Independent Statistics and Analysis
U.S. Energy Information Administration

Short-Term Energy Outlook

STEO

December 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**	**$80**	**$74**
Retail gasoline price (dollars per gallon)	**$3.50**	**$3.30**	**$3.20**
U.S. crude oil production (million barrels per day)	**12.9**	**13.2**	**13.5**
Natural gas price at Henry Hub (dollars per million British thermal units)	**$2.50**	**$2.20**	**$3.00**
U.S. liquefied natural gas gross exports (billion cubic feet per day)	**12**	**12**	**14**
Shares of U.S. electricity generation			
Natural gas	42%	43%	40%
Coal	17%	15%	15%
Renewables	22%	23%	25%
Nuclear	19%	19%	19%
U.S. GDP (percentage change)	**2.9%**	**2.7%**	**2.1%**
U.S. CO_2 emissions (billion metric tons)	**4.8**	**4.8**	**4.8**

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

- **Global oil production.** Growth in oil production next year will come mostly from non-OPEC countries because of ongoing production restraint on the part of OPEC+. At its December 5 meeting, OPEC+ announced that it would delay production increases until April 2025. Those increases had been set to begin in January 2025. We forecast that global oil production will increase by 1.6 million barrels per day (b/d) in 2025, and we expect almost 90% of that growth will come from countries that do not participate in OPEC+.

- **Global oil prices.** We expect the Brent crude oil spot price will remain close to its current level in 2025, averaging $74 per barrel for the year, as oil markets will be relatively balanced on an annual average basis.

- **U.S. crude oil net imports.** Net imports of crude oil in the United States this year have remained close to 2023 volumes with increasing U.S. crude oil production supplying an almost equivalent increase in U.S. refinery runs. We expect U.S. crude oil production will continue increasing in 2025 even as U.S. refiners process less crude oil than they did this year, leading to net imports of crude oil falling by more than 20% to 1.9 million barrels per day (b/d) in 2025, which would be the least net imports of crude oil in any year since 1971.

- **Natural gas storage.** Natural gas inventories in our forecast remain above the five-year average (2019–2023) throughout the winter heating season (November—March) after ending the injection season 6% above the five-year average in mid-November. We expect natural gas inventories to total 1,920 billion cubic feet (Bcf) at the end of March 2025, which would be 2% more than the five-year average.

- **Natural gas prices.** Based on our expectation that the storage surplus to the five-year average will narrow over the winter, we forecast the U.S. benchmark Henry Hub spot price will increase from an average of just over $2.00 per million British thermal units (MMBtu) in November to an average of about $3.00/MMBtu for the rest of the winter heating season.

- **Electricity consumption.** We expect U.S. sales of 2% more electricity this winter compared with last winter. The increase is led by 3% more sales to residential customers because of colder weather than last winter. Although the winter heating season got off to a warm start in November, overall we expect this winter to be colder than last year, with 6% more heating degree days.

Notable forecast changes

Current forecast: December 10, 2024; previous forecast: November 13, 2024	**2024**	**2025**
U.S. natural gas end-of-year inventories (billion cubic feet)	**3,371**	**3,160**
Previous forecast	3,409	3,236
Percentage change	-1.1%	-2.3%

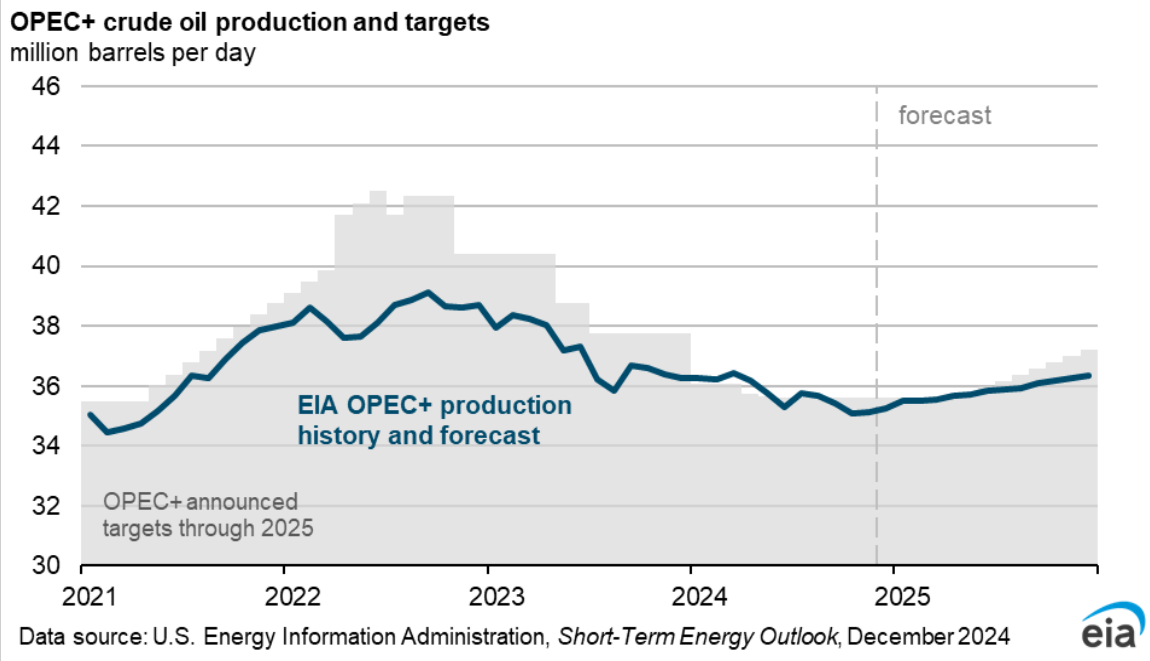
Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*
Note: Percentages are calculated from unrounded values.

Global Oil Markets

Global oil prices and inventories

The Brent crude oil spot price averaged $74 per barrel (b) in November, $1 less than the average in October. Crude oil prices fell slightly in November following a ceasefire between Israel and Hezbollah in Lebanon. The ceasefire removed some of the risk premium present in oil prices, which had reflected the potential for attacks on oil infrastructure and a disruption to oil supplies. In addition, signs of weakening global oil demand growth, primarily centered on slowing oil demand growth in China, continued to weigh on prices.

On December 5, OPEC+ members agreed to delay production increases that were set to begin in January 2025 until April 2025. At the meeting, the group also announced production targets through 2026. Our forecast assumes OPEC+ will generally raise production in line with the new target levels through much of 2025, as the announced targets align with the production that we expect will keep oil markets relatively balanced next year.



We expect global oil inventories will end 2025 near their current volume. We estimate that ongoing OPEC+ production cuts have contributed to global oil inventory withdrawals of about 0.4 million barrels per day (b/d) on average in 2024, and we expect that the extension of OPEC+ production cuts will cause inventories to fall by 0.7 million b/d the first quarter of 2025 (1Q25). However, we expect the subsequent ramp up in OPEC+ production and continued supply growth outside of OPEC+ will lead to an average inventory build of 0.1 million b/d over the remainder of 2025.

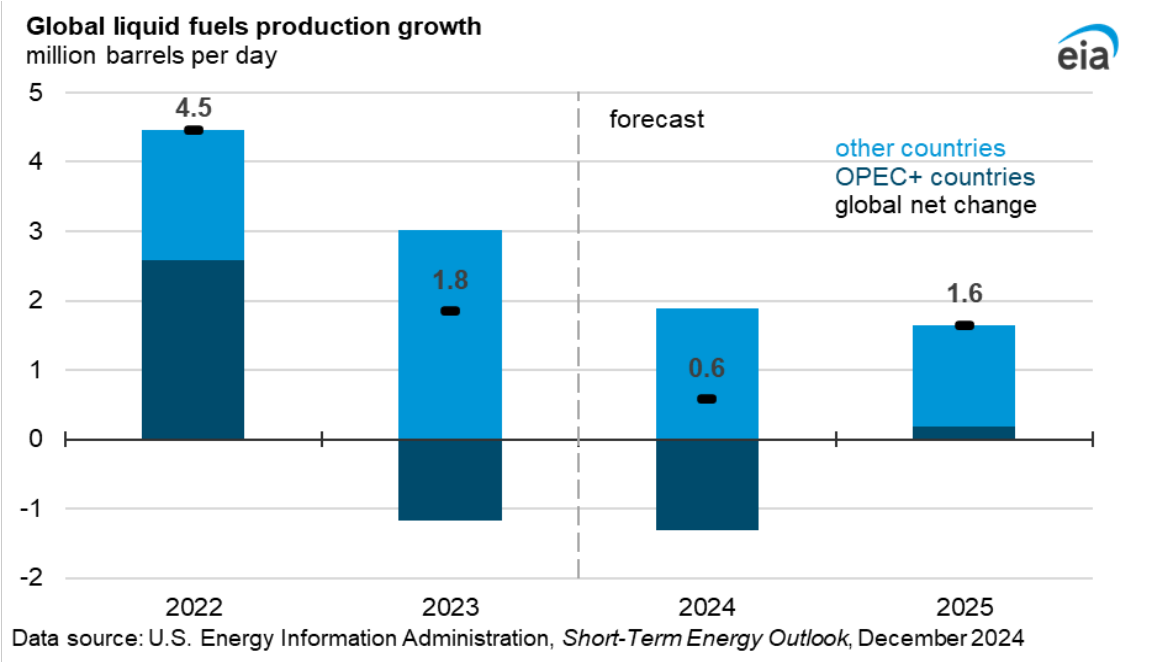
We forecast that inventory builds will put some downward pressure on crude oil prices later in 2025, with Brent falling from an average of $74/b in 1Q25 to an average of $72/b in 4Q25. In our forecast, the 2025 annual average Brent price is $74/b, down from an average of $80/b this year.

As discussed in the November STEO, we continue to see at least two main sources of price uncertainty: the course of the ongoing Middle East conflict and OPEC+ members' willingness to adhere to voluntary production cuts. The volatility and risk premium associated with the conflict in the Middle East moderated in recent weeks before prices increased again on December 9 following Syrian President Bashar al-Assad's ouster. An escalation in the regional conflict has potential to reduce oil supplies, and regional political uncertainty can increase the risk premium. Second, although we assess that OPEC+ producers will likely continue to limit production below recently announced targets in 2025, the potential for weakening commitment among OPEC+ producers to continue cutting production adds downside risk to oil prices.

Global oil consumption and production

Countries that are not part of the OPEC+ agreement are driving increases in global liquid fuels production this year, and we forecast that trend will continue in 2025. We estimate that global liquid fuels production has increased by 0.6 million b/d in 2024. Production outside of OPEC+ is up 1.9 million b/d this year, led by growth in the United States, Canada, and Guyana, but that growth has been partly offset by a 1.3 million b/d reduction in production from OPEC+ participants.

We expect global production of liquid fuels will increase in 2025 by more than 1.6 million b/d, with almost 90% of the growth coming from countries outside of OPEC+.



Oil consumption growth in our forecast continues to be less than the pre-pandemic trend. We forecast that global consumption of liquid fuels will increase by 0.9 million b/d in 2024 and 1.3 million b/d in 2025, which are both less than the pre-pandemic 10-year average of 1.5 million b/d of annual growth, as well as below the oil demand growth seen during the 2021–2023 pandemic recovery.

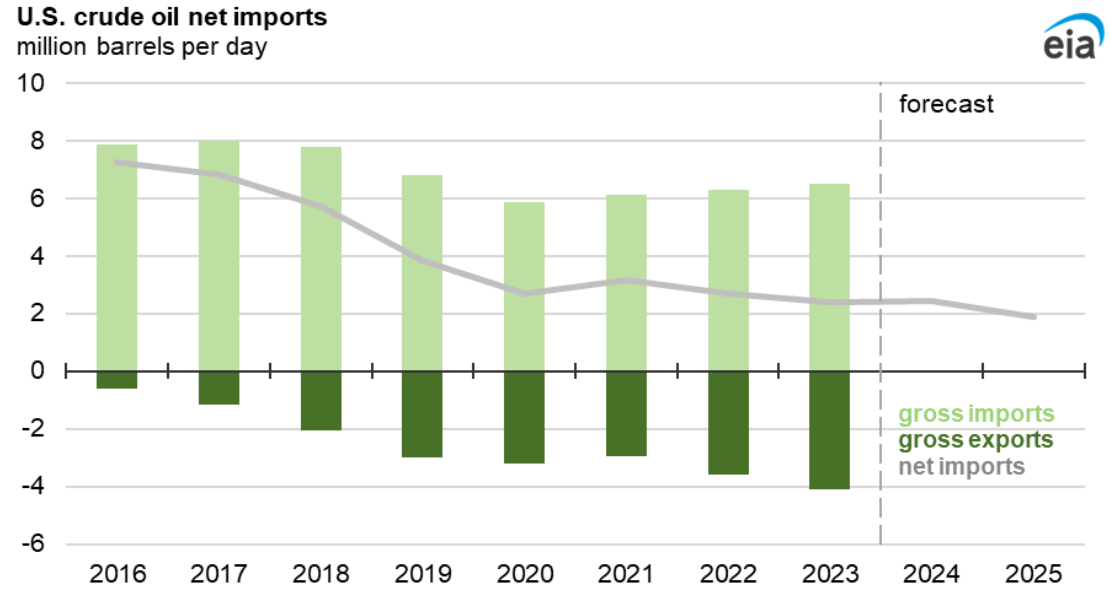
Non-OECD countries drive almost all global oil consumption growth in our forecast. Much of this growth is in Asia, where India is now the leading source of global oil demand growth in our forecast. We expect

India will increase its consumption of liquid fuels by 0.2 million b/d in 2024 and by more than 0.3 million b/d in 2025, driven by rising demand for transportation fuels. We forecast China's liquid fuels consumption will grow by less than 0.1 million b/d in 2024 and by almost 0.3 million b/d in 2025. We estimate that OECD oil consumption will be relatively unchanged across 2024 and 2025, with a slight decline this year and a slight increase next year.

U.S. Petroleum Products

Crude oil net imports

In our forecast, a combination of increasing domestic crude oil production and decreasing U.S. refinery runs means reduced net imports of crude oil next year. We forecast that net imports of crude oil into the United States will fall to 1.9 million barrels per day (b/d) in 2025, down from 2.5 million b/d this year, and the least crude oil net imports in a year since 1971. Total U.S. crude oil production in our forecast increases by 0.3 million b/d in 2025. At the same time, we expect U.S. refineries will process 0.2 million b/d less crude oil next year, down to 16.0 million b/d.



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook; Petroleum Supply Monthly*, December 2024

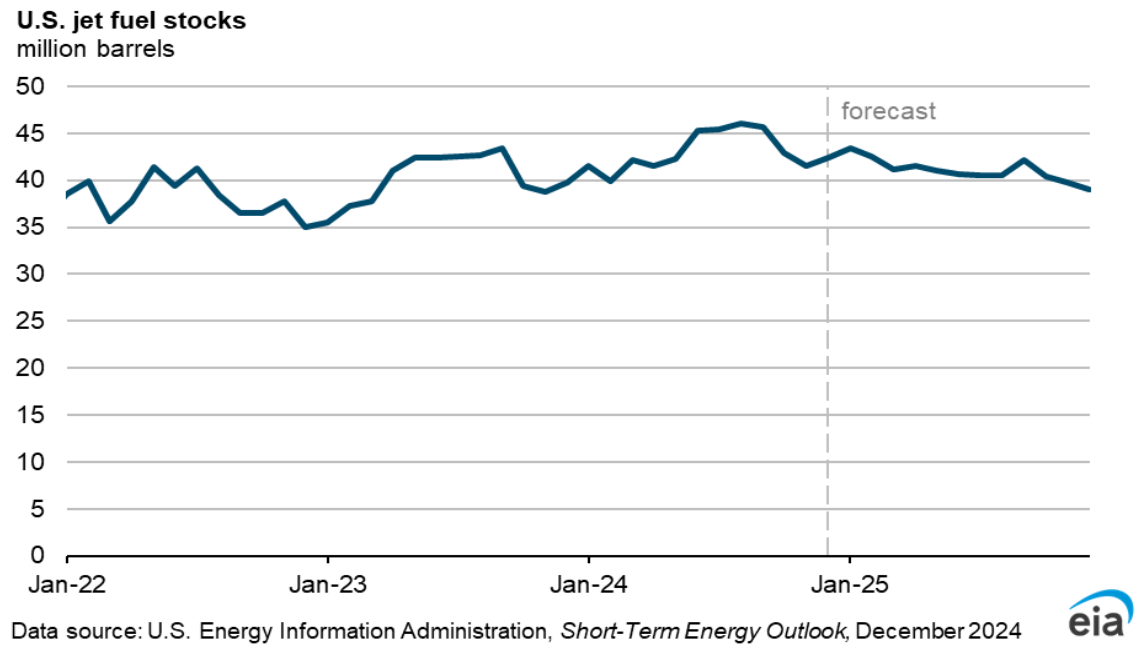
Net imports of crude oil this year have remained close to 2023 volumes because increasing U.S. crude oil production has met an almost equivalent increase in U.S. refinery runs. We do not forecast gross imports or gross exports, but we can look at historical data to better understand the forecast for net imports. U.S. imports of crude oil from Canada have remained strong this year. Our forecasts from earlier in 2024 had assumed exports from Canada's Trans Mountain Pipeline expansion, which was completed in mid-2024, would mostly be sent to China. However, because of slowing oil demand growth in China, most of the crude oil from the Trans Mountain pipeline has gone to refineries on the U.S. West Coast. Data from July 2024 showed the most U.S. imports of crude oil since June 2019, at more than 7.1 million b/d, and imports this year have been similar to 2023. At the same time, U.S. exports of crude oil through 3Q24 have been similar, on average, to exports during the same period in 2023. These factors

contributed to net imports in 2024 remaining about the same as 2023. Despite these recent trends, we forecast net imports will decrease next year because of the increase in crude oil production will likely lead to rising crude oil exports. A decrease in refinery runs because of a reduction in U.S. refinery capacity will also contribute to lower crude oil net imports in 2025. Although the United States is a net importer of crude oil, we are a net exporter of petroleum products overall.

Jet fuel stocks

After reaching a six-year high in August, U.S. jet fuel stocks will generally decline through 2025, reversing a trend of generally rising stocks over the past two years. Consumption of jet fuel remained below pre-pandemic levels this year and declined compared with 2023 in some months, resulting in stock builds. In addition, rising jet fuel yields and production on the U.S. West Coast contributed to record-high jet fuel stocks in the region this summer. Next year, however, we forecast U.S. jet fuel stocks will decline because of both growing consumption and less refinery production of jet fuel following U.S. refinery closures. Jet fuel refinery yields will also decline as refiners shift production toward distillate fuel oil, consumption of which we expect to grow more than jet fuel, reducing jet fuel production. We forecast that jet fuel stocks will fall by more than 5 million barrels (12%) from August 2024 to August 2025. If realized, this decline will be close to the largest drawdown in jet fuel stocks over any one-year period in the past 10 years. We forecast that jet fuel stocks will fall below 40 million barrels by the end of 2025, which will be the least since November 2023.

We expect these large stock withdrawals will increase jet fuel crack spreads (the difference between petroleum product prices and crude oil prices). We forecast the jet fuel crack spread will increase to 51 cents per gallon (gal) next year, up from 46 cents/gal in 2024.



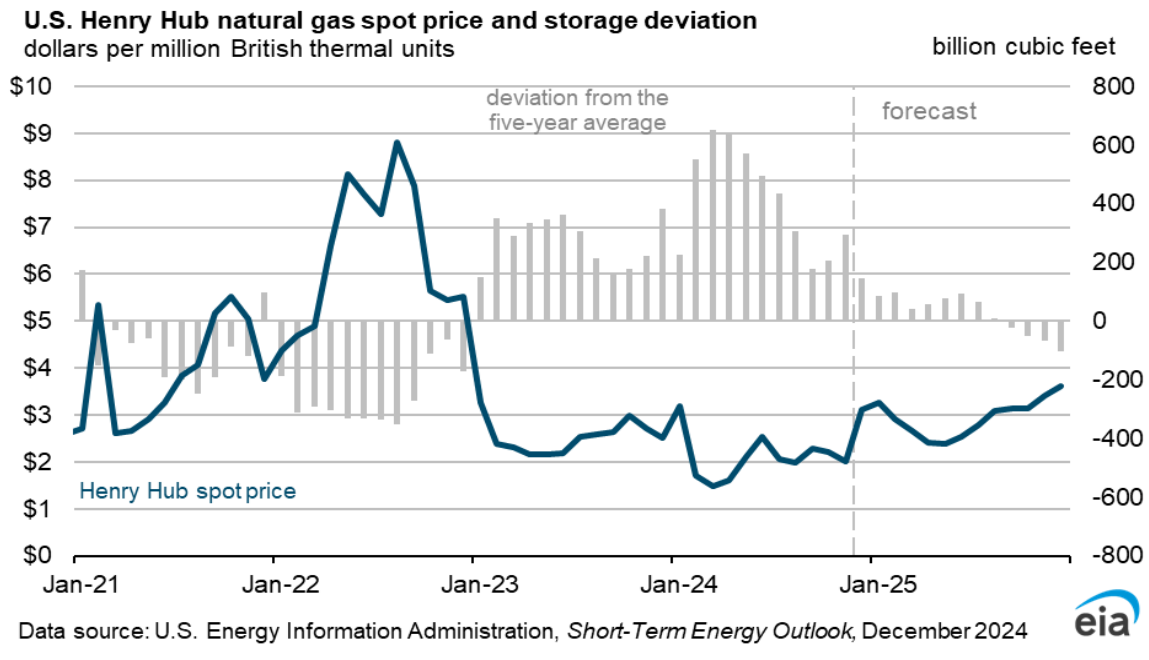
Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, December 2024

Natural Gas

Natural gas storage and prices

U.S. natural gas prices fell for the second month in a row in November as mild autumn weather persisted in the first half of the month and the Lower 48 states entered the winter heating season with 6% more working natural gas in storage than the previous five-year (2019–2023) average.

The U.S. benchmark Henry Hub natural gas spot price averaged just over $2.00 per million British thermal units (MMBtu) in November, down slightly from $2.20/MMBtu in October. With cold late November and early December weather over much of the eastern part of the country, spot prices rose. We forecast the Henry Hub spot price will average $3.00/MMBtu for the rest of the winter heating season, which ends in March, and just under $3.00/MMBtu in 2025.



We forecast natural gas inventories will remain above the five-year average all winter. Because of relatively flat natural gas production in our forecast, and because current forecasts by the National Oceanic and Atmospheric Administration show a colder-than-normal December, we expect natural gas inventories to fall by about 590 billion cubic feet (Bcf) in December, 34% more than the five-year average withdrawal for the month. However, our forecast assumes weather will be milder than normal in 1Q25, which would mean less natural gas withdrawn from inventory than is typical for the first quarter. We expect natural gas inventories to be 2% above the five-year (2020–2024) average by the end of March 2025 at 1,920 Bcf.

U.S dry natural gas production in our forecast averages 103 billion cubic feet per day (Bcf/d) in 1Q25, which is flat compared with 4Q24. For the year, we forecast natural gas production will increase 1% in 2025 due to increased production in the Permian and Eagle Ford regions, where natural gas production is primarily associated with oil production. We also expect more production in the Haynesville region

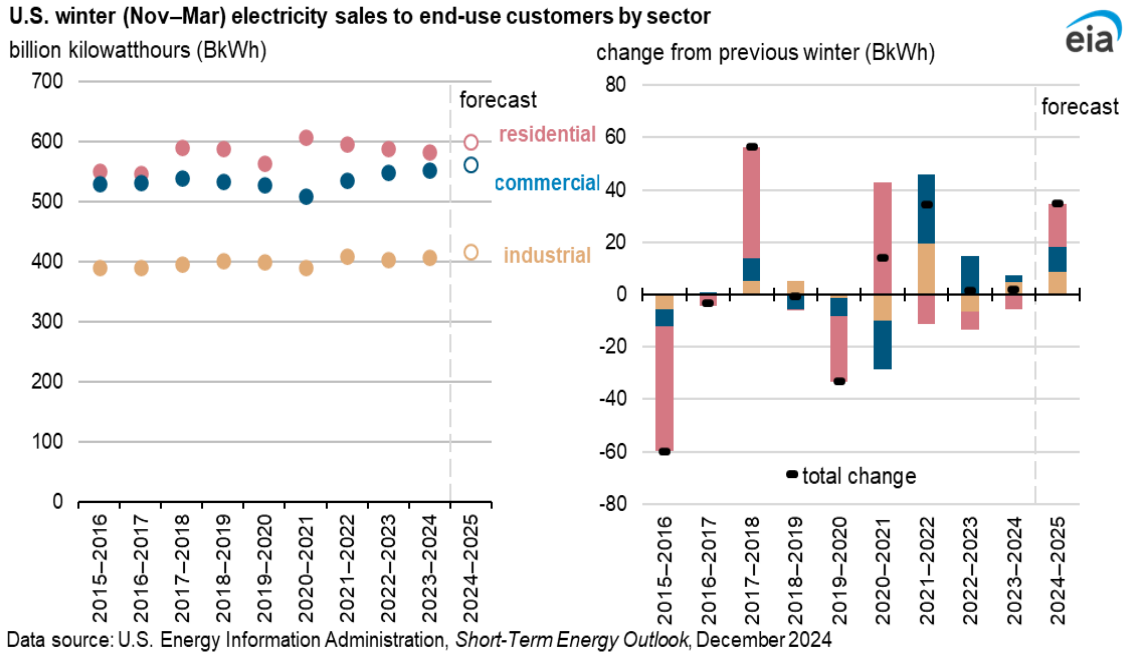
because of higher prices and increased demand from nearby new liquefied natural gas (LNG) export projects that will be ramping up production.

U.S. LNG exports in our forecast are averaging nearly 12 Bcf/d in 2024, essentially flat compared with last year. We expect LNG exports to increase by 15% in 2025, reaching almost 14 Bcf/d, as export capacity expands with Plaquemines LNG and Corpus Christi LNG Stage 3, which are both expected to start LNG exports by the end of December. On November 21, Plaquemines LNG received approval from the Federal Energy Regulatory Commission (FERC) to introduce hazardous fluids to liquefaction Block 1 (first two trains), and Corpus Christi Stage 3 received a similar approval from FERC on November 27. These approvals are a key step for these facilities to begin liquefying natural gas for export.

Electricity, Coal, and Renewables

Electricity consumption

Weather is one of the primary drivers affecting year-to-year changes in electricity consumption. For the upcoming winter (November–March), we expect U.S. electricity sales to all end users will total about 1,580 billion kilowatthours (BkWh), 2% more than the previous winter, driven by space heating demand as a result of an expected 6% increase in winter heating degree days.

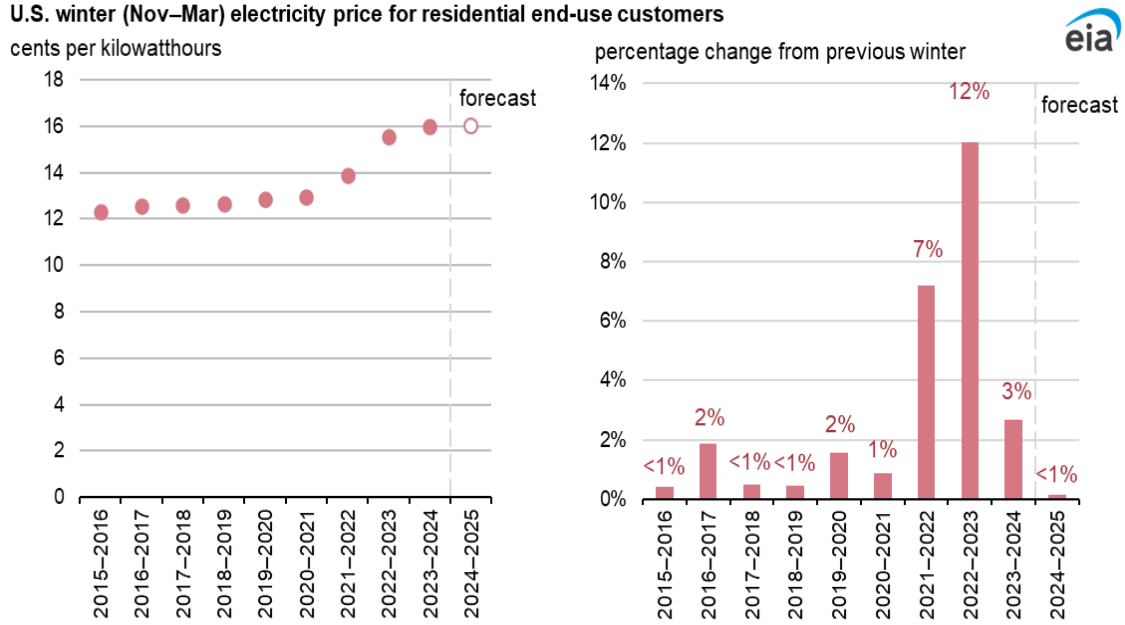


Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, December 2024

The residential sector is responsible for the most consumption of electricity in the United States, and our expectation of colder temperatures this winter leads us to a forecast 3% (17 BkWh) increase in consumption compared with last winter. Forecast winter electricity sales in the U.S. commercial sector grow by 2% (10 BkWh) due to the colder weather and continued growth in power demand from data centers. U.S. industrial electricity sales this winter grow by 2% (9 BkWh).

Retail electricity prices

We expect U.S. residential sector retail electricity prices will average 16 cents per kilowatthour (kWh) this winter, which would be about the same as the average residential price last winter. Over the past three winters, nominal year-over-year increases in residential electricity prices averaged 7%. The relatively flat growth in forecast electricity prices this winter reflects 2% lower costs of natural gas for power generation compared to last winter and increased levels of low-cost renewable generation.

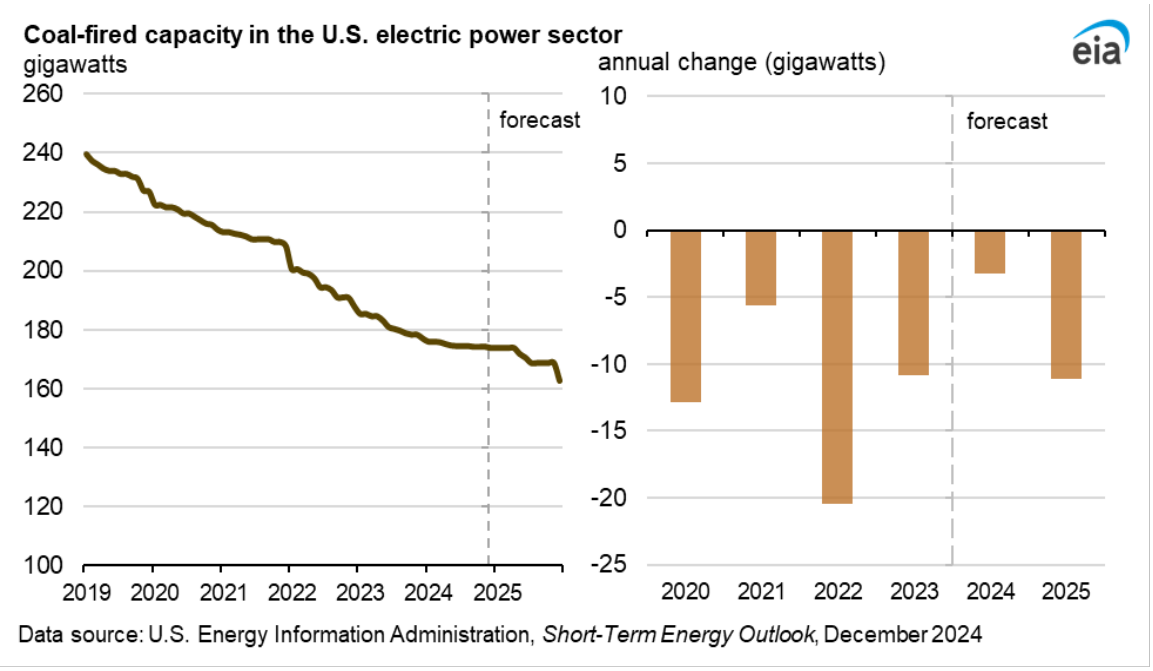


Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, December 2024

Coal markets

We expect coal consumption to remain steady in the United States during 2025, increasing by 1% to 409 million short tons (MMst) from 2024 after falling by 5% between 2023 and 2024. The 2025 increase in consumption is primarily the result of our forecast 1% increase in electric power consumption next year. In the United States, the electric power sector consumes approximately 90% of the coal consumed domestically. Steady consumption in 2025 is a result of higher natural gas prices and increased electricity demand. It also follows a slowdown in coal plant retirements in 2024, when utilities retired 3 gigawatts (GW) of coal-fired generation compared with 11 GW in 2023.

Despite relatively flat U.S. coal consumption next year, we expect coal production will fall more sharply as coal-fired power plants reduce their inventories. We forecast that coal production will fall to 472 MMst in 2025, down by 7% from 2024. Moreover, we expect retirements of coal-fired generating capacity to increase again to 11 GW in 2025, while 9 GW of wind generation capacity and 25 GW of solar generation capacity come online. The combination of a modest increase in consumption from operating coal plants and a decline in coal production will reduce coal inventories held by power plants from 131 MMst at the end of this year to 100 MMst by the end of 2025.

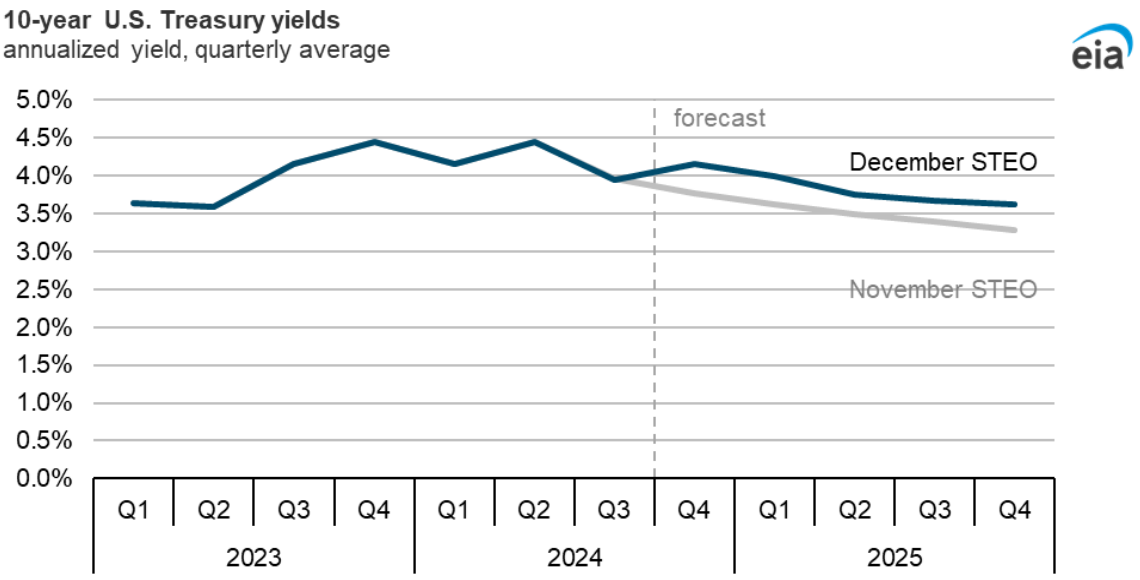


Economy, CO_2, and Weather

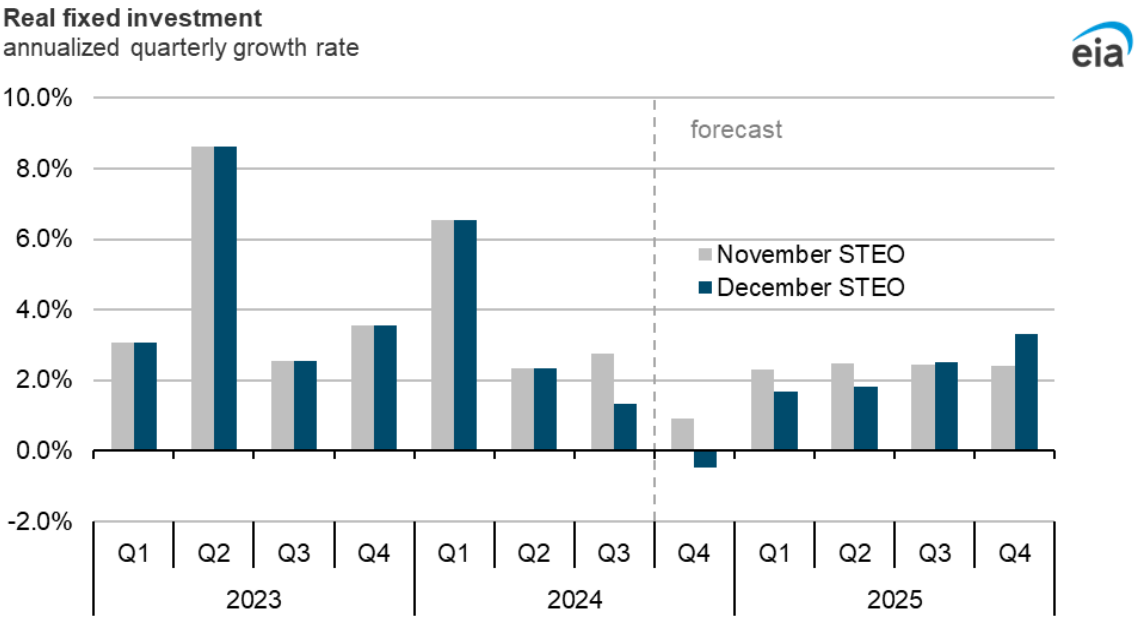
U.S. macroeconomics

Our macroeconomic forecast for December 2024 is mostly unchanged compared with November. We assume real GDP will grow by 2.7% in 2024 and 2.1% in 2025, both of which are unchanged from last month. The largest difference from last month comes in 4Q24, when we now assume GDP will grow at an annualized rate of 1.5% compared with 1.9% assumed in the November STEO. The macroeconomic forecasts in the STEO are based on S&P Global's macroeconomic model. We incorporate STEO energy price forecasts into the model to obtain the final macroeconomic assumptions.

Even though the target for the federal funds rate has declined by 75 basis points since September, 10-year Treasury yields and other long-term interest rates have risen over the same period. The yield on 10-year U.S. Treasury bonds has increased from 3.6% to 4.4% and is currently 0.4 percentage points higher than what we assumed in November.



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook* (STEO); Standard & Poor's Global, December 2024



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

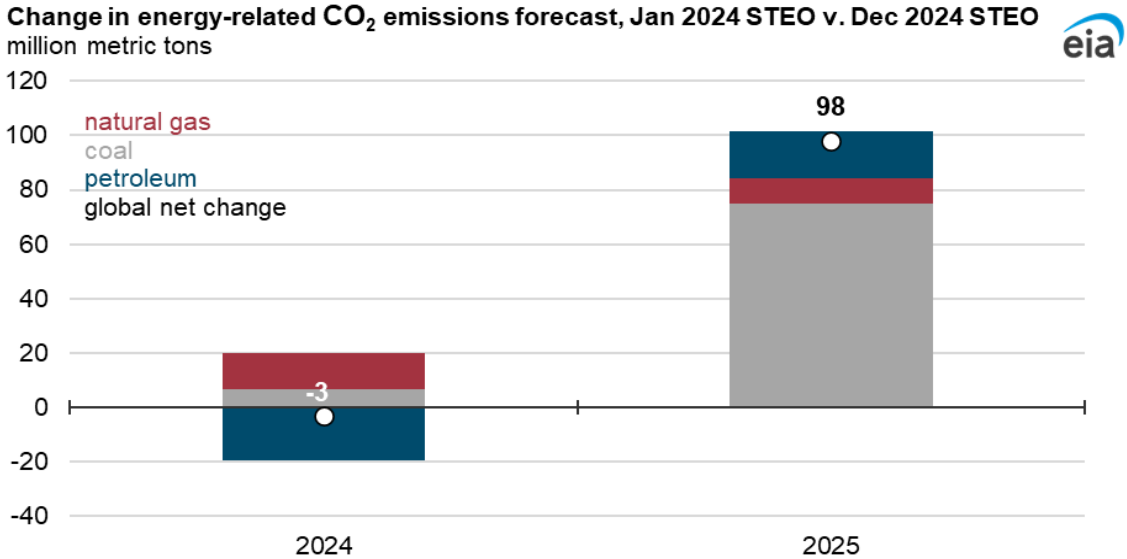
The result of the increase has been increased borrowing costs, which are reflected in our assumptions regarding the trajectory of real fixed investment. We now assume that real fixed investment will contract in 4Q24 and slow growth in 1H25 will contribute to slower GDP growth in 4Q24.

Emissions

Our December forecast of U.S. energy-related carbon dioxide (CO_2) emissions in 2024 and 2025 has changed slightly since our initial January 2024 STEO. These changes to our emissions forecast can be seen in both 2024 and 2025 across several fuels.

Our forecast of total energy-related U.S. CO_2 emissions in 2024 has changed by less than 1% since January as a result of offsetting differences in emissions among fossil fuels. Our forecast for petroleum emissions is lower than it was in our January outlook mostly because there has been less distillate consumption than we expected. Distillate consumption in 2024 is lower than we forecast in our January STEO because of less manufacturing activity than expected and, to a lesser degree, more use of biofuels. These decreases are offset by more CO_2 emissions from natural gas than expected because of low natural gas fuel costs as well as relatively hotter summer weather, which increased natural gas-fired generation to meet air-conditioning demand.

Although we expect CO_2 emissions in 2025 to about the same as they were in 2024, our forecast for 2025 CO_2 emissions is 2% (or around 100 million metric tons) higher than it was in forecast in our January 2024 outlook. The outlook for more emissions in 2025 is mostly associated with an upward revision in coal-fired electricity generation. Compared with our January forecast, we expect more coal generation in 2025 due to an upward revision in overall electricity demand associated with rising electricity consumption from data centers. Increased petroleum product consumption, mostly motor gasoline, also increased our 2025 emissions estimates. We attribute this upward revision in consumption partially to an upward revision in disposable income, amid other factors influencing supply and demand for gasoline.



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook* (STEO), December 2024
Note: Differences in forecast emissions are expressed here as the December STEO emissions forecast minus the January STEO emissions forecast, by year and fuel category.

Weather

Based on current forecasts and data from NOAA, we expect a colder December than we have experienced recently, with 770 heating degree days (HDDs) across the United States in December, 24% more than December 2023 and 9% more than the 10-year December average. The cold weather in December more than offsets the warmer start to the winter in November, which had 12% fewer HDDs than the 10-year November average. As a result, we expect the 2024–2025 winter heating season

(November—March) will be colder than last winter, averaging 3,210 HDDs overall (6% more HDDs), but still slightly warmer than the previous 10-year winter average (2% fewer HDDs).

Short-Term Energy Outlook
Chart Gallery

December 10, 2024

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

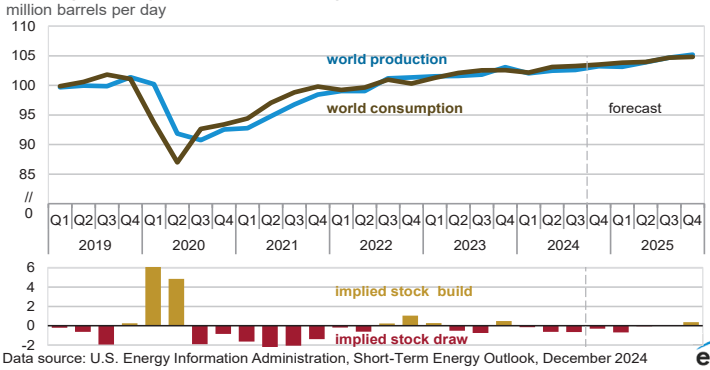
dollars per barrel

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

Note: Confidence interval derived from options market information for the five trading days ending December 5, 2024. Intervals not calculated for months with sparse trading in near-the-money options contracts.

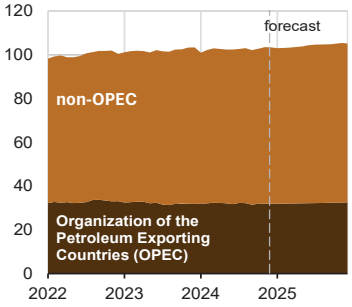
World liquid fuels production and consumption balance

million barrels per day

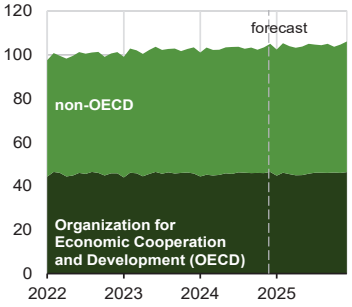


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

World liquid fuels production
million barrels per day

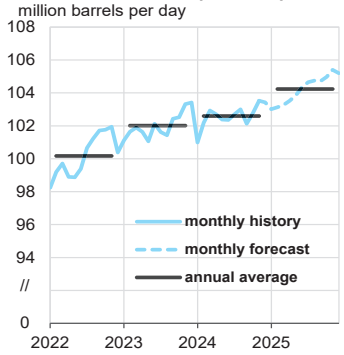


World liquid fuels consumption
million barrels per day

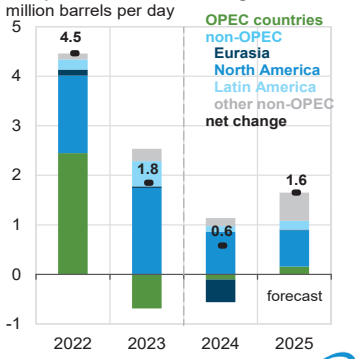


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

World crude oil and liquid fuels production
million barrels per day

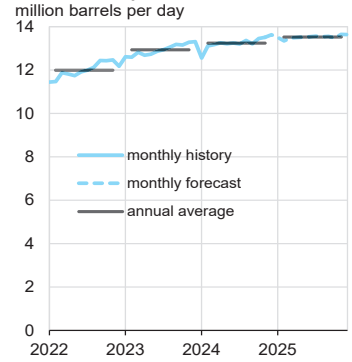


Components of annual change
million barrels per day

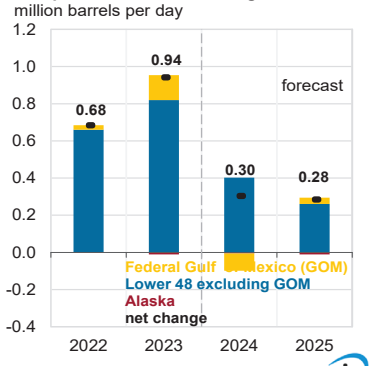


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

U.S. crude oil production
million barrels per day

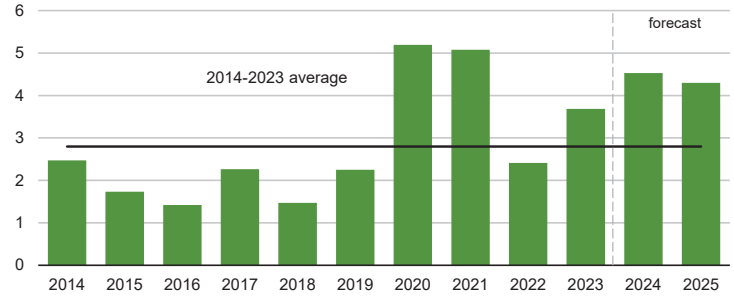


Components of annual change
million barrels per day



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

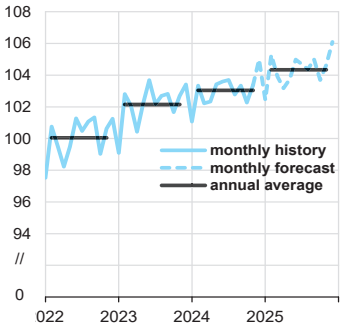
Organization of the Petroleum Exporting Countries (OPEC) surplus crude oil production capacity
million barrels per day



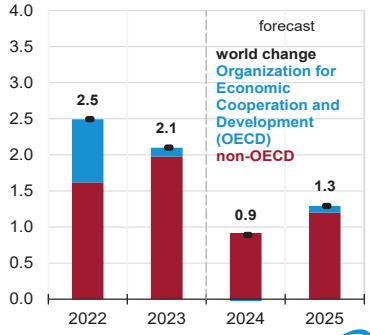
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

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

World liquid fuels consumption
million barrels per day

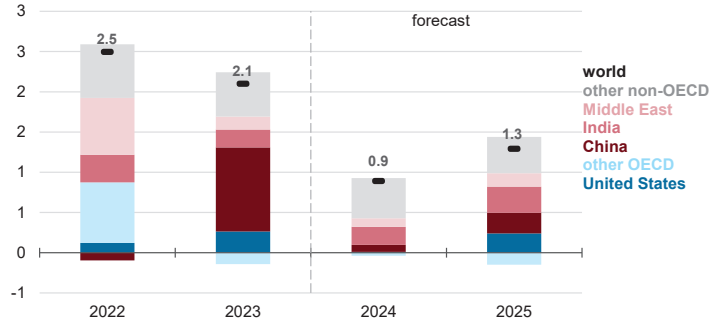


Components of annual change
million barrels per day



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

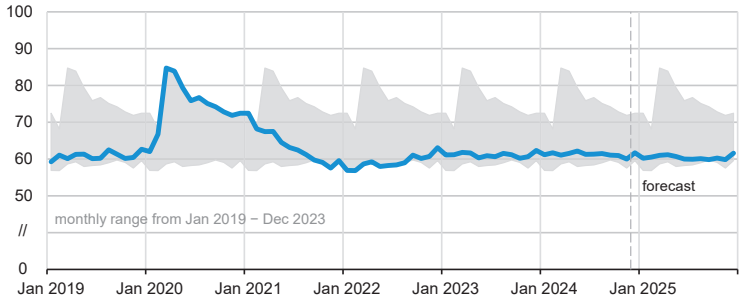
Annual change in world liquid fuels consumption
million barrels per day



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

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

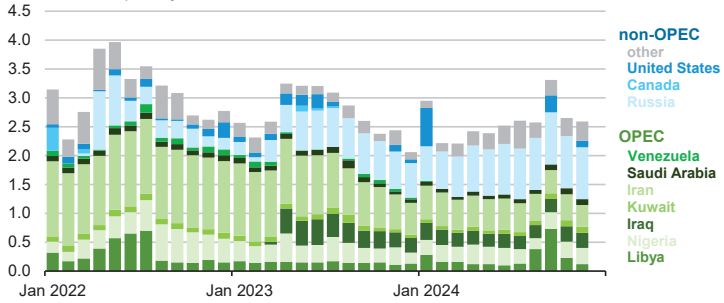
days of supply



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

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

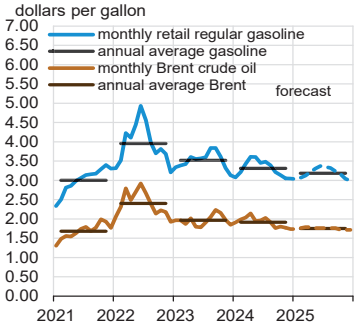
million barrels per day



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

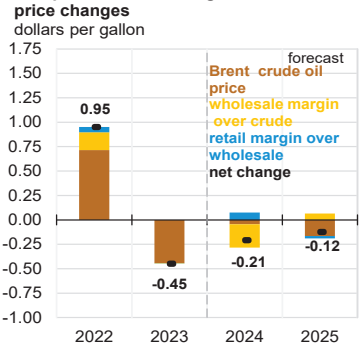
U.S. gasoline and crude oil prices

dollars per gallon



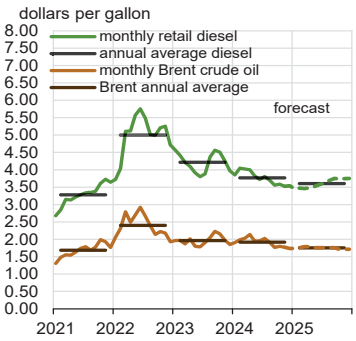
Components of annual gasoline price changes

dollars per gallon

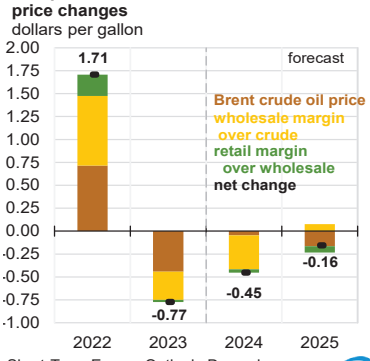


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024, and Refinitiv an LSEG Business

U.S. diesel and crude oil prices



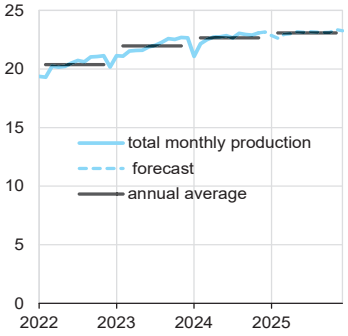
Components of annual diesel price changes



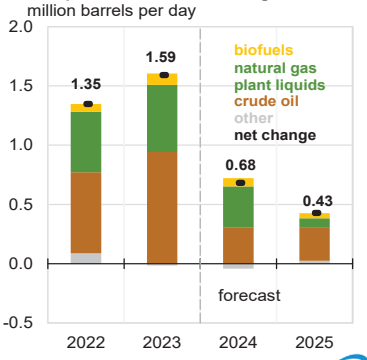
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024, and Refinitiv an LSEG Business

eia

U.S. crude oil and liquid fuels production



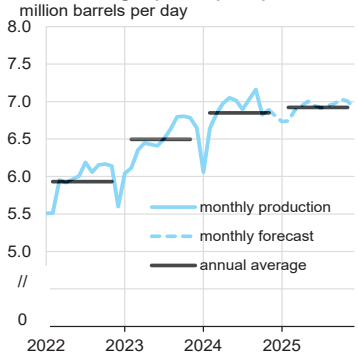
Components of annual change



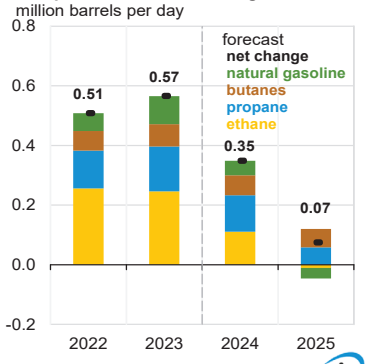
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

eia

U.S. natural gas plant liquids production



Components of annual change

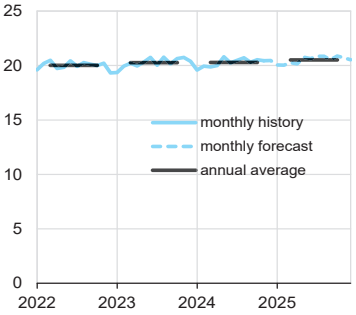


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

eia

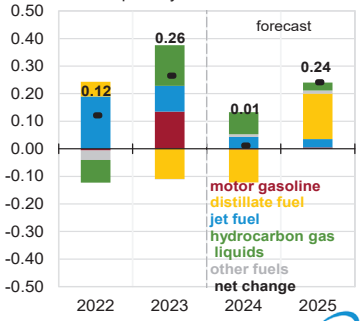
U.S. liquid fuels product supplied (consumption)

million barrels per day



Components of annual change

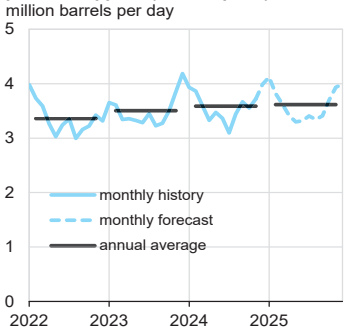
million barrels per day



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

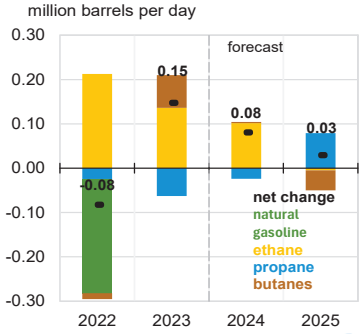
U.S. hydrocarbon gas liquids product supplied (consumption)

million barrels per day



Components of annual change

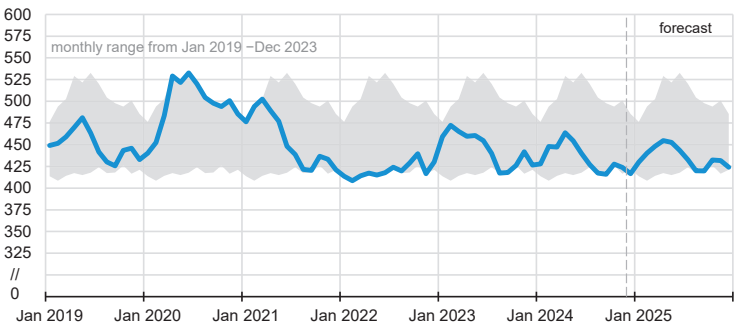
million barrels per day



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

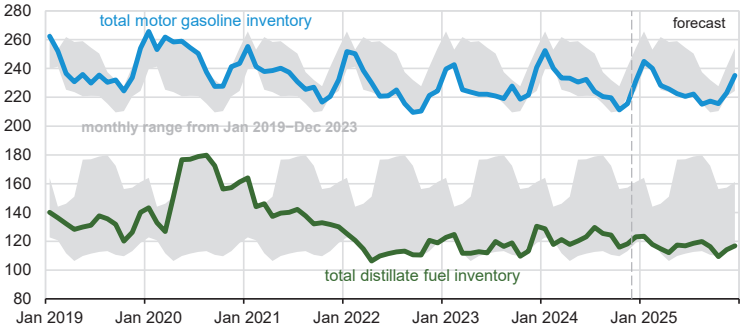
U.S. commercial crude oil inventories

million barrels



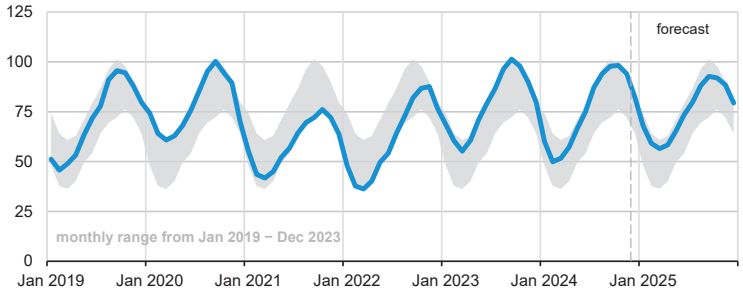
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

U.S. gasoline and distillate inventories
million barrels



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

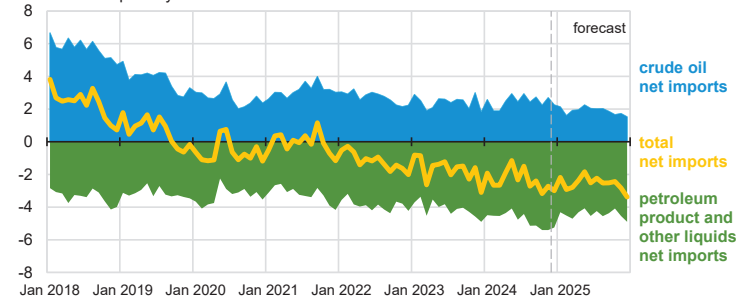
U.S. commercial propane inventories
million barrels



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

Note: Excludes propylene.

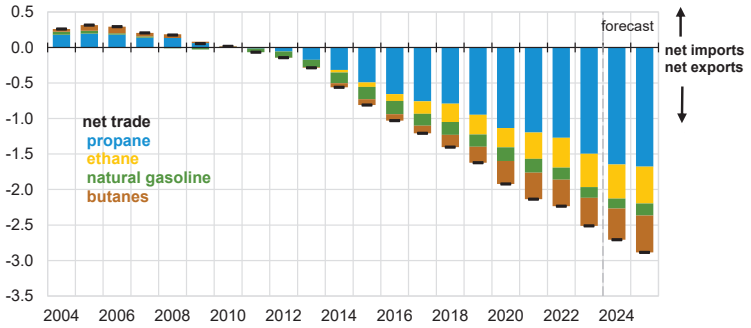
U.S. net imports of crude oil and liquid fuels
million barrels per day



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

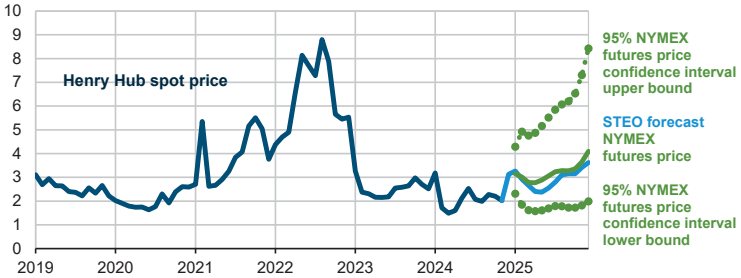
Note: Petroleum product and other liquids include: gasoline, distillate fuels, hydrocarbon gas liquids, jet fuel, residual fuel oil, unfinished oils, other hydrocarbons/oxygenates, and other oils.

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



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

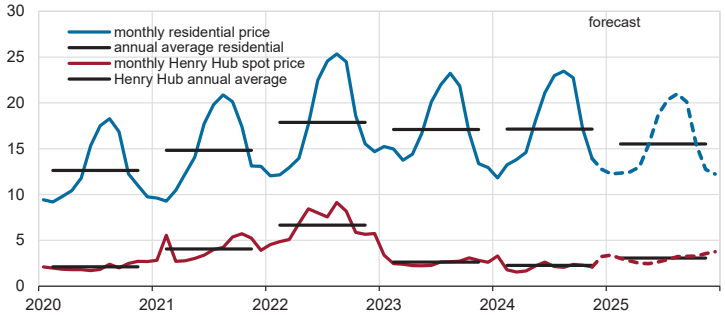
Henry Hub natural gas price and NYMEX confidence intervals
dollars per million British thermal units



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

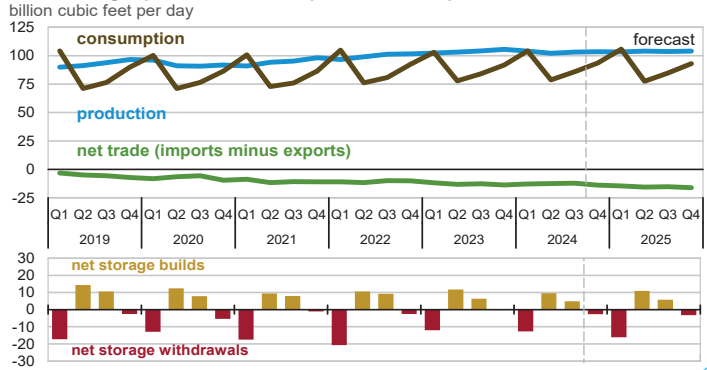
Note: Confidence interval derived from options market information for the five trading days ending December 5, 2024. Intervals not calculated for months with sparse trading in near-the-money options contracts.

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



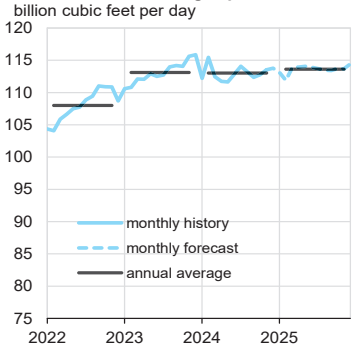
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024, and Refinitiv an LSEG Business

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

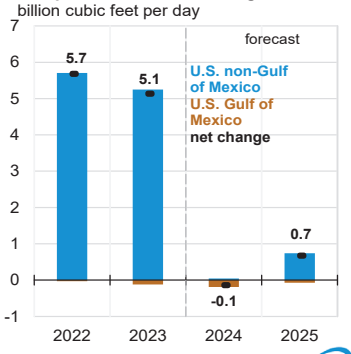


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

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

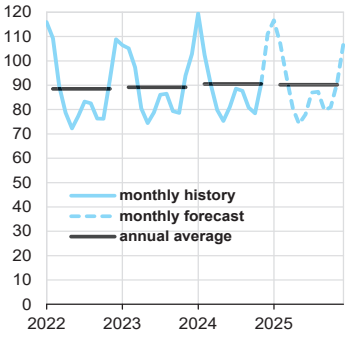


Components of annual change
billion cubic feet per day

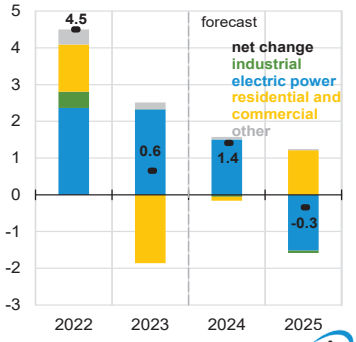


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

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

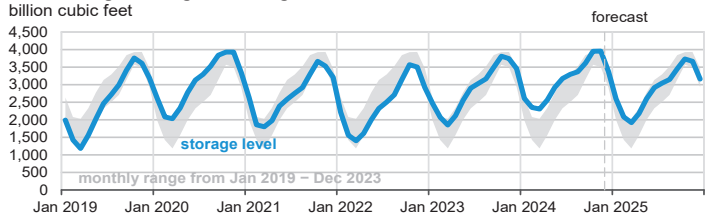


Components of annual change
billion cubic feet per day

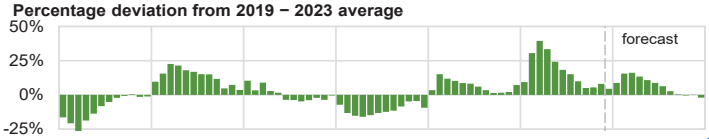


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

U.S. working natural gas in storage
billion cubic feet

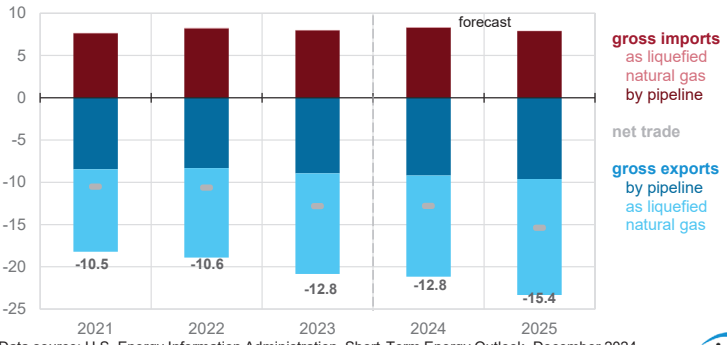


Percentage deviation from 2019 – 2023 average



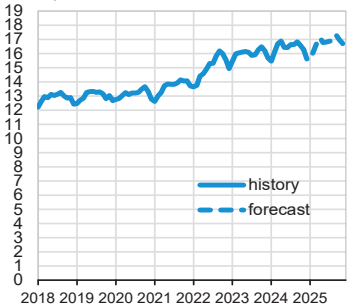
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

U.S. annual natural gas trade
billion cubic feet per day

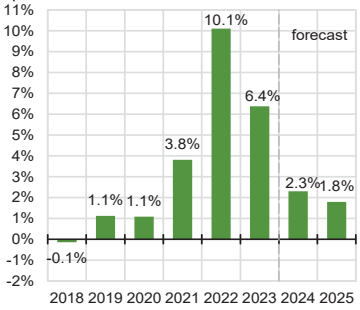


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

U.S. monthly nominal residential electricity price
cents per kilowatthour

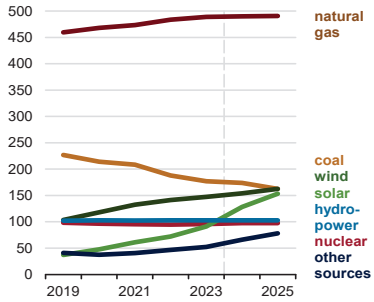


Annual growth in nominal residential electricity prices
percent

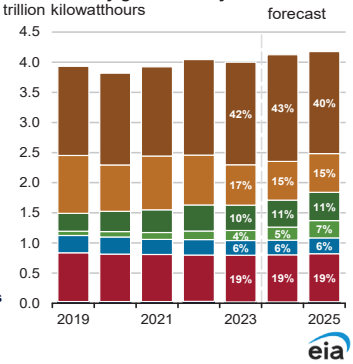


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

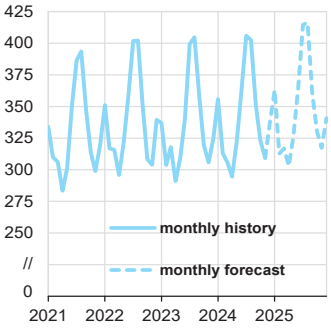
U.S. electric power sector generating capacity
gigawatts at end of period forecast



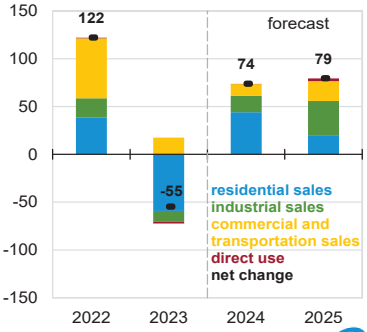
U.S. electricity generation by source
trillion kilowatthours



U.S. electricity consumption
billion kilowatthours

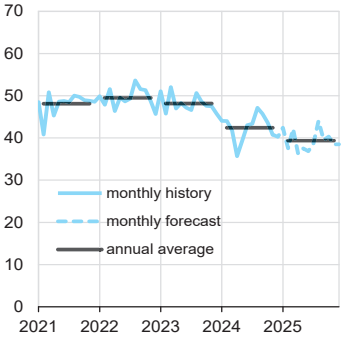


Components of annual change
billion kilowatthours

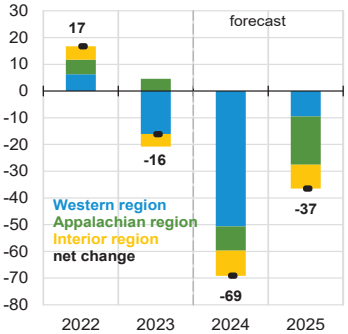


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

U.S. coal production
million short tons

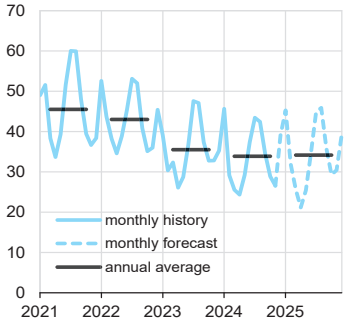


Components of annual change
million short tons

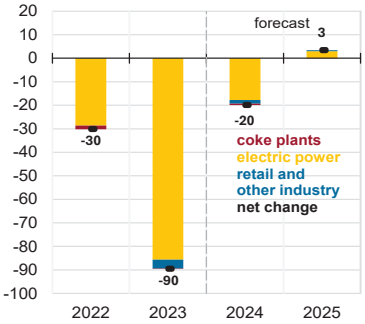


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

U.S. coal consumption
million short tons

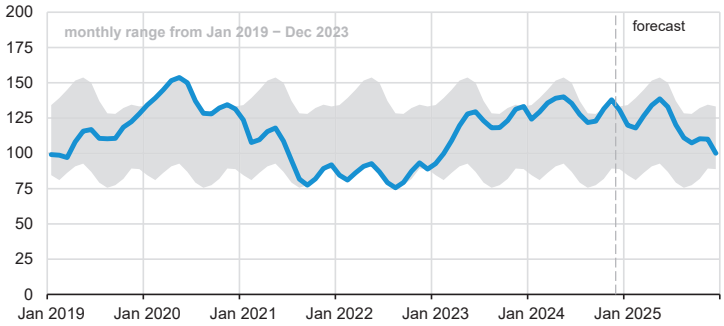


Components of annual change
million short tons



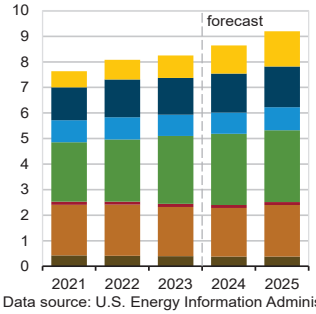
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

U.S. electric power coal inventories
million short tons

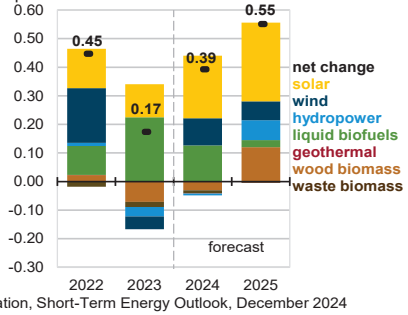


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

U.S. renewable energy supply
quadrillion British thermal units



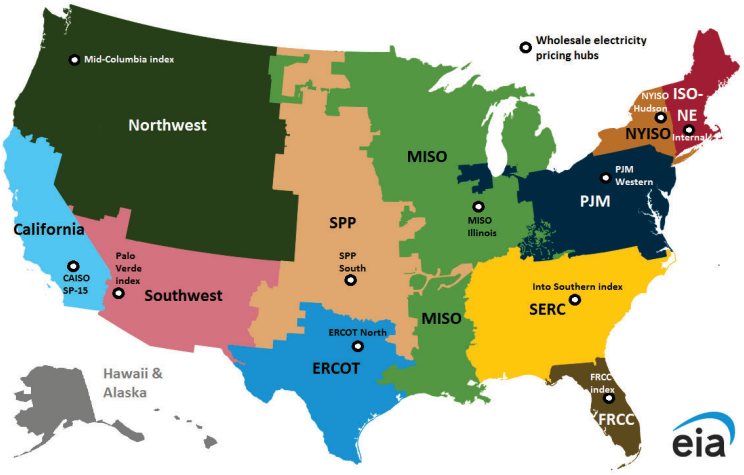
Components of annual change
quadrillion British thermal units



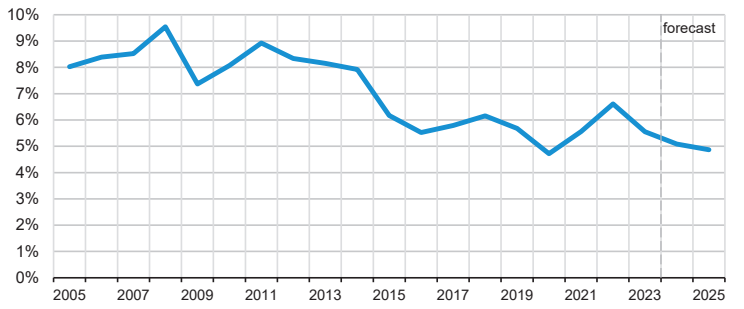
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

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

Short-Term Energy Outlook electricity supply regions

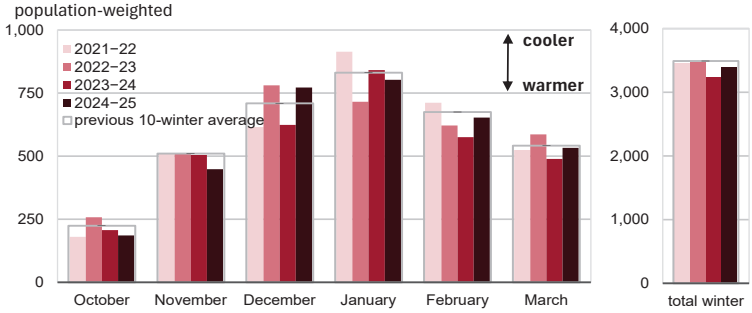


U.S. annual energy expenditures
share of gross domestic product



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

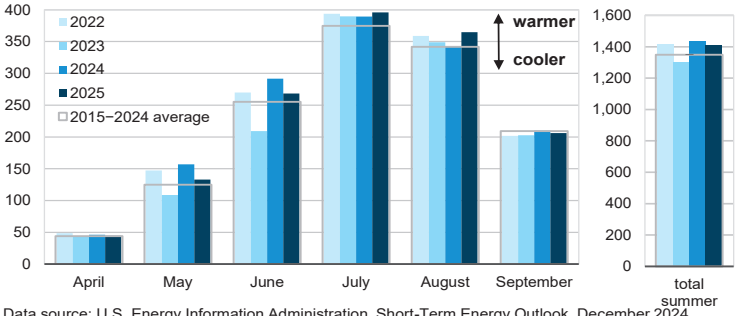
U.S. winter heating degree days
population-weighted



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

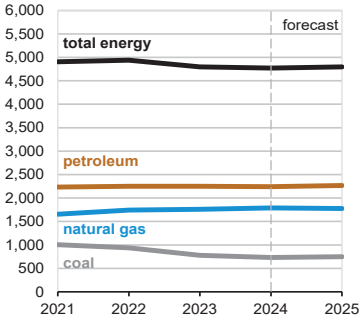
Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

U.S. summer cooling degree days
population-weighted

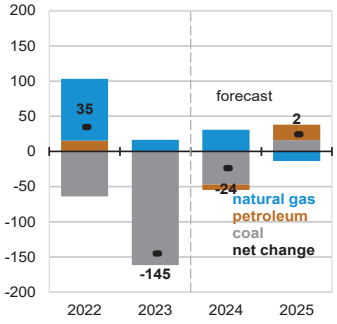


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024
Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.

U.S. annual CO_2 emissions by source
million metric tons

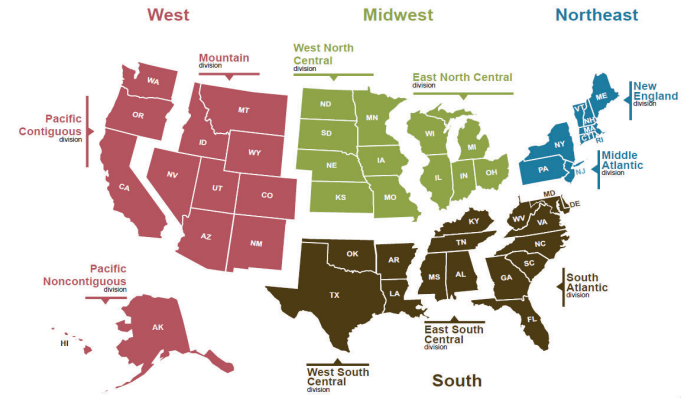


Components of annual change
million metric tons



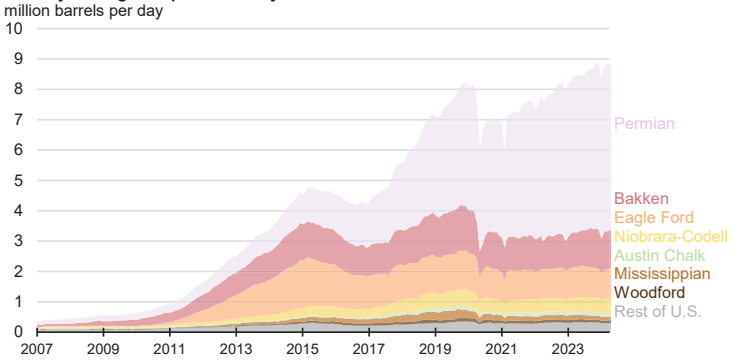
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

U.S. Census regions and divisions



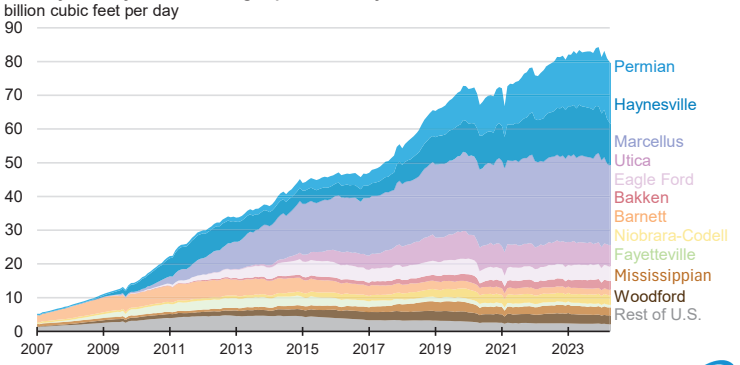
Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*

Monthly U.S. tight oil production by formation
million barrels per day



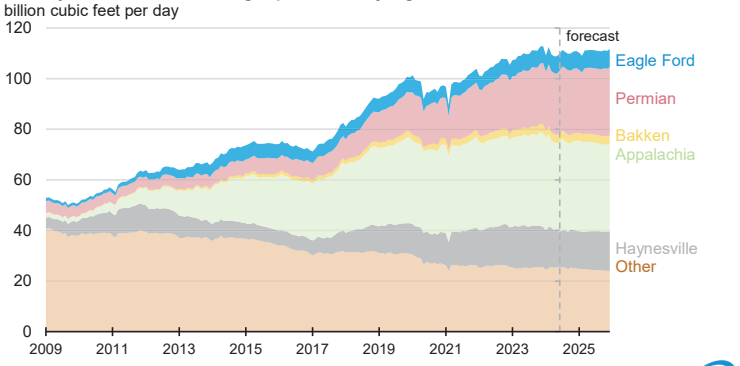
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

Monthly U.S. dry shale natural gas production by formation
billion cubic feet per day



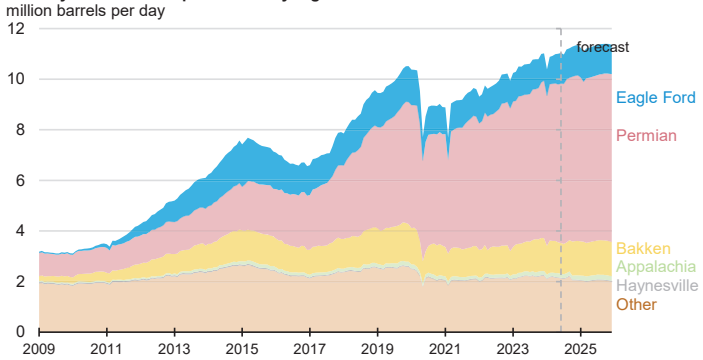
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

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



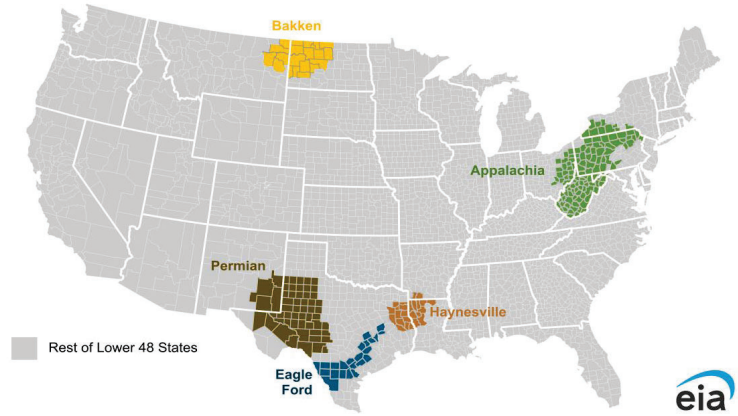
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

Monthly U.S. crude oil production by region
million barrels per day



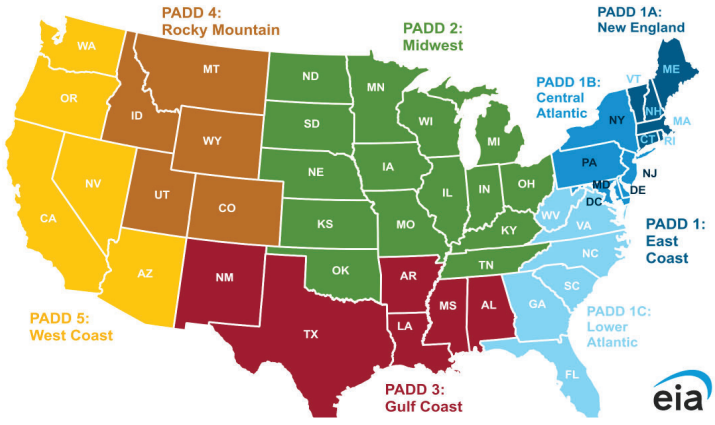
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2024

U.S. production regions



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, and the U.S. Census Bureau

U.S. Petroleum Administration for Defense Districts (PADD) regions



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

Table 1. U.S. Energy Markets Summary

U.S. Energy Information Administration | Short-Term Energy Outlook - December 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)	12.67	12.76	13.05	13.25	12.94	13.23	13.25	13.53	13.45	13.51	13.55	13.58	12.93	13.24	13.52
Dry Natural Gas Production															
(billion cubic feet per day)	102.2	103.2	104.1	105.5	104.0	102.0	103.2	103.5	103.3	104.0	103.6	103.9	103.8	103.2	103.7
Coal Production															
(million short tons)	149	142	146	141	130	118	136	125	122	111	122	117	578	509	472
Energy Consumption															
Liquid Fuels															
(million barrels per day)	19.83	20.35	20.32	20.59	19.80	20.36	20.50	20.48	20.12	20.52	20.75	20.70	20.28	20.29	20.53
Natural Gas															
(billion cubic feet per day)	102.9	77.9	84.0	91.8	104.1	78.7	85.8	93.5	105.7	77.5	84.7	93.0	89.1	90.5	90.2
Coal (b)															
(million short tons)	102	91	132	101	100	91	120	94	103	81	127	99	426	406	409
Electricity															
(billion kilowatt hours per day)	10.65	10.34	12.64	10.33	10.71	10.79	12.61	10.54	11.03	10.92	12.94	10.74	10.99	11.16	11.41
Renewables (c)															
(quadrillion Btu)	2.04	2.12	2.06	2.04	2.09	2.24	2.15	2.17	2.20	2.43	2.31	2.26	8.25	8.65	9.20
Total Energy Consumption (d)															
(quadrillion Btu)	24.20	22.01	23.72	23.76	24.39	22.21	23.72	23.86	24.70	22.24	24.11	24.11	93.69	94.18	95.15
Energy Prices															
Crude Oil West Texas Intermediate Spo															
(dollars per barrel)	75.96	73.49	82.25	78.63	77.50	81.77	76.43	70.37	69.67	69.83	69.50	67.50	77.58	76.51	69.12
Natural Gas Henry Hub Spot															
(dollars per million Btu)	2.65	2.16	2.59	2.74	2.13	2.08	2.11	2.45	2.95	2.44	3.02	3.40	2.54	2.19	2.95
Coal															
(dollars per million Btu)	2.56	2.48	2.50	2.50	2.50	2.54	2.45	2.40	2.41	2.41	2.40	2.38	2.51	2.47	2.40
Macroeconomic															
Real Gross Domestic Product															
(billion chained 2017 dollars - SAAR)	22,403	22,539	22,781	22,961	23,054	23,224	23,386	23,474	23,587	23,702	23,838	23,983	22,671	23,284	23,777
Percent change from prior year	2.3	2.8	3.2	3.2	2.9	3.0	2.7	2.2	2.3	2.1	1.9	2.2	2.9	2.7	2.1
GDP Implicit Price Deflator															
(Index, 2017=100)	121.2	121.8	122.8	123.2	124.2	124.9	125.5	126.1	126.8	127.4	128.2	129.1	122.3	125.2	127.9
Percent change from prior year	5.3	3.4	3.1	2.6	2.4	2.6	2.2	2.3	2.1	2.0	2.2	2.4	3.6	2.4	2.2
Real Disposable Personal Income															
(billion chained 2017 dollars - SAAR)	16,885	17,025	17,083	17,217	17,452	17,554	17,623	17,738	17,882	18,022	18,153	18,284	17,052	17,592	18,085
Percent change from prior year	4.8	6.1	4.8	4.6	3.4	3.1	3.2	3.0	2.5	2.7	3.0	3.1	5.1	3.2	2.8
Manufacturing Production Index															
(Index, 2017=100)	100.0	100.1	100.0	99.7	99.5	99.8	99.7	99.3	99.9	100.4	101.2	102.0	100.0	99.6	100.9
Percent change from prior year	0.0	-0.6	-0.7	-0.3	-0.6	-0.3	-0.3	-0.4	0.4	0.6	1.5	2.7	-0.4	-0.4	1.3
Weather															
U.S. Heating Degree-Days	1,924	486	61	1,336	1,906	413	50	1,406	1,989	469	74	1,443	3,806	3,776	3,975
U.S. Cooling Degree-Days	67	361	941	104	53	495	941	137	51	446	967	106	1,474	1,625	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.

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

Prices are not adjusted for inflation.

Sources:

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: Petroleum Supply Monthly; *Petroleum Supply Annual; Weekly Petroleum Status Report; Petroleum Marketing Monthly; Natural Gas Monthly; Electric Power Monthly; Quarterly Coal Report; and International Petroleum Monthly.*

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 2. Energy Prices

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

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Crude Oil (dollars per barrel)															
West Texas Intermediate Spot Average	75.96	73.49	82.25	78.63	77.50	81.77	76.43	70.37	69.67	69.83	69.50	67.50	77.58	76.51	69.12
Brent Spot Average	81.04	78.02	86.64	83.93	82.96	84.72	80.03	74.37	74.00	74.33	74.00	72.00	82.41	80.49	73.58
U.S. Imported Average	69.63	71.34	81.09	76.21	72.40	79.62	74.91	67.54	66.91	67.06	66.75	64.75	74.62	73.82	66.44
U.S. Refiner Average Acquisition Cost	74.49	74.10	82.38	79.37	76.42	81.75	76.88	69.80	69.17	69.32	69.00	67.00	77.68	76.21	68.62
U.S. Liquid Fuels (dollars per gallon)															
Wholesale Petroleum Product Prices															
Gasoline	2.62	2.65	2.96	2.33	2.46	2.58	2.34	2.05	2.09	2.38	2.40	2.14	2.64	2.36	2.26
Diesel Fuel	2.95	2.45	3.09	2.84	2.70	2.51	2.31	2.16	2.14	2.26	2.46	2.45	2.83	2.42	2.33
Fuel Oil	2.77	2.30	2.88	2.80	2.64	2.42	2.09	2.00	2.04	2.11	2.30	2.34	2.69	2.28	2.20
Jet Fuel	3.05	2.33	2.91	2.73	2.68	2.52	2.27	2.08	2.08	2.19	2.39	2.36	2.75	2.38	2.26
No. 6 Residual Fuel Oil (a)	1.97	1.89	2.02	2.05	1.98	2.06	2.00	1.83	1.81	1.79	1.79	1.76	1.99	1.97	1.79
Propane Mont Belvieu Spot	0.82	0.68	0.68	0.67	0.84	0.75	0.74	0.80	0.83	0.85	0.87	0.84	0.71	0.78	0.85
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	3.38	3.58	3.76	3.36	3.24	3.56	3.37	3.08	3.07	3.30	3.30	3.07	3.52	3.31	3.19
Gasoline All Grades (b)	3.49	3.69	3.87	3.48	3.36	3.68	3.48	3.20	3.20	3.42	3.42	3.19	3.64	3.43	3.31
On-highway Diesel Fuel	4.40	3.94	4.28	4.25	3.97	3.85	3.69	3.55	3.46	3.52	3.69	3.75	4.22	3.76	3.61
Heating Oil	4.06	3.51	3.82	3.98	3.79	3.66	3.54	3.38	3.31	3.39	3.53	3.60	3.84	3.59	3.46
Propane Residential	2.70	2.61	2.44	2.43	2.58	2.48	2.38	2.47	2.55	2.58	2.59	2.62	2.54	2.48	2.58
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	2.75	2.25	2.69	2.84	2.21	2.16	2.19	2.54	3.06	2.53	3.13	3.53	2.63	2.28	3.06
Henry Hub Spot (dollars per million Btu)	2.65	2.16	2.59	2.74	2.13	2.08	2.11	2.45	2.95	2.44	3.02	3.40	2.54	2.19	2.95
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	6.12	3.76	3.87	4.38	4.47	3.35	3.30	3.44	4.14	3.23	3.63	4.30	4.59	3.67	3.85
Commercial Sector	11.82	10.48	10.89	9.82	9.82	10.42	11.01	9.07	8.81	9.17	9.80	8.73	10.89	9.82	8.96
Residential Sector	14.72	16.19	22.33	13.72	12.75	16.86	23.05	13.68	12.34	14.89	20.46	12.93	15.19	14.37	13.50
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.56	2.48	2.50	2.50	2.50	2.54	2.45	2.40	2.41	2.41	2.40	2.38	2.51	2.47	2.40
Natural Gas	4.96	2.61	2.94	3.20	3.37	2.37	2.37	2.79	3.45	2.67	3.04	3.66	3.36	2.69	3.20
Residual Fuel Oil (c)	19.21	17.89	19.32	20.87	18.84	18.55	17.84	14.22	13.57	14.49	14.13	13.93	19.36	17.40	13.98
Distillate Fuel Oil	22.96	19.97	22.30	22.18	20.14	19.55	18.46	16.56	16.38	17.32	18.69	18.90	21.87	18.54	17.75
Prices to Ultimate Customers (cents per kilowatthour)															
Industrial Sector	7.99	7.76	8.57	7.81	7.86	8.02	8.68	7.89	8.00	8.12	8.72	7.92	8.04	8.13	8.20
Commercial Sector	12.50	12.30	13.02	12.47	12.69	12.74	13.48	12.66	12.82	13.13	13.93	13.06	12.59	12.92	13.27
Residential Sector	15.81	16.11	16.00	16.10	16.02	16.55	16.69	16.12	16.08	16.89	17.02	16.58	16.00	16.37	16.66

(a) Average for all sulfur contents.

(b) Average self-service cash price.

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

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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

Sources:

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: Petroleum Marketing Monthly;

Weekly Petroleum Status Report; Natural Gas Monthly; Electric Power Monthly; Monthly Energy Review; Heating Oil and Propoane Update.

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).

Retail heating oil prices are from the Bureau of Labor Statistics, *Consumer Price Index.*

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

Forecasts: EIA Short-Term Integrated Forecasting System.

Table 3a. World Petroleum and Other Liquid Fuels Production, Consumption, and Inventories

U.S. Energy Information Administration | Short-Term Energy Outlook - December 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)															
World total	**101.55**	**101.60**	**101.82**	**103.09**	**102.03**	**102.48**	**102.62**	**103.24**	**103.14**	**103.91**	**104.70**	**105.19**	**102.02**	**102.59**	**104.24**
Crude oil	76.93	76.32	75.93	77.08	76.70	76.19	76.00	76.90	77.24	77.34	77.98	78.66	76.57	76.45	77.81
Other liquids	24.62	25.28	25.89	26.00	25.34	26.29	26.61	26.34	25.90	26.58	26.73	26.53	25.45	26.15	26.44
World total	**101.55**	**101.60**	**101.82**	**103.09**	**102.03**	**102.48**	**102.62**	**103.24**	**103.14**	**103.91**	**104.70**	**105.19**	**102.02**	**102.59**	**104.24**
OPEC total (b)	32.71	32.44	31.63	31.93	32.16	32.09	32.03	32.01	31.98	32.13	32.30	32.50	32.17	32.07	32.23
Crude oil	27.38	27.23	26.37	26.63	26.77	26.82	26.68	26.63	26.65	26.80	26.97	27.18	26.90	26.72	26.90
Other liquids	5.33	5.21	5.26	5.30	5.40	5.26	5.34	5.38	5.33	5.33	5.33	5.33	5.27	5.35	5.33
Non-OPEC total	**68.85**	**69.16**	**70.19**	**71.16**	**69.87**	**70.39**	**70.59**	**71.23**	**71.16**	**71.78**	**72.41**	**72.69**	**69.84**	**70.52**	**72.01**
Crude oil	49.56	49.09	49.56	50.45	49.93	49.37	49.32	50.27	50.59	50.53	51.01	51.49	49.67	49.72	50.91
Other liquids	19.29	20.07	20.63	20.70	19.94	21.03	21.27	20.96	20.57	21.25	21.40	21.20	20.18	20.80	21.11
Consumption (million barrels per day) (c)															
World total	**101.27**	**102.12**	**102.56**	**102.59**	**102.18**	**103.12**	**103.27**	**103.54**	**103.83**	**103.96**	**104.68**	**104.81**	**102.14**	**103.03**	**104.32**
OECD total (d)	**45.26**	**45.52**	**45.90**	**46.00**	**44.80**	**45.55**	**46.11**	**46.12**	**45.44**	**45.21**	**46.08**	**46.21**	**45.67**	**45.65**	**45.74**
Canada	2.34	2.48	2.63	2.37	2.37	2.28	2.56	2.50	2.43	2.38	2.49	2.46	2.45	2.43	2.44
Europe	13.12	13.57	13.69	13.39	12.85	13.62	13.88	13.50	13.13	13.29	13.70	13.46	13.45	13.46	13.40
Japan	3.68	3.05	3.06	3.38	3.44	2.96	3.00	3.37	3.47	2.88	2.98	3.30	3.29	3.19	3.16
United States	19.83	20.35	20.32	20.59	19.80	20.36	20.50	20.48	20.12	20.52	20.75	20.70	20.28	20.29	20.53
U.S. Territories	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Other OECD	6.19	5.96	6.09	6.16	6.22	6.21	6.05	6.15	6.16	6.03	6.05	6.18	6.10	6.16	6.10
Non-OECD total	**56.01**	**56.60**	**56.66**	**56.59**	**57.38**	**57.57**	**57.16**	**57.42**	**58.39**	**58.75**	**58.60**	**58.60**	**56.47**	**57.38**	**58.58**
China	16.33	16.55	16.24	16.48	16.75	16.65	16.10	16.45	16.87	16.91	16.48	16.71	16.40	16.49	16.74
Eurasia	4.66	4.82	5.16	5.06	4.71	4.87	5.21	5.12	4.74	4.91	5.26	5.16	4.93	4.98	5.02
Europe	0.74	0.76	0.77	0.77	0.75	0.76	0.77	0.77	0.75	0.77	0.77	0.78	0.76	0.76	0.77
Other Asia	14.56	14.44	13.91	14.14	15.04	14.89	14.25	14.71	15.51	15.49	14.85	15.18	14.26	14.72	15.26
Other non-OECD	19.71	20.02	20.59	20.13	20.14	20.40	20.83	20.37	20.52	20.68	21.23	20.76	20.12	20.43	20.80
Total crude oil and other liquids inventory net withdrawals (million barrels per day)															
World total	**-0.28**	**0.52**	**0.74**	**-0.50**	**0.15**	**0.64**	**0.66**	**0.30**	**0.69**	**0.05**	**-0.03**	**-0.38**	**0.12**	**0.44**	**0.08**
United States	-0.07	-0.10	-0.26	0.30	0.13	-0.64	0.00	0.34	-0.17	-0.41	0.00	0.27	-0.03	-0.04	-0.07
Other OECD	0.33	0.01	-0.17	0.21	-0.13	-0.32	0.20	-0.01	0.26	0.13	-0.01	-0.20	0.09	-0.06	0.04
Other inventory draws and balance	-0.54	0.61	1.17	-1.00	0.15	1.60	0.45	-0.02	0.59	0.32	-0.02	-0.45	0.06	0.54	0.11
End-of-period commercial crude oil and other liquids inventories (million barrels)															
OECD total	**2,748**	**2,781**	**2,816**	**2,766**	**2,757**	**2,836**	**2,807**	**2,763**	**2,742**	**2,764**	**2,765**	**2,758**	**2,766**	**2,763**	**2,758**
United States	1,230	1,263	1,282	1,251	1,230	1,280	1,270	1,224	1,227	1,261	1,261	1,235	1,251	1,224	1,235
Other OECD	1,518	1,518	1,534	1,515	1,527	1,556	1,538	1,539	1,515	1,503	1,504	1,522	1,515	1,539	1,522

(a) Includes crude oil, lease condensate, natural gas plant liquids, other liquids, refinery processing gain, and other unaccounted-for liquids. Differences in the reported historical production data across countries could result in some inconsistencies in the delineation between crude oil and other liquid fuels.

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

(c) Consumption of petroleum by the OECD countries is the same as "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.

(d) 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 December 5, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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

Sources:

Historical data: Energy Information Administration *International Energy Statistics* (https://www.eia.gov/international/data/world).

Forecasts: EIA Short-Term Integrated Forecasting System.

Table 3b. Non-OPEC Petroleum and Other Liquid Fuels Production (million barrels per day)

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

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Petroleum and other liquid fuels production (a)															
Non-OPEC total (b)	**68.85**	**69.16**	**70.19**	**71.16**	**69.87**	**70.39**	**70.59**	**71.23**	**71.16**	**71.78**	**72.41**	**72.69**	**69.84**	**70.52**	**72.01**
North America total	**29.15**	**29.22**	**30.19**	**30.82**	**29.91**	**30.59**	**30.92**	**31.40**	**31.26**	**31.24**	**31.48**	**31.77**	**29.85**	**30.71**	**31.44**
Canada	5.77	5.37	5.79	6.10	5.95	5.82	6.00	6.37	6.47	6.19	6.41	6.62	5.76	6.04	6.42
Mexico	2.12	2.16	2.11	2.09	2.05	2.00	2.04	1.98	1.98	1.95	1.93	1.90	2.12	2.02	1.94
United States	21.26	21.69	22.30	22.63	21.91	22.77	22.88	23.05	22.82	23.10	23.15	23.25	21.97	22.65	23.08
Central and South America total	**6.39**	**7.01**	**7.60**	**7.40**	**7.01**	**7.49**	**7.72**	**7.54**	**7.20**	**7.81**	**8.23**	**7.85**	**7.11**	**7.44**	**7.78**
Argentina	0.81	0.81	0.82	0.84	0.86	0.87	0.91	0.90	0.91	0.91	0.93	0.93	0.82	0.88	0.92
Brazil	3.60	4.21	4.82	4.49	3.90	4.39	4.66	4.42	4.08	4.60	4.89	4.51	4.28	4.34	4.52
Colombia	0.80	0.81	0.81	0.81	0.80	0.82	0.80	0.79	0.79	0.79	0.78	0.77	0.81	0.80	0.78
Guyana	0.39	0.38	0.36	0.44	0.64	0.62	0.56	0.63	0.63	0.73	0.87	0.87	0.39	0.61	0.77
Europe total	**4.02**	**3.95**	**3.85**	**3.96**	**3.95**	**3.87**	**3.72**	**3.90**	**4.01**	**3.95**	**3.90**	**4.08**	**3.94**	**3.86**	**3.99**
Norway	2.03	2.03	1.98	2.06	2.06	2.00	1.95	2.05	2.13	2.09	2.11	2.21	2.02	2.01	2.13
United Kingdom	0.87	0.80	0.74	0.78	0.77	0.74	0.69	0.75	0.78	0.77	0.69	0.77	0.80	0.74	0.75
Eurasia total	**14.20**	**13.82**	**13.60**	**13.87**	**13.81**	**13.41**	**13.23**	**13.22**	**13.37**	**13.38**	**13.39**	**13.57**	**13.87**	**13.42**	**13.43**
Azerbaijan	0.65	0.62	0.62	0.61	0.60	0.59	0.59	0.60	0.61	0.62	0.64	0.64	0.62	0.60	0.63
Kazakhstan	2.02	1.97	1.85	1.99	2.00	1.89	1.91	1.81	1.91	1.94	1.93	1.99	1.96	1.90	1.94
Russia	11.15	10.84	10.75	10.89	10.83	10.55	10.34	10.42	10.46	10.42	10.44	10.55	10.91	10.53	10.47
Middle East total	**3.19**	**3.23**	**3.20**	**3.23**	**3.19**	**3.21**	**3.18**	**3.20**	**3.20**	**3.23**	**3.26**	**3.27**	**3.21**	**3.19**	**3.24**
Oman	1.07	1.06	1.05	1.05	1.01	1.00	1.00	1.01	1.01	1.01	1.02	1.03	1.06	1.00	1.02
Qatar	1.82	1.82	1.83	1.84	1.86	1.87	1.88	1.88	1.88	1.88	1.88	1.88	1.83	1.87	1.88
Africa total	**2.55**	**2.62**	**2.63**	**2.70**	**2.64**	**2.51**	**2.55**	**2.64**	**2.77**	**2.78**	**2.77**	**2.74**	**2.62**	**2.59**	**2.77**
Angola	1.12	1.18	1.18	1.22	1.20	1.16	1.17	1.15	1.13	1.12	1.11	1.09	1.17	1.17	1.12
Egypt	0.66	0.67	0.67	0.66	0.66	0.65	0.63	0.66	0.65	0.65	0.65	0.65	0.67	0.65	0.65
Asia and Oceania total	**9.34**	**9.30**	**9.12**	**9.18**	**9.36**	**9.31**	**9.25**	**9.33**	**9.35**	**9.37**	**9.37**	**9.41**	**9.23**	**9.31**	**9.38**
China	5.32	5.32	5.18	5.22	5.39	5.36	5.30	5.36	5.33	5.35	5.34	5.39	5.26	5.35	5.35
India	0.93	0.95	0.94	0.93	0.95	0.95	0.95	0.95	0.98	0.97	0.97	0.97	0.94	0.95	0.97
Indonesia	0.89	0.89	0.87	0.87	0.86	0.88	0.86	0.86	0.87	0.87	0.87	0.87	0.88	0.86	0.87
Malaysia	0.61	0.58	0.58	0.61	0.59	0.58	0.53	0.58	0.58	0.58	0.59	0.59	0.60	0.57	0.59
Unplanned production outages															
Non-OPEC total	**0.56**	**1.02**	**0.92**	**0.87**	**1.04**	**1.11**	**1.33**	**-**	**-**	**-**	**-**	**-**	**0.84**	**-**	**-**

(a) Includes crude oil, lease condensate, natural gas plant liquids, other liquids, refinery processing gain, and other unaccounted-for liquids.

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

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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

Sources:

Historical data: Energy Information Administration *International Energy Statistics* (https://www.eia.gov/international/data/world).

Forecasts: EIA Short-Term Integrated Forecasting System.

Table 3c. World Petroleum and Other Liquid Fuels Production (million barrels per day)

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

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Petroleum and other liquid fuels production (a)															
World total	**101.55**	**101.60**	**101.82**	**103.09**	**102.03**	**102.48**	**102.62**	**103.24**	**103.14**	**103.91**	**104.70**	**105.19**	**102.02**	**102.59**	**104.24**
OPEC+ total (b)	45.06	44.36	42.99	43.35	43.27	42.62	42.47	42.16	42.54	42.68	42.84	43.19	43.93	42.63	42.81
United States	21.26	21.69	22.30	22.63	21.91	22.77	22.88	23.05	22.82	23.10	23.15	23.25	21.97	22.65	23.08
Non-OPEC+ excluding United States	35.24	35.55	36.54	37.11	36.86	37.09	37.26	38.03	37.78	38.13	38.72	38.75	36.11	37.31	38.35
OPEC total (c)	**32.71**	**32.44**	**31.63**	**31.93**	**32.16**	**32.09**	**32.03**	**32.01**	**31.98**	**32.13**	**32.30**	**32.50**	**32.17**	**32.07**	**32.23**
Algeria	1.48	1.45	1.42	1.43	1.38	1.37	1.38	-	-	-	-	-	1.44	-	-
Congo (Brazzaville)	0.27	0.26	0.26	0.27	0.26	0.26	0.25	-	-	-	-	-	0.27	-	-
Equatorial Guinea	0.10	0.10	0.10	0.09	0.10	0.09	0.10	-	-	-	-	-	0.10	-	-
Gabon	0.20	0.21	0.20	0.21	0.21	0.22	0.21	-	-	-	-	-	0.20	-	-
Iran	3.79	3.80	4.06	4.31	4.43	4.32	4.43	-	-	-	-	-	3.99	-	-
Iraq	4.52	4.30	4.44	4.48	4.54	4.57	4.56	-	-	-	-	-	4.44	-	-
Kuwait	3.00	2.90	2.88	2.85	2.77	2.81	2.76	-	-	-	-	-	2.91	-	-
Libya	1.24	1.22	1.25	1.27	1.20	1.28	0.99	-	-	-	-	-	1.24	-	-
Nigeria	1.50	1.48	1.49	1.60	1.57	1.52	1.59	-	-	-	-	-	1.52	-	-
Saudi Arabia	11.62	11.78	10.62	10.53	10.74	10.62	10.64	-	-	-	-	-	11.13	-	-
United Arab Emirates	4.27	4.15	4.12	4.11	4.15	4.17	4.19	-	-	-	-	-	4.16	-	-
Venezuela	0.73	0.78	0.79	0.78	0.81	0.85	0.93	-	-	-	-	-	0.77	-	-
OPEC+ total (b)	**45.06**	**44.36**	**42.99**	**43.35**	**43.27**	**42.62**	**42.47**	**42.16**	**42.54**	**42.68**	**42.84**	**43.19**	**43.93**	**42.63**	**42.81**
OPEC members subject to OPEC+ agreements (d)	**26.95**	**26.64**	**25.54**	**25.57**	**25.72**	**25.63**	**25.68**	**25.39**	**25.52**	**25.67**	**25.83**	**26.03**	**26.17**	**25.60**	**25.76**
OPEC+ other participants total	**18.11**	**17.72**	**17.45**	**17.78**	**17.55**	**16.99**	**16.79**	**16.77**	**17.02**	**17.01**	**17.01**	**17.16**	**17.76**	**17.02**	**17.05**
Azerbaijan	0.65	0.62	0.62	0.61	0.60	0.59	0.59	0.60	0.61	0.62	0.64	0.64	0.62	0.60	0.63
Bahrain	0.18	0.21	0.18	0.20	0.18	0.20	0.18	0.18	0.18	0.19	0.19	0.18	0.19	0.18	0.18
Brunei	0.11	0.08	0.09	0.10	0.10	0.08	0.11	0.10	0.10	0.10	0.10	0.10	0.09	0.10	0.10
Kazakhstan	2.02	1.97	1.85	1.99	2.00	1.89	1.91	1.81	1.91	1.94	1.93	1.99	1.96	1.90	1.94
Malaysia	0.61	0.58	0.58	0.61	0.59	0.58	0.53	0.58	0.58	0.58	0.59	0.59	0.60	0.57	0.59
Mexico	2.12	2.16	2.11	2.09	2.05	2.00	2.04	1.98	1.98	1.95	1.93	1.90	2.12	2.02	1.94
Oman	1.07	1.06	1.05	1.05	1.01	1.00	1.00	1.01	1.01	1.01	1.02	1.03	1.06	1.00	1.02
Russia	11.15	10.84	10.75	10.89	10.83	10.55	10.34	10.42	10.46	10.42	10.44	10.55	10.91	10.53	10.47
South Sudan	0.13	0.13	0.16	0.16	0.13	0.06	0.06	0.06	0.15	0.15	0.14	0.14	0.15	0.08	0.14
Sudan	0.07	0.07	0.07	0.07	0.06	0.04	0.03	0.03	0.05	0.05	0.05	0.04	0.07	0.04	0.05

(a) Includes crude oil, lease condensate, natural gas plant liquids, other liquids, refinery processing gain, and other unaccounted-for liquids.

(b) OPEC+ total = OPEC members subject to OPEC+ agreements plus Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, South Sudan, and Sudan.

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

(d) Iran, Libya, and Venezuela are not sbuject to the OPEC+ agreements.

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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

Sources:

Historical data: Energy Information Administration *International Energy Statistics* (https://www.eia.gov/international/data/world).

Forecasts: EIA Short-Term Integrated Forecasting System.

Table 3d. World Crude Oil Production (million barrels per day)

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

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Crude oil production (a)															
World total	**76.93**	**76.32**	**75.93**	**77.08**	**76.70**	**76.19**	**76.00**	**76.90**	**77.24**	**77.34**	**77.98**	**78.66**	**76.57**	**76.45**	**77.81**
OPEC+ total (b)	38.18	37.50	36.24	36.42	36.30	35.75	35.61	35.16	35.52	35.75	35.97	36.26	37.08	35.70	35.87
United States	12.67	12.76	13.05	13.25	12.94	13.23	13.25	13.53	13.45	13.51	13.55	13.58	12.93	13.24	13.52
Non-OPEC+ excluding United States	26.08	26.06	26.64	27.42	27.46	27.21	27.14	28.21	28.27	28.08	28.47	28.82	26.55	27.51	28.41
OPEC total (c)	**27.38**	**27.23**	**26.37**	**26.63**	**26.77**	**26.82**	**26.68**	**26.63**	**26.65**	**26.80**	**26.97**	**27.18**	**26.90**	**26.72**	**26.90**
Algeria	1.01	0.98	0.95	0.96	0.91	0.90	0.91	-	-	-	-	-	0.97	-	-
Congo (Brazzaville)	0.27	0.25	0.26	0.26	0.25	0.25	0.24	-	-	-	-	-	0.26	-	-
Equatorial Guinea	0.06	0.06	0.06	0.05	0.06	0.05	0.06	-	-	-	-	-	0.06	-	-
Gabon	0.20	0.21	0.20	0.21	0.21	0.22	0.21	-	-	-	-	-	0.20	-	-
Iran	2.60	2.74	2.97	3.18	3.24	3.26	3.34	-	-	-	-	-	2.87	-	-
Iraq	4.41	4.19	4.33	4.38	4.43	4.46	4.45	-	-	-	-	-	4.33	-	-
Kuwait	2.68	2.59	2.56	2.53	2.46	2.49	2.44	-	-	-	-	-	2.59	-	-
Libya	1.14	1.15	1.15	1.17	1.10	1.19	0.89	-	-	-	-	-	1.15	-	-
Nigeria	1.24	1.19	1.21	1.31	1.28	1.24	1.31	-	-	-	-	-	1.24	-	-
Saudi Arabia	10.02	10.18	9.02	8.93	9.12	9.00	9.02	-	-	-	-	-	9.53	-	-
United Arab Emirates	3.06	2.94	2.91	2.90	2.91	2.93	2.95	-	-	-	-	-	2.95	-	-
Venezuela	0.70	0.75	0.76	0.75	0.79	0.83	0.86	-	-	-	-	-	0.74	-	-
OPEC+ total (b)	**38.18**	**37.50**	**36.24**	**36.42**	**36.30**	**35.75**	**35.61**	**35.16**	**35.52**	**35.75**	**35.97**	**36.26**	**37.08**	**35.70**	**35.87**
OPEC members subject to OPEC+ agreements (d)	**22.94**	**22.60**	**21.49**	**21.53**	**21.63**	**21.55**	**21.59**	**21.30**	**21.45**	**21.60**	**21.77**	**21.98**	**22.13**	**21.52**	**21.70**
OPEC+ other participants total	**15.24**	**14.90**	**14.75**	**14.89**	**14.67**	**14.20**	**14.02**	**13.85**	**14.08**	**14.14**	**14.20**	**14.28**	**14.95**	**14.18**	**14.17**
Azerbaijan	0.52	0.50	0.49	0.49	0.47	0.47	0.48	-	-	-	-	-	0.50	-	-
Bahrain	0.17	0.20	0.17	0.19	0.17	0.18	0.16	-	-	-	-	-	0.18	-	-
Brunei	0.08	0.06	0.07	0.08	0.08	0.06	0.09	-	-	-	-	-	0.07	-	-
Kazakhstan	1.61	1.58	1.49	1.57	1.58	1.52	1.53	-	-	-	-	-	1.56	-	-
Malaysia	0.39	0.36	0.36	0.38	0.37	0.35	0.31	-	-	-	-	-	0.37	-	-
Mexico	1.65	1.67	1.65	1.63	1.60	1.56	1.57	-	-	-	-	-	1.65	-	-
Oman	0.84	0.82	0.80	0.80	0.76	0.76	0.76	-	-	-	-	-	0.81	-	-
Russia	9.78	9.52	9.49	9.53	9.44	9.19	9.03	-	-	-	-	-	9.58	-	-
South Sudan	0.13	0.13	0.16	0.16	0.13	0.06	0.06	-	-	-	-	-	0.15	-	-
Sudan	0.07	0.07	0.07	0.07	0.06	0.03	0.03	-	-	-	-	-	0.07	-	-
Crude oil production capacity															
OPEC total	**30.46**	**30.26**	**30.60**	**31.01**	**31.16**	**31.30**	**31.18**	**31.36**	**31.21**	**31.20**	**31.20**	**31.19**	**30.58**	**31.25**	**31.20**
Middle East	25.83	25.62	25.94	26.23	26.45	26.50	26.60	26.57	26.52	26.52	26.52	26.52	25.91	26.53	26.52
Other	4.63	4.64	4.67	4.78	4.71	4.80	4.59	4.78	4.69	4.68	4.67	4.67	4.68	4.72	4.68
Surplus crude oil production capacity															
OPEC total	**3.08**	**3.03**	**4.23**	**4.38**	**4.40**	**4.48**	**4.50**	**4.73**	**4.56**	**4.40**	**4.23**	**4.02**	**3.69**	**4.53**	**4.30**
Middle East	3.06	2.98	4.15	4.31	4.29	4.36	4.39	4.62	4.45	4.29	4.12	3.92	3.63	4.42	4.19
Other	0.02	0.05	0.08	0.07	0.11	0.12	0.11	0.11	0.11	0.11	0.11	0.10	0.06	0.11	0.11
Unplanned production outages															
OPEC total	**1.94**	**2.20**	**1.93**	**1.42**	**1.42**	**1.34**	**1.50**	**-**	**-**	**-**	**-**	**-**	**1.87**	**-**	**-**

(a) Differences in the reported historical production data across countries could result in some inconsistencies in the delineation between crude oil and other liquid fuels.

(b) OPEC+ total = OPEC members subject to OPEC+ agreements plus Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, South Sudan, and Sudan.

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

(d) Iran, Libya, and Venezuela are not sbuject to the OPEC+ agreements.

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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

Sources:

Historical data: Energy Information Administration *International Energy Statistics* (https://www.eia.gov/international/data/world).

Forecasts: EIA Short-Term Integrated Forecasting System.

Table 3e. World Petroleum and Other Liquid Fuels Consumption (million barrels per day)

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

	2023				2024				2025						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Petroleum and other liquid fuels consumption (a)															
World total	**101.27**	**102.12**	**102.56**	**102.59**	**102.18**	**103.12**	**103.27**	**103.54**	**103.83**	**103.96**	**104.68**	**104.81**	**102.14**	**103.03**	**104.32**
OECD total (b)	45.26	45.52	45.90	46.00	44.80	45.55	46.11	46.12	45.44	45.21	46.08	46.21	45.67	45.65	45.74
Non-OECD total	56.01	56.60	56.66	56.59	57.38	57.57	57.16	57.42	58.39	58.75	58.60	58.60	56.47	57.38	58.58
World total	**101.27**	**102.12**	**102.56**	**102.59**	**102.18**	**103.12**	**103.27**	**103.54**	**103.83**	**103.96**	**104.68**	**104.81**	**102.14**	**103.03**	**104.32**
North America total	**23.89**	**24.56**	**24.72**	**24.71**	**23.90**	**24.43**	**24.83**	**24.74**	**24.28**	**24.65**	**24.99**	**24.93**	**24.47**	**24.48**	**24.72**
Canada	2.34	2.48	2.63	2.37	2.37	2.28	2.56	2.50	2.43	2.38	2.49	2.46	2.45	2.43	2.44
Mexico	1.72	1.73	1.75	1.75	1.72	1.78	1.77	1.75	1.72	1.74	1.74	1.76	1.74	1.76	1.74
United States	19.83	20.35	20.32	20.59	19.80	20.36	20.50	20.48	20.12	20.52	20.75	20.70	20.28	20.29	20.53
Central and South America total	**6.63**	**6.77**	**6.88**	**6.81**	**6.74**	**6.87**	**6.99**	**6.93**	**6.82**	**6.98**	**7.09**	**7.01**	**6.77**	**6.88**	**6.98**
Brazil	3.05	3.11	3.19	3.17	3.15	3.21	3.29	3.27	3.20	3.27	3.35	3.33	3.13	3.23	3.29
Europe total	**13.86**	**14.34**	**14.46**	**14.17**	**13.59**	**14.38**	**14.65**	**14.28**	**13.88**	**14.06**	**14.47**	**14.24**	**14.21**	**14.23**	**14.16**
Eurasia total	**4.66**	**4.82**	**5.16**	**5.06**	**4.71**	**4.87**	**5.21**	**5.12**	**4.74**	**4.91**	**5.26**	**5.16**	**4.93**	**4.98**	**5.02**
Russia	3.54	3.64	3.95	3.80	3.57	3.67	3.98	3.83	3.59	3.69	4.01	3.85	3.73	3.76	3.78
Middle East total	**9.25**	**9.39**	**9.94**	**9.34**	**9.45**	**9.55**	**9.96**	**9.39**	**9.64**	**9.63**	**10.17**	**9.58**	**9.48**	**9.59**	**9.76**
Africa total	**4.57**	**4.58**	**4.50**	**4.66**	**4.66**	**4.68**	**4.59**	**4.76**	**4.78**	**4.80**	**4.71**	**4.88**	**4.58**	**4.67**	**4.79**
Asia and Oceania total	**38.41**	**37.67**	**36.91**	**37.84**	**39.13**	**38.33**	**37.04**	**38.34**	**39.68**	**38.94**	**37.99**	**39.01**	**37.70**	**38.21**	**38.90**
China	16.33	16.55	16.24	16.48	16.75	16.65	16.10	16.45	16.87	16.91	16.48	16.71	16.40	16.49	16.74
India	5.38	5.35	5.05	5.30	5.62	5.56	5.16	5.64	5.87	5.95	5.55	5.91	5.27	5.49	5.82
Japan	3.68	3.05	3.06	3.38	3.44	2.96	3.00	3.37	3.47	2.88	2.98	3.30	3.29	3.19	3.16
Real gross domestic product (c)															
World index, 2015 Q1 = 100	126.0	127.1	128.2	129.2	130.1	131.1	132.1	133.3	134.1	135.3	136.4	137.7	127.6	131.6	135.9
Percent change from prior year	2.8	3.5	3.2	3.3	3.2	3.1	3.1	3.1	3.1	3.2	3.3	3.3	3.2	3.1	3.2
OECD index, 2015 = 100	-	-	-	-	-	-	-	-	-	-	-	-	116.7	118.6	120.9
Percent change from prior year	-	-	-	-	-	-	-	-	-	-	-	-	1.8	1.7	1.9
Non-OECD index, 2015 = 100	-	-	-	-	-	-	-	-	-	-	-	-	134.9	140.6	146.6
Percent change from prior year	-	-	-	-	-	-	-	-	-	-	-	-	4.4	4.3	4.3
Nominal U.S. Dollar index (d)															
Index, 2015 Q1 = 100	114.1	113.4	114.0	115.6	114.8	116.6	116.6	118.2	120.6	120.6	120.4	120.3	114.3	116.5	120.5
Percent change from prior year	4.2	0.5	-2.7	-2.4	0.6	2.8	2.3	2.3	5.1	3.4	3.3	1.7	-0.2	2.0	3.4

(a) Consumption of petroleum by the OECD countries is the same as "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.

(b) 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.

(c) 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.

(d) 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 data source is the Board of Governors of the U.S. Federal Reserve System Nominal Broad Trade-Weighted Dollar Index accessed via Oxford Economics. Forecast data are from Oxford Economics, and quarterly values are reindexed to 2015 Q1 by EIA.

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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

Sources:

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

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 - December 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)															
U.S. total crude oil production (a)	**12.67**	**12.76**	**13.05**	**13.25**	**12.94**	**13.23**	**13.25**	**13.53**	**13.45**	**13.51**	**13.55**	**13.58**	**12.93**	**13.24**	**13.52**
Alaska	0.44	0.43	0.40	0.43	0.43	0.42	0.40	0.43	0.42	0.40	0.39	0.42	0.43	0.42	0.41
Federal Gulf of Mexico (b)	1.88	1.77	1.92	1.88	1.78	1.80	1.73	1.78	1.84	1.83	1.77	1.78	1.87	1.77	1.81
Lower 48 States (excl GOM) (c)	10.35	10.56	10.72	10.94	10.73	11.01	11.12	11.32	11.18	11.28	11.38	11.38	10.64	11.05	11.31
Appalachia region	0.15	0.15	0.15	0.16	0.15	0.16	0.16	0.16	0.18	0.19	0.19	0.19	0.15	0.16	0.19
Bakken region	1.13	1.16	1.25	1.30	1.22	1.23	1.22	1.36	1.35	1.34	1.36	1.36	1.21	1.26	1.35
Eagle Ford region	1.15	1.18	1.18	1.11	1.07	1.19	1.17	1.19	1.17	1.19	1.19	1.17	1.16	1.15	1.18
Haynesville region	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Permian region	5.76	5.82	5.91	6.12	6.11	6.26	6.40	6.54	6.44	6.51	6.56	6.62	5.91	6.33	6.53
Rest of Lower 48 States	2.12	2.20	2.20	2.21	2.15	2.14	2.15	2.05	2.01	2.03	2.06	2.02	2.18	2.12	2.03
Total Supply	**19.83**	**20.35**	**20.32**	**20.59**	**19.79**	**20.36**	**20.50**	**20.48**	**20.12**	**20.52**	**20.75**	**20.70**	**20.27**	**20.28**	**20.53**
Crude oil input to refineries	**15.25**	**16.15**	**16.52**	**15.93**	**15.39**	**16.47**	**16.54**	**16.34**	**15.49**	**16.23**	**16.38**	**15.79**	**15.97**	**16.19**	**15.97**
U.S. total crude oil production (a)	12.67	12.76	13.05	13.25	12.94	13.23	13.25	13.53	13.45	13.51	13.55	13.58	12.93	13.24	13.52
Transfers to crude oil supply	0.42	0.47	0.64	0.56	0.50	0.64	0.61	0.53	0.53	0.56	0.58	0.56	0.53	0.57	0.56
Crude oil net imports (d)	2.43	2.44	2.50	2.26	2.12	2.62	2.69	2.39	1.89	2.08	1.96	1.63	2.41	2.46	1.89
SPR net withdrawals (e)	0.01	0.26	-0.04	-0.04	-0.10	-0.10	-0.11	-0.16	-0.13	-0.03	0.00	0.00	0.05	-0.12	-0.04
Commercial inventory net withdrawals	-0.39	0.12	0.40	-0.09	-0.23	0.08	0.26	-0.01	-0.35	0.05	0.26	-0.05	0.01	0.03	-0.02
Crude oil adjustment (f)	0.10	0.11	-0.03	-0.01	0.16	0.01	-0.18	0.06	0.10	0.06	0.03	0.06	0.04	0.01	0.06
Refinery processing gain	**0.97**	**1.00**	**1.06**	**1.05**	**0.91**	**0.97**	**0.98**	**1.06**	**0.99**	**1.02**	**1.03**	**1.03**	**1.02**	**0.98**	**1.02**
Natural Gas Plant Liquids Production	**6.17**	**6.43**	**6.64**	**6.74**	**6.51**	**7.01**	**7.03**	**6.84**	**6.79**	**6.96**	**6.94**	**6.99**	**6.50**	**6.85**	**6.92**
Renewables and oxygenate production (g)	**1.24**	**1.29**	**1.31**	**1.35**	**1.34**	**1.33**	**1.40**	**1.40**	**1.39**	**1.39**	**1.41**	**1.44**	**1.30**	**1.37**	**1.41**
Fuel ethanol production	1.00	1.00	1.01	1.05	1.04	1.01	1.07	1.07	1.05	1.04	1.05	1.07	1.02	1.05	1.05
Petroleum products adjustment (h)	**0.20**	**0.22**	**0.23**	**0.23**	**0.21**	**0.22**	**0.22**	**0.22**	**0.21**	**0.21**	**0.21**	**0.22**	**0.22**	**0.22**	**0.21**
Petroleum products transfers to crude oil supply	**-0.42**	**-0.47**	**-0.64**	**-0.56**	**-0.50**	**-0.64**	**-0.61**	**-0.53**	**-0.53**	**-0.56**	**-0.58**	**-0.56**	**-0.53**	**-0.57**	**-0.56**
Petroleum product net imports (d)	**-3.89**	**-3.79**	**-4.19**	**-4.59**	**-4.53**	**-4.40**	**-4.90**	**-5.35**	**-4.52**	**-4.31**	**-4.39**	**-4.51**	**-4.12**	**-4.80**	**-4.43**
Hydrocarbon gas liquids	-2.48	-2.48	-2.50	-2.59	-2.59	-2.68	-2.76	-2.80	-2.84	-3.00	-2.91	-2.80	-2.51	-2.71	-2.89
Unfinished oils	0.28	0.27	0.21	0.18	0.09	0.21	0.12	0.24	0.20	0.27	0.27	0.20	0.24	0.16	0.24
Other hydrocarbons and oxygenates	-0.04	-0.06	-0.04	-0.05	-0.06	-0.08	-0.07	-0.08	-0.11	-0.11	-0.09	-0.09	-0.05	-0.07	-0.10
Total motor gasoline	-0.28	0.08	-0.11	-0.40	-0.36	0.00	-0.09	-0.51	-0.24	0.18	0.09	-0.21	-0.18	-0.24	-0.04
Jet fuel	-0.04	0.01	-0.06	-0.09	-0.09	-0.08	-0.11	-0.14	-0.13	-0.04	-0.01	-0.03	-0.05	-0.10	-0.05
Distillate fuel oil	-0.75	-0.96	-1.06	-1.02	-0.86	-1.20	-1.31	-1.27	-0.72	-0.89	-1.01	-0.89	-0.95	-1.16	-0.88
Residual fuel oil	0.01	-0.03	-0.03	-0.01	-0.03	-0.04	-0.06	-0.03	-0.01	-0.01	-0.05	-0.03	-0.02	-0.04	-0.02
Other oils (i)	-0.59	-0.61	-0.60	-0.62	-0.64	-0.54	-0.61	-0.76	-0.66	-0.71	-0.69	-0.67	-0.60	-0.64	-0.68
Petroleum product inventory net withdrawals	**0.31**	**-0.48**	**-0.61**	**0.43**	**0.46**	**-0.62**	**-0.15**	**0.50**	**0.31**	**-0.42**	**-0.25**	**0.32**	**-0.09**	**0.05**	**-0.01**
Consumption (million barrels per day)															
U.S. total petroleum products consumption	**19.83**	**20.35**	**20.32**	**20.59**	**19.80**	**20.36**	**20.50**	**20.48**	**20.12**	**20.52**	**20.75**	**20.70**	**20.28**	**20.29**	**20.53**
Hydrocarbon gas liquids	3.53	3.32	3.32	3.85	3.80	3.39	3.40	3.75	3.85	3.34	3.39	3.87	3.50	3.58	3.61
Other hydrocarbons and oxygenates	0.22	0.28	0.28	0.29	0.30	0.33	0.34	0.31	0.30	0.32	0.33	0.34	0.27	0.32	0.32
Motor gasoline	8.69	9.13	9.02	8.94	8.57	9.12	9.18	8.89	8.60	9.12	9.19	8.88	8.94	8.94	8.95
Jet fuel	1.55	1.68	1.72	1.66	1.58	1.73	1.76	1.71	1.61	1.79	1.80	1.71	1.65	1.70	1.73
Distillate fuel oil	4.03	3.92	3.83	3.88	3.82	3.73	3.76	3.88	4.00	3.95	3.90	3.99	3.92	3.80	3.96
Residual fuel oil	0.29	0.22	0.26	0.32	0.28	0.30	0.27	0.30	0.27	0.28	0.26	0.27	0.27	0.29	0.27
Other oils (i)	1.52	1.79	1.88	1.65	1.44	1.77	1.78	1.64	1.48	1.72	1.88	1.65	1.71	1.66	1.68
Total petroleum and other liquid fuels net imports (d)	**-1.46**	**-1.35**	**-1.69**	**-2.33**	**-2.41**	**-1.78**	**-2.20**	**-2.97**	**-2.62**	**-2.23**	**-2.43**	**-2.88**	**-1.71**	**-2.34**	**-2.54**
End-of-period inventories (million barrels)															
Total commercial inventory	**1230.0**	**1263.1**	**1282.4**	**1251.4**	**1230.3**	**1279.6**	**1269.5**	**1224.0**	**1227.0**	**1260.9**	**1260.5**	**1235.4**	**1251.4**	**1224.0**	**1235.4**
Crude oil (excluding SPR)	465.2	454.7	417.9	426.5	447.2	440.2	415.9	416.7	448.1	443.4	419.8	424.1	426.5	416.7	424.1
Hydrocarbon gas liquids	173.9	225.7	277.2	223.3	169.2	235.1	277.4	228.9	188.4	238.8	277.8	234.9	223.3	228.9	234.9
Unfinished oils	88.9	87.3	88.4	84.2	91.7	87.8	80.7	76.2	87.1	86.4	84.6	79.7	84.2	76.2	79.7
Other hydrocarbons and oxygenates	34.5	30.2	30.3	33.1	38.2	33.4	33.3	35.3	38.1	35.1	34.0	35.6	33.1	35.3	35.6
Total motor gasoline	225.2	222.1	227.9	240.7	233.4	232.4	219.7	231.2	228.3	220.6	217.3	235.2	240.7	231.2	235.2
Jet fuel	37.8	42.4	43.5	39.8	42.2	45.3	45.6	42.4	41.1	40.6	42.2	39.0	39.8	42.4	39.0
Distillate fuel oil	111.7	112.0	118.8	130.5	121.2	123.1	124.3	123.0	114.8	116.9	116.3	116.8	130.5	123.0	116.8
Residual fuel oil	29.6	30.5	27.8	24.1	29.9	27.5	24.2	22.1	23.7	23.9	22.3	22.4	24.1	22.1	22.4
Other oils (i)	63.2	58.2	50.6	49.3	57.3	54.9	48.2	48.0	57.3	55.3	46.2	47.8	49.3	48.0	47.8
Crude oil in SPR (e)	**371.2**	**347.2**	**351.3**	**354.7**	**363.9**	**373.1**	**382.9**	**397.6**	**409.5**	**412.5**	**412.5**	**412.5**	**354.7**	**397.6**	**412.5**

(a) Includes lease condensate.

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

(c) Regional production in this table is based on geographic regions and not geologic formations.

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

(e) SPR: Strategic Petroleum Reserve

(f) The crude oil adjustment equals the sum of disposition items (e.g. refinery inputs) minus the sum of supply items (e.g. production).

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

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

(i) Other oils includes aviation gasoline blending components, finished aviation gasoline, kerosene, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, and miscellaneous products.

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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

Sources:

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: Petroleum Supply Monthly; Petroleum Supply Annual; and Weekly Petroleum Status Report.
Forecasts: EIA Short-Term Integrated Forecasting System.

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

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

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
HGL production, consumption, and inventories															
Total HGL production	**6.62**	**7.24**	**7.37**	**7.09**	**6.95**	**7.81**	**7.73**	**7.20**	**7.26**	**7.81**	**7.71**	**7.36**	**7.08**	**7.42**	**7.53**
Natural gas processing plant production	**6.17**	**6.43**	**6.64**	**6.74**	**6.51**	**7.01**	**7.03**	**6.84**	**6.79**	**6.96**	**6.94**	**6.99**	**6.50**	**6.85**	**6.92**
Ethane	2.56	2.64	2.67	2.74	2.63	2.92	2.80	2.71	2.70	2.77	2.73	2.81	2.65	2.76	2.75
Propane	1.93	1.99	2.05	2.11	2.05	2.14	2.18	2.20	2.17	2.22	2.21	2.21	2.02	2.14	2.20
Butanes	1.01	1.05	1.09	1.10	1.07	1.12	1.15	1.17	1.18	1.19	1.20	1.20	1.06	1.13	1.19
Natural gasoline (pentanes plus)	0.68	0.75	0.83	0.80	0.75	0.84	0.89	0.76	0.74	0.78	0.81	0.77	0.76	0.81	0.78
Refinery and blender net production	**0.47**	**0.83**	**0.75**	**0.36**	**0.46**	**0.82**	**0.73**	**0.37**	**0.50**	**0.86**	**0.78**	**0.39**	**0.60**	**0.60**	**0.63**
Ethane/ethylene	0.01	0.00	0.01	0.02	0.01	-0.01	-0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01
Propane	0.27	0.29	0.28	0.27	0.27	0.28	0.28	0.27	0.29	0.31	0.30	0.29	0.28	0.27	0.30
Propylene (refinery-grade)	0.24	0.26	0.25	0.26	0.24	0.27	0.26	0.27	0.27	0.28	0.27	0.27	0.25	0.26	0.27
Butanes/butylenes	-0.05	0.29	0.21	-0.19	-0.05	0.28	0.21	-0.19	-0.07	0.27	0.20	-0.19	0.07	0.06	0.05
Renewable/oxygenate plant net production of natural gasoli	**-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**
Total HGL consumption	**3.53**	**3.32**	**3.32**	**3.85**	**3.80**	**3.39**	**3.40**	**3.75**	**3.85**	**3.34**	**3.39**	**3.87**	**3.50**	**3.58**	**3.61**
Ethane/Ethylene	2.07	2.19	2.11	2.26	2.24	2.26	2.27	2.25	2.23	2.25	2.26	2.27	2.16	2.26	2.25
Propane	0.98	0.56	0.62	0.96	1.02	0.53	0.52	0.92	1.11	0.54	0.58	1.02	0.78	0.75	0.81
Propylene (refinery-grade)	0.25	0.27	0.27	0.28	0.26	0.28	0.27	0.29	0.29	0.29	0.28	0.29	0.27	0.27	0.29
Butanes/butylenes	0.23	0.30	0.33	0.34	0.28	0.31	0.33	0.30	0.22	0.26	0.26	0.30	0.30	0.30	0.26
HGL net imports	**-2.48**	**-2.48**	**-2.50**	**-2.59**	**-2.59**	**-2.68**	**-2.76**	**-2.80**	**-2.84**	**-3.00**	**-2.91**	**-2.80**	**-2.51**	**-2.71**	**-2.89**
Ethane	-0.48	-0.49	-0.50	-0.41	-0.48	-0.46	-0.49	-0.50	-0.50	-0.51	-0.51	-0.55	-0.47	-0.48	-0.52
Propane/propylene	-1.44	-1.44	-1.46	-1.64	-1.60	-1.61	-1.67	-1.71	-1.61	-1.77	-1.70	-1.62	-1.50	-1.65	-1.68
Butanes/butylenes	-0.39	-0.38	-0.40	-0.41	-0.41	-0.47	-0.46	-0.43	-0.52	-0.55	-0.54	-0.47	-0.40	-0.44	-0.52
Natural gasoline (pentanes plus)	-0.16	-0.17	-0.13	-0.14	-0.11	-0.13	-0.14	-0.16	-0.20	-0.16	-0.16	-0.17	-0.15	-0.14	-0.17
HGL inventories (million barrels)	**173.9**	**225.7**	**277.2**	**223.3**	**169.2**	**235.1**	**277.4**	**228.9**	**188.4**	**238.8**	**277.8**	**234.9**	**223.3**	**228.9**	**234.9**
Ethane	54.5	51.5	57.3	65.8	58.3	75.3	77.2	74.1	71.8	73.6	71.2	71.5	65.8	74.1	71.5
Propane	55.22	79.2	101.4	79.7	51.7	75.1	97.9	82.3	56.6	73.6	92.8	79.4	79.7	82.3	79.4
Propylene (at refineries only)	1.13	1.1	1.2	0.9	0.9	1.3	1.3	1.3	1.2	1.5	1.7	1.5	0.9	1.3	1.5
Butanes/butylenes	40.3	70.5	90.0	50.1	35.1	59.2	76.4	48.9	39.2	69.3	90.5	61.7	50.1	48.9	61.7
Natural gasoline (pentanes plus)	22.9	23.4	27.3	26.8	23.2	24.2	24.6	22.3	19.6	20.7	21.5	20.8	26.8	22.3	20.8
Refining															
Total refinery and blender net inputs	**17.58**	**18.89**	**18.91**	**18.24**	**17.61**	**19.03**	**19.06**	**18.69**	**17.45**	**18.85**	**18.90**	**18.03**	**18.41**	**18.60**	**18.31**
Crude oil	15.25	16.15	16.52	15.93	15.39	16.47	16.54	16.34	15.49	16.23	16.38	15.79	15.97	16.19	15.97
HGL	0.66	0.49	0.56	0.78	0.69	0.56	0.60	0.74	0.62	0.47	0.53	0.72	0.62	0.64	0.59
Other hydrocarbons/oxygenates	1.13	1.20	1.21	1.18	1.12	1.20	1.20	1.17	1.12	1.18	1.20	1.17	1.18	1.17	1.17
Unfinished oils	0.19	0.20	-0.01	0.11	-0.03	0.09	0.08	0.18	-0.05	0.15	0.17	0.13	0.12	0.08	0.10
Motor gasoline blending components	0.36	0.85	0.64	0.23	0.43	0.71	0.64	0.26	0.27	0.82	0.62	0.24	0.52	0.51	0.49
Refinery Processing Gain	**0.97**	**1.00**	**1.06**	**1.05**	**0.91**	**0.97**	**0.98**	**1.06**	**0.99**	**1.02**	**1.03**	**1.03**	**1.02**	**0.98**	**1.02**
Total refinery and blender net production	**18.56**	**19.89**	**19.98**	**19.29**	**18.52**	**20.00**	**20.03**	**19.75**	**18.44**	**19.87**	**19.92**	**19.06**	**19.43**	**19.58**	**19.33**
HGL	0.47	0.83	0.75	0.36	0.46	0.82	0.73	0.37	0.50	0.86	0.78	0.39	0.60	0.60	0.63
Finished motor gasoline	9.29	9.83	9.81	9.65	9.24	9.80	9.73	9.73	9.04	9.62	9.64	9.46	9.65	9.63	9.44
Jet fuel	1.62	1.72	1.78	1.71	1.70	1.84	1.87	1.81	1.73	1.82	1.82	1.70	1.71	1.81	1.77
Distillate fuel oil	4.69	4.89	4.96	5.03	4.57	4.95	5.08	5.14	4.64	4.86	4.91	4.88	4.89	4.94	4.82
Residual fuel oil	0.27	0.27	0.27	0.28	0.37	0.31	0.29	0.31	0.29	0.29	0.30	0.29	0.27	0.32	0.30
Other oils (a)	2.21	2.35	2.40	2.26	2.17	2.28	2.33	2.39	2.25	2.40	2.47	2.33	2.30	2.29	2.36
Refinery distillation inputs	**15.76**	**16.74**	**17.02**	**16.47**	**15.80**	**16.96**	**16.95**	**16.65**	**15.92**	**16.64**	**16.84**	**16.21**	**16.50**	**16.59**	**16.40**
Refinery operable distillation capacity	**18.12**	**18.27**	**18.27**	**18.32**	**18.39**	**18.33**	**18.33**	**18.34**	**18.17**	**18.08**	**18.08**	**18.03**	**18.25**	**18.35**	**18.09**
Refinery distillation utilization factor	**0.87**	**0.92**	**0.93**	**0.90**	**0.86**	**0.93**	**0.92**	**0.91**	**0.88**	**0.92**	**0.93**	**0.90**	**0.90**	**0.90**	**0.91**

(a) Other oils include aviation gasoline blending components, finished aviation gasoline, kerosene, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, and miscellaneous products.

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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

Sources:

Table 4c. U.S. Regional Motor Gasoline Prices and Inventories

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

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Wholesale price (dollars per gallon)															
United States average	2.62	2.65	2.96	2.33	2.46	2.58	2.34	2.05	2.09	2.38	2.40	2.14	2.64	2.36	2.26
Retail prices (dollars per gallon) (a)															
All grades United States average	**3.49**	**3.69**	**3.87**	**3.48**	**3.36**	**3.68**	**3.48**	**3.20**	**3.20**	**3.42**	**3.42**	**3.19**	**3.64**	**3.43**	**3.31**
Regular grade United States average	**3.38**	**3.58**	**3.76**	**3.36**	**3.24**	**3.56**	**3.37**	**3.08**	**3.07**	**3.30**	**3.30**	**3.07**	**3.52**	**3.31**	**3.19**
PADD 1	3.30	3.44	3.61	3.25	3.19	3.45	3.29	3.01	2.98	3.18	3.19	2.95	3.40	3.24	3.08
PADD 2	3.24	3.48	3.60	3.14	3.07	3.39	3.28	2.94	2.92	3.16	3.16	2.91	3.37	3.18	3.04
PADD 3	3.02	3.15	3.34	2.85	2.86	3.12	2.94	2.64	2.71	2.90	2.91	2.65	3.09	2.89	2.79
PADD 4	3.57	3.59	3.93	3.32	2.92	3.38	3.40	3.01	2.87	3.14	3.29	3.22	3.61	3.18	3.14
PADD 5	4.18	4.52	4.80	4.55	4.13	4.59	4.11	3.93	3.90	4.16	4.14	3.92	4.52	4.19	4.03
End-of-period inventories (million barrels) (b)															
Total U.S. gasoline inventories	**225.2**	**222.1**	**227.9**	**240.7**	**233.4**	**232.4**	**219.7**	**231.2**	**228.3**	**220.6**	**217.3**	**235.2**	**240.7**	**231.2**	**235.2**
PADD 1	52.7	57.0	58.8	60.1	54.9	56.8	61.2	57.1	56.6	53.9	56.7	59.6	60.1	57.1	59.6
PADD 2	49.8	44.9	46.6	54.9	54.6	48.5	45.2	49.2	52.1	47.4	46.3	52.0	54.9	49.2	52.0
PADD 3	83.7	84.4	85.5	89.2	85.4	86.4	79.2	87.6	81.5	82.0	77.3	85.8	89.2	87.6	85.8
PADD 4	7.8	6.9	7.2	7.9	8.6	8.0	6.8	8.5	8.3	7.5	7.5	7.9	7.9	8.5	7.9
PADD 5	31.2	28.9	29.9	28.6	29.9	32.7	27.2	28.8	29.9	29.8	29.6	29.9	28.6	28.8	29.9

(a) Retail prices include all federal, state, and local taxes.

(b) Inventories include both finished motor gasoline and motor gasoline blending components

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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

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.

Sources:

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: Petroleum Marketing Monthly; *Petroleum Supply Monthly; Petroleum Supply Annual; and Weekly Petroleum Status Report.*

Forecasts: EIA Short-Term Integrated Forecasting System.

Table 4d. U.S. Biofuel Supply, Consumption, and Inventories

U.S. Energy Information Administration | Short-Term Energy Outlook - December 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)															
Total biofuels supply	**1.18**	**1.29**	**1.29**	**1.29**	**1.24**	**1.32**	**1.36**	**1.31**	**1.26**	**1.34**	**1.35**	**1.35**	**1.26**	**1.31**	**1.32**
Fuel ethanol production	1.00	1.00	1.01	1.05	1.04	1.01	1.07	1.07	1.05	1.04	1.05	1.07	1.02	1.05	1.05
Biodiesel production	0.10	0.11	0.11	0.11	0.10	0.11	0.11	0.11	0.10	0.11	0.11	0.10	0.11	0.11	0.11
Renewable diesel production	0.14	0.17	0.18	0.18	0.19	0.21	0.22	0.22	0.23	0.23	0.23	0.24	0.17	0.21	0.23
Other biofuel production (a)	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.02	0.02	0.04
Fuel ethanol net imports	-0.09	-0.09	-0.08	-0.10	-0.12	-0.13	-0.11	-0.13	-0.14	-0.12	-0.11	-0.12	-0.09	-0.12	-0.12
Biodiesel net imports	0.02	0.00	0.01	0.02	0.03	0.02	0.00	0.00	0.00	-0.01	-0.01	0.00	0.02	0.01	0.00
Renewable diesel net imports (b)	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.04	0.02
Other biofuel net imports (b)	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
Biofuel stock draw	-0.03	0.05	0.00	-0.03	-0.06	0.05	0.00	-0.02	-0.03	0.03	0.01	-0.02	0.00	-0.01	0.00
Total distillate fuel oil supply (c)	**4.23**	**4.19**	**4.10**	**4.16**	**4.10**	**4.04**	**4.09**	**4.18**	**4.29**	**4.25**	**4.20**	**4.30**	**4.17**	**4.10**	**4.26**
Distillate fuel production	4.69	4.89	4.96	5.03	4.57	4.95	5.08	5.14	4.64	4.86	4.91	4.88	4.89	4.94	4.82
Biodiesel production	0.10	0.11	0.11	0.11	0.10	0.11	0.11	0.11	0.10	0.11	0.11	0.10	0.11	0.11	0.11
Renewable diesel production	0.14	0.17	0.18	0.18	0.19	0.21	0.22	0.22	0.23	0.23	0.23	0.24	0.17	0.21	0.23
Distillate fuel oil net imports	-0.75	-0.96	-1.06	-1.02	-0.86	-1.20	-1.31	-1.27	-0.72	-0.89	-1.01	-0.89	-0.95	-1.16	-0.88
Biodiesel net imports	0.02	0.00	0.01	0.02	0.03	0.02	0.00	0.00	0.00	-0.01	-0.01	0.00	0.02	0.01	0.00
Renewable diesel net imports	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.04	0.02
Total distillate fuel stock draw	0.06	0.01	-0.08	-0.14	0.09	-0.02	0.00	-0.01	0.08	-0.01	0.01	-0.01	-0.04	0.02	0.02
Consumption (million barrels per day)															
Total biofuels consumption	**1.18**	**1.29**	**1.29**	**1.29**	**1.24**	**1.32**	**1.36**	**1.31**	**1.26**	**1.34**	**1.35**	**1.35**	**1.26**	**1.31**	**1.32**
Fuel ethanol blended into motor gasoline	0.90	0.94	0.94	0.94	0.88	0.93	0.95	0.94	0.89	0.94	0.95	0.94	0.93	0.92	0.93
Biodiesel consumption	0.11	0.13	0.13	0.13	0.13	0.13	0.12	0.10	0.10	0.11	0.11	0.10	0.13	0.12	0.10
Biodiesel product supplied (d)	0.07	0.08	0.09	0.09	0.08	0.08	0.08	0.06	0.05	0.06	0.06	0.06	0.08	0.08	0.06
Biodiesel net inputs (e)	0.04	0.05	0.05	0.04	0.04	0.05	0.04	0.04	0.04	0.05	0.05	0.04	0.05	0.04	0.05
Renewable diesel consumption	0.15	0.20	0.20	0.20	0.21	0.24	0.27	0.25	0.24	0.25	0.25	0.26	0.19	0.24	0.25
Renewable diesel product supplied	0.14	0.19	0.19	0.19	0.21	0.23	0.25	0.24	0.23	0.24	0.24	0.24	0.18	0.23	0.24
Renewable diesel net inputs	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Other biofuel consumption	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.02	0.02	0.04
Total motor gasoline consumption	**8.69**	**9.13**	**9.02**	**8.94**	**8.57**	**9.12**	**9.18**	**8.89**	**8.60**	**9.12**	**9.19**	**8.88**	**8.94**	**8.94**	**8.95**
Petroleum-based gasoline	7.79	8.19	8.09	8.00	7.69	8.19	8.23	7.95	7.71	8.18	8.24	7.94	8.02	8.02	8.02
Fuel ethanol blended into motor gasoline	0.90	0.94	0.94	0.94	0.88	0.93	0.95	0.94	0.89	0.94	0.95	0.94	0.93	0.92	0.93
Total distillate fuel oil consumption (f)	**4.23**	**4.19**	**4.10**	**4.16**	**4.11**	**4.04**	**4.09**	**4.18**	**4.29**	**4.25**	**4.20**	**4.30**	**4.17**	**4.10**	**4.26**
Distillate fuel oil	4.03	3.92	3.83	3.88	3.82	3.73	3.76	3.88	4.00	3.95	3.90	3.99	3.92	3.80	3.96
Petroleum-based distillate	3.97	3.86	3.77	3.83	3.77	3.66	3.70	3.83	3.95	3.89	3.84	3.94	3.86	3.74	3.90
Biodiesel net inputs (g)	0.04	0.05	0.05	0.04	0.04	0.05	0.04	0.04	0.04	0.05	0.05	0.04	0.05	0.04	0.05
Renewable diesel net inputs	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Biodiesel product supplied (h)	0.07	0.08	0.09	0.09	0.08	0.08	0.08	0.06	0.05	0.06	0.06	0.06	0.08	0.08	0.06
Renewable diesel product supplied (h)	0.14	0.19	0.19	0.19	0.21	0.23	0.25	0.24	0.23	0.24	0.24	0.24	0.18	0.23	0.24
End-of-period inventories (million barrels)															
Total biofuels inventories	**34.47**	**30.18**	**30.31**	**33.10**	**38.23**	**33.36**	**33.28**	**35.32**	**38.11**	**35.07**	**33.96**	**35.58**	**33.10**	**35.32**	**35.58**
Ethanol	24.97	22.31	22.16	23.50	27.19	22.61	23.47	23.79	25.95	23.75	23.17	23.92	23.50	23.79	23.92
Biodiesel	5.13	4.00	3.63	3.81	4.40	3.73	3.16	4.05	4.40	3.54	3.01	3.40	3.81	4.05	3.40
Renewable diesel	3.80	3.81	4.13	4.71	6.32	6.38	6.12	6.56	7.06	7.15	7.17	7.40	4.11	6.35	7.20
Other biofuels	0.31	0.29	0.26	0.32	0.30	0.40	0.53	0.64	0.64	0.64	0.64	0.64	0.30	0.47	0.64
Total distillate fuel oil inventories	**120.86**	**119.56**	**126.71**	**139.78**	**131.86**	**133.41**	**133.46**	**133.93**	**126.35**	**127.56**	**126.49**	**127.80**	**139.78**	**133.93**	**127.80**
Distillate fuel oil	111.69	111.99	118.84	130.49	121.16	123.12	124.30	123.04	114.83	116.88	116.34	116.77	130.49	123.04	116.77
Biodiesel	5.13	4.00	3.63	3.81	4.40	3.73	3.16	4.05	4.40	3.54	3.01	3.40	3.81	4.05	3.40
Renewable diesel	3.80	3.81	4.13	4.71	6.32	6.38	6.12	6.56	7.06	7.15	7.17	7.40	4.11	6.35	7.20

(a) Includes renewable heating oil, renewable jet fuel (sustainable aviation fuel, alternative jet fuel, and biojet), renewable naphtha, renewable gasoline, and other emerging biofuels that are in various stages of development and commercialization

(b) Renewable diesel net imports and other biofuel net imports equal imports because we do not collect or receive export data for those fuels.

(c) Total distillate fuel oil supply equals the sum of the seven components shown minus refiner and blender net inputs of biodiesel and renewable diesel, which are listed in rows 44 and 45 of this table.

(d) The volumes of renewable fuels that are not reported as blended with petroleum fuels.

(e) The volumes of renewable fuels that are reported as blended with petroleum fuels.

(f) Equals the sum of distillate fuel oil, biodiesel product supplied, and renewable diesel product supplied.

(g) Prior to 2021, we did not publish biodiesel product supplied and instead included it as part of distillate fuel oil product supplied.

(h) Prior to 2021, we did not publish renewable diesel product supplied, and STEO values for that period are taken from the U.S. Environmental Protection Agency's Moderated Transaction System.

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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

Sources:

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: Petroleum Supply Monthly; Petroleum Supply Annual; and Weekly Petroleum Status Report.
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 - December 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)															
U.S. total marketed natural gas production	**111.2**	**112.5**	**113.6**	**115.2**	**113.3**	**112.1**	**113.2**	**113.4**	**113.0**	**114.0**	**113.5**	**114.0**	**113.1**	**113.0**	**113.6**
Alaska	1.1	1.0	0.9	1.0	1.1	1.0	0.9	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0
Federal Gulf of Mexico (a)	2.1	1.9	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	2.0	1.8	1.7
Lower 48 States (excl GOM) (b)	108.0	109.6	110.7	112.2	110.4	109.3	110.5	110.5	110.2	111.3	111.0	111.3	110.1	110.2	110.9
Appalachia region	35.4	35.7	36.0	36.7	35.9	34.9	35.5	34.9	35.7	35.3	34.6	34.5	35.9	35.3	35.0
Bakken region	2.9	3.0	3.2	3.3	3.2	3.3	3.3	3.1	3.1	3.2	3.3	3.3	3.1	3.2	3.2
Eagle Ford region	6.5	6.6	6.7	6.7	6.7	6.8	6.4	6.8	6.8	7.0	7.1	7.1	6.6	6.7	7.0
Haynesville region	16.5	16.6	16.5	16.2	15.9	14.4	14.7	15.0	14.9	15.2	15.4	15.6	16.5	15.0	15.3
Permian region	21.5	22.4	23.0	23.8	23.7	24.4	25.5	25.6	25.1	26.2	26.3	26.8	22.7	24.8	26.1
Rest of Lower 48 States	25.1	25.2	25.2	25.5	25.0	25.3	25.2	25.1	24.7	24.4	24.3	24.0	25.3	25.2	24.4
Total primary supply	**102.9**	**77.9**	**84.0**	**91.8**	**104.1**	**78.7**	**85.8**	**93.5**	**105.7**	**77.5**	**84.7**	**93.0**	**89.1**	**90.5**	**90.2**
Balancing item (c)	0.4	-0.6	-1.2	-0.5	-0.1	-1.6	-0.6	0.9	0.6	-0.2	1.9	1.7	-0.5	-0.4	1.0
Total supply	**102.6**	**78.5**	**85.2**	**92.3**	**104.3**	**80.3**	**86.4**	**92.6**	**105.2**	**77.7**	**82.8**	**91.3**	**89.6**	**90.9**	**89.2**
U.S. total dry natural gas production	102.2	103.2	104.1	105.5	104.0	102.0	103.2	103.5	103.3	104.0	103.6	103.9	103.8	103.2	103.7
Net inventory withdrawals	12.0	-11.7	-6.4	0.3	12.7	-9.6	-4.9	2.7	16.1	-11.0	-5.9	3.2	-1.5	0.2	0.6
Supplemental gaseous fuels	0.2	0.2	0.2	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3
Net imports	-11.8	-13.2	-12.6	-13.7	-12.8	-12.5	-12.1	-13.8	-14.5	-15.6	-15.3	-16.1	-12.8	-12.8	-15.4
LNG gross imports (d)	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1
LNG gross exports (d)	11.4	11.8	11.4	13.0	12.4	11.3	11.4	12.8	13.9	13.5	13.0	14.5	11.9	12.0	13.7
Pipeline gross imports	8.4	7.3	7.9	8.2	8.9	7.8	8.4	8.1	8.7	7.4	7.6	7.9	8.0	8.3	7.9
Pipeline gross exports	8.9	8.7	9.2	8.9	9.4	8.9	9.2	9.2	9.4	9.5	9.9	9.6	8.9	9.2	9.6
Consumption (billion cubic feet per day)															
Total consumption	**102.9**	**77.9**	**84.0**	**91.8**	**104.1**	**78.7**	**85.8**	**93.5**	**105.7**	**77.5**	**84.7**	**93.0**	**89.1**	**90.5**	**90.2**
Residential	23.5	7.3	3.6	15.0	22.8	6.7	3.5	15.5	24.3	7.3	3.8	16.1	12.3	12.1	12.8
Commercial	14.5	6.4	4.7	10.7	14.3	6.3	4.9	11.0	15.1	6.7	5.3	11.4	9.1	9.1	9.6
Industrial	24.8	22.4	22.0	24.3	24.9	22.3	22.2	23.9	25.0	22.1	21.8	24.1	23.4	23.3	23.3
Electric power (e)	30.7	33.3	45.0	32.7	32.7	34.9	46.3	33.9	31.7	32.8	45.0	32.2	35.5	37.0	35.4
Lease and plant fuel	5.3	5.4	5.4	5.5	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Pipeline and distribution	3.9	2.9	3.1	3.4	3.9	3.0	3.2	3.5	4.0	2.9	3.2	3.5	3.3	3.4	3.4
Vehicle	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
End-of-period working natural gas inventories (billion cubic feet) (f)															
United States total	**1,850**	**2,902**	**3,490**	**3,457**	**2,306**	**3,175**	**3,616**	**3,371**	**1,920**	**2,917**	**3,456**	**3,160**	**3,457**	**3,371**	**3,160**
East region	334	646	853	787	369	670	862	762	320	598	822	730	787	762	730
Midwest region	417	701	993	950	507	781	1,022	906	413	693	975	871	950	906	871
South Central region	919	1,138	1,092	1,183	1,007	1,172	1,122	1,160	813	1,093	1,099	1,088	1,183	1,160	1,088
Mountain region	79	171	239	228	168	238	282	247	152	224	245	212	228	247	212
Pacific region	74	216	278	280	231	286	296	267	198	282	283	229	280	267	229
Alaska	27	30	35	30	24	28	33	29	24	27	32	28	30	29	28

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

(b) Regional production in this table is based on geographic regions and not geologic formations.

(c) The balancing item is the difference between total natural gas consumption (NGTCPUS) and total natural gas supply (NGPSUPP).

(d) LNG: liquefied natural gas

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

(f) 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)* .

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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

Sources:

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: Natural Gas Monthly; and Electric Power Monthly.

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 - December 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Wholesale price															
Henry Hub spot price	2.75	2.25	2.69	2.84	2.21	2.16	2.19	2.54	3.06	2.53	3.13	3.53	2.63	2.28	3.06
Residential retail (a)															
United States average	14.72	16.19	22.33	13.72	12.75	16.86	23.05	13.68	12.34	14.89	20.46	12.93	15.19	14.37	13.50
New England	21.06	20.48	22.57	18.66	19.12	20.55	23.81	18.68	18.41	19.22	22.22	17.77	20.33	19.50	18.62
Middle Atlantic	15.60	16.03	20.74	14.33	13.44	15.93	21.52	14.31	12.77	14.10	18.94	13.32	15.64	14.60	13.58
East North Central	11.06	13.26	22.96	10.49	9.29	14.65	23.38	11.10	9.48	12.92	21.30	10.46	11.91	11.41	11.00
West North Central	13.24	15.41	22.07	11.29	10.61	15.63	22.81	11.81	10.30	13.33	19.94	10.64	13.42	12.35	11.36
South Atlantic	17.33	20.92	30.29	16.00	14.48	21.80	31.82	16.13	14.39	19.47	27.21	15.42	18.39	17.21	16.43
East South Central	13.63	16.66	23.41	13.47	11.57	16.14	24.30	12.82	11.29	14.98	21.30	12.36	14.56	13.21	12.70
West South Central	14.58	19.81	28.70	16.42	12.62	22.47	28.94	16.24	12.49	17.94	24.18	13.90	17.00	16.29	14.62
Mountain	12.61	13.86	18.75	12.88	12.56	13.92	17.38	11.30	10.64	12.26	16.72	11.19	13.29	12.72	11.51
Pacific	20.13	17.11	18.10	17.87	17.72	17.23	19.09	17.30	17.45	16.13	17.30	16.40	18.74	17.65	16.87
Commercial retail (a)															
United States average	11.82	10.48	10.89	9.82	9.82	10.42	11.01	9.07	8.81	9.17	9.80	8.73	10.89	9.82	8.96
New England	15.21	13.66	12.55	12.15	12.88	12.86	12.11	11.17	11.33	11.64	11.76	11.10	13.74	12.25	11.36
Middle Atlantic	11.94	9.25	8.06	9.48	10.49	10.16	9.26	8.65	9.03	8.18	7.70	8.33	10.23	9.74	8.51
East North Central	9.20	8.63	10.65	7.73	7.41	8.99	11.26	7.22	6.98	7.77	9.71	7.00	8.79	7.87	7.30
West North Central	11.58	11.33	11.77	8.39	8.53	9.83	11.31	8.27	8.03	8.50	9.70	7.55	10.66	8.86	8.08
South Atlantic	12.97	11.26	11.39	10.73	10.36	10.35	10.66	9.39	9.29	9.80	10.15	9.59	11.75	10.10	9.58
East South Central	11.89	10.94	11.80	10.55	9.91	10.09	11.54	9.73	8.87	9.71	10.71	9.55	11.30	10.08	9.42
West South Central	11.01	9.68	10.37	9.73	9.20	9.86	10.33	9.05	8.07	8.55	9.25	8.42	10.31	9.45	8.44
Mountain	10.89	10.77	12.16	10.66	10.30	10.15	10.38	8.71	8.58	8.96	9.80	8.50	10.92	9.79	8.74
Pacific	16.85	12.61	13.49	13.58	14.05	12.48	13.95	13.02	13.31	12.20	12.48	12.16	14.59	13.39	12.61
Industrial retail (a)															
United States average	6.12	3.76	3.87	4.38	4.47	3.35	3.30	3.44	4.14	3.23	3.63	4.30	4.59	3.67	3.85
New England	13.56	10.07	7.88	9.28	11.17	9.58	7.00	7.93	9.06	8.21	6.99	8.27	10.66	9.40	8.27
Middle Atlantic	11.94	8.97	7.89	9.35	10.14	9.19	8.17	7.80	8.35	7.57	7.53	8.38	10.34	9.31	8.13
East North Central	9.18	6.67	6.91	6.22	6.54	6.33	5.95	5.45	5.78	5.78	5.90	6.04	7.62	6.10	5.87
West North Central	8.23	4.54	4.33	4.69	5.21	3.39	3.50	3.86	4.97	3.98	4.12	4.95	5.64	4.03	4.55
South Atlantic	6.92	4.78	5.01	5.36	5.14	4.53	4.64	4.52	5.21	4.45	4.83	5.42	5.57	4.72	5.00
East South Central	5.46	3.74	4.09	4.32	4.13	3.40	3.76	3.94	4.68	3.89	4.29	4.91	4.44	3.82	4.47
West South Central	3.39	2.22	2.71	2.79	2.47	1.96	2.20	2.78	3.32	2.61	3.17	3.68	2.77	2.40	3.20
Mountain	8.90	7.73	8.05	7.76	8.17	6.84	6.23	5.73	5.75	5.63	5.97	5.90	8.19	6.86	5.80
Pacific	10.84	8.16	8.03	9.02	8.82	7.46	7.56	7.75	8.26	7.07	7.05	7.42	9.22	8.03	7.52

(a) For a list of states in each region see "Census division" in EIA's Energy Glossary (http://www.eia.doe.gov/glossary/index.html).

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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

Prices are not adjusted for inflation.

Regions refer to U.S. Census divisions.

Sources:

Historical data: Latest data available from Energy Information Administration databases supporting the Natural Gas Monthly. Henry Hub spot price is from Refinitiv,an LSEG company, via EIA (https://www.eia.gov/dnav/pet/pet_pri_spt_s1_d.htm).

Forecasts: EIA Short-Term Integrated Forecasting System.

Table 6. U.S. Coal Supply, Consumption, and Inventories (million short tons)

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

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Supply															
Total supply	**105.6**	**100.2**	**139.1**	**102.8**	**101.9**	**95.5**	**126.7**	**91.9**	**102.6**	**81.3**	**126.6**	**98.9**	**447.8**	**416.0**	**409.4**
Secondary inventory withdrawals	-20.2	-20.7	11.2	-15.0	-2.2	0.3	12.3	-7.8	4.8	-6.7	25.3	7.4	-44.7	2.7	30.7
Waste coal (a)	2.0	1.9	2.2	2.3	2.3	2.0	1.2	1.2	1.2	1.2	1.2	1.2	8.3	6.8	4.8
Total primary supply	**123.8**	**119.1**	**125.8**	**115.6**	**101.8**	**93.1**	**113.1**	**98.5**	**96.7**	**86.8**	**100.2**	**90.3**	**484.1**	**406.5**	**373.9**
U.S. total coal production	**148.8**	**142.5**	**145.8**	**140.8**	**129.9**	**118.1**	**136.2**	**124.7**	**122.1**	**110.7**	**122.3**	**117.3**	**578.0**	**508.8**	**472.3**
Appalachia	43.1	42.6	40.2	39.6	39.6	39.8	39.7	37.3	38.1	34.6	32.6	33.2	165.6	156.5	138.4
Interior	25.3	23.5	22.6	22.3	22.2	20.3	21.7	20.0	21.3	18.2	18.4	17.5	93.7	84.3	75.3
Western	80.4	76.4	83.0	78.9	68.1	58.0	74.7	67.3	62.8	57.9	71.3	66.7	318.7	268.1	258.6
Net imports	**-23.5**	**-23.7**	**-23.6**	**-25.4**	**-26.5**	**-25.3**	**-26.6**	**-26.0**	**-24.9**	**-23.9**	**-24.2**	**-26.9**	**-96.2**	**-104.3**	**-99.9**
Gross imports	1.0	1.0	1.0	1.0	0.3	0.5	0.7	0.8	0.6	0.8	1.1	0.8	4.0	2.4	3.2
Gross exports	24.5	24.7	24.6	26.3	26.8	25.8	27.3	26.8	25.5	24.6	25.3	27.7	100.2	106.7	103.1
Metallurgical coal	12.1	12.7	13.5	12.7	14.3	13.8	13.5	11.9	12.2	13.1	13.0	13.5	51.1	53.5	51.8
Steam coal	12.4	12.0	11.1	13.6	12.5	12.0	13.8	14.9	13.3	11.5	12.2	14.2	49.1	53.3	51.2
Primary inventory withdrawals	**-1.6**	**0.3**	**3.6**	**0.1**	**-1.6**	**0.3**	**3.5**	**-0.1**	**-0.5**	**0.0**	**2.1**	**0.0**	**2.4**	**2.1**	**1.5**
Consumption															
U.S. total coal consumption	**101.8**	**91.5**	**132.0**	**100.8**	**100.3**	**90.9**	**120.3**	**94.5**	**102.6**	**81.3**	**126.6**	**98.9**	**426.0**	**406.0**	**409.4**
Coke plants	4.0	3.9	4.0	4.0	3.9	3.9	3.8	3.7	3.7	3.8	3.8	3.9	15.8	15.2	15.2
Electric power sector (b)	91.2	82.0	122.7	91.3	90.8	82.0	111.6	85.1	93.1	72.5	117.7	89.1	387.2	369.4	372.5
Retail and other industry	6.5	5.6	5.3	5.5	5.7	5.0	5.0	5.7	5.8	5.0	5.1	5.9	22.9	21.4	21.7
Residential and commercial	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.3	0.1	0.1	0.2	0.7	0.7	0.8
Other industrial	6.3	5.5	5.1	5.3	5.4	4.9	4.8	5.5	5.5	4.8	4.9	5.7	22.2	20.7	20.9
Discrepancy (c)	**3.9**	**8.7**	**7.1**	**2.1**	**1.6**	**4.5**	**6.3**	**-2.5**	**0.0**	**0.0**	**0.0**	**0.0**	**21.8**	**10.0**	**0.0**
End-of-period inventories	**135.7**	**156.1**	**141.3**	**156.2**	**160.0**	**159.4**	**152.5**	**151.5**	**147.2**	**153.9**	**126.6**	**119.2**	**156.2**	**151.5**	**119.2**
Primary inventories (d)	22.4	22.1	18.5	18.4	20.0	19.7	16.2	16.3	16.9	16.9	14.8	14.8	18.4	16.3	14.8
Secondary inventories	113.3	134.0	122.8	137.8	140.0	139.7	127.4	135.1	130.4	137.1	111.8	104.4	137.8	135.1	104.4
Electric power sector	109.0	129.4	118.3	133.3	135.7	135.4	122.8	130.5	126.5	133.0	107.4	100.0	133.3	130.5	100.0
Retail and general industry	2.5	2.8	2.7	2.9	2.8	2.6	2.9	2.9	2.4	2.6	2.8	2.9	2.9	2.9	2.9
Coke plants	1.7	1.7	1.7	1.6	1.4	1.6	1.5	1.5	1.3	1.4	1.4	1.4	1.6	1.5	1.4
Commercial & institutional	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2
Coal market indicators															
Coal miner productivity (tons per hour)	6.75	6.75	6.75	6.75	6.56	6.56	6.56	6.56	6.27	6.27	6.27	6.27	6.75	6.56	6.27
Total raw steel production (million short tons)	21.23	22.17	22.51	22.30	22.22	22.36	22.72	21.79	22.47	23.54	24.23	24.23	88.20	89.08	94.46
Cost of coal to electric utilities (dollars per million Btu)	2.56	2.48	2.50	2.50	2.50	2.54	2.45	2.40	2.41	2.41	2.40	2.38	2.51	2.47	2.40

(a) Waste coal includes waste coal and cloal 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.

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

Sources:

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: Quarterly Coal Report; and Electric Power Monthly.

Table 7a. U.S. Electricity Industry Overview

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

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Electricity supply (billion kilowatthours)															
Total utility-scale power supply	**998**	**994**	**1,211**	**999**	**1,027**	**1,046**	**1,220**	**1,029**	**1,039**	**1,052**	**1,253**	**1,040**	**4,202**	**4,322**	**4,384**
Electricity generation (a)	**990**	**988**	**1,208**	**997**	**1,025**	**1,045**	**1,213**	**1,025**	**1,033**	**1,046**	**1,245**	**1,035**	**4,183**	**4,308**	**4,359**
Electric power sector	952	951	1,167	957	986	1,008	1,173	986	995	1,007	1,204	995	4,029	4,153	4,201
Industrial sector	34	33	36	35	35	33	35	35	34	34	36	36	139	138	140
Commercial sector	4	4	4	4	4	4	4	4	4	4	5	5	16	17	18
Net imports	**8**	**6**	**3**	**2**	**2**	**1**	**7**	**4**	**6**	**6**	**8**	**5**	**19**	**14**	**24**
Small-scale solar generation (c)	**14**	**22**	**22**	**16**	**17**	**25**	**25**	**17**	**19**	**28**	**28**	**19**	**73**	**84**	**94**
Residential sector	9	15	15	11	12	17	17	11	13	19	19	13	49	57	63
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
Losses and Unaccounted for (b)	39	53	48	49	52	64	60	59	46	58	62	52	190	236	218
Electricity consumption (billion kilowatthours)															
Total consumption	**958**	**941**	**1,162**	**950**	**974**	**982**	**1,160**	**970**	**993**	**994**	**1,191**	**988**	**4,012**	**4,086**	**4,165**
Sales to ultimate customers	**925**	**908**	**1,126**	**915**	**940**	**949**	**1,125**	**935**	**958**	**960**	**1,154**	**952**	**3,874**	**3,948**	**4,024**
Residential sector	354	318	454	324	362	342	454	336	370	341	464	338	1,450	1,494	1,513
Commercial sector	329	338	401	339	331	348	398	344	337	350	406	348	1,408	1,420	1,442
Industrial sector	240	251	269	250	244	257	271	254	249	266	282	265	1,009	1,026	1,063
Transportation sector	2	2	2	2	2	2	2	2	2	2	2	2	7	7	7
Direct use (d)	**34**	**33**	**36**	**35**	**35**	**33**	**35**	**35**	**34**	**34**	**37**	**36**	**138**	**138**	**141**
Average residential electricity usage per customer (kWh)	2,515	2,256	3,224	2,302	2,546	2,404	3,187	2,359	2,568	2,370	3,224	2,343	10,297	10,496	10,506
End-of-period fuel inventories held by electric power sector															
Coal (million short tons)	109.0	129.4	118.3	133.3	135.7	135.4	122.8	130.5	126.5	133.0	107.4	100.0	133.3	130.5	100.0
Residual fuel (million barrels)	6.1	6.0	6.1	6.1	6.0	5.8	5.3	5.4	3.7	3.6	1.8	2.6	6.1	5.4	2.6
Distillate fuel (million barrels)	17.5	17.5	16.8	17.6	17.0	16.9	17.0	17.2	17.1	16.9	16.8	17.0	17.6	17.2	17.0
Prices															
Power generation fuel costs (dollars per million Btu)															
Coal	2.56	2.48	2.50	2.50	2.50	2.54	2.45	2.40	2.41	2.41	2.40	2.38	2.51	2.47	2.40
Natural gas	4.96	2.61	2.94	3.20	3.37	2.37	2.37	2.79	3.45	2.67	3.04	3.66	3.36	2.69	3.20
Residual fuel oil	19.21	17.89	19.32	20.87	18.84	18.55	17.84	14.22	13.57	14.49	14.13	13.93	19.36	17.40	13.98
Distillate fuel oil	22.96	19.97	22.30	22.18	20.14	19.55	18.46	16.56	16.38	17.32	18.69	18.90	21.87	18.54	17.75
Prices to ultimate customers (cents per kilowatthour)															
Residential sector	15.81	16.11	16.00	16.10	16.02	16.55	16.69	16.12	16.08	16.89	17.02	16.58	16.00	16.37	16.66
Commercial sector	12.50	12.30	13.02	12.47	12.69	12.74	13.48	12.66	12.82	13.13	13.93	13.06	12.59	12.92	13.27
Industrial sector	7.99	7.76	8.57	7.81	7.86	8.02	8.68	7.89	8.00	8.12	8.72	7.92	8.04	8.13	8.20
Wholesale electricity prices (dollars per megawatthour)															
ERCOT North hub	28.05	57.27	188.81	33.85	32.53	39.94	33.54	27.44	27.03	22.32	32.27	28.60	77.00	33.36	27.55
CAISO SP15 zone	92.54	30.00	67.59	50.54	33.41	7.97	43.12	34.84	35.16	29.87	38.59	42.02	60.17	29.84	36.41
ISO-NE Internal hub	52.63	32.55	40.41	39.84	47.50	34.50	45.87	48.26	76.32	49.18	62.86	62.00	41.36	44.03	62.59
NYISO Hudson Valley zone	44.65	31.38	39.45	36.35	43.48	33.82	42.06	40.29	45.08	41.81	48.74	46.56	37.96	39.91	45.55
PJM Western hub	36.49	35.41	43.27	42.17	35.76	37.75	49.70	41.36	46.25	39.98	49.47	43.58	39.34	41.14	44.82
Midcontinent ISO Illinois hub	31.39	32.13	40.60	33.58	32.52	30.38	37.95	31.02	34.84	32.15	38.10	34.15	34.42	32.97	34.81
SPP ISO South hub	28.96	34.56	46.96	28.50	31.66	33.95	47.92	50.64	46.32	44.80	58.94	49.26	34.74	41.04	49.83
SERC index, Into Southern	30.53	31.66	36.45	30.40	27.96	29.20	31.53	30.44	31.69	29.41	34.67	32.19	32.26	29.78	31.99
FRCC index, Florida Reliability	30.31	33.06	36.79	32.05	30.01	31.81	33.26	31.23	33.00	33.88	37.77	35.28	33.05	31.58	34.98
Northwest index, Mid-Columbia	105.99	58.61	82.36	79.49	99.74	32.91	60.98	50.70	54.73	44.25	57.60	65.28	81.61	61.08	55.46
Southwest index, Palo Verde	84.19	31.60	71.95	50.10	29.62	11.22	50.17	34.80	36.02	34.76	44.90	42.90	59.46	31.45	39.65

(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.

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

kWh = kilowatthours. Btu = British thermal units.

Prices are not adjusted for inflation.

Sources:

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).

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

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

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
All sectors (a)	**924.8**	**908.3**	**1,126.2**	**915.0**	**939.6**	**948.6**	**1,124.7**	**934.8**	**958.4**	**959.6**	**1,154.0**	**952.2**	**3,874.3**	**3,947.7**	**4,024.2**
New England	28.1	25.2	31.6	26.4	28.5	26.3	30.3	26.2	28.9	26.2	30.5	26.1	111.3	111.4	111.7
Middle Atlantic	86.7	79.3	100.1	83.1	87.1	83.6	101.7	82.5	88.7	83.9	103.5	83.7	349.2	354.9	359.8
E. N. Central	133.7	127.5	148.8	129.3	136.5	134.3	153.5	131.0	139.8	134.9	158.0	133.4	539.4	555.2	566.1
W. N. Central	78.4	74.5	86.3	74.8	79.4	75.8	87.1	76.7	83.1	77.2	91.2	78.6	313.9	318.9	330.1
S. Atlantic	196.8	201.6	251.7	199.5	204.1	214.2	249.7	203.7	207.9	216.6	256.5	206.8	849.6	871.7	887.8
E. S. Central	73.0	71.0	88.8	70.7	77.0	74.9	90.0	71.8	77.1	74.5	90.9	72.2	303.6	313.7	314.8
W. S. Central	157.3	166.4	218.7	163.4	158.7	171.4	205.0	170.7	165.5	177.3	217.0	178.6	705.8	705.8	738.4
Mountain	68.8	71.0	90.3	69.2	69.9	76.1	94.3	71.8	70.6	76.8	94.2	72.4	299.4	312.1	313.9
Pacific contiguous	98.2	88.2	106.0	94.6	94.6	88.5	109.3	96.6	93.2	88.6	108.4	96.4	387.0	388.9	386.6
AK and HI	3.7	3.6	3.8	3.9	3.7	3.6	3.8	3.9	3.7	3.6	3.8	3.9	15.0	15.0	15.1
Residential sector	**354.2**	**317.7**	**454.0**	**324.1**	**362.3**	**342.2**	**453.6**	**335.9**	**370.0**	**341.4**	**464.5**	**337.6**	**1,450.0**	**1,494.0**	**1,513.5**
New England	12.3	9.8	13.8	10.9	12.7	10.9	13.4	11.0	13.2	10.9	13.6	11.0	46.7	48.0	48.8
Middle Atlantic	33.1	27.4	40.1	30.2	33.7	30.6	41.2	30.2	34.9	30.5	42.0	30.4	130.9	135.8	137.8
E. N. Central	46.3	39.6	52.2	41.5	47.1	43.6	54.7	42.9	49.5	43.1	56.6	43.2	179.5	188.3	192.4
W. N. Central	29.0	23.9	30.5	24.0	28.8	24.1	30.5	25.1	30.9	24.4	32.5	25.5	107.4	108.5	113.4
S. Atlantic	86.6	83.2	117.1	83.7	91.6	92.0	116.5	86.6	93.3	92.8	120.1	87.4	370.6	386.6	393.6
E. S. Central	28.8	25.0	36.6	25.6	32.1	27.5	37.6	26.2	32.3	27.4	38.2	26.5	115.9	123.4	124.4
W. S. Central	52.1	53.0	87.6	49.8	52.8	55.9	78.8	52.4	53.2	55.2	82.3	52.5	242.5	239.9	243.2
Mountain	25.3	24.6	36.4	23.4	24.4	26.8	38.1	24.7	24.4	26.4	37.1	24.4	109.7	114.0	112.4
Pacific contiguous	39.4	30.2	38.7	33.9	37.8	29.7	41.7	35.5	37.0	29.6	40.9	35.3	142.2	144.7	142.8
AK and HI	1.2	1.1	1.1	1.3	1.2	1.1	1.2	1.3	1.2	1.1	1.2	1.3	4.7	4.8	4.8
Commercial sector	**329.3**	**338.0**	**401.3**	**339.5**	**331.1**	**347.6**	**398.0**	**343.7**	**337.4**	**350.3**	**405.9**	**348.0**	**1,408.1**	**1,420.4**	**1,441.6**
New England	12.0	11.6	13.8	11.8	12.3	11.7	12.8	11.6	12.2	11.6	12.9	11.5	49.3	48.4	48.1
Middle Atlantic	35.2	33.3	40.1	34.7	35.1	34.2	40.9	34.4	35.7	34.6	41.9	35.0	143.3	144.6	147.3
E. N. Central	42.4	42.0	48.1	42.2	43.4	43.8	50.0	42.6	44.3	44.2	51.5	43.4	174.7	179.7	183.4
W. N. Central	25.9	26.0	29.5	25.9	25.9	26.5	30.0	26.7	27.0	26.7	30.9	27.1	107.3	109.0	111.7
S. Atlantic	77.0	83.5	98.7	82.1	78.7	86.6	96.7	83.4	80.9	87.7	99.3	84.8	341.3	345.4	352.7
E. S. Central	20.6	21.7	27.0	21.4	21.5	23.1	27.2	21.7	21.3	22.7	27.1	21.4	90.8	93.4	92.5
W. S. Central	49.9	54.3	66.8	53.4	49.7	54.9	62.6	54.2	51.4	55.1	64.3	55.2	224.3	221.5	226.1
Mountain	24.2	25.4	30.5	25.2	24.7	26.9	31.8	26.0	25.2	27.4	32.3	26.5	105.3	109.4	111.4
Pacific contiguous	40.7	38.9	45.5	41.3	38.6	38.7	44.5	41.7	38.1	38.9	44.3	41.6	166.4	163.5	163.0
AK and HI	1.3	1.3	1.4	1.4	1.3	1.3	1.4	1.4	1.3	1.3	1.4	1.4	5.4	5.4	5.4
Industrial sector	**239.7**	**250.9**	**269.0**	**249.7**	**244.4**	**257.1**	**271.3**	**253.7**	**249.3**	**266.3**	**282.0**	**265.0**	**1,009.3**	**1,026.4**	**1,062.7**
New England	3.7	3.7	3.9	3.6	3.5	3.6	3.9	3.5	3.4	3.6	3.8	3.5	14.9	14.4	14.3
Middle Atlantic	17.4	17.7	19.0	17.4	17.3	17.9	18.6	17.1	17.2	18.0	18.8	17.4	71.5	70.9	71.5
E. N. Central	45.0	45.9	48.4	45.5	45.8	46.8	48.7	45.4	45.8	47.5	49.8	46.7	184.7	186.7	189.9
W. N. Central	23.4	24.6	26.3	24.9	24.7	25.2	26.6	24.8	25.2	26.0	27.7	26.0	99.2	101.3	104.9
S. Atlantic	32.9	34.6	35.7	33.4	33.6	35.4	36.2	33.5	33.5	35.8	36.8	34.3	136.6	138.6	140.4
E. S. Central	23.6	24.4	25.2	23.7	23.4	24.3	25.3	23.9	23.5	24.5	25.6	24.3	96.9	96.9	97.9
W. S. Central	55.2	59.0	64.3	60.2	56.2	60.6	63.6	64.0	60.8	67.0	70.3	70.8	238.7	244.3	268.9
Mountain	19.3	21.0	23.4	20.6	20.7	22.4	24.3	21.1	20.9	22.9	24.7	21.5	84.2	88.6	90.0
Pacific contiguous	17.9	18.8	21.6	19.2	18.0	19.8	22.9	19.1	17.8	19.9	23.0	19.3	77.6	79.9	80.0
AK and HI	1.1	1.2	1.3	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.3	1.3	4.8	4.8	4.9

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

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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).

Sources:

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

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

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

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
All sectors (a)															
United States average ...	12.60	12.38	13.16	12.48	12.72	12.83	13.62	12.61	12.82	13.07	13.90	12.87	12.68	12.98	13.20
New England	24.48	22.59	21.98	22.26	23.16	22.00	23.22	22.74	23.41	22.80	24.63	24.54	22.81	22.80	23.87
Middle Atlantic	15.36	14.73	16.11	15.22	15.59	15.77	17.06	15.67	16.10	16.22	17.54	16.09	15.40	16.07	16.54
E. N. Central	12.16	11.93	12.02	11.80	12.06	12.30	12.54	12.16	12.38	12.57	12.83	12.43	11.98	12.27	12.56
W. N. Central	9.82	10.55	11.42	9.83	10.01	10.70	11.61	9.88	10.09	10.90	11.88	10.12	10.44	10.58	10.78
S. Atlantic	11.88	11.76	12.04	11.81	12.09	11.97	12.19	11.57	11.87	11.97	12.39	11.83	11.88	11.97	12.04
E. S. Central	10.94	10.57	10.91	10.67	11.05	10.97	11.19	10.92	11.34	11.26	11.47	11.19	10.78	11.04	11.32
W. S. Central	9.73	9.33	10.49	9.39	9.39	9.50	10.20	9.36	9.51	9.75	10.51	9.41	9.79	9.64	9.84
Mountain	10.54	11.01	11.79	10.73	10.71	11.31	11.83	10.62	10.60	11.49	12.16	11.13	11.07	11.17	11.41
Pacific	17.56	18.48	21.31	18.99	19.18	20.66	23.45	19.89	19.73	21.36	23.96	20.27	19.15	20.89	21.43
Residential sector															
United States average ...	15.81	16.11	16.00	16.10	16.02	16.55	16.69	16.12	16.08	16.89	17.02	16.58	16.00	16.37	16.66
New England	30.79	29.65	27.09	27.66	27.62	26.55	27.73	27.39	27.30	27.28	29.52	29.96	28.73	27.36	28.52
Middle Atlantic	19.75	19.12	19.83	19.58	19.94	20.50	21.19	20.23	20.62	21.24	21.83	20.90	19.60	20.51	21.18
E. N. Central	16.16	16.58	15.94	16.19	16.05	16.89	16.51	16.50	16.26	17.37	16.94	16.98	16.19	16.48	16.87
W. N. Central	11.80	13.47	14.17	12.60	12.32	14.00	14.76	12.45	12.15	14.19	14.91	12.77	13.02	13.41	13.52
S. Atlantic	14.20	14.65	14.43	14.54	14.52	14.67	14.54	14.11	14.20	14.68	14.73	14.47	14.45	14.47	14.54
E. S. Central	13.16	13.19	12.93	13.26	13.23	13.58	13.28	13.56	13.60	14.07	13.59	13.92	13.11	13.39	13.77
W. S. Central	13.66	13.67	13.61	13.85	13.46	13.88	14.06	13.54	13.19	13.97	14.10	13.68	13.68	13.77	13.78
Mountain	12.94	13.84	14.07	13.70	13.59	14.42	14.33	13.74	13.59	14.66	14.97	14.75	13.68	14.07	14.55
Pacific	19.98	22.33	23.96	21.92	22.04	25.17	26.01	22.81	22.96	26.38	26.83	23.14	22.03	24.01	24.82
Commercial sector															
United States average ...	12.50	12.30	13.02	12.47	12.69	12.74	13.48	12.66	12.82	13.13	13.93	13.06	12.59	12.92	13.27
New England	20.62	19.11	18.72	19.33	20.51	19.77	20.66	20.34	21.09	20.64	21.82	21.72	19.42	20.33	21.33
Middle Atlantic	14.79	14.82	16.31	15.18	15.04	15.59	16.74	15.38	15.30	15.96	17.24	15.82	15.32	15.73	16.13
E. N. Central	11.99	12.04	11.89	11.85	12.06	12.35	12.27	12.07	12.25	12.60	12.53	12.35	11.94	12.19	12.44
W. N. Central	9.78	10.44	11.19	9.73	9.89	10.46	11.31	9.72	9.96	10.76	11.71	10.08	10.31	10.38	10.66
S. Atlantic	11.11	10.74	10.69	10.80	11.17	10.86	10.87	10.55	10.85	10.83	11.05	10.81	10.82	10.86	10.89
E. S. Central	12.49	12.03	12.01	12.04	12.47	12.32	12.32	12.33	12.73	12.70	12.71	12.70	12.13	12.36	12.71
W. S. Central	9.24	8.75	9.49	8.95	8.91	8.94	9.34	9.59	10.13	10.66	10.80	10.33	9.13	9.21	10.50
Mountain	10.34	11.02	11.58	10.68	10.57	11.22	11.56	10.50	10.23	11.14	11.87	10.91	10.94	11.00	11.09
Pacific	17.70	18.33	22.08	19.20	19.45	20.37	24.31	19.90	19.54	20.42	24.48	20.23	19.42	21.11	21.27
Industrial sector															
United States average ...	7.99	7.76	8.57	7.81	7.86	8.02	8.68	7.89	8.00	8.12	8.72	7.92	8.04	8.13	8.20
New England	16.36	15.22	15.75	15.90	16.55	15.87	16.37	16.32	17.01	16.49	17.18	17.21	15.81	16.28	16.98
Middle Atlantic	8.21	7.80	7.87	7.75	8.36	8.12	8.70	8.28	8.75	8.32	8.79	8.33	7.91	8.37	8.55
E. N. Central	8.22	7.83	7.94	7.79	7.95	7.99	8.35	8.15	8.32	8.21	8.49	8.30	7.94	8.11	8.33
W. N. Central	7.43	7.84	8.48	7.28	7.43	7.78	8.34	7.47	7.69	7.97	8.49	7.55	7.77	7.77	7.94
S. Atlantic	7.60	7.28	7.98	7.45	7.64	7.66	8.22	7.54	7.86	7.76	8.38	7.65	7.58	7.77	7.92
E. S. Central	6.88	6.57	6.81	6.64	6.77	6.72	6.85	6.76	6.97	6.80	6.98	6.86	6.72	6.77	6.90
W. S. Central	6.46	5.96	7.30	6.08	5.99	5.96	6.28	5.75	5.77	5.54	6.06	5.52	6.47	5.99	5.72
Mountain	7.66	7.67	8.52	7.40	7.49	7.70	8.26	7.14	7.54	8.26	8.31	7.31	7.84	7.67	7.88
Pacific	11.99	12.70	15.06	13.44	12.62	14.50	17.20	14.49	13.49	15.85	17.99	15.23	13.38	14.85	15.79

(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.

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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).

Sources:

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

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

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

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
United States															
Total generation	**952.5**	**951.5**	**1,167.6**	**957.5**	**986.2**	**1,007.5**	**1,173.3**	**985.6**	**994.7**	**1,007.4**	**1,203.9**	**994.8**	**4,029.0**	**4,152.6**	**4,200.9**
Natural gas	371.2	394.0	535.9	398.7	394.8	409.0	552.7	413.0	378.5	385.4	537.2	391.3	1,699.9	1,769.5	1,692.4
Coal	156.6	140.7	215.8	157.4	156.9	143.6	193.9	147.2	160.6	125.6	203.1	154.3	670.6	641.6	643.7
Nuclear	194.5	182.6	205.2	192.5	197.0	190.8	202.3	190.8	198.2	192.8	208.6	197.4	774.9	780.9	797.0
Renewable energy sources:	225.9	230.2	206.1	204.9	233.7	260.5	221.4	228.9	253.1	301.7	253.3	247.1	867.1	944.5	1,055.2
Conventional hydropower	63.7	68.7	59.9	51.5	65.0	62.9	58.9	55.0	66.0	76.0	63.1	57.3	243.9	241.8	262.4
Wind	123.3	102.5	84.7	110.4	121.7	123.8	85.5	117.6	125.3	128.8	90.2	123.6	420.9	448.6	468.0
Solar (a)	29.3	49.9	51.9	33.5	37.8	65.0	67.8	46.8	52.6	88.3	90.4	56.6	164.6	217.3	287.9
Biomass	5.5	5.1	5.6	5.1	5.1	5.0	5.3	5.2	5.3	5.1	5.5	5.2	21.4	20.6	21.1
Geothermal	4.2	4.0	3.9	4.3	4.0	3.9	3.9	4.3	3.9	3.5	4.0	4.4	16.4	16.1	15.8
Pumped storage hydropower	-1.6	-1.3	-1.9	-1.2	-1.2	-1.2	-2.1	-0.7	-1.3	-2.5	-3.3	-1.1	-6.0	-5.2	-8.2
Petroleum (b)	4.0	3.5	4.5	3.4	3.6	3.5	3.9	4.8	4.5	3.3	3.9	4.7	15.4	15.8	16.4
Other fossil gases	0.8	0.8	0.9	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.8	3.3	2.9	3.2
Other nonrenewable fuels (c)	0.9	0.9	0.8	0.8	0.7	0.6	0.6	0.6	0.4	0.2	0.2	0.3	3.4	2.6	1.2
New England (ISO-NE)															
Total generation	**24.0**	**21.9**	**28.7**	**24.0**	**25.9**	**24.7**	**29.1**	**25.5**	**25.4**	**23.9**	**29.7**	**24.8**	**98.5**	**105.1**	**103.8**
Natural gas	11.5	13.3	17.0	13.4	13.2	12.0	17.1	14.9	12.3	11.8	17.5	11.3	55.2	57.1	52.9
Coal	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.2	0.0	0.1	0.1	0.2	0.2	0.4
Nuclear	7.1	3.4	6.9	5.8	7.0	7.3	6.9	5.4	7.0	6.0	7.1	7.1	23.2	26.6	27.3
Conventional hydropower	2.3	2.1	2.2	2.0	2.5	2.1	1.9	2.0	2.1	2.2	1.2	1.8	8.5	8.6	7.3
Nonhydro renewables (d)	2.6	2.9	2.5	2.4	2.8	3.1	2.9	2.7	3.1	3.6	3.5	4.0	10.4	11.5	14.1
Other energy sources (e)	0.4	0.2	0.2	0.2	0.3	0.2	0.2	0.5	0.8	0.2	0.3	0.5	1.0	1.1	1.8
Net energy for load (f)	29.0	25.6	32.2	27.9	29.6	27.0	31.9	27.8	29.5	27.1	33.5	29.0	114.7	116.4	119.1
New York (NYISO)															
Total generation	**30.0**	**29.0**	**36.3**	**32.1**	**32.7**	**32.4**	**36.7**	**32.0**	**31.0**	**30.7**	**38.0**	**32.1**	**127.3**	**133.8**	**131.9**
Natural gas	13.7	13.6	20.7	15.5	15.9	15.5	21.3	15.4	14.6	13.9	21.4	14.9	63.5	68.1	64.7
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	6.8	6.6	6.9	7.2	6.5	7.2	6.4	7.0	6.7	7.0	7.2	7.2	27.5	27.1	28.0
Conventional hydropower	7.4	6.9	7.0	7.1	7.7	7.1	6.8	7.0	6.9	6.9	6.9	7.1	28.4	28.6	27.7
Nonhydro renewables (d)	1.9	2.0	1.6	2.2	2.4	2.6	2.2	2.6	2.5	3.0	2.6	2.9	7.7	9.7	10.9
Other energy sources (e)	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.4	0.0	0.0	0.1	0.3	0.3	0.6
Net energy for load (f)	36.1	33.3	42.1	35.5	37.0	35.7	42.4	35.7	37.2	36.0	45.1	36.9	147.0	150.8	155.2
Mid-Atlantic (PJM)															
Total generation	**206.3**	**191.7**	**238.7**	**203.6**	**217.8**	**207.7**	**241.5**	**204.0**	**218.8**	**204.5**	**247.7**	**210.6**	**840.3**	**871.0**	**881.7**
Natural gas	87.4	82.7	113.7	88.1	95.5	90.9	117.3	89.5	90.8	88.8	117.8	90.0	371.9	393.2	387.3
Coal	34.7	29.1	43.5	31.6	36.2	34.9	40.0	29.5	42.1	29.2	43.5	34.8	138.8	140.6	149.5
Nuclear	67.6	65.7	70.6	68.8	68.9	64.4	70.4	67.6	67.5	66.4	71.4	67.6	272.6	271.3	272.9
Conventional hydropower	2.8	2.0	1.7	2.3	3.0	2.1	1.9	2.2	2.7	2.6	1.7	2.1	8.9	9.3	9.2
Nonhydro renewables (d)	13.4	12.0	9.2	12.6	14.0	15.3	11.9	14.4	15.7	17.7	13.7	15.6	47.2	55.6	62.8
Other energy sources (e)	0.4	0.2	0.0	0.3	0.2	0.2	0.0	0.7	0.0	-0.1	-0.4	0.4	0.9	1.1	-0.1
Net energy for load (f)	200.0	183.4	223.0	194.3	207.2	199.4	227.5	198.6	211.0	196.2	235.5	200.5	800.6	832.6	843.1
Southeast (SERC)															
Total generation	**146.0**	**147.0**	**179.1**	**145.3**	**153.0**	**158.4**	**180.3**	**146.9**	**150.4**	**155.2**	**183.3**	**146.1**	**617.5**	**638.5**	**635.0**
Natural gas	61.2	61.8	76.5	59.3	58.8	63.2	82.7	61.3	57.3	62.3	80.5	57.7	258.8	266.0	257.8
Coal	17.4	20.2	32.4	19.3	23.3	24.4	28.7	18.2	20.7	18.3	28.0	18.0	89.2	94.7	85.0
Nuclear	51.7	52.4	57.4	57.4	55.9	56.8	55.6	53.8	56.4	58.7	60.5	57.0	218.9	222.0	232.6
Conventional hydropower	10.9	5.8	6.2	4.7	9.6	6.2	6.2	8.2	9.8	7.6	6.9	7.5	27.7	30.2	31.8
Nonhydro renewables (d)	5.0	7.0	7.1	5.1	5.4	8.0	7.5	5.6	6.4	9.6	8.8	6.3	24.2	26.6	31.1
Other energy sources (e)	-0.3	-0.2	-0.5	-0.4	0.0	-0.3	-0.5	-0.2	-0.2	-1.2	-1.4	-0.5	-1.4	-1.1	-3.3
Net energy for load (f)	131.4	131.9	162.0	132.1	140.3	142.6	162.1	135.3	137.5	139.3	164.8	133.4	557.4	580.4	575.0
Florida (FRCC)															
Total generation	**53.9**	**65.5**	**77.2**	**57.1**	**54.7**	**68.4**	**79.0**	**60.3**	**56.1**	**66.4**	**76.7**	**59.4**	**253.7**	**262.4**	**258.6**
Natural gas	39.6	50.6	60.4	44.0	41.5	51.9	62.9	47.4	40.6	49.3	58.4	44.3	194.5	203.7	192.6
Coal	2.7	2.6	3.9	2.5	1.4	2.3	3.0	1.3	1.9	2.0	4.1	2.1	11.7	8.0	10.1
Nuclear	7.4	7.5	8.0	7.1	7.5	7.5	7.3	6.8	7.8	7.4	7.5	7.7	29.9	29.1	30.4
Conventional hydropower	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.2	0.2	0.2
Nonhydro renewables (d)	3.6	4.3	4.2	3.1	4.0	6.1	5.2	4.3	5.2	7.3	6.1	4.7	15.2	19.6	23.3
Other energy sources (e)	0.6	0.5	0.6	0.4	0.3	0.5	0.5	0.4	0.5	0.4	0.6	0.4	2.1	1.7	1.9
Net energy for load (f)	55.4	67.3	79.7	57.9	53.8	70.1	80.2	58.9	55.3	68.6	79.8	60.7	260.3	263.1	264.4

(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 fossil 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.

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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.

Sources:

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 - December 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Midwest (MISO)															
Total generation	**144.0**	**141.1**	**166.9**	**141.7**	**146.2**	**149.1**	**170.4**	**147.6**	**151.2**	**144.8**	**171.7**	**148.9**	**593.7**	**613.1**	**616.7**
Natural gas	44.8	52.5	63.7	46.4	48.1	54.1	69.0	50.3	47.4	51.7	65.5	45.8	207.4	221.4	210.4
Coal	43.0	38.0	57.3	44.9	42.8	38.1	51.3	40.1	42.4	32.8	52.4	43.1	183.2	172.3	170.7
Nuclear	23.4	21.1	24.3	18.4	20.9	21.8	25.1	22.8	22.5	20.9	24.2	24.0	87.2	90.5	91.6
Conventional hydropower	2.7	2.7	1.5	1.7	2.3	2.1	2.0	2.0	2.4	2.8	2.3	2.2	8.6	8.5	9.7
Nonhydro renewables (d)	29.2	26.1	18.8	29.4	31.4	32.4	22.5	31.0	35.7	35.7	26.6	32.6	103.4	117.3	130.5
Other energy sources (e)	0.9	0.7	1.4	0.8	0.7	0.5	0.4	1.5	0.9	0.8	0.9	1.3	3.9	3.1	3.9
Net energy for load (f)	158.6	157.9	184.3	155.2	159.9	160.1	182.5	161.1	162.6	159.4	187.9	162.0	656.0	663.5	671.9
Central (Southwest Power Pool)															
Total generation	**73.7**	**71.1**	**86.3**	**71.7**	**75.8**	**75.9**	**88.4**	**76.1**	**76.4**	**75.0**	**88.8**	**72.4**	**302.8**	**316.3**	**312.5**
Natural gas	16.2	21.9	30.0	18.5	20.1	22.7	31.6	19.3	19.7	20.3	28.6	17.2	86.5	93.7	85.8
Coal	18.3	16.0	25.1	16.2	17.7	15.5	25.6	17.8	18.0	13.5	26.4	14.9	75.6	76.7	72.8
Nuclear	4.3	4.3	4.3	4.4	4.3	3.2	4.1	3.6	4.2	4.2	4.2	3.1	17.2	15.2	15.6
Conventional hydropower	3.0	3.0	3.5	2.3	3.3	2.9	2.8	2.6	3.3	4.1	3.6	3.0	11.8	11.6	14.0
Nonhydro renewables (d)	31.7	25.7	23.0	30.0	30.2	31.2	24.1	32.4	31.1	32.6	25.9	33.9	110.5	118.0	123.5
Other energy sources (e)	0.3	0.3	0.3	0.3	0.3	0.4	0.2	0.3	0.2	0.3	0.1	0.3	1.2	1.2	0.9
Net energy for load (f)	73.1	72.1	88.3	71.4	75.6	75.9	89.5	75.1	76.2	73.9	89.4	71.8	304.8	316.1	311.3
Texas (ERCOT)															
Total generation	**94.3**	**108.5**	**137.7**	**100.1**	**102.3**	**115.7**	**133.1**	**110.1**	**106.4**	**121.4**	**143.5**	**114.6**	**440.6**	**461.2**	**485.9**
Natural gas	36.4	50.8	73.7	43.3	42.9	51.5	69.1	46.2	40.9	45.4	67.8	44.3	204.2	209.7	198.4
Coal	10.9	14.6	19.0	14.5	12.0	12.4	18.2	14.0	13.5	12.9	19.6	15.1	59.0	56.7	61.0
Nuclear	10.5	9.0	10.9	10.3	10.0	9.1	10.6	9.0	10.7	10.0	10.7	10.2	40.7	38.6	41.5
Conventional hydropower	0.1	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.3	0.5	0.6
Nonhydro renewables (d)	36.1	33.7	33.7	31.7	36.9	42.3	34.7	40.5	40.9	52.8	45.1	44.9	135.1	154.4	183.6
Other energy sources (e)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	1.2	1.2	0.8
Net energy for load (f)	94.1	109.8	140.6	100.0	101.0	117.8	134.8	110.1	106.4	121.4	143.5	114.6	444.5	463.7	485.9
Northwest															
Total generation	**96.9**	**87.6**	**103.1**	**92.8**	**93.2**	**86.8**	**99.8**	**91.8**	**95.6**	**92.2**	**105.4**	**94.1**	**380.4**	**371.6**	**387.4**
Natural gas	27.6	18.7	30.8	26.9	27.2	20.7	31.7	27.6	24.1	14.3	29.1	25.4	104.1	107.3	93.0
Coal	22.2	15.8	25.7	22.3	17.4	11.1	19.1	20.6	17.1	12.0	22.3	21.5	86.0	68.3	72.9
Nuclear	2.4	1.0	2.5	2.5	2.5	2.5	2.5	2.5	2.4	1.2	2.4	2.4	8.4	10.0	8.5
Conventional hydropower	26.1	32.7	25.5	24.3	26.8	27.8	25.9	24.4	31.2	37.6	29.3	27.1	108.6	104.9	125.2
Nonhydro renewables (d)	18.4	19.1	18.4	16.6	19.0	24.6	20.5	16.4	20.6	26.9	22.1	17.4	72.5	80.5	87.0
Other energy sources (e)	0.2	0.2	0.2	0.2	0.3	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.8	0.7	0.7
Net energy for load (f)	92.1	82.1	93.3	88.0	93.4	86.2	97.1	90.5	91.5	86.7	99.6	92.2	355.4	367.2	370.1
Southwest															
Total generation	**34.3**	**35.9**	**45.9**	**35.9**	**34.6**	**37.1**	**46.4**	**38.0**	**35.4**	**39.0**	**49.9**	**39.3**	**152.0**	**156.1**	**163.5**
Natural gas	11.8	16.0	22.0	16.2	12.4	15.3	23.1	16.9	12.3	14.0	22.2	16.7	66.0	67.6	65.2
Coal	6.0	3.7	7.1	4.9	5.1	4.0	5.6	4.4	3.7	4.1	6.5	4.3	21.8	19.0	18.6
Nuclear	8.6	6.8	8.6	7.6	8.7	7.4	8.7	7.4	8.4	7.4	8.6	7.5	31.5	32.3	31.9
Conventional hydropower	1.4	2.5	2.1	1.4	1.7	2.2	1.6	1.5	1.7	2.1	2.0	1.6	7.4	7.0	7.4
Nonhydro renewables (d)	6.5	6.9	6.1	5.8	6.8	8.2	7.4	7.8	9.3	11.5	10.4	9.2	25.3	30.2	40.4
Other energy sources (e)	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	-0.1	0.1	0.0	0.1	0.0	0.0
Net energy for load (f)	23.0	27.4	38.0	24.3	23.5	29.7	38.7	26.1	24.3	30.3	38.9	25.8	112.6	118.0	119.3
California															
Total generation	**45.4**	**48.6**	**63.8**	**49.5**	**46.5**	**47.9**	**64.7**	**49.4**	**44.4**	**50.7**	**65.3**	**48.7**	**207.4**	**208.6**	**209.1**
Natural gas	20.2	11.4	26.8	26.2	18.6	10.7	26.0	23.4	17.9	12.9	27.7	22.9	84.5	78.6	81.4
Coal	1.1	0.6	1.7	1.1	0.7	0.6	2.0	0.8	0.5	0.5	0.0	0.0	4.4	4.2	1.0
Nuclear	4.7	4.9	4.9	3.2	4.9	3.6	4.9	4.9	4.6	3.7	4.7	3.6	17.7	18.3	16.7
Conventional hydropower	6.7	10.5	9.6	5.1	7.2	9.8	9.3	4.5	5.5	9.5	8.5	4.4	32.0	30.8	27.9
Nonhydro renewables (d)	13.5	21.4	21.0	14.1	15.4	23.2	23.0	15.8	16.2	24.4	24.8	17.8	69.9	77.4	83.3
Other energy sources (e)	-0.7	-0.2	-0.1	-0.2	-0.3	-0.1	-0.3	0.0	-0.3	-0.3	-0.5	-0.1	-1.1	-0.7	-1.2
Net energy for load (f)	59.1	58.6	75.5	62.1	57.7	60.7	79.1	63.8	59.5	64.8	82.2	64.1	255.4	261.2	270.6

(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 fossil 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.

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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.

Sources:

Table 7e. U.S. Electricity Generating Capacity (gigawatts at end of period)

U.S. Energy Information Administration | Short-Term Energy Outlook - December 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	487.7	488.1	488.9	489.1	488.0	488.8	490.0	489.2	490.5	491.3	490.8	488.9	490.0	490.8
Coal	184.6	180.9	178.8	177.0	175.8	174.5	174.2	173.8	173.8	170.5	168.7	162.7	177.0	173.8	162.7
Petroleum	28.2	28.0	28.0	28.0	28.0	27.9	27.9	27.5	27.5	26.5	26.5	26.3	28.0	27.5	26.3
Other fossil gases	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3
Renewable energy sources															
Wind	142.5	143.6	144.3	147.3	148.5	149.8	151.0	153.9	155.0	156.8	158.2	162.6	147.3	153.9	162.6
Solar photovoltaic	73.3	77.0	80.0	89.8	96.1	102.5	106.7	127.0	132.6	138.1	139.8	151.8	89.8	127.0	151.8
Solar thermal	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.5	1.4	1.4
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	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Wood biomass	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Conventional hydroelectric	79.7	79.7	79.7	79.7	79.5	79.5	79.5	79.6	79.6	79.6	79.6	79.6	79.7	79.6	79.6
Pumped storage hydroelectric	23.1	23.1	23.1	23.1	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.1	23.2	23.2
Nuclear	94.6	94.6	95.7	95.7	96.5	97.6	97.6	97.6	97.6	97.6	97.6	97.6	95.7	97.6	97.6
Battery storage	9.6	10.8	13.5	16.0	16.9	19.9	22.4	30.5	32.3	37.8	38.4	43.5	16.0	30.5	43.5
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	18.7	18.7	18.7	18.6	18.6	18.6	18.6	18.5	18.4	18.5	18.5	18.5	18.6	18.5	18.5
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	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.4	1.5	1.5
Other fossil gases	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
Renewable energy sources															
Wood biomass	5.5	5.5	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Waste biomass	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.3	1.3
Solar	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7	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	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Small-scale solar photovoltaic capacity (systems smaller than one megawatt)															
All sectors total	**41.6**	**43.7**	**45.9**	**47.8**	**49.2**	**50.5**	**51.9**	**53.5**	**55.3**	**57.0**	**58.8**	**60.6**	**47.8**	**53.5**	**60.6**
Residential sector	27.7	29.4	31.2	32.6	33.6	34.4	35.3	36.4	37.6	38.8	40.1	41.3	32.6	36.4	41.3
Commercial sector	11.5	11.8	12.2	12.6	13.0	13.5	13.9	14.4	14.8	15.3	15.8	16.3	12.6	14.4	16.3
Industrial sector	2.4	2.4	2.5	2.6	2.6	2.6	2.7	2.8	2.8	2.9	2.9	3.0	2.6	2.8	3.0

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

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

Capacity values represent the amount of generating capacity that is operating (or expected to be operating) at the end of each period.

factors.

Sources:

Historical data: Utility-scale capacity (power plants larger than one megawatt): EIA-860 Annual Survey and EIA-860M Preliminary Monthly Electric Generator Inventory, September 2024.

Small-scale solar capacity (systems smaller than one megawatt): Form EIA-861M Monthly Electric Power Industry Report.

Historical capacity data may differ from other EIA publications due to frequent updates to the Preliminary Monthly Electric Generator Inventory.

Table 8. U.S. Renewable Energy Consumption (quadrillion Btu)

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

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
All Sectors	**2.039**	**2.119**	**2.057**	**2.038**	**2.094**	**2.237**	**2.150**	**2.165**	**2.197**	**2.432**	**2.306**	**2.262**	**8.253**	**8.646**	**9.196**
Biodiesel, renewable diesel, and other (g)	0.139	0.173	0.175	0.174	0.177	0.193	0.203	0.188	0.183	0.198	0.201	0.204	0.660	0.762	0.785
Biofuel losses and co-products (d)	0.198	0.201	0.206	0.214	0.209	0.204	0.214	0.219	0.209	0.209	0.214	0.217	0.819	0.846	0.850
Ethanol (f)	0.280	0.297	0.299	0.300	0.279	0.294	0.304	0.299	0.276	0.296	0.303	0.299	1.177	1.176	1.173
Geothermal	0.030	0.029	0.029	0.031	0.030	0.029	0.029	0.031	0.029	0.028	0.030	0.031	0.119	0.119	0.118
Hydroelectric power (a)	0.219	0.236	0.205	0.176	0.223	0.216	0.203	0.188	0.226	0.260	0.216	0.196	0.836	0.830	0.899
Solar (b)(f)	0.162	0.264	0.272	0.182	0.202	0.328	0.337	0.232	0.259	0.418	0.425	0.273	0.880	1.100	1.375
Waste biomass (c)	0.100	0.097	0.096	0.101	0.098	0.093	0.093	0.098	0.094	0.093	0.094	0.098	0.394	0.383	0.378
Wood biomass	0.490	0.472	0.486	0.483	0.461	0.457	0.474	0.508	0.494	0.490	0.515	0.521	1.931	1.900	2.021
Wind	0.421	0.350	0.289	0.377	0.415	0.422	0.292	0.401	0.428	0.440	0.308	0.422	1.436	1.531	1.597
Electric power sector	**0.842**	**0.850**	**0.771**	**0.765**	**0.860**	**0.948**	**0.819**	**0.844**	**0.927**	**1.090**	**0.931**	**0.905**	**3.228**	**3.471**	**3.853**
Geothermal	0.014	0.014	0.013	0.015	0.014	0.013	0.013	0.015	0.013	0.012	0.014	0.015	0.056	0.055	0.054
Hydroelectric power (a)	0.217	0.234	0.205	0.176	0.222	0.214	0.203	0.188	0.225	0.259	0.215	0.195	0.832	0.826	0.895
Solar (b)	0.100	0.170	0.177	0.114	0.129	0.222	0.231	0.160	0.180	0.301	0.308	0.193	0.562	0.742	0.982
Waste biomass (c)	0.043	0.041	0.042	0.043	0.040	0.038	0.040	0.040	0.039	0.038	0.040	0.039	0.168	0.158	0.156
Wood biomass	0.047	0.041	0.045	0.040	0.040	0.038	0.040	0.042	0.043	0.039	0.046	0.041	0.174	0.160	0.169
Wind	0.421	0.350	0.289	0.377	0.415	0.422	0.292	0.401	0.428	0.440	0.308	0.422	1.436	1.531	1.597
Industrial sector (e)	**0.562**	**0.551**	**0.562**	**0.576**	**0.563**	**0.555**	**0.573**	**0.605**	**0.592**	**0.592**	**0.609**	**0.616**	**2.251**	**2.295**	**2.410**
Biofuel losses and co-products (d)	0.198	0.201	0.206	0.214	0.209	0.204	0.214	0.219	0.209	0.209	0.214	0.217	0.819	0.846	0.850
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	0.018	0.019
Waste biomass (c)	0.040	0.038	0.036	0.040	0.040	0.038	0.036	0.040	0.039	0.037	0.037	0.040	0.153	0.154	0.152
Wood biomass	0.315	0.300	0.309	0.312	0.304	0.301	0.310	0.335	0.334	0.333	0.346	0.349	1.235	1.250	1.362
Commercial sector (e)	**0.062**	**0.070**	**0.071**	**0.064**	**0.064**	**0.071**	**0.073**	**0.066**	**0.066**	**0.075**	**0.076**	**0.069**	**0.266**	**0.275**	**0.286**
Geothermal	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.020	0.020	0.020
Solar (b)	0.014	0.021	0.021	0.014	0.016	0.023	0.023	0.016	0.019	0.027	0.027	0.019	0.069	0.079	0.091
Waste biomass (c)	0.017	0.018	0.019	0.019	0.018	0.017	0.018	0.019	0.017	0.017	0.017	0.019	0.072	0.071	0.070
Wood biomass	0.018	0.018	0.018	0.018	0.018	0.018	0.018	0.018	0.018	0.017	0.018	0.018	0.072	0.072	0.072
Residential sector	**0.166**	**0.191**	**0.193**	**0.174**	**0.163**	**0.188**	**0.192**	**0.176**	**0.166**	**0.194**	**0.199**	**0.181**	**0.723**	**0.719**	**0.741**
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)	0.045	0.069	0.069	0.050	0.053	0.078	0.077	0.053	0.056	0.085	0.084	0.058	0.233	0.261	0.283
Wood biomass	0.111	0.112	0.114	0.114	0.100	0.100	0.105	0.114	0.100	0.100	0.105	0.114	0.450	0.419	0.419
Transportation sector	**0.407**	**0.457**	**0.461**	**0.460**	**0.444**	**0.474**	**0.494**	**0.474**	**0.446**	**0.481**	**0.490**	**0.490**	**1.785**	**1.885**	**1.907**
Biodiesel, renewable diesel, and other (g)	0.139	0.173	0.175	0.174	0.177	0.193	0.203	0.188	0.183	0.198	0.201	0.204	0.660	0.762	0.785
Ethanol (g)	0.268	0.284	0.286	0.287	0.266	0.281	0.291	0.285	0.263	0.283	0.289	0.286	1.125	1.124	1.122

(a) Energy consumption for conventional hydroelectric power only. Hydroelectricity generated by pumped storage is not included in renewable energy.

(b) Solar energy consumption by utility-scale power plants (capacity greater than or equal to 1 megawatt) in the electric power, commercial, and industrial sectors 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.

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

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

Sources:

Monthly Energy Review, and Petroleum Supply Monthly.

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

Forecasts: EIA Short-Term Integrated Forecasting System.

Table 9a. U.S. Macroeconomic Indicators and CO_2 Emissions

U.S. Energy Information Administration | Short-Term Energy Outlook - December 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)	22,403	22,539	22,781	22,961	23,054	23,224	23,386	23,474	23,587	23,702	23,838	23,983	22,671	23,284	23,777
Real Personal Consumption Expend.															
(billion chained 2017 dollars - SAAR)	15,510	15,549	15,647	15,781	15,857	15,967	16,112	16,218	16,309	16,419	16,522	16,621	15,622	16,039	16,468
Real Private Fixed Investment															
(billion chained 2017 dollars - SAAR)	4,019	4,103	4,129	4,165	4,231	4,256	4,270	4,265	4,283	4,302	4,329	4,364	4,104	4,255	4,319
Business Inventory Change															
(billion chained 2017 dollars - SAAR)	21	0	89	57	21	97	79	79	96	92	119	143	42	69	113
Real Government Expenditures															
(billion chained 2017 dollars - SAAR)	3,756	3,784	3,836	3,871	3,888	3,917	3,966	3,970	3,975	3,975	3,977	3,981	3,812	3,935	3,977
Real Exports of Goods & Services															
(billion chained 2017 dollars - SAAR)	2,522	2,492	2,521	2,560	2,572	2,578	2,634	2,663	2,689	2,711	2,732	2,759	2,524	2,612	2,723
Real Imports of Goods & Services															
(billion chained 2017 dollars - SAAR)	3,448	3,421	3,460	3,496	3,549	3,614	3,711	3,769	3,813	3,848	3,889	3,928	3,457	3,661	3,870
Real Disposable Personal Income															
(billion chained 2017 dollars - SAAR)	16,885	17,025	17,083	17,217	17,452	17,554	17,623	17,738	17,882	18,022	18,153	18,284	17,052	17,592	18,085
Non-Farm Employment															
(millions)	155.0	155.8	156.4	157.1	157.8	158.4	158.8	159.1	159.6	159.9	160.2	160.4	156.1	158.5	160.0
Civilian Unemployment Rate															
(percent)	3.5	3.6	3.7	3.7	3.8	4.0	4.2	4.2	4.3	4.4	4.4	4.4	3.6	4.0	4.4
Housing Starts															
(millions - SAAR)	1.37	1.46	1.38	1.48	1.41	1.34	1.33	1.32	1.33	1.34	1.36	1.37	1.42	1.35	1.35
Industrial Production Indices (Index, 2017=100)															
Total Industrial Production	102.8	102.9	103.2	102.7	102.2	102.9	102.7	102.5	103.0	103.4	103.9	104.5	102.9	102.6	103.7
Manufacturing	100.0	100.1	100.0	99.7	99.5	99.8	99.7	99.3	99.9	100.4	101.2	102.0	100.0	99.6	100.9
Food	104.7	103.4	101.9	102.5	101.8	102.2	101.9	102.4	102.9	103.4	103.9	104.4	103.1	102.1	103.6
Paper	86.8	85.2	84.8	86.2	86.6	86.7	87.1	87.6	87.8	88.3	88.8	89.2	85.7	87.0	88.5
Petroleum and coal products	89.0	89.7	91.1	93.0	93.0	92.4	94.2	95.6	95.3	95.3	95.3	95.1	90.7	93.8	95.3
Chemicals	103.3	104.0	104.0	103.4	103.0	104.8	106.8	107.8	108.8	109.7	110.6	111.5	103.7	105.6	110.1
Nonmetallic mineral products	108.6	105.5	104.5	104.2	100.7	99.8	100.2	101.0	101.1	101.5	102.0	102.7	105.7	100.4	101.8
Primary metals	94.7	95.5	94.9	94.3	93.7	93.5	94.1	94.7	97.5	98.7	100.2	101.4	94.8	94.0	99.4
Coal-weighted manufacturing (a)	96.2	95.9	95.8	95.8	94.4	94.3	94.9	95.7	96.8	97.5	98.2	98.8	95.9	94.8	97.8
Distillate-weighted manufacturing (a)	98.8	98.1	97.9	97.9	96.7	96.6	96.7	97.2	97.9	98.5	99.3	100.0	98.2	96.8	98.9
Electricity-weighted manufacturing (a)	97.2	97.4	97.4	97.1	96.3	96.7	96.6	96.9	98.1	98.9	99.8	100.6	97.3	96.6	99.4
Natural Gas-weighted manufacturing (a)	95.0	95.1	95.5	95.3	93.9	94.7	94.9	95.6	96.5	97.2	97.9	98.5	95.2	94.8	97.5
Price Indexes															
Consumer Price Index (all urban consumers)															
(index, 1982-1984=1.00)	3.01	3.03	3.06	3.08	3.11	3.13	3.14	3.16	3.17	3.18	3.20	3.22	3.05	3.14	3.19
Producer Price Index: All Commodities															
(index, 1982=1.00)	2.60	2.53	2.55	2.55	2.55	2.54	2.54	2.51	2.51	2.51	2.52	2.53	2.56	2.53	2.52
Producer Price Index: Petroleum															
(index, 1982=1.00)	3.09	2.91	3.17	2.82	2.79	2.84	2.67	2.21	2.19	2.35	2.42	2.30	3.00	2.63	2.32
GDP Implicit Price Deflator															
(index, 2017=100)	121.2	121.8	122.8	123.2	124.2	124.9	125.5	126.1	126.8	127.4	128.2	129.1	122.3	125.2	127.9
Miscellaneous															
Vehicle Miles Traveled (a)															
(million miles/day)	8,423	9,159	9,334	8,835	8,381	9,251	9,407	8,912	8,510	9,349	9,539	8,966	8,940	8,989	9,094
Raw Steel Production															
(million short tons per day)	21.227	22.165	22.510	22.298	22.216	22.362	22.716	21.790	22.465	23.536	24.226	24.234	88.200	89.083	94.461
Carbon Dioxide (CO_2) Emissions (million metric tons)															
Total Energy (c)	**1,240**	**1,115**	**1,225**	**1,215**	**1,240**	**1,115**	**1,208**	**1,209**	**1,251**	**1,098**	**1,229**	**1,218**	**4,795**	**4,772**	**4,796**
Petroleum	550	563	566	572	543	561	569	570	548	568	576	573	2,251	2,243	2,265
Natural gas	502	383	418	457	512	386	428	465	514	380	420	463	1,760	1,791	1,777
Coal	186	167	240	184	183	166	209	172	187	149	230	180	777	730	746

(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.

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

- = no data available

SAAR = Seasonally-adjusted annual rate

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

Sources:

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

Table 9b. U.S. Regional Macroeconomic Data

U.S. Energy Information Administration | Short-Term Energy Outlook - December 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	1,158	1,164	1,171	1,181	1,191	1,198	1,203	1,207	1,212	1,217	1,223	1,229	1,169	1,200	1,220
Middle Atlantic	3,220	3,236	3,273	3,281	3,292	3,319	3,347	3,362	3,375	3,389	3,404	3,422	3,253	3,330	3,398
E. N. Central	2,870	2,884	2,908	2,926	2,927	2,952	2,970	2,980	2,990	3,004	3,019	3,034	2,897	2,957	3,012
W. N. Central	1,371	1,378	1,395	1,404	1,389	1,399	1,408	1,412	1,418	1,425	1,433	1,441	1,387	1,402	1,429
S. Atlantic	4,147	4,166	4,208	4,253	4,281	4,315	4,346	4,364	4,385	4,409	4,435	4,464	4,194	4,327	4,423
E. S. Central	1,003	1,005	1,014	1,021	1,022	1,030	1,037	1,040	1,045	1,050	1,056	1,062	1,011	1,033	1,053
W. S. Central	2,635	2,674	2,717	2,753	2,753	2,772	2,794	2,808	2,823	2,838	2,858	2,879	2,695	2,782	2,850
Mountain	1,560	1,577	1,591	1,604	1,607	1,619	1,631	1,639	1,648	1,658	1,670	1,682	1,583	1,624	1,665
Pacific	4,284	4,300	4,348	4,379	4,431	4,459	4,490	4,499	4,526	4,548	4,575	4,603	4,328	4,470	4,563
Industrial Output, Manufacturing (index, year 2017=100)															
New England	96.5	96.1	95.7	95.0	94.9	94.7	94.6	94.6	94.9	95.3	95.9	96.6	95.8	94.7	95.7
Middle Atlantic	95.3	95.3	95.3	94.7	94.3	94.5	94.8	94.6	94.8	95.1	95.6	96.3	95.1	94.5	95.5
E. N. Central	96.7	96.7	96.5	96.0	95.6	95.9	95.7	95.4	96.0	96.8	97.6	98.3	96.5	95.7	97.2
W. N. Central	101.4	101.5	101.4	100.9	100.8	101.4	100.9	100.2	100.9	101.3	102.1	102.9	101.3	100.8	101.8
S. Atlantic	102.5	102.9	103.0	102.8	102.7	103.4	103.3	102.9	103.4	104.0	104.9	105.9	102.8	103.1	104.6
E. S. Central	100.2	100.3	100.1	99.7	99.7	100.2	100.3	100.0	100.6	101.4	102.3	103.2	100.1	100.1	101.9
W. S. Central	104.5	105.2	105.5	105.0	105.2	106.3	106.7	106.5	107.1	107.6	108.5	109.4	105.0	106.2	108.2
Mountain	111.1	111.2	111.2	111.0	111.3	112.2	112.2	112.0	112.5	113.2	114.2	115.3	111.1	111.9	113.8
Pacific	97.1	96.7	96.2	96.3	95.5	95.1	94.5	93.5	94.3	94.5	95.1	95.9	96.6	94.7	94.9
Real Personal Income (billion $2017)															
New England	974	982	986	996	1,016	1,020	1,024	1,031	1,038	1,046	1,053	1,060	985	1,023	1,049
Middle Atlantic	2,576	2,598	2,609	2,618	2,644	2,663	2,677	2,698	2,725	2,739	2,758	2,778	2,600	2,670	2,750
E. N. Central	2,658	2,673	2,680	2,699	2,727	2,744	2,758	2,777	2,798	2,820	2,839	2,857	2,678	2,752	2,829
W. N. Central	1,321	1,323	1,325	1,329	1,332	1,339	1,344	1,352	1,363	1,374	1,384	1,395	1,325	1,342	1,379
S. Atlantic	3,754	3,783	3,803	3,848	3,911	3,938	3,961	3,988	4,020	4,055	4,087	4,120	3,797	3,949	4,070
E. S. Central	1,026	1,032	1,037	1,046	1,061	1,070	1,077	1,085	1,093	1,102	1,109	1,117	1,035	1,073	1,105
W. S. Central	2,361	2,361	2,372	2,393	2,418	2,429	2,443	2,460	2,478	2,498	2,518	2,538	2,372	2,438	2,508
Mountain	1,449	1,461	1,466	1,480	1,499	1,509	1,516	1,527	1,539	1,553	1,566	1,579	1,464	1,513	1,559
Pacific	3,125	3,149	3,157	3,174	3,248	3,276	3,291	3,308	3,330	3,355	3,378	3,401	3,151	3,281	3,366
Households (thousands)															
New England	6,077	6,086	6,101	6,108	6,122	6,135	6,150	6,163	6,178	6,194	6,208	6,221	6,108	6,163	6,221
Middle Atlantic	16,062	16,083	16,108	16,124	16,155	16,183	16,219	16,255	16,295	16,335	16,370	16,404	16,124	16,255	16,404
E. N. Central	18,982	19,005	19,044	19,070	19,110	19,141	19,177	19,209	19,245	19,283	19,315	19,347	19,070	19,209	19,347
W. N. Central	8,704	8,729	8,755	8,774	8,800	8,820	8,842	8,865	8,890	8,914	8,935	8,957	8,774	8,865	8,957
S. Atlantic	27,227	27,321	27,425	27,514	27,633	27,742	27,859	27,970	28,080	28,189	28,285	28,384	27,514	27,970	28,384
E. S. Central	7,906	7,936	7,966	7,991	8,023	8,049	8,076	8,102	8,128	8,153	8,176	8,199	7,991	8,102	8,199
W. S. Central	15,922	15,975	16,045	16,104	16,175	16,240	16,316	16,391	16,468	16,544	16,613	16,679	16,104	16,391	16,679
Mountain	9,836	9,881	9,913	9,940	9,976	10,009	10,046	10,085	10,127	10,170	10,210	10,249	9,940	10,085	10,249
Pacific	19,053	19,096	19,122	19,136	19,167	19,194	19,232	19,268	19,308	19,351	19,389	19,427	19,136	19,268	19,427
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	20.0	20.1	20.2	20.3	20.4	20.5	20.5	20.6	20.6	20.6	20.6	20.7	20.2	20.5	20.6
E. N. Central	22.4	22.5	22.5	22.5	22.6	22.7	22.7	22.8	22.8	22.9	22.9	22.9	22.5	22.7	22.9
W. N. Central	10.9	10.9	11.0	11.0	11.1	11.2	11.2	11.2	11.2	11.2	11.3	11.3	11.0	11.2	11.2
S. Atlantic	30.6	30.8	30.9	31.1	31.2	31.4	31.5	31.6	31.7	31.8	31.8	31.9	30.8	31.4	31.8
E. S. Central	8.6	8.7	8.7	8.7	8.8	8.8	8.8	8.8	8.9	8.9	8.9	8.9	8.7	8.8	8.9
W. S. Central	18.9	19.0	19.1	19.2	19.3	19.3	19.4	19.5	19.5	19.6	19.6	19.7	19.0	19.4	19.6
Mountain	11.8	11.9	12.0	12.1	12.1	12.2	12.2	12.3	12.3	12.4	12.4	12.4	12.0	12.2	12.4
Pacific	24.3	24.4	24.4	24.6	24.7	24.7	24.8	24.8	24.9	24.9	25.0	25.0	24.4	24.7	24.9

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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.

Sources:

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

Table 9c. U.S. Regional Weather Data

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

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Heating Degree Days															
United States average	1,924	486	61	1,336	1,906	413	50	1,406	1,989	469	74	1,443	3,806	3,776	3,975
New England	2,718	824	92	1,930	2,764	751	111	2,073	2,945	819	130	2,029	5,564	5,699	5,923
Middle Atlantic	2,453	653	71	1,776	2,519	564	69	1,889	2,722	654	86	1,857	4,954	5,041	5,319
E. N. Central	2,727	699	94	1,897	2,654	545	68	2,040	3,001	701	120	2,129	5,417	5,307	5,952
W. N. Central	3,170	656	92	2,010	2,839	598	88	2,197	3,171	706	154	2,352	5,928	5,721	6,383
South Atlantic	1,060	190	10	890	1,252	137	10	888	1,272	178	12	876	2,151	2,287	2,338
E. S. Central	1,393	257	14	1,162	1,661	166	11	1,171	1,686	232	19	1,224	2,826	3,010	3,161
W. S. Central	933	93	1	698	1,080	49	2	643	1,095	85	5	764	1,725	1,775	1,948
Mountain	2,576	736	129	1,676	2,240	695	103	1,775	2,170	711	154	1,842	5,117	4,813	4,877
Pacific	1,829	653	97	1,029	1,568	611	66	1,150	1,441	583	94	1,157	3,608	3,396	3,275
Heating Degree Days, Prior 10-year average															
United States average	2,133	485	60	1,477	2,103	483	58	1,444	2,048	476	55	1,431	4,155	4,088	4,010
New England	3,151	859	106	2,093	3,111	857	98	2,057	3,031	843	95	2,056	6,209	6,123	6,025
Middle Atlantic	2,939	689	69	1,907	2,890	685	63	1,878	2,799	671	60	1,871	5,604	5,516	5,401
E. N. Central	3,215	741	93	2,169	3,159	735	91	2,113	3,030	717	81	2,080	6,218	6,097	5,908
W. N. Central	3,319	754	121	2,374	3,295	729	120	2,303	3,192	714	111	2,271	6,568	6,447	6,289
South Atlantic	1,403	190	10	905	1,357	188	9	895	1,311	182	9	880	2,508	2,450	2,382
E. S. Central	1,811	251	14	1,231	1,757	248	14	1,206	1,696	242	13	1,181	3,307	3,225	3,132
W. S. Central	1,188	95	3	762	1,164	90	3	731	1,124	86	2	711	2,048	1,988	1,923
Mountain	2,193	696	128	1,833	2,209	697	128	1,801	2,221	696	124	1,803	4,850	4,836	4,843
Pacific	1,444	523	75	1,148	1,471	539	77	1,129	1,502	553	78	1,145	3,191	3,215	3,277
Cooling Degree Days															
United States average	67	361	941	104	53	495	941	137	51	446	967	106	1,474	1,625	1,569
New England	0	51	462	5	0	146	474	0	0	99	509	1	518	620	609
Middle Atlantic	0	91	583	10	0	242	619	7	0	183	657	5	683	867	845
E. N. Central	0	180	523	10	3	310	570	17	1	245	598	7	713	900	851
W. N. Central	1	319	709	14	11	330	672	33	5	297	733	11	1,042	1,047	1,046
South Atlantic	200	582	1,236	239	146	755	1,243	259	139	715	1,288	259	2,258	2,403	2,401
E. S. Central	62	441	1,094	72	40	622	1,108	113	34	545	1,127	68	1,669	1,882	1,773
W. S. Central	149	894	1,861	213	125	1,047	1,582	359	105	936	1,648	213	3,117	3,113	2,902
Mountain	3	351	1,025	99	9	488	1,079	125	20	450	1,014	83	1,478	1,700	1,568
Pacific	26	109	617	80	20	198	728	102	28	200	704	77	832	1,049	1,010
Cooling Degree Days, Prior 10-year average															
United States average	50	415	895	109	53	414	909	111	55	424	926	115	1,470	1,487	1,520
New England	0	87	480	2	0	83	482	2	0	90	495	2	569	567	587
Middle Atlantic	0	160	617	8	0	154	623	9	0	162	641	9	785	785	812
E. N. Central	1	234	561	10	1	231	566	10	1	239	586	11	805	808	837
W. N. Central	4	292	674	12	4	301	680	12	5	307	693	15	982	997	1,020
South Atlantic	144	675	1,192	272	153	673	1,212	270	157	685	1,230	277	2,283	2,309	2,349
E. S. Central	36	520	1,058	83	41	519	1,076	85	44	531	1,095	89	1,697	1,721	1,760
W. S. Central	101	861	1,549	223	108	872	1,584	227	117	899	1,598	241	2,734	2,792	2,856
Mountain	24	460	960	83	22	447	971	88	20	452	991	91	1,527	1,528	1,554
Pacific	32	213	676	86	32	202	678	89	30	199	681	88	1,006	1,000	998

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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 Oceanic and Atmospheric Administration (NOAA).

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.

Sources:

Table 10a. Drilling Productivity Metrics

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

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Active rigs															
Appalachia region	51	50	43	40	42	39	35	-	-	-	-	-	46	-	-
Bakken region	41	37	34	33	34	34	35	-	-	-	-	-	36	-	-
Eagle Ford region	78	67	55	55	57	56	52	-	-	-	-	-	64	-	-
Haynesville region	72	63	49	46	43	36	35	-	-	-	-	-	58	-	-
Permian region	352	349	326	311	312	313	305	-	-	-	-	-	334	-	-
Rest of Lower 48 States, excluding GOM	141	127	112	108	104	96	96	-	-	-	-	-	122	-	-
New wells drilled															
Appalachia region	294	283	246	226	239	220	197	-	-	-	-	-	1,049	-	-
Bakken region	240	223	202	200	206	208	212	-	-	-	-	-	865	-	-
Eagle Ford region	356	309	271	276	288	293	287	-	-	-	-	-	1,212	-	-
Haynesville region	221	194	148	133	124	103	99	-	-	-	-	-	696	-	-
Permian region	1,445	1,438	1,380	1,338	1,363	1,376	1,352	-	-	-	-	-	5,601	-	-
Rest of Lower 48 States, excluding GOM	828	775	725	674	613	562	566	-	-	-	-	-	3,002	-	-
New wells drilled per rig															
Appalachia region	5.7	5.7	5.7	5.7	5.6	5.7	5.7	-	-	-	-	-	22.7	-	-
Bakken region	5.9	6.0	6.0	6.1	6.1	6.1	6.1	-	-	-	-	-	23.9	-	-
Eagle Ford region	4.6	4.6	4.9	5.0	5.0	5.2	5.5	-	-	-	-	-	19.1	-	-
Haynesville region	3.1	3.1	3.0	2.9	2.9	2.9	2.9	-	-	-	-	-	12.0	-	-
Permian region	4.1	4.1	4.2	4.3	4.4	4.4	4.4	-	-	-	-	-	16.8	-	-
Rest of Lower 48 States, excluding GOM	5.9	6.1	6.5	6.3	5.9	5.9	5.9						24.7		
New wells completed															
Appalachia region	262	241	219	198	239	233	230	-	-	-	-	-	920	-	-
Bakken region	258	310	303	210	187	258	239	-	-	-	-	-	1,081	-	-
Eagle Ford region	456	408	363	306	385	360	348	-	-	-	-	-	1,533	-	-
Haynesville region	173	125	129	129	121	121	96	-	-	-	-	-	556	-	-
Permian region	1,536	1,480	1,459	1,384	1,384	1,426	1,344	-	-	-	-	-	5,859	-	-
Rest of Lower 48 States, excluding GOM	718	792	709	640	606	611	635	-	-	-	-	-	2,859	-	-
Cumulative drilled but uncompleted wells															
Appalachia region	733	775	802	830	830	817	784	-	-	-	-	-	830	-	-
Bakken region	584	497	396	386	405	355	328	-	-	-	-	-	386	-	-
Eagle Ford region	749	650	558	528	431	364	303	-	-	-	-	-	528	-	-
Haynesville region	653	722	741	745	748	730	733	-	-	-	-	-	745	-	-
Permian region	1,077	1,035	956	910	889	839	847	-	-	-	-	-	910	-	-
Rest of Lower 48 States, excluding GOM	2,344	2,327	2,343	2,377	2,384	2,335	2,266	-	-	-	-	-	2,377	-	-
Crude oil production from newly completed wells, one-year trend (thousand barrels per day) (a) (c)															
Appalachia region	13	13	13	12	12	12	13	-	-	-	-	-	13	-	-
Bakken region	51	60	67	64	55	53	55	-	-	-	-	-	60	-	-
Eagle Ford region	82	88	80	64	69	79	76	-	-	-	-	-	79	-	-
Haynesville region	1	0	0	0	0	0	0	-	-	-	-	-	0	-	-
Permian region	438	437	445	439	439	455	463	-	-	-	-	-	440	-	-
Rest of Lower 48 States, excluding GOM	78	82	85	80	77	75	76	-	-	-	-	-	81	-	-
Crude oil production from newly completed wells per rig, one-year trend (thousand barrels per day) (a)															
Appalachia region	0.3	0.3	0.3	0.3	0.3	0.3	0.3	-	-	-	-	-	0.3	-	-
Bakken region	1.2	1.5	1.9	1.9	1.7	1.6	1.6	-	-	-	-	-	1.6	-	-
Eagle Ford region	1.1	1.2	1.3	1.2	1.2	1.4	1.4	-	-	-	-	-	1.2	-	-
Haynesville region	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	0.0	-	-
Permian region	1.2	1.2	1.3	1.4	1.4	1.4	1.5	-	-	-	-	-	1.3	-	-
Rest of Lower 48 States, excluding GOM	0.5	0.6	0.7	0.7	0.7	0.7	0.8	-	-	-	-	-	0.6	-	-
Existing crude oil production change, one-year trend (thousand barrels per day) (a) (c)															
Appalachia region	-10.1	-11.7	-13.0	-12.6	-12.8	-13.4	-13.8	-	-	-	-	-	-11.9	-	-
Bakken region	-41.4	-37.7	-50.0	-60.5	-58.3	-53.1	-55.9	-	-	-	-	-	-47.5	-	-
Eagle Ford region	-73.8	-80.5	-87.7	-77.2	-60.0	-56.3	-64.8	-	-	-	-	-	-79.8	-	-
Haynesville region	-0.8	-0.9	-0.7	-0.4	-0.7	-0.7	-0.7	-	-	-	-	-	-0.7	-	-
Permian region	-410.3	-415.4	-411.4	-398.3	-402.5	-415.7	-425.7	-	-	-	-	-	-408.8	-	-
Rest of Lower 48 States, excluding GOM	-71.0	-68.9	-80.6	-85.9	-82.2	-74.3	-76.8	-	-	-	-	-	-76.7	-	-
Natural gas production from newly completed wells, one-year trend (million cubic feet per day) (a) (d)															
Appalachia region	1,276.9	1,236.5	1,206.1	1,144.9	1,032.3	865.4	882.2	-	-	-	-	-	1,215.7	-	-
Bakken region	59.7	68.8	75.6	70.8	60.4	57.9	60.5	-	-	-	-	-	68.8	-	-
Eagle Ford region	384.6	326.1	312.3	323.5	333.0	303.5	281.1	-	-	-	-	-	336.4	-	-
Haynesville region	994.5	922.0	774.2	656.1	534.6	429.7	433.9	-	-	-	-	-	835.6	-	-
Permian region	836.0	834.1	838.1	827.1	850.5	901.1	901.4	-	-	-	-	-	833.8	-	-
Rest of Lower 48 States, excluding GOM	383.2	357.5	389.7	380.5	331.7	291.5	299.2	-	-	-	-	-	377.8	-	-
Natural gas production from newly completed wells per rig, one-year trend (million cubic feet per day) (a) (d)															
Appalachia region	24.6	24.1	24.8	28.2	25.4	20.4	23.7	-	-	-	-	-	25.4	-	-
Bakken region	1.5	1.7	2.1	2.1	1.8	1.7	1.7	-	-	-	-	-	1.9	-	-
Eagle Ford region	5.0	4.3	5.1	6.0	6.0	5.3	5.2	-	-	-	-	-	5.1	-	-
Haynesville region	13.7	12.9	13.6	13.9	11.7	10.8	11.8	-	-	-	-	-	13.5	-	-
Permian region	2.4	2.4	2.5	2.6	2.7	2.9	2.9	-	-	-	-	-	2.5	-	-
Rest of Lower 48 States, excluding GOM	2.4	2.6	3.2	3.5	3.1	2.9	3.2	-	-	-	-	-	3.0	-	-
Existing natural gas production change, one-year trend (million cubic feet per day) (a) (c) (d)															
Appalachia region	-1,160.4	-1,046.8	-926.1	-992.3	-1,141.7	-1,094.6	-960.7	-	-	-	-	-	-1,030.6	-	-
Bakken region	-42.1	-7.8	-35.5	-70.5	-51.3	-20.2	-34.2	-	-	-	-	-	-39.0	-	-
Eagle Ford region	-310.3	-278.5	-298.7	-308.2	-309.0	-257.3	-247.8	-	-	-	-	-	-298.9	-	-
Haynesville region	-912.4	-913.0	-861.3	-776.5	-685.8	-622.7	-668.3	-	-	-	-	-	-865.4	-	-
Permian region	-643.9	-622.1	-653.5	-615.2	-628.8	-630.5	-649.7	-	-	-	-	-	-633.6	-	-
Rest of Lower 48 States, excluding GOM	-533.4	-402.8	-308.9	-324.4	-439.8	-422.1	-386.6	-	-	-	-	-	-391.6	-	-

(a) The Production From Newly Completed Wells and the Existing Production Change data series are reported as smoothed monthly data over a twelve-month period. The smoothing is done using the Locally Weighted Scatterplot Smoothing (LOWESS) function. LOWESS calculates a locally weighted average for each point, giving more weight to nearby monthly data and less weights to distant data. The smoothed data may change each month according to updated data.

(b) The most recent six months of well-level data is incomplete due to known lags in reporting. For these months, the values are imputed based on historical reporting patterns and other relevant factors.

(c) The sum of "Production from Newly Completed Wells" and "Existing Production Change" may not equal the month-over-month crude oil or natural gas production changes reported in tables 4a and 5a, respectively. This discrepancy arises from the statistical smoothing techniques applied to aggregated basin level data, variations in data imputation methodologies, and utilizing different data sources.

(d) Natural gas production in this table is marketed natural gas production.

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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

Sources:

Historical data: Latest data available from Baker Hughes, Enervus, FracFocus.org.

Table 10b. Crude Oil and Natural Gas Production from Shale and Tight Formations

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	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Total U.S. tight oil production (million barrels per day) (a)	**8.31**	**8.45**	**8.60**	**8.81**	**8.62**	**8.83**	**8.81**	-	-	-	-	-	**8.54**	-	-
Austin Chalk formation	0.13	0.12	0.13	0.12	0.12	0.13	0.12	-	-	-	-	-	0.13	-	-
Bakken formation	1.11	1.15	1.23	1.28	1.21	1.23	1.22	-	-	-	-	-	1.19	-	-
Eagle Ford formation	1.00	1.02	1.02	0.96	0.94	1.02	1.02	-	-	-	-	-	1.00	-	-
Mississippian formation	0.16	0.15	0.14	0.14	0.13	0.12	0.11	-	-	-	-	-	0.14	-	-
Niobrara Codell formation	0.42	0.45	0.46	0.48	0.46	0.45	0.45	-	-	-	-	-	0.45	-	-
Permian formations	5.08	5.13	5.21	5.42	5.38	5.48	5.50	-	-	-	-	-	5.21	-	-
Woodford formation	0.09	0.10	0.10	0.09	0.08	0.09	0.08	-	-	-	-	-	0.09	-	-
Other U.S. formations	0.32	0.32	0.32	0.32	0.30	0.31	0.31	-	-	-	-	-	0.32	-	-
Total U.S. shale dry natural gas production (billion cubic feet per day) (a)	**82.4**	**82.8**	**83.0**	**83.6**	**81.8**	**79.8**	**83.1**	-	-	-	-	-	**83.0**	-	-
Bakken formation	2.2	2.4	2.5	2.6	2.5	2.6	2.7	-	-	-	-	-	2.4	-	-
Barnett formation	1.9	1.9	1.8	1.8	1.7	1.7	1.7	-	-	-	-	-	1.8	-	-
Eagle Ford formation	4.4	4.5	4.5	4.5	4.4	4.4	4.5	-	-	-	-	-	4.5	-	-
Fayetteville formation	0.9	0.9	0.9	0.9	0.8	0.8	0.8	-	-	-	-	-	0.9	-	-
Haynesville formation	14.6	14.8	14.6	14.2	13.7	12.1	12.4	-	-	-	-	-	14.5	-	-
Marcellus formation	25.7	25.5	25.4	26.1	25.1	23.8	26.0	-	-	-	-	-	25.7	-	-
Mississippian formation	2.5	2.5	2.4	2.4	2.4	2.3	2.3	-	-	-	-	-	2.5	-	-
Niobrara Codell formation	2.6	2.6	2.7	2.8	2.8	2.8	2.8	-	-	-	-	-	2.7	-	-
Permian formations	15.6	16.1	16.6	17.2	17.4	18.0	18.8	-	-	-	-	-	16.4	-	-
Utica formation	7.0	6.6	6.5	6.3	6.3	6.3	6.4	-	-	-	-	-	6.6	-	-
Woodford formation	2.9	2.7	2.7	2.7	2.6	2.7	2.7	-	-	-	-	-	2.7	-	-
Other U.S. formations	2.3	2.3	2.3	2.3	2.2	2.1	2.2	-	-	-	-	-	2.3	-	-

(a) These production estimates are based on geologic formations, not geographic regions

Notes:

EIA completed modeling and analysis for this report on December 5, 2024.

- = no data available

The approximate break between historical and forecast values is shown with historical data with no shading; estimates and forecasts are shaded gray.

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

Sources:

Historical data: Latest data available from Enverus state administrative data.

Appendix to the December 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

	Oct 2024	Nov 2024	Oct 2024 – Nov 2024 Average	Oct 2023 – Nov 2023 Average	2021 – 2023 Average
Global Petroleum and Other Liquids (million barrels per day)					
Global Petroleum and Other Liquids Production (a)	102.8	103.5	103.1	102.9	99.3
Global Petroleum and Other Liquids Consumption (b)	102.3	103.4	102.8	102.2	99.9
Biofuels Production (c)	3.0	2.8	2.9	2.9	2.8
Biofuels Consumption (c)	2.8	2.8	2.8	2.8	2.7
Iran Liquid Fuels Production	4.4	4.5	4.5	4.2	3.7
Iran Liquid Fuels Consumption	2.1	2.2	2.2	2.2	2.1
Petroleum and Petroleum Products Produced and Consumed in Countries Other Than Iran (million barrels per day)					
Production (d)	95.4	96.2	95.8	95.7	96.5
Consumption (d)	97.4	98.3	97.9	97.2	95.1
Production minus Consumption	-2.0	-2.2	-2.1	-1.4	1.5
World Inventory Net Withdrawals Including Iran	-0.5	-0.2	-0.3	-0.7	0.6
Estimated OECD Inventory Level (e) (million barrels)	2797	2787	2792	2778	2778
Surplus Production Capacity (million barrels per day)					
OPEC Surplus Crude Oil Production Capacity (f)	4.7	4.8	4.7	4.3	3.7

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

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

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

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

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

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

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

Table a2. Crude Oil and Petroleum Product Price Data

Item	Oct 2024	Nov 2024	Oct 2024 – Nov 2024 Average	Oct 2023 – Nov 2023 Average	2021 – 2023 Average
Brent Front Month Futures Price ($ per barrel)	75.38	73.40	74.46	85.37	84.06
WTI Front Month Futures Price ($ per barrel)	71.56	69.54	70.62	81.43	80.01
Dubai Front Month Futures Price ($ per barrel)	75.03	72.43	73.83	86.18	82.59
Brent 1st - 13th Month Futures Spread ($ per barrel)	2.65	2.41	2.54	5.60	7.69
WTI 1st - 13th Month Futures Spread ($ per barrel)	3.20	2.46	2.86	5.94	7.73
RBOB Front Month Futures Price ($ per gallon)	2.05	2.00	2.03	2.24	2.53
Heating Oil Front Month Futures Price ($ per gallon)	2.23	2.24	2.24	2.96	2.81
RBOB - Brent Futures Crack Spread ($ per gallon)	0.25	0.26	0.26	0.20	0.53
Heating Oil - Brent Futures Crack Spread ($ per gallon)	0.44	0.49	0.46	0.93	0.81

(a) Brent refers to Brent crude oil traded on the Intercontinental Exchange (ICE).
(b) WTI refers to West Texas Intermediate crude oil traded on the New York Mercantile Exchange (NYMEX), owned by Chicago Mercantile Exchange (CME) Group.
(c) RBOB refers to reformulated blendstock for oxygenate blending traded on the NYMEX.
Data source: U.S. Energy Information Administration, based on Chicago Mercantile Exchange (CME), Intercontinental Exchange (ICE), and Dubai Mercantile Exchange (DME).