

Short-Term Energy Outlook

STEO

April 2024



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Short-Term Energy Outlook

Overview

U.S. energy market indicators	2023	2024	2025
Brent crude oil spot price (dollars per barrel)	\$82	\$89	\$87
Retail gasoline price (dollars per gallon)	\$3.50	\$3.60	\$3.60
U.S. crude oil production (million barrels per day)	12.9	13.2	13.7
Natural gas price at Henry Hub (dollars per million British thermal units)	\$2.50	\$2.20	\$2.90
U.S. liquefied natural gas gross exports (billion cubic feet per day)	12	12	14
Shares of U.S. electricity generation			
Natural gas	42%	42%	41%
Coal	17%	15%	14%
Renewables	21%	24%	25%
Nuclear	19%	19%	19%
U.S. GDP (percentage change)	2.5%	2.5%	1.5%
U.S. CO₂ emissions (billion metric tons)	4.8	4.8	4.7

Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, April 2024

- Global oil consumption.** This month we revised the 2022 global liquid fuels consumption data available in our [International Energy Statistics](#), increasing our assessment of global oil consumption that year by nearly 0.8 million barrels per day (b/d) compared to last month's STEO. The historic data serves as a baseline for our short-term forecasts, affecting our view of energy markets this year and next. This month's revision to historic data, as well as current market dynamics, led us to increase our forecasts for global oil consumption in 2024 and 2025 between 0.4 million b/d and 0.5 million b/d in both years.
- Global oil prices.** We forecast the Brent crude oil spot price will average \$90 per barrel (b) in the second quarter of 2024 (2Q24) \$2/b more than our March STEO, and average \$89/b in 2024. This increase reflects our expectation of strong global oil inventory draws during this quarter and ongoing geopolitical risks.
- Natural gas inventories.** The U.S. winter natural gas withdrawal season ended with 39% more natural gas in storage compared with the five-year average. From April through October this year, we forecast less natural gas will be injected into storage than is typical, largely because we expect the United States will produce less natural gas on average in 2Q24 and 3Q24 compared with 1Q24. Despite lower production, we still expect the United States will have the most natural gas in storage on record when the winter withdrawal season begins in November. As a result of high inventories, we expect the Henry Hub spot price to average less than \$2.00 per million British thermal units

(MMBtu) in 2Q24 before increasing slightly in 3Q24. Our forecast for all of 2024 averages about \$2.20/MMBtu.

- **Electricity consumption.** We expect hotter summer temperatures this year compared with last year will increase residential electricity consumption by almost 4% in 2024 compared with last year. The rise in residential electricity consumption occurs primarily during the summer months (April–October), supported by our expectation of 7% more cooling [degree days](#) than last summer.
- **Coal exports.** After the Port of Baltimore was closed as a result of the [collapse of the Francis Scott Key bridge](#), we reduced our forecast for coal exports by more than 30% in April and 20% in May compared with the March STEO. Baltimore is the second-largest export hub for coal in the United States.

Notable forecast changes

Current forecast: April 9, 2024; previous forecast: March 12, 2024

	2024	2025
Coal exports (million short tons)	94	105
Previous forecast	101	106
Percentage change	-6.3%	-0.9%
Brent spot price (dollars per barrel)	\$89	\$87
Previous forecast	\$87	\$85
Percentage change	1.8%	2.6%
Retail gasoline price (dollars per gallon)	\$3.60	\$3.60
Previous forecast	\$3.50	\$3.40
Percentage change	3.1%	3.8%
Henry Hub spot price (dollars per million British thermal units)	\$2.20	\$2.90
Previous forecast	\$2.30	\$2.90
Percentage change	-5.2%	-1.7%
Global liquid fuels consumption (dollars per million British thermal units)	102.9	104.3
Previous forecast	102.4	103.8
Change	0.5	0.4

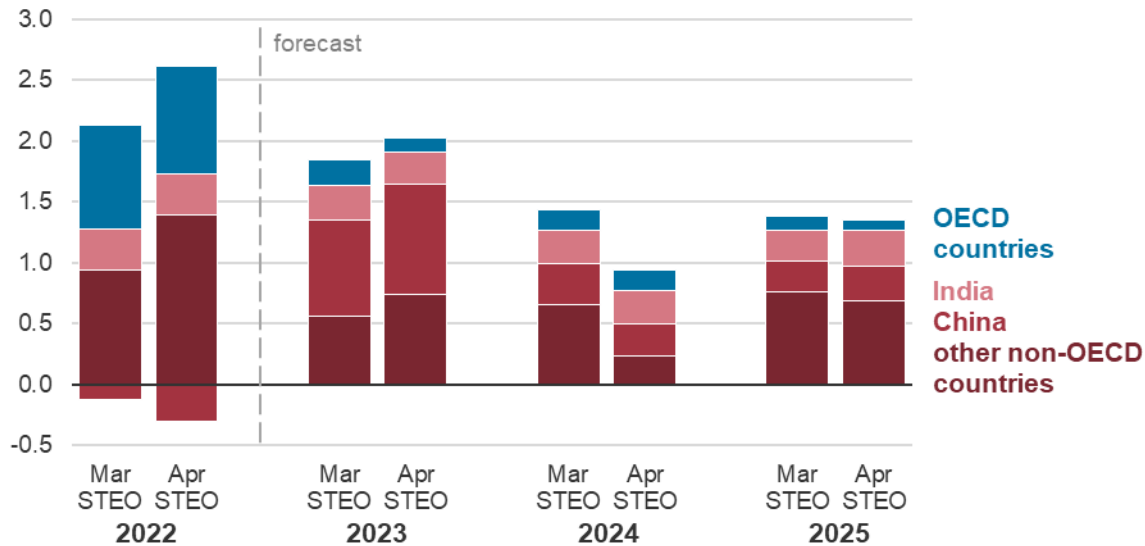
Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*

Global Oil Markets

Global oil consumption

This month’s STEO incorporates the recent update to our [International Energy Statistics](#) for 2022. This update increased our assessment of global liquid fuels consumption for 2022 by nearly 0.8 million barrels per day (b/d) compared with last month’s STEO. Most of this change reflects non-OECD consumption that is higher than we previously estimated. The higher baseline historical data for 2022 in turn increased our estimate of consumption in 2023 and our forecasts for 2024 and 2025. We now estimate that global liquid fuels consumption averaged 102.0 million b/d in 2023, a 2.0 million b/d increase from 2022 and about 1.0 million b/d higher than in last month’s STEO. Global liquid fuels consumption in our forecast now averages 102.9 million b/d in 2024 and 104.3 million b/d in 2025, which is between 0.4 million b/d and 0.5 million b/d more in both years than in last month’s STEO. Year-over-year forecast consumption growth in 2025 is largely unchanged compared with the March STEO.

Annual change in global liquid fuels consumption
million barrels per day



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*(STEO), April 2024

Although the revisions to historical consumption resulted in more forecast petroleum consumption, they also decreased demand growth in 2024 compared with our previous STEO. However, the sources of growth remain the same; non-OECD Asian countries—particularly China and India—drive global liquid fuels demand growth in our forecast, although we also expect significant growth in the Middle East and United States.

Global oil prices and inventories

The Brent crude oil spot price averaged \$85 per barrel (b) in March, a \$2/b increase compared with February and the third consecutive month when the average Brent price increased. Oil prices continued to increase in March as a result of heightened geopolitical risk related to the [attacks targeting commercial ships transiting the Red Sea shipping channel](#) and general elevated tensions around the region. In addition, the [recent extension of OPEC+ voluntary production cuts](#) add to upward price

pressure right at a time of the year when oil demand typically increases because of the spring and summer driving seasons in the Northern Hemisphere.

The combination of flat production and rising consumption causes our forecast of global oil inventories to fall by more than 0.9 million b/d in 2Q24, which we expect will add upward pressure to oil prices. We expect the tighter market balance to keep oil prices relatively elevated, averaging \$90 in 2Q24—\$2/b higher than in last month's STEO.

We forecast oil inventories will begin increasing in 2025 because we assume OPEC+ production will increase when OPEC+ supply cuts expire. We forecast global oil inventories to increase by an average 0.4 million b/d in 2025, which we expect will put downward pressure on prices. We forecast the Brent crude oil price will decrease year-over-year from an average \$90/b in 4Q24 to an average \$86/b in 4Q25, with annual averages of \$89/b in 2024 and \$87/b in 2025.

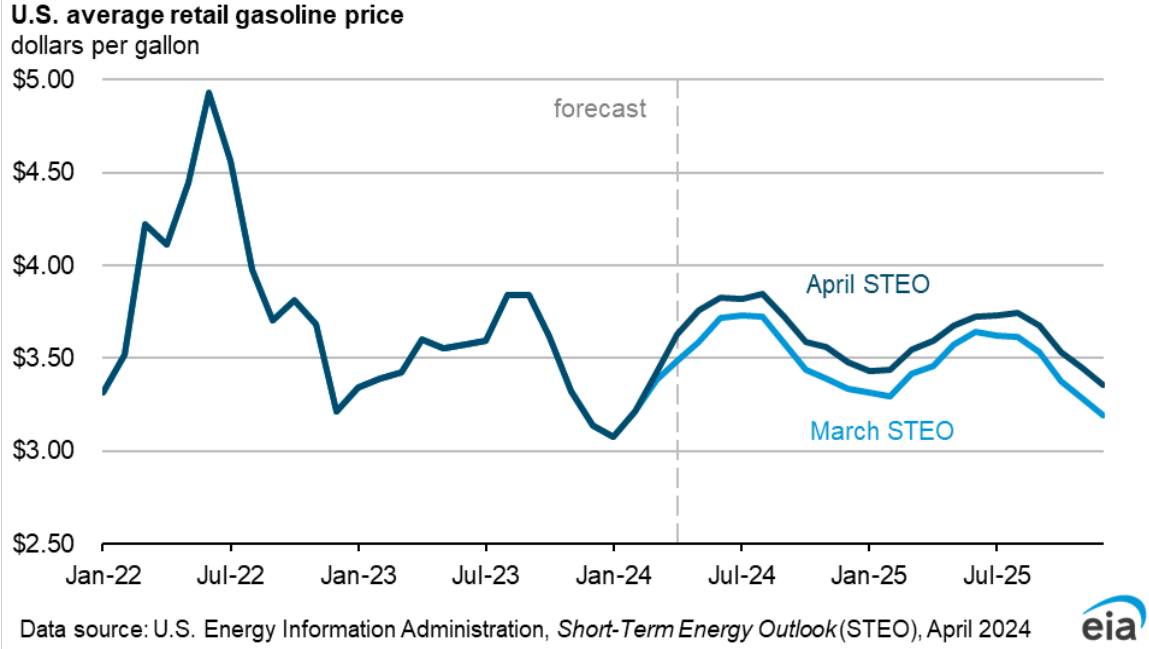
Global oil production

We expect global production of liquid fuels to increase by more than 0.8 million b/d in 2024, slowing from the 1.8 million b/d increase in 2023, as OPEC+ voluntary production cuts are offset by [supply growth outside of OPEC+](#). Although forecast OPEC+ crude oil production in 2024 decreases by 0.9 million b/d compared with last year, forecast production outside of OPEC+ increases by 1.8 million b/d, led by the United States, Guyana, Brazil, and Canada. Global liquid fuels production in our forecast increases by 2.0 million b/d in 2025 as the OPEC+ production cuts expire and supply growth outside of OPEC+ continues to grow.

Petroleum Products

Gasoline prices

We forecast U.S. retail gasoline prices will average about \$3.60 per gallon (gal) in 2024, an increase of about 10 cents/gal from our March STEO and a slight increase from the average price in 2023. This increase is driven by rising wholesale gasoline prices compared with the March STEO as well as higher crude oil prices. We now forecast the wholesale gasoline price will average more than \$2.70/gal in 2024, also 10 cents/gal more than in 2023. The higher forecast wholesale gasoline prices compared with our March STEO reflects our expectation of more gasoline exports and lower gasoline inventories, leading to an increase in the 2024 annual average [crack spread](#) for gasoline relative to last month's forecast.

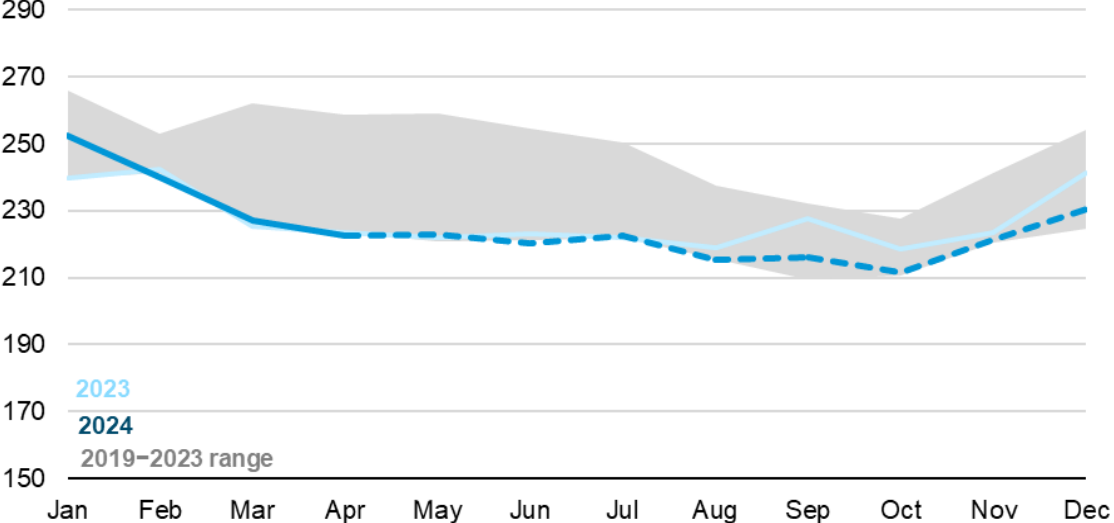


We expect higher crude oil prices will put additional upward pressure on the gasoline price this year compared with 2023. Our forecast that crude oil prices in 2024 will be higher than we expected last month is responsible for about half of the increase in average 2024 gasoline prices compared to the March STEO. Retail and distribution margins for gasoline—the difference between the average retail price and the refiner price for resale—were lower in February and March compared with the same months in 2023. Retail and distribution margins can reflect a wide variety of factors including taxes, wages, and regional and logistical complications. We forecast these lower retail margins to dampen the effect of higher crude oil prices and crack spreads on overall retail prices this year. Retail and distribution margins can be volatile, and they present a source of uncertainty for retail gasoline prices this summer and through the rest of the year; higher margins than we expect could lead to higher gasoline prices.

Gasoline inventories and net trade

We have reduced our forecast for end-of-period motor gasoline stocks by almost 7 million barrels in 2Q24 compared to the March STEO. Our outlook for gasoline inventories has gradually decreased since the beginning of 2024 as lower refinery production and higher net exports (exports minus imports) of gasoline have contributed to stronger-than-expected inventory draws so far this year. As a result, we now expect end-of-month gasoline inventories to average about 4 million barrels lower throughout 2024 compared with our previous forecast, contributing to tight market conditions for gasoline during the summer.

U.S. ending stocks of total gasoline million barrels

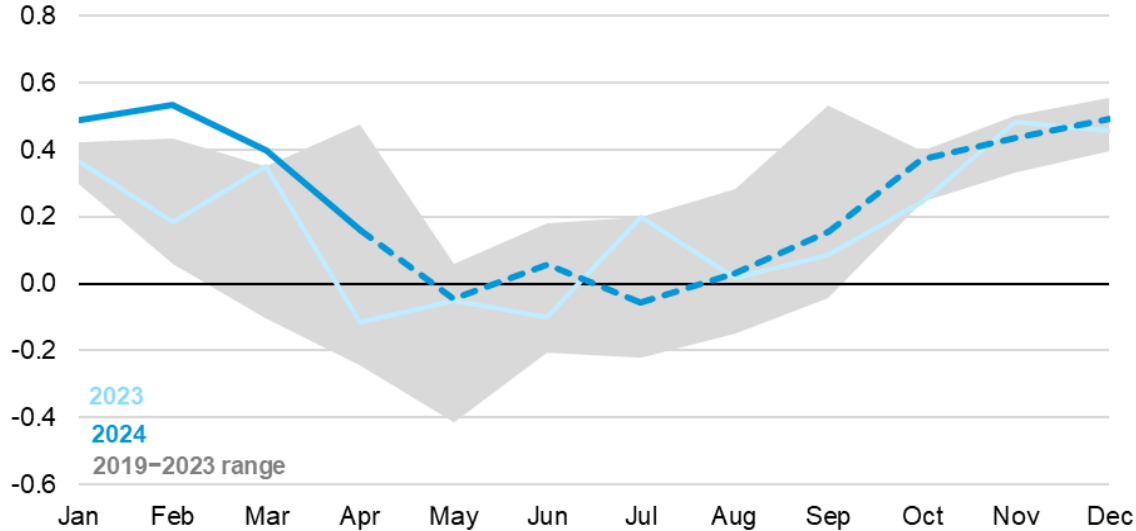


Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, April 2024



Data from our [Weekly Petroleum Status Report](#) show higher gasoline net exports so far this year, which led us to revise our outlook for gasoline trade compared with our last forecast. We expect gasoline net exports to increase slightly from 2023 levels this year. Damage related to Ukraine’s [attacks on Russian refineries](#) will contribute to slightly lower international supplies because of reduced Russian production. We estimate this will have a relatively limited impact on global gasoline availability because Russian refiners tend to produce significantly more diesel than gasoline, and because increasing liquid fuels production at new refineries in the [Middle East](#) will partially ease international supply pressures. However, further constraints on global gasoline availability could increase gasoline net exports from the United States this year, presenting further uncertainty for our U.S. gasoline forecast.

U.S. net exports of total motor gasoline
million barrels per day



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, April 2024



Natural Gas

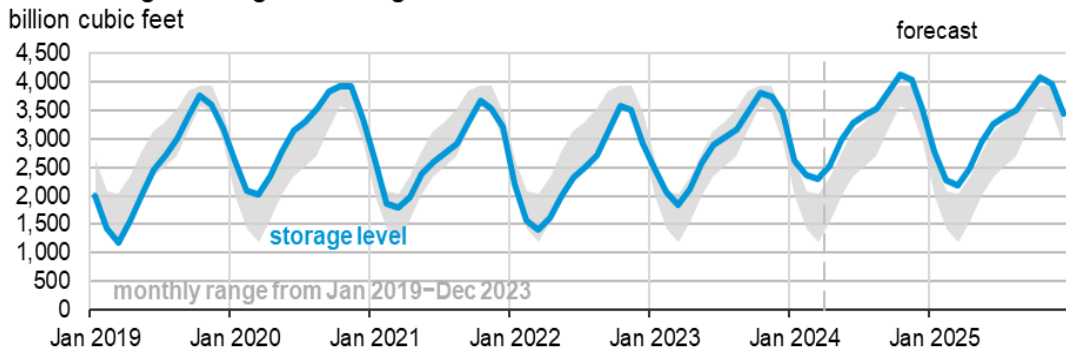
Natural gas storage

We estimate that U.S. natural gas storage inventories were 39% higher at the end of the withdrawal season (November–March) than the five-year (2019–2023) average. The United States [started the winter heating season with a 5% surplus to the five-year average](#). The surplus at the start of winter and a mild winter that resulted in below-average natural gas consumption in the residential and commercial sectors led to the large storage inventory surplus at the end of March. The large storage surplus contributed to low natural gas prices throughout the first quarter of 2024 (1Q24). Natural gas prices at the U.S. benchmark Henry Hub averaged less than \$2.00 per million British thermal units (MMBtu) in both February and March. We forecast the Henry Hub price to average less than \$2.00/MMBtu in 2Q24 and about \$2.20/MMBtu for all of 2024.

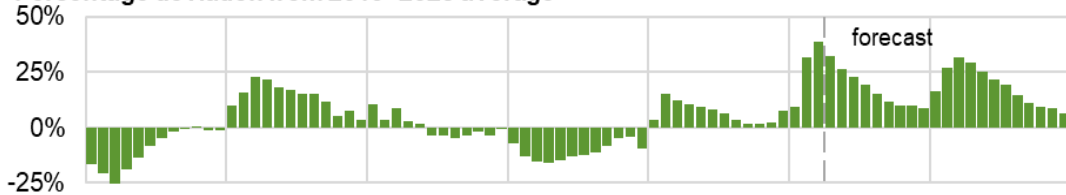
From April through October this year, we forecast less natural gas will be injected into storage than is typical, largely because we expect the United States will produce less natural gas on average in 2Q24 and 3Q24 compared with 1Q24. Despite lower production, we still expect the United States will end the injection season with 4,120 Bcf of natural gas in storage, 10% more than the five-year average and the [most on record](#).

We forecast U.S. dry natural gas production to average about 103 billion cubic feet per day (Bcf/d) from April through October, down slightly from last year’s average of 104 Bcf/d for the same period. We forecast U.S. natural gas consumed for electricity generation to average 38 Bcf/d from April through October, about the same as during the same period last year. If dry natural gas production declines substantially more than we forecast or natural gas consumed for electricity generation increases more than we forecast due to hotter summer temperatures, then inventories could fall below our forecast, potentially resulting in higher prices.

U.S. working natural gas in storage



Percentage deviation from 2019–2023 average



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, April 2024

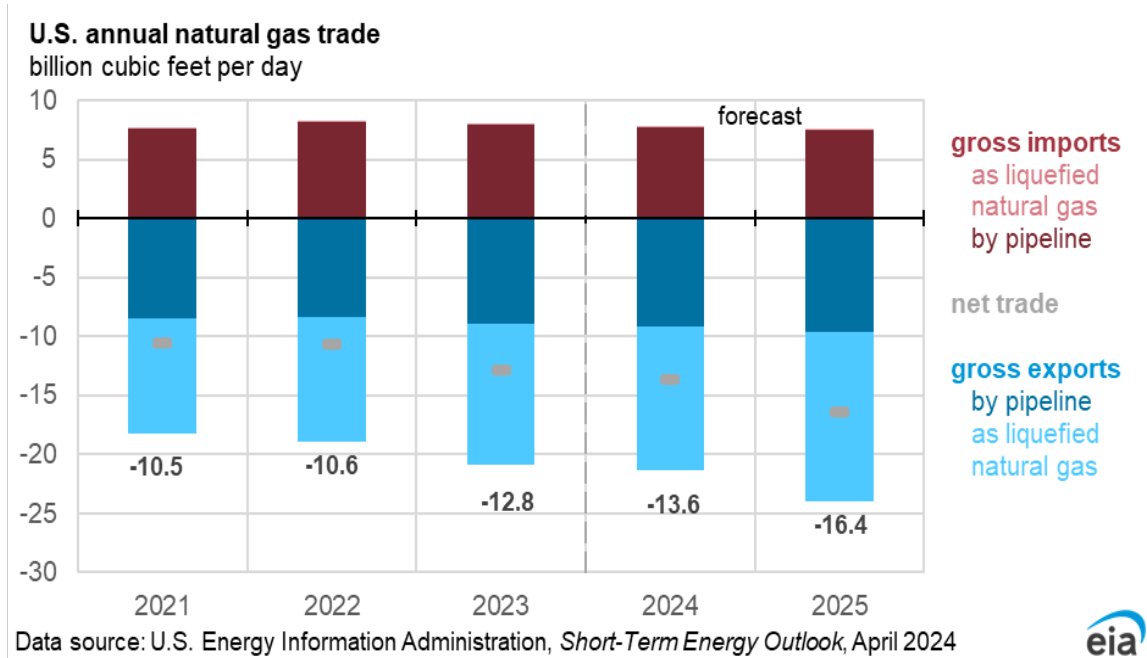


Natural gas trade

We expect U.S. liquefied natural gas (LNG) exports to average 12 Bcf/d in 2024, a 2% increase compared with last year. In 2025, LNG exports increase by an additional 2 Bcf/d (18%) because three of the five [LNG export projects currently under construction](#) are expected to start operations and ramp up to full production.

We forecast that U.S. LNG export facilities will run at similar utilization rates as in 2023, adjusted for seasonality and annual maintenance on liquefaction trains. In April and May 2024, we expect LNG exports to decline compared with April and May 2023 because two of the three trains at the [Freeport LNG export facility are undergoing annual maintenance](#), coinciding with lower global LNG demand in importing countries during the shoulder season. Later in 2024, we expect [Plaquemines LNG Phase I](#) and [Corpus Christi Stage 3](#) to begin LNG production and load first cargoes by the end of the year. In 2025, the developers of the [Golden Pass LNG](#) plan to place the first two trains of this new three-train LNG export facility in service.

We expect U.S. natural gas exports by pipeline to grow by almost 1 Bcf/d over the forecast period, mainly because of increased natural gas exports to Mexico. We expect several pipelines in Mexico—Tula-Villa de Reyes, Tuxpan–Tula, and Cuxtal Phase II connecting to the Energía Mayakan pipeline on the Yucatán Peninsula—to reach full service in 2024–25. These pipelines started partial service in 2022–23 but are not yet fully operational. In addition, flows via the [Sur de Texas-Tuxpan](#) underwater pipeline are likely to increase slightly in 2024, delivering natural gas from the United States to [Mexico’s first LNG export project: Fast LNG Altamira](#).



Electricity, Coal, and Renewables

Electricity consumption

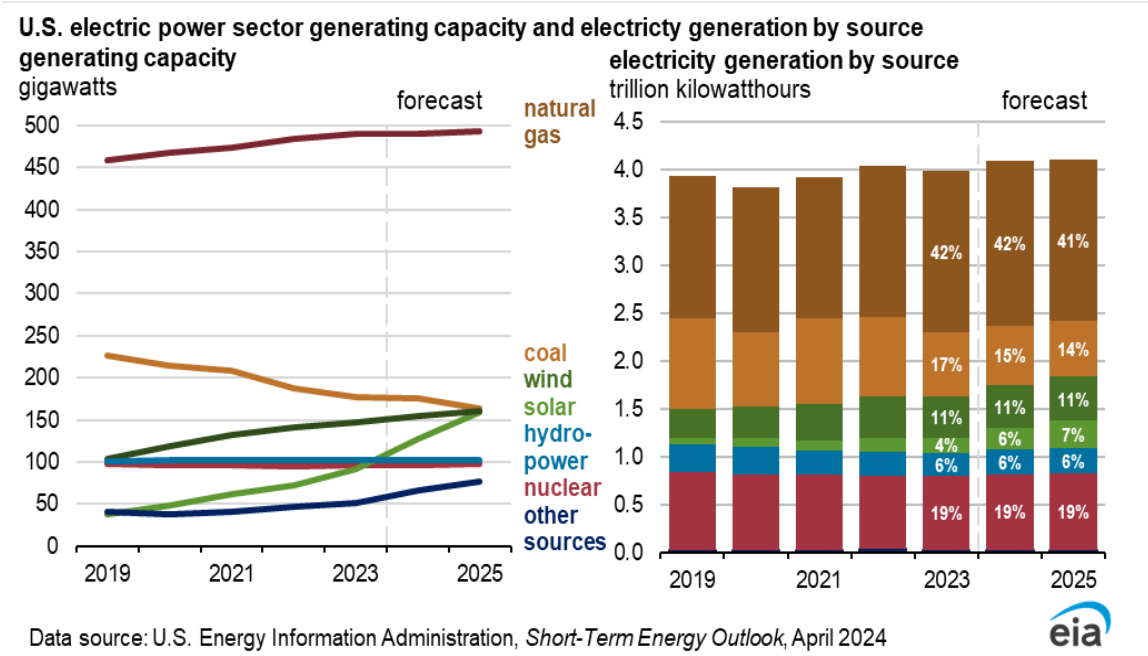
We forecast sales of electricity to U.S. end-use customers will increase by 2% in 2024 compared with 2023 and by 1% in 2025. The expected growth contrasts with a 2% decrease in electricity sales in 2023 compared with 2022. We expect electricity consumption to grow in all major consuming sectors this year, with forecast growth especially strong in the residential sector, where we expect it to increase by 4%. Much of the forecast year-over-year growth in residential electricity occurs this summer. We expect a hotter summer this year, with 7% more forecast cooling [degree days](#) in 2Q24 and 3Q24 than the same quarters in 2023.

U.S. electricity sales to non-residential customers in the commercial and industrial sectors grow in the forecast by 2% annually in 2024 and 1% in 2025. In some regions, we expect relatively little growth in non-residential electricity demand because vacancies in office buildings remain high compared with pre-pandemic levels. Areas of the country with concentrations of new large computing customers, such as data centers, have the fastest forecast growth in total non-residential electricity consumption; we expect the West South Central and West North Central [Census Divisions](#) together will contribute 50% of total U.S. non-residential electricity sales growth in 2024 and almost 90% of growth in 2025.

Electricity generation

Generation from renewable energy sources is the main contributor to growth in U.S. electricity generation over the STEO forecast. In particular, the electric power sector added 19 gigawatts (GW) of solar capacity in 2023 (a 27% increase), and we expect 37 GW will be added in 2024 and another 32 GW will be added in 2025. With this new capacity, we expect solar will provide 6% of total U.S. electricity generation in 2024 and 7% in 2025, up from a 4% share in 2023.

The increased generation from solar is likely to slow growth in generation from natural gas-fired power plants, even with relatively low natural gas prices in the forecast. We expect the share of total U.S. natural gas-fired generation in 2024 to average 42%, similar to 2023, before declining to 41% in 2025. We don't expect any new combined-cycle gas turbine plants in 2024, another reason why natural gas-fired generation makes up a smaller portion of electricity generation. Low natural gas prices will continue to reduce coal-fired generation; the forecast U.S. coal generation share falls to 15% in 2024 and 14% in 2025, compared with 17% last year.



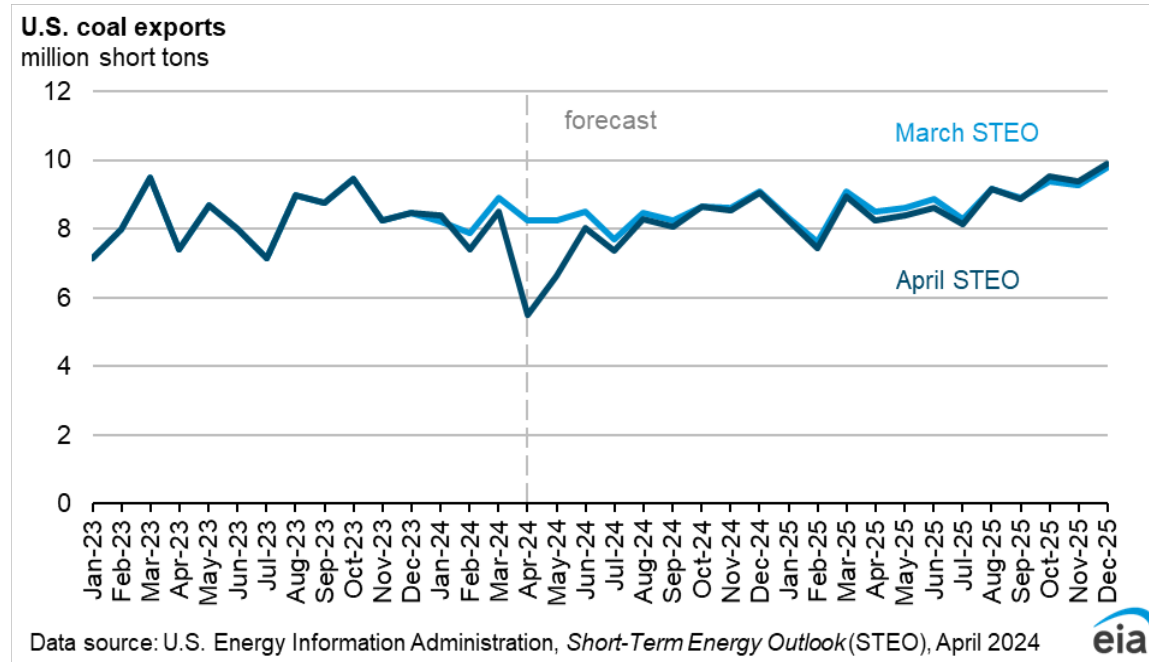
Coal markets

After the Port of Baltimore was closed as a result of the [collapse of the Francis Scott Key bridge](#), we reduced our forecast for U.S. coal exports by almost 3 million short tons (MMst)—more than 30%—in April and 2 MMst—about 20%—in May compared with the March STEO. The port is the second-largest export hub for coal in the United States.

We do not expect this event to have a significant long-term impact on U.S. exports coal exports. The price and quality of coal are important factors contributing to international demand for U.S. coal, and we assume some coal previously exported from Baltimore will be shipped from other U.S. ports. However, with the full closure of the port of Baltimore through at least May, as well as uncertainty around when the port will fully open and how long it will take to clear bottlenecks, we expect U.S. coal exports to total 94 MMst in 2024 down 6% relative to the March STEO. We expect exports in 2025 to increase to 105 MMst in 2025, similar to our forecast in the March STEO.

As a result of growth in electricity generation from renewable sources and low [natural gas prices](#) we expect coal-fired generation to decline, resulting in the electric power sector's coal consumption to decline by 8% in 2024 and to further decline by 5% in 2025. As exports temporarily drop in 2Q24 and electric power consumption declines, we forecast coal production to be 5% lower in April and 4% lower

in May compared with the March STEO. With exports and consumption both down relative to the March STEO, we have lowered our forecast for coal production in 2024 to about 485 MMst.



Economy, Weather, and CO₂

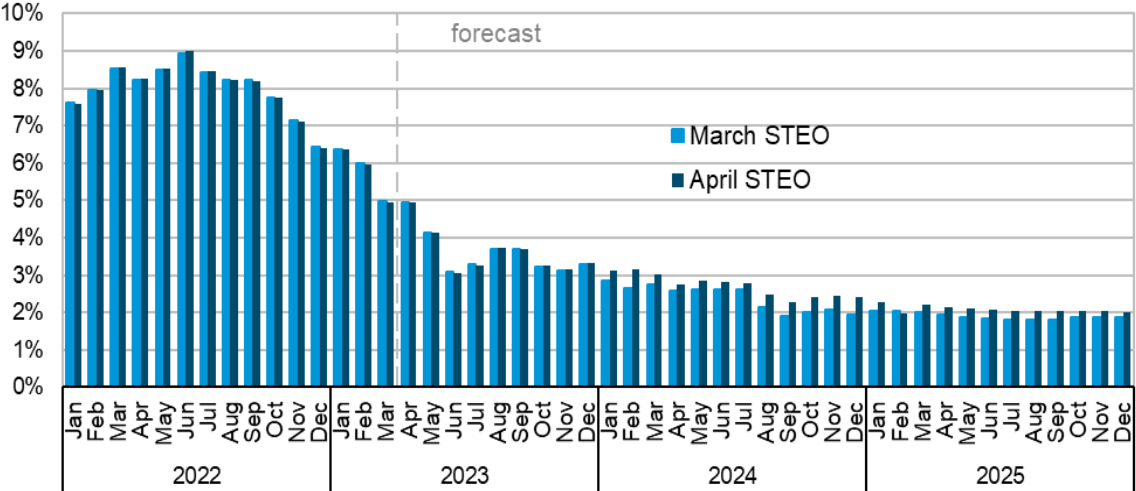
U.S. macroeconomics

Our forecast for April 2024 assumes real GDP will grow by 2.5% in 2024 and 1.5% in 2025, mostly unchanged from the forecast in March. 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.

Overall, the macroeconomic forecast we use for the STEO is similar to last month. However, the small upward revision to the forecast for the Consumer Price Index (CPI) is notable. Inflation, measured as the year-over-year growth rate of the CPI, declined from a peak of 9.0% in June 2022 to 3.2% in February 2024. Our forecast assumes that CPI inflation will continue to decline but will not reach 2.0% until the first quarter of 2025 (1Q25). We previously assumed CPI inflation would reach 2.0% by 3Q24, two quarters earlier. Therefore, forecasts on monetary policy have also been revised by other agencies. We now assume that the U.S. Federal Reserve will wait until June, as opposed to May, to reduce its target for the Federal Funds Rate.

Our forecast assumes the unemployment rate will rise gradually, reaching 3.8% by the end of 2024 and 4.2% by the end of 2025.

Consumer Price Index inflation rate
year-on-year percentage change



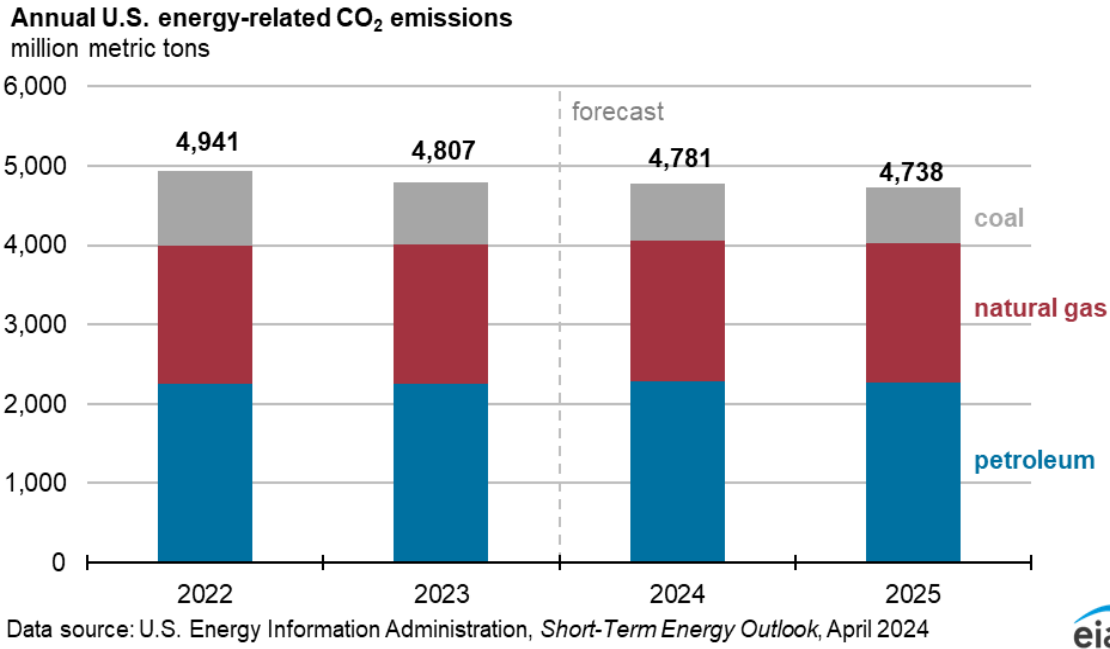
Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*(STEO), April 2024



Emissions

Total U.S. energy-related carbon dioxide (CO₂) emissions decrease by 1% in 2024 in our forecast, driven exclusively by a decrease in coal consumption. Coal-related CO₂ emissions decline by 8% as a result of decreasing coal-fired electricity generation. As coal-fired electricity generation declines, several other generation sources grow, most notably solar. Natural gas and petroleum-related CO₂ emissions both increase by about 1%; slight increases in the electric power sector’s natural gas consumption are partly offset by decreased consumption in the industrial sector, and petroleum product consumption rises slightly. CO₂ emissions are expected to decrease by an additional 1% in 2025 driven by slight decreases in total consumption of coal, natural gas, and petroleum products.

Decreasing CO₂ emissions in our STEO forecast are consistent with emissions trends observed over the last several years. However, analysis of emissions by fossil fuel component provides valuable insights into the nature of these reductions. Petroleum and natural gas are the two largest sources of U.S. energy-related CO₂ emissions. However, most emissions reductions in recent years come from coal, which represents the smallest share of total emissions. This trend in decreasing coal-related CO₂ emissions is observed largely in the electric power sector, where [decreases in coal-fired generating capacity](#) contribute to notable decreases in domestic coal consumption.



Weather

March 2024 was milder than March 2023. The United States averaged 500 HDDs in March, 15% fewer HDDs than in March 2023, which contributed to an overall relatively mild winter season (November 2023–March 2024). We expect 2Q24 and 3Q24 to be hotter in 2024 than it was last year, with 7% more CDDs than the same period in 2023.

Short-Term Energy Outlook Chart Gallery



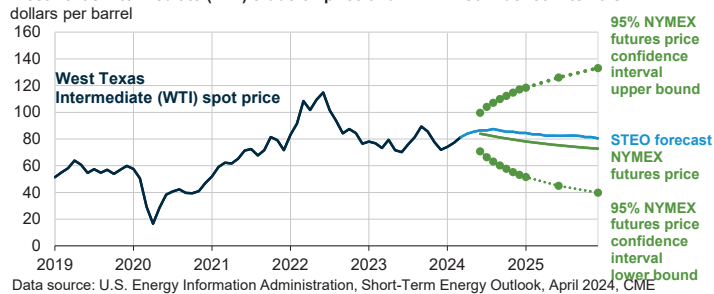
April 9, 2024



U.S. Energy Information Administration

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

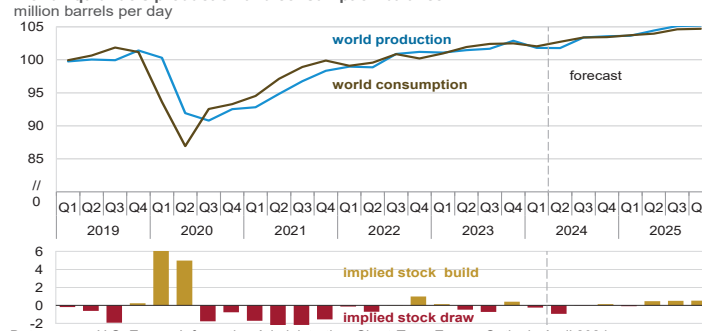


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024, CME Group, Bloomberg, L.P., and Refinitiv an LSEG Business

Note: Confidence interval derived from options market information for the five trading days ending April 4, 2024. Intervals not calculated for months with sparse trading in near-the-money options contracts.



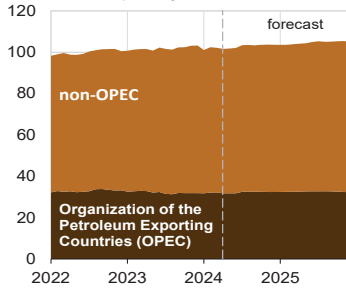
World liquid fuels production and consumption balance



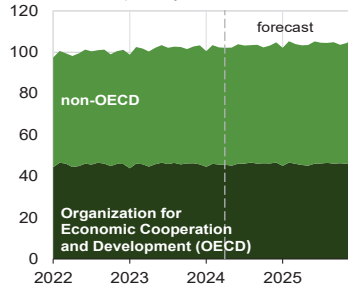
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024



World liquid fuels production
million barrels per day



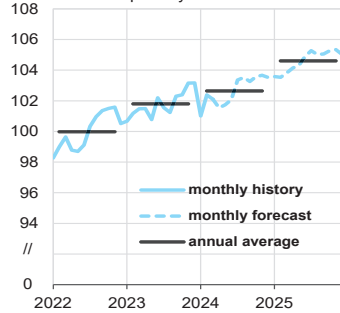
World liquid fuels consumption
million barrels per day



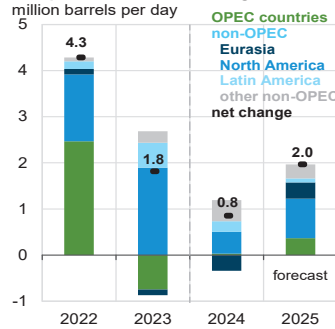
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024



World crude oil and liquid fuels production
million barrels per day



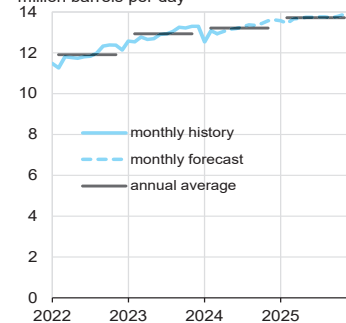
Components of annual change
million barrels per day



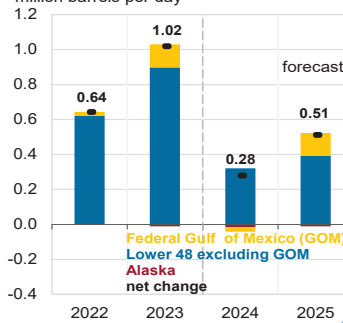
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024



U.S. crude oil production
million barrels per day



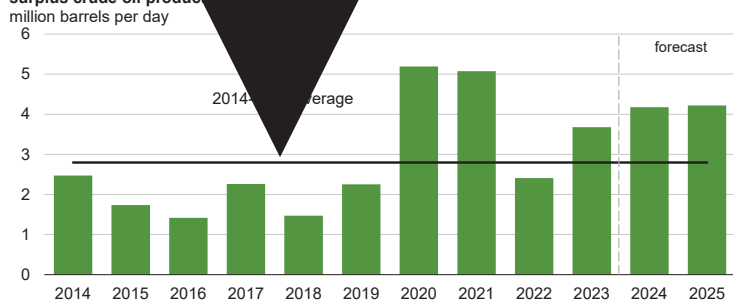
Components of annual change
million barrels per day



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024



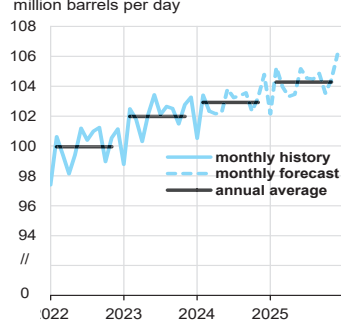
Organization of the Petroleum Exporting Countries (OPEC)



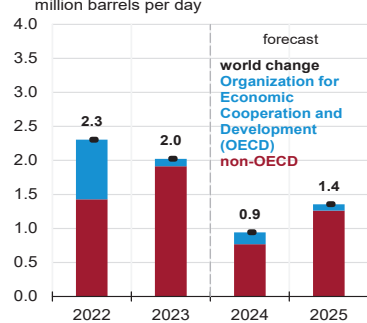
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024
 Note: Black line represents 2014-2023 average (2.8 million barrels per day).



World liquid fuels consumption



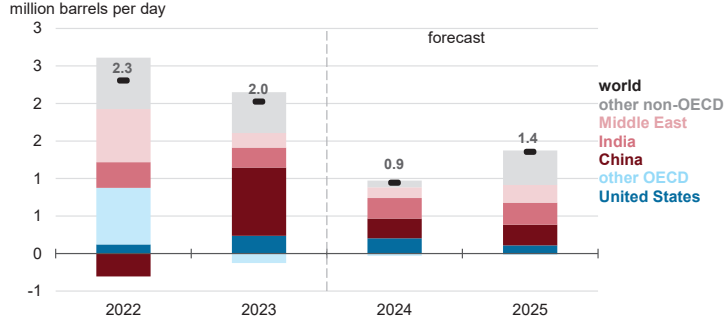
Components of annual change



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024



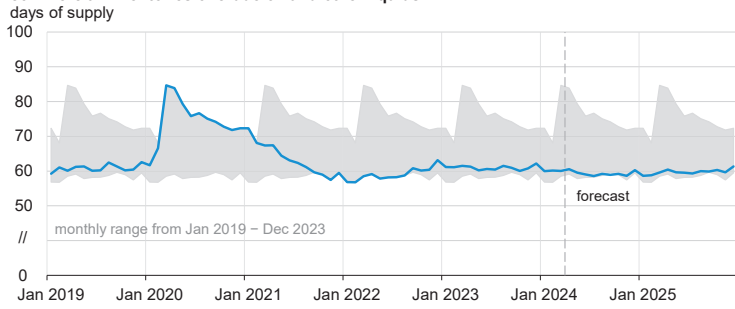
Annual change in world liquid fuels consumption



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024



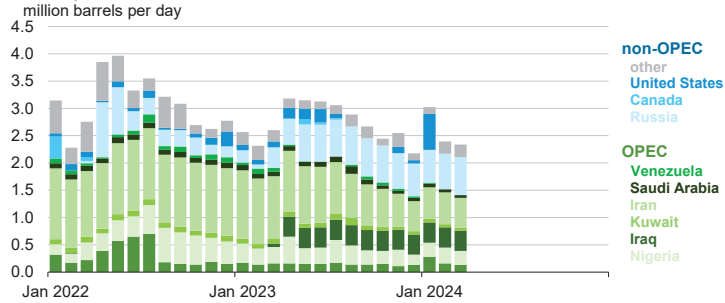
Organization for Economic Cooperation and Development (OECD)
commercial inventories of crude oil and other liquids



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024



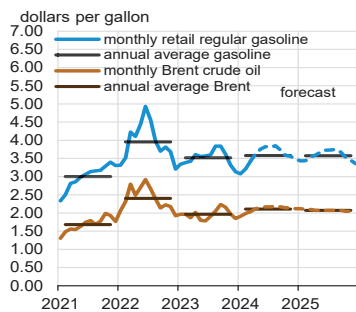
Estimated unplanned liquid fuels production outages among OPEC and non-OPEC producers



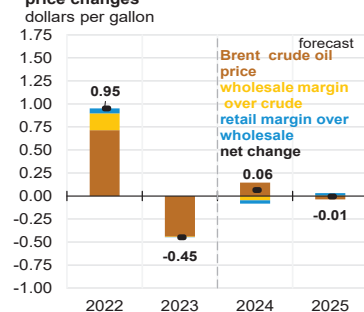
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024



U.S. gasoline and crude oil prices



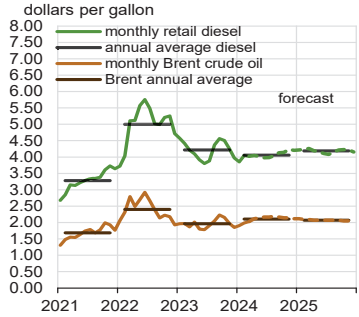
Components of annual gasoline price changes



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024, and Refinitiv an LSEG Business

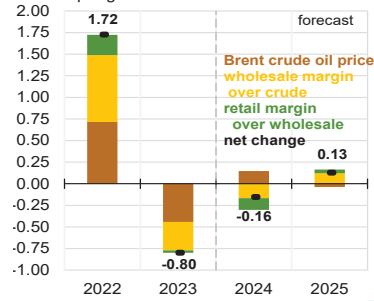


U.S. diesel and crude oil prices

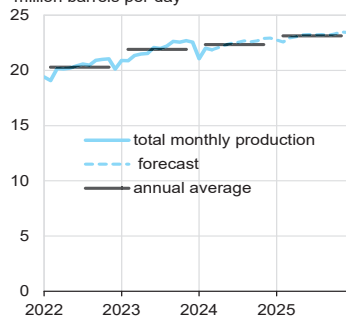


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024, and Refinitiv an LSEG Business

Components of annual diesel price changes

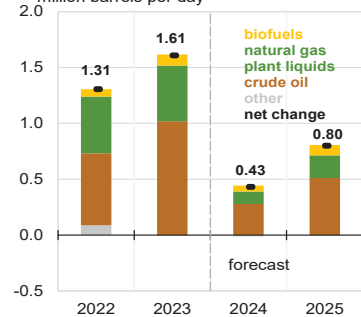


U.S. crude oil and liquid fuels production

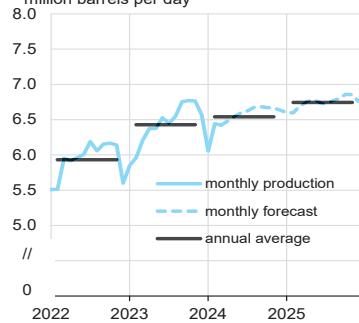


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024

Components of annual change

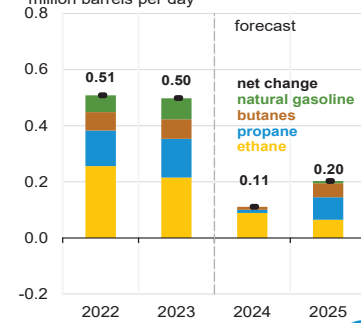


U.S. natural gas plant liquids production

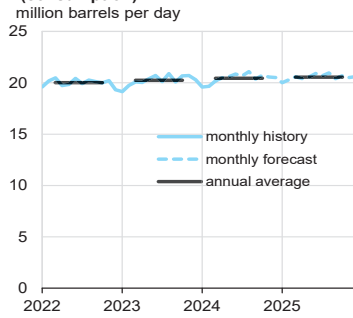


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024

Components of annual change

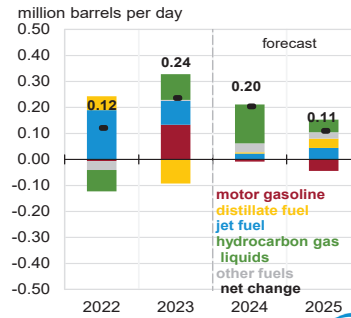


U.S. liquid fuels product supplied (consumption)

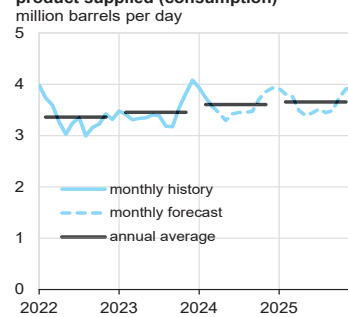


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024

Components of annual change

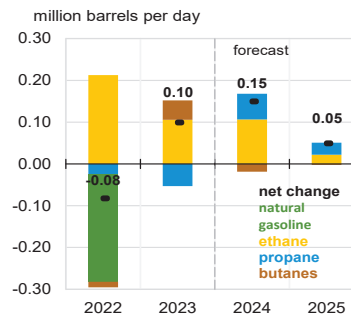


U.S. hydrocarbon gas liquids product supplied (consumption)

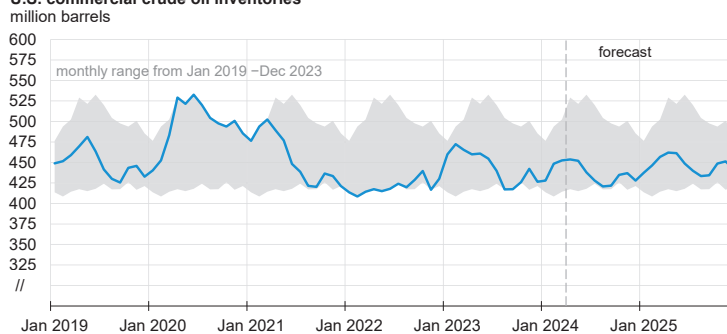


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024

Components of annual change



U.S. commercial crude oil inventories

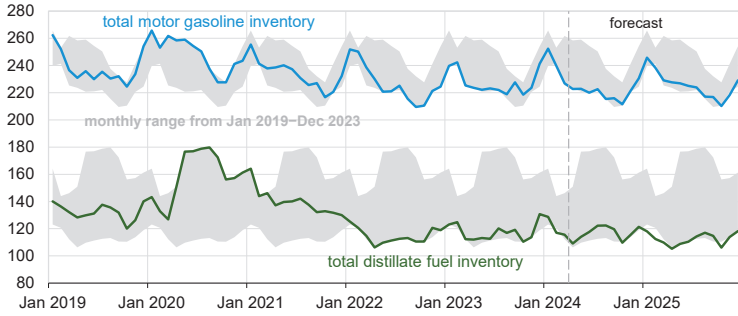


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024



U.S. gasoline and distillate inventories

million barrels

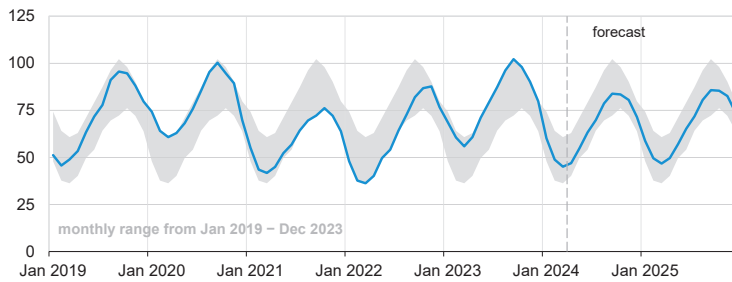


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024



U.S. commercial propane inventories

million barrels



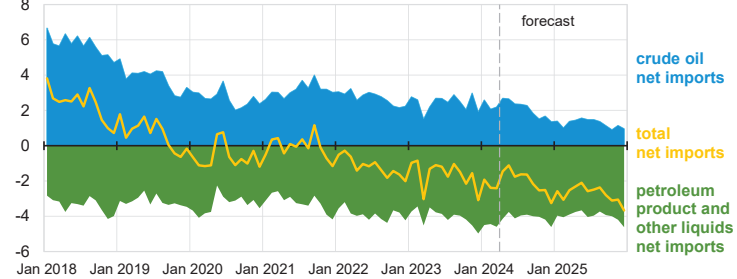
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024

Note: Excludes propylene.



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

million barrels per day

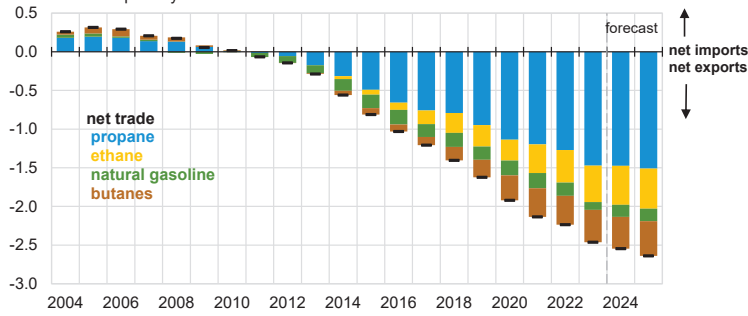


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024

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.



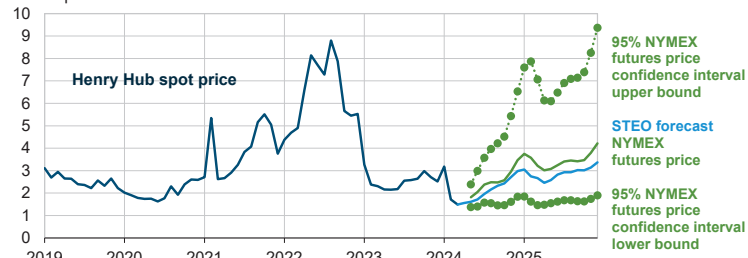
U.S. net trade of hydrocarbon gas liquids (HGL)
million barrels per day



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024



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

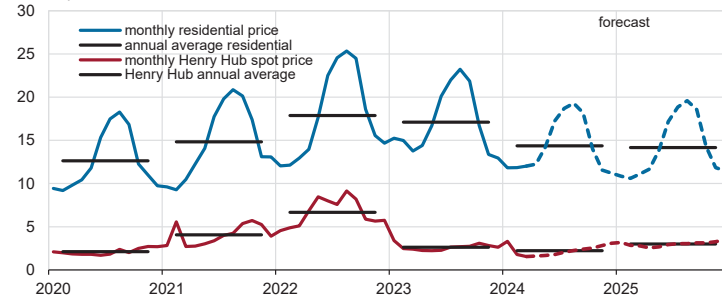


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024, CME Group, and Refinitiv an LSEG Business

Note: Confidence interval derived from options market information for the five trading days ending April 4, 2024. Intervals not calculated for months with sparse trading in near-the-money options contracts.



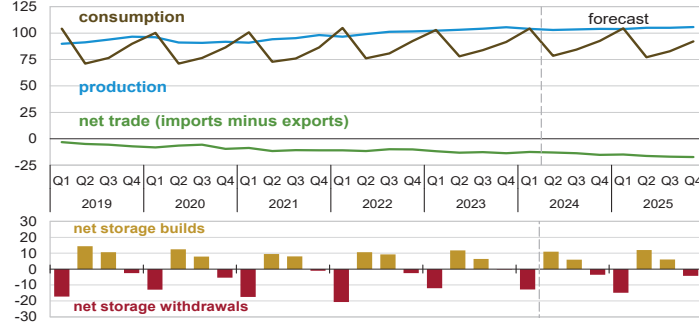
U.S. natural gas prices
dollars per thousand cubic feet



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024, and Refinitiv an LSEG Business



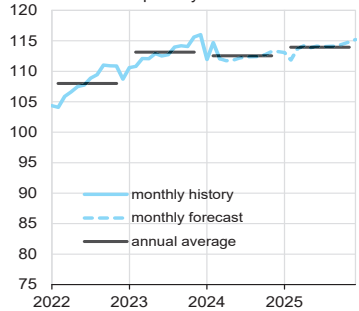
U.S. natural gas production, consumption, and net imports
billion cubic feet per day



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024

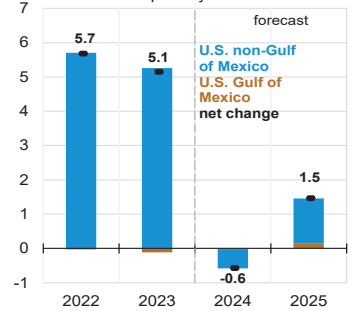


U.S. marketed natural gas production
billion cubic feet per day

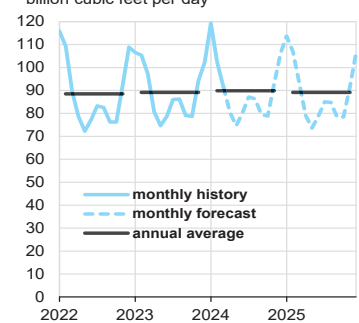


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024

Components of annual change
billion cubic feet per day

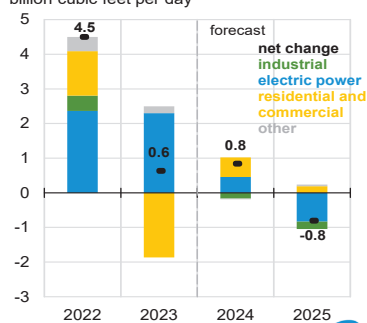


U.S. natural gas consumption
billion cubic feet per day



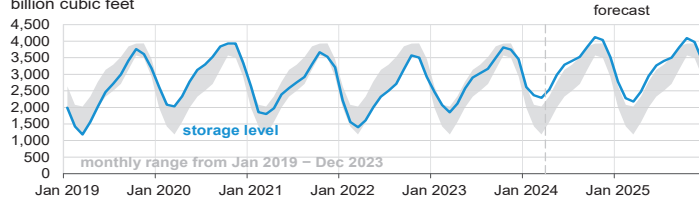
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024

Components of annual change
billion cubic feet per day



U.S. working natural gas in storage

billion cubic feet



Percentage deviation from 2019 – 2023 average

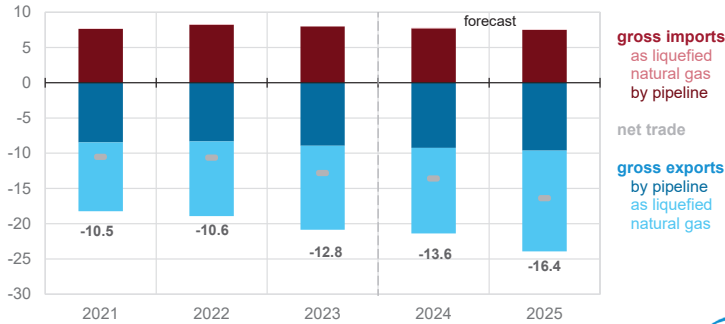


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024



U.S. annual natural gas trade

billion cubic feet per day

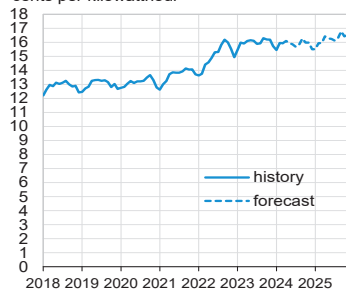


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024



U.S. monthly nominal residential electricity price

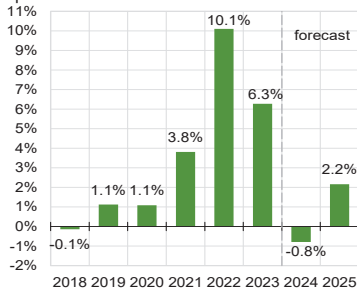
cents per kilowatthour

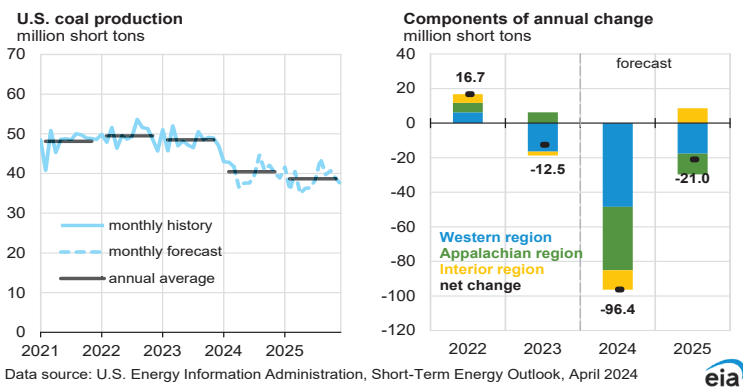
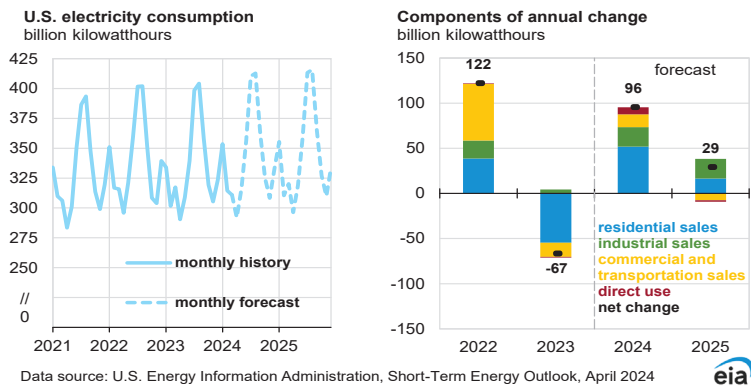
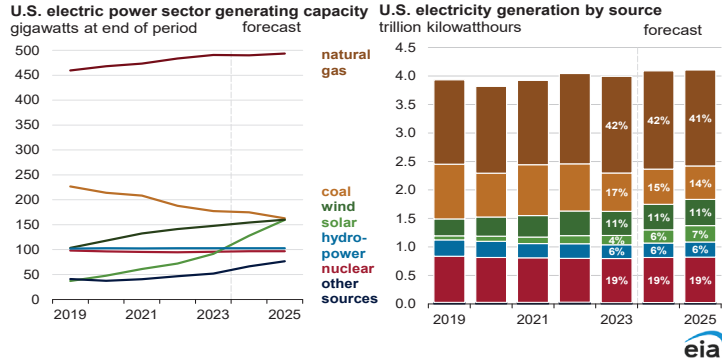


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024

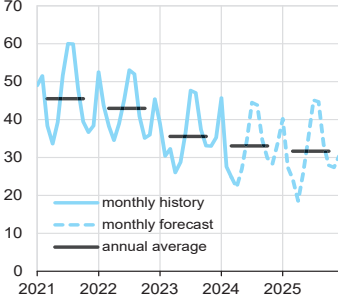
Annual growth in nominal residential electricity prices

percent

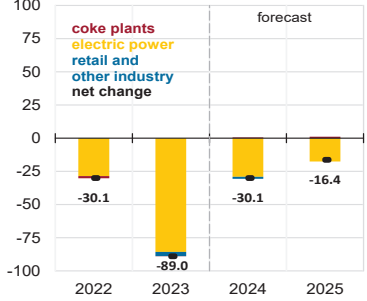




U.S. coal consumption
million short tons



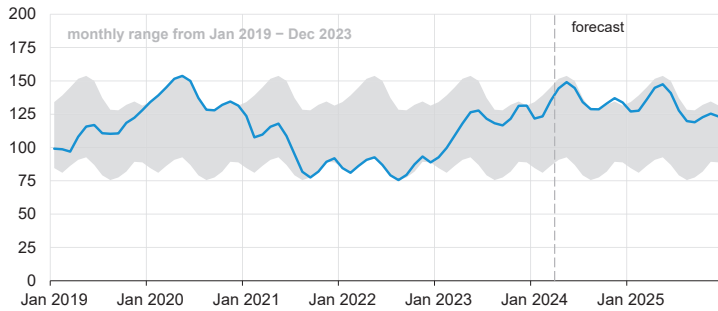
Components of annual change
million short tons



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024



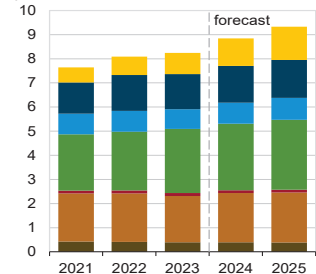
U.S. electric power coal inventories
million short tons



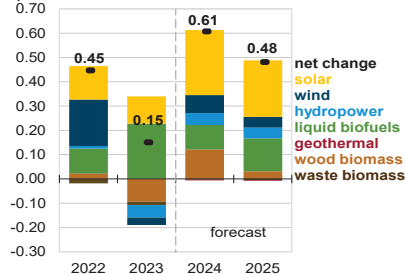
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024



U.S. renewable energy supply
quadrillion British thermal units



Components of annual change
quadrillion British thermal units

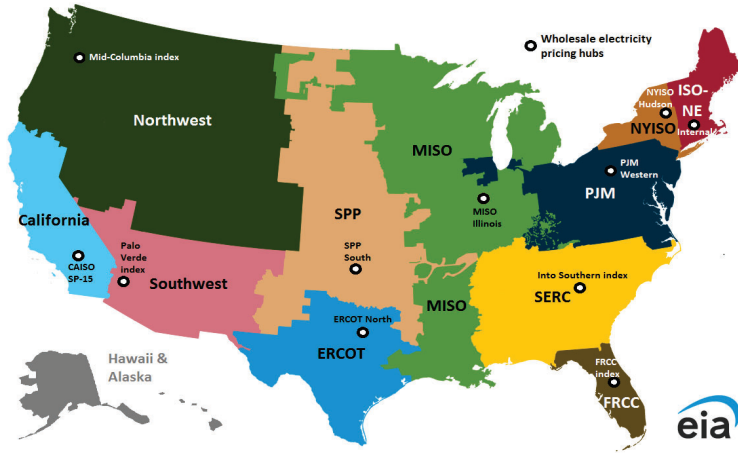


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024

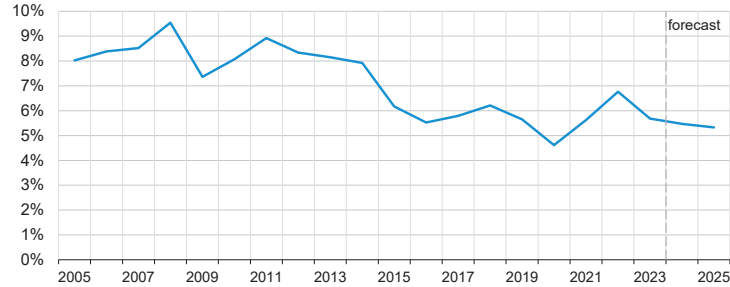
Note: Hydropower excludes pumped storage generation. Liquids include ethanol, biodiesel, renewable diesel, other biofuels, and biofuel losses and coproducts. Waste biomass includes municipal waste from biogenic sources, landfill gas, and non-wood waste.



Short-Term Energy Outlook electricity supply regions



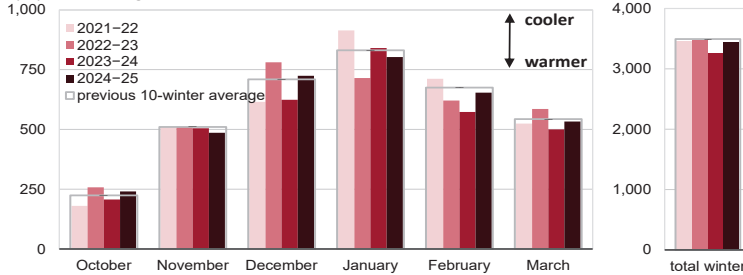
U.S. annual energy expenditures share of gross domestic product



Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024



U.S. winter heating degree days population-weighted

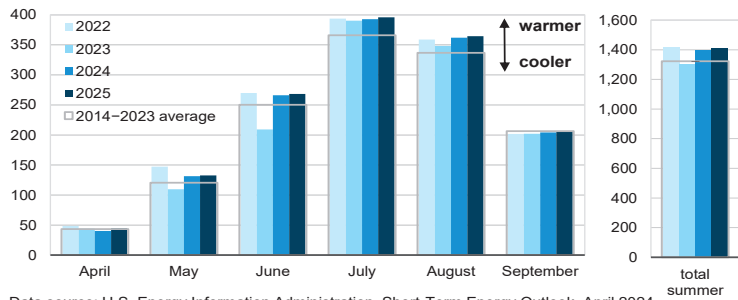


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024

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

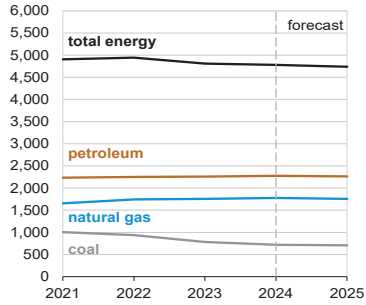


U.S. summer cooling degree days
population-weighted

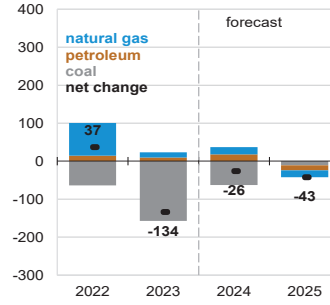


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, April 2024
 Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

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, April 2024

Table 1. U.S. Energy Markets Summary

U.S. Energy Information Administration | Short-Term Energy Outlook - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Energy Production															
Crude Oil Production (a) (million barrels per day)	12.63	12.75	13.07	13.27	12.84	13.13	13.32	13.54	13.56	13.72	13.74	13.86	12.93	13.21	13.72
Dry Natural Gas Production (billion cubic feet per day)	102.3	103.2	104.1	105.6	103.9	103.0	103.4	104.0	103.9	105.0	105.0	105.7	103.8	103.6	104.9
Coal Production (million short tons)	149	142	146	145	128	112	125	121	118	108	122	117	582	485	464
Energy Consumption															
Liquid Fuels (million barrels per day)	19.66	20.38	20.37	20.56	19.82	20.65	20.72	20.60	20.30	20.63	20.69	20.61	20.25	20.45	20.56
Natural Gas (billion cubic feet per day)	103.0	78.0	83.9	91.7	104.3	78.5	84.4	92.6	104.5	77.2	82.8	92.2	89.1	89.9	89.1
Coal (b) (million short tons)	102	91	132	101	98	84	123	92	92	79	123	86	427	396	380
Electricity (billion kilowatt hours per day)	10.59	10.32	12.62	10.30	10.76	10.60	12.89	10.50	10.96	10.71	12.98	10.55	10.96	11.19	11.30
Renewables (c) (quadrillion Btu)	2.05	2.10	2.05	2.04	2.13	2.29	2.23	2.20	2.25	2.43	2.36	2.29	8.24	8.85	9.33
Total Energy Consumption (d) (quadrillion Btu)	24.14	22.04	23.75	23.76	24.46	22.35	23.98	23.83	24.55	22.20	23.89	23.75	93.69	94.62	94.39
Energy Prices															
Crude Oil West Texas Intermediate Spot (dollars per barrel)	75.96	73.49	82.25	78.63	77.50	85.30	86.84	85.17	83.84	82.50	82.50	81.16	77.58	83.78	82.48
Natural Gas Henry Hub Spot (dollars per million Btu)	2.65	2.16	2.59	2.74	2.13	1.63	2.15	2.71	2.82	2.62	2.96	3.17	2.54	2.15	2.89
Coal (dollars per million Btu)	2.57	2.49	2.51	2.51	2.48	2.47	2.45	2.41	2.42	2.42	2.41	2.38	2.52	2.45	2.41
Macroeconomic															
Real Gross Domestic Product (billion chained 2017 dollars - SAAR)	22,112	22,225	22,491	22,669	22,780	22,886	22,996	23,089	23,161	23,240	23,329	23,429	22,374	22,938	23,290
Percent change from prior year	1.7	2.4	2.9	3.1	3.0	3.0	2.2	1.9	1.7	1.5	1.4	1.5	2.5	2.5	1.5
GDP Implicit Price Deflator (Index, 2017=100)	121.3	121.8	122.8	123.3	124.1	124.7	125.3	126.1	127.0	127.7	128.4	129.2	122.3	125.1	128.1
Percent change from prior year	5.3	3.5	3.2	2.6	2.3	2.4	2.1	2.3	2.4	2.4	2.5	2.5	3.6	2.3	2.4
Real Disposable Personal Income (billion chained 2017 dollars - SAAR)	16,663	16,797	16,820	16,911	17,016	17,174	17,312	17,443	17,587	17,719	17,840	17,955	16,798	17,236	17,775
Percent change from prior year	3.7	4.9	4.1	4.1	2.1	2.2	2.9	3.1	3.4	3.2	3.1	2.9	4.2	2.6	3.1
Manufacturing Production Index (Index, 2017=100)	99.9	100.2	100.0	99.8	99.5	99.9	100.4	100.8	100.9	101.0	101.3	101.7	100.0	100.2	101.2
Percent change from prior year	-0.2	-0.7	-0.9	-0.2	-0.4	-0.3	0.4	1.0	1.5	1.2	0.8	0.9	-0.5	0.2	1.1
Weather															
U.S. Heating Degree-Days	1,922	486	61	1,336	1,913	482	75	1,451	1,990	469	74	1,445	3,805	3,920	3,978
U.S. Cooling Degree-Days	68	363	941	105	42	438	959	105	51	445	966	106	1,476	1,543	1,568

(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.

- = no data available

Notes: EIA completed modeling and analysis for this report on April 4, 2024.

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 and Energy Information Administration.

Table 2. Energy Prices

U.S. Energy Information Administration | Short-Term Energy Outlook - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Crude Oil (dollars per barrel)															
West Texas Intermediate Spot Average	75.96	73.49	82.25	78.63	77.50	<i>85.30</i>	<i>86.84</i>	<i>85.17</i>	<i>83.84</i>	<i>82.50</i>	<i>82.50</i>	<i>81.16</i>	77.58	<i>83.78</i>	<i>82.48</i>
Brent Spot Average	81.04	78.02	86.64	83.93	82.96	<i>89.97</i>	<i>91.34</i>	<i>89.67</i>	<i>88.34</i>	<i>87.00</i>	<i>87.00</i>	<i>85.66</i>	82.41	<i>88.55</i>	<i>86.98</i>
U.S. Imported Average	69.58	71.08	80.97	76.04	73.55	<i>82.54</i>	<i>84.11</i>	<i>82.45</i>	<i>83.88</i>	<i>82.50</i>	<i>82.50</i>	<i>81.18</i>	74.59	<i>80.52</i>	<i>82.58</i>
U.S. Refiner Average Acquisition Cost	74.44	73.99	82.38	79.34	76.94	<i>84.84</i>	<i>86.34</i>	<i>84.66</i>	<i>83.85</i>	<i>82.50</i>	<i>82.50</i>	<i>81.15</i>	77.63	<i>83.29</i>	<i>82.49</i>
U.S. Liquid Fuels (cents per gallon)															
Wholesale Petroleum Product Prices															
Gasoline	262	265	296	233	245	<i>292</i>	<i>292</i>	<i>264</i>	<i>260</i>	<i>281</i>	<i>285</i>	<i>256</i>	264	<i>274</i>	<i>271</i>
Diesel Fuel	295	245	308	285	269	<i>273</i>	<i>286</i>	<i>296</i>	<i>295</i>	<i>283</i>	<i>291</i>	<i>289</i>	283	<i>281</i>	<i>290</i>
Fuel Oil	279	231	292	274	263	<i>263</i>	<i>269</i>	<i>284</i>	<i>289</i>	<i>274</i>	<i>280</i>	<i>280</i>	271	<i>270</i>	<i>283</i>
Jet Fuel	305	233	291	272	267	<i>271</i>	<i>274</i>	<i>288</i>	<i>294</i>	<i>281</i>	<i>285</i>	<i>284</i>	275	<i>275</i>	<i>286</i>
No. 6 Residual Fuel Oil (a)	196	189	202	205	198	<i>212</i>	<i>220</i>	<i>218</i>	<i>217</i>	<i>211</i>	<i>212</i>	<i>209</i>	199	<i>211</i>	<i>212</i>
Propane															
Mont Belvieu Spot	82	68	68	67	84	<i>86</i>	<i>86</i>	<i>85</i>	<i>83</i>	<i>83</i>	<i>83</i>	<i>80</i>	71	<i>85</i>	<i>82</i>
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	338	358	376	336	324	<i>374</i>	<i>380</i>	<i>354</i>	<i>347</i>	<i>367</i>	<i>372</i>	<i>345</i>	352	<i>359</i>	<i>358</i>
Gasoline All Grades (b)	349	369	387	348	336	<i>384</i>	<i>391</i>	<i>366</i>	<i>359</i>	<i>378</i>	<i>383</i>	<i>356</i>	364	<i>370</i>	<i>369</i>
On-highway Diesel Fuel	439	394	428	426	397	<i>401</i>	<i>405</i>	<i>419</i>	<i>424</i>	<i>416</i>	<i>415</i>	<i>420</i>	421	<i>406</i>	<i>419</i>
Heating Oil	407	353	387	395	378	<i>366</i>	<i>365</i>	<i>403</i>	<i>402</i>	<i>378</i>	<i>372</i>	<i>394</i>	393	<i>382</i>	<i>393</i>
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	2.76	2.25	2.69	2.84	2.21	<i>1.69</i>	<i>2.23</i>	<i>2.81</i>	<i>2.93</i>	<i>2.72</i>	<i>3.07</i>	<i>3.30</i>	2.63	<i>2.24</i>	<i>3.01</i>
Henry Hub Spot (dollars per million Btu)	2.65	2.16	2.59	2.74	2.13	<i>1.63</i>	<i>2.15</i>	<i>2.71</i>	<i>2.82</i>	<i>2.62</i>	<i>2.96</i>	<i>3.17</i>	2.54	<i>2.15</i>	<i>2.89</i>
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	6.12	3.76	3.87	4.39	4.46	<i>3.05</i>	<i>3.18</i>	<i>4.08</i>	<i>4.66</i>	<i>3.84</i>	<i>3.97</i>	<i>4.59</i>	4.59	<i>3.74</i>	<i>4.29</i>
Commercial Sector	11.81	10.48	10.90	9.83	9.32	<i>8.89</i>	<i>9.06</i>	<i>7.82</i>	<i>7.92</i>	<i>8.57</i>	<i>9.38</i>	<i>8.30</i>	10.89	<i>8.77</i>	<i>8.31</i>
Residential Sector	14.72	16.19	22.33	13.72	11.88	<i>13.82</i>	<i>18.69</i>	<i>11.77</i>	<i>10.84</i>	<i>13.40</i>	<i>18.97</i>	<i>12.05</i>	15.19	<i>12.65</i>	<i>12.20</i>
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.57	2.49	2.51	2.51	2.48	<i>2.47</i>	<i>2.45</i>	<i>2.41</i>	<i>2.42</i>	<i>2.42</i>	<i>2.41</i>	<i>2.38</i>	2.52	<i>2.45</i>	<i>2.41</i>
Natural Gas	4.98	2.60	2.92	3.19	3.31	<i>1.94</i>	<i>2.32</i>	<i>3.05</i>	<i>3.32</i>	<i>2.81</i>	<i>3.02</i>	<i>3.45</i>	3.36	<i>2.63</i>	<i>3.14</i>
Residual Fuel Oil (c)	19.23	17.88	19.17	20.84	17.17	<i>16.91</i>	<i>16.80</i>	<i>16.87</i>	<i>17.03</i>	<i>17.28</i>	<i>16.53</i>	<i>16.35</i>	19.32	<i>16.95</i>	<i>16.78</i>
Distillate Fuel Oil	22.84	19.91	22.08	21.03	20.43	<i>20.83</i>	<i>21.63</i>	<i>22.51</i>	<i>22.62</i>	<i>21.76</i>	<i>22.00</i>	<i>21.95</i>	21.47	<i>21.33</i>	<i>22.14</i>
Prices to Ultimate Customers (cents per kilowatthour)															
Industrial Sector	8.06	7.74	8.55	7.83	7.73	<i>7.69</i>	<i>8.34</i>	<i>7.90</i>	<i>7.97</i>	<i>7.74</i>	<i>8.49</i>	<i>8.02</i>	8.05	<i>7.93</i>	<i>8.07</i>
Commercial Sector	12.64	12.45	13.18	12.63	12.46	<i>12.19</i>	<i>13.10</i>	<i>12.65</i>	<i>12.58</i>	<i>12.55</i>	<i>13.58</i>	<i>13.03</i>	12.74	<i>12.62</i>	<i>12.96</i>
Residential Sector	15.77	16.12	16.02	16.02	15.75	<i>15.95</i>	<i>15.90</i>	<i>15.80</i>	<i>15.77</i>	<i>16.31</i>	<i>16.37</i>	<i>16.31</i>	15.98	<i>15.86</i>	<i>16.20</i>

(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 April 4, 2024.

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.

WTI and Brent crude oil spot prices, the Mt. Belvieu propane spot price, and the Henry Hub natural gas spot price are from

Refinitiv, an LSEG company, via EIA (https://www.eia.gov/dnav/pet/pet_pri_spt_s1_d.htm).

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 - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Production (million barrels per day) (a)															
OECD	33.48	33.80	34.55	35.29	34.34	<i>34.54</i>	<i>34.94</i>	<i>35.44</i>	<i>35.58</i>	<i>35.57</i>	<i>35.71</i>	<i>36.11</i>	34.28	<i>34.82</i>	<i>35.74</i>
U.S. (50 States)	21.05	21.69	22.27	22.60	21.64	<i>22.27</i>	<i>22.60</i>	<i>22.83</i>	<i>22.76</i>	<i>23.16</i>	<i>23.21</i>	<i>23.40</i>	21.91	<i>22.34</i>	<i>23.14</i>
Canada	5.79	5.44	5.79	6.10	6.07	<i>5.69</i>	<i>5.87</i>	<i>6.07</i>	<i>6.14</i>	<i>5.85</i>	<i>6.05</i>	<i>6.19</i>	5.78	<i>5.93</i>	<i>6.06</i>
Mexico	2.07	2.16	2.11	2.09	2.05	<i>2.02</i>	<i>2.00</i>	<i>1.97</i>	<i>1.97</i>	<i>1.94</i>	<i>1.92</i>	<i>1.90</i>	2.11	<i>2.01</i>	<i>1.93</i>
Other OECD	4.56	4.51	4.39	4.49	4.58	<i>4.56</i>	<i>4.47</i>	<i>4.57</i>	<i>4.70</i>	<i>4.62</i>	<i>4.52</i>	<i>4.63</i>	4.49	<i>4.55</i>	<i>4.62</i>
Non-OECD	67.63	67.68	67.14	67.62	67.48	<i>67.25</i>	<i>68.45</i>	<i>68.15</i>	<i>68.08</i>	<i>68.88</i>	<i>69.41</i>	<i>69.10</i>	67.52	<i>67.83</i>	<i>68.87</i>
OPEC	32.77	32.46	31.63	31.88	32.05	<i>31.77</i>	<i>32.56</i>	<i>32.46</i>	<i>32.48</i>	<i>32.65</i>	<i>32.73</i>	<i>32.45</i>	32.18	<i>32.21</i>	<i>32.58</i>
Crude Oil Portion	27.38	27.23	26.37	26.58	26.66	<i>26.50</i>	<i>27.27</i>	<i>27.13</i>	<i>27.20</i>	<i>27.37</i>	<i>27.45</i>	<i>27.17</i>	26.89	<i>26.89</i>	<i>27.30</i>
Other Liquids (b)	5.40	5.22	5.26	5.30	5.40	<i>5.27</i>	<i>5.30</i>	<i>5.33</i>	<i>5.28</i>	<i>5.28</i>	<i>5.28</i>	<i>5.28</i>	5.29	<i>5.32</i>	<i>5.28</i>
Eurasia	14.11	13.65	13.42	13.70	13.66	<i>13.30</i>	<i>13.21</i>	<i>13.40</i>	<i>13.58</i>	<i>13.72</i>	<i>13.73</i>	<i>13.91</i>	13.72	<i>13.39</i>	<i>13.74</i>
China	5.32	5.32	5.19	5.23	5.32	<i>5.32</i>	<i>5.31</i>	<i>5.35</i>	<i>5.32</i>	<i>5.35</i>	<i>5.34</i>	<i>5.38</i>	5.26	<i>5.33</i>	<i>5.35</i>
Other Non-OECD	15.43	16.26	16.90	16.81	16.44	<i>16.86</i>	<i>17.36</i>	<i>16.93</i>	<i>16.69</i>	<i>17.15</i>	<i>17.61</i>	<i>17.36</i>	16.35	<i>16.90</i>	<i>17.21</i>
Total World Production	101.11	101.48	101.69	102.90	101.82	<i>101.79</i>	<i>103.38</i>	<i>103.59</i>	<i>103.65</i>	<i>104.45</i>	<i>105.12</i>	<i>105.21</i>	101.80	<i>102.65</i>	<i>104.61</i>
Non-OPEC Production	68.33	69.02	70.06	71.02	69.77	<i>70.02</i>	<i>70.82</i>	<i>71.12</i>	<i>71.17</i>	<i>71.79</i>	<i>72.39</i>	<i>72.76</i>	69.62	<i>70.44</i>	<i>72.03</i>
Consumption (million barrels per day) (c)															
OECD	45.22	45.68	46.04	46.08	45.43	<i>45.60</i>	<i>46.30</i>	<i>46.39</i>	<i>45.88</i>	<i>45.56</i>	<i>46.26</i>	<i>46.37</i>	45.76	<i>45.93</i>	<i>46.02</i>
U.S. (50 States)	19.66	20.38	20.37	20.56	19.82	<i>20.65</i>	<i>20.72</i>	<i>20.60</i>	<i>20.30</i>	<i>20.63</i>	<i>20.69</i>	<i>20.61</i>	20.25	<i>20.45</i>	<i>20.56</i>
U.S. Territories	0.12	0.12	0.12	0.12	0.11	<i>0.11</i>	<i>0.11</i>	<i>0.11</i>	<i>0.11</i>	<i>0.11</i>	<i>0.11</i>	<i>0.11</i>	0.12	<i>0.11</i>	<i>0.11</i>
Canada	2.33	2.47	2.63	2.37	2.38	<i>2.33</i>	<i>2.43</i>	<i>2.40</i>	<i>2.34</i>	<i>2.29</i>	<i>2.39</i>	<i>2.37</i>	2.45	<i>2.39</i>	<i>2.35</i>
Europe	13.09	13.55	13.64	13.33	13.18	<i>13.33</i>	<i>13.74</i>	<i>13.50</i>	<i>13.16</i>	<i>13.32</i>	<i>13.73</i>	<i>13.49</i>	13.40	<i>13.44</i>	<i>13.43</i>
Japan	3.73	3.10	3.10	3.44	3.59	<i>2.98</i>	<i>3.08</i>	<i>3.41</i>	<i>3.54</i>	<i>2.94</i>	<i>3.04</i>	<i>3.36</i>	3.34	<i>3.27</i>	<i>3.22</i>
Other OECD	6.29	6.06	6.19	6.26	6.34	<i>6.20</i>	<i>6.22</i>	<i>6.35</i>	<i>6.42</i>	<i>6.27</i>	<i>6.29</i>	<i>6.43</i>	6.20	<i>6.28</i>	<i>6.35</i>
Non-OECD	55.75	56.27	56.37	56.42	56.63	<i>57.13</i>	<i>57.09</i>	<i>57.06</i>	<i>57.87</i>	<i>58.41</i>	<i>58.36</i>	<i>58.32</i>	56.21	<i>56.98</i>	<i>58.24</i>
Eurasia	4.66	4.82	5.16	5.06	4.60	<i>4.76</i>	<i>5.11</i>	<i>5.00</i>	<i>4.63</i>	<i>4.79</i>	<i>5.14</i>	<i>5.04</i>	4.93	<i>4.87</i>	<i>4.90</i>
Europe	0.74	0.76	0.77	0.77	0.75	<i>0.77</i>	<i>0.77</i>	<i>0.77</i>	<i>0.76</i>	<i>0.78</i>	<i>0.78</i>	<i>0.78</i>	0.76	<i>0.76</i>	<i>0.77</i>
China	16.02	16.21	15.90	16.11	16.29	<i>16.48</i>	<i>16.16</i>	<i>16.37</i>	<i>16.56</i>	<i>16.76</i>	<i>16.43</i>	<i>16.65</i>	16.06	<i>16.32</i>	<i>16.60</i>
Other Asia	14.58	14.46	13.92	14.32	14.96	<i>14.93</i>	<i>14.32</i>	<i>14.64</i>	<i>15.44</i>	<i>15.41</i>	<i>14.77</i>	<i>15.11</i>	14.32	<i>14.71</i>	<i>15.18</i>
Other Non-OECD	19.75	20.02	20.63	20.17	20.04	<i>20.19</i>	<i>20.74</i>	<i>20.27</i>	<i>20.48</i>	<i>20.67</i>	<i>21.23</i>	<i>20.74</i>	20.14	<i>20.31</i>	<i>20.78</i>
Total World Consumption	100.97	101.95	102.42	102.50	102.06	<i>102.73</i>	<i>103.39</i>	<i>103.45</i>	<i>103.74</i>	<i>103.97</i>	<i>104.62</i>	<i>104.70</i>	101.96	<i>102.91</i>	<i>104.26</i>
Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)															
U.S. (50 States)	-0.08	-0.11	-0.25	0.30	0.33	<i>-0.40</i>	<i>-0.26</i>	<i>0.32</i>	<i>0.01</i>	<i>-0.40</i>	<i>-0.13</i>	<i>0.29</i>	-0.03	<i>0.00</i>	<i>-0.06</i>
Other OECD	0.32	-0.02	-0.15	0.13	-0.03	<i>0.41</i>	<i>0.08</i>	<i>-0.15</i>	<i>0.03</i>	<i>-0.02</i>	<i>-0.11</i>	<i>-0.25</i>	0.07	<i>0.08</i>	<i>-0.09</i>
Other Stock Draws and Balance	-0.38	0.60	1.13	-0.84	-0.06	<i>0.93</i>	<i>0.18</i>	<i>-0.32</i>	<i>0.05</i>	<i>-0.05</i>	<i>-0.25</i>	<i>-0.56</i>	0.13	<i>0.18</i>	<i>-0.20</i>
Total Stock Draw	-0.14	0.47	0.73	-0.40	0.24	<i>0.94</i>	<i>0.00</i>	<i>-0.14</i>	<i>0.09</i>	<i>-0.48</i>	<i>-0.50</i>	<i>-0.52</i>	0.17	<i>0.26</i>	<i>-0.35</i>
End-of-period Commercial Crude Oil and Other Liquids Inventories (million barrels)															
U.S. Commercial Inventory	1,231	1,264	1,283	1,252	1,213	<i>1,240</i>	<i>1,251</i>	<i>1,221</i>	<i>1,220</i>	<i>1,257</i>	<i>1,269</i>	<i>1,243</i>	1,252	<i>1,221</i>	<i>1,243</i>
OECD Commercial Inventory	2,746	2,782	2,815	2,771	2,735	<i>2,725</i>	<i>2,729</i>	<i>2,712</i>	<i>2,709</i>	<i>2,747</i>	<i>2,770</i>	<i>2,766</i>	2,771	<i>2,712</i>	<i>2,766</i>

(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, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Türkiye, United Kingdom, and United States.

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

Notes: EIA completed modeling and analysis for this report on April 4, 2024.

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* (<https://www.eia.gov/international/data/world>).

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 - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
North America	28.91	29.29	30.16	30.80	29.76	<i>29.98</i>	<i>30.46</i>	<i>30.87</i>	<i>30.87</i>	<i>30.95</i>	<i>31.18</i>	<i>31.48</i>	29.80	<i>30.27</i>	<i>31.13</i>
Canada	5.79	5.44	5.79	6.10	6.07	<i>5.69</i>	<i>5.87</i>	<i>6.07</i>	<i>6.14</i>	<i>5.85</i>	<i>6.05</i>	<i>6.19</i>	5.78	<i>5.93</i>	<i>6.06</i>
Mexico	2.07	2.16	2.11	2.09	2.05	<i>2.02</i>	<i>2.00</i>	<i>1.97</i>	<i>1.97</i>	<i>1.94</i>	<i>1.92</i>	<i>1.90</i>	2.11	<i>2.01</i>	<i>1.93</i>
United States	21.05	21.69	22.27	22.60	21.64	<i>22.27</i>	<i>22.60</i>	<i>22.83</i>	<i>22.76</i>	<i>23.16</i>	<i>23.21</i>	<i>23.40</i>	21.91	<i>22.34</i>	<i>23.14</i>
Central and South America	6.31	6.99	7.62	7.40	7.14	<i>7.65</i>	<i>7.98</i>	<i>7.51</i>	<i>7.21</i>	<i>7.66</i>	<i>8.07</i>	<i>7.80</i>	7.09	<i>7.57</i>	<i>7.69</i>
Argentina	0.81	0.81	0.82	0.84	0.87	<i>0.87</i>	<i>0.89</i>	<i>0.91</i>	<i>0.90</i>	<i>0.91</i>	<i>0.93</i>	<i>0.95</i>	0.82	<i>0.89</i>	<i>0.92</i>
Brazil	3.55	4.19	4.82	4.49	4.02	<i>4.53</i>	<i>4.86</i>	<i>4.41</i>	<i>4.15</i>	<i>4.59</i>	<i>4.91</i>	<i>4.50</i>	4.27	<i>4.46</i>	<i>4.54</i>
Colombia	0.79	0.81	0.81	0.81	0.80	<i>0.80</i>	<i>0.79</i>	<i>0.78</i>	<i>0.78</i>	<i>0.77</i>	<i>0.76</i>	<i>0.75</i>	0.81	<i>0.79</i>	<i>0.76</i>
Ecuador	0.46	0.48	0.48	0.49	0.49	<i>0.50</i>	<i>0.49</i>	<i>0.46</i>	<i>0.44</i>	<i>0.44</i>	<i>0.44</i>	<i>0.44</i>	0.48	<i>0.48</i>	<i>0.44</i>
Guyana	0.35	0.37	0.36	0.44	0.63	<i>0.63</i>	<i>0.63</i>	<i>0.63</i>	<i>0.63</i>	<i>0.63</i>	<i>0.72</i>	<i>0.84</i>	0.38	<i>0.63</i>	<i>0.70</i>
Europe	4.01	3.95	3.84	3.94	4.04	<i>4.02</i>	<i>3.94</i>	<i>4.04</i>	<i>4.18</i>	<i>4.08</i>	<i>3.98</i>	<i>4.09</i>	3.94	<i>4.01</i>	<i>4.08</i>
Norway	2.03	2.03	1.98	2.06	2.07	<i>2.00</i>	<i>2.01</i>	<i>2.14</i>	<i>2.17</i>	<i>2.10</i>	<i>2.09</i>	<i>2.18</i>	2.02	<i>2.06</i>	<i>2.14</i>
United Kingdom	0.87	0.80	0.75	0.76	0.86	<i>0.90</i>	<i>0.79</i>	<i>0.75</i>	<i>0.87</i>	<i>0.85</i>	<i>0.76</i>	<i>0.77</i>	0.79	<i>0.82</i>	<i>0.81</i>
Eurasia	14.11	13.65	13.42	13.70	13.66	<i>13.30</i>	<i>13.21</i>	<i>13.40</i>	<i>13.58</i>	<i>13.72</i>	<i>13.73</i>	<i>13.91</i>	13.72	<i>13.39</i>	<i>13.74</i>
Azerbaijan	0.65	0.62	0.62	0.61	0.60	<i>0.60</i>	<i>0.60</i>	<i>0.61</i>	<i>0.62</i>	<i>0.64</i>	<i>0.66</i>	<i>0.65</i>	0.62	<i>0.60</i>	<i>0.64</i>
Kazakhstan	2.02	1.97	1.85	1.99	1.99	<i>1.95</i>	<i>1.94</i>	<i>2.00</i>	<i>2.06</i>	<i>2.09</i>	<i>1.99</i>	<i>2.16</i>	1.96	<i>1.97</i>	<i>2.08</i>
Russia	11.06	10.68	10.58	10.70	10.67	<i>10.36</i>	<i>10.27</i>	<i>10.39</i>	<i>10.50</i>	<i>10.60</i>	<i>10.70</i>	<i>10.70</i>	10.75	<i>10.42</i>	<i>10.63</i>
Turkmenistan	0.27	0.27	0.27	0.27	0.27	<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>	0.27	<i>0.27</i>	<i>0.27</i>
Middle East	3.22	3.26	3.23	3.21	3.14	<i>3.13</i>	<i>3.20</i>	<i>3.20</i>	<i>3.23</i>	<i>3.25</i>	<i>3.31</i>	<i>3.35</i>	3.23	<i>3.17</i>	<i>3.28</i>
Oman	1.07	1.06	1.05	1.05	1.01	<i>1.00</i>	<i>1.04</i>	<i>1.04</i>	<i>1.07</i>	<i>1.07</i>	<i>1.07</i>	<i>1.07</i>	1.06	<i>1.02</i>	<i>1.07</i>
Qatar	1.86	1.86	1.86	1.86	1.86	<i>1.86</i>	<i>1.86</i>	<i>1.86</i>	<i>1.86</i>	<i>1.88</i>	<i>1.93</i>	<i>1.97</i>	1.86	<i>1.86</i>	<i>1.91</i>
Asia and Oceania	9.21	9.24	9.12	9.26	9.41	<i>9.39</i>	<i>9.38</i>	<i>9.41</i>	<i>9.43</i>	<i>9.45</i>	<i>9.45</i>	<i>9.49</i>	9.21	<i>9.40</i>	<i>9.46</i>
Australia	0.41	0.41	0.40	0.41	0.41	<i>0.40</i>	<i>0.40</i>	<i>0.39</i>	<i>0.38</i>	<i>0.38</i>	<i>0.38</i>	<i>0.38</i>	0.41	<i>0.40</i>	<i>0.38</i>
China	5.32	5.32	5.19	5.23	5.32	<i>5.32</i>	<i>5.31</i>	<i>5.35</i>	<i>5.32</i>	<i>5.35</i>	<i>5.34</i>	<i>5.38</i>	5.26	<i>5.33</i>	<i>5.35</i>
India	0.85	0.88	0.92	0.94	0.97	<i>0.97</i>	<i>0.96</i>	<i>0.96</i>	<i>0.99</i>	<i>0.99</i>	<i>0.98</i>	<i>0.98</i>	0.90	<i>0.96</i>	<i>0.99</i>
Indonesia	0.82	0.88	0.87	0.87	0.88	<i>0.88</i>	<i>0.88</i>	<i>0.87</i>	<i>0.89</i>	<i>0.88</i>	<i>0.88</i>	<i>0.88</i>	0.86	<i>0.88</i>	<i>0.88</i>
Malaysia	0.61	0.58	0.58	0.61	0.59	<i>0.59</i>	<i>0.58</i>	<i>0.58</i>	<i>0.58</i>	<i>0.58</i>	<i>0.59</i>	<i>0.59</i>	0.60	<i>0.58</i>	<i>0.59</i>
Africa	2.55	2.64	2.67	2.71	2.63	<i>2.56</i>	<i>2.66</i>	<i>2.69</i>	<i>2.67</i>	<i>2.67</i>	<i>2.66</i>	<i>2.64</i>	2.64	<i>2.63</i>	<i>2.66</i>
Angola	1.17	1.23	1.23	1.24	1.20	<i>1.14</i>	<i>1.12</i>	<i>1.10</i>	<i>1.08</i>	<i>1.07</i>	<i>1.06</i>	<i>1.04</i>	1.22	<i>1.14</i>	<i>1.07</i>
Egypt	0.66	0.67	0.67	0.66	0.65	<i>0.64</i>	<i>0.64</i>	<i>0.64</i>	<i>0.62</i>	<i>0.62</i>	<i>0.62</i>	<i>0.62</i>	0.67	<i>0.65</i>	<i>0.62</i>
South Sudan	0.13	0.13	0.16	0.17	0.11	<i>0.08</i>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	<i>0.15</i>	<i>0.14</i>	<i>0.14</i>	0.15	<i>0.12</i>	<i>0.14</i>
Total non-OPEC liquids	68.33	69.02	70.06	71.02	69.77	<i>70.02</i>	<i>70.82</i>	<i>71.12</i>	<i>71.17</i>	<i>71.79</i>	<i>72.39</i>	<i>72.76</i>	69.62	<i>70.44</i>	<i>72.03</i>
OPEC non-crude liquids	5.40	5.22	5.26	5.30	5.40	<i>5.27</i>	<i>5.30</i>	<i>5.33</i>	<i>5.28</i>	<i>5.28</i>	<i>5.28</i>	<i>5.28</i>	5.29	<i>5.32</i>	<i>5.28</i>
Non-OPEC + OPEC non-crude	73.73	74.24	75.32	76.32	75.16	<i>75.29</i>	<i>76.12</i>	<i>76.45</i>	<i>76.45</i>	<i>77.08</i>	<i>77.67</i>	<i>78.04</i>	74.91	<i>75.76</i>	<i>77.32</i>
Unplanned non-OPEC Production Outages	0.56	1.02	0.92	0.87	1.07	-	-	-	-	-	-	-	0.84	-	-

- = no data available

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

Notes: EIA completed modeling and analysis for this report on April 4, 2024.

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* (<https://www.eia.gov/international/data/world>).

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 - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Crude Oil															
Algeria	1.01	0.98	0.95	0.96	0.91	-	-	-	-	-	-	-	0.97	-	-
Congo (Brazzaville)	0.27	0.25	0.26	0.26	0.25	-	-	-	-	-	-	-	0.26	-	-
Equatorial Guinea	0.06	0.06	0.06	0.05	0.06	-	-	-	-	-	-	-	0.06	-	-
Gabon	0.20	0.21	0.20	0.21	0.21	-	-	-	-	-	-	-	0.20	-	-
Iran	2.60	2.74	2.97	3.18	3.23	-	-	-	-	-	-	-	2.87	-	-
Iraq	4.41	4.19	4.33	4.33	4.29	-	-	-	-	-	-	-	4.32	-	-
Kuwait	2.68	2.59	2.56	2.53	2.47	-	-	-	-	-	-	-	2.59	-	-
Libya	1.14	1.15	1.15	1.17	1.11	-	-	-	-	-	-	-	1.15	-	-
Nigeria	1.24	1.19	1.21	1.31	1.28	-	-	-	-	-	-	-	1.24	-	-
Saudi Arabia	10.02	10.18	9.02	8.93	9.13	-	-	-	-	-	-	-	9.53	-	-
United Arab Emirates	3.06	2.94	2.91	2.90	2.92	-	-	-	-	-	-	-	2.95	-	-
Venezuela	0.70	0.75	0.76	0.75	0.79	-	-	-	-	-	-	-	0.74	-	-
OPEC Total	27.38	27.23	26.37	26.58	26.66	<i>26.50</i>	<i>27.27</i>	<i>27.13</i>	<i>27.20</i>	<i>27.37</i>	<i>27.45</i>	<i>27.17</i>	26.89	<i>26.89</i>	<i>27.30</i>
Other Liquids (a)	5.40	5.22	5.26	5.30	5.40	<i>5.27</i>	<i>5.30</i>	<i>5.33</i>	<i>5.28</i>	<i>5.28</i>	<i>5.28</i>	<i>5.28</i>	5.29	<i>5.32</i>	<i>5.28</i>
Total OPEC Production	32.77	32.46	31.63	31.88	32.05	<i>31.77</i>	<i>32.56</i>	<i>32.46</i>	<i>32.48</i>	<i>32.65</i>	<i>32.73</i>	<i>32.45</i>	32.18	<i>32.21</i>	<i>32.58</i>
OPEC+ Crude Oil Production	38.20	37.50	36.25	36.34	36.10	<i>35.62</i>	<i>36.42</i>	<i>36.40</i>	<i>36.65</i>	<i>36.96</i>	<i>37.05</i>	<i>36.91</i>	37.07	<i>36.14</i>	<i>36.89</i>
Crude Oil Production Capacity															
Middle East	25.88	25.67	25.90	26.11	26.26	26.23	26.30	26.60	26.85	26.85	26.85	26.85	25.89	26.35	26.85
Other	4.63	4.64	4.67	4.78	4.72	4.71	4.70	4.72	4.68	4.67	4.66	4.66	4.68	4.72	4.67
OPEC Total	30.50	30.31	30.56	30.89	30.98	<i>30.95</i>	<i>31.01</i>	<i>31.33</i>	<i>31.53</i>	<i>31.52</i>	<i>31.51</i>	<i>31.51</i>	30.57	<i>31.07</i>	<i>31.52</i>
Surplus Crude Oil Production Capacity															
Middle East	3.10	3.02	4.11	4.23	4.22	4.33	3.68	4.13	4.27	4.08	4.00	4.27	3.62	4.09	4.15
Other	0.02	0.05	0.08	0.07	0.11	0.11	0.06	0.06	0.06	0.06	0.07	0.07	0.06	0.08	0.07
OPEC Total	3.13	3.07	4.19	4.31	4.33	<i>4.45</i>	<i>3.74</i>	<i>4.19</i>	<i>4.33</i>	<i>4.15</i>	<i>4.07</i>	<i>4.34</i>	3.68	<i>4.18</i>	<i>4.22</i>
Unplanned OPEC Production Outages	1.94	2.13	1.95	1.52	1.52	-	-	-	-	-	-	-	1.88	-	-

(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 United Arab Emirates (Middle East); Algeria, Congo (Brazzaville), Equatorial Guinea, Gabon, Libya, Nigeria, and Venezuela (Other).

OPEC+ = OPEC (excluding Iran, Libya, and Venezuela) plus Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, South Sudan, and Sudan.

Notes: EIA completed modeling and analysis for this report on April 4, 2024.

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* (<https://www.eia.gov/international/data/world>).

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 - April 2024

	2023				2024				2025				2023	2024	2025
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
North America	23.83	24.70	24.87	24.80	24.08	<i>24.88</i>	<i>25.05</i>	<i>24.93</i>	<i>24.56</i>	<i>24.86</i>	<i>25.03</i>	<i>24.94</i>	24.55	<i>24.74</i>	<i>24.85</i>
Canada	2.33	2.47	2.63	2.37	2.38	<i>2.33</i>	<i>2.43</i>	<i>2.40</i>	<i>2.34</i>	<i>2.29</i>	<i>2.39</i>	<i>2.37</i>	2.45	<i>2.39</i>	<i>2.35</i>
Mexico	1.83	1.84	1.86	1.85	1.87	<i>1.90</i>	<i>1.90</i>	<i>1.91</i>	<i>1.91</i>	<i>1.94</i>	<i>1.94</i>	<i>1.95</i>	1.85	<i>1.89</i>	<i>1.93</i>
United States	19.66	20.38	20.37	20.56	19.82	<i>20.65</i>	<i>20.72</i>	<i>20.60</i>	<i>20.30</i>	<i>20.63</i>	<i>20.69</i>	<i>20.61</i>	20.25	<i>20.45</i>	<i>20.56</i>
Central and South America	6.60	6.73	6.84	6.77	6.55	<i>6.69</i>	<i>6.80</i>	<i>6.73</i>	<i>6.67</i>	<i>6.82</i>	<i>6.93</i>	<i>6.86</i>	6.74	<i>6.69</i>	<i>6.82</i>
Brazil	3.05	3.11	3.19	3.17	3.06	<i>3.12</i>	<i>3.20</i>	<i>3.18</i>	<i>3.12</i>	<i>3.18</i>	<i>3.26</i>	<i>3.25</i>	3.13	<i>3.14</i>	<i>3.20</i>
Europe	13.84	14.31	14.41	14.10	13.93	<i>14.10</i>	<i>14.51</i>	<i>14.28</i>	<i>13.92</i>	<i>14.10</i>	<i>14.51</i>	<i>14.28</i>	14.17	<i>14.20</i>	<i>14.20</i>
Eurasia	4.66	4.82	5.16	5.06	4.60	<i>4.76</i>	<i>5.11</i>	<i>5.00</i>	<i>4.63</i>	<i>4.79</i>	<i>5.14</i>	<i>5.04</i>	4.93	<i>4.87</i>	<i>4.90</i>
Russia	3.54	3.64	3.95	3.80	3.55	<i>3.64</i>	<i>3.96</i>	<i>3.80</i>	<i>3.55</i>	<i>3.65</i>	<i>3.97</i>	<i>3.81</i>	3.73	<i>3.74</i>	<i>3.75</i>
Middle East	9.28	9.39	9.98	9.39	9.54	<i>9.53</i>	<i>10.06</i>	<i>9.48</i>	<i>9.76</i>	<i>9.77</i>	<i>10.32</i>	<i>9.70</i>	9.51	<i>9.65</i>	<i>9.89</i>
Asia and Oceania	38.20	37.42	36.66	37.73	38.72	<i>38.10</i>	<i>37.28</i>	<i>38.28</i>	<i>39.44</i>	<i>38.85</i>	<i>37.99</i>	<i>39.01</i>	37.50	<i>38.09</i>	<i>38.82</i>
China	16.02	16.21	15.90	16.11	16.29	<i>16.48</i>	<i>16.16</i>	<i>16.37</i>	<i>16.56</i>	<i>16.76</i>	<i>16.43</i>	<i>16.65</i>	16.06	<i>16.32</i>	<i>16.60</i>
Japan	3.73	3.10	3.10	3.44	3.59	<i>2.98</i>	<i>3.08</i>	<i>3.41</i>	<i>3.54</i>	<i>2.94</i>	<i>3.04</i>	<i>3.36</i>	3.34	<i>3.27</i>	<i>3.22</i>
India	5.38	5.35	5.05	5.47	5.64	<i>5.71</i>	<i>5.33</i>	<i>5.67</i>	<i>5.94</i>	<i>6.01</i>	<i>5.61</i>	<i>5.97</i>	5.31	<i>5.59</i>	<i>5.88</i>
Africa	4.56	4.58	4.49	4.66	4.65	<i>4.67</i>	<i>4.58</i>	<i>4.75</i>	<i>4.76</i>	<i>4.78</i>	<i>4.69</i>	<i>4.86</i>	4.57	<i>4.66</i>	<i>4.77</i>
Total OECD Liquid Fuels Consumption	45.22	45.68	46.04	46.08	45.43	<i>45.60</i>	<i>46.30</i>	<i>46.39</i>	<i>45.88</i>	<i>45.56</i>	<i>46.26</i>	<i>46.37</i>	45.76	<i>45.93</i>	<i>46.02</i>
Total non-OECD Liquid Fuels Consumption	55.75	56.27	56.37	56.42	56.63	<i>57.13</i>	<i>57.09</i>	<i>57.06</i>	<i>57.87</i>	<i>58.41</i>	<i>58.36</i>	<i>58.32</i>	56.21	<i>56.98</i>	<i>58.24</i>
Total World Liquid Fuels Consumption	100.97	101.95	102.42	102.50	102.06	<i>102.73</i>	<i>103.39</i>	<i>103.45</i>	<i>103.74</i>	<i>103.97</i>	<i>104.62</i>	<i>104.70</i>	101.96	<i>102.91</i>	<i>104.26</i>
Real Gross Domestic Product (a)															
World Index, 2015 Q1 = 100	125.8	127.0	127.8	128.8	129.4	<i>130.4</i>	<i>131.4</i>	<i>132.6</i>	<i>133.6</i>	<i>134.7</i>	<i>135.8</i>	<i>136.9</i>	127.3	<i>131.0</i>	<i>135.3</i>
Percent change from prior year	2.8	3.6	3.1	3.2	2.9	<i>2.7</i>	<i>2.9</i>	<i>3.0</i>	<i>3.2</i>	<i>3.3</i>	<i>3.3</i>	<i>3.3</i>	3.2	<i>2.9</i>	<i>3.3</i>
OECD Index, 2015 = 100	115.9	117.6	119.8										115.9	<i>117.6</i>	<i>119.8</i>
Percent change from prior year	1.7	1.5	1.9										1.7	<i>1.5</i>	<i>1.9</i>
Non-OECD Index, 2015 = 100	134.9	140.2	146.3										134.9	<i>140.2</i>	<i>146.3</i>
Percent change from prior year	4.4	4.0	4.4										4.4	<i>4.0</i>	<i>4.4</i>
Nominal U.S. Dollar Index (b)															
Index, 2015 Q1 = 100	114.1	113.4	114.0	115.6	114.8	<i>115.5</i>	<i>115.4</i>	<i>115.1</i>	<i>114.8</i>	<i>114.3</i>	<i>113.5</i>	<i>112.9</i>	114.3	<i>115.2</i>	<i>113.9</i>
Percent change from prior year	4.2	0.5	-2.7	-2.4	0.6	<i>1.8</i>	<i>1.3</i>	<i>-0.4</i>	<i>0.0</i>	<i>-1.0</i>	<i>-1.6</i>	<i>-1.9</i>	-0.2	<i>0.8</i>	<i>-1.2</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, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Türkiye, United Kingdom, and United States.

Notes: EIA completed modeling and analysis for this report on April 4, 2024.

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

Historical data: Energy Information Administration *International Energy Statistics* (<https://www.eia.gov/international/data/world>) and Oxford Economics.

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 - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Supply (million barrels per day)															
Crude Oil Supply															
Domestic Production (a)	12.63	12.75	13.07	13.27	12.84	<i>13.13</i>	<i>13.32</i>	<i>13.54</i>	<i>13.56</i>	<i>13.72</i>	<i>13.74</i>	<i>13.86</i>	12.93	<i>13.21</i>	<i>13.72</i>
Alaska	0.44	0.43	0.40	0.43	0.43	<i>0.41</i>	<i>0.39</i>	<i>0.42</i>	<i>0.42</i>	<i>0.40</i>	<i>0.38</i>	<i>0.41</i>	0.43	<i>0.41</i>	<i>0.40</i>
Federal Gulf of Mexico (b)	1.87	1.77	1.94	1.88	1.75	<i>1.83</i>	<i>1.86</i>	<i>1.90</i>	<i>1.98</i>	<i>1.99</i>	<i>1.94</i>	<i>1.97</i>	1.86	<i>1.84</i>	<i>1.97</i>
Lower 48 States (excl GOM)	10.31	10.55	10.73	10.97	10.66	<i>10.88</i>	<i>11.08</i>	<i>11.22</i>	<i>11.17</i>	<i>11.33</i>	<i>11.43</i>	<i>11.48</i>	10.64	<i>10.96</i>	<i>11.35</i>
Transfers to Crude Oil Supply	0.39	0.51	0.70	0.58	0.49	<i>0.52</i>	<i>0.55</i>	<i>0.52</i>	<i>0.50</i>	<i>0.54</i>	<i>0.57</i>	<i>0.54</i>	0.55	<i>0.52</i>	<i>0.54</i>
Crude Oil Net Imports (c)	2.27	2.51	2.61	2.29	2.28	<i>2.57</i>	<i>2.15</i>	<i>1.51</i>	<i>1.26</i>	<i>1.49</i>	<i>1.32</i>	<i>0.99</i>	2.42	<i>2.12</i>	<i>1.27</i>
SPR Net Withdrawals	0.01	0.26	-0.04	-0.04	-0.10	<i>-0.10</i>	<i>-0.14</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	0.05	<i>-0.08</i>	<i>0.00</i>
Commercial Inventory Net Withdrawals	-0.39	0.12	0.41	-0.10	-0.29	<i>0.16</i>	<i>0.18</i>	<i>-0.07</i>	<i>-0.32</i>	<i>0.09</i>	<i>0.16</i>	<i>-0.08</i>	0.01	<i>0.00</i>	<i>-0.04</i>
Crude Oil Adjustment (d)	0.34	0.00	-0.22	-0.07	0.10	<i>0.21</i>	<i>0.18</i>	<i>0.21</i>	<i>0.23</i>	<i>0.19</i>	<i>0.16</i>	<i>0.20</i>	0.06	<i>0.18</i>	<i>0.20</i>
Total Crude Oil Input to Refineries	15.25	16.15	16.51	15.93	15.32	<i>16.48</i>	<i>16.25</i>	<i>15.71</i>	<i>15.23</i>	<i>16.04</i>	<i>15.96</i>	<i>15.50</i>	15.91	<i>15.94</i>	<i>15.68</i>
Other Supply															
Refinery Processing Gain	0.97	1.01	1.07	1.05	0.95	<i>1.05</i>	<i>1.05</i>	<i>1.04</i>	<i>0.97</i>	<i>1.02</i>	<i>1.05</i>	<i>1.04</i>	1.03	<i>1.02</i>	<i>1.02</i>
Natural Gas Plant Liquids Production	6.01	6.42	6.58	6.70	6.30	<i>6.54</i>	<i>6.66</i>	<i>6.66</i>	<i>6.63</i>	<i>6.76</i>	<i>6.76</i>	<i>6.82</i>	6.43	<i>6.54</i>	<i>6.74</i>
Renewables and Oxygenate Production (e)	1.24	1.29	1.31	1.35	1.33	<i>1.34</i>	<i>1.35</i>	<i>1.38</i>	<i>1.40</i>	<i>1.45</i>	<i>1.45</i>	<i>1.47</i>	1.30	<i>1.35</i>	<i>1.44</i>
Fuel Ethanol Production	1.00	1.00	1.02	1.05	1.04	<i>1.02</i>	<i>1.02</i>	<i>1.03</i>	<i>1.03</i>	<i>1.03</i>	<i>1.02</i>	<i>1.04</i>	1.02	<i>1.03</i>	<i>1.03</i>
Petroleum Products Adjustment (f)	0.20	0.22	0.23	0.23	0.21	<i>0.22</i>	<i>0.21</i>	<i>0.22</i>	<i>0.20</i>	<i>0.21</i>	<i>0.21</i>	<i>0.21</i>	0.22	<i>0.21</i>	<i>0.21</i>
Petroleum Products Transfers to Crude Oil Supply	-0.39	-0.51	-0.70	-0.58	-0.49	<i>-0.52</i>	<i>-0.55</i>	<i>-0.52</i>	<i>-0.50</i>	<i>-0.54</i>	<i>-0.57</i>	<i>-0.54</i>	-0.55	<i>-0.52</i>	<i>-0.54</i>
Product Net Imports (c)	-3.91	-3.71	-4.03	-4.56	-4.52	<i>-4.00</i>	<i>-3.95</i>	<i>-4.28</i>	<i>-3.97</i>	<i>-3.82</i>	<i>-3.87</i>	<i>-4.27</i>	-4.06	<i>-4.19</i>	<i>-3.98</i>
Hydrocarbon Gas Liquids	-2.47	-2.39	-2.42	-2.58	-2.62	<i>-2.55</i>	<i>-2.52</i>	<i>-2.50</i>	<i>-2.66</i>	<i>-2.68</i>	<i>-2.60</i>	<i>-2.62</i>	-2.46	<i>-2.55</i>	<i>-2.64</i>
Unfinished Oils	0.28	0.27	0.22	0.18	0.28	<i>0.40</i>	<i>0.41</i>	<i>0.32</i>	<i>0.29</i>	<i>0.38</i>	<i>0.41</i>	<i>0.32</i>	0.24	<i>0.35</i>	<i>0.35</i>
Other HC/Oxygenates	-0.05	-0.07	-0.04	-0.05	-0.06	<i>-0.05</i>	<i>-0.04</i>	<i>-0.05</i>	<i>-0.09</i>	<i>-0.08</i>	<i>-0.07</i>	<i>-0.08</i>	-0.05	<i>-0.05</i>	<i>-0.08</i>
Motor Gasoline Blend Comp.	0.45	0.67	0.57	0.41	0.32	<i>0.56</i>	<i>0.63</i>	<i>0.46</i>	<i>0.53</i>	<i>0.68</i>	<i>0.59</i>	<i>0.36</i>	0.52	<i>0.49</i>	<i>0.54</i>
Finished Motor Gasoline	-0.75	-0.58	-0.67	-0.81	-0.79	<i>-0.62</i>	<i>-0.67</i>	<i>-0.89</i>	<i>-0.70</i>	<i>-0.53</i>	<i>-0.55</i>	<i>-0.73</i>	-0.70	<i>-0.74</i>	<i>-0.63</i>
Jet Fuel	-0.05	0.01	-0.05	-0.09	-0.09	<i>-0.02</i>	<i>0.00</i>	<i>-0.01</i>	<i>-0.03</i>	<i>0.05</i>	<i>0.07</i>	<i>0.05</i>	-0.05	<i>-0.03</i>	<i>0.03</i>
Distillate Fuel Oil	-0.76	-0.97	-1.01	-1.01	-0.87	<i>-0.96</i>	<i>-1.02</i>	<i>-0.93</i>	<i>-0.64</i>	<i>-0.91</i>	<i>-0.94</i>	<i>-0.86</i>	-0.94	<i>-0.95</i>	<i>-0.84</i>
Residual Fuel Oil	0.01	-0.04	-0.03	0.00	-0.03	<i>-0.11</i>	<i>-0.12</i>	<i>-0.04</i>	<i>-0.06</i>	<i>-0.06</i>	<i>-0.11</i>	<i>-0.03</i>	-0.01	<i>-0.07</i>	<i>-0.07</i>
Other Oils (g)	-0.58	-0.61	-0.59	-0.61	-0.65	<i>-0.66</i>	<i>-0.62</i>	<i>-0.63</i>	<i>-0.61</i>	<i>-0.67</i>	<i>-0.65</i>	<i>-0.69</i>	-0.60	<i>-0.64</i>	<i>-0.66</i>
Product Inventory Net Withdrawals	0.30	-0.49	-0.61	0.44	0.71	<i>-0.45</i>	<i>-0.30</i>	<i>0.39</i>	<i>0.34</i>	<i>-0.49</i>	<i>-0.29</i>	<i>0.37</i>	-0.09	<i>0.09</i>	<i>-0.02</i>
Total Supply	19.67	20.38	20.37	20.56	19.82	<i>20.65</i>	<i>20.72</i>	<i>20.60</i>	<i>20.30</i>	<i>20.63</i>	<i>20.69</i>	<i>20.61</i>	20.25	<i>20.45</i>	<i>20.56</i>
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	3.40	3.36	3.25	3.81	3.75	<i>3.39</i>	<i>3.46</i>	<i>3.83</i>	<i>3.83</i>	<i>3.44</i>	<i>3.48</i>	<i>3.87</i>	3.46	<i>3.61</i>	<i>3.65</i>
Other HC/Oxygenates	0.22	0.28	0.28	0.28	0.28	<i>0.30</i>	<i>0.30</i>	<i>0.33</i>	<i>0.34</i>	<i>0.37</i>	<i>0.37</i>	<i>0.40</i>	0.27	<i>0.30</i>	<i>0.37</i>
Unfinished Oils	0.00	0.00	0.00	0.00	0.00	<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>	0.00	<i>0.00</i>	<i>0.00</i>
Motor Gasoline	8.67	9.13	9.05	8.93	8.62	<i>9.17</i>	<i>9.14</i>	<i>8.80</i>	<i>8.65</i>	<i>9.12</i>	<i>9.07</i>	<i>8.72</i>	8.94	<i>8.94</i>	<i>8.89</i>
Fuel Ethanol blended into Motor Gasoline	0.90	0.94	0.94	0.94	0.89	<i>0.95</i>	<i>0.95</i>	<i>0.94</i>	<i>0.90</i>	<i>0.95</i>	<i>0.95</i>	<i>0.94</i>	0.93	<i>0.93</i>	<i>0.93</i>
Jet Fuel	1.55	1.67	1.72	1.66	1.57	<i>1.72</i>	<i>1.73</i>	<i>1.68</i>	<i>1.63</i>	<i>1.75</i>	<i>1.77</i>	<i>1.73</i>	1.65	<i>1.67</i>	<i>1.72</i>
Distillate Fuel Oil	4.01	3.93	3.90	3.90	3.84	<i>4.00</i>	<i>3.91</i>	<i>4.00</i>	<i>4.08</i>	<i>3.94</i>	<i>3.89</i>	<i>3.98</i>	3.93	<i>3.94</i>	<i>3.97</i>
Residual Fuel Oil	0.29	0.22	0.27	0.31	0.29	<i>0.26</i>	<i>0.22</i>	<i>0.24</i>	<i>0.23</i>	<i>0.23</i>	<i>0.21</i>	<i>0.24</i>	0.27	<i>0.25</i>	<i>0.23</i>
Other Oils (g)	1.53	1.79	1.89	1.67	1.48	<i>1.82</i>	<i>1.95</i>	<i>1.71</i>	<i>1.55</i>	<i>1.77</i>	<i>1.90</i>	<i>1.66</i>	1.72	<i>1.74</i>	<i>1.72</i>
Total Consumption	19.66	20.38	20.37	20.56	19.82	<i>20.65</i>	<i>20.72</i>	<i>20.60</i>	<i>20.30</i>	<i>20.63</i>	<i>20.69</i>	<i>20.61</i>	20.25	<i>20.45</i>	<i>20.56</i>
Total Petroleum and Other Liquids Net Imports	-1.64	-1.20	-1.42	-2.28	-2.24	<i>-1.44</i>	<i>-1.81</i>	<i>-2.77</i>	<i>-2.71</i>	<i>-2.33</i>	<i>-2.55</i>	<i>-3.28</i>	-1.64	<i>-2.06</i>	<i>-2.72</i>
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	465.4	454.7	417.5	426.4	452.4	<i>437.9</i>	<i>421.6</i>	<i>427.9</i>	<i>456.9</i>	<i>448.7</i>	<i>434.3</i>	<i>441.6</i>	426.4	<i>427.9</i>	<i>441.6</i>
Hydrocarbon Gas Liquids	174.3	225.4	279.1	223.3	165.1	<i>214.2</i>	<i>255.0</i>	<i>211.7</i>	<i>174.3</i>	<i>227.6</i>	<i>268.4</i>	<i>227.3</i>	223.3	<i>211.7</i>	<i>227.3</i>
Unfinished Oils	88.6	87.0	88.3	84.1	90.1	<i>87.8</i>	<i>86.8</i>	<i>79.6</i>	<i>88.6</i>	<i>86.7</i>	<i>86.6</i>	<i>80.7</i>	84.1	<i>79.6</i>	<i>80.7</i>
Other HC/Oxygenates	34.3	30.1	30.3	33.2	37.9	<i>36.7</i>	<i>36.4</i>	<i>36.7</i>	<i>38.8</i>	<i>37.5</i>	<i>37.2</i>	<i>37.5</i>	33.2	<i>36.7</i>	<i>37.5</i>
Total Motor Gasoline	225.3	223.2	227.6	241.3	226.9	<i>220.0</i>	<i>215.9</i>	<i>230.5</i>	<i>229.1</i>	<i>225.0</i>	<i>216.9</i>	<i>229.1</i>	241.3	<i>230.5</i>	<i>229.1</i>
Finished Motor Gasoline	14.7	17.6	15.3	18.1	13.0	<i>18.4</i>	<i>17.4</i>	<i>19.5</i>	<i>16.0</i>	<i>18.3</i>	<i>17.8</i>	<i>20.1</i>	18.1	<i>19.5</i>	<i>20.1</i>
Motor Gasoline Blend Comp.	210.6	205.6	212.3	223.2	211.8	<i>201.6</i>	<i>198.5</i>	<i>211.0</i>	<i>213.1</i>	<i>206.7</i>	<i>199.1</i>	<i>208.9</i>	223.2	<i>211.0</i>	<i>208.9</i>
Jet Fuel	37.7	42.7	43.5	39.8	40.7	<i>41.2</i>	<i>42.3</i>	<i>39.2</i>	<i>37.5</i>	<i>37.9</i>	<i>39.2</i>	<i>35.2</i>	39.8	<i>39.2</i>	<i>35.2</i>
Distillate Fuel Oil	112.3	112.6	119.2	130.7	115.6	<i>117.5</i>	<i>119.6</i>	<i>121.3</i>	<i>109.8</i>	<i>110.4</i>	<i>114.7</i>	<i>118.1</i>	130.7	<i>121.3</i>	<i>118.1</i>
Residual Fuel Oil	29.6	30.4	27.5	24.1	29.8	<i>29.7</i>	<i>27.4</i>	<i>26.8</i>	<i>28.1</i>	<i>27.8</i>	<i>25.8</i>	<i>25.3</i>	24.1	<i>26.8</i>	<i>25.3</i>
Other Oils (g)	63.3	58.3	50.5	49.3	57.0	<i>55.1</i>	<i>46.1</i>	<i>47.8</i>	<i>57.1</i>	<i>55.2</i>	<i>46.1</i>	<i>47.7</i>	49.3	<i>47.8</i>	<i>47.7</i>
Total Commercial Inventory	1230.8	1264.4	1283.4	1252.2	1213.4	<i>1240.1</i>	<i>1251.3</i>	<i>1221.4</i>	<i>1220.2</i>	<i>1256.8</i>	<i>1269.2</i>	<i>1242.6</i>	1252.2	<i>1221.4</i>	<i>1242.6</i>

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 - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
HGL Production															
Natural Gas Processing Plants															
Ethane	2.49	2.65	2.63	2.71	2.58	2.75	2.76	2.75	2.74	2.79	2.74	2.83	2.62	2.71	2.77
Propane	1.89	2.00	2.05	2.10	1.97	1.99	2.04	2.08	2.09	2.10	2.10	2.11	2.01	2.02	2.10
Butanes	0.99	1.06	1.09	1.10	1.04	1.06	1.08	1.10	1.10	1.11	1.12	1.14	1.06	1.07	1.12
Natural Gasoline (Pentanes Plus)	0.64	0.73	0.81	0.79	0.71	0.74	0.78	0.74	0.71	0.76	0.79	0.75	0.74	0.74	0.75
Refinery and Blender Net Production															
Ethane/Ethylene	0.01	0.00	0.01	0.02	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01
Propane	0.27	0.29	0.28	0.27	0.27	0.28	0.28	0.27	0.28	0.30	0.29	0.28	0.28	0.28	0.29
Propylene (refinery-grade)	0.24	0.26	0.25	0.26	0.27	0.29	0.27	0.28	0.27	0.28	0.27	0.27	0.25	0.28	0.28
Butanes/Butylenes	-0.05	0.28	0.21	-0.19	-0.07	0.26	0.20	-0.19	-0.08	0.27	0.20	-0.19	0.07	0.05	0.05
Renewable Fuels and Oxygenate Plant Net Production															
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
HGL Net Imports															
Ethane	-0.50	-0.49	-0.50	-0.40	-0.50	-0.51	-0.50	-0.50	-0.50	-0.51	-0.51	-0.55	-0.47	-0.50	-0.52
Propane/Propylene	-1.40	-1.40	-1.45	-1.65	-1.57	-1.43	-1.42	-1.48	-1.54	-1.53	-1.47	-1.50	-1.47	-1.47	-1.51
Butanes/Butylenes	-0.42	-0.41	-0.42	-0.41	-0.40	-0.45	-0.45	-0.35	-0.43	-0.48	-0.48	-0.40	-0.42	-0.41	-0.45
Natural Gasoline (Pentanes Plus)	-0.15	-0.09	-0.06	-0.11	-0.16	-0.15	-0.15	-0.17	-0.19	-0.15	-0.14	-0.16	-0.10	-0.16	-0.16
HGL Refinery and Blender Net Inputs															
Butanes/Butylenes	0.48	0.29	0.35	0.57	0.46	0.30	0.35	0.55	0.46	0.29	0.34	0.54	0.42	0.42	0.41
Natural Gasoline (Pentanes Plus)	0.18	0.20	0.21	0.21	0.17	0.17	0.18	0.18	0.16	0.17	0.18	0.17	0.20	0.18	0.17
HGL Consumption															
Ethane/Ethylene	1.99	2.19	2.07	2.25	2.19	2.23	2.25	2.26	2.24	2.25	2.26	2.27	2.13	2.23	2.25
Propane	0.98	0.62	0.62	0.95	1.04	0.62	0.66	0.99	1.08	0.64	0.69	1.01	0.79	0.83	0.86
Propylene (refinery-grade)	0.25	0.27	0.27	0.28	0.28	0.30	0.29	0.29	0.30	0.30	0.29	0.29	0.27	0.29	0.29
Butanes/Butylenes	0.18	0.28	0.29	0.34	0.24	0.23	0.26	0.29	0.22	0.25	0.25	0.29	0.27	0.26	0.25
Natural Gasoline (Pentanes Plus)	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
HGL Inventories (million barrels)															
Ethane	53.0	54.2	52.4	68.0	57.1	57.1	58.7	58.9	58.1	61.9	60.4	61.9	56.9	58.0	60.6
Propane	55.8	79.2	102.2	79.8	45.1	63.3	83.8	71.5	46.7	65.3	85.7	73.6	79.8	71.5	73.6
Propylene (at refineries only)	1.1	1.1	1.2	0.9	1.0	1.4	1.7	1.6	1.4	1.6	1.8	1.6	0.9	1.6	1.6
Butanes/Butylenes	40.2	70.1	90.2	50.1	37.4	66.3	84.3	55.4	45.6	75.8	97.1	68.3	50.1	55.4	68.3
Natural Gasoline (Pentanes Plus)	22.9	23.4	27.4	26.8	25.2	25.8	26.1	24.7	21.8	22.7	23.4	22.5	26.8	24.7	22.5
Refinery and Blender Net Inputs															
Crude Oil	15.25	16.15	16.51	15.93	15.32	16.48	16.25	15.71	15.23	16.04	15.96	15.50	15.96	15.94	15.68
Hydrocarbon Gas Liquids	0.66	0.49	0.56	0.78	0.64	0.47	0.53	0.73	0.62	0.46	0.52	0.72	0.62	0.59	0.58
Other Hydrocarbons/Oxygenates	1.13	1.20	1.21	1.18	1.13	1.20	1.20	1.17	1.14	1.20	1.19	1.17	1.18	1.17	1.17
Unfinished Oils	0.19	0.21	0.00	0.12	0.12	0.31	0.32	0.29	0.08	0.29	0.30	0.27	0.13	0.26	0.24
Motor Gasoline Blend Components	0.34	0.85	0.64	0.23	0.40	0.73	0.72	0.28	0.39	0.60	0.59	0.34	0.52	0.53	0.48
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	17.58	18.90	18.92	18.25	17.60	19.19	19.02	18.19	17.46	18.59	18.57	18.00	18.41	18.50	18.16
Refinery Processing Gain	0.97	1.01	1.07	1.05	0.95	1.05	1.05	1.04	0.97	1.02	1.05	1.04	1.03	1.02	1.02
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	0.47	0.83	0.75	0.36	0.48	0.84	0.76	0.36	0.48	0.86	0.77	0.38	0.60	0.61	0.62
Finished Motor Gasoline	9.28	9.83	9.81	9.64	9.27	9.86	9.82	9.62	9.14	9.48	9.49	9.50	9.64	9.64	9.41
Jet Fuel	1.62	1.72	1.78	1.71	1.67	1.74	1.74	1.66	1.64	1.71	1.72	1.64	1.71	1.70	1.68
Distillate Fuel	4.69	4.91	4.99	5.04	4.55	4.98	4.96	4.94	4.59	4.86	4.88	4.88	4.91	4.86	4.80
Residual Fuel	0.27	0.27	0.27	0.28	0.37	0.37	0.32	0.27	0.30	0.29	0.31	0.27	0.27	0.33	0.29
Other Oils (a)	2.21	2.35	2.40	2.26	2.21	2.46	2.47	2.36	2.27	2.42	2.46	2.37	2.30	2.38	2.38
Total Refinery and Blender Net Production	18.54	19.91	19.99	19.30	18.55	20.24	20.07	19.23	18.43	19.62	19.62	19.04	19.44	19.52	19.18
Refinery Distillation Inputs	15.78	16.75	17.02	16.47	15.67	16.85	16.68	16.11	15.64	16.43	16.40	15.91	16.51	16.33	16.10
Refinery Operable Distillation Capacity	18.12	18.27	18.27	18.32	18.31	18.19	18.20	18.20	17.94	17.94	17.94	17.94	18.25	18.23	17.94
Refinery Distillation Utilization Factor	0.87	0.92	0.93	0.90	0.86	0.93	0.92	0.88	0.87	0.92	0.91	0.89	0.90	0.90	0.90

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

- = no data available

Notes: EIA completed modeling and analysis for this report on April 4, 2024.

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 - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Prices (cents per gallon)															
Refiner Wholesale Price	262	265	296	233	245	292	292	264	260	281	285	256	264	274	271
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	330	344	361	325	319	361	368	345	340	356	361	338	340	349	349
PADD 2	324	348	360	314	307	359	362	335	330	350	356	327	337	341	341
PADD 3	302	315	334	284	286	335	339	311	305	325	330	302	309	319	316
PADD 4	357	359	393	332	292	352	375	357	342	366	375	348	361	345	358
PADD 5	418	452	480	456	414	462	473	446	432	454	459	428	452	449	444
U.S. Average	338	358	376	336	324	374	380	354	347	367	372	345	352	359	358
Gasoline All Grades Including Taxes	349	369	387	348	336	384	391	366	359	378	383	356	364	370	369
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	52.7	57.1	58.8	60.1	54.2	54.3	53.5	56.2	56.8	56.8	55.3	56.7	60.1	56.2	56.7
PADD 2	49.5	45.2	46.9	54.6	53.9	46.9	45.6	51.8	52.8	49.2	46.2	50.7	54.6	51.8	50.7
PADD 3	84.1	85.0	84.9	90.2	81.2	82.4	80.6	84.4	81.2	82.7	80.2	84.6	90.2	84.4	84.6
PADD 4	7.8	6.8	7.2	7.9	8.5	7.2	7.4	7.8	8.0	7.3	7.7	8.3	7.9	7.8	8.3
PADD 5	31.2	29.0	29.9	28.5	29.0	29.3	28.8	30.3	30.2	29.0	27.4	28.8	28.5	30.3	28.8
U.S. Total	225.3	223.2	227.6	241.3	226.9	220.0	215.9	230.5	229.1	225.0	216.9	229.1	241.3	230.5	229.1
Finished Gasoline Inventories															
U.S. Total	14.7	17.6	15.3	18.1	13.0	18.4	17.4	19.5	16.0	18.3	17.8	20.1	18.1	19.5	20.1
Gasoline Blending Components Inventories															
U.S. Total	210.6	205.6	212.3	223.2	211.8	201.6	198.5	211.0	213.1	206.7	199.1	208.9	223.2	211.0	208.9

- = no data available

Notes: EIA completed modeling and analysis for this report on April 4, 2024.

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.

PADD = Petroleum Administration for Defense District (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 - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Supply (billion cubic feet per day)															
Total Marketed Production	111.18	112.50	113.64	115.24	112.86	<i>111.89</i>	<i>112.40</i>	<i>113.05</i>	<i>112.91</i>	<i>114.06</i>	<i>114.09</i>	<i>114.83</i>	113.15	<i>112.55</i>	<i>113.98</i>
Alaska	1.08	1.01	0.91	1.04	1.08	<i>0.98</i>	<i>0.89</i>	<i>1.00</i>	<i>1.02</i>	<i>0.95</i>	<i>0.87</i>	<i>0.99</i>	1.01	<i>0.99</i>	<i>0.96</i>
Federal GOM (a)	2.13	1.89	2.02	1.94	1.87	<i>1.94</i>	<i>1.97</i>	<i>2.02</i>	<i>2.10</i>	<i>2.12</i>	<i>2.07</i>	<i>2.11</i>	1.99	<i>1.95</i>	<i>2.10</i>
Lower 48 States (excl GOM)	107.97	109.60	110.70	112.26	109.92	<i>108.97</i>	<i>109.54</i>	<i>110.03</i>	<i>109.79</i>	<i>110.99</i>	<i>111.16</i>	<i>111.73</i>	110.15	<i>109.61</i>	<i>110.92</i>
Total Dry Gas Production	102.26	103.16	104.12	105.61	103.90	<i>102.97</i>	<i>103.42</i>	<i>104.03</i>	<i>103.90</i>	<i>104.95</i>	<i>104.99</i>	<i>105.66</i>	103.80	<i>103.58</i>	<i>104.88</i>
LNG Gross Imports	0.09	0.02	0.02	0.03	0.09	<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>	0.04	<i>0.06</i>	<i>0.06</i>
LNG Gross Exports	11.45	11.76	11.40	12.97	12.62	<i>10.97</i>	<i>11.64</i>	<i>13.37</i>	<i>13.71</i>	<i>13.81</i>	<i>14.39</i>	<i>15.26</i>	11.90	<i>12.15</i>	<i>14.30</i>
Pipeline Gross Imports	8.45	7.32	7.94	8.23	9.07	<i>7.07</i>	<i>7.27</i>	<i>7.49</i>	<i>8.29</i>	<i>6.98</i>	<i>7.24</i>	<i>7.48</i>	7.98	<i>7.72</i>	<i>7.49</i>
Pipeline Gross Exports	8.93	8.75	9.19	8.94	9.08	<i>9.12</i>	<i>9.42</i>	<i>9.34</i>	<i>9.53</i>	<i>9.53</i>	<i>9.87</i>	<i>9.65</i>	8.95	<i>9.24</i>	<i>9.64</i>
Supplemental Gaseous Fuels	0.22	0.17	0.16	0.15	0.18	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	<i>0.17</i>	0.17	<i>0.17</i>	<i>0.17</i>
Net Inventory Withdrawals	11.96	-11.71	-6.38	0.29	12.83	<i>-10.97</i>	<i>-5.93</i>	<i>3.50</i>	<i>14.82</i>	<i>-11.94</i>	<i>-6.01</i>	<i>4.18</i>	-1.51	<i>-0.15</i>	<i>0.22</i>
Total Supply	102.60	78.45	85.27	92.41	104.38	<i>79.19</i>	<i>83.91</i>	<i>92.54</i>	<i>104.04</i>	<i>76.86</i>	<i>82.18</i>	<i>92.66</i>	89.64	<i>89.99</i>	<i>88.88</i>
Balancing Item (b)	0.38	-0.43	-1.40	-0.73	-0.06	<i>-0.71</i>	<i>0.47</i>	<i>0.02</i>	<i>0.51</i>	<i>0.33</i>	<i>0.59</i>	<i>-0.50</i>	-0.55	<i>-0.07</i>	<i>0.23</i>
Total Primary Supply	102.98	78.02	83.87	91.68	104.32	<i>78.47</i>	<i>84.38</i>	<i>92.56</i>	<i>104.55</i>	<i>77.19</i>	<i>82.77</i>	<i>92.15</i>	89.09	<i>89.92</i>	<i>89.12</i>
Consumption (billion cubic feet per day)															
Residential	23.50	7.29	3.57	14.95	23.09	<i>7.29</i>	<i>3.84</i>	<i>16.15</i>	<i>24.18</i>	<i>7.26</i>	<i>3.83</i>	<i>16.09</i>	12.28	<i>12.57</i>	<i>12.79</i>
Commercial	14.51	6.43	4.72	10.70	14.36	<i>6.84</i>	<i>5.19</i>	<i>11.00</i>	<i>14.53</i>	<i>6.78</i>	<i>5.14</i>	<i>10.88</i>	9.07	<i>9.34</i>	<i>9.31</i>
Industrial	24.84	22.40	21.98	24.35	24.97	<i>22.26</i>	<i>21.75</i>	<i>23.89</i>	<i>24.79</i>	<i>21.80</i>	<i>21.59</i>	<i>23.86</i>	23.39	<i>23.22</i>	<i>23.01</i>
Electric Power (c)	30.77	33.41	44.84	32.56	32.41	<i>33.66</i>	<i>44.91</i>	<i>32.49</i>	<i>31.55</i>	<i>32.86</i>	<i>43.49</i>	<i>32.20</i>	35.43	<i>35.88</i>	<i>35.05</i>
Lease and Plant Fuel	5.31	5.37	5.43	5.50	5.39	<i>5.34</i>	<i>5.37</i>	<i>5.40</i>	<i>5.39</i>	<i>5.45</i>	<i>5.45</i>	<i>5.48</i>	5.40	<i>5.37</i>	<i>5.44</i>
Pipeline and Distribution Use	3.87	2.93	3.15	3.44	3.90	<i>2.89</i>	<i>3.12</i>	<i>3.45</i>	<i>3.91</i>	<i>2.85</i>	<i>3.07</i>	<i>3.44</i>	3.34	<i>3.34</i>	<i>3.32</i>
Vehicle Use	0.18	0.18	0.18	0.18	0.20	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	0.18	<i>0.20</i>	<i>0.20</i>
Total Consumption	102.98	78.02	83.87	91.68	104.32	<i>78.47</i>	<i>84.38</i>	<i>92.56</i>	<i>104.55</i>	<i>77.19</i>	<i>82.77</i>	<i>92.15</i>	89.09	<i>89.92</i>	<i>89.12</i>
End-of-period Inventories (billion cubic feet)															
Working Gas Inventory	1,850	2,902	3,490	3,457	2,290	<i>3,288</i>	<i>3,834</i>	<i>3,512</i>	<i>2,178</i>	<i>3,265</i>	<i>3,817</i>	<i>3,432</i>	3,457	<i>3,512</i>	<i>3,432</i>
East Region (d)	334	646	853	787	362	<i>652</i>	<i>852</i>	<i>773</i>	<i>398</i>	<i>710</i>	<i>856</i>	<i>762</i>	787	<i>773</i>	<i>762</i>
Midwest Region (d)	417	701	993	950	510	<i>782</i>	<i>1,046</i>	<i>941</i>	<i>474</i>	<i>774</i>	<i>1,063</i>	<i>925</i>	950	<i>941</i>	<i>925</i>
South Central Region (d)	919	1,138	1,092	1,183	1,002	<i>1,303</i>	<i>1,311</i>	<i>1,255</i>	<i>937</i>	<i>1,251</i>	<i>1,287</i>	<i>1,224</i>	1,183	<i>1,255</i>	<i>1,224</i>
Mountain Region (d)	79	171	239	228	162	<i>196</i>	<i>248</i>	<i>212</i>	<i>137</i>	<i>195</i>	<i>244</i>	<i>208</i>	228	<i>212</i>	<i>208</i>
Pacific Region (d)	74	216	278	280	228	<i>328</i>	<i>344</i>	<i>303</i>	<i>208</i>	<i>307</i>	<i>335</i>	<i>286</i>	280	<i>303</i>	<i>286</i>
Alaska	27	30	35	30	25	<i>28</i>	<i>33</i>	<i>29</i>	<i>24</i>	<i>27</i>	<i>32</i>	<i>28</i>	30	<i>29</i>	<i>28</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 April 4, 2024.

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 - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Wholesale/Spot															
Henry Hub Spot Price	2.76	2.25	2.69	2.84	2.21	1.69	2.23	2.81	2.93	2.72	3.07	3.30	2.63	2.24	3.01
Residential Retail															
New England	21.04	20.48	22.57	18.69	18.07	18.13	20.60	15.99	15.76	16.58	19.73	15.73	20.33	17.64	16.17
Middle Atlantic	15.60	16.03	20.74	14.33	12.77	13.39	17.77	12.20	11.32	12.84	18.06	12.65	15.64	13.05	12.43
E. N. Central	11.06	13.26	22.96	10.49	8.70	11.53	18.58	9.03	7.91	10.91	18.67	9.23	11.91	9.88	9.43
W. N. Central	13.24	15.41	22.07	11.28	10.10	12.79	19.56	10.16	9.06	11.77	18.93	10.10	13.41	11.07	10.32
S. Atlantic	17.33	20.92	30.29	16.00	13.93	17.75	24.79	14.33	13.49	18.28	26.09	14.90	18.39	15.41	15.57
E. S. Central	13.63	16.66	23.41	13.48	10.85	14.53	20.59	11.87	10.63	14.63	21.37	12.23	14.56	12.18	12.28
W. S. Central	14.58	19.81	28.70	16.41	10.96	15.45	21.15	12.57	10.00	15.25	22.11	13.21	17.00	12.78	12.61
Mountain	12.61	13.86	18.75	12.88	11.99	13.63	18.01	11.61	10.70	12.61	17.06	11.18	13.29	12.58	11.63
Pacific	20.13	17.11	18.10	17.87	15.34	14.42	15.05	14.56	15.16	14.85	15.84	15.24	18.74	14.90	15.21
U.S. Average	14.72	16.19	22.33	13.72	11.88	13.82	18.69	11.77	10.84	13.40	18.97	12.05	15.19	12.65	12.20
Commercial Retail															
New England	15.19	13.66	12.55	12.15	12.53	11.85	11.31	10.27	10.52	11.00	11.30	10.57	13.73	11.59	10.70
Middle Atlantic	11.94	9.25	8.06	9.48	9.89	7.77	6.79	7.25	8.05	7.49	7.27	7.82	10.23	8.38	7.79
E. N. Central	9.20	8.63	10.71	7.78	7.00	7.31	8.66	6.01	6.13	7.38	9.38	6.68	8.80	6.85	6.71
W. N. Central	11.58	11.33	11.77	8.39	7.95	8.00	8.73	6.55	6.82	7.60	9.11	7.14	10.66	7.58	7.21
S. Atlantic	12.97	11.26	11.39	10.73	10.01	9.71	9.64	8.82	8.75	9.44	9.89	9.25	11.75	9.56	9.17
E. S. Central	11.89	10.94	11.80	10.56	9.46	9.57	10.07	8.79	8.42	9.57	10.69	9.41	11.31	9.34	9.16
W. S. Central	11.01	9.68	10.37	9.74	8.60	8.14	8.20	7.18	6.73	7.73	8.68	7.85	10.31	8.07	7.51
Mountain	10.76	10.77	12.16	10.66	10.12	10.16	10.64	9.11	8.92	9.35	10.13	8.77	10.87	9.88	9.07
Pacific	16.85	12.61	13.49	13.58	12.82	11.20	11.00	10.52	11.35	10.73	11.17	10.89	14.59	11.53	11.06
U.S. Average	11.81	10.48	10.90	9.83	9.32	8.89	9.06	7.82	7.92	8.57	9.38	8.30	10.89	8.77	8.31
Industrial Retail															
New England	13.55	10.07	7.87	9.27	10.85	8.73	6.71	7.51	8.58	7.86	6.78	7.90	10.65	8.71	7.92
Middle Atlantic	11.94	8.97	7.89	9.35	8.79	6.60	6.62	7.62	8.13	7.17	7.49	8.20	10.34	7.83	7.90
E. N. Central	9.18	6.67	6.91	6.22	5.75	5.09	4.92	5.05	5.45	5.58	5.79	5.83	7.62	5.34	5.62
W. N. Central	8.23	4.55	4.33	4.69	5.04	3.40	3.19	4.01	4.94	4.05	4.11	4.76	5.64	3.97	4.51
S. Atlantic	6.92	4.78	5.03	5.37	4.80	3.50	3.75	4.44	5.07	4.48	4.79	5.16	5.58	4.16	4.89
E. S. Central	5.46	3.74	4.10	4.34	4.25	3.05	3.35	4.10	4.61	4.03	4.29	4.71	4.44	3.72	4.43
W. S. Central	3.39	2.21	2.71	2.79	2.53	1.84	2.32	3.03	3.23	2.82	3.14	3.51	2.77	2.43	3.18
Mountain	8.86	7.73	8.05	7.76	7.06	6.01	5.70	5.27	5.32	5.29	5.66	5.51	8.18	6.09	5.43
Pacific	10.84	8.16	8.03	9.02	8.40	6.81	6.53	6.71	7.59	6.64	6.72	6.99	9.22	7.17	7.04
U.S. Average	6.12	3.76	3.87	4.39	4.46	3.05	3.18	4.08	4.66	3.84	3.97	4.59	4.59	3.74	4.29

- = no data available

Notes: EIA completed modeling and analysis for this report on April 4, 2024.

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 is from Refinitiv, an LSEG company, via EIA (https://www.eia.gov/dnav/pet/pet_pri_spt_s1_d.htm).

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 - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Supply (million short tons)															
Production	148.7	142.3	145.6	145.0	127.5	111.6	125.0	121.2	117.9	107.6	121.9	116.8	581.6	485.2	464.2
Appalachia	42.9	42.5	40.0	41.8	38.3	32.8	29.5	29.9	31.5	30.1	28.1	28.7	167.2	130.5	118.5
Interior	25.4	23.5	22.6	24.6	21.2	19.2	22.0	22.4	24.1	22.4	23.8	23.2	96.1	84.8	93.5
Western	80.4	76.4	83.0	78.5	68.0	59.6	73.4	68.8	62.3	55.1	70.0	64.8	318.3	269.9	252.3
Primary Inventory Withdrawals	-1.6	0.3	3.6	0.1	-1.6	0.2	3.7	0.1	-1.7	0.2	3.6	0.0	2.4	2.5	2.1
Imports	1.0	1.0	1.0	1.0	0.5	0.7	1.1	0.8	0.5	0.7	1.1	0.8	4.0	3.1	3.0
Exports	24.6	24.1	24.9	26.2	24.3	20.2	23.7	26.3	24.6	25.3	26.2	28.8	99.8	94.5	104.9
Metallurgical Coal	12.4	12.6	13.6	12.7	11.9	10.7	11.4	11.7	10.9	12.3	11.8	12.4	51.3	45.8	47.5
Steam Coal	12.2	11.5	11.3	13.5	12.4	9.4	12.3	14.5	13.7	13.0	14.3	16.4	48.5	48.7	57.4
Total Primary Supply	123.5	119.5	125.3	119.8	102.1	92.4	106.0	95.8	92.2	83.3	100.4	88.7	488.2	396.3	364.5
Secondary Inventory Withdrawals	-20.1	-19.1	11.1	-15.1	-2.7	-10.0	15.6	-5.1	-1.5	-5.1	21.6	-4.3	-43.1	-2.2	10.7
Waste Coal (a)	2.0	1.9	2.2	2.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	8.1	4.8	4.8
Total Supply	105.5	102.3	138.6	106.8	100.5	83.6	122.9	91.9	91.8	79.3	123.2	85.7	453.1	399.0	380.0
Consumption (million short tons)															
Coke Plants	4.0	3.9	4.0	3.9	3.9	4.0	4.2	4.3	4.2	4.3	4.4	4.5	15.8	16.3	17.4
Electric Power Sector (b)	91.2	82.0	122.7	91.3	88.1	74.6	113.6	81.7	81.7	69.9	113.6	75.3	387.2	358.0	340.5
Retail and Other Industry	6.5	5.6	5.3	6.2	6.0	5.0	5.1	5.9	6.0	5.1	5.1	5.9	23.6	22.0	22.1
Residential and Commercial	0.2	0.1	0.1	0.2	0.3	0.2	0.1	0.2	0.3	0.2	0.1	0.2	0.7	0.8	0.9
Other Industrial	6.3	5.5	5.1	6.0	5.7	4.8	5.0	5.7	5.6	4.9	5.0	5.7	22.9	21.2	21.2
Total Consumption	101.7	91.5	132.0	101.4	98.0	83.6	122.9	91.9	91.8	79.3	123.2	85.7	426.5	396.4	380.0
Discrepancy (c)	3.8	10.9	6.6	5.4	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.6	2.6	0.0
End-of-period Inventories (million short tons)															
Primary Inventories (d)	22.4	22.1	18.5	18.4	20.0	19.8	16.1	16.0	17.6	17.5	13.9	13.9	18.4	16.0	13.9
Secondary Inventories	113.3	132.3	121.2	136.3	139.0	149.0	133.3	138.5	140.0	145.1	123.5	127.7	136.3	138.5	127.7
Electric Power Sector	109.0	127.7	116.6	131.4	134.9	144.6	128.7	133.8	136.0	140.8	118.9	123.1	131.4	133.8	123.1
Retail and General Industry	2.5	2.8	2.7	3.0	2.5	2.6	2.9	2.9	2.4	2.6	2.8	2.9	3.0	2.9	2.9
Coke Plants	1.7	1.7	1.7	1.7	1.5	1.6	1.6	1.6	1.4	1.5	1.6	1.6	1.7	1.6	1.6
Commercial & Institutional	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2
Coal Market Indicators															
Coal Miner Productivity															
(Tons per hour)	6.03	6.03	6.03	6.03	5.85	5.85	5.85	5.85	5.80	5.80	5.80	5.80	6.03	5.85	5.80
Total Raw Steel Production															
(Million short tons per day)	0.236	0.244	0.245	0.242	0.244	0.255	0.263	0.258	0.259	0.271	0.274	0.269	0.242	0.255	0.269
Cost of Coal to Electric Utilities															
(Dollars per million Btu)	2.57	2.49	2.51	2.51	2.48	2.47	2.45	2.41	2.42	2.42	2.41	2.38	2.52	2.45	2.41

(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 April 4, 2024.

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 - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Electricity Supply (billion kilowatthours)															
Electricity generation (a)	987	984	1,209	998	1,025	1,026	1,229	1,005	1,019	1,031	1,236	1,008	4,178	4,284	4,294
Electric power sector	949	947	1,168	958	984	986	1,187	963	979	992	1,193	967	4,022	4,119	4,131
Industrial sector	35	33	36	36	37	35	38	37	36	35	37	36	139	146	144
Commercial sector	4	4	5	4	4	4	5	5	4	4	5	5	17	18	18
Net imports	8	6	3	2	5	9	13	10	11	12	15	11	19	37	49
Total utility-scale power supply	995	990	1,212	1,000	1,030	1,034	1,242	1,015	1,030	1,043	1,250	1,019	4,197	4,321	4,343
Losses and Unaccounted for (b)	42	52	51	52	51	69	56	48	44	69	57	48	197	225	218
Small-scale solar generation (c)	14	22	22	16	17	25	25	17	19	29	29	20	74	85	96
Residential sector	10	15	15	11	12	17	17	12	13	20	20	13	50	58	66
Commercial sector	4	6	6	4	4	7	7	4	5	7	7	5	19	22	25
Industrial sector	1	1	1	1	1	1	1	1	1	2	2	1	4	5	5
Electricity Consumption (billion kilowatthours unless noted)															
Sales to Ultimate Customers	919	906	1,124	912	942	929	1,148	930	950	939	1,156	934	3,861	3,949	3,980
Residential Sector	355	319	455	325	367	333	470	336	374	337	474	337	1,455	1,506	1,523
Commercial Sector	322	330	392	331	326	336	395	333	323	335	393	331	1,375	1,389	1,382
Industrial Sector	239	256	275	254	248	259	281	259	251	266	287	264	1,025	1,047	1,069
Transportation Sector	2	2	2	2	2	2	2	2	2	2	2	2	7	7	7
Direct Use (d)	34	33	36	36	36	35	38	37	36	35	38	36	139	147	145
Total Consumption	953	939	1,161	948	979	965	1,186	966	986	974	1,194	971	4,000	4,096	4,125
Average residential electricity usage per customer (kWh)	2,530	2,268	3,243	2,316	2,592	2,348	3,319	2,373	2,619	2,356	3,318	2,360	10,357	10,633	10,653
End-of-period Fuel Inventories Held by Electric Power Sector															
Coal (mmst)	109.0	127.7	116.6	131.4	134.9	144.6	128.7	133.8	136.0	140.8	118.9	123.1	131.4	133.8	123.1
Residual Fuel (mmb)	6.1	6.2	6.4	6.3	5.9	5.1	2.8	3.3	2.1	2.3	0.6	1.4	6.3	3.3	1.4
Distillate Fuel (mmb)	17.0	16.9	16.1	16.1	15.7	15.5	15.5	15.7	15.6	15.4	15.4	15.6	16.1	15.7	15.6
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.57	2.49	2.51	2.51	2.48	2.47	2.45	2.41	2.42	2.42	2.41	2.38	2.52	2.45	2.41
Natural Gas	4.98	2.60	2.92	3.19	3.31	1.94	2.32	3.05	3.32	2.81	3.02	3.45	3.36	2.63	3.14
Residual Fuel Oil	19.23	17.88	19.17	20.84	17.17	16.91	16.80	16.87	17.03	17.28	16.53	16.35	19.32	16.95	16.78
Distillate Fuel Oil	22.84	19.91	22.08	21.03	20.43	20.83	21.63	22.51	22.62	21.76	22.00	21.95	21.47	21.33	22.14
Prices to Ultimate Customers (cents per kilowatthour)															
Residential Sector	15.77	16.12	16.02	16.02	15.75	15.95	15.90	15.80	15.77	16.31	16.37	16.31	15.98	15.86	16.20
Commercial Sector	12.64	12.45	13.18	12.63	12.46	12.19	13.10	12.65	12.58	12.55	13.58	13.03	12.74	12.62	12.96
Industrial Sector	8.06	7.74	8.55	7.83	7.73	7.69	8.34	7.90	7.97	7.74	8.49	8.02	8.05	7.93	8.07
Wholesale Electricity Prices (dollars per megawatt-hour)															
ERCOT North hub	28.05	57.27	188.81	33.85	32.53	41.26	38.72	35.26	35.01	30.27	41.79	34.22	77.00	36.94	35.32
CAISO SP15 zone	92.54	30.00	67.59	50.54	33.41	41.81	35.10	43.08	48.77	24.34	45.06	49.00	60.17	38.35	41.79
ISO-NE Internal hub	52.63	32.55	40.41	39.84	47.50	40.37	57.39	55.87	70.37	41.89	56.99	48.92	41.36	50.28	54.54
NYISO Hudson Valley zone	44.65	31.38	39.45	36.35	43.48	32.06	36.49	37.28	49.89	33.49	41.59	37.65	37.96	37.33	40.66
PJM Western hub	36.49	35.41	43.27	42.17	35.76	35.89	42.51	39.49	44.62	39.79	47.88	42.43	39.34	38.41	43.68
Midcontinent ISO Illinois hub	31.39	32.13	40.60	33.58	32.52	32.68	39.79	34.62	42.96	39.21	45.03	38.27	34.42	34.90	41.37
SPP ISO South hub	28.96	34.56	46.96	28.50	31.66	37.30	46.81	39.05	42.44	41.91	52.84	42.29	34.74	38.71	44.87
SERC index, Into Southern	30.53	31.66	36.45	30.40	27.96	30.23	34.48	32.33	35.42	32.54	37.58	34.49	32.26	31.25	35.01
FRCC index, Florida Reliability	30.31	33.06	36.79	32.05	30.01	32.18	35.42	34.55	35.22	34.83	38.53	36.09	33.05	33.04	36.17
Northwest index, Mid-Columbia	105.99	58.61	82.36	79.49	99.74	58.52	57.86	66.00	73.33	42.50	62.22	72.29	81.61	70.53	62.58
Southwest index, Palo Verde	84.19	31.60	71.95	50.10	29.62	39.85	48.22	44.36	45.82	34.30	47.45	46.12	59.46	40.51	43.42

Notes: EIA completed modeling and analysis for this report on April 4, 2024.

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 utility-scale power plants with capacity of at least one megawatt.

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

(c) Solar photovoltaic systems smaller than one megawatt such as those installed on rooftops.

(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: Latest data available from EIA databases supporting the following reports: Electric Power Monthly and Electric Power Annual (electricity supply and consumption, fuel inventories and costs, and retail electricity prices); S&P Global Market Intelligence (wholesale electricity prices).

Minor discrepancies with published historical data are due to independent rounding and possible revisions not yet reflected in the STEO.

Forecast data: 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 - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Residential Sector															
New England	12.2	9.8	13.7	10.8	12.7	10.3	14.6	11.2	13.2	10.4	14.7	11.2	46.5	48.9	49.4
Middle Atlantic	33.3	27.5	40.1	30.2	34.5	28.8	42.8	30.5	35.2	28.9	43.1	30.6	131.2	136.6	137.8
E. N. Central	46.5	39.8	52.5	41.7	48.1	42.0	56.6	43.6	50.5	42.3	56.8	43.6	180.5	190.3	193.2
W. N. Central	29.4	24.1	30.8	24.2	28.9	24.3	32.5	26.1	31.0	24.7	32.9	26.3	108.6	111.9	114.9
S. Atlantic	87.2	83.8	117.9	84.2	93.5	90.0	124.9	87.1	95.1	91.7	126.0	87.2	373.0	395.6	400.1
E. S. Central	29.3	25.4	37.3	26.0	32.4	26.3	38.6	26.7	32.2	26.5	38.9	26.7	118.0	124.0	124.3
W. S. Central	51.6	52.4	86.9	49.5	53.8	53.5	81.8	50.8	54.5	54.6	83.0	51.4	240.4	239.9	243.5
Mountain	25.3	24.5	36.4	23.4	24.6	25.9	36.8	24.0	24.7	26.3	37.2	24.2	109.5	111.3	112.3
Pacific contiguous	39.5	30.2	38.7	33.8	37.4	30.4	40.5	35.1	36.8	30.4	40.5	35.0	142.2	143.4	142.8
AK and HI	1.2	1.1	1.1	1.3	1.3	1.1	1.1	1.3	1.2	1.1	1.1	1.3	4.7	4.7	4.7
Total	355.4	318.6	455.4	325.2	367.3	332.7	470.2	336.3	374.4	336.9	474.3	337.4	1,454.7	1,506.5	1,522.9
Commercial Sector															
New England	11.9	11.5	13.6	11.7	12.1	11.7	13.7	11.7	12.0	11.5	13.6	11.5	48.7	49.2	48.5
Middle Atlantic	35.0	33.1	39.7	34.4	35.4	33.5	40.4	34.3	35.0	33.3	40.3	34.0	142.2	143.6	142.7
E. N. Central	42.4	41.9	48.0	42.1	43.3	42.5	49.0	42.5	43.3	42.3	48.8	42.2	174.5	177.3	176.6
W. N. Central	25.3	25.1	28.6	25.0	25.5	25.4	29.2	25.7	25.7	25.4	29.2	25.6	104.0	105.8	106.0
S. Atlantic	75.4	81.7	96.5	80.4	77.3	84.5	98.0	81.1	77.2	84.7	98.1	81.0	333.9	340.8	341.0
E. S. Central	20.6	21.8	27.1	21.6	21.5	22.2	27.3	21.6	21.2	22.0	27.0	21.3	91.1	92.6	91.5
W. S. Central	47.5	51.2	63.6	50.7	46.2	51.8	62.2	50.6	45.5	51.2	61.6	50.5	213.1	210.8	208.7
Mountain	23.8	25.0	29.9	24.6	24.2	25.6	30.0	24.7	24.0	25.7	30.0	24.7	103.2	104.5	104.4
Pacific contiguous	38.9	37.0	43.6	39.4	38.7	37.4	43.9	39.4	37.8	37.0	43.4	39.0	158.8	159.4	157.2
AK and HI	1.3	1.3	1.4	1.4	1.3	1.3	1.4	1.4	1.3	1.3	1.3	1.3	5.3	5.4	5.3
Total	322.0	329.7	391.9	331.3	325.6	335.8	395.2	332.9	323.0	334.5	393.3	331.1	1,374.9	1,389.4	1,381.9
Industrial Sector															
New England	3.7	3.7	3.9	3.6	3.6	3.6	3.9	3.6	3.6	3.6	3.9	3.5	14.9	14.7	14.5
Middle Atlantic	17.3	17.7	18.9	17.3	17.4	17.6	19.0	17.3	17.4	17.9	19.3	17.6	71.3	71.3	72.2
E. N. Central	44.8	45.8	48.2	45.4	45.4	45.8	48.7	46.1	45.9	46.7	49.3	46.8	184.3	186.1	188.7
W. N. Central	24.1	25.5	27.2	25.8	24.8	26.0	27.9	26.6	25.5	27.0	28.8	27.5	102.6	105.4	108.9
S. Atlantic	33.5	35.2	36.4	34.0	34.0	35.1	36.5	34.3	34.1	35.9	37.1	34.8	139.1	139.8	142.0
E. S. Central	23.2	23.9	24.7	23.3	23.1	23.8	24.7	23.3	23.1	23.9	24.7	23.4	95.2	94.9	95.1
W. S. Central	53.6	62.4	68.6	62.5	59.9	65.6	72.6	65.1	61.8	69.1	75.8	67.9	247.2	263.2	274.6
Mountain	19.8	21.5	24.1	21.3	20.3	21.8	24.5	21.7	20.6	22.2	24.8	22.0	86.7	88.4	89.6
Pacific contiguous	18.3	19.2	21.9	19.6	18.0	18.9	21.8	19.4	17.9	18.9	21.8	19.5	79.0	78.1	78.2
AK and HI	1.1	1.2	1.3	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.3	1.3	4.8	4.8	4.9
Total	239.4	256.2	275.3	254.1	247.8	259.4	280.7	258.8	251.1	266.4	286.9	264.3	1,024.9	1,046.7	1,068.6
Total All Sectors (a)															
New England	27.9	25.1	31.4	26.2	28.6	25.7	32.4	26.5	28.8	25.6	32.2	26.3	110.6	113.2	112.9
Middle Atlantic	86.4	79.2	99.7	82.7	88.2	80.8	103.0	82.9	88.5	81.0	103.5	83.1	348.1	354.9	356.0
E. N. Central	133.8	127.6	148.9	129.4	136.9	130.4	154.4	132.4	139.9	131.4	155.1	132.7	539.7	554.1	559.1
W. N. Central	78.7	74.8	86.6	75.1	79.2	75.8	89.7	78.4	82.2	77.2	91.0	79.4	315.2	323.1	329.8
S. Atlantic	196.4	200.9	251.0	199.0	205.1	209.8	259.7	202.7	206.7	212.5	261.6	203.3	847.3	877.2	884.1
E. S. Central	73.1	71.1	89.1	70.9	77.1	72.3	90.6	71.6	76.5	72.4	90.6	71.4	304.3	311.5	310.9
W. S. Central	152.7	166.1	219.2	162.8	160.0	170.9	216.7	166.6	161.8	174.9	220.5	169.8	700.8	714.2	727.0
Mountain	68.9	71.1	90.4	69.3	69.2	73.4	91.3	70.5	69.3	74.2	92.0	70.9	299.6	304.3	306.4
Pacific contiguous	96.8	86.6	104.4	93.0	94.4	86.9	106.3	94.1	92.8	86.6	105.9	93.7	380.9	381.7	379.0
AK and HI	3.7	3.6	3.7	3.9	3.7	3.6	3.8	3.9	3.7	3.6	3.7	3.8	14.9	15.0	14.8
Total	918.5	906.0	1,124.5	912.3	942.4	929.4	1,147.7	929.5	950.2	939.3	1,156.1	934.4	3,861.3	3,949.1	3,980.0

Notes: EIA completed modeling and analysis for this report on April 4, 2024.

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

Electricity sales to ultimate customers are sold by electric utilities and power marketers for direct consumption by the customer and not available for resale. Includes electric sales to end users by third-party owners of behind-the-meter solar photovoltaic systems.

Regions refer to U.S. Census divisions (https://www.eia.gov/tools/glossary/index.php?id=C# census_division).

(a) Total includes sales of electricity to ultimate customers in transportation sector (not shown), as well as residential, commercial, and industrial sectors.

Historical data: Latest data available from EIA databases supporting the following reports: Electric Power Monthly and Electric Power Annual.

Minor discrepancies with published historical data are due to independent rounding and possible revisions not yet reflected in the STEO.

Forecast data: EIA Short-Term Integrated Forecasting System.

Table 7c. U.S. Regional Electricity Prices to Ultimate Customers (Cents per Kilowatthour)

U.S. Energy Information Administration | Short-Term Energy Outlook - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Residential Sector															
New England	30.65	29.58	27.17	27.72	28.69	<i>28.00</i>	<i>25.64</i>	<i>26.66</i>	<i>28.53</i>	<i>29.10</i>	<i>27.54</i>	<i>29.11</i>	28.72	<i>27.17</i>	<i>28.48</i>
Middle Atlantic	19.70	19.13	19.86	19.63	19.62	<i>19.31</i>	<i>20.16</i>	<i>20.01</i>	<i>20.13</i>	<i>19.91</i>	<i>20.79</i>	<i>20.55</i>	19.61	<i>19.81</i>	<i>20.38</i>
E. N. Central	16.14	16.58	15.97	16.21	15.96	<i>16.19</i>	<i>15.59</i>	<i>16.00</i>	<i>15.94</i>	<i>16.52</i>	<i>16.07</i>	<i>16.56</i>	16.20	<i>15.91</i>	<i>16.24</i>
W. N. Central	11.85	13.52	14.23	12.65	12.10	<i>13.36</i>	<i>13.88</i>	<i>12.34</i>	<i>11.95</i>	<i>13.53</i>	<i>14.14</i>	<i>12.61</i>	13.07	<i>12.95</i>	<i>13.07</i>
S. Atlantic	14.31	14.74	14.54	14.64	14.13	<i>14.15</i>	<i>13.86</i>	<i>14.02</i>	<i>13.79</i>	<i>14.19</i>	<i>14.17</i>	<i>14.43</i>	14.55	<i>14.03</i>	<i>14.14</i>
E. S. Central	13.17	13.20	12.94	13.27	13.18	<i>13.42</i>	<i>13.14</i>	<i>13.52</i>	<i>13.63</i>	<i>13.92</i>	<i>13.52</i>	<i>13.90</i>	13.13	<i>13.29</i>	<i>13.71</i>
W. S. Central	13.57	13.57	13.51	13.75	13.67	<i>13.74</i>	<i>13.70</i>	<i>13.47</i>	<i>13.48</i>	<i>13.90</i>	<i>13.98</i>	<i>13.72</i>	13.58	<i>13.65</i>	<i>13.79</i>
Mountain	12.96	13.88	14.10	13.74	13.38	<i>13.84</i>	<i>13.79</i>	<i>13.50</i>	<i>13.41</i>	<i>14.08</i>	<i>14.21</i>	<i>13.97</i>	13.71	<i>13.65</i>	<i>13.95</i>
Pacific	19.60	22.32	23.93	21.02	20.57	<i>23.00</i>	<i>24.75</i>	<i>21.48</i>	<i>21.42</i>	<i>24.53</i>	<i>25.82</i>	<i>22.31</i>	21.69	<i>22.49</i>	<i>23.55</i>
U.S. Average	15.77	16.12	16.02	16.02	15.75	<i>15.95</i>	<i>15.90</i>	<i>15.80</i>	<i>15.77</i>	<i>16.31</i>	<i>16.37</i>	<i>16.31</i>	15.98	<i>15.86</i>	<i>16.20</i>
Commercial Sector															
New England	20.56	18.40	18.71	19.33	20.48	<i>17.72</i>	<i>18.10</i>	<i>19.20</i>	<i>20.91</i>	<i>18.59</i>	<i>19.21</i>	<i>20.38</i>	19.23	<i>18.86</i>	<i>19.76</i>
Middle Atlantic	14.86	14.89	16.41	15.19	14.33	<i>14.61</i>	<i>16.31</i>	<i>15.16</i>	<i>14.41</i>	<i>14.88</i>	<i>16.75</i>	<i>15.57</i>	15.38	<i>15.15</i>	<i>15.45</i>
E. N. Central	12.01	12.07	11.90	11.86	11.70	<i>11.74</i>	<i>11.83</i>	<i>11.97</i>	<i>11.88</i>	<i>12.02</i>	<i>12.19</i>	<i>12.39</i>	11.96	<i>11.81</i>	<i>12.12</i>
W. N. Central	9.95	10.67	11.38	9.90	9.86	<i>10.57</i>	<i>11.34</i>	<i>9.91</i>	<i>9.96</i>	<i>10.85</i>	<i>11.73</i>	<i>10.21</i>	10.50	<i>10.45</i>	<i>10.72</i>
S. Atlantic	11.31	10.95	10.90	11.01	10.87	<i>10.41</i>	<i>10.46</i>	<i>10.60</i>	<i>10.62</i>	<i>10.49</i>	<i>10.71</i>	<i>10.87</i>	11.03	<i>10.57</i>	<i>10.67</i>
E. S. Central	12.57	12.10	12.07	12.02	12.30	<i>12.12</i>	<i>12.31</i>	<i>12.31</i>	<i>12.59</i>	<i>12.54</i>	<i>12.78</i>	<i>12.72</i>	12.18	<i>12.26</i>	<i>12.66</i>
W. S. Central	9.35	8.83	9.55	9.14	9.13	<i>8.79</i>	<i>10.03</i>	<i>9.98</i>	<i>10.11</i>	<i>9.97</i>	<i>11.13</i>	<i>10.44</i>	9.23	<i>9.52</i>	<i>10.46</i>
Mountain	10.35	11.09	11.65	10.76	10.51	<i>10.86</i>	<i>11.36</i>	<i>10.56</i>	<i>10.37</i>	<i>10.89</i>	<i>11.49</i>	<i>10.65</i>	11.00	<i>10.85</i>	<i>10.89</i>
Pacific	18.06	18.85	22.70	19.62	18.64	<i>18.91</i>	<i>22.62</i>	<i>19.55</i>	<i>18.57</i>	<i>19.10</i>	<i>23.07</i>	<i>20.05</i>	19.90	<i>20.02</i>	<i>20.30</i>
U.S. Average	12.64	12.45	13.18	12.63	12.46	<i>12.19</i>	<i>13.10</i>	<i>12.65</i>	<i>12.58</i>	<i>12.55</i>	<i>13.58</i>	<i>13.03</i>	12.74	<i>12.62</i>	<i>12.96</i>
Industrial Sector															
New England	16.24	15.24	15.80	15.91	16.45	<i>14.86</i>	<i>15.44</i>	<i>15.84</i>	<i>16.79</i>	<i>15.48</i>	<i>16.26</i>	<i>16.62</i>	15.80	<i>15.64</i>	<i>16.28</i>
Middle Atlantic	8.20	7.72	7.82	7.77	7.74	<i>7.49</i>	<i>7.66</i>	<i>7.65</i>	<i>7.80</i>	<i>7.47</i>	<i>7.67</i>	<i>7.62</i>	7.88	<i>7.63</i>	<i>7.64</i>
E. N. Central	8.31	7.89	8.02	7.88	8.04	<i>7.82</i>	<i>8.00</i>	<i>7.90</i>	<i>8.27</i>	<i>7.98</i>	<i>8.17</i>	<i>8.05</i>	8.02	<i>7.94</i>	<i>8.12</i>
W. N. Central	7.44	7.79	8.43	7.29	7.41	<i>7.91</i>	<i>8.54</i>	<i>7.47</i>	<i>7.68</i>	<i>8.07</i>	<i>8.71</i>	<i>7.60</i>	7.75	<i>7.85</i>	<i>8.03</i>
S. Atlantic	7.72	7.38	8.07	7.54	7.59	<i>7.41</i>	<i>8.11</i>	<i>7.68</i>	<i>7.88</i>	<i>7.52</i>	<i>8.25</i>	<i>7.79</i>	7.68	<i>7.70</i>	<i>7.87</i>
E. S. Central	6.98	6.67	6.91	6.73	6.74	<i>6.60</i>	<i>6.89</i>	<i>6.82</i>	<i>6.98</i>	<i>6.71</i>	<i>7.01</i>	<i>6.93</i>	6.82	<i>6.76</i>	<i>6.91</i>
W. S. Central	6.56	5.94	7.27	6.16	5.91	<i>5.70</i>	<i>6.49</i>	<i>6.24</i>	<i>6.11</i>	<i>5.58</i>	<i>6.55</i>	<i>6.25</i>	6.50	<i>6.10</i>	<i>6.13</i>
Mountain	7.65	7.64	8.45	7.36	7.27	<i>7.77</i>	<i>8.39</i>	<i>7.40</i>	<i>7.52</i>	<i>7.82</i>	<i>8.51</i>	<i>7.53</i>	7.80	<i>7.74</i>	<i>7.87</i>
Pacific	11.80	12.47	14.83	13.18	12.14	<i>13.27</i>	<i>15.27</i>	<i>13.69</i>	<i>12.91</i>	<i>13.67</i>	<i>16.05</i>	<i>14.36</i>	13.15	<i>13.67</i>	<i>14.33</i>
U.S. Average	8.06	7.74	8.55	7.83	7.73	<i>7.69</i>	<i>8.34</i>	<i>7.90</i>	<i>7.97</i>	<i>7.74</i>	<i>8.49</i>	<i>8.02</i>	8.05	<i>7.93</i>	<i>8.07</i>
All Sectors (a)															
New England	24.39	22.26	22.01	22.28	23.59	<i>21.41</i>	<i>21.16</i>	<i>21.86</i>	<i>23.84</i>	<i>22.37</i>	<i>22.62</i>	<i>23.54</i>	22.73	<i>21.99</i>	<i>23.09</i>
Middle Atlantic	15.39	14.75	16.16	15.25	15.09	<i>14.72</i>	<i>16.30</i>	<i>15.36</i>	<i>15.37</i>	<i>15.02</i>	<i>16.72</i>	<i>15.70</i>	15.43	<i>15.42</i>	<i>15.76</i>
E. N. Central	12.20	11.97	12.08	11.86	11.98	<i>11.79</i>	<i>12.00</i>	<i>11.88</i>	<i>12.16</i>	<i>12.03</i>	<i>12.33</i>	<i>12.22</i>	12.03	<i>11.92</i>	<i>12.19</i>
W. N. Central	9.89	10.60	11.47	9.90	9.91	<i>10.55</i>	<i>11.39</i>	<i>9.89</i>	<i>10.00</i>	<i>10.74</i>	<i>11.64</i>	<i>10.10</i>	10.49	<i>10.47</i>	<i>10.65</i>
S. Atlantic	12.03	11.90	12.20	11.95	11.81	<i>11.51</i>	<i>11.76</i>	<i>11.57</i>	<i>11.63</i>	<i>11.58</i>	<i>12.03</i>	<i>11.87</i>	12.03	<i>11.67</i>	<i>11.79</i>
E. S. Central	11.04	10.66	11.00	10.74	11.00	<i>10.78</i>	<i>11.19</i>	<i>10.97</i>	<i>11.34</i>	<i>11.12</i>	<i>11.52</i>	<i>11.26</i>	10.87	<i>11.00</i>	<i>11.32</i>
W. S. Central	9.80	9.24	10.40	9.40	9.45	<i>9.15</i>	<i>10.23</i>	<i>9.58</i>	<i>9.72</i>	<i>9.46</i>	<i>10.63</i>	<i>9.76</i>	9.76	<i>9.65</i>	<i>9.94</i>
Mountain	10.52	11.01	11.79	10.72	10.58	<i>10.99</i>	<i>11.54</i>	<i>10.59</i>	<i>10.61</i>	<i>11.10</i>	<i>11.79</i>	<i>10.81</i>	11.07	<i>10.97</i>	<i>11.13</i>
Pacific	17.49	18.63	21.48	18.76	18.15	<i>19.11</i>	<i>21.91</i>	<i>19.04</i>	<i>18.59</i>	<i>19.80</i>	<i>22.65</i>	<i>19.69</i>	19.15	<i>19.63</i>	<i>20.27</i>
U.S. Average	12.66	12.41	13.20	12.50	12.50	<i>12.28</i>	<i>13.08</i>	<i>12.47</i>	<i>12.62</i>	<i>12.53</i>	<i>13.46</i>	<i>12.80</i>	12.72	<i>12.61</i>	<i>12.88</i>

Notes: EIA completed modeling and analysis for this report on April 4, 2024.

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

Historical data for average price of electricity to ultimate consumers represents the cost per unit of electricity sold and is calculated by dividing electric revenue from ultimate consumers by the corresponding sales of electricity.

Prices are not adjusted for inflation.

Regions refer to U.S. Census divisions (https://www.eia.gov/tools/glossary/index.php?id=C#census_division).

(a) Average price to all sectors is weighted by sales of electricity to ultimate customers in the residential, commercial, industrial and transportation (not shown) sectors.

Historical data: Latest data available from EIA databases supporting the following reports: Electric Power Monthly and Electric Power Annual.

Minor discrepancies with published historical data are due to independent rounding and possible revisions not yet reflected in the STEO.

Forecast data: EIA Short-Term Integrated Forecasting System.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
United States															
Natural Gas	367.6	395.1	537.6	394.9	391.2	399.2	539.7	395.0	377.6	390.6	523.5	392.0	1,695.3	1,724.9	1,683.6
Coal	156.7	140.6	216.1	157.3	152.8	127.5	198.2	139.0	140.9	119.2	199.2	127.5	670.7	617.5	586.9
Nuclear	194.5	183.1	205.2	192.6	197.1	193.0	208.3	192.6	198.4	192.9	208.8	196.5	775.3	791.0	796.6
Renewable Energy Sources:	225.8	224.8	204.8	209.4	237.5	262.8	236.0	232.2	257.5	286.0	258.5	247.1	864.7	968.5	1,049.2
Conventional Hydropower	60.8	64.1	58.5	55.2	63.9	72.0	60.9	57.0	67.1	76.7	63.6	58.7	238.7	253.7	266.0
Wind	125.9	102.6	84.6	111.8	125.1	111.1	91.0	119.5	128.8	114.3	93.3	123.5	425.0	446.7	459.9
Solar (a)	29.2	49.0	52.0	33.3	38.9	70.9	74.3	46.3	52.4	87.0	91.8	55.8	163.5	230.4	287.0
Biomass	5.6	5.1	5.7	4.7	5.6	5.3	5.9	5.2	5.5	5.2	5.8	5.1	21.1	22.0	21.6
Geothermal	4.2	4.0	4.0	4.2	4.0	3.5	3.9	4.2	3.6	2.9	4.0	4.1	16.5	15.6	14.7
Pumped Storage Hydropower	-1.6	-1.3	-1.8	-1.2	-1.3	-1.3	-1.6	-1.1	-1.4	-1.3	-1.7	-1.2	-5.9	-5.4	-5.6
Petroleum (b)	3.9	3.5	4.7	3.5	4.8	3.5	4.4	4.6	4.7	3.4	4.2	4.6	15.6	17.3	16.9
Other Gases	0.8	0.7	0.9	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	3.2	3.3	3.3
Other Nonrenewable Fuels (c)	0.9	0.9	0.8	0.8	0.8	0.3	0.7	0.5	0.1	0.2	0.0	0.0	3.4	2.3	0.3
Total Generation	948.6	947.4	1,168.3	958.1	983.6	985.8	1,186.6	963.5	978.5	991.7	1,193.4	967.4	4,022.3	4,119.4	4,131.1
New England (ISO-NE)															
Natural Gas	11.5	12.3	15.8	12.5	12.3	11.7	18.1	12.8	11.2	11.6	17.6	11.0	52.2	55.0	51.4
Coal	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.2	0.1	0.2	0.3	0.4
Nuclear	7.1	3.4	6.9	5.8	7.1	7.1	7.2	5.6	7.0	6.1	7.2	7.2	23.2	27.0	27.5
Conventional hydropower	1.9	1.4	1.6	1.8	2.1	2.2	1.2	1.7	2.0	2.2	1.2	1.7	6.7	7.2	7.1
Nonhydro renewables (d)	2.6	2.8	2.6	2.4	2.4	2.7	3.0	3.3	4.1	3.8	3.6	3.9	10.4	11.4	15.4
Other energy sources (e)	0.3	0.2	0.2	0.3	0.4	0.3	0.2	0.4	0.7	0.2	0.2	0.4	1.0	1.2	1.5
Total generation	23.6	20.2	27.2	22.8	24.5	24.0	29.9	23.8	25.1	23.9	30.1	24.3	93.7	102.2	103.4
Net energy for load (f)	29.0	25.6	32.2	27.9	30.0	27.9	34.6	29.2	30.7	28.3	34.9	29.4	114.7	121.8	123.3
New York (NYISO)															
Natural Gas	13.5	14.2	21.1	15.6	15.4	14.1	21.4	14.8	14.0	14.2	21.4	14.1	64.4	65.7	63.7
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	6.8	6.6	6.9	7.2	6.5	7.1	7.0	6.5	6.7	7.0	7.2	7.2	27.5	27.1	28.0
Conventional hydropower	7.1	6.6	6.9	7.0	7.5	7.2	7.1	7.2	7.0	6.9	6.9	7.1	27.6	29.0	27.9
Nonhydro renewables (d)	2.1	2.0	1.8	2.1	3.0	2.8	2.2	2.5	2.9	2.7	2.4	2.9	8.1	10.5	10.8
Other energy sources (e)	0.2	0.0	0.0	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.1	0.2	0.2	0.5	0.7
Total generation	29.7	29.4	36.7	32.0	32.7	31.2	37.8	31.2	31.0	30.8	37.9	31.5	127.9	132.9	131.1
Net energy for load (f)	36.1	33.3	42.1	35.5	37.6	36.7	45.9	36.9	38.2	37.0	46.2	37.0	147.0	157.1	158.5
Mid-Atlantic (PJM)															
Natural Gas	85.1	81.5	112.3	85.4	91.1	86.4	113.9	87.2	94.0	85.1	110.4	87.5	364.3	378.6	377.0
Coal	28.3	22.9	36.2	25.7	28.9	18.7	28.7	19.9	22.5	17.5	30.8	18.6	113.1	96.2	89.4
Nuclear	67.6	65.7	70.6	68.8	68.9	65.7	71.7	68.3	67.4	66.3	71.3	68.0	272.6	274.6	272.9
Conventional hydropower	2.6	1.8	2.0	2.5	3.0	2.6	1.6	2.1	2.6	2.5	1.6	2.1	8.9	9.3	8.8
Nonhydro renewables (d)	13.1	12.0	9.8	12.4	15.3	15.8	13.0	14.2	16.6	16.8	14.0	15.0	47.2	58.3	62.4
Other energy sources (e)	0.3	0.1	0.2	0.4	0.5	0.2	0.2	0.6	0.4	0.2	0.2	0.6	1.0	1.5	1.5
Total generation	197.1	183.9	231.0	195.1	207.8	189.4	229.1	192.2	203.5	188.4	228.4	191.7	807.2	818.6	812.0
Net energy for load (f)	192.5	176.2	214.4	187.0	199.1	181.0	218.9	184.6	197.8	182.3	220.4	185.3	770.1	783.6	785.8
Southeast (SERC)															
Natural Gas	63.7	65.7	82.4	62.6	63.2	71.1	87.5	67.3	62.2	69.9	88.2	64.7	274.4	289.1	284.9
Coal	23.7	26.5	39.7	25.2	27.1	21.0	38.6	21.2	28.3	22.7	39.0	22.0	115.0	107.9	111.9
Nuclear	51.7	52.9	57.4	57.4	55.5	56.8	59.6	54.9	56.5	58.8	60.6	57.5	219.3	226.9	233.5
Conventional hydropower	9.9	6.2	8.0	8.6	10.9	8.9	8.0	9.1	11.4	9.0	8.1	9.1	32.7	36.9	37.6
Nonhydro renewables (d)	4.9	7.2	7.4	5.0	5.6	7.9	7.9	5.7	6.4	9.5	9.0	6.1	24.5	27.0	31.1
Other energy sources (e)	-0.3	-0.2	-0.5	-0.4	-0.1	-0.2	-0.4	-0.2	-0.2	-0.3	-0.4	-0.1	-1.3	-0.9	-1.0
Total generation	153.6	158.2	194.5	158.4	162.3	165.5	201.1	157.9	164.6	169.6	204.5	159.2	664.7	686.8	697.9
Net energy for load (f)	148.9	149.2	171.6	149.4	154.8	157.8	189.6	150.6	156.2	158.4	190.9	151.1	619.2	652.9	656.6
Florida (FRCC)															
Natural Gas	38.3	48.8	59.0	42.9	38.5	47.2	56.9	42.3	36.4	46.5	56.4	41.1	189.0	184.9	180.5
Coal	2.7	2.6	3.9	2.5	1.6	1.6	2.5	1.2	1.2	1.4	2.4	0.9	11.7	6.9	5.9
Nuclear	7.4	7.5	8.0	7.1	7.4	7.7	7.9	6.7	7.8	7.4	7.5	7.8	29.9	29.9	30.5
Conventional hydropower	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.2	0.2
Nonhydro renewables (d)	3.5	4.2	4.1	3.1	4.5	5.7	5.4	4.1	5.6	6.8	6.4	4.8	14.8	19.7	23.7
Other energy sources (e)	0.6	0.5	0.6	0.4	0.5	0.5	0.6	0.4	0.5	0.5	0.6	0.4	2.1	2.0	2.1
Total generation	52.5	63.6	75.7	55.9	52.6	62.7	73.4	54.9	51.6	62.7	73.4	55.1	247.7	243.6	242.8
Net energy for load (f)	54.4	65.5	77.2	56.6	52.1	63.1	74.8	55.1	50.8	63.6	74.9	55.1	253.8	245.1	244.5

Notes: EIA completed modeling and analysis for this report on April 4, 2024.

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

The electric power sector includes utility-scale generating power plants (total capacity is larger than 1 megawatt) operated by electric utilities and independent power producers whose primary business is to sell electricity over the transmission grid for consumption by the public.

(a) Generation from utility-scale (larger than 1 megawatt) solar photovoltaic and solar thermal power plants. Excludes generation from small-scale solar photovoltaic systems (see Table 7a).

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

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

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

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

(f) Includes regional generation from generating units operated by electric power sector, plus energy receipts from neighboring U.S. balancing authorities outside region minus energy deliveries to neighboring balancing authorities.

Historical data: Latest data available from EIA databases supporting the following reports: Electric Power Monthly and Electric Power Annual.

Minor discrepancies with published historical data are due to independent rounding and possible revisions not yet reflected in the STEO.

Table 7d part 2. U.S. Regional Electricity Generation, Electric Power Sector (billion kilowatthours), continued from Table 7d part 1
 U.S. Energy Information Administration | Short-Term Energy Outlook - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Midwest (MISO)															
Natural Gas	45.4	54.7	67.3	47.8	49.9	55.7	75.7	49.6	53.1	59.2	74.4	54.9	215.2	230.9	241.6
Coal	43.0	38.0	57.3	44.9	42.9	38.4	52.3	44.0	42.1	35.1	53.4	38.5	183.2	177.5	169.1
Nuclear	23.4	21.1	24.3	18.4	20.9	21.9	24.2	23.1	22.5	20.9	24.2	22.0	87.2	90.2	89.6
Conventional hydropower	2.2	2.0	1.9	2.0	2.4	2.8	2.3	2.2	2.5	2.9	2.4	2.2	8.0	9.7	10.0
Nonhydro renewables (d)	30.3	26.5	19.4	29.8	31.1	27.3	21.3	31.5	35.9	32.2	24.8	34.5	106.0	111.2	127.4
Other energy sources (e)	0.8	0.7	1.3	0.8	1.3	1.2	1.4	1.4	1.1	1.1	1.3	1.3	3.6	5.3	4.8
Total generation	145.1	142.9	171.5	143.6	148.4	147.3	177.3	151.8	157.1	151.4	180.5	153.3	603.2	624.8	642.3
Net energy for load (f)	158.6	157.9	184.3	155.2	160.6	160.9	191.6	162.0	165.7	163.8	193.5	163.2	656.0	675.1	686.2
Central (Southwest Power Pool)															
Natural Gas	15.8	21.6	30.5	18.3	19.3	23.5	30.5	17.2	17.2	21.5	29.3	16.9	86.1	90.4	84.8
Coal	20.4	17.2	27.4	18.4	17.7	16.3	26.2	16.4	17.4	15.1	25.0	15.0	83.4	76.7	72.5
Nuclear	4.3	4.3	4.3	4.4	4.3	3.1	4.3	3.5	4.2	4.3	4.2	3.1	17.2	15.2	15.9
Conventional hydropower	2.9	2.8	2.7	2.7	3.3	4.1	3.6	3.0	3.5	4.2	3.7	3.1	11.1	14.0	14.5
Nonhydro renewables (d)	31.4	25.6	22.5	29.4	31.2	29.8	25.3	31.7	30.7	28.9	25.7	32.5	108.9	117.9	117.8
Other energy sources (e)	0.2	0.1	0.2	0.2	0.3	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.7	0.7	0.6
Total generation	75.0	71.6	87.6	73.3	76.1	76.9	90.1	71.9	73.2	74.2	88.1	70.7	307.5	315.0	306.1
Net energy for load (f)	66.6	66.6	81.8	65.7	68.9	69.6	83.2	65.4	66.4	67.6	82.0	64.7	280.7	287.1	280.7
Texas (ERCOT)															
Natural Gas	36.5	49.6	70.1	42.7	42.3	46.3	61.8	42.2	39.5	42.0	58.2	41.2	198.9	192.6	180.9
Coal	11.4	15.2	19.7	15.0	12.3	9.9	15.2	11.1	8.3	10.2	14.6	9.9	61.3	48.6	42.9
Nuclear	10.5	9.0	10.9	10.3	10.1	10.1	10.6	9.3	10.8	10.0	10.7	10.2	40.7	40.1	41.7
Conventional hydropower	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.6	0.7	0.6
Nonhydro renewables (d)	36.6	33.8	33.6	31.7	36.3	43.9	44.7	39.3	39.6	50.9	51.8	43.1	135.6	164.2	185.4
Other energy sources (e)	0.2	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	-0.1	-0.1	1.2	1.0	0.1
Total generation	95.4	108.1	134.7	100.1	101.5	110.8	132.7	102.1	98.4	113.4	135.4	104.3	438.3	447.1	451.5
Net energy for load (f)	94.2	109.8	140.6	100.0	101.3	110.8	132.7	102.1	98.4	113.4	135.4	104.3	444.5	446.9	451.5
Northwest															
Natural Gas	24.3	17.9	27.8	23.9	22.6	15.8	21.3	23.0	23.2	13.8	20.1	23.3	93.9	82.7	80.5
Coal	20.2	14.4	23.6	20.2	15.8	15.0	26.1	18.3	13.8	10.8	26.1	16.6	78.4	75.3	67.4
Nuclear	2.4	1.0	2.5	2.5	2.5	2.4	2.4	2.4	2.4	1.2	2.4	2.4	8.4	9.8	8.5
Conventional hydropower	25.8	29.9	23.5	23.8	25.8	31.0	25.2	24.4	30.1	36.9	29.1	26.9	103.0	106.4	122.9
Nonhydro renewables (d)	18.9	19.2	17.8	17.5	22.4	21.5	22.5	19.9	23.1	24.5	23.0	20.0	73.3	86.3	90.7
Other energy sources (e)	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.8	0.6	0.4
Total generation	91.8	82.6	95.4	88.0	89.3	85.9	97.8	88.2	92.8	87.2	100.9	89.3	357.8	361.2	370.3
Net energy for load (f)	88.7	76.7	86.5	82.7	88.6	76.8	86.0	81.7	83.3	75.8	85.7	81.6	334.6	333.2	326.4
Southwest															
Natural Gas	12.5	16.5	23.0	16.7	13.3	15.3	23.6	15.5	9.8	13.4	22.0	14.4	68.8	67.8	59.6
Coal	5.5	3.1	6.5	4.3	5.6	5.1	6.1	5.2	5.9	5.0	6.3	5.7	19.4	22.1	22.9
Nuclear	8.6	6.8	8.6	7.6	8.7	7.4	8.6	7.5	8.4	7.4	8.6	7.5	31.5	32.3	31.9
Conventional hydropower	1.4	2.5	2.0	1.4	1.6	2.4	2.0	1.6	1.9	2.2	1.9	1.6	7.3	7.6	7.5
Nonhydro renewables (d)	6.4	6.5	6.1	5.6	7.0	7.6	8.3	7.5	8.4	9.9	9.0	8.2	24.6	30.4	35.6
Other energy sources (e)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	-0.1	0.1	-0.1	-0.2
Total generation	34.5	35.4	46.2	35.6	36.3	37.9	48.7	37.2	34.4	37.9	47.9	37.2	151.8	160.1	157.4
Net energy for load (f)	28.3	32.9	45.8	29.9	28.8	34.3	44.8	29.4	28.0	34.3	44.9	29.3	136.9	137.3	136.5
California															
Natural Gas	20.2	11.5	27.2	25.6	22.3	11.4	28.2	22.5	16.3	12.7	24.8	22.3	84.6	84.3	76.2
Coal	1.1	0.6	1.7	1.1	0.5	0.9	1.8	1.2	1.0	1.1	0.9	0.0	4.4	4.4	2.9
Nuclear	4.7	4.9	4.9	3.2	5.0	3.6	4.7	4.7	4.6	3.7	4.7	3.6	17.7	18.0	16.7
Conventional hydropower	6.5	10.5	9.4	4.9	6.7	10.1	9.2	5.2	5.5	9.2	8.2	4.4	31.3	31.1	27.4
Nonhydro renewables (d)	14.7	20.3	20.5	14.9	14.4	25.2	21.0	15.0	16.7	22.5	24.4	17.0	70.5	75.5	80.6
Other energy sources (e)	-0.6	-0.2	0.0	-0.2	-0.3	-0.6	0.1	-0.2	-0.7	-0.4	-0.3	-0.5	-1.0	-1.0	-1.9
Total generation	46.7	47.7	63.7	49.5	48.5	50.6	65.0	48.3	43.4	48.8	62.7	46.9	207.6	212.5	201.8
Net energy for load (f)	60.5	59.9	76.7	62.9	59.6	63.2	80.6	62.6	59.3	63.8	80.9	62.6	260.0	266.1	266.7

Notes: EIA completed modeling and analysis for this report on April 4, 2024.

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

The electric power sector includes utility-scale generating power plants (total capacity is larger than 1 megawatt) operated by electric utilities and independent power producers whose primary business is to sell electricity over the transmission grid for consumption by the public.

(a) Generation from utility-scale (larger than 1 megawatt) solar photovoltaic and solar thermal power plants. Excludes generation from small-scale solar photovoltaic systems (see Table 7a).

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

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

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

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

(f) Includes regional generation from generating units operated by electric power sector, plus energy receipts from neighboring U.S. balancing authorities outside region minus energy deliveries to neighboring balancing authorities.

Historical data: Latest data available from EIA databases supporting the following reports: Electric Power Monthly and Electric Power Annual.

Minor discrepancies with published historical data are due to independent rounding and possible revisions not yet reflected in the STEO.

Table 7e. U.S. Electric Generating Capacity (gigawatts at end of period)
 U.S. Energy Information Administration | Short-Term Energy Outlook - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Electric power sector (power plants larger than one megawatt)															
Fossil fuel energy sources															
Natural gas	488.0	489.5	489.9	490.7	490.1	<i>488.4</i>	<i>489.5</i>	<i>490.2</i>	<i>490.1</i>	<i>492.6</i>	<i>493.5</i>	<i>493.5</i>	490.7	<i>490.2</i>	<i>493.5</i>
Coal	184.4	180.8	178.7	177.5	176.1	<i>175.4</i>	<i>175.4</i>	<i>175.0</i>	<i>175.0</i>	<i>171.3</i>	<i>169.5</i>	<i>162.9</i>	177.5	<i>175.0</i>	<i>162.9</i>
Petroleum	27.8	27.6	27.6	27.6	27.6	<i>27.3</i>	<i>27.3</i>	<i>27.2</i>	<i>27.2</i>	<i>27.0</i>	<i>27.0</i>	<i>26.8</i>	27.6	<i>27.2</i>	<i>26.8</i>
Other gases	0.4	0.4	0.4	0.4	0.3	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	0.4	<i>0.3</i>	<i>0.3</i>
Renewable energy sources															
Wind	143.0	144.4	144.6	147.6	150.5	<i>151.9</i>	<i>152.0</i>	<i>154.5</i>	<i>155.2</i>	<i>155.8</i>	<i>156.3</i>	<i>160.1</i>	147.6	<i>154.5</i>	<i>160.1</i>
Solar photovoltaic	73.2	76.7	80.4	90.0	100.3	<i>111.4</i>	<i>116.3</i>	<i>126.5</i>	<i>132.7</i>	<i>139.9</i>	<i>144.0</i>	<i>158.1</i>	90.0	<i>126.5</i>	<i>158.1</i>
Solar thermal	1.5	1.5	1.5	1.5	1.5	<i>1.5</i>	<i>1.5</i>	<i>1.5</i>	<i>1.5</i>	<i>1.5</i>	<i>1.5</i>	<i>1.5</i>	1.5	<i>1.5</i>	<i>1.5</i>
Geothermal	2.7	2.7	2.7	2.7	2.7	<i>2.7</i>	<i>2.7</i>	<i>2.7</i>	<i>2.7</i>	<i>2.7</i>	<i>2.7</i>	<i>2.7</i>	2.7	<i>2.7</i>	<i>2.7</i>
Waste biomass	2.9	2.9	2.9	2.9	2.9	<i>2.9</i>	<i>2.9</i>	<i>2.9</i>	<i>2.9</i>	<i>2.9</i>	<i>2.9</i>	<i>2.9</i>	2.9	<i>2.9</i>	<i>2.9</i>
Wood biomass	2.4	2.4	2.3	2.3	2.3	<i>2.3</i>	<i>2.3</i>	<i>2.3</i>	<i>2.3</i>	<i>2.3</i>	<i>2.3</i>	<i>2.3</i>	2.3	<i>2.3</i>	<i>2.3</i>
Conventional hydroelectric	79.7	79.7	79.7	79.7	79.5	<i>79.5</i>	<i>79.6</i>	<i>79.6</i>	<i>79.6</i>	<i>79.6</i>	<i>79.6</i>	<i>79.7</i>	79.7	<i>79.6</i>	<i>79.7</i>
Pumped storage hydroelectric	23.1	23.1	23.1	23.1	23.1	<i>23.2</i>	<i>23.2</i>	<i>23.2</i>	<i>23.2</i>	<i>23.2</i>	<i>23.2</i>	<i>23.2</i>	23.1	<i>23.2</i>	<i>23.2</i>
Nuclear	94.7	94.7	95.8	95.8	95.8	<i>96.9</i>	<i>96.9</i>	<i>96.9</i>	<i>96.9</i>	<i>96.9</i>	<i>96.9</i>	<i>96.9</i>	95.8	<i>96.9</i>	<i>96.9</i>
Battery storage	9.5	10.9	13.5	15.7	19.5	<i>24.4</i>	<i>26.3</i>	<i>30.9</i>	<i>32.6</i>	<i>35.8</i>	<i>37.3</i>	<i>41.3</i>	15.7	<i>30.9</i>	<i>41.3</i>
Other nonrenewable sources (a)	0.2	0.2	0.2	0.2	0.2	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	0.2	<i>0.2</i>	<i>0.2</i>
Industrial and commercial sectors (combined heat and power plants larger than one megawatt)															
Fossil fuel energy sources															
Natural gas	18.8	18.8	18.8	18.7	18.7	<i>18.7</i>	<i>18.5</i>	<i>18.5</i>	<i>18.5</i>	<i>18.5</i>	<i>18.5</i>	<i>18.5</i>	18.7	<i>18.5</i>	<i>18.5</i>
Coal	1.4	1.4	1.4	1.4	1.4	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	1.4	<i>1.4</i>	<i>1.4</i>
Petroleum	1.5	1.5	1.5	1.5	1.5	<i>1.5</i>	<i>1.5</i>	<i>1.5</i>	<i>1.5</i>	<i>1.5</i>	<i>1.5</i>	<i>1.5</i>	1.5	<i>1.5</i>	<i>1.5</i>
Other gases	1.4	1.4	1.4	1.4	1.4	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	1.4	<i>1.4</i>	<i>1.4</i>
Renewable energy sources															
Wood biomass	5.4	5.3	5.3	5.3	5.3	<i>5.3</i>	<i>5.3</i>	<i>5.3</i>	<i>5.3</i>	<i>5.3</i>	<i>5.3</i>	<i>5.3</i>	5.3	<i>5.3</i>	<i>5.3</i>
Waste biomass	1.4	1.4	1.4	1.4	1.4	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	<i>1.4</i>	1.4	<i>1.4</i>	<i>1.4</i>
Solar	0.6	0.6	0.6	0.8	0.8	<i>0.8</i>	<i>0.8</i>	<i>0.8</i>	<i>0.8</i>	<i>0.8</i>	<i>0.8</i>	<i>0.8</i>	0.8	<i>0.8</i>	<i>0.8</i>
Wind	0.1	0.1	0.1	0.1	0.1	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	0.1	<i>0.1</i>	<i>0.1</i>
Geothermal	0.1	0.1	0.1	0.1	0.1	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	0.1	<i>0.1</i>	<i>0.1</i>
Conventional hydroelectric	0.3	0.3	0.3	0.3	0.3	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	<i>0.3</i>	0.3	<i>0.3</i>	<i>0.3</i>
Battery storage	0.1	0.1	0.1	0.1	0.1	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	0.1	<i>0.1</i>	<i>0.1</i>
Other nonrenewable sources (a)	1.2	1.3	1.3	1.3	1.3	<i>1.3</i>	<i>1.3</i>	<i>1.3</i>	<i>1.3</i>	<i>1.3</i>	<i>1.3</i>	<i>1.3</i>	1.3	<i>1.3</i>	<i>1.3</i>
Small-scale solar photovoltaic capacity (systems smaller than one megawatt)															
Residential sector	27.8	29.6	31.4	32.9	33.9	<i>35.1</i>	<i>36.4</i>	<i>37.7</i>	<i>39.0</i>	<i>40.3</i>	<i>41.7</i>	<i>43.1</i>	32.9	<i>37.7</i>	<i>43.1</i>
Commercial sector	11.5	11.8	12.0	12.3	12.7	<i>13.1</i>	<i>13.6</i>	<i>14.0</i>	<i>14.5</i>	<i>15.0</i>	<i>15.5</i>	<i>16.0</i>	12.3	<i>14.0</i>	<i>16.0</i>
Industrial sector	2.4	2.5	2.5	2.6	2.6	<i>2.7</i>	<i>2.7</i>	<i>2.8</i>	<i>2.8</i>	<i>2.9</i>	<i>3.0</i>	<i>3.0</i>	2.6	<i>2.8</i>	<i>3.0</i>
All sectors total	41.7	43.8	45.9	47.7	49.2	<i>51.0</i>	<i>52.7</i>	<i>54.5</i>	<i>56.4</i>	<i>58.2</i>	<i>60.1</i>	<i>62.1</i>	47.7	<i>54.5</i>	<i>62.1</i>

Notes:

EIA completed modeling and analysis for this report on April 4, 2024.
 The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.
 Capacity values represent the amount of generating capacity that is operating (or expected to be operating) at the end of each period.
 Changes in capacity reflect various factors including new generators coming online, retiring generators, capacity uprates and derates, delayed planned capacity projects, cancelled projects, and other factors.

(a) Other sources include hydrogen, pitch, chemicals, sulfur, purchased steam, nonrenewable waste, and miscellaneous technologies.

Data sources:

- Utility-scale capacity (power plants larger than one megawatt): EIA-860M Preliminary Monthly Electric Generator Inventory, January 2024.
 - Small-scale solar capacity (systems smaller than one megawatt): Form EIA-861M Monthly Electric Power Industry Report.
 Historical capacity data may differ from other EIA publications due to frequent updates to the Preliminary Monthly Electric Generator Inventory.

Table 8. U.S. Renewable Energy Consumption (Quadrillion Btu)
 U.S. Energy Information Administration | Short-Term Energy Outlook - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Electric Power Sector															
Geothermal	0.014	0.014	0.014	0.014	0.014	<i>0.012</i>	<i>0.013</i>	<i>0.014</i>	<i>0.012</i>	<i>0.010</i>	<i>0.014</i>	<i>0.014</i>	0.056	<i>0.053</i>	<i>0.050</i>
Hydroelectric Power (a)	0.208	0.219	0.200	0.188	0.216	<i>0.246</i>	<i>0.208</i>	<i>0.194</i>	<i>0.229</i>	<i>0.262</i>	<i>0.217</i>	<i>0.200</i>	0.814	<i>0.864</i>	<i>0.908</i>
Solar (b)	0.100	0.167	0.177	0.114	0.133	<i>0.242</i>	<i>0.254</i>	<i>0.158</i>	<i>0.179</i>	<i>0.297</i>	<i>0.313</i>	<i>0.190</i>	0.558	<i>0.786</i>	<i>0.979</i>
Waste Biomass (c)	0.043	0.041	0.042	0.041	0.042	<i>0.041</i>	<i>0.041</i>	<i>0.041</i>	<i>0.041</i>	<i>0.039</i>	<i>0.040</i>	<i>0.040</i>	0.167	<i>0.164</i>	<i>0.161</i>
Wood Biomass	0.044	0.040	0.045	0.033	0.046	<i>0.042</i>	<i>0.051</i>	<i>0.041</i>	<i>0.046</i>	<i>0.042</i>	<i>0.051</i>	<i>0.039</i>	0.162	<i>0.180</i>	<i>0.178</i>
Wind	0.430	0.350	0.289	0.382	0.427	<i>0.379</i>	<i>0.310</i>	<i>0.408</i>	<i>0.440</i>	<i>0.390</i>	<i>0.318</i>	<i>0.421</i>	1.450	<i>1.524</i>	<i>1.569</i>
Subtotal	0.838	0.830	0.766	0.773	0.877	<i>0.961</i>	<i>0.878</i>	<i>0.856</i>	<i>0.946</i>	<i>1.039</i>	<i>0.954</i>	<i>0.905</i>	3.207	<i>3.572</i>	<i>3.845</i>
Industrial Sector															
Biofuel Losses and Co-products (d)	0.199	0.202	0.206	0.214	0.207	<i>0.205</i>	<i>0.208</i>	<i>0.211</i>	<i>0.205</i>	<i>0.208</i>	<i>0.208</i>	<i>0.212</i>	0.821	<i>0.832</i>	<i>0.835</i>
Geothermal	0.001	0.001	0.001	0.001	0.001	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	0.004	<i>0.004</i>	<i>0.004</i>
Hydroelectric Power (a)	0.001	0.001	0.001	0.001	0.001	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	0.003	<i>0.003</i>	<i>0.003</i>
Solar (b)	0.003	0.005	0.005	0.003	0.003	<i>0.005</i>	<i>0.005</i>	<i>0.004</i>	<i>0.004</i>	<i>0.005</i>	<i>0.005</i>	<i>0.004</i>	0.016	<i>0.017</i>	<i>0.019</i>
Waste Biomass (c)	0.041	0.040	0.037	0.042	0.040	<i>0.039</i>	<i>0.038</i>	<i>0.041</i>	<i>0.040</i>	<i>0.039</i>	<i>0.039</i>	<i>0.041</i>	0.160	<i>0.159</i>	<i>0.159</i>
Wood Biomass	0.318	0.300	0.299	0.307	0.314	<i>0.326</i>	<i>0.342</i>	<i>0.346</i>	<i>0.336</i>	<i>0.333</i>	<i>0.345</i>	<i>0.347</i>	1.224	<i>1.327</i>	<i>1.361</i>
Subtotal (e)	0.568	0.553	0.554	0.573	0.571	<i>0.582</i>	<i>0.601</i>	<i>0.608</i>	<i>0.591</i>	<i>0.593</i>	<i>0.604</i>	<i>0.612</i>	2.249	<i>2.363</i>	<i>2.401</i>
Commercial Sector															
Geothermal	0.005	0.005	0.005	0.005	0.005	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	0.020	<i>0.020</i>	<i>0.020</i>
Solar (b)	0.014	0.021	0.021	0.014	0.016	<i>0.023</i>	<i>0.023</i>	<i>0.016</i>	<i>0.018</i>	<i>0.027</i>	<i>0.027</i>	<i>0.018</i>	0.069	<i>0.078</i>	<i>0.090</i>
Waste Biomass (c)	0.017	0.017	0.018	0.018	0.017	<i>0.017</i>	<i>0.018</i>	<i>0.018</i>	<i>0.017</i>	<i>0.017</i>	<i>0.018</i>	<i>0.018</i>	0.071	<i>0.071</i>	<i>0.071</i>
Wood Biomass	0.020	0.020	0.021	0.021	0.020	<i>0.020</i>	<i>0.021</i>	<i>0.021</i>	<i>0.020</i>	<i>0.020</i>	<i>0.021</i>	<i>0.021</i>	0.082	<i>0.082</i>	<i>0.082</i>
Subtotal (e)	0.064	0.071	0.073	0.066	0.066	<i>0.074</i>	<i>0.076</i>	<i>0.068</i>	<i>0.068</i>	<i>0.077</i>	<i>0.079</i>	<i>0.071</i>	0.274	<i>0.283</i>	<i>0.295</i>
Residential Sector															
Geothermal	0.010	0.010	0.010	0.010	0.010	<i>0.010</i>	<i>0.010</i>	<i>0.010</i>	<i>0.010</i>	<i>0.010</i>	<i>0.010</i>	<i>0.010</i>	0.040	<i>0.040</i>	<i>0.040</i>
Solar (f)	0.046	0.069	0.070	0.050	0.053	<i>0.079</i>	<i>0.078</i>	<i>0.054</i>	<i>0.058</i>	<i>0.087</i>	<i>0.086</i>	<i>0.059</i>	0.235	<i>0.264</i>	<i>0.290</i>
Wood Biomass	0.111	0.112	0.114	0.114	0.111	<i>0.112</i>	<i>0.114</i>	<i>0.114</i>	<i>0.111</i>	<i>0.112</i>	<i>0.114</i>	<i>0.114</i>	0.450	<i>0.450</i>	<i>0.450</i>
Subtotal	0.166	0.191	0.193	0.174	0.174	<i>0.201</i>	<i>0.202</i>	<i>0.177</i>	<i>0.179</i>	<i>0.209</i>	<i>0.210</i>	<i>0.183</i>	0.725	<i>0.754</i>	<i>0.780</i>
Transportation Sector															
Biodiesel, Renewable Diesel, and Other (g)	0.140	0.173	0.175	0.172	0.169	<i>0.185</i>	<i>0.188</i>	<i>0.202</i>	<i>0.201</i>	<i>0.219</i>	<i>0.225</i>	<i>0.235</i>	0.660	<i>0.744</i>	<i>0.880</i>
Ethanol (g)	0.268	0.284	0.286	0.286	0.270	<i>0.285</i>	<i>0.290</i>	<i>0.285</i>	<i>0.268</i>	<i>0.287</i>	<i>0.288</i>	<i>0.286</i>	1.125	<i>1.131</i>	<i>1.128</i>
Subtotal	0.408	0.457	0.462	0.458	0.439	<i>0.471</i>	<i>0.478</i>	<i>0.487</i>	<i>0.469</i>	<i>0.506</i>	<i>0.513</i>	<i>0.520</i>	1.785	<i>1.875</i>	<i>2.008</i>
All Sectors Total															
Biodiesel, Renewable Diesel, and Other (g)	0.140	0.173	0.175	0.172	0.169	<i>0.185</i>	<i>0.188</i>	<i>0.202</i>	<i>0.201</i>	<i>0.219</i>	<i>0.225</i>	<i>0.235</i>	0.660	<i>0.744</i>	<i>0.880</i>
Biofuel Losses and Co-products (d)	0.199	0.202	0.206	0.214	0.207	<i>0.205</i>	<i>0.208</i>	<i>0.211</i>	<i>0.205</i>	<i>0.208</i>	<i>0.208</i>	<i>0.212</i>	0.821	<i>0.832</i>	<i>0.835</i>
Ethanol (f)	0.281	0.298	0.299	0.300	0.283	<i>0.299</i>	<i>0.303</i>	<i>0.298</i>	<i>0.280</i>	<i>0.300</i>	<i>0.301</i>	<i>0.299</i>	1.177	<i>1.183</i>	<i>1.180</i>
Geothermal	0.030	0.029	0.030	0.030	0.030	<i>0.028</i>	<i>0.029</i>	<i>0.030</i>	<i>0.028</i>	<i>0.026</i>	<i>0.030</i>	<i>0.030</i>	0.120	<i>0.117</i>	<i>0.114</i>
Hydroelectric Power (a)	0.209	0.220	0.201	0.189	0.217	<i>0.247</i>	<i>0.209</i>	<i>0.195</i>	<i>0.230</i>	<i>0.263</i>	<i>0.218</i>	<i>0.201</i>	0.818	<i>0.868</i>	<i>0.912</i>
Solar (b)(f)	0.162	0.262	0.272	0.181	0.205	<i>0.349</i>	<i>0.360</i>	<i>0.231</i>	<i>0.259</i>	<i>0.415</i>	<i>0.432</i>	<i>0.272</i>	0.878	<i>1.146</i>	<i>1.378</i>
Waste Biomass (c)	0.102	0.098	0.097	0.101	0.100	<i>0.097</i>	<i>0.098</i>	<i>0.100</i>	<i>0.097</i>	<i>0.096</i>	<i>0.097</i>	<i>0.100</i>	0.398	<i>0.395</i>	<i>0.390</i>
Wood Biomass	0.493	0.472	0.478	0.475	0.491	<i>0.500</i>	<i>0.528</i>	<i>0.521</i>	<i>0.513</i>	<i>0.507</i>	<i>0.530</i>	<i>0.521</i>	1.918	<i>2.040</i>	<i>2.071</i>
Wind	0.430	0.350	0.289	0.382	0.427	<i>0.379</i>	<i>0.310</i>	<i>0.408</i>	<i>0.440</i>	<i>0.390</i>	<i>0.318</i>	<i>0.421</i>	1.450	<i>1.524</i>	<i>1.569</i>
Total Consumption	2.045	2.104	2.048	2.044	2.127	<i>2.289</i>	<i>2.233</i>	<i>2.198</i>	<i>2.253</i>	<i>2.425</i>	<i>2.359</i>	<i>2.291</i>	8.241	<i>8.847</i>	<i>9.329</i>

Notes: EIA completed modeling and analysis for this report on April 4, 2024.

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

(a) Energy consumption for conventional hydroelectric power only. Hydroelectricity generated by pumped storage is not included in renewable energy, and energy consumption by small-scale solar photovoltaic systems (less than 1 megawatts in size).

(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 solar photovoltaic systems (<1 megawatt), and it includes solar heating consumption in all sectors. Some biomass-based diesel may be consumed in the residential sector in heating oil.

Historical data: Latest data available from EIA databases supporting the following reports: Electric Power Monthly, Electric Power Annual,

Minor discrepancies with published historical data are due to independent rounding and possible revisions not yet reflected in the STEO.

Forecast data: EIA Short-Term Integrated Forecasting System.

Table 9a. U.S. Macroeconomic Indicators and CO2 Emissions
 U.S. Energy Information Administration | Short-Term Energy Outlook - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Macroeconomic															
Real Gross Domestic Product															
(billion chained 2017 dollars - SAAR)	22,112	22,225	22,491	22,669	22,780	<i>22,886</i>	<i>22,996</i>	<i>23,089</i>	<i>23,161</i>	<i>23,240</i>	<i>23,329</i>	<i>23,429</i>	22,374	22,938	23,290
Real Personal Consumption Expend.															
(billion chained 2017 dollars - SAAR)	15,313	15,344	15,461	15,575	15,664	<i>15,762</i>	<i>15,852</i>	<i>15,947</i>	<i>16,020</i>	<i>16,095</i>	<i>16,176</i>	<i>16,258</i>	15,423	15,806	16,137
Real Private Fixed Investment															
(billion chained 2017 dollars - SAAR)	3,906	3,956	3,981	4,006	4,023	<i>4,042</i>	<i>4,060</i>	<i>4,076</i>	<i>4,096</i>	<i>4,114</i>	<i>4,131</i>	<i>4,150</i>	3,962	4,051	4,123
Business Inventory Change															
(billion chained 2017 dollars - SAAR)	24	19	102	85	94	<i>92</i>	<i>110</i>	<i>111</i>	<i>107</i>	<i>98</i>	<i>96</i>	<i>93</i>	57	102	98
Real Government Expenditures															
(billion chained 2017 dollars - SAAR)	3,759	3,790	3,843	3,883	3,896	<i>3,905</i>	<i>3,909</i>	<i>3,913</i>	<i>3,916</i>	<i>3,921</i>	<i>3,925</i>	<i>3,928</i>	3,819	3,906	3,923
Real Exports of Goods & Services															
(billion chained 2017 dollars - SAAR)	2,525	2,465	2,497	2,536	2,567	<i>2,591</i>	<i>2,622</i>	<i>2,649</i>	<i>2,671</i>	<i>2,692</i>	<i>2,718</i>	<i>2,748</i>	2,506	2,607	2,707
Real Imports of Goods & Services															
(billion chained 2017 dollars - SAAR)	3,460	3,393	3,428	3,451	3,502	<i>3,550</i>	<i>3,605</i>	<i>3,663</i>	<i>3,713</i>	<i>3,751</i>	<i>3,790</i>	<i>3,825</i>	3,433	3,580	3,770
Real Disposable Personal Income															
(billion chained 2017 dollars - SAAR)	16,663	16,797	16,820	16,911	17,016	<i>17,174</i>	<i>17,312</i>	<i>17,443</i>	<i>17,587</i>	<i>17,719</i>	<i>17,840</i>	<i>17,955</i>	16,798	17,236	17,775
Non-Farm Employment															
(millions)	155.0	155.8	156.4	157.1	157.8	<i>158.2</i>	<i>158.5</i>	<i>158.6</i>	<i>158.6</i>	<i>158.7</i>	<i>158.7</i>	<i>158.7</i>	156.1	158.3	158.7
Civilian Unemployment Rate															
(percent)	3.5	3.6	3.7	3.7	3.8	<i>3.8</i>	<i>3.8</i>	<i>3.8</i>	<i>3.9</i>	<i>4.0</i>	<i>4.1</i>	<i>4.2</i>	3.6	3.8	4.0
Housing Starts															
(millions - SAAR)	1.39	1.45	1.37	1.48	1.43	<i>1.44</i>	<i>1.39</i>	<i>1.36</i>	<i>1.34</i>	<i>1.32</i>	<i>1.31</i>	<i>1.30</i>	1.42	1.41	1.32
Industrial Production Indices (Index, 2017=100)															
Total Industrial Production	102.6	102.8	103.2	102.7	102.4	<i>102.8</i>	<i>102.9</i>	<i>103.0</i>	<i>103.1</i>	<i>103.2</i>	<i>103.5</i>	<i>103.8</i>	102.8	102.8	103.4
Manufacturing	99.9	100.2	100.0	99.8	99.5	<i>99.9</i>	<i>100.4</i>	<i>100.8</i>	<i>100.9</i>	<i>101.0</i>	<i>101.3</i>	<i>101.7</i>	100.0	100.2	101.2
Food	105.1	103.6	101.6	102.4	101.9	<i>102.8</i>	<i>103.4</i>	<i>103.8</i>	<i>104.3</i>	<i>104.7</i>	<i>105.2</i>	<i>105.7</i>	103.2	103.0	104.9
Paper	87.8	86.6	86.7	88.0	86.6	<i>86.4</i>	<i>86.9</i>	<i>87.3</i>	<i>87.5</i>	<i>87.7</i>	<i>87.8</i>	<i>88.1</i>	87.3	86.8	87.8
Petroleum and Coal Products	88.5	89.9	91.3	92.9	90.8	<i>93.5</i>	<i>93.9</i>	<i>93.7</i>	<i>93.4</i>	<i>93.1</i>	<i>92.8</i>	<i>92.7</i>	90.7	93.0	93.0
Chemicals	103.2	103.8	103.5	103.0	102.9	<i>103.4</i>	<i>104.5</i>	<i>105.2</i>	<i>105.9</i>	<i>106.6</i>	<i>107.2</i>	<i>108.0</i>	103.4	104.0	106.9
Nonmetallic Mineral Products	111.4	108.6	107.4	107.4	104.6	<i>106.9</i>	<i>107.7</i>	<i>108.4</i>	<i>109.2</i>	<i>110.1</i>	<i>110.8</i>	<i>111.6</i>	108.7	106.9	110.4
Primary Metals	92.7	95.7	94.8	93.8	92.9	<i>94.7</i>	<i>97.0</i>	<i>98.1</i>	<i>98.4</i>	<i>99.1</i>	<i>99.8</i>	<i>101.2</i>	94.3	95.7	99.6
Coal-weighted Manufacturing (a)	95.7	96.2	96.0	96.0	94.6	<i>96.3</i>	<i>97.6</i>	<i>98.1</i>	<i>98.4</i>	<i>98.9</i>	<i>99.2</i>	<i>99.9</i>	96.0	96.6	99.1
Distillate-weighted Manufacturing (a)	99.3	99.1	98.7	98.9	97.8	<i>99.3</i>	<i>100.1</i>	<i>100.6</i>	<i>101.0</i>	<i>101.4</i>	<i>101.8</i>	<i>102.4</i>	99.0	99.4	101.7
Electricity-weighted Manufacturing (a)	96.4	96.8	96.9	96.8	96.2	<i>97.5</i>	<i>98.6</i>	<i>99.2</i>	<i>99.5</i>	<i>100.0</i>	<i>100.4</i>	<i>101.1</i>	96.7	97.9	100.3
Natural Gas-weighted Manufacturing (a)	94.0	94.1	94.5	94.6	93.8	<i>95.1</i>	<i>96.2</i>	<i>96.6</i>	<i>96.8</i>	<i>97.1</i>	<i>97.3</i>	<i>97.9</i>	94.3	95.4	97.3
Price Indexes															
Consumer Price Index (all urban consumers)															
(index, 1982=1984=1.00)	3.01	3.03	3.06	3.08	3.11	<i>3.12</i>	<i>3.14</i>	<i>3.16</i>	<i>3.17</i>	<i>3.19</i>	<i>3.20</i>	<i>3.22</i>	3.05	3.13	3.19
Producer Price Index: All Commodities															
(index, 1982=1.00)	2.59	2.54	2.57	2.55	2.51	<i>2.48</i>	<i>2.48</i>	<i>2.50</i>	<i>2.51</i>	<i>2.50</i>	<i>2.50</i>	<i>2.51</i>	2.56	2.49	2.50
Producer Price Index: Petroleum															
(index, 1982=1.00)	3.09	2.91	3.17	2.82	2.59	<i>2.81</i>	<i>2.88</i>	<i>2.77</i>	<i>2.74</i>	<i>2.79</i>	<i>2.83</i>	<i>2.70</i>	3.00	2.76	2.76
GDP Implicit Price Deflator															
(index, 2017=100)	121.3	121.8	122.8	123.3	124.1	<i>124.7</i>	<i>125.3</i>	<i>126.1</i>	<i>127.0</i>	<i>127.7</i>	<i>128.4</i>	<i>129.2</i>	122.3	125.1	128.1
Miscellaneous															
Vehicle Miles Traveled (b)															
(million miles/day)	8,427	9,159	9,335	8,837	8,481	<i>9,367</i>	<i>9,523</i>	<i>8,887</i>	<i>8,598</i>	<i>9,442</i>	<i>9,578</i>	<i>8,933</i>	8,942	9,065	9,140
Raw Steel Production															
(million short tons per day)	0.236	0.244	0.245	0.242	0.244	<i>0.255</i>	<i>0.263</i>	<i>0.258</i>	<i>0.259</i>	<i>0.271</i>	<i>0.274</i>	<i>0.269</i>	0.242	0.255	0.269
Carbon Dioxide (CO2) Emissions (million metric tons)															
Petroleum	550	565	572	573	560	<i>572</i>	<i>574</i>	<i>571</i>	<i>556</i>	<i>568</i>	<i>571</i>	<i>569</i>	2,259	2,277	2,263
Natural Gas	501	383	416	456	511	<i>385</i>	<i>419</i>	<i>460</i>	<i>509</i>	<i>379</i>	<i>411</i>	<i>458</i>	1,756	1,775	1,757
Coal	187	168	241	186	165	<i>156</i>	<i>225</i>	<i>172</i>	<i>171</i>	<i>149</i>	<i>226</i>	<i>161</i>	781	718	707
Total Energy (c)	1,240	1,118	1,232	1,217	1,239	<i>1,116</i>	<i>1,221</i>	<i>1,205</i>	<i>1,239</i>	<i>1,098</i>	<i>1,211</i>	<i>1,190</i>	4,807	4,781	4,738

(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 April 4, 2024.

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

Historical data: Latest data available from U.S. Department of Commerce, Bureau of Economic Analysis; Federal Reserve System, Statistical release G17; Federal Highway Administration; and Federal Aviation Administration.

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

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 9b. U.S. Regional Macroeconomic Data

U.S. Energy Information Administration | Short-Term Energy Outlook - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Real Gross State Product (Billion \$2017)															
New England	1,148	1,153	1,166	1,173	1,178	1,182	1,186	1,190	1,193	1,197	1,200	1,204	1,160	1,184	1,198
Middle Atlantic	3,192	3,202	3,235	3,258	3,274	3,286	3,299	3,311	3,319	3,328	3,338	3,350	3,222	3,293	3,334
E. N. Central	2,832	2,841	2,870	2,888	2,902	2,916	2,929	2,938	2,940	2,947	2,955	2,965	2,858	2,921	2,952
W. N. Central	1,353	1,360	1,377	1,391	1,398	1,404	1,410	1,415	1,419	1,423	1,428	1,433	1,370	1,407	1,426
S. Atlantic	4,092	4,107	4,154	4,190	4,211	4,233	4,255	4,274	4,290	4,306	4,324	4,345	4,135	4,243	4,316
E. S. Central	998	1,000	1,011	1,015	1,019	1,023	1,027	1,031	1,033	1,035	1,038	1,042	1,006	1,025	1,037
W. S. Central	2,563	2,590	2,634	2,665	2,681	2,695	2,712	2,727	2,741	2,754	2,768	2,783	2,613	2,704	2,761
Mountain	1,527	1,535	1,556	1,570	1,577	1,584	1,592	1,599	1,605	1,612	1,619	1,627	1,547	1,588	1,616
Pacific	4,249	4,277	4,327	4,358	4,378	4,398	4,420	4,439	4,456	4,472	4,491	4,511	4,303	4,409	4,482
Industrial Output, Manufacturing (Index, Year 2017=100)															
New England	96.1	96.2	95.8	95.6	95.3	95.7	96.2	96.5	96.7	96.8	97.0	97.4	95.9	95.9	97.0
Middle Atlantic	95.1	95.2	95.0	94.5	94.1	94.4	94.8	95.1	95.3	95.4	95.5	95.9	94.9	94.6	95.5
E. N. Central	96.2	96.4	96.1	95.7	95.5	96.1	96.8	97.1	97.0	97.1	97.3	97.6	96.1	96.4	97.3
W. N. Central	101.4	101.8	101.1	100.9	100.7	101.1	101.6	101.9	102.0	102.1	102.3	102.7	101.3	101.3	102.3
S. Atlantic	102.1	102.4	102.3	101.9	101.6	102.1	102.6	103.1	103.3	103.5	103.8	104.3	102.2	102.4	103.8
E. S. Central	100.3	101.0	101.0	100.2	99.7	100.1	100.7	101.1	101.0	100.9	101.0	101.3	100.6	100.4	101.1
W. S. Central	104.1	104.7	105.8	106.0	105.8	106.4	107.1	107.7	108.0	108.2	108.5	109.0	105.1	106.7	108.4
Mountain	111.6	111.8	111.6	111.9	111.3	111.7	112.2	112.6	112.7	112.9	113.2	113.7	111.7	111.9	113.1
Pacific	97.3	97.2	96.7	96.6	96.1	96.3	96.7	97.0	97.1	97.1	97.3	97.7	96.9	96.5	97.3
Real Personal Income (Billion \$2017)															
New England	953	955	961	967	977	984	992	1,000	1,008	1,015	1,022	1,028	959	988	1,018
Middle Atlantic	2,517	2,530	2,538	2,547	2,574	2,588	2,605	2,623	2,642	2,660	2,675	2,689	2,533	2,597	2,667
E. N. Central	2,615	2,624	2,629	2,637	2,663	2,678	2,697	2,714	2,733	2,750	2,765	2,780	2,626	2,688	2,757
W. N. Central	1,294	1,295	1,296	1,297	1,306	1,311	1,319	1,328	1,339	1,348	1,356	1,365	1,296	1,316	1,352
S. Atlantic	3,712	3,728	3,741	3,767	3,811	3,839	3,871	3,903	3,939	3,971	4,000	4,028	3,737	3,856	3,984
E. S. Central	1,010	1,011	1,015	1,019	1,029	1,035	1,042	1,048	1,055	1,061	1,067	1,073	1,014	1,038	1,064
W. S. Central	2,318	2,312	2,324	2,341	2,368	2,385	2,406	2,427	2,449	2,469	2,488	2,506	2,324	2,397	2,478
Mountain	1,426	1,438	1,445	1,453	1,466	1,475	1,485	1,496	1,507	1,519	1,528	1,538	1,441	1,480	1,523
Pacific	3,089	3,112	3,116	3,131	3,166	3,187	3,211	3,235	3,262	3,285	3,308	3,329	3,112	3,200	3,296
Households (Thousands)															
New England	6,088	6,103	6,118	6,126	6,131	6,143	6,157	6,168	6,179	6,189	6,199	6,209	6,126	6,168	6,209
Middle Atlantic	16,074	16,101	16,127	16,143	16,148	16,167	16,191	16,212	16,233	16,252	16,270	16,288	16,143	16,212	16,288
E. N. Central	19,005	19,040	19,080	19,109	19,125	19,154	19,188	19,218	19,247	19,276	19,303	19,328	19,109	19,218	19,328
W. N. Central	8,702	8,729	8,755	8,775	8,790	8,808	8,829	8,850	8,870	8,889	8,907	8,925	8,775	8,850	8,925
S. Atlantic	27,263	27,363	27,465	27,550	27,623	27,714	27,811	27,897	27,976	28,052	28,123	28,197	27,550	27,897	28,197
E. S. Central	7,902	7,933	7,963	7,988	8,008	8,031	8,055	8,077	8,098	8,117	8,136	8,156	7,988	8,077	8,156
W. S. Central	15,960	16,022	16,090	16,146	16,188	16,240	16,302	16,359	16,414	16,470	16,522	16,574	16,146	16,359	16,574
Mountain	9,791	9,820	9,852	9,879	9,900	9,929	9,961	9,994	10,027	10,062	10,095	10,130	9,879	9,994	10,130
Pacific	18,984	19,002	19,028	19,043	19,044	19,062	19,090	19,112	19,135	19,158	19,182	19,206	19,043	19,112	19,206
Total Non-farm Employment (Millions)															
New England	7.6	7.6	7.6	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.6	7.7	7.7
Middle Atlantic	20.1	20.1	20.2	20.3	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.2	20.4	20.4
E. N. Central	22.3	22.4	22.5	22.6	22.7	22.7	22.8	22.8	22.7	22.7	22.7	22.7	22.5	22.7	22.7
W. N. Central	10.9	10.9	11.0	11.0	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.0	11.1	11.1
S. Atlantic	30.5	30.7	30.8	31.0	31.2	31.3	31.3	31.4	31.4	31.5	31.5	31.5	30.8	31.3	31.5
E. S. Central	8.6	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
W. S. Central	18.8	19.0	19.1	19.2	19.3	19.4	19.4	19.4	19.5	19.5	19.5	19.5	19.0	19.4	19.5
Mountain	11.8	11.9	11.9	12.0	12.0	12.1	12.1	12.1	12.1	12.1	12.2	12.2	11.9	12.1	12.2
Pacific	24.5	24.7	24.7	24.8	24.9	25.0	25.0	25.0	25.0	25.0	25.0	25.0	24.7	25.0	25.0

- = no data available

Notes: EIA completed modeling and analysis for this report on April 4, 2024.

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

Regions refer to U.S. Census divisions.

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

Historical data: Latest data available from U.S. Department of Commerce, Bureau of Economic Analysis; Federal Reserve System, Statistical release G17.

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

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

Table 9c. U.S. Regional Weather Data

U.S. Energy Information Administration | Short-Term Energy Outlook - April 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Heating Degree Days															
New England	2,707	813	89	1,923	2,791	862	131	2,036	2,943	818	130	2,028	5,532	5,820	5,920
Middle Atlantic	2,454	656	72	1,780	2,571	693	86	1,865	2,722	654	86	1,858	4,962	5,215	5,320
E. N. Central	2,728	701	96	1,902	2,675	708	121	2,135	3,002	701	120	2,130	5,426	5,639	5,954
W. N. Central	3,170	656	93	2,012	2,847	694	154	2,354	3,171	706	154	2,352	5,930	6,049	6,383
South Atlantic	1,058	191	10	889	1,256	196	13	884	1,274	178	12	878	2,147	2,349	2,342
E. S. Central	1,387	256	13	1,161	1,653	249	19	1,228	1,685	232	19	1,223	2,817	3,149	3,159
W. S. Central	931	91	1	695	1,081	87	5	767	1,095	85	5	764	1,719	1,940	1,949
Mountain	2,561	726	126	1,661	2,255	716	154	1,842	2,167	710	154	1,839	5,075	4,966	4,870
Pacific	1,834	660	100	1,033	1,535	578	95	1,161	1,442	583	95	1,158	3,627	3,369	3,278
U.S. Average	1,922	486	61	1,336	1,913	482	75	1,451	1,990	469	74	1,445	3,805	3,920	3,978
Heating Degree Days, Prior 10-year Average															
New England	3,151	859	106	2,093	3,110	855	98	2,056	3,033	853	97	2,051	6,209	6,119	6,034
Middle Atlantic	2,939	689	69	1,907	2,890	685	63	1,879	2,804	684	62	1,869	5,604	5,517	5,420
E. N. Central	3,215	741	93	2,169	3,159	735	91	2,113	3,033	733	86	2,090	6,218	6,098	5,942
W. N. Central	3,319	754	121	2,374	3,295	729	120	2,303	3,193	724	118	2,287	6,568	6,447	6,321
South Atlantic	1,403	190	10	905	1,357	188	9	895	1,311	188	9	880	2,508	2,449	2,388
E. S. Central	1,811	251	14	1,231	1,756	248	14	1,206	1,694	250	14	1,187	3,307	3,224	3,145
W. S. Central	1,188	95	3	762	1,164	90	3	731	1,124	90	3	723	2,048	1,987	1,939
Mountain	2,193	696	128	1,833	2,208	696	128	1,800	2,222	697	128	1,808	4,850	4,832	4,854
Pacific	1,444	523	75	1,148	1,472	539	77	1,129	1,499	550	81	1,146	3,191	3,217	3,276
U.S. Average	2,133	485	60	1,477	2,103	483	59	1,444	2,049	483	58	1,435	4,155	4,088	4,025
Cooling Degree Days															
New England	0	54	472	5	0	98	505	1	0	99	510	1	531	604	610
Middle Atlantic	0	90	577	10	0	181	650	5	0	183	656	5	677	836	844
E. N. Central	0	180	521	10	0	245	595	7	1	245	598	7	711	846	851
W. N. Central	1	319	708	14	5	297	730	11	5	297	733	11	1,042	1,042	1,046
South Atlantic	203	587	1,239	242	118	696	1,280	257	139	714	1,288	259	2,271	2,351	2,399
E. S. Central	64	444	1,099	72	15	546	1,123	68	34	545	1,128	68	1,678	1,751	1,775
W. S. Central	150	901	1,866	215	102	930	1,641	212	105	936	1,648	213	3,132	2,885	2,903
Mountain	3	349	1,024	98	3	438	1,010	83	20	451	1,015	83	1,475	1,534	1,569
Pacific	26	106	609	79	20	194	697	77	28	200	703	78	820	988	1,008
U.S. Average	68	363	941	105	42	438	959	105	51	445	966	106	1,476	1,543	1,568
Cooling Degree Days, Prior 10-year Average															
New England	0	87	480	2	0	83	483	2	0	85	499	2	569	568	587
Middle Atlantic	0	160	617	8	0	154	622	9	0	156	644	8	785	784	808
E. N. Central	1	234	561	10	1	231	566	10	1	232	588	10	805	808	831
W. N. Central	4	292	674	12	4	301	680	12	5	304	699	12	982	997	1,020
South Atlantic	144	675	1,192	272	153	674	1,212	271	154	679	1,234	277	2,283	2,310	2,345
E. S. Central	36	520	1,058	83	41	519	1,077	85	42	524	1,097	85	1,697	1,721	1,748
W. S. Central	101	861	1,549	223	109	873	1,584	228	115	888	1,604	227	2,734	2,793	2,834
Mountain	24	460	960	83	22	447	971	88	19	447	984	87	1,527	1,527	1,537
Pacific	32	213	676	86	32	201	677	89	30	198	677	85	1,006	999	991
U.S. Average	50	415	895	109	53	414	909	111	54	419	927	112	1,470	1,488	1,512

- = no data available

Notes: EIA completed modeling and analysis for this report on April 4, 2024.

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

Regional degree days for each period are calculated by EIA as contemporaneous period population-weighted averages of state degree day data published by the National See *Change in Regional and U.S. Degree-Day Calculations* (http://www.eia.gov/forecasts/steo/special/pdf/2012_sp_04.pdf) for more information.

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

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

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

Forecasts: Current month based on forecasts by the NOAA Climate Prediction Center (<http://www.cpc.ncep.noaa.gov/pacdir/DDdir/NHOME3.shtml>). Remaining months based on the 30-year trend.

Appendix to the April 2024 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

	Feb 2024	Mar 2024	Feb 2024 – Mar 2024 Average	Feb 2023 – Mar 2023 Average	2021 – 2023 Average
Global Petroleum and Other Liquids (million barrels per day)					
Global Petroleum and Other Liquids Production (a)	102.4	102.1	102.2	101.3	99.2
Global Petroleum and Other Liquids Consumption (b)	103.4	102.3	102.8	102.1	99.8
Biofuels Production (c)	2.4	2.3	2.4	2.3	2.8
Biofuels Consumption (c)	2.8	2.8	2.8	2.8	2.7
Iran Liquid Fuels Production	4.4	4.4	4.4	3.8	3.7
Iran Liquid Fuels Consumption	2.7	2.2	2.5	2.4	2.1
Petroleum and Petroleum Products Produced and Consumed in Countries Other Than Iran (million barrels per day)					
Production (d)	95.6	95.4	95.5	95.2	96.4
Consumption (d)	97.9	97.3	97.6	97.0	95.0
Production minus Consumption	-2.3	-2.0	-2.1	-1.8	1.4
World Inventory Net Withdrawals Including Iran	1.0	0.2	0.6	0.8	0.7
Estimated OECD Inventory Level (e) (million barrels)	2,748	2,735	2,741	2,773	2,778
Surplus Production Capacity (million barrels per day)					
OPEC Surplus Crude Oil Production Capacity (f)	4.3	4.2	4.2	3.0	3.7

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	Feb 2024	Mar 2024	Feb 2024 – Mar	Feb 2023 – Mar	2021 – 2023
			2024 Average	2023 Average	Average
Brent Front Month Futures Price (\$ per barrel)	81.72	84.67	83.20	81.17	84.06
WTI Front Month Futures Price (\$ per barrel)	76.61	80.41	78.51	74.95	80.01
Dubai Front Month Futures Price (\$ per barrel)	81.01	84.25	82.63	80.00	82.59
Brent 1st - 13th Month Futures Spread (\$ per barrel)	5.64	6.85	6.25	4.52	7.69
WTI 1st - 13th Month Futures Spread (\$ per barrel)	5.18	7.04	6.11	3.18	7.73
RBOB Front Month Futures Price (\$ per gallon)	2.29	2.66	2.48	2.54	2.53
Heating Oil Front Month Futures Price (\$ per gallon)	2.77	2.67	2.72	2.78	2.81
RBOB - Brent Futures Crack Spread (\$ per gallon)	0.35	0.65	0.50	0.60	0.53
Heating Oil - Brent Futures Crack Spread (\$ per gallon)	0.83	0.66	0.74	0.84	0.81

(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).