



Independent Statistics and Analysis
**U.S. Energy Information
Administration**

Short-Term Energy Outlook

STEO

March 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	\$87	\$85
Retail gasoline price (dollars per gallon)	\$3.50	\$3.50	\$3.40
U.S. crude oil production (million barrels per day)	12.9	13.2	13.7
Natural gas price at Henry Hub (dollars per million British thermal units)	\$2.50	\$2.30	\$2.90
U.S. liquefied natural gas gross exports (billion cubic feet per day)	12	12	14
Shares of U.S. electricity generation			
Natural gas	42%	42%	41%
Coal	17%	15%	14%
Renewables	22%	24%	25%
Nuclear	19%	19%	19%
U.S. GDP (percentage change)	2.5%	2.6%	1.7%
U.S. CO ₂ emissions (billion metric tons)	4.8	4.8	4.7

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

- **Global oil markets.** As a result of OPEC+ extending crude oil production cuts, we have reduced our forecast for global oil production growth in 2024. The lower growth contributes to significant global oil inventory declines in our forecast for the second quarter of 2024 (2Q24). Because of falling inventories, we now expect the Brent crude oil spot price will average \$88 per barrel (b) in 2Q24, up \$4/b from our February STEO, and we expect the Brent price will average \$87/b this year.
- **U.S. retail gasoline prices.** We forecast the U.S. average retail gasoline price will average about \$3.50 per gallon (gal) this year, almost 20 cents/gal higher on an annual average basis in 2024 compared with the February STEO, driven by higher crude oil prices. Although still lower than 2023 over the course of the year, we expect nominal gasoline prices from May through July will exceed prices for those same months in 2023.
- **Natural gas prices.** We expect the Henry Hub spot price to remain below \$2.00 per million British thermal units (MMBtu) in 2Q24 as the winter heating season ends with natural gas inventories 37% above the five-year average. The Henry Hub spot price averaged \$1.72/MMBtu in February (30% lower than in our February STEO), a [record low adjusted for inflation](#). Low prices were partially driven by reduced natural gas consumption in the residential and commercial sectors this winter (November—March).
- **Natural gas production.** We forecast that U.S. dry natural gas production will remain unchanged in March from February at just under 104 billion cubic feet per day (Bcf/d). We expect lower natural

gas prices to cause slight declines in natural gas production the remainder of the year, and we do not expect that natural gas production will return to its [December 2023 record](#) of 106 Bcf/d during the forecast period. Forecast U.S. dry natural gas production averages 103 Bcf/d in 2024, down slightly from 2023. Production increases to 104 Bcf/d in 2025, driven by expected growth in associated natural gas production in the Permian Basin and growth in LNG export demand.

- **Electricity generation.** We expect utility-scale solar generation to provide 6% of U.S. electricity generation in 2024, up from 4% in 2023 and supported by a 36-gigawatt increase in solar generating capacity. By contrast, we expect coal to provide 15% of generation this year, down from 17% in 2023.
- **Macroeconomics.** Following the release of the Bureau of Economic Analysis's end-of-2023 advance estimate of GDP and based on updates to the S&P Global macroeconomic model, we have raised our forecast of U.S. GDP growth from our February STEO to 2.6% in 2024 and 1.7% in 2025.

Notable forecast changes

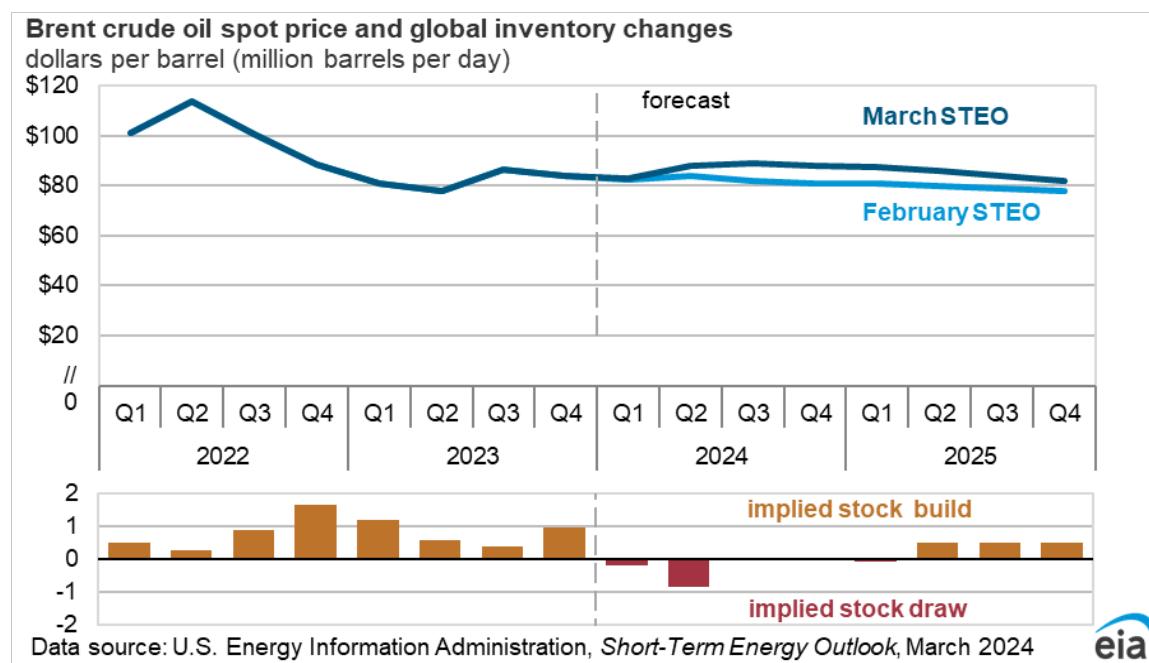
Current forecast: March 12, 2024; previous forecast: February 6, 2024	2024	2025
Global oil inventory change (million barrels per day)	-0.3	0.4
Previous forecast	-0.1	0.5
Change	-0.2	-0.1
Brent spot price (dollars per barrel)	\$87	\$85
Previous forecast	\$82	\$79
Percentage change	5.6%	6.7%
Retail gasoline price (dollars per gallon)	\$3.50	\$3.40
Previous forecast	\$3.30	\$3.30
Percentage change	5.0%	4.1%
Henry Hub spot price (dollars per million British thermal units)	\$2.30	\$2.90
Previous forecast	\$2.70	\$2.90
Percentage change	-14.4%	0.0%
Real gross domestic product (percentage)	2.6%	1.7%
Previous forecast	1.8%	1.6%
Percentage point change	0.8	0.2

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

Global Oil Markets

Global oil prices and inventories

The Brent crude oil spot price averaged \$83 per barrel (b) in February, an increase of \$3/b from January. Prices rose in February in part due to continuing uncertainty and increased risk around the attacks targeting commercial ships transiting the Red Sea shipping channel, as well as an anticipated extension to voluntary OPEC+ production cuts, which were [officially announced on March 4](#). The OPEC+ voluntary production cuts are an extension of the existing production cuts that were announced on November 30, 2023 and are now extended through the second quarter of 2024 (2Q24). The announcement also included an additional voluntary production cut from Russia.



We expect that the extension of the OPEC+ production cuts will tighten global oil supplies in the near-term. The current OPEC+ agreement has two types of production cuts. The first cuts are [officially stated production targets](#), and the second cuts are [additional voluntary cuts](#) pledged by some OPEC+ participants. Although our previous forecast had assumed that some of the OPEC+ members would maintain some voluntary cuts through 2Q24 in an effort to balance markets, this new announcement pledges the continuation of cuts for all of the members through the first half of 2024. Because some OPEC+ members are extending these voluntary production cuts and because Russia added new voluntary production cuts, we now expect oil markets to be much tighter in 2Q24 than we previously expected. We forecast global oil inventories will fall by 0.9 million barrels per day (b/d) in 2Q24; last month, we had expected inventories to remain relatively unchanged in 2Q24.

We expect that the tighter oil market balance during 2024 will keep the Brent price above current levels, averaging \$88/b in 2Q24, \$4/b higher than in last month's STEO. We expect it will remain relatively flat for the rest of the year before increasing inventories (when OPEC+ supply cuts are set to expire) start putting slight downward pressure on the price in 2025. We forecast that the Brent crude oil price will

decrease from an average of \$88/b in January 2025 to an average of \$82/b in December 2025, averaging \$87/b in 2024 and \$85/b in 2025.

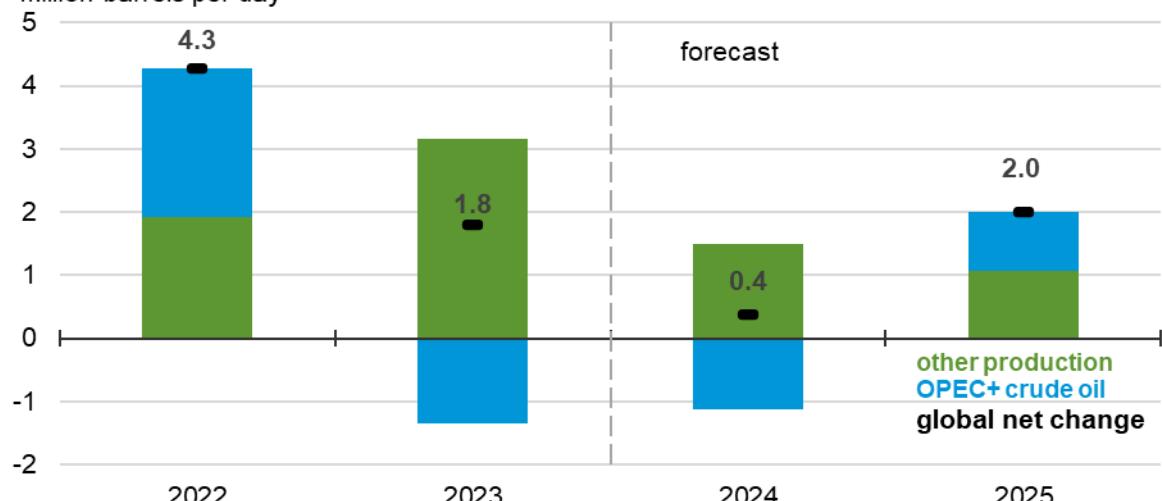
Our forecast of global oil balances and their impact on our crude oil price forecast remain significantly uncertain. Although no oil production has been lost because of the attacks on commercial shipping traveling through the Red Sea, production could still be disrupted or some oil production in the Middle East could be shut in, which would likely cause oil prices to increase. It also remains to be seen how strictly the latest round of voluntary OPEC+ production cuts are adhered to, which has the potential to add additional oil supplies back on the market and lessen the expected tightness in near-term oil balances and the corresponding upward pressure on oil prices. In addition, we forecast global oil demand to grow by 1.4 million b/d in both 2024 and 2025. Higher or lower demand growth would affect global inventory levels and oil prices.

Global oil production

Following the incorporation of the new OPEC+ voluntary production cuts, we now expect that global liquid fuels production will increase by 0.4 million b/d in 2024, down from growth of 0.6 million b/d in last month's STEO and down from an increase of 1.8 million b/d in 2023. Although OPEC+ production cuts limit overall growth in 2024, production outside of OPEC+ grows by 1.5 million b/d, driven primarily by four countries in the Americas—the United States, Guyana, Brazil, and Canada. This growth counteracts the decline in crude oil product subject to the OPEC+ agreement, which falls by 1.1 million b/d in 2024. Global liquids fuel production increases by 2.0 million b/d in 2025 in our forecast, driven by an increase in OPEC+ crude oil production of 0.9 million b/d as existing OPEC+ production targets expire at the end of 2024, while production that is not subject to the OPEC+ agreement increases by an additional 1.1 million b/d.

Global liquid fuels production growth

million barrels per day



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



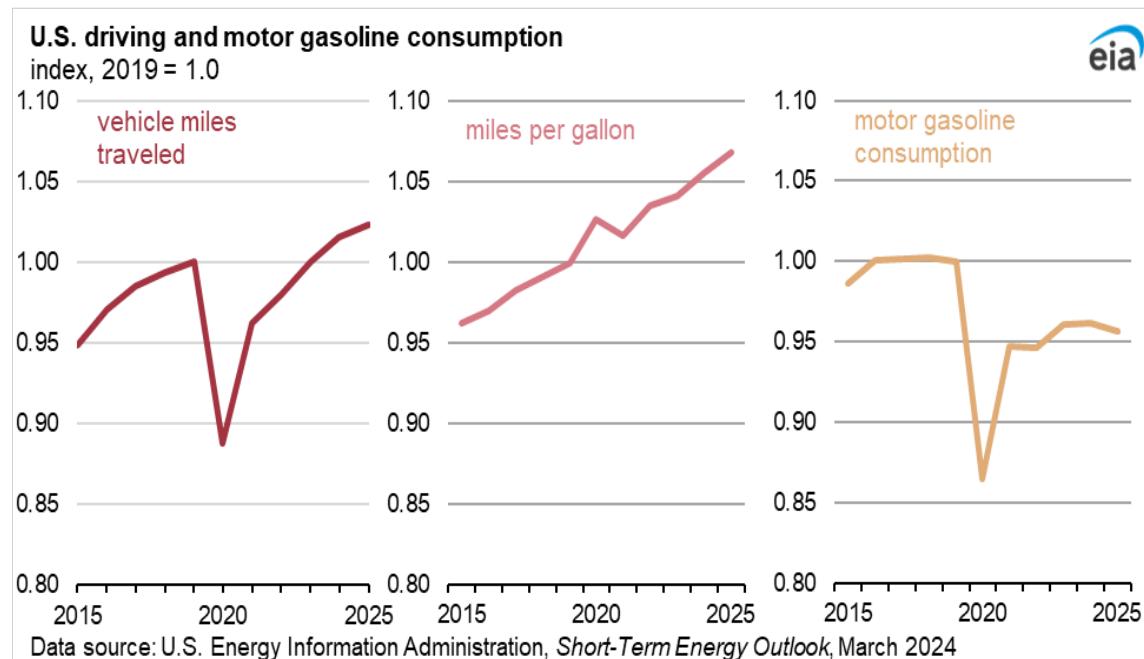
Petroleum Products

Driving Activity

We forecast driving activity—measured by [vehicle miles traveled](#) (VMT)—will increase to all-time highs in the United States during 2024 and 2025 as trends in population, employment, and economic growth increase. Our employment forecast is the main contributor to increased driving activity, and we have revised it up, by 1% or by 0.8 million jobs for 2024 compared with last month's STEO, based on forecasts from S&P Global. Despite our forecast of more driving, increased fleetwide vehicle fuel efficiency will keep motor gasoline consumption relatively flat through 2025.

In 2023, U.S. VMT slightly [surpassed](#) the pre-pandemic high set in 2019, at 8.9 billion miles per day. Despite the increase in driving, however, continued efficiency gains in recent years mean drivers are, on average, consuming less gasoline.

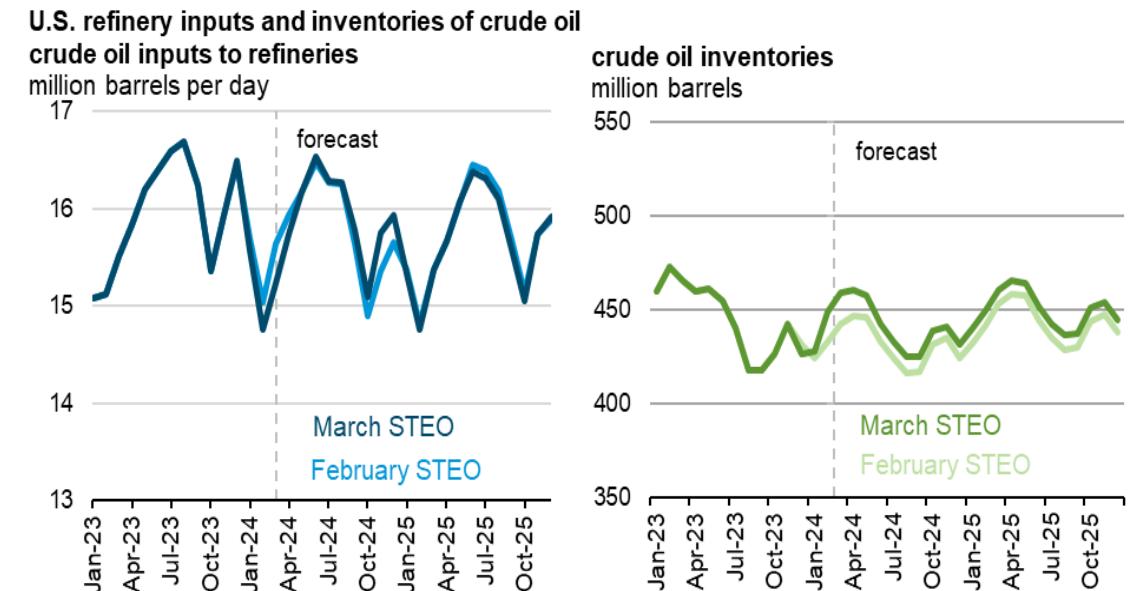
When indexed to 2019, we expect 2% more U.S. VMT in both 2024 and 2025 compared with 2019. We forecast average U.S. miles per gallon will grow even faster, with 5% more in 2024 than in 2019 and 2025 being 6% higher. Our consumption model captures trends in increasing average fuel efficiency, such as those related to increasing corporate average fuel economy standards and the increasing use of electric vehicles. As a result, U.S. motor gasoline consumption will be about 4% less in 2024 and 2025 than in 2019.



U.S. refinery operation and inventories

U.S. refinery inputs in late January and February 2024 decreased sharply in response to cold winter weather and planned refinery maintenance on the Gulf Coast, as well as a [major unplanned outage](#) in the Midwest. As a result, we estimate refinery utilization is about 2% lower on a monthly average basis in February and March compared with the February STEO, reducing crude oil inputs to refineries by

280,000 barrels per day (b/d) in February and by 420,000 b/d in March. We expect [low refinery utilization](#) to continue as the bp Whiting outage lingers alongside normal seasonal maintenance, reducing our forecast for crude oil inputs to refiners from the February STEO by 190,000 b/d in April before mostly returning to our last forecast by May.

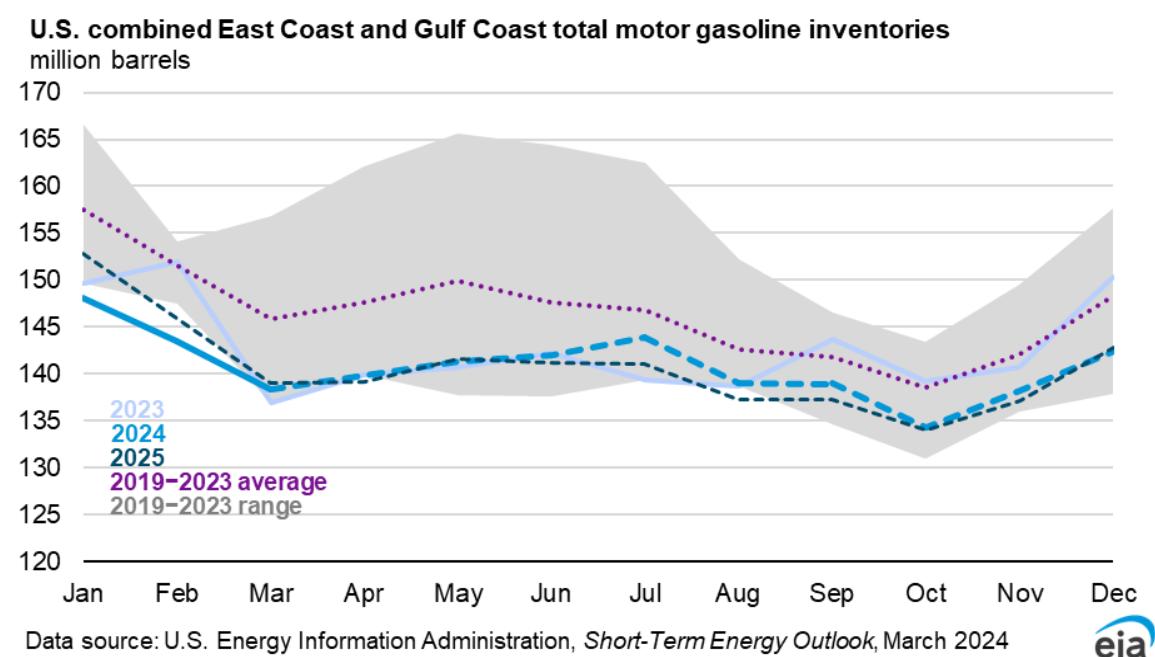


Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook* (STEO), March 2024



Our expectation of less-than-expected crude oil inputs in our forecast increases U.S. commercial crude oil inventory builds. We estimate February crude oil inventories increased by 21 million barrels, compared with the forecast 9-million-barrel increase in our February STEO. We have also increased our expectation for end-of-month crude inventories in March by 16 million barrels compared with the previous STEO. We expect OPEC+ production restraint will contribute to more U.S. crude oil inventory draws later this year, however, bringing our forecast back toward what we expected in the February STEO going into summer 2024.

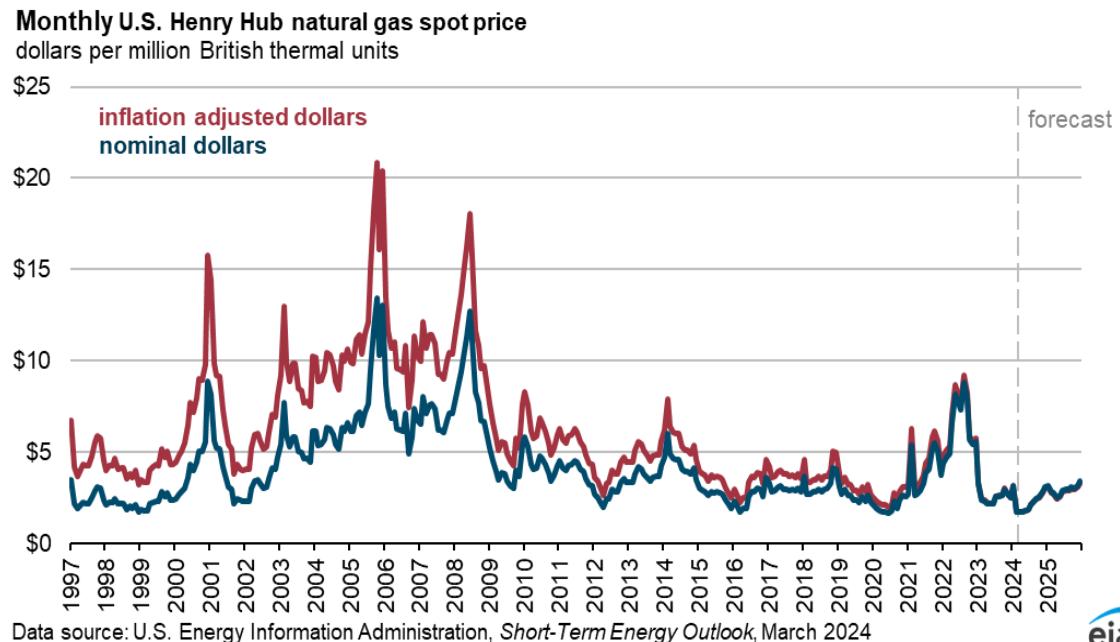
Refinery outages are also reducing motor gasoline production and inventories. We estimate combined East Coast and Gulf Coast inventories ended February about 5% below the five-year (2019–2023) average. The lower inventories in the East Coast and Gulf Coast have an outsized impact on total U.S. gasoline availability and prices because together they make up the largest gasoline producing and consuming region of the United States. We estimate U.S. retail gasoline prices in 2Q24 will average almost \$3.60 per gallon (gal), up nearly 20 cents/gal from the February STEO. Lower inventories are driving the increases in gasoline crack spreads, while retail prices are also higher because of higher crude oil prices.



Natural Gas

Natural gas prices and storage

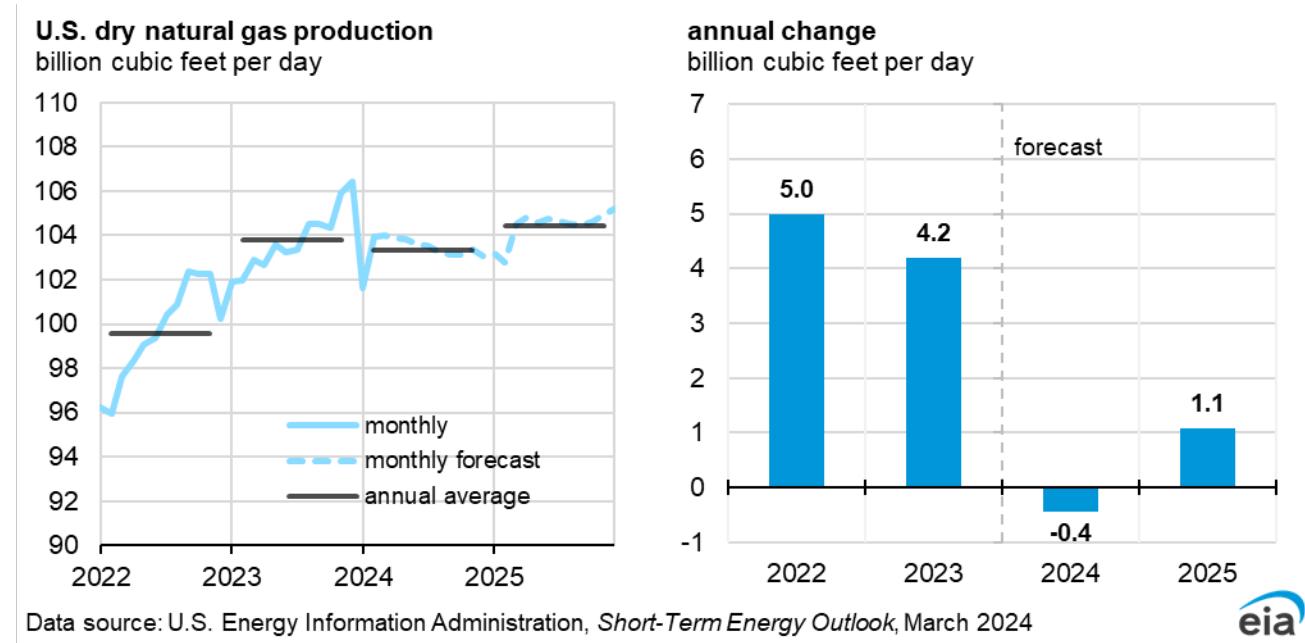
The U.S. benchmark Henry Hub natural gas spot price averaged an inflation-adjusted record-low of \$1.72 per million British thermal units (MMBtu) in February. We forecast prices will stay under \$2.00/MMBtu in the second quarter of 2024 (2Q24) because we expect natural gas inventories will remain high relative to the five-year average as the United States enters the shoulder season when there is typically less U.S. natural gas consumption than at other times of the year. In our March STEO, the annual average Henry Hub price for all of 2024 averages almost \$2.30/MMBtu, 14% lower than in our February STEO.



This winter (November–March) has been mild throughout much of the United States, and the country has experienced 8% fewer [heating degree days \(HDDs\)](#) than the 10-year average. February was much milder than expected, with 9% fewer HDDs than forecast in last month's STEO. Because of the mild weather, we estimate combined residential and commercial sector consumption of natural gas this winter will be 3 billion cubic feet per day (Bcf/d), which is 9% less than the previous five-year winter average. Reduced natural gas consumption for space heating and increased U.S. dry natural gas production, which we estimate will be about 3 Bcf/d more this winter compared with last winter, have contributed to above-average inventories. We expect U.S. inventories of natural gas will total 2,270 Bcf at the end of the winter heating season on March 31, 37% above the previous five-year (2019–2023) average for March, contributing to historically low natural gas prices and to our expectation of low prices for the next several months.

Natural gas production

We estimate that U.S. dry natural gas production increased to almost 104 Bcf/d in February after declining in January to 102 Bcf/d because of weather-related outages. We expect production to continue to remain near that level in March and then decline slightly through the rest of the year, as some producers [have announced](#) production curtailments because of low prices. Dry natural gas production falls to 103 Bcf/d by December 2024 in our forecast and then averages 104 Bcf/d in 2025. We do not expect that natural gas production will return to its [December 2023 record](#) of 106 Bcf/d during the forecast period.



Although production declines slightly through the rest of 2024 because of low natural gas prices and a relatively stable rig count, production begins to increase in early 2025, mostly driven by natural gas prices that average almost \$3/MMBtu in our forecast next year, as well as increased demand for liquefied natural gas (LNG) exports.

The continued strength in U.S. natural gas production will be key in determining how long the current inventory surplus to the five-year average and low prices persist. Because of low natural gas prices, some producers have announced curtailments in production or reductions in capital expenditures toward natural gas-directed activities in 2024. How soon curtailments affect the market is highly uncertain, and our price forecast is based on relatively high production entering the shoulder season when natural gas demand is lower than other times of the year. However, if there is less production than our forecast, the next few months are warmer than normal, and natural gas consumption for electric power generation increases more than our forecast, then inventories could fall below our forecast and prices could be higher.

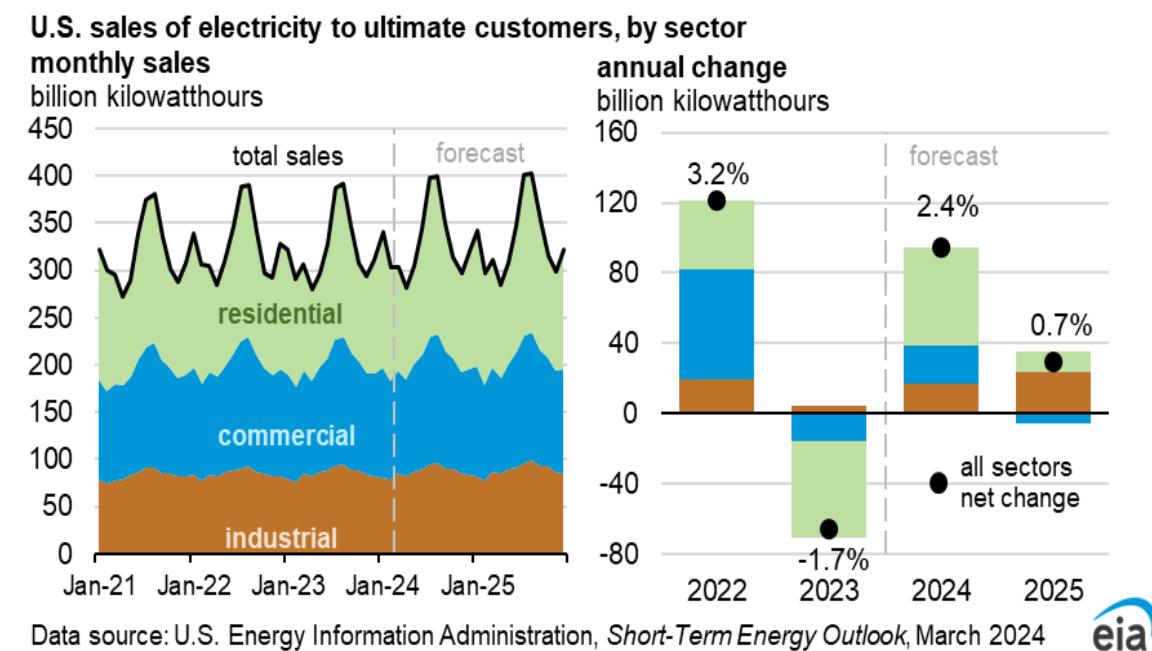
Most natural gas production in the United States comes from [three regions](#): the Permian, the Haynesville, and Appalachia. In 2024, most production growth in our forecast comes from the [Permian region](#) in Texas and New Mexico, where most natural gas production is associated natural gas from crude oil production. Production in the Haynesville region is mostly flat in 2024 because of low natural gas prices and a relatively low rig count. Haynesville production increases in 2025 because of its proximity to new LNG export facilities. We expect production in the [Appalachian Basin](#) to be mostly flat in 2024 as natural gas pipeline capacity constraints restrain production.

Electricity, Coal, and Renewables

Electricity consumption

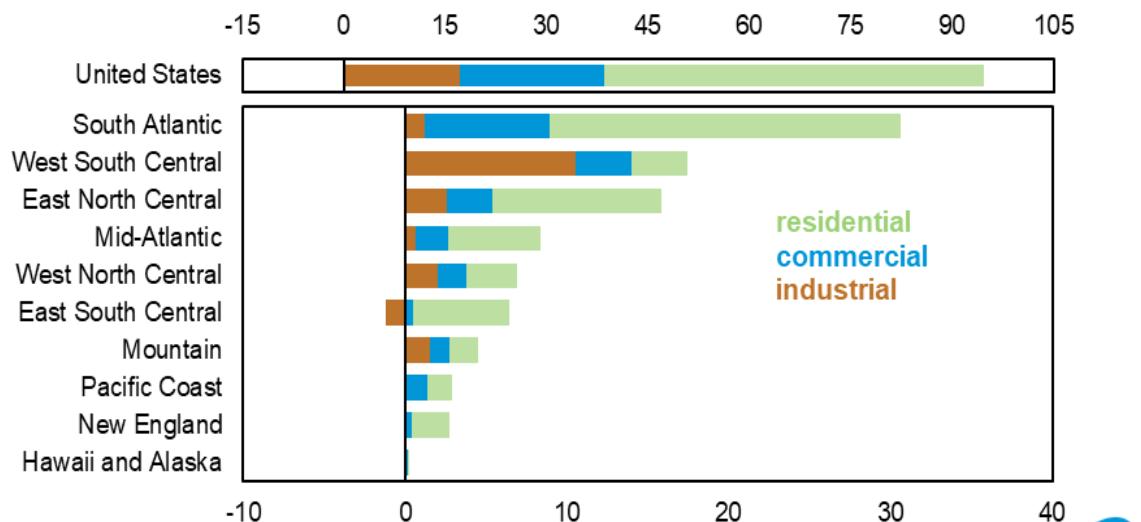
Sales of electricity to U.S. end-use customers in our forecast increases by 2% in 2024 and by 1% in 2025 after falling by 2% in 2023. We expect electricity consumption will grow in all major consuming sectors this year, but especially in the residential sector, which we expect will increase by 4%. Much of the forecast year-over-year growth in residential electricity occurs during the summer months of 2024. We expect a warmer summer with 7% more forecast cooling degree days in 2Q24 and 3Q24 than the same quarters in 2023.

The expected hotter summer this year also helps push up U.S. electricity consumption in the commercial sector. Improving macroeconomic conditions this year are likely to boost electricity sales to both the commercial and industrial sectors, by a combined 2%.



We expect the forecast weather trends for summer 2024 and winter 2024–25 will increase residential consumption in all regions of the United States compared with 2023. Sales of electricity to the residential and commercial sectors rise the most this year in the South Atlantic (6% and 2%, respectively). This region has the most electricity customer accounts, but it also has a large proportion of homes using electricity both for space heating and cooling. Industrial electricity consumption rises the most in the West South Central (up 4%), continuing a strong upward trend since the pandemic.

Change in regional sales of electricity to end-use customer by sector, 2023 vs. 2024 billion kilowatthours



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



Electricity generation

New utility-scale solar generating capacity is driving our forecast for the strong increase in solar electricity generation in 2024 and 2025. The electric power sector added 19 gigawatts (GW) of solar capacity in 2023 (an increase of 27%), and we expect 36 GW will be added in 2024 and another 35 GW will be added in 2025. With this new capacity, we expect solar will provide 6% of total U.S. electricity generation in 2024 and 7% in 2025, up from a share of 4% in 2023.

The increase in generation from renewable sources, particularly solar, is likely to reduce generation from fossil fuel sources. We expect the share of U.S. generation fueled by natural gas will fall from an average of 42% in 2023 to 41% in 2025, while the U.S. coal generation share falls from 17% last year to 14% by 2025. Low natural gas prices are not likely to lead to significantly more electricity generation fueled by natural gas because significant coal plant retirements over the past few years have left the most efficient coal plants still in operation, which we expect will mostly continue running even if natural gas prices are low. Nearly 20% of U.S. coal-fired generating capacity has been retired since 2020, the last time natural gas prices were as low as they are now, and the remaining coal fleet has been operating at historically low capacity factors.

Coal markets

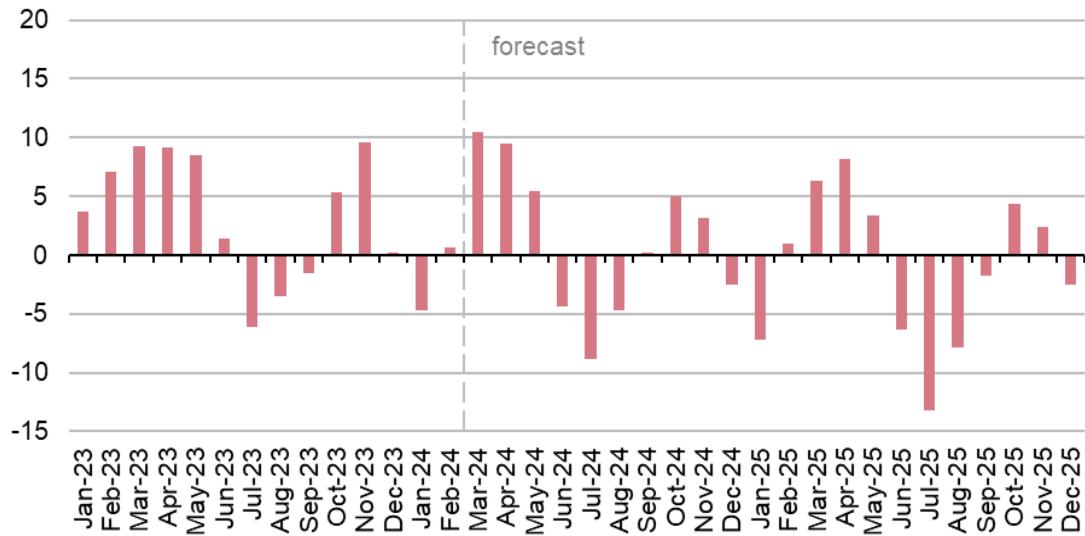
Coal stocks held by the electric power sector increased slightly in February after a 3% decline in January due to cold weather in the middle of the month that caused a brief spike in natural gas prices and increased coal use for power generation. We expect coal stocks to rise from 130 million short tons (MMst) in February to nearly 160 MMst in May. Although we expect natural gas prices to remain low in the summer months, we forecast a decline of 11% in coal stocks from May to September as electric power plants use coal to meet incremental demand for air conditioning during these months. Coal stocks will rise again in the fall, ending the year at almost 150 MMst, the most since mid-2016. We

expect stocks to remain at elevated levels in 2025, reaching about 160 MMst in May 2025 before declining to nearly 130 MMst in December 2025.

We forecast that coal exports will increase 1% in 2024 and a further 5% in 2025, as coal consumption by the U.S. electric power sector declines 7% in 2024 and a further 4% in 2025. As coal stocks remain high and domestic consumption declines, we expect coal production to fall 15% in 2024. We forecast a further 6% decline in coal production in 2025 as 11 GW of coal-generating capacity comes offline.

U.S. monthly change in coal stocks

million short tons

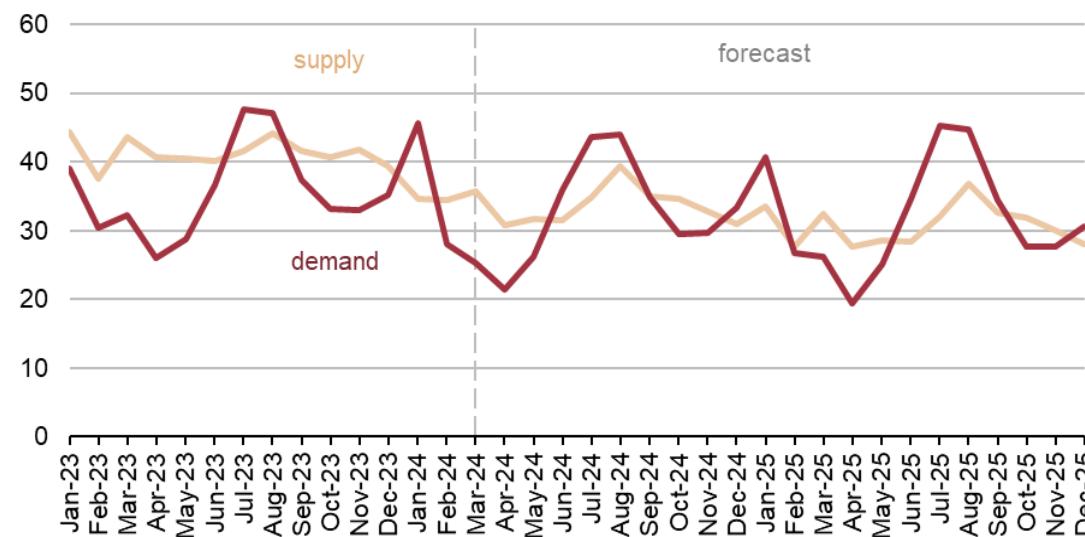


Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, March 2024



U.S. monthly coal demand and supply

million short tons



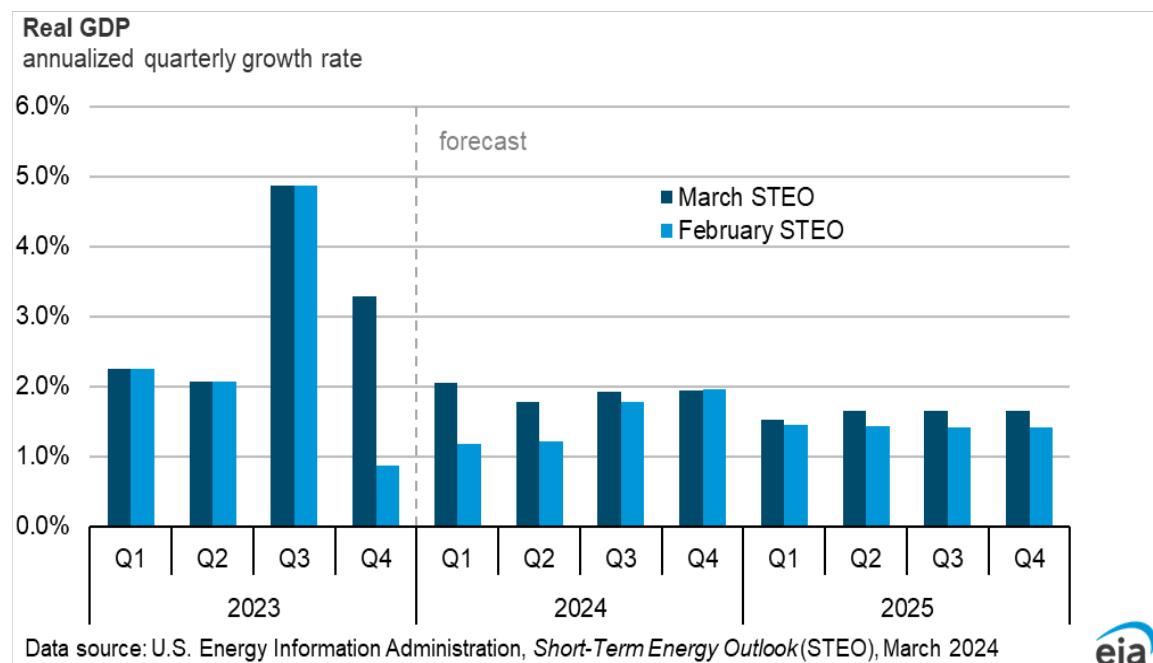
Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, March 2024



Economy, Weather, and CO₂

U.S. macroeconomics

Our forecast assumes real GDP will grow by 2.6% in 2024 and 1.7% in 2025 after upward revisions from last month's forecast of 0.8% in 2024 and 0.1% in 2025. The revisions were primarily driven by the Bureau of Economic Analysis's (BEA) advance estimate of GDP in the fourth quarter of 2023 (4Q23), which came in at 3.3%, higher than the 0.9% in our February STEO. The BEA released the second estimate for 4Q23 GDP growth after the macroeconomic forecast for this month's STEO was compiled, but it was almost unchanged from the advance estimate, coming in at 3.2%. The difference between the advance and second estimate does not materially change our economic outlook and still represents a significant upward revision compared to the February STEO. The strength in 4Q23 is expected to carry over to 2024. The most notable difference is to the composition of expenditures. We now assume consumer spending will make up a larger share of real GDP in 2024 and 2025. Consumer spending in 4Q23 was higher than we assumed last month, and growth in personal income and a strong labor market may support consumer spending growth in 2024. 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.



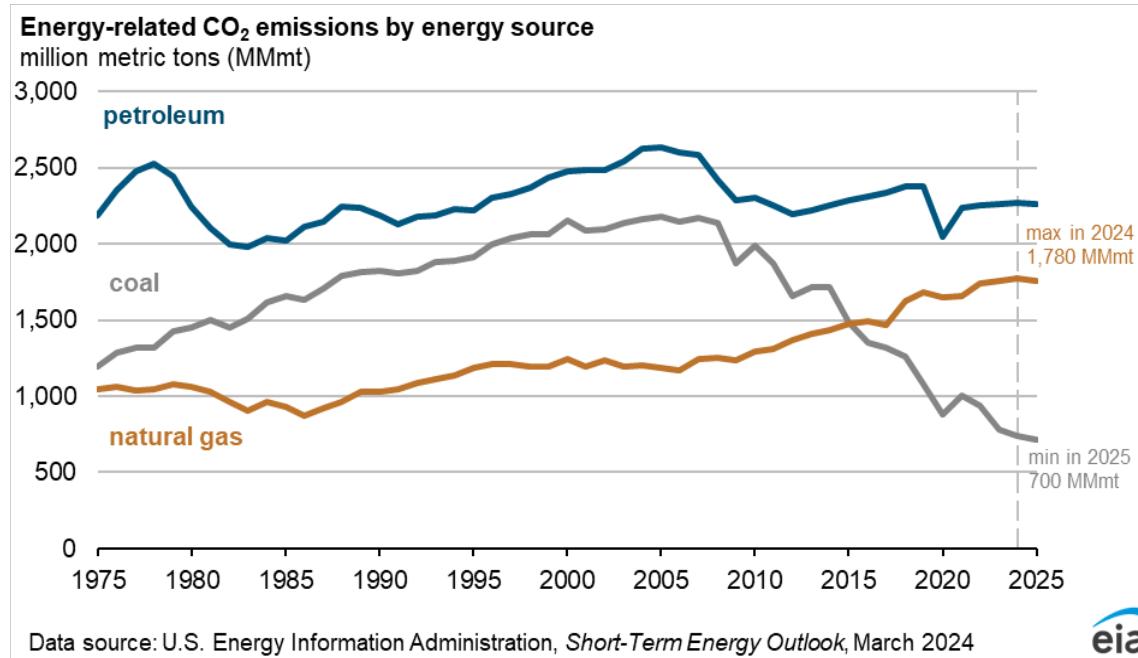
The outlooks for inflation and unemployment in the United States are mostly unchanged from last month. Inflation, measured as the year-over-year growth rate of the Consumer Price Index (CPI), declined from a peak of 9.0% in June 2022 to 3.1% in January 2024. Our forecast assumes that CPI inflation will continue to decline, falling to around 2.0% by 3Q24. Our forecast assumes the unemployment rate will remain flat at around 4.0%, through 4Q25.

Emissions

Total U.S. energy-related carbon dioxide (CO₂) emissions in our forecast remain mostly unchanged in 2024 as decreased CO₂ emissions from coal offset increased CO₂ emissions from natural gas. Forecast coal-related CO₂ emissions decline by 6% as a result of decreasing coal-fired electricity generation.

Natural gas-related CO₂ emissions increase by 1% due to increasing natural gas-fired electricity generation and from higher consumption in the residential and commercial sectors. We expect CO₂ emissions to decrease by 1% in 2025 as coal- and natural gas-fired generation declines, offset by growth in renewable generation.

Although total energy-related CO₂ emissions are not expected to change much over the forecast horizon, some notable trends in CO₂ emissions exist by fuel. In particular, we forecast that U.S. CO₂ emissions from natural gas will reach an all-time high in 2024, and emissions from coal in 2024 and 2025 will be the least since [EIA's data begin in 1973](#). These record emissions are consistent with trend of a steady rise in natural gas-related emissions and the steady fall of coal-related emissions, ongoing since 2008. Coal-fired power generation has decreased for several reasons, including as the [growth in renewable generation](#) and [notable growth in hydraulic fracturing in the early 2000s](#), which reduced prices for natural gas and increased natural gas-fired generation.



Weather

We expect to end the relatively mild winter season (November 2023–March 2024) with almost 130 fewer HDDs than the previous winter season and more than 260 HDDs fewer than the 10-year winter average. Milder weather in February offset the cold front experienced across the United States in mid-January. Despite this winter's HDDs falling 8% below the 10-year winter average, overall, we expect almost 4,000 HDDs in 2024, 4% more than in 2023. We expect a warmer summer in 2024, with 7% more CDDs than last year during the second and third quarters.

Short-Term Energy Outlook Chart Gallery

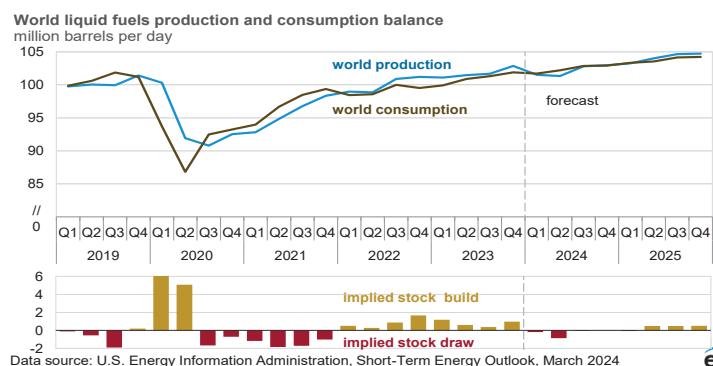
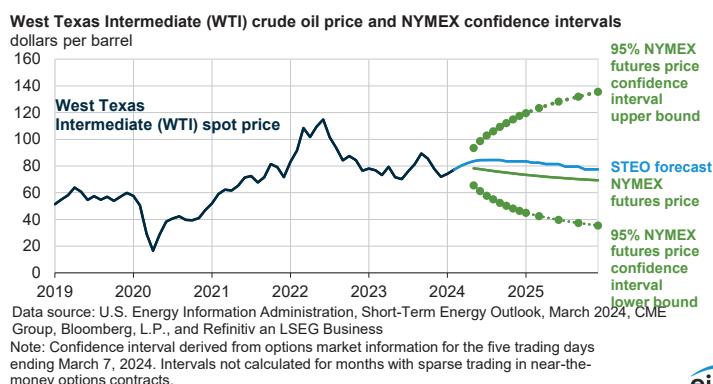


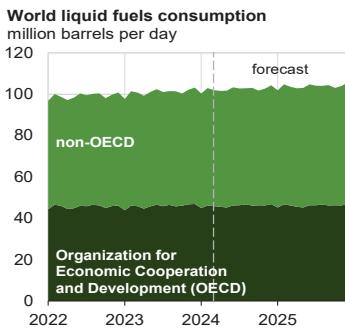
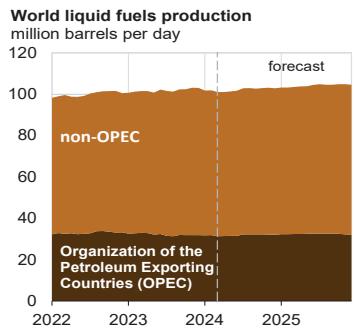
March 12, 2024



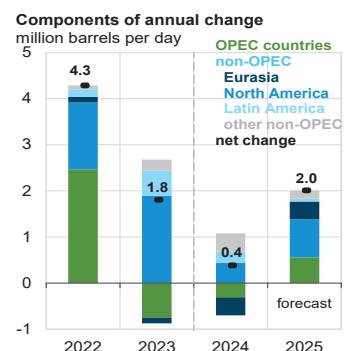
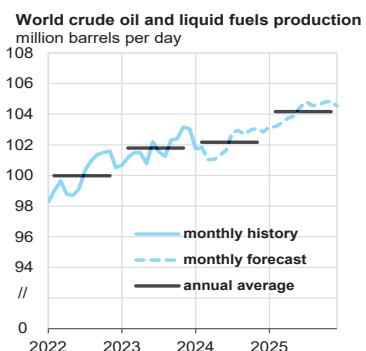
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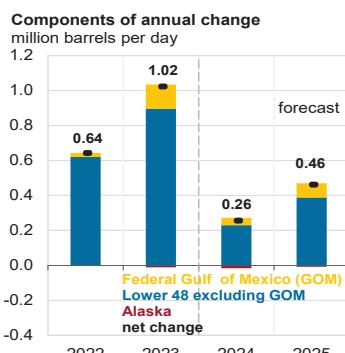
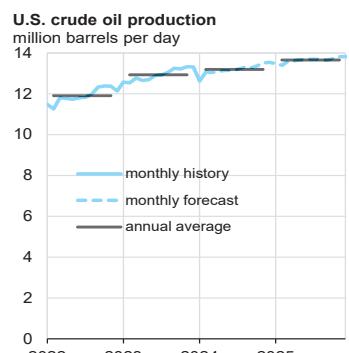




Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2024



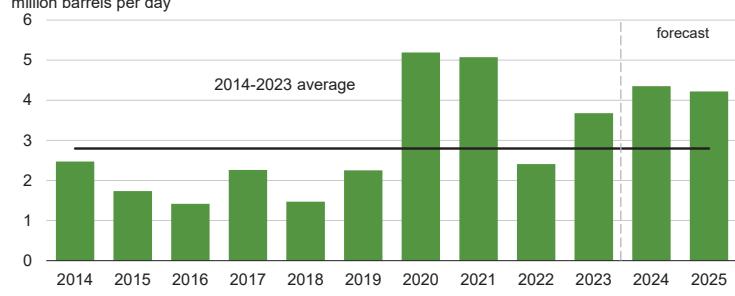
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2024



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



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

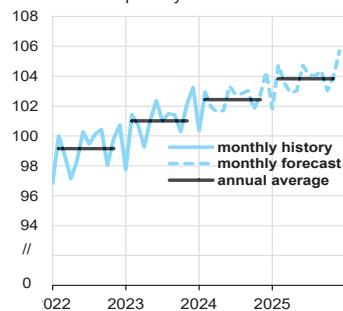


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2024

Note: Black line represents 2014-2023 average (2.8 million barrels per day).

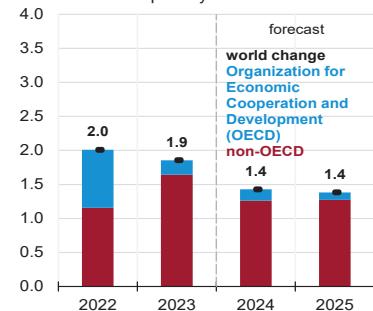


World liquid fuels consumption
million barrels per day

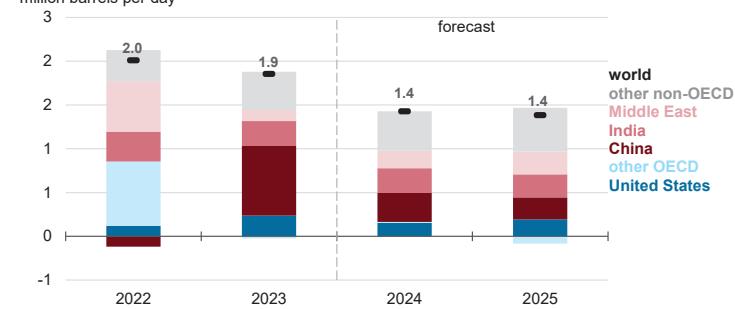


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2024

Components of annual change
million barrels per day



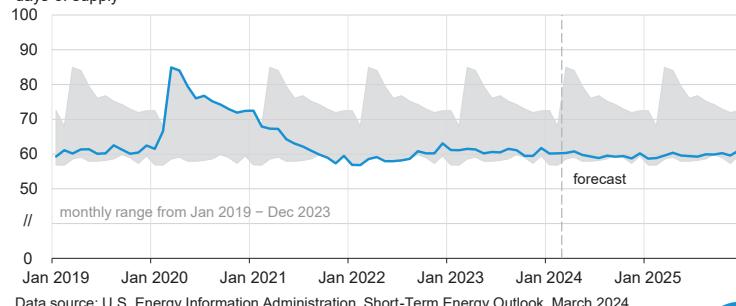
Annual change in world liquid fuels consumption
million barrels per day



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

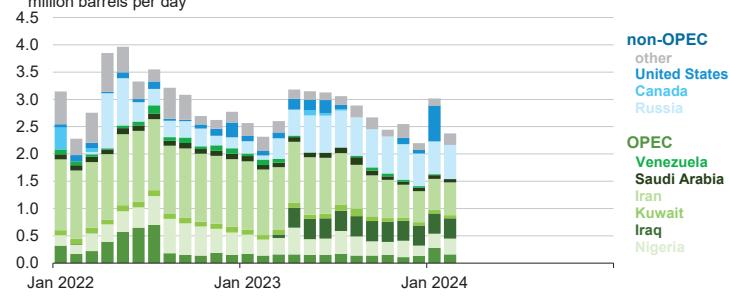


Organization for Economic Cooperation and Development (OECD)
commercial inventories of crude oil and other liquids
days of supply



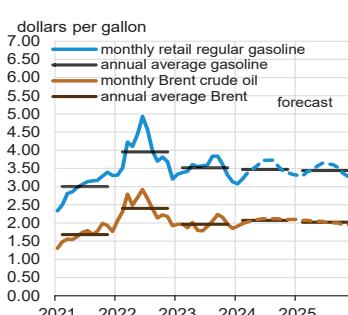
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Estimated unplanned liquid fuels production outages among OPEC and non-OPEC producers
million barrels per day

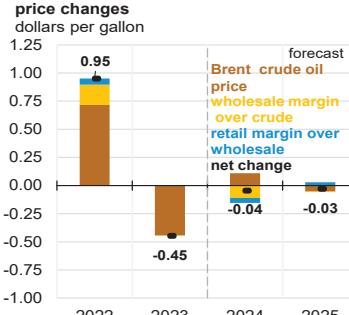


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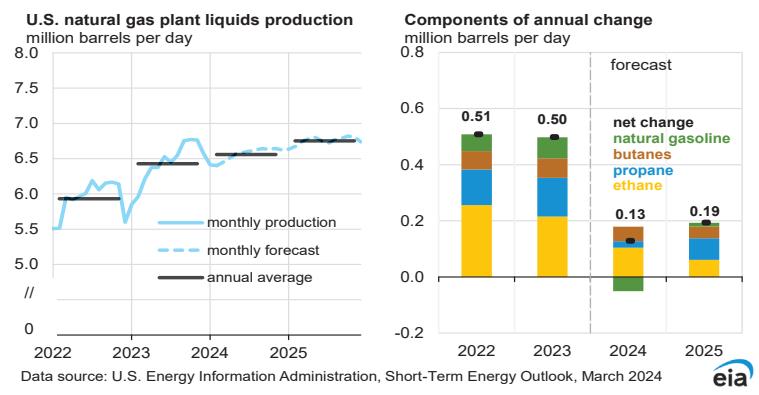
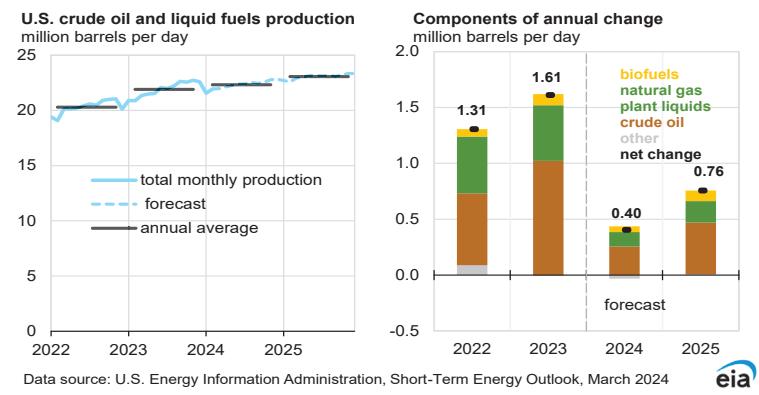
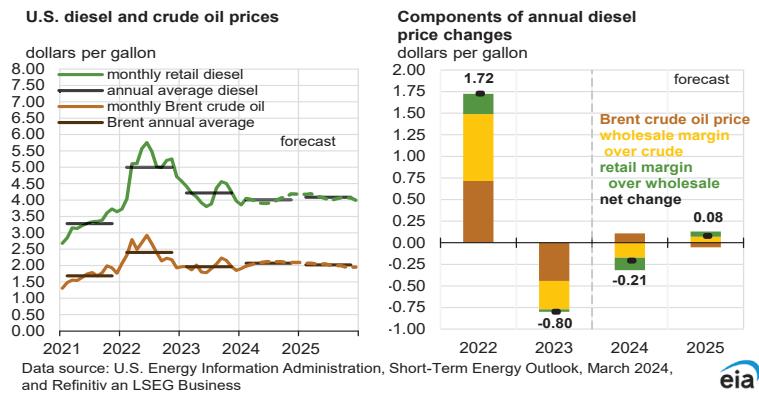
U.S. gasoline and crude oil prices

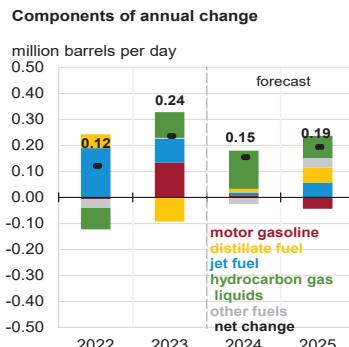
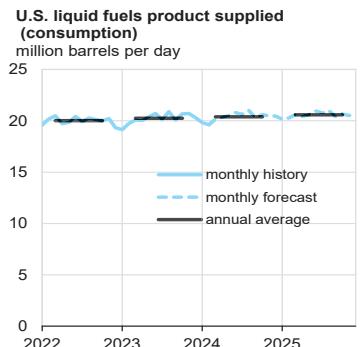


Components of annual gasoline price changes



eia

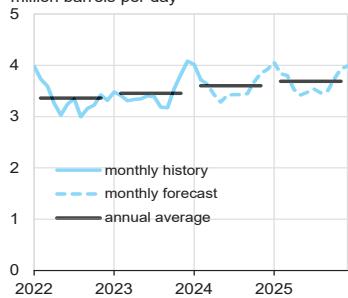




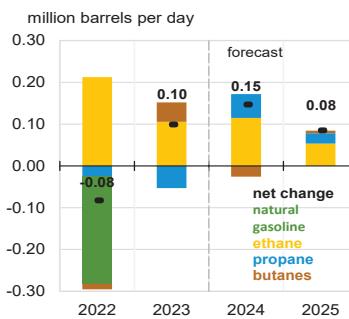
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2024



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



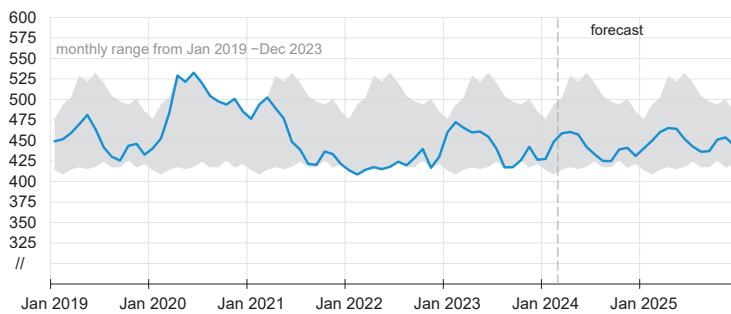
Components of annual change



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

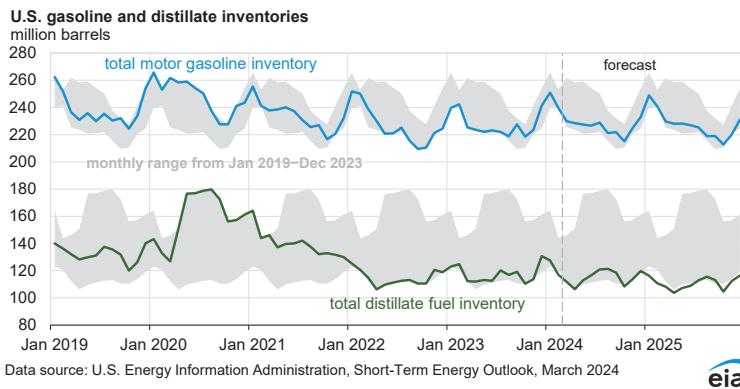


U.S. commercial crude oil inventories
million barrels

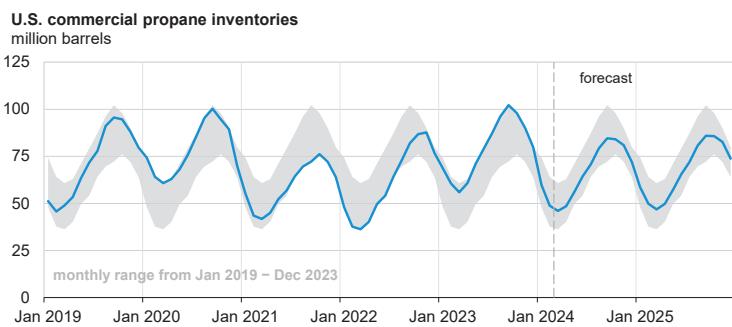


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2024

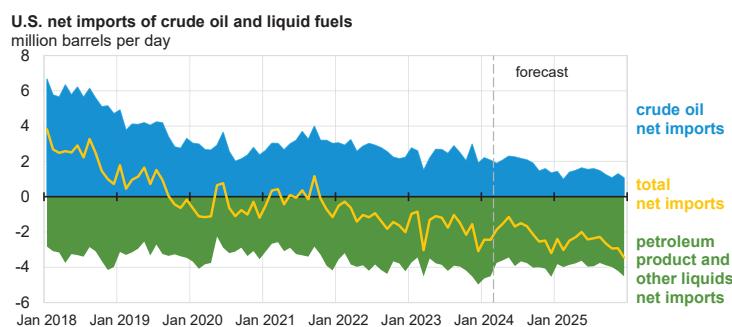




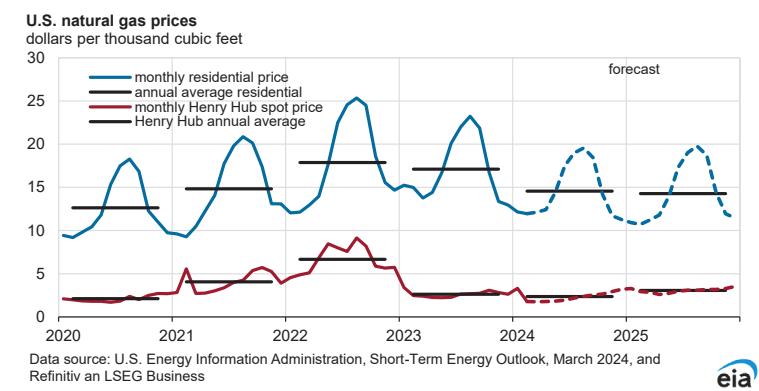
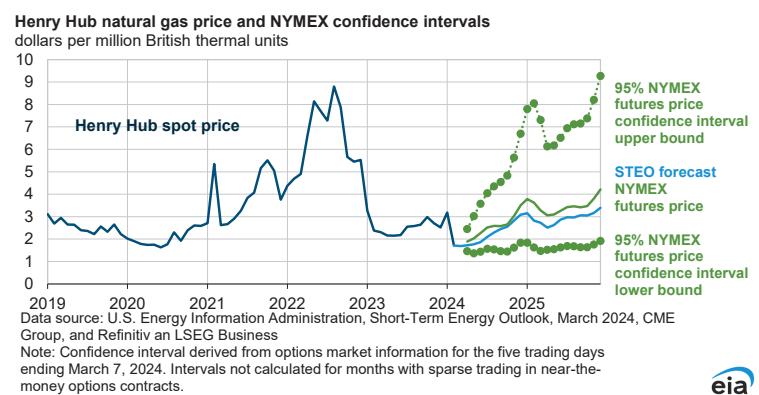
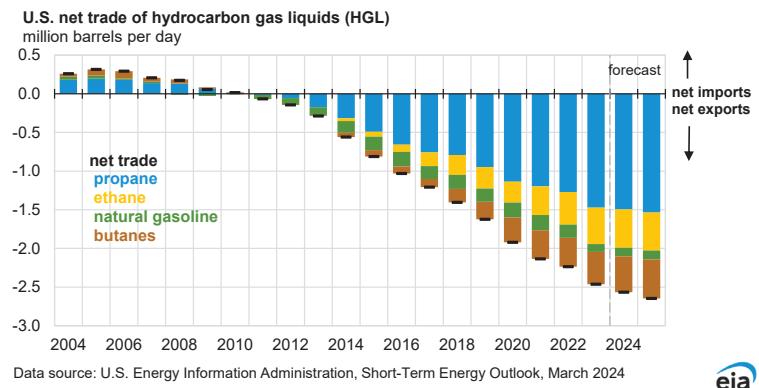
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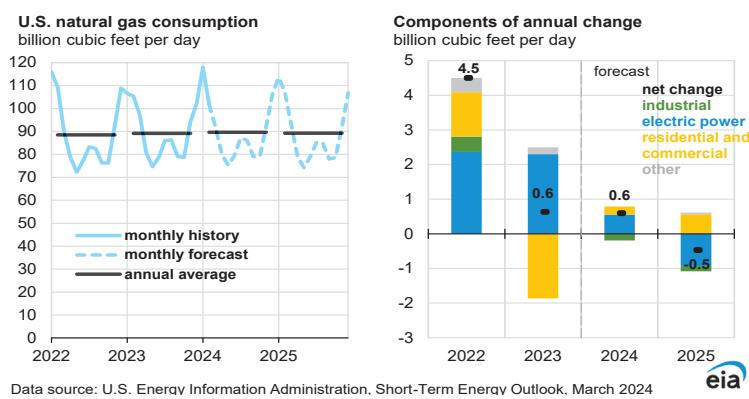
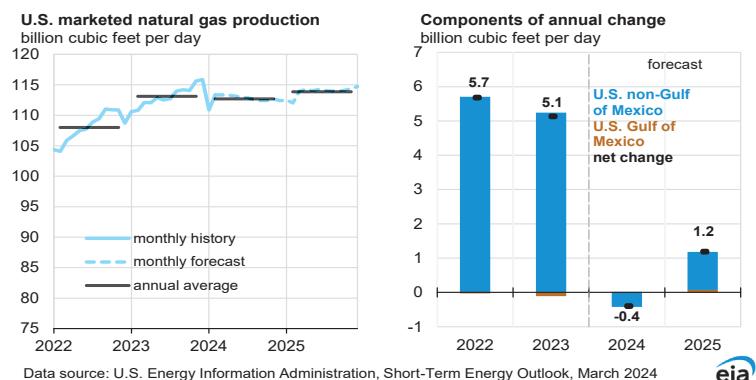
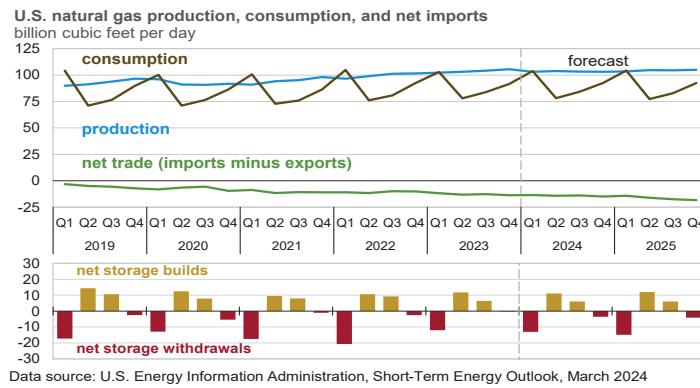


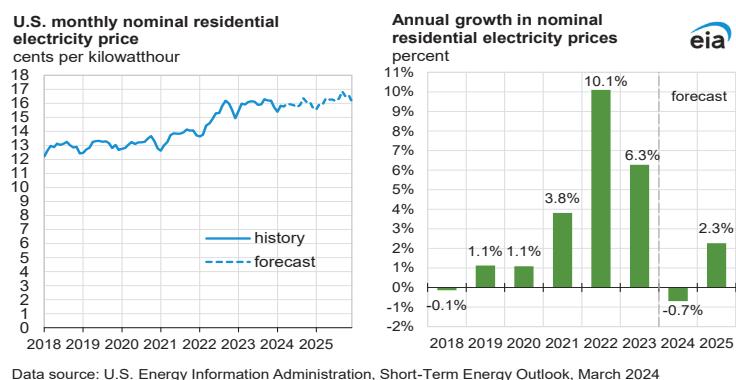
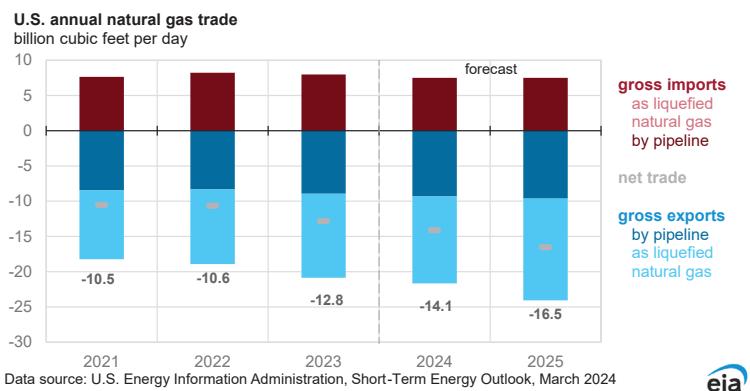
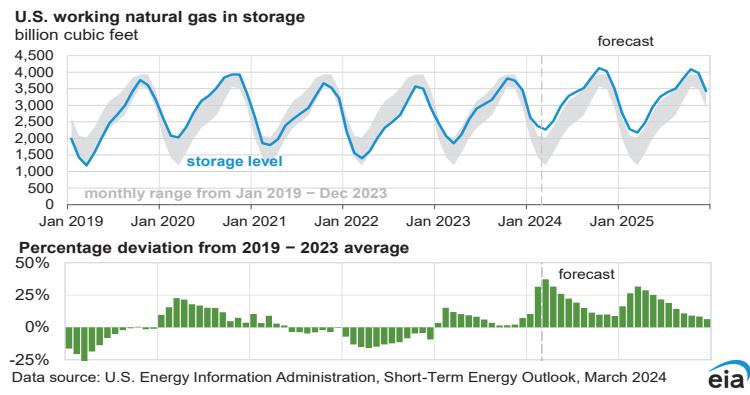
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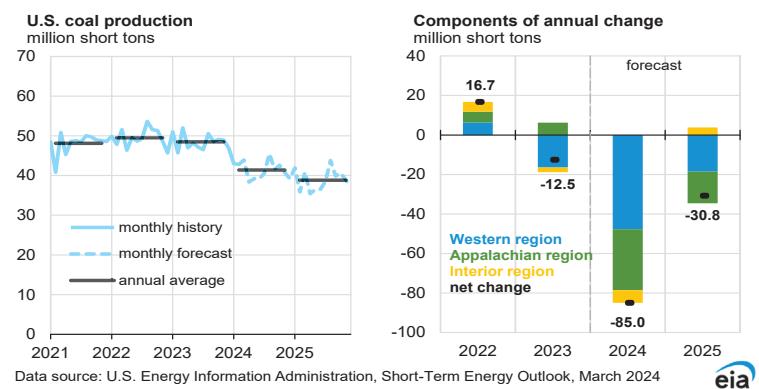
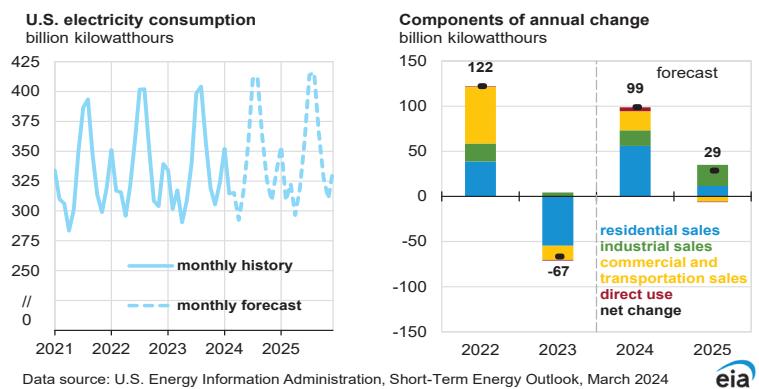
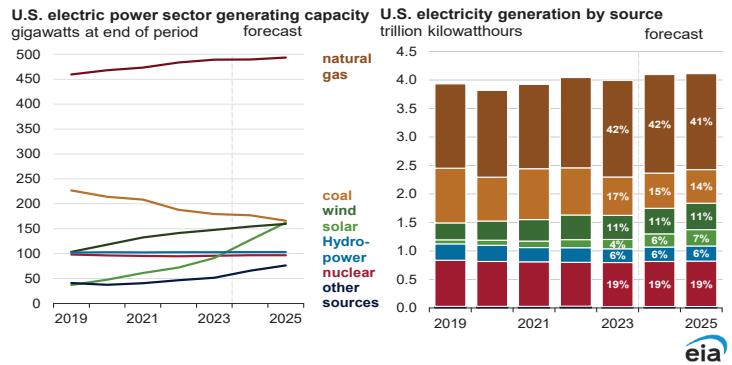


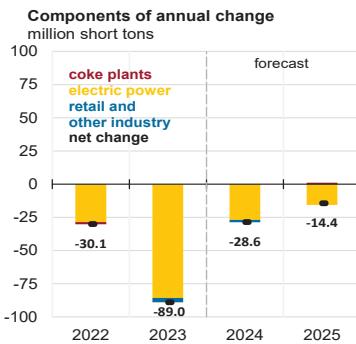
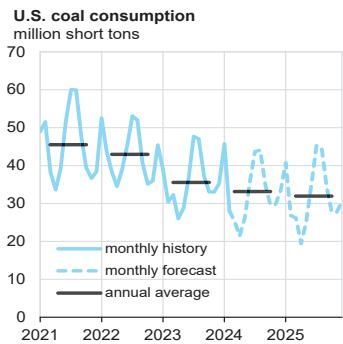
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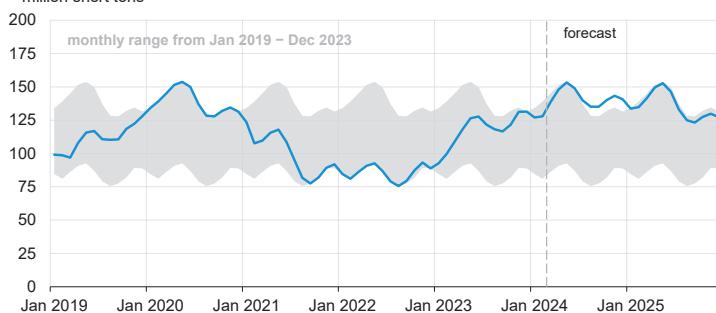




Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2024



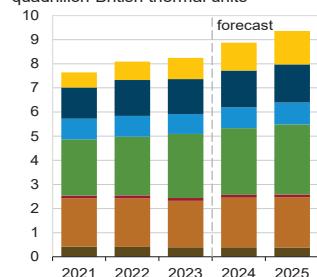
U.S. electric power coal inventories
million short tons



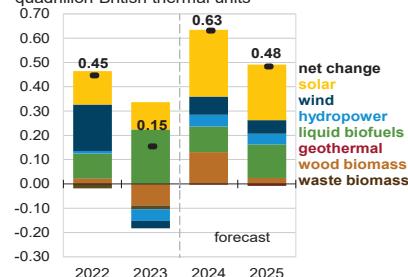
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2024



U.S. renewable energy supply
quadrillion British thermal units



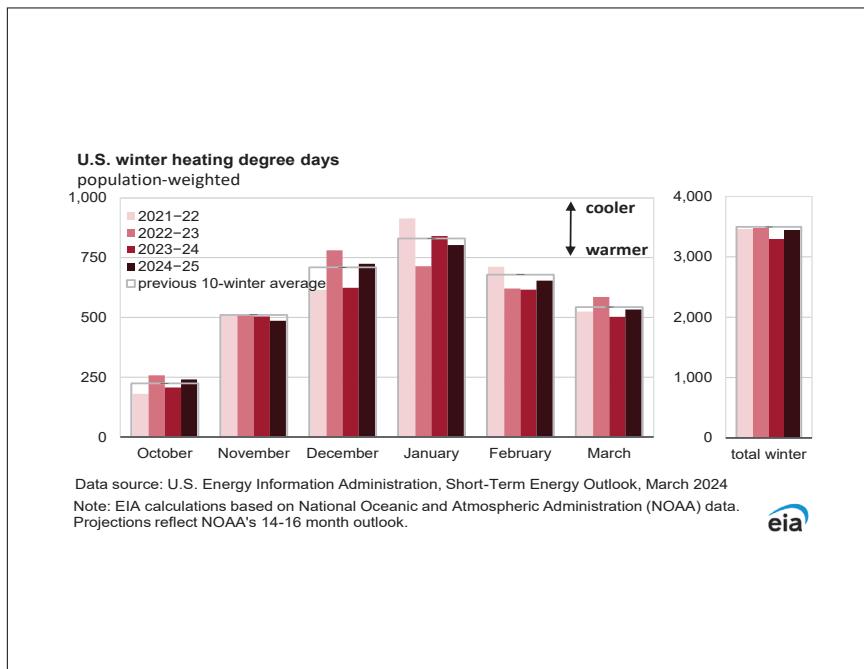
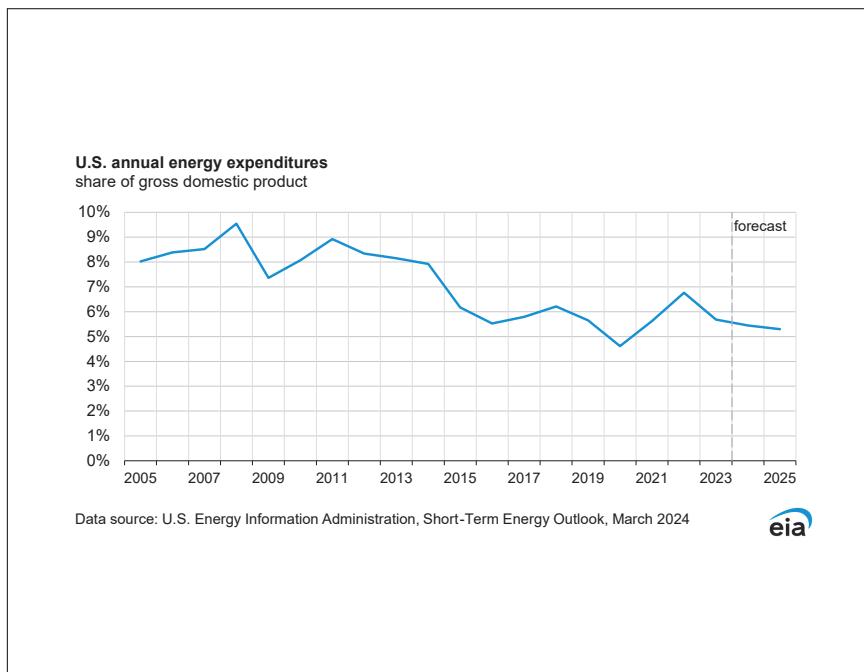
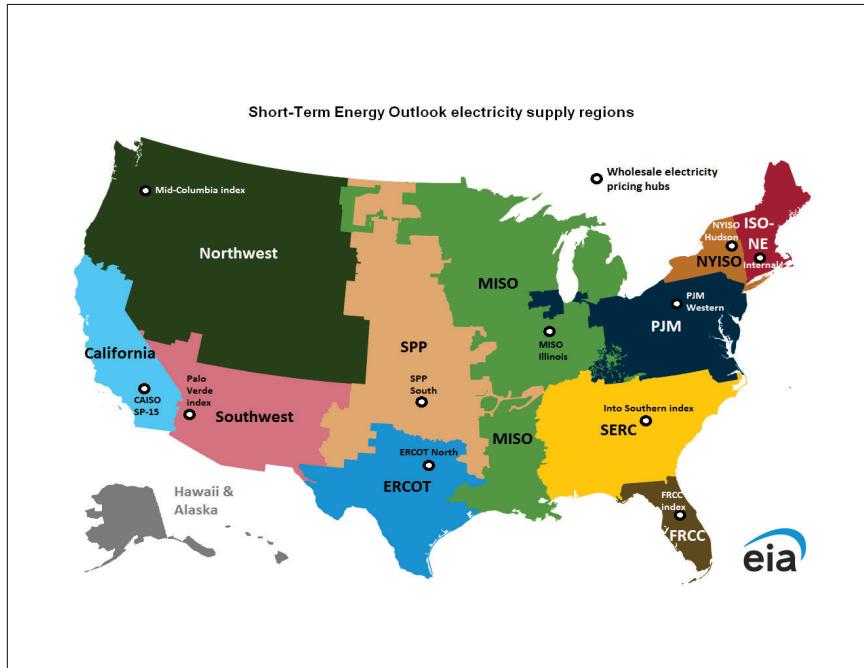
Components of annual change
quadrillion British thermal units



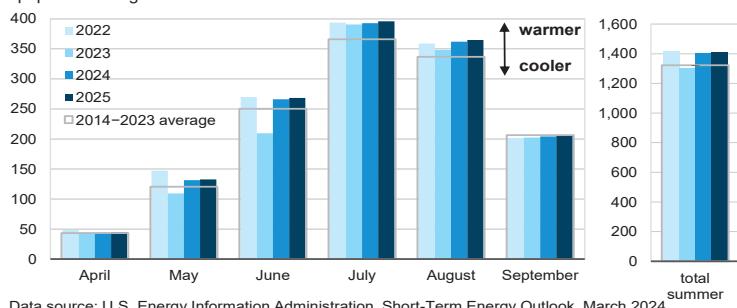
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2024

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.





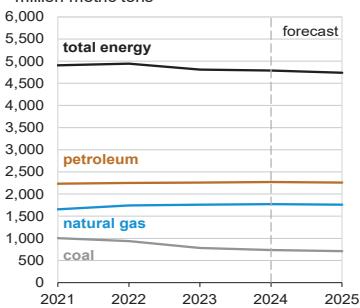
U.S. summer cooling degree days
population-weighted



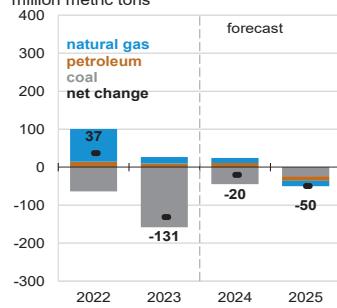
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, March 2024
Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data.
Projections reflect NOAA's 14-16 month outlook.

eria

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, March 2024

eria

Table 1. U.S. Energy Markets Summary

U.S. Energy Information Administration | Short-Term Energy Outlook - March 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	13.28	12.91	13.13	13.25	13.47	13.49	13.66	13.68	13.78	12.93	13.19	13.65
Dry Natural Gas Production (billion cubic feet per day)	102.3	103.2	104.1	105.6	103.2	103.8	103.3	103.2	103.5	104.7	104.5	104.9	103.8	103.4	104.4
Coal Production (million short tons)	149	142	146	145	130	117	128	123	119	108	122	117	582	497	466
Energy Consumption															
Liquid Fuels (million barrels per day)	19.66	20.38	20.37	20.56	19.89	20.55	20.64	20.52	20.36	20.67	20.72	20.62	20.25	20.40	20.59
Natural Gas (billion cubic feet per day)	103.0	78.0	83.9	91.7	103.9	78.2	84.2	92.4	104.4	77.4	82.8	92.5	89.1	89.7	89.2
Coal (b) (million short tons)	102	91	132	101	99	83	123	93	94	79	124	86	427	398	383
Electricity (billion kilowatt hours per day)	10.59	10.32	12.62	10.30	10.79	10.60	12.89	10.51	10.95	10.71	12.99	10.57	10.96	11.20	11.31
Renewables (c) (quadrillion Btu)	2.05	2.10	2.05	2.05	2.16	2.28	2.23	2.20	2.28	2.43	2.36	2.29	8.24	8.87	9.36
Total Energy Consumption (d) (quadrillion Btu)	24.11	22.01	23.72	23.84	24.74	22.24	23.91	23.77	24.58	22.21	23.91	23.75	93.69	94.65	94.45
Energy Prices															
Crude Oil West Texas Intermediate Spot (dollars per barrel)	75.96	73.49	82.25	78.63	77.08	83.30	84.50	83.50	82.84	81.50	79.50	77.50	77.58	82.15	80.30
Natural Gas Henry Hub Spot (dollars per million Btu)	2.65	2.16	2.59	2.74	2.20	1.79	2.28	2.82	2.90	2.67	3.00	3.20	2.54	2.27	2.94
Coal (dollars per million Btu)	2.57	2.49	2.51	2.51	2.49	2.47	2.46	2.42	2.43	2.42	2.42	2.38	2.52	2.46	2.41
Macroeconomic															
Real Gross Domestic Product (billion chained 2017 dollars - SAAR)	22,112	22,225	22,491	22,673	22,788	22,889	22,998	23,109	23,196	23,291	23,386	23,482	22,375	22,946	23,339
Percent change from prior year	1.7	2.4	2.9	3.1	3.1	3.0	2.3	1.9	1.8	1.8	1.7	1.6	2.5	2.6	1.7
GDP Implicit Price Deflator (Index, 2017=100)	121.3	121.8	122.8	123.2	123.6	124.1	124.7	125.4	126.1	126.8	127.5	128.2	122.3	124.5	127.1
Percent change from prior year	5.3	3.5	3.2	2.6	2.0	1.9	1.6	1.7	2.0	2.1	2.2	2.2	3.6	1.8	2.2
Real Disposable Personal Income (billion chained 2017 dollars - SAAR)	16,663	16,797	16,809	16,915	17,065	17,214	17,367	17,493	17,623	17,753	17,885	18,007	16,796	17,285	17,817
Percent change from prior year	3.7	4.9	4.1	4.2	2.4	2.5	3.3	3.4	3.3	3.1	3.0	2.9	4.2	2.9	3.1
Manufacturing Production Index (Index, 2017=100)	99.9	100.2	100.0	99.5	99.5	100.1	100.6	101.1	101.4	101.8	102.1	102.5	99.9	100.3	101.9
Percent change from prior year	-0.2	-0.7	-0.9	-0.5	-0.4	-0.1	0.6	1.6	1.9	1.7	1.5	1.3	-0.6	0.4	1.6
Weather															
U.S. Heating Degree-Days	1,921	485	61	1,335	1,959	471	75	1,451	1,989	469	74	1,444	3,802	3,956	3,977
U.S. Cooling Degree-Days	68	363	941	105	38	442	959	105	51	445	966	106	1,477	1,543	1,568

(a) Includes lease condensate.

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

(c) Renewable energy includes minor components of non-marketed renewable energy that is neither bought nor sold, either directly or indirectly, as inputs to marketed energy.

EIA does not estimate or project end-use consumption of non-marketed renewable energy.

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

- = no data available

Notes: EIA completed modeling and analysis for this report on March 7, 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 - March 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Crude Oil (dollars per barrel)															
West Texas Intermediate Spot Average	75.96	73.49	82.25	78.63	77.08	83.30	84.50	83.50	82.84	81.50	79.50	77.50	77.58	82.15	80.30
Brent Spot Average	81.04	78.02	86.64	83.93	82.82	87.97	89.00	88.00	87.34	86.00	84.00	82.00	82.41	87.00	84.80
U.S. Imported Average	69.58	71.08	80.97	76.69	74.22	80.62	81.75	80.75	82.89	81.50	79.50	77.50	74.75	79.27	80.44
U.S. Refiner Average Acquisition Cost	74.44	73.99	82.38	79.91	76.61	82.86	84.00	83.00	82.85	81.50	79.50	77.50	77.77	81.69	80.31
U.S. Liquid Fuels (cents per gallon)															
Wholesale Petroleum Product Prices															
Gasoline	262	265	296	233	242	280	282	250	249	271	272	240	264	264	258
Diesel Fuel	295	245	308	285	268	267	279	292	289	276	276	273	283	277	279
Fuel Oil	279	231	292	274	263	252	261	281	284	267	266	265	271	267	274
Jet Fuel	305	233	291	272	265	266	270	285	288	274	273	268	275	272	276
No. 6 Residual Fuel Oil (a)	196	189	202	205	197	208	215	213	214	208	205	201	199	208	207
Propane															
Mont Belvieu Spot	82	68	68	67	89	97	97	96	94	94	92	89	71	95	92
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	338	358	376	336	323	360	368	339	334	356	359	328	352	348	345
Gasoline All Grades (b)	349	369	387	348	334	371	380	351	347	368	371	341	364	359	357
On-highway Diesel Fuel	439	394	428	426	397	392	399	415	418	408	403	404	421	401	408
Heating Oil	407	353	387	395	380	360	359	400	398	372	360	380	393	381	385
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	2.76	2.25	2.69	2.84	2.28	1.86	2.37	2.93	3.02	2.77	3.12	3.33	2.63	2.36	3.06
Henry Hub Spot (dollars per million Btu)	2.65	2.16	2.59	2.74	2.20	1.79	2.28	2.82	2.90	2.67	3.00	3.20	2.54	2.27	2.94
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	6.12	3.76	3.87	4.39	4.60	3.22	3.33	4.22	4.77	3.91	4.02	4.64	4.59	3.89	4.36
Commercial Sector	11.81	10.48	10.90	9.83	9.20	8.90	9.17	7.96	8.06	8.69	9.47	8.37	10.89	8.77	8.42
Residential Sector	14.72	16.19	22.33	13.72	12.08	14.03	18.96	11.88	10.94	13.54	19.14	12.10	15.19	12.83	12.29
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.57	2.49	2.51	2.51	2.49	2.47	2.46	2.42	2.43	2.42	2.42	2.38	2.52	2.46	2.41
Natural Gas	4.98	2.60	2.92	3.19	2.84	2.06	2.45	3.12	3.40	2.82	3.05	3.48	3.36	2.60	3.17
Residual Fuel Oil (c)	19.23	17.88	19.17	20.84	16.72	16.68	16.44	16.53	16.77	17.02	16.08	15.64	19.32	16.59	16.35
Distillate Fuel Oil	22.84	19.91	22.08	21.03	20.41	20.43	21.18	22.26	22.21	21.24	21.05	20.78	21.47	21.10	21.37
Prices to Ultimate Customers (cents per kilowatthour)															
Industrial Sector	8.06	7.74	8.55	7.83	7.94	7.70	8.40	7.91	8.10	7.78	8.55	8.03	8.05	8.00	8.12
Commercial Sector	12.64	12.45	13.18	12.63	12.39	12.22	13.16	12.71	12.54	12.59	13.63	13.07	12.74	12.64	12.99
Residential Sector	15.77	16.12	16.02	16.02	15.64	15.92	15.97	15.94	15.80	16.30	16.41	16.39	15.98	15.87	16.23

(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 March 7, 2024.

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

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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 - March 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Production (million barrels per day) (a)															
OECD	33.48	33.80	34.55	35.27	34.55	34.51	34.81	35.33	35.56	35.52	35.62	35.99	34.28	34.80	35.67
U.S. (50 States)	21.05	21.69	22.27	22.62	21.82	22.25	22.47	22.72	22.74	23.12	23.13	23.29	21.91	22.32	23.07
Canada	5.79	5.44	5.79	6.08	6.04	5.67	5.86	6.07	6.14	5.84	6.05	6.19	5.77	5.91	6.05
Mexico	2.07	2.16	2.11	2.09	2.05	2.02	2.00	1.97	1.97	1.95	1.93	1.90	2.11	2.01	1.94
Other OECD	4.56	4.51	4.39	4.48	4.64	4.57	4.48	4.58	4.71	4.61	4.51	4.62	4.49	4.57	4.61
Non-OECD	67.63	67.68	67.14	67.59	66.97	66.83	68.01	67.62	67.71	68.50	69.04	68.73	67.51	67.36	68.50
OPEC	32.77	32.46	31.63	31.88	31.65	31.46	32.24	32.13	32.33	32.50	32.58	32.30	32.18	31.87	32.43
Crude Oil Portion	27.38	27.23	26.37	26.58	26.25	26.19	26.95	26.79	27.05	27.22	27.30	27.02	26.89	26.55	27.15
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	5.29	5.32	5.28
Eurasia	14.11	13.65	13.42	13.70	13.58	13.20	13.22	13.38	13.56	13.71	13.72	13.90	13.72	13.35	13.72
China	5.32	5.32	5.19	5.23	5.29	5.32	5.31	5.35	5.32	5.35	5.34	5.38	5.26	5.32	5.35
Other Non-OECD	15.43	16.26	16.90	16.79	16.45	16.85	17.24	16.76	16.49	16.94	17.40	17.15	16.35	16.83	17.00
Total World Production	101.11	101.48	101.69	102.86	101.52	101.35	102.82	102.96	103.27	104.02	104.65	104.72	101.79	102.17	104.17
Non-OPEC Production	68.33	69.02	70.06	70.98	69.87	69.89	70.58	70.83	70.94	71.52	72.07	72.42	69.61	70.30	71.74
Consumption (million barrels per day) (c)															
OECD	45.22	45.67	46.02	46.56	45.65	45.66	46.38	46.46	46.02	45.69	46.38	46.48	45.87	46.04	46.15
U.S. (50 States)	19.66	20.38	20.37	20.56	19.89	20.55	20.64	20.52	20.36	20.67	20.72	20.62	20.25	20.40	20.59
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	2.63	2.38	2.37	2.32	2.42	2.40	2.34	2.29	2.39	2.37	2.45	2.38	2.35
Europe	13.09	13.54	13.62	13.55	13.22	13.37	13.78	13.54	13.20	13.35	13.76	13.52	13.45	13.48	13.46
Japan	3.73	3.10	3.10	3.47	3.60	2.99	3.09	3.42	3.55	2.95	3.05	3.37	3.35	3.27	3.23
Other OECD	6.29	6.06	6.19	6.49	6.45	6.31	6.33	6.47	6.47	6.32	6.35	6.48	6.26	6.39	6.41
Non-OECD	54.70	55.21	55.29	55.32	56.05	56.55	56.50	56.47	57.31	57.84	57.78	57.74	55.13	56.40	57.67
Eurasia	4.34	4.49	4.82	4.72	4.48	4.64	4.97	4.87	4.51	4.67	5.00	4.90	4.60	4.74	4.77
Europe	0.74	0.76	0.77	0.77	0.75	0.77	0.77	0.77	0.75	0.77	0.78	0.78	0.76	0.76	0.77
China	15.91	16.10	15.78	15.99	16.24	16.43	16.11	16.32	16.49	16.68	16.36	16.57	15.94	16.27	16.52
Other Asia	14.36	14.23	13.70	14.07	14.82	14.79	14.18	14.50	15.31	15.28	14.65	14.99	14.09	14.57	15.05
Other Non-OECD	19.35	19.63	20.23	19.77	19.77	19.93	20.47	20.00	20.25	20.44	21.00	20.50	19.75	20.05	20.55
Total World Consumption	99.92	100.88	101.31	101.88	101.70	102.21	102.88	102.93	103.33	103.54	104.16	104.22	101.00	102.43	103.81
Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)															
U.S. (50 States)	-0.08	-0.11	-0.25	0.30	0.20	-0.41	-0.21	0.37	0.06	-0.36	-0.10	0.29	-0.03	-0.01	-0.03
Other OECD	0.32	-0.02	-0.15	0.07	0.00	0.39	0.08	-0.13	0.00	-0.04	-0.12	-0.25	0.05	0.08	-0.10
Other Stock Draws and Balance	-1.43	-0.47	0.02	-1.35	-0.02	0.89	0.18	-0.28	0.00	-0.08	-0.27	-0.55	-0.80	0.19	-0.23
Total Stock Draw	-1.19	-0.59	-0.38	-0.98	0.18	0.87	0.05	-0.03	0.06	-0.49	-0.49	-0.50	-0.78	0.27	-0.36
End-of-period Commercial Crude Oil and Other Liquids Inventories (million barrels)															
U.S. Commercial Inventory	1,231	1,264	1,283	1,252	1,225	1,253	1,263	1,228	1,223	1,256	1,265	1,238	1,252	1,228	1,238
OECD Commercial Inventory	2,746	2,782	2,815	2,777	2,750	2,742	2,745	2,722	2,716	2,753	2,773	2,769	2,777	2,722	2,769

(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, Turkiye, 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 March 7, 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 - March 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	30.79	29.91	29.94	30.33	30.76	30.85	30.90	31.10	31.38	29.79	30.24	31.06
Canada	5.79	5.44	5.79	6.08	6.04	5.67	5.86	6.07	6.14	5.84	6.05	6.19	5.77	5.91	6.05
Mexico	2.07	2.16	2.11	2.09	2.05	2.02	2.00	1.97	1.97	1.95	1.93	1.90	2.11	2.01	1.94
United States	21.05	21.69	22.27	22.62	21.82	22.25	22.47	22.72	22.74	23.12	23.13	23.29	21.91	22.32	23.07
Central and South America	6.31	6.99	7.62	7.40	7.21	7.64	7.97	7.50	7.21	7.65	8.06	7.79	7.09	7.58	7.68
Argentina	0.81	0.81	0.82	0.84	0.87	0.87	0.89	0.91	0.90	0.91	0.92	0.95	0.82	0.88	0.92
Brazil	3.55	4.19	4.82	4.49	4.10	4.53	4.86	4.41	4.15	4.59	4.91	4.50	4.27	4.48	4.54
Colombia	0.79	0.81	0.81	0.81	0.80	0.80	0.79	0.78	0.78	0.77	0.76	0.75	0.81	0.79	0.76
Ecuador	0.46	0.48	0.48	0.49	0.49	0.50	0.49	0.46	0.44	0.44	0.44	0.44	0.48	0.48	0.44
Guyana	0.35	0.37	0.36	0.44	0.63	0.63	0.63	0.63	0.63	0.63	0.72	0.84	0.38	0.63	0.70
Europe	4.01	3.95	3.84	3.94	4.09	4.02	3.94	4.04	4.17	4.08	3.98	4.09	3.94	4.02	4.08
Norway	2.03	2.03	1.98	2.06	2.08	2.01	2.01	2.15	2.18	2.11	2.10	2.19	2.02	2.06	2.14
United Kingdom	0.87	0.80	0.75	0.76	0.90	0.89	0.79	0.74	0.86	0.85	0.75	0.77	0.79	0.83	0.81
Eurasia	14.11	13.65	13.42	13.70	13.58	13.20	13.22	13.38	13.56	13.71	13.72	13.90	13.72	13.35	13.72
Azerbaijan	0.65	0.62	0.62	0.61	0.60	0.59	0.60	0.61	0.62	0.63	0.65	0.65	0.62	0.60	0.64
Kazakhstan	2.02	1.97	1.85	1.99	1.94	1.94	1.93	1.99	2.05	2.08	1.98	2.16	1.96	1.95	2.07
Russia	11.06	10.68	10.58	10.70	10.64	10.27	10.29	10.39	10.50	10.60	10.70	10.70	10.75	10.40	10.63
Turkmenistan	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27
Middle East	3.22	3.26	3.23	3.21	3.14	3.14	3.21	3.21	3.24	3.26	3.31	3.35	3.23	3.17	3.29
Oman	1.07	1.06	1.05	1.05	1.00	0.99	1.03	1.03	1.07	1.07	1.07	1.07	1.06	1.01	1.07
Qatar	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.88	1.93	1.97	1.86	1.86	1.91
Asia and Oceania	9.21	9.24	9.12	9.25	9.38	9.38	9.38	9.41	9.43	9.45	9.45	9.49	9.20	9.39	9.46
Australia	0.41	0.41	0.40	0.41	0.41	0.40	0.40	0.39	0.38	0.38	0.37	0.37	0.41	0.40	0.38
China	5.32	5.32	5.19	5.23	5.29	5.32	5.31	5.35	5.32	5.35	5.34	5.38	5.26	5.32	5.35
India	0.85	0.88	0.92	0.94	0.97	0.97	0.96	0.96	0.99	0.99	0.98	0.98	0.90	0.96	0.98
Indonesia	0.82	0.88	0.87	0.87	0.89	0.88	0.88	0.87	0.88	0.88	0.88	0.87	0.86	0.88	0.88
Malaysia	0.61	0.58	0.58	0.60	0.59	0.59	0.58	0.58	0.58	0.58	0.59	0.59	0.59	0.58	0.59
Africa	2.55	2.64	2.67	2.70	2.57	2.55	2.54	2.53	2.47	2.46	2.45	2.43	2.64	2.55	2.45
Angola	1.17	1.23	1.23	1.24	1.20	1.14	1.12	1.10	1.08	1.07	1.06	1.04	1.22	1.14	1.07
Egypt	0.66	0.67	0.67	0.66	0.62	0.62	0.62	0.62	0.57	0.57	0.57	0.57	0.67	0.62	0.57
South Sudan	0.13	0.13	0.16	0.17	0.13	0.16	0.15	0.15	0.15	0.15	0.14	0.14	0.15	0.15	0.14
Total non-OPEC liquids	68.33	69.02	70.06	70.98	69.87	69.89	70.58	70.83	70.94	71.52	72.07	72.42	69.61	70.30	71.74
OPEC non-crude liquids	5.40	5.22	5.26	5.30	5.40	5.27	5.30	5.33	5.28	5.28	5.28	5.28	5.29	5.32	5.28
Non-OPEC + OPEC non-crude	73.73	74.24	75.32	76.28	75.27	75.15	75.87	76.16	76.22	76.80	77.36	77.70	74.90	75.62	77.02
Unplanned non-OPEC Production Outages	0.56	1.02	0.92	0.87	-	-	-	-	-	-	-	-	0.84	-	-

- = no data available

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

Notes: EIA completed modeling and analysis for this report on March 7, 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 - March 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	0.05	-	-	-	-	-	-	-	-	0.06	-	-
Gabon	0.20	0.21	0.20	0.21	-	-	-	-	-	-	-	-	0.20	-	-
Iran	2.60	2.74	2.97	3.18	-	-	-	-	-	-	-	-	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	8.93	-	-	-	-	-	-	-	-	9.53	-	-
United Arab Emirates	3.06	2.94	2.91	2.90	-	-	-	-	-	-	-	-	2.95	-	-
Venezuela	0.70	0.75	0.76	0.75	-	-	-	-	-	-	-	-	0.74	-	-
OPEC Total	27.38	27.23	26.37	26.58	26.25	26.19	26.95	26.79	27.05	27.22	27.30	27.02	26.89	26.55	27.15
Other Liquids (a)	5.40	5.22	5.26	5.30	5.40	5.27	5.30	5.33	5.28	5.28	5.28	5.28	5.29	5.32	5.28
Total OPEC Production	32.77	32.46	31.63	31.88	31.65	31.46	32.24	32.13	32.33	32.50	32.58	32.30	32.18	31.87	32.43
OPEC+ Crude Oil Production	38.20	37.50	36.25	36.34	35.78	35.51	36.28	36.21	36.65	36.96	37.05	36.91	37.07	35.95	36.89
Crude Oil Production Capacity															
Middle East	25.88	25.67	25.90	26.11	26.18	26.06	26.14	26.45	26.70	26.70	26.70	26.70	25.89	26.21	26.70
Other	4.63	4.64	4.67	4.78	4.67	4.68	4.70	4.72	4.68	4.67	4.66	4.66	4.68	4.69	4.67
OPEC Total	30.50	30.31	30.56	30.89	30.85	30.74	30.84	31.17	31.38	31.37	31.36	31.36	30.57	30.90	31.37
Surplus Crude Oil Production Capacity															
Middle East	3.10	3.02	4.11	4.23	4.49	4.43	3.83	4.32	4.27	4.08	4.00	4.27	3.62	4.27	4.15
Other	0.02	0.05	0.08	0.07	0.11	0.11	0.06	0.06	0.06	0.06	0.07	0.07	0.06	0.08	0.07
OPEC Total	3.13	3.07	4.19	4.31	4.60	4.55	3.89	4.38	4.33	4.15	4.07	4.34	3.68	4.35	4.22
Unplanned OPEC Production Outages	1.94	2.13	1.95	1.53	-	-	-	-	-	-	-	-	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 March 7, 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 - March 2024

	2023				2024				2025						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
North America	23.83	24.70	24.87	24.89	24.18	24.82	25.01	24.88	24.62	24.90	25.06	24.95	24.58	24.72	24.88
Canada	2.33	2.47	2.63	2.38	2.37	2.32	2.42	2.40	2.34	2.29	2.39	2.37	2.45	2.38	2.35
Mexico	1.83	1.84	1.86	1.94	1.91	1.94	1.93	1.95	1.91	1.94	1.93	1.95	1.87	1.93	1.93
United States	19.66	20.38	20.37	20.56	19.89	20.55	20.64	20.52	20.36	20.67	20.72	20.62	20.25	20.40	20.59
Central and South America	6.41	6.55	6.66	6.59	6.43	6.58	6.68	6.61	6.57	6.72	6.82	6.75	6.55	6.58	6.71
Brazil	2.98	3.04	3.11	3.10	2.99	3.04	3.12	3.10	3.06	3.12	3.19	3.18	3.06	3.06	3.14
Europe	13.83	14.30	14.38	14.32	13.97	14.14	14.55	14.32	13.95	14.13	14.54	14.30	14.21	14.25	14.23
Eurasia	4.34	4.49	4.82	4.72	4.48	4.64	4.97	4.87	4.51	4.67	5.00	4.90	4.60	4.74	4.77
Russia	3.31	3.40	3.70	3.55	3.42	3.51	3.81	3.66	3.42	3.52	3.82	3.67	3.49	3.60	3.61
Middle East	9.12	9.23	9.81	9.24	9.43	9.43	9.96	9.37	9.68	9.69	10.24	9.63	9.35	9.55	9.81
Asia and Oceania	37.86	37.08	36.33	37.51	38.60	37.98	37.17	38.17	39.30	38.70	37.85	38.87	37.19	37.98	38.68
China	15.91	16.10	15.78	15.99	16.24	16.43	16.11	16.32	16.49	16.68	16.36	16.57	15.94	16.27	16.52
Japan	3.73	3.10	3.10	3.47	3.60	2.99	3.09	3.42	3.55	2.95	3.05	3.37	3.35	3.27	3.23
India	5.38	5.35	5.05	5.44	5.64	5.71	5.33	5.67	5.91	5.98	5.59	5.94	5.31	5.59	5.85
Africa	4.52	4.53	4.45	4.61	4.61	4.62	4.54	4.70	4.71	4.73	4.65	4.81	4.53	4.62	4.73
Total OECD Liquid Fuels Consumption	45.22	45.67	46.02	46.56	45.65	45.66	46.38	46.46	46.02	45.69	46.38	46.48	45.87	46.04	46.15
Total non-OECD Liquid Fuels Consumption	54.70	55.21	55.29	55.32	56.05	56.55	56.50	56.47	57.31	57.84	57.78	57.74	55.13	56.40	57.67
Total World Liquid Fuels Consumption	99.92	100.88	101.31	101.88	101.70	102.21	102.88	102.93	103.33	103.54	104.16	104.22	101.00	102.43	103.81
Real Gross Domestic Product (a)															
World Index, 2015 Q1 = 100	125.7	126.8	127.7	128.5	129.2	130.2	131.1	132.2	133.1	134.2	135.2	136.4	127.2	130.7	134.7
Percent change from prior year	2.7	3.6	3.1	3.0	2.8	2.7	2.7	2.9	3.0	3.1	3.1	3.2	3.1	2.8	3.1
OECD Index, 2015 = 100													115.9	117.5	119.6
Percent change from prior year													1.7	1.4	1.7
Non-OECD Index, 2015 = 100													134.6	139.8	145.6
Percent change from prior year													4.3	3.9	4.2
Nominal U.S. Dollar Index (b)															
Index, 2015 Q1 = 100	114.1	113.4	114.0	115.6	114.6	115.9	116.0	115.7	115.3	114.6	113.8	113.1	114.3	115.5	114.2
Percent change from prior year	4.2	0.5	-2.7	-2.4	0.4	2.1	1.7	0.1	0.5	-1.1	-1.9	-2.3	-0.2	1.1	-1.2

(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, Turkiye, United Kingdom, and United States.

Notes: EIA completed modeling and analysis for this report on March 7, 2024.

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

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

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

Forecasts: EIA Short-Term Integrated Forecasting System.

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

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

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Supply (million barrels per day)															
Crude Oil Supply															
Domestic Production (a)	12.63	12.75	13.07	13.28	12.91	13.13	13.25	13.47	13.49	13.66	13.68	13.78	12.93	13.19	13.65
Alaska	0.44	0.43	0.40	0.43	0.43	0.41	0.39	0.41	0.43	0.40	0.38	0.40	0.43	0.41	0.40
Federal Gulf of Mexico (b)	1.87	1.77	1.94	1.89	1.85	1.93	1.91	1.95	1.99	2.02	1.96	2.00	1.87	1.91	1.99
Lower 48 States (excl GOM)	10.31	10.55	10.73	10.96	10.63	10.79	10.95	11.11	11.07	11.24	11.34	11.38	10.64	10.87	11.26
Transfers to Crude Oil Supply	0.39	0.51	0.70	0.58	0.59	0.55	0.59	0.57	0.56	0.58	0.61	0.59	0.55	0.57	0.59
Crude Oil Net Imports (c)	2.27	2.51	2.61	2.29	2.05	2.21	2.04	1.46	1.27	1.55	1.44	1.14	2.42	1.94	1.35
SPR Net Withdrawals	0.01	0.26	-0.04	-0.04	-0.10	-0.10	-0.10	0.00	0.00	0.00	0.00	0.00	0.05	-0.08	0.00
Commercial Inventory Net Withdrawals	-0.39	0.12	0.41	-0.10	-0.36	0.18	0.19	-0.07	-0.32	0.09	0.16	-0.08	0.01	-0.01	-0.04
Crude Oil Adjustment (d)	0.34	0.00	-0.22	-0.09	0.11	0.18	0.15	0.17	0.17	0.15	0.12	0.14	0.01	0.15	0.15
Total Crude Oil Input to Refineries	15.25	16.15	16.51	15.93	15.20	16.15	16.12	15.59	15.17	16.04	16.00	15.57	15.96	15.77	15.70
Other Supply															
Refinery Processing Gain	0.97	1.01	1.07	1.05	0.96	1.00	1.03	1.03	0.96	1.02	1.04	1.03	1.03	1.00	1.01
Natural Gas Plant Liquids Production	6.01	6.42	6.58	6.70	6.42	6.56	6.62	6.63	6.68	6.78	6.76	6.79	6.43	6.56	6.75
Renewables and Oxygenate Production (e)	1.24	1.29	1.31	1.35	1.32	1.34	1.35	1.38	1.40	1.45	1.45	1.48	1.30	1.35	1.44
Fuel Ethanol Production	1.00	1.00	1.02	1.05	1.02	1.02	1.02	1.03	1.03	1.03	1.02	1.04	1.02	1.02	1.03
Petroleum Products Adjustment (f)	0.20	0.22	0.23	0.23	0.21	0.21	0.21	0.22	0.20	0.21	0.21	0.22	0.22	0.21	0.21
Petroleum Products Transfers to Crude Oil Supply	-0.39	-0.51	-0.70	-0.58	-0.59	-0.55	-0.59	-0.57	-0.56	-0.58	-0.61	-0.59	-0.55	-0.57	-0.59
Product Net Imports (c)	-3.91	-3.71	-4.03	-4.56	-4.29	-3.66	-3.81	-4.20	-3.89	-3.79	-3.86	-4.24	-4.06	-3.99	-3.94
Hydrocarbon Gas Liquids	-2.47	-2.39	-2.42	-2.58	-2.62	-2.60	-2.54	-2.51	-2.64	-2.74	-2.63	-2.58	-2.46	-2.57	-2.65
Unfinished Oils	0.28	0.27	0.22	0.18	0.38	0.43	0.45	0.36	0.33	0.43	0.47	0.38	0.24	0.40	0.40
Other HC/Oxygenates	-0.05	-0.07	-0.04	-0.05	-0.06	-0.06	-0.05	-0.05	-0.09	-0.08	-0.07	-0.08	-0.05	-0.05	-0.08
Motor Gasoline Blend Comp.	0.45	0.67	0.57	0.41	0.46	0.66	0.64	0.42	0.51	0.70	0.59	0.36	0.52	0.54	0.54
Finished Motor Gasoline	-0.75	-0.58	-0.67	-0.81	-0.77	-0.51	-0.57	-0.75	-0.68	-0.53	-0.56	-0.73	-0.70	-0.65	-0.63
Jet Fuel	-0.05	0.01	-0.05	-0.09	-0.11	0.05	0.01	-0.05	0.01	0.09	0.08	0.03	-0.05	-0.02	0.05
Distillate Fuel Oil	-0.76	-0.97	-1.01	-1.01	-1.01	-0.91	-0.86	-1.00	-0.90	-0.62	-0.89	-0.92	-0.85	-0.94	-0.92
Residual Fuel Oil	0.01	-0.04	-0.03	0.00	-0.06	-0.14	-0.12	-0.03	-0.06	-0.05	-0.11	-0.02	-0.01	-0.09	-0.06
Other Oils (g)	-0.58	-0.61	-0.59	-0.61	-0.62	-0.63	-0.64	-0.69	-0.65	-0.71	-0.70	-0.76	-0.60	-0.64	-0.71
Product Inventory Net Withdrawals	0.30	-0.49	-0.61	0.44	0.66	-0.50	-0.30	0.44	0.39	-0.46	-0.26	0.37	-0.09	0.08	0.01
Total Supply	19.67	20.38	20.37	20.56	19.89	20.55	20.64	20.52	20.36	20.67	20.72	20.62	20.25	20.40	20.59
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	3.40	3.36	3.25	3.81	3.79	3.38	3.43	3.81	3.90	3.47	3.50	3.88	3.46	3.60	3.69
Other HC/Oxygenates	0.22	0.28	0.28	0.28	0.28	0.30	0.30	0.33	0.34	0.36	0.37	0.40	0.27	0.30	0.37
Unfinished Oils	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
Motor Gasoline	8.67	9.13	9.05	8.93	8.68	9.19	9.14	8.80	8.65	9.14	9.09	8.75	8.94	8.95	8.91
Fuel Ethanol blended into Motor Gasoline	0.90	0.94	0.94	0.94	0.90	0.95	0.95	0.94	0.90	0.96	0.95	0.94	0.93	0.94	0.94
Jet Fuel	1.55	1.67	1.72	1.66	1.55	1.71	1.72	1.67	1.62	1.75	1.77	1.73	1.65	1.66	1.72
Distillate Fuel Oil	4.01	3.93	3.90	3.90	3.83	4.01	3.93	4.02	4.11	3.98	3.92	4.02	3.93	3.95	4.01
Residual Fuel Oil	0.29	0.22	0.27	0.31	0.25	0.22	0.21	0.24	0.23	0.23	0.21	0.25	0.27	0.23	0.23
Other Oils (g)	1.53	1.79	1.89	1.67	1.50	1.76	1.90	1.64	1.51	1.73	1.86	1.60	1.72	1.70	1.67
Total Consumption	19.66	20.38	20.37	20.56	19.89	20.55	20.64	20.52	20.36	20.67	20.72	20.62	20.25	20.40	20.59
Total Petroleum and Other Liquids Net Imports	-1.64	-1.20	-1.42	-2.28	-2.25	-1.46	-1.77	-2.74	-2.62	-2.24	-2.42	-3.10	-1.64	-2.05	-2.60
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	465.4	454.7	417.5	426.4	458.7	442.2	424.9	431.1	460.2	451.6	437.1	444.4	426.4	431.1	444.4
Hydrocarbon Gas Liquids	174.3	225.4	279.1	223.3	174.0	222.8	262.9	218.8	180.7	228.6	266.5	225.3	223.3	218.8	225.3
Unfinished Oils	88.6	87.0	88.3	84.1	88.8	87.4	86.7	79.6	88.1	86.5	86.5	80.7	84.1	79.6	80.7
Other HC/Oxygenates	34.3	30.1	30.3	33.2	35.8	34.6	34.3	34.6	36.6	35.4	35.1	35.4	33.2	34.6	35.4
Total Motor Gasoline	225.3	223.2	227.6	241.3	229.9	226.6	221.8	233.1	229.7	227.1	218.9	231.1	241.3	233.1	231.1
Finished Motor Gasoline	14.7	17.6	15.3	18.1	13.8	18.4	17.6	19.3	16.0	18.2	17.7	20.1	18.1	19.3	20.1
Motor Gasoline Blend Comp.	210.6	205.6	212.3	223.2	216.1	208.1	204.3	213.8	213.7	208.9	201.3	211.0	223.2	213.8	211.0
Jet Fuel	37.7	42.7	43.5	39.8	38.3	38.3	40.7	37.8	34.6	35.9	37.2	33.4	39.8	37.8	33.4
Distillate Fuel Oil	112.3	112.6	119.2	130.7	111.8	116.6	118.6	119.7	108.2	108.8	113.2	116.5	130.7	119.7	116.5
Residual Fuel Oil	29.6	30.4	27.5	24.1	30.3	29.6	27.3	26.6	28.0	27.7	25.7	25.2	24.1	26.6	25.2
Other Oils (g)	63.3	58.3	50.5	49.3	57.0	55.1	46.1	47.8	57.1	55.2	46.1	47.7	49.3	47.8	47.7
Total Commercial Inventory	1230.8	1264.4	1283.4	1252.2	1224.6	1253.2	1263.4	1229.1	1223.4	1256.7	1266.3	1239.6	1252.2	1229.1	1239.6
Crude Oil in SPR	371.2	347.2	351.3	354.7	364.0	373.2	382.2	382.2	382.2	382.2	382.2	382.2	354.7	382.2	382.2

(a) Includes lease condensate.

(b) Crude oil production from U.S. Federal leases in the Gulf of Mexico (GOM).

(c) Net imports equal gross imports minus gross exports.

(d) Crude oil adjustment equals the sum of disposition items (e.g. refinery inputs) minus the sum of supply items (e.g. production).

(e) Renewables and oxygenate production includes pentanes plus, oxygenates (excluding fuel ethanol), and renewable fuels. Beginning in January 2021, renewable fuels includes biodiesel, renewable diesel, renewable jet fuel, renewable heating oil, renewable naphtha and gasoline, and other renewable fuels. For December 2020 and prior, renewable fuels includes only biodiesel.

(f) Petroleum products adjustment includes hydrogen/oxygenates/renewables/other hydrocarbons, motor gasoline blending components, and finished motor gasoline.

(g) "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.

Table 4b. U.S. Hydrocarbon Gas Liquids (HGL) and Petroleum Refinery Balances (million barrels per day, except inventories and utilization factor)

U.S. Energy Information Administration | Short-Term Energy Outlook - March 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	2.73	2.74	2.75	2.78	2.81	2.75	2.80	2.62	2.73	2.79
Propane	1.89	2.00	2.05	2.10	2.00	2.02	2.05	2.07	2.09	2.11	2.11	2.12	2.01	2.03	2.11
Butanes	0.99	1.06	1.09	1.10	1.06	1.13	1.12	1.12	1.13	1.15	1.16	1.16	1.06	1.11	1.15
Natural Gasoline (Pentanes Plus)	0.64	0.73	0.81	0.79	0.68	0.69	0.72	0.69	0.68	0.71	0.73	0.70	0.74	0.69	0.71
Refinery and Blender Net Production															
Ethane/Ethylene	0.01	0.00	0.01	0.02	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	0.27	0.27	0.28	0.29	0.27	0.28	0.30	0.30	0.29	0.28	0.28	0.29
Propylene (refinery-grade)	0.24	0.26	0.25	0.26	0.28	0.28	0.27	0.28	0.27	0.28	0.27	0.28	0.25	0.28	0.28
Butanes/Butylenes	-0.05	0.28	0.21	-0.19	-0.08	0.27	0.20	-0.19	-0.08	0.27	0.20	-0.19	0.07	0.05	0.05
Renewable Fuels and Oxygenate Plant Net Production															
Natural Gasoline (Pentanes Plus)	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
HGL Net Imports															
Ethane	-0.50	-0.49	-0.50	-0.40	-0.50	-0.50	-0.49	-0.52	-0.50	-0.49	-0.49	-0.50	-0.47	-0.50	-0.49
Propane/Propylene	-1.40	-1.40	-1.45	-1.65	-1.55	-1.47	-1.46	-1.50	-1.54	-1.55	-1.50	-1.54	-1.47	-1.49	-1.54
Butanes/Butylenes	-0.42	-0.41	-0.42	-0.41	-0.43	-0.54	-0.50	-0.39	-0.47	-0.58	-0.54	-0.42	-0.42	-0.46	-0.50
Natural Gasoline (Pentanes Plus)	-0.15	-0.09	-0.06	-0.11	-0.14	-0.09	-0.09	-0.11	-0.14	-0.11	-0.10	-0.11	-0.10	-0.11	-0.12
HGL Refinery and Blender Net Inputs															
Butanes/Butylenes	0.48	0.29	0.35	0.57	0.42	0.28	0.34	0.55	0.46	0.30	0.34	0.55	0.42	0.40	0.41
Natural Gasoline (Pentanes Plus)	0.18	0.20	0.21	0.21	0.17	0.17	0.18	0.18	0.16	0.17	0.18	0.17	0.20	0.17	0.17
HGL Consumption															
Ethane/Ethylene	1.99	2.19	2.07	2.25	2.22	2.24	2.25	2.26	2.29	2.29	2.29	2.30	2.13	2.24	2.29
Propane	0.98	0.62	0.62	0.95	1.07	0.61	0.64	0.97	1.10	0.63	0.67	0.99	0.79	0.82	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	0.34	0.20	0.23	0.26	0.29	0.22	0.25	0.25	0.29	0.27	0.25	0.25
Natural Gasoline (Pentanes Plus)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HGL Inventories (million barrels)															
Ethane	53.0	54.2	52.4	68.0	63.5	62.9	63.6	63.1	61.2	65.0	63.4	64.7	56.9	63.3	63.6
Propane	55.8	79.2	102.2	79.8	46.0	64.3	84.5	71.9	46.8	65.5	86.0	73.8	79.8	71.9	73.8
Propylene (at refineries only)	1.1	1.1	1.2	0.9	1.0	1.4	1.7	1.6	1.4	1.6	1.8	1.6	0.9	1.6	1.6
Butanes/Butylenes	40.2	70.1	90.2	50.1	42.3	71.5	89.6	60.8	51.1	75.8	94.1	65.2	50.1	60.8	65.2
Natural Gasoline (Pentanes Plus)	22.9	23.4	27.4	26.8	21.9	22.7	23.2	22.1	19.3	20.5	21.4	20.6	26.8	22.1	20.6
Refinery and Blender Net Inputs															
Crude Oil	15.25	16.15	16.51	15.93	15.20	16.15	16.12	15.59	15.17	16.04	16.00	15.57	15.96	15.77	15.70
Hydrocarbon Gas Liquids	0.66	0.49	0.56	0.78	0.59	0.45	0.52	0.72	0.62	0.46	0.52	0.72	0.62	0.57	0.58
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	0.12	0.17	0.30	0.31	0.29	0.08	0.29	0.30	0.27	0.13	0.27	0.24
Motor Gasoline Blend Components	0.34	0.85	0.64	0.23	0.45	0.64	0.65	0.28	0.39	0.60	0.59	0.34	0.52	0.51	0.48
Aviation Gasoline Blend Components	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Refinery and Blender Net Inputs	17.58	18.90	18.92	18.25	17.54	18.74	18.81	18.05	17.40	18.60	18.62	18.07	18.41	18.29	18.18
Refinery Processing Gain															
	0.97	1.01	1.07	1.05	0.96	1.00	1.03	1.03	0.96	1.02	1.04	1.03	1.03	1.00	1.01
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	0.47	0.83	0.75	0.36	0.47	0.84	0.77	0.37	0.49	0.86	0.78	0.38	0.60	0.61	0.63
Finished Motor Gasoline	9.28	9.83	9.81	9.64	9.27	9.59	9.63	9.48	9.13	9.50	9.52	9.53	9.64	9.49	9.42
Jet Fuel	1.62	1.72	1.78	1.71	1.64	1.66	1.74	1.69	1.58	1.67	1.70	1.65	1.71	1.68	1.65
Distillate Fuel	4.69	4.91	4.99	5.04	4.53	4.92	4.95	4.93	4.60	4.88	4.89	4.90	4.91	4.84	4.82
Residual Fuel	0.27	0.27	0.27	0.28	0.38	0.36	0.31	0.27	0.30	0.28	0.30	0.26	0.27	0.33	0.29
Other Oils (a)	2.21	2.35	2.40	2.26	2.21	2.37	2.44	2.35	2.27	2.42	2.46	2.38	2.30	2.34	2.38
Total Refinery and Blender Net Production	18.54	19.91	19.99	19.30	18.50	19.74	19.84	19.08	18.37	19.62	19.66	19.10	19.44	19.29	19.19
Refinery Distillation Inputs															
	15.78	16.75	17.02	16.47	15.51	16.53	16.55	15.99	15.59	16.43	16.45	15.97	16.51	16.15	16.11
Refinery Operable Distillation Capacity															
	18.12	18.27	18.27	18.32	18.27	18.19	18.20	18.20	17.94	17.94	17.94	17.94	18.25	18.22	17.94
Refinery Distillation Utilization Factor															
	0.87	0.92	0.93	0.90	0.85	0.91	0.91	0.88	0.87	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 March 7, 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 - March 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	242	280	282	250	249	271	272	240	264	264	258
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	330	344	361	325	317	349	355	329	326	345	348	322	340	338	336
PADD 2	324	348	360	314	305	342	349	319	317	339	343	311	337	329	328
PADD 3	302	315	334	284	284	321	328	296	293	314	317	286	309	308	303
PADD 4	357	359	393	332	287	344	372	343	329	354	363	332	361	337	345
PADD 5	418	452	480	456	410	447	463	432	419	445	447	412	452	438	431
U.S. Average	338	358	376	336	323	360	368	339	334	356	359	328	352	348	345
Gasoline All Grades Including Taxes	349	369	387	348	334	371	380	351	347	368	371	341	364	359	357
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	52.7	57.1	58.8	60.1	58.5	57.3	56.7	58.0	58.2	56.7	55.6	57.0	60.1	58.0	57.0
PADD 2	49.5	45.2	46.9	54.6	53.1	47.9	46.6	52.6	53.3	49.6	46.6	51.3	54.6	52.6	51.3
PADD 3	84.1	85.0	84.9	90.2	79.8	84.6	82.3	84.4	80.9	84.4	81.7	85.8	90.2	84.4	85.8
PADD 4	7.8	6.8	7.2	7.9	8.2	7.1	7.3	7.8	8.1	7.3	7.7	8.3	7.9	7.8	8.3
PADD 5	31.2	29.0	29.9	28.5	30.3	29.7	28.9	30.3	29.3	29.1	27.4	28.8	28.5	30.3	28.8
U.S. Total	225.3	223.2	227.6	241.3	229.9	226.6	221.8	233.1	229.7	227.1	218.9	231.1	241.3	233.1	231.1
Finished Gasoline Inventories															
U.S. Total	14.7	17.6	15.3	18.1	13.8	18.4	17.6	19.3	16.0	18.2	17.7	20.1	18.1	19.3	20.1
Gasoline Blending Components Inventories															
U.S. Total	210.6	205.6	212.3	223.2	216.1	208.1	204.3	213.8	213.7	208.9	201.3	211.0	223.2	213.8	211.0

- = no data available

Notes: EIA completed modeling and analysis for this report on March 7, 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 Adminstration Defense District" in EIA's Energy Glossary (<http://www.eia.doe.gov/glossary/index.html>) for a list of States in each region.**Historical data:** Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Marketing Monthly*, DOE/EIA-0380;*Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; and *Weekly Petroleum Status Report*, DOE/EIA-0208.

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

Forecasts: EIA Short-Term Integrated Forecasting System.

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

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

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Supply (billion cubic feet per day)															
Total Marketed Production	111.18	112.50	113.64	115.19	112.52	113.14	112.63	112.51	112.87	114.17	113.99	114.42	113.14	112.70	113.87
Alaska	1.08	1.01	0.91	1.04	1.04	0.96	0.88	1.00	1.02	0.94	0.87	0.99	1.01	0.97	0.96
Federal GOM (a)	2.13	1.89	2.02	1.96	1.94	2.04	2.02	2.07	2.12	2.13	2.04	2.05	2.00	2.02	2.09
Lower 48 States (excl GOM)	107.97	109.60	110.70	112.19	109.53	110.15	109.73	109.44	109.73	111.09	111.08	111.37	110.13	109.71	110.82
Total Dry Gas Production	102.26	103.16	104.12	105.57	103.17	103.76	103.29	103.18	103.51	104.71	104.54	104.93	103.79	103.35	104.43
LNG Gross Imports	0.09	0.02	0.02	0.03	0.10	0.04	0.04	0.06	0.10	0.04	0.04	0.06	0.04	0.06	0.06
LNG Gross Exports	11.45	11.76	11.40	12.97	12.70	11.92	11.73	13.03	13.07	13.60	14.82	16.20	11.90	12.34	14.43
Pipeline Gross Imports	8.45	7.32	7.94	8.23	8.38	6.90	7.22	7.47	8.29	6.98	7.24	7.48	7.98	7.49	7.49
Pipeline Gross Exports	8.93	8.75	9.19	8.94	9.31	9.19	9.44	9.34	9.53	9.53	9.87	9.65	8.95	9.32	9.64
Supplemental Gaseous Fuels	0.22	0.17	0.16	0.15	0.17	0.17	0.17	0.17	0.17	0.18	0.18	0.18	0.17	0.17	0.18
Net Inventory Withdrawals	11.96	-11.71	-6.38	0.29	13.06	-11.09	-6.02	3.52	14.82	-11.93	-6.01	4.18	-1.51	-0.14	0.22
Total Supply	102.60	78.45	85.27	92.36	102.88	78.67	83.52	92.04	104.29	76.83	81.30	90.98	89.63	89.27	88.30
Balancing Item (b)	0.38	-0.43	-1.40	-0.69	0.98	-0.43	0.69	0.40	0.10	0.52	1.52	1.47	-0.54	0.41	0.91
Total Primary Supply	102.98	78.02	83.87	91.68	103.85	78.24	84.22	92.44	104.39	77.36	82.82	92.45	89.09	89.68	89.21
Consumption (billion cubic feet per day)															
Residential	23.50	7.29	3.57	14.95	22.57	7.16	3.84	16.14	24.17	7.26	3.83	16.09	12.28	12.41	12.79
Commercial	14.51	6.43	4.72	10.70	13.99	6.66	5.09	10.96	14.83	6.71	5.07	10.90	9.07	9.17	9.36
Industrial	24.84	22.40	21.98	24.35	25.36	21.93	21.62	23.85	24.80	21.84	21.64	23.91	23.39	23.19	23.04
Electric Power (c)	30.77	33.41	44.84	32.56	32.46	33.98	44.96	32.45	31.08	33.03	43.55	32.42	35.43	35.98	35.05
Lease and Plant Fuel	5.31	5.37	5.43	5.50	5.37	5.40	5.38	5.37	5.39	5.45	5.44	5.46	5.40	5.38	5.44
Pipeline and Distribution Use	3.87	2.93	3.15	3.44	3.90	2.90	3.13	3.46	3.92	2.87	3.09	3.48	3.34	3.35	3.34
Vehicle Use	0.18	0.18	0.18	0.18	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.18	0.20	0.20
Total Consumption	102.98	78.02	83.87	91.68	103.85	78.24	84.22	92.44	104.39	77.36	82.82	92.45	89.09	89.68	89.21
End-of-period Inventories (billion cubic feet)															
Working Gas Inventory	1,850	2,902	3,490	3,457	2,269	3,278	3,832	3,509	2,175	3,261	3,814	3,430	3,457	3,509	3,430
East Region (d)	334	646	853	787	386	676	868	782	404	715	861	765	787	782	765
Midwest Region (d)	417	701	993	950	513	781	1,046	941	474	774	1,063	925	950	941	925
South Central Region (d)	919	1,138	1,092	1,183	968	1,281	1,295	1,243	929	1,244	1,281	1,219	1,183	1,243	1,219
Mountain Region (d)	79	171	239	228	153	191	249	212	137	194	243	207	228	212	207
Pacific Region (d)	74	216	278	280	224	321	343	302	208	307	334	285	280	302	285
Alaska	27	30	35	30	25	28	33	29	24	27	32	28	30	29	28

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

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

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

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

- = no data available

LNG: liquefied natural gas.

Notes: EIA completed modeling and analysis for this report on March 7, 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 - March 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	2.28	1.86	2.37	2.93	3.02	2.77	3.12	3.33	2.63	2.36	3.06
Residential Retail															
New England	21.04	20.48	22.57	18.69	18.68	18.84	21.36	16.56	16.11	17.01	20.17	16.05	20.33	18.25	16.54
Middle Atlantic	15.60	16.03	20.74	14.33	12.47	13.40	17.91	12.35	11.32	12.96	18.22	12.75	15.64	12.97	12.50
E. N. Central	11.06	13.26	22.96	10.49	8.99	11.71	18.91	9.08	8.01	11.04	18.89	9.23	11.91	10.05	9.52
W. N. Central	13.24	15.41	22.07	11.28	9.84	12.63	19.47	10.17	8.98	11.85	19.06	10.17	13.41	10.92	10.33
S. Atlantic	17.33	20.92	30.29	16.00	13.62	17.76	24.96	14.47	13.57	18.41	26.25	15.01	18.39	15.32	15.68
E. S. Central	13.63	16.66	23.41	13.48	11.00	14.49	20.73	11.83	12.56	10.13	15.37	21.54	14.56	12.25	12.37
W. S. Central	14.58	19.81	28.70	16.41	11.41	15.53	21.43	12.56	10.60	12.62	17.11	11.23	17.00	13.07	12.71
Mountain	12.61	13.86	18.75	12.88	11.68	13.51	17.93	11.61	10.60	12.62	17.11	11.23	13.29	12.40	11.61
Pacific	20.13	17.11	18.10	17.87	17.07	15.31	15.62	14.85	15.44	15.01	15.98	15.30	18.74	15.92	15.38
U.S. Average	14.72	16.19	22.33	13.72	12.08	14.03	18.96	11.88	10.94	13.54	19.14	12.10	15.19	12.83	12.29
Commercial Retail															
New England	15.19	13.66	12.55	12.15	12.23	11.71	11.30	10.33	10.61	11.08	11.37	10.64	13.73	11.47	10.77
Middle Atlantic	11.94	9.25	8.06	9.48	9.28	7.56	6.78	7.33	8.14	7.57	7.34	7.86	10.23	8.12	7.86
E. N. Central	9.20	8.63	10.71	7.78	6.98	7.35	8.78	6.15	6.25	7.47	9.45	6.72	8.80	6.90	6.81
W. N. Central	11.58	11.33	11.77	8.39	8.06	8.07	8.87	6.71	6.98	7.73	9.22	7.22	10.66	7.71	7.34
S. Atlantic	12.97	11.26	11.39	10.73	9.99	9.85	9.76	8.95	8.87	9.55	9.98	9.32	11.75	9.62	9.27
E. S. Central	11.89	10.94	11.80	10.56	8.96	9.38	10.09	8.88	8.51	9.65	10.75	9.45	11.31	9.13	9.25
W. S. Central	11.01	9.68	10.37	9.74	7.96	7.81	8.14	7.24	6.83	7.82	8.76	7.90	10.31	7.77	7.59
Mountain	10.76	10.77	12.16	10.66	10.26	10.36	10.86	9.33	9.15	9.58	10.35	8.98	10.87	10.06	9.30
Pacific	16.85	12.61	13.49	13.58	13.44	11.62	11.32	10.77	11.55	10.88	11.28	10.97	14.59	11.96	11.20
U.S. Average	11.81	10.48	10.90	9.83	9.20	8.90	9.17	7.96	8.06	8.69	9.47	8.37	10.89	8.77	8.42
Industrial Retail															
New England	13.55	10.07	7.87	9.27	10.30	8.42	6.62	7.53	8.65	7.93	6.85	7.96	10.65	8.52	7.99
Middle Atlantic	11.94	8.97	7.89	9.35	8.55	6.60	6.74	7.74	8.24	7.23	7.53	8.23	10.34	7.81	7.98
E. N. Central	9.18	6.67	6.91	6.22	5.99	5.27	5.10	5.22	5.59	5.68	5.87	5.88	7.62	5.55	5.72
W. N. Central	8.23	4.55	4.33	4.69	4.96	3.45	3.31	4.14	5.06	4.14	4.17	4.80	5.64	4.04	4.59
S. Atlantic	6.92	4.78	5.03	5.37	4.85	3.63	3.91	4.58	5.18	4.55	4.85	5.19	5.58	4.28	4.96
E. S. Central	5.46	3.74	4.10	4.34	4.13	3.17	3.49	4.23	4.71	4.09	4.34	4.74	4.44	3.78	4.49
W. S. Central	3.39	2.21	2.71	2.79	2.61	1.99	2.46	3.15	3.31	2.87	3.18	3.54	2.77	2.55	3.23
Mountain	8.86	7.73	8.05	7.76	7.03	6.05	5.79	5.38	5.44	5.40	5.75	5.58	8.18	6.13	5.53
Pacific	10.84	8.16	8.03	9.02	9.43	7.44	6.94	6.98	7.77	6.76	6.81	7.05	9.22	7.76	7.15
U.S. Average	6.12	3.76	3.87	4.39	4.60	3.22	3.33	4.22	4.77	3.91	4.02	4.64	4.59	3.89	4.36

- = no data available

Notes: EIA completed modeling and analysis for this report on March 7, 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 - March 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Supply (million short tons)															
Production	148.7	142.3	145.6	145.0	129.7	116.7	127.6	122.6	118.7	108.4	122.1	116.7	581.6	496.6	465.8
Appalachia	42.9	42.5	40.0	41.8	39.0	35.1	31.2	31.0	32.3	30.7	28.4	28.9	167.2	136.3	120.2
Interior	25.4	23.5	22.6	24.6	22.1	21.5	23.3	22.9	24.2	22.5	23.8	22.9	96.1	89.7	93.5
Western	80.4	76.4	83.0	78.5	68.6	60.2	73.2	68.6	62.2	55.2	69.9	64.8	318.3	270.6	252.1
Primary Inventory Withdrawals	-1.6	0.3	3.6	0.1	-1.6	0.3	3.6	0.1	-1.7	0.2	3.6	0.0	2.4	2.3	2.1
Imports	1.0	1.0	1.0	1.0	0.5	0.8	1.2	0.9	0.5	0.7	1.1	0.8	4.0	3.4	3.1
Exports	24.6	24.1	24.9	26.2	25.0	25.0	24.4	26.4	25.0	26.0	26.4	28.5	99.8	100.8	105.9
Metallurgical Coal	12.4	12.6	13.6	12.7	12.7	13.2	12.3	12.6	11.8	13.1	12.7	13.3	51.3	50.8	51.0
Steam Coal	12.2	11.5	11.3	13.5	12.3	11.8	12.1	13.8	13.2	12.8	13.6	15.1	48.5	50.0	54.9
Total Primary Supply	123.5	119.5	125.3	119.8	103.6	92.8	108.0	97.2	92.5	83.3	100.3	89.0	488.2	401.5	365.2
Secondary Inventory Withdrawals	-20.1	-19.1	11.1	-15.1	-6.4	-10.5	13.5	-5.6	0.0	-5.2	22.9	-4.1	-43.1	-9.1	13.6
Waste Coal (a)	2.0	1.9	2.2	2.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	8.1	4.8	4.8
Total Supply	105.5	102.3	138.6	106.8	98.4	83.5	122.7	92.8	93.7	79.3	124.4	86.1	453.1	397.3	383.5
Consumption (million short tons)															
Coke Plants	4.0	3.9	4.0	3.9	3.8	3.9	4.0	4.1	4.1	4.2	4.3	4.3	15.8	15.8	16.9
Electric Power Sector (b)	91.2	82.0	122.7	91.3	89.3	74.6	113.6	82.7	83.7	70.0	115.1	75.8	387.2	360.2	344.6
Retail and Other Industry	6.5	5.6	5.3	6.2	5.9	5.0	5.1	5.9	5.9	5.1	5.1	5.9	23.6	21.9	21.9
Residential and Commercial	0.2	0.1	0.1	0.2	0.3	0.1	0.1	0.2	0.3	0.1	0.1	0.2	0.7	0.8	0.8
Other Industrial	6.3	5.5	5.1	6.0	5.6	4.8	4.9	5.7	5.6	4.9	5.0	5.7	22.9	21.1	21.2
Total Consumption	101.7	91.5	132.0	101.4	99.0	83.5	122.7	92.8	93.7	79.3	124.4	86.1	426.5	397.9	383.5
Discrepancy (c)	3.8	10.9	6.6	5.4	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.6	-0.6	0.0
End-of-period Inventories (million short tons)															
Primary Inventories (d)	22.4	22.1	18.5	18.4	20.0	19.8	16.2	16.1	17.8	17.6	14.0	14.0	18.4	16.1	14.0
Secondary Inventories	113.3	132.3	121.2	136.3	142.7	153.2	139.7	145.3	145.4	150.6	127.7	131.8	136.3	145.3	131.8
Electric Power Sector	109.0	127.7	116.6	131.4	138.6	148.9	135.1	140.7	141.4	146.4	123.1	127.3	131.4	140.7	127.3
Retail and General Industry	2.5	2.8	2.7	3.0	2.5	2.6	2.9	2.9	2.4	2.6	2.8	2.9	3.0	2.9	2.9
Coke Plants	1.7	1.7	1.7	1.7	1.5	1.6	1.6	1.5	1.3	1.5	1.5	1.5	1.7	1.5	1.5
Commercial & Institutional	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Coal Market Indicators															
Coal Miner Productivity (Tons per hour)	6.03	6.03	6.03	6.03	5.85	5.85	5.85	5.85	5.80	5.80	5.80	5.80	6.03	5.85	5.80
Total Raw Steel Production (Million short tons per day)	0.236	0.244	0.245	0.242	0.245	0.257	0.262	0.258	0.263	0.273	0.274	0.267	0.242	0.256	0.269
Cost of Coal to Electric Utilities (Dollars per million Btu)	2.57	2.49	2.51	2.51	2.49	2.47	2.46	2.42	2.43	2.42	2.42	2.38	2.52	2.46	2.41

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

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

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

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

- = no data available

Notes: EIA completed modeling and analysis for this report on March 7, 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 - March 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Electricity Supply (billion kilowatthours)															
Electricity generation (a)	987	984	1,209	998	1,027	1,024	1,228	1,005	1,018	1,031	1,237	1,010	4,178	4,285	4,296
Electric power sector	949	947	1,168	958	987	986	1,187	965	979	993	1,195	970	4,022	4,124	4,136
Industrial sector	35	33	36	36	36	34	37	36	35	34	37	36	139	143	142
Commercial sector	4	4	5	4	4	4	5	5	4	4	5	4	17	18	18
Net imports	8	6	3	2	7	10	13	10	12	12	15	11	19	40	50
Total utility-scale power supply	995	990	1,212	1,000	1,034	1,034	1,242	1,015	1,030	1,044	1,251	1,021	4,197	4,325	4,346
Losses and Unaccounted for (b)	42	52	51	52	52	69	56	48	44	69	57	49	197	226	218
Small-scale solar generation (c)	14	22	22	16	17	25	25	17	20	29	29	20	74	86	97
Residential sector	10	15	15	11	12	17	17	12	13	20	20	14	50	59	67
Commercial sector	4	6	6	4	4	7	7	5	5	7	8	5	19	22	25
Industrial sector	1	1	1	1	1	1	1	1	1	2	2	1	4	5	5
Electricity Consumption (billion kilowatthours unless noted)															
Sales to Ultimate Customers	919	906	1,124	912	946	930	1,148	931	951	940	1,158	937	3,861	3,956	3,985
Residential Sector	355	319	455	325	372	333	470	336	375	337	474	337	1,455	1,511	1,522
Commercial Sector	322	330	392	331	330	337	396	334	327	336	395	333	1,375	1,396	1,391
Industrial Sector	239	256	275	254	243	259	280	260	247	266	287	265	1,025	1,042	1,066
Transportation Sector	2	2	2	2	2	2	2	2	2	2	2	2	7	7	7
Direct Use (d)	34	33	36	36	35	36	37	36	35	34	37	36	139	143	143
Total Consumption	953	939	1,161	948	982	965	1,185	967	986	975	1,195	972	4,000	4,099	4,128
Average residential electricity usage per customer (kWh)	2,530	2,268	3,243	2,316	2,621	2,352	3,317	2,368	2,621	2,355	3,315	2,356	10,357	10,659	10,647
End-of-period Fuel Inventories Held by Electric Power Sector															
Coal (mmst)	109.0	127.7	116.6	131.4	138.6	148.9	135.1	140.7	141.4	146.4	123.1	127.3	131.4	140.7	127.3
Residual Fuel (mmb)	6.1	6.2	6.4	6.3	4.6	4.3	2.2	2.9	1.7	2.0	0.3	1.2	6.3	2.9	1.2
Distillate Fuel (mmb)	17.0	16.9	16.1	16.1	16.0	15.9	15.8	16.0	15.9	15.7	15.7	15.9	16.1	16.0	15.9
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.57	2.49	2.51	2.51	2.49	2.47	2.46	2.42	2.43	2.42	2.42	2.38	2.52	2.46	2.41
Natural Gas	4.98	2.60	2.92	3.19	2.84	2.06	2.45	3.12	3.40	2.82	3.05	3.48	3.36	2.60	3.17
Residual Fuel Oil	19.23	17.88	19.17	20.84	16.72	16.68	16.44	16.53	16.77	17.02	16.08	15.64	19.32	16.59	16.35
Distillate Fuel Oil	22.84	19.91	22.08	21.03	20.41	20.43	21.18	22.26	22.21	21.24	21.05	20.78	21.47	21.10	21.37
Prices to Ultimate Customers (cents per kilowatthour)															
Residential Sector	15.77	16.12	16.02	16.02	15.64	15.92	15.97	15.94	15.80	16.30	16.41	16.39	15.98	15.87	16.23
Commercial Sector	12.64	12.45	13.18	12.63	12.39	12.22	13.16	12.71	12.54	12.59	13.63	13.07	12.74	12.64	12.99
Industrial Sector	8.06	7.74	8.55	7.83	7.94	7.70	8.40	7.91	8.10	7.78	8.55	8.03	8.05	8.00	8.12
Wholesale Electricity Prices (dollars per megawatthour)															
ERCOT North hub	28.05	57.27	188.81	33.85	32.99	55.77	32.82	28.23	28.42	24.63	34.25	27.21	77.00	37.45	28.63
CAISO SP15 zone	92.54	30.00	67.59	50.54	45.36	23.88	45.60	49.08	49.65	26.56	47.34	49.76	60.17	40.98	43.33
ISO-NE Internal hub	52.63	32.55	40.41	39.84	51.37	34.98	73.81	57.22	66.01	39.56	70.77	47.72	41.36	54.34	56.01
NYISO Hudson Valley zone	44.65	31.38	39.45	36.35	46.59	31.27	59.36	38.52	51.00	36.88	60.01	38.77	37.96	43.94	46.67
PJM Western hub	36.49	35.41	43.27	42.17	38.04	35.03	42.83	39.36	44.33	39.47	47.57	42.09	39.34	38.81	43.37
Midcontinent ISO Illinois hub	31.39	32.13	40.60	33.58	35.21	32.11	40.20	35.83	42.53	38.48	45.79	39.56	34.42	35.84	41.59
SPP ISO South hub	28.96	34.56	46.96	28.50	35.76	35.10	45.51	38.54	39.74	40.39	51.38	41.26	34.74	38.73	43.19
SERC index, Into Southern	30.53	31.66	36.45	30.40	30.28	29.87	34.67	32.57	35.37	32.13	37.58	34.04	32.26	31.85	34.78
FRCC index, Florida Reliability	30.31	33.06	36.79	32.05	32.88	32.91	36.47	35.21	35.45	34.99	38.87	36.11	33.05	34.37	36.36
Northwest index, Mid-Columbia	105.99	58.61	82.36	79.49	113.90	50.47	64.44	65.13	67.97	40.06	57.55	66.32	81.61	73.48	57.97
Southwest index, Palo Verde	84.19	31.60	71.95	50.10	39.39	30.54	42.46	42.24	41.44	30.71	42.95	41.41	59.46	38.66	39.13

Notes: EIA completed modeling and analysis for this report on March 7, 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 colocated 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 - March 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Residential Sector															
New England	12.2	9.8	13.7	10.8	12.8	10.2	14.6	11.2	13.1	10.3	14.7	11.1	46.5	48.9	49.2
Middle Atlantic	33.3	27.5	40.1	30.2	34.9	28.7	42.8	30.5	35.2	28.9	43.1	30.6	131.2	136.9	137.8
E. N. Central	46.5	39.8	52.5	41.7	48.7	42.1	56.6	43.5	50.4	42.4	56.7	43.5	180.5	190.9	193.0
W. N. Central	29.4	24.1	30.8	24.2	29.0	24.3	32.4	26.0	30.7	24.6	32.8	26.3	108.6	111.7	114.4
S. Atlantic	87.2	83.8	117.9	84.2	93.6	90.3	124.4	86.4	93.9	91.2	125.0	86.5	373.0	394.7	396.6
E. S. Central	29.3	25.4	37.3	26.0	32.4	26.2	38.7	26.7	31.7	26.5	38.9	26.8	118.0	123.9	123.8
W. S. Central	51.6	52.4	86.9	49.5	56.6	54.0	82.4	50.9	56.6	55.2	83.9	51.7	240.4	243.9	247.4
Mountain	25.3	24.5	36.4	23.4	24.6	26.0	36.8	24.0	24.5	26.2	37.1	24.2	109.5	111.3	112.0
Pacific contiguous	39.5	30.2	38.7	33.8	37.7	30.4	40.5	35.1	37.4	30.4	40.6	35.1	142.2	143.7	143.5
AK and HI	1.2	1.1	1.1	1.3	1.3	1.1	1.1	1.3	1.2	1.1	1.1	1.3	4.7	4.7	4.7
Total	355.4	318.6	455.4	325.2	371.5	333.3	470.2	335.7	374.7	336.8	474.0	336.9	1,454.7	1,510.7	1,522.4
Commercial Sector															
New England	11.9	11.5	13.6	11.7	12.1	11.6	13.7	11.7	11.9	11.5	13.6	11.5	48.7	49.1	48.6
Middle Atlantic	35.0	33.1	39.7	34.4	35.8	33.6	40.5	34.3	35.4	33.5	40.5	34.2	142.2	144.2	143.7
E. N. Central	42.4	41.9	48.0	42.1	43.3	42.5	49.0	42.5	43.2	42.4	48.9	42.3	174.5	177.3	176.8
W. N. Central	25.3	25.1	28.6	25.0	25.6	25.4	29.1	25.6	25.8	25.4	29.2	25.6	104.0	105.8	106.0
S. Atlantic	75.4	81.7	96.5	80.4	77.5	84.7	98.2	81.2	77.2	84.7	98.1	80.9	333.9	341.6	340.9
E. S. Central	20.6	21.8	27.1	21.6	20.8	22.0	27.2	21.6	20.4	21.9	27.0	21.3	91.1	91.6	90.6
W. S. Central	47.5	51.2	63.6	50.7	49.7	52.8	62.9	51.2	49.1	52.6	62.8	51.5	213.1	216.5	216.0
Mountain	23.8	25.0	29.9	24.6	24.0	25.6	30.0	24.7	23.8	25.7	30.0	24.8	103.2	104.4	104.3
Pacific contiguous	38.9	37.0	43.6	39.4	39.6	37.2	43.9	39.5	38.8	36.9	43.4	39.1	158.8	160.2	158.3
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	322.0	329.7	391.9	331.3	329.8	336.8	396.0	333.7	327.0	335.9	394.9	332.7	1,374.9	1,396.2	1,390.6
Industrial Sector															
New England	3.7	3.7	3.9	3.6	3.7	3.6	3.9	3.6	3.6	3.6	3.9	3.6	14.9	14.8	14.7
Middle Atlantic	17.3	17.7	18.9	17.3	17.5	17.8	19.1	17.5	17.6	18.1	19.5	17.8	71.3	71.9	73.0
E. N. Central	44.8	45.8	48.2	45.4	45.7	46.0	48.8	46.4	46.2	46.9	49.6	47.0	184.3	186.9	189.6
W. N. Central	24.1	25.5	27.2	25.8	24.4	25.9	27.7	26.6	25.0	26.9	28.8	27.5	102.6	104.6	108.3
S. Atlantic	33.5	35.2	36.4	34.0	33.8	35.3	36.7	34.5	34.1	36.1	37.4	35.1	139.1	140.3	142.6
E. S. Central	23.2	23.9	24.7	23.3	22.7	23.4	24.5	23.3	22.6	23.5	24.6	23.3	95.2	94.0	94.0
W. S. Central	53.6	62.4	68.6	62.5	55.8	64.5	72.1	65.4	58.0	68.3	75.6	68.2	247.2	257.7	270.1
Mountain	19.8	21.5	24.1	21.3	20.3	21.8	24.4	21.7	20.5	22.2	24.8	22.0	86.7	88.2	89.5
Pacific contiguous	18.3	19.2	21.9	19.6	18.4	19.1	21.9	19.5	18.2	19.1	21.9	19.6	79.0	79.0	78.9
AK and HI	1.1	1.2	1.3	1.2	1.2	1.3	1.3	1.2	1.2	1.3	1.3	1.3	4.8	4.8	4.9
Total	239.4	256.2	275.3	254.1	243.4	258.6	280.4	259.8	247.1	266.0	287.2	265.3	1,024.9	1,042.2	1,065.6
Total All Sectors (a)															
New England	27.9	25.1	31.4	26.2	28.7	25.6	32.4	26.5	28.8	25.6	32.3	26.3	110.6	113.2	112.9
Middle Atlantic	86.4	79.2	99.7	82.7	89.1	80.8	103.2	83.2	89.1	81.3	103.9	83.5	348.1	356.3	357.8
E. N. Central	133.8	127.6	148.9	129.4	137.8	130.7	154.5	132.5	139.9	131.8	155.3	132.9	539.7	555.6	559.9
W. N. Central	78.7	74.8	86.6	75.1	79.0	75.5	89.3	78.3	81.5	77.0	90.7	79.5	315.2	322.1	328.7
S. Atlantic	196.4	200.9	251.0	199.0	205.2	210.6	259.5	202.4	205.4	212.3	260.7	202.7	847.3	877.7	881.1
E. S. Central	73.1	71.1	89.1	70.9	75.9	71.6	90.4	71.5	74.7	71.8	90.5	71.4	304.3	309.5	308.4
W. S. Central	152.7	166.1	219.2	162.8	162.1	171.3	217.4	167.5	163.8	176.1	222.4	171.3	700.8	718.3	733.7
Mountain	68.9	71.1	90.4	69.3	69.0	73.4	91.2	70.5	68.8	74.1	92.0	71.0	299.6	304.1	305.9
Pacific contiguous	96.8	86.6	104.4	93.0	96.0	86.9	106.4	94.4	94.6	86.7	106.2	94.0	380.9	383.8	381.5
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	918.5	906.0	1,124.5	912.3	946.5	930.2	1,148.2	930.8	950.5	940.3	1,157.7	936.5	3,861.3	3,955.8	3,985.1

Notes: EIA completed modeling and analysis for this report on March 7, 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 - March 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Residential Sector															
New England	30.65	29.58	27.17	27.72	30.34	28.34	25.83	26.95	30.49	29.67	27.82	29.38	28.72	27.80	29.27
Middle Atlantic	19.70	19.13	19.86	19.63	19.75	19.36	20.23	20.15	20.38	19.94	20.83	20.63	19.61	19.91	20.48
E. N. Central	16.14	16.58	15.97	16.21	15.86	16.09	15.61	16.16	16.01	16.51	16.13	16.75	16.20	15.91	16.32
W. N. Central	11.85	13.52	14.23	12.65	11.78	13.46	14.05	12.42	11.71	13.67	14.31	12.63	13.07	12.95	13.09
S. Atlantic	14.31	14.74	14.54	14.64	14.12	14.18	14.09	14.35	14.05	14.38	14.43	14.71	14.55	14.17	14.39
E. S. Central	13.17	13.20	12.94	13.27	13.18	13.46	13.11	13.50	13.64	13.86	13.46	13.84	13.13	13.29	13.68
W. S. Central	13.57	13.57	13.51	13.75	13.19	13.58	13.65	13.47	13.01	13.64	13.81	13.68	13.58	13.49	13.56
Mountain	12.96	13.88	14.10	13.74	13.51	13.94	13.87	13.55	13.54	14.11	14.14	13.81	13.71	13.74	13.93
Pacific	19.60	22.32	23.93	21.02	19.92	22.75	24.49	21.42	20.73	24.04	25.59	22.14	21.69	22.17	23.15
U.S. Average	15.77	16.12	16.02	16.02	15.64	15.92	15.97	15.94	15.80	16.30	16.41	16.39	15.98	15.87	16.23
Commercial Sector															
New England	20.56	18.40	18.71	19.33	20.18	17.66	18.10	19.25	20.67	18.56	19.23	20.41	19.23	18.78	19.70
Middle Atlantic	14.86	14.89	16.41	15.19	14.41	14.66	16.37	15.24	14.55	15.01	16.88	15.69	15.38	15.21	15.59
E. N. Central	12.01	12.07	11.90	11.86	11.59	11.74	11.85	12.00	11.80	12.01	12.19	12.38	11.96	11.80	12.09
W. N. Central	9.95	10.67	11.38	9.90	9.83	10.74	11.48	9.91	9.83	10.99	11.80	10.12	10.50	10.52	10.72
S. Atlantic	11.31	10.95	10.90	11.01	10.77	10.44	10.53	10.68	10.57	10.51	10.75	10.88	11.03	10.60	10.68
E. S. Central	12.57	12.10	12.07	12.02	12.42	12.18	12.35	12.34	12.71	12.58	12.78	12.71	12.18	12.32	12.70
W. S. Central	9.35	8.83	9.55	9.14	8.88	8.81	10.09	10.01	9.79	10.06	11.26	10.59	9.23	9.48	10.47
Mountain	10.35	11.09	11.65	10.76	10.44	10.87	11.39	10.59	10.31	10.81	11.37	10.59	11.00	10.86	10.81
Pacific	18.06	18.85	22.70	19.62	18.82	19.01	22.72	19.68	18.88	19.26	23.19	20.21	19.90	20.15	20.48
U.S. Average	12.64	12.45	13.18	12.63	12.39	12.22	13.16	12.71	12.54	12.59	13.63	13.07	12.74	12.64	12.99
Industrial Sector															
New England	16.24	15.24	15.80	15.91	15.90	14.59	15.32	15.88	16.36	15.34	16.22	16.71	15.80	15.42	16.16
Middle Atlantic	8.20	7.72	7.82	7.77	7.95	7.57	7.83	7.71	7.99	7.61	7.84	7.70	7.88	7.76	7.79
E. N. Central	8.31	7.89	8.02	7.88	8.37	7.96	8.11	7.97	8.60	8.17	8.31	8.16	8.02	8.10	8.31
W. N. Central	7.44	7.79	8.43	7.29	7.60	7.91	8.54	7.46	7.79	8.07	8.70	7.58	7.75	7.89	8.05
S. Atlantic	7.72	7.38	8.07	7.54	7.83	7.43	8.12	7.68	8.03	7.55	8.26	7.78	7.68	7.77	7.91
E. S. Central	6.98	6.67	6.91	6.73	6.91	6.65	6.93	6.85	7.12	6.79	7.08	6.98	6.82	6.84	6.99
W. S. Central	6.56	5.94	7.27	6.16	6.25	5.77	6.59	6.18	6.28	5.61	6.65	6.21	6.50	6.21	6.20
Mountain	7.65	7.64	8.45	7.36	6.90	7.37	8.20	7.32	6.96	7.48	8.35	7.48	7.80	7.48	7.60
Pacific	11.80	12.47	14.83	13.18	12.11	12.97	15.34	13.74	12.68	13.58	16.02	14.34	13.15	13.62	14.24
U.S. Average	8.06	7.74	8.55	7.83	7.94	7.70	8.40	7.91	8.10	7.78	8.55	8.03	8.05	8.00	8.12
All Sectors (a)															
New England	24.39	22.26	22.01	22.28	24.15	21.46	21.23	21.99	24.57	22.54	22.74	23.64	22.73	22.20	23.37
Middle Atlantic	15.39	14.75	16.16	15.25	15.22	14.75	16.37	15.44	15.55	15.09	16.81	15.78	15.43	15.50	15.86
E. N. Central	12.20	11.97	12.08	11.86	12.03	11.81	12.04	11.95	12.26	12.09	12.39	12.31	12.03	11.96	12.27
W. N. Central	9.89	10.60	11.47	9.90	9.86	10.64	11.50	9.91	9.91	10.83	11.72	10.07	10.49	10.51	10.66
S. Atlantic	12.03	11.90	12.20	11.95	11.81	11.54	11.89	11.73	11.73	11.67	12.16	11.97	12.03	11.75	11.90
E. S. Central	11.04	10.66	11.00	10.74	11.09	10.85	11.21	10.98	11.41	11.16	11.53	11.26	10.87	11.04	11.35
W. S. Central	9.80	9.24	10.40	9.40	9.48	9.17	10.28	9.57	9.66	9.45	10.65	9.78	9.76	9.67	9.94
Mountain	10.52	11.01	11.79	10.72	10.50	10.92	11.54	10.59	10.46	10.98	11.68	10.72	11.07	10.93	11.01
Pacific	17.49	18.63	21.48	18.76	17.95	18.97	21.86	19.08	18.40	19.66	22.60	19.69	19.15	19.54	20.17
U.S. Average	12.66	12.41	13.20	12.50	12.52	12.29	13.14	12.53	12.67	12.56	13.51	12.84	12.72	12.65	12.92

Notes: EIA completed modeling and analysis for this report on March 7, 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 - March 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
United States															
Natural Gas	367.6	395.1	537.6	394.9	391.8	402.2	540.0	394.0	372.3	392.5	523.3	394.3	1,695.3	1,728.0	1,682.4
Coal	156.7	140.6	216.1	157.3	151.2	127.7	198.6	141.7	140.5	119.2	201.7	128.0	670.7	619.2	589.5
Nuclear	194.5	183.1	205.2	192.6	196.8	191.6	208.3	192.5	198.3	192.8	208.9	195.9	775.3	789.3	796.0
Renewable Energy Sources:	225.8	224.8	204.8	209.4	242.6	260.5	235.7	231.8	263.6	285.2	257.7	247.2	864.7	970.6	1,053.6
Conventional Hydropower	60.8	64.1	58.5	55.2	62.3	73.2	61.1	56.9	67.3	76.8	63.7	58.8	238.7	253.4	266.6
Wind	125.9	102.6	84.6	111.8	129.0	109.5	89.7	118.7	133.5	113.6	93.0	123.3	425.0	446.9	463.4
Solar (a)	29.2	49.0	52.0	33.3	41.2	69.2	74.9	46.7	53.4	86.6	91.2	55.7	163.5	231.9	286.9
Biomass	5.6	5.1	5.7	4.7	5.9	5.4	6.0	5.3	5.7	5.3	5.9	5.2	21.1	22.6	22.1
Geothermal	4.2	4.0	4.0	4.2	4.3	3.2	4.0	4.2	3.7	2.8	4.0	4.2	16.5	15.8	14.7
Pumped Storage Hydropower	-1.6	-1.3	-1.8	-1.2	-1.7	-1.3	-1.7	-1.2	-1.7	-1.4	-1.6	-1.2	-5.9	-5.9	-5.9
Petroleum (b)	3.9	3.5	4.7	3.5	5.1	3.5	4.4	4.7	4.9	3.4	4.3	4.7	15.6	17.7	17.2
Other Gases	0.8	0.7	0.9	0.8	0.8	0.9	0.9	0.8	0.8	0.8	0.9	0.8	3.2	3.3	3.3
Other Nonrenewable Fuels (c)	0.9	0.9	0.8	0.8	0.5	0.5	0.4	0.1	0.2	0.0	-0.1	3.4	1.9	0.2	
Total Generation	948.6	947.4	1,168.3	958.1	987.2	985.6	1,186.7	964.6	978.8	992.8	1,195.2	969.6	4,022.3	4,124.1	4,136.4
New England (ISO-NE)															
Natural Gas	11.5	12.3	15.8	12.5	12.2	11.6	18.1	12.8	11.2	11.7	17.7	11.0	52.2	54.7	51.6
Coal	0.1	0.0	0.0	0.1	0.1	0.0	0.2	0.1	0.1	0.0	0.2	0.1	0.2	0.4	0.4
Nuclear	7.1	3.4	6.9	5.8	7.1	7.1	7.2	5.6	7.0	6.1	7.2	7.2	23.2	26.9	27.5
Conventional hydropower	1.9	1.4	1.6	1.8	1.9	2.2	1.2	1.7	2.0	2.2	1.2	1.7	6.7	7.0	7.1
Nonhydro renewables (d)	2.6	2.8	2.6	2.4	2.4	2.8	3.0	3.3	4.0	3.7	3.6	3.9	10.4	11.4	15.2
Other energy sources (e)	0.3	0.2	0.2	0.3	0.6	0.2	0.2	0.4	0.8	0.2	0.2	0.4	1.0	1.5	1.6
Total generation	23.6	20.2	27.2	22.8	24.3	23.9	29.9	23.9	25.0	23.9	30.1	24.4	93.7	102.0	103.4
Net energy for load (f)	29.0	25.6	32.2	27.9	30.3	28.0	34.7	29.3	30.7	28.3	35.0	29.4	114.7	122.4	123.5
New York (NYISO)															
Natural Gas	13.5	14.2	21.1	15.6	15.7	14.8	21.7	15.0	14.0	14.2	21.5	14.2	64.4	67.2	63.9
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	7.2	6.6	7.1	7.0	6.5	6.7	7.0	7.2	7.2	27.5	27.2	28.0
Conventional hydropower	7.1	6.6	6.9	7.0	6.8	6.8	6.8	7.0	6.9	6.9	7.1	7.1	27.6	27.4	27.7
Nonhydro renewables (d)	2.1	2.0	1.8	2.1	2.9	2.5	2.2	2.5	2.9	2.8	2.4	2.9	8.1	10.0	11.0
Other energy sources (e)	0.2	0.0	0.0	0.0	0.5	0.0	0.1	0.1	0.5	0.0	0.1	0.2	0.2	0.7	0.8
Total generation	29.7	29.4	36.7	32.0	32.5	31.2	37.8	31.2	31.0	30.8	38.0	31.5	127.9	132.6	131.3
Net energy for load (f)	36.1	33.3	42.1	35.5	37.8	36.6	45.8	36.9	38.2	37.0	46.3	37.1	147.0	157.1	158.7
Mid-Atlantic (PJM)															
Natural Gas	85.1	81.5	112.3	85.4	91.4	82.8	116.3	85.0	95.1	86.7	110.3	89.9	364.3	375.6	382.1
Coal	28.3	22.9	36.2	25.7	29.1	25.5	28.4	23.8	22.0	17.3	31.8	17.9	113.1	106.8	89.0
Nuclear	67.6	65.7	70.6	68.8	69.3	64.6	71.6	68.3	67.4	66.3	71.9	67.1	272.6	273.8	272.6
Conventional hydropower	2.6	1.8	2.0	2.5	2.7	2.6	1.7	2.1	2.6	2.6	1.7	2.1	8.9	9.0	9.0
Nonhydro renewables (d)	12.9	11.9	9.7	12.2	15.3	15.2	12.5	13.7	16.5	16.2	13.5	14.7	46.6	56.7	60.9
Other energy sources (e)	0.3	0.1	0.2	0.4	0.4	0.2	0.2	0.6	0.4	0.2	0.2	0.7	1.0	1.4	1.5
Total generation	196.9	183.8	230.9	194.9	208.2	191.0	230.7	193.5	204.1	189.3	229.4	192.3	806.6	823.4	815.1
Net energy for load (f)	192.5	176.2	214.4	187.0	198.7	181.1	219.2	184.9	197.8	182.8	220.9	185.8	770.1	783.9	787.2
Southeast (SERC)															
Natural Gas	63.7	65.7	82.4	62.6	69.4	74.9	88.4	67.9	63.8	70.3	86.4	63.8	274.4	300.6	284.3
Coal	23.7	26.5	39.7	25.2	24.0	19.6	39.6	21.3	26.2	22.3	40.9	22.7	115.0	104.6	112.2
Nuclear	51.7	52.9	57.4	57.4	55.1	56.9	59.6	54.9	56.5	58.8	60.4	57.5	219.3	226.4	233.2
Conventional hydropower	9.9	6.2	8.0	8.6	10.5	8.7	8.0	9.1	11.4	9.0	8.1	9.1	32.7	36.2	37.6
Nonhydro renewables (d)	4.9	7.2	7.4	5.0	5.8	8.3	8.0	5.8	6.7	9.7	9.1	6.2	24.6	27.9	31.6
Other energy sources (e)	-0.3	-0.2	-0.5	-0.4	-0.2	-0.3	-0.4	-0.2	-0.3	-0.3	-0.4	-0.1	-1.3	-1.0	-1.0
Total generation	153.6	158.2	194.5	158.4	164.6	168.1	203.2	158.8	164.3	169.8	204.5	159.3	664.7	694.7	697.9
Net energy for load (f)	148.9	149.2	171.6	149.4	152.9	156.3	189.2	150.5	155.4	158.4	190.7	151.0	619.2	649.0	655.5
Florida (FRCC)															
Natural Gas	38.3	48.8	59.0	42.9	37.7	46.9	56.6	42.3	36.0	46.8	56.7	41.2	189.0	183.5	180.6
Coal	2.7	2.6	3.9	2.5	1.9	1.7	2.6	1.2	1.3	1.4	2.4	0.9	11.7	7.4	6.0
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	29.8	30.5
Conventional hydropower	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.2	0.2
Nonhydro renewables (d)	3.5	4.2	4.1	3.1	4.8	5.8	5.5	4.1	5.6	6.6	6.2	4.6	14.8	20.2	23.0
Other energy sources (e)	0.6	0.5	0.6	0.4	0.6	0.5	0.6	0.4	0.6	0.5	0.6	0.4	2.1	2.1	2.1
Total generation	52.5	63.6	75.7	55.9	52.3	62.9	73.2	54.8	51.3	62.7	73.4	55.1	247.7	243.2	242.5
Net energy for load (f)	54.4	65.5	77.2	56.6	51.4	63.5	74.6	55.0	50.6	63.5	74.9	55.1	253.8	244.5	244.1

Notes: EIA completed modeling and analysis for this report on March 7, 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 - March 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Midwest (MISO)															
Natural Gas	45.4	54.7	67.3	47.8	51.8	54.0	73.7	51.2	53.1	59.3	75.2	55.1	215.2	230.8	242.7
Coal	43.0	38.0	57.3	44.9	40.0	37.7	52.0	41.1	40.2	34.7	52.9	38.0	183.2	170.9	165.8
Nuclear	23.4	21.1	24.3	18.4	20.3	21.9	24.2	23.1	22.5	20.9	23.8	22.5	87.2	89.6	89.6
Conventional hydropower	2.2	2.0	1.9	2.0	2.4	2.9	2.4	2.2	2.5	2.9	2.4	2.2	8.0	9.9	10.0
Nonhydro renewables (d)	30.5	26.7	19.5	29.9	32.3	27.4	21.3	31.8	36.6	32.3	24.8	34.6	106.6	112.9	128.3
Other energy sources (e)	0.8	0.7	1.3	0.8	1.4	1.2	1.4	1.4	1.1	1.1	1.3	1.3	3.6	5.3	4.8
Total generation	145.3	143.1	171.6	143.8	148.3	145.1	175.1	150.8	156.0	151.2	180.3	153.7	603.8	619.3	641.2
Net energy for load (f)	158.6	157.9	184.3	155.2	162.3	161.7	191.9	162.3	165.5	164.1	194.0	163.7	656.0	678.2	687.4
Central (Southwest Power Pool)															
Natural Gas	15.8	21.6	30.5	18.3	18.4	25.3	30.8	17.4	16.6	21.8	29.5	17.1	86.1	91.9	85.1
Coal	20.4	17.2	27.4	18.4	19.2	13.9	25.1	16.1	17.6	14.9	24.8	15.0	83.4	74.4	72.3
Nuclear	4.3	4.3	4.3	4.4	4.4	3.0	4.3	3.5	4.2	4.3	4.3	3.0	17.2	15.1	15.8
Conventional hydropower	2.9	2.8	2.7	2.7	3.4	4.1	3.7	3.1	3.5	4.2	3.7	3.1	11.1	14.3	14.5
Nonhydro renewables (d)	31.4	25.6	22.5	29.4	30.2	28.5	24.6	31.2	30.3	28.7	25.5	32.4	108.9	114.4	116.9
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	0.6
Total generation	75.0	71.6	87.6	73.3	75.8	74.9	88.7	71.4	72.5	74.0	88.0	70.7	307.5	310.8	305.3
Net energy for load (f)	66.6	66.6	81.8	65.7	69.8	69.8	83.1	65.4	66.0	67.5	82.0	64.8	280.7	288.2	280.3
Texas (ERCOT)															
Natural Gas	36.5	49.6	70.1	42.7	39.3	47.2	62.2	42.1	35.8	42.4	58.1	42.0	198.9	190.9	178.3
Coal	11.4	15.2	19.7	15.0	11.4	9.5	15.1	11.4	8.4	10.1	14.6	9.7	61.3	47.4	42.8
Nuclear	10.5	9.0	10.9	10.3	10.7	9.8	10.6	9.3	10.8	10.0	11.0	9.9	40.7	40.4	41.7
Conventional hydropower	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.6	0.6	0.6
Nonhydro renewables (d)	36.6	33.8	33.6	31.7	39.9	43.7	44.7	39.3	43.7	50.8	52.1	43.2	135.6	167.6	189.9
Other energy sources (e)	0.2	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.2	-0.1	-0.1	1.2	0.9	0.0
Total generation	95.4	108.1	134.7	100.1	101.8	110.7	132.9	102.4	98.9	113.7	135.9	104.9	438.3	447.8	453.3
Net energy for load (f)	94.2	109.8	140.6	100.0	101.8	110.7	132.9	102.4	98.9	113.7	135.9	104.9	444.5	447.8	453.3
Northwest															
Natural Gas	24.3	17.9	27.8	23.9	24.7	11.8	22.2	22.8	21.4	12.4	20.1	22.8	93.9	81.6	76.6
Coal	20.2	14.4	23.6	20.2	17.6	15.6	27.0	19.8	17.0	13.1	26.4	17.5	78.4	80.0	73.9
Nuclear	2.4	1.0	2.5	2.5	2.5	2.4	2.4	2.4	2.4	1.2	2.4	2.4	8.4	9.8	8.5
Conventional hydropower	25.8	29.9	23.5	23.8	25.3	33.2	26.1	24.6	30.7	37.0	29.2	27.0	103.0	109.3	123.8
Nonhydro renewables (d)	18.9	19.2	17.8	17.5	21.0	22.9	21.5	19.3	22.8	23.8	22.9	19.8	73.3	84.7	89.3
Other energy sources (e)	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.8	0.5	0.4
Total generation	91.8	82.6	95.4	88.0	91.3	86.1	99.4	89.2	94.3	87.5	101.1	89.7	357.8	366.0	372.6
Net energy for load (f)	88.7	76.7	86.5	82.7	88.6	76.6	85.9	81.8	84.0	75.8	85.8	81.8	334.6	332.9	327.4
Southwest															
Natural Gas	12.5	16.5	23.0	16.7	12.2	17.0	23.5	15.2	9.0	14.1	22.1	14.2	68.8	68.0	59.4
Coal	5.5	3.1	6.5	4.3	6.5	3.3	6.0	5.2	6.3	4.3	6.4	5.8	19.4	20.9	22.8
Nuclear	8.6	6.8	8.6	7.6	8.7	7.4	8.6	7.5	8.4	7.4	8.6	7.5	31.5	32.2	31.9
Conventional hydropower	1.4	2.5	2.0	1.4	1.5	2.3	2.0	1.5	1.7	2.2	1.9	1.6	7.3	7.3	7.4
Nonhydro renewables (d)	6.4	6.5	6.1	5.6	6.9	7.9	7.8	7.3	8.8	9.8	9.0	8.3	24.6	30.0	35.9
Other energy sources (e)	0.0	0.1	0.0	0.0	0.0	0.1	0.0	-0.1	0.0	0.0	0.0	-0.1	0.1	0.0	-0.1
Total generation	34.5	35.4	46.2	35.6	35.9	38.0	47.9	36.7	34.2	37.8	48.0	37.3	151.8	158.4	157.3
Net energy for load (f)	28.3	32.9	45.8	29.9	29.0	34.4	44.8	29.4	28.1	34.3	44.9	29.4	136.9	137.6	136.6
California															
Natural Gas	20.2	11.5	27.2	25.6	18.1	15.2	25.7	21.4	15.5	12.1	25.1	22.3	84.6	80.4	75.0
Coal	1.1	0.6	1.7	1.1	1.0	0.4	2.1	1.2	1.0	0.7	0.9	0.0	4.4	4.7	2.6
Nuclear	4.7	4.9	4.9	3.2	4.9	3.6	4.7	4.7	4.6	3.7	4.7	3.6	17.7	17.9	16.6
Conventional hydropower	6.5	10.5	9.4	4.9	7.0	9.7	8.8	5.1	5.4	9.1	8.2	4.4	31.3	30.6	27.1
Nonhydro renewables (d)	14.7	20.3	20.5	14.9	18.4	21.8	23.0	16.0	18.0	23.5	24.1	17.1	70.5	79.3	82.6
Other energy sources (e)	-0.6	-0.2	0.0	-0.2	-0.8	-0.4	-0.2	-0.4	-0.9	-0.5	-0.3	-0.5	-1.0	-1.7	-2.3
Total generation	46.7	47.7	63.7	49.5	48.7	50.3	64.2	48.1	43.6	48.6	62.7	46.9	207.6	211.2	201.8
Net energy for load (f)	60.5	59.9	76.7	62.9	59.5	63.4	80.7	62.7	59.9	63.9	81.0	62.7	260.0	266.4	267.6

Notes: EIA completed modeling and analysis for this report on March 7, 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 - March 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	487.2	489.0	489.4	489.5	489.6	488.0	489.1	489.8	489.7	492.9	493.8	493.7	489.5	489.8	493.7
Coal	186.3	182.7	180.5	179.4	178.0	177.5	177.5	177.0	177.0	174.6	172.8	166.2	179.4	177.0	166.2
Petroleum	27.8	27.6	27.6	27.6	27.6	27.3	27.3	27.2	27.2	27.2	27.2	27.0	27.6	27.2	27.0
Other gases	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Renewable energy sources															
Wind	143.0	144.4	144.5	147.5	150.3	151.7	151.9	154.2	155.1	155.5	156.0	159.9	147.5	154.2	159.9
Solar photovoltaic	73.2	76.7	80.4	89.8	100.3	111.3	116.0	125.7	132.2	140.3	144.4	160.5	89.8	125.7	160.5
Solar thermal	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Geothermal	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Waste biomass	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Wood biomass	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Conventional hydroelectric	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.9	79.8	79.8	79.9
Pumped storage hydroelectric	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
Nuclear	94.7	94.7	95.8	95.8	95.8	96.9	96.9	96.9	96.9	96.9	96.9	96.9	95.8	96.9	96.9
Battery storage	9.5	10.9	13.4	15.5	19.4	23.6	25.6	30.2	31.7	35.5	37.0	40.8	15.5	30.2	40.8
Other nonrenewable sources (a)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
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	18.8	18.8	18.9	18.9	18.9	18.9	18.9	18.9	18.8	18.9	18.9
Coal	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Petroleum	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Other gases	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Renewable energy sources															
Wood biomass	5.4	5.4	5.4	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.4	5.3	5.3	5.4
Waste biomass	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Solar	0.6	0.6	0.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Wind	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Geothermal	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Conventional hydroelectric	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Battery storage	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other nonrenewable sources (a)	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.2	1.2	1.3
Small-scale solar photovoltaic capacity (systems smaller than one megawatt)															
Residential sector	27.8	29.6	31.4	32.9	34.1	35.4	36.7	38.1	39.4	40.8	42.3	43.7	32.9	38.1	43.7
Commercial sector	11.5	11.8	12.0	12.3	12.7	13.2	13.6	14.1	14.5	15.0	15.5	16.0	12.3	14.1	16.0
Industrial sector	2.4	2.5	2.5	2.6	2.6	2.7	2.7	2.8	2.8	2.9	3.0	3.0	2.6	2.8	3.0
All sectors total	41.7	43.8	45.9	47.7	49.5	51.3	53.1	54.9	56.9	58.8	60.8	62.8	47.7	54.9	62.8

Notes:

EIA completed modeling and analysis for this report on March 7, 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, December 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 - March 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Electric Power Sector															
Geothermal	0.014	0.014	0.014	0.014	0.015	0.011	0.014	0.014	0.013	0.010	0.014	0.014	0.056	0.054	0.050
Hydroelectric Power (a)	0.208	0.219	0.200	0.190	0.212	0.250	0.209	0.194	0.230	0.262	0.217	0.201	0.817	0.865	0.909
Solar (b)	0.100	0.167	0.177	0.114	0.140	0.236	0.256	0.159	0.182	0.296	0.311	0.190	0.558	0.791	0.979
Waste Biomass (c)	0.043	0.041	0.042	0.041	0.043	0.041	0.042	0.041	0.041	0.040	0.041	0.040	0.167	0.166	0.162
Wood Biomass	0.044	0.040	0.045	0.033	0.049	0.044	0.053	0.043	0.048	0.044	0.052	0.041	0.162	0.189	0.185
Wind	0.430	0.350	0.289	0.382	0.440	0.374	0.306	0.405	0.455	0.388	0.317	0.421	1.450	1.525	1.581
Subtotal	0.838	0.831	0.766	0.775	0.900	0.955	0.879	0.856	0.969	1.038	0.952	0.907	3.210	3.590	3.867
Industrial Sector															
Biofuel Losses and Co-products (d)	0.199	0.202	0.206	0.211	0.205	0.206	0.208	0.210	0.205	0.208	0.208	0.212	0.819	0.829	0.835
Geothermal	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.004	0.004	0.004
Hydroelectric Power (a)	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003	0.003	0.003
Solar (b)	0.003	0.005	0.005	0.003	0.004	0.005	0.005	0.004	0.004	0.005	0.006	0.004	0.016	0.017	0.019
Waste Biomass (c)	0.042	0.040	0.037	0.041	0.040	0.039	0.038	0.041	0.040	0.039	0.038	0.041	0.160	0.159	0.159
Wood Biomass	0.318	0.299	0.299	0.315	0.318	0.328	0.343	0.347	0.336	0.334	0.346	0.348	1.232	1.335	1.364
Subtotal (e)	0.568	0.553	0.554	0.578	0.573	0.584	0.601	0.608	0.592	0.594	0.605	0.612	2.253	2.367	2.402
Commercial Sector															
Geothermal	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.020	0.020	0.020
Solar (b)	0.014	0.021	0.021	0.014	0.016	0.023	0.023	0.016	0.019	0.027	0.027	0.018	0.069	0.079	0.090
Waste Biomass (c)	0.017	0.017	0.018	0.018	0.017	0.017	0.018	0.018	0.017	0.017	0.018	0.018	0.071	0.071	0.071
Wood Biomass	0.020	0.020	0.021	0.021	0.020	0.020	0.021	0.021	0.020	0.020	0.021	0.021	0.082	0.082	0.082
Subtotal (e)	0.063	0.070	0.072	0.064	0.065	0.073	0.074	0.067	0.067	0.076	0.078	0.070	0.269	0.279	0.290
Residential Sector															
Geothermal	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.040	0.040	0.040
Solar (f)	0.046	0.069	0.070	0.050	0.053	0.079	0.079	0.054	0.058	0.088	0.087	0.060	0.235	0.265	0.293
Wood Biomass	0.111	0.112	0.114	0.111	0.111	0.112	0.114	0.111	0.111	0.112	0.114	0.111	0.448	0.448	0.448
Subtotal	0.166	0.191	0.193	0.171	0.174	0.201	0.202	0.175	0.179	0.210	0.211	0.181	0.722	0.753	0.781
Transportation Sector															
Biodiesel, Renewable Diesel, and Other (g)	0.140	0.173	0.175	0.172	0.175	0.183	0.187	0.202	0.199	0.219	0.225	0.236	0.660	0.746	0.880
Ethanol (g)	0.270	0.286	0.288	0.288	0.272	0.288	0.292	0.287	0.270	0.289	0.290	0.288	1.131	1.139	1.138
Subtotal	0.410	0.459	0.463	0.460	0.447	0.470	0.479	0.489	0.470	0.508	0.516	0.524	1.791	1.886	2.018
All Sectors Total															
Biodiesel, Renewable Diesel, and Other (g)	0.140	0.173	0.175	0.172	0.175	0.183	0.187	0.202	0.199	0.219	0.225	0.236	0.660	0.746	0.880
Biofuel Losses and Co-products (d)	0.199	0.202	0.206	0.211	0.205	0.206	0.208	0.210	0.205	0.208	0.208	0.212	0.819	0.829	0.835
Ethanol (f)	0.281	0.298	0.299	0.300	0.284	0.300	0.304	0.299	0.281	0.301	0.302	0.300	1.177	1.186	1.185
Geothermal	0.030	0.029	0.030	0.030	0.031	0.027	0.030	0.030	0.029	0.026	0.029	0.030	0.120	0.117	0.114
Hydroelectric Power (a)	0.209	0.220	0.201	0.191	0.214	0.251	0.209	0.195	0.231	0.263	0.218	0.202	0.821	0.869	0.913
Solar (b)(f)	0.162	0.262	0.272	0.181	0.213	0.343	0.363	0.233	0.263	0.415	0.431	0.272	0.877	1.152	1.381
Waste Biomass (c)	0.102	0.098	0.097	0.100	0.100	0.098	0.098	0.100	0.098	0.096	0.097	0.100	0.397	0.396	0.391
Wood Biomass	0.493	0.472	0.478	0.480	0.498	0.504	0.531	0.521	0.515	0.510	0.533	0.521	1.923	2.054	2.079
Wind	0.430	0.350	0.289	0.382	0.440	0.374	0.306	0.405	0.455	0.388	0.317	0.421	1.450	1.525	1.581
Total Consumption	2.046	2.104	2.048	2.048	2.160	2.284	2.235	2.196	2.277	2.426	2.361	2.294	8.245	8.875	9.358

Notes: EIA completed modeling and analysis for this report on March 7, 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 - March 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Macroeconomic															
Real Gross Domestic Product (billion chained 2017 dollars - SAAR)	22,112	22,225	22,491	22,673	22,788	22,889	22,998	23,109	23,196	23,291	23,386	23,482	22,375	22,946	23,339
Real Personal Consumption Expend. (billion chained 2017 dollars - SAAR)	15,313	15,344	15,461	15,570	15,684	15,781	15,881	15,978	16,053	16,127	16,209	16,290	15,422	15,831	16,170
Real Private Fixed Investment (billion chained 2017 dollars - SAAR)	3,906	3,956	3,981	3,998	4,015	4,039	4,058	4,079	4,103	4,126	4,146	4,165	3,960	4,048	4,135
Business Inventory Change (billion chained 2017 dollars - SAAR)	24	19	102	107	99	90	97	108	110	111	107	99	63	99	107
Real Government Expenditures (billion chained 2017 dollars - SAAR)	3,759	3,790	3,843	3,874	3,881	3,885	3,889	3,892	3,896	3,900	3,904	3,909	3,817	3,887	3,902
Real Exports of Goods & Services (billion chained 2017 dollars - SAAR)	2,525	2,465	2,497	2,536	2,557	2,586	2,622	2,655	2,685	2,712	2,742	2,772	2,506	2,605	2,728
Real Imports of Goods & Services (billion chained 2017 dollars - SAAR)	3,460	3,393	3,428	3,444	3,487	3,540	3,600	3,660	3,713	3,752	3,792	3,827	3,431	3,572	3,771
Real Disposable Personal Income (billion chained 2017 dollars - SAAR)	16,663	16,797	16,809	16,915	17,065	17,214	17,367	17,493	17,623	17,753	17,885	18,007	16,796	17,285	17,817
Non-Farm Employment (millions)	155.0	155.8	156.4	157.1	157.9	158.2	158.3	158.5	158.6	158.7	158.8	158.9	156.1	158.2	158.7
Civilian Unemployment Rate (percent)	3.5	3.6	3.7	3.7	3.7	3.7	3.8	3.9	3.9	4.0	4.0	4.1	3.6	3.8	4.0
Housing Starts (millions - SAAR)	1.39	1.45	1.37	1.45	1.43	1.45	1.42	1.40	1.40	1.38	1.36	1.35	1.41	1.43	1.37
Industrial Production Indices (Index, 2017=100)															
Total Industrial Production	102.6	102.8	103.2	102.6	102.9	103.2	103.3	103.6	103.8	104.1	104.4	104.8	102.8	103.2	104.3
Manufacturing	99.9	100.2	100.0	99.5	99.5	100.1	100.6	101.1	101.4	101.8	102.1	102.5	99.9	100.3	101.9
Food	105.1	103.6	101.6	102.3	102.6	103.5	104.0	104.5	104.9	105.3	105.8	106.3	103.2	103.6	105.6
Paper	87.8	86.6	86.7	88.0	86.5	86.8	87.3	87.7	87.9	88.2	88.4	88.7	87.3	87.1	88.3
Petroleum and Coal Products	88.5	89.9	91.3	93.0	92.8	94.0	94.0	93.9	93.6	93.3	93.0	92.8	90.7	93.6	93.2
Chemicals	103.2	103.8	103.4	102.6	102.7	104.0	105.0	105.8	106.6	107.5	108.0	108.8	103.2	104.4	107.7
Nonmetallic Mineral Products	111.4	108.6	107.5	107.8	107.4	108.4	109.2	110.2	111.3	112.4	113.2	113.9	108.8	108.8	112.7
Primary Metals	92.7	95.7	94.8	93.9	94.3	95.7	97.7	99.0	99.1	100.1	100.4	101.2	94.3	96.7	100.2
Coal-weighted Manufacturing (a)	95.7	96.2	96.0	96.1	96.1	97.3	98.3	99.0	99.3	99.9	100.2	100.6	96.0	97.7	100.0
Distillate-weighted Manufacturing (a)	99.3	99.1	98.7	98.8	98.8	99.8	100.5	101.2	101.7	102.2	102.7	103.1	99.0	100.1	102.4
Electricity-weighted Manufacturing (a)	96.4	96.8	96.9	96.6	96.9	98.0	98.9	99.6	100.0	100.6	101.0	101.5	96.7	98.3	100.8
Natural Gas-weighted Manufacturing (a)	94.0	94.1	94.5	94.6	94.7	95.8	96.6	97.2	97.4	97.9	98.1	98.5	94.3	96.1	97.9
Price Indexes															
Consumer Price Index (all urban consumers) (index, 1982-1984=1.00)	3.01	3.03	3.06	3.08	3.10	3.11	3.12	3.14	3.15	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	2.55	2.51	2.49	2.49	2.50	2.50	2.49	2.50	2.51	2.56	2.50	2.50
Producer Price Index: Petroleum (index, 1982=1.00)	3.09	2.91	3.17	2.82	2.57	2.73	2.80	2.69	2.66	2.72	2.72	2.56	3.00	2.69	2.66
GDP Implicit Price Deflator (index, 2017=100)	121.3	121.8	122.8	123.2	123.6	124.1	124.7	125.4	126.1	126.8	127.5	128.2	122.3	124.5	127.1
Miscellaneous															
Vehicle Miles Traveled (b) (million miles/day)	8,427	9,160	9,335	8,837	8,517	9,372	9,519	8,883	8,588	9,440	9,583	8,943	8,942	9,074	9,141
Air Travel Capacity (Available ton-miles/day, thousands)	683	734	744	759	721	762	774	760	744	790	803	789	730	754	782
Aircraft Utilization (Revenue ton-miles/day, thousands)	390	440	449	449	439	487	496	480	471	518	525	508	432	475	506
Airline Ticket Price Index (index, 1982-1984=100)	277.6	290.8	248.6	252.0	243.6	289.5	273.2	282.3	278.1	327.2	305.3	312.7	267.2	272.2	305.8
Raw Steel Production (million short tons per day)	0.236	0.244	0.245	0.242	0.245	0.257	0.262	0.258	0.263	0.273	0.274	0.267	0.242	0.256	0.269
Carbon Dioxide (CO2) Emissions (million metric tons)															
Petroleum	548	563	570	578	566	566	570	568	554	566	570	569	2,259	2,270	2,258
Natural Gas	501	383	416	460	511	384	418	460	508	380	411	460	1,759	1,773	1,759
Coal	187	168	241	185	184	155	224	172	174	148	228	161	780	736	712
Total Energy (c)	1,238	1,116	1,230	1,226	1,263	1,108	1,215	1,203	1,239	1,097	1,212	1,192	4,810	4,789	4,739

(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 March 7, 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 - March 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Real Gross State Product (Billion \$2017)															
New England	1,148	1,153	1,166	1,174	1,178	1,182	1,186	1,191	1,195	1,199	1,203	1,207	1,160	1,184	1,201
Middle Atlantic	3,192	3,202	3,235	3,258	3,275	3,287	3,300	3,314	3,324	3,335	3,347	3,358	3,222	3,294	3,341
E. N. Central	2,832	2,841	2,870	2,888	2,903	2,916	2,929	2,940	2,945	2,953	2,962	2,972	2,858	2,922	2,958
W. N. Central	1,353	1,360	1,377	1,391	1,399	1,405	1,411	1,416	1,421	1,426	1,431	1,437	1,370	1,408	1,429
S. Atlantic	4,092	4,107	4,154	4,191	4,212	4,234	4,256	4,278	4,296	4,315	4,335	4,355	4,136	4,245	4,325
E. S. Central	998	1,000	1,011	1,015	1,019	1,023	1,027	1,031	1,034	1,038	1,041	1,044	1,006	1,025	1,039
W. S. Central	2,563	2,590	2,634	2,665	2,682	2,696	2,712	2,729	2,745	2,760	2,775	2,790	2,613	2,705	2,767
Mountain	1,527	1,535	1,556	1,570	1,578	1,585	1,592	1,600	1,608	1,615	1,623	1,630	1,547	1,589	1,619
Pacific	4,249	4,277	4,327	4,358	4,379	4,399	4,420	4,443	4,463	4,482	4,502	4,521	4,303	4,410	4,492
Industrial Output, Manufacturing (Index, Year 2017=100)															
New England	96.1	96.2	95.8	95.3	95.4	95.9	96.3	96.8	97.1	97.5	97.8	98.2	95.8	96.1	97.6
Middle Atlantic	95.1	95.2	95.0	94.2	94.1	94.6	94.9	95.4	95.8	96.0	96.3	96.6	94.9	94.7	96.2
E. N. Central	96.2	96.4	96.0	95.3	95.6	96.2	96.9	97.4	97.5	97.8	98.0	98.3	96.0	96.5	97.9
W. N. Central	101.4	101.8	101.1	100.6	100.8	101.3	101.7	102.2	102.5	102.8	103.1	103.5	101.2	101.5	103.0
S. Atlantic	102.1	102.4	102.2	101.5	101.7	102.2	102.8	103.4	103.8	104.2	104.6	105.1	102.1	102.5	104.5
E. S. Central	100.3	101.0	101.0	99.9	99.8	100.3	100.9	101.3	101.5	101.6	101.8	102.1	100.5	100.6	101.8
W. S. Central	104.1	104.7	105.7	105.6	105.8	106.5	107.2	108.0	108.5	108.9	109.3	109.8	105.0	106.9	109.2
Mountain	111.6	111.8	111.5	111.5	111.3	111.8	112.4	113.0	113.3	113.7	114.1	114.6	111.6	112.1	113.9
Pacific	97.3	97.2	96.7	96.3	96.2	96.5	96.8	97.2	97.6	97.8	98.1	98.5	96.8	96.7	98.0
Real Personal Income (Billion \$2017)															
New England	953	955	960	967	976	985	994	1,002	1,009	1,017	1,024	1,031	958	989	1,020
Middle Atlantic	2,517	2,530	2,535	2,546	2,569	2,590	2,610	2,628	2,646	2,664	2,681	2,697	2,532	2,599	2,672
E. N. Central	2,615	2,624	2,626	2,636	2,658	2,680	2,702	2,720	2,737	2,755	2,772	2,787	2,625	2,690	2,763
W. N. Central	1,294	1,295	1,295	1,297	1,304	1,312	1,321	1,330	1,341	1,350	1,359	1,368	1,295	1,317	1,355
S. Atlantic	3,712	3,728	3,737	3,766	3,804	3,841	3,879	3,910	3,944	3,977	4,009	4,039	3,736	3,859	3,992
E. S. Central	1,010	1,011	1,014	1,018	1,027	1,036	1,044	1,050	1,056	1,063	1,069	1,076	1,013	1,039	1,066
W. S. Central	2,318	2,312	2,322	2,340	2,364	2,387	2,411	2,431	2,453	2,473	2,494	2,513	2,323	2,398	2,483
Mountain	1,426	1,438	1,443	1,453	1,464	1,476	1,488	1,498	1,510	1,521	1,532	1,543	1,440	1,481	1,526
Pacific	3,089	3,112	3,113	3,130	3,160	3,189	3,217	3,241	3,266	3,290	3,315	3,338	3,111	3,202	3,302
Households (Thousands)															
New England	6,088	6,103	6,118	6,126	6,134	6,146	6,159	6,169	6,180	6,190	6,201	6,211	6,126	6,169	6,211
Middle Atlantic	16,074	16,101	16,127	16,143	16,155	16,175	16,197	16,217	16,236	16,255	16,275	16,294	16,143	16,217	16,294
E. N. Central	19,005	19,040	19,080	19,109	19,134	19,164	19,195	19,223	19,250	19,279	19,308	19,335	19,109	19,223	19,335
W. N. Central	8,702	8,729	8,755	8,775	8,794	8,813	8,833	8,852	8,871	8,891	8,910	8,929	8,775	8,852	8,929
S. Atlantic	27,263	27,363	27,465	27,550	27,636	27,728	27,821	27,905	27,981	28,057	28,131	28,207	27,550	27,905	28,207
E. S. Central	7,902	7,933	7,963	7,988	8,012	8,035	8,058	8,079	8,099	8,118	8,138	8,159	7,988	8,079	8,159
W. S. Central	15,960	16,022	16,090	16,146	16,195	16,248	16,308	16,363	16,417	16,473	16,526	16,580	16,146	16,363	16,580
Mountain	9,791	9,820	9,852	9,879	9,904	9,934	9,965	9,997	10,029	10,064	10,098	10,133	9,879	9,997	10,133
Pacific	18,984	19,002	19,028	19,043	19,053	19,071	19,097	19,118	19,139	19,162	19,187	19,213	19,043	19,118	19,213
Total Non-farm Employment (Millions)															
New England	7.6	7.6	7.6	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.6	7.7	7.7
Middle Atlantic	20.1	20.1	20.2	20.3	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.2	20.4	20.4
E. N. Central	22.3	22.4	22.5	22.6	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.5	22.7	22.7
W. N. Central	10.9	10.9	11.0	11.0	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.0	11.1	11.1
S. Atlantic	30.5	30.7	30.8	31.0	31.2	31.3	31.3	31.4	31.4	31.5	31.5	31.6	30.8	31.3	31.5
E. S. Central	8.6	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
W. S. Central	18.8	19.0	19.1	19.2	19.3	19.4	19.4	19.4	19.5	19.5	19.5	19.5	19.0	19.4	19.5
Mountain	11.8	11.9	11.9	12.0	12.0	12.1	12.1	12.1	12.1	12.1	12.2	12.2	11.9	12.1	12.2
Pacific	24.5	24.7	24.7	24.8	24.9	25.0	25.0	25.0	25.0	25.0	25.0	25.0	24.7	25.0	25.0

- = no data available

Notes: EIA completed modeling and analysis for this report on March 7, 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 - March 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	2,710	811	88	1,924	2,874	821	131	2,036	2,943	818	130	2,028	5,533	5,863	5,920
Middle Atlantic	2,455	654	72	1,782	2,643	657	86	1,865	2,722	654	86	1,858	4,963	5,251	5,320
E. N. Central	2,727	700	96	1,901	2,765	703	121	2,135	3,002	701	120	2,130	5,424	5,724	5,953
W. N. Central	3,169	656	92	2,010	2,917	707	154	2,354	3,171	706	154	2,352	5,927	6,132	6,383
South Atlantic	1,056	191	10	889	1,296	180	13	884	1,273	178	12	877	2,145	2,372	2,341
E. S. Central	1,388	256	13	1,162	1,728	233	19	1,228	1,685	232	19	1,223	2,818	3,209	3,159
W. S. Central	930	91	1	694	1,153	85	5	767	1,094	85	5	764	1,717	2,010	1,948
Mountain	2,555	727	126	1,661	2,264	711	154	1,841	2,166	710	153	1,839	5,068	4,970	4,869
Pacific	1,832	657	99	1,031	1,491	585	95	1,160	1,442	583	95	1,158	3,618	3,331	3,277
U.S. Average	1,921	485	61	1,335	1,959	471	75	1,451	1,989	469	74	1,444	3,802	3,956	3,977
Heating Degree Days, Prior 10-year Average															
New England	3,151	859	106	2,093	3,110	855	98	2,056	3,041	849	96	2,052	6,209	6,120	6,038
Middle Atlantic	2,939	689	69	1,907	2,890	685	63	1,879	2,811	681	62	1,869	5,604	5,517	5,423
E. N. Central	3,215	741	93	2,169	3,159	735	91	2,113	3,042	733	86	2,090	6,218	6,098	5,951
W. N. Central	3,319	754	121	2,374	3,295	729	120	2,303	3,200	725	118	2,287	6,568	6,447	6,329
South Atlantic	1,403	190	10	905	1,357	188	9	895	1,315	186	9	880	2,508	2,449	2,390
E. S. Central	1,811	251	14	1,231	1,756	248	14	1,206	1,702	248	14	1,187	3,307	3,224	3,151
W. S. Central	1,188	95	3	762	1,164	90	3	730	1,131	90	3	723	2,048	1,987	1,946
Mountain	2,193	696	128	1,833	2,207	696	128	1,800	2,222	696	128	1,808	4,850	4,831	4,854
Pacific	1,444	523	75	1,148	1,471	539	77	1,129	1,494	551	81	1,146	3,191	3,216	3,272
U.S. Average	2,133	485	60	1,477	2,103	483	58	1,444	2,053	482	58	1,435	4,155	4,088	4,028
Cooling Degree Days															
New England	0	54	471	5	0	98	505	1	0	99	510	1	530	604	610
Middle Atlantic	0	90	577	10	0	181	650	5	0	183	656	5	678	836	844
E. N. Central	0	179	522	10	0	243	595	7	1	245	598	7	712	845	851
W. N. Central	1	319	709	14	2	296	730	11	5	297	733	11	1,043	1,039	1,046
South Atlantic	203	587	1,240	242	112	709	1,280	257	139	714	1,288	259	2,272	2,357	2,400
E. S. Central	64	442	1,097	73	17	543	1,123	68	34	545	1,128	68	1,677	1,751	1,775
W. S. Central	150	900	1,862	216	86	931	1,640	212	105	936	1,648	213	3,128	2,870	2,902
Mountain	3	351	1,026	99	8	449	1,010	83	20	451	1,015	83	1,479	1,550	1,569
Pacific	26	108	611	80	15	199	697	77	28	200	703	78	824	988	1,009
U.S. Average	68	363	941	105	38	442	959	105	51	445	966	106	1,477	1,543	1,568
Cooling Degree Days, Prior 10-year Average															
New England	0	87	480	2	0	83	483	2	0	85	499	2	569	568	587
Middle Atlantic	0	160	617	8	0	154	622	9	0	156	644	8	785	784	808
E. N. Central	1	234	561	10	1	231	566	10	1	232	588	10	805	808	831
W. N. Central	4	292	674	12	4	301	680	12	4	304	699	12	982	997	1,020
South Atlantic	144	675	1,192	272	153	674	1,212	271	154	681	1,234	277	2,283	2,310	2,346
E. S. Central	36	520	1,058	83	41	519	1,077	85	42	523	1,097	85	1,697	1,721	1,747
W. S. Central	101	861	1,549	223	109	873	1,584	228	114	888	1,604	227	2,734	2,793	2,833
Mountain	24	460	960	83	22	447	971	88	19	448	985	87	1,527	1,528	1,539
Pacific	32	213	676	86	32	202	677	89	29	199	678	85	1,006	999	991
U.S. Average	50	415	895	109	53	414	909	111	54	419	927	112	1,470	1,488	1,512

- = no data available

Notes: EIA completed modeling and analysis for this report on March 7, 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.