

Short-Term Energy Outlook

STEO

January 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 | \$82 | \$79 |
| Retail gasoline price (dollars per gallon) | \$3.52 | \$3.36 | \$3.24 |
| U.S. crude oil production (million barrels per day) | 12.92 | 13.21 | 13.44 |
| Natural gas price at Henry Hub (dollars per million British thermal units) | \$2.54 | \$2.66 | \$2.95 |
| U.S. liquefied natural gas gross exports (billion cubic feet per day) | 11.8 | 12.4 | 14.4 |
| Shares of U.S. electricity generation | | | |
| Natural gas | 42% | 42% | 41% |
| Coal | 17% | 15% | 13% |
| Renewables | 22% | 24% | 26% |
| Nuclear | 19% | 19% | 19% |
| U.S. GDP (percentage change) | 2.4% | 1.6% | 1.3% |
| U.S. CO ₂ emissions (billion metric tons) | 4.78 | 4.77 | 4.70 |

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

This edition of our *Short-Term Energy Outlook* (STEO) is the first to include forecasts for 2025.

Electricity generation. We expect solar power to be the leading source of growth in electricity generation in both 2024 and 2025 as 36 gigawatts (GW) and 43 GW of new solar capacity come on line, respectively. The new capacity will boost the solar share of total generation to 6% in 2024 and 7% in 2025, up from 4% in 2023. We forecast that overall U.S. electricity generation will grow by 3% in 2024 and be unchanged in 2025. Driven by our forecast of rising generation from solar and to a lesser extent wind, we expect that electricity generation from coal will decline by 9% in 2024 and by 10% in 2025, due to a combination of higher costs compared with renewables and another 12 GW of coal-fired capacity retiring over the next two years. We expect that electricity generation from natural gas will be unchanged in 2024 and 2025 compared with 2023.

U.S. crude oil production. Our forecast of crude oil production in the United States reaches 13.2 million barrels per day (b/d) in 2024 and more than 13.4 million b/d in 2025, both of which would be new records. Production growth continues over the next two years driven by increases in well efficiency. However, growth slows because of fewer active drilling rigs.

Global liquid fuels consumption. We expect growth in global liquid fuels consumption will be lower over the next two years: forecast consumption grows by 1.4 million b/d (1.4%), in 2024 and by 1.2 million

b/d (1.2%) in 2025. Although growth in 2024 and 2025 is less than the 1.9 million b/d growth in 2023, it is largely consistent with the 1.2% average annual growth in global liquid fuels consumption over the 20 years from 2004–2023. We attribute the reduction in growth to slowing oil demand growth in China due to stalling GDP growth, increasing vehicle fleet efficiency, and an end to pandemic recovery-related growth in 2023. Despite lower oil demand growth, global consumption of liquid fuels still reaches a new record of over 103.5 million b/d in 2025.

Global liquid fuels production. We forecast that global liquid fuels production growth also slows. Production rises by 0.6 million b/d in 2024, down from 1.7 million b/d of growth in 2023, as [OPEC+](#) continues its policy of production restraint and U.S. tight oil production growth decelerates. In 2025, we forecast global liquid fuels production will rise by 1.6 million b/d, about 50% of which is rising OPEC+ crude oil production.

Crude oil prices. We forecast that the Brent crude oil price will average \$82 per barrel (b) in 2024, about the same [as in 2023](#), and then fall to \$79/b in 2025, when we expect production growth will slightly outpace demand growth, allowing inventories to build modestly and place some downward pressure on crude oil prices. Recent developments in the Middle East increase the risk for supply disruptions over the forecast, which could result in higher and more volatile prices we currently forecast. One of this month's [Between the Lines](#) articles takes a closer look at our 2024 and 2025 Brent crude oil price forecast.

U.S. gasoline prices. The U.S. average retail gasoline price declines in our forecast as gasoline inventories increase and gasoline crack spreads fall. We expect U.S. gasoline prices to average around \$3.40 per gallon (gal) in 2024 and \$3.20/gal in 2025, compared with an [average of more than \\$3.50/gal in 2023](#).

Natural gas production. U.S. production of dry natural gas in our forecast grows between 1% and 2%, or about 1.5 billion cubic feet per day (Bcf/d) in 2024 and 1.3 Bcf/d in 2025, down from growth of 4.0 Bcf/d in 2023. The slowing growth reflects a drop in natural gas production associated with oil drilling in the Permian Basin. U.S. dry natural gas production of 105 Bcf/d in 2024 and 106 Bcf/d in 2025 would both be records.

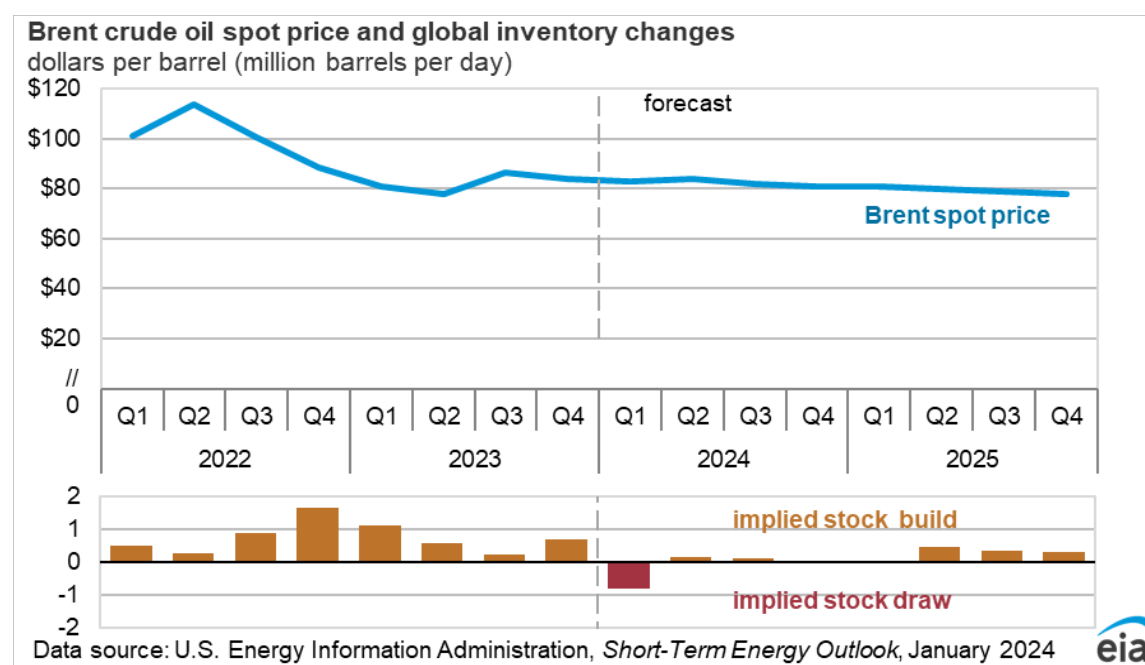
Natural gas prices. We expect the spot price of natural gas to average \$2.70 per million British thermal units (MMBtu) in 2024 and rise to an average of about \$3.00/MMBtu in 2025, up from an average of \$2.54/MMBtu in 2023. Prices increase because of slowing growth in natural gas production and increasing U.S. liquefied natural gas exports, particularly in 2025 following the addition of new export capacity in late 2024. However, we expect upward price pressures will be limited by relatively flat consumption of natural gas in the electric power sector and persistently high inventories.

Coal production. Faced with continuing declines in coal consumption in the electric power sector, we expect U.S. coal production will decline by more than 90 million short tons (MMst) to less than 490 MMst in 2024 and then fall below 430 MMst in 2025, the least coal produced in the United States since the early 1960s.

Global Oil Markets

Global oil prices and inventories

The Brent crude oil spot price averaged \$78 per barrel (b) in December, a decrease of \$5/b compared with November. Despite the latest round of [OPEC+ production cuts announced on November 30](#), prices fell based on ongoing concerns about global oil demand growth and on rising global oil inventories, which we estimate increased by 0.8 million barrels per day (b/d) in the fourth quarter of 2023 (4Q23). We expect that OPEC+ production cuts will lead to global oil inventory withdrawals of 0.8 million b/d on average in 1Q24. After a period of relative balance from 2Q24 through 1Q25, we expect global oil inventories will build over the final three quarter of 2024 as slowing demand growth once again is outpaced by rising supply growth.



We expect that falling global oil inventories in 1Q24 will push Brent prices to an average of \$85/b in March. Relatively balanced markets for the rest of 2024 with some inventory builds in 2025 put slight downward pressure on crude oil prices through the remainder of our forecast. As a result, the average Brent crude oil price falls to \$81/b in December 2024 and falls below \$80/b in 2H25.

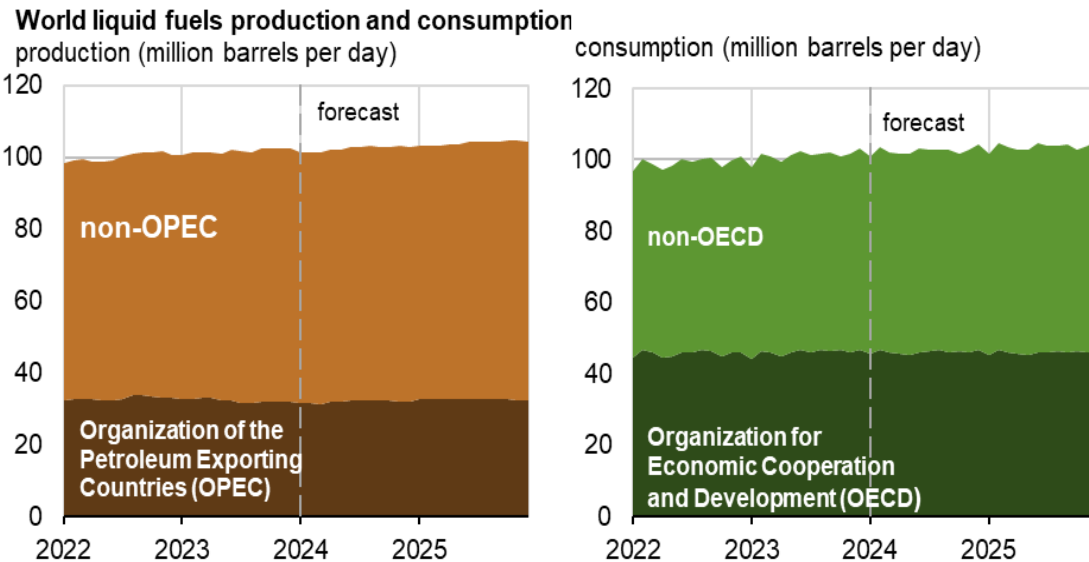
However, several key [uncertainties that could affect future prices remain](#). Heightened tensions around the critical [Red Sea shipping channel](#) and other developments in the Middle East have added upward price pressure since early December and have the potential to disrupt global oil trade flows and drive up global oil prices further should they escalate or persist.

Global oil production and consumption

Global liquid fuels production increases by 0.6 million b/d in 2024, down from an increase of 1.7 million b/d in 2023. Global liquid fuels production growth in our forecast slows in 2024 because of both OPEC+ production cuts and slowing non-OPEC growth. OPEC+ crude oil production declines by 0.6 million b/d in

our forecast for 2024, which is offset by 1.2 million b/d of production growth outside of the group. Growth is lower in 2024 compared with 2023 in large part because of slowing supply growth from the United States, [Canada](#), and Brazil. Supply growth in Guyana accelerates this year in our forecast.

For 2025, global liquid fuels production increases by 1.6 million b/d in our forecast. The existing OPEC+ production targets announced at the [June 2023](#) meeting expire at the end of 2024, which we expect will contribute to OPEC+ increasing crude oil production by 0.7 million b/d in 2025. However, we expect some voluntary production cuts from Saudi Arabia and other OPEC+ countries will continue into 2025 in an effort to offset forecast production growth from outside the group of 0.9 million b/d in 2025.



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



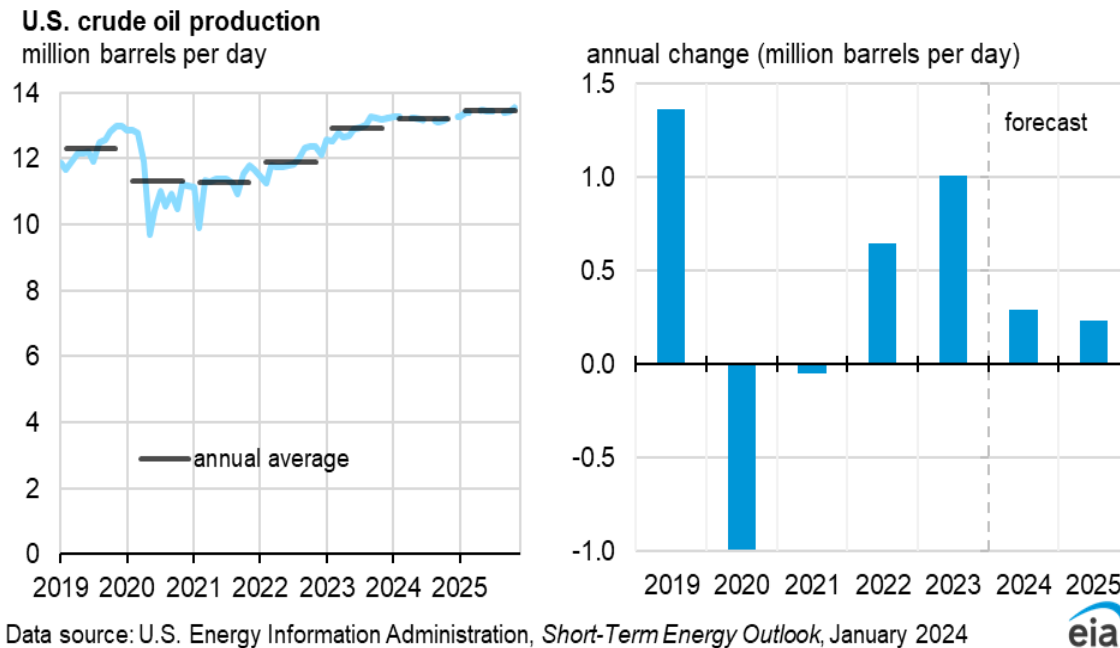
Our forecast of global liquid fuels consumption increases by 1.4 million b/d in 2024 and 1.2 million b/d in 2025. Most of our forecast liquid fuels demand growth is in non-OECD Asia, led by China and India. We expect China’s liquid fuels consumption will rise by 0.3 million b/d in 2024 and by 0.2 million b/d in 2025, slowing from the 0.8 million b/d of estimated growth in 2023, as GDP growth slows from post-pandemic levels and vehicle fleet efficiency continues to improve. India’s liquid fuels consumption in our forecast increases by an average of 0.3 million b/d in both 2024 and 2025, the same as in 2023. In OECD countries, liquid fuels consumption growth is mostly flat in 2024 and 2025. Because our expectations around global oil balances and global oil prices are highly dependent on liquid fuels consumption growth from non-OECD countries, global oil prices will be materially affected should that consumption growth develop differently in 2024 and 2025.

Petroleum Products

U.S. crude oil production

After U.S. crude oil production increased to a new record in 2023, we forecast U.S. crude oil production will grow more slowly in 2024 and 2025, still reaching new records in those years. U.S. crude oil production depends on rig activity and well-level productivity to offset natural declines from existing

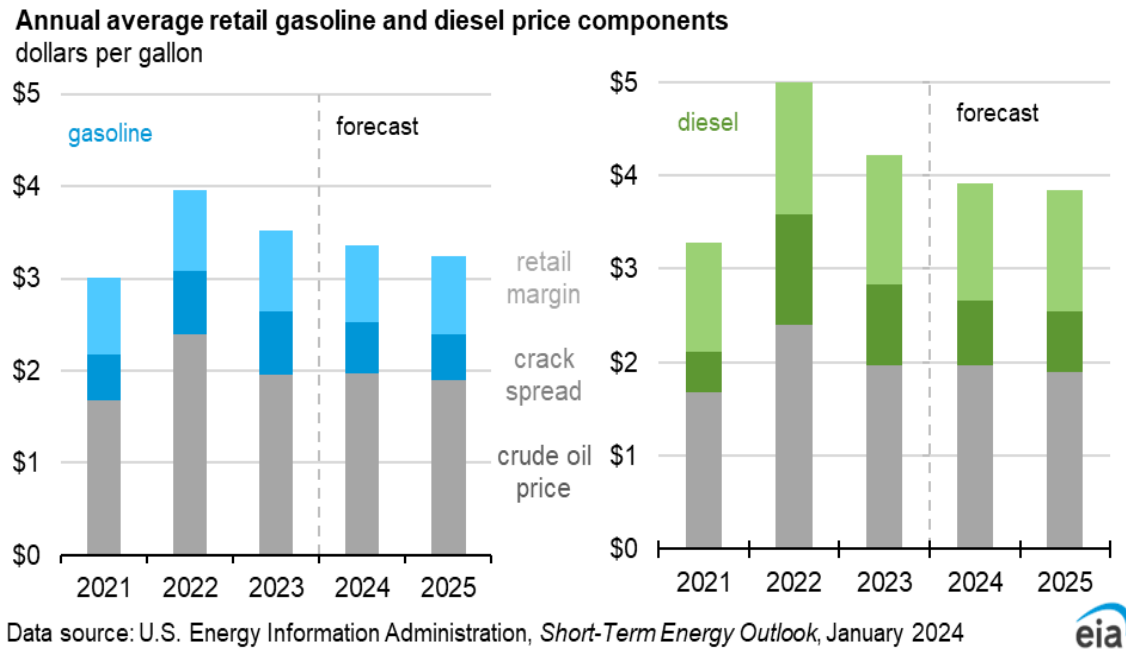
wells. Our West Texas Intermediate (WTI) price forecast falls gradually from a peak of \$81 per barrel (b) in March 2024 to \$74/b by December 2025. We expect that improved well productivity will increase U.S. crude oil production by 0.3 million b/d in 2024 and 0.2 million b/d in 2025. The resultant production would establish new records in both years.



U.S. Lower 48 (L48), onshore and offshore state, which excludes Alaska and the Federal Offshore, crude oil production growth is mostly limited to the Permian region of western Texas and eastern New Mexico. One of the main uncertainties in our forecast involves U.S. producer investment. Since 2021, producers have prioritized debt reduction, dividend increases, and corporate acquisitions over capital expenditures. Producers [increased capital expenditures](#) in 2023, however, and further increases would suggest more active rigs than in our forecast. Offshore Federal Gulf of Mexico (GOM) production will grow slightly in both years as some new projects come on line. GOM production is less price sensitive than L48 production and will grow because project investments made before the pandemic will begin producing over the next two years. Overall, we expect U.S. crude oil production will average 13.2 million b/d in 2024 and 13.4 million b/d in 2025.

U.S. retail fuel prices

We forecast U.S. retail gasoline prices will average around \$3.40 per gallon (gal) in 2024 and fall to around \$3.20/gal in 2025, down from \$3.52/gal in 2023 and \$3.97/gal in 2022. Lower crude oil prices in 2023 compared with 2022 were the primary driver of lower gasoline and diesel prices, accounting for an average decrease of \$0.44/gal. However, lower gasoline prices in 2024 will instead be primarily driven by falling gasoline [crack spreads](#). Gasoline crack spreads over the past few years have been near record highs, but we expect them to weaken over the next two years. We assume gasoline crack spreads will narrow as global refinery capacity additions lead to overall higher supply of gasoline in global markets.



We forecast U.S. retail diesel prices will average more than \$3.90/gal in 2024 and fall closer to \$3.80/gal in 2025, down from \$4.21/gal in 2023. We estimate consumption of diesel fuel will be largely flat over the next two years. However, we expect increased refinery production of diesel and growing renewable diesel production will increase distillate inventories for most of this year compared with 2023. As with gasoline, we also assume that more global refinery capacity will increase supply in global diesel markets this year, helping to put downward pressure on diesel crack spreads.

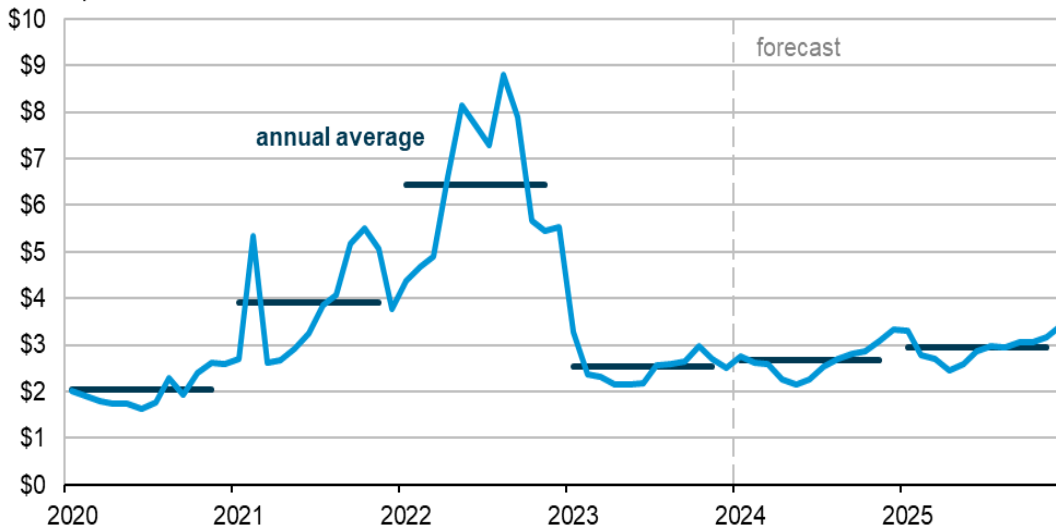
Natural Gas

Natural gas prices

In our forecast, the annual average U.S. benchmark Henry Hub spot price remains under \$3.00 per million British thermal units (MMBtu) in 2024 and 2025, although it increases from 2023. Record natural gas production and storage inventories that remain above the 2019–2023 average mean that natural gas prices in our forecast are less than half the relatively high annual average price in 2022. The Henry Hub spot price in our forecast averages between \$2.60/MMBtu and \$2.70/MMBtu in 2024, an increase of about 10 cents/MMBtu from 2023. In 2025, we expect the Henry Hub price to increase again to average more than \$2.90/MMBtu, as liquefied natural gas (LNG) exports increase.

Monthly U.S. Henry Hub natural gas spot price

dollars per million British thermal units



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



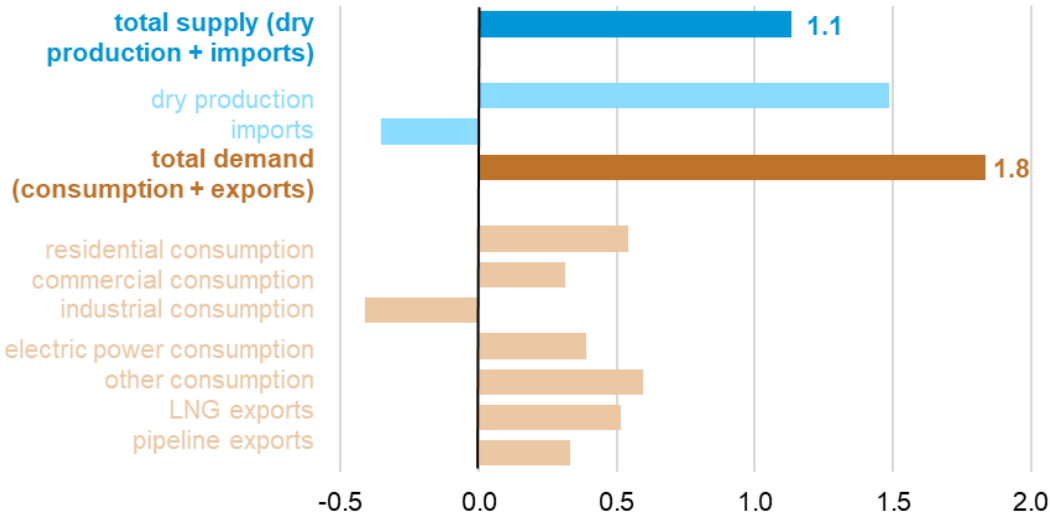
Natural gas supply and demand

We forecast supply of natural gas, including both production and imports, to increase by more than 1 billion cubic feet per day (Bcf/d) in 2024, while demand for natural gas, including domestic consumption and exports, rises by almost 2 Bcf/d. Demand growth in our forecast is mostly the result of growth in exports.

We estimate that the United States began 2024 with 14% more natural gas in storage than the previous five-year average. Although we expect demand growth to outpace supply growth by 0.7 Bcf/d this year and reduce the surplus to the five-year average to 8% by the end of the year, we forecast that inventories will remain high enough to limit significant upward pressure on prices.

The modest natural gas supply growth in our 2024 forecast is driven by a 1.5 Bcf/d increase in production, offset slightly by a 0.4 Bcf/d decrease in imports. We forecast consumption in the residential and commercial sectors to increase in 2024 because we expect colder weather than in 2023, which started and ended with warmer-than-average temperatures. We also forecast a slight consumption increase in the electric power sector this year. Rising consumption in these sectors is offset by decreases in the industrial sector. We expect exports of natural gas, both by pipeline and as LNG, will increase in 2024.

Natural gas supply and demand balance, 2024 versus 2023
billion cubic feet per day



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

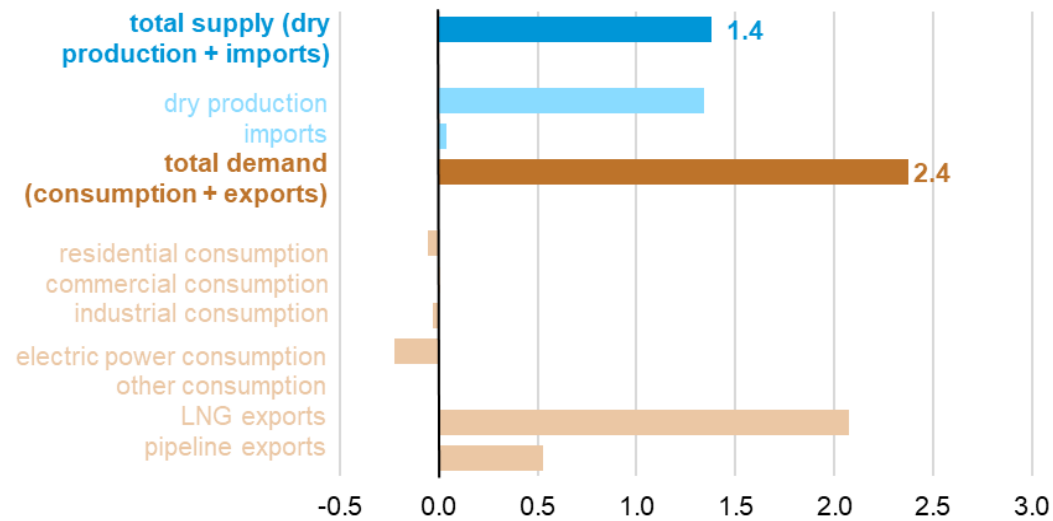


In 2025, we forecast growth in U.S. natural gas demand to exceed growth in supply by 1.0 Bcf/d. Although we expect more potential for upward price pressure in 2025 compared with 2024, we expect more natural gas in storage than the previous five-year average, limiting the upward pressure on prices.

Similar to 2024, supply growth of about 1% in 2025 is driven by an increase in dry natural gas production of 1.3 Bcf/d to a record 106.4 Bcf/d. We forecast demand for natural gas will grow in 2025 by 2.4 Bcf/d, driven mostly by growth in LNG exports as new LNG export capacity continues to ramp up. LNG exports grow by 2.1 Bcf/d in 2025 to average 14.4 Bcf/d. Natural gas consumption in the residential, commercial, industrial, and electric power sectors is similar to that in 2024.

Although we expect annual average Henry Hub prices to remain below \$3/MMBtu, the potential for prices to rise significantly exists. Weather and expected shifts in the mix of sources used to generate electricity create uncertainty in our forecast. Monthly consumption in the residential and commercial sectors, which consume the largest share of natural gas in the winter for space heating, can vary greatly depending on prevailing temperatures. Similarly, the electric power sector consumes the largest share of natural gas during the summer to meet air-conditioning demand. Temperatures that are greatly above normal, like those experienced on the West Coast during late summer 2022, can increase electricity demand and natural gas consumption beyond our forecast. In addition, growth in use of renewable energy and the slowing deployment of natural gas generating capacity will affect natural gas used to generate electricity. We expect to see some of the effects of the changes in generation capacity in the second half of 2024.

Natural gas supply and demand balance, 2025 versus 2024
billion cubic feet per day



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

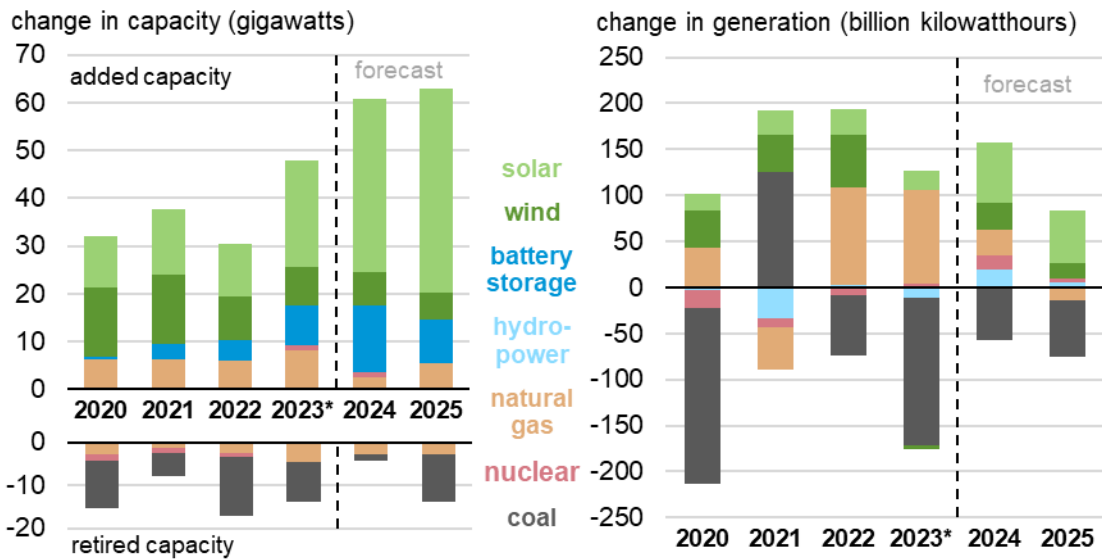


Electricity, Coal, and Renewables

Electricity generation

The addition of new solar capacity is a major driver of our U.S. electricity generation forecast for the next two years. We expect solar will be the leading source of growth in generation by the electric power sector, as 36 gigawatts (GW) of new capacity come online in 2024 and 43 GW in 2025. U.S. solar generation grows from 163 billion kilowatthours (kWh) in 2023 to 230 billion kWh in 2024 and 286 billion kWh in 2025. The new capacity will boost the solar share of total generation to 6% in 2024 and 7% in 2025, up from 4% in 2023. Wind generation also grows in the forecast, increasing by 30 billion kWh in 2024 and 17 billion kWh in 2025. Wind’s share of total generation reaches 12% in 2025, up from 11% last year. [Battery storage](#) that helps smooth the variable nature of solar and wind generation rises by 14 GW (80%) in 2024 and by 9 GW (29%) in 2025, to reach an installed capacity of 40 GW by the end of the forecast.

Annual change in U.S. electric power sector capacity and generation by source



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, January 2024
 Note: Values for 2023 reflect historical data through October and estimates for November and December.



When the resources are available, solar and wind plants are almost always called on to generate electricity because they do not incur fuel costs like coal and natural gas. Increased renewable generation in the forecast will mostly affect coal-fired generation, which we expect will fall by 9% in 2024 and 10% in 2025.

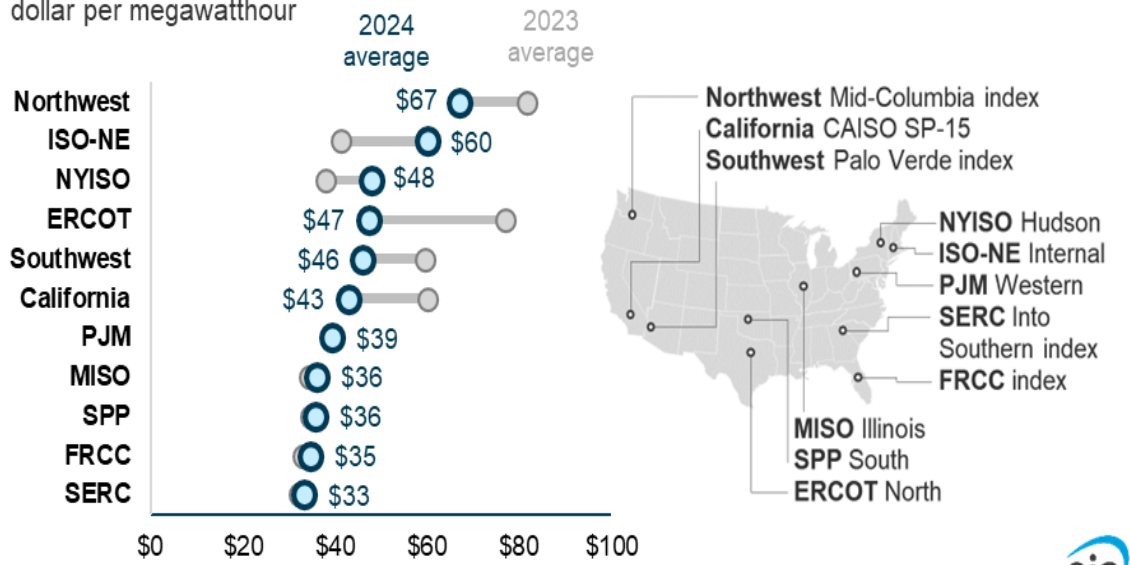
We expect that increased renewables generation will limit growth in natural gas generation, although natural gas generators will be used to help balance the variable nature of solar and wind generation. In our forecast annual natural gas generation totals about 1,700 billion kWh in both 2024 and 2025, up slightly from last year. We forecast that nuclear generation will grow 2% in 2024 to 792 billion kWh, as new reactors at the Vogtle plant in Georgia become operational, and then grow by a further 1% in 2025.

Wholesale power prices

Prices for electricity in U.S. wholesale markets are determined by numerous factors, but the price of natural gas is the most important driver because it is the largest source of power generation and is often the marginal fuel dispatched for power generation. We expect the cost of natural gas for U.S. electricity generation to remain close to \$3.00 per million British thermal units (MMBtu) through 2025, which should keep average wholesale power prices in most regions less than or close to prices last year. New York and New England are the only regions in which we forecast a notable increase in wholesale power prices for 2024. Some regions, such as New England and Texas, could see possible temporary price spikes under constrained market conditions.

Annual average wholesale electricity prices at selected price hubs, 2023–2024

dollar per megawatthour



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

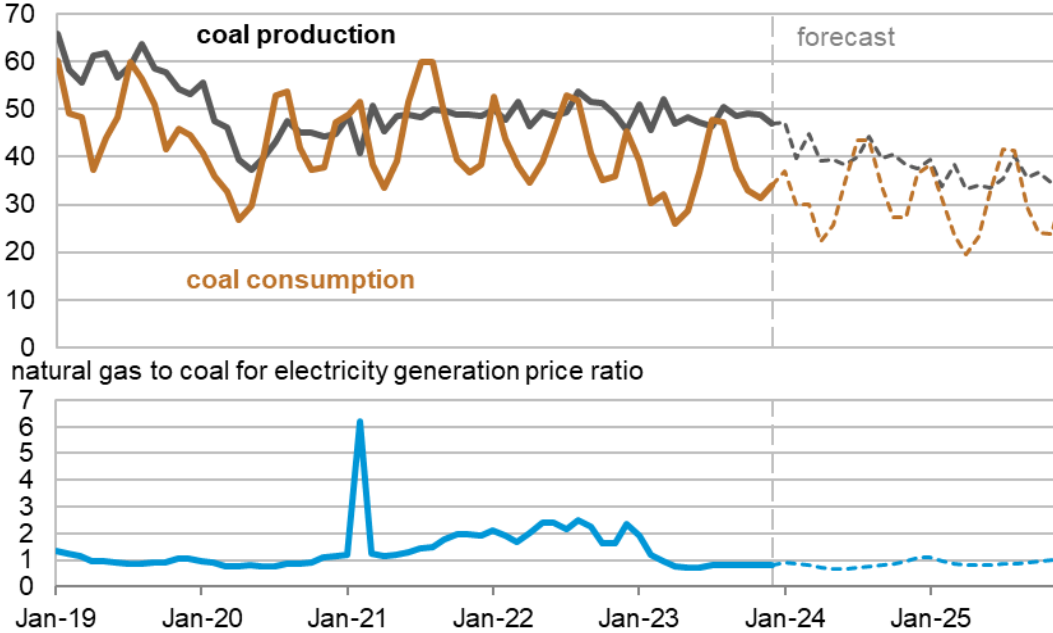


Coal markets

We expect U.S. coal production to drop by 16% in 2024 to 489 million short tons (MMst) and then decline a further 12% in 2025 to 429 MMst. The decrease in production is driven primarily by our forecast of an 8% decline in U.S. coal consumption in each year of the forecast.

We expect the cost of coal for U.S. electric power generation to decline to \$2.40/MMBtu by December 2025 from \$2.53/MMBtu in January 2024. Although cheaper on an energy basis than natural gas for most of the months leading up to December 2025, coal is more expensive when accounting for the greater thermal efficiency of natural gas. For example, new, efficient combined-cycle gas turbine (CCGT) plants currently entering service use about 65% of the primary energy input of a coal-fired plant to provide the same generation.

U.S. monthly coal consumption, production, and electricity generation price ratio
million short tons



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, January 2024
 Note: Price ratio adjusted to reflect the greater energy efficiency of combined-cycle natural gas turbines over coal-fired plants. A typical combined-cycle gas turbine (CCGT) plant uses about 70 percent of the primary energy input of a coal-fired plant, a rate that falls to 65 percent as new CCGT plants enter service.



Economy, Weather, and CO₂

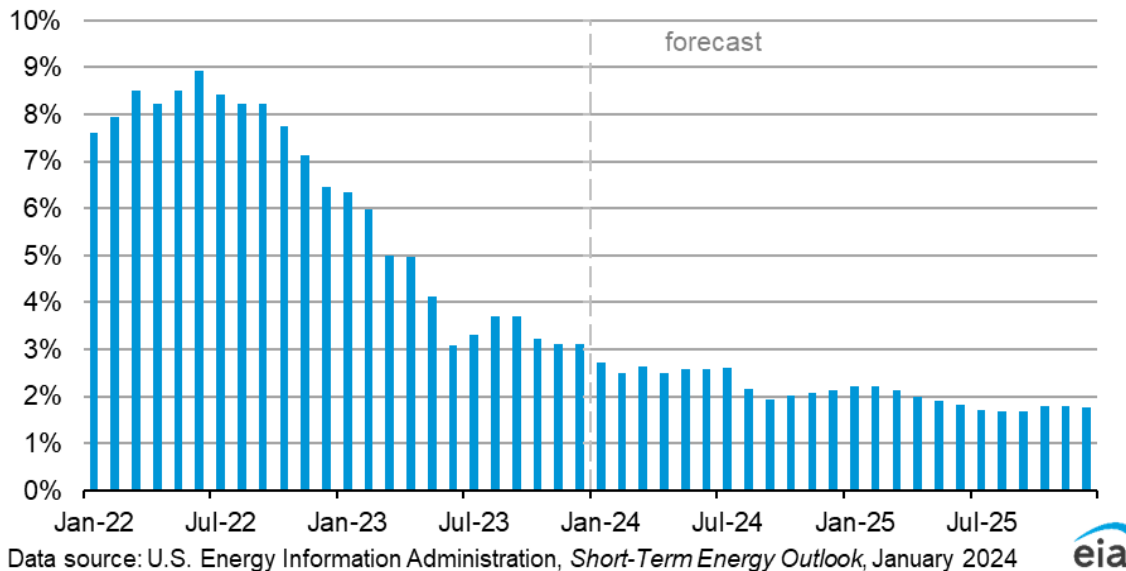
U.S. macroeconomics

Our forecast assumes real U.S. GDP growth will slow from 2.4% in 2023 to 1.6% in 2024 and 1.3% in 2025. Personal consumption and exports drive GDP growth in 2024, and we expect real fixed investment to decline in 1Q24 before recovering in 2Q24 and growing 1.8% in 2025. 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.

The upward revision to 2024 GDP growth directly follows the most recent meeting of the Federal Open Market Committee (FOMC) of the U.S. Federal Reserve. In mid-December, the FOMC announced that it would keep the target for the federal funds rate at its current level, easing expectations for persistent monetary tightness in 2024.

In addition, inflation, measured as the year-over-year growth rate of the Consumer Price Index (CPI), declined from a peak of 8.9% in June 2022 to 3.1% in December 2023. Our forecast assumes that inflation will continue to decline, averaging 2.4% in 2024 and 1.9% in 2025.

Consumer Price Index inflation
year-over-year, percentage change



U.S. employment continues to climb with non-farm payroll employment increasing by 216,000 in December, a number released after we completed modeling for this STEO. Our forecast assumes the unemployment rate will average 4.0% this year before rising to 4.3% in 2025.

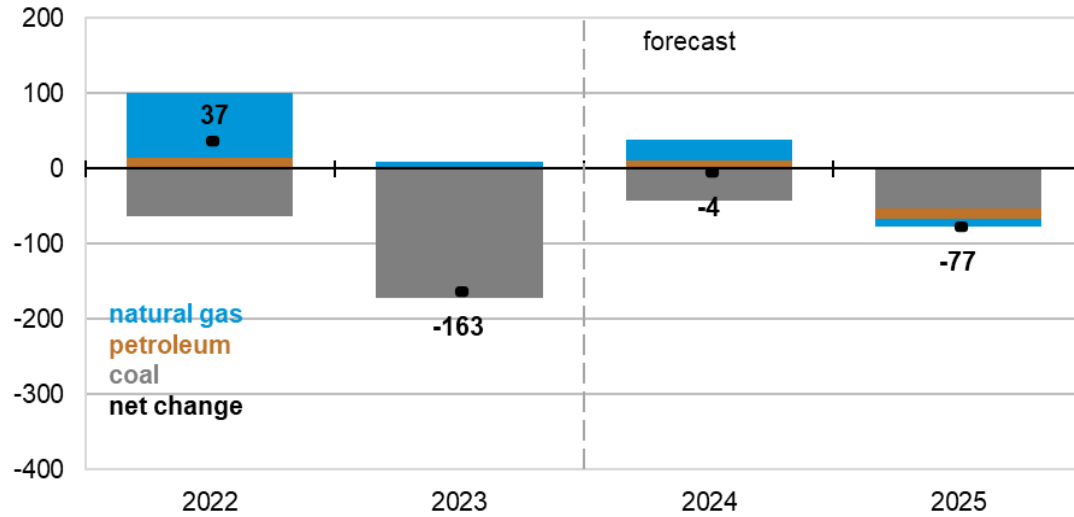
Emissions

Total U.S. energy-related carbon dioxide (CO₂) emissions remain unchanged in 2024 in our forecast, before declining by 1.6% in 2025. In 2024, unchanged overall emissions result from a forecast 40 million metric tons (MMmt) (6%) decline in coal emissions, offset by a nearly 30 MMmt (2%) increase in emissions from natural gas and about a 10 MMmt (1%) increase in emissions from petroleum. Natural gas CO₂ emissions increase in 2024 as natural gas consumption increases in the residential and commercial sector because of increased demand for space heating.

In 2025, CO₂ emissions for all fuels decline. Ongoing declines in coal-fired electricity generation reduce CO₂ emissions from coal by 50 MMmt (7%). Natural gas emissions decline by almost 10 MMmt (1%) as natural gas-fired electricity generation is offset by generation from renewable sources. CO₂ emissions from petroleum decrease because of growth in production and consumption of biodiesel and renewable diesel, which act as substitutes for conventional diesel. Following [international reporting conventions](#), we do not report emissions from biofuels such as biodiesel and renewable diesel in our total energy-related CO₂. As a result, petroleum emissions decrease in 2025.

U.S. annual CO₂ emissions, components of annual change

million metric tons



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



Weather

The United States experienced a warm December, averaging 649 heating degree days (HDDs), 17% fewer than in December 2022 and 11% fewer than the 10-year December average. We expect the United States to average around 4,000 HDDs in 2024, up 5% from 2023 as cooler weather in 1Q24 increases HDDs by 5% compared with 1Q23, which was very mild.

Short-Term Energy Outlook Chart Gallery



January 9, 2024

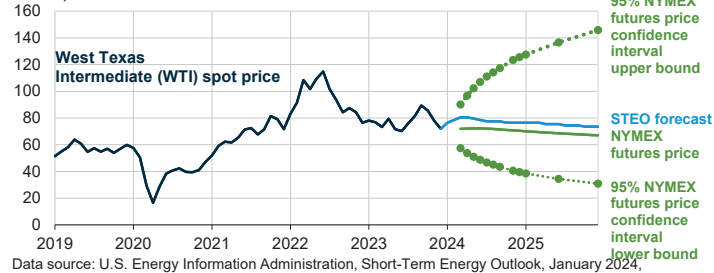


U.S. Energy Information Administration

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

dollars per barrel



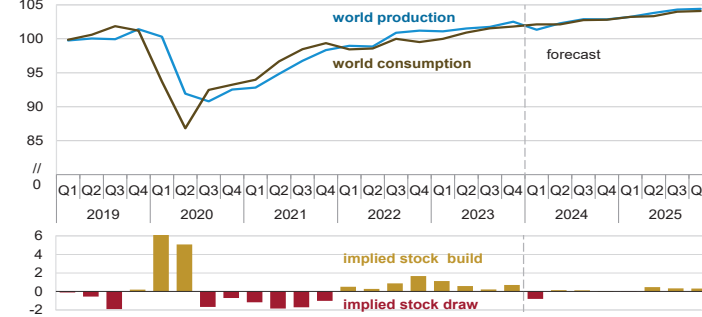
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024, CME Group, Bloomberg, L.P., and Refinitiv an LSEG Business

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



World liquid fuels production and consumption balance

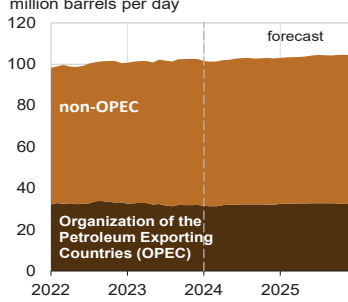
million barrels per day



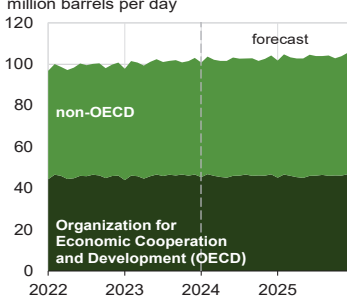
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024



World liquid fuels production

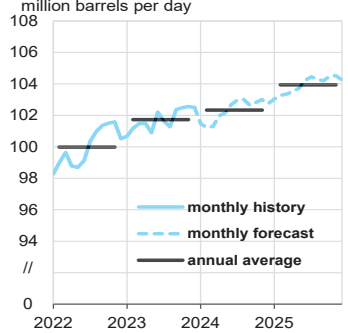


World liquid fuels consumption

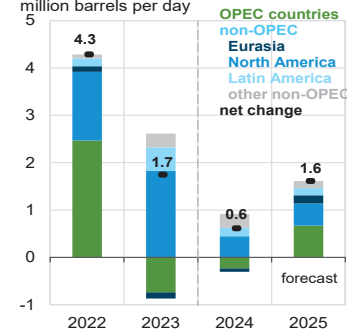


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024

World crude oil and liquid fuels production

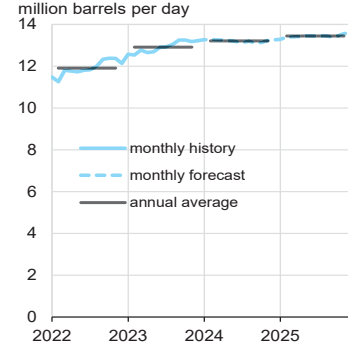


Components of annual change

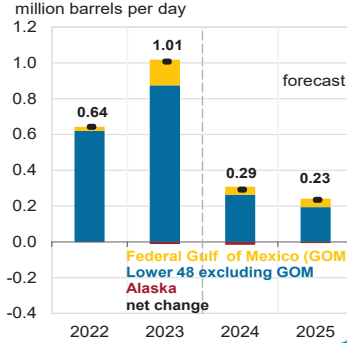


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024

U.S. crude oil production

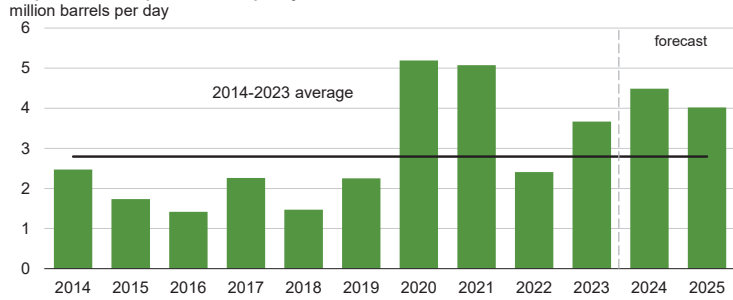


Components of annual change



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

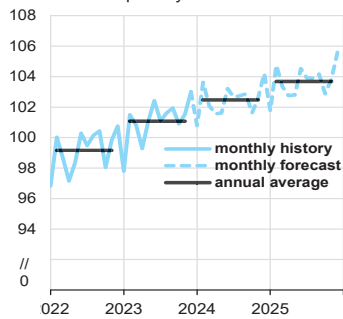
**Organization of the Petroleum Exporting Countries (OPEC)
surplus crude oil production capacity**



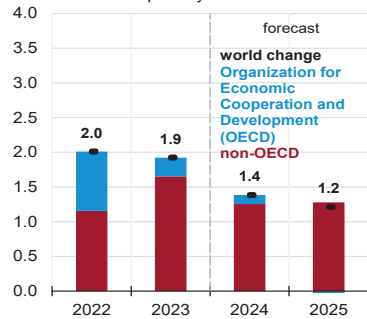
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024
 Note: Black line represents 2014-2023 average (2.8 million barrels per day).



World liquid fuels consumption



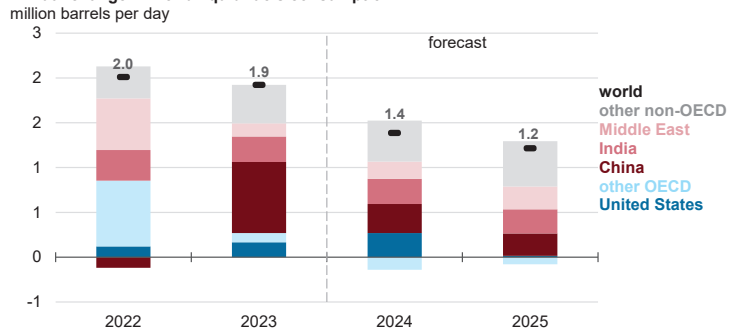
Components of annual change



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



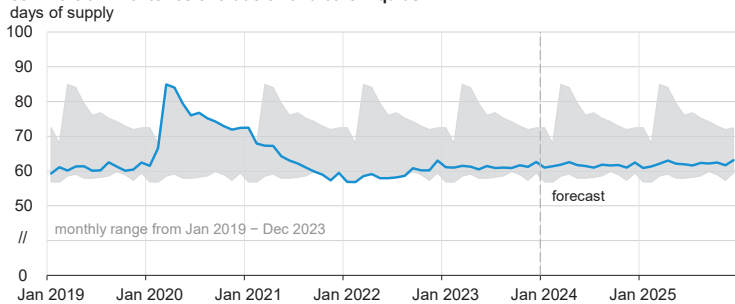
Annual change in world liquid fuels consumption



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



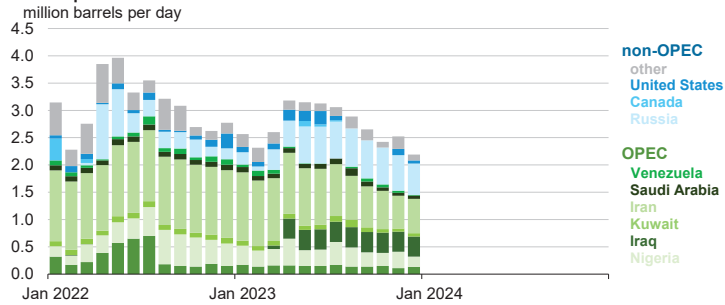
Organization for Economic Cooperation and Development (OECD)
commercial inventories of crude oil and other liquids



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



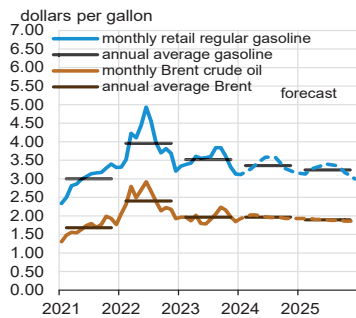
Estimated unplanned liquid fuels production outages among OPEC and non-OPEC producers



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



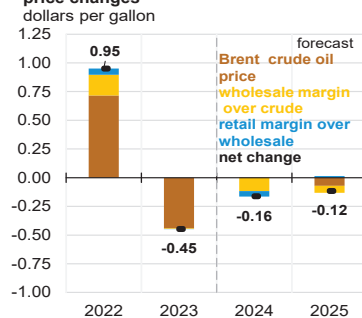
U.S. gasoline and crude oil prices



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



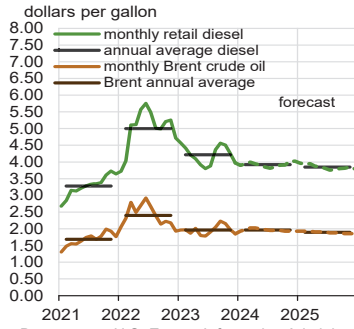
Components of annual gasoline price changes



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

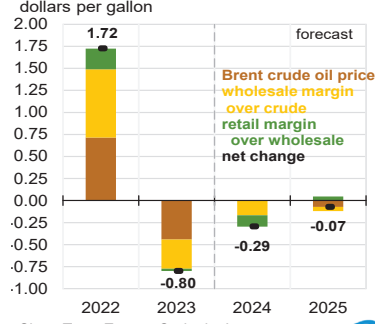


U.S. diesel and crude oil prices

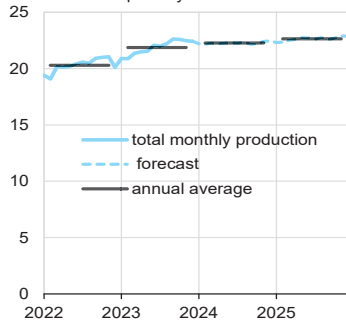


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024, and Refinitiv an LSEG Business

Components of annual diesel price changes

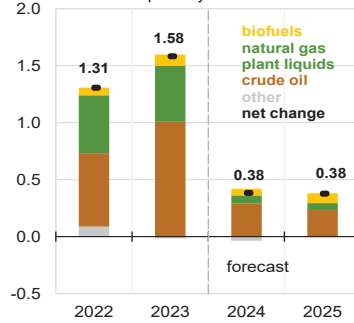


U.S. crude oil and liquid fuels production

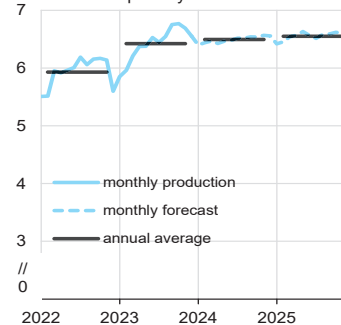


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024

Components of annual change

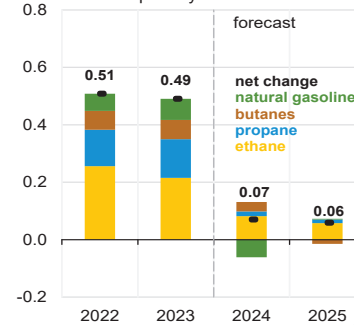


U.S. natural gas plant liquids production

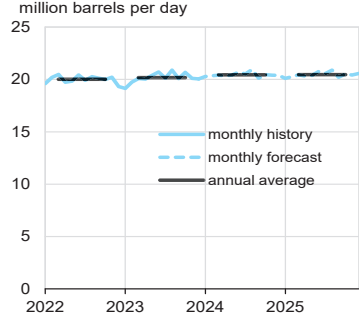


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024

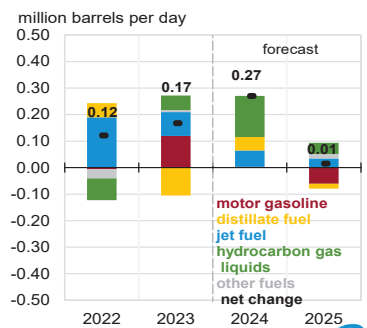
Components of annual change



U.S. liquid fuels product supplied (consumption)

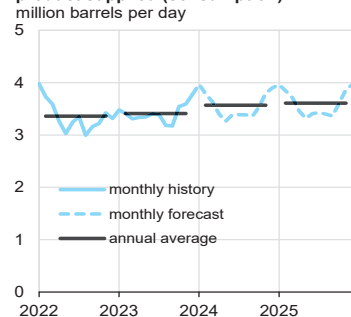


Components of annual change

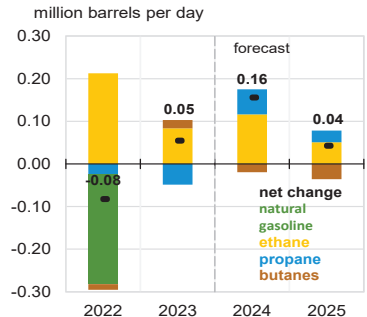


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024

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

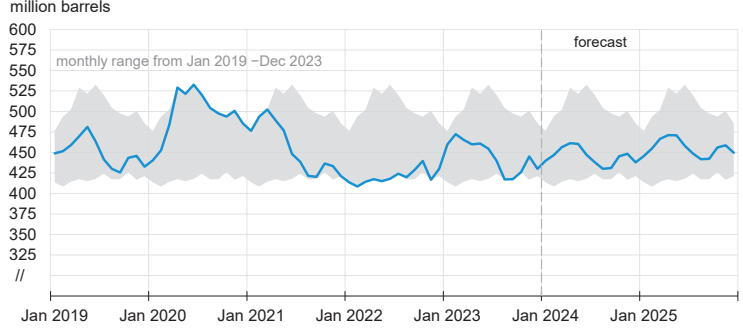


Components of annual change



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

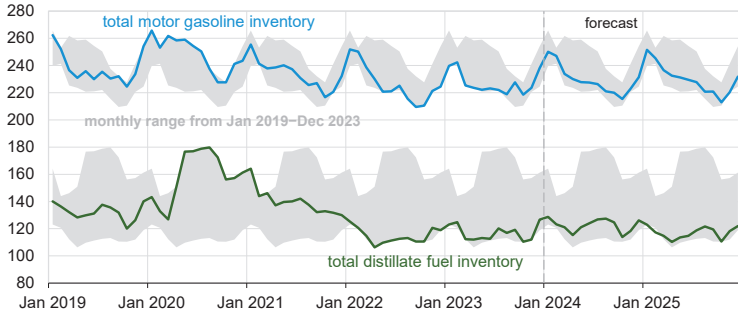
U.S. commercial crude oil inventories



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

U.S. gasoline and distillate inventories

million barrels

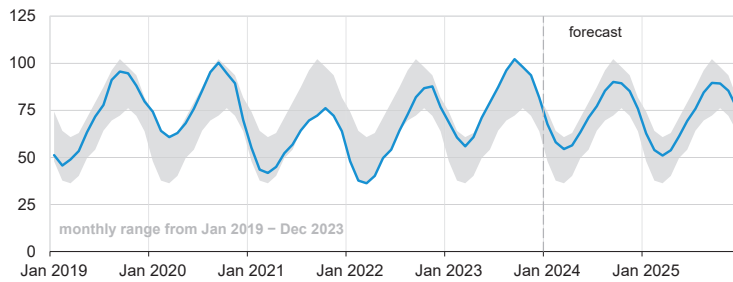


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024



U.S. commercial propane inventories

million barrels



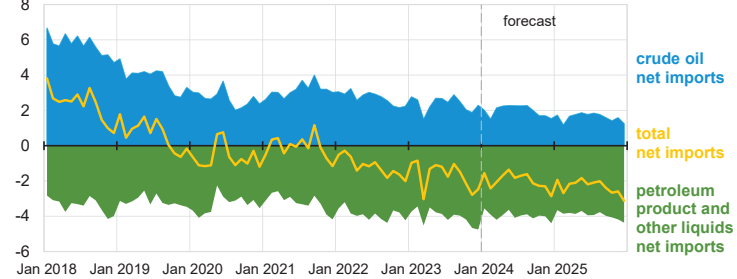
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024

Note: Excludes propylene.



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

million barrels per day

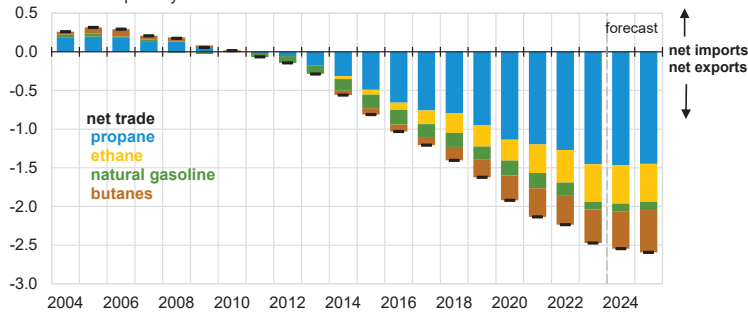


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024

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.



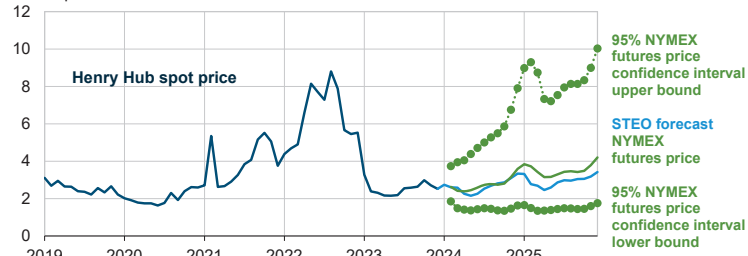
U.S. net trade of hydrocarbon gas liquids (HGL)
million barrels per day



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



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

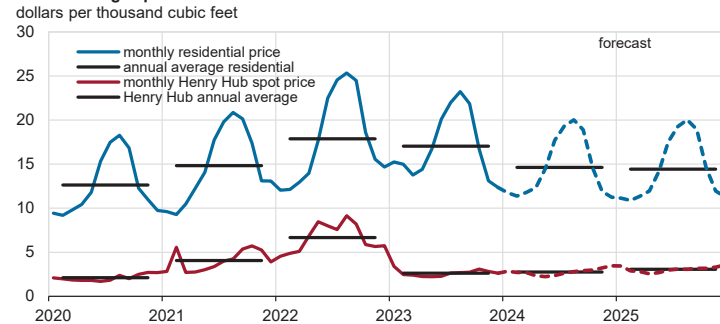


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024, CME Group, and Refinitiv an LSEG Business

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



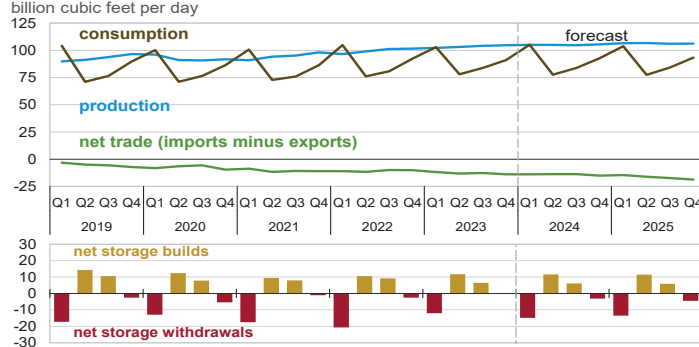
U.S. natural gas prices
dollars per thousand cubic feet



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

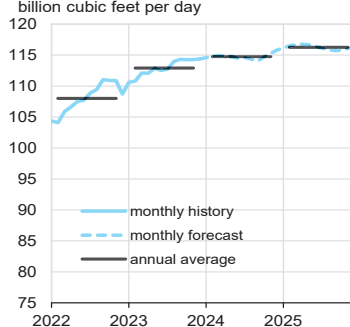


U.S. natural gas production, consumption, and net imports

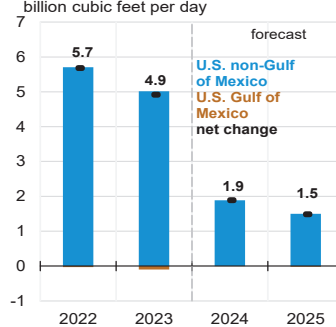


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024

U.S. marketed natural gas production

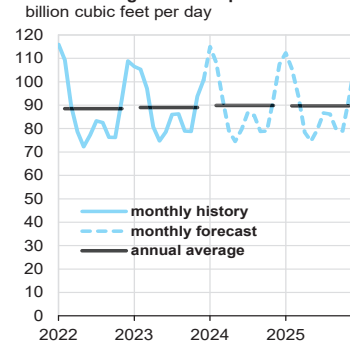


Components of annual change

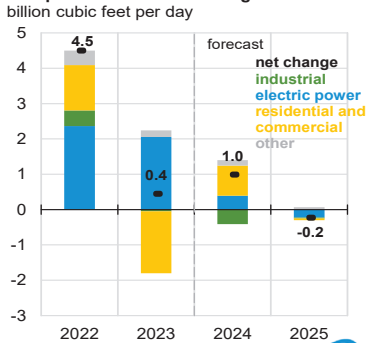


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024

U.S. natural gas consumption



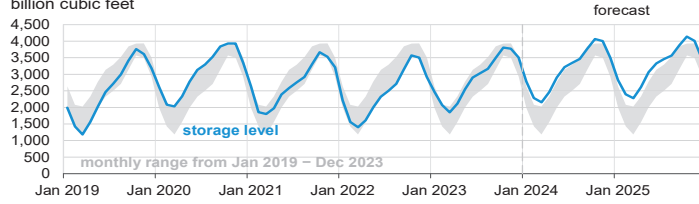
Components of annual change



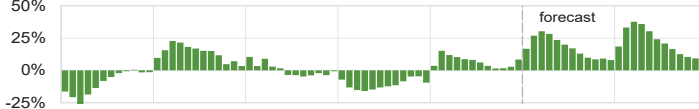
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024

U.S. working natural gas in storage

billion cubic feet



Percentage deviation from 2019 – 2023 average

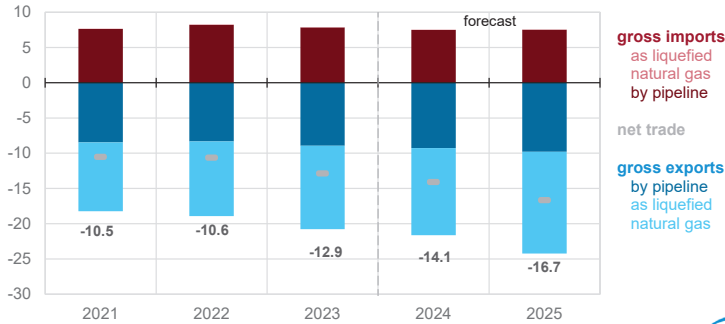


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024



U.S. annual natural gas trade

billion cubic feet per day

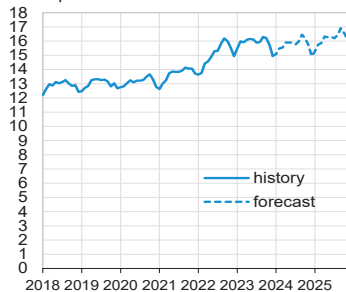


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024



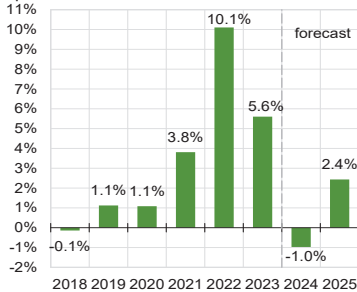
U.S. monthly nominal residential electricity price

cents per kilowatthour



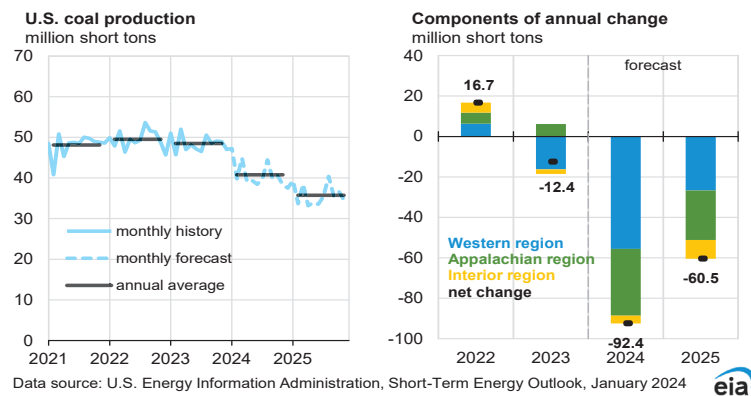
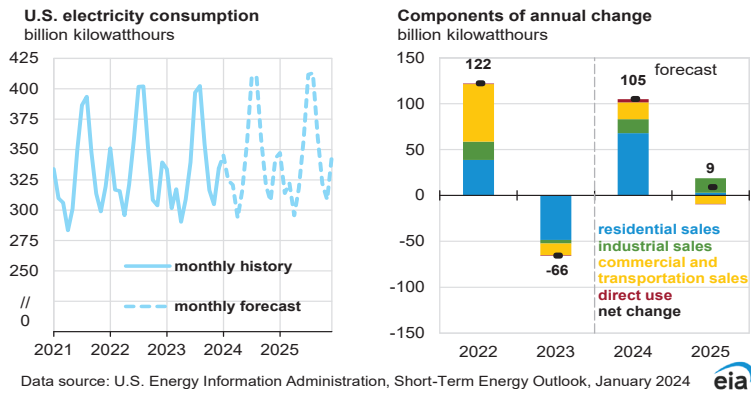
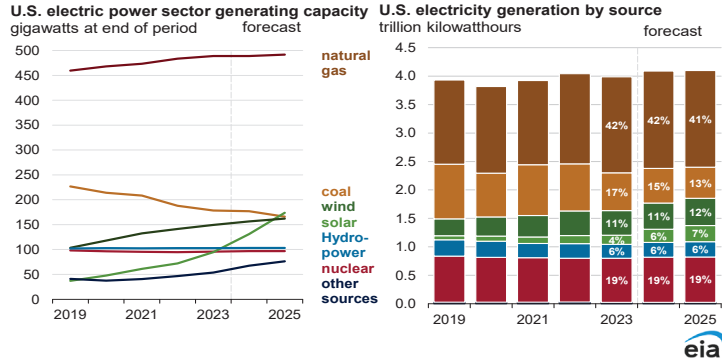
Annual growth in nominal residential electricity prices

percent

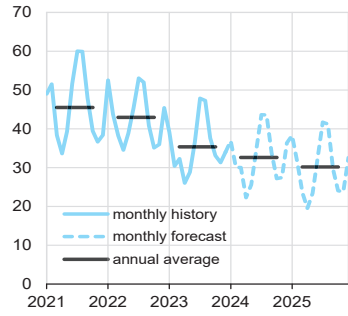


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024

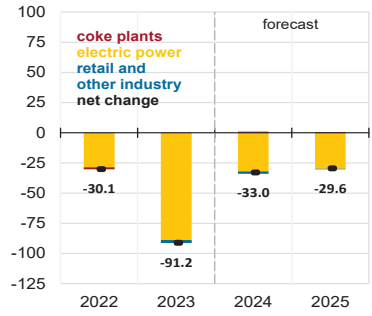




U.S. coal consumption
million short tons

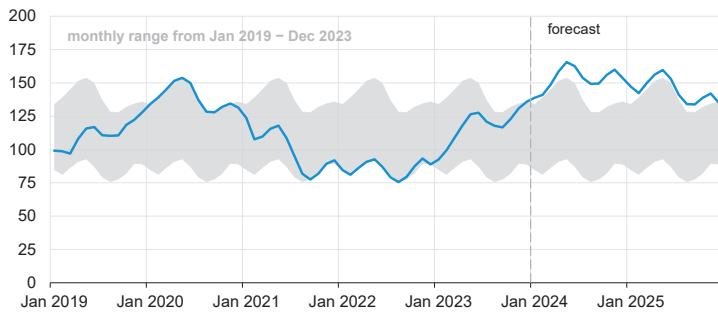


Components of annual change
million short tons



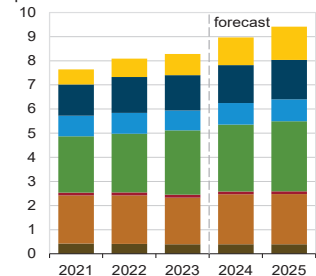
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024

U.S. electric power coal inventories
million short tons

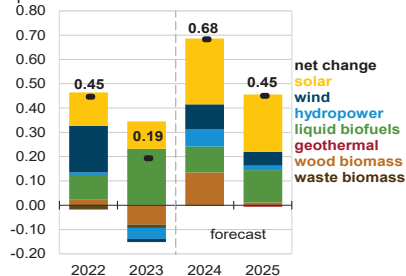


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024

U.S. renewable energy supply
quadrillion British thermal units



Components of annual change
quadrillion British thermal units

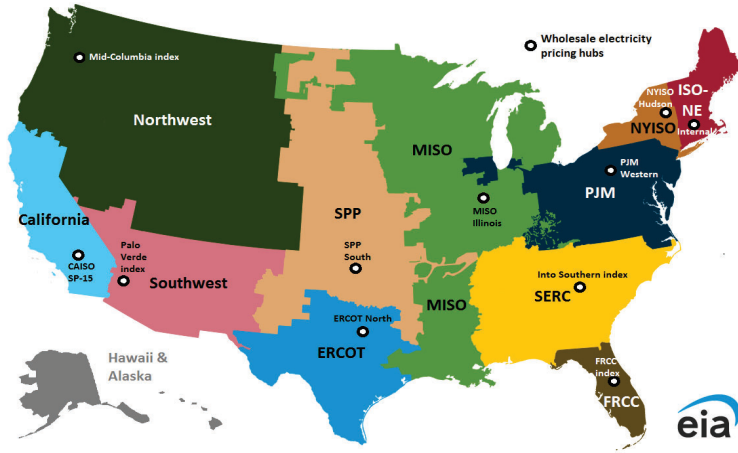


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024

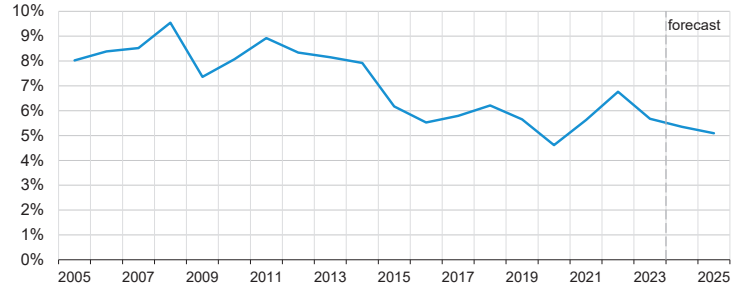
Note: Hydropower excludes pumped storage generation. Liquids include ethanol, biodiesel, renewable diesel, other biofuels, and biofuel losses and coproducts. Waste biomass includes municipal waste from biogenic sources, landfill gas, and non-wood waste.



Short-Term Energy Outlook electricity supply regions



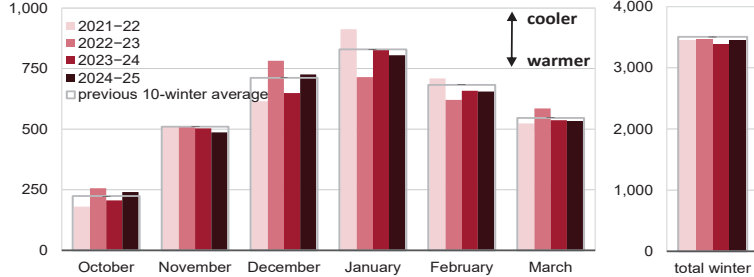
U.S. annual energy expenditures share of gross domestic product



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



U.S. winter heating degree days population-weighted

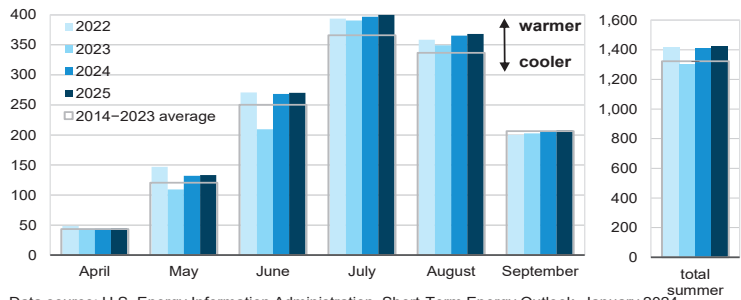


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024

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



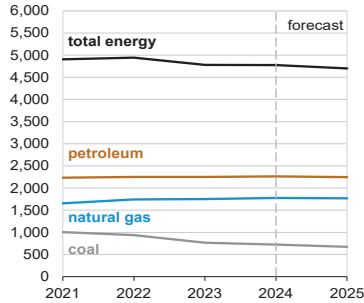
U.S. summer cooling degree days
population-weighted



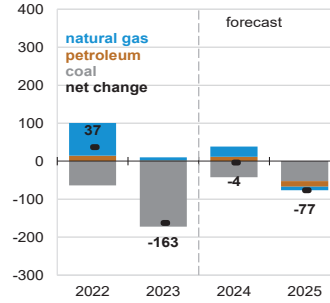
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, January 2024
 Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.



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, January 2024



Table 1. U.S. Energy Markets Summary

U.S. Energy Information Administration | Short-Term Energy Outlook - January 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 | 13.22 | 13.27 | 13.22 | 13.15 | 13.21 | 13.36 | 13.44 | 13.43 | 13.53 | 12.92 | 13.21 | 13.44 |
| Dry Natural Gas Production (billion cubic feet per day) | 102.3 | 103.2 | 104.2 | 104.6 | 105.1 | 105.0 | 104.6 | 105.5 | 106.6 | 106.7 | 106.1 | 106.2 | 103.6 | 105.0 | 106.4 |
| Coal Production (million short tons) | 149 | 142 | 146 | 145 | 132 | 117 | 124 | 116 | 111 | 101 | 111 | 105 | 582 | 489 | 429 |
| Energy Consumption | | | | | | | | | | | | | | | |
| Liquid Fuels (million barrels per day) | 19.66 | 20.38 | 20.37 | 20.29 | 20.34 | 20.49 | 20.54 | 20.42 | 20.27 | 20.49 | 20.56 | 20.51 | 20.18 | 20.45 | 20.46 |
| Natural Gas (billion cubic feet per day) | 102.9 | 78.0 | 83.8 | 91.1 | 105.2 | 77.7 | 83.9 | 92.8 | 103.8 | 77.5 | 84.2 | 93.4 | 88.9 | 89.9 | 89.7 |
| Coal (b) (million short tons) | 102 | 91 | 133 | 98 | 97 | 82 | 121 | 91 | 93 | 76 | 112 | 80 | 424 | 391 | 362 |
| Electricity (billion kilowatt hours per day) | 10.59 | 10.31 | 12.54 | 10.39 | 10.89 | 10.62 | 12.81 | 10.55 | 10.93 | 10.68 | 12.88 | 10.60 | 10.96 | 11.22 | 11.27 |
| Renewables (c) (quadrillion Btu) | 2.04 | 2.10 | 2.05 | 2.09 | 2.21 | 2.30 | 2.24 | 2.22 | 2.30 | 2.43 | 2.37 | 2.32 | 8.28 | 8.97 | 9.42 |
| Total Energy Consumption (d) (quadrillion Btu) | 24.11 | 22.01 | 23.74 | 23.43 | 24.89 | 22.16 | 23.79 | 23.75 | 24.50 | 22.06 | 23.71 | 23.72 | 93.29 | 94.59 | 93.99 |
| Energy Prices | | | | | | | | | | | | | | | |
| Crude Oil West Texas Intermediate Spot (dollars per barrel) | 75.96 | 73.49 | 82.25 | 78.63 | 78.47 | 79.53 | 77.50 | 76.50 | 76.50 | 75.50 | 74.50 | 73.50 | 77.58 | 77.99 | 74.98 |
| Natural Gas Henry Hub Spot (dollars per million Btu) | 2.65 | 2.16 | 2.59 | 2.74 | 2.64 | 2.22 | 2.68 | 3.10 | 2.93 | 2.64 | 2.99 | 3.22 | 2.54 | 2.66 | 2.95 |
| Coal (dollars per million Btu) | 2.57 | 2.49 | 2.51 | 2.53 | 2.52 | 2.50 | 2.49 | 2.44 | 2.45 | 2.45 | 2.44 | 2.40 | 2.52 | 2.49 | 2.44 |
| Macroeconomic | | | | | | | | | | | | | | | |
| Real Gross Domestic Product (billion chained 2017 dollars - SAAR) | 22,112 | 22,225 | 22,506 | 22,561 | 22,620 | 22,655 | 22,717 | 22,801 | 22,868 | 22,944 | 23,026 | 23,113 | 22,351 | 22,698 | 22,988 |
| Percent change from prior year | 1.7 | 2.4 | 3.0 | 2.6 | 2.3 | 1.9 | 0.9 | 1.1 | 1.1 | 1.3 | 1.4 | 1.4 | 2.4 | 1.6 | 1.3 |
| GDP Implicit Price Deflator (Index, 2017=100) | 121.3 | 121.8 | 122.9 | 123.5 | 124.2 | 125.0 | 125.6 | 126.4 | 127.2 | 127.9 | 128.4 | 129.1 | 122.3 | 125.3 | 128.2 |
| Percent change from prior year | 5.3 | 3.5 | 3.3 | 2.8 | 2.4 | 2.6 | 2.3 | 2.4 | 2.5 | 2.3 | 2.2 | 2.1 | 3.7 | 2.4 | 2.3 |
| Real Disposable Personal Income (billion chained 2017 dollars - SAAR) | 16,663 | 16,797 | 16,800 | 16,888 | 17,107 | 17,197 | 17,329 | 17,447 | 17,580 | 17,716 | 17,835 | 17,926 | 16,787 | 17,270 | 17,764 |
| Percent change from prior year | 3.7 | 4.9 | 4.0 | 4.0 | 2.7 | 2.4 | 3.1 | 3.3 | 2.8 | 3.0 | 2.9 | 2.7 | 4.2 | 2.9 | 2.9 |
| Manufacturing Production Index (Index, 2017=100) | 99.9 | 100.2 | 100.1 | 99.8 | 100.5 | 100.5 | 100.6 | 101.0 | 101.3 | 101.7 | 102.0 | 102.5 | 100.0 | 100.6 | 101.9 |
| Percent change from prior year | -0.2 | -0.7 | -0.8 | -0.2 | 0.6 | 0.3 | 0.5 | 1.2 | 0.9 | 1.2 | 1.4 | 1.5 | -0.5 | 0.6 | 1.2 |
| Weather | | | | | | | | | | | | | | | |
| U.S. Heating Degree-Days | 1,921 | 485 | 61 | 1,358 | 2,026 | 472 | 75 | 1,454 | 1,995 | 469 | 74 | 1,448 | 3,824 | 4,026 | 3,986 |
| U.S. Cooling Degree-Days | 68 | 363 | 942 | 101 | 47 | 444 | 968 | 105 | 50 | 448 | 976 | 106 | 1,475 | 1,564 | 1,580 |

(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 January 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 - January 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 | <i>78.47</i> | <i>79.53</i> | <i>77.50</i> | <i>76.50</i> | <i>76.50</i> | <i>75.50</i> | <i>74.50</i> | <i>73.50</i> | 77.58 | <i>77.99</i> | <i>74.98</i> |
| Brent Spot Average | 81.04 | 78.02 | 86.64 | 83.93 | <i>82.97</i> | <i>84.03</i> | <i>82.00</i> | <i>81.00</i> | <i>81.00</i> | <i>80.00</i> | <i>79.00</i> | <i>78.00</i> | 82.41 | <i>82.49</i> | <i>79.48</i> |
| U.S. Imported Average | 69.58 | 71.08 | 80.93 | 74.97 | <i>75.80</i> | <i>76.75</i> | <i>74.75</i> | <i>73.75</i> | <i>76.50</i> | <i>75.50</i> | <i>74.50</i> | <i>73.50</i> | 74.31 | <i>75.35</i> | <i>75.02</i> |
| U.S. Refiner Average Acquisition Cost | 74.44 | 73.99 | 82.36 | 78.29 | <i>78.01</i> | <i>78.99</i> | <i>77.00</i> | <i>76.00</i> | <i>76.50</i> | <i>75.50</i> | <i>74.50</i> | <i>73.50</i> | 77.36 | <i>77.51</i> | <i>74.98</i> |
| U.S. Liquid Fuels (cents per gallon) | | | | | | | | | | | | | | | |
| Wholesale Petroleum Product Prices | | | | | | | | | | | | | | | |
| Gasoline | 262 | 265 | 296 | 233 | <i>240</i> | <i>266</i> | <i>267</i> | <i>236</i> | <i>235</i> | <i>251</i> | <i>250</i> | <i>221</i> | 264 | <i>252</i> | <i>239</i> |
| Diesel Fuel | 295 | 245 | 308 | 284 | <i>265</i> | <i>264</i> | <i>263</i> | <i>274</i> | <i>264</i> | <i>253</i> | <i>250</i> | <i>252</i> | 283 | <i>267</i> | <i>255</i> |
| Fuel Oil | 279 | 231 | 292 | 274 | <i>260</i> | <i>250</i> | <i>245</i> | <i>263</i> | <i>259</i> | <i>244</i> | <i>240</i> | <i>244</i> | 271 | <i>258</i> | <i>250</i> |
| Jet Fuel | 305 | 233 | 291 | 271 | <i>256</i> | <i>263</i> | <i>259</i> | <i>269</i> | <i>263</i> | <i>251</i> | <i>250</i> | <i>259</i> | 275 | <i>262</i> | <i>256</i> |
| No. 6 Residual Fuel Oil (a) | 196 | 189 | 202 | 206 | <i>200</i> | <i>202</i> | <i>199</i> | <i>197</i> | <i>199</i> | <i>194</i> | <i>193</i> | <i>191</i> | 199 | <i>199</i> | <i>194</i> |
| Propane | | | | | | | | | | | | | | | |
| Mont Belvieu Spot | 82 | 68 | 68 | 67 | <i>76</i> | <i>80</i> | <i>79</i> | <i>78</i> | <i>78</i> | <i>78</i> | <i>77</i> | <i>75</i> | 71 | <i>78</i> | <i>77</i> |
| Retail Prices Including Taxes | | | | | | | | | | | | | | | |
| Gasoline Regular Grade (b) | 338 | 358 | 376 | 336 | <i>319</i> | <i>348</i> | <i>353</i> | <i>322</i> | <i>318</i> | <i>335</i> | <i>335</i> | <i>308</i> | 352 | <i>336</i> | <i>324</i> |
| Gasoline All Grades (b) | 349 | 369 | 387 | 348 | <i>330</i> | <i>359</i> | <i>365</i> | <i>334</i> | <i>330</i> | <i>347</i> | <i>347</i> | <i>321</i> | 364 | <i>347</i> | <i>336</i> |
| On-highway Diesel Fuel | 439 | 394 | 428 | 426 | <i>395</i> | <i>390</i> | <i>385</i> | <i>398</i> | <i>395</i> | <i>385</i> | <i>378</i> | <i>382</i> | 421 | <i>392</i> | <i>385</i> |
| Heating Oil | 407 | 353 | 387 | 396 | <i>379</i> | <i>358</i> | <i>346</i> | <i>385</i> | <i>376</i> | <i>350</i> | <i>336</i> | <i>359</i> | 393 | <i>374</i> | <i>363</i> |
| Natural Gas | | | | | | | | | | | | | | | |
| Henry Hub Spot (dollars per thousand cubic feet) | 2.76 | 2.25 | 2.69 | 2.84 | <i>2.75</i> | <i>2.31</i> | <i>2.78</i> | <i>3.22</i> | <i>3.04</i> | <i>2.74</i> | <i>3.11</i> | <i>3.34</i> | 2.63 | <i>2.76</i> | <i>3.06</i> |
| Henry Hub Spot (dollars per million Btu) | 2.65 | 2.16 | 2.59 | 2.74 | <i>2.64</i> | <i>2.22</i> | <i>2.68</i> | <i>3.10</i> | <i>2.93</i> | <i>2.64</i> | <i>2.99</i> | <i>3.22</i> | 2.54 | <i>2.66</i> | <i>2.95</i> |
| U.S. Retail Prices (dollars per thousand cubic feet) | | | | | | | | | | | | | | | |
| Industrial Sector | 6.12 | 3.76 | 3.87 | 4.57 | <i>4.72</i> | <i>3.58</i> | <i>3.69</i> | <i>4.59</i> | <i>4.87</i> | <i>3.90</i> | <i>4.03</i> | <i>4.77</i> | 4.64 | <i>4.18</i> | <i>4.42</i> |
| Commercial Sector | 11.81 | 10.48 | 10.90 | 9.43 | <i>8.77</i> | <i>8.97</i> | <i>9.44</i> | <i>8.27</i> | <i>8.30</i> | <i>8.81</i> | <i>9.55</i> | <i>8.41</i> | 10.77 | <i>8.72</i> | <i>8.56</i> |
| Residential Sector | 14.72 | 16.19 | 22.33 | 13.34 | <i>11.64</i> | <i>14.03</i> | <i>19.38</i> | <i>12.01</i> | <i>11.11</i> | <i>13.72</i> | <i>19.39</i> | <i>12.04</i> | 15.06 | <i>12.67</i> | <i>12.40</i> |
| U.S. Electricity | | | | | | | | | | | | | | | |
| Power Generation Fuel Costs (dollars per million Btu) | | | | | | | | | | | | | | | |
| Coal | 2.57 | 2.49 | 2.51 | 2.53 | <i>2.52</i> | <i>2.50</i> | <i>2.49</i> | <i>2.44</i> | <i>2.45</i> | <i>2.45</i> | <i>2.44</i> | <i>2.40</i> | 2.52 | <i>2.49</i> | <i>2.44</i> |
| Natural Gas | 4.98 | 2.60 | 2.92 | 2.95 | <i>3.16</i> | <i>2.48</i> | <i>2.73</i> | <i>3.38</i> | <i>3.46</i> | <i>2.83</i> | <i>3.03</i> | <i>3.49</i> | 3.29 | <i>2.91</i> | <i>3.18</i> |
| Residual Fuel Oil (c) | 19.24 | 17.88 | 19.26 | 19.08 | <i>15.77</i> | <i>16.46</i> | <i>15.53</i> | <i>15.43</i> | <i>15.53</i> | <i>15.85</i> | <i>14.92</i> | <i>14.68</i> | 18.91 | <i>15.75</i> | <i>15.21</i> |
| Distillate Fuel Oil | 22.84 | 19.91 | 22.12 | 21.47 | <i>20.30</i> | <i>20.29</i> | <i>20.08</i> | <i>20.99</i> | <i>20.42</i> | <i>19.50</i> | <i>19.15</i> | <i>19.25</i> | 21.58 | <i>20.48</i> | <i>19.63</i> |
| Prices to Ultimate Customers (cents per kilowatthour) | | | | | | | | | | | | | | | |
| Industrial Sector | 8.06 | 7.74 | 8.57 | 7.99 | <i>8.10</i> | <i>7.81</i> | <i>8.49</i> | <i>8.17</i> | <i>8.29</i> | <i>7.90</i> | <i>8.68</i> | <i>8.31</i> | 8.10 | <i>8.15</i> | <i>8.30</i> |
| Commercial Sector | 12.64 | 12.45 | 13.21 | 12.25 | <i>12.05</i> | <i>12.11</i> | <i>13.25</i> | <i>12.46</i> | <i>12.28</i> | <i>12.51</i> | <i>13.68</i> | <i>12.78</i> | 12.66 | <i>12.50</i> | <i>12.85</i> |
| Residential Sector | 15.77 | 16.12 | 16.02 | 15.58 | <i>15.35</i> | <i>15.89</i> | <i>16.03</i> | <i>15.56</i> | <i>15.60</i> | <i>16.29</i> | <i>16.48</i> | <i>15.98</i> | 15.88 | <i>15.73</i> | <i>16.11</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 January 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 - January 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 | 33.76 | 34.51 | 35.07 | 34.92 | 34.49 | 34.59 | 35.07 | 35.22 | 35.09 | 35.16 | 35.62 | 34.21 | 34.77 | 35.27 |
| U.S. (50 States) | 21.05 | 21.69 | 22.27 | 22.50 | 22.21 | 22.25 | 22.25 | 22.34 | 22.40 | 22.68 | 22.65 | 22.82 | 21.88 | 22.26 | 22.64 |
| Canada | 5.79 | 5.44 | 5.79 | 5.95 | 5.97 | 5.64 | 5.84 | 6.05 | 6.13 | 5.84 | 6.04 | 6.18 | 5.74 | 5.88 | 6.05 |
| Mexico | 2.07 | 2.16 | 2.11 | 2.09 | 2.08 | 2.05 | 2.03 | 2.00 | 2.00 | 1.97 | 1.95 | 1.92 | 2.11 | 2.04 | 1.96 |
| Other OECD | 4.56 | 4.47 | 4.35 | 4.53 | 4.65 | 4.56 | 4.47 | 4.69 | 4.70 | 4.61 | 4.51 | 4.70 | 4.48 | 4.59 | 4.63 |
| Non-OECD | 67.63 | 67.76 | 67.24 | 67.45 | 66.42 | 67.78 | 68.29 | 67.78 | 68.00 | 68.73 | 69.15 | 68.80 | 67.52 | 67.57 | 68.67 |
| OPEC | 32.77 | 32.46 | 31.63 | 31.91 | 31.42 | 32.03 | 32.24 | 32.13 | 32.53 | 32.70 | 32.78 | 32.50 | 32.19 | 31.96 | 32.63 |
| Crude Oil Portion | 27.38 | 27.23 | 26.37 | 26.62 | 26.02 | 26.76 | 26.95 | 26.79 | 27.25 | 27.42 | 27.50 | 27.22 | 26.90 | 26.63 | 27.35 |
| Other Liquids (b) | 5.40 | 5.22 | 5.26 | 5.30 | 5.40 | 5.27 | 5.30 | 5.33 | 5.28 | 5.28 | 5.28 | 5.28 | 5.30 | 5.32 | 5.28 |
| Eurasia | 14.11 | 13.67 | 13.45 | 13.68 | 13.59 | 13.65 | 13.66 | 13.72 | 13.81 | 13.82 | 13.73 | 13.88 | 13.72 | 13.65 | 13.81 |
| China | 5.32 | 5.32 | 5.19 | 5.27 | 5.27 | 5.30 | 5.29 | 5.33 | 5.28 | 5.30 | 5.29 | 5.33 | 5.27 | 5.30 | 5.30 |
| Other Non-OECD | 15.43 | 16.31 | 16.97 | 16.59 | 16.14 | 16.80 | 17.11 | 16.60 | 16.38 | 16.90 | 17.35 | 17.08 | 16.33 | 16.66 | 16.93 |
| Total World Production | 101.11 | 101.52 | 101.76 | 102.51 | 101.33 | 102.27 | 102.88 | 102.85 | 103.22 | 103.82 | 104.31 | 104.42 | 101.73 | 102.34 | 103.95 |
| Non-OPEC Production | 68.33 | 69.06 | 70.13 | 70.60 | 69.91 | 70.24 | 70.64 | 70.73 | 70.69 | 71.11 | 71.53 | 71.92 | 69.54 | 70.38 | 71.32 |
| Consumption (million barrels per day) (c) | | | | | | | | | | | | | | | |
| OECD | 45.28 | 45.71 | 46.23 | 46.48 | 46.08 | 45.57 | 46.25 | 46.33 | 45.92 | 45.50 | 46.20 | 46.35 | 45.93 | 46.06 | 45.99 |
| U.S. (50 States) | 19.66 | 20.38 | 20.37 | 20.29 | 20.34 | 20.49 | 20.54 | 20.42 | 20.27 | 20.49 | 20.56 | 20.51 | 20.18 | 20.45 | 20.46 |
| U.S. Territories | 0.12 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.12 | 0.11 | 0.11 |
| Canada | 2.33 | 2.47 | 2.59 | 2.35 | 2.37 | 2.32 | 2.42 | 2.40 | 2.34 | 2.29 | 2.39 | 2.37 | 2.44 | 2.38 | 2.35 |
| Europe | 13.10 | 13.54 | 13.72 | 13.66 | 13.21 | 13.36 | 13.77 | 13.53 | 13.18 | 13.34 | 13.75 | 13.51 | 13.51 | 13.47 | 13.45 |
| Japan | 3.73 | 3.10 | 3.12 | 3.49 | 3.59 | 2.98 | 3.08 | 3.41 | 3.54 | 2.94 | 3.04 | 3.36 | 3.36 | 3.26 | 3.22 |
| Other OECD | 6.34 | 6.10 | 6.32 | 6.57 | 6.45 | 6.30 | 6.32 | 6.46 | 6.47 | 6.33 | 6.35 | 6.49 | 6.33 | 6.38 | 6.41 |
| Non-OECD | 54.71 | 55.22 | 55.30 | 55.33 | 56.06 | 56.56 | 56.50 | 56.47 | 57.32 | 57.85 | 57.79 | 57.75 | 55.14 | 56.40 | 57.68 |
| Eurasia | 4.34 | 4.49 | 4.81 | 4.72 | 4.48 | 4.63 | 4.96 | 4.87 | 4.51 | 4.67 | 5.00 | 4.91 | 4.59 | 4.74 | 4.78 |
| Europe | 0.74 | 0.76 | 0.77 | 0.77 | 0.75 | 0.77 | 0.77 | 0.77 | 0.76 | 0.78 | 0.78 | 0.78 | 0.76 | 0.77 | 0.77 |
| China | 15.90 | 16.09 | 15.78 | 15.99 | 16.23 | 16.42 | 16.10 | 16.31 | 16.48 | 16.67 | 16.35 | 16.56 | 15.94 | 16.27 | 16.52 |
| Other Asia | 14.36 | 14.24 | 13.71 | 14.07 | 14.82 | 14.79 | 14.18 | 14.50 | 15.31 | 15.28 | 14.65 | 14.99 | 14.09 | 14.57 | 15.06 |
| Other Non-OECD | 19.37 | 19.64 | 20.24 | 19.78 | 19.78 | 19.94 | 20.49 | 20.02 | 20.26 | 20.44 | 21.00 | 20.51 | 19.76 | 20.06 | 20.56 |
| Total World Consumption | 99.99 | 100.93 | 101.54 | 101.81 | 102.14 | 102.12 | 102.75 | 102.81 | 103.24 | 103.35 | 103.98 | 104.10 | 101.07 | 102.46 | 103.67 |
| Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day) | | | | | | | | | | | | | | | |
| U.S. (50 States) | -0.08 | -0.11 | -0.25 | 0.23 | -0.06 | -0.32 | -0.05 | 0.40 | -0.06 | -0.31 | -0.07 | 0.33 | -0.05 | -0.01 | -0.03 |
| Other OECD | 0.32 | -0.47 | 0.01 | -0.30 | 0.28 | 0.05 | -0.02 | -0.14 | 0.02 | -0.05 | -0.08 | -0.20 | -0.11 | 0.04 | -0.08 |
| Other Stock Draws and Balance | -1.36 | -0.02 | 0.02 | -0.63 | 0.59 | 0.12 | -0.05 | -0.30 | 0.05 | -0.11 | -0.18 | -0.45 | -0.49 | 0.09 | -0.17 |
| Total Stock Draw | -1.12 | -0.59 | -0.22 | -0.70 | 0.81 | -0.15 | -0.13 | -0.05 | 0.01 | -0.47 | -0.33 | -0.32 | -0.65 | 0.12 | -0.28 |
| End-of-period Commercial Crude Oil and Other Liquids Inventories (million barrels) | | | | | | | | | | | | | | | |
| U.S. Commercial Inventory | 1,231 | 1,264 | 1,283 | 1,259 | 1,255 | 1,282 | 1,287 | 1,250 | 1,256 | 1,284 | 1,291 | 1,260 | 1,259 | 1,250 | 1,260 |
| OECD Commercial Inventory | 2,746 | 2,822 | 2,840 | 2,843 | 2,815 | 2,836 | 2,843 | 2,820 | 2,823 | 2,856 | 2,870 | 2,858 | 2,843 | 2,820 | 2,858 |

(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 January 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 - January 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 | 30.53 | <i>30.26</i> | <i>29.94</i> | <i>30.11</i> | <i>30.39</i> | <i>30.52</i> | <i>30.48</i> | <i>30.64</i> | <i>30.93</i> | 29.73 | <i>30.18</i> | <i>30.64</i> |
| Canada | 5.79 | 5.44 | 5.79 | 5.95 | <i>5.97</i> | <i>5.64</i> | <i>5.84</i> | <i>6.05</i> | <i>6.13</i> | <i>5.84</i> | <i>6.04</i> | <i>6.18</i> | 5.74 | <i>5.88</i> | <i>6.05</i> |
| Mexico | 2.07 | 2.16 | 2.11 | 2.09 | <i>2.08</i> | <i>2.05</i> | <i>2.03</i> | <i>2.00</i> | <i>2.00</i> | <i>1.97</i> | <i>1.95</i> | <i>1.92</i> | 2.11 | <i>2.04</i> | <i>1.96</i> |
| United States | 21.05 | 21.69 | 22.27 | 22.50 | <i>22.21</i> | <i>22.25</i> | <i>22.25</i> | <i>22.34</i> | <i>22.40</i> | <i>22.68</i> | <i>22.65</i> | <i>22.82</i> | 21.88 | <i>22.26</i> | <i>22.64</i> |
| Central and South America | 6.31 | 6.99 | 7.62 | 7.17 | <i>6.91</i> | <i>7.54</i> | <i>7.86</i> | <i>7.37</i> | <i>7.11</i> | <i>7.63</i> | <i>8.03</i> | <i>7.73</i> | 7.03 | <i>7.42</i> | <i>7.63</i> |
| Argentina | 0.81 | 0.81 | 0.82 | 0.85 | <i>0.84</i> | <i>0.86</i> | <i>0.88</i> | <i>0.91</i> | <i>0.88</i> | <i>0.89</i> | <i>0.91</i> | <i>0.94</i> | 0.82 | <i>0.87</i> | <i>0.91</i> |
| Brazil | 3.55 | 4.19 | 4.82 | 4.28 | <i>3.92</i> | <i>4.48</i> | <i>4.78</i> | <i>4.29</i> | <i>4.09</i> | <i>4.60</i> | <i>4.91</i> | <i>4.47</i> | 4.21 | <i>4.37</i> | <i>4.52</i> |
| Colombia | 0.79 | 0.81 | 0.81 | 0.81 | <i>0.80</i> | <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> | 0.80 | <i>0.79</i> | <i>0.76</i> |
| Ecuador | 0.46 | 0.48 | 0.48 | 0.48 | <i>0.49</i> | <i>0.49</i> | <i>0.49</i> | <i>0.46</i> | <i>0.43</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 | 0.41 | <i>0.54</i> | <i>0.59</i> | <i>0.60</i> | <i>0.60</i> | <i>0.61</i> | <i>0.61</i> | <i>0.70</i> | <i>0.82</i> | 0.37 | <i>0.58</i> | <i>0.69</i> |
| Europe | 4.01 | 3.93 | 3.82 | 4.00 | <i>4.10</i> | <i>4.01</i> | <i>3.93</i> | <i>4.15</i> | <i>4.16</i> | <i>4.07</i> | <i>3.98</i> | <i>4.17</i> | 3.94 | <i>4.04</i> | <i>4.10</i> |
| Norway | 2.03 | 2.03 | 1.98 | 2.03 | <i>2.07</i> | <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>2.05</i> | <i>2.14</i> |
| United Kingdom | 0.87 | 0.79 | 0.72 | 0.84 | <i>0.89</i> | <i>0.88</i> | <i>0.79</i> | <i>0.86</i> | <i>0.86</i> | <i>0.85</i> | <i>0.76</i> | <i>0.85</i> | 0.80 | <i>0.85</i> | <i>0.83</i> |
| Eurasia | 14.11 | 13.67 | 13.45 | 13.68 | <i>13.59</i> | <i>13.65</i> | <i>13.66</i> | <i>13.72</i> | <i>13.81</i> | <i>13.82</i> | <i>13.73</i> | <i>13.88</i> | 13.72 | <i>13.65</i> | <i>13.81</i> |
| Azerbaijan | 0.65 | 0.62 | 0.62 | 0.61 | <i>0.61</i> | <i>0.61</i> | <i>0.61</i> | <i>0.62</i> | <i>0.63</i> | <i>0.64</i> | <i>0.66</i> | <i>0.66</i> | 0.62 | <i>0.61</i> | <i>0.65</i> |
| Kazakhstan | 2.02 | 1.97 | 1.85 | 1.96 | <i>1.86</i> | <i>1.92</i> | <i>1.92</i> | <i>1.98</i> | <i>2.06</i> | <i>2.05</i> | <i>1.94</i> | <i>2.10</i> | 1.95 | <i>1.92</i> | <i>2.04</i> |
| Russia | 11.06 | 10.68 | 10.58 | 10.70 | <i>10.72</i> | <i>10.72</i> | <i>10.72</i> | <i>10.73</i> | <i>10.73</i> | <i>10.73</i> | <i>10.74</i> | <i>10.74</i> | 10.75 | <i>10.72</i> | <i>10.73</i> |
| Turkmenistan | 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> | <i>0.27</i> | 0.27 | <i>0.27</i> | <i>0.27</i> |
| Middle East | 3.22 | 3.22 | 3.19 | 3.18 | <i>3.15</i> | <i>3.21</i> | <i>3.21</i> | <i>3.21</i> | <i>3.25</i> | <i>3.27</i> | <i>3.32</i> | <i>3.36</i> | 3.20 | <i>3.19</i> | <i>3.30</i> |
| Oman | 1.07 | 1.06 | 1.05 | 1.04 | <i>0.99</i> | <i>1.03</i> | <i>1.03</i> | <i>1.03</i> | <i>1.08</i> | <i>1.08</i> | <i>1.08</i> | <i>1.08</i> | 1.05 | <i>1.02</i> | <i>1.08</i> |
| Qatar | 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>1.86</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 | 9.33 | 9.21 | 9.31 | <i>9.35</i> | <i>9.35</i> | <i>9.34</i> | <i>9.37</i> | <i>9.36</i> | <i>9.39</i> | <i>9.38</i> | <i>9.42</i> | 9.26 | <i>9.35</i> | <i>9.39</i> |
| Australia | 0.41 | 0.42 | 0.40 | 0.41 | <i>0.41</i> | <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 | 5.27 | <i>5.27</i> | <i>5.30</i> | <i>5.29</i> | <i>5.33</i> | <i>5.28</i> | <i>5.30</i> | <i>5.29</i> | <i>5.33</i> | 5.27 | <i>5.30</i> | <i>5.30</i> |
| India | 0.85 | 0.93 | 0.96 | 0.95 | <i>0.97</i> | <i>0.97</i> | <i>0.96</i> | <i>0.95</i> | <i>0.99</i> | <i>0.99</i> | <i>0.98</i> | <i>0.98</i> | 0.92 | <i>0.96</i> | <i>0.98</i> |
| Indonesia | 0.82 | 0.88 | 0.87 | 0.87 | <i>0.89</i> | <i>0.88</i> | <i>0.88</i> | <i>0.87</i> | <i>0.88</i> | <i>0.88</i> | <i>0.88</i> | <i>0.87</i> | 0.86 | <i>0.88</i> | <i>0.88</i> |
| Malaysia | 0.61 | 0.58 | 0.58 | 0.59 | <i>0.59</i> | <i>0.58</i> | <i>0.57</i> | <i>0.57</i> | <i>0.58</i> | <i>0.58</i> | <i>0.58</i> | <i>0.58</i> | 0.59 | <i>0.58</i> | <i>0.58</i> |
| Africa | 2.55 | 2.64 | 2.67 | 2.75 | <i>2.56</i> | <i>2.55</i> | <i>2.54</i> | <i>2.53</i> | <i>2.47</i> | <i>2.46</i> | <i>2.45</i> | <i>2.43</i> | 2.65 | <i>2.55</i> | <i>2.45</i> |
| Angola | 1.17 | 1.23 | 1.23 | 1.28 | <i>1.16</i> | <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> | 1.23 | <i>1.13</i> | <i>1.07</i> |
| Egypt | 0.66 | 0.67 | 0.67 | 0.66 | <i>0.62</i> | <i>0.62</i> | <i>0.62</i> | <i>0.62</i> | <i>0.57</i> | <i>0.57</i> | <i>0.57</i> | <i>0.57</i> | 0.67 | <i>0.62</i> | <i>0.57</i> |
| South Sudan | 0.13 | 0.13 | 0.16 | 0.18 | <i>0.16</i> | <i>0.16</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>0.15</i> | <i>0.14</i> |
| Total non-OPEC liquids | 68.33 | 69.06 | 70.13 | 70.60 | <i>69.91</i> | <i>70.24</i> | <i>70.64</i> | <i>70.73</i> | <i>70.69</i> | <i>71.11</i> | <i>71.53</i> | <i>71.92</i> | 69.54 | <i>70.38</i> | <i>71.32</i> |
| OPEC non-crude liquids | 5.40 | 5.22 | 5.26 | 5.30 | <i>5.40</i> | <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> | 5.30 | <i>5.32</i> | <i>5.28</i> |
| Non-OPEC + OPEC non-crude | 73.73 | 74.29 | 75.39 | 75.90 | <i>75.31</i> | <i>75.51</i> | <i>75.93</i> | <i>76.06</i> | <i>75.98</i> | <i>76.40</i> | <i>76.81</i> | <i>77.20</i> | 74.83 | <i>75.70</i> | <i>76.60</i> |
| Unplanned non-OPEC Production Outages | 0.56 | 1.02 | 0.92 | 0.84 | - | - | - | - | - | - | - | - | 0.83 | - | - |

- = 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 January 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 - January 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 | - | - | - | - | - | - | - | - | 0.97 | - | - |
| Congo (Brazzaville) | 0.27 | 0.25 | 0.26 | 0.26 | - | - | - | - | - | - | - | - | 0.26 | - | - |
| Equatorial Guinea | 0.06 | 0.06 | 0.06 | 0.06 | - | - | - | - | - | - | - | - | 0.06 | - | - |
| Gabon | 0.20 | 0.21 | 0.20 | 0.21 | - | - | - | - | - | - | - | - | 0.20 | - | - |
| Iran | 2.60 | 2.74 | 2.97 | 3.16 | - | - | - | - | - | - | - | - | 2.87 | - | - |
| Iraq | 4.41 | 4.19 | 4.33 | 4.33 | - | - | - | - | - | - | - | - | 4.32 | - | - |
| Kuwait | 2.68 | 2.59 | 2.56 | 2.53 | - | - | - | - | - | - | - | - | 2.59 | - | - |
| Libya | 1.14 | 1.15 | 1.15 | 1.17 | - | - | - | - | - | - | - | - | 1.15 | - | - |
| Nigeria | 1.24 | 1.19 | 1.21 | 1.31 | - | - | - | - | - | - | - | - | 1.24 | - | - |
| Saudi Arabia | 10.02 | 10.18 | 9.02 | 8.97 | - | - | - | - | - | - | - | - | 9.54 | - | - |
| United Arab Emirates | 3.06 | 2.94 | 2.91 | 2.91 | - | - | - | - | - | - | - | - | 2.96 | - | - |
| Venezuela | 0.70 | 0.75 | 0.76 | 0.76 | - | - | - | - | - | - | - | - | 0.74 | - | - |
| OPEC Total | 27.38 | 27.23 | 26.37 | 26.62 | <i>26.02</i> | <i>26.76</i> | <i>26.95</i> | <i>26.79</i> | <i>27.25</i> | <i>27.42</i> | <i>27.50</i> | <i>27.22</i> | 26.90 | <i>26.63</i> | <i>27.35</i> |
| Other Liquids (a) | 5.40 | 5.22 | 5.26 | 5.30 | <i>5.40</i> | <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> | 5.30 | <i>5.32</i> | <i>5.28</i> |
| Total OPEC Production | 32.77 | 32.46 | 31.63 | 31.91 | <i>31.42</i> | <i>32.03</i> | <i>32.24</i> | <i>32.13</i> | <i>32.53</i> | <i>32.70</i> | <i>32.78</i> | <i>32.50</i> | 32.19 | <i>31.96</i> | <i>32.63</i> |
| OPEC+ Crude Oil Production | 38.20 | 37.46 | 36.21 | 36.38 | <i>35.80</i> | <i>36.61</i> | <i>36.75</i> | <i>36.58</i> | <i>37.15</i> | <i>37.31</i> | <i>37.30</i> | <i>37.14</i> | 37.06 | <i>36.44</i> | <i>37.22</i> |
| Crude Oil Production Capacity | | | | | | | | | | | | | | | |
| Middle East | 25.88 | 25.67 | 25.90 | 26.09 | 26.29 | 26.31 | 26.39 | 26.70 | 26.70 | 26.70 | 26.70 | 26.70 | 25.88 | 26.42 | 26.70 |
| Other | 4.63 | 4.64 | 4.67 | 4.79 | 4.69 | 4.68 | 4.70 | 4.72 | 4.68 | 4.67 | 4.66 | 4.66 | 4.68 | 4.70 | 4.67 |
| OPEC Total | 30.50 | 30.31 | 30.56 | 30.88 | <i>30.99</i> | <i>30.99</i> | <i>31.09</i> | <i>31.42</i> | <i>31.38</i> | <i>31.37</i> | <i>31.36</i> | <i>31.36</i> | 30.56 | <i>31.12</i> | <i>31.37</i> |
| Surplus Crude Oil Production Capacity | | | | | | | | | | | | | | | |
| Middle East | 3.10 | 3.02 | 4.11 | 4.19 | 4.85 | 4.16 | 4.08 | 4.57 | 4.07 | 3.88 | 3.80 | 4.07 | 3.61 | 4.42 | 3.95 |
| Other | 0.02 | 0.05 | 0.08 | 0.07 | 0.11 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | 0.07 | 0.06 | 0.07 | 0.07 |
| OPEC Total | 3.13 | 3.07 | 4.19 | 4.26 | <i>4.96</i> | <i>4.22</i> | <i>4.14</i> | <i>4.63</i> | <i>4.13</i> | <i>3.95</i> | <i>3.87</i> | <i>4.14</i> | 3.67 | <i>4.49</i> | <i>4.02</i> |
| Unplanned OPEC Production Outages | 1.94 | 2.13 | 1.95 | 1.54 | - | - | - | - | - | - | - | - | 1.89 | - | - |

(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 January 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 - January 2024

| | 2023 | | | | 2024 | | | | 2025 | | | | 2023 | 2024 | 2025 |
|------------------------------------------------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | | |
| North America | 23.89 | 24.73 | 24.92 | 24.64 | <i>24.64</i> | <i>24.75</i> | <i>24.90</i> | <i>24.78</i> | <i>24.53</i> | <i>24.73</i> | <i>24.89</i> | <i>24.84</i> | 24.55 | <i>24.77</i> | <i>24.75</i> |
| Canada | 2.33 | 2.47 | 2.59 | 2.35 | <i>2.37</i> | <i>2.32</i> | <i>2.42</i> | <i>2.40</i> | <i>2.34</i> | <i>2.29</i> | <i>2.39</i> | <i>2.37</i> | 2.44 | <i>2.38</i> | <i>2.35</i> |
| Mexico | 1.89 | 1.87 | 1.95 | 1.99 | <i>1.91</i> | <i>1.94</i> | <i>1.94</i> | <i>1.95</i> | <i>1.91</i> | <i>1.94</i> | <i>1.94</i> | <i>1.95</i> | 1.92 | <i>1.93</i> | <i>1.93</i> |
| United States | 19.66 | 20.38 | 20.37 | 20.29 | <i>20.34</i> | <i>20.49</i> | <i>20.54</i> | <i>20.42</i> | <i>20.27</i> | <i>20.49</i> | <i>20.56</i> | <i>20.51</i> | 20.18 | <i>20.45</i> | <i>20.46</i> |
| Central and South America | 6.42 | 6.55 | 6.65 | 6.60 | <i>6.44</i> | <i>6.58</i> | <i>6.69</i> | <i>6.62</i> | <i>6.57</i> | <i>6.72</i> | <i>6.82</i> | <i>6.75</i> | 6.55 | <i>6.58</i> | <i>6.72</i> |
| Brazil | 2.98 | 3.04 | 3.11 | 3.10 | <i>2.99</i> | <i>3.04</i> | <i>3.12</i> | <i>3.10</i> | <i>3.06</i> | <i>3.12</i> | <i>3.19</i> | <i>3.18</i> | 3.06 | <i>3.06</i> | <i>3.14</i> |
| Europe | 13.84 | 14.30 | 14.49 | 14.43 | <i>13.96</i> | <i>14.13</i> | <i>14.54</i> | <i>14.31</i> | <i>13.94</i> | <i>14.11</i> | <i>14.53</i> | <i>14.29</i> | 14.27 | <i>14.24</i> | <i>14.22</i> |
| Eurasia | 4.34 | 4.49 | 4.81 | 4.72 | <i>4.48</i> | <i>4.63</i> | <i>4.96</i> | <i>4.87</i> | <i>4.51</i> | <i>4.67</i> | <i>5.00</i> | <i>4.91</i> | 4.59 | <i>4.74</i> | <i>4.78</i> |
| Russia | 3.31 | 3.40 | 3.69 | 3.55 | <i>3.42</i> | <i>3.51</i> | <i>3.81</i> | <i>3.66</i> | <i>3.43</i> | <i>3.52</i> | <i>3.82</i> | <i>3.68</i> | 3.49 | <i>3.60</i> | <i>3.61</i> |
| Middle East | 9.13 | 9.25 | 9.84 | 9.26 | <i>9.44</i> | <i>9.44</i> | <i>9.98</i> | <i>9.39</i> | <i>9.68</i> | <i>9.70</i> | <i>10.25</i> | <i>9.63</i> | 9.37 | <i>9.56</i> | <i>9.82</i> |
| Asia and Oceania | 37.86 | 37.08 | 36.39 | 37.55 | <i>38.58</i> | <i>37.96</i> | <i>37.15</i> | <i>38.15</i> | <i>39.28</i> | <i>38.69</i> | <i>37.84</i> | <i>38.86</i> | 37.22 | <i>37.96</i> | <i>38.66</i> |
| China | 15.90 | 16.09 | 15.78 | 15.99 | <i>16.23</i> | <i>16.42</i> | <i>16.10</i> | <i>16.31</i> | <i>16.48</i> | <i>16.67</i> | <i>16.35</i> | <i>16.56</i> | 15.94 | <i>16.27</i> | <i>16.52</i> |
| Japan | 3.73 | 3.10 | 3.12 | 3.49 | <i>3.59</i> | <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> | 3.36 | <i>3.26</i> | <i>3.22</i> |
| India | 5.38 | 5.35 | 5.05 | 5.44 | <i>5.64</i> | <i>5.71</i> | <i>5.33</i> | <i>5.67</i> | <i>5.91</i> | <i>5.99</i> | <i>5.59</i> | <i>5.94</i> | 5.31 | <i>5.59</i> | <i>5.86</i> |
| Africa | 4.51 | 4.53 | 4.44 | 4.60 | <i>4.60</i> | <i>4.62</i> | <i>4.54</i> | <i>4.70</i> | <i>4.72</i> | <i>4.73</i> | <i>4.65</i> | <i>4.81</i> | 4.52 | <i>4.61</i> | <i>4.73</i> |
| Total OECD Liquid Fuels Consumption | 45.28 | 45.71 | 46.23 | 46.48 | <i>46.08</i> | <i>45.57</i> | <i>46.25</i> | <i>46.33</i> | <i>45.92</i> | <i>45.50</i> | <i>46.20</i> | <i>46.35</i> | 45.93 | <i>46.06</i> | <i>45.99</i> |
| Total non-OECD Liquid Fuels Consumption | 54.71 | 55.22 | 55.30 | 55.33 | <i>56.06</i> | <i>56.56</i> | <i>56.50</i> | <i>56.47</i> | <i>57.32</i> | <i>57.85</i> | <i>57.79</i> | <i>57.75</i> | 55.14 | <i>56.40</i> | <i>57.68</i> |
| Total World Liquid Fuels Consumption | 99.99 | 100.93 | 101.54 | 101.81 | <i>102.14</i> | <i>102.12</i> | <i>102.75</i> | <i>102.81</i> | <i>103.24</i> | <i>103.35</i> | <i>103.98</i> | <i>104.10</i> | 101.07 | <i>102.46</i> | <i>103.67</i> |
| Real Gross Domestic Product (a) | | | | | | | | | | | | | | | |
| World Index, 2015 Q1 = 100 | 125.6 | 126.6 | 127.6 | 128.4 | <i>128.9</i> | <i>129.8</i> | <i>130.7</i> | <i>131.8</i> | <i>132.7</i> | <i>133.8</i> | <i>134.9</i> | <i>136.1</i> | 127.0 | <i>130.3</i> | <i>134.4</i> |
| Percent change from prior year | 2.7 | 3.5 | 3.0 | 3.0 | <i>2.7</i> | <i>2.5</i> | <i>2.4</i> | <i>2.7</i> | <i>2.9</i> | <i>3.1</i> | <i>3.2</i> | <i>3.2</i> | 3.1 | <i>2.6</i> | <i>3.1</i> |
| OECD Index, 2015 = 100 | 115.8 | 116.9 | 118.9 | 118.9 | <i>115.8</i> | <i>116.5</i> | <i>116.7</i> | <i>116.1</i> | <i>115.5</i> | <i>114.6</i> | <i>113.7</i> | <i>112.8</i> | 115.8 | <i>116.9</i> | <i>118.9</i> |
| Percent change from prior year | 1.6 | 1.0 | 1.7 | 1.7 | <i>1.5</i> | <i>1.5</i> | <i>1.5</i> | <i>1.5</i> | <i>-0.3</i> | <i>-1.7</i> | <i>-2.6</i> | <i>-2.9</i> | 1.6 | <i>1.0</i> | <i>1.7</i> |
| Non-OECD Index, 2015 = 100 | 134.5 | 139.7 | 145.6 | 145.6 | <i>134.5</i> | <i>139.7</i> | <i>145.6</i> | <i>145.6</i> | <i>134.5</i> | <i>139.7</i> | <i>145.6</i> | <i>145.6</i> | 134.5 | <i>139.7</i> | <i>145.6</i> |
| Percent change from prior year | 4.3 | 3.9 | 4.2 | 4.2 | <i>4.3</i> | <i>3.9</i> | <i>4.2</i> | <i>4.2</i> | <i>4.3</i> | <i>3.9</i> | <i>4.2</i> | <i>4.2</i> | 4.3 | <i>3.9</i> | <i>4.2</i> |
| Nominal U.S. Dollar Index (b) | | | | | | | | | | | | | | | |
| Index, 2015 Q1 = 100 | 114.1 | 113.5 | 114.2 | 116.0 | <i>115.8</i> | <i>116.5</i> | <i>116.7</i> | <i>116.1</i> | <i>115.5</i> | <i>114.6</i> | <i>113.7</i> | <i>112.8</i> | 114.4 | <i>116.3</i> | <i>114.1</i> |
| Percent change from prior year | 4.2 | 0.6 | -2.5 | -2.0 | <i>1.5</i> | <i>2.7</i> | <i>2.2</i> | <i>0.1</i> | <i>-0.3</i> | <i>-1.7</i> | <i>-2.6</i> | <i>-2.9</i> | 0.0 | <i>1.6</i> | <i>-1.9</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 January 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 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 - January 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 | 2.68 | 2.71 | 2.71 | 2.72 | 2.75 | 2.79 | 2.73 | 2.78 | 2.62 | 2.70 | 2.76 |
| Propane | 1.89 | 2.00 | 2.05 | 2.08 | 2.02 | 2.00 | 2.02 | 2.05 | 2.01 | 2.04 | 2.04 | 2.05 | 2.01 | 2.02 | 2.03 |
| Butanes | 0.99 | 1.06 | 1.09 | 1.09 | 1.08 | 1.08 | 1.09 | 1.10 | 1.06 | 1.08 | 1.08 | 1.08 | 1.06 | 1.09 | 1.07 |
| Natural Gasoline (Pentanes Plus) | 0.64 | 0.73 | 0.81 | 0.79 | 0.66 | 0.68 | 0.71 | 0.68 | 0.65 | 0.69 | 0.71 | 0.68 | 0.74 | 0.68 | 0.68 |
| Refinery and Blender Net Production | | | | | | | | | | | | | | | |
| Ethane/Ethylene | 0.01 | 0.00 | 0.01 | 0.01 | 0.00 | 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 | 0.25 | 0.27 | 0.28 | 0.28 | 0.27 | 0.28 | 0.30 | 0.29 | 0.29 | 0.27 | 0.27 | 0.29 |
| Propylene (refinery-grade) | 0.24 | 0.26 | 0.25 | 0.26 | 0.28 | 0.28 | 0.27 | 0.27 | 0.28 | 0.28 | 0.27 | 0.27 | 0.25 | 0.28 | 0.28 |
| Butanes/Butylenes | -0.05 | 0.28 | 0.21 | -0.20 | -0.08 | 0.27 | 0.20 | -0.19 | -0.08 | 0.27 | 0.20 | -0.19 | 0.06 | 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 | -0.47 | -0.50 | -0.50 | -0.49 | -0.52 | -0.50 | -0.49 | -0.49 | -0.50 | -0.49 | -0.50 | -0.49 |
| Propane/Propylene | -1.40 | -1.40 | -1.45 | -1.58 | -1.49 | -1.47 | -1.46 | -1.44 | -1.44 | -1.49 | -1.45 | -1.41 | -1.46 | -1.47 | -1.45 |
| Butanes/Butylenes | -0.42 | -0.41 | -0.42 | -0.47 | -0.46 | -0.50 | -0.50 | -0.48 | -0.52 | -0.58 | -0.57 | -0.51 | -0.43 | -0.48 | -0.55 |
| Natural Gasoline (Pentanes Plus) | -0.15 | -0.09 | -0.06 | -0.10 | -0.13 | -0.09 | -0.08 | -0.10 | -0.12 | -0.10 | -0.09 | -0.11 | -0.10 | -0.10 | -0.11 |
| HGL Refinery and Blender Net Inputs | | | | | | | | | | | | | | | |
| Butanes/Butylenes | 0.48 | 0.29 | 0.35 | 0.53 | 0.42 | 0.29 | 0.31 | 0.52 | 0.38 | 0.26 | 0.30 | 0.49 | 0.41 | 0.38 | 0.36 |
| Natural Gasoline (Pentanes Plus) | 0.18 | 0.20 | 0.21 | 0.19 | 0.17 | 0.17 | 0.18 | 0.18 | 0.16 | 0.17 | 0.18 | 0.18 | 0.19 | 0.17 | 0.17 |
| HGL Consumption | | | | | | | | | | | | | | | |
| Ethane/Ethylene | 1.99 | 2.19 | 2.07 | 2.16 | 2.22 | 2.22 | 2.22 | 2.23 | 2.27 | 2.27 | 2.27 | 2.28 | 2.10 | 2.22 | 2.27 |
| Propane | 0.98 | 0.62 | 0.62 | 0.96 | 1.08 | 0.60 | 0.62 | 1.02 | 1.11 | 0.62 | 0.65 | 1.05 | 0.79 | 0.83 | 0.85 |
| Propylene (refinery-grade) | 0.25 | 0.27 | 0.27 | 0.28 | 0.30 | 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 | 0.24 | 0.20 | 0.24 | 0.26 | 0.21 | 0.17 | 0.21 | 0.19 | 0.19 | 0.25 | 0.23 | 0.19 |
| 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 | 66.7 | 65.0 | 64.2 | 64.9 | 64.1 | 61.9 | 65.6 | 64.1 | 65.2 | 56.6 | 64.5 | 64.2 |
| Propane | 55.8 | 79.2 | 102.2 | 81.8 | 54.4 | 71.2 | 90.1 | 75.8 | 51.0 | 69.4 | 89.5 | 76.3 | 81.8 | 75.8 | 76.3 |
| Propylene (at refineries only) | 1.1 | 1.1 | 1.2 | 1.3 | 1.2 | 1.6 | 1.8 | 1.6 | 1.4 | 1.7 | 1.8 | 1.7 | 1.3 | 1.6 | 1.7 |
| Butanes/Butylenes | 40.2 | 70.1 | 90.2 | 56.7 | 47.8 | 75.3 | 93.4 | 64.6 | 54.8 | 79.5 | 97.8 | 68.9 | 56.7 | 64.6 | 68.9 |
| Natural Gasoline (Pentanes Plus) | 22.9 | 23.4 | 27.4 | 27.2 | 24.2 | 24.8 | 25.1 | 23.9 | 21.0 | 22.0 | 22.7 | 21.9 | 27.2 | 23.9 | 21.9 |
| Refinery and Blender Net Inputs | | | | | | | | | | | | | | | |
| Crude Oil | 15.25 | 16.15 | 16.51 | 15.84 | 15.49 | 16.28 | 16.23 | 15.50 | 15.30 | 16.06 | 16.07 | 15.59 | 15.94 | 15.88 | 15.76 |
| Hydrocarbon Gas Liquids | 0.66 | 0.49 | 0.56 | 0.72 | 0.58 | 0.46 | 0.50 | 0.69 | 0.54 | 0.43 | 0.48 | 0.66 | 0.61 | 0.56 | 0.53 |
| Other Hydrocarbons/Oxygenates | 1.13 | 1.20 | 1.21 | 1.18 | 1.14 | 1.20 | 1.20 | 1.17 | 1.14 | 1.20 | 1.19 | 1.17 | 1.18 | 1.18 | 1.18 |
| Unfinished Oils | 0.19 | 0.21 | 0.00 | 0.09 | 0.08 | 0.30 | 0.32 | 0.28 | 0.08 | 0.29 | 0.30 | 0.27 | 0.12 | 0.25 | 0.24 |
| Motor Gasoline Blend Components | 0.34 | 0.85 | 0.64 | 0.35 | 0.52 | 0.80 | 0.75 | 0.37 | 0.47 | 0.68 | 0.67 | 0.42 | 0.55 | 0.61 | 0.56 |
| 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 | 18.18 | 17.82 | 19.04 | 19.00 | 18.03 | 17.54 | 18.67 | 18.72 | 18.12 | 18.40 | 18.47 | 18.26 |
| Refinery Processing Gain | 0.97 | 1.01 | 1.07 | 1.03 | 0.97 | 1.01 | 1.00 | 0.99 | 0.95 | 0.98 | 1.00 | 1.02 | 1.02 | 0.99 | 0.99 |
| Refinery and Blender Net Production | | | | | | | | | | | | | | | |
| Hydrocarbon Gas Liquids | 0.47 | 0.83 | 0.75 | 0.33 | 0.47 | 0.83 | 0.76 | 0.36 | 0.48 | 0.86 | 0.77 | 0.38 | 0.59 | 0.60 | 0.62 |
| Finished Motor Gasoline | 9.28 | 9.83 | 9.81 | 9.63 | 9.31 | 9.68 | 9.67 | 9.48 | 9.21 | 9.51 | 9.55 | 9.54 | 9.64 | 9.54 | 9.45 |
| Jet Fuel | 1.62 | 1.72 | 1.78 | 1.70 | 1.70 | 1.75 | 1.77 | 1.63 | 1.62 | 1.69 | 1.72 | 1.64 | 1.71 | 1.71 | 1.67 |
| Distillate Fuel | 4.69 | 4.91 | 4.99 | 4.93 | 4.74 | 5.06 | 5.03 | 4.94 | 4.65 | 4.90 | 4.91 | 4.91 | 4.88 | 4.94 | 4.84 |
| Residual Fuel | 0.27 | 0.27 | 0.27 | 0.27 | 0.24 | 0.22 | 0.25 | 0.20 | 0.24 | 0.26 | 0.28 | 0.28 | 0.27 | 0.23 | 0.26 |
| Other Oils (a) | 2.21 | 2.35 | 2.40 | 2.36 | 2.33 | 2.50 | 2.52 | 2.40 | 2.30 | 2.44 | 2.48 | 2.38 | 2.33 | 2.44 | 2.40 |
| Total Refinery and Blender Net Production | 18.54 | 19.91 | 19.99 | 19.21 | 18.79 | 20.04 | 20.00 | 19.01 | 18.50 | 19.65 | 19.71 | 19.13 | 19.42 | 19.46 | 19.25 |
| Refinery Distillation Inputs | 15.78 | 16.75 | 17.02 | 16.26 | 15.89 | 16.66 | 16.66 | 15.91 | 15.71 | 16.45 | 16.52 | 16.00 | 16.46 | 16.28 | 16.17 |
| Refinery Operable Distillation Capacity | 18.12 | 18.27 | 18.27 | 18.30 | 18.31 | 18.31 | 18.32 | 18.33 | 17.94 | 17.94 | 17.94 | 17.94 | 18.24 | 18.32 | 17.94 |
| Refinery Distillation Utilization Factor | 0.87 | 0.92 | 0.93 | 0.89 | 0.87 | 0.91 | 0.91 | 0.87 | 0.88 | 0.92 | 0.92 | 0.89 | 0.90 | 0.89 | 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 January 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 - January 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 | <i>240</i> | <i>266</i> | <i>267</i> | <i>236</i> | <i>235</i> | <i>251</i> | <i>250</i> | <i>221</i> | 264 | 252 | 239 |
| Gasoline Regular Grade Retail Prices Including Taxes | | | | | | | | | | | | | | | |
| PADD 1 | 330 | 344 | 361 | 325 | <i>316</i> | <i>338</i> | <i>341</i> | <i>315</i> | <i>312</i> | <i>326</i> | <i>326</i> | <i>303</i> | 340 | 328 | 317 |
| PADD 2 | 324 | 348 | 360 | 314 | <i>295</i> | <i>331</i> | <i>337</i> | <i>305</i> | <i>302</i> | <i>319</i> | <i>320</i> | <i>293</i> | 337 | 317 | 309 |
| PADD 3 | 302 | 315 | 334 | 285 | <i>275</i> | <i>309</i> | <i>314</i> | <i>282</i> | <i>279</i> | <i>295</i> | <i>295</i> | <i>267</i> | 309 | 295 | 284 |
| PADD 4 | 357 | 359 | 393 | 332 | <i>304</i> | <i>345</i> | <i>361</i> | <i>330</i> | <i>315</i> | <i>336</i> | <i>341</i> | <i>313</i> | 361 | 335 | 327 |
| PADD 5 | 418 | 452 | 480 | 455 | <i>409</i> | <i>438</i> | <i>441</i> | <i>401</i> | <i>394</i> | <i>417</i> | <i>413</i> | <i>384</i> | 452 | 423 | 402 |
| U.S. Average | 338 | 358 | 376 | 336 | <i>319</i> | <i>348</i> | <i>353</i> | <i>322</i> | <i>318</i> | <i>335</i> | <i>335</i> | <i>308</i> | 352 | 336 | 324 |
| Gasoline All Grades Including Taxes | 349 | 369 | 387 | 348 | <i>330</i> | <i>359</i> | <i>365</i> | <i>334</i> | <i>330</i> | <i>347</i> | <i>347</i> | <i>321</i> | 364 | 347 | 336 |
| End-of-period Inventories (million barrels) | | | | | | | | | | | | | | | |
| Total Gasoline Inventories | | | | | | | | | | | | | | | |
| PADD 1 | 52.7 | 57.1 | 58.8 | 58.9 | <i>58.9</i> | <i>57.2</i> | <i>55.8</i> | <i>57.7</i> | <i>58.1</i> | <i>56.4</i> | <i>54.1</i> | <i>56.0</i> | 58.9 | 57.7 | 56.0 |
| PADD 2 | 49.5 | 45.2 | 46.9 | 54.6 | <i>51.9</i> | <i>47.1</i> | <i>46.1</i> | <i>53.0</i> | <i>54.2</i> | <i>50.1</i> | <i>46.8</i> | <i>51.0</i> | 54.6 | 53.0 | 51.0 |
| PADD 3 | 84.1 | 85.0 | 84.9 | 87.7 | <i>85.1</i> | <i>86.3</i> | <i>81.4</i> | <i>82.6</i> | <i>87.0</i> | <i>86.0</i> | <i>82.5</i> | <i>86.2</i> | 87.7 | 82.6 | 86.2 |
| PADD 4 | 7.8 | 6.8 | 7.2 | 7.8 | <i>8.3</i> | <i>7.1</i> | <i>7.2</i> | <i>7.8</i> | <i>8.0</i> | <i>7.5</i> | <i>7.7</i> | <i>8.2</i> | 7.8 | 7.8 | 8.2 |
| PADD 5 | 31.2 | 29.0 | 29.9 | 29.1 | <i>29.6</i> | <i>29.8</i> | <i>29.5</i> | <i>30.3</i> | <i>29.2</i> | <i>29.5</i> | <i>29.7</i> | <i>30.5</i> | 29.1 | 30.3 | 30.5 |
| U.S. Total | 225.3 | 223.2 | 227.6 | 238.1 | <i>233.8</i> | <i>227.5</i> | <i>220.1</i> | <i>231.4</i> | <i>236.5</i> | <i>229.5</i> | <i>220.8</i> | <i>231.8</i> | 238.1 | 231.4 | 231.8 |
| Finished Gasoline Inventories | | | | | | | | | | | | | | | |
| U.S. Total | 14.7 | 17.6 | 15.3 | 15.3 | <i>14.8</i> | <i>16.2</i> | <i>15.2</i> | <i>17.2</i> | <i>14.6</i> | <i>16.5</i> | <i>15.6</i> | <i>18.0</i> | 15.3 | 17.2 | 18.0 |
| Gasoline Blending Components Inventories | | | | | | | | | | | | | | | |
| U.S. Total | 210.6 | 205.6 | 212.3 | 222.8 | <i>219.0</i> | <i>211.3</i> | <i>204.9</i> | <i>214.2</i> | <i>221.9</i> | <i>213.0</i> | <i>205.3</i> | <i>213.7</i> | 222.8 | 214.2 | 213.7 |

- = no data available

Notes: EIA completed modeling and analysis for this report on January 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 - January 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 | 113.67 | 114.31 | <i>114.79</i> | <i>114.69</i> | <i>114.34</i> | <i>115.27</i> | <i>116.43</i> | <i>116.58</i> | <i>115.90</i> | <i>116.05</i> | 112.92 | <i>114.77</i> | <i>116.24</i> |
| Alaska | 1.08 | 1.01 | 0.91 | 1.05 | <i>1.05</i> | <i>0.96</i> | <i>0.88</i> | <i>1.00</i> | <i>1.02</i> | <i>0.94</i> | <i>0.87</i> | <i>0.99</i> | 1.01 | <i>0.97</i> | <i>0.96</i> |
| Federal GOM (a) | 2.13 | 1.89 | 2.02 | 2.00 | <i>2.05</i> | <i>2.02</i> | <i>1.96</i> | <i>2.01</i> | <i>2.05</i> | <i>2.03</i> | <i>1.94</i> | <i>1.95</i> | 2.01 | <i>2.01</i> | <i>1.99</i> |
| Lower 48 States (excl GOM) | 107.97 | 109.60 | 110.74 | 111.25 | <i>111.69</i> | <i>111.72</i> | <i>111.49</i> | <i>112.26</i> | <i>113.37</i> | <i>113.61</i> | <i>113.09</i> | <i>113.11</i> | 109.90 | <i>111.79</i> | <i>113.29</i> |
| Total Dry Gas Production | 102.26 | 103.16 | 104.16 | 104.61 | <i>105.05</i> | <i>104.97</i> | <i>104.64</i> | <i>105.49</i> | <i>106.56</i> | <i>106.70</i> | <i>106.07</i> | <i>106.21</i> | 103.55 | <i>105.04</i> | <i>106.38</i> |
| LNG Gross Imports | 0.09 | 0.02 | 0.02 | 0.05 | <i>0.10</i> | <i>0.04</i> | <i>0.04</i> | <i>0.06</i> | <i>0.10</i> | <i>0.04</i> | <i>0.04</i> | <i>0.06</i> | 0.05 | <i>0.06</i> | <i>0.06</i> |
| LNG Gross Exports | 11.45 | 11.76 | 11.40 | 12.74 | <i>12.75</i> | <i>11.92</i> | <i>11.73</i> | <i>13.03</i> | <i>13.07</i> | <i>13.60</i> | <i>14.82</i> | <i>16.20</i> | 11.84 | <i>12.36</i> | <i>14.43</i> |
| Pipeline Gross Imports | 8.45 | 7.32 | 7.94 | 7.68 | <i>8.21</i> | <i>6.97</i> | <i>7.24</i> | <i>7.50</i> | <i>8.33</i> | <i>7.00</i> | <i>7.25</i> | <i>7.49</i> | 7.85 | <i>7.48</i> | <i>7.52</i> |
| Pipeline Gross Exports | 8.93 | 8.75 | 9.19 | 8.90 | <i>9.40</i> | <i>8.85</i> | <i>9.20</i> | <i>9.64</i> | <i>9.95</i> | <i>9.48</i> | <i>9.74</i> | <i>10.05</i> | 8.94 | <i>9.27</i> | <i>9.80</i> |
| Supplemental Gaseous Fuels | 0.22 | 0.17 | 0.16 | 0.16 | <i>0.18</i> | <i>0.18</i> | <i>0.18</i> | <i>0.18</i> | <i>0.18</i> | <i>0.19</i> | <i>0.18</i> | <i>0.18</i> | 0.17 | <i>0.18</i> | <i>0.18</i> |
| Net Inventory Withdrawals | 11.97 | -11.69 | -6.44 | -0.19 | <i>14.86</i> | <i>-11.66</i> | <i>-6.11</i> | <i>3.11</i> | <i>13.51</i> | <i>-11.55</i> | <i>-5.91</i> | <i>4.48</i> | -1.63 | <i>0.04</i> | <i>0.09</i> |
| Total Supply | 102.61 | 78.46 | 85.24 | 90.67 | <i>106.26</i> | <i>79.73</i> | <i>85.06</i> | <i>93.68</i> | <i>105.65</i> | <i>79.30</i> | <i>83.08</i> | <i>92.18</i> | 89.20 | <i>91.17</i> | <i>90.00</i> |
| Balancing Item (b) | 0.30 | -0.47 | -1.43 | 0.40 | <i>-1.11</i> | <i>-1.99</i> | <i>-1.20</i> | <i>-0.83</i> | <i>-1.88</i> | <i>-1.81</i> | <i>1.08</i> | <i>1.21</i> | -0.30 | <i>-1.28</i> | <i>-0.34</i> |
| Total Primary Supply | 102.92 | 77.99 | 83.82 | 91.07 | <i>105.15</i> | <i>77.74</i> | <i>83.86</i> | <i>92.85</i> | <i>103.77</i> | <i>77.49</i> | <i>84.16</i> | <i>93.39</i> | 88.90 | <i>89.89</i> | <i>89.66</i> |
| Consumption (billion cubic feet per day) | | | | | | | | | | | | | | | |
| Residential | 23.50 | 7.29 | 3.57 | 15.24 | <i>24.29</i> | <i>7.30</i> | <i>3.84</i> | <i>16.20</i> | <i>24.28</i> | <i>7.28</i> | <i>3.84</i> | <i>16.15</i> | 12.35 | <i>12.89</i> | <i>12.84</i> |
| Commercial | 14.51 | 6.43 | 4.72 | 10.86 | <i>14.78</i> | <i>6.53</i> | <i>5.09</i> | <i>11.31</i> | <i>14.83</i> | <i>6.55</i> | <i>5.11</i> | <i>11.31</i> | 9.11 | <i>9.42</i> | <i>9.43</i> |
| Industrial | 24.84 | 22.40 | 21.98 | 24.17 | <i>24.82</i> | <i>21.74</i> | <i>21.47</i> | <i>23.71</i> | <i>24.67</i> | <i>21.70</i> | <i>21.49</i> | <i>23.77</i> | 23.34 | <i>22.93</i> | <i>22.90</i> |
| Electric Power (c) | 30.71 | 33.39 | 44.79 | 31.72 | <i>31.59</i> | <i>33.58</i> | <i>44.65</i> | <i>32.41</i> | <i>30.30</i> | <i>33.29</i> | <i>44.81</i> | <i>32.87</i> | 35.18 | <i>35.57</i> | <i>35.35</i> |
| Lease and Plant Fuel | 5.31 | 5.37 | 5.43 | 5.46 | <i>5.48</i> | <i>5.48</i> | <i>5.46</i> | <i>5.50</i> | <i>5.56</i> | <i>5.57</i> | <i>5.53</i> | <i>5.54</i> | 5.39 | <i>5.48</i> | <i>5.55</i> |
| Pipeline and Distribution Use | 3.86 | 2.93 | 3.15 | 3.44 | <i>3.99</i> | <i>2.91</i> | <i>3.15</i> | <i>3.51</i> | <i>3.94</i> | <i>2.91</i> | <i>3.18</i> | <i>3.55</i> | 3.34 | <i>3.39</i> | <i>3.39</i> |
| Vehicle Use | 0.18 | 0.18 | 0.18 | 0.18 | <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> | <i>0.20</i> | 0.18 | <i>0.20</i> | <i>0.20</i> |
| Total Consumption | 102.92 | 77.99 | 83.82 | 91.07 | <i>105.15</i> | <i>77.74</i> | <i>83.86</i> | <i>92.85</i> | <i>103.77</i> | <i>77.49</i> | <i>84.16</i> | <i>93.39</i> | 88.90 | <i>89.89</i> | <i>89.66</i> |
| End-of-period Inventories (billion cubic feet) | | | | | | | | | | | | | | | |
| Working Gas Inventory | 1,850 | 2,900 | 3,490 | 3,507 | <i>2,155</i> | <i>3,216</i> | <i>3,778</i> | <i>3,492</i> | <i>2,276</i> | <i>3,327</i> | <i>3,870</i> | <i>3,458</i> | 3,507 | <i>3,492</i> | <i>3,458</i> |
| East Region (d) | 334 | 646 | 853 | 799 | <i>395</i> | <i>693</i> | <i>877</i> | <i>801</i> | <i>440</i> | <i>717</i> | <i>861</i> | <i>763</i> | 799 | <i>801</i> | <i>763</i> |
| Midwest Region (d) | 417 | 701 | 993 | 968 | <i>486</i> | <i>762</i> | <i>1,033</i> | <i>930</i> | <i>502</i> | <i>792</i> | <i>1,079</i> | <i>930</i> | 968 | <i>930</i> | <i>930</i> |
| South Central Region (d) | 919 | 1,136 | 1,092 | 1,201 | <i>888</i> | <i>1,238</i> | <i>1,262</i> | <i>1,230</i> | <i>973</i> | <i>1,306</i> | <i>1,334</i> | <i>1,252</i> | 1,201 | <i>1,230</i> | <i>1,252</i> |
| Mountain Region (d) | 79 | 171 | 239 | 228 | <i>141</i> | <i>179</i> | <i>236</i> | <i>203</i> | <i>131</i> | <i>179</i> | <i>234</i> | <i>201</i> | 228 | <i>203</i> | <i>201</i> |
| Pacific Region (d) | 74 | 216 | 278 | 280 | <i>220</i> | <i>315</i> | <i>336</i> | <i>298</i> | <i>206</i> | <i>305</i> | <i>330</i> | <i>283</i> | 280 | <i>298</i> | <i>283</i> |
| Alaska | 27 | 30 | 35 | 31 | <i>25</i> | <i>28</i> | <i>33</i> | <i>29</i> | <i>24</i> | <i>27</i> | <i>32</i> | <i>29</i> | 31 | <i>29</i> | <i>29</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 January 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 - January 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 | 2.75 | 2.31 | 2.78 | 3.22 | 3.04 | 2.74 | 3.11 | 3.34 | 2.63 | 2.76 | 3.06 |
| Residential Retail | | | | | | | | | | | | | | | |
| New England | 21.04 | 20.48 | 22.57 | 17.49 | 16.83 | 17.50 | 20.35 | 15.99 | 15.76 | 16.68 | 19.84 | 15.76 | 19.88 | 16.93 | 16.20 |
| Middle Atlantic | 15.60 | 16.03 | 20.74 | 13.76 | 11.96 | 13.25 | 18.05 | 12.32 | 11.41 | 13.01 | 18.18 | 12.47 | 15.43 | 12.69 | 12.45 |
| E. N. Central | 11.06 | 13.26 | 22.96 | 10.80 | 9.12 | 12.08 | 19.96 | 9.49 | 8.38 | 11.56 | 19.73 | 9.45 | 12.00 | 10.31 | 9.88 |
| W. N. Central | 13.24 | 15.41 | 22.07 | 11.24 | 9.88 | 12.54 | 19.71 | 10.22 | 9.12 | 11.87 | 19.17 | 10.08 | 13.43 | 10.91 | 10.38 |
| S. Atlantic | 17.33 | 20.92 | 30.29 | 14.84 | 12.91 | 17.78 | 25.47 | 14.39 | 13.58 | 18.28 | 26.12 | 14.59 | 17.87 | 14.95 | 15.49 |
| E. S. Central | 13.63 | 16.66 | 23.41 | 12.37 | 10.46 | 14.30 | 21.02 | 11.74 | 10.68 | 14.58 | 21.45 | 11.88 | 14.19 | 11.93 | 12.19 |
| W. S. Central | 14.58 | 19.81 | 28.70 | 15.26 | 10.92 | 15.58 | 21.85 | 12.67 | 10.25 | 15.41 | 22.24 | 12.89 | 16.64 | 12.91 | 12.69 |
| Mountain | 12.61 | 13.86 | 18.75 | 12.48 | 11.54 | 13.58 | 18.22 | 11.75 | 10.97 | 13.03 | 17.68 | 11.48 | 13.19 | 12.43 | 11.97 |
| Pacific | 20.13 | 17.11 | 18.10 | 16.45 | 16.33 | 15.33 | 15.94 | 14.91 | 15.67 | 15.16 | 16.12 | 15.09 | 18.33 | 15.67 | 15.45 |
| U.S. Average | 14.72 | 16.19 | 22.33 | 13.34 | 11.64 | 14.03 | 19.38 | 12.01 | 11.11 | 13.72 | 19.39 | 12.04 | 15.06 | 12.67 | 12.40 |
| Commercial Retail | | | | | | | | | | | | | | | |
| New England | 15.19 | 13.66 | 12.55 | 11.34 | 11.14 | 11.29 | 11.27 | 10.49 | 10.76 | 11.16 | 11.42 | 10.67 | 13.45 | 10.98 | 10.87 |
| Middle Atlantic | 11.94 | 9.25 | 8.06 | 8.87 | 8.74 | 7.67 | 7.08 | 7.68 | 8.38 | 7.66 | 7.37 | 7.90 | 10.03 | 8.06 | 7.99 |
| E. N. Central | 9.20 | 8.63 | 10.71 | 7.37 | 6.63 | 7.47 | 9.13 | 6.47 | 6.41 | 7.49 | 9.46 | 6.70 | 8.67 | 6.88 | 6.87 |
| W. N. Central | 11.58 | 11.33 | 11.77 | 8.86 | 8.38 | 8.47 | 9.37 | 7.20 | 7.35 | 7.94 | 9.34 | 7.29 | 10.79 | 8.11 | 7.57 |
| S. Atlantic | 12.97 | 11.26 | 11.39 | 10.16 | 9.42 | 9.88 | 9.98 | 9.21 | 9.08 | 9.68 | 10.06 | 9.35 | 11.56 | 9.51 | 9.40 |
| E. S. Central | 11.89 | 10.94 | 11.80 | 9.99 | 8.56 | 9.43 | 10.38 | 9.16 | 8.64 | 9.65 | 10.75 | 9.41 | 11.10 | 9.08 | 9.28 |
| W. S. Central | 11.01 | 9.68 | 10.37 | 8.89 | 7.43 | 7.89 | 8.48 | 7.63 | 7.08 | 7.92 | 8.80 | 7.92 | 10.06 | 7.72 | 7.72 |
| Mountain | 10.76 | 10.77 | 12.16 | 10.65 | 10.38 | 10.69 | 11.26 | 9.82 | 9.68 | 10.10 | 10.83 | 9.46 | 10.86 | 10.35 | 9.80 |
| Pacific | 16.85 | 12.61 | 13.49 | 12.70 | 12.62 | 11.40 | 11.39 | 10.96 | 11.72 | 10.97 | 11.33 | 11.01 | 14.31 | 11.69 | 11.29 |
| U.S. Average | 11.81 | 10.48 | 10.90 | 9.43 | 8.77 | 8.97 | 9.44 | 8.27 | 8.30 | 8.81 | 9.55 | 8.41 | 10.77 | 8.72 | 8.56 |
| Industrial Retail | | | | | | | | | | | | | | | |
| New England | 13.55 | 10.07 | 7.87 | 8.44 | 8.93 | 7.90 | 6.58 | 7.60 | 8.82 | 8.00 | 6.90 | 7.87 | 10.40 | 7.94 | 8.04 |
| Middle Atlantic | 11.94 | 8.97 | 7.89 | 8.12 | 8.09 | 6.95 | 7.14 | 8.07 | 8.39 | 7.24 | 7.53 | 8.25 | 9.84 | 7.79 | 8.06 |
| E. N. Central | 9.18 | 6.67 | 6.91 | 7.03 | 6.31 | 5.83 | 5.63 | 5.69 | 5.89 | 5.80 | 5.92 | 5.93 | 7.87 | 5.98 | 5.89 |
| W. N. Central | 8.23 | 4.55 | 4.33 | 5.02 | 5.18 | 3.95 | 3.80 | 4.59 | 5.30 | 4.21 | 4.20 | 4.86 | 5.78 | 4.44 | 4.70 |
| S. Atlantic | 6.92 | 4.78 | 5.03 | 5.22 | 5.01 | 4.18 | 4.40 | 4.98 | 5.35 | 4.55 | 4.84 | 5.22 | 5.56 | 4.67 | 5.01 |
| E. S. Central | 5.46 | 3.74 | 4.10 | 4.43 | 4.44 | 3.71 | 3.93 | 4.55 | 4.83 | 4.07 | 4.34 | 4.73 | 4.47 | 4.18 | 4.51 |
| W. S. Central | 3.39 | 2.21 | 2.71 | 3.30 | 3.02 | 2.44 | 2.85 | 3.46 | 3.34 | 2.84 | 3.18 | 3.59 | 2.88 | 2.93 | 3.23 |
| Mountain | 8.86 | 7.73 | 8.05 | 7.24 | 6.61 | 6.04 | 5.97 | 5.67 | 5.67 | 5.53 | 5.84 | 5.66 | 8.07 | 6.10 | 5.67 |
| Pacific | 10.84 | 8.16 | 8.03 | 8.13 | 8.35 | 6.99 | 6.81 | 7.02 | 7.82 | 6.78 | 6.81 | 7.06 | 8.90 | 7.35 | 7.18 |
| U.S. Average | 6.12 | 3.76 | 3.87 | 4.57 | 4.72 | 3.58 | 3.69 | 4.59 | 4.87 | 3.90 | 4.03 | 4.77 | 4.64 | 4.18 | 4.42 |

- = no data available

Notes: EIA completed modeling and analysis for this report on January 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 - January 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 | 145.1 | 131.8 | 116.9 | 124.1 | 116.5 | 111.5 | 100.7 | 111.4 | 105.3 | 581.7 | 489.3 | 428.8 |
| Appalachia | 42.9 | 42.5 | 40.0 | 41.7 | 39.4 | 35.2 | 30.3 | 29.1 | 30.1 | 28.5 | 25.5 | 25.5 | 167.1 | 134.0 | 109.6 |
| Interior | 25.4 | 23.5 | 22.6 | 24.7 | 24.5 | 22.7 | 23.5 | 21.6 | 22.3 | 20.3 | 21.0 | 19.4 | 96.1 | 92.4 | 83.0 |
| Western | 80.4 | 76.4 | 83.0 | 78.7 | 67.9 | 58.9 | 70.3 | 65.7 | 59.0 | 51.9 | 64.9 | 60.4 | 318.5 | 262.9 | 236.2 |
| Primary Inventory Withdrawals | -1.6 | 0.3 | 3.6 | 0.0 | -1.7 | 0.2 | 3.6 | 0.1 | -1.6 | 0.3 | 3.6 | 0.1 | 2.3 | 2.2 | 2.4 |
| Imports | 1.0 | 1.0 | 1.0 | 1.2 | 0.8 | 0.9 | 1.2 | 0.8 | 0.4 | 0.6 | 0.9 | 0.6 | 4.3 | 3.7 | 2.5 |
| Exports | 24.6 | 24.1 | 24.9 | 26.4 | 23.1 | 22.7 | 21.7 | 23.5 | 22.6 | 23.6 | 23.6 | 25.6 | 100.0 | 91.0 | 95.4 |
| Metallurgical Coal | 12.4 | 12.6 | 13.6 | 12.1 | 12.2 | 12.9 | 12.0 | 12.3 | 11.6 | 13.0 | 12.7 | 13.3 | 50.7 | 49.3 | 50.7 |
| Steam Coal | 12.2 | 11.5 | 11.3 | 14.3 | 10.9 | 9.8 | 9.8 | 11.2 | 11.0 | 10.6 | 10.9 | 12.3 | 49.3 | 41.7 | 44.7 |
| Total Primary Supply | 123.5 | 119.5 | 125.3 | 119.9 | 107.9 | 95.3 | 107.1 | 93.9 | 87.7 | 77.9 | 92.4 | 80.4 | 488.3 | 404.1 | 338.3 |
| Secondary Inventory Withdrawals | -20.1 | -19.0 | 10.8 | -19.2 | -12.1 | -14.2 | 12.7 | -4.1 | 4.4 | -3.5 | 18.9 | -1.2 | -47.5 | -17.6 | 18.6 |
| Waste Coal (a) | 1.8 | 1.8 | 1.8 | 1.8 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 7.0 | 4.8 | 4.8 |
| Total Supply | 105.2 | 102.3 | 137.9 | 102.5 | 96.9 | 82.3 | 121.0 | 91.0 | 93.3 | 75.6 | 112.5 | 80.3 | 447.8 | 391.3 | 361.7 |
| Consumption (million short tons) | | | | | | | | | | | | | | | |
| Coke Plants | 4.0 | 3.9 | 4.1 | 4.1 | 4.2 | 4.3 | 4.3 | 4.4 | 4.3 | 4.4 | 4.4 | 4.5 | 16.1 | 17.1 | 17.7 |
| Electric Power Sector (b) | 91.2 | 82.0 | 122.7 | 88.1 | 86.7 | 73.0 | 111.6 | 80.7 | 83.1 | 66.2 | 103.0 | 70.0 | 384.0 | 351.9 | 322.2 |
| Retail and Other Industry | 6.5 | 5.6 | 6.0 | 6.2 | 6.1 | 5.1 | 5.1 | 5.9 | 5.9 | 5.0 | 5.1 | 5.9 | 24.3 | 22.3 | 21.8 |
| Residential and Commercial | 0.2 | 0.1 | 0.1 | 0.2 | 0.3 | 0.2 | 0.1 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 0.7 | 0.8 | 0.9 |
| Other Industrial | 6.3 | 5.5 | 5.8 | 6.0 | 5.8 | 4.9 | 5.0 | 5.7 | 5.6 | 4.9 | 4.9 | 5.6 | 23.6 | 21.4 | 20.9 |
| Total Consumption | 101.7 | 91.5 | 132.7 | 98.4 | 96.9 | 82.3 | 121.0 | 91.0 | 93.3 | 75.6 | 112.5 | 80.3 | 424.3 | 391.3 | 361.7 |
| Discrepancy (c) | 3.5 | 10.8 | 5.2 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23.5 | 0.0 | 0.0 |
| End-of-period Inventories (million short tons) | | | | | | | | | | | | | | | |
| Primary Inventories (d) | 22.4 | 22.1 | 18.5 | 18.5 | 20.2 | 20.0 | 16.4 | 16.3 | 17.9 | 17.7 | 14.0 | 13.9 | 18.5 | 16.3 | 13.9 |
| Secondary Inventories | 113.3 | 132.3 | 121.5 | 140.7 | 152.8 | 167.0 | 154.2 | 158.3 | 153.9 | 157.4 | 138.5 | 139.7 | 140.7 | 158.3 | 139.7 |
| Electric Power Sector | 109.0 | 127.7 | 116.6 | 135.8 | 148.6 | 162.6 | 149.5 | 153.6 | 149.8 | 153.1 | 133.8 | 135.1 | 135.8 | 153.6 | 135.1 |
| Retail and General Industry | 2.5 | 2.8 | 2.9 | 3.0 | 2.5 | 2.6 | 2.9 | 2.9 | 2.5 | 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 | 1.5 | 1.6 | 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) | 5.98 | 5.98 | 5.98 | 5.98 | 5.80 | 5.80 | 5.80 | 5.80 | 5.80 | 5.80 | 5.80 | 5.80 | 5.98 | 5.80 | 5.80 |
| Total Raw Steel Production | | | | | | | | | | | | | | | |
| (Million short tons per day) | 0.236 | 0.244 | 0.245 | 0.242 | 0.251 | 0.255 | 0.256 | 0.253 | 0.262 | 0.265 | 0.264 | 0.263 | 0.242 | 0.254 | 0.264 |
| Cost of Coal to Electric Utilities | | | | | | | | | | | | | | | |
| (Dollars per million Btu) | 2.57 | 2.49 | 2.51 | 2.53 | 2.52 | 2.50 | 2.49 | 2.44 | 2.45 | 2.45 | 2.44 | 2.40 | 2.52 | 2.49 | 2.44 |

(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 January 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 - January 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 | 1,208 | 994 | 1,027 | 1,023 | 1,220 | 1,009 | 1,016 | 1,028 | 1,227 | 1,013 | 4,173 | 4,279 | 4,283 |
| Electric power sector | 948 | 947 | 1,167 | 955 | 987 | 984 | 1,179 | 969 | 976 | 990 | 1,185 | 972 | 4,017 | 4,119 | 4,124 |
| Industrial sector | 35 | 33 | 36 | 36 | 36 | 34 | 37 | 36 | 35 | 34 | 37 | 36 | 139 | 142 | 141 |
| Commercial sector | 4 | 4 | 5 | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 5 | 4 | 17 | 18 | 18 |
| Net imports | 8 | 6 | 3 | 8 | 11 | 12 | 14 | 11 | 12 | 12 | 15 | 11 | 25 | 47 | 50 |
| Total utility-scale power supply | 995 | 990 | 1,210 | 1,003 | 1,038 | 1,035 | 1,235 | 1,020 | 1,027 | 1,041 | 1,241 | 1,024 | 4,198 | 4,326 | 4,333 |
| Losses and Unaccounted for (b) | 42 | 52 | 56 | 47 | 47 | 68 | 56 | 49 | 44 | 69 | 56 | 49 | 197 | 220 | 218 |
| Small-scale solar generation (c) | 14 | 22 | 22 | 16 | 17 | 26 | 26 | 18 | 20 | 29 | 29 | 20 | 74 | 86 | 99 |
| Residential sector | 10 | 15 | 15 | 11 | 12 | 18 | 17 | 12 | 13 | 20 | 20 | 14 | 50 | 59 | 67 |
| Commercial sector | 4 | 6 | 6 | 4 | 5 | 7 | 7 | 5 | 5 | 8 | 8 | 5 | 20 | 23 | 26 |
| 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 | 918 | 906 | 1,117 | 920 | 955 | 932 | 1,141 | 935 | 949 | 938 | 1,148 | 939 | 3,862 | 3,963 | 3,973 |
| Residential Sector | 355 | 319 | 455 | 332 | 379 | 335 | 472 | 342 | 377 | 337 | 475 | 343 | 1,461 | 1,529 | 1,532 |
| Commercial Sector | 322 | 330 | 390 | 336 | 331 | 336 | 393 | 337 | 326 | 334 | 392 | 336 | 1,378 | 1,396 | 1,387 |
| Industrial Sector | 239 | 256 | 270 | 251 | 244 | 259 | 275 | 254 | 245 | 265 | 280 | 258 | 1,017 | 1,032 | 1,047 |
| Transportation Sector | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 7 | 7 | 7 |
| Direct Use (d) | 34 | 33 | 37 | 36 | 35 | 34 | 37 | 36 | 35 | 34 | 37 | 36 | 139 | 143 | 142 |
| Total Consumption | 953 | 939 | 1,154 | 956 | 991 | 966 | 1,179 | 971 | 984 | 972 | 1,185 | 975 | 4,001 | 4,106 | 4,115 |
| Average residential electricity usage per customer (kWh) | 2,530 | 2,268 | 3,241 | 2,361 | 2,674 | 2,365 | 3,328 | 2,413 | 2,634 | 2,359 | 3,323 | 2,399 | 10,399 | 10,779 | 10,714 |
| End-of-period Fuel Inventories Held by Electric Power Sector | | | | | | | | | | | | | | | |
| Coal (mmst) | 109.0 | 127.7 | 116.6 | 135.8 | 148.6 | 162.6 | 149.5 | 153.6 | 149.8 | 153.1 | 133.8 | 135.1 | 135.8 | 153.6 | 135.1 |
| Residual Fuel (mmb) | 6.1 | 6.3 | 6.2 | 6.2 | 4.2 | 4.0 | 2.1 | 2.9 | 1.7 | 2.0 | 0.3 | 1.3 | 6.2 | 2.9 | 1.3 |
| Distillate Fuel (mmb) | 17.0 | 16.9 | 19.6 | 16.2 | 16.0 | 15.9 | 15.8 | 16.1 | 16.0 | 15.8 | 15.8 | 16.0 | 16.2 | 16.1 | 16.0 |
| Prices | | | | | | | | | | | | | | | |
| Power Generation Fuel Costs (dollars per million Btu) | | | | | | | | | | | | | | | |
| Coal | 2.57 | 2.49 | 2.51 | 2.53 | 2.52 | 2.50 | 2.49 | 2.44 | 2.45 | 2.45 | 2.44 | 2.40 | 2.52 | 2.49 | 2.44 |
| Natural Gas | 4.98 | 2.60 | 2.92 | 2.95 | 3.16 | 2.48 | 2.73 | 3.38 | 3.46 | 2.83 | 3.03 | 3.49 | 3.29 | 2.91 | 3.18 |
| Residual Fuel Oil | 19.24 | 17.88 | 19.26 | 19.08 | 15.77 | 16.46 | 15.53 | 15.43 | 15.53 | 15.85 | 14.92 | 14.68 | 18.91 | 15.75 | 15.21 |
| Distillate Fuel Oil | 22.84 | 19.91 | 22.12 | 21.47 | 20.30 | 20.29 | 20.08 | 20.99 | 20.42 | 19.50 | 19.15 | 19.25 | 21.58 | 20.48 | 19.63 |
| Prices to Ultimate Customers (cents per kilowatthour) | | | | | | | | | | | | | | | |
| Residential Sector | 15.77 | 16.12 | 16.02 | 15.58 | 15.35 | 15.89 | 16.03 | 15.56 | 15.60 | 16.29 | 16.48 | 15.98 | 15.88 | 15.73 | 16.11 |
| Commercial Sector | 12.64 | 12.45 | 13.21 | 12.25 | 12.05 | 12.11 | 13.25 | 12.46 | 12.28 | 12.51 | 13.68 | 12.78 | 12.66 | 12.50 | 12.85 |
| Industrial Sector | 8.06 | 7.74 | 8.57 | 7.99 | 8.10 | 7.81 | 8.49 | 8.17 | 8.29 | 7.90 | 8.68 | 8.31 | 8.10 | 8.15 | 8.30 |
| Wholesale Electricity Prices (dollars per megawatthour) | | | | | | | | | | | | | | | |
| ERCOT North hub | 28.05 | 57.27 | 188.81 | 33.85 | 27.04 | 89.42 | 37.35 | 35.16 | 32.55 | 28.29 | 35.83 | 33.44 | 77.00 | 47.24 | 32.53 |
| CAISO SP15 zone | 92.54 | 30.00 | 67.59 | 50.54 | 45.24 | 29.31 | 48.45 | 48.19 | 47.93 | 25.33 | 50.34 | 49.24 | 60.17 | 42.80 | 43.21 |
| ISO-NE Internal hub | 52.63 | 32.55 | 40.41 | 39.84 | 60.44 | 40.05 | 74.84 | 65.39 | 74.40 | 38.33 | 62.46 | 54.25 | 41.36 | 60.18 | 57.36 |
| NYISO Hudson Valley zone | 44.65 | 31.38 | 39.45 | 36.35 | 46.10 | 35.44 | 65.47 | 44.29 | 47.73 | 35.35 | 54.30 | 43.23 | 37.96 | 47.83 | 45.15 |
| PJM Western hub | 36.49 | 35.41 | 43.27 | 42.17 | 36.82 | 36.61 | 43.40 | 40.22 | 42.21 | 39.12 | 47.51 | 41.23 | 39.34 | 39.26 | 42.52 |
| Midcontinent ISO Illinois hub | 31.39 | 32.13 | 40.60 | 33.58 | 32.05 | 33.61 | 40.40 | 37.67 | 40.73 | 38.90 | 47.34 | 42.78 | 34.42 | 35.93 | 42.44 |
| SPP ISO South hub | 28.96 | 34.56 | 46.96 | 28.50 | 29.96 | 33.70 | 42.75 | 36.28 | 35.54 | 39.36 | 50.07 | 39.55 | 34.74 | 35.67 | 41.13 |
| SERC index, Into Southern | 30.53 | 31.66 | 36.45 | 30.40 | 30.93 | 31.35 | 36.04 | 34.12 | 34.68 | 33.62 | 40.97 | 35.30 | 32.26 | 33.11 | 36.14 |
| FRCC index, Florida Reliability | 30.31 | 33.06 | 36.79 | 32.05 | 32.49 | 32.91 | 36.71 | 36.02 | 35.35 | 35.56 | 39.78 | 37.07 | 33.05 | 34.53 | 36.94 |
| Northwest index, Mid-Columbia | 105.99 | 58.61 | 82.36 | 79.49 | 73.94 | 51.15 | 67.73 | 74.97 | 76.49 | 44.81 | 65.57 | 77.82 | 81.61 | 66.95 | 66.17 |
| Southwest index, Palo Verde | 84.19 | 31.60 | 71.95 | 50.10 | 49.01 | 42.39 | 39.91 | 52.98 | 51.52 | 39.04 | 56.37 | 51.76 | 59.46 | 46.07 | 49.67 |

Notes: EIA completed modeling and analysis for this report on January 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 - January 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 | 10.9 | 13.1 | 10.3 | 14.6 | 11.2 | 13.1 | 10.2 | 14.6 | 11.1 | 46.6 | 49.2 | 49.0 |
| Middle Atlantic | 33.3 | 27.5 | 40.1 | 30.3 | 35.4 | 28.9 | 43.1 | 30.5 | 35.1 | 29.0 | 43.5 | 30.6 | 131.3 | 137.9 | 138.1 |
| E. N. Central | 46.5 | 39.8 | 52.5 | 42.8 | 50.4 | 42.6 | 57.2 | 44.7 | 50.6 | 42.7 | 57.2 | 44.5 | 181.7 | 194.9 | 195.0 |
| W. N. Central | 29.4 | 24.1 | 30.8 | 24.7 | 30.2 | 24.4 | 32.5 | 26.5 | 30.8 | 24.7 | 32.9 | 26.7 | 109.0 | 113.6 | 115.0 |
| S. Atlantic | 87.2 | 83.8 | 117.9 | 85.3 | 97.4 | 91.0 | 124.7 | 88.0 | 95.2 | 91.3 | 124.9 | 87.7 | 374.1 | 401.1 | 399.2 |
| E. S. Central | 29.3 | 25.4 | 37.3 | 26.1 | 33.6 | 26.5 | 38.9 | 26.7 | 32.5 | 26.6 | 39.0 | 26.8 | 118.0 | 125.6 | 124.9 |
| W. S. Central | 51.6 | 52.4 | 86.7 | 51.9 | 56.3 | 53.8 | 81.3 | 53.0 | 56.6 | 54.7 | 82.7 | 53.7 | 242.6 | 244.5 | 247.7 |
| Mountain | 25.3 | 24.5 | 36.4 | 23.8 | 24.6 | 26.2 | 37.3 | 24.3 | 24.5 | 26.4 | 37.8 | 24.5 | 110.0 | 112.4 | 113.2 |
| Pacific contiguous | 39.5 | 30.2 | 38.7 | 34.4 | 37.1 | 30.6 | 41.1 | 35.9 | 36.9 | 30.6 | 41.4 | 36.0 | 142.8 | 144.8 | 144.9 |
| 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 | 4.8 | 4.7 |
| Total | 355.4 | 318.6 | 455.2 | 331.6 | 379.2 | 335.4 | 472.0 | 342.2 | 376.5 | 337.3 | 475.0 | 342.9 | 1,460.8 | 1,528.7 | 1,531.7 |
| Commercial Sector | | | | | | | | | | | | | | | |
| New England | 11.9 | 11.5 | 13.6 | 11.9 | 12.1 | 11.6 | 13.7 | 11.8 | 11.8 | 11.5 | 13.5 | 11.7 | 48.9 | 49.2 | 48.5 |
| Middle Atlantic | 35.0 | 33.1 | 39.7 | 34.9 | 35.5 | 33.5 | 40.6 | 34.9 | 34.9 | 33.4 | 40.5 | 34.7 | 142.8 | 144.4 | 143.6 |
| E. N. Central | 42.4 | 41.9 | 48.0 | 42.2 | 43.1 | 42.4 | 49.0 | 42.3 | 42.5 | 42.2 | 48.8 | 42.2 | 174.6 | 176.8 | 175.6 |
| W. N. Central | 25.3 | 25.1 | 28.6 | 25.1 | 25.8 | 25.2 | 29.0 | 25.6 | 25.6 | 25.2 | 29.0 | 25.6 | 104.1 | 105.6 | 105.4 |
| S. Atlantic | 75.4 | 81.7 | 96.2 | 81.0 | 78.2 | 84.5 | 97.6 | 81.5 | 77.1 | 84.3 | 97.2 | 81.1 | 334.2 | 341.8 | 339.6 |
| E. S. Central | 20.6 | 21.8 | 27.1 | 21.5 | 21.3 | 22.1 | 27.2 | 21.4 | 20.8 | 21.8 | 26.9 | 21.2 | 91.0 | 91.9 | 90.7 |
| W. S. Central | 47.4 | 51.2 | 62.2 | 53.8 | 50.4 | 52.4 | 60.9 | 53.9 | 49.8 | 52.2 | 60.9 | 54.1 | 214.5 | 217.6 | 217.1 |
| Mountain | 23.8 | 25.0 | 29.9 | 24.7 | 23.9 | 25.6 | 30.0 | 24.7 | 23.6 | 25.6 | 30.0 | 24.7 | 103.3 | 104.2 | 103.9 |
| Pacific contiguous | 38.8 | 37.0 | 43.6 | 39.6 | 39.0 | 37.0 | 43.8 | 39.6 | 38.1 | 36.6 | 43.3 | 39.2 | 159.0 | 159.4 | 157.2 |
| AK and HI | 1.3 | 1.3 | 1.4 | 1.4 | 1.3 | 1.3 | 1.4 | 1.4 | 1.4 | 1.3 | 1.4 | 1.4 | 5.3 | 5.5 | 5.5 |
| Total | 321.9 | 329.6 | 390.2 | 336.2 | 330.6 | 335.6 | 393.0 | 337.1 | 325.6 | 334.2 | 391.7 | 335.8 | 1,377.8 | 1,396.4 | 1,387.2 |
| Industrial Sector | | | | | | | | | | | | | | | |
| New England | 3.7 | 3.7 | 3.9 | 3.8 | 3.7 | 3.6 | 3.9 | 3.7 | 3.6 | 3.6 | 3.9 | 3.7 | 15.0 | 14.9 | 14.8 |
| Middle Atlantic | 17.3 | 17.7 | 18.9 | 17.9 | 17.4 | 17.8 | 19.1 | 18.2 | 17.5 | 18.1 | 19.4 | 18.4 | 71.9 | 72.5 | 73.4 |
| E. N. Central | 44.8 | 45.8 | 48.3 | 45.4 | 45.4 | 46.0 | 48.6 | 45.8 | 45.3 | 46.4 | 49.0 | 46.3 | 184.3 | 185.8 | 187.0 |
| W. N. Central | 24.1 | 25.5 | 27.2 | 25.4 | 24.5 | 26.0 | 27.7 | 26.0 | 24.8 | 26.7 | 28.5 | 26.8 | 102.1 | 104.1 | 106.8 |
| S. Atlantic | 33.6 | 35.2 | 36.3 | 34.8 | 33.9 | 35.4 | 36.5 | 35.1 | 33.9 | 35.8 | 36.9 | 35.5 | 139.8 | 140.9 | 142.1 |
| E. S. Central | 23.2 | 23.9 | 24.8 | 22.7 | 22.9 | 23.6 | 24.6 | 22.6 | 22.6 | 23.6 | 24.5 | 22.6 | 94.6 | 93.7 | 93.2 |
| W. S. Central | 53.6 | 62.4 | 63.6 | 57.6 | 55.9 | 64.9 | 67.0 | 59.0 | 57.3 | 68.0 | 69.6 | 61.3 | 237.3 | 246.7 | 256.1 |
| Mountain | 19.8 | 21.5 | 24.1 | 21.4 | 20.4 | 21.9 | 24.5 | 21.8 | 20.5 | 22.3 | 24.8 | 22.1 | 86.8 | 88.6 | 89.8 |
| Pacific contiguous | 18.3 | 19.2 | 21.9 | 20.4 | 18.4 | 19.1 | 21.8 | 20.4 | 18.2 | 19.0 | 21.8 | 20.4 | 79.9 | 79.6 | 79.4 |
| AK and HI | 1.1 | 1.2 | 1.3 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.2 | 1.2 | 1.3 | 1.3 | 4.8 | 4.9 | 4.9 |
| Total | 239.5 | 256.2 | 270.2 | 250.6 | 243.7 | 259.4 | 274.8 | 253.8 | 244.8 | 264.6 | 279.6 | 258.5 | 1,016.5 | 1,031.7 | 1,047.5 |
| Total All Sectors (a) | | | | | | | | | | | | | | | |
| New England | 27.9 | 25.1 | 31.4 | 26.7 | 29.0 | 25.6 | 32.3 | 26.9 | 28.6 | 25.4 | 32.1 | 26.6 | 111.1 | 113.8 | 112.7 |
| Middle Atlantic | 86.4 | 79.2 | 99.7 | 84.1 | 89.2 | 81.0 | 103.6 | 84.4 | 88.4 | 81.3 | 104.2 | 84.6 | 349.4 | 358.2 | 358.4 |
| E. N. Central | 133.8 | 127.6 | 149.0 | 130.6 | 139.1 | 131.1 | 154.9 | 132.9 | 138.5 | 131.4 | 155.2 | 133.1 | 541.0 | 558.0 | 558.1 |
| W. N. Central | 78.7 | 74.8 | 86.5 | 75.2 | 80.5 | 75.6 | 89.2 | 78.1 | 81.3 | 76.6 | 90.3 | 79.1 | 315.2 | 323.3 | 327.2 |
| S. Atlantic | 196.4 | 200.9 | 250.7 | 201.3 | 209.8 | 211.2 | 259.1 | 204.8 | 206.4 | 211.6 | 259.3 | 204.6 | 849.3 | 884.8 | 882.0 |
| E. S. Central | 73.1 | 71.1 | 89.1 | 70.3 | 77.8 | 72.2 | 90.6 | 70.7 | 75.9 | 72.0 | 90.5 | 70.6 | 303.6 | 311.3 | 308.9 |
| W. S. Central | 152.6 | 166.0 | 212.6 | 163.4 | 162.6 | 171.2 | 209.3 | 166.0 | 163.8 | 174.9 | 213.2 | 169.2 | 694.6 | 709.1 | 721.1 |
| Mountain | 68.9 | 71.1 | 90.4 | 69.9 | 68.9 | 73.7 | 91.8 | 70.9 | 68.7 | 74.3 | 92.7 | 71.4 | 300.3 | 305.3 | 307.0 |
| Pacific contiguous | 96.8 | 86.6 | 104.4 | 94.7 | 94.7 | 86.9 | 106.9 | 96.1 | 93.4 | 86.5 | 106.7 | 95.7 | 382.6 | 384.6 | 382.3 |
| AK and HI | 3.7 | 3.6 | 3.7 | 3.9 | 3.8 | 3.6 | 3.8 | 3.9 | 3.8 | 3.6 | 3.8 | 3.9 | 14.9 | 15.1 | 15.1 |
| Total | 918.4 | 905.9 | 1,117.5 | 920.1 | 955.2 | 932.0 | 1,141.5 | 934.7 | 948.6 | 937.6 | 1,147.9 | 938.8 | 3,862.0 | 3,963.4 | 3,972.9 |

Notes: EIA completed modeling and analysis for this report on January 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 - January 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 | 27.93 | <i>30.49</i> | <i>28.45</i> | <i>26.02</i> | <i>27.46</i> | <i>31.16</i> | <i>30.21</i> | <i>28.33</i> | <i>30.14</i> | 28.76 | <i>28.04</i> | <i>29.89</i> |
| Middle Atlantic | 19.69 | 19.13 | 19.85 | 19.63 | <i>19.65</i> | <i>19.43</i> | <i>20.41</i> | <i>20.37</i> | <i>20.47</i> | <i>19.92</i> | <i>20.80</i> | <i>20.60</i> | 19.61 | <i>20.00</i> | <i>20.49</i> |
| E. N. Central | 16.13 | 16.58 | 15.97 | 15.83 | <i>15.44</i> | <i>15.94</i> | <i>15.56</i> | <i>15.77</i> | <i>15.67</i> | <i>16.39</i> | <i>16.08</i> | <i>16.34</i> | 16.11 | <i>15.66</i> | <i>16.10</i> |
| W. N. Central | 11.85 | 13.52 | 14.23 | 12.18 | <i>11.60</i> | <i>13.45</i> | <i>14.08</i> | <i>11.96</i> | <i>11.61</i> | <i>13.64</i> | <i>14.31</i> | <i>12.16</i> | 12.97 | <i>12.79</i> | <i>12.94</i> |
| S. Atlantic | 14.30 | 14.74 | 14.54 | 14.06 | <i>13.61</i> | <i>14.06</i> | <i>14.07</i> | <i>13.80</i> | <i>13.62</i> | <i>14.31</i> | <i>14.47</i> | <i>14.17</i> | 14.42 | <i>13.90</i> | <i>14.16</i> |
| E. S. Central | 13.17 | 13.20 | 12.94 | 13.12 | <i>12.92</i> | <i>13.48</i> | <i>13.12</i> | <i>13.38</i> | <i>13.41</i> | <i>13.81</i> | <i>13.51</i> | <i>13.74</i> | 13.09 | <i>13.20</i> | <i>13.60</i> |
| W. S. Central | 13.57 | 13.57 | 13.52 | 13.87 | <i>13.41</i> | <i>13.72</i> | <i>13.84</i> | <i>13.76</i> | <i>13.34</i> | <i>13.89</i> | <i>14.01</i> | <i>13.93</i> | 13.61 | <i>13.70</i> | <i>13.81</i> |
| Mountain | 12.96 | 13.89 | 14.10 | 13.34 | <i>13.03</i> | <i>13.66</i> | <i>13.73</i> | <i>13.12</i> | <i>13.08</i> | <i>13.86</i> | <i>14.02</i> | <i>13.38</i> | 13.63 | <i>13.43</i> | <i>13.64</i> |
| Pacific | 19.60 | 22.32 | 23.94 | 19.34 | <i>19.53</i> | <i>22.82</i> | <i>24.69</i> | <i>19.79</i> | <i>20.31</i> | <i>23.98</i> | <i>25.61</i> | <i>20.42</i> | 21.29 | <i>21.76</i> | <i>22.63</i> |
| U.S. Average | 15.77 | 16.12 | 16.02 | 15.58 | <i>15.35</i> | <i>15.89</i> | <i>16.03</i> | <i>15.56</i> | <i>15.60</i> | <i>16.29</i> | <i>16.48</i> | <i>15.98</i> | 15.88 | <i>15.73</i> | <i>16.11</i> |
| Commercial Sector | | | | | | | | | | | | | | | |
| New England | 20.56 | 18.39 | 18.73 | 18.99 | <i>19.90</i> | <i>17.60</i> | <i>18.30</i> | <i>19.26</i> | <i>20.89</i> | <i>18.84</i> | <i>19.58</i> | <i>20.30</i> | 19.16 | <i>18.76</i> | <i>19.90</i> |
| Middle Atlantic | 14.86 | 14.88 | 16.39 | 14.79 | <i>14.10</i> | <i>14.70</i> | <i>16.73</i> | <i>15.20</i> | <i>14.42</i> | <i>15.07</i> | <i>17.11</i> | <i>15.46</i> | 15.27 | <i>15.24</i> | <i>15.58</i> |
| E. N. Central | 12.01 | 12.06 | 11.90 | 11.34 | <i>11.25</i> | <i>11.69</i> | <i>11.89</i> | <i>11.52</i> | <i>11.49</i> | <i>12.01</i> | <i>12.28</i> | <i>11.91</i> | 11.83 | <i>11.60</i> | <i>11.94</i> |
| W. N. Central | 9.95 | 10.66 | 11.37 | 9.67 | <i>9.61</i> | <i>10.68</i> | <i>11.48</i> | <i>9.72</i> | <i>9.64</i> | <i>10.92</i> | <i>11.75</i> | <i>9.86</i> | 10.45 | <i>10.41</i> | <i>10.58</i> |
| S. Atlantic | 11.32 | 10.95 | 10.90 | 10.54 | <i>10.32</i> | <i>10.27</i> | <i>10.54</i> | <i>10.35</i> | <i>10.27</i> | <i>10.43</i> | <i>10.81</i> | <i>10.58</i> | 10.92 | <i>10.38</i> | <i>10.54</i> |
| E. S. Central | 12.57 | 12.09 | 12.07 | 12.03 | <i>12.46</i> | <i>12.35</i> | <i>12.46</i> | <i>12.38</i> | <i>12.72</i> | <i>12.64</i> | <i>12.74</i> | <i>12.62</i> | 12.18 | <i>12.42</i> | <i>12.68</i> |
| W. S. Central | 9.36 | 8.84 | 9.62 | 8.78 | <i>8.64</i> | <i>8.73</i> | <i>10.12</i> | <i>9.53</i> | <i>9.30</i> | <i>9.76</i> | <i>11.13</i> | <i>10.06</i> | 9.17 | <i>9.30</i> | <i>10.11</i> |
| Mountain | 10.35 | 11.09 | 11.65 | 10.63 | <i>10.29</i> | <i>10.81</i> | <i>11.44</i> | <i>10.55</i> | <i>10.28</i> | <i>10.86</i> | <i>11.47</i> | <i>10.62</i> | 10.97 | <i>10.81</i> | <i>10.85</i> |
| Pacific | 18.06 | 18.84 | 22.70 | 19.31 | <i>18.33</i> | <i>18.56</i> | <i>22.73</i> | <i>19.75</i> | <i>18.68</i> | <i>19.02</i> | <i>23.13</i> | <i>20.11</i> | 19.82 | <i>19.95</i> | <i>20.34</i> |
| U.S. Average | 12.64 | 12.45 | 13.21 | 12.25 | <i>12.05</i> | <i>12.11</i> | <i>13.25</i> | <i>12.46</i> | <i>12.28</i> | <i>12.51</i> | <i>13.68</i> | <i>12.78</i> | 12.66 | <i>12.50</i> | <i>12.85</i> |
| Industrial Sector | | | | | | | | | | | | | | | |
| New England | 16.24 | 15.24 | 15.72 | 15.53 | <i>15.82</i> | <i>14.60</i> | <i>15.34</i> | <i>15.66</i> | <i>16.50</i> | <i>15.56</i> | <i>16.28</i> | <i>16.38</i> | 15.68 | <i>15.36</i> | <i>16.18</i> |
| Middle Atlantic | 8.20 | 7.72 | 7.88 | 7.85 | <i>8.13</i> | <i>7.72</i> | <i>8.00</i> | <i>7.87</i> | <i>8.16</i> | <i>7.71</i> | <i>7.94</i> | <i>7.85</i> | 7.91 | <i>7.93</i> | <i>7.91</i> |
| E. N. Central | 8.31 | 7.89 | 8.06 | 7.83 | <i>8.30</i> | <i>7.95</i> | <i>8.14</i> | <i>7.95</i> | <i>8.55</i> | <i>8.15</i> | <i>8.36</i> | <i>8.14</i> | 8.02 | <i>8.09</i> | <i>8.30</i> |
| W. N. Central | 7.44 | 7.79 | 8.43 | 7.31 | <i>7.58</i> | <i>7.90</i> | <i>8.52</i> | <i>7.49</i> | <i>7.77</i> | <i>8.08</i> | <i>8.71</i> | <i>7.63</i> | 7.76 | <i>7.89</i> | <i>8.06</i> |
| S. Atlantic | 7.72 | 7.37 | 8.07 | 7.49 | <i>7.94</i> | <i>7.48</i> | <i>8.17</i> | <i>7.68</i> | <i>8.12</i> | <i>7.62</i> | <i>8.37</i> | <i>7.79</i> | 7.67 | <i>7.82</i> | <i>7.98</i> |
| E. S. Central | 6.98 | 6.67 | 6.91 | 6.87 | <i>7.06</i> | <i>6.74</i> | <i>6.99</i> | <i>7.04</i> | <i>7.24</i> | <i>6.88</i> | <i>7.18</i> | <i>7.16</i> | 6.86 | <i>6.96</i> | <i>7.11</i> |
| W. S. Central | 6.56 | 5.95 | 7.20 | 6.55 | <i>6.54</i> | <i>5.96</i> | <i>6.61</i> | <i>6.78</i> | <i>6.69</i> | <i>5.81</i> | <i>6.70</i> | <i>6.84</i> | 6.57 | <i>6.46</i> | <i>6.50</i> |
| Mountain | 7.65 | 7.64 | 8.45 | 7.62 | <i>7.57</i> | <i>7.86</i> | <i>8.44</i> | <i>7.79</i> | <i>7.76</i> | <i>8.01</i> | <i>8.75</i> | <i>7.98</i> | 7.86 | <i>7.94</i> | <i>8.15</i> |
| Pacific | 11.81 | 12.47 | 14.85 | 13.11 | <i>12.24</i> | <i>13.10</i> | <i>15.40</i> | <i>13.66</i> | <i>12.80</i> | <i>13.62</i> | <i>16.09</i> | <i>14.27</i> | 13.13 | <i>13.68</i> | <i>14.28</i> |
| U.S. Average | 8.06 | 7.74 | 8.57 | 7.99 | <i>8.10</i> | <i>7.81</i> | <i>8.49</i> | <i>8.17</i> | <i>8.29</i> | <i>7.90</i> | <i>8.68</i> | <i>8.31</i> | 8.10 | <i>8.15</i> | <i>8.30</i> |
| All Sectors (a) | | | | | | | | | | | | | | | |
| New England | 24.39 | 22.26 | 22.01 | 22.12 | <i>24.13</i> | <i>21.49</i> | <i>21.41</i> | <i>22.14</i> | <i>24.98</i> | <i>22.92</i> | <i>23.12</i> | <i>23.80</i> | 22.69 | <i>22.29</i> | <i>23.71</i> |
| Middle Atlantic | 15.39 | 14.75 | 16.16 | 15.06 | <i>15.14</i> | <i>14.84</i> | <i>16.64</i> | <i>15.48</i> | <i>15.57</i> | <i>15.15</i> | <i>16.92</i> | <i>15.64</i> | 15.39 | <i>15.59</i> | <i>15.88</i> |
| E. N. Central | 12.20 | 11.97 | 12.08 | 11.59 | <i>11.80</i> | <i>11.76</i> | <i>12.07</i> | <i>11.72</i> | <i>12.05</i> | <i>12.06</i> | <i>12.44</i> | <i>12.08</i> | 11.97 | <i>11.84</i> | <i>12.17</i> |
| W. N. Central | 9.89 | 10.60 | 11.47 | 9.70 | <i>9.74</i> | <i>10.62</i> | <i>11.51</i> | <i>9.74</i> | <i>9.81</i> | <i>10.80</i> | <i>11.72</i> | <i>9.88</i> | 10.45 | <i>10.43</i> | <i>10.59</i> |
| S. Atlantic | 12.03 | 11.91 | 12.20 | 11.50 | <i>11.46</i> | <i>11.44</i> | <i>11.90</i> | <i>11.37</i> | <i>11.46</i> | <i>11.63</i> | <i>12.22</i> | <i>11.63</i> | 11.93 | <i>11.57</i> | <i>11.76</i> |
| E. S. Central | 11.04 | 10.66 | 11.00 | 10.77 | <i>11.07</i> | <i>10.93</i> | <i>11.26</i> | <i>11.05</i> | <i>11.38</i> | <i>11.19</i> | <i>11.57</i> | <i>11.30</i> | 10.88 | <i>11.09</i> | <i>11.37</i> |
| W. S. Central | 9.80 | 9.24 | 10.48 | 9.61 | <i>9.57</i> | <i>9.25</i> | <i>10.44</i> | <i>9.90</i> | <i>9.78</i> | <i>9.52</i> | <i>10.80</i> | <i>10.12</i> | 9.83 | <i>9.83</i> | <i>10.10</i> |
| Mountain | 10.53 | 11.01 | 11.79 | 10.63 | <i>10.46</i> | <i>10.94</i> | <i>11.57</i> | <i>10.58</i> | <i>10.52</i> | <i>11.08</i> | <i>11.78</i> | <i>10.75</i> | 11.05 | <i>10.94</i> | <i>11.09</i> |
| Pacific | 17.49 | 18.63 | 21.49 | 17.97 | <i>17.60</i> | <i>18.85</i> | <i>21.97</i> | <i>18.46</i> | <i>18.16</i> | <i>19.57</i> | <i>22.63</i> | <i>18.96</i> | 18.96 | <i>19.31</i> | <i>19.93</i> |
| U.S. Average | 12.66 | 12.41 | 13.23 | 12.29 | <i>12.35</i> | <i>12.27</i> | <i>13.25</i> | <i>12.43</i> | <i>12.57</i> | <i>12.57</i> | <i>13.62</i> | <i>12.71</i> | 12.68 | <i>12.61</i> | <i>12.91</i> |

Notes: EIA completed modeling and analysis for this report on January 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 - January 2024

| | 2023 | | | | 2024 | | | | 2025 | | | | Year | | |
|------------------------------------|-------|-------|---------|-------|-------|-------|---------|-------|-------|-------|---------|-------|---------|---------|---------|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | 2023 | 2024 | 2025 |
| United States | | | | | | | | | | | | | | | |
| Natural Gas | 367.4 | 395.2 | 536.6 | 384.8 | 382.5 | 398.2 | 536.5 | 394.0 | 362.9 | 395.6 | 538.9 | 399.2 | 1,684.1 | 1,711.2 | 1,696.6 |
| Coal | 156.7 | 140.5 | 215.9 | 152.3 | 149.3 | 126.3 | 195.1 | 138.2 | 141.2 | 112.6 | 177.4 | 116.4 | 665.4 | 608.8 | 547.6 |
| Nuclear | 194.5 | 183.1 | 205.2 | 192.9 | 197.3 | 193.1 | 208.6 | 192.7 | 199.2 | 192.8 | 207.4 | 197.2 | 775.7 | 791.7 | 796.7 |
| Renewable Energy Sources: | 225.5 | 224.7 | 204.6 | 219.3 | 253.3 | 263.1 | 234.7 | 238.7 | 268.9 | 285.7 | 258.0 | 254.8 | 874.1 | 989.9 | 1,067.3 |
| Conventional Hydropower | 60.9 | 64.1 | 58.6 | 58.8 | 67.6 | 75.1 | 61.5 | 57.2 | 67.7 | 76.5 | 63.7 | 58.9 | 242.4 | 261.5 | 266.7 |
| Wind | 125.7 | 102.5 | 84.5 | 117.6 | 134.8 | 109.8 | 89.5 | 125.8 | 138.6 | 114.0 | 92.5 | 131.4 | 430.2 | 459.9 | 476.5 |
| Solar (a) | 29.1 | 48.9 | 51.8 | 33.4 | 40.7 | 69.2 | 73.7 | 46.0 | 52.8 | 86.8 | 91.9 | 54.9 | 163.3 | 229.6 | 286.4 |
| Biomass | 5.6 | 5.1 | 5.7 | 5.2 | 5.9 | 5.4 | 6.0 | 5.5 | 5.7 | 5.4 | 5.9 | 5.5 | 21.6 | 22.8 | 22.5 |
| Geothermal | 4.2 | 4.0 | 4.0 | 4.3 | 4.4 | 3.5 | 4.0 | 4.2 | 4.0 | 3.0 | 4.0 | 4.1 | 16.5 | 16.2 | 15.1 |
| Pumped Storage Hydropower | -1.6 | -1.3 | -1.8 | -1.2 | -1.6 | -1.3 | -1.8 | -1.4 | -1.8 | -1.4 | -1.7 | -1.4 | -5.9 | -6.1 | -6.2 |
| Petroleum (b) | 3.9 | 3.5 | 4.8 | 5.1 | 5.1 | 3.5 | 4.5 | 5.3 | 5.0 | 3.4 | 4.3 | 5.5 | 17.2 | 18.4 | 18.2 |
| 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 | 0.7 | 0.7 | 0.6 | 0.4 | 0.3 | 0.2 | 0.3 | 0.0 | -0.1 | 3.3 | 2.0 | 0.4 |
| Total Generation | 948.1 | 947.3 | 1,167.0 | 954.6 | 987.4 | 984.4 | 1,178.9 | 968.6 | 976.4 | 989.8 | 1,185.3 | 972.5 | 4,016.9 | 4,119.3 | 4,124.0 |
| New England (ISO-NE) | | | | | | | | | | | | | | | |
| Natural Gas | 11.5 | 12.4 | 15.8 | 12.3 | 12.1 | 11.0 | 17.5 | 12.5 | 10.9 | 11.5 | 17.5 | 10.6 | 51.9 | 53.1 | 50.5 |
| Coal | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.2 | 0.1 | 0.2 | 0.0 | 0.2 | 0.2 | 0.2 | 0.4 | 0.6 |
| Nuclear | 7.1 | 3.4 | 6.9 | 5.9 | 7.2 | 7.2 | 7.2 | 5.6 | 7.1 | 6.1 | 7.2 | 7.2 | 23.3 | 27.2 | 27.6 |
| Conventional hydropower | 1.9 | 1.4 | 1.6 | 2.0 | 2.0 | 2.2 | 1.2 | 1.7 | 2.0 | 2.2 | 1.2 | 1.7 | 7.0 | 7.1 | 7.1 |
| Nonhydro renewables (d) | 2.6 | 2.8 | 2.6 | 2.5 | 2.5 | 3.1 | 3.1 | 3.4 | 4.0 | 3.8 | 3.5 | 4.1 | 10.5 | 12.1 | 15.4 |
| Other energy sources (e) | 0.3 | 0.2 | 0.2 | 0.4 | 0.6 | 0.2 | 0.2 | 0.4 | 0.8 | 0.2 | 0.2 | 0.5 | 1.2 | 1.5 | 1.7 |
| Total generation | 23.6 | 20.1 | 27.1 | 23.2 | 24.6 | 23.7 | 29.5 | 23.8 | 24.9 | 23.7 | 29.9 | 24.4 | 94.0 | 101.5 | 102.9 |
| Net energy for load (f) | 29.0 | 25.6 | 32.2 | 27.8 | 30.2 | 27.6 | 34.3 | 29.2 | 30.5 | 28.2 | 34.7 | 29.4 | 114.6 | 121.3 | 122.8 |
| New York (NYISO) | | | | | | | | | | | | | | | |
| Natural Gas | 13.5 | 14.2 | 21.1 | 14.4 | 14.2 | 13.8 | 21.0 | 14.5 | 13.5 | 13.8 | 20.9 | 13.7 | 63.2 | 63.5 | 61.9 |
| 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 | 7.3 | 6.4 | 7.1 | 7.0 | 6.5 | 6.7 | 6.9 | 7.2 | 7.2 | 27.6 | 27.0 | 27.9 |
| Conventional hydropower | 7.1 | 6.6 | 6.9 | 7.4 | 7.1 | 7.0 | 7.0 | 7.1 | 6.9 | 6.9 | 6.9 | 7.1 | 28.0 | 28.2 | 27.8 |
| Nonhydro renewables (d) | 2.1 | 2.0 | 1.8 | 2.4 | 2.7 | 2.5 | 2.3 | 2.8 | 3.1 | 3.0 | 2.8 | 3.4 | 8.3 | 10.3 | 12.3 |
| Other energy sources (e) | 0.2 | 0.0 | 0.0 | 0.2 | 0.6 | 0.0 | 0.1 | 0.2 | 0.6 | 0.0 | 0.1 | 0.3 | 0.4 | 0.9 | 1.0 |
| Total generation | 29.7 | 29.4 | 36.7 | 31.7 | 31.0 | 30.4 | 37.4 | 31.1 | 30.8 | 30.7 | 37.8 | 31.6 | 127.5 | 129.9 | 130.9 |
| Net energy for load (f) | 36.1 | 33.3 | 42.1 | 35.5 | 37.8 | 36.3 | 45.6 | 36.9 | 38.1 | 36.9 | 46.1 | 37.2 | 147.1 | 156.6 | 158.3 |
| Mid-Atlantic (PJM) | | | | | | | | | | | | | | | |
| Natural Gas | 85.1 | 81.6 | 112.2 | 81.5 | 86.4 | 78.8 | 115.2 | 80.7 | 83.5 | 82.1 | 111.8 | 88.9 | 360.5 | 361.1 | 366.3 |
| Coal | 28.3 | 22.9 | 36.2 | 25.3 | 34.2 | 28.4 | 27.7 | 26.5 | 31.3 | 20.6 | 28.3 | 17.1 | 112.7 | 116.8 | 97.3 |
| Nuclear | 67.6 | 65.7 | 70.6 | 68.6 | 69.0 | 64.8 | 71.9 | 68.6 | 67.6 | 66.4 | 72.2 | 67.3 | 272.4 | 274.3 | 273.5 |
| Conventional hydropower | 2.6 | 1.8 | 2.0 | 3.0 | 2.8 | 2.6 | 1.7 | 2.1 | 2.6 | 2.6 | 1.7 | 2.1 | 9.3 | 9.2 | 9.0 |
| Nonhydro renewables (d) | 12.9 | 11.9 | 9.6 | 13.0 | 14.9 | 15.0 | 12.4 | 15.1 | 17.4 | 16.8 | 13.9 | 16.5 | 47.4 | 57.4 | 64.6 |
| Other energy sources (e) | 0.3 | 0.1 | 0.2 | 0.6 | 0.5 | 0.2 | 0.2 | 0.7 | 0.4 | 0.2 | 0.2 | 0.8 | 1.2 | 1.5 | 1.6 |
| Total generation | 196.9 | 183.9 | 230.9 | 192.0 | 207.7 | 189.8 | 229.0 | 193.7 | 202.9 | 188.8 | 228.0 | 192.7 | 803.7 | 820.4 | 812.3 |
| Net energy for load (f) | 192.5 | 176.2 | 214.4 | 186.1 | 199.9 | 181.9 | 219.2 | 186.1 | 197.0 | 182.5 | 219.8 | 186.3 | 769.2 | 787.0 | 785.7 |
| Southeast (SERC) | | | | | | | | | | | | | | | |
| Natural Gas | 64.1 | 65.7 | 82.3 | 60.6 | 77.0 | 76.8 | 92.5 | 75.5 | 69.8 | 73.6 | 100.4 | 68.7 | 272.7 | 321.7 | 312.5 |
| Coal | 23.6 | 26.5 | 39.7 | 24.4 | 20.6 | 18.0 | 34.8 | 15.2 | 20.7 | 19.1 | 26.6 | 18.0 | 114.2 | 88.5 | 84.3 |
| Nuclear | 51.7 | 52.9 | 57.4 | 57.4 | 55.2 | 57.6 | 59.5 | 54.7 | 57.1 | 58.6 | 58.9 | 58.2 | 219.4 | 227.0 | 232.8 |
| Conventional hydropower | 9.9 | 6.2 | 8.0 | 10.7 | 12.0 | 9.2 | 8.1 | 9.1 | 11.4 | 9.0 | 8.1 | 9.1 | 34.8 | 38.4 | 37.6 |
| Nonhydro renewables (d) | 4.9 | 7.2 | 7.4 | 5.2 | 6.0 | 8.3 | 8.2 | 6.1 | 6.6 | 9.4 | 9.1 | 6.3 | 24.8 | 28.6 | 31.4 |
| Other energy sources (e) | -0.3 | -0.2 | -0.5 | -0.2 | -0.3 | -0.3 | -0.4 | -0.2 | -0.3 | -0.3 | -0.4 | -0.2 | -1.2 | -1.2 | -1.2 |
| Total generation | 154.0 | 158.2 | 194.4 | 158.1 | 170.5 | 169.5 | 202.6 | 160.3 | 165.2 | 169.5 | 202.6 | 160.1 | 664.6 | 702.9 | 697.4 |
| Net energy for load (f) | 148.9 | 149.2 | 171.6 | 149.8 | 160.6 | 157.7 | 188.7 | 152.0 | 156.4 | 158.1 | 189.0 | 151.9 | 619.6 | 658.9 | 655.4 |
| Florida (FRCC) | | | | | | | | | | | | | | | |
| Natural Gas | 37.7 | 48.8 | 58.7 | 42.1 | 39.6 | 47.7 | 56.3 | 40.9 | 35.8 | 46.8 | 56.3 | 39.8 | 187.2 | 184.4 | 178.7 |
| Coal | 2.7 | 2.6 | 3.9 | 2.4 | 1.6 | 1.0 | 2.5 | 2.8 | 1.7 | 1.3 | 2.3 | 2.2 | 11.6 | 7.8 | 7.5 |
| Nuclear | 7.4 | 7.5 | 8.0 | 7.1 | 7.3 | 7.9 | 7.9 | 6.7 | 7.8 | 7.4 | 7.4 | 8.0 | 29.9 | 29.9 | 30.6 |
| 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 | 3.2 | 4.9 | 5.6 | 5.4 | 4.2 | 5.6 | 6.4 | 6.0 | 4.7 | 15.0 | 20.1 | 22.8 |
| Other energy sources (e) | 0.6 | 0.5 | 0.6 | 0.4 | 0.6 | 0.5 | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 | 0.5 | 2.1 | 2.1 | 2.1 |
| Total generation | 51.9 | 63.6 | 75.3 | 55.3 | 54.0 | 62.8 | 72.6 | 55.1 | 51.6 | 62.5 | 72.5 | 55.2 | 246.1 | 244.5 | 241.8 |
| Net energy for load (f) | 54.4 | 65.5 | 77.2 | 55.8 | 52.8 | 63.5 | 74.0 | 55.3 | 50.9 | 63.3 | 74.0 | 55.3 | 253.0 | 245.5 | 243.5 |

Notes: EIA completed modeling and analysis for this report on January 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 - January 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 | 46.6 | 52.5 | 58.0 | 70.2 | 52.9 | 53.2 | 62.2 | 77.3 | 60.1 | 213.9 | 233.5 | 252.8 |
| Coal | 43.0 | 38.0 | 57.3 | 41.4 | 40.1 | 33.6 | 55.0 | 36.8 | 39.3 | 31.0 | 49.1 | 28.6 | 179.7 | 165.4 | 148.0 |
| Nuclear | 23.4 | 21.1 | 24.3 | 18.4 | 21.3 | 22.4 | 24.2 | 23.0 | 22.4 | 20.8 | 23.3 | 22.8 | 87.2 | 90.9 | 89.4 |
| Conventional hydropower | 2.2 | 2.0 | 1.9 | 2.0 | 2.5 | 2.9 | 2.4 | 2.2 | 2.5 | 2.9 | 2.4 | 2.2 | 8.1 | 9.9 | 10.0 |
| Nonhydro renewables (d) | 30.3 | 26.5 | 19.4 | 32.1 | 33.0 | 29.0 | 21.6 | 35.3 | 37.0 | 32.9 | 24.8 | 38.5 | 108.4 | 118.9 | 133.2 |
| Other energy sources (e) | 0.8 | 0.7 | 1.3 | 1.4 | 1.3 | 1.1 | 1.4 | 1.6 | 1.1 | 1.1 | 1.3 | 1.6 | 4.2 | 5.5 | 5.1 |
| Total generation | 145.1 | 143.0 | 171.4 | 142.0 | 150.6 | 147.0 | 174.7 | 151.8 | 155.6 | 150.9 | 178.1 | 153.8 | 601.6 | 624.1 | 638.4 |
| Net energy for load (f) | 158.6 | 157.9 | 184.3 | 155.8 | 164.8 | 162.0 | 190.2 | 162.5 | 164.9 | 163.5 | 191.3 | 163.4 | 656.5 | 679.5 | 683.1 |
| Central (Southwest Power Pool) | | | | | | | | | | | | | | | |
| Natural Gas | 15.8 | 21.5 | 30.3 | 18.1 | 16.9 | 23.7 | 27.5 | 13.4 | 14.6 | 22.4 | 27.6 | 14.3 | 85.6 | 81.6 | 78.9 |
| Coal | 20.4 | 17.2 | 27.4 | 16.4 | 16.8 | 15.1 | 27.5 | 18.0 | 16.6 | 13.8 | 26.1 | 15.8 | 81.5 | 77.4 | 72.3 |
| Nuclear | 4.3 | 4.3 | 4.3 | 4.4 | 4.3 | 2.9 | 4.3 | 3.5 | 4.2 | 4.3 | 4.3 | 3.0 | 17.2 | 15.1 | 15.9 |
| Conventional hydropower | 2.9 | 2.8 | 2.7 | 2.9 | 3.5 | 4.2 | 3.7 | 3.1 | 3.5 | 4.2 | 3.7 | 3.1 | 11.3 | 14.5 | 14.5 |
| Nonhydro renewables (d) | 31.3 | 25.6 | 22.5 | 30.5 | 33.5 | 27.4 | 24.0 | 32.3 | 33.1 | 28.4 | 25.0 | 33.8 | 110.0 | 117.3 | 120.2 |
| Other energy sources (e) | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.7 | 0.7 | 0.7 |
| Total generation | 74.9 | 71.6 | 87.4 | 72.5 | 75.2 | 73.5 | 87.1 | 70.6 | 72.3 | 73.2 | 86.8 | 70.2 | 306.4 | 306.5 | 302.5 |
| Net energy for load (f) | 66.6 | 66.6 | 81.8 | 65.1 | 67.7 | 67.6 | 81.1 | 64.5 | 65.4 | 66.8 | 80.9 | 64.4 | 280.1 | 280.9 | 277.4 |
| Texas (ERCOT) | | | | | | | | | | | | | | | |
| Natural Gas | 36.4 | 49.6 | 70.0 | 41.6 | 33.9 | 46.2 | 59.2 | 42.8 | 35.0 | 41.4 | 54.8 | 43.0 | 197.7 | 182.1 | 174.3 |
| Coal | 11.4 | 15.2 | 19.7 | 14.9 | 10.9 | 10.7 | 16.1 | 11.6 | 8.3 | 10.2 | 14.6 | 9.9 | 61.2 | 49.2 | 43.1 |
| Nuclear | 10.5 | 9.0 | 10.9 | 10.3 | 11.0 | 9.8 | 10.6 | 9.4 | 10.8 | 10.0 | 11.1 | 9.9 | 40.7 | 40.8 | 41.9 |
| Conventional hydropower | 0.2 | 0.1 | 0.1 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.6 | 0.6 | 0.6 |
| Nonhydro renewables (d) | 36.6 | 33.8 | 33.6 | 31.5 | 41.7 | 43.6 | 44.2 | 38.4 | 44.7 | 51.2 | 52.2 | 41.7 | 135.5 | 167.8 | 189.8 |
| Other energy sources (e) | 0.2 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.0 | 0.1 | 0.0 | -0.1 | 1.3 | 1.1 | 0.1 |
| Total generation | 95.4 | 108.1 | 134.6 | 98.9 | 98.0 | 110.7 | 130.4 | 102.5 | 99.1 | 113.2 | 132.8 | 104.6 | 436.9 | 441.6 | 449.8 |
| Net energy for load (f) | 94.2 | 109.8 | 140.6 | 99.0 | 98.0 | 110.7 | 130.4 | 102.5 | 99.1 | 113.2 | 132.8 | 104.6 | 443.5 | 441.6 | 449.8 |
| Northwest | | | | | | | | | | | | | | | |
| Natural Gas | 24.3 | 17.9 | 27.8 | 26.8 | 20.6 | 13.3 | 27.6 | 23.9 | 20.5 | 13.1 | 24.1 | 23.0 | 96.9 | 85.5 | 80.7 |
| Coal | 20.2 | 14.3 | 23.4 | 21.2 | 20.2 | 14.8 | 23.0 | 19.1 | 16.6 | 11.8 | 23.0 | 17.6 | 79.1 | 77.0 | 69.0 |
| Nuclear | 2.4 | 1.0 | 2.5 | 2.5 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 1.2 | 2.4 | 2.4 | 8.5 | 9.7 | 8.5 |
| Conventional hydropower | 25.8 | 29.9 | 23.6 | 23.9 | 27.9 | 34.1 | 26.1 | 24.7 | 31.0 | 37.0 | 29.2 | 27.0 | 103.1 | 112.7 | 124.1 |
| Nonhydro renewables (d) | 18.9 | 19.1 | 17.8 | 19.1 | 21.7 | 22.3 | 20.5 | 19.9 | 22.8 | 24.3 | 22.7 | 21.1 | 74.9 | 84.4 | 90.8 |
| Other energy sources (e) | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.7 | 0.6 | 0.4 |
| Total generation | 91.8 | 82.6 | 95.2 | 93.5 | 92.9 | 87.0 | 99.8 | 90.1 | 93.3 | 87.5 | 101.5 | 91.1 | 363.1 | 369.8 | 373.5 |
| Net energy for load (f) | 88.7 | 76.7 | 86.5 | 84.2 | 84.3 | 75.7 | 85.7 | 82.7 | 83.3 | 75.7 | 86.0 | 82.8 | 336.0 | 328.4 | 327.7 |
| Southwest | | | | | | | | | | | | | | | |
| Natural Gas | 12.5 | 16.5 | 23.0 | 15.4 | 11.3 | 15.4 | 23.3 | 14.3 | 9.9 | 14.9 | 22.5 | 13.7 | 67.5 | 64.2 | 60.9 |
| Coal | 5.5 | 3.1 | 6.5 | 4.6 | 3.6 | 3.7 | 6.0 | 6.2 | 5.0 | 3.6 | 6.1 | 6.5 | 19.6 | 19.6 | 21.2 |
| Nuclear | 8.6 | 6.8 | 8.6 | 7.6 | 8.5 | 7.4 | 8.6 | 7.5 | 8.4 | 7.4 | 8.6 | 7.5 | 31.6 | 32.0 | 31.9 |
| Conventional hydropower | 1.4 | 2.5 | 2.0 | 1.3 | 1.7 | 2.2 | 1.9 | 1.4 | 1.7 | 2.2 | 1.9 | 1.5 | 7.2 | 7.3 | 7.3 |
| Nonhydro renewables (d) | 6.4 | 6.5 | 6.1 | 5.7 | 7.6 | 7.8 | 7.9 | 7.7 | 9.1 | 9.8 | 9.2 | 8.4 | 24.8 | 31.1 | 36.4 |
| Other energy sources (e) | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | -0.1 |
| Total generation | 34.5 | 35.4 | 46.2 | 34.7 | 32.7 | 36.5 | 47.8 | 37.1 | 34.1 | 37.8 | 48.3 | 37.5 | 150.8 | 154.2 | 157.7 |
| Net energy for load (f) | 28.3 | 32.9 | 45.8 | 30.0 | 28.0 | 34.1 | 44.8 | 29.6 | 27.8 | 34.3 | 45.2 | 29.8 | 137.0 | 136.5 | 137.0 |
| California | | | | | | | | | | | | | | | |
| Natural Gas | 20.2 | 11.5 | 27.2 | 24.6 | 17.3 | 12.9 | 25.6 | 21.9 | 15.5 | 13.0 | 25.0 | 22.8 | 83.6 | 77.7 | 76.4 |
| Coal | 1.1 | 0.6 | 1.7 | 1.5 | 1.0 | 0.7 | 2.0 | 1.4 | 0.9 | 0.8 | 0.9 | 0.0 | 4.8 | 5.1 | 2.7 |
| Nuclear | 4.7 | 4.9 | 4.9 | 3.3 | 4.7 | 3.6 | 4.8 | 4.8 | 4.7 | 3.7 | 4.8 | 3.7 | 17.8 | 17.9 | 16.8 |
| Conventional hydropower | 6.5 | 10.5 | 9.4 | 5.0 | 7.3 | 10.1 | 9.0 | 5.3 | 5.3 | 8.9 | 8.2 | 4.5 | 31.5 | 31.7 | 26.9 |
| Nonhydro renewables (d) | 14.8 | 20.3 | 20.5 | 14.7 | 16.9 | 22.9 | 23.1 | 15.6 | 17.5 | 22.5 | 24.5 | 17.0 | 70.2 | 78.5 | 81.4 |
| Other energy sources (e) | -0.6 | -0.2 | 0.0 | -0.2 | -0.7 | -0.3 | -0.2 | -0.4 | -0.8 | -0.3 | -0.3 | -0.6 | -1.0 | -1.6 | -2.1 |
| Total generation | 46.7 | 47.7 | 63.7 | 48.9 | 46.5 | 49.9 | 64.2 | 48.5 | 43.0 | 48.6 | 63.1 | 47.4 | 207.0 | 209.1 | 202.1 |
| Net energy for load (f) | 60.5 | 59.9 | 76.7 | 62.9 | 59.7 | 63.7 | 81.4 | 63.5 | 59.4 | 63.9 | 81.8 | 63.5 | 260.0 | 268.2 | 268.6 |

Notes: EIA completed modeling and analysis for this report on January 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 - January 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 | 486.2 | 488.2 | 488.6 | 488.8 | <i>489.6</i> | <i>488.2</i> | <i>488.7</i> | <i>489.0</i> | <i>488.8</i> | <i>490.9</i> | <i>491.8</i> | <i>491.7</i> | 488.8 | <i>489.0</i> | <i>491.7</i> |
| Coal | 186.3 | 182.6 | 180.5 | 178.6 | <i>177.9</i> | <i>177.4</i> | <i>177.4</i> | <i>177.0</i> | <i>177.0</i> | <i>174.5</i> | <i>172.7</i> | <i>166.1</i> | 178.6 | <i>177.0</i> | <i>166.1</i> |
| Petroleum | 28.4 | 28.2 | 28.2 | 27.8 | <i>27.8</i> | <i>27.8</i> | <i>27.8</i> | <i>27.8</i> | <i>27.8</i> | <i>27.8</i> | <i>27.8</i> | <i>27.6</i> | 27.8 | <i>27.8</i> | <i>27.6</i> |
| Other gases | 0.4 | 0.4 | 0.4 | 0.4 | <i>0.4</i> | <i>0.4</i> | <i>0.4</i> | <i>0.4</i> | <i>0.4</i> | <i>0.4</i> | <i>0.4</i> | <i>0.4</i> | 0.4 | <i>0.4</i> | <i>0.4</i> |
| Renewable energy sources | | | | | | | | | | | | | | | |
| Wind | 143.1 | 144.5 | 144.6 | 149.4 | <i>150.4</i> | <i>153.4</i> | <i>153.6</i> | <i>156.4</i> | <i>157.2</i> | <i>157.7</i> | <i>158.2</i> | <i>162.2</i> | 149.4 | <i>156.4</i> | <i>162.2</i> |
| Solar photovoltaic | 73.1 | 76.6 | 80.2 | 93.2 | <i>100.8</i> | <i>110.5</i> | <i>114.4</i> | <i>129.6</i> | <i>137.2</i> | <i>146.9</i> | <i>151.7</i> | <i>172.2</i> | 93.2 | <i>129.6</i> | <i>172.2</i> |
| Solar thermal | 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> | <i>1.5</i> | 1.5 | <i>1.5</i> | <i>1.5</i> |
| Geothermal | 2.6 | 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> | <i>2.7</i> | 2.7 | <i>2.7</i> | <i>2.7</i> |
| Waste biomass | 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> | <i>2.9</i> | 2.9 | <i>2.9</i> | <i>2.9</i> |
| Wood biomass | 2.4 | 2.4 | 2.4 | 2.4 | <i>2.4</i> | <i>2.4</i> | <i>2.4</i> | <i>2.4</i> | <i>2.4</i> | <i>2.4</i> | <i>2.4</i> | <i>2.4</i> | 2.4 | <i>2.4</i> | <i>2.4</i> |
| Conventional hydroelectric | 79.8 | 79.8 | 79.8 | 79.8 | <i>79.8</i> | <i>79.8</i> | <i>79.8</i> | <i>79.8</i> | <i>79.8</i> | <i>79.8</i> | <i>79.8</i> | <i>79.9</i> | 79.8 | <i>79.8</i> | <i>79.9</i> |
| Pumped storage hydroelectric | 23.2 | 23.2 | 23.2 | 23.2 | <i>23.3</i> | <i>23.3</i> | <i>23.3</i> | <i>23.3</i> | <i>23.3</i> | <i>23.3</i> | <i>23.3</i> | <i>23.3</i> | 23.2 | <i>23.3</i> | <i>23.3</i> |
| Nuclear | 94.7 | 94.7 | 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> | <i>96.9</i> | 95.8 | <i>96.9</i> | <i>96.9</i> |
| Battery storage | 9.4 | 10.8 | 13.4 | 17.3 | <i>20.1</i> | <i>24.9</i> | <i>26.1</i> | <i>31.1</i> | <i>32.4</i> | <i>35.7</i> | <i>36.4</i> | <i>40.1</i> | 17.3 | <i>31.1</i> | <i>40.1</i> |
| Other nonrenewable sources (a) | 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> | <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 | 18.8 | <i>18.8</i> | <i>18.9</i> | <i>18.9</i> | <i>18.9</i> | <i>18.9</i> | <i>18.9</i> | <i>18.9</i> | <i>18.9</i> | 18.8 | <i>18.9</i> | <i>18.9</i> |
| Coal | 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> | <i>1.4</i> | 1.4 | <i>1.4</i> | <i>1.4</i> |
| Petroleum | 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> | <i>1.5</i> | 1.5 | <i>1.5</i> | <i>1.5</i> |
| Other gases | 1.3 | 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> | <i>1.4</i> | 1.4 | <i>1.4</i> | <i>1.4</i> |
| Renewable energy sources | | | | | | | | | | | | | | | |
| Wood biomass | 5.4 | 5.4 | 5.4 | 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> | <i>5.3</i> | 5.3 | <i>5.3</i> | <i>5.3</i> |
| Waste biomass | 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> | <i>1.4</i> | 1.4 | <i>1.4</i> | <i>1.4</i> |
| Solar | 0.6 | 0.6 | 0.6 | 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> | <i>0.8</i> | 0.8 | <i>0.8</i> | <i>0.8</i> |
| Wind | 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> | <i>0.1</i> | 0.1 | <i>0.1</i> | <i>0.1</i> |
| Geothermal | 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> | <i>0.1</i> | 0.1 | <i>0.1</i> | <i>0.1</i> |
| Conventional hydroelectric | 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> | <i>0.3</i> | 0.3 | <i>0.3</i> | <i>0.3</i> |
| Battery storage | 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> | <i>0.1</i> | 0.1 | <i>0.1</i> | <i>0.1</i> |
| Other nonrenewable sources (a) | 1.2 | 1.2 | 1.2 | 1.2 | <i>1.2</i> | <i>1.2</i> | <i>1.2</i> | <i>1.3</i> | <i>1.3</i> | <i>1.3</i> | <i>1.3</i> | <i>1.3</i> | 1.2 | <i>1.3</i> | <i>1.3</i> |
| Small-scale solar photovoltaic capacity (systems smaller than one megawatt) | | | | | | | | | | | | | | | |
| Residential sector | 27.8 | 29.6 | 31.5 | 32.9 | <i>34.2</i> | <i>35.6</i> | <i>36.9</i> | <i>38.4</i> | <i>39.8</i> | <i>41.3</i> | <i>42.8</i> | <i>44.3</i> | 32.9 | <i>38.4</i> | <i>44.3</i> |
| Commercial sector | 11.5 | 11.8 | 12.2 | 12.6 | <i>13.1</i> | <i>13.5</i> | <i>14.0</i> | <i>14.4</i> | <i>14.9</i> | <i>15.4</i> | <i>15.9</i> | <i>16.4</i> | 12.6 | <i>14.4</i> | <i>16.4</i> |
| Industrial sector | 2.4 | 2.5 | 2.5 | 2.6 | <i>2.6</i> | <i>2.7</i> | <i>2.7</i> | <i>2.8</i> | <i>2.9</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 | 43.9 | 46.2 | 48.1 | <i>49.9</i> | <i>51.8</i> | <i>53.6</i> | <i>55.6</i> | <i>57.6</i> | <i>59.6</i> | <i>61.7</i> | <i>63.8</i> | 48.1 | <i>55.6</i> | <i>63.8</i> |

Notes:

EIA completed modeling and analysis for this report on January 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, October 2023.

- 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 - January 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 | 0.015 | <i>0.015</i> | <i>0.012</i> | <i>0.014</i> | <i>0.014</i> | <i>0.014</i> | <i>0.010</i> | <i>0.014</i> | <i>0.014</i> | 0.056 | <i>0.055</i> | <i>0.052</i> |
| Hydroelectric Power (a) | 0.208 | 0.219 | 0.200 | 0.194 | <i>0.231</i> | <i>0.256</i> | <i>0.210</i> | <i>0.195</i> | <i>0.231</i> | <i>0.261</i> | <i>0.217</i> | <i>0.201</i> | 0.820 | <i>0.892</i> | <i>0.910</i> |
| Solar (b) | 0.099 | 0.167 | 0.177 | 0.114 | <i>0.139</i> | <i>0.236</i> | <i>0.252</i> | <i>0.157</i> | <i>0.180</i> | <i>0.296</i> | <i>0.314</i> | <i>0.187</i> | 0.557 | <i>0.783</i> | <i>0.977</i> |
| Waste Biomass (c) | 0.043 | 0.041 | 0.042 | 0.041 | <i>0.043</i> | <i>0.041</i> | <i>0.042</i> | <i>0.041</i> | <i>0.042</i> | <i>0.041</i> | <i>0.042</i> | <i>0.041</i> | 0.168 | <i>0.168</i> | <i>0.166</i> |
| Wood Biomass | 0.044 | 0.040 | 0.044 | 0.041 | <i>0.049</i> | <i>0.043</i> | <i>0.052</i> | <i>0.045</i> | <i>0.047</i> | <i>0.043</i> | <i>0.051</i> | <i>0.044</i> | 0.169 | <i>0.189</i> | <i>0.186</i> |
| Wind | 0.429 | 0.350 | 0.288 | 0.401 | <i>0.460</i> | <i>0.375</i> | <i>0.305</i> | <i>0.429</i> | <i>0.473</i> | <i>0.389</i> | <i>0.315</i> | <i>0.448</i> | 1.468 | <i>1.569</i> | <i>1.626</i> |
| Subtotal | 0.837 | 0.830 | 0.765 | 0.806 | <i>0.936</i> | <i>0.964</i> | <i>0.875</i> | <i>0.882</i> | <i>0.988</i> | <i>1.040</i> | <i>0.953</i> | <i>0.936</i> | 3.238 | <i>3.657</i> | <i>3.917</i> |
| Industrial Sector | | | | | | | | | | | | | | | |
| Biofuel Losses and Co-products (d) | 0.199 | 0.202 | 0.206 | 0.210 | <i>0.205</i> | <i>0.204</i> | <i>0.207</i> | <i>0.209</i> | <i>0.204</i> | <i>0.206</i> | <i>0.207</i> | <i>0.211</i> | 0.817 | <i>0.825</i> | <i>0.828</i> |
| Geothermal | 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> | <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 | <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> | <i>0.001</i> | 0.003 | <i>0.003</i> | <i>0.003</i> |
| Solar (b) | 0.003 | 0.005 | 0.005 | 0.003 | <i>0.004</i> | <i>0.005</i> | <i>0.005</i> | <i>0.004</i> | <i>0.004</i> | <i>0.005</i> | <i>0.006</i> | <i>0.004</i> | 0.016 | <i>0.017</i> | <i>0.019</i> |
| Waste Biomass (c) | 0.042 | 0.040 | 0.037 | 0.041 | <i>0.040</i> | <i>0.039</i> | <i>0.038</i> | <i>0.041</i> | <i>0.040</i> | <i>0.039</i> | <i>0.038</i> | <i>0.040</i> | 0.159 | <i>0.158</i> | <i>0.158</i> |
| Wood Biomass | 0.318 | 0.299 | 0.299 | 0.321 | <i>0.328</i> | <i>0.332</i> | <i>0.345</i> | <i>0.348</i> | <i>0.337</i> | <i>0.335</i> | <i>0.347</i> | <i>0.349</i> | 1.238 | <i>1.353</i> | <i>1.367</i> |
| Subtotal (e) | 0.568 | 0.553 | 0.554 | 0.582 | <i>0.583</i> | <i>0.587</i> | <i>0.602</i> | <i>0.608</i> | <i>0.591</i> | <i>0.592</i> | <i>0.604</i> | <i>0.611</i> | 2.257 | <i>2.379</i> | <i>2.398</i> |
| Commercial Sector | | | | | | | | | | | | | | | |
| Geothermal | 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> | <i>0.005</i> | 0.020 | <i>0.020</i> | <i>0.020</i> |
| Solar (b) | 0.014 | 0.021 | 0.021 | 0.014 | <i>0.016</i> | <i>0.024</i> | <i>0.024</i> | <i>0.017</i> | <i>0.019</i> | <i>0.027</i> | <i>0.027</i> | <i>0.019</i> | 0.070 | <i>0.081</i> | <i>0.092</i> |
| Waste Biomass (c) | 0.017 | 0.017 | 0.018 | 0.019 | <i>0.017</i> | <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> | 0.072 | <i>0.071</i> | <i>0.071</i> |
| Wood Biomass | 0.020 | 0.020 | 0.021 | 0.021 | <i>0.020</i> | <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) | 0.063 | 0.070 | 0.072 | 0.066 | <i>0.065</i> | <i>0.074</i> | <i>0.075</i> | <i>0.068</i> | <i>0.068</i> | <i>0.077</i> | <i>0.078</i> | <i>0.070</i> | 0.271 | <i>0.282</i> | <i>0.293</i> |
| Residential Sector | | | | | | | | | | | | | | | |
| Geothermal | 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> | <i>0.010</i> | 0.040 | <i>0.040</i> | <i>0.040</i> |
| Solar (f) | 0.046 | 0.069 | 0.070 | 0.049 | <i>0.053</i> | <i>0.079</i> | <i>0.079</i> | <i>0.054</i> | <i>0.059</i> | <i>0.088</i> | <i>0.088</i> | <i>0.060</i> | 0.234 | <i>0.266</i> | <i>0.295</i> |
| Wood Biomass | 0.111 | 0.112 | 0.114 | 0.106 | <i>0.111</i> | <i>0.112</i> | <i>0.114</i> | <i>0.106</i> | <i>0.111</i> | <i>0.112</i> | <i>0.114</i> | <i>0.106</i> | 0.443 | <i>0.443</i> | <i>0.443</i> |
| Subtotal | 0.166 | 0.191 | 0.193 | 0.166 | <i>0.174</i> | <i>0.201</i> | <i>0.202</i> | <i>0.171</i> | <i>0.180</i> | <i>0.210</i> | <i>0.212</i> | <i>0.177</i> | 0.717 | <i>0.749</i> | <i>0.778</i> |
| Transportation Sector | | | | | | | | | | | | | | | |
| Biodiesel, Renewable Diesel, and Other (g) | 0.140 | 0.173 | 0.175 | 0.178 | <i>0.177</i> | <i>0.189</i> | <i>0.194</i> | <i>0.203</i> | <i>0.201</i> | <i>0.225</i> | <i>0.231</i> | <i>0.237</i> | 0.666 | <i>0.762</i> | <i>0.893</i> |
| Ethanol (g) | 0.270 | 0.286 | 0.288 | 0.291 | <i>0.272</i> | <i>0.286</i> | <i>0.291</i> | <i>0.288</i> | <i>0.270</i> | <i>0.288</i> | <i>0.290</i> | <i>0.289</i> | 1.134 | <i>1.137</i> | <i>1.137</i> |
| Subtotal | 0.410 | 0.459 | 0.463 | 0.469 | <i>0.449</i> | <i>0.476</i> | <i>0.485</i> | <i>0.490</i> | <i>0.471</i> | <i>0.513</i> | <i>0.520</i> | <i>0.525</i> | 1.801 | <i>1.900</i> | <i>2.030</i> |
| All Sectors Total | | | | | | | | | | | | | | | |
| Biodiesel, Renewable Diesel, and Other (g) | 0.140 | 0.173 | 0.175 | 0.178 | <i>0.177</i> | <i>0.189</i> | <i>0.194</i> | <i>0.203</i> | <i>0.201</i> | <i>0.225</i> | <i>0.231</i> | <i>0.237</i> | 0.666 | <i>0.762</i> | <i>0.893</i> |
| Biofuel Losses and Co-products (d) | 0.199 | 0.202 | 0.206 | 0.210 | <i>0.205</i> | <i>0.204</i> | <i>0.207</i> | <i>0.209</i> | <i>0.204</i> | <i>0.206</i> | <i>0.207</i> | <i>0.211</i> | 0.817 | <i>0.825</i> | <i>0.828</i> |
| Ethanol (f) | 0.281 | 0.298 | 0.299 | 0.303 | <i>0.283</i> | <i>0.298</i> | <i>0.303</i> | <i>0.299</i> | <i>0.281</i> | <i>0.300</i> | <i>0.301</i> | <i>0.300</i> | 1.180 | <i>1.184</i> | <i>1.183</i> |
| Geothermal | 0.030 | 0.029 | 0.030 | 0.030 | <i>0.031</i> | <i>0.028</i> | <i>0.030</i> | <i>0.030</i> | <i>0.030</i> | <i>0.026</i> | <i>0.029</i> | <i>0.030</i> | 0.120 | <i>0.119</i> | <i>0.115</i> |
| Hydroelectric Power (a) | 0.209 | 0.220 | 0.201 | 0.194 | <i>0.232</i> | <i>0.257</i> | <i>0.211</i> | <i>0.196</i> | <i>0.232</i> | <i>0.262</i> | <i>0.218</i> | <i>0.202</i> | 0.824 | <i>0.896</i> | <i>0.914</i> |
| Solar (b)(f) | 0.162 | 0.261 | 0.272 | 0.181 | <i>0.212</i> | <i>0.344</i> | <i>0.360</i> | <i>0.231</i> | <i>0.261</i> | <i>0.417</i> | <i>0.435</i> | <i>0.271</i> | 0.877 | <i>1.147</i> | <i>1.384</i> |
| Waste Biomass (c) | 0.102 | 0.098 | 0.097 | 0.102 | <i>0.101</i> | <i>0.098</i> | <i>0.098</i> | <i>0.100</i> | <i>0.099</i> | <i>0.097</i> | <i>0.098</i> | <i>0.100</i> | 0.399 | <i>0.397</i> | <i>0.395</i> |
| Wood Biomass | 0.493 | 0.472 | 0.478 | 0.489 | <i>0.508</i> | <i>0.508</i> | <i>0.532</i> | <i>0.520</i> | <i>0.516</i> | <i>0.510</i> | <i>0.532</i> | <i>0.520</i> | 1.932 | <i>2.067</i> | <i>2.078</i> |
| Wind | 0.429 | 0.350 | 0.288 | 0.401 | <i>0.460</i> | <i>0.375</i> | <i>0.305</i> | <i>0.429</i> | <i>0.473</i> | <i>0.389</i> | <i>0.315</i> | <i>0.448</i> | 1.468 | <i>1.569</i> | <i>1.626</i> |
| Total Consumption | 2.045 | 2.103 | 2.047 | 2.088 | <i>2.208</i> | <i>2.301</i> | <i>2.239</i> | <i>2.218</i> | <i>2.297</i> | <i>2.433</i> | <i>2.367</i> | <i>2.320</i> | 8.283 | <i>8.966</i> | <i>9.416</i> |

Notes: EIA completed modeling and analysis for this report on January 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 - January 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 | 22,506 | 22,561 | 22,620 | 22,655 | 22,717 | 22,801 | 22,868 | 22,944 | 23,026 | 23,113 | 22,351 | 22,698 | 22,988 |
| Real Personal Consumption Expend. (billion chained 2017 dollars - SAAR) | 15,313 | 15,344 | 15,480 | 15,562 | 15,625 | 15,671 | 15,725 | 15,776 | 15,813 | 15,852 | 15,908 | 15,969 | 15,424 | 15,699 | 15,885 |
| Real Private Fixed Investment (billion chained 2017 dollars - SAAR) | 3,906 | 3,956 | 3,979 | 4,001 | 3,996 | 3,999 | 4,004 | 4,023 | 4,045 | 4,067 | 4,087 | 4,106 | 3,961 | 4,006 | 4,076 |
| Business Inventory Change (billion chained 2017 dollars - SAAR) | 24 | 19 | 111 | 38 | 63 | 31 | 29 | 45 | 56 | 69 | 74 | 76 | 48 | 42 | 69 |
| Real Government Expenditures (billion chained 2017 dollars - SAAR) | 3,759 | 3,790 | 3,841 | 3,847 | 3,853 | 3,860 | 3,865 | 3,868 | 3,871 | 3,875 | 3,879 | 3,882 | 3,809 | 3,862 | 3,877 |
| Real Exports of Goods & Services (billion chained 2017 dollars - SAAR) | 2,525 | 2,465 | 2,501 | 2,537 | 2,562 | 2,594 | 2,624 | 2,653 | 2,678 | 2,701 | 2,729 | 2,759 | 2,507 | 2,608 | 2,717 |
| Real Imports of Goods & Services (billion chained 2017 dollars - SAAR) | 3,460 | 3,393 | 3,436 | 3,493 | 3,541 | 3,571 | 3,603 | 3,638 | 3,668 | 3,691 | 3,723 | 3,751 | 3,446 | 3,588 | 3,708 |
| Real Disposable Personal Income (billion chained 2017 dollars - SAAR) | 16,663 | 16,797 | 16,800 | 16,888 | 17,107 | 17,197 | 17,329 | 17,447 | 17,580 | 17,716 | 17,835 | 17,926 | 16,787 | 17,270 | 17,764 |
| Non-Farm Employment (millions) | 155.2 | 155.9 | 156.5 | 157.1 | 157.3 | 157.4 | 157.5 | 157.5 | 157.5 | 157.6 | 157.7 | 157.8 | 156.2 | 157.4 | 157.6 |
| Civilian Unemployment Rate (percent) | 3.5 | 3.6 | 3.7 | 3.8 | 3.9 | 4.0 | 4.0 | 4.1 | 4.2 | 4.2 | 4.3 | 4.3 | 3.6 | 4.0 | 4.3 |
| Housing Starts (millions - SAAR) | 1.39 | 1.45 | 1.37 | 1.38 | 1.35 | 1.35 | 1.34 | 1.35 | 1.36 | 1.37 | 1.36 | 1.37 | 1.39 | 1.35 | 1.37 |
| Industrial Production Indices (Index, 2017=100) | | | | | | | | | | | | | | | |
| Total Industrial Production | 102.6 | 102.8 | 103.3 | 102.6 | 102.9 | 102.6 | 102.5 | 102.7 | 102.9 | 103.3 | 103.7 | 104.1 | 102.8 | 102.7 | 103.5 |
| Manufacturing | 99.9 | 100.2 | 100.1 | 99.8 | 100.5 | 100.5 | 100.6 | 101.0 | 101.3 | 101.7 | 102.0 | 102.5 | 100.0 | 100.6 | 101.9 |
| Food | 105.1 | 103.6 | 101.8 | 101.8 | 102.2 | 102.5 | 102.9 | 103.4 | 103.8 | 104.2 | 104.7 | 105.2 | 103.1 | 102.8 | 104.5 |
| Paper | 87.8 | 86.6 | 86.6 | 88.3 | 87.8 | 87.9 | 88.2 | 88.3 | 88.4 | 88.7 | 88.8 | 89.2 | 87.3 | 88.1 | 88.8 |
| Petroleum and Coal Products | 88.5 | 89.9 | 90.7 | 92.1 | 92.1 | 91.9 | 91.8 | 91.7 | 91.5 | 91.2 | 91.0 | 91.0 | 90.3 | 91.9 | 91.2 |
| Chemicals | 103.2 | 103.8 | 103.8 | 104.1 | 104.6 | 105.1 | 105.5 | 105.9 | 106.5 | 107.2 | 107.6 | 108.3 | 103.7 | 105.3 | 107.4 |
| Nonmetallic Mineral Products | 111.4 | 108.7 | 107.7 | 108.5 | 108.4 | 108.9 | 109.8 | 110.9 | 111.9 | 112.9 | 113.6 | 114.5 | 109.1 | 109.5 | 113.2 |
| Primary Metals | 92.7 | 95.7 | 95.2 | 94.9 | 95.3 | 95.6 | 96.5 | 97.1 | 97.0 | 98.1 | 98.6 | 100.1 | 94.6 | 96.1 | 98.4 |
| Coal-weighted Manufacturing (a) | 95.7 | 96.2 | 96.1 | 96.5 | 96.6 | 96.8 | 97.3 | 97.7 | 97.9 | 98.5 | 98.8 | 99.6 | 96.1 | 97.1 | 98.7 |
| Distillate-weighted Manufacturing (a) | 99.3 | 99.1 | 98.8 | 99.0 | 99.3 | 99.6 | 100.0 | 100.5 | 100.8 | 101.3 | 101.7 | 102.3 | 99.1 | 99.9 | 101.5 |
| Electricity-weighted Manufacturing (a) | 96.4 | 96.8 | 97.0 | 96.8 | 97.3 | 97.8 | 98.2 | 98.5 | 98.7 | 99.2 | 99.5 | 100.3 | 96.8 | 97.9 | 99.4 |
| Natural Gas-weighted Manufacturing (a) | 94.0 | 94.1 | 94.6 | 94.8 | 95.0 | 95.1 | 95.3 | 95.6 | 95.6 | 96.2 | 96.3 | 96.9 | 94.3 | 95.2 | 96.2 |
| Price Indexes | | | | | | | | | | | | | | | |
| Consumer Price Index (all urban consumers) (index, 1982-1984=1.00) | 3.01 | 3.03 | 3.06 | 3.08 | 3.09 | 3.11 | 3.13 | 3.14 | 3.16 | 3.17 | 3.18 | 3.20 | 3.05 | 3.12 | 3.18 |
| Producer Price Index: All Commodities (index, 1982=1.00) | 2.59 | 2.54 | 2.57 | 2.53 | 2.50 | 2.48 | 2.49 | 2.50 | 2.50 | 2.49 | 2.50 | 2.50 | 2.56 | 2.49 | 2.50 |
| Producer Price Index: Petroleum (index, 1982=1.00) | 3.09 | 2.91 | 3.17 | 2.70 | 2.52 | 2.64 | 2.65 | 2.53 | 2.49 | 2.53 | 2.52 | 2.39 | 2.97 | 2.58 | 2.48 |
| GDP Implicit Price Deflator (index, 2017=100) | 121.3 | 121.8 | 122.9 | 123.5 | 124.2 | 125.0 | 125.6 | 126.4 | 127.2 | 127.9 | 128.4 | 129.1 | 122.3 | 125.3 | 128.2 |
| Miscellaneous | | | | | | | | | | | | | | | |
| Vehicle Miles Traveled (b) (million miles/day) | 8,364 | 9,081 | 9,251 | 8,736 | 8,438 | 9,229 | 9,378 | 8,788 | 8,474 | 9,277 | 9,432 | 8,842 | 8,860 | 8,959 | 9,008 |
| Air Travel Capacity (Available ton-miles/day, thousands) | 683 | 734 | 744 | 722 | 683 | 708 | 713 | 692 | 674 | 716 | 728 | 709 | 721 | 699 | 707 |
| Aircraft Utilization (Revenue ton-miles/day, thousands) | 390 | 440 | 449 | 437 | 412 | 451 | 459 | 442 | 428 | 471 | 478 | 459 | 429 | 441 | 459 |
| Airline Ticket Price Index (index, 1982-1984=100) | 277.6 | 290.8 | 248.6 | 255.6 | 257.2 | 309.0 | 288.2 | 285.0 | 285.0 | 338.7 | 312.6 | 306.9 | 268.1 | 284.8 | 310.8 |
| Raw Steel Production (million short tons per day) | 0.236 | 0.244 | 0.245 | 0.242 | 0.251 | 0.255 | 0.256 | 0.253 | 0.262 | 0.265 | 0.264 | 0.263 | 0.242 | 0.254 | 0.264 |
| Carbon Dioxide (CO2) Emissions (million metric tons) | | | | | | | | | | | | | | | |
| Petroleum | 548 | 563 | 570 | 570 | 563 | 565 | 568 | 567 | 552 | 562 | 566 | 567 | 2,251 | 2,262 | 2,248 |
| Natural Gas | 501 | 383 | 416 | 451 | 518 | 381 | 416 | 462 | 505 | 380 | 418 | 464 | 1,750 | 1,777 | 1,768 |
| Coal | 187 | 168 | 242 | 169 | 179 | 153 | 223 | 168 | 173 | 141 | 208 | 149 | 766 | 724 | 671 |
| Total Energy (c) | 1,238 | 1,116 | 1,231 | 1,193 | 1,263 | 1,102 | 1,210 | 1,200 | 1,233 | 1,086 | 1,195 | 1,184 | 4,778 | 4,775 | 4,698 |

(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 January 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

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 - January 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 | 1,041 | 1,045 | 1,058 | 1,059 | 1,061 | 1,061 | 1,064 | 1,067 | 1,069 | 1,072 | 1,075 | 1,078 | 1,051 | 1,063 | 1,073 |
| Middle Atlantic | 2,898 | 2,906 | 2,943 | 2,950 | 2,955 | 2,958 | 2,965 | 2,976 | 2,983 | 2,992 | 3,000 | 3,009 | 2,924 | 2,963 | 2,996 |
| E. N. Central | 2,604 | 2,616 | 2,647 | 2,649 | 2,656 | 2,659 | 2,663 | 2,668 | 2,670 | 2,675 | 2,681 | 2,688 | 2,629 | 2,662 | 2,678 |
| W. N. Central | 1,237 | 1,243 | 1,254 | 1,258 | 1,262 | 1,263 | 1,267 | 1,271 | 1,275 | 1,279 | 1,284 | 1,288 | 1,248 | 1,266 | 1,282 |
| S. Atlantic | 3,646 | 3,665 | 3,719 | 3,732 | 3,743 | 3,750 | 3,761 | 3,775 | 3,788 | 3,801 | 3,814 | 3,829 | 3,691 | 3,757 | 3,808 |
| E. S. Central | 900 | 904 | 914 | 916 | 918 | 919 | 920 | 923 | 924 | 927 | 929 | 932 | 908 | 920 | 928 |
| W. S. Central | 2,477 | 2,496 | 2,534 | 2,545 | 2,553 | 2,560 | 2,571 | 2,583 | 2,594 | 2,605 | 2,619 | 2,633 | 2,513 | 2,566 | 2,613 |
| Mountain | 1,388 | 1,395 | 1,412 | 1,416 | 1,421 | 1,423 | 1,428 | 1,434 | 1,439 | 1,445 | 1,452 | 1,458 | 1,403 | 1,426 | 1,449 |
| Pacific | 3,883 | 3,907 | 3,949 | 3,956 | 3,966 | 3,973 | 3,984 | 4,001 | 4,017 | 4,033 | 4,049 | 4,066 | 3,924 | 3,981 | 4,041 |
| Industrial Output, Manufacturing (Index, Year 2017=100) | | | | | | | | | | | | | | | |
| New England | 95.9 | 95.9 | 95.7 | 95.3 | 95.9 | 95.8 | 95.9 | 96.3 | 96.7 | 97.0 | 97.3 | 97.8 | 95.7 | 96.0 | 97.2 |
| Middle Atlantic | 94.8 | 95.0 | 94.9 | 94.5 | 94.9 | 94.8 | 94.8 | 95.2 | 95.6 | 95.9 | 96.2 | 96.7 | 94.8 | 95.0 | 96.1 |
| E. N. Central | 96.0 | 96.2 | 95.9 | 95.4 | 96.4 | 96.6 | 96.8 | 97.1 | 97.2 | 97.4 | 97.7 | 98.1 | 95.9 | 96.7 | 97.6 |
| W. N. Central | 101.1 | 101.5 | 101.0 | 100.5 | 101.3 | 101.3 | 101.3 | 101.7 | 102.1 | 102.4 | 102.7 | 103.2 | 101.0 | 101.4 | 102.6 |
| S. Atlantic | 101.8 | 102.2 | 102.1 | 101.9 | 102.7 | 102.7 | 102.8 | 103.3 | 103.7 | 104.1 | 104.5 | 105.1 | 102.0 | 102.8 | 104.4 |
| E. S. Central | 100.1 | 100.7 | 100.9 | 100.5 | 101.3 | 101.3 | 101.3 | 101.6 | 101.7 | 101.8 | 102.0 | 102.4 | 100.5 | 101.3 | 102.0 |
| W. S. Central | 103.9 | 104.4 | 105.6 | 105.7 | 106.5 | 106.6 | 106.9 | 107.5 | 108.0 | 108.4 | 108.9 | 109.5 | 104.9 | 106.9 | 108.7 |
| Mountain | 111.3 | 111.5 | 111.4 | 111.1 | 111.7 | 111.7 | 111.8 | 112.2 | 112.6 | 113.0 | 113.4 | 114.0 | 111.3 | 111.9 | 113.2 |
| Pacific | 97.0 | 97.0 | 96.6 | 96.1 | 96.7 | 96.5 | 96.6 | 97.0 | 97.3 | 97.6 | 98.0 | 98.5 | 96.7 | 96.7 | 97.9 |
| Real Personal Income (Billion \$2017) | | | | | | | | | | | | | | | |
| New England | 939 | 942 | 944 | 948 | 957 | 962 | 968 | 973 | 978 | 985 | 991 | 996 | 943 | 965 | 987 |
| Middle Atlantic | 2,350 | 2,365 | 2,371 | 2,382 | 2,406 | 2,419 | 2,434 | 2,449 | 2,465 | 2,482 | 2,498 | 2,510 | 2,367 | 2,427 | 2,489 |
| E. N. Central | 2,438 | 2,447 | 2,452 | 2,464 | 2,493 | 2,508 | 2,524 | 2,537 | 2,553 | 2,570 | 2,586 | 2,599 | 2,450 | 2,516 | 2,577 |
| W. N. Central | 1,202 | 1,204 | 1,202 | 1,207 | 1,220 | 1,226 | 1,234 | 1,242 | 1,251 | 1,260 | 1,269 | 1,276 | 1,204 | 1,231 | 1,264 |
| S. Atlantic | 3,496 | 3,509 | 3,523 | 3,547 | 3,589 | 3,614 | 3,642 | 3,669 | 3,701 | 3,732 | 3,764 | 3,788 | 3,519 | 3,629 | 3,746 |
| E. S. Central | 951 | 952 | 954 | 958 | 967 | 971 | 976 | 980 | 986 | 992 | 998 | 1,003 | 954 | 974 | 995 |
| W. S. Central | 2,152 | 2,155 | 2,165 | 2,181 | 2,207 | 2,222 | 2,240 | 2,257 | 2,275 | 2,294 | 2,313 | 2,329 | 2,163 | 2,231 | 2,303 |
| Mountain | 1,359 | 1,363 | 1,364 | 1,371 | 1,384 | 1,392 | 1,401 | 1,410 | 1,421 | 1,432 | 1,442 | 1,451 | 1,364 | 1,397 | 1,436 |
| Pacific | 2,947 | 2,963 | 2,970 | 2,986 | 3,021 | 3,041 | 3,064 | 3,086 | 3,110 | 3,135 | 3,160 | 3,179 | 2,967 | 3,053 | 3,146 |
| Households (Thousands) | | | | | | | | | | | | | | | |
| New England | 6,076 | 6,085 | 6,096 | 6,106 | 6,114 | 6,120 | 6,127 | 6,134 | 6,142 | 6,151 | 6,161 | 6,170 | 6,106 | 6,134 | 6,170 |
| Middle Atlantic | 16,059 | 16,083 | 16,108 | 16,135 | 16,154 | 16,169 | 16,184 | 16,201 | 16,217 | 16,236 | 16,257 | 16,275 | 16,135 | 16,201 | 16,275 |
| E. N. Central | 18,983 | 19,009 | 19,041 | 19,077 | 19,102 | 19,121 | 19,140 | 19,159 | 19,178 | 19,202 | 19,227 | 19,248 | 19,077 | 19,159 | 19,248 |
| W. N. Central | 8,694 | 8,717 | 8,740 | 8,764 | 8,783 | 8,798 | 8,813 | 8,828 | 8,844 | 8,861 | 8,880 | 8,897 | 8,764 | 8,828 | 8,897 |
| S. Atlantic | 27,281 | 27,383 | 27,487 | 27,590 | 27,676 | 27,749 | 27,823 | 27,891 | 27,954 | 28,020 | 28,088 | 28,154 | 27,590 | 27,891 | 28,154 |
| E. S. Central | 7,904 | 7,934 | 7,963 | 7,994 | 8,019 | 8,040 | 8,060 | 8,079 | 8,097 | 8,114 | 8,133 | 8,150 | 7,994 | 8,079 | 8,150 |
| W. S. Central | 15,963 | 16,025 | 16,091 | 16,157 | 16,211 | 16,258 | 16,309 | 16,359 | 16,408 | 16,459 | 16,511 | 16,560 | 16,157 | 16,359 | 16,560 |
| Mountain | 9,808 | 9,847 | 9,887 | 9,929 | 9,964 | 9,997 | 10,029 | 10,063 | 10,096 | 10,133 | 10,169 | 10,205 | 9,929 | 10,063 | 10,205 |
| Pacific | 19,000 | 19,029 | 19,066 | 19,104 | 19,132 | 19,157 | 19,188 | 19,219 | 19,250 | 19,285 | 19,323 | 19,357 | 19,104 | 19,219 | 19,357 |
| Total Non-farm Employment (Millions) | | | | | | | | | | | | | | | |
| New England | 7.6 | 7.6 | 7.6 | 7.6 | 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 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 20.3 | 20.2 | 20.3 | 20.3 |
| E. N. Central | 22.3 | 22.4 | 22.5 | 22.6 | 22.6 | 22.6 | 22.6 | 22.6 | 22.6 | 22.5 | 22.5 | 22.5 | 22.5 | 22.6 | 22.5 |
| W. N. Central | 10.9 | 10.9 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| S. Atlantic | 30.5 | 30.7 | 30.8 | 31.0 | 31.0 | 31.1 | 31.1 | 31.1 | 31.2 | 31.2 | 31.2 | 31.3 | 30.7 | 31.1 | 31.2 |
| 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 | 19.2 | 19.2 | 19.2 | 19.3 | 19.3 | 19.3 | 19.3 | 19.4 | 19.0 | 19.2 | 19.3 |
| Mountain | 11.8 | 11.8 | 11.9 | 11.9 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.1 | 12.1 | 11.9 | 12.0 | 12.1 |
| Pacific | 24.5 | 24.6 | 24.7 | 24.8 | 24.8 | 24.8 | 24.8 | 24.8 | 24.8 | 24.8 | 24.8 | 24.8 | 24.7 | 24.8 | 24.8 |

- = no data available

Notes: EIA completed modeling and analysis for this report on January 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 - January 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 | 2,713 | 816 | 90 | 1,969 | 2,996 | 828 | 132 | 2,054 | 2,969 | 826 | 131 | 2,047 | 5,587 | 6,011 | 5,973 |
| Middle Atlantic | 2,452 | 652 | 72 | 1,841 | 2,774 | 662 | 87 | 1,880 | 2,745 | 659 | 86 | 1,873 | 5,017 | 5,402 | 5,364 |
| E. N. Central | 2,725 | 698 | 96 | 1,941 | 3,017 | 710 | 122 | 2,155 | 3,031 | 708 | 122 | 2,150 | 5,460 | 6,003 | 6,011 |
| W. N. Central | 3,170 | 657 | 92 | 2,028 | 3,158 | 708 | 154 | 2,360 | 3,179 | 708 | 154 | 2,357 | 5,947 | 6,381 | 6,398 |
| South Atlantic | 1,056 | 190 | 10 | 898 | 1,357 | 181 | 13 | 891 | 1,285 | 179 | 13 | 885 | 2,154 | 2,442 | 2,362 |
| E. S. Central | 1,390 | 257 | 14 | 1,179 | 1,779 | 236 | 19 | 1,242 | 1,705 | 235 | 19 | 1,238 | 2,840 | 3,276 | 3,197 |
| W. S. Central | 931 | 91 | 1 | 725 | 1,134 | 86 | 5 | 772 | 1,102 | 85 | 5 | 769 | 1,748 | 1,997 | 1,962 |
| Mountain | 2,553 | 726 | 127 | 1,689 | 2,165 | 701 | 152 | 1,815 | 2,132 | 699 | 151 | 1,810 | 5,095 | 4,832 | 4,792 |
| Pacific | 1,836 | 659 | 99 | 1,022 | 1,427 | 576 | 94 | 1,144 | 1,418 | 574 | 94 | 1,140 | 3,616 | 3,241 | 3,227 |
| U.S. Average | 1,921 | 485 | 61 | 1,358 | 2,026 | 472 | 75 | 1,454 | 1,995 | 469 | 74 | 1,448 | 3,824 | 4,026 | 3,986 |
| Heating Degree Days, Prior 10-year Average | | | | | | | | | | | | | | | |
| New England | 3,150 | 859 | 106 | 2,093 | 3,110 | 856 | 98 | 2,061 | 3,053 | 850 | 97 | 2,058 | 6,209 | 6,125 | 6,058 |
| Middle Atlantic | 2,939 | 689 | 69 | 1,906 | 2,889 | 685 | 63 | 1,884 | 2,824 | 681 | 62 | 1,876 | 5,603 | 5,522 | 5,443 |
| E. N. Central | 3,215 | 741 | 93 | 2,168 | 3,158 | 735 | 91 | 2,117 | 3,066 | 733 | 86 | 2,096 | 6,217 | 6,101 | 5,982 |
| W. N. Central | 3,319 | 754 | 121 | 2,374 | 3,295 | 730 | 120 | 2,305 | 3,224 | 725 | 118 | 2,289 | 6,569 | 6,449 | 6,356 |
| South Atlantic | 1,403 | 190 | 10 | 905 | 1,357 | 188 | 9 | 896 | 1,321 | 186 | 9 | 882 | 2,508 | 2,450 | 2,398 |
| E. S. Central | 1,811 | 251 | 14 | 1,231 | 1,756 | 248 | 14 | 1,207 | 1,707 | 248 | 14 | 1,190 | 3,307 | 3,225 | 3,159 |
| W. S. Central | 1,188 | 95 | 3 | 762 | 1,164 | 90 | 3 | 734 | 1,129 | 90 | 3 | 726 | 2,048 | 1,991 | 1,948 |
| Mountain | 2,193 | 696 | 128 | 1,833 | 2,207 | 696 | 128 | 1,803 | 2,211 | 695 | 128 | 1,808 | 4,850 | 4,834 | 4,843 |
| Pacific | 1,441 | 523 | 75 | 1,150 | 1,469 | 540 | 77 | 1,129 | 1,485 | 550 | 81 | 1,145 | 3,190 | 3,214 | 3,261 |
| U.S. Average | 2,132 | 485 | 60 | 1,477 | 2,102 | 483 | 58 | 1,447 | 2,059 | 482 | 58 | 1,438 | 4,154 | 4,090 | 4,037 |
| Cooling Degree Days | | | | | | | | | | | | | | | |
| New England | 0 | 53 | 473 | 5 | 0 | 99 | 510 | 1 | 0 | 100 | 515 | 1 | 531 | 610 | 616 |
| Middle Atlantic | 0 | 91 | 580 | 10 | 0 | 185 | 664 | 5 | 0 | 187 | 670 | 5 | 681 | 854 | 862 |
| E. N. Central | 0 | 181 | 522 | 10 | 1 | 249 | 608 | 7 | 1 | 250 | 612 | 7 | 713 | 865 | 871 |
| W. N. Central | 1 | 319 | 710 | 14 | 5 | 298 | 736 | 11 | 5 | 300 | 740 | 11 | 1,044 | 1,049 | 1,055 |
| South Atlantic | 203 | 589 | 1,243 | 231 | 128 | 712 | 1,286 | 257 | 139 | 717 | 1,294 | 259 | 2,265 | 2,382 | 2,409 |
| E. S. Central | 63 | 440 | 1,094 | 71 | 31 | 546 | 1,129 | 68 | 34 | 548 | 1,134 | 68 | 1,669 | 1,774 | 1,784 |
| W. S. Central | 149 | 896 | 1,861 | 205 | 98 | 922 | 1,625 | 210 | 104 | 926 | 1,632 | 211 | 3,112 | 2,855 | 2,874 |
| Mountain | 3 | 353 | 1,031 | 104 | 20 | 457 | 1,032 | 84 | 21 | 459 | 1,038 | 84 | 1,491 | 1,592 | 1,603 |
| Pacific | 26 | 106 | 610 | 77 | 28 | 205 | 720 | 79 | 28 | 206 | 726 | 79 | 819 | 1,031 | 1,040 |
| U.S. Average | 68 | 363 | 942 | 101 | 47 | 444 | 968 | 105 | 50 | 448 | 976 | 106 | 1,475 | 1,564 | 1,580 |
| Cooling Degree Days, Prior 10-year Average | | | | | | | | | | | | | | | |
| New England | 0 | 87 | 480 | 2 | 0 | 83 | 483 | 2 | 0 | 85 | 500 | 2 | 569 | 568 | 587 |
| Middle Atlantic | 0 | 160 | 617 | 8 | 0 | 154 | 623 | 9 | 0 | 156 | 646 | 8 | 785 | 785 | 810 |
| E. N. Central | 1 | 234 | 561 | 10 | 1 | 231 | 566 | 10 | 1 | 233 | 590 | 10 | 806 | 808 | 834 |
| W. N. Central | 4 | 292 | 674 | 12 | 4 | 301 | 680 | 12 | 5 | 304 | 700 | 12 | 982 | 997 | 1,021 |
| South Atlantic | 143 | 674 | 1,192 | 272 | 153 | 674 | 1,212 | 270 | 155 | 681 | 1,235 | 276 | 2,283 | 2,309 | 2,347 |
| E. S. Central | 36 | 520 | 1,058 | 83 | 41 | 519 | 1,076 | 85 | 43 | 523 | 1,098 | 85 | 1,698 | 1,721 | 1,749 |
| W. S. Central | 101 | 860 | 1,549 | 222 | 108 | 872 | 1,583 | 227 | 115 | 886 | 1,602 | 225 | 2,732 | 2,790 | 2,828 |
| Mountain | 24 | 461 | 959 | 83 | 22 | 448 | 970 | 88 | 21 | 449 | 986 | 87 | 1,526 | 1,528 | 1,544 |
| Pacific | 32 | 213 | 675 | 86 | 32 | 202 | 676 | 89 | 31 | 200 | 679 | 85 | 1,006 | 999 | 995 |
| U.S. Average | 50 | 416 | 895 | 109 | 53 | 414 | 909 | 111 | 55 | 419 | 928 | 112 | 1,470 | 1,487 | 1,514 |

- = no data available

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