28.9	23.7	23.4	25.1	28.9	23.8	<b>102.2</b>	101.3	101.3
Pacific contiguous .....	37.7	37.9	45.4	39.9	38.4	38.0	44.4	38.9	38.1	37.4	43.9	38.7	<b>160.9</b>	159.7	158.1
AK and HI .....	1.3	1.3	1.4	1.4	1.3	1.3	1.4	1.4	1.4	1.3	1.4	1.4	<b>5.4</b>	5.4	5.5
Total .....	<b>321.8</b>	<b>335.2</b>	<b>389.0</b>	<b>327.9</b>	<b>325.8</b>	<b>335.4</b>	<b>384.3</b>	<b>327.6</b>	<b>330.8</b>	<b>335.3</b>	<b>386.1</b>	<b>330.0</b>	<b>1,374.0</b>	<b>1,373.1</b>	<b>1,382.3</b>
<b>Industrial Sector</b>															
New England .....	3.9	3.9	4.1	3.8	3.8	3.8	4.0	3.8	3.8	3.7	4.0	3.7	<b>15.7</b>	15.3	15.2
Middle Atlantic .....	17.5	18.2	19.4	18.2	17.5	18.1	19.1	18.1	17.8	18.3	19.4	18.3	<b>73.3</b>	72.8	73.8
E. N. Central .....	45.9	47.0	48.8	45.3	45.2	45.8	47.6	44.9	45.8	46.0	48.2	45.5	<b>187.0</b>	183.6	185.5
W. N. Central .....	24.0	24.8	26.9	24.9	23.9	24.2	26.2	24.9	24.6	24.9	27.0	25.7	<b>100.6</b>	99.2	102.2
S. Atlantic .....	36.3	37.5	38.7	36.4	36.1	36.5	37.5	36.1	37.0	37.2	38.3	36.8	<b>148.9</b>	146.2	149.3
E. S. Central .....	24.7	25.8	25.6	23.8	24.4	25.2	25.0	23.5	24.6	25.1	25.0	23.5	<b>99.9</b>	98.0	98.2
W. S. Central .....	49.8	53.3	53.8	52.3	51.6	54.0	54.6	53.7	54.2	56.3	56.9	56.0	<b>209.3</b>	213.8	223.5
Mountain .....	19.9	21.7	24.0	20.8	20.0	21.9	24.2	21.1	20.5	22.1	24.6	21.4	<b>86.3</b>	87.2	88.6
Pacific contiguous .....	19.0	21.0	23.4	20.0	18.5	20.2	22.4	19.3	18.2	19.9	22.2	19.2	<b>83.4</b>	80.4	79.6
AK and HI .....	1.1	1.2	1.3	1.2	1.1	1.2	1.2	1.2	1.1	1.2	1.2	1.2	<b>4.8</b>	4.7	4.7
Total .....	<b>242.2</b>	<b>254.5</b>	<b>265.9</b>	<b>246.7</b>	<b>242.0</b>	<b>250.8</b>	<b>261.9</b>	<b>246.5</b>	<b>247.6</b>	<b>254.8</b>	<b>266.8</b>	<b>251.4</b>	<b>1,009.3</b>	<b>1,001.2</b>	<b>1,020.7</b>
<b>Total All Sectors (a)</b>															
New England .....	29.2	26.3	32.0	26.3	28.3	26.2	29.9	26.5	29.2	26.1	29.9	26.5	<b>113.8</b>	110.9	111.7
Middle Atlantic .....	90.4	83.3	103.2	83.3	88.7	83.0	97.9	82.9	91.1	83.0	98.2	83.2	<b>360.2</b>	352.5	355.6
E. N. Central .....	140.2	133.8	152.4	130.8	136.2	130.6	150.5	131.0	139.9	131.2	151.6	131.8	<b>557.2</b>	548.4	554.5
W. N. Central .....	79.7	74.1	86.2	74.4	79.0	73.2	85.5	74.7	81.3	74.0	86.8	76.1	<b>314.4</b>	312.4	318.2
S. Atlantic .....	207.7	211.8	248.6	200.9	204.7	209.7	246.7	204.0	218.5	213.4	251.4	207.8	<b>869.0</b>	865.2	891.1
E. S. Central .....	78.4	76.0	89.4	71.3	76.6	74.5	88.2	71.7	80.6	74.4	88.3	71.8	<b>315.0</b>	310.9	315.1
W. S. Central .....	153.7	164.2	196.4	151.4	152.1	160.9	191.0	154.4	161.3	163.5	194.1	157.4	<b>665.7</b>	658.4	676.3
Mountain .....	67.2	73.4	89.7	68.7	67.9	72.6	87.4	68.4	68.7	73.1	88.2	69.0	<b>299.1</b>	296.4	299.0
Pacific contiguous .....	95.3	91.5	112.1	97.0	95.8	90.1	106.2	93.6	95.3	89.2	105.5	93.3	<b>396.0</b>	385.6	383.2
AK and HI .....	3.7	3.6	3.8	3.9	3.7	3.6	3.8	3.9	3.7	3.6	3.8	3.9	<b>15.0</b>	14.9	15.0
Total .....	<b>945.5</b>	<b>938.0</b>	<b>1,113.9</b>	<b>908.0</b>	<b>933.0</b>	<b>924.5</b>	<b>1,087.0</b>	<b>911.1</b>	<b>969.5</b>	<b>931.5</b>	<b>1,097.8</b>	<b>920.9</b>	<b>3,905.4</b>	<b>3,855.6</b>	<b>3,919.7</b>

(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 February 2, 2022.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2023

	2022				2023				2024				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2022	2023	2024
<b>Electric Power Sector</b>															
Geothermal .....	0.036	0.035	0.037	0.038	0.038	0.034	0.038	0.037	0.032	0.025	0.038	0.035	0.146	0.147	0.130
Hydroelectric Power (a) .....	0.658	0.612	0.551	0.471	0.599	0.680	0.561	0.524	0.638	0.712	0.575	0.530	2.292	2.363	2.455
Solar (b) .....	0.259	0.394	0.384	0.245	0.313	0.492	0.494	0.335	0.443	0.680	0.697	0.443	1.283	1.634	2.262
Waste Biomass (c) .....	0.055	0.053	0.053	0.053	0.054	0.053	0.053	0.053	0.054	0.053	0.053	0.053	0.214	0.213	0.213
Wood Biomass .....	0.051	0.046	0.056	0.045	0.046	0.041	0.050	0.043	0.047	0.043	0.052	0.044	0.198	0.180	0.187
Wind .....	1.060	1.077	0.718	1.035	1.150	1.141	0.757	1.088	1.206	1.167	0.779	1.142	3.889	4.136	4.294
Subtotal .....	2.119	2.218	1.798	1.888	2.199	2.441	1.954	2.080	2.420	2.679	2.195	2.246	8.023	8.673	9.541
<b>Industrial Sector</b>															
Biofuel Losses and Co-products (d) .....	0.203	0.203	0.197	0.205	0.196	0.200	0.198	0.206	0.199	0.201	0.201	0.209	0.808	0.800	0.810
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) .....	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.008	0.008	0.008
Solar (b) .....	0.008	0.011	0.012	0.008	0.008	0.012	0.012	0.009	0.009	0.013	0.013	0.009	0.039	0.041	0.045
Waste Biomass (c) .....	0.042	0.040	0.037	0.042	0.040	0.039	0.039	0.041	0.040	0.039	0.039	0.041	0.160	0.159	0.159
Wood Biomass .....	0.319	0.324	0.322	0.320	0.331	0.333	0.345	0.348	0.337	0.334	0.346	0.348	1.284	1.357	1.366
Subtotal (e) .....	0.580	0.586	0.576	0.583	0.583	0.592	0.603	0.611	0.594	0.596	0.607	0.616	2.324	2.390	2.413
<b>Commercial Sector</b>															
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) .....	0.033	0.048	0.048	0.032	0.038	0.056	0.057	0.040	0.046	0.066	0.067	0.047	0.162	0.189	0.226
Waste Biomass (c) .....	0.009	0.009	0.009	0.010	0.009	0.009	0.009	0.010	0.009	0.009	0.009	0.010	0.037	0.037	0.038
Wood Biomass .....	0.020	0.021	0.021	0.021	0.020	0.021	0.021	0.021	0.020	0.021	0.021	0.021	0.083	0.083	0.083
Subtotal (e) .....	0.077	0.092	0.093	0.076	0.081	0.100	0.101	0.084	0.089	0.110	0.112	0.091	0.338	0.365	0.402
<b>Residential Sector</b>															
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 (f) .....	0.080	0.119	0.120	0.090	0.101	0.154	0.158	0.111	0.126	0.195	0.200	0.141	0.410	0.524	0.663
Wood Biomass .....	0.119	0.121	0.122	0.119	0.119	0.121	0.122	0.119	0.119	0.121	0.122	0.119	0.480	0.480	0.480
Subtotal .....	0.209	0.250	0.252	0.218	0.230	0.285	0.290	0.240	0.255	0.326	0.332	0.269	0.930	1.044	1.183
<b>Transportation Sector</b>															
Biodiesel, Renewable Diesel, and Other (g) ...	0.094	0.117	0.116	0.130	0.136	0.142	0.146	0.152	0.148	0.168	0.181	0.188	0.457	0.576	0.685
Ethanol (g) .....	0.259	0.281	0.279	0.283	0.258	0.281	0.281	0.284	0.264	0.281	0.282	0.285	1.102	1.104	1.112
Subtotal .....	0.353	0.397	0.395	0.413	0.388	0.423	0.427	0.436	0.413	0.448	0.462	0.474	1.558	1.675	1.797
<b>All Sectors Total</b>															
Biodiesel, Renewable Diesel, and Other (g) ...	0.094	0.117	0.116	0.130	0.136	0.142	0.146	0.152	0.148	0.168	0.181	0.188	0.457	0.576	0.685
Biofuel Losses and Co-products (d) .....	0.203	0.203	0.197	0.205	0.196	0.200	0.198	0.206	0.199	0.201	0.201	0.209	0.808	0.800	0.810
Ethanol (f) .....	0.271	0.293	0.292	0.291	0.272	0.294	0.294	0.297	0.276	0.293	0.294	0.298	1.147	1.156	1.162
Geothermal .....	0.053	0.052	0.054	0.053	0.055	0.051	0.055	0.054	0.049	0.042	0.055	0.052	0.212	0.215	0.198
Hydroelectric Power (a) .....	0.661	0.615	0.553	0.474	0.602	0.683	0.564	0.526	0.641	0.715	0.577	0.533	2.302	2.374	2.466
Solar (b)(f) .....	0.381	0.573	0.565	0.375	0.459	0.714	0.721	0.495	0.624	0.955	0.978	0.640	1.894	2.389	3.196
Waste Biomass (c) .....	0.106	0.102	0.099	0.105	0.103	0.101	0.101	0.103	0.103	0.102	0.101	0.103	0.412	0.409	0.409
Wood Biomass .....	0.509	0.511	0.521	0.505	0.516	0.515	0.539	0.530	0.524	0.519	0.542	0.532	2.046	2.100	2.116
Wind .....	1.060	1.077	0.718	1.035	1.150	1.141	0.757	1.088	1.206	1.167	0.779	1.142	3.889	4.136	4.294
<b>Total Consumption .....</b>	<b>3.338</b>	<b>3.543</b>	<b>3.114</b>	<b>3.178</b>	<b>3.481</b>	<b>3.841</b>	<b>3.374</b>	<b>3.451</b>	<b>3.771</b>	<b>4.160</b>	<b>3.708</b>	<b>3.696</b>	<b>13.173</b>	<b>14.147</b>	<b>15.336</b>

(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) distrib

(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) Subtotals for the industrial and commercial sectors might not equal the sum of the components. The subtotal for the industrial sector includes ethanol consumption that is not shown separately. The subtotal for the commercial sector includes ethanol and hydroelectric consumption that are not shown separately.

(f) Solar consumption in the residential sector includes energy from small-scale (<1 MW) solar photovoltaic systems. Also includes solar heating consumption in all sectors.

(g) Fuel ethanol and biodiesel, renewable diesel, and other biofuels consumption in the transportation sector includes production, stock change, and imports less exports. Some biomass-based diesel may be consumed in the residential sector in heating oil.

- = no data available

Notes: EIA completed modeling and analysis for this report on February 2, 2022.

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

**Historical data:** Latest data available from EIA databases supporting the following reports: *Electric Power Monthly*, DOE/EIA-0226 and *Renewable Energy Annual*, DOE/EIA-0603; *Petroleum Supply*

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 - February 2023

	2022				2023				2024				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2022	2023	2024
<b>Renewable Energy Electric Generating Capacity (megawatts, end of period)</b>															
<b>Electric Power Sector (a)</b>															
Biomass .....	<b>6,083</b>	<b>6,083</b>	<b>6,019</b>	<b>5,987</b>	5,984	6,020	6,020	6,001	6,001	6,020	6,020	6,020	<b>5,987</b>	6,001	6,020
Waste .....	<b>3,648</b>	<b>3,649</b>	<b>3,585</b>	<b>3,552</b>	3,549	3,585	3,585	3,583	3,583	3,602	3,602	3,602	<b>3,552</b>	3,583	3,602
Wood .....	<b>2,435</b>	<b>2,435</b>	<b>2,435</b>	<b>2,435</b>	2,435	2,435	2,435	2,419	2,419	2,419	2,419	2,419	<b>2,435</b>	2,419	2,419
Conventional Hydroelectric .....	<b>79,645</b>	<b>79,649</b>	<b>79,649</b>	<b>79,500</b>	79,699	79,713	79,739	79,766	79,766	79,772	79,772	79,774	<b>79,500</b>	79,766	79,774
Geothermal .....	<b>2,523</b>	<b>2,540</b>	<b>2,578</b>	<b>2,578</b>	2,603	2,603	2,603	2,603	2,603	2,603	2,603	2,603	<b>2,578</b>	2,603	2,603
Large-Scale Solar (b) .....	<b>63,191</b>	<b>65,253</b>	<b>67,177</b>	<b>73,387</b>	78,850	83,266	88,322	105,189	111,607	121,271	124,376	136,625	<b>73,387</b>	105,189	136,625
Wind .....	<b>134,822</b>	<b>137,344</b>	<b>138,029</b>	<b>141,678</b>	144,549	145,284	145,484	148,136	148,478	150,562	150,814	154,824	<b>141,678</b>	148,136	154,824
<b>Other Sectors (c)</b>															
Biomass .....	<b>6,306</b>	<b>6,298</b>	<b>6,310</b>	<b>6,312</b>	6,339	6,339	6,339	6,330	6,330	6,330	6,330	6,330	<b>6,312</b>	6,330	6,330
Waste .....	<b>817</b>	<b>817</b>	<b>817</b>	<b>817</b>	817	817	817	817	817	817	817	817	<b>817</b>	817	817
Wood .....	<b>5,489</b>	<b>5,481</b>	<b>5,493</b>	<b>5,495</b>	5,522	5,522	5,522	5,513	5,513	5,513	5,513	5,513	<b>5,495</b>	5,513	5,513
Conventional Hydroelectric .....	<b>299</b>	<b>302</b>	<b>302</b>	<b>299</b>	299	300	298	298	298	298	298	298	<b>299</b>	298	298
Large-Scale Solar (b) .....	<b>559</b>	<b>569</b>	<b>571</b>	<b>583</b>	588	597	643	643	643	643	643	643	<b>583</b>	643	643
Small-Scale Solar (d) .....	<b>34,700</b>	<b>36,348</b>	<b>38,092</b>	<b>40,302</b>	42,944	45,680	48,552	51,563	54,726	58,047	61,537	65,207	<b>40,302</b>	51,563	65,207
Residential Sector .....	<b>22,293</b>	<b>23,588</b>	<b>24,993</b>	<b>26,837</b>	28,916	31,069	33,333	35,710	38,210	40,840	43,611	46,531	<b>26,837</b>	35,710	46,531
Commercial Sector .....	<b>10,175</b>	<b>10,502</b>	<b>10,807</b>	<b>11,122</b>	11,624	12,144	12,689	13,259	13,857	14,482	15,133	15,814	<b>11,122</b>	13,259	15,814
Industrial Sector .....	<b>2,232</b>	<b>2,257</b>	<b>2,291</b>	<b>2,343</b>	2,404	2,466	2,529	2,594	2,659	2,726	2,793	2,862	<b>2,343</b>	2,594	2,862
Wind .....	<b>125</b>	<b>125</b>	<b>125</b>	<b>125</b>	125	125	125	125	125	125	125	125	<b>125</b>	125	125
<b>Renewable Electricity Generation (billion kilowatthours)</b>															
<b>Electric Power Sector (a)</b>															
Biomass .....	<b>6.6</b>	<b>6.5</b>	<b>7.1</b>	<b>6.4</b>	6.5	6.2	6.7	6.2	6.6	6.3	6.9	6.3	<b>26.6</b>	25.6	26.0
Waste .....	<b>3.5</b>	<b>3.6</b>	<b>3.6</b>	<b>3.5</b>	3.6	3.5	3.6	3.5	3.6	3.5	3.5	3.5	<b>14.2</b>	14.2	14.1
Wood .....	<b>3.1</b>	<b>2.9</b>	<b>3.6</b>	<b>2.9</b>	2.9	2.6	3.2	2.7	3.0	2.7	3.3	2.8	<b>12.5</b>	11.4	11.9
Conventional Hydroelectric .....	<b>74.4</b>	<b>69.2</b>	<b>62.3</b>	<b>53.2</b>	67.2	76.3	63.0	58.8	71.7	79.9	64.6	59.6	<b>259.1</b>	265.4	275.7
Geothermal .....	<b>4.1</b>	<b>4.0</b>	<b>4.2</b>	<b>4.2</b>	4.3	3.9	4.3	4.2	3.7	2.8	4.3	3.9	<b>16.5</b>	16.6	14.7
Large-Scale Solar (b) .....	<b>29.1</b>	<b>44.3</b>	<b>43.2</b>	<b>27.5</b>	35.1	55.3	55.5	37.6	49.7	76.3	78.3	49.8	<b>144.1</b>	183.5	254.1
Wind .....	<b>119.0</b>	<b>121.0</b>	<b>80.6</b>	<b>116.2</b>	129.1	128.1	85.0	122.2	135.4	131.0	87.5	128.2	<b>436.8</b>	464.4	482.2
<b>Other Sectors (c)</b>															
Biomass .....	<b>6.7</b>	<b>6.8</b>	<b>6.8</b>	<b>6.6</b>	6.7	6.8	6.8	6.6	6.8	6.8	6.8	6.6	<b>26.9</b>	26.9	27.0
Waste .....	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	<b>2.8</b>	2.8	2.8
Wood .....	<b>6.0</b>	<b>6.1</b>	<b>6.2</b>	<b>5.8</b>	6.0	6.1	6.2	5.8	6.1	6.1	6.2	5.8	<b>24.1</b>	24.1	24.1
Conventional Hydroelectric .....	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	<b>1.2</b>	1.2	1.2
Large-Scale Solar (b) .....	<b>0.2</b>	<b>0.3</b>	<b>0.3</b>	<b>0.2</b>	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.2	<b>1.0</b>	1.0	1.0
Small-Scale Solar (d) .....	<b>12.0</b>	<b>17.7</b>	<b>17.8</b>	<b>12.9</b>	14.8	22.5	23.0	16.2	18.6	28.4	29.0	20.4	<b>60.5</b>	76.4	96.4
Residential Sector .....	<b>7.6</b>	<b>11.3</b>	<b>11.4</b>	<b>8.6</b>	9.8	15.1	15.5	11.0	12.7	19.7	20.3	14.3	<b>38.9</b>	51.5	67.0
Commercial Sector .....	<b>3.6</b>	<b>5.2</b>	<b>5.2</b>	<b>3.5</b>	4.1	6.0	6.1	4.2	4.9	7.2	7.3	5.0	<b>17.5</b>	20.5	24.4
Industrial Sector .....	<b>0.8</b>	<b>1.2</b>	<b>1.2</b>	<b>0.8</b>	0.9	1.3	1.3	0.9	1.0	1.5	1.5	1.0	<b>4.1</b>	4.5	5.0
Wind .....	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	<b>0.3</b>	0.3	0.3

(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 February 2, 2022.

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 - February 2023

	2022				2023				2024				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2022	2023	2024
<b>Macroeconomic</b>															
Real Gross Domestic Product (billion chained 2012 dollars - SAAR) .....	19,924	19,895	20,055	20,170	20,103	20,090	20,184	20,304	20,412	20,532	20,650	20,765	20,011	20,170	20,590
Real Personal Consumption Expend. (billion chained 2012 dollars - SAAR) .....	14,028	14,099	14,179	14,303	14,337	14,364	14,422	14,479	14,531	14,598	14,679	14,756	14,152	14,401	14,641
Real Private Fixed Investment (billion chained 2012 dollars - SAAR) .....	3,629	3,582	3,550	3,500	3,441	3,401	3,403	3,431	3,465	3,501	3,536	3,571	3,565	3,419	3,518
Business Inventory Change (billion chained 2012 dollars - SAAR) .....	257	145	71	130	54	1	11	35	59	79	90	97	151	25	81
Real Government Expenditures (billion chained 2012 dollars - SAAR) .....	3,393	3,379	3,411	3,422	3,450	3,458	3,466	3,474	3,482	3,490	3,496	3,504	3,401	3,462	3,493
Real Exports of Goods & Services (billion chained 2012 dollars - SAAR) .....	2,437	2,517	2,604	2,570	2,565	2,590	2,629	2,670	2,701	2,731	2,764	2,794	2,532	2,614	2,748
Real Imports of Goods & Services (billion chained 2012 dollars - SAAR) .....	3,926	3,947	3,873	3,861	3,880	3,865	3,882	3,914	3,953	3,993	4,042	4,087	3,902	3,885	4,019
Real Disposable Personal Income (billion chained 2012 dollars - SAAR) .....	15,109	15,022	15,059	15,171	15,400	15,461	15,612	15,769	15,938	16,113	16,249	16,366	15,090	15,560	16,166
Non-Farm Employment (millions) .....	150.4	151.6	152.7	153.5	154.0	153.4	152.9	152.6	152.7	153.1	153.5	153.8	152.0	153.2	153.3
Civilian Unemployment Rate (percent) .....	3.8	3.6	3.6	3.6	3.7	4.3	4.7	4.9	4.8	4.6	4.4	4.2	3.6	4.4	4.5
Housing Starts (millions - SAAR) .....	1.72	1.65	1.45	1.40	1.26	1.19	1.19	1.19	1.23	1.27	1.31	1.38	1.56	1.21	1.30
<b>Industrial Production Indices (Index, 2017=100)</b>															
Total Industrial Production .....	102.9	104.1	104.6	104.1	103.9	103.1	103.0	103.4	103.8	104.3	105.0	105.6	103.9	103.3	104.7
Manufacturing .....	101.5	102.4	102.3	101.6	101.1	100.6	101.0	101.9	102.6	103.4	104.4	105.2	102.0	101.1	103.9
Food .....	105.5	105.1	104.6	105.2	105.4	105.6	105.8	106.0	106.2	106.4	106.9	107.3	105.1	105.7	106.7
Paper .....	96.4	97.3	92.8	89.0	88.3	88.4	88.1	88.3	88.2	88.3	88.5	88.8	93.9	88.3	88.5
Petroleum and Coal Products .....	94.2	94.2	95.7	95.5	95.0	94.9	94.7	94.7	94.4	94.3	94.5	94.6	94.9	94.8	94.5
Chemicals .....	102.4	103.0	103.0	102.3	102.0	102.5	102.3	102.8	103.2	103.7	104.3	105.0	102.7	102.4	104.0
Nonmetallic Mineral Products .....	102.9	103.2	104.7	105.9	104.0	102.9	102.5	102.7	103.2	103.9	104.6	105.3	104.2	103.0	104.2
Primary Metals .....	95.6	97.4	96.9	94.9	94.1	94.8	94.0	95.0	94.7	95.0	96.0	96.7	96.2	94.5	95.6
Coal-weighted Manufacturing (a) .....	96.2	96.7	96.4	95.5	94.6	94.7	94.1	94.5	94.5	94.7	95.3	95.7	96.2	94.5	95.1
Distillate-weighted Manufacturing (a) .....	99.8	100.3	100.1	99.3	98.1	97.6	97.4	97.8	98.2	98.6	99.3	99.9	99.9	97.7	99.0
Electricity-weighted Manufacturing (a) .....	98.0	98.6	97.9	96.6	96.0	96.3	96.1	96.5	96.7	97.1	97.7	98.2	97.8	96.2	97.4
Natural Gas-weighted Manufacturing (a) .....	95.2	95.4	94.3	92.6	92.1	92.4	92.0	92.3	92.3	92.6	93.1	93.5	94.4	92.2	92.9
<b>Price Indexes</b>															
Consumer Price Index (all urban consumers) (index, 1982-1984=1.00) .....	2.85	2.92	2.96	2.98	3.00	3.01	3.03	3.05	3.06	3.07	3.08	3.09	2.93	3.02	3.08
Producer Price Index: All Commodities (index, 1982=1.00) .....	2.53	2.73	2.70	2.59	2.51	2.46	2.44	2.43	2.43	2.39	2.39	2.40	2.64	2.46	2.40
Producer Price Index: Petroleum (index, 1982=1.00) .....	3.16	4.21	3.74	3.43	2.81	2.75	2.61	2.52	2.45	2.41	2.35	2.29	3.63	2.67	2.38
GDP Implicit Price Deflator (index, 2012=100) .....	124.2	126.9	128.3	129.4	130.2	131.0	131.7	132.5	133.2	133.7	134.2	134.9	127.2	131.4	134.0
<b>Miscellaneous</b>															
Vehicle Miles Traveled (b) (million miles/day) .....	8,372	9,164	9,319	8,869	8,417	9,323	9,448	9,036	8,579	9,401	9,558	9,192	8,933	9,059	9,183
Air Travel Capacity (Available ton-miles/day, thousands) .....	656	686	692	714	655	697	707	703	650	689	716	695	687	691	688
Aircraft Utilization (Revenue ton-miles/day, thousands) .....	356	419	422	398	374	428	423	410	376	424	427	418	399	409	411
Airline Ticket Price Index (index, 1982-1984=100) .....	225.6	328.7	293.1	285.2	232.9	295.0	289.6	299.1	278.4	324.9	304.2	302.6	283.1	279.1	302.5
Raw Steel Production (million short tons per day) .....	0.253	0.253	0.247	0.235	0.237	0.235	0.235	0.239	0.245	0.241	0.244	0.247	0.247	0.236	0.244
<b>Carbon Dioxide (CO2) Emissions (million metric tons)</b>															
Petroleum .....	562	564	576	570	545	564	568	571	561	567	575	576	2,272	2,248	2,279
Natural Gas .....	511	375	403	456	492	369	399	459	511	357	387	451	1,745	1,720	1,706
Coal .....	245	216	266	215	193	182	239	183	204	174	234	185	942	797	798
Total Energy (c) .....	1,321	1,157	1,248	1,244	1,233	1,118	1,209	1,216	1,278	1,101	1,199	1,215	4,971	4,776	4,794

(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 February 2, 2022.

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 S&P Global model of the U.S. Economy.





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

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2023

	2022				2023				2024				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2022	2023	2024
<b>Heating Degree Days</b>															
New England .....	3,141	787	115	1,989	2,901	865	136	2,210	3,128	853	137	2,210	6,032	6,113	6,327
Middle Atlantic .....	2,942	672	73	1,965	2,647	694	86	2,023	2,877	678	85	2,022	5,652	5,448	5,663
E. N. Central .....	3,268	753	100	2,225	2,917	734	122	2,251	3,061	714	122	2,251	6,345	6,025	6,148
W. N. Central .....	3,484	793	111	2,511	3,129	704	156	2,449	3,190	703	156	2,450	6,899	6,439	6,499
South Atlantic .....	1,338	188	13	975	1,213	192	13	972	1,405	193	13	970	2,514	2,391	2,581
E. S. Central .....	1,822	248	22	1,326	1,587	248	20	1,307	1,793	253	20	1,307	3,419	3,162	3,373
W. S. Central .....	1,341	56	2	799	1,013	77	5	828	1,195	92	5	827	2,198	1,923	2,119
Mountain .....	2,308	737	85	2,004	2,341	698	148	1,880	2,266	710	148	1,879	5,134	5,067	5,003
Pacific .....	1,426	607	50	1,281	1,577	607	91	1,231	1,544	607	91	1,233	3,364	3,506	3,475
U.S. Average .....	2,152	491	54	1,547	1,974	488	74	1,546	2,098	485	74	1,544	4,245	4,083	4,201
<b>Heating Degree Days, Prior 10-year Average</b>															
New England .....	3,100	853	107	2,104	3,151	859	106	2,095	3,130	861	103	2,086	6,164	6,211	6,179
Middle Atlantic .....	2,887	684	71	1,908	2,945	692	70	1,911	2,914	692	66	1,907	5,551	5,619	5,579
E. N. Central .....	3,133	727	97	2,162	3,215	741	93	2,168	3,178	739	94	2,148	6,119	6,218	6,158
W. N. Central .....	3,219	726	125	2,357	3,317	754	121	2,372	3,289	734	126	2,345	6,427	6,565	6,495
South Atlantic .....	1,380	187	11	905	1,401	190	10	903	1,370	188	10	902	2,483	2,504	2,470
E. S. Central .....	1,763	243	15	1,228	1,809	251	14	1,229	1,775	247	15	1,218	3,249	3,303	3,254
W. S. Central .....	1,145	93	3	754	1,189	95	3	763	1,173	89	3	744	1,995	2,049	2,009
Mountain .....	2,181	685	132	1,818	2,202	701	129	1,840	2,193	697	131	1,828	4,816	4,871	4,849
Pacific .....	1,455	523	79	1,136	1,442	523	76	1,147	1,444	534	76	1,147	3,193	3,188	3,202
U.S. Average .....	2,096	479	62	1,473	2,133	486	60	1,477	2,109	484	60	1,466	4,110	4,157	4,118
<b>Cooling Degree Days</b>															
New England .....	0	80	559	0	0	85	415	1	0	85	415	1	639	501	501
Middle Atlantic .....	0	153	683	1	0	152	540	4	0	152	540	4	837	696	696
E. N. Central .....	1	256	555	2	0	214	539	7	0	215	539	7	813	761	762
W. N. Central .....	3	305	734	8	3	266	677	10	3	266	677	10	1,050	956	956
South Atlantic .....	158	716	1,200	233	138	650	1,157	233	116	644	1,158	234	2,306	2,178	2,153
E. S. Central .....	28	599	1,067	37	25	511	1,047	66	28	507	1,047	66	1,731	1,649	1,647
W. S. Central .....	57	1,095	1,662	170	98	898	1,499	191	82	875	1,499	192	2,984	2,687	2,648
Mountain .....	15	465	1,021	67	15	423	917	71	15	421	918	71	1,568	1,426	1,426
Pacific .....	31	214	767	79	24	165	577	62	25	164	576	62	1,091	827	827
U.S. Average .....	47	466	952	90	47	405	855	93	41	401	857	94	1,554	1,400	1,393
<b>Cooling Degree Days, Prior 10-year Average</b>															
New England .....	0	87	471	2	0	87	479	2	0	86	476	2	560	568	564
Middle Atlantic .....	0	162	608	8	0	159	614	8	0	159	616	8	779	781	783
E. N. Central .....	3	238	571	9	1	234	561	10	1	234	568	10	821	805	813
W. N. Central .....	7	299	681	11	4	292	674	12	4	295	677	12	999	982	988
South Atlantic .....	147	668	1,189	269	144	676	1,193	273	147	681	1,204	271	2,272	2,286	2,304
E. S. Central .....	44	518	1,057	83	36	521	1,059	83	37	526	1,072	84	1,702	1,699	1,720
W. S. Central .....	113	853	1,536	224	101	861	1,548	223	104	873	1,546	225	2,726	2,733	2,748
Mountain .....	23	458	945	84	23	455	951	82	22	450	952	84	1,511	1,511	1,508
Pacific .....	31	208	665	86	32	213	676	86	31	208	674	87	989	1,006	1,000
U.S. Average .....	53	412	889	109	50	415	894	110	51	418	899	110	1,463	1,469	1,479

- = no data available

Notes: EIA completed modeling and analysis for this report on February 2, 2022.

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](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>).

## Appendix to the February 2022 Short-Term Energy Outlook

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

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

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

**Table a1. Summary of Estimated Petroleum and Other Liquids Quantities**

	Dec 2022	Jan 2023	Dec 2022 – Jan 2023 Average	Dec 2021 – Jan 2022 Average	2019 – 2021 Average
<b>Global Petroleum and Other Liquids (million barrels per day)</b>					
Global Petroleum and Other Liquids Production (a)	101.3	101.0	101.1	98.1	96.6
Global Petroleum and Other Liquids Consumption (b)	100.7	98.3	99.5	99.0	96.5
Biofuels Production (c)	2.3	2.3	2.3	2.3	2.7
Biofuels Consumption (c)	2.6	2.6	2.6	2.6	2.6
Iran Liquid Fuels Production	3.8	3.8	3.8	3.5	3.2
Iran Liquid Fuels Consumption	2.3	2.6	2.4	2.0	2.0
<b>Petroleum and Petroleum Products Produced and Consumed in Countries Other Than Iran (million barrels per day)</b>					
Production (d)	95.2	94.9	95.0	92.3	90.7
Consumption (d)	95.9	93.2	94.6	94.4	92.0
Production minus Consumption	-0.7	1.7	0.5	-2.1	-1.3
World Inventory Net Withdrawals Including Iran	-0.5	-2.6	-1.6	0.9	-0.1
Estimated OECD Inventory Level (e) (million barrels)	2,783	2,831	2,807	2,643	2,946
<b>Surplus Production Capacity (million barrels per day)</b>					
OPEC Surplus Crude Oil Production Capacity (f)	2.4	3.3	2.9	3.5	4.3

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

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

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

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

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

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

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

Data source: U.S. Energy Information Administration.

**Table a2. Crude Oil and Petroleum Product Price Data**

Item	Dec 2022	Jan 2023	Dec 2022 – Jan	Dec 2021 – Jan	2019 – 2021
			2023 Average	2022 Average	Average
Brent Front Month Futures Price (\$ per barrel)	81.34	83.91	82.59	79.93	59.44
WTI Front Month Futures Price (\$ per barrel)	76.52	78.16	77.32	77.07	54.82
Dubai Front Month Futures Price (\$ per barrel)	77.36	80.94	79.11	78.42	58.86
Brent 1st - 13th Month Futures Spread (\$ per barrel)	2.94	4.22	3.56	6.21	1.80
WTI 1st - 13th Month Futures Spread (\$ per barrel)	2.50	2.89	2.69	6.77	1.37
RBOB Front Month Futures Price (\$ per gallon)	2.23	2.48	2.35	2.26	1.67
Heating Oil Front Month Futures Price (\$ per gallon)	3.12	3.23	3.17	2.42	1.75
RBOB - Brent Futures Crack Spread (\$ per gallon)	0.29	0.49	0.39	0.36	0.25
Heating Oil - Brent Futures Crack Spread (\$ per gallon)	1.19	1.23	1.21	0.52	0.34

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

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

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

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