

Short-Term Energy Outlook

STEO

October 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	\$81	\$78
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	\$2.30	\$3.10
U.S. liquefied natural gas gross exports (billion cubic feet per day)	12	12	14
Shares of U.S. electricity generation			
Natural gas	42%	42%	39%
Coal	17%	16%	16%
Renewables	21%	23%	25%
Nuclear	19%	19%	19%
U.S. GDP (percentage change)	2.5%	2.7%	1.9%
U.S. CO₂ emissions (billion metric tons)	4.8	4.8	4.8

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

- Winter Fuels Outlook.** This month we published the [Winter Fuels Outlook](#) that details our expectations for energy expenditures this winter. In general, we expect relatively little change in energy bills for much of the country this winter from last winter as lower energy prices mostly offset colder weather.
- Crude oil prices.** We reduced our forecast for the Brent crude oil spot price through the end of next year. In this month's outlook, we expect the Brent price will average \$78 per barrel (b) in 2025, \$7/b less than we expected in last month's STEO. In our forecast, lower crude oil prices largely reflect a reduction for global oil demand growth in 2025. Although we reduced our crude oil price forecast, crude oil prices have risen in recent days because of escalating conflict in the Middle East, raising the possibility of oil supply disruptions and further crude oil price increases.
- Petroleum product price.** Lower crude oil prices reduce our forecast prices for most petroleum products. The largest change from our last forecast is for propane. We forecast the Mont Belvieu propane spot price will average 72 cents per gallon (gal) in 2025, down 15% from our forecast of 84 cents/gal last month. For other products, we now expect the retail diesel price will average about \$3.50/gal next year, down by 5% from last month's forecast. We expect the U.S. average retail gasoline price will average \$3.20/gal next year, down 2% from last month.
- Natural gas prices.** The Henry Hub natural gas spot price rose by 15% to \$2.28 per million British thermal units (MMBtu) in September. We expect the Henry Hub price to continue rising to around \$2.80/MMBtu in the fourth quarter of 2024 and to further increase to around

\$3.10/MMBtu on average in 2025 as liquefied natural gas exports, a component of total natural gas demand, increase with the addition of capacity.

- **Electricity consumption.** Hot summer temperatures increased U.S. electricity demand across all sectors in 2024. We expect residential electricity sales to increase by 3% in 2024 and by another 1% in 2025. Similarly, electricity demand in the commercial and industrial sectors is expected to grow, increasing by a combined 2% in both 2024 and 2025.

Notable forecast changes

Current forecast: October 8, 2024; previous forecast: September 10, 2024

	2024	2025
Brent crude oil spot price (dollars per barrel)	\$81	\$78
Previous forecast	\$83	\$84
Percentage change	-2.3%	-7.7%
Wholesale diesel price (dollars per gallon)	\$2.40	\$2.30
Previous forecast	\$2.50	\$2.50
Percentage change	-3.0%	-8.4%
Mt. Belvieu propane spot price (dollars per gallon)	\$0.80	\$0.70
Previous forecast	\$0.80	\$0.80
Percentage change	-4.8%	-14.7%

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

Global Oil Markets

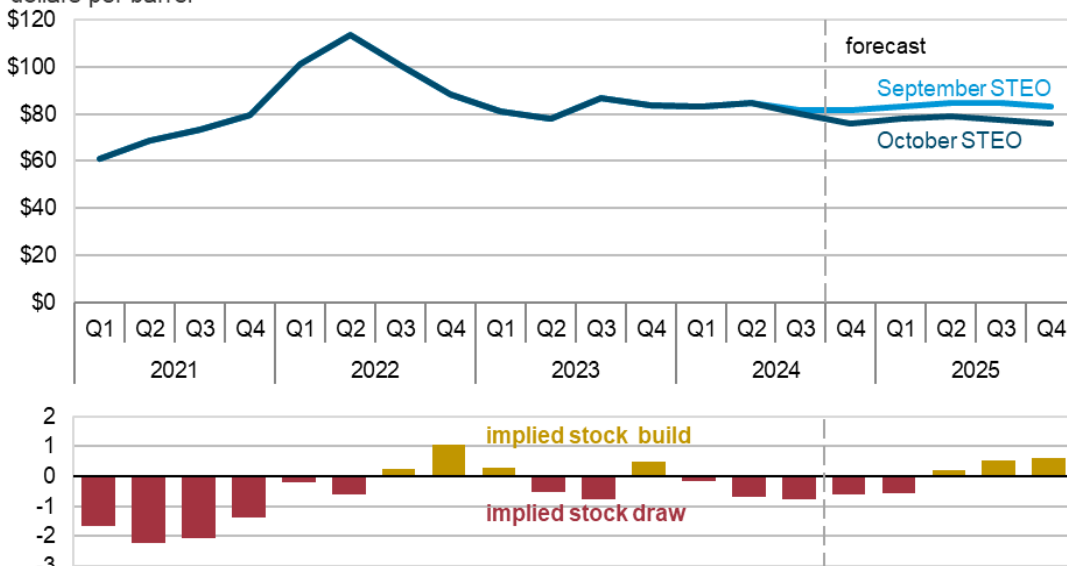
Global oil prices and inventories

The Brent crude oil spot price averaged \$74 per barrel (b) in September, down \$6/b from August. Prices fell in September as concerns over global oil demand growth outweighed declines in oil inventories and [OPEC+ members' decision to delay production increases](#) until December 2024. However, after recent military actions involving Israel, Lebanon, and Iran, the Brent spot price rose to \$79/b on October 4, up 11% from a week earlier. The potential for further escalation—such as an Israeli response to Iran's missile attack on October 1—have injected significant uncertainty and volatility into oil markets in recent days.

Following the September drop in prices and our expectation that oil demand growth will be lower next year than we had previously forecast, we have lowered our forecast for crude oil prices despite increasing oil prices in early October. We now expect Brent will average \$78/b in 2025, \$7/b less than our forecast from last month.

Brent crude oil price and global oil inventory change

dollars per barrel



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



No oil supplies have been affected by increased military action in the Middle East at the time of STEO publication, and we do not assume any disruption in our forecast. However, the conflict has escalated in recent weeks with no timeline for a potential resolution, increasing the possibility for supply disruptions and price volatility. At the same time, we assess that significant surplus crude oil production capacity is available, which could be brought online in the event of a disruption.

OPEC+ production cuts continue to mean less oil is being produced globally than is being consumed, and oil is being withdrawn from inventories. We estimate that global oil inventories fell by 0.8 million barrels per day (b/d) in the third quarter of 2024 (3Q24), and we expect inventories will fall by 0.6 million b/d

through 1Q25. As a result, we expect Brent prices will rise from \$74/b in September to average \$79/b in 1H25, which is about \$6/b lower than in last month's STEO.

By the middle of next year, we anticipate accelerated growth in oil production as OPEC+ increases its production and as production continues to grow in the United States, Guyana, Brazil, and Canada. We forecast oil inventories will increase by an average of almost 0.6 million b/d in 2H25 as production growth globally begins to outweigh global oil demand growth.

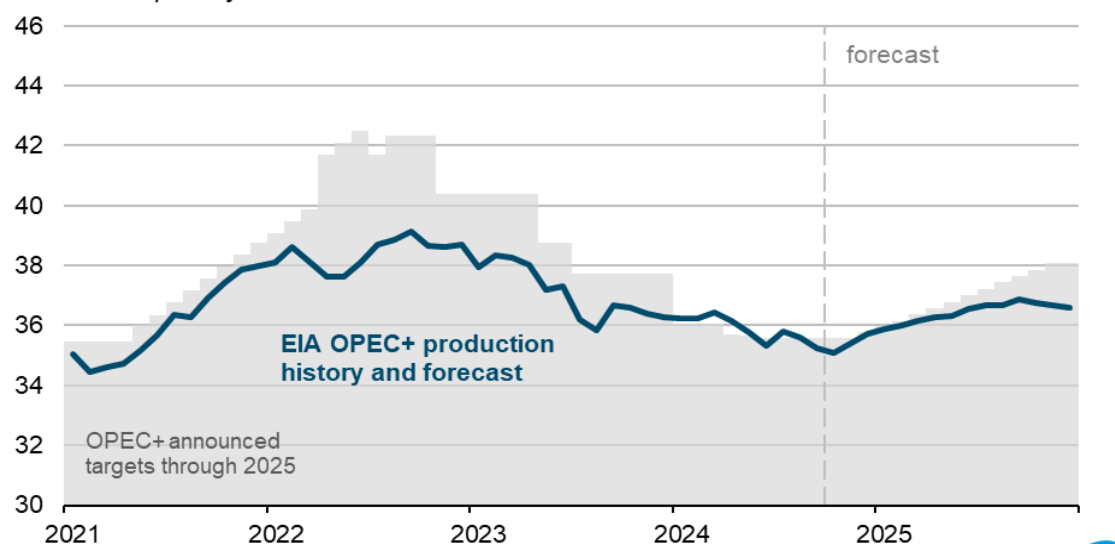
In addition to the escalating Middle East conflict, other sources of uncertainty remain. We now expect production in Libya will begin increasing in the coming weeks, following recent production outages. But production in Libya can be volatile, and returning crude oil production volumes might fall short of our expectations. We also assess that OPEC+ producers are likely to continue to limit production below recently announced targets in 2025. However, if OPEC+ producers stick closely to announced production levels in 2H25, it would be a downside risk to oil prices.

Global oil production and consumption

We anticipate that production growth outside of OPEC+ will remain strong over the forecast period, and as a result we anticipate OPEC+ producers will likely keep production less than their recently announced targets for much of next year.

OPEC+ crude oil production and targets

million barrels per day



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



We expect that global production of petroleum and other liquid fuels will increase by 2.0 million b/d in 2025, up from growth of just 0.5 million b/d this year. We assume countries outside of OPEC+ increase production by 1.4 million b/d next year, while OPEC+ production increases by 0.7 million b/d, after the voluntary cuts reduced OPEC+ production by 1.3 million b/d this year.

In addition to voluntary cuts to OPEC+ production, a force majeure in Libya in August and September reduced oil production. We estimate Libya's crude oil production fell to 0.4 million b/d in September

2024 from nearly 1.2 million b/d in July 2024 before the disruptions began. As of early October, it appears [the cause of the disruption has come to a resolution](#), with affected production potentially restarting in October. We assume Libya's oil production will average 0.6 million b/d for the rest of this year.

We revised our estimate of Iraq's crude oil production, including historical production, up by an average of 0.2 million b/d in 2024 to account for our assessment that more crude oil is being used in new refining capacity in Iraq than we had previously determined. Although we raised our assessment of Iraq's oil production, we still estimate that Iraq cut its crude oil production by 0.3 million b/d from July through September 2024 to comply with OPEC+ production quotas.

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. Our 2024 forecast is down from last month due to downward revisions to demand in China and our 2025 forecast is down primarily because of downward revisions to demand in OECD countries.

We reduced our forecast for China's liquid fuels consumption in 2024 because of continued declines in the country's crude oil imports and refinery runs in 3Q24. Although the Chinese government recently announced [monetary stimulus](#) measures that could result in higher economic growth and petroleum consumption in 2025, we have kept our forecast 2025 growth rate largely unchanged. We forecast China's petroleum and liquid fuels consumption will grow by about 0.1 million b/d in 2024 and 0.3 million b/d in 2025.

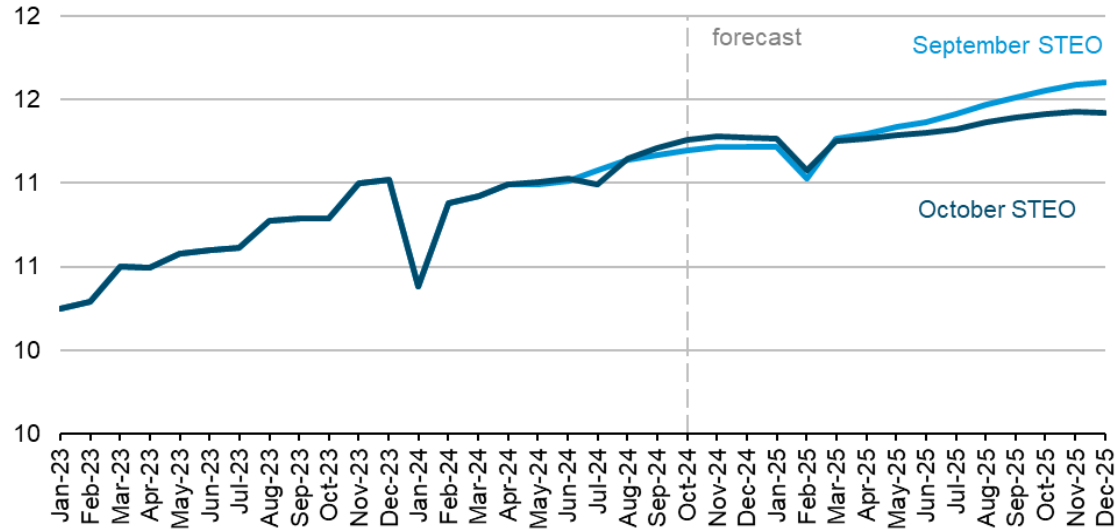
We reduced our forecast of total OECD oil consumption by 0.2 million b/d in 2025 compared with last month's STEO as a result of weaker expectations for industrial production and manufacturing growth in the United States and Canada. Most of our expected global liquid fuels demand growth is from non-OECD countries where liquid fuels consumption increases by 1.0 million b/d in 2024 and 1.2 million b/d in 2025, in contrast to consumption in OECD countries, which falls by 0.1 million b/d in 2024 before increasing by a similar amount in 2025.

U.S. Petroleum Products

U.S. crude oil production

We reduced our 2025 forecast for U.S. Lower 48 states (L48) crude oil production in the October STEO from last month by 1% to 11.3 million b/d. This reduction reflects a downward revision to our [West Texas Intermediate](#) (WTI) crude oil price forecast. We now expect WTI will average \$72/b in 4Q24, about \$6/b lower than last month's forecast. Because there is about a six-month lag between price changes and producer activity, the recent price declines will begin reducing U.S. crude oil production in mid-2025. By December 2025, U.S. L48 crude oil production will be 11.4 million b/d, 2% lower than our September STEO forecast.

Crude oil production in the lower 48 states excluding the Gulf of Mexico million barrels per day



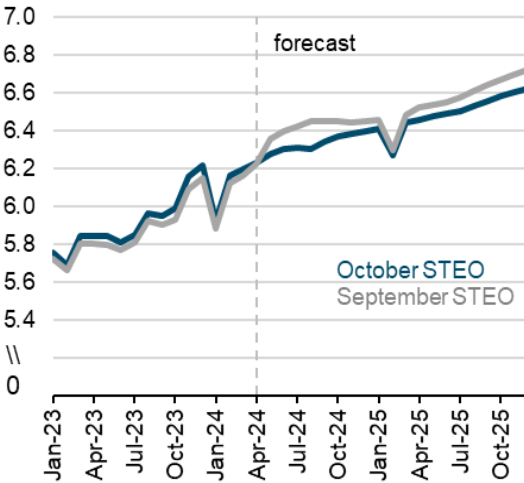
Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook* (STEO), October 2024



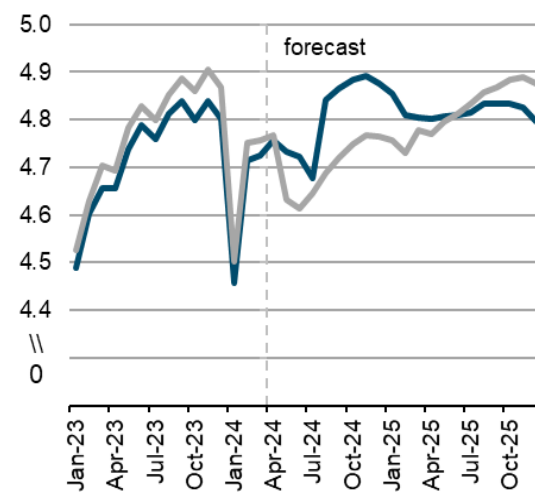
Recent industry survey results align with a slowdown in U.S. exploration and production company activity. The Dallas Fed Energy Survey's [Business Activity Index](#) for 3Q24 indicates a contraction, signaling concerns about demand in the oil and natural gas sector. This contraction is the first in the activity index since 3Q20.

Our expectation of lower crude oil prices [reduced](#) our production forecasts the most for the Permian region. Although we lowered our forecast for crude oil production in the Permian, we still expect production in the region to increase over time. In addition to ongoing improvements in oil well productivity in the region, the [Matterhorn Express pipeline](#) recently began operation, which will help alleviate constrained takeaway capacity for associated natural gas and allow for additional crude oil production.

**U.S. crude oil production
Permian region**
million barrels per day



Lower 48 states excluding Permian
million barrels per day



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



More production from regions outside the Permian, such as the Eagle Ford and Bakken, offset our reduction of Permian production early in the forecast period. The increase in our production forecast for these regions in the coming months relative to the September STEO primarily reflects historical revisions in our survey, [EIA-914, Monthly Crude Oil and Natural Gas Production](#). However, similar to our forecast for the Permian region, we expect lower prices to bring down production in these regions compared with last month's forecast beginning in mid-2025.

[Hurricane Helene](#), a [Category 4 storm](#), led to the shutdown of 29% of oil production in the Gulf of Mexico (GOM) in September. This disruption followed [Hurricane Francine](#), which shut in up to 42% of crude oil production in GOM. As a result, we reduced our estimates and forecasts for both September and October GOM crude oil production. However, we expect GOM will return to our previously forecast level by November.

Gasoline prices

Our lower crude oil price forecast reduced our gasoline price forecast. We now expect the U.S. retail gasoline price to average \$3.20 per gallon (gal) in 2025, down 10 cents/gal from the September forecast. We also expect the \$3.20/gal average next year to be down 10 cents/gal from the 2024 average retail gasoline price.

U.S. average retail gasoline price

dollars per gallon

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

Natural Gas

Natural gas exports

U.S. natural gas exports, particularly in the form of liquefied natural gas (LNG), are the primary driver of growth in U.S. natural gas demand in our forecast. Total natural gas demand is made up of domestic consumption from the residential, commercial, industrial, and electric power sectors as well as natural gas exports as LNG and by pipeline. We expect U.S. LNG exports to average 12.1 billion cubic feet per day (Bcf/d) in 2024 and 13.8 Bcf/d in 2025, with domestic consumption of natural gas falling by about 1 Bcf/d compared with this year.

Because there is ample demand for U.S. LNG in the international market, changes in our U.S. LNG export forecast depend more on the start-up timing of export facilities rather than global market conditions. The expected start-up of Golden Pass LNG has moved from 4Q25 to 2H26. We assume Corpus Christi LNG Stage 3 will fully ramp up LNG production in 2H27 rather than by the middle of 2025. Corpus Christi LNG Stage 3, along with Plaquemines LNG, are in the commissioning phase to start LNG export operations. We expect that each of these facilities will begin exporting LNG by the end of 2024.

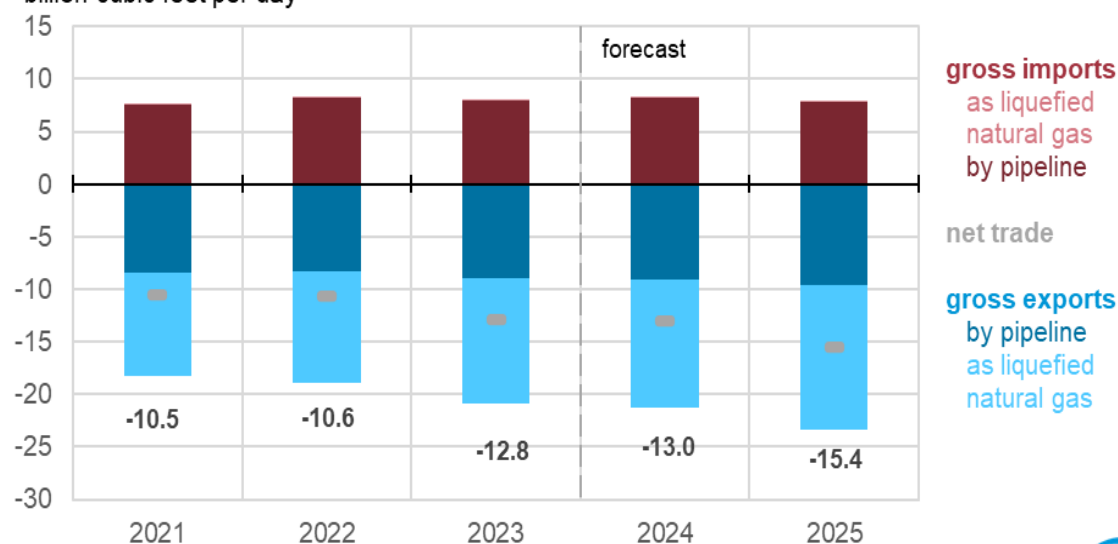
Plaquemines LNG is a greenfield facility located in Plaquemines Parish, Louisiana. Plaquemines LNG is being developed in two phases. Each of the two phases consists of nine blocks, each containing two liquefaction units called trains. LNG production capacity of each phase is 1.3 Bcf/d **nominal** or almost 1.6 Bcf/d **peak**. We assume the start of LNG exports from Plaquemines LNG by December 2024 and the full ramp up of all blocks of Phase 1 by spring 2025. We assume the start of LNG exports from Phase 2 by the end of 2025.

Corpus Christi LNG Stage 3 is an expansion of the existing Corpus Christi LNG export terminal located in San Patricio County, Texas. The expansion facility consists of seven trains with a combined nominal

capacity of 1.3 Bcf/d and peak capacity of 1.5 Bcf/d. We expect the start of LNG exports from this facility by December 2024. We assume that Corpus Christi Stage 3 will place [three of its mid-scale liquefaction trains in service](#) by the end of 2025.

U.S. annual natural gas trade

billion cubic feet per day



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

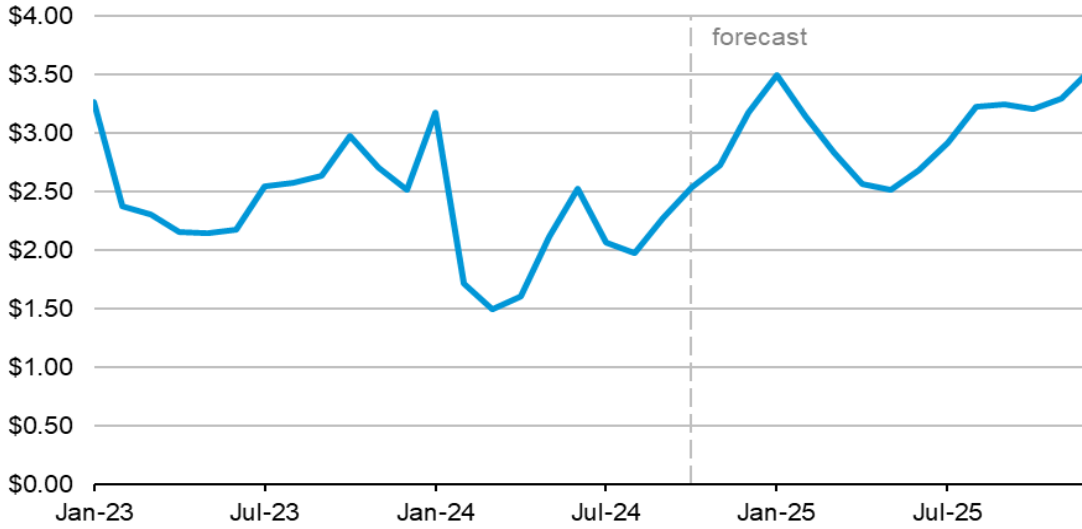


Natural gas prices

Natural gas prices rose in September as natural gas production fell slightly from August. The U.S. benchmark Henry Hub price averaged \$2.28 per million British thermal units (MMBtu) in September, 15% higher than the August average of \$1.98/MMBtu. The decline in production was partly due to an 11% drop in Gulf of Mexico (GOM) natural gas production. About [53% of GOM production capacity was taken off-line because of Hurricane Francine](#), which made landfall on the Louisiana coast on September 11. GOM production capacity was unable to return to full capacity because Category 4 Hurricane Helene went through a nearby area two weeks later, extensively disrupting energy systems.

We expect the Henry Hub price will rise to average nearly \$2.80/MMBtu in 4Q24 and around \$3.10/MMBtu in 2025. We expect prices to rise in 2025 as LNG exports increase while domestic consumption and production remain relatively flat. We forecast U.S. consumption of natural gas to average 89 Bcf/d in 2025, which is about the same as our forecast for consumption in 2024. However, we expect that LNG exports will rise by nearly 2 Bcf/d next year with continued strong international demand as [export capacity expands](#).

Henry Hub natural gas price
dollars per million British thermal units



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



Electricity, Coal, and Renewables

Electricity consumption

Summer temperatures this year were warmer in the United States than last summer, especially in the upper Midwest and Northeast regions, which helped to push up U.S. electricity demand. We expect 2% more U.S. sales of electricity to ultimate customers in 2024 than in 2023, followed by another 2% forecast increase in 2025.

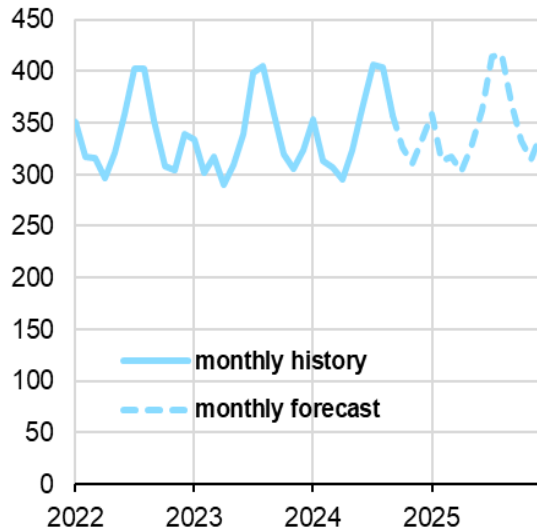
We expect electricity sales to increase across economic sectors. In 2024, electricity use increases the most in the residential and commercial sectors. We expect 3% more electricity consumption in the U.S. residential sector than last year, which mostly reflects the hot summer this year. Changes in temperature have the most effect on electricity use by residential customers. Forecast residential electricity sales increase by just 1% in 2025 along with our expectation that summer temperatures next year will be closer to the 10-year average.

Commercial sector electricity use is rising this year because of warmer temperatures as well as [increasing demand](#) from data centers in some regions. We expect commercial electricity sales will increase by 3% this year followed by a 1% increase in 2025.

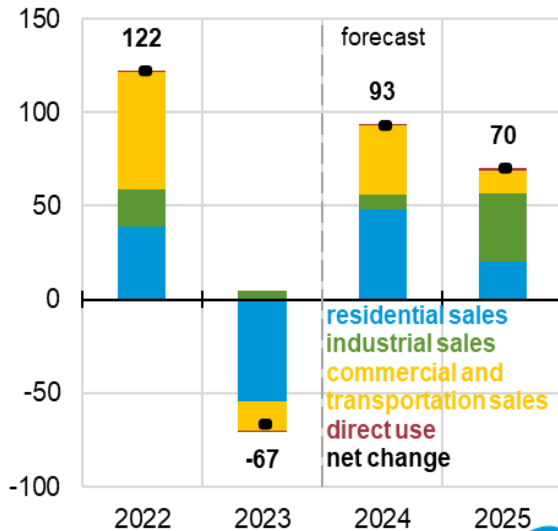
We expect U.S. electricity demand to grow fastest in 2025 in the industrial sector, almost 4%, after growing only 1% in 2024. The electricity demand expected from some new battery and semiconductor chip manufacturing facilities that are currently under development contributes to our forecast increase in industrial sector electricity sales next year.

U.S. electricity consumption and components of annual change

billion kilowatthours



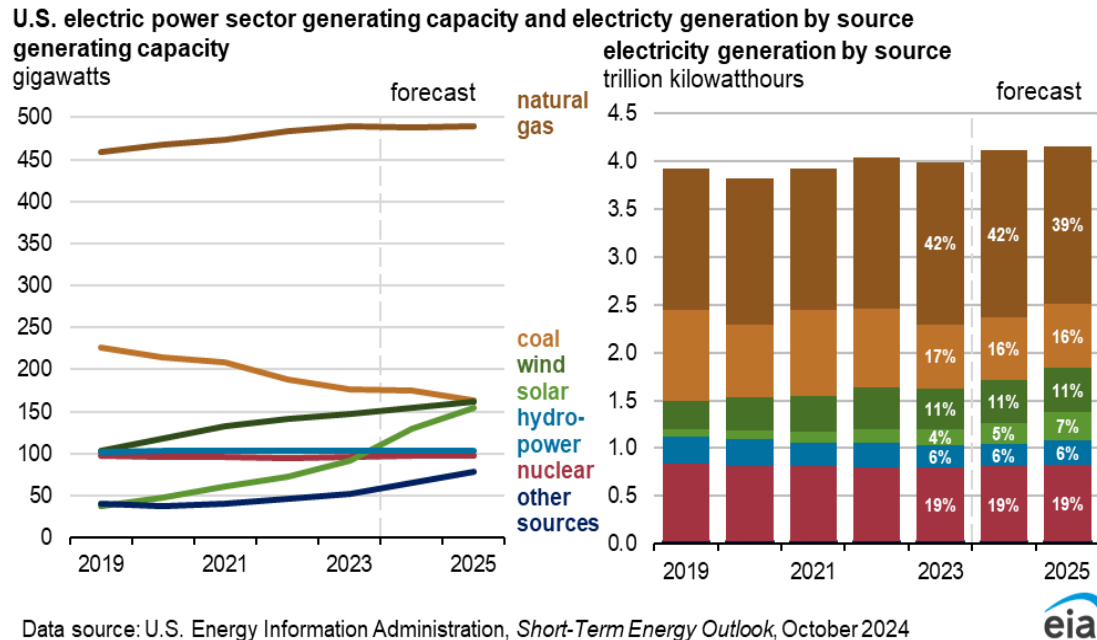
billion kilowatthours

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

Electricity generation

New solar photovoltaic power projects are driving our forecast that solar will be the fastest-growing source of electricity in 2024 and 2025. We expect that the share of total U.S. electricity generation from solar will grow from 4% in 2023 to 5% in 2024 and to 7% in 2025.

Although we expect the amount of U.S. solar generating capacity will approach the amount of U.S. coal-fired capacity by the end of 2025, coal power plants tend to run at higher utilization rates over time. We expect that coal will account for about 16% of total U.S. generation in 2024 and 2025, down from 17% last year. Increasing generation from new solar is likely to most affect natural gas generation, which we expect will fall from 42% of U.S. generation in 2024 to 39% in 2025. In addition to the effect of more solar generation, we expect less natural gas generation in 2025 as a result of rising natural gas prices as well as very little new generating capacity coming online.



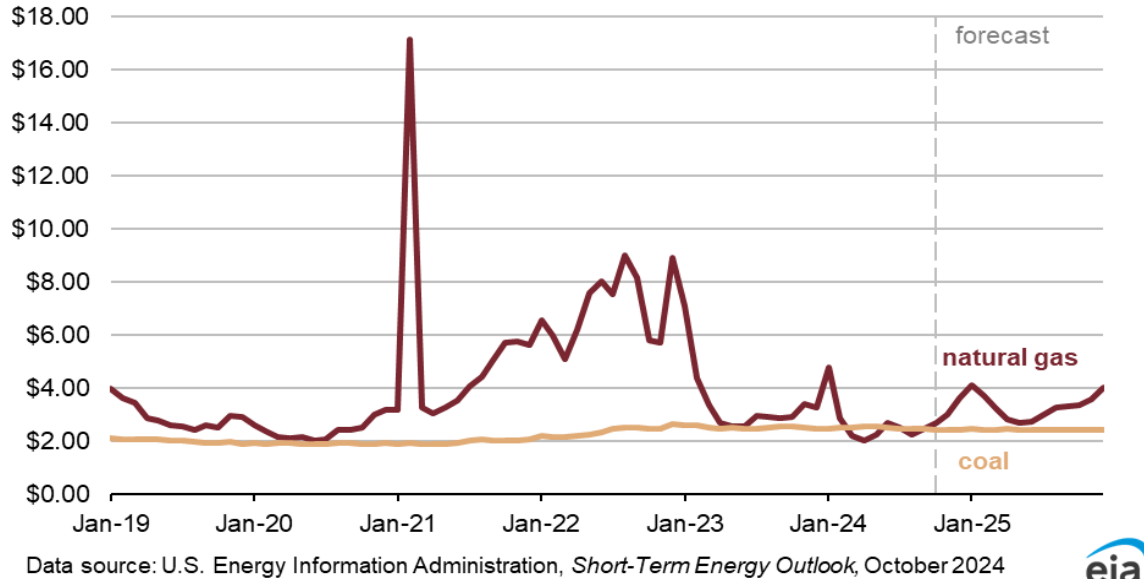
Coal markets

We expect 12% less coal will be consumed in the electric power sector during October than in September, when power sector coal consumption dropped 22% from August. The drop in coal consumption typically happens during the September and October shoulder season, which reduces overall electricity generation, and as natural gas prices remain at competitive levels. We forecast a 3% increase in U.S. power sector coal consumption in November, and then a sharper 32% increase in December, as the winter season begins, power demand rises, and forecast natural gas prices approach \$3.20/MMBtu in December while coal prices remain relatively low.

Although coal remains a significant fuel source for U.S. power generation in the mid-Atlantic and Midwest, natural gas has become more cost competitive with coal over the past decade due to the greater thermal efficiency of combined-cycle natural gas turbine plants. The higher energy yield that comes with lower heat rates means that the effective price of natural gas relative to coal is even lower than the nominal price indicates. However, with increases in electricity demand expected from the growth of data centers and other sources, we expect overall electric power sector coal consumption to increase from this year, even as coal production declines in 2025. As a result, we expect coal inventories held by electric power plants to fall to about 100 MMst by December 2025 from 130 MMst at the end of 2024.

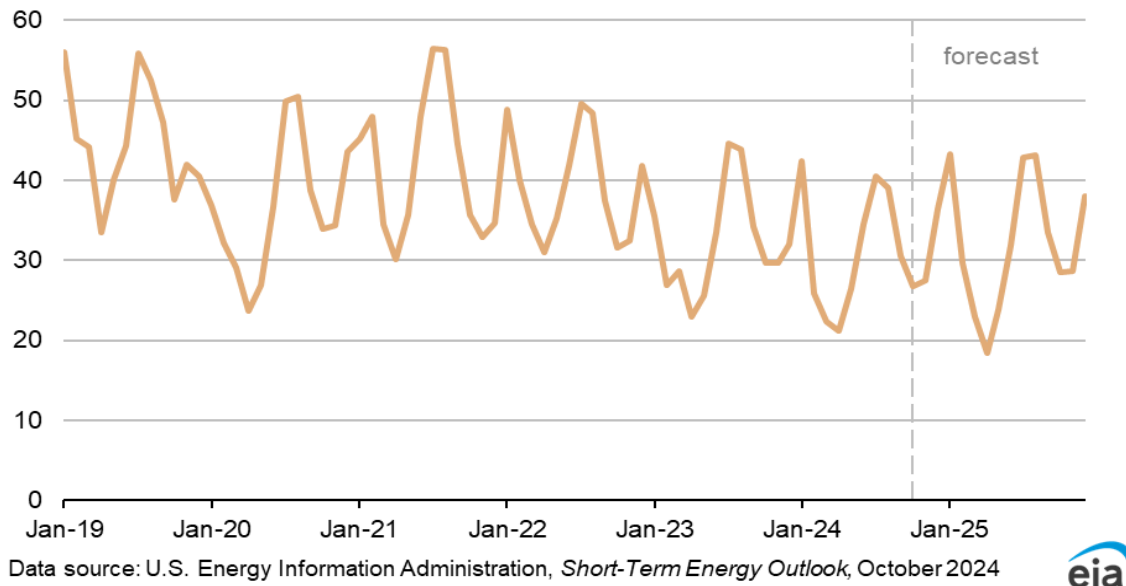
U.S. electric power price for natural gas and coal

dollars per million British thermal units



U.S. electric power coal consumption

million short tons



Economy, Weather, and CO₂

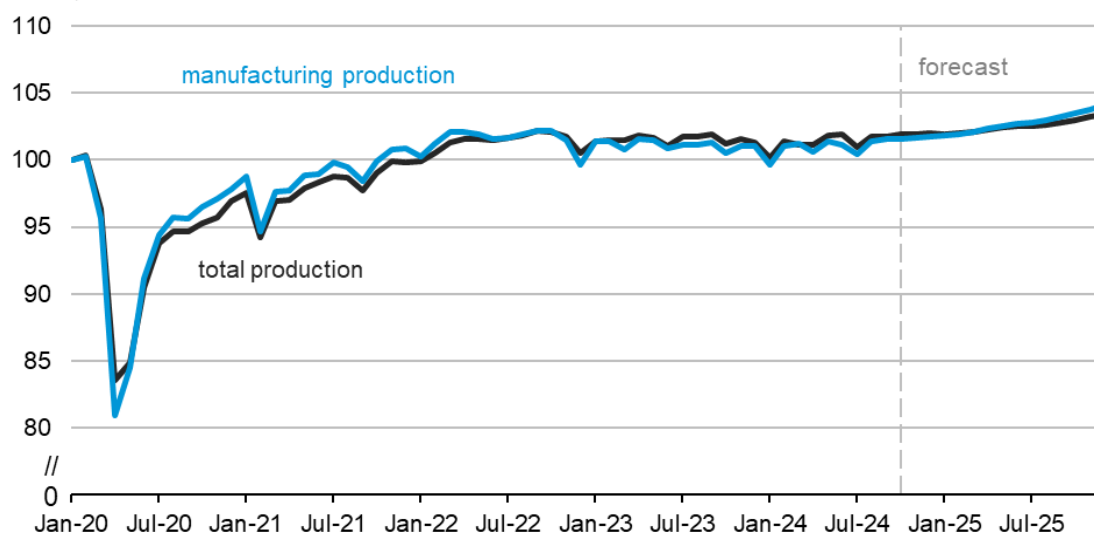
U.S. macroeconomics

Our forecast for October 2024 assumes real U.S. GDP will grow by 2.7% in 2024 and 1.9% in 2025, up from last month's forecast of 2.6% and 1.8% respectively, as a result of updated data from the Bureau of Economic Analysis. Their second estimate of 2Q24 GDP growth showed that real U.S. GDP grew at an annualized rate of 3.0% last quarter, which is slightly higher than assumed in last month's forecast.

The increase was primarily driven by higher consumer spending, which we now assume will grow by 2.5% in 2024 and 2.3% in 2025. From 2021–2023, real consumer spending growth averaged 4.8%, and it grew by 2.4% in 1H24. Despite the steady growth of consumer spending over the last several years, growth of manufacturing has lagged both the overall industrial sector and GDP.

Following the initial boom in spending on manufactured goods that started in 2H20, consumers shifted their spending toward services as pandemic-related closures subsided. During this period, manufacturing growth lagged that of both the service sector and overall industrial production. Looking forward into 2025, we assume consumer habits will shift back toward their pre-pandemic relationship between goods and services spending. As a result, our forecast assumes that the manufacturing sector will grow faster than the wider industrial sector in the near term.

Industrial production
index, Jan 2020 = 100



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



The macroeconomic forecasts are based on S&P Global's macroeconomic model. We incorporate STEO energy price forecasts into the model to obtain our final macroeconomic assumptions.

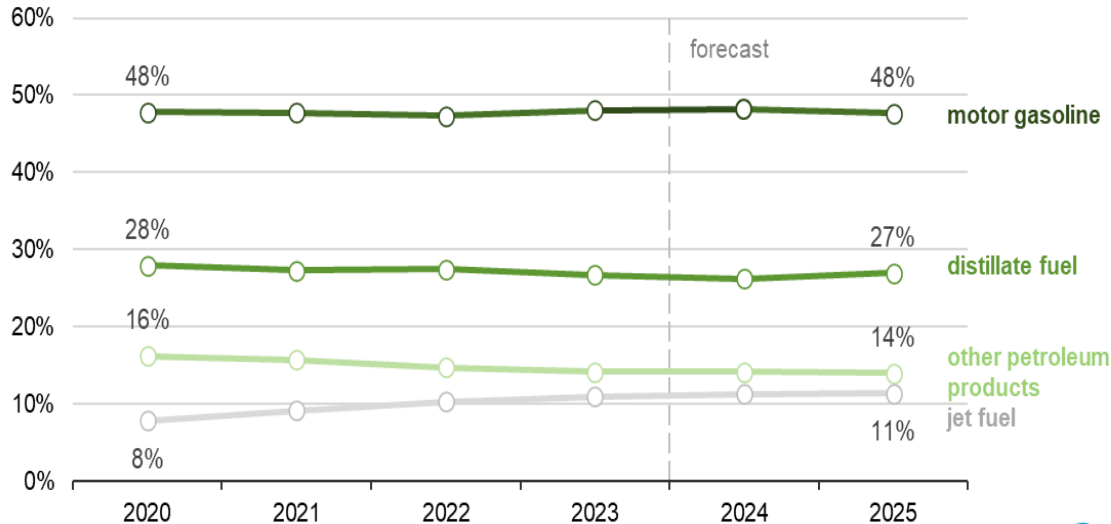
Emissions

We expect U.S. energy-related carbon dioxide (CO₂) emissions to remain flat between 2023 and 2025. This forecast is a result of small, counteracting changes in emissions from use of coal, natural gas, and petroleum products. In 2024, these changes are mostly focused in the electric power sector. Increases in electricity generation and CO₂ emissions from natural gas are offset by decreasing generation and CO₂ emissions from coal. In 2025, less electricity generation and emissions from natural gas are offset by more generation and emissions from coal, with both returning to 2023 levels, as well as rising CO₂ emissions from petroleum, associated mostly with higher diesel consumption.

Collectively, petroleum products make up the largest share, about one-half, of U.S. energy-related CO₂ emissions. Although around 20 different products are represented in our petroleum emissions forecast, more than 80% of U.S. petroleum-related emissions come from only three fuels, all of which are closely

related with the U.S. transportation sector. Motor gasoline makes up the largest share of U.S. petroleum emissions, followed by distillate fuel oil and jet fuel. Motor gasoline and distillate fuel oil are largely associated with on-road vehicle travel, and jet fuel with air travel. The shares of each of these fuels in petroleum emissions have remained relatively consistent over time. One noticeable exception to this trend is jet fuel, the relative share of which has grown over the last several years along with increases in air travel following the COVID-19 pandemic.

Share of total petroleum CO₂ emissions by petroleum product
percentage



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



Weather

We expect the United States will experience a cooler October this year compared to last, with about 220 [heating degree days](#) (HDDs) in October, 7% more than in October 2023. October weather contributes to a slightly cooler fourth quarter in 2024 with 7% more HDDs than in 4Q23. Overall, our forecast assumes the 2024–2025 winter heating season (November–March) will be slightly cooler than the previous winter season with an average of 3,200 HDDs (5% more HDDs), increasing energy use for space heating this winter. Our expectations for energy expenditures for the 2024–2025 winter season are further discussed in our [Winter Fuels Outlook](#).

Short-Term Energy Outlook

Chart Gallery



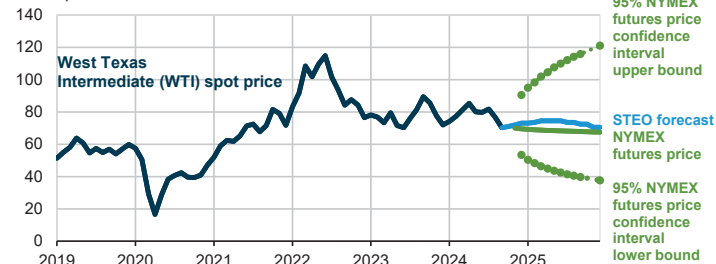
October 8, 2024



U.S. Energy Information Administration

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

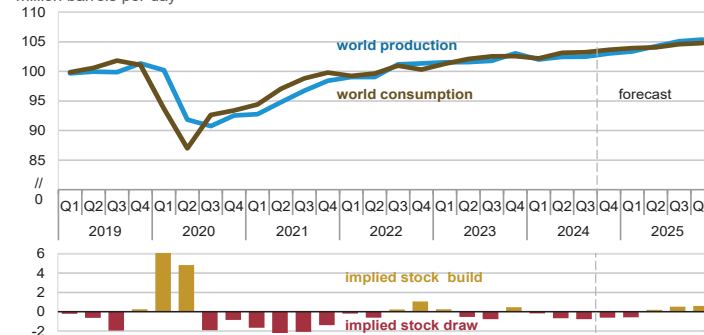


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024, CME Group, Bloomberg, L.P., and Refinitiv an LSEG Business

Note: Confidence interval derived from options market information for the five trading days ending October 3, 2024. Intervals not calculated for months with sparse trading in near-the-money options contracts.



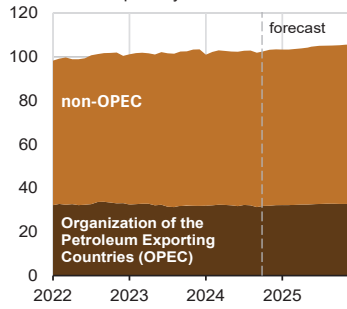
World liquid fuels production and consumption balance
million barrels per day



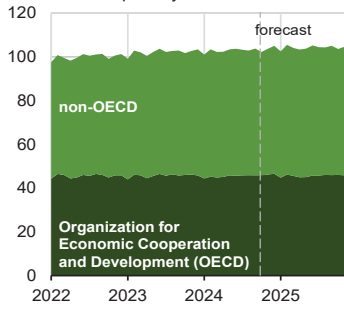
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024



World liquid fuels production
million barrels per day



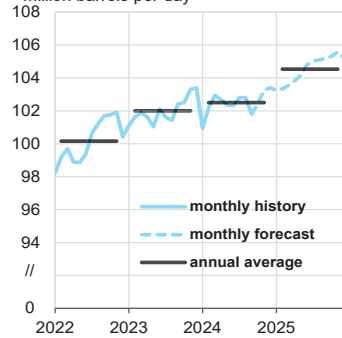
World liquid fuels consumption
million barrels per day



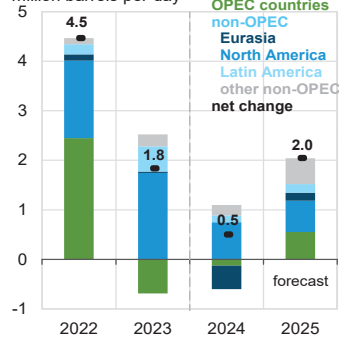
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024



World crude oil and liquid fuels production
million barrels per day



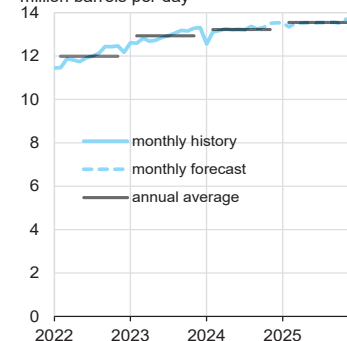
Components of annual change
million barrels per day



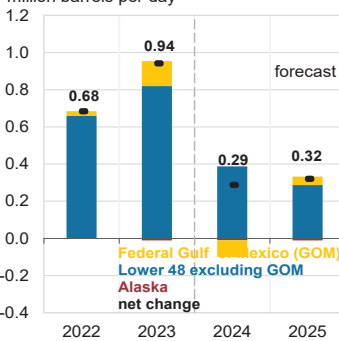
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024



U.S. crude oil production
million barrels per day



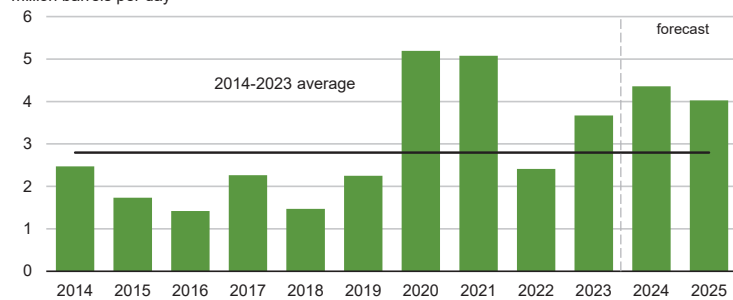
Components of annual change
million barrels per day



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



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

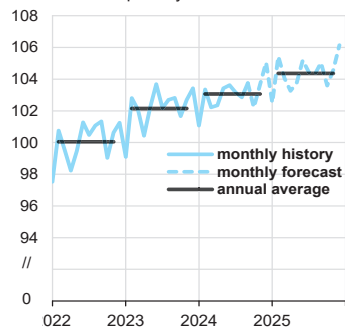


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024

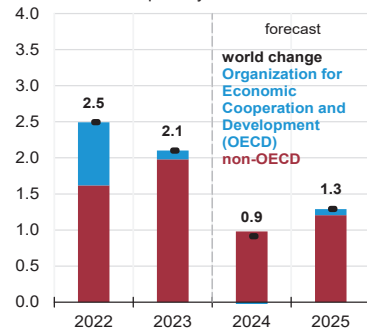
Note: Black line represents 2014-2023 average (2.8 million barrels per day).



World liquid fuels consumption
million barrels per day



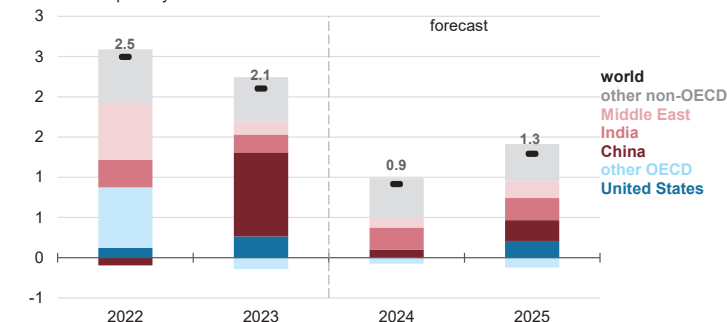
Components of annual change
million barrels per day



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



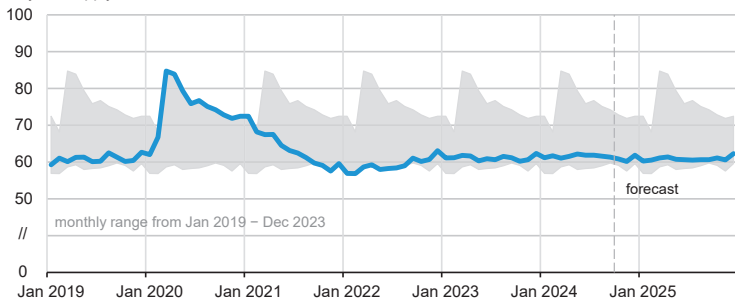
Annual change in world liquid fuels consumption
million barrels per day



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



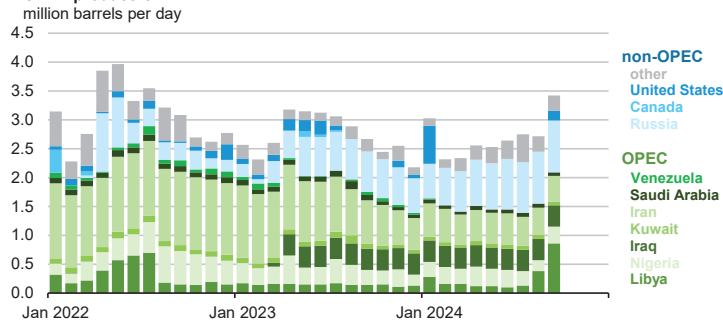
Organization for Economic Cooperation and Development (OECD)
commercial inventories of crude oil and other liquids
 days of supply



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



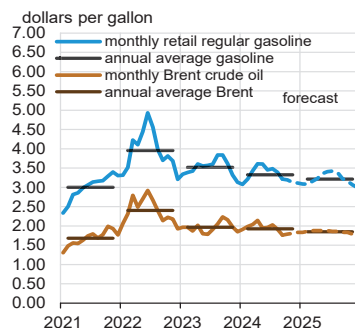
Estimated unplanned liquid fuels production outages among OPEC and non-OPEC producers



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

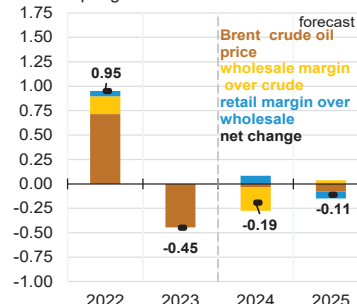


U.S. gasoline and crude oil prices

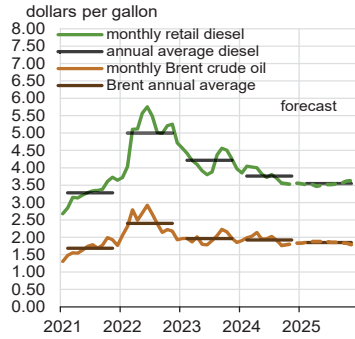


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024, and Refinitiv an LSEG Business

Components of annual gasoline price changes
 dollars per gallon

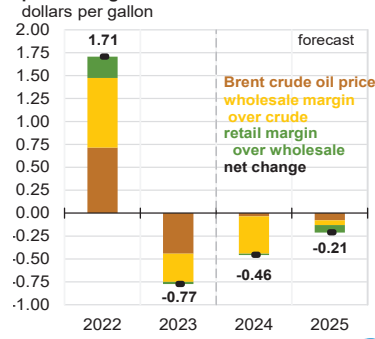


U.S. diesel and crude oil prices



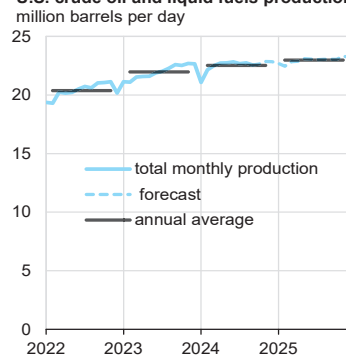
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024, and Refinitiv an LSEG Business

Components of annual diesel price changes



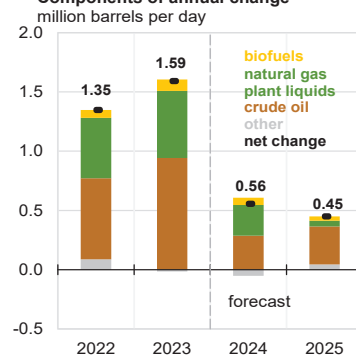
eia

U.S. crude oil and liquid fuels production



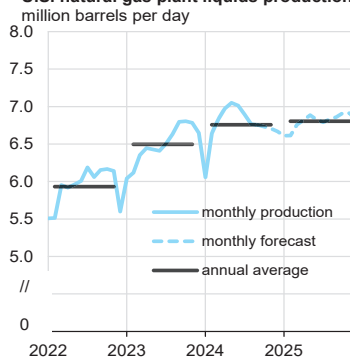
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024

Components of annual change



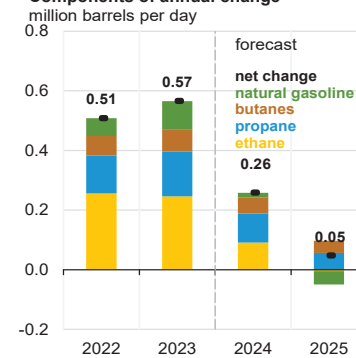
eia

U.S. natural gas plant liquids production



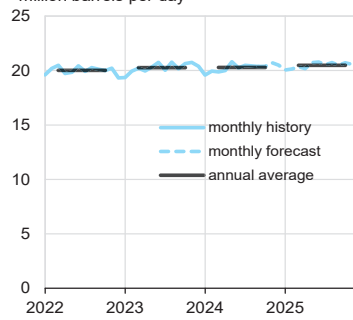
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024

Components of annual change



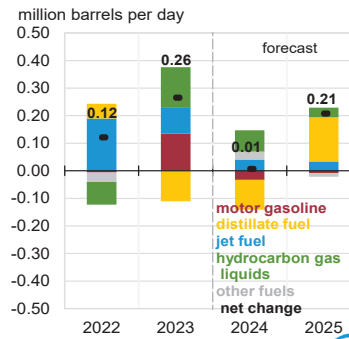
eia

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



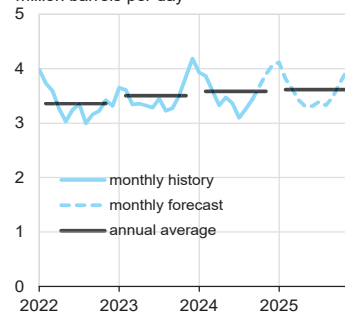
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024

Components of annual change



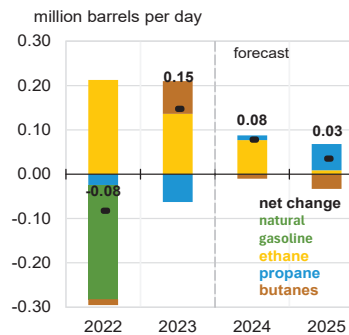
eia

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



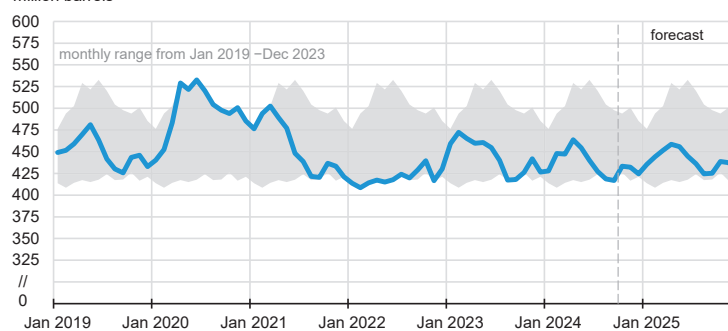
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024

Components of annual change



eia

U.S. commercial crude oil inventories
million barrels

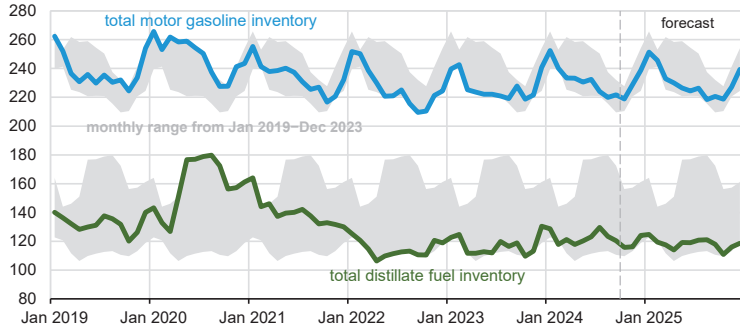


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024

eia

U.S. gasoline and distillate inventories

million barrels

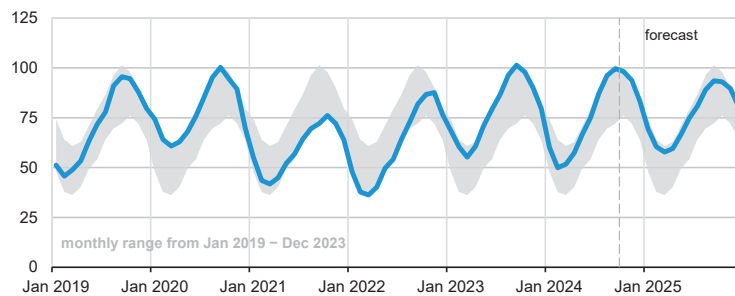


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024



U.S. commercial propane inventories

million barrels



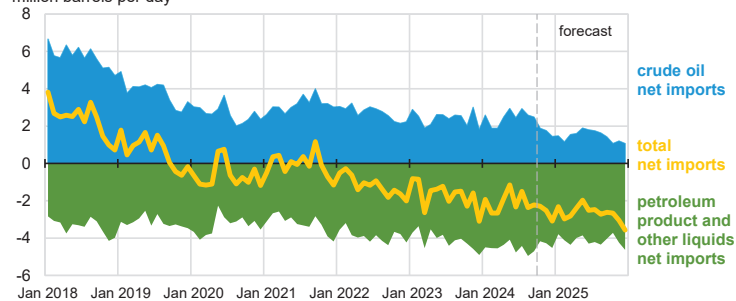
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024

Note: Excludes propylene.



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

million barrels per day



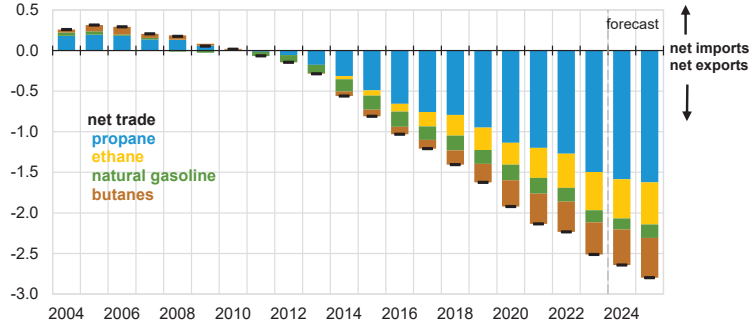
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024

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

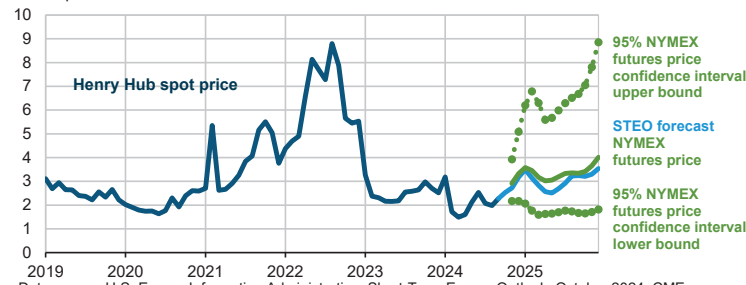


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024



Henry Hub natural gas price and NYMEX confidence intervals

dollars per million British thermal units



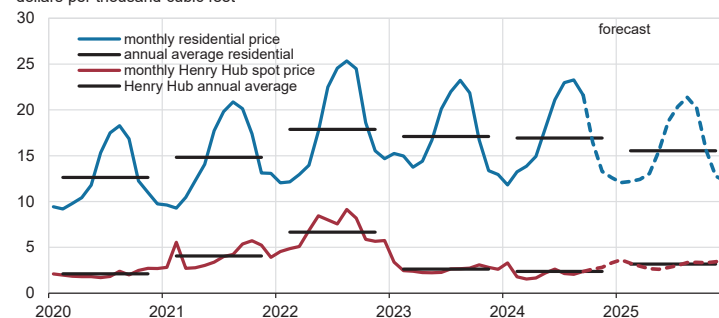
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024, CME Group, and Refinitiv an LSEG Business

Note: Confidence interval derived from options market information for the five trading days ending October 3, 2024. Intervals not calculated for months with sparse trading in near-the-money options contracts.



U.S. natural gas prices

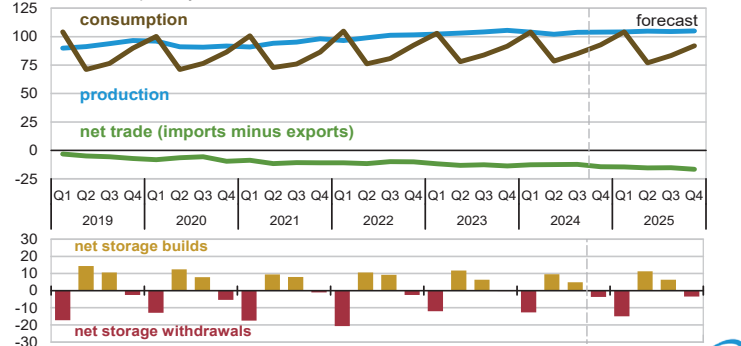
dollars per thousand cubic feet



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



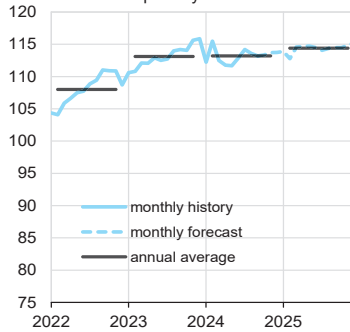
U.S. natural gas production, consumption, and net imports
billion cubic feet per day



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



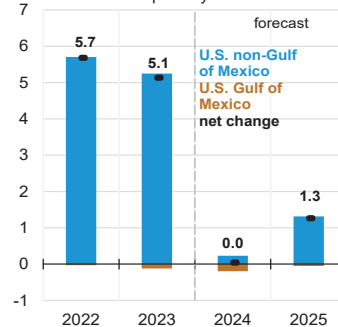
U.S. marketed natural gas production
billion cubic feet per day



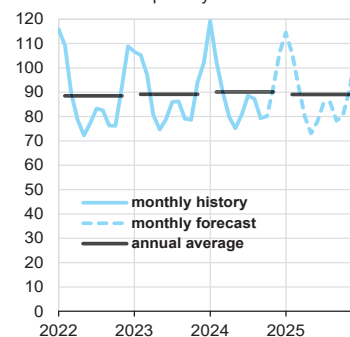
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024



Components of annual change
billion cubic feet per day



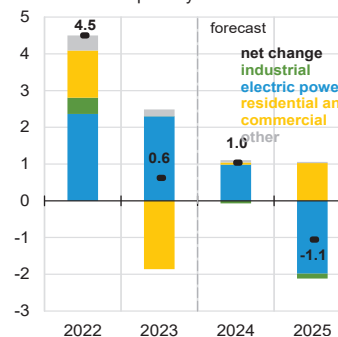
U.S. natural gas consumption
billion cubic feet per day



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

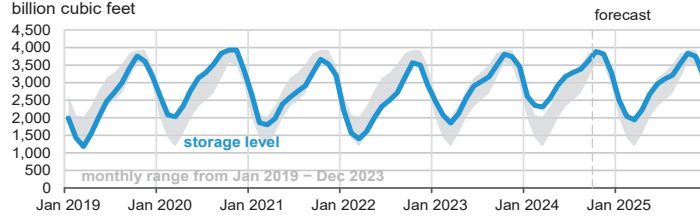


Components of annual change
billion cubic feet per day

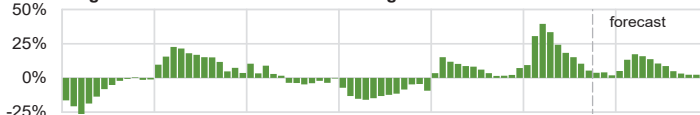


U.S. working natural gas in storage

billion cubic feet



Percentage deviation from 2019 – 2023 average

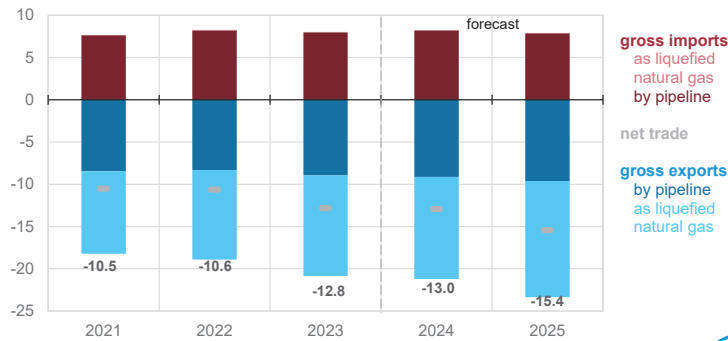


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024



U.S. annual natural gas trade

billion cubic feet per day

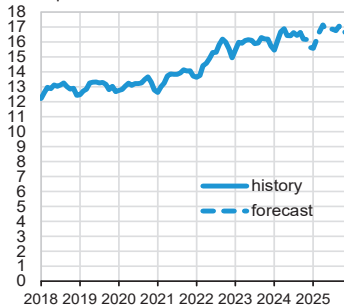


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024



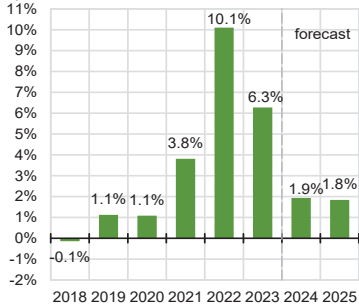
U.S. monthly nominal residential electricity price

cents per kilowatthour



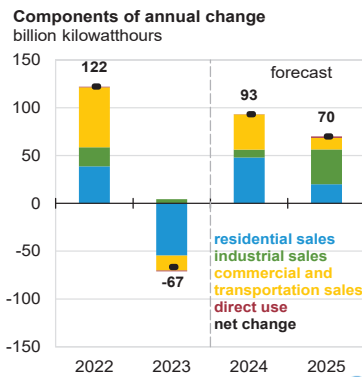
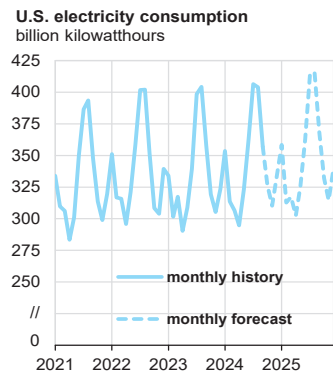
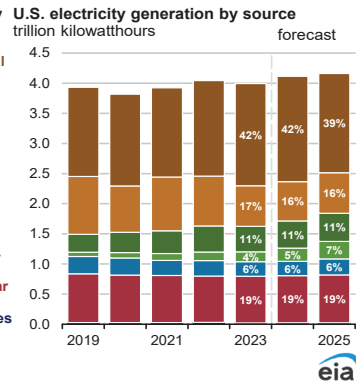
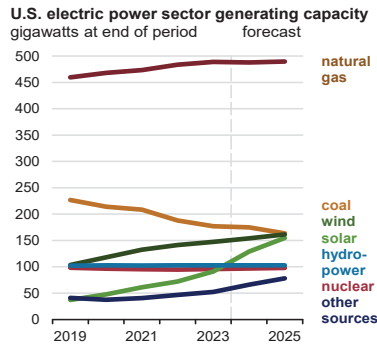
Annual growth in nominal residential electricity prices

percent

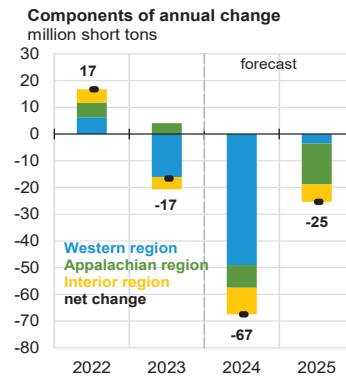
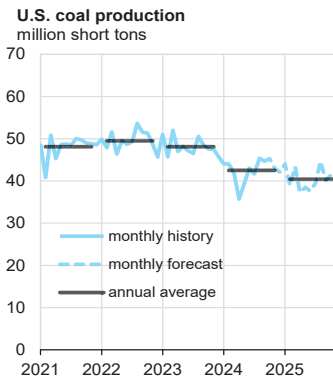


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024

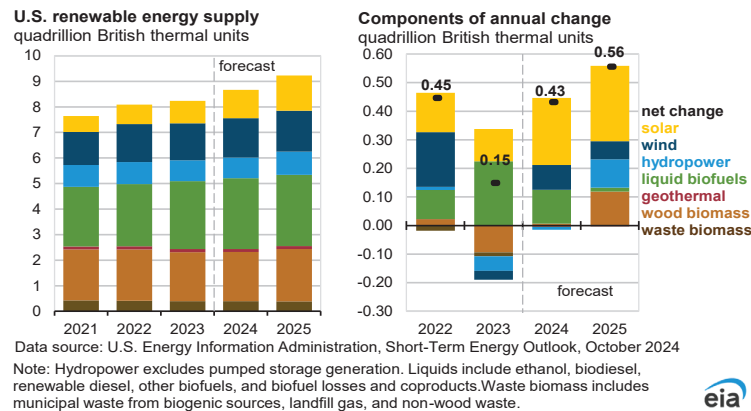
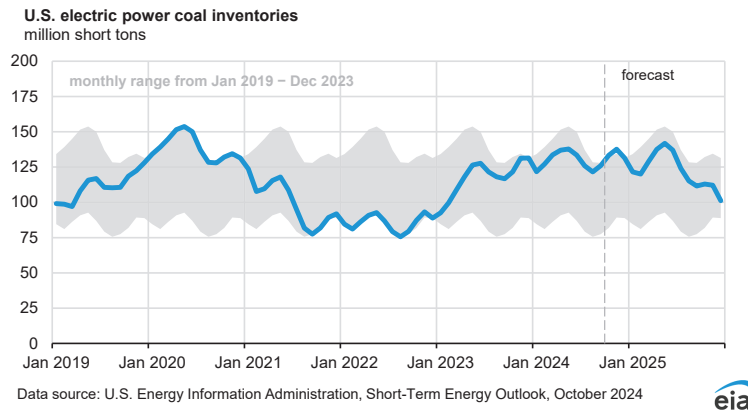
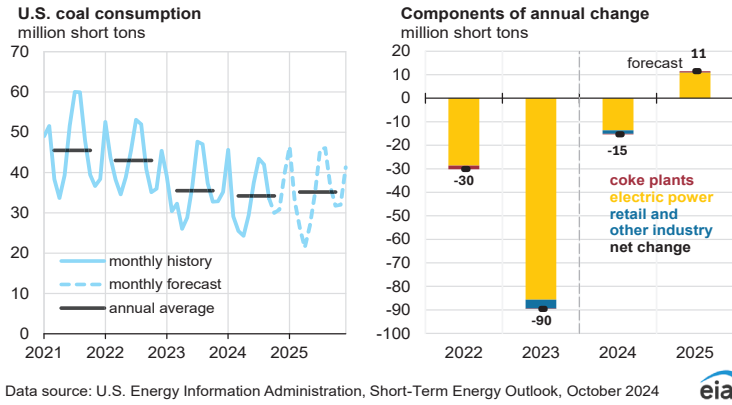




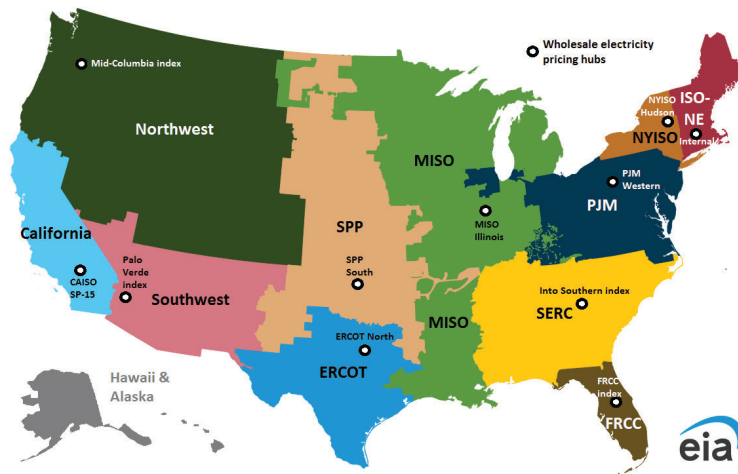
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024



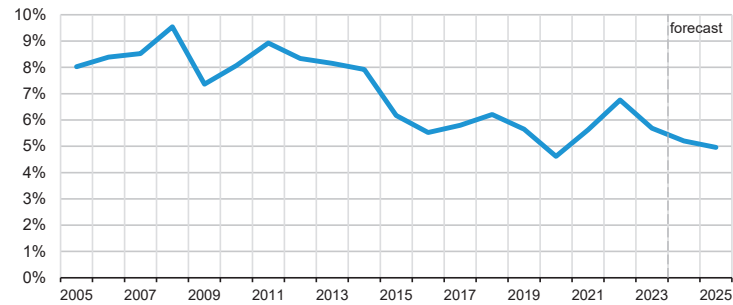
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024



Short-Term Energy Outlook electricity supply regions



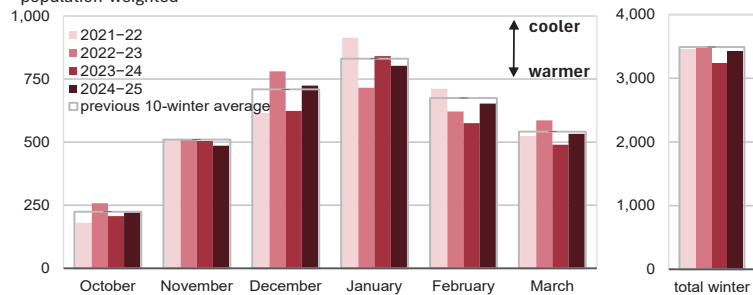
U.S. annual energy expenditures share of gross domestic product



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



U.S. winter heating degree days population-weighted

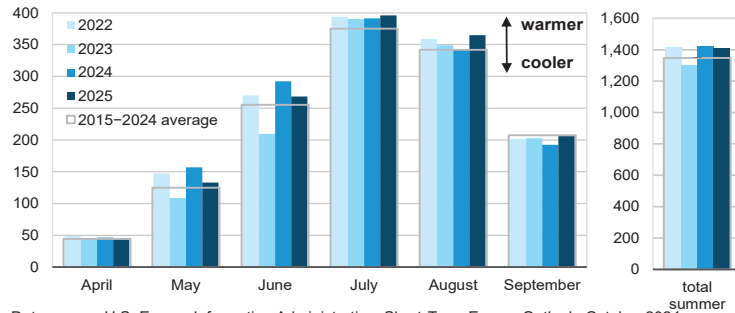


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024

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



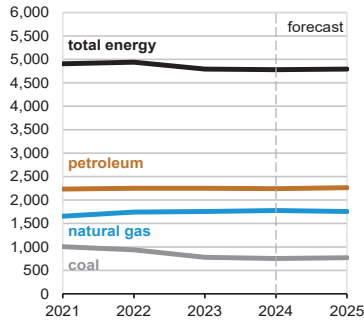
U.S. summer cooling degree days population-weighted



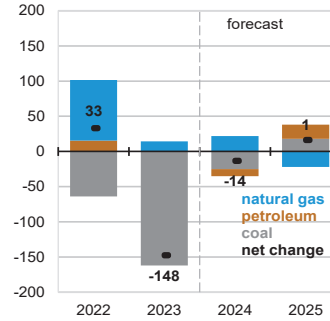
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024
 Note: EIA calculations based on National Oceanic and Atmospheric Administration (NOAA) data. Projections reflect NOAA's 14-16 month outlook.



U.S. annual CO₂ emissions by source million metric tons



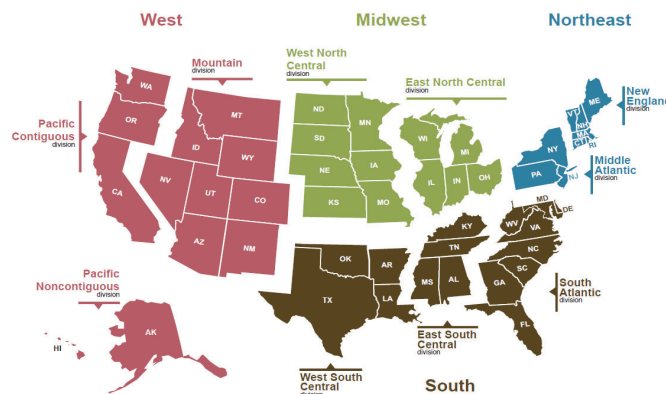
Components of annual change million metric tons



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



U.S. Census regions and divisions

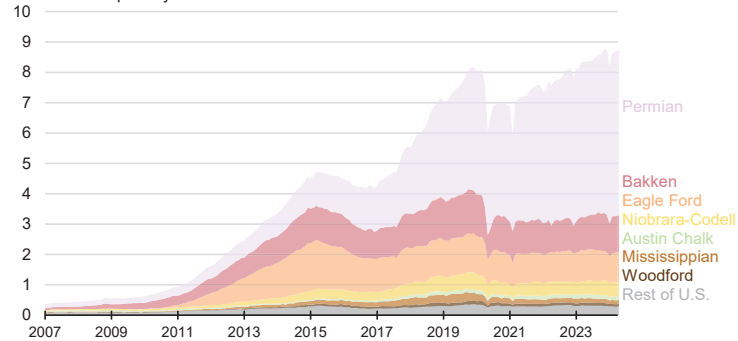


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook



Monthly U.S. tight oil production by formation

million barrels per day

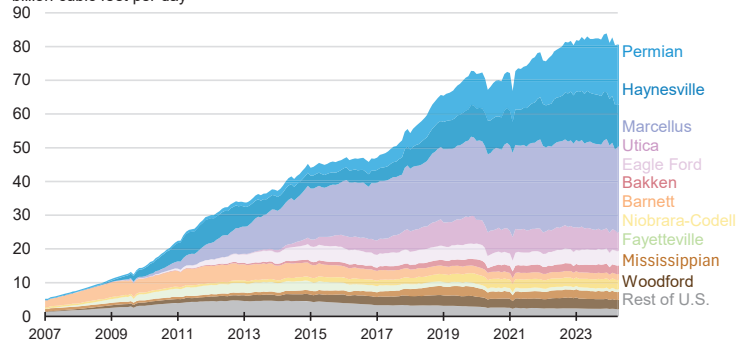


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024



Monthly U.S. dry shale natural gas production by formation

billion cubic feet per day

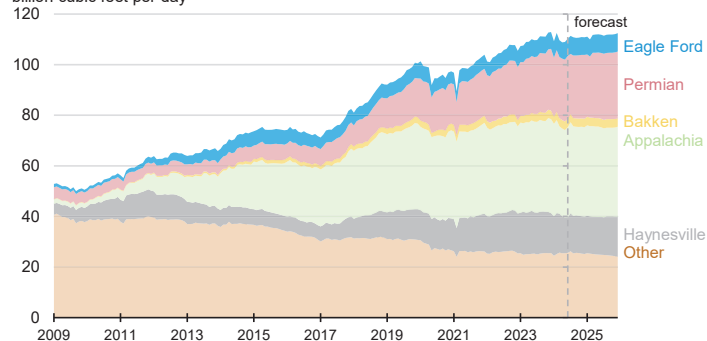


Data source: U.S. Energy Information Administration, Short-Term Energy Outlook, October 2024



Monthly U.S. marketed natural gas production by region

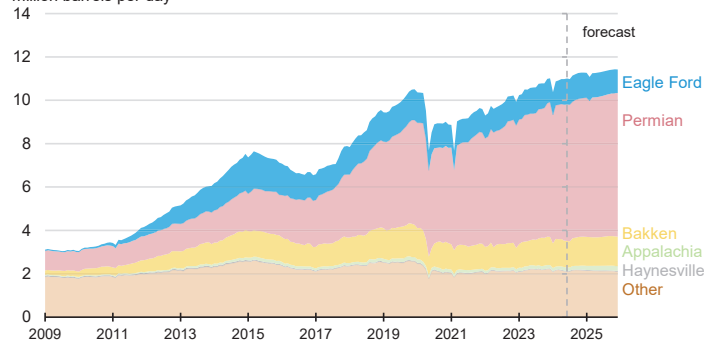
billion cubic feet per day



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



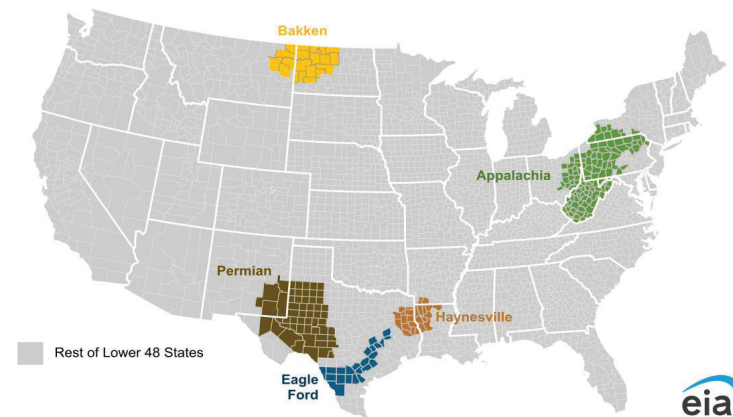
Monthly U.S. crude oil production by region
million barrels per day



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



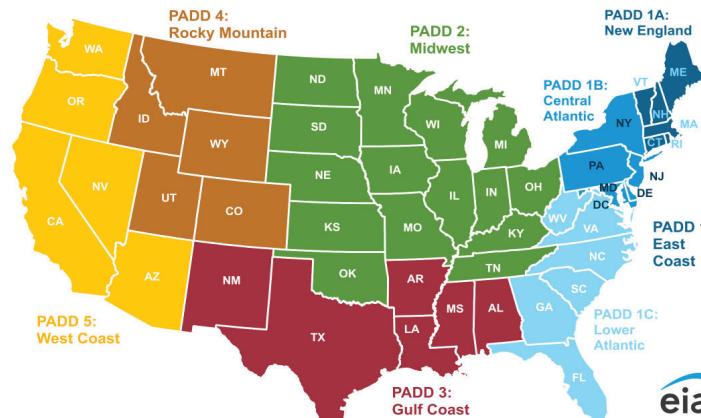
U.S. production regions



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*



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

Fuel / Region	Winter of					Forecast	
	19-20	20-21	21-22	22-23	23-24	24-25	% Change
Natural Gas							
Northeast							
Consumption (Mcf**)	54	55	57	52	52	55	4%
Price (\$/mcf)	11.39	11.50	13.97	16.88	14.54	14.15	-3%
Expenditures (\$)	620	634	791	881	763	772	1%
Midwest							
Consumption (Mcf)	59	59	61	58	54	60	11%
Price (\$/mcf)	7.15	7.61	10.49	12.04	9.82	9.83	0%
Expenditures (\$)	422	450	643	704	529	587	11%
South							
Consumption (Mcf)	36	39	37	35	36	37	1%
Price (\$/mcf)	10.34	10.88	13.74	15.78	13.91	13.20	-5%
Expenditures (\$)	371	419	511	546	506	487	-4%
West							
Consumption (Mcf)	40	40	39	45	39	39	0%
Price (\$/mcf)	10.41	11.30	14.05	16.63	15.54	14.53	-6%
Expenditures (\$)	415	456	547	753	611	573	-6%
U.S. Average							
Consumption (Mcf)	48	49	49	48	46	48	5%
Price (\$/mcf)	9.42	9.95	12.64	14.85	12.95	12.47	-4%
Expenditures (\$)	453	485	621	720	594	602	1%
Heating Oil							
U.S. Average							
Consumption (gallons)	401	405	417	385	387	402	4%
Price (\$/gallon)	2.88	2.59	3.93	4.31	3.83	3.50	-9%
Expenditures (\$)	1,154	1,048	1,638	1,661	1,484	1,410	-5%
Electricity							
Northeast							
Consumption (kWh***)	6,261	6,288	6,401	6,082	6,115	6,247	2%
Price (cents/kWh)	17.1	17.1	18.6	22.1	21.7	22.3	3%
Expenditures (\$)	1,072	1,077	1,193	1,344	1,327	1,391	5%
Midwest							
Consumption (kWh)	8,201	8,175	8,379	8,175	7,722	8,242	7%
Price (cents/kWh)	12.4	12.5	13.1	14.4	14.6	14.6	0%
Expenditures (\$)	1,016	1,023	1,100	1,178	1,131	1,201	6%
South							
Consumption (kWh)	6,809	7,063	6,936	6,655	6,874	6,899	0%
Price (cents/kWh)	11.4	11.4	12.2	13.7	14.0	13.7	-2%
Expenditures (\$)	776	803	848	914	960	948	-1%
West							
Consumption (kWh)	5,726	5,736	5,614	6,134	5,670	5,660	0%
Price (cents/kWh)	13.9	14.6	15.6	16.7	18.5	19.0	2%
Expenditures (\$)	798	838	875	1,023	1,050	1,073	2%
U.S. Average							

Table WF01. Seasonal Average Household Consumption, Prices, and Expenditures by Heating Fuel

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

Fuel / Region	Winter of					Forecast	
	19-20	20-21	21-22	22-23	23-24	24-25 % Change	
Consumption (kWh)	6,535	6,663	6,620	6,559	6,484	6,585	2%
Price (cents/kWh)	12.9	13.0	13.9	15.5	16.0	16.0	0%
Expenditures (\$)	840	864	920	1,020	1,037	1,054	2%
Propane							
Northeast							
Consumption (gallons)	515	519	533	493	497	515	4%
Price * (\$/gallon)	2.57	2.81	3.48	3.39	3.34	3.25	-3%
Expenditures (\$)	1,325	1,458	1,857	1,673	1,659	1,674	1%
Midwest							
Consumption (gallons)	642	641	664	641	587	649	11%
Price * (\$/gallon)	1.62	1.79	2.43	2.28	2.05	1.89	-8%
Expenditures (\$)	1,038	1,149	1,613	1,464	1,202	1,228	2%
South							
Consumption (gallons)	361	385	373	348	366	370	1%
Price * (\$/gallon)	2.43	2.65	3.24	3.18	3.15	3.04	-4%
Expenditures (\$)	877	1,019	1,210	1,108	1,156	1,127	-2%
U.S. Average							
Consumption (gallons)	493	501	508	492	469	495	6%
Price * (\$/gallon)	1.98	2.15	2.79	2.69	2.53	2.40	-5%
Expenditures (\$)	978	1,078	1,419	1,322	1,186	1,189	0%
Number of households by primary space heating fuel (thousands)							
Northeast							
Natural gas	12,307	11,959	11,935	12,016	12,173	12,296	1%
Heating oil	4,694	4,448	4,158	4,034	3,905	3,766	-4%
Propane	1,033	1,118	1,230	1,209	1,221	1,273	4%
Electricity	3,509	3,681	3,962	3,979	4,049	4,193	4%
Wood	458	423	384	369	345	319	-8%
Other/None	459	517	554	560	589	625	6%
Midwest							
Natural gas	18,337	18,002	17,958	17,892	17,893	17,910	0%
Heating oil	276	257	231	218	207	197	-5%
Propane	2,178	2,174	2,251	2,196	2,167	2,215	2%
Electricity	6,012	6,197	6,452	6,577	6,786	6,972	3%
Wood	513	470	416	428	429	405	-6%
Other/None	354	372	382	399	419	432	3%
South							
Natural gas	14,248	14,255	14,397	14,366	14,347	14,446	1%
Heating oil	588	558	491	482	476	454	-5%
Propane	1,914	1,910	1,903	1,965	2,016	2,029	1%
Electricity	31,002	31,678	32,702	33,179	33,844	34,547	2%
Wood	490	432	378	383	379	366	-4%
Other/None	482	590	711	700	711	783	10%
West							
Natural gas	15,694	15,367	15,232	15,231	15,229	15,221	0%

Table WF01. Seasonal Average Household Consumption, Prices, and Expenditures by Heating Fuel

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

Fuel / Region	Winter of					Forecast	
	19-20	20-21	21-22	22-23	23-24	24-25 % Change	
Heating oil	217	207	195	184	175	169	-4%
Propane	998	1,029	1,067	1,067	1,066	1,079	1%
Electricity	9,682	10,112	10,565	10,501	10,584	10,804	2%
Wood	687	628	575	596	603	593	-2%
Other/None	1,072	1,087	1,122	1,200	1,286	1,359	6%
U.S.Totals							
Natural gas	60,586	59,583	59,522	59,504	59,642	59,873	0%
Heating oil	5,775	5,471	5,075	4,918	4,764	4,586	-4%
Propane	6,123	6,232	6,452	6,437	6,469	6,596	2%
Electricity	50,205	51,668	53,681	54,234	55,263	56,515	2%
Wood	2,148	1,953	1,753	1,776	1,756	1,682	-4%
Other/None	2,367	2,565	2,769	2,859	3,004	3,199	6%
Heating degree days							
Northeast	4,325	4,387	4,537	4,099	4,127	4,333	5%
Midwest	4,797	4,804	5,018	4,766	4,302	4,869	13%
South	1,987	2,183	2,089	1,896	2,029	2,066	2%
West	2,870	2,915	2,774	3,397	2,812	2,822	0%
U.S. Average	3,188	3,281	3,276	3,216	3,036	3,199	5%

Note: Winter covers the period November 1 through March 31. Fuel prices are nominal prices. Fuel consumption per household is based on space-heating fuel. Included in fuel consumption is consumption for water heating, appliances, electronics, and lighting (electricity). Residential Energy Consumption Surveys corrected for actual and projected heating degree days. Number of households using heating fuel.

* Prices exclude taxes

** thousand cubic feet

*** kilowatthour

Table WF02. Monthly Average Household Consumption, Prices, and Expenditures by Heating Fuel

U.S. Energy Information Administration Short-Term Energy Outlook - October 2024													
Fuel / Region	Winter of 23-24						Winter of 24-25						
	Nov	Dec	Jan	Feb	Mar	23-24	Nov	Dec	Jan	Feb	Mar	24-25	% Change
Natural Gas													
Northeast													
Consumption (Mcf**)	10	10	13	11	9	52	9	11	13	11	10	55	4%
Heating	7	8	11	9	7	42	6	9	11	9	8	44	5%
Non-Heating	2	2	2	2	2	10	2	2	2	2	2	10	-1%
Price (\$/mcf)	14.95	14.41	14.15	14.44	14.91	14.54	15.21	14.18	13.94	13.82	13.85	14.15	-3%
Expenditures (\$)	142	149	180	154	137	763	130	163	182	156	142	772	1%
Heating	111	119	150	125	105	610	98	133	152	129	112	624	2%
Non-Heating	31	31	30	29	32	153	31	30	30	27	30	148	-3%
Midwest													
Consumption (Mcf)	9	11	15	10	9	54	9	13	15	12	10	60	11%
Heating	8	9	13	8	7	45	8	11	13	11	9	51	13%
Non-Heating	2	2	2	2	2	9	2	2	2	2	2	9	-1%
Price (\$/mcf)	10.30	9.94	8.64	10.42	10.46	9.82	10.75	10.06	9.19	9.70	9.79	9.83	0%
Expenditures (\$)	98	106	127	102	96	529	101	131	135	119	101	587	11%
Heating	80	89	112	85	77	443	83	114	118	103	84	503	13%
Non-Heating	18	17	15	17	18	86	18	18	16	15	17	85	-1%
South													
Consumption (Mcf)	6	8	11	7	5	36	6	8	9	7	6	37	1%
Heating	4	6	9	5	3	27	4	7	7	6	4	28	2%
Non-Heating	2	2	2	2	2	9	2	2	2	2	2	9	-1%
Price (\$/mcf)	15.62	13.88	12.39	13.49	15.52	13.91	14.92	13.08	12.61	12.56	13.42	13.20	-5%
Expenditures (\$)	94	111	131	88	82	506	87	111	118	92	79	487	-4%
Heating	66	85	107	64	53	374	60	86	94	70	54	364	-3%
Non-Heating	29	26	23	24	29	131	27	25	24	21	25	123	-7%
West													
Consumption (Mcf)	7	8	9	8	8	39	7	9	9	8	7	39	0%
Heating	5	6	7	6	6	29	5	7	7	6	5	29	0%
Non-Heating	2	2	2	2	2	11	2	2	2	2	2	10	-1%
Price (\$/mcf)	15.71	15.43	14.49	16.18	16.11	15.54	14.40	14.57	14.85	14.40	14.34	14.53	-6%
Expenditures (\$)	105	124	134	125	124	611	99	132	132	109	101	573	-6%
Heating	72	91	103	92	89	447	69	100	100	81	70	420	-6%
Non-Heating	33	33	31	33	35	165	30	31	32	28	31	152	-7%
U.S. Average													
Consumption (Mcf)	8	9	12	9	8	46	8	11	12	10	9	48	5%
Heating	6	7	10	7	6	36	6	9	10	8	7	39	7%
Non-Heating	2	2	2	2	2	10	2	2	2	2	2	10	-1%
Price (\$/mcf)	13.56	12.97	11.81	13.25	13.71	12.95	13.29	12.61	12.07	12.20	12.42	12.47	-4%
Expenditures (\$)	108	121	140	115	109	594	103	134	140	118	106	602	1%
Heating	82	95	117	91	82	467	78	109	116	96	81	481	3%
Non-Heating	26	26	23	25	27	127	25	25	24	22	25	121	-5%
Heating Oil													
U.S. Average													
Consumption (gallons)	70	77	95	78	67	387	62	85	97	83	75	402	4%
Heating	57	64	83	67	55	326	50	73	85	72	62	342	5%
Non-Heating	12	12	12	12	12	61	12	12	12	11	12	61	-1%
Price (\$/gallon)	4.01	3.82	3.77	3.83	3.77	3.83	3.40	3.50	3.52	3.54	3.53	3.50	-9%
Expenditures (\$)	279	293	358	300	254	1,484	212	299	342	294	264	1,410	-5%
Heating	230	245	312	255	208	1,250	171	255	298	254	220	1,198	-4%
Non-Heating	48	48	47	45	47	234	41	43	44	40	44	212	-9%
Electricity													
Northeast													
Consumption (kWh***)	1,148	1,224	1,391	1,212	1,140	6,115	1,075	1,302	1,415	1,240	1,214	6,247	2%
Heating	532	587	755	618	505	2,997	461	667	778	664	577	3,147	5%
Non-Heating	616	637	635	594	635	3,118	615	635	637	575	637	3,099	-1%
Price (cents/kWh)	21.9	21.5	21.7	21.7	21.8	21.7	22.4	22.0	22.2	22.3	22.4	22.3	3%
Expenditures (\$)	251	263	301	263	248	1,327	241	287	314	277	272	1,391	5%
Heating	116	126	164	134	110	650	103	147	173	148	129	700	8%
Non-Heating	135	137	138	129	138	677	138	140	141	128	143	690	2%
Midwest													
Consumption (kWh)	1,418	1,552	1,922	1,420	1,410	7,722	1,418	1,767	1,910	1,630	1,516	8,242	7%
Heating	698	809	1,180	726	669	4,083	700	1,026	1,167	959	772	4,624	13%
Non-Heating	720	743	741	694	741	3,640	718	741	743	672	743	3,618	-1%
Price (cents/kWh)	14.9	14.5	14.1	14.7	15.2	14.6	14.9	14.3	14.1	14.6	15.2	14.6	0%
Expenditures (\$)	212	225	271	208	214	1,131	211	253	269	237	231	1,201	6%
Heating	104	117	167	106	102	596	104	147	165	140	118	673	13%
Non-Heating	107	108	105	102	113	534	107	106	105	98	113	528	-1%

Table WF02. Monthly Average Household Consumption, Prices, and Expenditures by Heating Fuel

U.S. Energy Information Administration Short-Term Energy Outlook - October 2024													
Fuel / Region	Winter of 23-24						Winter of 24-25						
	Nov	Dec	Jan	Feb	Mar	23-24	Nov	Dec	Jan	Feb	Mar	24-25	% Change
South													
Consumption (kWh)	1,237	1,463	1,717	1,281	1,175	6,874	1,212	1,505	1,605	1,333	1,244	6,899	0%
Heating	461	661	917	533	375	2,946	438	705	802	608	442	2,995	2%
Non-Heating	776	802	800	749	800	3,928	774	800	802	725	802	3,904	-1%
Price (cents/kWh)	14.2	13.8	13.5	14.0	14.6	14.0	13.9	13.5	13.4	13.8	14.4	13.7	-2%
Expenditures (\$)	175	202	232	179	171	960	168	203	215	184	179	948	-1%
Heating	65	91	124	75	55	409	61	95	107	84	63	410	0%
Non-Heating	110	111	108	105	117	550	107	108	107	100	115	538	-2%
West													
Consumption (kWh)	1,030	1,159	1,254	1,099	1,128	5,670	1,047	1,239	1,226	1,069	1,080	5,660	0%
Heating	373	480	576	465	450	2,343	391	561	546	455	400	2,353	0%
Non-Heating	658	680	678	634	678	3,327	656	678	680	614	680	3,307	-1%
Price (cents/kWh)	18.6	17.8	18.1	18.9	19.4	18.5	19.1	18.2	18.6	19.3	19.8	19.0	2%
Expenditures (\$)	191	206	227	207	218	1,050	200	226	227	207	214	1,073	2%
Heating	69	85	104	88	87	433	75	102	101	88	79	445	3%
Non-Heating	122	121	123	120	131	616	125	124	126	119	135	628	2%
U.S. Average													
Consumption (kWh)	1,180	1,346	1,559	1,225	1,174	6,484	1,165	1,425	1,502	1,275	1,218	6,585	2%
Heating	468	610	825	538	440	2,882	455	692	766	610	482	3,005	4%
Non-Heating	712	736	734	686	734	3,602	710	734	736	665	736	3,580	-1%
Price (cents/kWh)	16.2	15.7	15.5	16.1	16.7	16.0	16.2	15.6	15.6	16.1	16.7	16.0	0%
Expenditures (\$)	191	212	241	197	196	1,037	188	223	234	205	203	1,054	2%
Heating	76	96	128	87	73	459	73	108	119	98	81	480	4%
Non-Heating	115	116	113	111	122	577	115	115	115	107	123	574	-1%
Propane													
Northeast													
Consumption (gallons)	91	98	119	101	88	497	81	108	122	106	97	515	4%
Heating	68	74	95	78	64	380	58	84	98	84	73	398	5%
Non-Heating	23	24	24	22	24	117	23	24	24	22	24	116	-1%
Price * (\$/gallon)	3.22	3.25	3.36	3.44	3.42	3.34	3.24	3.25	3.25	3.26	3.26	3.25	-3%
Expenditures (\$)	292	319	401	346	301	1,659	263	351	398	344	317	1,674	1%
Heating	217	242	321	269	220	1,269	189	274	320	274	239	1,295	2%
Non-Heating	74	78	80	77	81	390	75	77	78	70	78	378	-3%
Midwest													
Consumption (gallons)	103	117	160	106	101	587	104	142	158	132	113	649	11%
Heating	81	94	137	84	78	474	81	119	135	111	90	536	13%
Non-Heating	22	23	23	22	23	113	22	23	23	21	23	112	-1%
Price * (\$/gallon)	1.96	1.99	2.08	2.12	2.09	2.05	1.87	1.88	1.90	1.91	1.91	1.89	-8%
Expenditures (\$)	202	233	333	224	211	1,202	193	267	300	252	216	1,228	2%
Heating	158	187	285	178	163	971	152	223	257	212	171	1,015	5%
Non-Heating	44	46	48	46	48	231	42	43	44	40	44	212	-8%
South													
Consumption (gallons)	62	80	103	67	55	366	60	84	93	73	61	370	1%
Heating	41	59	82	47	34	263	39	63	72	54	40	268	2%
Non-Heating	20	21	21	20	21	103	20	21	21	19	21	102	-1%
Price * (\$/gallon)	3.05	3.08	3.20	3.23	3.20	3.15	3.05	3.04	3.04	3.04	3.04	3.04	-4%
Expenditures (\$)	188	247	330	216	175	1,156	182	256	282	223	184	1,127	-2%
Heating	126	182	263	152	108	831	120	192	218	165	120	816	-2%
Non-Heating	62	65	67	63	67	325	62	64	64	58	64	312	-4%
U.S. Average													
Consumption (gallons)	82	96	124	88	80	469	80	109	120	100	87	495	6%
Heating	60	73	101	67	58	359	58	87	97	79	64	386	8%
Non-Heating	22	22	22	21	22	110	22	22	22	20	22	109	-1%
Price * (\$/gallon)	2.42	2.46	2.56	2.61	2.58	2.53	2.38	2.39	2.40	2.41	2.42	2.40	-5%
Expenditures (\$)	198	236	316	229	206	1,186	191	261	288	240	210	1,189	0%
Heating	146	181	259	174	149	908	139	207	234	191	155	926	2%
Non-Heating	53	55	57	55	58	278	52	54	54	49	54	263	-6%
Heating degree days													
Northeast	733	808	1,039	851	696	4,127	634	918	1,071	914	795	4,333	5%
Midwest	739	850	1,239	770	705	4,302	736	1,077	1,227	1,011	817	4,869	13%
South	317	455	637	364	257	2,029	302	488	555	419	303	2,066	2%
West	447	574	690	559	542	2,812	468	672	654	546	481	2,822	0%
U.S. Average	505	624	841	576	490	3,036	486	724	803	653	533	3,199	5%

Note: Winter covers the period November 1 through March 31. Fuel prices are nominal prices. Fuel consumption per household is based only on households that use that fuel as the primary space-heating fuel. Included in fuel consumption is consumption for water heating, appliances, electronics, and lighting (electricity). Per-household consumption based on EIA's 2020 Residential Energy Consumption Surveys corrected for actual and projected heating degree days. Number of households using heating oil includes kerosene.

* Prices exclude taxes

Table 1. U.S. Energy Markets Summary

U.S. Energy Information Administration | Short-Term Energy Outlook - October 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	13.27	13.45	13.46	13.53	13.54	13.64	12.93	13.22	13.54
Dry Natural Gas Production (billion cubic feet per day)	102.2	103.2	104.1	105.5	104.0	102.0	103.9	104.0	104.2	104.8	104.5	105.0	103.8	103.5	104.6
Coal Production (million short tons)	149	142	146	141	130	118	132	130	126	113	124	121	577	510	485
Energy Consumption															
Liquid Fuels (million barrels per day)	19.83	20.35	20.32	20.59	19.80	20.36	20.42	20.54	20.19	20.57	20.59	20.60	20.28	20.28	20.49
Natural Gas (billion cubic feet per day)	103.0	78.0	83.9	91.6	104.0	78.6	85.1	92.8	104.2	77.0	83.4	91.9	89.1	90.1	89.1
Coal (b) (million short tons)	102	91	132	101	100	91	119	100	106	83	128	105	426	411	422
Electricity (billion kilowatt hours per day)	10.59	10.32	12.62	10.30	10.70	10.78	12.69	10.56	10.98	10.89	13.02	10.72	10.96	11.18	11.41
Renewables (c) (quadrillion Btu)	2.04	2.10	2.05	2.05	2.09	2.24	2.16	2.18	2.21	2.43	2.31	2.27	8.24	8.67	9.23
Total Energy Consumption (d) (quadrillion Btu)	24.18	22.01	23.69	23.73	24.39	22.21	23.66	23.93	24.65	22.25	23.95	24.06	93.60	94.19	94.91
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	71.97	73.67	74.50	73.17	71.22	77.58	76.91	73.13
Natural Gas Henry Hub Spot (dollars per million Btu)	2.65	2.16	2.59	2.74	2.13	2.08	2.11	2.81	3.16	2.59	3.13	3.35	2.54	2.28	3.06
Coal (dollars per million Btu)	2.57	2.49	2.51	2.51	2.50	2.54	2.48	2.43	2.45	2.44	2.44	2.41	2.52	2.48	2.43
Macroeconomic															
Real Gross Domestic Product (billion chained 2017 dollars - SAAR) ...	22,112	22,225	22,491	22,679	22,759	22,925	23,059	23,146	23,244	23,363	23,474	23,596	22,377	22,972	23,419
Percent change from prior year	1.7	2.4	2.9	3.1	2.9	3.1	2.5	2.1	2.1	1.9	1.8	1.9	2.5	2.7	1.9
GDP Implicit Price Deflator (Index, 2017=100)	121.3	121.8	122.8	123.3	124.2	125.0	125.5	126.0	126.8	127.5	128.3	129.0	122.3	125.2	127.9
Percent change from prior year	5.3	3.5	3.2	2.6	2.4	2.6	2.2	2.2	2.0	2.0	2.2	2.4	3.6	2.4	2.2
Real Disposable Personal Income (billion chained 2017 dollars - SAAR) ...	16,663	16,797	16,820	16,856	16,912	16,956	17,053	17,163	17,314	17,447	17,590	17,746	16,784	17,021	17,524
Percent change from prior year	3.7	4.9	4.1	3.8	1.5	0.9	1.4	1.8	2.4	2.9	3.2	3.4	4.1	1.4	3.0
Manufacturing Production Index (Index, 2017=100)	100.0	100.1	100.0	99.7	99.5	99.9	99.9	100.5	100.8	101.4	101.8	102.6	100.0	99.9	101.6
Percent change from prior year	0.0	-0.6	-0.7	-0.3	-0.6	-0.2	-0.1	0.8	1.3	1.5	1.9	2.1	-0.4	0.0	1.7
Weather															
U.S. Heating Degree-Days	1,924	485	61	1,335	1,907	413	52	1,431	1,989	469	74	1,443	3,805	3,803	3,975
U.S. Cooling Degree-Days	68	361	942	104	53	496	926	121	51	446	967	106	1,475	1,595	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 October 3, 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*, DOE/EIA-0109;

Petroleum Supply Annual, DOE/EIA-0340/2; *Weekly Petroleum Status Report*, DOE/EIA-0208; *Petroleum Marketing Monthly*, DOE/EIA-0380; *Natural Gas Monthly*, DOE/EIA-0130;

Electric Power Monthly, DOE/EIA-0226; *Quarterly Coal Report*, DOE/EIA-0121; and *International Petroleum Monthly*, DOE/EIA-0520.

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

Forecasts: EIA Short-Term Integrated Forecasting System. U.S. macroeconomic forecasts are based on the S&P Global model of the U.S. Economy.

Table 2. Energy Prices
U.S. Energy Information Administration | Short-Term Energy Outlook - October 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	71.97	73.67	74.50	73.17	71.22	77.58	76.91	73.13
Brent Spot Average	81.04	78.02	86.64	83.93	82.96	84.72	80.03	75.97	78.00	79.00	77.67	75.72	82.41	80.89	77.59
U.S. Imported Average	69.63	71.34	81.09	76.21	72.40	79.61	73.89	69.16	70.95	71.75	70.46	68.40	74.62	74.30	70.57
U.S. Refiner Average Acquisition Cost	74.49	74.10	82.38	79.37	76.42	81.74	75.89	71.51	73.18	74.00	72.68	70.65	77.68	76.44	72.63
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	2.08	2.19	2.45	2.47	2.17	2.64	2.36	2.32
Diesel Fuel	2.95	2.45	3.09	2.84	2.70	2.51	2.30	2.06	2.19	2.21	2.27	2.37	2.83	2.39	2.26
Fuel Oil	2.77	2.30	2.88	2.80	2.64	2.42	2.08	1.84	2.08	2.06	2.12	2.25	2.69	2.24	2.13
Jet Fuel	3.05	2.33	2.91	2.73	2.68	2.52	2.26	1.99	2.10	2.12	2.15	2.21	2.75	2.36	2.15
No. 6 Residual Fuel Oil (a)	1.97	1.89	2.02	2.05	1.98	2.06	1.99	1.86	1.90	1.90	1.89	1.85	1.99	1.97	1.88
Propane Mont Belvieu Spot	0.82	0.68	0.68	0.67	0.84	0.75	0.74	0.68	0.70	0.73	0.73	0.71	0.71	0.75	0.72
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	3.38	3.58	3.76	3.36	3.24	3.56	3.37	3.15	3.11	3.33	3.35	3.07	3.52	3.33	3.22
Gasoline All Grades (b)	3.49	3.69	3.87	3.48	3.36	3.68	3.49	3.27	3.24	3.46	3.47	3.21	3.64	3.45	3.35
On-highway Diesel Fuel	4.40	3.94	4.28	4.25	3.97	3.85	3.69	3.54	3.53	3.49	3.54	3.64	4.22	3.76	3.55
Heating Oil	4.06	3.51	3.82	3.98	3.79	3.66	3.44	3.35	3.53	3.36	3.34	3.50	3.84	3.56	3.43
Propane Residential	2.70	2.61	2.44	2.43	2.58	2.48	2.38	2.38	2.41	2.42	2.43	2.44	2.54	2.46	2.42
Natural Gas															
Henry Hub Spot (dollars per thousand cubic feet)	2.75	2.25	2.69	2.84	2.21	2.16	2.19	2.92	3.28	2.69	3.25	3.48	2.63	2.37	3.17
Henry Hub Spot (dollars per million Btu)	2.65	2.16	2.59	2.74	2.13	2.08	2.11	2.81	3.16	2.59	3.13	3.35	2.54	2.28	3.06
U.S. Retail Prices (dollars per thousand cubic feet)															
Industrial Sector	6.12	3.76	3.87	4.38	4.47	3.35	3.09	3.72	4.36	3.39	3.75	4.28	4.59	3.68	3.96
Commercial Sector	11.82	10.48	10.89	9.82	9.81	10.42	10.84	8.96	8.86	9.29	9.96	8.83	10.89	9.76	9.05
Residential Sector	14.72	16.19	22.33	13.72	12.76	17.04	22.60	13.41	12.20	14.92	20.60	12.95	15.19	14.27	13.46
U.S. Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	2.57	2.49	2.51	2.51	2.50	2.54	2.48	2.43	2.45	2.44	2.44	2.41	2.52	2.48	2.43
Natural Gas	4.98	2.60	2.92	3.19	3.37	2.36	2.40	3.11	3.70	2.75	3.18	3.65	3.36	2.78	3.31
Residual Fuel Oil (c)	19.24	17.88	19.16	20.84	18.84	18.54	16.48	13.55	13.94	14.86	14.28	14.10	19.32	16.93	14.25
Distillate Fuel Oil	22.84	19.91	22.08	21.03	20.16	19.48	18.09	16.14	16.79	17.07	17.43	18.19	21.47	18.38	17.40
Prices to Ultimate Customers (cents per kilowatthour)															
Industrial Sector	8.06	7.74	8.55	7.83	7.88	8.08	8.79	7.91	8.02	8.18	8.81	7.94	8.05	8.18	8.25
Commercial Sector	12.64	12.45	13.18	12.63	12.75	12.76	13.54	12.69	12.81	13.06	13.92	13.05	12.74	12.96	13.24
Residential Sector	15.77	16.12	16.02	16.02	16.01	16.55	16.56	15.97	16.07	16.90	16.88	16.44	15.98	16.29	16.59

- (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 October 3, 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*, DOE/EIA-0380; *Weekly Petroleum Status Report*, DOE/EIA-0208; *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; *Monthly Energy Review*, DOE/EIA-0035; *Heating Oil and Propane 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 - October 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	101.54	101.58	101.81	103.06	102.02	102.45	102.48	103.03	103.38	104.27	105.10	105.38	102.00	102.50	104.54
Crude oil	76.92	76.31	75.92	77.06	76.69	76.17	76.22	76.95	77.75	77.94	78.64	78.94	76.55	76.51	78.32
Other liquids	24.62	25.28	25.89	26.00	25.34	26.29	26.26	26.08	25.63	26.32	26.47	26.45	25.45	25.99	26.22
World total	101.54	101.58	101.81	103.06	102.02	102.45	102.48	103.03	103.38	104.27	105.10	105.38	102.00	102.50	104.54
OPEC total (b)	32.71	32.44	31.63	31.93	32.16	32.09	31.91	32.02	32.28	32.56	32.82	32.72	32.17	32.05	32.60
Crude oil	27.38	27.23	26.37	26.63	26.77	26.82	26.62	26.69	27.00	27.28	27.54	27.45	26.90	26.72	27.32
Other liquids	5.33	5.21	5.26	5.30	5.40	5.26	5.29	5.33	5.28	5.28	5.28	5.28	5.27	5.32	5.28
Non-OPEC total	68.83	69.14	70.18	71.13	69.86	70.37	70.57	71.01	71.10	71.71	72.29	72.66	69.83	70.45	71.94
Crude oil	49.54	49.07	49.55	50.43	49.92	49.34	49.61	50.26	50.75	50.66	51.10	51.49	49.65	49.78	51.00
Other liquids	19.29	20.07	20.63	20.70	19.94	21.03	20.97	20.75	20.35	21.04	21.19	21.17	20.18	20.67	20.94
Consumption (million barrels per day) (c)															
World total	101.27	102.12	102.56	102.59	102.19	103.13	103.25	103.64	103.95	104.07	104.58	104.77	102.14	103.06	104.35
OECD total (d)	45.26	45.52	45.90	46.00	44.80	45.55	45.88	46.19	45.50	45.25	45.91	46.10	45.67	45.61	45.69
Canada	2.34	2.48	2.63	2.37	2.37	2.28	2.52	2.50	2.43	2.37	2.48	2.46	2.45	2.42	2.43
Europe	13.12	13.57	13.69	13.39	12.85	13.62	13.75	13.51	13.14	13.29	13.70	13.47	13.45	13.43	13.40
Japan	3.68	3.05	3.06	3.38	3.44	2.96	3.06	3.38	3.48	2.89	2.99	3.31	3.29	3.21	3.16
United States	19.83	20.35	20.32	20.59	19.80	20.36	20.42	20.54	20.19	20.57	20.59	20.60	20.28	20.28	20.49
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	6.01	6.14	6.14	6.01	6.03	6.16	6.10	6.15	6.08
Non-OECD total	56.01	56.60	56.66	56.59	57.39	57.59	57.37	57.46	58.45	58.82	58.68	58.67	56.47	57.45	58.66
China	16.33	16.55	16.24	16.48	16.75	16.65	16.11	16.45	16.88	16.92	16.49	16.72	16.40	16.49	16.75
Eurasia	4.66	4.82	5.16	5.06	4.71	4.87	5.22	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	0.77	0.77	0.77	0.75	0.77	0.78	0.78	0.76	0.76	0.77
Other Asia	14.57	14.44	13.91	14.14	15.04	14.88	14.43	14.73	15.51	15.49	14.85	15.19	14.26	14.77	15.26
Other non-OECD	19.71	20.02	20.59	20.13	20.15	20.41	20.84	20.38	20.57	20.74	21.30	20.82	20.12	20.45	20.86
Total crude oil and other liquids inventory net withdrawals (million barrels per day)															
World total	-0.27	0.54	0.76	-0.47	0.17	0.68	0.77	0.61	0.57	-0.19	-0.52	-0.61	0.14	0.56	-0.19
United States	-0.07	-0.10	-0.26	0.30	0.13	-0.64	-0.11	0.17	-0.02	-0.36	-0.02	0.30	-0.03	-0.11	-0.03
Other OECD	0.33	0.01	-0.17	0.21	-0.13	-0.32	0.27	0.13	0.18	0.05	-0.15	-0.28	0.09	-0.01	-0.05
Other inventory draws and balance	-0.52	0.63	1.19	-0.98	0.17	1.64	0.61	0.30	0.41	0.12	-0.35	-0.63	0.08	0.68	-0.12
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	2,811	2,770	2,749	2,775	2,791	2,789	2,766	2,770	2,789
United States	1,230	1,263	1,282	1,251	1,230	1,280	1,279	1,251	1,246	1,276	1,278	1,251	1,251	1,251	1,251
Other OECD	1,518	1,518	1,534	1,515	1,527	1,556	1,532	1,519	1,503	1,499	1,512	1,538	1,515	1,519	1,538

(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, Türkiye, United Kingdom, and United States.

Notes:

EIA completed modeling and analysis for this report on October 3, 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 - October 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)	68.83	69.14	70.18	71.13	69.86	70.37	70.57	71.01	71.10	71.71	72.29	72.66	69.83	70.45	71.94
North America total	29.15	29.22	30.19	30.82	29.91	30.59	30.79	31.12	31.08	31.07	31.23	31.55	29.85	30.60	31.23
Canada	5.77	5.37	5.79	6.10	5.95	5.82	6.11	6.36	6.43	6.11	6.27	6.45	5.76	6.06	6.31
Mexico	2.12	2.16	2.11	2.09	2.05	2.00	2.02	1.98	1.98	1.95	1.93	1.90	2.12	2.01	1.94
United States	21.26	21.69	22.30	22.63	21.91	22.76	22.66	22.78	22.67	23.01	23.03	23.19	21.97	22.53	22.98
Central and South America total	6.39	7.01	7.60	7.40	7.01	7.49	7.74	7.55	7.17	7.80	8.24	7.91	7.11	7.45	7.79
Argentina	0.81	0.81	0.82	0.84	0.86	0.87	0.87	0.88	0.90	0.90	0.91	0.93	0.82	0.87	0.91
Brazil	3.60	4.21	4.82	4.49	3.90	4.39	4.74	4.46	4.08	4.59	4.91	4.56	4.28	4.37	4.54
Colombia	0.80	0.81	0.81	0.81	0.80	0.82	0.80	0.80	0.80	0.80	0.79	0.78	0.81	0.81	0.79
Guyana	0.39	0.38	0.36	0.44	0.64	0.62	0.53	0.62	0.62	0.74	0.87	0.87	0.39	0.60	0.77
Europe total	4.02	3.95	3.85	3.96	3.95	3.87	3.86	4.04	4.19	4.09	3.99	4.09	3.94	3.93	4.09
Norway	2.03	2.03	1.98	2.06	2.06	2.00	1.98	2.14	2.17	2.10	2.09	2.18	2.02	2.05	2.13
United Kingdom	0.87	0.80	0.74	0.78	0.77	0.74	0.80	0.80	0.91	0.90	0.80	0.81	0.80	0.78	0.86
Eurasia total	14.20	13.82	13.60	13.87	13.81	13.41	13.19	13.22	13.52	13.49	13.53	13.73	13.87	13.41	13.57
Azerbaijan	0.65	0.62	0.62	0.61	0.60	0.59	0.60	0.60	0.62	0.63	0.65	0.65	0.62	0.60	0.64
Kazakhstan	2.02	1.97	1.85	1.99	2.00	1.89	1.86	1.77	1.95	1.96	1.95	2.03	1.96	1.88	1.97
Russia	11.15	10.84	10.75	10.89	10.83	10.55	10.34	10.44	10.55	10.51	10.54	10.66	10.91	10.54	10.57
Middle East total	3.19	3.23	3.20	3.23	3.19	3.20	3.15	3.15	3.18	3.22	3.29	3.35	3.21	3.17	3.26
Oman	1.07	1.06	1.05	1.05	1.01	1.00	1.00	1.01	1.01	1.02	1.03	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	1.90	1.95	2.00	1.83	1.87	1.93
Africa total	2.53	2.60	2.62	2.68	2.63	2.50	2.51	2.58	2.60	2.63	2.62	2.60	2.61	2.55	2.61
Angola	1.12	1.18	1.18	1.22	1.20	1.16	1.16	1.10	1.08	1.07	1.06	1.04	1.17	1.16	1.07
Egypt	0.66	0.67	0.67	0.66	0.66	0.65	0.63	0.63	0.60	0.60	0.60	0.60	0.67	0.64	0.60
Asia and Oceania total	9.34	9.30	9.12	9.18	9.36	9.31	9.33	9.35	9.37	9.39	9.39	9.43	9.23	9.34	9.39
China	5.32	5.32	5.18	5.22	5.39	5.36	5.32	5.36	5.33	5.35	5.34	5.39	5.26	5.36	5.35
India	0.93	0.95	0.94	0.93	0.95	0.95	0.96	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	0.87	0.87	0.88	0.88	0.87	0.87	0.88	0.87	0.87
Malaysia	0.61	0.58	0.58	0.61	0.59	0.58	0.58	0.58	0.59	0.59	0.59	0.59	0.60	0.58	0.59
Unplanned production outages															
Non-OPEC total	0.56	1.02	0.92	0.87	1.04	1.11	1.28	-	-	-	-	-	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 October 3, 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 - October 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	101.54	101.58	101.81	103.06	102.02	102.45	102.48	103.03	103.38	104.27	105.10	105.38	102.00	102.50	104.54
OPEC+ total (b)	45.06	44.36	42.99	43.35	43.28	42.61	42.40	42.37	43.00	43.23	43.50	43.58	43.93	42.66	43.33
United States	21.26	21.69	22.30	22.63	21.91	22.76	22.66	22.78	22.67	23.01	23.03	23.19	21.97	22.53	22.98
Non-OPEC+ excluding United States	35.22	35.53	36.52	37.09	36.84	37.08	37.43	37.88	37.72	38.03	38.57	38.61	36.10	37.31	38.23
OPEC total (c)	32.71	32.44	31.63	31.93	32.16	32.09	31.91	32.02	32.28	32.56	32.82	32.72	32.17	32.05	32.60
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	4.42	-	-	-	-	-	3.99	-	-
Iraq	4.52	4.30	4.44	4.48	4.54	4.57	4.53	-	-	-	-	-	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	0.94	-	-	-	-	-	1.24	-	-
Nigeria	1.50	1.48	1.49	1.60	1.57	1.52	1.60	-	-	-	-	-	1.52	-	-
Saudi Arabia	11.62	11.78	10.62	10.53	10.74	10.62	10.65	-	-	-	-	-	11.13	-	-
United Arab Emirates	4.27	4.15	4.12	4.11	4.15	4.17	4.18	-	-	-	-	-	4.16	-	-
Venezuela	0.73	0.78	0.79	0.78	0.81	0.85	0.88	-	-	-	-	-	0.77	-	-
OPEC+ total (b)	45.06	44.36	42.99	43.35	43.28	42.61	42.40	42.37	43.00	43.23	43.50	43.58	43.93	42.66	43.33
OPEC members subject to OPEC+ agreements (d)	26.95	26.64	25.54	25.57	25.72	25.63	25.67	25.59	25.88	26.15	26.40	26.30	26.17	25.65	26.18
OPEC+ other participants total	18.11	17.72	17.45	17.78	17.56	16.98	16.73	16.79	17.12	17.08	17.10	17.28	17.76	17.01	17.15
Azerbaijan	0.65	0.62	0.62	0.61	0.60	0.59	0.60	0.60	0.62	0.63	0.65	0.65	0.62	0.60	0.64
Bahrain	0.18	0.21	0.18	0.20	0.18	0.19	0.14	0.14	0.13	0.13	0.13	0.13	0.19	0.16	0.13
Brunei	0.11	0.08	0.09	0.10	0.10	0.08	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.09
Kazakhstan	2.02	1.97	1.85	1.99	2.00	1.89	1.86	1.77	1.95	1.96	1.95	2.03	1.96	1.88	1.97
Malaysia	0.61	0.58	0.58	0.61	0.59	0.58	0.58	0.58	0.59	0.59	0.59	0.59	0.60	0.58	0.59
Mexico	2.12	2.16	2.11	2.09	2.05	2.00	2.02	1.98	1.98	1.95	1.93	1.90	2.12	2.01	1.94
Oman	1.07	1.06	1.05	1.05	1.01	1.00	1.00	1.01	1.01	1.02	1.03	1.03	1.06	1.00	1.02
Russia	11.15	10.84	10.75	10.89	10.83	10.55	10.34	10.44	10.55	10.51	10.54	10.66	10.91	10.54	10.57
South Sudan	0.13	0.13	0.16	0.16	0.13	0.06	0.06	0.12	0.15	0.15	0.14	0.14	0.15	0.09	0.14
Sudan	0.07	0.07	0.07	0.07	0.06	0.04	0.03	0.05	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 subject to the OPEC+ agreements.

Notes:
EIA completed modeling and analysis for this report on October 3, 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 - October 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	76.92	76.31	75.92	77.06	76.69	76.17	76.22	76.95	77.75	77.94	78.64	78.94	76.55	76.51	78.32
OPEC+ total (b)	38.18	37.50	36.24	36.42	36.30	35.74	35.56	35.40	36.02	36.39	36.74	36.67	37.08	35.75	36.46
United States	12.67	12.76	13.05	13.25	12.94	13.23	13.27	13.45	13.46	13.53	13.54	13.64	12.93	13.22	13.54
Non-OPEC+ excluding United States	26.07	26.05	26.62	27.40	27.45	27.19	27.39	28.10	28.27	28.03	28.36	28.63	26.54	27.53	28.32
OPEC total (c)															
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	3.33	-	-	-	-	-	2.87	-	-
Iraq	4.41	4.19	4.33	4.38	4.43	4.46	4.43	-	-	-	-	-	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	0.85	-	-	-	-	-	1.15	-	-
Nigeria	1.24	1.19	1.21	1.31	1.28	1.24	1.32	-	-	1.19	-	-	1.24	-	-
Saudi Arabia	10.02	10.18	9.02	8.93	9.12	9.00	9.03	-	-	-	-	-	9.53	-	-
United Arab Emirates	3.06	2.94	2.91	2.90	2.91	2.93	2.94	-	-	-	-	-	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	35.74	35.56	35.40	36.02	36.39	36.74	36.67	37.08	35.75	36.46
OPEC members subject to OPEC+ agreements (d)	22.94	22.60	21.49	21.53	21.63	21.55	21.59	21.50	21.80	22.08	22.34	22.25	22.13	21.57	22.12
OPEC+ other participants total	15.24	14.90	14.75	14.89	14.67	14.20	13.98	13.90	14.22	14.31	14.40	14.42	14.94	14.18	14.34
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	0.12	-	-	-	-	-	0.18	-	-
Brunei	0.08	0.06	0.07	0.08	0.08	0.06	0.08	-	-	-	-	-	0.07	-	-
Kazakhstan	1.61	1.58	1.49	1.57	1.58	1.52	1.49	-	-	-	-	-	1.56	-	-
Malaysia	0.39	0.36	0.36	0.38	0.37	0.35	0.36	-	-	-	-	-	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	30.45	30.33	30.58	30.91	31.06	31.17	31.00	31.11	31.18	31.32	31.44	31.43	30.57	31.08	31.34
Middle East	25.83	25.69	25.92	26.13	26.35	26.37	26.44	26.41	26.51	26.66	26.78	26.78	25.89	26.39	26.68
Other	4.63	4.64	4.67	4.78	4.71	4.80	4.56	4.69	4.67	4.66	4.65	4.65	4.68	4.69	4.66
Surplus crude oil production capacity															
OPEC total	3.08	3.09	4.21	4.28	4.29	4.34	4.38	4.41	4.18	4.04	3.90	3.99	3.67	4.36	4.03
Middle East	3.05	3.04	4.13	4.21	4.19	4.23	4.27	4.30	4.08	3.95	3.82	3.92	3.61	4.25	3.94
Other	0.02	0.05	0.08	0.07	0.11	0.12	0.11	0.11	0.10	0.09	0.08	0.07	0.06	0.11	0.09
Unplanned production outages															
OPEC total	1.94	2.13	1.95	1.52	1.52	1.47	1.67	-	-	-	-	-	1.88	-	-

(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 subject to the OPEC+ agreements.

Notes:
EIA completed modeling and analysis for this report on October 3, 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 - October 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	102.19	103.13	103.25	103.64	103.95	104.07	104.58	104.77	102.14	103.06	104.35
OECD total (b)	45.26	45.52	45.90	46.00	44.80	45.55	45.88	46.19	45.50	45.25	45.91	46.10	45.67	45.61	45.69
Non-OECD total	56.01	56.60	56.66	56.59	57.39	57.59	57.37	57.46	58.45	58.82	58.68	58.67	56.47	57.45	58.66
World total	101.27	102.12	102.56	102.59	102.19	103.13	103.25	103.64	103.95	104.07	104.58	104.77	102.14	103.06	104.35
North America total	23.89	24.56	24.72	24.71	23.90	24.43	24.67	24.78	24.31	24.66	24.79	24.79	24.47	24.45	24.64
Canada	2.34	2.48	2.63	2.37	2.37	2.28	2.52	2.50	2.43	2.37	2.48	2.46	2.45	2.42	2.43
Mexico	1.72	1.73	1.75	1.75	1.72	1.78	1.72	1.74	1.69	1.71	1.71	1.73	1.74	1.74	1.71
United States	19.83	20.35	20.32	20.59	19.80	20.36	20.42	20.54	20.19	20.57	20.59	20.60	20.28	20.28	20.49
Central and South America total	6.63	6.77	6.88	6.81	6.73	6.86	6.99	6.92	6.82	6.98	7.09	7.02	6.77	6.88	6.98
Brazil	3.05	3.11	3.19	3.17	3.14	3.20	3.28	3.26	3.20	3.26	3.35	3.33	3.13	3.22	3.29
Europe total	13.86	14.34	14.46	14.17	13.59	14.38	14.52	14.29	13.89	14.07	14.48	14.25	14.21	14.20	14.17
Eurasia total	4.66	4.82	5.16	5.06	4.71	4.87	5.22	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	3.58	3.68	3.99	3.84	3.59	3.69	4.01	3.85	3.73	3.77	3.79
Middle East total	9.25	9.39	9.94	9.34	9.46	9.56	9.98	9.40	9.68	9.68	10.22	9.63	9.48	9.60	9.80
Africa total	4.57	4.58	4.50	4.66	4.67	4.69	4.60	4.77	4.79	4.81	4.72	4.89	4.58	4.68	4.81
Asia and Oceania total	38.42	37.67	36.91	37.84	39.13	38.33	37.27	38.37	39.70	38.97	38.02	39.04	37.70	38.27	38.93
China	16.33	16.55	16.24	16.48	16.75	16.65	16.11	16.45	16.88	16.92	16.49	16.72	16.40	16.49	16.75
India	5.38	5.35	5.05	5.30	5.62	5.57	5.35	5.67	5.88	5.95	5.56	5.91	5.27	5.55	5.82
Japan	3.68	3.05	3.06	3.38	3.44	2.96	3.06	3.38	3.48	2.89	2.99	3.31	3.29	3.21	3.16
Real gross domestic product (c)															
World index, 2015 Q1 = 100	126.0	127.0	128.0	129.1	130.0	131.1	132.0	133.1	134.0	135.2	136.3	137.5	127.5	131.6	135.8
Percent change from prior year	2.7	3.5	3.2	3.3	3.2	3.2	3.2	3.1	3.1	3.1	3.2	3.3	3.2	3.2	3.2
OECD index, 2015 = 100	-	-	-	-	-	-	-	-	-	-	-	-	116.0	118.0	120.1
Percent change from prior year	-	-	-	-	-	-	-	-	-	-	-	-	1.7	1.7	1.8
Non-OECD index, 2015 = 100	-	-	-	-	-	-	-	-	-	-	-	-	135.0	140.9	146.9
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	117.7	117.6	118.0	117.9	117.7	117.3	114.3	116.7	117.7
Percent change from prior year	4.2	0.5	-2.7	-2.4	0.6	2.8	3.3	1.8	2.8	1.1	-0.1	-0.2	-0.2	2.1	0.9

(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, Türkiye, 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 October 3, 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 - October 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	13.27	13.45	13.46	13.53	13.54	13.64	12.93	13.22	13.54
Alaska	0.44	0.43	0.40	0.43	0.43	0.42	0.40	0.42	0.42	0.40	0.39	0.41	0.43	0.42	0.40
Federal Gulf of Mexico (b)	1.88	1.77	1.92	1.88	1.78	1.80	1.75	1.76	1.84	1.84	1.79	1.81	1.87	1.77	1.82
Lower 48 States (excl GOM) (c)	10.35	10.56	10.72	10.94	10.73	11.01	11.11	11.27	11.20	11.28	11.36	11.42	10.64	11.03	11.32
Appalachia region	0.15	0.15	0.15	0.16	0.15	0.16	0.16	0.18	0.20	0.21	0.22	0.23	0.15	0.16	0.21
Bakken region	1.14	1.16	1.25	1.30	1.22	1.23	1.26	1.33	1.33	1.32	1.35	1.36	1.21	1.26	1.34
Eagle Ford region	1.14	1.18	1.17	1.11	1.09	1.17	1.19	1.18	1.13	1.12	1.10	1.09	1.15	1.16	1.11
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	5.77	5.83	5.92	6.12	6.10	6.27	6.32	6.39	6.38	6.48	6.53	6.60	5.91	6.27	6.50
Rest of Lower 48 States	2.12	2.19	2.19	2.20	2.14	2.13	2.14	2.16	2.13	2.12	2.12	2.11	2.18	2.14	2.12
Total Supply	19.83	20.35	20.32	20.59	19.79	20.36	20.42	20.54	20.19	20.57	20.59	20.60	20.27	20.28	20.49
Crude oil input to refineries	15.25	16.15	16.52	15.93	15.39	16.47	16.51	15.66	15.21	16.06	16.09	15.43	15.97	16.01	15.70
U.S. total crude oil production (a)	12.67	12.76	13.05	13.25	12.94	13.23	13.27	13.45	13.46	13.53	13.54	13.64	12.93	13.22	13.54
Transfers to crude oil supply	0.42	0.47	0.64	0.56	0.50	0.64	0.53	0.51	0.49	0.52	0.55	0.53	0.53	0.54	0.52
Crude oil net imports (d)	2.43	2.44	2.50	2.26	2.12	2.62	2.67	1.69	1.40	1.76	1.60	1.10	2.41	2.27	1.46
SPR net withdrawals (e)	0.01	0.26	-0.04	-0.04	-0.10	-0.10	-0.11	-0.13	-0.08	-0.03	0.00	0.00	0.05	-0.11	-0.03
Commercial inventory net withdrawals	-0.39	0.12	0.40	-0.09	-0.23	0.08	0.25	-0.08	-0.30	0.07	0.21	-0.04	0.01	0.01	-0.01
Crude oil adjustment (f)	0.10	0.11	-0.03	-0.01	0.16	0.02	-0.10	0.22	0.24	0.21	0.18	0.21	0.04	0.08	0.21
Refinery processing gain	0.97	1.00	1.06	1.05	0.91	0.97	0.97	1.04	0.97	1.03	1.07	1.04	1.02	0.97	1.03
Natural Gas Plant Liquids Production	6.17	6.43	6.64	6.74	6.51	7.01	6.81	6.70	6.66	6.84	6.83	6.88	6.50	6.76	6.80
Renewables and oxygenate production (g)	1.24	1.29	1.31	1.35	1.34	1.33	1.40	1.37	1.37	1.39	1.39	1.42	1.30	1.36	1.39
Fuel ethanol production	1.00	1.00	1.01	1.05	1.04	1.01	1.07	1.05	1.04	1.04	1.02	1.05	1.02	1.04	1.04
Petroleum products adjustment (h)	0.20	0.22	0.23	0.23	0.21	0.22	0.22	0.22	0.20	0.21	0.21	0.21	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	-0.53	-0.51	-0.49	-0.52	-0.55	-0.53	-0.53	-0.54	-0.52
Petroleum product net imports (d)	-3.89	-3.79	-4.19	-4.59	-4.53	-4.40	-4.70	-4.33	-4.09	-4.05	-4.20	-4.20	-4.12	-4.49	-4.13
Hydrocarbon gas liquids	-2.48	-2.48	-2.50	-2.59	-2.59	-2.68	-2.72	-2.59	-2.74	-2.91	-2.82	-2.72	-2.51	-2.64	-2.80
Unfinished oils	0.28	0.27	0.21	0.18	0.09	0.21	0.23	0.25	0.18	0.25	0.28	0.19	0.24	0.19	0.23
Other hydrocarbons and oxygenates	-0.04	-0.06	-0.04	-0.05	-0.06	-0.08	-0.07	-0.06	-0.10	-0.09	-0.08	-0.09	-0.05	-0.07	-0.09
Total motor gasoline	-0.28	0.08	-0.11	-0.40	-0.36	0.00	-0.04	-0.30	-0.19	0.19	0.05	-0.13	-0.18	-0.17	-0.02
Jet fuel	-0.04	0.01	-0.06	-0.09	-0.09	-0.08	-0.10	-0.07	-0.08	-0.01	-0.02	-0.01	-0.05	-0.08	-0.03
Distillate fuel oil	-0.75	-0.96	-1.06	-1.02	-0.86	-1.20	-1.30	-1.00	-0.60	-0.83	-0.93	-0.79	-0.95	-1.09	-0.79
Residual fuel oil	0.01	-0.03	-0.03	-0.01	-0.03	-0.04	-0.05	0.00	0.01	0.01	-0.04	-0.01	-0.02	-0.03	-0.01
Other oils (i)	-0.59	-0.61	-0.60	-0.62	-0.64	-0.54	-0.56	-0.57	-0.58	-0.66	-0.65	-0.64	-0.60	-0.58	-0.63
Petroleum product inventory net withdrawals	0.31	-0.48	-0.61	0.43	0.46	-0.62	-0.25	0.39	0.36	-0.40	-0.23	0.34	-0.09	0.00	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	20.42	20.54	20.19	20.57	20.59	20.60	20.28	20.28	20.49
Hydrocarbon gas liquids	3.53	3.32	3.32	3.85	3.80	3.39	3.27	3.88	3.85	3.34	3.40	3.88	3.50	3.58	3.62
Other hydrocarbons and oxygenates	0.22	0.28	0.28	0.29	0.30	0.33	0.33	0.32	0.30	0.31	0.32	0.35	0.27	0.32	0.32
Motor gasoline	8.69	9.13	9.02	8.94	8.57	9.12	9.12	8.83	8.65	9.13	9.03	8.79	8.94	8.91	8.90
Jet fuel	1.55	1.68	1.72	1.66	1.58	1.73	1.77	1.69	1.62	1.79	1.79	1.71	1.65	1.69	1.73
Distillate fuel oil	4.03	3.92	3.83	3.88	3.82	3.73	3.79	3.89	4.01	3.97	3.91	3.98	3.92	3.81	3.97
Residual fuel oil	0.29	0.22	0.26	0.32	0.28	0.30	0.28	0.28	0.26	0.29	0.27	0.27	0.27	0.29	0.27
Other oils (i)	1.52	1.79	1.88	1.65	1.44	1.77	1.86	1.65	1.49	1.73	1.87	1.62	1.71	1.68	1.68
Total petroleum and other liquid fuels net imports (d)	-1.46	-1.35	-1.69	-2.33	-2.41	-1.78	-2.03	-2.64	-2.69	-2.29	-2.60	-3.09	-1.71	-2.21	-2.67
End-of-period inventories (million barrels)															
Total commercial inventory	1230.0	1263.1	1282.4	1251.4	1230.3	1279.6	1279.1	1251.1	1246.2	1276.1	1278.2	1251.0	1251.4	1251.1	1251.0
Crude oil (excluding SPR)	465.2	454.7	417.9	426.5	447.2	440.2	416.8	424.4	451.5	444.7	425.2	429.1	426.5	424.4	429.1
Hydrocarbon gas liquids	173.9	225.7	277.2	223.3	169.2	235.1	286.2	236.1	195.5	245.2	283.5	240.6	223.3	236.1	240.6
Unfinished oils	88.9	87.3	88.4	84.2	91.7	87.8	82.5	78.6	88.6	86.9	86.0	80.1	84.2	78.6	80.1
Other hydrocarbons and oxygenates	34.5	30.2	30.3	33.1	38.2	33.4	34.0	34.3	36.4	35.1	34.9	35.1	33.1	34.3	35.1
Total motor gasoline	225.2	222.1	227.9	240.7	233.4	232.4	221.7	238.7	232.8	224.5	220.6	239.4	240.7	238.7	239.4
Jet fuel	37.8	42.4	43.5	39.8	42.2	45.3	45.7	41.5	39.9	38.9	39.2	35.6	39.8	41.5	35.6
Distillate fuel oil	111.7	112.0	118.8	130.5	121.2	123.1	120.4	124.1	117.5	119.0	117.9	118.7	130.5	124.1	118.7
Residual fuel oil	29.6	30.5	27.8	24.1	29.9	27.5	24.5	24.5	25.8	25.8	24.0	23.9	24.1	24.5	23.9
Other oils (i)	63.2	58.2	50.6	49.3	57.3	54.9	47.4	48.9	58.1	56.1	46.9	48.5	49.3	48.9	48.5
Crude oil in SPR (e)	371.2	347.2	351.3	354.7	363.9	373.1	383.6	395.5	402.5	405.5	405.5	405.5	354.7	395.5	405.5

(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 October 3, 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*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; and *Weekly Petroleum Status Report*, DOE/EIA-0208.

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 - October 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	7.53	7.04	7.13	7.67	7.58	7.24	7.08	7.33	7.41
Natural gas processing plant production	6.17	6.43	6.64	6.74	6.51	7.01	6.81	6.70	6.66	6.84	6.83	6.88	6.50	6.76	6.80
Ethane	2.56	2.64	2.67	2.74	2.63	2.92	2.73	2.70	2.68	2.76	2.71	2.80	2.65	2.74	2.74
Propane	1.93	1.99	2.05	2.11	2.05	2.14	2.14	2.14	2.14	2.19	2.18	2.19	2.02	2.12	2.17
Butanes	1.01	1.05	1.09	1.10	1.07	1.12	1.14	1.14	1.15	1.15	1.16	1.17	1.06	1.12	1.16
Natural gasoline (pentanes plus)	0.68	0.75	0.83	0.80	0.75	0.84	0.80	0.72	0.70	0.74	0.77	0.73	0.76	0.78	0.73
Refinery and blender net production	0.47	0.83	0.75	0.36	0.46	0.82	0.74	0.36	0.48	0.85	0.77	0.38	0.60	0.60	0.62
Ethane/ethylene	0.01	0.00	0.01	0.02	0.01	-0.01	0.00	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	0.28	0.30	0.29	0.28	0.28	0.27	0.29
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	0.19	-0.19	-0.07	0.27	0.20	-0.18	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	3.27	3.88	3.85	3.34	3.40	3.88	3.50	3.58	3.62
Ethane/Ethylene	2.07	2.19	2.11	2.26	2.24	2.26	2.18	2.25	2.22	2.24	2.24	2.26	2.16	2.23	2.24
Propane	0.98	0.56	0.62	0.96	1.02	0.53	0.53	1.05	1.12	0.55	0.61	1.04	0.78	0.78	0.83
Propylene (refinery-grade)	0.25	0.27	0.27	0.28	0.26	0.28	0.28	0.29	0.29	0.29	0.28	0.29	0.27	0.28	0.29
Butanes/butylenes	0.23	0.30	0.33	0.34	0.28	0.31	0.28	0.30	0.22	0.26	0.25	0.30	0.30	0.29	0.26
HGL net imports	-2.48	-2.48	-2.50	-2.59	-2.59	-2.68	-2.72	-2.59	-2.74	-2.91	-2.82	-2.72	-2.51	-2.64	-2.80
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	-1.61	-1.53	-1.56	-1.73	-1.64	-1.56	-1.50	-1.59	-1.62
Butanes/butylenes	-0.39	-0.38	-0.40	-0.41	-0.41	-0.47	-0.48	-0.40	-0.48	-0.51	-0.51	-0.45	-0.40	-0.44	-0.49
Natural gasoline (pentanes plus)	-0.16	-0.17	-0.13	-0.14	-0.11	-0.13	-0.14	-0.16	-0.19	-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	286.2	236.1	195.5	245.2	283.5	240.6	223.3	236.1	240.6
Ethane	54.5	51.5	57.3	65.8	58.3	75.3	80.5	77.0	74.4	75.7	73.2	73.1	65.8	77.0	73.1
Propane	55.22	79.2	101.4	79.7	51.7	75.1	99.6	83.2	57.8	74.8	93.5	80.5	79.7	83.2	80.5
Propylene (at refineries only)	1.13	1.1	1.2	0.9	0.9	1.3	1.4	1.4	1.3	1.6	1.7	1.6	0.9	1.4	1.6
Butanes/butylenes	40.3	70.5	90.0	50.1	35.1	59.2	79.3	50.4	40.7	70.8	92.0	63.4	50.1	50.4	63.4
Natural gasoline (pentanes plus)	22.9	23.4	27.3	26.8	23.2	24.2	25.4	24.2	21.3	22.3	23.0	22.1	26.8	24.2	22.1
Refining															
Total refinery and blender net inputs	17.58	18.89	18.91	18.24	17.61	19.03	19.18	18.06	17.20	18.71	18.59	17.67	18.41	18.47	18.05
Crude oil	15.25	16.15	16.52	15.93	15.39	16.47	16.51	15.66	15.21	16.06	16.09	15.43	15.97	16.01	15.70
HGL	0.66	0.49	0.56	0.78	0.69	0.56	0.55	0.74	0.62	0.47	0.53	0.71	0.62	0.63	0.58
Other hydrocarbons/oxygenates	1.13	1.20	1.21	1.18	1.12	1.20	1.20	1.17	1.13	1.19	1.18	1.16	1.18	1.17	1.16
Unfinished oils	0.19	0.20	-0.01	0.11	-0.03	0.09	0.19	0.17	-0.06	0.15	0.17	0.13	0.12	0.11	0.10
Motor gasoline blending components	0.36	0.85	0.64	0.23	0.43	0.71	0.72	0.33	0.30	0.84	0.64	0.25	0.52	0.55	0.51
Refinery Processing Gain	0.97	1.00	1.06	1.05	0.91	0.97	0.97	1.04	0.97	1.03	1.07	1.04	1.02	0.97	1.03
Total refinery and blender net production	18.56	19.89	19.98	19.29	18.52	20.00	20.14	19.10	18.17	19.75	19.66	18.71	19.43	19.44	19.08
HGL	0.47	0.83	0.75	0.36	0.46	0.82	0.74	0.36	0.48	0.85	0.77	0.38	0.60	0.60	0.62
Finished motor gasoline	9.29	9.83	9.81	9.65	9.24	9.80	9.81	9.59	9.04	9.65	9.53	9.32	9.65	9.61	9.39
Jet fuel	1.62	1.72	1.78	1.71	1.70	1.84	1.88	1.71	1.68	1.79	1.82	1.68	1.71	1.78	1.74
Distillate fuel oil	4.69	4.89	4.96	5.03	4.57	4.95	5.07	4.93	4.54	4.81	4.83	4.78	4.89	4.88	4.74
Residual fuel oil	0.27	0.27	0.27	0.28	0.37	0.31	0.30	0.28	0.26	0.27	0.28	0.28	0.27	0.31	0.28
Other oils (a)	2.21	2.35	2.40	2.26	2.17	2.28	2.34	2.23	2.17	2.37	2.43	2.28	2.30	2.26	2.31
Refinery distillation inputs	15.76	16.74	17.02	16.47	15.80	16.96	16.83	16.08	15.65	16.48	16.55	15.87	16.50	16.42	16.14
Refinery operable distillation capacity	18.12	18.27	18.27	18.32	18.39	18.33	18.34	18.34	18.08	18.08	18.08	18.08	18.25	18.35	18.08
Refinery distillation utilization factor	0.87	0.92	0.93	0.90	0.86	0.93	0.92	0.88	0.87	0.91	0.92	0.88	0.90	0.89	0.89

(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 October 3, 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 - October 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	2.08	2.19	2.45	2.47	2.17	2.64	2.36	2.32
Retail prices (dollars per gallon) (a)															
All grades United States average	3.49	3.69	3.87	3.48	3.36	3.68	3.49	3.27	3.24	3.46	3.47	3.21	3.64	3.45	3.35
Regular grade United States average	3.38	3.58	3.76	3.36	3.24	3.56	3.37	3.15	3.11	3.33	3.35	3.07	3.52	3.33	3.22
PADD 1	3.30	3.44	3.61	3.25	3.19	3.45	3.29	3.02	2.97	3.20	3.22	2.97	3.40	3.24	3.09
PADD 2	3.24	3.48	3.60	3.14	3.07	3.39	3.28	3.05	2.98	3.17	3.19	2.88	3.37	3.20	3.06
PADD 3	3.02	3.15	3.34	2.85	2.86	3.12	2.94	2.63	2.67	2.95	2.97	2.68	3.09	2.89	2.82
PADD 4	3.57	3.59	3.93	3.32	2.92	3.38	3.40	3.32	3.16	3.25	3.37	3.24	3.61	3.26	3.26
PADD 5	4.18	4.52	4.80	4.55	4.13	4.59	4.11	4.03	4.03	4.23	4.21	3.96	4.52	4.22	4.11
End-of-period inventories (million barrels) (b)															
Total U.S. gasoline inventories	225.2	222.1	227.9	240.7	233.4	232.4	221.7	238.7	232.8	224.5	220.6	239.4	240.7	238.7	239.4
PADD 1	52.7	57.0	58.8	60.1	54.9	56.8	60.8	61.1	59.4	55.6	57.5	59.9	60.1	61.1	59.9
PADD 2	49.8	44.9	46.6	54.9	54.6	48.5	45.5	51.7	53.7	48.5	47.1	52.5	54.9	51.7	52.5
PADD 3	83.7	84.4	85.5	89.2	85.4	86.4	81.3	87.7	81.7	83.2	78.7	88.5	89.2	87.7	88.5
PADD 4	7.8	6.9	7.2	7.9	8.6	8.0	6.8	7.6	7.9	7.3	7.7	8.1	7.9	7.6	8.1
PADD 5	31.2	28.9	29.9	28.6	29.9	32.7	27.3	30.5	30.1	29.8	29.7	30.4	28.6	30.5	30.4

(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 October 3, 2024.

- = no data available

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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*, DOE/EIA-0380; *Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; and *Weekly Petroleum Status Report*, DOE/EIA-0208.

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 - October 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	1.34	1.32	1.27	1.33	1.33	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	1.05	1.04	1.04	1.02	1.05	1.02	1.04	1.04
Biodiesel production	0.10	0.11	0.11	0.11	0.10	0.11	0.11	0.10	0.09	0.11	0.11	0.10	0.11	0.11	0.10
Renewable diesel production	0.14	0.17	0.18	0.18	0.19	0.21	0.22	0.22	0.22	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	-0.11	-0.12	-0.11	-0.09	-0.11	-0.09	-0.12	-0.11
Biodiesel net imports	0.02	0.00	0.01	0.02	0.03	0.02	0.01	0.01	0.00	-0.01	-0.01	0.00	0.02	0.02	0.00
Renewable diesel net imports (b)	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03	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	-0.01	0.00	-0.02	0.01	0.00	0.00	0.00	0.00	0.00
Total distillate fuel oil supply (c)	4.23	4.19	4.10	4.16	4.10	4.04	4.11	4.20	4.30	4.26	4.20	4.29	4.17	4.11	4.26
Distillate fuel production	4.69	4.89	4.96	5.03	4.57	4.95	5.07	4.93	4.54	4.81	4.83	4.78	4.89	4.88	4.74
Biodiesel production	0.10	0.11	0.11	0.11	0.10	0.11	0.11	0.10	0.09	0.11	0.11	0.10	0.11	0.11	0.10
Renewable diesel production	0.14	0.17	0.18	0.18	0.19	0.21	0.22	0.22	0.22	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	-1.30	-1.00	-0.60	-0.83	-0.93	-0.79	-0.95	-1.09	-0.79
Biodiesel net imports	0.02	0.00	0.01	0.02	0.03	0.02	0.01	0.01	0.00	-0.01	-0.01	0.00	0.02	0.02	0.00
Renewable diesel net imports	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.02
Total distillate fuel stock draw	0.06	0.01	-0.08	-0.14	0.09	-0.02	0.03	-0.04	0.07	-0.02	0.01	-0.01	-0.04	0.02	0.01
Consumption (million barrels per day)															
Total biofuels consumption	1.18	1.29	1.29	1.29	1.24	1.32	1.34	1.32	1.27	1.33	1.33	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	0.90	0.95	0.94	0.94	0.93	0.92	0.93
Biodiesel consumption	0.11	0.13	0.13	0.13	0.13	0.13	0.12	0.11	0.09	0.10	0.10	0.10	0.13	0.12	0.10
Biodiesel product supplied (d)	0.07	0.08	0.09	0.09	0.08	0.08	0.07	0.07	0.05	0.05	0.05	0.06	0.08	0.08	0.05
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	0.05	0.04
Renewable diesel consumption	0.15	0.20	0.20	0.20	0.21	0.24	0.25	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	0.24	0.24	0.23	0.24	0.23	0.25	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	9.12	8.83	8.65	9.13	9.03	8.79	8.94	8.91	8.90
Petroleum-based gasoline	7.79	8.19	8.09	8.00	7.69	8.19	8.18	7.90	7.76	8.19	8.10	7.86	8.02	7.99	7.98
Fuel ethanol blended into motor gasoline	0.90	0.94	0.94	0.94	0.88	0.93	0.95	0.94	0.90	0.95	0.94	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	4.11	4.20	4.30	4.26	4.20	4.29	4.17	4.11	4.26
Distillate fuel oil	4.03	3.92	3.83	3.88	3.82	3.73	3.79	3.89	4.01	3.97	3.91	3.98	3.92	3.81	3.97
Petroleum-based distillate	3.97	3.86	3.77	3.83	3.77	3.66	3.74	3.84	3.96	3.91	3.85	3.93	3.86	3.75	3.91
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	0.05	0.04
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	0.07	0.07	0.05	0.05	0.05	0.06	0.08	0.08	0.05
Renewable diesel product supplied (h)	0.14	0.19	0.19	0.19	0.21	0.23	0.24	0.24	0.23	0.24	0.23	0.25	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	34.03	34.30	36.36	35.13	34.85	35.13	33.10	34.30	35.13
Ethanol	24.97	22.31	22.16	23.50	27.19	22.61	23.48	23.76	25.81	24.58	24.31	24.58	23.50	23.76	24.58
Biodiesel	5.13	4.00	3.63	3.81	4.40	3.73	3.95	3.95	3.95	3.95	3.95	3.95	3.81	3.95	3.95
Renewable diesel	3.80	3.81	4.13	4.71	6.32	6.38	6.18	6.19	6.19	6.19	6.19	6.19	4.11	6.27	6.19
Other biofuels	0.31	0.29	0.26	0.32	0.30	0.40	0.41	0.41	0.41	0.41	0.41	0.41	0.30	0.38	0.41
Total distillate fuel oil inventories	120.86	119.56	126.71	139.78	131.86	133.41	130.55	134.21	127.68	129.19	128.06	128.79	139.78	134.21	128.79
Distillate fuel oil	111.69	111.99	118.84	130.49	121.16	123.12	120.41	124.07	117.54	119.05	117.93	118.65	130.49	124.07	118.65
Biodiesel	5.13	4.00	3.63	3.81	4.40	3.73	3.95	3.95	3.95	3.95	3.95	3.95	3.81	3.95	3.95
Renewable diesel	3.80	3.81	4.13	4.71	6.32	6.38	6.18	6.19	6.19	6.19	6.19	6.19	4.11	6.27	6.19

(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 October 3, 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, DOE/EIA-0109; Petroleum Supply Annual, DOE/EIA-0340/2; and Weekly Petroleum Status Report, DOE/EIA-0208.

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 - October 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	113.4	112.1	113.7	113.6	113.8	114.6	114.3	114.9	113.1	113.2	114.4
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	110.9	110.8	110.9	111.9	111.7	112.2	110.1	110.4	111.7
Appalachia region	35.4	35.7	36.0	36.7	35.9	35.0	35.5	35.3	35.8	35.6	35.1	35.3	35.9	35.4	35.4
Bakken region	2.9	3.0	3.2	3.3	3.2	3.3	3.3	3.3	3.3	3.3	3.4	3.4	3.1	3.3	3.3
Eagle Ford region	6.5	6.6	6.6	6.6	6.6	6.7	7.1	7.0	6.9	7.2	7.2	7.2	6.6	6.9	7.1
Haynesville region	16.5	16.7	16.5	16.2	15.7	14.2	14.9	14.8	14.7	14.9	15.2	15.6	16.5	14.9	15.1
Permian region	21.5	22.4	23.1	23.9	23.9	24.6	24.5	25.1	24.9	26.0	26.2	26.3	22.7	24.5	25.8
Rest of Lower 48 States	25.1	25.2	25.3	25.5	25.1	25.5	25.7	25.3	25.3	24.9	24.7	24.3	25.3	25.4	24.8
Total primary supply	103.0	78.0	83.9	91.6	104.0	78.6	85.1	92.8	104.2	77.0	83.4	91.9	89.1	90.1	89.1
Balancing item (c)	0.4	-0.4	-1.4	-0.7	-0.2	-1.6	-1.8	-0.6	-0.6	-1.3	0.3	-0.2	-0.5	-1.1	-0.4
Total supply	102.6	78.5	85.2	92.3	104.1	80.2	86.9	93.4	104.8	78.3	83.1	92.0	89.6	91.2	89.5
U.S. total dry natural gas production	102.2	103.2	104.1	105.5	104.0	102.0	103.9	104.0	104.2	104.8	104.5	105.0	103.8	103.5	104.6
Net inventory withdrawals	12.0	-11.7	-6.4	0.3	12.7	-9.6	-4.9	3.7	15.0	-11.3	-6.4	3.5	-1.5	0.5	0.2
Supplemental gaseous fuels	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
Net imports	-11.8	-13.2	-12.6	-13.7	-12.7	-12.4	-12.3	-14.4	-14.5	-15.4	-15.3	-16.6	-12.8	-13.0	-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	11.5	13.2	13.8	13.3	13.0	14.9	11.9	12.1	13.8
Pipeline gross imports	8.4	7.3	7.9	8.2	8.9	7.8	8.2	8.0	8.6	7.4	7.6	7.9	8.0	8.2	7.9
Pipeline gross exports	8.9	8.7	9.2	8.9	9.4	8.9	9.0	9.2	9.4	9.5	9.9	9.6	8.9	9.1	9.6
Consumption (billion cubic feet per day)															
Total consumption	103.0	78.0	83.9	91.6	104.0	78.6	85.1	92.8	104.2	77.0	83.4	91.9	89.1	90.1	89.1
Residential	23.5	7.3	3.6	15.0	22.8	6.7	3.5	15.9	24.2	7.3	3.8	16.1	12.3	12.2	12.8
Commercial	14.5	6.4	4.7	10.7	14.3	6.3	5.0	11.3	15.1	6.8	5.3	11.4	9.1	9.2	9.6
Industrial	24.8	22.4	22.0	24.3	24.9	22.3	22.1	24.0	24.9	22.1	21.7	24.0	23.4	23.3	23.2
Electric power (e)	30.8	33.4	44.8	32.6	32.5	34.7	45.7	32.6	30.5	32.3	43.8	31.1	35.4	36.4	34.4
Lease and plant fuel	5.3	5.4	5.4	5.5	5.4	5.4	5.4	5.4	5.4	5.5	5.5	5.5	5.4	5.4	5.5
Pipeline and distribution	3.9	2.9	3.1	3.4	3.9	2.9	3.2	3.5	4.0	2.9	3.1	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	3,622	3,285	1,939	2,963	3,548	3,230	3,457	3,285	3,230
East region	334	646	853	787	369	670	858	760	355	629	807	731	787	760	731
Midwest region	417	701	993	950	507	781	1,027	924	454	726	1,023	894	950	924	894
South Central region	919	1,138	1,092	1,183	1,007	1,172	1,125	1,118	825	1,134	1,170	1,125	1,183	1,118	1,125
Mountain region	79	171	239	228	168	238	285	211	124	190	239	206	228	211	206
Pacific region	74	216	278	280	231	286	294	243	158	258	277	244	280	243	244
Alaska	27	30	35	30	24	28	32	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 October 3, 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*, DOE/EIA-0130; and *Electric Power Monthly*, DOE/EIA-0226.

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 - October 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	2.92	3.28	2.69	3.25	3.48	2.63	2.37	3.17
Residential retail (a)															
United States average	14.72	16.19	22.33	13.72	12.76	17.04	22.60	13.41	12.20	14.92	20.60	12.95	15.19	14.27	13.46
New England	21.06	20.48	22.57	18.66	19.12	20.55	24.20	18.74	18.45	19.32	22.57	17.90	20.33	19.57	18.72
Middle Atlantic	15.60	16.03	20.74	14.33	13.44	15.93	21.51	14.18	12.81	14.18	19.26	13.39	15.64	14.58	13.66
East North Central	11.06	13.26	22.96	10.49	9.29	14.65	22.96	10.71	9.30	12.79	21.29	10.41	11.91	11.27	10.87
West North Central	13.24	15.41	22.07	11.29	10.61	15.63	22.89	11.53	10.15	13.20	19.94	10.55	13.42	12.25	11.24
South Atlantic	17.33	20.92	30.29	16.00	14.48	21.80	30.42	15.70	14.42	19.57	27.43	15.43	18.39	16.97	16.46
East South Central	13.63	16.66	23.41	13.47	11.57	16.14	22.81	12.40	11.12	14.94	21.69	12.38	14.56	13.00	12.65
West South Central	14.58	19.81	28.70	16.42	12.75	22.47	28.08	14.86	11.48	17.25	23.78	13.79	17.00	15.85	13.96
Mountain	12.61	13.86	18.75	12.88	12.56	13.92	18.01	12.06	11.28	13.02	17.76	11.83	13.29	13.01	12.20
Pacific	20.13	17.11	18.10	17.87	17.78	18.25	18.28	16.55	17.10	16.21	17.19	16.30	18.74	17.55	16.70
Commercial retail (a)															
United States average	11.82	10.48	10.89	9.82	9.81	10.42	10.84	8.96	8.86	9.29	9.96	8.83	10.89	9.76	9.05
New England	15.21	13.66	12.55	12.15	12.88	12.89	12.11	11.02	11.31	11.70	11.86	11.17	13.74	12.21	11.39
Middle Atlantic	11.94	9.25	8.06	9.48	10.49	10.16	9.28	8.82	9.24	8.39	7.87	8.42	10.23	9.80	8.69
East North Central	9.20	8.63	10.65	7.73	7.41	8.99	10.61	6.85	6.88	7.84	9.80	7.03	8.79	7.67	7.27
West North Central	11.58	11.33	11.77	8.39	8.53	9.83	11.63	8.43	8.27	8.75	9.93	7.69	10.66	8.93	8.30
South Atlantic	12.97	11.26	11.39	10.73	10.31	10.34	10.51	9.50	9.34	9.90	10.27	9.66	11.75	10.09	9.66
East South Central	11.89	10.94	11.80	10.55	9.91	10.09	11.29	9.49	9.05	9.86	10.92	9.72	11.30	9.96	9.60
West South Central	11.01	9.68	10.37	9.73	9.21	9.86	9.93	8.40	7.73	8.44	9.26	8.43	10.31	9.21	8.29
Mountain	10.89	10.77	12.16	10.66	10.30	10.14	10.60	9.24	9.11	9.49	10.32	8.97	10.92	9.97	9.26
Pacific	16.85	12.61	13.49	13.58	14.05	12.48	13.37	12.49	13.01	12.06	12.42	12.13	14.59	13.14	12.46
Industrial retail (a)															
United States average	6.12	3.76	3.87	4.38	4.47	3.35	3.09	3.72	4.36	3.39	3.75	4.28	4.59	3.68	3.96
New England	13.56	10.07	7.88	9.28	11.17	9.58	6.84	7.75	9.06	8.30	7.11	8.35	10.66	9.55	8.34
Middle Atlantic	11.94	8.97	7.89	9.35	10.14	9.19	9.38	9.10	9.32	8.28	8.02	8.67	10.34	9.68	8.82
East North Central	9.18	6.67	6.91	6.22	6.54	6.33	6.32	5.77	6.08	6.03	6.10	6.13	7.62	6.24	6.09
West North Central	8.23	4.54	4.33	4.69	5.21	3.39	3.59	4.24	5.28	4.21	4.30	5.00	5.64	4.16	4.74
South Atlantic	6.92	4.78	5.01	5.36	5.16	4.48	4.50	4.72	5.46	4.65	4.99	5.44	5.57	4.73	5.16
East South Central	5.46	3.74	4.09	4.32	4.13	3.40	3.72	4.22	4.92	4.06	4.42	4.91	4.44	3.88	4.60
West South Central	3.39	2.22	2.71	2.79	2.47	1.96	2.36	3.09	3.53	2.76	3.29	3.64	2.77	2.53	3.31
Mountain	8.90	7.73	8.05	7.76	8.17	6.84	6.22	5.79	5.88	5.78	6.13	6.02	8.19	6.89	5.94
Pacific	10.84	8.16	8.03	9.02	8.82	7.46	7.36	7.43	8.10	7.01	7.03	7.41	9.22	8.03	7.46

(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 October 3, 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*, DOE/EIA-0130. 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 - October 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Supply															
Total supply	105.5	101.7	138.8	103.0	102.2	95.3	117.2	100.3	105.6	83.0	128.4	105.0	449.2	415.0	422.0
Secondary inventory withdrawals	-20.1	-19.1	11.1	-14.8	-2.0	0.2	7.3	-5.4	2.9	-8.1	25.0	10.4	-42.8	0.1	30.3
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	123.6	118.9	125.5	115.6	101.8	93.1	108.8	104.5	101.5	89.9	102.2	93.4	483.7	408.2	386.9
U.S. total coal production	148.7	142.3	145.6	140.8	129.9	118.1	131.7	130.3	126.3	113.3	124.2	120.8	577.5	510.0	484.6
Appalachia	42.9	42.5	40.0	39.7	39.6	39.8	38.5	38.8	39.1	35.2	33.0	34.0	165.1	156.6	141.3
Interior	25.4	23.5	22.6	22.3	22.2	20.3	20.4	20.8	21.8	18.5	18.7	18.2	93.7	83.7	77.2
Western	80.4	76.4	83.0	78.9	68.1	58.0	72.8	70.8	65.4	59.6	72.5	68.6	318.7	269.7	266.1
Net imports	-23.5	-23.7	-23.6	-25.4	-26.5	-25.3	-25.5	-25.8	-24.3	-23.5	-24.2	-27.4	-96.2	-103.0	-99.4
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	2.3	3.4
Gross exports	24.5	24.7	24.6	26.3	26.8	25.8	26.1	26.6	24.9	24.3	25.3	28.2	100.2	105.3	102.8
Metallurgical coal	12.1	12.7	13.5	12.7	14.3	13.8	13.0	11.8	12.2	13.1	13.0	13.5	51.1	52.9	51.8
Steam coal	12.4	12.0	11.1	13.6	12.5	12.0	13.1	14.8	12.8	11.2	12.3	14.7	49.1	52.4	50.9
Primary inventory withdrawals	-1.6	0.3	3.6	0.1	-1.6	0.3	2.5	-0.1	-0.5	0.0	2.1	0.0	2.4	1.1	1.6
Consumption															
U.S. total coal consumption	101.7	91.5	132.0	100.8	100.2	91.1	118.9	100.3	105.6	83.0	128.4	105.0	425.9	410.5	422.0
Coke plants	4.0	3.9	4.0	4.0	3.9	3.9	3.9	3.9	3.9	4.0	4.0	4.1	15.8	15.6	16.1
Electric power sector (b)	91.2	82.0	122.7	91.3	90.7	82.2	110.1	90.6	95.9	74.1	119.4	95.1	387.2	373.5	384.5
Retail and other industry	6.5	5.6	5.3	5.5	5.7	5.0	5.0	5.8	5.8	4.9	5.0	5.8	22.9	21.4	21.5
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	5.6	5.5	4.8	4.8	5.6	22.2	20.8	20.7
Discrepancy (c)	3.8	10.3	6.8	2.3	2.0	4.2	-1.7	0.0	0.0	0.0	0.0	0.0	23.2	4.5	0.0
End-of-period inventories															
Primary inventories (d)	135.7	154.4	139.7	154.4	158.0	157.5	147.8	153.2	150.8	158.8	131.7	121.3	154.4	153.2	121.3
Primary inventories (d)	22.4	22.1	18.5	18.4	20.0	19.7	17.2	17.3	17.8	17.8	15.7	15.7	18.4	17.3	15.7
Secondary inventories	113.3	132.3	121.2	136.0	138.0	137.8	130.6	135.9	133.0	141.1	116.1	105.6	136.0	135.9	105.6
Electric power sector	109.0	127.7	116.6	131.4	133.6	133.5	126.0	131.3	129.1	136.9	111.6	101.2	131.4	131.3	101.2
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	22.75	22.74	22.61	23.37	23.58	24.16	88.20	90.06	93.72
Cost of coal to electric utilities (dollars per million Btu) ..	2.57	2.49	2.51	2.51	2.50	2.54	2.48	2.43	2.45	2.44	2.44	2.41	2.52	2.48	2.43

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

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

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

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

Notes:

EIA completed modeling and analysis for this report on October 3, 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*, DOE/EIA-0121; and *Electric Power Monthly*, DOE/EIA-0226.

Table 7a. U.S. Electricity Industry Overview
U.S. Energy Information Administration | Short-Term Energy Outlook - October 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	995	990	1,212	1,000	1,025	1,048	1,217	1,025	1,034	1,051	1,250	1,036	4,197	4,315	4,370
Electricity generation (a)	987	984	1,209	998	1,024	1,045	1,209	1,020	1,028	1,044	1,242	1,031	4,178	4,298	4,345
Electric power sector	949	947	1,168	958	984	1,008	1,169	981	989	1,006	1,201	991	4,022	4,142	4,188
Industrial sector	35	33	36	36	35	33	35	35	34	34	36	35	139	139	139
Commercial sector	4	4	5	4	4	4	5	4	4	4	5	5	17	17	18
Net imports	8	6	3	2	2	2	8	5	6	6	8	5	19	17	25
Small-scale solar generation (c)															
Residential sector	14	22	22	16	17	25	25	17	19	28	28	19	74	84	95
Commercial sector	10	15	15	11	12	17	17	11	13	19	19	13	50	57	64
Industrial sector	4	6	6	4	4	7	7	5	5	8	8	5	19	22	26
Industrial sector	1	1	1	1	1	1	1	1	1	2	2	1	4	5	5
Losses and Unaccounted for (b)	42	52	51	52	51	67	50	54	45	60	52	50	197	222	207
Electricity consumption (billion kilowatthours)															
Total consumption	953	939	1,161	948	974	981	1,167	971	988	991	1,198	986	4,000	4,093	4,163
Sales to ultimate customers	919	906	1,124	912	939	948	1,132	936	954	957	1,162	950	3,861	3,954	4,023
Residential sector	355	319	455	325	365	345	458	336	370	344	471	338	1,455	1,503	1,523
Commercial sector	322	330	392	331	330	347	397	338	333	347	404	340	1,375	1,412	1,424
Industrial sector	239	256	275	254	243	255	275	260	249	264	286	270	1,025	1,033	1,069
Transportation sector	2	2	2	2	2	2	2	2	2	2	2	2	7	7	7
Direct use (d)	34	33	36	36	35	33	36	35	34	34	37	36	139	139	140
Average residential electricity usage per customer (kWh)	2,524	2,262	3,234	2,310	2,561	2,420	3,215	2,361	2,571	2,386	3,270	2,348	10,330	10,557	10,574
End-of-period fuel inventories held by electric power sector															
Coal (million short tons)	109.0	127.7	116.6	131.4	133.6	133.5	126.0	131.3	129.1	136.9	111.6	101.2	131.4	131.3	101.2
Residual fuel (million barrels)	6.1	6.2	6.4	6.3	6.4	6.4	4.8	5.0	3.5	3.5	1.7	2.6	6.3	5.0	2.6
Distillate fuel (million barrels)	17.0	16.9	16.1	16.1	15.5	15.5	15.4	15.8	15.7	15.6	15.6	15.8	16.1	15.8	15.8
Prices															
Power generation fuel costs (dollars per million Btu)															
Coal	2.57	2.49	2.51	2.51	2.50	2.54	2.48	2.43	2.45	2.44	2.44	2.41	2.52	2.48	2.43
Natural gas	4.98	2.60	2.92	3.19	3.37	2.36	2.40	3.11	3.70	2.75	3.18	3.65	3.36	2.78	3.31
Residual fuel oil	19.24	17.88	19.16	20.84	18.84	18.54	16.48	13.55	13.94	14.86	14.28	14.10	19.32	16.93	14.25
Distillate fuel oil	22.84	19.91	22.08	21.03	20.16	19.48	18.09	16.14	16.79	17.07	17.43	18.19	21.47	18.38	17.40
Prices to ultimate customers (cents per kilowatthour)															
Residential sector	15.77	16.12	16.02	16.02	16.01	16.55	16.56	15.97	16.07	16.90	16.88	16.44	15.98	16.29	16.59
Commercial sector	12.64	12.45	13.18	12.63	12.75	12.76	13.54	12.69	12.81	13.06	13.92	13.05	12.74	12.96	13.24
Industrial sector	8.06	7.74	8.55	7.83	7.88	8.08	8.79	7.91	8.02	8.18	8.81	7.94	8.05	8.18	8.25
Wholesale electricity prices (dollars per megawatthour)															
ERCOT North hub	28.05	57.27	188.81	33.85	32.53	39.94	33.54	25.76	26.07	23.42	35.07	26.86	77.00	32.94	27.85
CAISO SP15 zone	92.54	30.00	67.59	50.54	33.41	7.97	43.12	45.65	46.52	39.10	47.86	51.71	60.17	32.54	46.30
ISO-NE Internal hub	52.63	32.55	40.41	39.84	47.50	34.50	45.87	46.69	62.56	44.31	51.99	53.88	41.36	43.64	53.19
NYISO Hudson Valley zone	44.65	31.38	39.45	36.35	43.48	33.82	42.06	39.06	44.52	41.09	46.46	44.25	37.96	39.60	44.08
PJM Western hub	36.49	35.41	43.27	42.17	35.76	37.75	49.70	40.46	46.36	41.14	48.55	43.17	39.34	40.91	44.81
Midcontinent ISO Illinois hub	31.39	32.13	40.60	33.58	32.52	30.38	37.95	33.28	37.26	34.85	39.00	35.19	34.42	33.53	36.58
SPP ISO South hub	28.96	34.56	46.96	28.50	31.66	33.95	47.92	31.78	35.16	34.76	41.37	34.59	34.74	36.33	36.47
SERC index, Into Southern	30.53	31.66	36.45	30.40	27.96	29.20	31.53	30.45	33.01	30.29	35.33	31.86	32.26	29.78	32.62
FRCC index, Florida Reliability	30.31	33.06	36.79	32.05	30.01	31.81	33.26	32.01	32.24	32.81	35.63	33.05	33.05	31.77	33.43
Northwest index, Mid-Columbia	105.99	58.61	82.36	79.49	99.74	32.91	60.98	66.27	70.80	58.43	66.63	72.64	81.61	64.98	67.13
Southwest index, Palo Verde	84.19	31.60	71.95	50.10	29.62	11.22	50.17	44.39	46.23	41.72	50.01	48.80	59.46	33.85	46.69

(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 October 3, 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:
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 - October 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
All sectors (a)	918.5	906.0	1,124.5	912.3	938.8	947.7	1,131.7	936.3	954.3	956.9	1,161.6	950.2	3,861.3	3,954.4	4,023.1
New England	27.9	25.1	31.4	26.2	28.5	26.3	31.0	26.4	28.8	26.1	31.3	26.3	110.6	112.2	112.6
Middle Atlantic	86.4	79.2	99.7	82.7	90.3	86.4	101.6	82.6	91.0	86.1	103.2	83.4	348.1	360.9	363.8
E. N. Central	133.8	127.6	148.9	129.4	136.4	134.3	151.9	131.5	138.8	134.1	155.8	132.2	539.7	554.1	560.8
W. N. Central	78.7	74.8	86.6	75.1	79.4	75.8	86.4	78.7	82.9	77.3	90.5	80.2	315.2	320.2	330.9
S. Atlantic	196.4	200.9	251.0	199.0	204.1	214.2	252.1	204.4	207.5	217.1	260.1	207.0	847.3	874.8	891.7
E. S. Central	73.1	71.1	89.1	70.9	76.9	74.8	89.5	71.6	76.1	74.3	90.1	71.4	304.3	312.9	311.9
W. S. Central	152.7	166.1	219.2	162.8	154.9	167.6	211.5	171.4	162.2	173.2	223.9	179.7	700.8	705.5	739.0
Mountain	68.9	71.1	90.4	69.3	69.9	76.2	93.4	71.0	70.6	76.7	94.0	71.8	299.6	310.5	313.0
Pacific contiguous	96.8	86.6	104.4	93.0	94.6	88.5	110.6	94.7	92.9	88.4	109.1	94.2	380.9	388.4	384.5
AK and HI	3.7	3.6	3.7	3.9	3.7	3.6	3.7	3.9	3.7	3.6	3.7	3.8	14.9	14.9	14.9
Residential sector	355.4	318.6	455.4	325.2	364.5	344.5	457.7	336.0	370.2	343.6	470.8	338.2	1,454.7	1,502.7	1,522.8
New England	12.2	9.8	13.7	10.8	12.7	10.9	14.0	11.1	13.1	10.9	14.3	11.2	46.5	48.6	49.6
Middle Atlantic	33.3	27.5	40.1	30.2	36.2	32.7	41.5	30.1	37.1	32.7	42.8	30.7	131.2	140.5	143.2
E. N. Central	46.5	39.8	52.5	41.7	47.1	43.6	54.6	43.4	49.3	43.1	57.0	43.5	180.5	188.7	192.9
W. N. Central	29.4	24.1	30.8	24.2	28.8	24.1	30.3	26.1	30.7	24.4	32.4	26.3	108.6	109.3	113.9
S. Atlantic	87.2	83.8	117.9	84.2	91.6	92.0	118.5	86.9	92.3	92.8	122.7	87.4	373.0	389.0	395.1
E. S. Central	29.3	25.4	37.3	26.0	32.0	27.5	38.0	26.9	31.7	27.3	38.5	26.9	118.0	124.4	124.4
W. S. Central	51.6	52.4	86.9	49.5	52.7	56.1	79.6	50.9	53.2	55.3	83.4	51.6	240.4	239.3	243.5
Mountain	25.3	24.5	36.4	23.4	24.4	26.8	37.6	24.1	24.5	26.4	37.3	24.2	109.5	112.9	112.4
Pacific contiguous	39.5	30.2	38.7	33.8	37.8	29.7	42.4	35.3	37.0	29.6	41.4	35.1	142.2	145.3	143.0
AK and HI	1.2	1.1	1.1	1.3	1.2	1.1	1.1	1.3	1.2	1.1	1.1	1.3	4.7	4.7	4.7
Commercial sector	322.0	329.7	391.9	331.3	329.5	346.9	397.2	338.3	333.5	347.4	403.6	340.0	1,374.9	1,412.0	1,424.5
New England	11.9	11.5	13.6	11.7	12.2	11.7	13.1	11.6	12.1	11.5	13.1	11.5	48.7	48.7	48.3
Middle Atlantic	35.0	33.1	39.7	34.4	35.9	34.8	40.3	34.3	35.7	34.5	40.7	34.3	142.2	145.2	145.2
E. N. Central	42.4	41.9	48.0	42.1	43.3	43.7	49.0	42.5	43.4	43.3	49.7	42.4	174.5	178.6	178.8
W. N. Central	25.3	25.1	28.6	25.0	25.5	26.5	29.1	26.3	26.7	26.8	30.1	26.6	104.0	107.4	110.2
S. Atlantic	75.4	81.7	96.5	80.4	78.6	86.5	97.4	83.2	81.1	87.9	100.4	84.4	333.9	345.8	353.7
E. S. Central	20.6	21.8	27.1	21.6	21.5	23.1	26.9	21.7	21.2	22.7	26.8	21.4	91.1	93.1	92.1
W. S. Central	47.5	51.2	63.6	50.7	48.2	53.8	64.1	52.5	49.4	53.6	65.5	53.3	213.1	218.6	221.7
Mountain	23.8	25.0	29.9	24.6	24.6	26.9	31.1	25.1	24.9	27.3	31.6	25.5	103.2	107.6	109.3
Pacific contiguous	38.9	37.0	43.6	39.4	38.4	38.6	44.9	39.7	37.6	38.6	44.3	39.2	158.8	161.5	159.8
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	1.3	5.3	5.3	5.3
Industrial sector	239.4	256.2	275.3	254.1	243.1	254.6	275.1	260.3	248.9	264.3	285.6	270.5	1,024.9	1,033.0	1,069.3
New England	3.7	3.7	3.9	3.6	3.5	3.6	3.8	3.5	3.4	3.6	3.8	3.5	14.9	14.4	14.2
Middle Atlantic	17.3	17.7	18.9	17.3	17.3	18.0	18.9	17.4	17.3	18.2	19.0	17.6	71.3	71.6	72.1
E. N. Central	44.8	45.8	48.2	45.4	45.9	46.8	48.1	45.5	45.9	47.5	48.9	46.3	184.3	186.3	188.6
W. N. Central	24.1	25.5	27.2	25.8	25.1	25.2	26.9	26.3	25.5	26.1	27.9	27.3	102.6	103.5	106.8
S. Atlantic	33.5	35.2	36.4	34.0	33.6	35.4	35.9	34.0	33.8	36.2	36.8	35.0	139.1	139.0	141.8
E. S. Central	23.2	23.9	24.7	23.3	23.4	24.3	24.7	23.0	23.2	24.3	24.8	23.1	95.2	95.4	95.4
W. S. Central	53.6	62.4	68.6	62.5	54.0	57.8	67.8	68.0	59.6	64.2	75.0	74.8	247.2	247.5	273.6
Mountain	19.8	21.5	24.1	21.3	20.9	22.4	24.7	21.7	21.1	23.0	25.1	22.0	86.7	89.7	91.1
Pacific contiguous	18.3	19.2	21.9	19.6	18.2	19.9	23.1	19.6	18.0	20.0	23.2	19.6	79.0	80.8	80.9
AK and HI	1.1	1.2	1.3	1.2	1.2	1.2	1.2	1.2	1.1	1.2	1.2	1.2	4.8	4.8	4.8

(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 October 3, 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 - October 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 ...	12.66	12.41	13.20	12.50	12.75	12.88	13.61	12.54	12.82	13.09	13.86	12.80	12.72	12.98	13.18
New England	24.39	22.26	22.02	22.28	23.18	21.92	22.37	22.01	23.22	22.57	23.51	23.48	22.73	22.39	23.21
Middle Atlantic	15.39	14.75	16.17	15.25	15.57	15.76	17.04	15.76	16.15	16.26	17.58	16.22	15.43	16.07	16.60
E. N. Central	12.20	11.97	12.08	11.86	12.06	12.33	12.42	12.06	12.33	12.60	12.74	12.36	12.03	12.22	12.52
W. N. Central	9.89	10.60	11.47	9.89	9.99	10.70	11.58	9.87	10.03	10.82	11.73	10.00	10.49	10.56	10.67
S. Atlantic	12.03	11.91	12.20	11.95	12.08	11.97	12.16	11.65	11.85	11.96	12.32	11.85	12.03	11.97	12.01
E. S. Central	11.04	10.66	11.00	10.74	11.02	10.96	11.16	10.95	11.32	11.28	11.47	11.23	10.87	11.03	11.33
W. S. Central	9.80	9.24	10.41	9.40	9.50	9.61	10.37	9.36	9.48	9.69	10.52	9.35	9.76	9.75	9.81
Mountain	10.53	11.01	11.79	10.72	10.70	11.31	11.75	10.54	10.59	11.54	12.17	11.15	11.07	11.13	11.43
Pacific	17.49	18.63	21.48	18.76	19.17	20.66	23.64	19.55	19.76	21.47	24.32	20.11	19.15	20.88	21.53
Residential sector															
United States average ...	15.77	16.12	16.02	16.02	16.01	16.55	16.56	15.97	16.07	16.90	16.88	16.44	15.98	16.29	16.59
New England	30.65	29.58	27.18	27.72	27.62	26.58	26.53	26.58	27.10	27.14	27.93	28.64	28.72	26.84	27.70
Middle Atlantic	19.70	19.13	19.86	19.63	19.63	20.21	21.28	20.72	20.60	21.14	22.02	21.44	19.61	20.49	21.33
E. N. Central	16.13	16.58	15.98	16.21	16.02	16.90	16.15	16.23	16.12	17.35	16.55	16.72	16.20	16.31	16.66
W. N. Central	11.85	13.52	14.23	12.65	12.28	14.00	14.41	12.34	12.10	14.13	14.45	12.51	13.08	13.26	13.30
S. Atlantic	14.30	14.74	14.54	14.64	14.51	14.68	14.49	14.21	14.22	14.69	14.66	14.52	14.55	14.48	14.53
E. S. Central	13.17	13.20	12.94	13.27	13.17	13.58	13.14	13.45	13.57	14.10	13.48	13.83	13.13	13.31	13.72
W. S. Central	13.57	13.57	13.51	13.75	13.47	13.87	13.99	13.53	13.20	13.97	14.06	13.70	13.59	13.75	13.77
Mountain	12.96	13.89	14.10	13.74	13.58	14.42	14.09	13.46	13.40	14.60	14.76	14.56	13.71	13.92	14.38
Pacific	19.60	22.32	23.94	21.02	22.03	25.17	26.03	21.83	22.99	26.46	26.98	22.31	21.70	23.80	24.69
Commercial sector															
United States average ...	12.64	12.45	13.18	12.63	12.75	12.76	13.54	12.69	12.81	13.06	13.92	13.05	12.74	12.96	13.24
New England	20.56	18.40	18.70	19.33	20.58	19.55	19.81	19.54	20.89	20.26	20.73	20.63	19.23	19.88	20.64
Middle Atlantic	14.86	14.89	16.41	15.19	15.09	15.55	16.72	15.37	15.31	15.88	17.19	15.79	15.38	15.72	16.09
E. N. Central	12.01	12.07	11.90	11.86	12.07	12.32	12.22	12.03	12.27	12.61	12.53	12.37	11.96	12.16	12.45
W. N. Central	9.95	10.66	11.38	9.90	9.93	10.45	11.40	9.86	9.94	10.64	11.63	10.04	10.50	10.44	10.60
S. Atlantic	11.32	10.95	10.90	11.01	11.16	10.86	10.76	10.60	10.83	10.82	10.90	10.78	11.03	10.84	10.83
E. S. Central	12.57	12.09	12.07	12.02	12.44	12.30	12.27	12.23	12.68	12.68	12.69	12.62	12.18	12.31	12.67
W. S. Central	9.35	8.83	9.54	9.14	9.06	9.07	9.90	9.92	9.98	10.27	10.90	10.35	9.23	9.51	10.41
Mountain	10.35	11.09	11.65	10.77	10.57	11.22	11.56	10.46	10.22	11.20	12.00	11.02	11.00	10.99	11.16
Pacific	18.06	18.84	22.70	19.62	19.51	20.39	24.55	20.07	19.61	20.57	24.99	20.67	19.90	21.26	21.60
Industrial sector															
United States average ...	8.06	7.74	8.55	7.83	7.88	8.08	8.79	7.91	8.02	8.18	8.81	7.94	8.05	8.18	8.25
New England	16.25	15.24	15.80	15.91	16.58	15.91	16.18	16.08	16.91	16.43	16.86	16.78	15.80	16.19	16.74
Middle Atlantic	8.21	7.72	7.82	7.76	8.19	8.17	8.47	8.05	8.44	8.31	8.50	8.08	7.87	8.22	8.34
E. N. Central	8.31	7.89	8.02	7.88	8.01	8.08	8.40	8.12	8.33	8.30	8.53	8.26	8.02	8.16	8.36
W. N. Central	7.44	7.79	8.43	7.29	7.42	7.78	8.59	7.43	7.63	7.91	8.65	7.54	7.75	7.81	7.94
S. Atlantic	7.72	7.38	8.07	7.54	7.64	7.67	8.26	7.69	7.87	7.76	8.41	7.76	7.68	7.82	7.95
E. S. Central	6.98	6.66	6.90	6.73	6.76	6.72	6.89	6.81	6.98	6.81	7.04	6.91	6.82	6.80	6.93
W. S. Central	6.56	5.95	7.27	6.16	6.03	5.97	6.56	5.81	5.75	5.52	6.26	5.63	6.50	6.10	5.81
Mountain	7.65	7.64	8.45	7.36	7.48	7.70	8.42	7.40	7.75	8.42	8.56	7.55	7.80	7.78	8.09
Pacific	11.81	12.47	14.83	13.19	12.57	14.49	17.56	14.46	13.58	15.93	18.42	15.17	13.15	14.93	15.93

(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 October 3, 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 - October 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
United States															
Total generation	948.6	947.4	1,168.3	958.1	984.5	1,008.1	1,169.1	980.7	989.3	1,006.3	1,201.3	991.1	4,022.3	4,142.4	4,187.9
Natural gas	367.6	395.1	537.6	394.9	394.6	409.5	549.2	394.5	364.8	381.0	525.0	376.2	1,695.3	1,747.9	1,647.1
Coal	156.7	140.6	216.1	157.3	156.9	143.9	194.1	155.4	167.5	129.2	210.2	163.9	670.7	650.2	670.9
Nuclear	194.5	183.1	205.2	192.6	197.0	190.5	201.9	194.4	198.2	192.8	208.6	196.8	775.3	783.8	796.5
Renewable energy sources:	225.8	224.8	204.8	209.4	232.2	260.2	219.5	231.4	254.2	301.0	254.0	249.5	864.7	943.2	1,058.7
Conventional hydropower	60.8	64.1	58.5	55.2	63.5	62.1	54.2	55.4	65.6	74.8	65.0	59.6	238.7	235.1	265.1
Wind	125.9	102.6	84.6	111.8	122.4	124.9	85.3	117.9	126.6	130.1	89.0	123.2	425.0	450.4	468.9
Solar (a)	29.2	49.0	52.0	33.3	37.4	64.5	70.4	48.6	52.7	87.6	90.3	57.1	163.5	221.0	287.7
Biomass	5.6	5.1	5.7	4.7	5.0	4.9	5.5	5.1	5.3	5.0	5.7	5.0	21.1	20.6	21.0
Geothermal	4.2	4.0	4.0	4.2	3.9	3.8	4.0	4.5	3.9	3.5	4.1	4.5	16.5	16.1	16.0
Pumped storage hydropower ...	-1.6	-1.3	-1.8	-1.2	-1.1	-1.2	-1.4	-1.0	-1.0	-2.1	-1.9	-1.0	-5.9	-4.7	-6.0
Petroleum (b)	3.9	3.5	4.7	3.5	3.5	3.9	4.4	4.7	4.4	3.3	4.1	4.6	15.6	16.4	16.4
Other gases	0.8	0.7	0.9	0.8	0.7	0.7	0.9	0.8	0.8	0.8	0.9	0.8	3.2	3.1	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	0.3	0.3	3.4	2.5	1.1
New England (ISO-NE)															
Total generation	23.6	20.2	27.2	22.8	25.0	23.8	28.3	24.0	25.1	24.0	29.9	25.0	93.7	101.1	104.0
Natural gas	11.5	12.3	15.8	12.5	12.8	11.6	16.9	13.4	12.1	11.8	17.6	11.3	52.2	54.8	52.7
Coal	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.2	0.2
Nuclear	7.1	3.4	6.9	5.8	7.0	7.3	6.9	5.5	7.0	6.0	7.2	7.2	23.2	26.7	27.3
Conventional hydropower	1.9	1.4	1.6	1.8	2.0	1.6	1.1	1.7	2.0	2.2	1.2	1.7	6.7	6.4	7.1
Nonhydro renewables (d)	2.6	2.8	2.6	2.4	2.8	3.1	3.0	2.8	3.2	3.8	3.6	4.2	10.4	11.7	14.8
Other energy sources (e)	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.5	0.8	0.2	0.3	0.6	1.0	1.2	1.9
Net energy for load (f)	29.0	25.6	32.2	27.9	29.6	27.0	32.4	28.4	29.8	27.5	33.8	29.2	114.7	117.5	120.3
New York (NYISO)															
Total generation	29.7	29.4	36.7	32.0	32.6	32.5	36.1	30.7	30.4	30.3	36.9	31.3	127.9	131.9	128.9
Natural gas	13.5	14.2	21.1	15.6	16.1	15.7	20.7	14.4	14.0	13.5	20.4	14.2	64.4	66.9	62.2
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	6.5	6.9	6.7	7.0	7.2	7.2	27.5	27.0	28.0
Conventional hydropower	7.1	6.6	6.9	7.0	7.5	6.9	6.7	6.9	6.8	6.8	6.8	7.1	27.6	28.1	27.5
Nonhydro renewables (d)	2.1	2.0	1.8	2.1	2.4	2.6	2.2	2.4	2.5	2.9	2.5	2.8	8.1	9.6	10.7
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	0.2	0.2	0.5
Net energy for load (f)	36.1	33.3	42.1	35.5	37.0	35.7	42.4	35.7	37.4	36.4	45.0	36.9	147.0	150.7	155.7
Mid-Atlantic (PJM)															
Total generation	197.1	183.9	231.0	195.1	208.6	198.8	230.4	194.2	205.3	193.0	228.4	194.2	807.2	832.1	820.9
Natural gas	85.1	81.5	112.3	85.4	93.5	88.7	113.2	81.8	85.7	84.5	105.8	80.7	364.3	377.2	356.8
Coal	28.3	22.9	36.2	25.7	29.1	28.2	33.3	27.6	34.2	22.3	35.8	28.6	113.1	118.2	120.8
Nuclear	67.6	65.7	70.6	68.8	68.9	64.4	70.1	68.4	67.5	66.4	71.4	67.6	272.6	271.7	272.8
Conventional hydropower	2.6	1.8	2.0	2.5	3.0	2.2	1.3	2.0	2.6	2.5	1.6	2.1	8.9	8.5	8.8
Nonhydro renewables (d)	13.1	12.0	9.8	12.4	13.9	15.2	12.1	13.9	15.4	17.3	13.7	14.9	47.2	55.2	61.2
Other energy sources (e)	0.3	0.1	0.2	0.4	0.2	0.1	0.4	0.6	0.1	-0.1	0.1	0.4	1.0	1.3	0.5
Net energy for load (f)	192.5	176.2	214.4	187.0	199.4	191.6	220.0	187.5	200.7	188.3	221.5	189.0	770.1	798.5	799.5
Southeast (SERC)															
Total generation	153.6	158.2	194.5	158.4	164.4	170.6	191.8	155.9	164.6	170.4	202.1	162.2	664.7	682.6	699.3
Natural gas	63.7	65.7	82.4	62.6	62.1	67.6	86.8	61.6	58.0	69.4	85.9	61.1	274.4	278.1	274.3
Coal	23.7	26.5	39.7	25.2	30.5	31.1	36.1	24.1	32.7	24.7	39.5	29.1	115.0	121.7	126.0
Nuclear	51.7	52.9	57.4	57.4	55.9	56.5	55.7	56.4	56.5	58.7	60.6	57.0	219.3	224.5	232.7
Conventional hydropower	9.9	6.2	8.0	8.6	10.5	7.6	5.8	8.4	11.2	9.0	8.0	9.1	32.7	32.4	37.3
Nonhydro renewables (d)	4.9	7.2	7.4	5.0	5.4	8.1	7.8	5.7	6.4	9.6	9.1	6.2	24.5	27.0	31.2
Other energy sources (e)	-0.3	-0.2	-0.5	-0.4	0.0	-0.3	-0.4	-0.3	-0.1	-0.9	-0.9	-0.4	-1.3	-1.0	-2.2
Net energy for load (f)	148.9	149.2	171.6	149.4	155.4	156.8	170.3	147.1	155.6	159.0	188.4	153.9	619.2	629.6	656.9
Florida (FRCC)															
Total generation	52.5	63.6	75.7	55.9	53.4	67.3	76.7	58.0	52.1	62.5	72.3	55.8	247.7	255.4	242.7
Natural gas	38.3	48.8	59.0	42.9	40.3	50.5	60.7	44.5	36.9	45.5	54.4	41.1	189.0	196.0	177.8
Coal	2.7	2.6	3.9	2.5	1.4	2.3	2.7	1.8	1.6	1.9	3.5	1.8	11.7	8.2	8.7
Nuclear	7.4	7.5	8.0	7.1	7.5	7.5	7.2	7.1	7.8	7.4	7.5	7.7	29.9	29.3	30.4
Conventional hydropower	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.2	0.2
Nonhydro renewables (d)	3.5	4.2	4.1	3.1	3.9	6.0	5.4	4.2	5.3	7.2	6.3	4.7	14.8	19.5	23.5
Other energy sources (e)	0.6	0.5	0.6	0.4	0.3	0.9	0.6	0.4	0.4	0.6	0.6	0.4	2.1	2.2	2.0
Net energy for load (f)	54.4	65.5	77.2	56.6	52.9	68.2	76.6	57.6	51.3	63.3	73.7	55.8	253.8	255.2	244.1

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

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

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

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

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

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

Notes:

EIA completed modeling and analysis for this report on October 3, 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 - October 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Midwest (MISO)															
Total generation	145.1	142.9	171.5	143.6	147.1	151.5	174.2	151.8	155.1	150.0	177.9	155.2	603.2	624.6	638.2
Natural gas	45.4	54.7	67.3	47.8	48.9	56.0	73.1	52.9	48.6	52.1	67.9	49.4	215.2	230.9	217.9
Coal	43.0	38.0	57.3	44.9	42.8	38.6	51.5	40.1	44.8	37.9	57.5	45.1	183.2	173.1	185.3
Nuclear	23.4	21.1	24.3	18.4	20.9	21.8	24.9	23.1	22.4	20.9	24.2	23.4	87.2	90.6	90.9
Conventional hydropower	2.2	2.0	1.9	2.0	2.1	2.0	1.9	2.0	2.4	2.9	2.4	2.2	8.0	8.1	9.9
Nonhydro renewables (d)	30.3	26.5	19.4	29.8	31.7	32.6	21.7	32.3	36.0	35.5	24.7	33.9	106.0	118.3	130.1
Other energy sources (e)	0.8	0.7	1.3	0.8	0.6	0.5	1.1	1.4	0.9	0.7	1.2	1.3	3.6	3.7	4.1
Net energy for load (f)	158.6	157.9	184.3	155.2	159.9	160.1	184.5	163.5	164.3	162.3	191.3	164.9	656.0	668.0	682.8
Central (Southwest Power Pool)															
Total generation	75.0	71.6	87.6	73.3	75.8	76.1	88.4	73.9	74.3	73.9	87.2	71.8	307.5	314.2	307.1
Natural gas	15.8	21.6	30.5	18.3	19.9	22.5	31.6	19.0	18.4	19.9	28.7	18.0	86.1	92.9	85.0
Coal	20.4	17.2	27.4	18.4	17.7	15.5	25.5	17.7	16.8	12.6	24.2	15.0	83.4	76.4	68.5
Nuclear	4.3	4.3	4.3	4.4	4.3	3.2	4.0	3.4	4.2	4.2	4.1	3.1	17.2	15.0	15.6
Conventional hydropower	2.9	2.8	2.7	2.7	3.1	2.8	2.3	2.6	3.4	4.1	3.6	3.1	11.1	10.9	14.2
Nonhydro renewables (d)	31.4	25.6	22.5	29.4	30.6	31.7	24.7	30.9	31.4	32.8	26.3	32.5	108.9	118.0	123.1
Other energy sources (e)	0.2	0.1	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.3	0.2	0.2	0.7	1.0	0.7
Net energy for load (f)	66.6	66.6	81.8	65.7	68.9	70.1	83.3	68.7	67.8	67.4	81.1	65.7	280.7	291.0	282.0
Texas (ERCOT)															
Total generation	95.4	108.1	134.7	100.1	101.6	114.2	130.8	110.9	105.1	120.3	144.5	114.8	438.3	457.4	484.6
Natural gas	36.5	49.6	70.1	42.7	42.4	50.1	65.8	46.4	39.7	44.1	68.9	45.4	198.9	204.8	198.1
Coal	11.4	15.2	19.7	15.0	12.0	12.4	17.4	15.8	13.4	12.8	19.2	16.4	61.3	57.6	61.9
Nuclear	10.5	9.0	10.9	10.3	10.0	9.1	10.6	8.9	10.7	9.9	10.7	10.2	40.7	38.6	41.5
Conventional hydropower	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.6	0.4	0.6
Nonhydro renewables (d)	36.6	33.8	33.6	31.7	36.6	42.2	36.6	39.4	40.8	52.9	45.4	42.6	135.6	154.8	181.7
Other energy sources (e)	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	1.2	1.2	0.8
Net energy for load (f)	94.2	109.8	140.6	100.0	101.0	117.8	131.2	110.9	105.1	120.3	144.5	114.8	444.5	460.9	484.6
Northwest															
Total generation	91.8	82.6	95.4	88.0	90.3	84.0	95.7	88.5	92.9	88.7	103.3	91.1	357.8	358.6	376.0
Natural gas	24.3	17.9	27.8	23.9	25.7	19.4	28.5	20.8	21.8	13.5	25.4	19.3	93.9	94.4	80.0
Coal	20.2	14.4	23.6	20.2	17.4	11.1	20.3	22.1	18.0	11.2	22.7	21.8	78.4	70.8	73.7
Nuclear	2.4	1.0	2.5	2.5	2.5	2.5	2.5	2.4	2.4	1.2	2.4	2.4	8.4	9.9	8.5
Conventional hydropower	25.8	29.9	23.5	23.8	25.6	26.4	24.4	25.3	29.7	35.5	30.6	28.2	103.0	101.6	124.0
Nonhydro renewables (d)	18.9	19.2	17.8	17.5	18.9	24.6	19.9	17.7	20.7	27.2	22.1	19.2	73.3	81.1	89.2
Other energy sources (e)	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.1	0.1	0.2	0.8	0.7	0.7
Net energy for load (f)	88.1	76.7	86.5	84.3	89.4	80.5	88.6	83.9	84.8	77.6	88.4	83.2	335.6	342.5	334.0
Southwest															
Total generation	34.5	35.4	46.2	35.6	35.2	37.5	46.3	38.0	35.5	39.2	50.0	38.3	151.8	157.0	163.0
Natural gas	12.5	16.5	23.0	16.7	13.2	15.9	22.5	16.1	11.2	13.5	22.2	14.7	68.8	67.6	61.6
Coal	5.5	3.1	6.5	4.3	5.1	4.0	5.5	4.8	5.1	5.0	7.4	5.6	19.4	19.4	23.1
Nuclear	8.6	6.8	8.6	7.6	8.7	7.4	8.6	7.5	8.4	7.4	8.6	7.5	31.5	32.3	31.9
Conventional hydropower	1.4	2.5	2.0	1.4	1.7	2.2	1.7	1.4	1.7	2.1	1.9	1.5	7.3	7.0	7.3
Nonhydro renewables (d)	6.4	6.5	6.1	5.6	6.6	8.0	8.0	8.1	9.0	11.3	9.9	9.0	24.6	30.8	39.2
Other energy sources (e)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.1	-0.1	-0.1
Net energy for load (f)	28.3	32.9	45.8	29.9	28.9	35.7	44.6	30.1	28.7	35.5	46.5	30.1	136.9	139.3	140.9
California															
Total generation	46.7	47.7	63.7	49.5	46.8	48.2	66.4	51.0	45.3	50.6	65.0	47.6	207.6	212.5	208.6
Natural gas	20.2	11.5	27.2	25.6	18.8	10.9	28.3	22.9	17.8	12.6	27.3	20.2	84.6	80.8	78.0
Coal	1.1	0.6	1.7	1.1	0.7	0.6	1.4	0.8	0.5	0.5	0.0	0.0	4.4	3.6	1.0
Nuclear	4.7	4.9	4.9	3.2	4.9	3.6	4.9	4.7	4.6	3.7	4.7	3.6	17.7	18.2	16.7
Conventional hydropower	6.5	10.5	9.4	4.9	7.2	9.8	8.7	4.5	5.2	8.9	8.3	4.2	31.3	30.2	26.7
Nonhydro renewables (d)	14.7	20.3	20.5	14.9	15.4	23.4	23.3	18.1	17.4	25.1	24.8	19.5	70.5	80.2	86.7
Other energy sources (e)	-0.6	-0.2	0.0	-0.2	-0.3	-0.1	-0.1	0.0	-0.2	-0.3	-0.1	0.1	-1.0	-0.5	-0.5
Net energy for load (f)	60.5	59.9	76.7	62.9	59.1	61.5	77.9	63.4	60.1	65.3	83.4	63.8	260.0	262.0	272.7

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

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

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

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

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

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

Notes:

EIA completed modeling and analysis for this report on October 3, 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 - October 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	487.5	486.4	487.2	487.8	487.0	489.2	490.3	489.8	488.9	487.8	489.8
Coal	184.6	180.9	178.8	177.0	176.8	175.5	175.5	174.9	174.9	171.5	169.7	163.7	177.0	174.9	163.7
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 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	148.9	150.1	151.7	153.9	155.6	156.2	157.7	161.5	147.3	153.9	161.5
Solar photovoltaic	73.3	77.0	80.0	89.8	95.7	101.8	113.3	127.7	131.3	136.7	139.8	153.2	89.8	127.7	153.2
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	95.8	96.9	96.9	96.9	96.9	96.9	96.9	97.7	95.7	96.9	97.7
Battery storage	9.6	10.8	13.5	16.0	16.9	19.9	24.5	30.2	31.8	36.7	37.8	43.5	16.0	30.2	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	18.5	18.5	18.5	18.3	18.3	18.3	18.3	18.3	18.6	18.3	18.3
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	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.5	1.5
Other 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	0.7	0.7	0.7	0.7
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	41.7	43.8	45.9	47.7	49.3	50.5	52.1	53.8	55.6	57.4	59.2	61.1	47.7	53.8	61.1
Residential sector	27.8	29.6	31.4	32.9	33.8	34.4	35.6	36.8	38.1	39.4	40.7	42.0	32.9	36.8	42.0
Commercial sector	11.5	11.8	12.0	12.3	12.9	13.5	13.9	14.3	14.8	15.2	15.7	16.1	12.3	14.3	16.1
Industrial sector	2.4	2.5	2.5	2.6	2.6	2.6	2.6	2.7	2.8	2.8	2.9	2.9	2.6	2.7	2.9

(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 October 3, 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-860M Preliminary Monthly Electric Generator Inventory, July 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 - October 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
All Sectors	2.043	2.102	2.047	2.046	2.092	2.235	2.162	2.182	2.210	2.433	2.311	2.273	8.238	8.671	9.226
Biodiesel, renewable diesel, and other (g)	0.139	0.173	0.175	0.174	0.177	0.193	0.198	0.195	0.182	0.192	0.196	0.207	0.660	0.763	0.777
Biofuel losses and co-products (d)	0.198	0.201	0.206	0.214	0.209	0.204	0.212	0.214	0.207	0.209	0.209	0.214	0.819	0.839	0.840
Ethanol (f)	0.280	0.297	0.299	0.300	0.279	0.294	0.303	0.298	0.279	0.298	0.298	0.298	1.177	1.173	1.172
Geothermal	0.030	0.029	0.030	0.030	0.029	0.029	0.030	0.031	0.029	0.028	0.030	0.031	0.120	0.118	0.118
Hydroelectric power (a)	0.209	0.220	0.201	0.189	0.218	0.213	0.189	0.190	0.225	0.256	0.223	0.204	0.818	0.809	0.909
Solar (b)(f)	0.162	0.262	0.272	0.181	0.201	0.327	0.346	0.239	0.259	0.416	0.425	0.275	0.878	1.112	1.376
Waste biomass (c)	0.102	0.098	0.097	0.101	0.101	0.096	0.097	0.100	0.098	0.096	0.097	0.100	0.398	0.394	0.392
Wood biomass	0.493	0.472	0.478	0.475	0.461	0.453	0.498	0.513	0.499	0.494	0.530	0.522	1.918	1.925	2.043
Wind	0.430	0.350	0.289	0.382	0.418	0.426	0.291	0.402	0.432	0.444	0.304	0.420	1.450	1.537	1.600
Electric power sector	0.838	0.830	0.766	0.773	0.855	0.947	0.819	0.852	0.932	1.089	0.936	0.913	3.207	3.474	3.870
Geothermal	0.014	0.014	0.014	0.014	0.013	0.013	0.014	0.015	0.013	0.012	0.014	0.015	0.056	0.055	0.054
Hydroelectric power (a)	0.208	0.219	0.200	0.188	0.217	0.212	0.188	0.189	0.224	0.255	0.222	0.204	0.814	0.805	0.905
Solar (b)	0.100	0.167	0.177	0.114	0.128	0.220	0.240	0.166	0.180	0.299	0.308	0.195	0.558	0.754	0.982
Waste biomass (c)	0.043	0.041	0.042	0.041	0.042	0.039	0.040	0.040	0.040	0.039	0.041	0.040	0.167	0.161	0.161
Wood biomass	0.044	0.040	0.045	0.033	0.038	0.037	0.046	0.040	0.042	0.039	0.048	0.038	0.162	0.162	0.169
Wind	0.430	0.350	0.289	0.382	0.418	0.426	0.291	0.402	0.432	0.444	0.304	0.420	1.450	1.537	1.600
Industrial sector (e)	0.567	0.552	0.554	0.573	0.563	0.552	0.579	0.605	0.594	0.595	0.606	0.616	2.247	2.300	2.412
Biofuel losses and co-products (d)	0.198	0.201	0.206	0.214	0.209	0.204	0.212	0.214	0.207	0.209	0.209	0.214	0.819	0.839	0.840
Geothermal	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.004	0.004	0.004
Hydroelectric power (a)	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003	0.003	0.003
Solar (b)	0.003	0.005	0.005	0.003	0.004	0.005	0.005	0.004	0.004	0.005	0.005	0.004	0.016	0.018	0.019
Waste biomass (c)	0.041	0.040	0.037	0.042	0.042	0.040	0.039	0.042	0.041	0.039	0.039	0.041	0.160	0.161	0.160
Wood biomass	0.318	0.300	0.299	0.307	0.302	0.296	0.317	0.339	0.336	0.334	0.347	0.349	1.224	1.254	1.366
Commercial sector (e)	0.064	0.071	0.073	0.066	0.066	0.074	0.076	0.069	0.069	0.077	0.079	0.071	0.274	0.284	0.296
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	0.024	0.016	0.019	0.027	0.027	0.018	0.069	0.079	0.091
Waste biomass (c)	0.017	0.017	0.018	0.018	0.018	0.017	0.018	0.019	0.017	0.017	0.018	0.019	0.071	0.072	0.071
Wood biomass	0.020	0.020	0.021	0.021	0.020	0.020	0.021	0.021	0.020	0.020	0.021	0.021	0.082	0.082	0.082
Residential sector	0.166	0.191	0.193	0.174	0.163	0.188	0.200	0.176	0.166	0.195	0.208	0.182	0.725	0.728	0.751
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	0.039	0.039
Solar (f)	0.045	0.069	0.070	0.051	0.054	0.078	0.077	0.053	0.057	0.085	0.085	0.058	0.235	0.261	0.285
Wood biomass	0.111	0.112	0.114	0.114	0.100	0.100	0.114	0.114	0.100	0.100	0.114	0.114	0.450	0.427	0.427
Transportation sector	0.407	0.457	0.461	0.460	0.444	0.474	0.487	0.479	0.448	0.476	0.481	0.492	1.785	1.885	1.897
Biodiesel, renewable diesel, and other (g)	0.139	0.173	0.175	0.174	0.177	0.193	0.198	0.195	0.182	0.192	0.196	0.207	0.660	0.763	0.777
Ethanol (g)	0.268	0.284	0.286	0.287	0.266	0.281	0.289	0.285	0.266	0.285	0.285	0.285	1.125	1.121	1.121

- (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:
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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 CO₂ Emissions

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

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Macroeconomic															
Real Gross Domestic Product (billion chained 2017 dollars - SAAR)	22,112	22,225	22,491	22,679	22,759	22,925	23,059	23,146	23,244	23,363	23,474	23,596	22,377	22,972	23,419
Real Personal Consumption Expend. (billion chained 2017 dollars - SAAR)	15,313	15,344	15,461	15,587	15,643	15,755	15,894	15,974	16,058	16,139	16,218	16,304	15,426	15,816	16,180
Real Private Fixed Investment (billion chained 2017 dollars - SAAR)	3,906	3,956	3,981	4,016	4,084	4,115	4,131	4,135	4,152	4,182	4,216	4,246	3,965	4,116	4,199
Business Inventory Change (billion chained 2017 dollars - SAAR)	24	19	102	70	36	91	103	91	86	102	118	124	54	80	107
Real Government Expenditures (billion chained 2017 dollars - SAAR)	3,759	3,790	3,843	3,887	3,904	3,930	3,937	3,945	3,950	3,956	3,962	3,966	3,820	3,929	3,958
Real Exports of Goods & Services (billion chained 2017 dollars - SAAR)	2,525	2,465	2,497	2,528	2,538	2,548	2,576	2,604	2,632	2,658	2,683	2,711	2,504	2,567	2,671
Real Imports of Goods & Services (billion chained 2017 dollars - SAAR)	3,460	3,393	3,428	3,447	3,498	3,558	3,628	3,662	3,696	3,735	3,785	3,816	3,432	3,587	3,758
Real Disposable Personal Income (billion chained 2017 dollars - SAAR)	16,663	16,797	16,820	16,856	16,912	16,956	17,053	17,163	17,314	17,447	17,590	17,746	16,784	17,021	17,524
Non-Farm Employment (millions)	155.0	155.8	156.4	157.1	157.8	158.4	158.8	159.3	159.5	159.8	159.9	160.1	156.1	158.6	159.8
Civilian Unemployment Rate (percent)	3.5	3.6	3.7	3.7	3.8	4.0	4.3	4.3	4.3	4.3	4.3	4.3	3.6	4.1	4.3
Housing Starts (millions - SAAR)	1.37	1.46	1.38	1.48	1.41	1.34	1.30	1.32	1.34	1.37	1.38	1.40	1.42	1.34	1.37
Industrial Production Indices (Index, 2017=100)															
Total Industrial Production	102.8	102.9	103.2	102.7	102.2	103.0	102.9	103.3	103.4	103.8	104.0	104.6	102.9	102.8	103.9
Manufacturing	100.0	100.1	100.0	99.7	99.5	99.9	99.9	100.5	100.8	101.4	101.8	102.6	100.0	99.9	101.6
Food	104.7	103.4	101.9	102.5	101.8	102.2	101.9	102.8	103.2	103.7	104.3	104.8	103.1	102.1	104.0
Paper	86.8	85.2	84.8	86.2	86.6	86.7	87.9	88.3	88.5	89.0	88.9	89.4	85.7	87.4	89.0
Petroleum and coal products	89.0	89.7	91.1	93.0	93.0	92.5	94.5	94.9	95.0	95.1	94.9	94.8	90.7	93.7	95.0
Chemicals	103.3	104.0	104.0	103.4	103.0	105.0	106.2	107.4	108.0	109.0	109.4	110.6	103.7	105.4	109.3
Nonmetallic mineral products	108.6	105.5	104.5	104.2	100.7	100.1	101.1	101.5	101.7	102.2	102.6	103.4	105.7	100.8	102.5
Primary metals	94.7	95.5	94.9	94.3	93.7	93.4	94.3	95.4	95.7	97.2	97.1	98.9	94.8	94.2	97.2
Coal-weighted manufacturing (a)	96.2	95.9	95.8	95.8	94.4	94.3	95.2	96.0	96.2	97.0	96.9	97.9	95.9	95.0	97.0
Distillate-weighted manufacturing (a)	98.8	98.1	97.9	97.9	96.7	96.7	97.0	97.7	98.1	98.7	99.0	99.9	98.2	97.0	98.9
Electricity-weighted manufacturing (a)	97.2	97.4	97.4	97.1	96.3	96.6	96.8	97.8	98.1	99.0	99.1	100.2	97.3	96.9	99.1
Natural Gas-weighted manufacturing (a)	95.0	95.1	95.5	95.3	93.9	94.6	95.0	95.9	96.0	96.8	96.7	97.6	95.2	94.8	96.8
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	3.15	3.16	3.18	3.19	3.21	3.05	3.13	3.19
Producer Price Index: All Commodities (index, 1982=1.00)	2.60	2.53	2.55	2.55	2.55	2.54	2.51	2.50	2.51	2.50	2.51	2.52	2.56	2.52	2.51
Producer Price Index: Petroleum (index, 1982=1.00)	3.09	2.91	3.17	2.82	2.79	2.84	2.63	2.19	2.28	2.40	2.43	2.31	3.00	2.61	2.36
GDP Implicit Price Deflator (index, 2017=100)	121.3	121.8	122.8	123.3	124.2	125.0	125.5	126.0	126.8	127.5	128.3	129.0	122.3	125.2	127.9
Miscellaneous															
Vehicle Miles Traveled (a) (million miles/day)	8,426	9,159	9,334	8,835	8,381	9,252	9,472	8,915	8,578	9,380	9,539	8,950	8,941	9,006	9,114
Raw Steel Production (million short tons per day)	21.227	22.165	22.510	22.298	22.216	22.362	22.748	22.736	22.611	23.367	23.584	24.159	88.200	90.061	93.722
Carbon Dioxide (CO₂) Emissions (million metric tons)															
Total Energy (c)	1,239	1,115	1,224	1,213	1,239	1,115	1,210	1,213	1,252	1,101	1,221	1,219	4,791	4,777	4,794
Petroleum	550	563	566	572	543	561	569	567	550	570	572	569	2,251	2,241	2,261
Natural gas	501	383	416	455	512	386	419	461	507	378	414	457	1,756	1,778	1,756
Coal	186	167	240	184	183	166	220	183	193	152	233	192	777	752	770

 (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 October 3, 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 - October 2024

	2023				2024				2025				Year		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
Real Gross State Product (billion \$2017)															
New England	1,148	1,153	1,166	1,175	1,178	1,184	1,190	1,193	1,198	1,202	1,207	1,212	1,161	1,186	1,205
Middle Atlantic	3,192	3,202	3,235	3,255	3,270	3,295	3,317	3,330	3,343	3,358	3,371	3,386	3,221	3,303	3,364
E. N. Central	2,832	2,841	2,870	2,891	2,890	2,912	2,927	2,935	2,943	2,955	2,966	2,978	2,858	2,916	2,961
W. N. Central	1,353	1,360	1,377	1,384	1,379	1,391	1,398	1,401	1,406	1,412	1,418	1,424	1,369	1,392	1,415
S. Atlantic	4,092	4,107	4,154	4,192	4,215	4,247	4,274	4,291	4,310	4,334	4,356	4,381	4,136	4,257	4,345
E. S. Central	998	1,000	1,011	1,019	1,023	1,031	1,036	1,040	1,044	1,048	1,053	1,057	1,007	1,033	1,051
W. S. Central	2,563	2,590	2,634	2,664	2,680	2,702	2,719	2,733	2,748	2,765	2,782	2,801	2,613	2,708	2,774
Mountain	1,527	1,535	1,556	1,574	1,585	1,597	1,608	1,615	1,623	1,634	1,643	1,654	1,548	1,601	1,638
Pacific	4,249	4,277	4,327	4,362	4,375	4,402	4,425	4,440	4,462	4,486	4,509	4,533	4,304	4,411	4,498
Industrial Output, Manufacturing (index, year 2017=100)															
New England	96.5	96.1	95.8	95.1	95.0	94.8	94.5	94.9	95.2	95.7	96.0	96.7	95.9	94.8	95.9
Middle Atlantic	95.3	95.3	95.3	94.7	94.3	94.6	94.7	95.2	95.5	96.0	96.3	96.9	95.2	94.7	96.2
E. N. Central	96.7	96.7	96.5	96.0	95.7	96.0	96.0	96.5	96.8	97.4	97.8	98.5	96.5	96.0	97.6
W. N. Central	101.4	101.5	101.4	100.9	100.8	101.5	101.4	101.9	102.1	102.6	103.0	103.7	101.3	101.4	102.9
S. Atlantic	102.6	102.9	103.0	102.8	102.7	103.5	103.8	104.4	104.7	105.5	106.1	107.0	102.8	103.6	105.8
E. S. Central	100.2	100.3	100.1	99.7	99.7	100.2	100.4	101.0	101.3	102.0	102.5	103.2	100.1	100.3	102.3
W. S. Central	104.5	105.2	105.5	105.0	105.2	106.3	106.6	107.2	107.7	108.4	108.9	109.7	105.1	106.4	108.6
Mountain	111.1	111.2	111.2	111.0	111.3	112.3	112.5	113.0	113.4	114.2	114.9	115.8	111.1	112.3	114.6
Pacific	97.1	96.7	96.2	96.3	95.6	95.2	95.0	95.3	95.5	95.9	96.3	97.0	96.6	95.3	96.2
Real Personal Income (billion \$2017)															
New England	953	956	957	960	968	971	978	984	992	1,000	1,008	1,016	956	975	1,004
Middle Atlantic	2,518	2,531	2,543	2,532	2,551	2,560	2,578	2,596	2,618	2,638	2,659	2,680	2,531	2,571	2,649
E. N. Central	2,615	2,624	2,627	2,633	2,648	2,657	2,674	2,689	2,710	2,728	2,747	2,767	2,625	2,667	2,738
W. N. Central	1,296	1,297	1,300	1,300	1,304	1,305	1,310	1,317	1,327	1,336	1,347	1,359	1,298	1,309	1,342
S. Atlantic	3,711	3,727	3,740	3,767	3,809	3,829	3,858	3,885	3,921	3,953	3,988	4,024	3,737	3,845	3,972
E. S. Central	1,010	1,011	1,017	1,017	1,028	1,035	1,042	1,049	1,057	1,064	1,072	1,080	1,014	1,038	1,068
W. S. Central	2,318	2,311	2,326	2,339	2,356	2,365	2,383	2,400	2,423	2,443	2,466	2,490	2,324	2,376	2,456
Mountain	1,428	1,440	1,441	1,450	1,466	1,471	1,481	1,490	1,503	1,515	1,529	1,543	1,440	1,477	1,522
Pacific	3,086	3,108	3,113	3,114	3,147	3,154	3,175	3,194	3,220	3,244	3,270	3,298	3,105	3,167	3,258
Households (thousands)															
New England	6,088	6,103	6,117	6,125	6,139	6,152	6,167	6,180	6,194	6,208	6,220	6,233	6,125	6,180	6,233
Middle Atlantic	16,074	16,101	16,126	16,141	16,173	16,201	16,236	16,272	16,311	16,347	16,378	16,411	16,141	16,272	16,411
E. N. Central	19,005	19,040	19,078	19,104	19,144	19,175	19,211	19,245	19,281	19,316	19,346	19,377	19,104	19,245	19,377
W. N. Central	8,702	8,729	8,754	8,773	8,799	8,819	8,841	8,863	8,887	8,909	8,929	8,949	8,773	8,863	8,949
S. Atlantic	27,263	27,363	27,467	27,556	27,676	27,784	27,901	28,012	28,120	28,223	28,314	28,409	27,556	28,012	28,409
E. S. Central	7,902	7,933	7,963	7,989	8,020	8,046	8,073	8,099	8,124	8,147	8,168	8,190	7,989	8,099	8,190
W. S. Central	15,960	16,022	16,092	16,152	16,223	16,288	16,365	16,439	16,514	16,587	16,653	16,718	16,152	16,439	16,718
Mountain	9,791	9,820	9,852	9,878	9,914	9,947	9,985	10,023	10,065	10,106	10,144	10,182	9,878	10,023	10,182
Pacific	18,984	19,002	19,028	19,041	19,072	19,099	19,137	19,173	19,211	19,249	19,285	19,322	19,041	19,173	19,322
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	20.6	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	22.8	22.8	22.8	22.5	22.7	22.8
W. N. Central	10.9	10.9	11.0	11.0	11.1	11.2	11.2	11.2	11.2	11.2	11.2	11.2	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	12.3	12.4	12.4	12.0	12.2	12.3
Pacific	24.3	24.4	24.4	24.6	24.7	24.7	24.8	24.8	24.9	24.9	24.9	24.9	24.4	24.7	24.9

Notes:

EIA completed modeling and analysis for this report on October 3, 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 - October 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	485	61	1,335	1,907	413	52	1,431	1,989	469	74	1,443	3,805	3,803	3,975
New England	2,714	816	91	1,930	2,766	746	119	2,020	2,944	818	130	2,029	5,551	5,651	5,921
Middle Atlantic	2,454	652	71	1,774	2,522	564	54	1,843	2,722	654	86	1,857	4,951	4,982	5,318
E. N. Central	2,727	700	95	1,899	2,656	547	88	2,113	3,002	701	120	2,129	5,421	5,404	5,953
W. N. Central	3,171	657	93	2,011	2,837	598	98	2,315	3,172	706	154	2,352	5,932	5,849	6,384
South Atlantic	1,061	191	10	890	1,253	137	8	872	1,272	178	12	876	2,152	2,270	2,338
E. S. Central	1,391	257	14	1,162	1,661	166	12	1,214	1,686	232	19	1,223	2,823	3,053	3,161
W. S. Central	932	92	1	693	1,078	49	2	753	1,094	85	5	764	1,718	1,882	1,947
Mountain	2,571	733	127	1,670	2,233	691	83	1,784	2,169	711	154	1,842	5,101	4,790	4,875
Pacific	1,834	654	98	1,033	1,576	613	77	1,155	1,442	583	94	1,157	3,619	3,421	3,276
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	56	1,433	4,155	4,088	4,013
New England	3,151	859	106	2,093	3,110	856	98	2,057	3,031	842	96	2,050	6,209	6,121	6,019
Middle Atlantic	2,939	689	69	1,907	2,890	685	63	1,878	2,799	671	59	1,866	5,604	5,516	5,395
E. N. Central	3,215	741	93	2,169	3,159	735	91	2,113	3,031	717	83	2,088	6,218	6,097	5,918
W. N. Central	3,319	754	121	2,374	3,295	730	120	2,303	3,192	714	112	2,283	6,568	6,448	6,302
South Atlantic	1,403	190	10	905	1,357	188	9	895	1,311	182	9	879	2,508	2,450	2,381
E. S. Central	1,811	251	14	1,231	1,756	248	14	1,206	1,695	242	14	1,186	3,307	3,224	3,136
W. S. Central	1,188	95	3	762	1,164	90	3	730	1,124	86	2	721	2,048	1,987	1,933
Mountain	2,193	696	128	1,833	2,209	696	128	1,801	2,220	695	121	1,803	4,850	4,834	4,839
Pacific	1,444	523	75	1,148	1,472	539	77	1,129	1,503	553	79	1,146	3,191	3,216	3,281
Cooling Degree Days															
United States average	68	361	942	104	53	496	926	121	51	446	967	106	1,475	1,595	1,569
New England	0	53	466	5	0	148	461	1	0	99	510	1	525	611	610
Middle Atlantic	0	91	584	10	0	242	587	4	0	183	657	5	685	834	845
E. N. Central	0	179	523	10	2	311	539	13	1	245	598	7	712	865	851
W. N. Central	1	319	708	14	11	331	666	23	5	297	733	11	1,042	1,032	1,046
South Atlantic	200	582	1,236	241	146	755	1,232	274	139	715	1,288	259	2,259	2,407	2,402
E. S. Central	63	440	1,094	72	40	624	1,108	89	34	545	1,127	68	1,670	1,861	1,773
W. S. Central	149	896	1,864	215	125	1,049	1,562	247	105	936	1,648	213	3,124	2,984	2,903
Mountain	3	350	1,026	99	9	488	1,041	109	20	450	1,014	83	1,478	1,647	1,568
Pacific	26	109	616	78	20	199	742	97	28	200	704	77	829	1,058	1,009
Cooling Degree Days, Prior 10-year average															
United States average	50	415	895	109	53	414	909	111	55	424	924	114	1,470	1,487	1,517
New England	0	87	480	2	0	83	482	2	0	90	494	2	569	568	587
Middle Atlantic	0	160	617	8	0	154	623	9	0	162	638	8	785	785	809
E. N. Central	1	234	561	10	1	230	566	10	1	239	583	11	805	808	833
W. N. Central	4	292	674	12	4	301	680	12	5	308	693	14	982	997	1,019
South Atlantic	144	675	1,192	272	153	673	1,212	271	157	685	1,229	279	2,283	2,309	2,349
E. S. Central	36	520	1,058	83	41	519	1,076	85	44	531	1,095	87	1,697	1,721	1,758
W. S. Central	101	861	1,549	223	108	872	1,584	228	117	899	1,596	230	2,734	2,793	2,843
Mountain	24	460	960	83	22	447	971	88	20	452	988	89	1,527	1,528	1,548
Pacific	32	213	676	86	32	202	678	89	30	199	683	87	1,006	1,000	999

Notes:

EIA completed modeling and analysis for this report on October 3, 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 - October 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	284	247	226	239	222	200	-	-	-	-	-	1,051	-	-
Bakken region	240	223	202	200	206	208	211	-	-	-	-	-	865	-	-
Eagle Ford region	356	308	271	276	287	291	282	-	-	-	-	-	1,211	-	-
Haynesville region	221	194	148	133	124	103	99	-	-	-	-	-	696	-	-
Permian region	1,436	1,430	1,373	1,332	1,355	1,368	1,345	-	-	-	-	-	5,571	-	-
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	-	-	-	-	-	22.8	-	-
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	5.4	-	-	-	-	-	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	4.3	4.4	4.4	-	-	-	-	-	16.7	-	-
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	258	241	219	245	263	240	219	-	-	-	-	-	963	-	-
Bakken region	258	310	303	221	187	258	240	-	-	-	-	-	1,092	-	-
Eagle Ford region	455	404	363	308	385	348	285	-	-	-	-	-	1,530	-	-
Haynesville region	168	123	125	139	113	110	87	-	-	-	-	-	555	-	-
Permian region	1,525	1,450	1,435	1,369	1,361	1,372	1,320	-	-	-	-	-	5,779	-	-
Rest of Lower 48 States, excluding GOM	701	790	708	748	628	596	606	-	-	-	-	-	2,947	-	-
Cumulative drilled but uncompleted wells															
Appalachia region	761	804	832	813	789	771	752	-	-	-	-	-	813	-	-
Bakken region	584	497	396	375	394	344	315	-	-	-	-	-	375	-	-
Eagle Ford region	692	586	504	472	374	317	314	-	-	-	-	-	472	-	-
Haynesville region	699	770	793	787	798	791	803	-	-	-	-	-	787	-	-
Permian region	985	965	903	866	860	856	881	-	-	-	-	-	866	-	-
Rest of Lower 48 States, excluding GOM	2,411	2,396	2,413	2,339	2,324	2,290	2,250	-	-	-	-	-	2,339	-	-
Crude oil production from newly completed wells, one-year trend (thousand barrels per day) (a) (c)															
Appalachia region	14	13	13	11	9	10	12	-	-	-	-	-	13	-	-
Bakken region	51	60	67	63	56	57	62	-	-	-	-	-	60	-	-
Eagle Ford region	82	89	81	63	61	66	69	-	-	-	-	-	78	-	-
Haynesville region	1	0	0	0	0	0	0	-	-	-	-	-	0	-	-
Permian region	436	434	443	435	424	429	443	-	-	-	-	-	437	-	-
Rest of Lower 48 States, excluding GOM	78	82	85	84	82	79	76	-	-	-	-	-	82	-	-
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	0.2	0.2	0.3	-	-	-	-	-	0.3	-	-
Bakken region	1.2	1.5	1.9	1.9	1.7	1.7	1.8	-	-	-	-	-	1.6	-	-
Eagle Ford region	1.1	1.2	1.3	1.2	1.1	1.1	1.3	-	-	-	-	-	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	1.4	-	-	-	-	-	1.3	-	-
Rest of Lower 48 States, excluding GOM	0.5	0.6	0.7	0.8	0.8	0.8	0.8	-	-	-	-	-	0.6	-	-
Existing crude oil production change, one-year trend (thousand barrels per day) (a) (c)															
Appalachia region	-10.1	-11.9	-13.2	-12.4	-11.2	-11.5	-12.5	-	-	-	-	-	-11.9	-	-
Bakken region	-41.4	-37.7	-50.1	-59.9	-58.4	-53.2	-51.3	-	-	-	-	-	-47.3	-	-
Eagle Ford region	-73.5	-80.6	-87.3	-77.8	-67.1	-67.7	-75.4	-	-	-	-	-	-79.8	-	-
Haynesville region	-0.8	-0.9	-0.7	-0.4	-0.5	-0.4	-0.4	-	-	-	-	-	-0.7	-	-
Permian region	-410.1	-412.7	-407.9	-393.0	-399.4	-407.4	-412.6	-	-	-	-	-	-405.9	-	-
Rest of Lower 48 States, excluding GOM	-71.2	-69.0	-77.7	-81.3	-84.2	-82.2	-76.7	-	-	-	-	-	-74.8	-	-
Natural gas production from newly completed wells, one-year trend (million cubic feet per day) (a) (d)															
Appalachia region	1,276.6	1,255.4	1,262.0	1,203.3	1,150.6	1,135.0	1,167.4	-	-	-	-	-	1,249.2	-	-
Bakken region	59.7	68.8	75.5	70.7	63.4	64.9	69.5	-	-	-	-	-	68.7	-	-
Eagle Ford region	385.0	328.3	314.7	322.9	324.8	319.8	320.8	-	-	-	-	-	337.5	-	-
Haynesville region	994.7	923.1	768.5	630.9	497.3	440.3	451.3	-	-	-	-	-	828.1	-	-
Permian region	834.9	833.5	835.7	819.5	791.7	791.4	806.2	-	-	-	-	-	830.9	-	-
Rest of Lower 48 States, excluding GOM	382.7	357.4	386.9	365.4	313.0	294.3	314.2	-	-	-	-	-	373.1	-	-
Natural gas production from newly completed wells per rig, one-year trend (million cubic feet per day) (a) (d)															
Appalachia region	24.6	24.5	25.9	29.6	28.3	26.8	31.3	-	-	-	-	-	26.2	-	-
Bakken region	1.5	1.7	2.1	2.1	1.9	1.9	2.0	-	-	-	-	-	1.9	-	-
Eagle Ford region	5.0	4.3	5.1	5.9	5.8	5.5	6.0	-	-	-	-	-	5.1	-	-
Haynesville region	13.7	12.9	13.5	13.3	10.9	11.1	12.3	-	-	-	-	-	13.4	-	-
Permian region	2.4	2.4	2.4	2.6	2.6	2.5	2.6	-	-	-	-	-	2.4	-	-
Rest of Lower 48 States, excluding GOM	2.4	2.6	3.2	3.3	2.9	2.9	3.4	-	-	-	-	-	2.9	-	-
Existing natural gas production change, one-year trend (million cubic feet per day) (a) (c) (d)															
Appalachia region	-1,141.5	-1,138.3	-1,118.8	-1,177.5	-1,424.5	-1,466.1	-1,297.7	-	-	-	-	-	-1,144.1	-	-
Bakken region	-42.2	-7.8	-35.5	-70.4	-48.7	-29.3	-32.8	-	-	-	-	-	-39.0	-	-
Eagle Ford region	-311.0	-280.6	-296.5	-302.0	-316.4	-313.7	-313.8	-	-	-	-	-	-297.5	-	-
Haynesville region	-812.6	-914.1	-856.0	-762.9	-750.8	-760.8	-793.8	-	-	-	-	-	-861.0	-	-
Permian region	-642.7	-615.8	-639.2	-585.6	-592.8	-611.1	-623.1	-	-	-	-	-	-620.7	-	-
Rest of Lower 48 States, excluding GOM	-525.5	-377.2	-297.8	-326.8	-437.9	-441.3	-399.5	-	-	-	-	-	-381.1	-	-

(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 October 3, 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
U.S. Energy Information Administration | Short-Term Energy Outlook

	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)	8.20	8.35	8.50	8.70	8.49	8.70	8.65	-	-	-	-	-	8.44	-	-
Austin Chalk formation	0.13	0.12	0.13	0.12	0.11	0.13	0.13	-	-	-	-	-	0.13	-	-
Bakken formation	1.08	1.11	1.19	1.24	1.17	1.18	1.15	-	-	-	-	-	1.16	-	-
Eagle Ford formation	1.00	1.02	1.02	0.96	0.94	1.01	1.01	-	-	-	-	-	1.00	-	-
Mississippian formation	0.15	0.14	0.14	0.14	0.13	0.13	0.12	-	-	-	-	-	0.14	-	-
Niobrara Codell formation	0.42	0.45	0.46	0.48	0.46	0.46	0.47	-	-	-	-	-	0.45	-	-
Permian formations	5.03	5.09	5.16	5.35	5.31	5.42	5.40	-	-	-	-	-	5.16	-	-
Woodford formation	0.10	0.10	0.10	0.09	0.08	0.09	0.08	-	-	-	-	-	0.10	-	-
Other U.S. formations	0.30	0.31	0.31	0.30	0.28	0.29	0.28	-	-	-	-	-	0.31	-	-
Total U.S. shale dry natural gas production (billion cubic feet per day) (a)	82.2	82.4	82.4	83.2	81.4	80.7	81.7	-	-	-	-	-	82.5	-	-
Bakken formation	2.2	2.3	2.5	2.6	2.4	2.6	2.6	-	-	-	-	-	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	4.4	-	-	-	-	-	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	13.6	12.2	12.8	-	-	-	-	-	14.6	-	-
Marcellus formation	25.6	25.5	25.4	26.0	25.1	25.5	25.8	-	-	-	-	-	25.6	-	-
Mississippian formation	2.4	2.4	2.4	2.4	2.4	2.3	2.3	-	-	-	-	-	2.4	-	-
Niobrara Codell formation	2.6	2.6	2.7	2.8	2.8	2.8	2.9	-	-	-	-	-	2.7	-	-
Permian formations	15.5	16.0	16.5	17.1	17.2	17.8	17.8	-	-	-	-	-	16.3	-	-
Utica formation	6.7	6.3	6.0	5.9	5.9	5.6	5.6	-	-	-	-	-	6.2	-	-
Woodford formation	3.1	2.9	2.9	2.9	2.8	2.8	2.8	-	-	-	-	-	2.9	-	-
Other U.S. formations	2.3	2.3	2.3	2.3	2.2	2.2	2.1	-	-	-	-	-	2.3	-	-

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

Notes:

EIA completed modeling and analysis for this report on October 3, 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 October 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

	Aug 2024	Sept 2024	Aug 2024 – Sept 2024 Average	Aug 2023 – Sept 2023 Average	2021 – 2023 Average
Global Petroleum and Other Liquids (million barrels per day)					
Global Petroleum and Other Liquids Production (a)	102.8	101.8	102.3	101.9	99.3
Global Petroleum and Other Liquids Consumption (b)	102.9	103.7	103.3	102.8	99.9
Biofuels Production (c)	3.2	3.1	3.2	3.2	2.8
Biofuels Consumption (c)	2.8	2.8	2.8	2.8	2.7
Iran Liquid Fuels Production	4.4	4.4	4.4	4.1	3.7
Iran Liquid Fuels Consumption	2.1	2.1	2.1	2.1	2.1
Petroleum and Petroleum Products Produced and Consumed in Countries Other Than Iran (million barrels per day)					
Production (d)	95.2	94.3	94.7	94.6	96.5
Consumption (d)	98.0	98.9	98.4	97.8	95.1
Production minus Consumption	-2.8	-4.6	-3.7	-3.2	1.5
World Inventory Net Withdrawals Including Iran	0.0	1.9	1.0	0.9	0.6
Estimated OECD Inventory Level (e) (million barrels)	2832	2811	2821	2815	2778
Surplus Production Capacity (million barrels per day)					
OPEC Surplus Crude Oil Production Capacity (f)	4.3	4.6	4.5	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	Aug 2024	Sept 2024	Aug 2024 – Sept 2024 Average	Aug 2023 – Sept 2023 Average	2021 – 2023 Average
Brent Front Month Futures Price (\$ per barrel)	78.87	72.87	76.01	88.58	84.06
WTI Front Month Futures Price (\$ per barrel)	75.43	69.37	72.54	85.09	80.01
Dubai Front Month Futures Price (\$ per barrel)	77.54	73.08	75.42	89.59	82.59
Brent 1st - 13th Month Futures Spread (\$ per barrel)	4.30	2.03	3.22	6.79	7.69
WTI 1st - 13th Month Futures Spread (\$ per barrel)	5.37	2.97	4.23	7.52	7.73
RBOB Front Month Futures Price (\$ per gallon)	2.31	1.96	2.14	2.73	2.53
Heating Oil Front Month Futures Price (\$ per gallon)	2.32	2.14	2.23	3.20	2.81
RBOB - Brent Futures Crack Spread (\$ per gallon)	0.43	0.23	0.33	0.62	0.53
Heating Oil - Brent Futures Crack Spread (\$ per gallon)	0.44	0.40	0.42	1.10	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).