



Independent Statistics and Analysis
U.S. Energy Information
Administration

Short-Term Energy Outlook

STEO

February 2024



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Short-Term Energy Outlook

Overview

U.S. energy market indicators	2023	2024	2025
Brent crude oil spot price (dollars per barrel)	\$82	\$82	\$79
Retail gasoline price (dollars per gallon)	\$3.52	\$3.31	\$3.31
U.S. crude oil production (million barrels per day)	12.93	13.10	13.49
Natural gas price at Henry Hub (dollars per million British thermal units)	\$2.54	\$2.65	\$2.94
U.S. liquefied natural gas gross exports (billion cubic feet per day)	11.8	12.1	14.4
Shares of U.S. electricity generation			
Natural gas	42%	42%	41%
Coal	17%	15%	14%
Renewables	22%	24%	26%
Nuclear	19%	19%	19%
U.S. GDP (percentage change)	2.4%	1.8%	1.6%
U.S. CO ₂ emissions (billion metric tons)	4.78	4.79	4.72

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

- **Natural gas production.** Because of disruptions in mid-January related to cold weather across the central United States, we estimate that U.S. dry natural gas production fell from a monthly record of 106 billion cubic feet per day (Bcf/d) in December to 102 Bcf/d in January. The January average was 3 Bcf/d lower than we had forecast in last month's STEO. We forecast that U.S. natural gas production will increase in February and reach 105 Bcf/d by March as the weather-related disruptions subside and will stay close to that level for the rest of the year. Dry natural gas production averages 104 Bcf/d for all of 2024 in our forecast, almost 1 Bcf/d less than we forecast in last month's STEO. We expect production will increase in 2025 to average more than 106 Bcf/d.
- **Natural gas consumption.** We estimate that more than 118 Bcf/d of natural gas was consumed in the United States in January, a new monthly record, driven by the electric power sector. Although our forecast assumes that the United States will see milder weather with 4% fewer heating degree days than is typical during February and March, we forecast that U.S. natural gas consumption will increase by 5% in the first quarter of 2024 (1Q24) compared with 1Q23, which was one of the warmest first quarters on record.
- **Natural gas storage.** In January, increased natural gas consumption and reduced production resulted in a withdrawal of almost 920 Bcf from storage for the month, the third-most ever. However, because January began with 13% more natural gas in storage than average over the past five years, inventories remain above the five-year (2019–2023) average. We expect U.S. natural gas inventories in February and March will fall by less than the five-year average because of milder-

than-normal weather. We forecast inventories will end this winter heating season (November–March) at about 1,910 Bcf, which would be 15% more than the five-year average.

- **Natural gas prices.** The Henry Hub spot price averaged \$3.18 per million British thermal units (MMBtu) in January. However, spot prices were volatile, rising sharply to \$13.20/MMBtu on Friday January 12 in anticipation of severely cold weather for the coming weekend. After the weekend, prices quickly fell and continued to decrease until January 23, when the price hit the monthly low of \$2.15/MMBtu. We forecast that mild weather for the remainder of 1Q24 will keep the average Henry Hub spot price near \$2.40/MMBtu during February and March. But volatility could return if severely cold weather emerges, even for a short period.
- **Crude oil prices.** The Brent crude oil spot price increased in January, averaging \$80 per barrel (b) because of heightened uncertainty about global oil shipments as [attacks to vessels in the Red Sea intensified](#). Although we expect crude oil prices will rise into the mid-\$80/b range in the coming months, we expect downward price pressures will emerge in 2Q24 as global oil inventories generally increase through the rest of our forecast. However, ongoing risks of supply disruptions in the Middle East create the potential for crude oil prices to be higher than our forecast.
- **U.S. crude oil production.** We estimate that U.S. crude oil production reached an all-time high in December of more than 13.3 million barrels per day (b/d). However, crude oil production fell to 12.6 million b/d in January because of shut-ins related to cold weather. We forecast production will return to almost 13.3 million b/d in February but then decrease slightly through the middle of 2024 and will not exceed the December 2023 record until February 2025.
- **Electricity generation.** Generation from renewable sources will likely grow in every region of the United States in 2024, driven by our forecast of a 36-gigawatt increase in solar generating capacity. We forecast U.S. solar generation will rise by 43% in 2024 and wind generation will rise by 6%. However, we revised our forecast generation from renewable sources down slightly in 2025 from last month's STEO because of lower reported [capacity additions from generators](#) in recent months. That factor, along with slightly more total generation in 2025, increased our forecast of coal-fired electricity generation in 2025 in this month's outlook.

Notable forecast changes

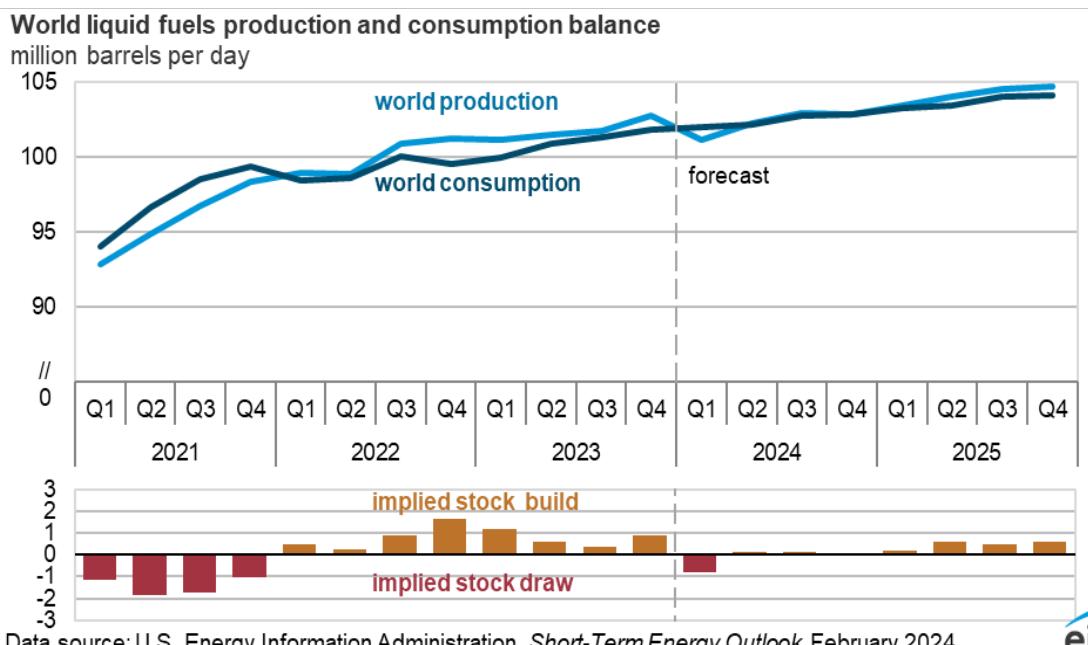
Current forecast: February 6, 2024; previous forecast: January 9, 2024	2024	2025
U.S. coal-fired power generation (billion kilowatthours)	614	570
Previous forecast	609	548
Percentage change	0.9%	4.2%
U.S. coal production (million short tons)	470	456
Previous forecast	489	429
Percentage change	-4.0%	6.3%

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 \$80 per barrel (b) in January, an increase of \$2/b from December, the first monthly increase in the crude oil price since September 2023. Prices rose primarily because of heightened uncertainty about global oil shipments as attacks to vessels around the [critical Red Sea shipping channel](#) intensified. The Red Sea is more critical to the flexibility of global oil trade than in years past following Russia's full-scale invasion of Ukraine. These attacks have increased both transit times and shipping costs for oil, limiting the flexibility of the oil market to adjust to any future supply disruptions. The attacks also add a risk premium to prices due to the potential that oil production in the Middle East could be shut in during the forecast period, although no oil production has been lost as of February 6.



The impact of the Red Sea attacks on oil prices has been limited because of prolonged global oil inventory accumulation during 2022 and 2023 and the lack of disruptions to oil production. Our current assessment is that global oil inventories increased by 0.8 million barrels per day (b/d) on average from October 2023, the month before the Red Sea attacks began, through January 2024 and by an average of 0.7 million b/d for all of 2023.

We expect that OPEC+ production cuts will lead to global oil inventory withdrawals during February and March, resulting in an average draw of 0.8 million b/d in 1Q24, which we expect will put upward pressure on oil prices in the coming months. After a period of relatively balanced markets during the rest of 2024, we forecast the market will gradually return to moderate inventory builds in 2025 as slowing growth in oil demand is again outpaced by increasing oil production growth. We forecast that global oil inventories will increase by an average of 0.1 million b/d in the final three quarters of 2024 and by an average of almost 0.5 million b/d in 2025.

We expect that the falling inventories in 1Q24 will increase oil prices into the mid-\$80/b range, before slight downward price pressures emerge through the remainder of our forecast. We forecast the Brent crude oil price will average \$81/b in December 2024 and fall to \$78/b by December 2025.

Global oil production and consumption

We expect that global production of liquid fuels will increase by 0.6 million b/d in 2024, slowing from the increase of almost 1.8 million b/d in 2023. In our forecast, global growth in liquid fuels production is led by non-OPEC supply, which increases by almost 0.8 million b/d, offsetting an OPEC production decline of 0.2 million b/d. Global liquids fuel production increases by almost 1.9 million b/d in 2025 in our forecast. The expiration of [existing OPEC+ production targets](#) at the end of 2024 contributes to our forecast that OPEC will increase crude oil production by 0.7 million next year. However, we expect the increase will be limited because Saudi Arabia and other OPEC+ countries will maintain some level of cuts in an attempt to balance markets. Our forecast for non-OPEC production growth averages 1.2 million b/d in 2025, led by the United States, Canada, Brazil, and Guyana.

We forecast that global consumption of liquid fuels will increase by 1.4 million b/d in 2024 and 1.3 million b/d in 2025. Most of the expected liquid fuels demand growth is in non-OECD Asia, led by China and India, which we expect will increase consumption by a combined 0.6 million b/d in 2024 and 0.5 million b/d in 2025. In OECD countries, liquid fuels consumption stays relatively flat in 2024 and 2025.

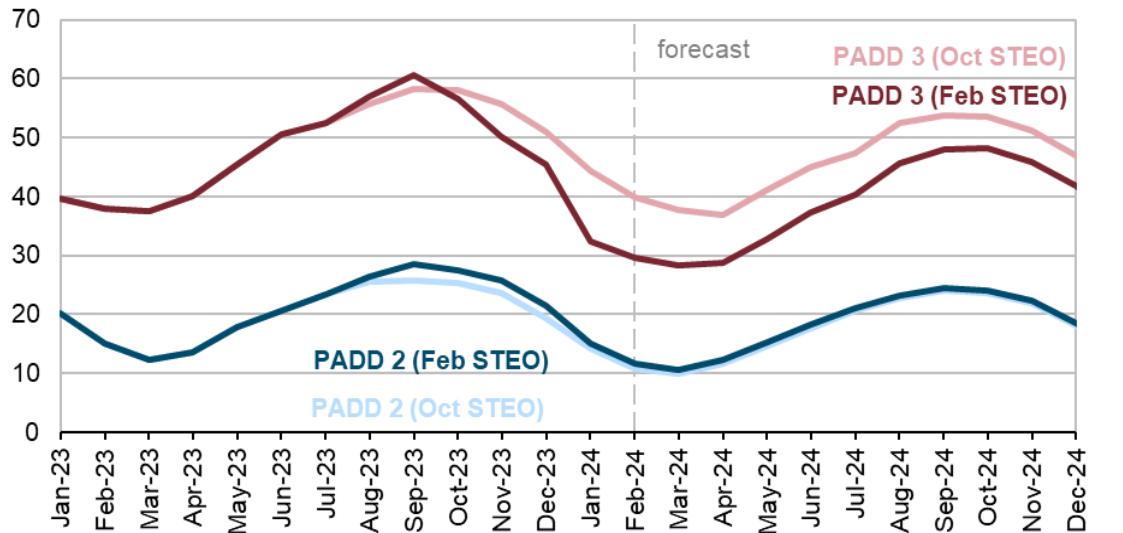
Petroleum Products

U.S. propane stocks and prices

A cold weather snap in mid-January increased propane consumption—particularly in the Midwest ([PADD 2](#)), where it is most widely used for home heating—and resulted in stock withdrawals that were more than the five-year average. Despite the significant withdrawal from stocks, our forecast for Midwest propane stocks at the end of this winter (March 2024) is up slightly from our October 2023 forecast, when we issued our [Winter Fuels Outlook](#). Stocks increased more than we had expected for September 2023, with Midwest [propane stocks](#) increasing to a seven-year high before the start of winter. Increased starting stocks and our expectation for milder-than-normal weather in February and March lead us to forecast end-of-winter Midwest propane stocks at 11 million barrels, up almost 1 million barrels from our original forecast from October 2023.

Withdrawals from propane stocks on the U.S. Gulf Coast (PADD 3) were also very high in January because of strong overseas demand rather than weather. Based on data from our [Weekly Petroleum Status Report](#), we estimate that January propane exports averaged 1.7 million barrels per day (b/d). If realized, that would set the [record for propane exports](#) in January. Demand for U.S. propane overseas remains high because the commodity is used as a feedstock in petrochemicals as well as a heating fuel. Although delays at the [Panama Canal](#) are increasing shipping times and costs for liquified petroleum gas (LPG) carriers, these issues have so far not affected U.S. propane exports, the bulk of which come from the U.S. Gulf Coast. We now expect Gulf Coast stocks to end March at 28 million barrels, down by more than 9 million barrels from our October 2023 forecast.

U.S. monthly propane inventories
million barrels



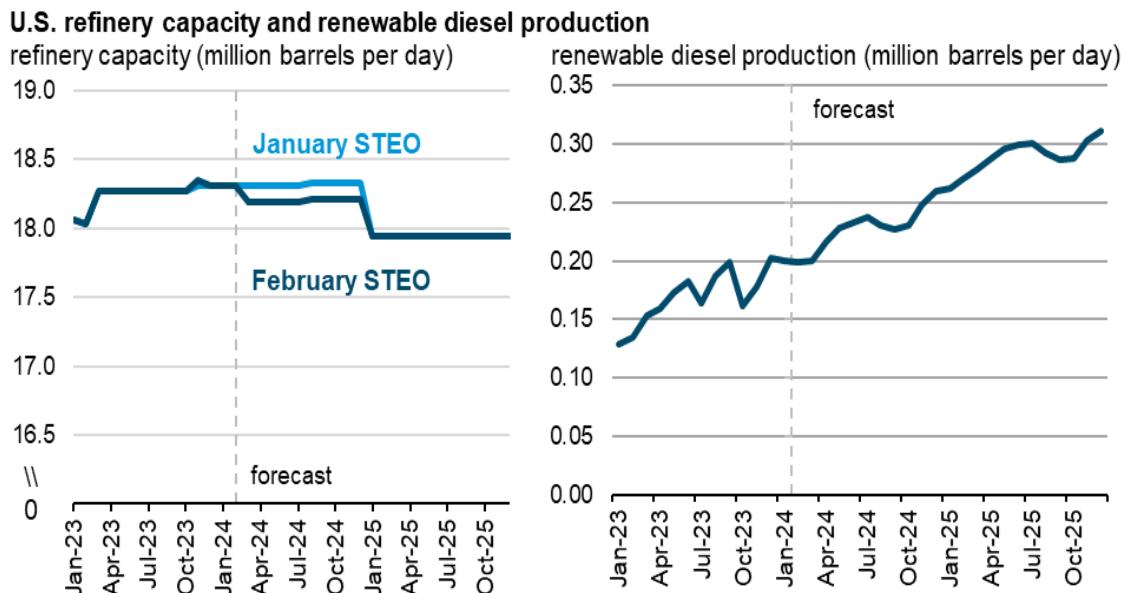
Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook (STEO)*, February 2024 

The combined effects of increased consumption from cold weather and record exports increased spot prices by more than we had previously forecast. In the October 2023 STEO, we forecast the Mont Belvieu, Texas, propane spot price would average 75 cents per gallon (gal) in January. The actual price averaged 78 cents/gal. We expect that lower inventories this year will keep propane prices higher than in 2023 for the rest of the year. The Mont Belvieu spot price in our forecast averages close to 80 cents/gal from 2Q24 through 4Q24, up from less than 70 cents/gal during that period last year.

U.S. refinery capacity

We are reducing our U.S. crude oil refining capacity forecast by 120,000 b/d beginning in March 2024, following reports that Phillips 66 will permanently stop processing crude oil in February at its Rodeo facility near San Francisco, California. Phillips 66 plans to fully convert the facility to renewable fuels production. We originally forecast the conversion would be finalized at the end of 2024. According to Phillips 66, the refinery produced around 60,000 b/d of distillate fuel and around 65,000 b/d of motor gasoline before the conversion. After conversion, the plant will produce around 50,000 b/d of renewable diesel, almost replacing the lost petroleum diesel the refinery produced. The Rodeo refinery is of average size compared with others in California and currently runs a combination of domestically produced crude oils and imported crude oil, mostly from Saudi Arabia and Canada.

We expect U.S. renewable diesel production to increase because of the Phillips 66 Rodeo conversion and other scheduled capacity expansions in the next two years. We forecast U.S. renewable diesel production will average 230,000 b/d in 2024 and 290,000 b/d in 2025, both about 30% annual increases.



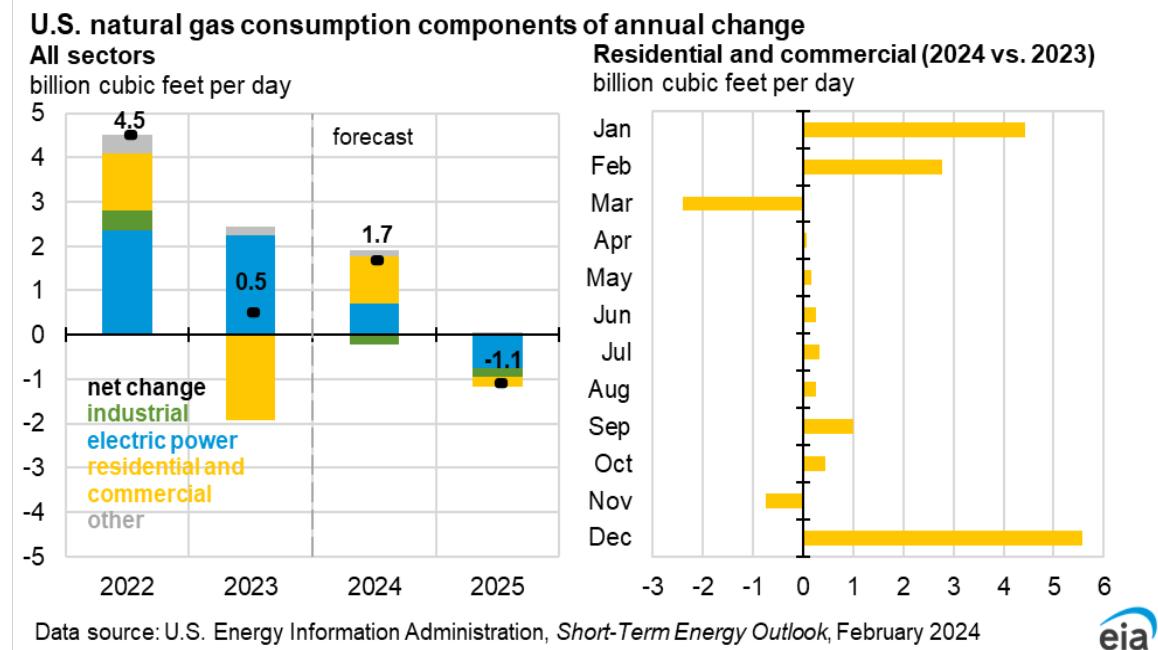
Natural Gas

Natural gas consumption

We estimate that 118 billion cubic feet per day (Bcf/d) of natural gas was consumed in the United States in January, the most in any month on record. Residential and commercial natural gas consumption in January averaged an estimated 46 Bcf/d, 4 Bcf/d more than January 2023. A mass of cold air covering much of the United States for several days in mid-January increased space heating demand across the country. According to data from S&P Global Commodity Insights, the cold weather led to record-high daily natural gas consumption on January 16. In addition, natural gas consumed for electricity generation increased by 5 Bcf/d in January compared with a year earlier, establishing a new January record of almost 37 Bcf/d. Despite the cold snap that briefly increased natural gas prices, the Henry Hub spot price stayed below \$3 per million British thermal units (MMBtu) for most of January, which increased use of natural gas for electricity generation.

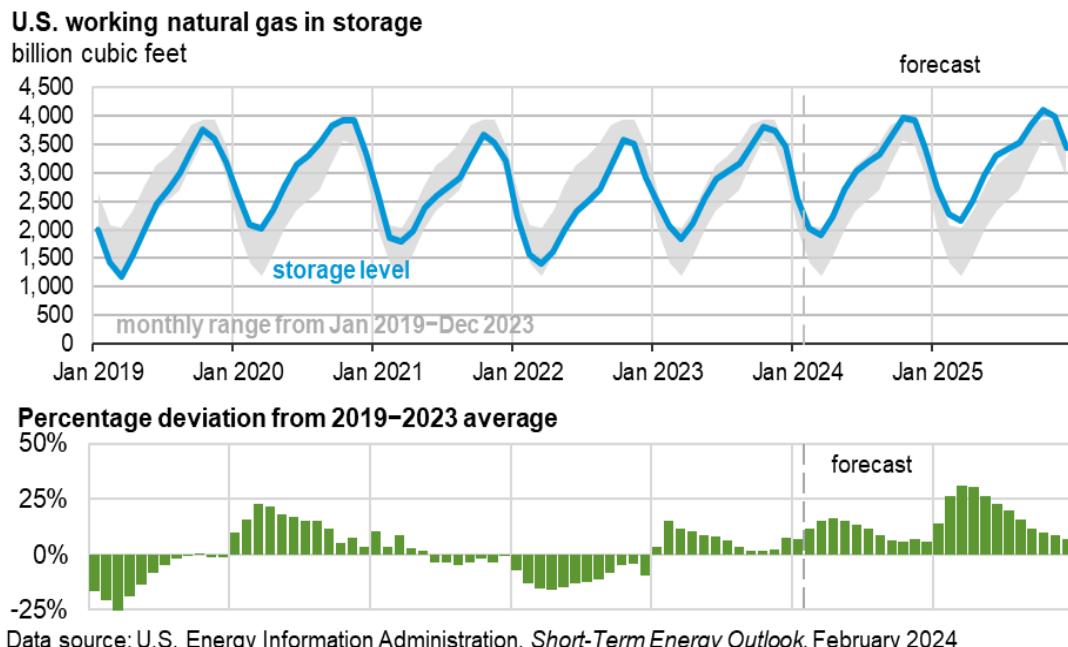
We forecast consumption of natural gas in the U.S. residential and commercial sectors will increase slightly in 2024, averaging 22 Bcf/d for the year. Residential and commercial sector natural gas consumption is highest in winter months due to increased space heating demand.

In February and March 2024, we forecast less natural gas consumption than average as a result of milder weather represented by 4% fewer heating degree days (HDDs) than the prior 10-year (2014–2023) average for those two months. However, winter storms could significantly affect consumption. In addition, natural gas exports are likely to decrease in February compared with January due to a partial outage at the Freeport LNG facility that began toward the end of January and that Freeport expects will last about a month.



Natural gas storage

We forecast U.S. natural gas inventories will decrease to 1,910 billion cubic feet (Bcf) by the end of this winter heating season (November–March), which would still be 15% above the previous five-year average. According to our [Weekly Natural Gas Storage Report](#), the third-largest U.S. storage withdrawal on record occurred during the week ending January 19 as a result of cold weather that increased natural gas demand across the country at the same time as a drop in natural gas production. Although the large weekly withdrawal reduced the natural gas storage surplus to the five-year (2019–2023) average, we estimate that inventories still ended January 7% above the five-year average. We forecast that mild weather during February and March will reduce natural gas consumption and increase natural gas production and that storage inventories will remain above the five-year average at the end of the winter heating season.

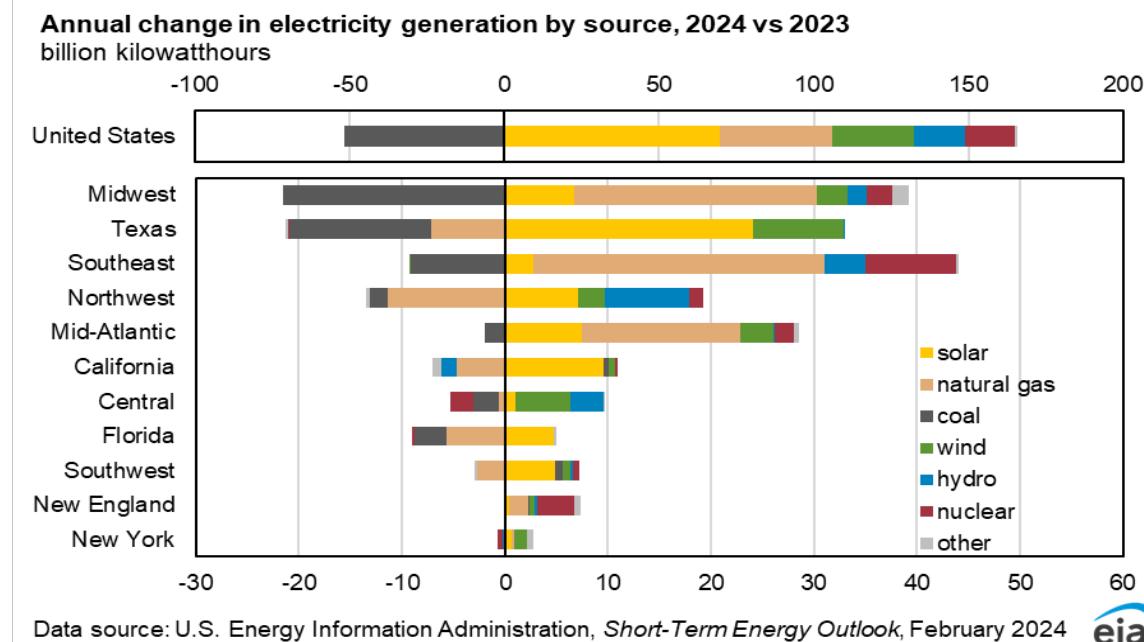


Electricity, Coal, and Renewables

Electricity generation

The mix of energy sources used for generating electricity in the United States is evolving, with a steady shift to renewable energy resources and away from fossil fuels. We expect that solar power will account for the most growth in electricity generation in 2024, driven by a 36-gigawatt increase in solar generating capacity. In our forecast, the U.S. electric power sector generates 43% more electricity from solar in 2024 than in 2023, an increase of 70 billion kilowatthours (BkWh). We forecast U.S. wind generation will grow by 6% (26 BkWh), following a slight drop in 2023 due to lower average wind speeds, mostly in the Midwest. U.S. hydropower generation grows by 7% in 2024 (17 BkWh) in our forecast due to slightly higher water supply levels, particularly in the Northwest, compared to last year.

The strong growth in renewable generation in 2024 results in slower growth or declines in electricity generation from fossil fuel sources in our forecast. We expect U.S. natural gas generation will grow by 2% (37 BkWh) this year, compared with growth of 7% (109 BkWh) in 2023. Generation from coal-fired power plants is likely to continue falling, with a forecast decline of 8% (52 BkWh) in 2024.



Generation from renewable sources will likely grow in every region of the United States as a result of [new generating capacity](#) scheduled to come on line this year. We expect solar and wind power will grow the most in the portion of Texas that is part of the electric grid managed by the Electric Reliability Council of Texas (ERCOT). Forecast solar generation in ERCOT grows by 90% in 2024 (24 BkWh) and wind generation by 8% (9 BkWh).

We expect U.S. coal generation to continue to decline as generation from natural gas remains competitive, some coal plants retire, and more renewable energy sources come online. In 2024, we forecast coal generation in ERCOT to fall 23% (14 BkWh) as solar generation increases. Forecast natural gas generation falls in ERCOT by 4% (7 BkWh) this year with more renewable energy generation.

Coal generation also falls by 22 BkWh in the Midwest in 2024, the largest coal decline among the regions, and by 9 BkWh in the Southeast. Decreased coal generation in the Midwest is offset by an increase of 24 BkWh in generation from natural gas-fired power plants taking advantage of continued low fuel costs. We expect nuclear generation in the Southeast region to rise by 9 BkWh this year as the new Unit 3 reactor opened at the [Vogtle power plant in the second half of 2023](#). Our forecast current assumed that Unit 4 would come online at the end of 1Q24. However, [recent reports indicate](#) that it will likely begin operations in 2Q24.

Coal markets

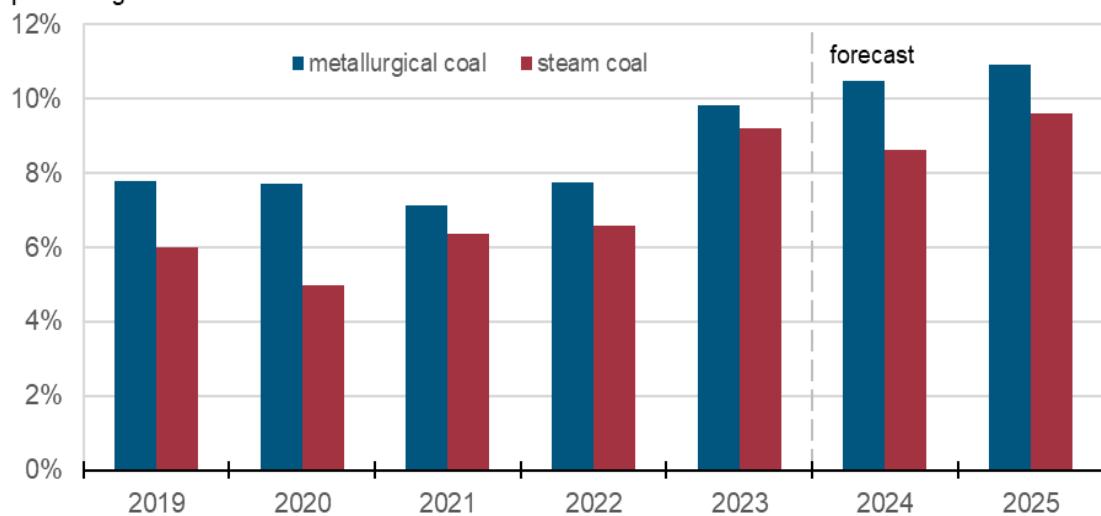
U.S. coal consumption increased by almost 50% in the electric power sector in January 2024 from December 2023, as cold temperatures covered a wide swath of the country in the middle of the month. Despite the increase in January, on an annual basis we forecast that coal consumption by the power sector will fall by 7% in 2024 and then will decline by 6% in 2025 as new solar and wind generating capacity comes online and as 11 gigawatts of coal-fired plant generating capacity is retired as scheduled. Although coal consumption declines through the forecast, the 6% forecast decline in 2025 is less than

the 8% decline we were expecting in last month's STEO. The slower decline reflects our expectation of slightly more electricity generation in 2025 and slightly fewer renewable capacity additions compared with last month's forecast. We expect coal production to decrease 19% in 2024 as domestic consumption of coal falls and inventories decline. Coal production in the forecast falls by a further 3% in 2025.

As domestic consumption falls, [foreign consumption](#) of U.S. coal will make up a [larger share of the disposition of U.S. coal](#) in 2025 even though we expect exports of U.S. coal to fall 7% to 95 million short tons (MMst) in 2024 and then remain near that level in 2025. Exports as a share of the total disposition of U.S. coal rise to 20% by 2025 from 14% in 2022 and 19% in 2023.

U.S. coal exports per total coal disposition

percentage



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

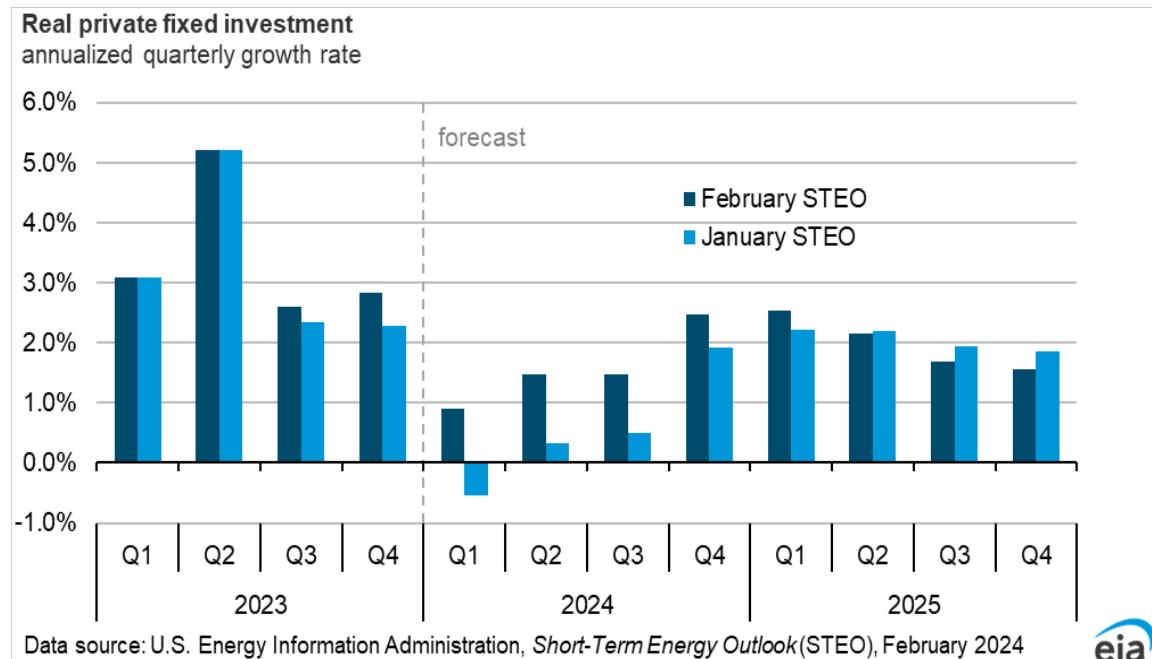
Note: Total coal disposition = domestic coal consumption plus coal exports.



Economy, Weather, and CO₂

U.S. macroeconomics

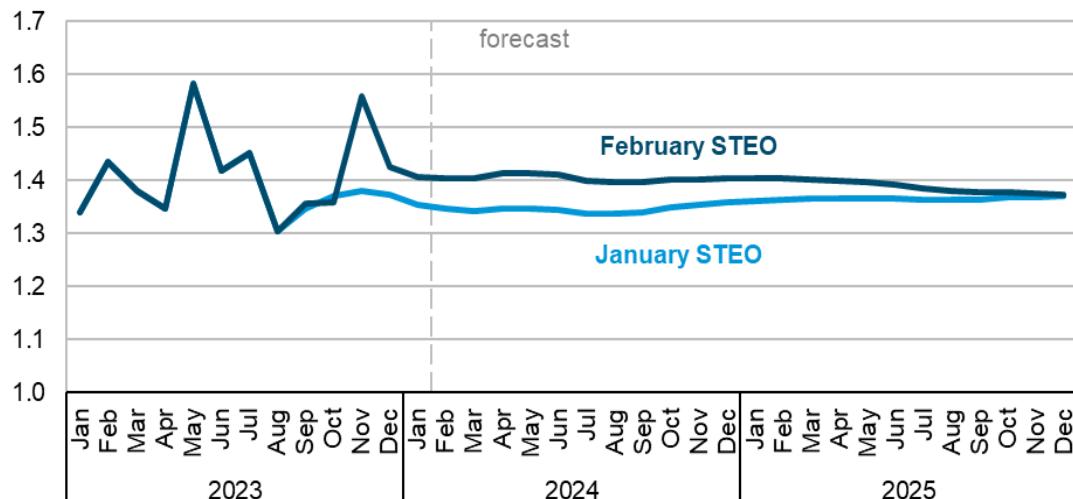
Our forecast assumes U.S. real GDP will grow by 1.8% in 2024 and 1.6% in 2025 after upward revisions of 0.2% in 2024 and 0.3% in 2025 compared with last month's forecast. The revision primarily reflects an increase in growth in real private fixed investment, which we now assume will grow by 2.0% in 2024, outpacing GDP growth. Our U.S. macroeconomic forecasts are based on S&P Global's macroeconomic model. We incorporate STEO energy price forecasts into the model to obtain the final macroeconomic assumptions.



The upward revision to economic growth follows the December meeting of the Federal Open Market Committee (FOMC) of the U.S. Federal Reserve. In that meeting, the FOMC announced that it would keep the target for the federal funds rate at its current level, easing expected financial conditions in 2024. The macroeconomic forecast used in this STEO was compiled before the most recent FOMC meeting concluded on January 31, but at that meeting the FOMC largely confirmed its stance from the December meeting that there is little chance of rate increases in the near future. The effect is evident in the forecast for privately owned [housing starts](#). Compared with last month's forecast, there are an additional 600,000 housing starts in 2024 and 230,000 in 2025. Housing construction consumes energy, and additional housing starts increase demand for petroleum products, particularly asphalt and road oil, which in turn increases total petroleum demand.

U.S. housing starts

millions

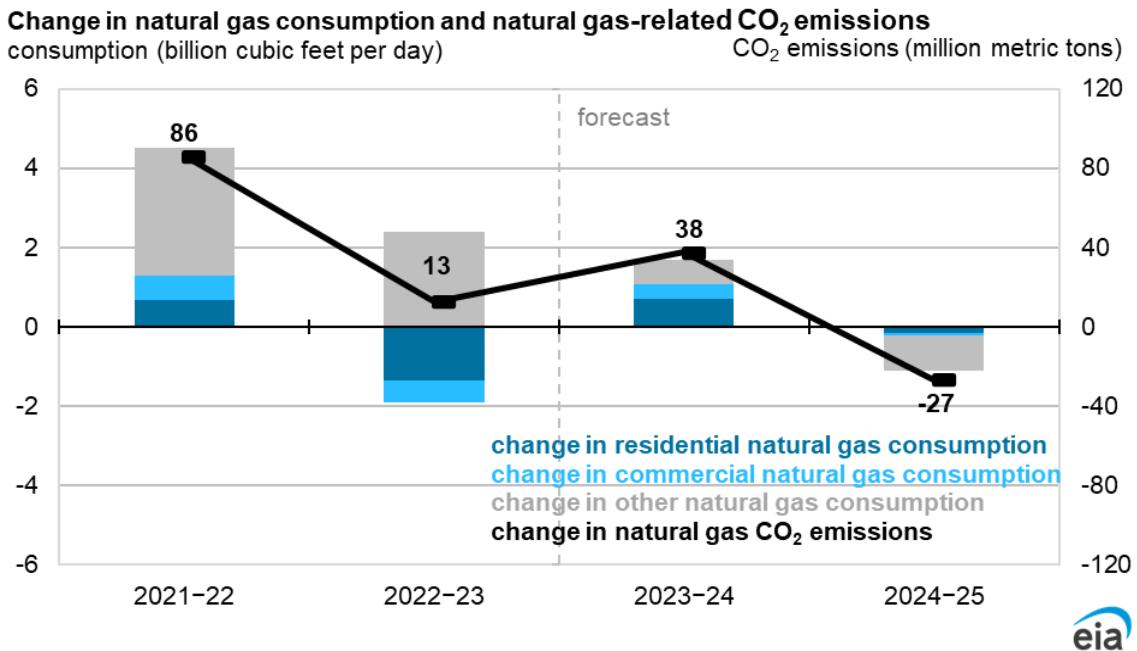
Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*(STEO), February 2024

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 3.3% in December 2023. Our forecast assumes that CPI inflation will continue to decline, falling to 2.0% by the fourth quarter of 2024 (4Q24). Our forecast assumes the unemployment rate will remain flat at just below 4.0% through 4Q25. Higher-than-anticipated inflation or deterioration in the labor market could affect the outlook for interest rates and energy consumption and are a source of uncertainty in our forecast.

Emissions

Total U.S. energy-related carbon dioxide (CO₂) emissions in our forecast remain unchanged in 2024, with decreasing CO₂ emissions from coal offsetting increased CO₂ emissions from natural gas. Coal-related CO₂ emissions decline by 5% in 2024 because of decreasing coal-fired electricity generation. Natural gas-related CO₂ emissions in our forecast increase by 2%, mostly from increased consumption in the residential and commercial sectors. Between 2024 and 2025, we forecast CO₂ emissions decrease by 1% as both natural gas and coal-fired generation decline as result of the addition of electricity generating capacity from renewable sources.

Along with the addition of renewable generating capacity, weather is one of the primary drivers influencing energy-related CO₂ emissions in our forecast for 2024 and 2025. This factor is particularly true for the residential and commercial sectors, where weather changes space heating and cooling demand in buildings. Demand for space heating in our forecast, and consequently natural gas-related CO₂ emissions, increase in 2024 as a result of relatively colder forecast temperatures, indicated by a 7% increase in [HDDs](#). Natural gas emissions decrease in 2025 as milder weather, indicated by 2% fewer HDDs, decreases demand for space heating.



Weather

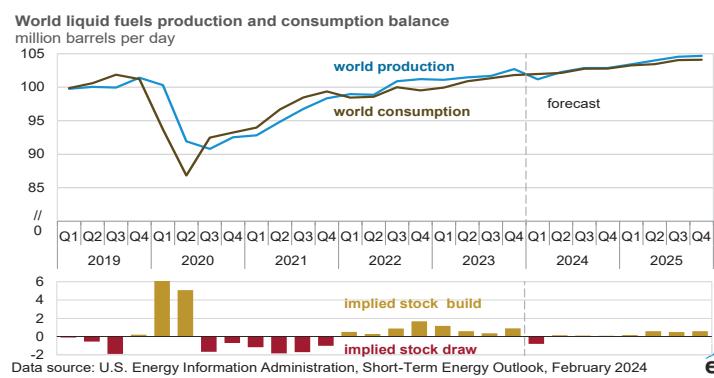
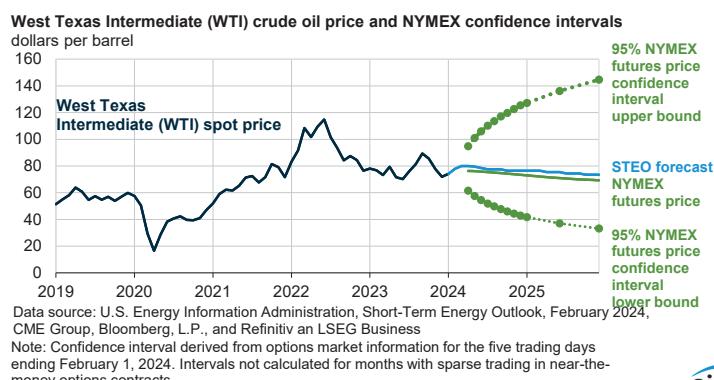
Following a warmer start to the winter season (November–March), the United States experienced a relatively normal January. Despite the cold snap in the middle of the month, there were almost 850 HDDs in January, similar to the 10-year average, but nearly 20% more than in January 2023. The cold weather experienced in mid-January increased our forecast by 140 (7%) more HDDs in 1Q24 compared with 1Q23. Overall, we expect a cooler 2024 in the United States, with almost 4,000 HDDs, up 7% from 2023.

Short-Term Energy Outlook Chart Gallery

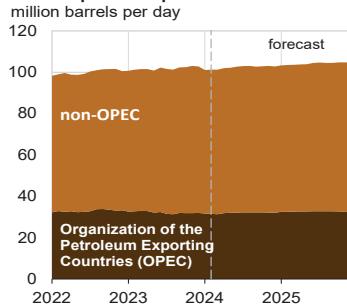


February 6, 2024

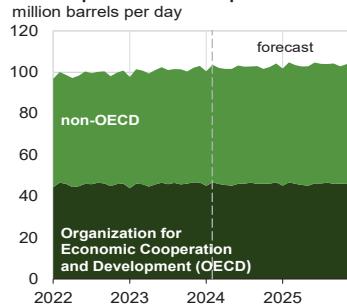
eria | U.S. Energy Information Administration *Independent Statistics & Analysis* | www.eia.gov



World liquid fuels production



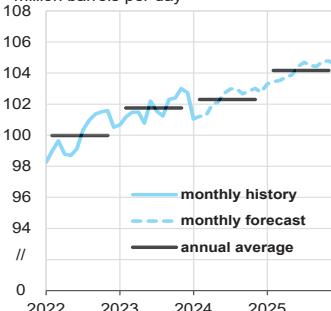
World liquid fuels consumption



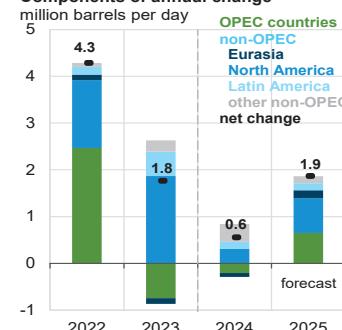
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2024



World crude oil and liquid fuels production



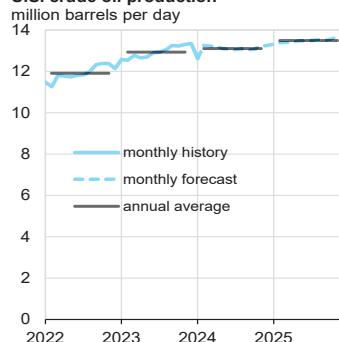
Components of annual change



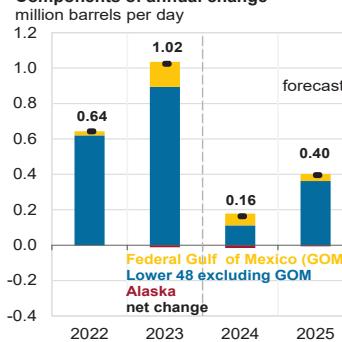
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2024



U.S. crude oil production



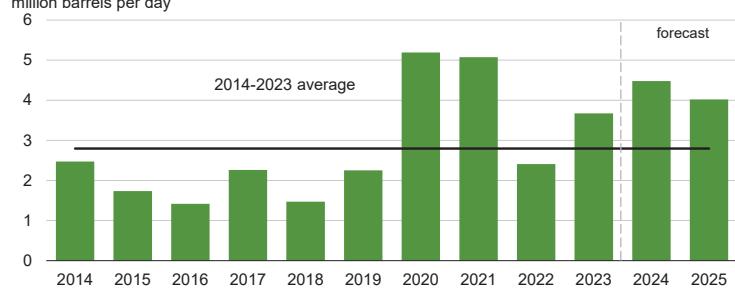
Components of annual change



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



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

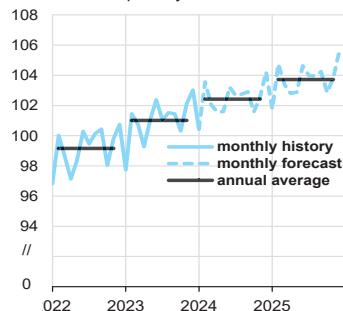


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2024

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

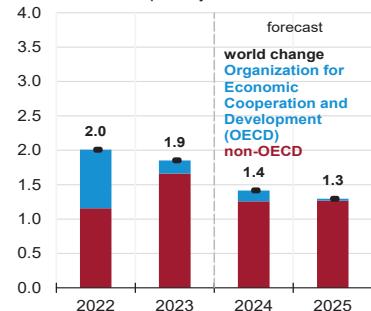


World liquid fuels consumption
million barrels per day

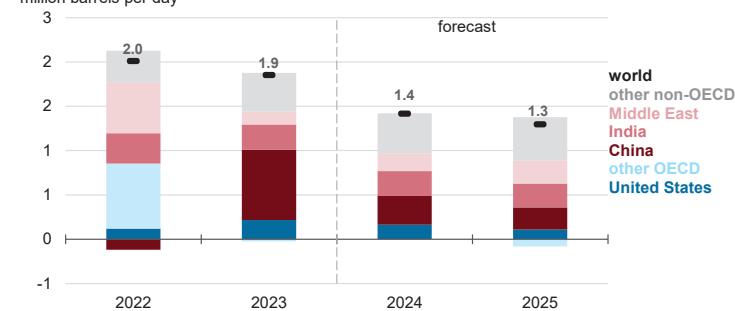


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2024

Components of annual change
million barrels per day



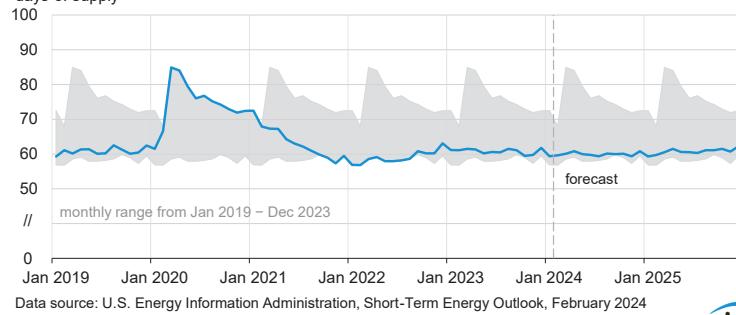
Annual change in world liquid fuels consumption
million barrels per day



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



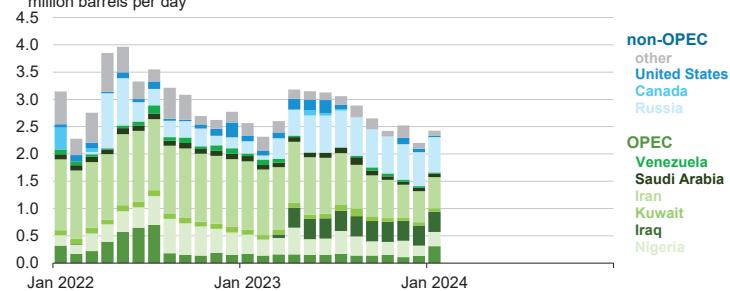
Organization for Economic Cooperation and Development (OECD)
commercial inventories of crude oil and other liquids
days of supply



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



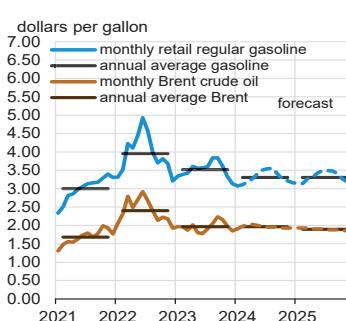
Estimated unplanned liquid fuels production outages among OPEC and non-OPEC producers
million barrels per day



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

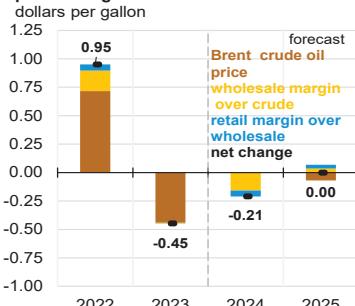


U.S. gasoline and crude oil prices

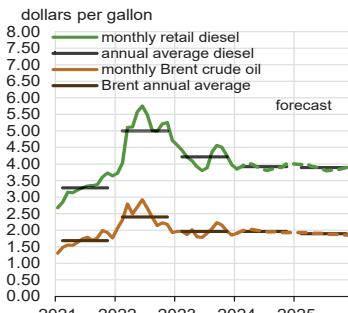


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2024, and Refinitiv an LSEG Business

Components of annual gasoline price changes

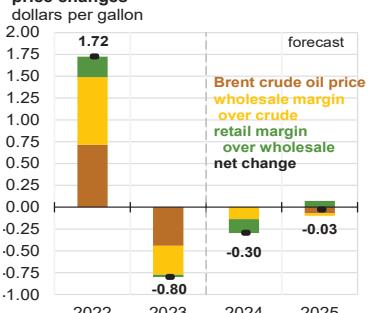


U.S. diesel and crude oil prices



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

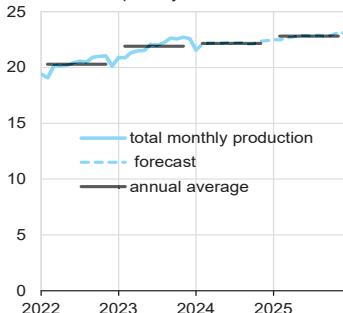
Components of annual diesel price changes



forecast

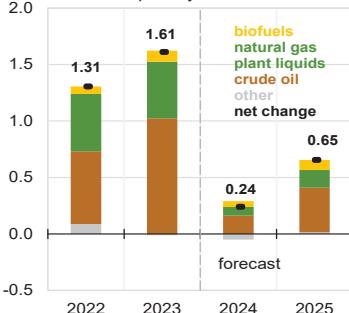
eia

U.S. crude oil and liquid fuels production



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

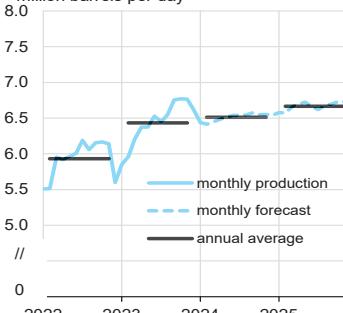
Components of annual change



forecast

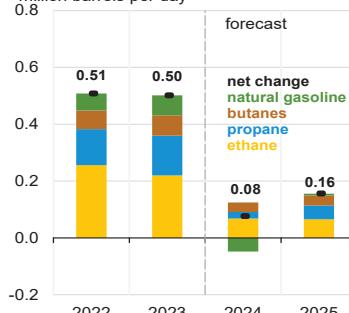
eia

U.S. natural gas plant liquids production



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

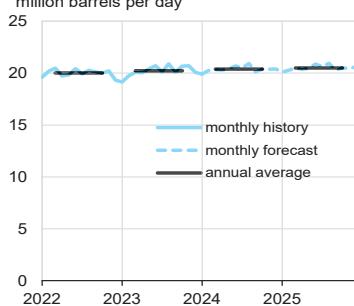
Components of annual change



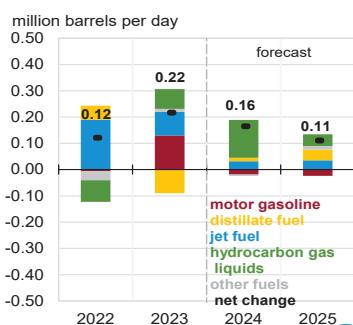
forecast

eia

U.S. liquid fuels product supplied (consumption)
million barrels per day



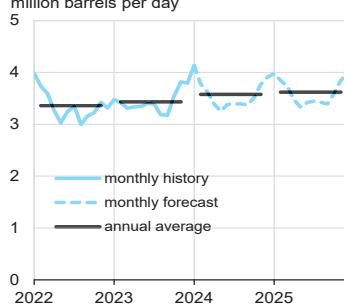
Components of annual change



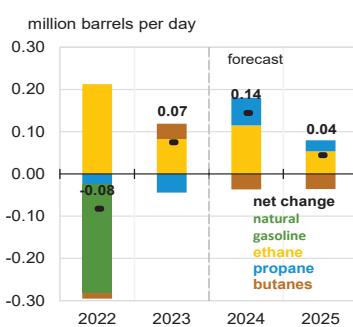
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2024



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



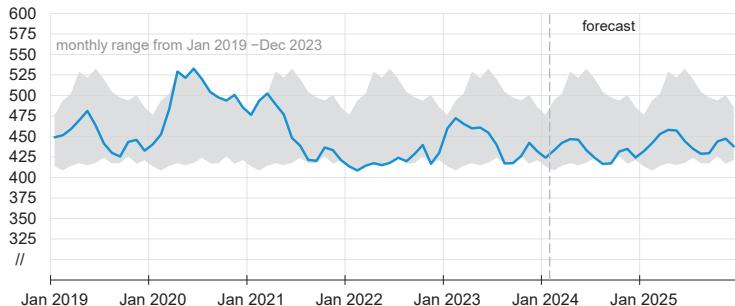
Components of annual change



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

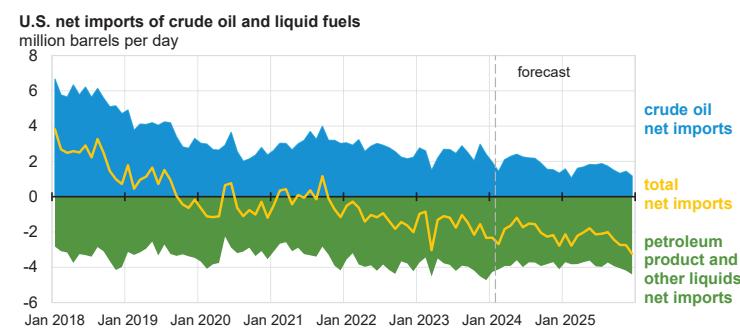
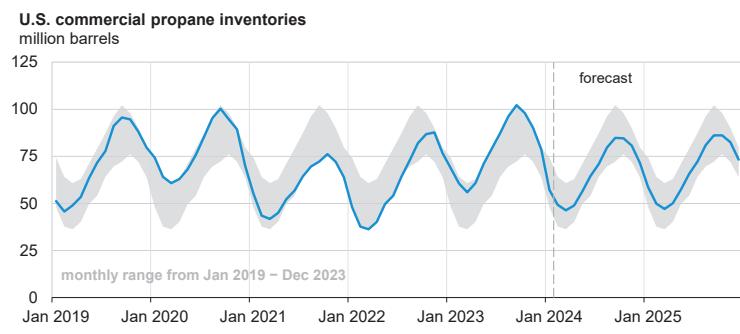
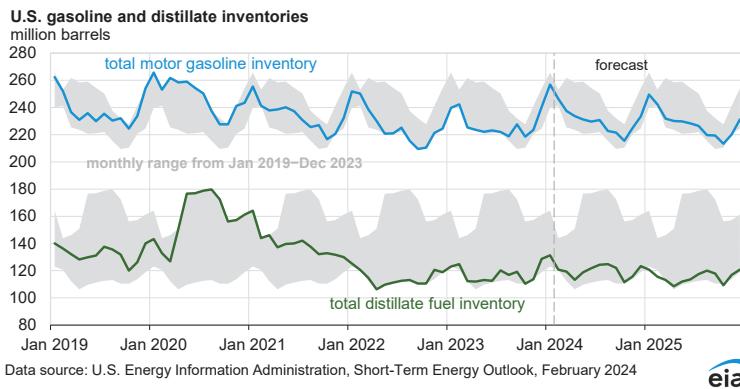


U.S. commercial crude oil inventories
million barrels



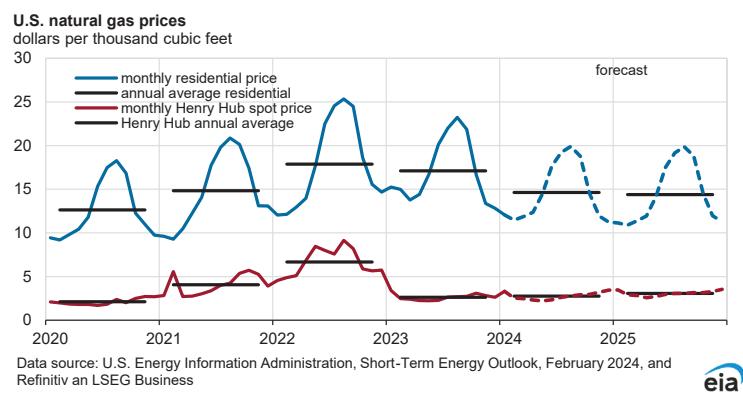
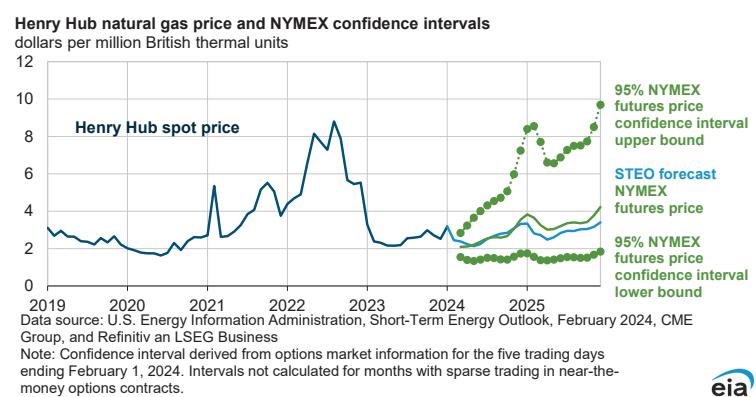
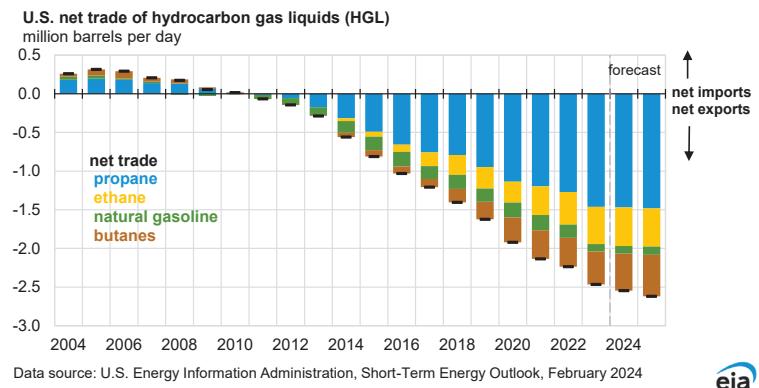
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2024

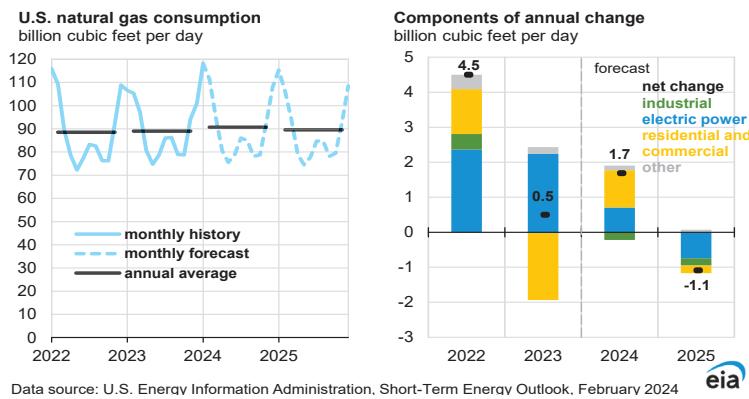
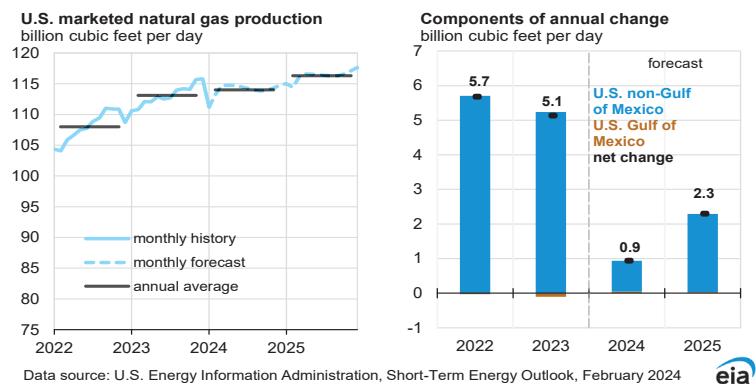
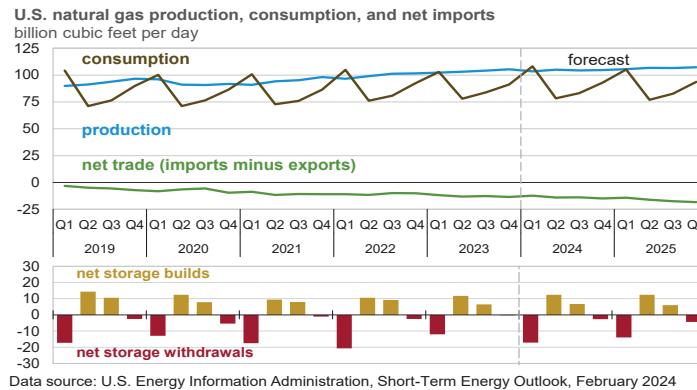


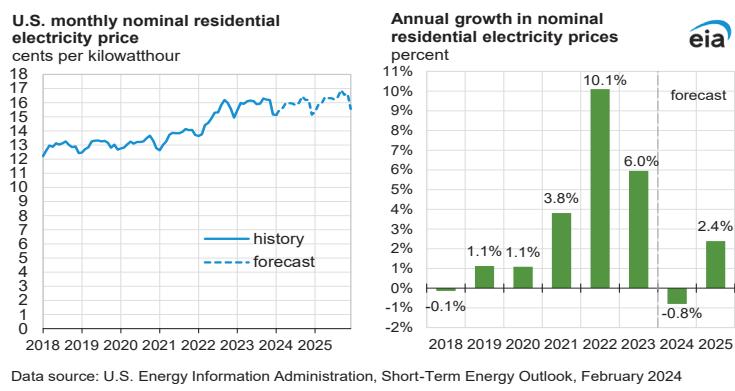
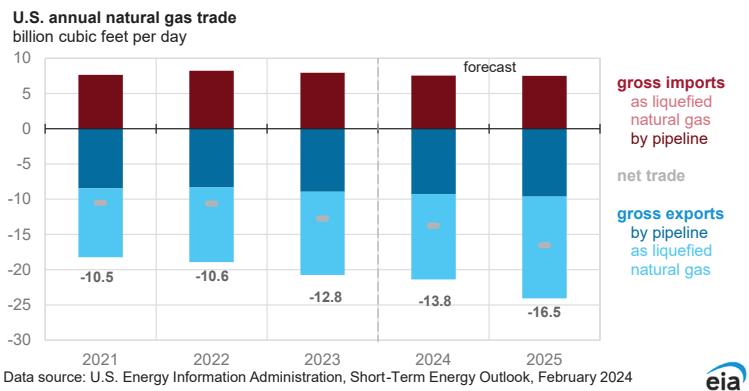
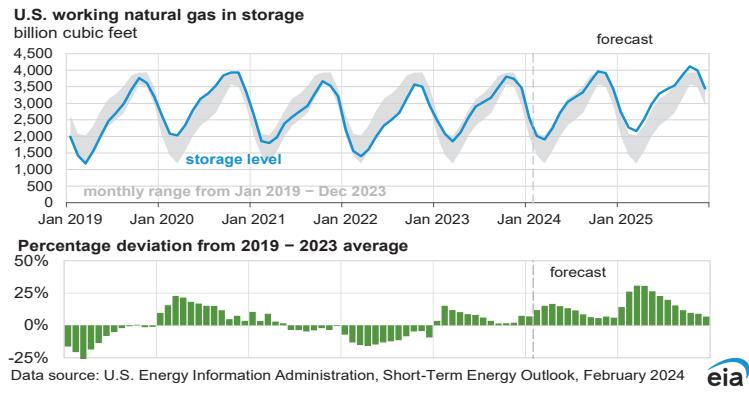


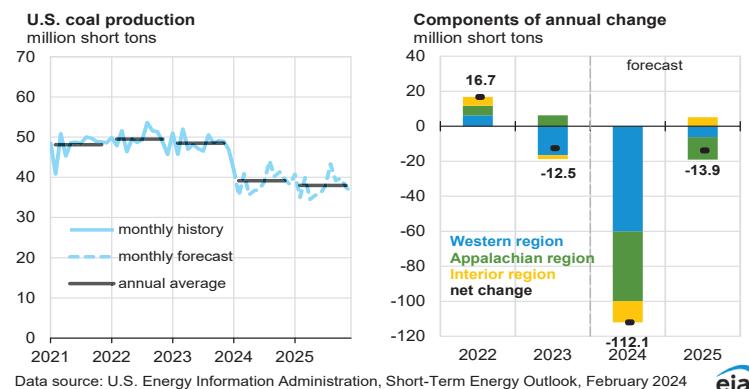
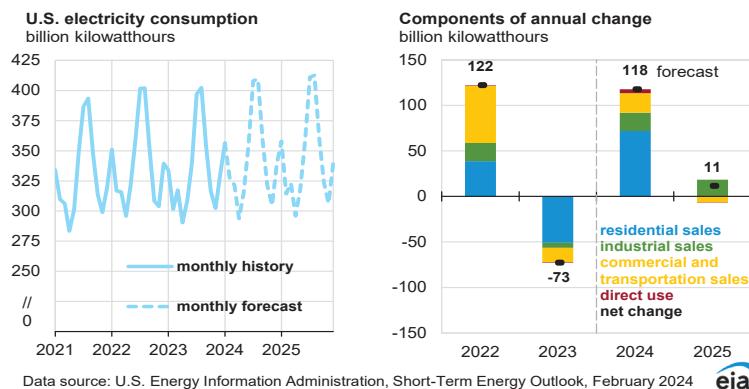
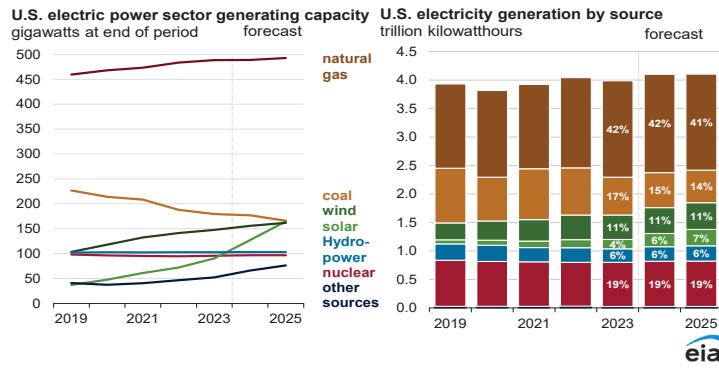
Note: Petroleum product and other liquids include: gasoline, distillate fuels, hydrocarbon gas liquids, jet fuel, residual fuel oil, unfinished oils, other hydrocarbons/oxygenates, and other oils.

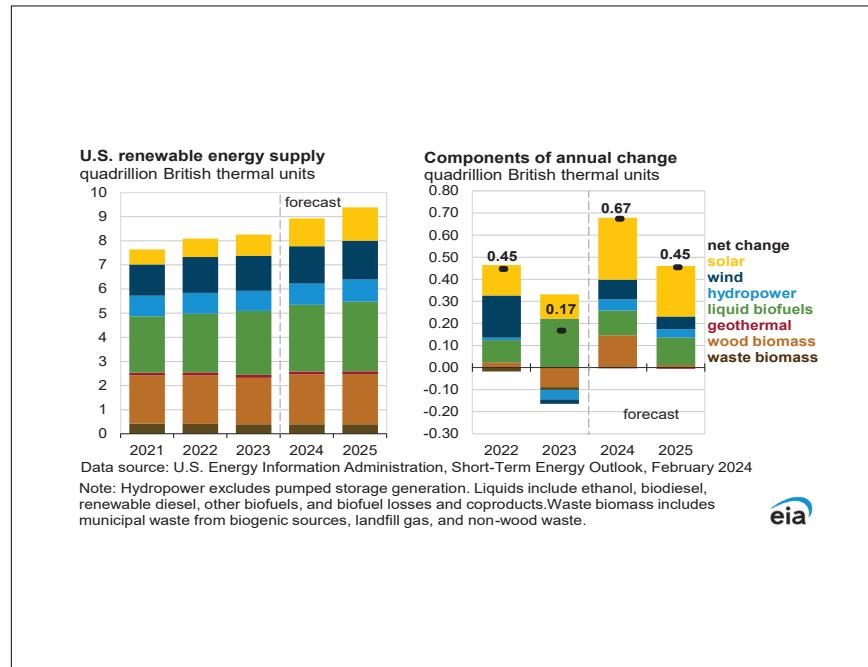
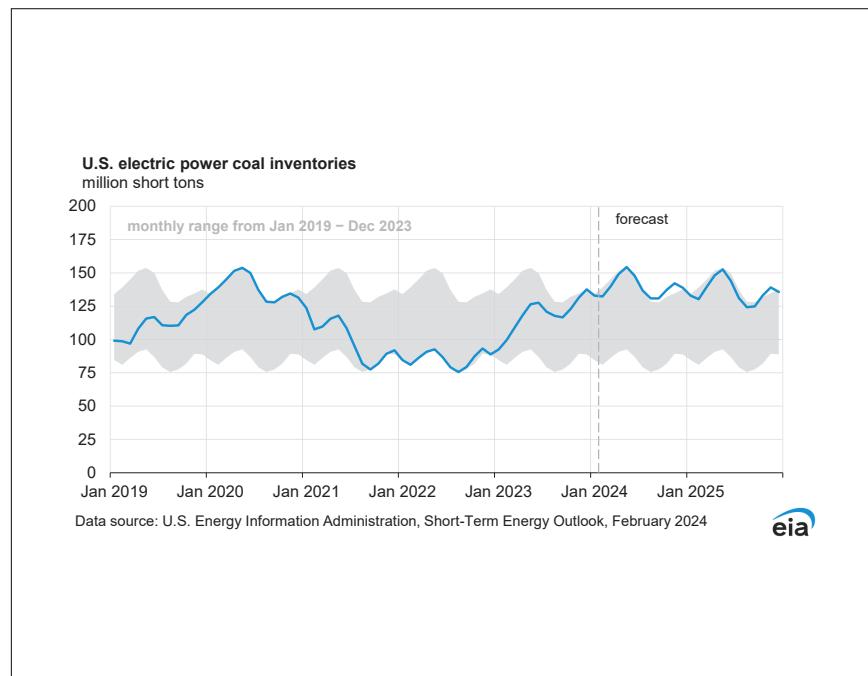
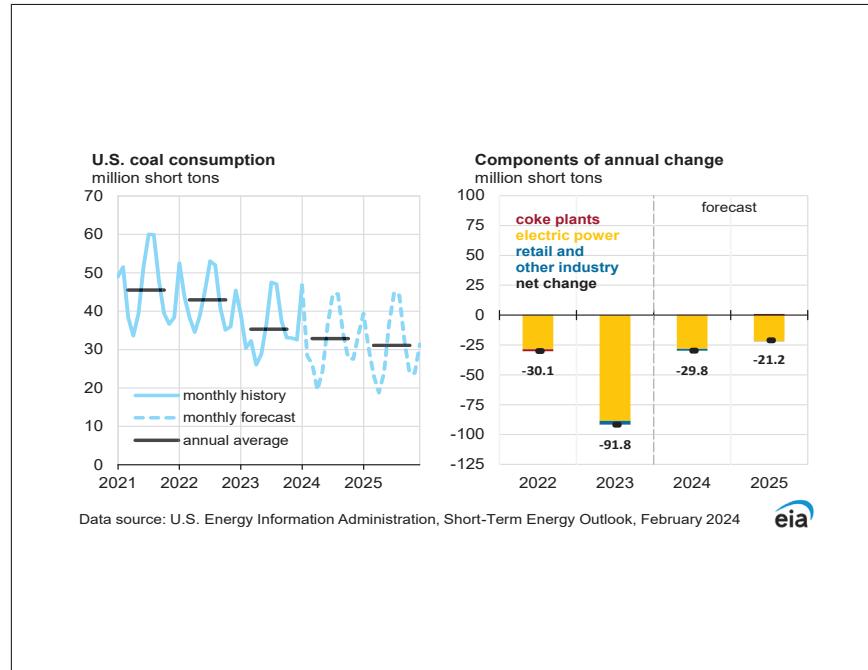


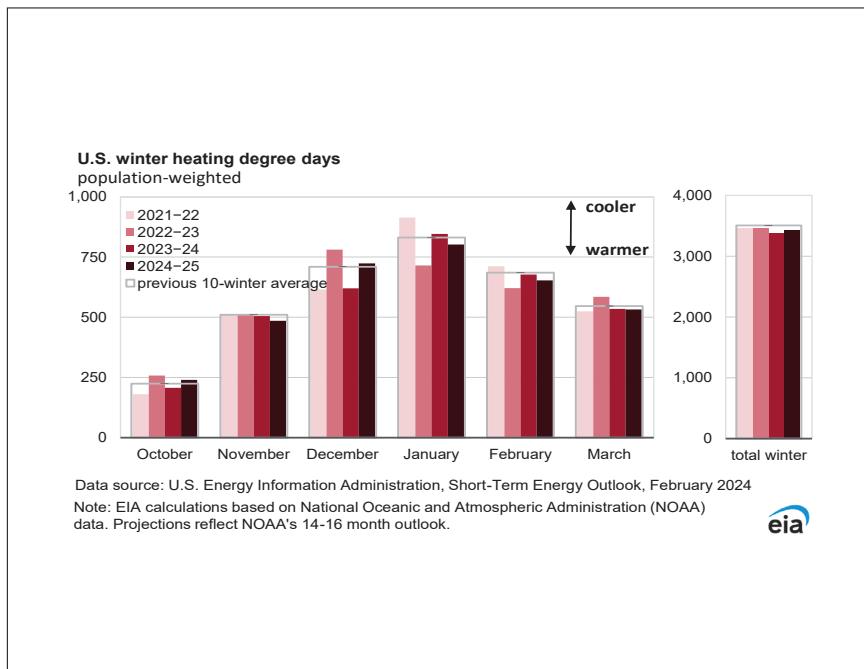
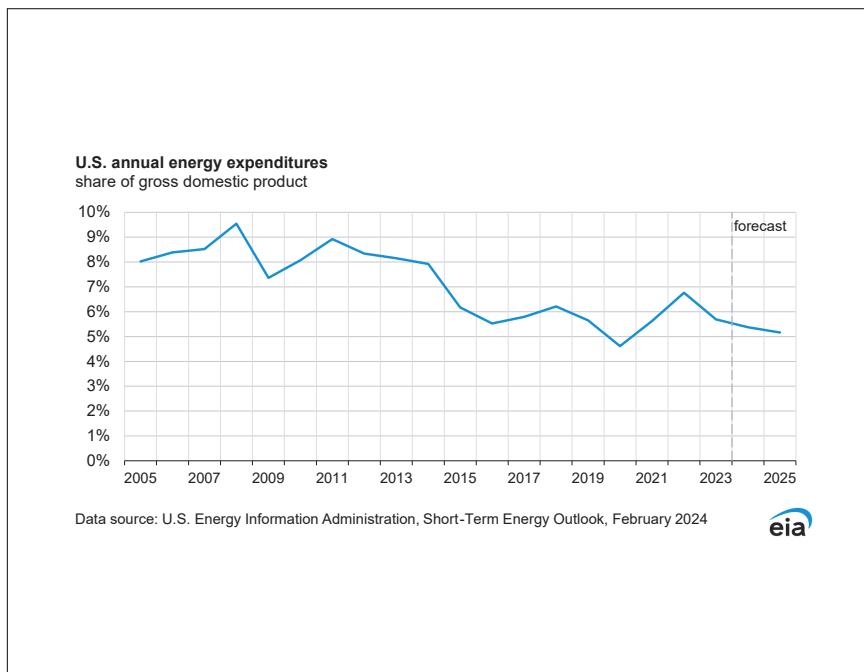
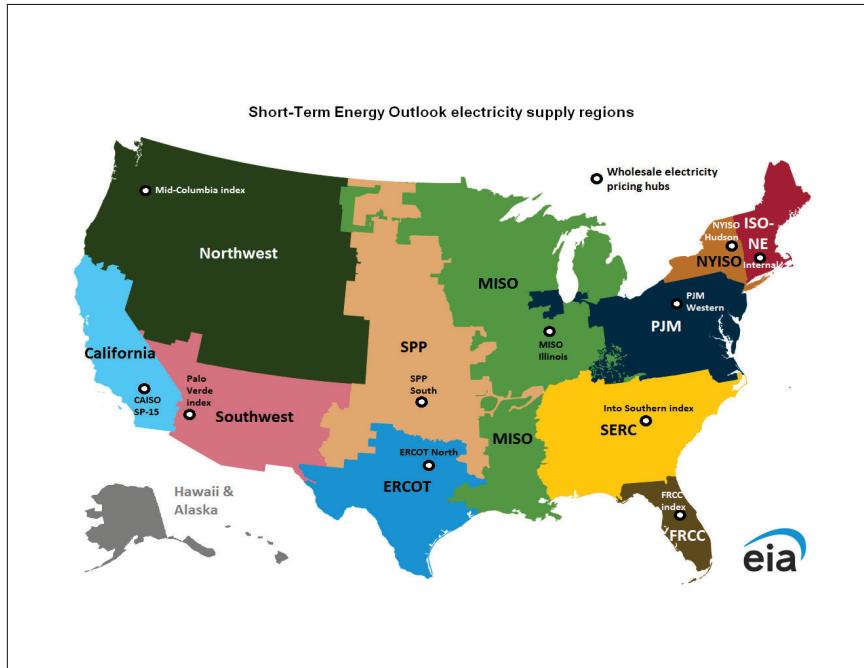


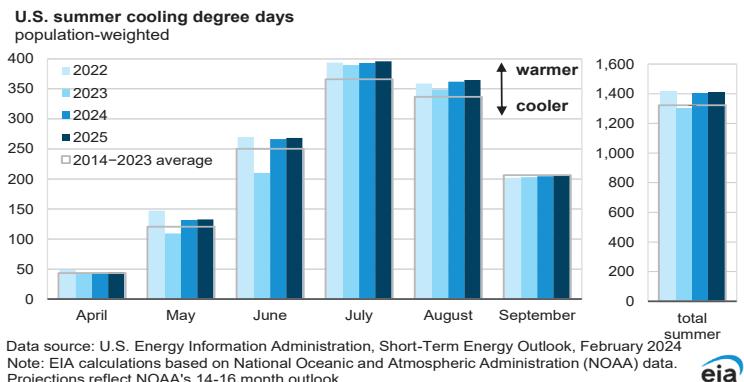




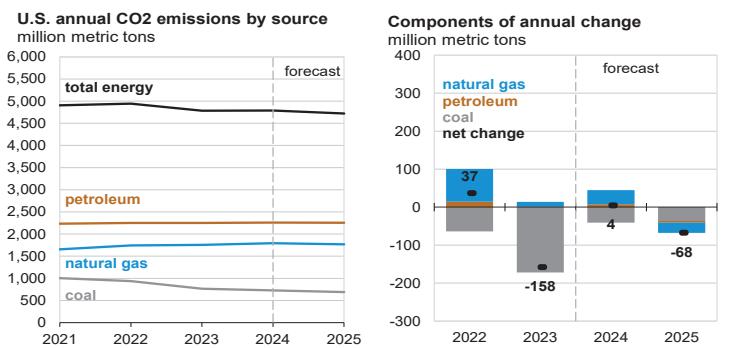








Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, February 2024
Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data.
Projections reflect NOAA's 14-16 month outlook.



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

Table 1. U.S. Energy Markets Summary

U.S. Energy Information Administration | Short-Term Energy Outlook - February 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	13.29	13.03	13.12	13.06	13.18	13.37	13.46	13.50	13.64	12.93	13.10	13.49
Dry Natural Gas Production (billion cubic feet per day)	102.3	103.2	104.1	105.4	103.5	105.0	104.4	104.7	105.5	106.7	106.5	107.2	103.8	104.4	106.5
Coal Production (million short tons)	149	142	146	145	118	109	123	119	116	106	120	114	582	470	456
Energy Consumption															
Liquid Fuels (million barrels per day)	19.66	20.38	20.37	20.48	20.17	20.47	20.53	20.39	20.29	20.57	20.63	20.51	20.23	20.39	20.50
Natural Gas (billion cubic feet per day)	102.9	78.0	83.8	91.3	108.2	78.4	83.1	93.0	105.1	77.1	82.6	93.6	89.0	90.6	89.5
Coal (b) (million short tons)	102	91	132	99	101	80	123	89	93	79	121	79	424	394	373
Electricity (billion kilowatt hours per day)	10.59	10.31	12.54	10.31	11.05	10.61	12.78	10.49	11.06	10.69	12.87	10.55	10.94	11.23	11.30
Renewables (c) (quadrillion Btu)	2.04	2.10	2.05	2.06	2.18	2.30	2.24	2.21	2.29	2.43	2.36	2.31	8.26	8.93	9.38
Total Energy Consumption (d) (quadrillion Btu)	24.11	22.01	23.72	23.56	25.18	22.17	23.77	23.70	24.62	22.14	23.77	23.71	93.41	94.82	94.24
Energy Prices															
Crude Oil West Texas Intermediate Spot (dollars per barrel)	75.96	73.49	82.25	78.63	77.33	79.36	77.50	76.50	76.50	75.50	74.50	73.50	77.58	77.68	74.98
Natural Gas Henry Hub Spot (dollars per million Btu)	2.65	2.16	2.59	2.74	2.67	2.20	2.66	3.08	2.95	2.64	2.98	3.20	2.54	2.65	2.94
Coal (dollars per million Btu)	2.57	2.49	2.50	2.52	2.51	2.50	2.49	2.45	2.46	2.44	2.44	2.40	2.52	2.49	2.44
Macroeconomic															
Real Gross Domestic Product (billion chained 2017 dollars - SAAR)	22,112	22,225	22,491	22,539	22,605	22,673	22,773	22,883	22,966	23,047	23,128	23,210	22,342	22,734	23,088
Percent change from prior year	1.7	2.4	2.9	2.5	2.2	2.0	1.3	1.5	1.6	1.7	1.6	1.4	2.4	1.8	1.6
GDP Implicit Price Deflator (Index, 2017=100)	121.3	121.8	122.8	123.2	123.7	124.3	124.9	125.6	126.4	127.0	127.7	128.4	122.3	124.6	127.4
Percent change from prior year	5.3	3.5	3.2	2.6	2.0	2.0	1.7	1.9	2.2	2.2	2.2	2.3	3.6	1.9	2.2
Real Disposable Personal Income (billion chained 2017 dollars - SAAR)	16,663	16,797	16,809	16,908	17,076	17,186	17,309	17,422	17,551	17,685	17,793	17,887	16,794	17,248	17,729
Percent change from prior year	3.7	4.9	4.1	4.1	2.5	2.3	3.0	3.0	2.8	2.9	2.8	2.7	4.2	2.7	2.8
Manufacturing Production Index (Index, 2017=100)	99.9	100.2	100.1	99.5	99.9	100.0	100.5	101.2	101.7	102.2	102.6	103.0	99.9	100.4	102.4
Percent change from prior year	-0.2	-0.7	-0.8	-0.5	0.0	-0.2	0.4	1.7	1.9	2.2	2.1	1.8	-0.5	0.5	2.0
Weather															
U.S. Heating Degree-Days	1,920	485	61	1,332	2,058	471	75	1,449	1,987	469	74	1,443	3,797	4,053	3,973
U.S. Cooling Degree-Days	68	363	942	105	39	442	960	105	51	446	967	106	1,478	1,546	1,569

(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 February 1, 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 - February 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	77.33	79.36	77.50	76.50	76.50	75.50	74.50	73.50	77.58	77.68	74.98
Brent Spot Average	81.04	78.02	86.64	83.93	82.66	84.03	82.00	81.00	81.00	80.00	79.00	78.00	82.41	82.42	79.48
U.S. Imported Average	69.58	71.08	80.97	75.44	74.64	76.59	74.75	73.75	76.50	75.50	74.50	73.50	74.47	75.08	75.02
U.S. Refiner Average Acquisition Cost	74.44	73.99	82.38	78.97	76.86	78.83	77.00	76.00	76.50	75.50	74.50	73.50	77.53	77.19	74.98
U.S. Liquid Fuels (cents per gallon)															
Wholesale Petroleum Product Prices															
Gasoline	262	265	296	233	235	260	264	233	233	256	259	229	264	248	245
Diesel Fuel	295	245	308	284	273	267	263	274	270	257	253	258	283	269	259
Fuel Oil	279	231	292	273	266	254	245	263	264	248	243	249	271	261	255
Jet Fuel	305	233	291	272	278	278	262	269	269	255	253	265	275	271	260
No. 6 Residual Fuel Oil (a)	196	189	202	206	198	201	199	197	199	194	193	191	199	199	194
Propane															
Mont Belvieu Spot	82	68	68	67	79	82	80	78	77	77	76	74	71	80	76
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	338	358	376	336	313	340	350	321	318	341	346	318	352	331	331
Gasoline All Grades (b)	349	369	387	348	324	351	362	334	331	353	359	331	364	343	344
On-highway Diesel Fuel	439	394	428	426	394	392	384	397	399	390	381	387	421	392	389
Heating Oil	407	353	387	395	383	362	347	385	380	355	339	364	393	377	367
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	2.76	2.25	2.69	2.84	2.77	2.29	2.77	3.20	3.07	2.74	3.09	3.33	2.63	2.76	3.06
Henry Hub Spot (dollars per million Btu)	2.65	2.16	2.59	2.74	2.67	2.20	2.66	3.08	2.95	2.64	2.98	3.20	2.54	2.65	2.94
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	6.12	3.76	3.87	4.48	4.72	3.57	3.68	4.49	4.89	3.91	4.01	4.64	4.61	4.15	4.39
Commercial Sector	11.81	10.48	10.90	9.73	8.98	9.05	9.49	8.29	8.33	8.83	9.55	8.40	10.86	8.84	8.57
Residential Sector	14.72	16.19	22.33	13.66	11.81	14.03	19.27	12.00	11.12	13.68	19.25	12.03	15.17	12.74	12.38
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.57	2.49	2.50	2.52	2.51	2.50	2.49	2.45	2.46	2.44	2.44	2.40	2.52	2.49	2.44
Natural Gas	4.98	2.60	2.92	3.14	3.25	2.47	2.74	3.36	3.46	2.83	3.04	3.46	3.33	2.93	3.19
Residual Fuel Oil (c)	19.24	17.88	19.26	19.97	16.16	16.60	15.54	15.43	15.62	15.96	15.00	14.78	19.15	15.90	15.31
Distillate Fuel Oil	22.84	19.91	22.12	21.13	20.78	20.57	20.06	20.99	20.80	19.86	19.39	19.63	21.46	20.67	19.99
Prices to Ultimate Customers (cents per kilowatthour)															
Industrial Sector	8.06	7.74	8.57	8.01	8.19	7.77	8.52	8.19	8.29	7.89	8.68	8.32	8.10	8.17	8.30
Commercial Sector	12.64	12.45	13.21	12.54	12.20	12.21	13.34	12.82	12.50	12.62	13.73	13.11	12.73	12.67	13.02
Residential Sector	15.77	16.12	16.02	15.81	15.40	15.96	16.05	15.79	15.68	16.34	16.47	16.20	15.93	15.81	16.19

(a) Average for all sulfur contents.

(b) Average self-service cash price.

(c) Includes fuel oils No. 4, No. 5, No. 6, and topped crude.

- = no data available

Notes: EIA completed modeling and analysis for this report on February 1, 2024.

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

Prices are not adjusted for inflation; prices exclude taxes unless otherwise noted.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Marketing Monthly*, DOE/EIA-0380;*Weekly Petroleum Status Report*, DOE/EIA-0208; *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; and *Monthly Energy Review*, DOE/EIA-0035.

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

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

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

Forecasts: EIA Short-Term Integrated Forecasting System.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - February 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	35.20	34.64	34.47	34.55	35.06	35.40	35.26	35.36	35.87	34.26	34.68	35.47
U.S. (50 States)	21.05	21.69	22.27	22.62	21.95	22.19	22.18	22.29	22.54	22.82	22.82	23.04	21.91	22.15	22.81
Canada	5.79	5.44	5.79	5.94	5.96	5.64	5.84	6.06	6.13	5.84	6.04	6.18	5.74	5.88	6.05
Mexico	2.07	2.16	2.11	2.13	2.10	2.07	2.04	2.01	2.01	1.99	1.97	1.94	2.12	2.06	1.98
Other OECD	4.56	4.51	4.39	4.51	4.63	4.56	4.49	4.70	4.71	4.62	4.53	4.70	4.49	4.60	4.64
Non-OECD	67.63	67.68	67.14	67.51	66.53	67.80	68.32	67.81	68.02	68.75	69.17	68.82	67.49	67.62	68.69
OPEC	32.77	32.46	31.63	31.90	31.51	32.03	32.24	32.13	32.53	32.70	32.78	32.50	32.19	31.98	32.63
Crude Oil Portion	27.38	27.23	26.37	26.60	26.12	26.76	26.95	26.79	27.25	27.42	27.50	27.22	26.89	26.66	27.35
Other Liquids (b)	5.40	5.22	5.26	5.30	5.40	5.27	5.30	5.33	5.28	5.28	5.28	5.28	5.29	5.32	5.28
Eurasia	14.11	13.65	13.42	13.70	13.55	13.66	13.67	13.74	13.82	13.82	13.73	13.88	13.72	13.65	13.81
China	5.32	5.32	5.19	5.23	5.27	5.30	5.29	5.33	5.28	5.30	5.29	5.33	5.26	5.30	5.30
Other Non-OECD	15.43	16.26	16.90	16.68	16.20	16.82	17.12	16.62	16.40	16.92	17.37	17.10	16.32	16.69	16.95
Total World Production	101.11	101.48	101.69	102.71	101.18	102.27	102.88	102.87	103.42	104.01	104.54	104.69	101.75	102.30	104.17
Non-OPEC Production	68.33	69.02	70.06	70.81	69.66	70.24	70.63	70.74	70.89	71.30	71.76	72.19	69.56	70.32	71.54
Consumption (million barrels per day) (c)															
OECD	45.22	45.67	46.02	46.48	45.91	45.56	46.25	46.31	45.94	45.58	46.27	46.35	45.85	46.01	46.04
U.S. (50 States)	19.66	20.38	20.37	20.48	20.17	20.47	20.53	20.39	20.29	20.57	20.63	20.51	20.23	20.39	20.50
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	13.21	13.36	13.77	13.53	13.19	13.34	13.75	13.51	13.45	13.47	13.45
Japan	3.73	3.10	3.10	3.47	3.60	2.98	3.09	3.42	3.54	2.94	3.04	3.36	3.35	3.27	3.22
Other OECD	6.29	6.06	6.19	6.48	6.44	6.30	6.32	6.46	6.47	6.32	6.35	6.48	6.25	6.38	6.41
Non-OECD	54.72	55.23	55.31	55.34	56.07	56.57	56.52	56.48	57.31	57.85	57.78	57.75	55.15	56.41	57.68
Eurasia	4.34	4.49	4.82	4.72	4.48	4.64	4.96	4.87	4.51	4.66	5.00	4.90	4.59	4.74	4.77
Europe	0.74	0.76	0.77	0.77	0.75	0.77	0.77	0.78	0.75	0.77	0.78	0.78	0.76	0.77	0.77
China	15.90	16.09	15.78	15.99	16.23	16.42	16.10	16.31	16.48	16.67	16.35	16.56	15.94	16.27	16.52
Other Asia	14.36	14.23	13.70	14.07	14.81	14.79	14.18	14.50	15.30	15.28	14.65	14.98	14.09	14.57	15.05
Other Non-OECD	19.37	19.65	20.25	19.79	19.79	19.95	20.50	20.03	20.27	20.46	21.02	20.52	19.76	20.07	20.57
Total World Consumption	99.93	100.90	101.33	101.82	101.98	102.12	102.77	102.79	103.25	103.43	104.05	104.10	101.00	102.42	103.71
Total Crude Oil and Other Liquids Inventory Net Withdrawals (million barrels per day)															
U.S. (50 States)	-0.08	-0.11	-0.25	0.17	0.25	-0.38	-0.08	0.35	-0.05	-0.42	-0.15	0.23	-0.07	0.03	-0.10
Other OECD	0.32	-0.02	-0.15	0.14	0.18	0.07	-0.01	-0.13	-0.03	-0.05	-0.10	-0.25	0.07	0.03	-0.11
Other Stock Draws and Balance	-1.41	-0.45	0.05	-1.20	0.38	0.16	-0.02	-0.29	-0.08	-0.11	-0.23	-0.56	-0.75	0.06	-0.25
Total Stock Draw	-1.17	-0.58	-0.36	-0.89	0.81	-0.15	-0.11	-0.08	-0.17	-0.58	-0.48	-0.58	-0.75	0.12	-0.45
End-of-period Commercial Crude Oil and Other Liquids Inventories (million barrels)															
U.S. Commercial Inventory	1,231	1,264	1,283	1,265	1,233	1,262	1,270	1,238	1,243	1,281	1,295	1,273	1,265	1,238	1,273
OECD Commercial Inventory	2,746	2,782	2,815	2,783	2,735	2,757	2,766	2,746	2,754	2,797	2,820	2,822	2,783	2,746	2,822

(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 February 1, 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 - February 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	30.69	30.01	29.91	30.06	30.36	30.68	30.64	30.83	31.17	29.77	30.09	30.83
Canada	5.79	5.44	5.79	5.94	5.96	5.64	5.84	6.06	6.13	5.84	6.04	6.18	5.74	5.88	6.05
Mexico	2.07	2.16	2.11	2.13	2.10	2.07	2.04	2.01	2.01	1.99	1.97	1.94	2.12	2.06	1.98
United States	21.05	21.69	22.27	22.62	21.95	22.19	22.18	22.29	22.54	22.82	22.82	23.04	21.91	22.15	22.81
Central and South America	6.31	6.99	7.62	7.29	6.93	7.54	7.85	7.36	7.11	7.63	8.03	7.73	7.06	7.42	7.63
Argentina	0.81	0.81	0.82	0.85	0.84	0.86	0.88	0.91	0.88	0.89	0.91	0.94	0.82	0.87	0.91
Brazil	3.55	4.19	4.82	4.40	3.92	4.48	4.78	4.29	4.09	4.60	4.91	4.47	4.24	4.37	4.52
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	0.80	0.79	0.76
Ecuador	0.46	0.48	0.48	0.49	0.49	0.49	0.49	0.46	0.43	0.44	0.44	0.44	0.48	0.48	0.44
Guyana	0.35	0.37	0.36	0.43	0.56	0.60	0.60	0.60	0.61	0.61	0.70	0.82	0.38	0.59	0.69
Europe	4.01	3.95	3.84	3.97	4.08	4.01	3.94	4.16	4.18	4.09	4.00	4.17	3.94	4.05	4.11
Norway	2.03	2.03	1.98	2.05	2.10	2.03	2.04	2.17	2.20	2.13	2.12	2.21	2.02	2.09	2.17
United Kingdom	0.87	0.80	0.75	0.80	0.87	0.86	0.77	0.84	0.84	0.83	0.74	0.83	0.80	0.83	0.81
Eurasia	14.11	13.65	13.42	13.70	13.55	13.66	13.67	13.74	13.82	13.82	13.73	13.88	13.72	13.65	13.81
Azerbaijan	0.65	0.62	0.62	0.61	0.61	0.61	0.61	0.62	0.63	0.65	0.66	0.66	0.62	0.61	0.65
Kazakhstan	2.02	1.97	1.85	1.99	1.86	1.92	1.92	1.98	2.06	2.05	1.94	2.10	1.96	1.92	2.04
Russia	11.06	10.68	10.58	10.70	10.68	10.73	10.74	10.74	10.73	10.73	10.74	10.74	10.75	10.72	10.73
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	3.20	3.21	3.21	3.25	3.27	3.32	3.36	3.23	3.19	3.30
Oman	1.07	1.06	1.05	1.05	0.99	1.03	1.03	1.03	1.08	1.08	1.08	1.08	1.06	1.02	1.08
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	9.24	9.36	9.37	9.36	9.39	9.39	9.41	9.41	9.45	9.20	9.37	9.41
Australia	0.41	0.41	0.40	0.41	0.41	0.40	0.40	0.40	0.39	0.38	0.38	0.37	0.41	0.40	0.38
China	5.32	5.32	5.19	5.23	5.27	5.30	5.29	5.33	5.28	5.30	5.29	5.33	5.26	5.30	5.30
India	0.85	0.88	0.92	0.94	0.97	0.97	0.96	0.95	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	0.59	0.59	0.58	0.58	0.57	0.58	0.58	0.59	0.59	0.59	0.58	0.58
Africa	2.55	2.64	2.67	2.71	2.59	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	1.17	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	0.18	0.17	0.16	0.15	0.15	0.15	0.15	0.14	0.14	0.15	0.16	0.14
Total non-OPEC liquids	68.33	69.02	70.06	70.81	69.66	70.24	70.63	70.74	70.89	71.30	71.76	72.19	69.56	70.32	71.54
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	76.11	75.06	75.51	75.93	76.07	76.17	76.58	77.04	77.47	74.86	75.64	76.82
Unplanned non-OPEC Production Outages	0.56	1.02	0.92	0.85	-	-	-	-	-	-	-	-	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 February 1, 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 - February 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	8.95	-	-	-	-	-	-	-	-	9.54	-	-
United Arab Emirates	3.06	2.94	2.91	2.91	-	-	-	-	-	-	-	-	2.96	-	-
Venezuela	0.70	0.75	0.76	0.75	-	-	-	-	-	-	-	-	0.74	-	-
OPEC Total	27.38	27.23	26.37	26.60	26.12	26.76	26.95	26.79	27.25	27.42	27.50	27.22	26.89	26.66	27.35
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	31.90	31.51	32.03	32.24	32.13	32.53	32.70	32.78	32.50	32.19	31.98	32.63
OPEC+ Crude Oil Production	38.20	37.50	36.25	36.39	35.79	36.63	36.78	36.61	37.16	37.32	37.31	37.15	37.08	36.45	37.23
Crude Oil Production Capacity															
Middle East	25.88	25.67	25.90	26.11	26.37	26.31	26.39	26.70	26.70	26.70	26.70	26.70	25.89	26.44	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	31.04	30.99	31.09	31.42	31.38	31.37	31.36	31.36	30.57	31.14	31.37
Surplus Crude Oil Production Capacity															
Middle East	3.10	3.02	4.11	4.21	4.81	4.16	4.08	4.57	4.07	3.88	3.80	4.07	3.62	4.41	3.95
Other	0.02	0.05	0.08	0.07	0.11	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.06	0.07	0.07
OPEC Total	3.13	3.07	4.19	4.28	4.92	4.22	4.14	4.63	4.13	3.95	3.87	4.14	3.67	4.48	4.02
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 February 1, 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 - February 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	24.81	24.46	24.74	24.90	24.75	24.55	24.81	24.96	24.84	24.56	24.71	24.79
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	1.94	1.95	1.91	1.94	1.94	1.95	1.87	1.93	1.93
United States	19.66	20.38	20.37	20.48	20.17	20.47	20.53	20.39	20.29	20.57	20.63	20.51	20.23	20.39	20.50
Central and South America	6.42	6.55	6.66	6.60	6.44	6.58	6.69	6.62	6.57	6.71	6.82	6.75	6.56	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	13.84	14.30	14.38	14.32	13.96	14.13	14.54	14.31	13.94	14.12	14.53	14.30	14.21	14.24	14.22
Eurasia	4.34	4.49	4.82	4.72	4.48	4.64	4.96	4.87	4.51	4.66	5.00	4.90	4.59	4.74	4.77
Russia	3.31	3.40	3.70	3.55	3.42	3.51	3.81	3.66	3.42	3.51	3.82	3.67	3.49	3.60	3.61
Middle East	9.13	9.25	9.83	9.26	9.45	9.45	9.99	9.39	9.70	9.72	10.27	9.65	9.37	9.57	9.83
Asia and Oceania	37.86	37.08	36.33	37.50	38.58	37.96	37.15	38.15	39.28	38.68	37.84	38.85	37.19	37.96	38.66
China	15.90	16.09	15.78	15.99	16.23	16.42	16.10	16.31	16.48	16.67	16.35	16.56	15.94	16.27	16.52
Japan	3.73	3.10	3.10	3.47	3.60	2.98	3.09	3.42	3.54	2.94	3.04	3.36	3.35	3.27	3.22
India	5.38	5.35	5.05	5.44	5.64	5.71	5.33	5.67	5.91	5.99	5.59	5.94	5.31	5.59	5.86
Africa	4.51	4.53	4.45	4.61	4.61	4.62	4.54	4.70	4.71	4.73	4.64	4.81	4.53	4.62	4.73
Total OECD Liquid Fuels Consumption	45.22	45.67	46.02	46.48	45.91	45.56	46.25	46.31	45.94	45.58	46.27	46.35	45.85	46.01	46.04
Total non-OECD Liquid Fuels Consumption	54.72	55.23	55.31	55.34	56.07	56.57	56.52	56.48	57.31	57.85	57.78	57.75	55.15	56.41	57.68
Total World Liquid Fuels Consumption	99.93	100.90	101.33	101.82	101.98	102.12	102.77	102.79	103.25	103.43	104.05	104.10	101.00	102.42	103.71
Real Gross Domestic Product (a)															
World Index, 2015 Q1 = 100	125.7	126.7	127.7	128.5	129.1	130.1	131.0	132.1	133.0	134.0	135.1	136.3	127.1	130.6	134.6
Percent change from prior year	2.8	3.6	3.1	3.0	2.8	2.7	2.6	2.8	3.0	3.1	3.1	3.2	3.1	2.7	3.1
OECD Index, 2015 = 100													115.9	117.3	119.4
Percent change from prior year													1.7	1.3	1.7
Non-OECD Index, 2015 = 100													134.6	139.8	145.6
Percent change from prior year													4.3	3.8	4.2
Nominal U.S. Dollar Index (b)															
Index, 2015 Q1 = 100	114.1	113.4	114.0	115.6	114.4	115.6	115.8	115.5	115.1	114.4	113.6	112.9	114.3	115.3	114.0
Percent change from prior year	4.2	0.5	-2.7	-2.4	0.3	1.9	1.6	0.0	0.6	-1.0	-1.9	-2.3	-0.2	0.9	-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 February 1, 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 - February 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	13.29	13.03	13.12	13.06	13.18	13.37	13.46	13.50	13.64	12.93	13.10	13.49
Alaska	0.44	0.43	0.40	0.43	0.43	0.41	0.39	0.41	0.42	0.40	0.39	0.41	0.43	0.41	0.40
Federal Gulf of Mexico (b)	1.87	1.77	1.94	1.91	1.96	1.95	1.90	1.94	1.99	2.01	1.95	1.98	1.87	1.94	1.98
Lower 48 States (excl GOM)	10.31	10.55	10.73	10.95	10.64	10.76	10.77	10.83	10.96	11.06	11.17	11.26	10.64	10.75	11.11
Transfers to Crude Oil Supply	0.39	0.51	0.70	0.65	0.58	0.56	0.59	0.57	0.56	0.58	0.61	0.59	0.56	0.57	0.58
Crude Oil Net Imports (c)	2.27	2.51	2.61	2.46	1.84	2.31	2.09	1.47	1.42	1.77	1.70	1.31	2.46	1.93	1.55
SPR Net Withdrawals	0.01	0.26	-0.04	-0.04	-0.10	-0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.05	-0.04	0.00
Commercial Inventory Net Withdrawals	-0.39	0.12	0.41	-0.15	-0.12	0.10	0.17	-0.08	-0.32	0.09	0.16	-0.09	0.00	0.02	-0.04
Crude Oil Adjustment (d)	0.34	0.00	-0.22	-0.28	0.25	0.17	0.14	0.16	0.17	0.16	0.13	0.15	-0.04	0.18	0.15
Total Crude Oil Input to Refineries	15.25	16.15	16.51	15.92	15.47	16.20	16.06	15.30	15.21	16.07	16.10	15.59	15.96	15.76	15.74
Other Supply															
Refinery Processing Gain	0.97	1.01	1.07	1.04	0.97	1.00	0.99	0.97	0.97	1.00	1.01	1.02	1.02	0.98	1.00
Natural Gas Plant Liquids Production	6.01	6.42	6.58	6.72	6.43	6.51	6.55	6.60	6.69	6.66	6.71	6.43	6.51	6.67	
Renewables and Oxygenate Production (e)	1.24	1.29	1.31	1.34	1.31	1.35	1.35	1.38	1.40	1.44	1.44	1.47	1.30	1.35	1.44
Fuel Ethanol Production	1.00	1.00	1.02	1.05	1.01	1.01	1.01	1.02	1.02	1.03	1.01	1.03	1.02	1.01	1.02
Petroleum Products Adjustment (f)	0.20	0.22	0.23	0.23	0.21	0.22	0.21	0.21	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	-0.65	-0.58	-0.56	-0.59	-0.57	-0.56	-0.58	-0.61	-0.59	-0.56	-0.57	-0.58
Product Net Imports (c)	-3.91	-3.71	-4.03	-4.48	-4.11	-3.83	-3.79	-3.88	-3.79	-3.75	-3.88	-4.22	-4.04	-3.90	-3.91
Hydrocarbon Gas Liquids	-2.47	-2.39	-2.42	-2.59	-2.58	-2.59	-2.51	-2.51	-2.62	-2.68	-2.60	-2.57	-2.47	-2.55	-2.62
Unfinished Oils	0.28	0.27	0.22	0.21	0.39	0.43	0.45	0.35	0.33	0.43	0.47	0.37	0.24	0.41	0.40
Other HC/Oxygenates	-0.05	-0.07	-0.04	-0.05	-0.06	-0.05	-0.04	-0.05	-0.08	-0.07	-0.06	-0.07	-0.05	-0.05	-0.07
Motor Gasoline Blend Comp.	0.45	0.67	0.57	0.40	0.39	0.56	0.57	0.40	0.50	0.66	0.55	0.33	0.52	0.48	0.51
Finished Motor Gasoline	-0.75	-0.58	-0.67	-0.78	-0.59	-0.41	-0.47	-0.60	-0.58	-0.44	-0.47	-0.62	-0.70	-0.52	-0.53
Jet Fuel	-0.05	0.01	-0.05	-0.10	-0.08	0.00	0.03	0.08	0.01	0.05	0.02	0.00	-0.05	0.01	0.02
Distillate Fuel Oil	-0.76	-0.97	-1.01	-0.97	-0.83	-1.00	-1.06	-0.86	-0.66	-0.96	-0.98	-0.90	-0.93	-0.94	-0.88
Residual Fuel Oil	0.01	-0.04	-0.03	0.00	0.01	-0.01	-0.07	0.03	0.01	0.01	-0.07	0.02	-0.01	-0.01	-0.01
Other Oils (g)	-0.58	-0.61	-0.59	-0.59	-0.77	-0.75	-0.70	-0.73	-0.70	-0.74	-0.73	-0.78	-0.59	-0.74	-0.74
Product Inventory Net Withdrawals	0.30	-0.49	-0.61	0.36	0.46	-0.42	-0.26	0.43	0.26	-0.52	-0.31	0.32	-0.11	0.05	-0.06
Total Supply	19.67	20.38	20.37	20.48	20.17	20.47	20.53	20.39	20.29	20.57	20.63	20.51	20.23	20.39	20.50
Consumption (million barrels per day)															
Hydrocarbon Gas Liquids	3.40	3.36	3.25	3.72	3.84	3.34	3.39	3.73	3.85	3.41	3.42	3.81	3.43	3.58	3.62
Other HC/Oxygenates	0.22	0.28	0.28	0.27	0.28	0.31	0.31	0.34	0.33	0.37	0.37	0.40	0.27	0.31	0.37
Unfinished Oils	0.00														
Motor Gasoline	8.67	9.13	9.05	8.91	8.69	9.14	9.10	8.76	8.65	9.12	9.08	8.73	8.94	8.92	8.90
Fuel Ethanol blended into Motor Gasoline	0.90	0.94	0.94	0.95	0.90	0.95	0.95	0.94	0.91	0.96	0.95	0.94	0.93	0.93	0.94
Jet Fuel	1.55	1.67	1.72	1.65	1.58	1.71	1.74	1.69	1.63	1.75	1.77	1.72	1.65	1.68	1.72
Distillate Fuel Oil	4.01	3.93	3.90	3.91	3.96	3.96	3.89	3.99	4.09	3.96	3.91	4.01	3.94	3.95	3.99
Residual Fuel Oil	0.29	0.22	0.27	0.30	0.26	0.23	0.22	0.25	0.23	0.23	0.22	0.25	0.27	0.24	0.23
Other Oils (g)	1.53	1.79	1.89	1.73	1.55	1.78	1.90	1.63	1.51	1.74	1.86	1.60	1.73	1.72	1.68
Total Consumption	19.66	20.38	20.37	20.48	20.17	20.47	20.53	20.39	20.29	20.57	20.63	20.51	20.23	20.39	20.50
Total Petroleum and Other Liquids Net Imports	-1.64	-1.20	-1.42	-2.02	-2.27	-1.51	-1.70	-2.41	-2.36	-1.98	-2.18	-2.91	-1.57	-1.98	-2.36
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	465.4	454.7	417.5	431.6	442.3	433.2	417.2	424.4	452.9	444.3	429.6	438.0	431.6	424.4	438.0
Hydrocarbon Gas Liquids	174.3	225.4	279.1	231.8	183.4	230.6	272.7	230.3	198.4	251.9	295.4	259.2	231.8	230.3	259.2
Unfinished Oils	88.6	87.0	88.3	82.0	88.3	87.3	86.7	79.6	88.0	86.4	86.5	80.7	82.0	79.6	80.7
Other HC/Oxygenates	34.3	30.1	30.3	32.7	34.1	32.8	32.5	32.8	34.9	33.7	33.4	33.7	32.7	32.8	33.7
Total Motor Gasoline	225.3	223.2	227.6	240.4	237.4	229.7	221.6	233.4	231.9	228.3	219.4	231.2	240.4	233.4	231.2
Finished Motor Gasoline	14.7	17.6	15.3	16.8	15.9	20.2	18.9	20.8	17.4	19.4	18.8	21.1	16.8	20.8	21.1
Motor Gasoline Blend Comp.	210.6	205.6	212.3	223.6	221.5	209.4	202.6	212.6	214.4	208.9	200.6	210.1	223.6	212.6	210.1
Jet Fuel	37.7	42.7	43.5	39.5	39.6	39.9	41.0	37.3	36.1	38.1	38.7	35.1	39.5	37.3	35.1
Distillate Fuel Oil	112.3	112.6	119.2	128.7	119.3	121.8	122.1	123							

Table 4b. U.S. Hydrocarbon Gas Liquids (HGL) and Petroleum Refinery Balances (million barrels per day, except inventories and utilization factor)
 U.S. Energy Information Administration | Short-Term Energy Outlook - February 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	2.73	2.67	2.69	2.70	2.72	2.75	2.78	2.73	2.78	2.63	2.69	2.76
Propane	1.89	2.00	2.05	2.11	2.01	2.03	2.04	2.05	2.07	2.08	2.08	2.10	2.01	2.03	2.08
Butanes	0.99	1.06	1.09	1.11	1.07	1.10	1.10	1.10	1.12	1.13	1.13	1.14	1.06	1.09	1.13
Natural Gasoline (Pentanes Plus)	0.64	0.73	0.81	0.77	0.68	0.69	0.71	0.68	0.67	0.70	0.72	0.70	0.74	0.69	0.70
Refinery and Blender Net Production															
Ethane/Ethylene	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01
Propane	0.27	0.29	0.28	0.25	0.27	0.28	0.28	0.27	0.28	0.30	0.29	0.28	0.27	0.27	0.29
Propylene (refinery-grade)	0.24	0.26	0.25	0.26	0.28	0.28	0.27	0.27	0.27	0.28	0.27	0.27	0.25	0.28	0.27
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	0.06	0.05	0.05
Renewable Fuels and Oxygenate Plant Net Production															
Natural Gasoline (Pentanes Plus)	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
HGL Net Imports															
Ethane	-0.50	-0.49	-0.50	-0.44	-0.50	-0.50	-0.49	-0.52	-0.50	-0.49	-0.49	-0.50	-0.48	-0.50	-0.49
Propane/Propylene	-1.40	-1.40	-1.45	-1.61	-1.49	-1.49	-1.46	-1.44	-1.48	-1.52	-1.46	-1.46	-1.46	-1.47	-1.48
Butanes/Butylenes	-0.42	-0.41	-0.42	-0.45	-0.47	-0.51	-0.48	-0.45	-0.52	-0.57	-0.56	-0.50	-0.43	-0.48	-0.54
Natural Gasoline (Pentanes Plus)	-0.15	-0.09	-0.06	-0.09	-0.13	-0.09	-0.08	-0.10	-0.13	-0.10	-0.09	-0.11	-0.10	-0.10	-0.11
HGL Refinery and Blender Net Inputs															
Butanes/Butylenes	0.48	0.29	0.35	0.55	0.41	0.28	0.31	0.51	0.38	0.26	0.29	0.48	0.42	0.38	0.35
Natural Gasoline (Pentanes Plus)	0.18	0.20	0.21	0.20	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	2.15	2.22	2.21	2.23	2.27	2.27	2.27	2.28	2.10	2.22	2.27	
Propane	0.98	0.62	0.62	0.98	1.13	0.60	0.63	1.00	1.12	0.63	0.67	1.04	0.80	0.84	0.87
Propylene (refinery-grade)	0.25	0.27	0.27	0.27	0.30	0.30	0.29	0.30	0.29	0.29	0.29	0.27	0.27	0.29	0.29
Butanes/Butylenes	0.18	0.28	0.29	0.30	0.20	0.24	0.26	0.21	0.17	0.21	0.19	0.19	0.26	0.23	0.19
Natural Gasoline (Pentanes Plus)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HGL Inventories (million barrels)															
Ethane	53.0	54.2	52.4	70.1	69.9	68.3	68.3	67.1	64.8	68.3	66.5	67.5	57.5	68.4	66.8
Propane	55.8	79.2	102.2	78.7	46.3	64.6	84.7	71.4	47.1	65.7	86.1	73.3	78.7	71.4	73.3
Propylene (at refineries only)	1.1	1.1	1.2	1.4	1.3	1.6	1.8	1.7	1.5	1.7	1.9	1.7	1.4	1.7	1.7
Butanes/Butylenes	40.2	70.1	90.2	53.2	43.7	72.3	93.5	67.7	64.0	94.7	119.0	96.1	53.2	67.7	96.1
Natural Gasoline (Pentanes Plus)	22.9	23.4	27.4	26.2	23.2	24.0	24.4	23.1	20.3	21.4	22.2	21.4	26.2	23.1	21.4
Refinery and Blender Net Inputs															
Crude Oil	15.25	16.15	16.51	15.92	15.47	16.20	16.06	15.30	15.21	16.07	16.10	15.59	15.96	15.76	15.74
Hydrocarbon Gas Liquids	0.66	0.49	0.56	0.75	0.57	0.45	0.49	0.69	0.54	0.43	0.47	0.66	0.61	0.55	0.53
Other Hydrocarbons/Oxygenates	1.13	1.20	1.21	1.18	1.14	1.20	1.20	1.17	1.14	1.20	1.20	1.18	1.18	1.18	1.18
Unfinished Oils	0.19	0.21	0.00	0.12	0.16	0.30	0.31	0.28	0.08	0.29	0.30	0.27	0.13	0.26	0.24
Motor Gasoline Blend Components	0.34	0.85	0.64	0.29	0.39	0.76	0.75	0.37	0.47	0.68	0.67	0.42	0.53	0.57	0.56
Aviation Gasoline Blend Components	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Refinery and Blender Net Inputs	17.58	18.90	18.92	18.26	17.74	18.91	18.82	17.81	17.44	18.67	18.74	18.11	18.42	18.32	18.24
Refinery Processing Gain															
	0.97	1.01	1.07	1.04	0.97	1.00	0.99	0.97	0.97	1.00	1.01	1.02	1.02	0.98	1.00
Refinery and Blender Net Production															
Hydrocarbon Gas Liquids	0.47	0.83	0.75	0.34	0.47	0.83	0.76	0.36	0.48	0.85	0.77	0.38	0.60	0.61	0.62
Finished Motor Gasoline	9.28	9.83	9.81	9.66	9.20	9.62	9.61	9.41	9.14	9.50	9.52	9.50	9.65	9.46	9.42
Jet Fuel	1.62	1.72	1.78	1.71	1.66	1.71	1.72	1.57	1.60	1.72	1.76	1.68	1.71	1.66	1.69
Distillate Fuel	4.69	4.91	4.99	4.98	4.68	5.00	4.95	4.86	4.63	4.92	4.94	4.94	4.89	4.87	4.86
Residual Fuel	0.27	0.27	0.27	0.28	0.27	0.24	0.26	0.21	0.24	0.22	0.27	0.23	0.27	0.25	0.24
Other Oils (a)	2.21	2.35	2.40	2.34	2.42	2.51	2.50	2.38	2.31	2.46	2.49	2.40	2.32	2.45	2.42
Total Refinery and Blender Net Production	18.54	19.91	19.99	19.31	18.70	19.91	19.81	18.79	18.41	19.68	19.75	19.13	19.44	19.30	19.24
Refinery Distillation Inputs															
	15.78	16.75	17.02	16.40	15.85	16.58	16.50	15.72	15.62	16.46	16.54	15.99	16.49	16.16	16.15
Refinery Operable Distillation Capacity															
	18.12	18.27	18.27	18.31	18.27	18.19	18.20	18.20	17.94	17.94	17.94	17.94	18.24	18.22	17.94
Refinery Distillation Utilization Factor															
	0.87	0.92	0.93	0.90	0.87	0.91	0.91	0.86	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 February 1, 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 - February 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	235	260	264	233	233	256	259	229	264	248	245
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	330	344	361	325	311	331	337	312	310	330	336	311	340	323	322
PADD 2	324	348	360	314	287	317	330	300	301	324	330	300	337	309	314
PADD 3	302	315	334	285	274	302	310	279	277	299	304	275	309	292	289
PADD 4	357	359	393	331	278	326	353	325	313	340	350	321	361	321	331
PADD 5	418	452	480	455	403	433	447	414	404	430	434	401	452	425	417
U.S. Average	338	358	376	336	313	340	350	321	318	341	346	318	352	331	331
Gasoline All Grades Including Taxes	349	369	387	348	324	351	362	334	331	353	359	331	364	343	344
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	52.7	57.1	58.8	59.5	58.2	57.0	55.8	57.7	58.0	56.6	55.4	56.8	59.5	57.7	56.8
PADD 2	49.5	45.2	46.9	55.3	54.9	49.0	47.4	53.1	53.7	50.0	46.9	51.5	55.3	53.1	51.5
PADD 3	84.1	85.0	84.9	88.7	85.4	86.8	82.2	84.5	82.6	85.4	82.0	85.9	88.7	84.5	85.9
PADD 4	7.8	6.8	7.2	7.8	8.2	7.1	7.2	7.8	8.0	7.3	7.7	8.2	7.8	7.8	8.2
PADD 5	31.2	29.0	29.9	29.1	30.6	29.7	28.9	30.3	29.4	29.1	27.4	28.8	29.1	30.3	28.8
U.S. Total	225.3	223.2	227.6	240.4	237.4	229.7	221.6	233.4	231.9	228.3	219.4	231.2	240.4	233.4	231.2
Finished Gasoline Inventories															
U.S. Total	14.7	17.6	15.3	16.8	15.9	20.2	18.9	20.8	17.4	19.4	18.8	21.1	16.8	20.8	21.1
Gasoline Blending Components Inventories															
U.S. Total	210.6	205.6	212.3	223.6	221.5	209.4	202.6	212.6	214.4	208.9	200.6	210.1	223.6	212.6	210.1

- = no data available

Notes: EIA completed modeling and analysis for this report on February 1, 2024.

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

Prices are not adjusted for inflation.

PADD = Petroleum Administration for Defense District (PADD).

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

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

Forecasts: EIA Short-Term Integrated Forecasting System.

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

U.S. Energy Information Administration | Short-Term Energy Outlook - February 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	113.08	114.67	114.02	114.34	115.23	116.55	116.33	117.13	113.14	114.03	116.31
Alaska	1.08	1.01	0.91	1.03	1.03	0.95	0.87	1.00	1.01	0.94	0.87	0.99	1.01	0.96	0.95
Federal GOM (a)	2.13	1.89	2.02	1.98	2.06	2.07	2.01	2.06	2.11	2.13	2.04	2.04	2.00	2.05	2.08
Lower 48 States (excl GOM)	107.97	109.60	110.70	112.18	109.98	111.65	111.14	111.28	112.11	113.47	113.43	114.09	110.13	111.02	113.28
Total Dry Gas Production	102.26	103.16	104.12	105.42	103.50	104.96	104.37	104.66	105.48	106.68	106.48	107.21	103.75	104.37	106.46
LNG Gross Imports	0.09	0.02	0.02	0.04	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	12.72	11.69	11.92	11.73	13.03	13.07	13.60	14.82	16.20	11.83	12.09	14.43
Pipeline Gross Imports	8.45	7.32	7.94	8.07	8.43	7.03	7.26	7.48	8.29	6.98	7.24	7.48	7.94	7.55	7.49
Pipeline Gross Exports	8.93	8.75	9.19	8.84	9.18	9.15	9.43	9.34	9.53	9.53	9.87	9.65	8.93	9.28	9.64
Supplemental Gaseous Fuels	0.22	0.17	0.16	0.15	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.17	0.18	0.18
Net Inventory Withdrawals	11.97	-11.69	-6.44	0.25	17.16	-12.42	-6.76	2.60	13.96	-12.44	-5.98	4.35	-1.53	0.13	-0.07
Total Supply	102.61	78.46	85.21	92.38	108.49	78.71	83.92	92.61	105.40	78.30	83.27	93.43	89.63	90.92	90.05
Balancing Item (b)	0.30	-0.47	-1.40	-1.08	-0.30	-0.36	-0.79	0.35	-0.29	-1.25	-0.66	0.19	-0.67	-0.28	-0.50
Total Primary Supply	102.92	77.99	83.82	91.30	108.18	78.35	83.13	92.96	105.11	77.06	82.62	93.62	88.96	90.64	89.55
Consumption (billion cubic feet per day)															
Residential	23.50	7.29	3.57	14.84	24.57	7.29	3.84	16.14	24.17	7.26	3.83	16.09	12.25	12.94	12.79
Commercial	14.51	6.43	4.72	10.68	15.04	6.59	4.98	11.17	14.85	6.58	4.99	11.15	9.06	9.44	9.37
Industrial	24.84	22.40	21.98	24.22	25.28	21.94	21.56	23.76	24.69	21.72	21.52	23.79	23.35	23.13	22.93
Electric Power (c)	30.71	33.39	44.79	32.44	33.60	33.92	43.99	32.72	31.72	32.84	43.41	33.24	35.36	36.07	35.33
Lease and Plant Fuel	5.31	5.37	5.43	5.50	5.40	5.48	5.44	5.46	5.50	5.57	5.56	5.59	5.40	5.45	5.55
Pipeline and Distribution Use	3.86	2.93	3.15	3.43	4.08	2.91	3.10	3.49	3.96	2.87	3.09	3.53	3.34	3.39	3.36
Vehicle Use	0.18	0.18	0.18	0.20	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.19	0.22	0.22
Total Consumption	102.92	77.99	83.82	91.30	108.18	78.35	83.13	92.96	105.11	77.06	82.62	93.62	88.96	90.64	89.55
End-of-period Inventories (billion cubic feet)															
Working Gas Inventory	1,850	2,900	3,490	3,467	1,905	3,036	3,657	3,418	2,162	3,294	3,844	3,444	3,467	3,418	3,444
East Region (d)	334	646	853	787	349	664	860	794	411	718	862	766	787	794	766
Midwest Region (d)	417	701	993	955	432	732	1,017	924	485	791	1,079	933	955	924	933
South Central Region (d)	919	1,136	1,092	1,189	776	1,152	1,200	1,189	921	1,275	1,308	1,236	1,189	1,189	1,236
Mountain Region (d)	79	171	239	226	124	159	218	189	121	182	234	200	226	189	200
Pacific Region (d)	74	216	278	279	199	301	329	293	201	301	329	282	279	293	282
Alaska	27	30	35	31	25	28	33	29	24	27	32	29	31	29	29

(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 February 1, 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 - February 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	2.77	2.29	2.77	3.20	3.07	2.74	3.09	3.33	2.63	2.76	3.06
Residential Retail															
New England	21.04	20.48	22.57	17.43	16.73	17.39	20.22	15.98	15.73	16.67	19.82	15.83	19.88	16.86	16.20
Middle Atlantic	15.60	16.03	20.74	14.08	12.29	13.43	18.21	12.47	11.54	13.14	18.32	12.64	15.54	12.94	12.60
E. N. Central	11.06	13.26	22.96	10.58	8.94	11.74	19.38	9.24	8.21	11.25	19.17	9.21	11.95	10.07	9.64
W. N. Central	13.24	15.41	22.07	11.35	9.91	12.61	19.72	10.27	9.16	11.96	19.22	10.14	13.48	10.94	10.43
S. Atlantic	17.33	20.92	30.29	15.54	13.28	17.75	25.45	14.53	13.75	18.44	26.23	14.79	18.18	15.17	15.69
E. S. Central	13.63	16.66	23.41	12.92	10.37	14.13	20.92	11.85	10.79	14.74	21.49	12.03	14.39	11.85	12.33
W. S. Central	14.58	19.81	28.70	15.89	10.79	15.13	21.54	12.56	10.27	15.47	22.23	12.84	16.84	12.62	12.69
Mountain	12.61	13.86	18.75	12.69	11.58	13.55	18.15	11.72	10.82	12.83	17.39	11.31	13.24	12.41	11.79
Pacific	20.13	17.11	18.10	18.02	17.53	15.88	16.19	15.10	15.73	15.18	16.08	15.15	18.77	16.34	15.49
U.S. Average	14.72	16.19	22.33	13.66	11.81	14.03	19.27	12.00	11.12	13.68	19.25	12.03	15.17	12.74	12.38
Commercial Retail															
New England	15.19	13.66	12.55	11.62	11.43	11.44	11.35	10.53	10.80	11.19	11.43	10.67	13.55	11.15	10.89
Middle Atlantic	11.94	9.25	8.06	9.20	9.03	7.76	7.12	7.69	8.39	7.67	7.37	7.89	10.14	8.20	7.99
E. N. Central	9.20	8.63	10.71	7.63	6.89	7.51	9.16	6.49	6.48	7.55	9.47	6.72	8.76	7.01	6.92
W. N. Central	11.58	11.33	11.77	8.41	7.99	8.19	9.20	7.09	7.29	7.92	9.32	7.27	10.68	7.84	7.54
S. Atlantic	12.97	11.26	11.39	10.61	9.78	10.10	10.10	9.30	9.15	9.71	10.06	9.36	11.69	9.73	9.43
E. S. Central	11.89	10.94	11.80	10.47	8.65	9.37	10.35	9.17	8.73	9.72	10.76	9.45	11.27	9.11	9.35
W. S. Central	11.01	9.68	10.37	9.63	7.67	7.92	8.49	7.63	7.13	7.96	8.81	7.92	10.28	7.82	7.75
Mountain	10.76	10.77	12.16	10.68	10.37	10.62	11.20	9.72	9.54	9.93	10.67	9.27	10.87	10.30	9.64
Pacific	16.85	12.61	13.49	13.50	13.38	11.83	11.64	11.10	11.81	11.03	11.36	11.02	14.56	12.13	11.35
U.S. Average	11.81	10.48	10.90	9.73	8.98	9.05	9.49	8.29	8.33	8.83	9.55	8.40	10.86	8.84	8.57
Industrial Retail															
New England	13.55	10.07	7.87	8.79	9.37	8.15	6.70	7.77	8.87	8.05	6.91	7.99	10.45	8.22	8.11
Middle Atlantic	11.94	8.97	7.89	8.82	8.37	6.96	7.13	8.07	8.40	7.25	7.52	8.25	10.12	7.91	8.06
E. N. Central	9.18	6.67	6.91	5.96	5.78	5.52	5.49	5.61	5.86	5.80	5.90	5.90	7.48	5.65	5.87
W. N. Central	8.23	4.55	4.33	4.65	5.07	3.86	3.76	4.53	5.30	4.22	4.19	4.81	5.62	4.36	4.68
S. Atlantic	6.92	4.78	5.03	5.36	5.14	4.15	4.38	4.95	5.36	4.56	4.83	5.19	5.58	4.69	5.01
E. S. Central	5.46	3.74	4.10	4.45	4.52	3.67	3.92	4.54	4.84	4.08	4.32	4.73	4.47	4.19	4.51
W. S. Central	3.39	2.21	2.71	2.97	2.97	2.41	2.84	3.41	3.37	2.84	3.16	3.54	2.82	2.91	3.23
Mountain	8.86	7.73	8.05	7.53	6.67	6.04	5.97	5.65	5.67	5.54	5.83	5.64	8.12	6.12	5.66
Pacific	10.84	8.16	8.03	8.76	8.88	7.28	6.97	7.09	7.87	6.81	6.83	7.06	9.13	7.62	7.20
U.S. Average	6.12	3.76	3.87	4.48	4.72	3.57	3.68	4.49	4.89	3.91	4.01	4.64	4.61	4.15	4.39

- = no data available

Notes: EIA completed modeling and analysis for this report on February 1, 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 - February 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	118.0	109.2	123.2	119.1	115.7	105.9	120.5	113.6	581.6	469.6	455.6
Appalachia	42.9	42.5	40.0	41.8	35.6	32.8	29.5	29.5	30.8	29.3	27.1	27.3	167.2	127.4	114.5
Interior	25.4	23.5	22.6	24.6	20.3	20.0	22.0	21.7	23.1	21.4	22.9	21.8	96.1	84.0	89.1
Western	80.4	76.4	83.0	78.5	62.2	56.4	71.7	67.9	61.8	55.2	70.5	64.5	318.3	258.2	252.0
Primary Inventory Withdrawals	-1.6	0.3	3.6	0.0	-1.6	0.3	3.7	0.1	-1.7	0.2	3.6	0.0	2.3	2.4	2.1
Imports	1.0	1.0	1.0	1.2	0.8	0.8	1.1	0.8	0.5	0.7	1.0	0.7	4.2	3.4	2.9
Exports	24.6	24.1	24.9	25.8	23.5	23.1	22.4	23.9	22.8	23.7	24.0	25.6	99.5	93.0	96.1
Metallurgical Coal	12.4	12.6	13.6	12.7	12.8	13.3	12.3	12.6	11.8	13.2	12.8	13.3	51.3	51.0	51.1
Steam Coal	12.2	11.5	11.3	13.2	10.8	9.8	10.1	11.3	11.0	10.6	11.2	12.2	48.2	42.0	44.9
Total Primary Supply	123.5	119.5	125.3	120.4	93.6	87.2	105.5	96.0	91.7	83.1	101.1	88.7	488.7	382.4	364.6
Secondary Inventory Withdrawals	-20.1	-19.0	11.1	-21.3	-1.4	-8.1	16.5	-8.1	0.1	-4.8	19.0	-11.0	-49.3	-1.1	3.4
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	105.4	102.4	138.6	101.0	93.4	80.3	123.3	89.2	93.0	79.5	121.3	79.0	447.4	386.2	372.7
Consumption (million short tons)															
Coke Plants	4.0	3.9	4.0	3.9	3.8	3.9	4.0	4.1	4.0	4.2	4.2	4.3	15.8	15.8	16.7
Electric Power Sector (b)	91.2	82.0	122.7	88.6	91.4	71.4	114.2	79.2	83.1	70.3	112.1	68.9	384.4	356.2	334.4
Retail and Other Industry	6.5	5.6	5.3	6.2	6.0	5.0	5.1	5.9	5.8	5.0	5.0	5.8	23.6	22.0	21.7
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	5.7	4.9	4.9	5.7	5.6	4.8	4.9	5.6	22.9	21.2	20.9
Total Consumption	101.7	91.5	131.9	98.7	101.2	80.3	123.3	89.2	93.0	79.5	121.3	79.0	423.8	394.0	372.7
Discrepancy (c)	3.7	10.9	6.7	2.3	-7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.7	-7.8	0.0
End-of-period Inventories (million short tons)															
Primary Inventories (d)	22.4	22.1	18.5	18.5	20.1	19.8	16.1	16.0	17.7	17.5	14.0	13.9	18.5	16.0	13.9
Secondary Inventories	113.3	132.3	121.2	142.5	143.9	152.1	135.5	143.6	143.5	148.3	129.3	140.2	142.5	143.6	140.2
Electric Power Sector	109.0	127.7	116.6	137.6	139.8	147.7	130.9	139.0	139.5	144.1	124.8	135.7	137.6	139.0	135.7
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	0.248	0.254	0.257	0.253	0.261	0.268	0.267	0.262	0.242	0.253	0.264
Cost of Coal to Electric Utilities (Dollars per million Btu)	2.57	2.49	2.50	2.52	2.51	2.50	2.49	2.45	2.46	2.44	2.44	2.40	2.52	2.49	2.44

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

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

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

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

- = no data available

Notes: EIA completed modeling and analysis for this report on February 1, 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 - February 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Electricity Supply (billion kilowatthours)															
Electricity generation (a)	987	984	1,208	996	1,050	1,022	1,217	1,003	1,028	1,029	1,226	1,008	4,174	4,293	4,291
Electric power sector	948	947	1,167	956	1,011	983	1,176	963	988	991	1,184	968	4,018	4,132	4,131
Industrial sector	35	33	36	36	36	34	37	36	35	34	37	36	139	142	142
Commercial sector	4	4	5	4	4	4	5	4	4	4	5	4	17	18	18
Net imports	8	6	3	8	10	12	14	11	12	12	15	11	25	47	50
Total utility-scale power supply	995	990	1,210	1,004	1,061	1,033	1,231	1,014	1,040	1,042	1,240	1,019	4,199	4,340	4,341
Losses and Unaccounted for (b)	42	52	57	55	56	68	56	49	45	69	56	49	205	228	218
Small-scale solar generation (c)	14	22	22	16	17	26	25	17	20	29	29	20	74	86	98
Residential sector	10	15	15	11	12	17	17	12	13	20	20	14	50	58	67
Commercial sector	4	6	6	4	5	7	7	5	5	8	8	5	20	22	26
Industrial sector	1	1	1	1	1	1	1	1	1	2	2	1	4	5	5
Electricity Consumption (billion kilowatthours unless noted)															
Sales to Ultimate Customers	918	906	1,117	913	970	931	1,138	929	960	939	1,147	934	3,855	3,968	3,980
Residential Sector	355	319	455	329	386	334	470	340	380	337	473	341	1,458	1,530	1,530
Commercial Sector	322	330	390	333	335	335	392	334	330	335	392	334	1,375	1,396	1,390
Industrial Sector	239	256	270	249	247	260	275	254	249	266	280	258	1,015	1,035	1,053
Transportation Sector	2	2	2	2	2	2	2	2	2	2	2	2	7	7	7
Direct Use (d)	34	33	36	36	34	37	36	35	34	37	36	36	139	143	143
Total Consumption	953	939	1,154	949	1,005	965	1,176	965	995	973	1,184	971	3,994	4,112	4,123
Average residential electricity usage per customer (kWh)	2,530	2,268	3,241	2,343	2,725	2,358	3,313	2,396	2,655	2,353	3,308	2,383	10,382	10,793	10,698
End-of-period Fuel Inventories Held by Electric Power Sector															
Coal (mmst)	109.0	127.7	116.6	137.6	139.8	147.7	130.9	139.0	139.5	144.1	124.8	135.7	137.6	139.0	135.7
Residual Fuel (mmb)	6.1	6.3	6.2	6.2	4.1	3.9	2.0	2.8	1.7	2.0	0.3	1.3	6.2	2.8	1.3
Distillate Fuel (mmb)	17.0	16.9	19.6	16.1	16.0	15.8	15.8	16.1	15.9	15.8	15.7	16.0	16.1	16.1	16.0
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.57	2.49	2.50	2.52	2.51	2.50	2.49	2.45	2.46	2.44	2.44	2.40	2.52	2.49	2.44
Natural Gas	4.98	2.60	2.92	3.14	3.25	2.47	2.74	3.36	3.46	2.83	3.04	3.46	3.33	2.93	3.19
Residual Fuel Oil	19.24	17.88	19.26	19.97	16.16	16.60	15.54	15.43	15.62	15.96	15.00	14.78	19.15	15.90	15.31
Distillate Fuel Oil	22.84	19.91	22.12	21.13	20.78	20.57	20.06	20.99	20.80	19.86	19.39	19.63	21.46	20.67	19.99
Prices to Ultimate Customers (cents per kilowatthour)															
Residential Sector	15.77	16.12	16.02	15.81	15.40	15.96	16.05	15.79	15.68	16.34	16.47	16.20	15.93	15.81	16.19
Commercial Sector	12.64	12.45	13.21	12.54	12.20	12.21	13.34	12.82	12.50	12.62	13.73	13.11	12.73	12.67	13.02
Industrial Sector	8.06	7.74	8.57	8.01	8.19	7.77	8.52	8.19	8.29	7.89	8.68	8.32	8.10	8.17	8.30
Wholesale Electricity Prices (dollars per megawatthour)															
ERCOT North hub	28.05	57.27	188.81	33.85	40.15	28.21	38.52	33.56	35.38	25.72	38.10	31.09	77.00	35.11	32.57
CAISO SP15 zone	92.54	30.00	67.59	50.54	53.57	30.89	51.67	54.77	56.48	30.54	52.61	55.55	60.17	47.72	48.80
ISO-NE Internal hub	52.63	32.55	40.41	39.84	62.81	39.71	63.58	62.05	71.19	38.20	49.78	52.15	41.36	57.04	52.83
NYISO Hudson Valley zone	44.65	31.38	39.45	36.35	54.38	36.22	51.75	42.34	48.53	34.55	39.56	41.48	37.96	46.17	41.03
PJM Western hub	36.49	35.41	43.27	42.17	42.66	37.42	44.26	41.41	43.75	39.22	46.54	42.53	39.34	41.44	43.01
Midcontinent ISO Illinois hub	31.39	32.13	40.60	33.58	39.28	35.67	43.19	41.75	44.39	39.59	48.16	45.94	34.42	39.97	44.52
SPP ISO South hub	28.96	34.56	46.96	28.50	41.15	34.86	47.18	40.35	39.81	40.37	52.21	43.49	34.74	40.89	43.97
SERC index, Into Southern	30.53	31.66	36.45	30.40	34.45	31.38	35.46	34.09	34.55	32.43	37.66	34.96	32.26	33.84	34.90
FRCC index, Florida Reliability	30.31	33.06	36.79	32.05	35.90	33.01	36.39	35.27	34.61	34.61	38.47	36.28	33.05	35.14	35.99
Northwest index, Mid-Columbia	105.99	58.61	82.36	79.49	125.72	59.66	78.17	87.50	92.81	54.08	74.87	88.58	81.61	87.76	77.59
Southwest index, Palo Verde	84.19	31.60	71.95	50.10	47.59	37.26	49.94	50.77	50.59	36.48	51.03	49.28	59.46	46.39	46.84

Notes: EIA completed modeling and analysis for this report on February 1, 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 - February 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Residential Sector															
New England	12.2	9.8	13.7	10.9	13.1	10.2	14.6	11.2	13.2	10.2	14.6	11.1	46.6	49.2	49.2
Middle Atlantic	33.3	27.5	40.1	30.4	35.5	28.7	42.8	30.7	35.4	28.9	43.1	30.8	131.4	137.7	138.2
E. N. Central	46.5	39.8	52.5	42.2	50.6	42.3	56.5	43.9	50.7	42.3	56.5	43.9	181.0	193.3	193.4
W. N. Central	29.4	24.1	30.8	24.4	30.3	24.3	32.3	26.2	30.6	24.5	32.7	26.4	108.7	113.0	114.2
S. Atlantic	87.2	83.8	117.9	85.3	97.8	90.7	124.2	87.5	95.9	91.2	124.8	87.5	374.1	400.2	399.4
E. S. Central	29.3	25.4	37.3	25.9	34.5	26.4	38.7	26.6	32.3	26.5	38.9	26.7	117.9	126.1	124.4
W. S. Central	51.6	52.4	86.7	51.2	60.5	54.1	82.2	52.9	58.0	55.0	83.4	53.4	241.9	249.7	249.9
Mountain	25.3	24.5	36.4	23.5	25.0	26.0	36.8	24.2	24.8	26.3	37.2	24.4	109.7	112.0	112.7
Pacific contiguous	39.5	30.2	38.7	34.0	37.7	30.5	40.5	35.3	37.6	30.5	40.7	35.3	142.3	144.0	144.2
AK and HI	1.2	1.1	1.1	1.3	1.3	1.1	1.1	1.3	1.2	1.1	1.1	1.3	4.7	4.8	4.7
Total	355.4	318.6	455.2	329.1	386.3	334.3	469.7	339.6	379.7	336.6	473.2	340.8	1,458.3	1,530.0	1,530.4
Commercial Sector															
New England	11.9	11.5	13.6	11.8	12.2	11.6	13.7	11.7	12.0	11.5	13.6	11.6	48.8	49.2	48.6
Middle Atlantic	35.0	33.1	39.7	34.9	36.0	33.5	40.4	34.9	35.5	33.4	40.4	34.7	142.8	144.7	144.0
E. N. Central	42.4	41.9	48.0	42.1	43.6	42.3	48.8	42.3	43.0	42.2	48.7	42.2	174.4	177.1	176.2
W. N. Central	25.3	25.1	28.6	25.1	25.8	25.1	28.9	25.5	25.6	25.2	29.0	25.6	104.0	105.4	105.4
S. Atlantic	75.4	81.7	96.2	80.4	79.1	84.4	97.5	80.9	78.2	84.5	97.5	80.6	333.7	341.8	340.8
E. S. Central	20.6	21.8	27.1	21.5	21.5	22.1	27.2	21.3	20.9	21.9	27.0	21.1	90.9	92.1	90.9
W. S. Central	47.4	51.2	62.2	51.8	51.8	52.2	60.7	51.9	50.6	52.2	61.1	52.4	212.5	216.5	216.2
Mountain	23.8	25.0	29.9	24.6	24.4	25.6	29.9	24.7	24.1	25.6	30.0	24.8	103.2	104.5	104.4
Pacific contiguous	38.8	37.0	43.6	39.6	39.4	37.0	43.6	39.6	38.6	36.7	43.3	39.2	159.0	159.7	157.9
AK and HI	1.3	1.3	1.4	1.4	1.3	1.3	1.4	1.4	1.4	1.3	1.4	1.4	5.3	5.5	5.5
Total	321.9	329.6	390.2	333.1	335.1	335.1	392.1	334.2	329.9	334.7	391.9	333.6	1,374.8	1,396.4	1,390.1
Industrial Sector															
New England	3.7	3.7	3.9	3.7	3.7	3.6	3.9	3.7	3.7	3.6	3.9	3.7	15.0	14.9	14.8
Middle Atlantic	17.3	17.7	18.9	17.7	17.7	17.8	19.1	17.9	17.8	18.1	19.4	18.2	71.6	72.5	73.4
E. N. Central	44.8	45.8	48.3	45.7	45.8	45.8	48.5	46.3	45.9	46.5	49.1	46.9	184.6	186.5	188.4
W. N. Central	24.1	25.5	27.2	25.4	24.4	25.9	27.7	26.2	24.9	26.7	28.5	27.0	102.2	104.1	107.1
S. Atlantic	33.6	35.2	36.3	34.4	34.3	35.3	36.5	34.8	34.4	35.9	37.0	35.2	139.4	140.9	142.5
E. S. Central	23.2	23.9	24.8	23.0	23.1	23.7	24.6	23.0	22.8	23.7	24.6	23.0	94.9	94.4	94.1
W. S. Central	53.6	62.4	63.6	56.7	56.9	65.7	67.0	59.1	58.8	68.6	69.8	61.4	236.3	248.6	258.6
Mountain	19.8	21.5	24.1	21.3	20.8	22.0	24.5	21.7	21.0	22.3	24.9	22.1	86.7	89.0	90.2
Pacific contiguous	18.3	19.2	21.9	20.0	18.7	19.1	21.8	19.9	18.4	19.1	21.8	19.9	79.4	79.4	79.2
AK and HI	1.1	1.2	1.3	1.2	1.2	1.2	1.3	1.2	1.1	1.2	1.3	1.3	4.8	4.8	4.8
Total	239.5	256.2	270.2	249.1	246.5	260.0	274.9	253.8	248.6	265.7	280.3	258.5	1,015.0	1,035.2	1,053.2
Total All Sectors (a)															
New England	27.9	25.1	31.4	26.5	29.2	25.5	32.3	26.7	29.0	25.4	32.1	26.5	110.9	113.8	113.1
Middle Atlantic	86.4	79.2	99.7	84.0	90.1	80.8	103.1	84.3	89.5	81.2	103.7	84.5	349.3	358.3	358.9
E. N. Central	133.8	127.6	149.0	130.1	140.2	130.5	154.0	132.7	139.7	131.1	154.5	133.0	540.5	557.4	558.4
W. N. Central	78.7	74.8	86.5	74.9	80.6	75.3	88.9	77.9	81.1	76.5	90.2	78.9	314.9	322.6	326.8
S. Atlantic	196.4	200.9	250.7	200.4	211.4	210.6	258.5	203.4	208.8	211.8	259.6	203.6	848.4	883.9	883.8
E. S. Central	73.1	71.1	89.1	70.4	79.1	72.1	90.4	70.9	76.0	72.1	90.5	70.8	303.7	312.5	309.4
W. S. Central	152.6	166.0	212.6	159.7	169.2	172.1	210.0	163.8	167.4	175.9	214.4	167.2	690.9	715.1	724.9
Mountain	68.9	71.1	90.4	69.4	70.2	73.6	91.2	70.7	69.9	74.3	92.1	71.2	299.8	305.6	307.5
Pacific contiguous	96.8	86.6	104.4	93.8	96.0	86.8	106.2	94.9	94.9	86.5	106.1	94.7	381.6	383.9	382.1
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	15.0	15.1
Total	918.4	905.9	1,117.5	913.1	969.7	930.9	1,138.4	929.2	960.0	938.5	1,147.1	934.5	3,854.9	3,968.3	3,980.1

Notes: EIA completed modeling and analysis for this report on February 1, 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 - February 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	27.76	30.44	28.52	26.08	27.29	30.97	30.06	28.10	29.55	28.72	28.03	29.61
Middle Atlantic	19.69	19.13	19.85	19.72	19.88	19.58	20.48	20.35	20.44	19.95	20.73	20.55	19.63	20.11	20.46
E. N. Central	16.13	16.58	15.97	15.98	15.54	16.05	15.68	16.04	15.86	16.56	16.22	16.59	16.15	15.80	16.28
W. N. Central	11.85	13.52	14.23	12.38	11.65	13.55	14.16	12.22	11.72	13.74	14.38	12.40	13.01	12.91	13.07
S. Atlantic	14.30	14.74	14.54	14.39	13.80	14.16	14.14	14.16	13.78	14.35	14.45	14.46	14.50	14.07	14.27
E. S. Central	13.17	13.20	12.94	13.17	12.96	13.52	13.13	13.42	13.44	13.81	13.45	13.75	13.11	13.23	13.59
W. S. Central	13.57	13.57	13.51	13.63	13.02	13.53	13.61	13.32	12.99	13.72	13.88	13.60	13.56	13.39	13.58
Mountain	12.96	13.89	14.10	13.67	13.38	13.89	13.89	13.57	13.53	14.18	14.25	13.84	13.70	13.71	13.99
Pacific	19.60	22.32	23.94	20.39	19.69	22.96	24.78	20.94	20.58	24.19	25.77	21.60	21.55	22.12	23.06
U.S. Average	15.77	16.12	16.02	15.81	15.40	15.96	16.05	15.79	15.68	16.34	16.47	16.20	15.93	15.81	16.19
Commercial Sector															
New England	20.56	18.39	18.73	19.37	20.13	17.72	18.37	19.63	21.00	18.78	19.41	20.49	19.25	18.96	19.91
Middle Atlantic	14.86	14.88	16.39	15.29	14.63	14.81	16.53	15.47	14.82	15.11	16.86	15.72	15.40	15.40	15.68
E. N. Central	12.01	12.06	11.90	11.79	11.54	11.78	11.92	12.01	11.82	12.06	12.23	12.35	11.94	11.82	12.12
W. N. Central	9.95	10.66	11.38	9.77	9.69	10.79	11.61	9.88	9.75	11.02	11.81	9.98	10.47	10.52	10.68
S. Atlantic	11.32	10.95	10.90	10.86	10.48	10.36	10.60	10.68	10.39	10.44	10.78	10.85	11.00	10.53	10.62
E. S. Central	12.57	12.09	12.07	11.90	12.14	12.15	12.41	12.27	12.43	12.47	12.73	12.57	12.15	12.25	12.56
W. S. Central	9.36	8.84	9.62	9.01	8.73	8.96	10.47	10.06	9.61	10.00	11.26	10.39	9.22	9.59	10.36
Mountain	10.35	11.09	11.65	10.74	10.37	10.87	11.50	10.72	10.43	11.00	11.59	10.80	11.00	10.90	10.99
Pacific	18.06	18.84	22.70	19.49	18.43	18.69	22.96	20.21	19.08	19.43	23.67	20.86	19.87	20.17	20.86
U.S. Average	12.64	12.45	13.21	12.54	12.20	12.21	13.34	12.82	12.50	12.62	13.73	13.11	12.73	12.67	13.02
Industrial Sector															
New England	16.24	15.24	15.72	16.02	16.24	14.79	15.44	16.18	16.88	15.62	16.20	16.77	15.80	15.67	16.37
Middle Atlantic	8.20	7.72	7.88	7.90	8.28	7.75	7.94	7.93	8.23	7.73	7.86	7.91	7.92	7.97	7.93
E. N. Central	8.31	7.89	8.06	7.91	8.50	8.05	8.22	8.11	8.70	8.24	8.41	8.29	8.04	8.22	8.41
W. N. Central	7.44	7.79	8.43	7.33	7.70	7.93	8.57	7.55	7.83	8.09	8.73	7.68	7.76	7.95	8.10
S. Atlantic	7.72	7.37	8.08	7.59	8.06	7.50	8.17	7.78	8.13	7.61	8.31	7.88	7.69	7.88	7.98
E. S. Central	6.98	6.67	6.91	6.74	7.02	6.68	6.95	6.89	7.11	6.79	7.09	7.00	6.82	6.88	7.00
W. S. Central	6.56	5.95	7.20	6.37	6.44	5.63	6.61	6.51	6.40	5.65	6.67	6.55	6.53	6.29	6.31
Mountain	7.65	7.64	8.46	7.70	7.71	7.90	8.57	7.90	7.89	8.08	8.78	8.09	7.88	8.04	8.23
Pacific	11.81	12.47	14.85	13.37	12.48	13.20	15.48	14.01	13.05	13.77	16.16	14.62	13.20	13.86	14.47
U.S. Average	8.06	7.74	8.57	8.01	8.19	7.77	8.52	8.19	8.29	7.89	8.68	8.32	8.10	8.17	8.30
All Sectors (a)															
New England	24.39	22.26	22.01	22.31	24.23	21.59	21.48	22.32	24.98	22.83	22.93	23.73	22.74	22.41	23.62
Middle Atlantic	15.39	14.75	16.16	15.36	15.46	14.95	16.56	15.63	15.71	15.17	16.77	15.79	15.46	15.70	15.91
E. N. Central	12.20	11.97	12.08	11.78	11.99	11.85	12.13	11.98	12.26	12.15	12.47	12.31	12.01	11.99	12.30
W. N. Central	9.89	10.60	11.47	9.79	9.82	10.70	11.59	9.88	9.90	10.87	11.76	10.01	10.47	10.53	10.67
S. Atlantic	12.03	11.91	12.20	11.80	11.62	11.52	11.96	11.68	11.57	11.64	12.19	11.89	12.00	11.71	11.84
E. S. Central	11.04	10.66	11.00	10.68	11.00	10.86	11.23	10.96	11.26	11.10	11.51	11.21	10.86	11.02	11.28
W. S. Central	9.80	9.24	10.48	9.56	9.50	9.13	10.47	9.83	9.65	9.47	10.79	10.01	9.82	9.77	10.02
Mountain	10.53	11.01	11.79	10.80	10.65	11.05	11.67	10.83	10.77	11.25	11.91	11.00	11.08	11.09	11.28
Pacific	17.49	18.63	21.49	18.50	17.76	18.97	22.10	19.16	18.48	19.84	22.90	19.80	19.09	19.58	20.34
U.S. Average	12.66	12.41	13.23	12.48	12.46	12.32	13.29	12.64	12.67	12.61	13.62	12.91	12.72	12.71	12.99

Notes: EIA completed modeling and analysis for this report on February 1, 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

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	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
United States															
Natural Gas	367.4	395.2	536.6	392.2	404.8	401.0	527.0	395.2	377.9	388.2	519.2	401.0	1,691.4	1,728.0	1,686.4
Coal	156.7	140.5	215.9	152.8	157.1	123.0	200.0	134.1	141.1	120.7	194.9	113.8	666.0	614.3	570.5
Nuclear	194.5	183.1	205.2	192.7	197.1	193.1	208.6	192.7	198.6	192.8	208.0	197.2	775.5	791.5	796.5
Renewable Energy Sources:	225.5	224.7	204.6	213.0	246.6	262.6	235.9	235.9	266.5	286.2	258.4	251.2	867.8	980.9	1,062.3
Conventional Hydropower	60.9	64.1	58.6	55.9	64.4	73.9	60.9	56.9	67.7	76.9	63.7	58.7	239.5	256.1	266.9
Wind	125.7	102.5	84.5	115.4	130.9	110.1	90.1	123.2	135.8	114.1	93.4	127.9	428.1	454.2	471.3
Solar (a)	29.1	48.9	51.8	32.4	41.1	69.8	74.9	46.0	53.4	86.9	91.4	55.0	162.3	231.9	286.8
Biomass	5.6	5.1	5.7	5.0	5.9	5.4	6.0	5.4	5.7	5.4	5.9	5.4	21.4	22.8	22.4
Geothermal	4.2	4.0	4.0	4.2	4.4	3.3	4.0	4.3	3.9	2.9	4.0	4.2	16.5	16.0	15.0
Pumped Storage Hydropower	-1.6	-1.3	-1.8	-1.2	-1.7	-1.3	-1.8	-1.3	-1.7	-1.4	-1.7	-1.3	-5.9	-6.1	-6.1
Petroleum (b)	3.9	3.5	4.8	4.7	5.2	3.5	4.5	5.1	5.0	3.4	4.3	5.3	16.9	18.3	17.9
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	0.6	0.6	0.4	0.3	0.2	0.1	0.0	0.0	3.3	1.9	0.2
Total Generation	948.1	947.3	1,167.0	955.8	1,010.5	983.3	1,175.5	962.9	988.4	990.8	1,184.1	967.9	4,018.2	4,132.2	4,131.1
New England (ISO-NE)															
Natural Gas	11.5	12.4	15.8	11.8	12.0	11.2	17.7	12.4	11.1	11.5	17.5	10.7	51.4	53.3	50.8
Coal	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.2	0.0	0.1	0.1	0.2	0.3	0.4
Nuclear	7.1	3.4	6.9	5.9	6.9	7.1	7.2	5.6	7.1	6.1	7.2	7.2	23.3	26.9	27.5
Conventional hydropower	1.9	1.4	1.6	1.8	2.0	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	2.5	2.7	2.9	3.4	4.0	3.8	3.6	4.1	10.4	11.5	15.5
Other energy sources (e)	0.3	0.2	0.2	0.4	0.6	0.2	0.5	0.8	0.2	0.2	0.5	0.5	1.2	1.5	1.7
Total generation	23.6	20.1	27.1	22.4	24.2	23.4	29.4	23.6	25.1	23.7	29.8	24.3	93.3	100.6	103.0
Net energy for load (f)	29.0	25.6	32.2	27.9	30.5	27.6	34.2	29.1	30.8	28.2	34.6	29.3	114.7	121.4	123.0
New York (NYISO)															
Natural Gas	13.5	14.2	21.1	15.3	15.1	13.8	20.9	14.5	13.9	13.9	21.0	13.7	64.1	64.3	62.6
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	6.8	6.6	6.9	7.3	6.5	7.1	7.0	6.5	6.7	6.9	7.2	7.2	27.6	27.1	27.9
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	2.4	2.7	2.6	2.2	2.7	3.0	2.9	2.5	3.2	8.3	10.3	11.7
Other energy sources (e)	0.2	0.0	0.0	0.2	0.5	0.0	0.2	0.2	0.6	0.0	0.1	0.3	0.4	0.9	1.0
Total generation	29.7	29.4	36.7	32.1	31.6	30.3	37.1	31.0	31.1	30.7	37.7	31.5	128.0	130.0	130.9
Net energy for load (f)	36.1	33.3	42.1	35.5	38.1	36.1	45.2	36.7	38.4	36.9	45.9	37.1	147.0	156.2	158.2
Mid-Atlantic (PJM)															
Natural Gas	85.1	81.6	112.2	84.3	95.8	83.1	114.5	85.2	87.4	82.9	111.5	91.1	363.2	378.6	372.8
Coal	28.3	22.9	36.2	25.0	33.9	25.6	28.5	22.5	30.5	20.1	28.2	15.4	112.4	110.5	94.2
Nuclear	67.6	65.7	70.6	68.7	69.2	64.8	71.9	68.6	67.6	66.3	72.2	67.3	272.5	274.4	273.4
Conventional hydropower	2.6	1.8	2.0	2.5	2.6	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	9.6	12.5	15.2	15.3	12.6	14.6	17.2	16.8	13.7	15.6	46.9	57.7	63.3
Other energy sources (e)	0.3	0.1	0.2	0.6	0.4	0.2	0.2	0.7	0.4	0.2	0.2	0.8	1.2	1.5	1.6
Total generation	196.9	183.9	230.9	193.5	217.1	191.5	229.3	193.7	205.7	188.9	227.5	192.3	805.1	831.7	814.4
Net energy for load (f)	192.5	176.2	214.4	187.0	204.1	181.4	217.9	185.3	199.4	182.3	219.0	185.8	770.1	788.6	786.5
Southeast (SERC)															
Natural Gas	64.1	65.7	82.3	61.0	70.4	72.7	88.4	69.8	70.3	70.9	88.8	68.7	273.1	301.3	298.7
Coal	23.6	26.5	39.7	24.2	27.1	20.6	37.7	19.5	22.4	21.8	37.7	17.2	114.0	104.9	99.1
Nuclear	51.7	52.9	57.4	57.4	56.1	57.6	59.6	54.7	56.5	58.7	59.5	58.2	219.3	228.0	232.9
Conventional hydropower	9.9	6.2	8.0	9.0	11.1	8.9	8.0	9.1	11.4	9.0	8.1	9.1	33.1	37.1	37.6
Nonhydro renewables (d)	4.9	7.2	7.4	5.1	5.6	8.1	8.0	5.9	6.5	9.4	8.9	6.2	24.6	27.7	31.0
Other energy sources (e)	-0.3	-0.2	-0.5	-0.2	-0.2	-0.3	-0.4	-0.2	-0.3	-0.3	-0.4	-0.1	-1.2	-1.1	-1.1
Total generation	154.0	158.2	194.4	156.5	170.2	167.7	201.3	158.8	166.9	169.5	202.7	159.2	663.0	697.9	698.2
Net energy for load (f)	148.9	149.2	171.6	149.5	162.8	157.1	188.1	150.8	158.1	158.2	189.0	151.0	619.2	658.8	656.4
Florida (FRCC)															
Natural Gas	37.7	48.8	58.7	42.7	37.8	46.8	56.3	41.3	35.7	46.3	56.4	40.4	187.8	182.1	178.7
Coal	2.7	2.6	3.9	2.5	2.4	1.7	2.5	2.0	2.3	1.9	2.3	1.5	11.7	8.6	8.0
Nuclear	7.4	7.5	8.0	7.1	7.2	7.9	7.9	6.7	7.8	7.4	7.4	8.0	29.9	29.8	30.6
Conventional hydropower	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.2	0.2
Nonhydro renewables (d)	3.5	4.2	4.1	3.2	4.8	5.6	5.4	4.2	5.6	6.5	6.2	4.7	15.0	20.0	22.9
Other energy sources (e)	0.6	0.5	0.6	0.4	0.6	0.5	0.5	0.4	0.6	0.5	0.5	0.5	2.1	2.1	2.1
Total generation	51.9	63.6	75.3	55.9	52.8	62.6	72.6	54.8	52.1	62.6	72.8	55.0	246.8	242.8	242.6
Net energy for load (f)	54.4	65.5	77.2	56.6	52.1	63.4	74.0	55.0	51.4	63.5	74.3	55.1	253.8	244.5	244.2

Notes: EIA completed modeling and analysis for this report on February 1, 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 - February 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	47.9	54.0	58.6	70.7	55.5	57.1	61.8	74.8	61.5	215.3	238.8	255.3
Coal	43.0	38.0	57.3	43.5	40.8	32.1	53.0	34.3	37.1	31.7	51.3	28.5	181.8	160.2	148.5
Nuclear	23.4	21.1	24.3	18.4	20.2	22.4	24.2	23.0	22.4	20.8	23.3	22.8	87.2	89.7	89.3
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	8.1	9.8	10.0
Nonhydro renewables (d)	30.3	26.5	19.4	30.8	32.9	28.5	21.5	34.0	37.0	32.4	24.9	36.7	107.1	116.9	130.9
Other energy sources (e)	0.8	0.7	1.3	1.1	1.3	1.1	1.4	1.5	1.1	1.1	1.3	1.4	3.9	5.4	4.9
Total generation	145.1	143.0	171.4	143.7	151.7	145.5	173.2	150.5	157.2	150.8	177.9	153.0	603.3	620.9	638.9
Net energy for load (f)	158.6	157.9	184.3	155.2	168.3	161.7	189.7	161.6	167.0	163.6	191.4	162.8	656.0	681.4	684.8
Central (Southwest Power Pool)															
Natural Gas	15.8	21.5	30.3	18.3	20.2	22.4	28.0	14.7	15.2	18.6	26.0	14.3	85.9	85.3	74.1
Coal	20.4	17.2	27.4	17.6	17.6	17.4	27.3	17.9	16.7	18.0	27.6	17.0	82.7	80.2	79.3
Nuclear	4.3	4.3	4.3	4.4	4.3	2.9	4.3	3.5	4.2	4.3	4.3	3.0	17.2	15.1	15.9
Conventional hydropower	2.9	2.8	2.7	2.7	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)	31.3	25.6	22.5	29.8	32.8	27.4	24.3	31.2	33.0	28.2	25.1	32.5	109.3	115.7	118.9
Other energy sources (e)	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.7	0.7	0.6
Total generation	74.9	71.6	87.4	73.0	78.5	74.4	87.7	70.6	72.9	73.4	86.9	70.0	306.9	311.2	303.2
Net energy for load (f)	66.6	66.6	81.8	65.7	70.2	68.1	81.4	64.4	65.8	67.0	81.1	64.2	280.7	284.2	278.1
Texas (ERCOT)															
Natural Gas	36.4	49.6	70.0	43.2	43.7	48.3	58.8	41.2	38.5	41.9	55.5	41.0	199.2	192.0	177.0
Coal	11.4	15.2	19.7	14.4	11.8	7.6	16.0	11.6	8.3	10.0	14.4	10.1	60.7	47.0	42.8
Nuclear	10.5	9.0	10.9	10.3	10.8	9.8	10.6	9.4	10.8	10.0	11.1	9.9	40.7	40.6	41.8
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	0.5	0.6	0.6
Nonhydro renewables (d)	36.6	33.8	33.6	31.2	38.9	45.0	45.0	39.2	42.7	51.5	52.4	42.8	135.2	168.1	189.4
Other energy sources (e)	0.2	0.4	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.0	-0.1	1.2	1.0	0.0
Total generation	95.4	108.1	134.6	99.6	105.6	111.2	130.8	101.7	100.6	113.7	133.5	103.8	437.6	449.3	451.6
Net energy for load (f)	94.2	109.8	140.6	99.7	105.6	111.2	130.8	101.7	100.6	113.7	133.5	103.8	444.3	449.3	451.6
Northwest															
Natural Gas	24.3	17.9	27.8	24.6	24.4	12.9	23.2	22.8	21.8	13.2	21.0	22.9	94.6	83.2	78.9
Coal	20.2	14.3	23.4	20.0	17.3	13.9	25.8	19.1	16.5	12.4	25.4	17.3	77.9	76.1	71.6
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	8.5	9.8	8.5
Conventional hydropower	25.8	29.9	23.6	23.9	27.2	33.9	25.8	24.6	31.0	37.0	29.2	27.0	103.2	111.4	124.2
Nonhydro renewables (d)	18.9	19.1	17.8	19.3	21.4	22.5	21.0	19.9	22.7	23.7	22.9	20.9	75.1	84.8	90.3
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	0.7	0.5	0.4
Total generation	91.8	82.6	95.2	90.4	92.8	85.7	98.3	89.0	94.6	87.6	101.1	90.7	360.1	365.9	373.9
Net energy for load (f)	88.7	76.7	86.5	82.7	85.3	75.5	85.4	82.0	84.5	75.8	85.8	82.2	334.6	328.2	328.2
Southwest															
Natural Gas	12.5	16.5	23.0	15.7	11.5	16.0	22.6	15.0	10.1	15.1	21.8	13.4	67.8	65.1	60.4
Coal	5.5	3.1	6.5	4.2	4.9	3.3	6.5	5.2	5.6	3.5	6.6	6.4	19.2	19.9	22.0
Nuclear	8.6	6.8	8.6	7.6	8.6	7.4	8.6	7.5	8.4	7.4	8.6	7.5	31.5	32.1	31.9
Conventional hydropower	1.4	2.5	2.0	1.4	1.8	2.4	2.0	1.4	1.8	2.2	1.9	1.4	7.3	7.7	7.4
Nonhydro renewables (d)	6.4	6.5	6.1	6.0	7.1	7.7	7.9	7.7	8.9	9.5	8.9	8.4	25.0	30.5	35.7
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	34.9	33.9	36.8	47.7	36.9	34.8	37.7	47.9	37.0	151.0	155.3	157.4
Net energy for load (f)	28.3	32.9	45.8	29.9	29.1	34.1	44.5	29.4	28.4	34.3	44.9	29.6	136.9	137.2	137.2
California															
Natural Gas	20.2	11.5	27.2	26.7	19.2	14.5	25.3	22.0	15.9	11.5	24.2	22.7	85.7	81.0	74.4
Coal	1.1	0.6	1.7	1.2	1.0	0.6	2.1	1.3	1.0	1.0	0.9	0.0	4.6	5.0	2.8
Nuclear	4.7	4.9	4.9	3.3	4.8	3.6	4.8	4.8	4.7	3.7	4.8	3.7	17.8	18.0	16.8
Conventional hydropower	6.5	10.5	9.4	5.0	6.5	9.6	8.8	5.1	5.3	9.1	8.2	4.4	31.5	29.9	27.1
Nonhydro renewables (d)	14.8	20.3	20.5	13.8	17.9	22.5	23.7	15.7	17.8	23.8	24.8	16.9	69.4	79.8	83.4
Other energy sources (e)	-0.6	-0.2	0.0	-0.1	-0.7	-0.3	-0.3	-0.4	-0.9	-0.5	-0.3	-0.6	-0.9	-1.7	-2.3
Total generation	46.7	47.7	63.7	50.0	48.6	50.6	64.4	48.4	43.9	48.6	62.6	47.1	208.0	212.0	202.2
Net energy for load (f)	60.5	59.9	76.7	62.9	60.8	63.5	80.5	62.9	60.3	63.8	81.0	63.0	260.0	267.8	268.1

Notes: EIA completed modeling and analysis for this report on February 1, 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 - February 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Electric power sector (power plants larger than one megawatt)															
Fossil fuel energy sources															
Natural gas	486.1	488.0	488.5	488.5	488.8	487.1	488.2	488.9	488.8	492.0	492.9	492.8	488.5	488.9	492.8
Coal	186.3	182.6	180.5	179.3	177.9	177.4	177.4	177.0	177.0	174.5	172.7	166.1	179.3	177.0	166.1
Petroleum	28.4	28.2	28.2	28.2	28.3	27.9	27.9	27.8	27.8	27.8	27.8	27.6	28.2	27.8	27.6
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	143.1	144.5	144.6	147.6	150.4	153.0	153.2	155.9	156.7	157.2	157.6	161.7	147.6	155.9	161.7
Solar photovoltaic	73.1	76.7	80.3	89.1	100.2	110.7	114.9	125.6	132.4	140.6	145.5	163.2	89.1	125.6	163.2
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	79.9	79.9	79.8	79.8	79.9
Pumped storage hydroelectric	23.2	23.2	23.2	23.2	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.2	23.3	23.3
Nuclear	94.7	94.7	95.8	95.8	96.9	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	19.8	23.7	24.9	29.6	31.1	34.7	36.1	40.2	15.5	29.6	40.2
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	18.9	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	31.5	32.8	34.1	35.4	36.7	38.1	39.5	41.0	42.4	44.0	32.8	38.1	44.0
Commercial sector	11.5	11.8	12.2	12.5	12.9	13.4	13.8	14.3	14.8	15.3	15.8	16.3	12.5	14.3	16.3
Industrial sector	2.4	2.5	2.5	2.6	2.6	2.7	2.8	2.8	2.9	2.9	3.0	3.1	2.6	2.8	3.1
All sectors total	41.7	43.9	46.2	47.9	49.6	51.5	53.3	55.2	57.2	59.2	61.2	63.3	47.9	55.2	63.3

Notes:

EIA completed modeling and analysis for this report on February 1, 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, November 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 - February 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	0.015	0.013	0.010	0.014	0.014	0.056	0.055	0.051
Hydroelectric Power (a)	0.208	0.219	0.200	0.197	0.220	0.252	0.208	0.194	0.231	0.262	0.217	0.200	0.823	0.874	0.911
Solar (b)	0.099	0.167	0.177	0.110	0.140	0.238	0.256	0.157	0.182	0.297	0.312	0.188	0.554	0.791	0.979
Waste Biomass (c)	0.043	0.041	0.042	0.041	0.043	0.041	0.042	0.041	0.042	0.040	0.041	0.041	0.167	0.167	0.165
Wood Biomass	0.044	0.040	0.044	0.038	0.049	0.044	0.052	0.044	0.048	0.043	0.052	0.043	0.166	0.188	0.185
Wind	0.429	0.350	0.288	0.394	0.447	0.375	0.307	0.420	0.463	0.389	0.319	0.437	1.461	1.550	1.608
Subtotal	0.837	0.830	0.765	0.794	0.913	0.962	0.878	0.871	0.979	1.042	0.955	0.922	3.226	3.624	3.898
Industrial Sector															
Biofuel Losses and Co-products (d)	0.199	0.202	0.206	0.209	0.204	0.204	0.206	0.208	0.204	0.207	0.207	0.211	0.816	0.822	0.828
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	0.006	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	0.159	0.158	0.158
Wood Biomass	0.318	0.299	0.299	0.314	0.329	0.332	0.345	0.348	0.337	0.335	0.347	0.349	1.230	1.354	1.369
Subtotal (e)	0.568	0.553	0.554	0.574	0.583	0.587	0.601	0.607	0.591	0.593	0.604	0.612	2.249	2.378	2.400
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	0.024	0.024	0.017	0.019	0.027	0.027	0.019	0.069	0.080	0.092
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	0.070
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	0.065	0.065	0.073	0.075	0.067	0.067	0.077	0.078	0.070	0.270	0.281	0.292
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	0.088	0.060	0.234	0.265	0.294
Wood Biomass	0.111	0.112	0.114	0.109	0.111	0.112	0.114	0.109	0.111	0.112	0.114	0.109	0.446	0.446	0.446
Subtotal	0.166	0.191	0.193	0.169	0.174	0.201	0.202	0.173	0.179	0.210	0.211	0.179	0.720	0.750	0.779
Transportation Sector															
Biodiesel, Renewable Diesel, and Other (g)	0.140	0.173	0.175	0.169	0.174	0.189	0.193	0.203	0.198	0.219	0.224	0.234	0.657	0.759	0.875
Ethanol (g)	0.270	0.286	0.288	0.290	0.273	0.287	0.291	0.287	0.271	0.290	0.291	0.289	1.133	1.138	1.140
Subtotal	0.410	0.459	0.463	0.460	0.448	0.476	0.483	0.490	0.469	0.509	0.514	0.523	1.791	1.897	2.015
All Sectors Total															
Biodiesel, Renewable Diesel, and Other (g)	0.140	0.173	0.175	0.169	0.174	0.189	0.193	0.203	0.198	0.219	0.224	0.234	0.657	0.759	0.875
Biofuel Losses and Co-products (d)	0.199	0.202	0.206	0.209	0.204	0.204	0.206	0.208	0.204	0.207	0.207	0.211	0.816	0.822	0.828
Ethanol (f)	0.281	0.298	0.299	0.302	0.285	0.299	0.303	0.299	0.282	0.301	0.303	0.301	1.180	1.185	1.187
Geothermal	0.030	0.029	0.030	0.030	0.031	0.027	0.030	0.030	0.029	0.026	0.030	0.030	0.120	0.118	0.115
Hydroelectric Power (a)	0.209	0.220	0.201	0.198	0.221	0.253	0.209	0.195	0.232	0.263	0.218	0.201	0.827	0.878	0.915
Solar (b)(f)	0.162	0.261	0.272	0.178	0.213	0.346	0.363	0.231	0.263	0.417	0.432	0.270	0.874	1.154	1.383
Waste Biomass (c)	0.102	0.098	0.097	0.101	0.100	0.097	0.098	0.100	0.098	0.097	0.098	0.100	0.398	0.396	0.393
Wood Biomass	0.493	0.472	0.478	0.481	0.509	0.508	0.532	0.521	0.516	0.511	0.533	0.522	1.924	2.070	2.081
Wind	0.429	0.350	0.288	0.394	0.447	0.375	0.307	0.420	0.463	0.389	0.319	0.437	1.461	1.550	1.608
Total Consumption	2.045	2.103	2.047	2.061	2.183	2.299	2.240	2.209	2.286	2.430	2.362	2.306	8.256	8.930	9.384

Notes: EIA completed modeling and analysis for this report on February 1, 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 - February 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	22,539	22,605	22,673	22,773	22,883	22,966	23,047	23,128	23,210	22,342	22,734	23,088
Real Personal Consumption Expend. (billion chained 2017 dollars - SAAR)	15,313	15,344	15,461	15,545	15,610	15,664	15,730	15,788	15,826	15,865	15,916	15,968	15,416	15,698	15,894
Real Private Fixed Investment (billion chained 2017 dollars - SAAR)	3,906	3,956	3,981	4,009	4,018	4,033	4,048	4,073	4,098	4,120	4,137	4,153	3,963	4,043	4,127
Business Inventory Change (billion chained 2017 dollars - SAAR)	24	19	102	39	36	22	33	62	80	91	93	91	46	38	89
Real Government Expenditures (billion chained 2017 dollars - SAAR)	3,759	3,790	3,843	3,850	3,858	3,863	3,867	3,870	3,874	3,877	3,881	3,885	3,810	3,865	3,879
Real Exports of Goods & Services (billion chained 2017 dollars - SAAR)	2,525	2,465	2,497	2,505	2,532	2,569	2,609	2,646	2,678	2,708	2,742	2,777	2,498	2,589	2,727
Real Imports of Goods & Services (billion chained 2017 dollars - SAAR)	3,460	3,393	3,428	3,462	3,511	3,547	3,580	3,616	3,648	3,669	3,695	3,717	3,436	3,563	3,682
Real Disposable Personal Income (billion chained 2017 dollars - SAAR)	16,663	16,797	16,809	16,908	17,076	17,186	17,309	17,422	17,551	17,685	17,793	17,887	16,794	17,248	17,729
Non-Farm Employment (millions)	155.2	155.9	156.5	157.0	157.2	157.3	157.5	157.7	157.8	158.0	158.1	158.2	156.2	157.4	158.0
Civilian Unemployment Rate (percent)	3.5	3.6	3.7	3.7	3.9	3.9	3.9	3.9	3.9	3.9	4.0	4.0	3.6	3.9	4.0
Housing Starts (millions - SAAR)	1.39	1.45	1.37	1.45	1.41	1.41	1.40	1.40	1.40	1.40	1.38	1.38	1.41	1.40	1.39
Industrial Production Indices (Index, 2017=100)															
Total Industrial Production	102.6	102.8	103.3	102.5	102.8	102.6	102.8	103.2	103.6	104.0	104.5	104.8	102.8	102.9	104.2
Manufacturing	99.9	100.2	100.1	99.5	99.9	100.0	100.5	101.2	101.7	102.2	102.6	103.0	99.9	100.4	102.4
Food	105.1	103.6	101.7	102.8	103.3	103.6	104.0	104.5	104.9	105.3	105.9	106.3	103.3	103.8	105.6
Paper	87.8	86.6	86.7	88.0	87.9	87.9	88.2	88.5	88.7	89.0	89.2	89.5	87.3	88.2	89.1
Petroleum and Coal Products	88.5	89.9	91.3	93.0	93.3	93.2	93.1	93.0	92.8	92.5	92.3	92.2	90.7	93.2	92.4
Chemicals	103.2	103.8	103.5	102.7	103.4	103.8	104.4	105.0	105.6	106.4	106.4	107.6	103.3	104.1	106.6
Nonmetallic Mineral Products	111.4	108.6	107.2	106.2	106.6	107.2	108.1	109.2	110.2	111.3	112.0	112.8	108.4	107.8	111.6
Primary Metals	92.7	95.7	95.0	93.7	93.9	94.1	95.8	96.8	96.8	97.9	98.5	99.5	94.3	95.1	98.2
Coal-weighted Manufacturing (a)	95.7	96.2	96.0	95.7	95.9	96.1	96.9	97.6	97.7	98.5	98.8	99.4	95.9	96.6	98.6
Distillate-weighted Manufacturing (a)	99.3	99.1	98.7	98.5	98.9	99.2	99.8	100.4	100.8	101.3	101.7	102.2	98.9	99.6	101.5
Electricity-weighted Manufacturing (a)	96.4	96.8	97.0	96.6	97.1	97.4	98.1	98.7	98.9	99.5	99.9	100.5	96.7	97.8	99.7
Natural Gas-weighted Manufacturing (a)	94.0	94.1	94.6	94.5	94.8	94.9	95.4	95.9	96.0	96.6	96.8	97.2	94.3	95.2	96.6
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	3.13	3.14	3.16	3.17	3.18	3.20	3.05	3.12	3.18
Producer Price Index: All Commodities (index, 1982=1.00)	2.59	2.54	2.57	2.53	2.49	2.47	2.46	2.48	2.47	2.46	2.47	2.48	2.56	2.47	2.47
Producer Price Index: Petroleum (index, 1982=1.00)	3.09	2.91	3.17	2.82	2.52	2.62	2.63	2.52	2.50	2.56	2.57	2.44	3.00	2.57	2.52
GDP Implicit Price Deflator (index, 2017=100)	121.3	121.8	122.8	123.2	123.7	124.3	124.9	125.6	126.4	127.0	127.7	128.4	122.3	124.6	127.4
Miscellaneous															
Vehicle Miles Traveled (b) (million miles/day)	8,364	9,081	9,251	8,779	8,435	9,243	9,381	8,796	8,499	9,325	9,467	8,874	8,871	8,965	9,044
Air Travel Capacity (Available ton-miles/day, thousands)	683	734	744	759	718	759	771	756	740	785	797	782	730	751	776
Aircraft Utilization (Revenue ton-miles/day, thousands)	390	440	449	455	441	489	496	480	470	517	523	506	434	477	504
Airline Ticket Price Index (index, 1982-1984=100)	277.6	290.8	248.6	252.0	243.5	289.1	272.7	283.4	278.9	325.9	303.5	312.4	267.2	272.2	305.2
Raw Steel Production (million short tons per day)	0.236	0.244	0.245	0.242	0.248	0.254	0.257	0.253	0.261	0.268	0.267	0.262	0.242	0.253	0.264
Carbon Dioxide (CO2) Emissions (million metric tons)															
Petroleum	548	563	570	570	560	564	567	566	553	565	568	567	2,251	2,258	2,253
Natural Gas	501	383	416	455	533	384	413	462	512	378	410	466	1,755	1,792	1,766
Coal	187	168	241	171	186	148	226	165	172	148	223	147	767	726	690
Total Energy (c)	1,238	1,116	1,230	1,199	1,282	1,100	1,209	1,196	1,239	1,093	1,205	1,183	4,783	4,787	4,720

(a) Fuel share weights of individual sector indices based on EIA Manufacturing Energy Consumption Survey.

(b) Total highway travel includes gasoline and diesel fuel vehicles.

(c) Includes electric power sector use of geothermal energy and non-biomass waste.

- = no data available

SAAR = Seasonally-adjusted annual rate

Notes: EIA completed modeling and analysis for this report on February 1, 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 - February 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	1,167	1,168	1,170	1,173	1,178	1,183	1,187	1,190	1,193	1,197	1,159	1,176	1,192
Middle Atlantic	3,192	3,202	3,241	3,249	3,257	3,265	3,278	3,294	3,305	3,315	3,325	3,334	3,221	3,274	3,320
E. N. Central	2,832	2,841	2,874	2,878	2,887	2,894	2,904	2,913	2,917	2,924	2,930	2,937	2,856	2,900	2,927
W. N. Central	1,353	1,360	1,373	1,377	1,382	1,386	1,392	1,398	1,402	1,407	1,412	1,417	1,366	1,389	1,410
S. Atlantic	4,092	4,107	4,164	4,176	4,191	4,205	4,225	4,246	4,264	4,280	4,297	4,313	4,135	4,217	4,288
E. S. Central	998	1,000	1,011	1,013	1,015	1,017	1,021	1,025	1,028	1,030	1,033	1,036	1,006	1,020	1,032
W. S. Central	2,563	2,590	2,627	2,637	2,646	2,657	2,672	2,687	2,700	2,713	2,726	2,739	2,604	2,666	2,720
Mountain	1,527	1,535	1,553	1,557	1,562	1,567	1,573	1,582	1,589	1,596	1,602	1,608	1,543	1,571	1,599
Pacific	4,249	4,277	4,319	4,323	4,333	4,347	4,366	4,390	4,410	4,427	4,445	4,461	4,292	4,359	4,436
Industrial Output, Manufacturing (Index, Year 2017=100)															
New England	95.9	95.9	95.7	95.0	95.3	95.4	95.9	96.6	97.1	97.6	98.0	98.4	95.6	95.8	97.8
Middle Atlantic	94.8	95.0	94.9	94.0	94.2	94.2	94.5	95.3	95.8	96.3	96.6	97.1	94.7	94.5	96.4
E. N. Central	96.0	96.2	95.9	95.1	95.8	96.1	96.8	97.4	97.7	98.1	98.4	98.7	95.8	96.5	98.2
W. N. Central	101.1	101.5	100.9	100.2	100.6	100.7	101.2	101.9	102.4	102.8	103.2	103.6	101.0	101.1	103.0
S. Atlantic	101.8	102.2	102.1	101.5	102.0	102.1	102.6	103.5	104.1	104.6	105.1	105.6	101.9	102.6	104.8
E. S. Central	100.1	100.7	100.8	100.0	100.5	100.7	101.2	101.8	102.1	102.4	102.6	102.9	100.4	101.1	102.5
W. S. Central	103.9	104.4	105.6	105.4	105.8	106.0	106.7	107.6	108.3	108.8	109.4	110.0	104.8	106.5	109.1
Mountain	111.3	111.5	111.4	111.0	111.2	111.3	111.8	112.6	113.1	113.6	114.1	114.6	111.3	111.7	113.8
Pacific	97.0	96.9	96.5	95.9	96.1	96.0	96.4	97.1	97.6	98.0	98.4	98.8	96.6	96.4	98.2
Real Personal Income (Billion \$2017)															
New England	993	997	999	1,003	1,012	1,017	1,023	1,029	1,035	1,041	1,047	1,052	998	1,020	1,044
Middle Atlantic	2,486	2,502	2,507	2,518	2,540	2,555	2,572	2,588	2,604	2,621	2,636	2,650	2,503	2,564	2,628
E. N. Central	2,579	2,589	2,592	2,605	2,633	2,648	2,666	2,681	2,697	2,714	2,730	2,744	2,591	2,657	2,721
W. N. Central	1,272	1,274	1,271	1,276	1,287	1,294	1,302	1,311	1,320	1,330	1,339	1,347	1,273	1,299	1,334
S. Atlantic	3,698	3,711	3,725	3,751	3,792	3,821	3,852	3,881	3,915	3,948	3,979	4,006	3,721	3,837	3,962
E. S. Central	1,006	1,008	1,009	1,013	1,021	1,026	1,032	1,036	1,042	1,048	1,054	1,059	1,009	1,029	1,051
W. S. Central	2,276	2,280	2,290	2,307	2,332	2,350	2,370	2,388	2,408	2,427	2,446	2,463	2,288	2,360	2,436
Mountain	1,438	1,441	1,442	1,450	1,463	1,472	1,482	1,492	1,503	1,514	1,524	1,534	1,443	1,477	1,519
Pacific	3,117	3,134	3,141	3,159	3,189	3,212	3,236	3,260	3,285	3,309	3,334	3,355	3,138	3,224	3,321
Households (Thousands)															
New England	6,076	6,085	6,096	6,102	6,109	6,118	6,126	6,135	6,145	6,155	6,166	6,176	6,102	6,135	6,176
Middle Atlantic	16,059	16,083	16,108	16,124	16,141	16,161	16,182	16,203	16,223	16,246	16,268	16,289	16,124	16,203	16,289
E. N. Central	18,983	19,009	19,041	19,064	19,088	19,113	19,139	19,164	19,188	19,215	19,243	19,267	19,064	19,164	19,267
W. N. Central	8,694	8,717	8,740	8,758	8,776	8,794	8,812	8,830	8,848	8,867	8,887	8,905	8,758	8,830	8,905
S. Atlantic	27,281	27,383	27,487	27,572	27,655	27,737	27,822	27,899	27,969	28,041	28,112	28,184	27,572	27,899	28,184
E. S. Central	7,904	7,934	7,963	7,988	8,013	8,037	8,059	8,081	8,100	8,120	8,139	8,158	7,988	8,081	8,158
W. S. Central	15,963	16,025	16,091	16,146	16,198	16,249	16,307	16,361	16,414	16,469	16,523	16,575	16,146	16,361	16,575
Mountain	9,808	9,847	9,887	9,922	9,957	9,993	10,028	10,065	10,102	10,140	10,178	10,215	9,922	10,065	10,215
Pacific	19,000	19,029	19,066	19,091	19,116	19,146	19,182	19,217	19,253	19,292	19,331	19,370	19,091	19,217	19,370
Total Non-farm Employment (Millions)															
New England	7.6	7.6	7.6	7.6	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.6	7.7	7.7
Middle Atlantic	20.1	20.1	20.2	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.2	20.3	20.3
E. N. Central	22.3	22.4	22.5	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.5	22.6	22.6
W. N. Central	10.9	10.9	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
S. Atlantic	30.5	30.7	30.8	31.0	31.0	31.1	31.1	31.2	31.2	31.3	31.3	31.4	30.7	31.1	31.3
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	19.1	19.2	19.2	19.2	19.3	19.3	19.4	19.4	19.4	19.0	19.2	19.4
Mountain	11.8	11.8	11.9	12.0	12.0	12.0	12.0	12.0	12.1	12.1	12.1	12.1	11.9	12.0	12.1
Pacific	24.5	24.6	24.7	24.8	24.8	24.8	24.8	24.8	24.8	24.9	24.9	24.9	24.7	24.8	24.9

- = no data available

Notes: EIA completed modeling and analysis for this report on February 1, 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 - February 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	817	90	1,925	2,954	822	131	2,037	2,944	819	130	2,029	5,542	5,944	5,923
Middle Atlantic	2,458	656	73	1,780	2,751	657	86	1,866	2,723	654	86	1,859	4,968	5,359	5,322
E. N. Central	2,727	700	96	1,897	3,006	703	121	2,135	3,002	701	121	2,129	5,419	5,965	5,953
W. N. Central	3,170	656	92	2,005	3,197	706	154	2,353	3,170	706	154	2,351	5,923	6,411	6,381
South Atlantic	1,057	190	10	882	1,371	179	12	882	1,270	178	12	875	2,139	2,444	2,335
E. S. Central	1,389	257	14	1,153	1,876	233	19	1,228	1,685	233	19	1,223	2,813	3,356	3,160
W. S. Central	930	91	1	690	1,276	85	5	766	1,093	85	5	763	1,711	2,133	1,946
Mountain	2,558	726	127	1,654	2,233	709	153	1,838	2,162	708	153	1,835	5,065	4,934	4,858
Pacific	1,826	654	96	1,039	1,452	585	95	1,161	1,442	583	95	1,158	3,615	3,292	3,278
U.S. Average	1,920	485	61	1,332	2,058	471	75	1,449	1,987	469	74	1,443	3,797	4,053	3,973
Heating Degree Days, Prior 10-year Average															
New England	3,151	859	106	2,093	3,110	856	98	2,056	3,049	850	97	2,052	6,209	6,120	6,047
Middle Atlantic	2,939	689	69	1,907	2,890	685	64	1,879	2,822	681	62	1,869	5,604	5,518	5,435
E. N. Central	3,215	741	93	2,169	3,159	735	91	2,113	3,066	733	86	2,090	6,218	6,097	5,974
W. N. Central	3,319	754	121	2,374	3,295	729	120	2,302	3,228	725	118	2,286	6,568	6,447	6,357
South Atlantic	1,403	190	10	905	1,357	188	9	895	1,322	186	9	879	2,508	2,448	2,397
E. S. Central	1,811	251	14	1,231	1,756	248	14	1,205	1,717	248	14	1,186	3,307	3,223	3,165
W. S. Central	1,188	95	3	762	1,164	90	3	730	1,143	90	3	722	2,048	1,987	1,958
Mountain	2,193	696	128	1,833	2,208	696	128	1,799	2,219	696	128	1,807	4,851	4,831	4,851
Pacific	1,444	523	75	1,148	1,471	539	77	1,130	1,490	550	80	1,147	3,191	3,216	3,267
U.S. Average	2,133	485	60	1,477	2,103	483	58	1,444	2,063	482	58	1,435	4,155	4,088	4,037
Cooling Degree Days															
New England	0	52	467	5	0	98	504	1	0	99	509	1	525	603	609
Middle Atlantic	0	90	576	10	0	181	650	5	0	183	656	5	676	836	843
E. N. Central	0	179	521	10	1	243	594	7	1	244	598	7	710	845	850
W. N. Central	1	319	708	14	5	296	730	11	5	297	733	11	1,042	1,041	1,046
South Atlantic	203	587	1,241	244	107	710	1,281	258	140	715	1,289	260	2,275	2,356	2,404
E. S. Central	64	442	1,094	74	25	543	1,122	67	34	545	1,127	68	1,674	1,758	1,774
W. S. Central	150	900	1,864	216	81	932	1,641	212	105	936	1,649	214	3,130	2,866	2,904
Mountain	3	352	1,031	100	18	451	1,014	83	21	453	1,019	84	1,487	1,565	1,576
Pacific	26	110	612	77	25	199	697	77	28	200	703	77	824	997	1,008
U.S. Average	68	363	942	105	39	442	960	105	51	446	967	106	1,478	1,546	1,569
Cooling Degree Days, Prior 10-year Average															
New England	0	87	480	2	0	83	482	2	0	85	498	2	569	568	586
Middle Atlantic	0	160	617	8	0	154	622	8	0	156	644	8	785	784	808
E. N. Central	1	234	561	10	1	230	566	10	1	232	588	10	805	807	831
W. N. Central	4	292	674	12	4	301	680	12	5	304	699	12	982	997	1,020
South Atlantic	144	675	1,192	272	153	674	1,212	271	153	681	1,234	277	2,283	2,310	2,346
E. S. Central	36	520	1,058	83	41	519	1,076	85	43	523	1,097	85	1,697	1,721	1,748
W. S. Central	101	861	1,549	223	109	873	1,584	228	113	888	1,604	227	2,734	2,793	2,832
Mountain	24	460	960	83	22	447	971	88	20	448	985	87	1,527	1,528	1,541
Pacific	32	213	676	86	32	202	677	88	30	199	678	85	1,006	999	992
U.S. Average	50	415	895	109	53	414	909	111	54	419	928	112	1,470	1,488	1,513

- = no data available

Notes: EIA completed modeling and analysis for this report on February 1, 2024.

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

Regional degree days for each period are calculated by EIA as contemporaneous period population-weighted averages of state degree day data published by the National

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

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

Regions refer to U.S. Census divisions. See "Census division" in EIA's Energy Glossary (<http://www.eia.gov/tools/glossary/>) for a list of states in each region.**Historical data:** Latest data available from U.S. Department of Commerce, National Oceanic and Atmospheric Association (NOAA).**Forecasts:** Current month based on forecasts by the NOAA Climate Prediction Center (<http://www.cpc.ncep.noaa.gov/pacdir/DDdir/NHOME3.shtml>). Remaining months based on the 30-year trend.

Appendix to the February 2024 Short-Term Energy Outlook

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

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

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

Table a1. Summary of Estimated Petroleum and Other Liquids Quantities

	Dec 2023	Jan 2024	2024 Average	Dec 2022 – Jan 2023 Average	2020 – 2022 Average
Global Petroleum and Other Liquids (million barrels per day)					
Global Petroleum and Other Liquids Production (a)	102.7	101.1	101.9	100.6	96.5
Global Petroleum and Other Liquids Consumption (b)	103.0	100.4	101.7	99.2	96.0
Biofuels Production (c)	2.5	2.3	2.4	2.4	2.6
Biofuels Consumption (c)	2.7	2.7	2.7	2.7	2.6
Iran Liquid Fuels Production	4.4	4.5	4.5	3.8	3.4
Iran Liquid Fuels Consumption	2.5	2.7	2.6	2.3	2.0
Petroleum and Petroleum Products Produced and Consumed in Countries Other Than Iran (million barrels per day)					
Production (d)	95.8	94.3	95.0	94.4	93.9
Consumption (d)	97.8	95.0	96.4	94.2	91.3
Production minus Consumption	-2.1	-0.8	-1.4	0.2	2.6
World Inventory Net Withdrawals Including Iran	0.3	-0.6	-0.2	-1.3	-0.6
Estimated OECD Inventory Level (e) (million barrels)	2,783	2,778	2,781	2,793	2,878
Surplus Production Capacity (million barrels per day)					
OPEC Surplus Crude Oil Production Capacity (f)	4.4	4.8	4.6	2.9	4.2

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

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

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

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

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

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

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

Data source: U.S. Energy Information Administration.

Table a2. Crude Oil and Petroleum Product Price Data

Item	Dec 2023	Jan 2024	Dec 2023 – Jan 2024 Average	Dec 2022 – Jan 2023 Average	2020 – 2022 Average
Brent Front Month Futures Price (\$ per barrel)	77.32	79.15	78.26	82.64	71.07
WTI Front Month Futures Price (\$ per barrel)	72.12	73.86	73.01	77.32	67.25
Dubai Front Month Futures Price (\$ per barrel)	76.83	78.88	77.88	79.11	69.66
Brent 1st - 13th Month Futures Spread (\$ per barrel)	1.97	3.83	2.92	3.61	5.09
WTI 1st - 13th Month Futures Spread (\$ per barrel)	1.16	3.17	2.19	2.69	5.09
RBOB Front Month Futures Price (\$ per gallon)	2.11	2.16	2.13	2.35	2.08
Heating Oil Front Month Futures Price (\$ per gallon)	2.62	2.68	2.65	3.17	2.29
RBOB - Brent Futures Crack Spread (\$ per gallon)	0.26	0.28	0.27	0.39	0.39
Heating Oil - Brent Futures Crack Spread (\$ per gallon)	0.78	0.80	0.79	1.21	0.60

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

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

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

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