

Short-Term Energy Outlook

STEO

September 2025



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Short-Term Energy Outlook

Overview

U.S. energy market indicators	2024	2025	2026
Brent crude oil spot price (dollars per barrel)	\$81	\$68	\$51
Retail gasoline price (dollars per gallon)	\$3.30	\$3.10	\$2.90
U.S. crude oil production (million barrels per day)	13.2	13.4	13.3
Natural gas price at Henry Hub (dollars per million British thermal units)	\$2.20	\$3.50	\$4.30
U.S. liquefied natural gas gross exports (billion cubic feet per day)	12	15	16
Shares of U.S. electricity generation			
Natural gas	42%	40%	40%
Coal	16%	17%	16%
Renewables	23%	25%	26%
Nuclear	19%	18%	18%
U.S. GDP (percentage change)	2.8%	1.7%	2.4%
U.S. CO₂ emissions (billion metric tons)	4.8	4.8	4.8

Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, September 2025

Note: Values in this table are rounded and may not match values in other tables in this report.

- Global oil prices.** We expect the Brent crude oil price will decline significantly in the coming months, falling from \$68 per barrel (b) in August to \$59/b on average in the fourth quarter of 2025 (4Q25) and around \$50/b in early 2026. The price forecast is driven by large oil inventory builds as OPEC+ members [increase production](#). We expect global oil inventory builds will average more than 2 million barrels per day (b/d) from 3Q25 through 1Q26. We expect low oil prices in early 2026 will lead to a reduction in supply by both OPEC+ and some non-OPEC producers, moderating inventory builds later in 2026. We forecast the Brent crude oil price will average \$51/b next year. We finalized this outlook before [OPEC+ announced](#) on September 7 that it plans to raise production by 137,000 b/d in October 2025.
- Gasoline prices.** Falling oil prices in our forecast lead to a drop in gasoline prices. We expect the [U.S. average retail price](#) for regular-grade gasoline will average about \$3.10 per gallon (gal) this year, down 20 cents/gal from last year. Retail gasoline prices in our forecast fall to an average of \$2.90/gal in 2026, with the annual average price falling below \$3.00/gal in all regions [except the West Coast](#).
- Gasoline expenditures.** Driven by falling gasoline prices, U.S. drivers' gasoline expenditures as a share of disposable personal income are likely to be the lowest since at least 2005—excluding the pandemic-affected year of 2020. We estimate expenditures will average less than 2% of disposable income this year, down from an average of 2.4% over the previous decade.

- **U.S. gasoline consumption.** We now forecast a slight increase in U.S. gasoline consumption next year, the first *Short-Term Energy Outlook* in which we have forecast an increase for 2026. The forecast for rising gasoline consumption is driven by an upward revision to the number of people of working age compared with our previous forecasts, and lower gasoline prices compared with our forecasts from earlier this year.
- **Natural gas prices.** We expect the Henry Hub natural gas spot price will rise from an average of \$2.91 per million British thermal units (MMBtu) in August to \$3.70/MMBtu in 4Q25 and \$4.30/MMBtu next year. Rising natural gas prices reflect relatively flat natural gas production amid an increase in U.S. liquefied natural gas exports.
- **Natural gas and crude oil drilling.** Due to rising natural gas prices and falling oil prices in 2026, we forecast that crude oil will trade at its lowest premium to natural gas since 2005. As a result, we expect drilling activity in the United States to be more centered in natural gas-intensive producing regions in 2026. We expect U.S. natural gas production will be relatively flat next year compared with 2025, while we expect crude oil production will decline by about 1%.
- **Electricity generation.** Electricity generation has been growing rapidly this year as a result of growing demand for power from [data centers and industrial customers](#). We expect that total U.S. generation by the electric power sector will grow by 2.3% in 2025 and a further 3.0% next year. We expect that [solar power](#) will supply the largest share of the increase in both years.

Notable forecast changes

Current forecast: September 9, 2025; previous forecast: August 12, 2025

	2025	2026
U.S. GDP (percentage change)	1.7	2.4
Previous forecast	1.4	2.0
Percentage point change	0.3	0.4

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

Note: Percentages and changes are calculated from unrounded values.

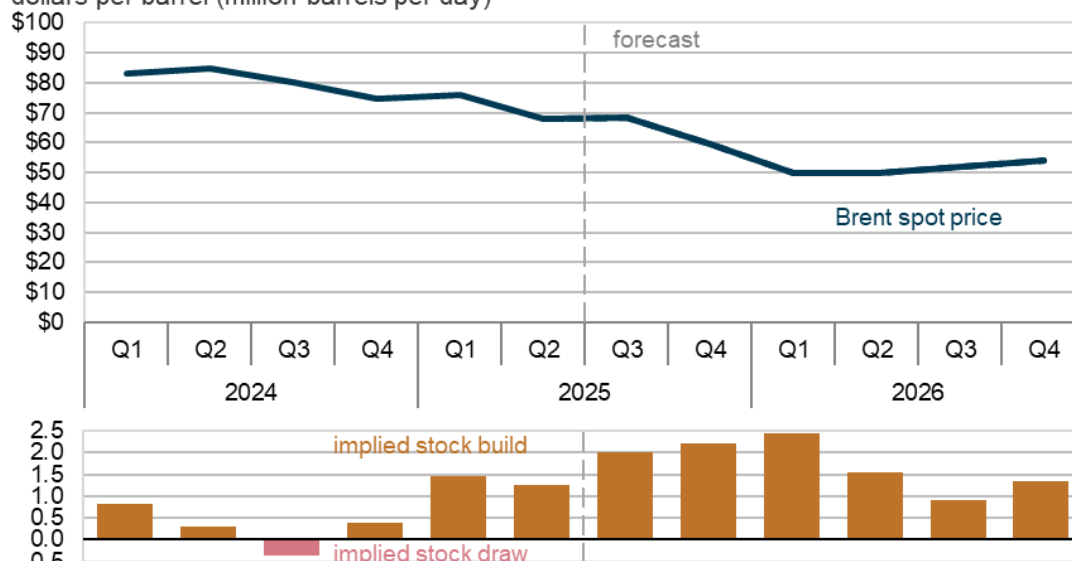
Global Oil Markets

Global oil prices

We forecast that significant growth in global oil inventories will cause crude oil prices to fall in the coming months, as summer seasonal demand wanes and global oil supply growth accelerates. The Brent crude oil spot price fell from an average of \$71 per barrel (b) in July to \$68/b in August, driven in part by OPEC+ members' renewed pledge to accelerate the pace of production increases. We expect growing inventories will lead to oil prices decreasing to an average of \$59/b in the fourth quarter of 2025 (4Q25) and \$49/b in March and April 2026. We expect inventory builds will average 2.1 million b/d in the second half of 2025 (2H25) and will remain elevated through 2026, putting significant downward pressure on oil prices.

Brent crude oil spot price and global inventory changes

dollars per barrel (million barrels per day)

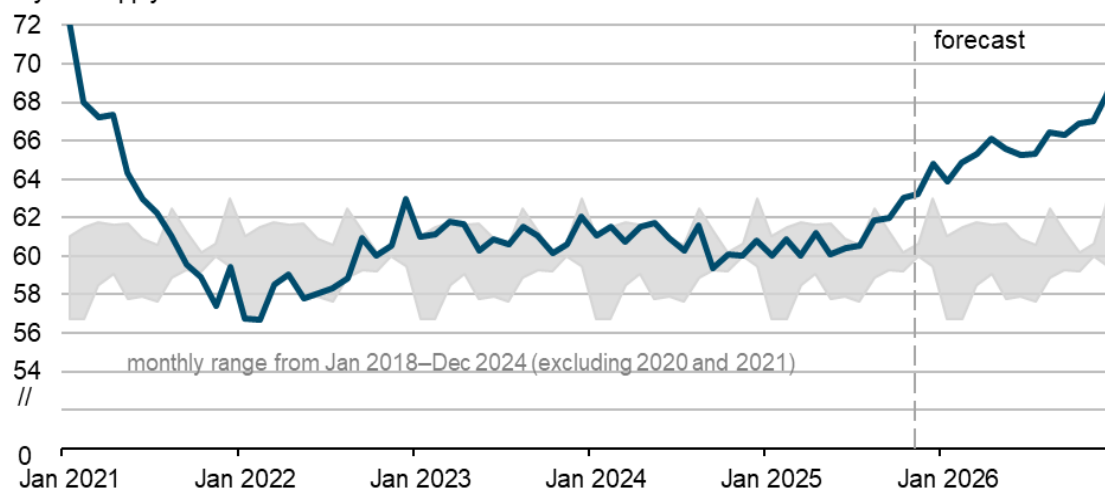


Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, September 2025

Global oil prices have not fallen significantly in recent months despite global oil inventory builds—which we estimate as the difference between global oil supply and demand—averaging an estimated 1.6 million b/d from May through August. Despite our assessment that global oil production has been much higher than demand this summer, we have yet to see a significant increase in observable oil inventories. Some third-party data sources that track non-OECD inventories do not show as significant of a stock build as our estimates suggest. This disconnect is likely the result of some of the excess production ending up in observable strategic reserves, particularly China, or other stockpiles used by countries for domestic consumption. However, OECD inventories have recently moved above their seasonal average range from 2018–24 (excluding 2020 and 2021) on a days-of-supply basis.

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*, September 2025

Recent growth in OECD inventories suggest some excess supply is beginning to show up in observable oil inventories. It came at a time when oil demand is at its seasonal peak during the summer due to higher demand for driving and space cooling, both of which have increasingly contributed to higher summer oil demand in recent years. Actual data on oil demand are often available with a significant lag and are a source of uncertainty in our estimates of summer global oil inventories, particularly outside of the OECD. As temperatures begin to cool and summer driving demand wanes, we expect strong oil supply growth to be reflected in OECD inventory levels, which we see exceeding to the upper bound of their recent five-year average by the end of our forecast in 2026.

We estimate that global oil inventories will increase by an average of 1.6 million b/d in 2026, compared with an average annual increase of 1.7 million b/d in 2025. We expect inventory builds will be highest in 4Q25 and 1Q26, averaging 2.3 million b/d over that time. We expect strong inventory builds could fill commercial storage options on land, which would prompt market participants to seek other, more expensive options for storing crude oil, such as floating storage. As a result, some of the crude oil prices declines will likely reflect the higher marginal cost of storage. We forecast that inventory builds will moderate in 2026 due to a combination of higher global oil demand and slightly lower oil production growth, both in response to lower oil prices. We forecast that Brent crude oil prices will average \$51/b in 2026, compared with an average of \$68/b in 2025.

Significant uncertainty is still present in our price forecast. Although we do not currently forecast any major supply disruptions, risks to oil supply remain. The ongoing tensions and negotiations related to the Russia-Ukraine conflict could affect supply, while further sanctions could be enacted. Additionally, ongoing trade negotiations and [legal challenges](#) related to tariffs between the United States and its trading partners also could affect economic and oil demand growth, with implications for oil prices. Lastly, given the expectations of significant oversupply beginning later this year, OPEC+ could revisit increased production plans, easing downward pressure on oil prices.

Global oil consumption and production

The planned increases to OPEC+ production and strong supply growth outside of the group continue to drive global liquid fuels production growth in our forecast. Global liquid fuels production increases by 2.3 million b/d in 2025 and another 1.1 million b/d in 2026 in our forecast. We expect countries outside of OPEC+ will increase total liquid fuels production growth by 1.7 million b/d in 2025 and by 0.6 million b/d in 2026, most of the overall growth. Specifically, we expect Brazil, Canada, Guyana, and the United States to drive production growth in the forecast. OPEC+ crude oil production increases by 0.6 million b/d in 2025 and 0.5 million b/d 2026, based on our assumption that recently planned increases to OPEC+ output will flatten out as the group aims to keep inventory builds from accelerating too quickly and prevent oil prices falling further.

Forecast global liquid fuels consumption increases by 0.9 million b/d in 2025 and 1.3 million b/d in 2026. Global liquid fuels consumption growth is driven almost entirely by non-OECD countries, which together grow by 1.0 million b/d in 2025 and 1.1 million b/d in 2026, while OECD consumption decreases by 0.1 million b/d in 2025 and grows by 0.2 million b/d 2026. Most of non-OECD growth is concentrated in Asia, with liquid fuels consumption in India and China each growing by a total of between 0.4 million b/d and 0.5 million b/d from 2024 through 2026.

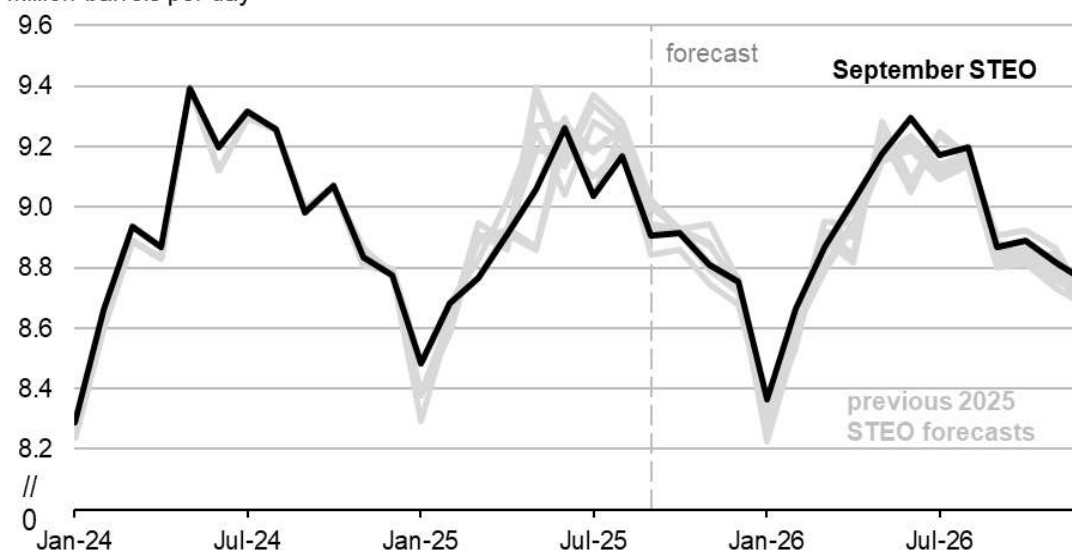
U.S. Petroleum Products

U.S. gasoline consumption

We now forecast a slight increase in U.S. gasoline consumption in 2026, in contrast to our previous forecasts that anticipated a decline in gasoline consumption. Two reasons contributed to the change: a revision to the working-age population and year-over-year falling gasoline prices.

In June, the [U.S. Census Bureau released](#) revised historical data on the [U.S. population by age](#), increasing the working-age population (ages 15–64) by about 500,000 people and decreasing the over-65 population by about 900,000 people. These adjustments are incorporated into our 2026 forecasts. Because our forecasts assume that the working-age population drives more than those over the age of 65, we now forecast a 0.7% increase in [vehicle miles traveled](#) in 2026, up from only a 0.2% increase in the August STEO. This higher driving activity increases gasoline consumption.

U.S. gasoline consumption million barrels per day



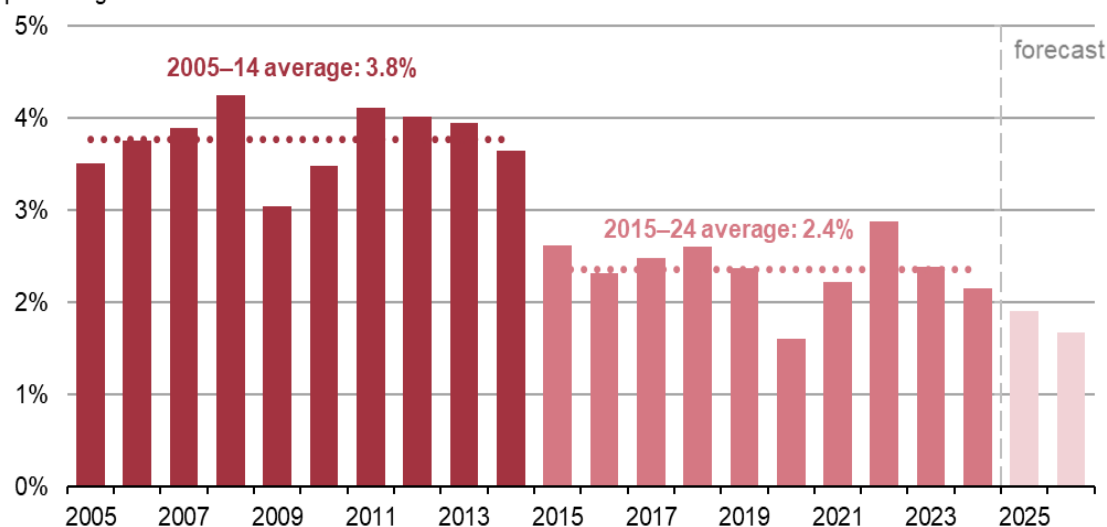
Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook* (STEO), September 2025

Lower gasoline prices also affect our gasoline consumption forecast. Although gasoline generally has a low price [elasticity](#) of demand—meaning price changes do not affect consumption meaningfully—the large forecast drop in gasoline prices next year translates into small increases in consumption. Our forecast models estimate gasoline price elasticity of around -0.01 to -0.02, meaning that a 25% decline in gasoline prices would lead to around 0.25%–0.50% increased gasoline consumption. Combined with the higher working-age population, the overall effect is for U.S. gasoline consumption forecast to increase 0.3% next year.

U.S. gasoline expenditures

Falling gasoline prices next year result in our forecast for U.S. drivers' gasoline expenditures as a share of disposable personal income to be the lowest since at least 2005, excluding the pandemic year of 2020. Since 2022, gasoline prices have declined every year, whereas disposable personal income increased by a compound annual growth rate of 4% from 2022 through 2024. Because gasoline is often a necessary household expenditure, falling prices combined with rising incomes allows for increased consumer spending on other necessities, leisure, or both.

Gasoline expenditures as a share of disposable income
percentage



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, September 2025 and U.S. Bureau of Economic Analysis

Personal disposable income represents individual or household income after federal, state, and local taxes. We calculated our gasoline expenditures forecast by multiplying our [all-grades retail gasoline price](#) by our forecast for annual gasoline consumption. Our forecast for disposable personal income comes from the S&P Global Insights U.S. macroeconomic model. Because gasoline prices, consumption, and personal disposable income are highly uncertain and subject to many different economic forces, our current forecast could be significantly different if any of these variables change this year or next.

We forecast regular-grade gasoline prices will average around \$2.90 per gallon in 2026 and gasoline consumption will average 8.9 million b/d. Forecast expenditures will average less than 2% of disposable income and will differ across the United States depending on region, household income, and driving habits. Households with older, less efficient vehicles, those that drive more, or those in regions of the country with higher gasoline prices, will spend more than those households with more efficient vehicles, those that drive less, or those in regions with lower gasoline prices.

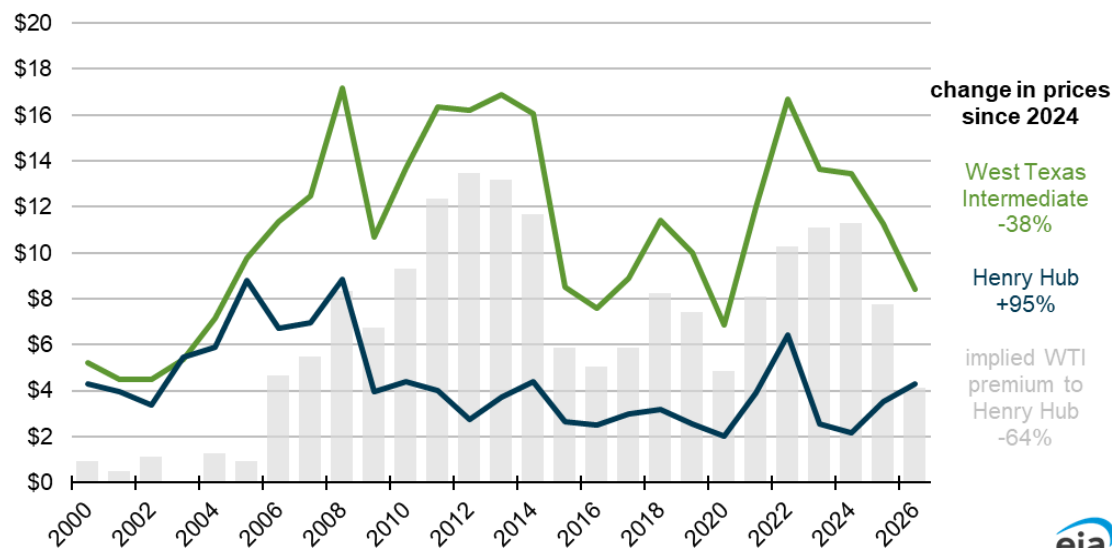
Natural Gas

Natural gas prices

We expect the Henry Hub spot price to average about \$3.00 per million British thermal units (MMBtu) for the third quarter of 2025. Natural gas inventories remain relatively high, and August ended with 6% more natural gas in storage compared with the five-year average. The Henry Hub spot price averaged \$2.91/MMBtu in August (10% below our August STEO estimate). Lower prices over this summer have been driven by [robust production](#) and [reduced natural gas consumption](#) in the electric power sector. However, we continue to expect prices will gradually rise through the upcoming winter because inventories in our forecast are withdrawn at faster-than-normal rate this winter. The relatively strong inventory draws in our forecast mostly reflect rising LNG exports amid flattening U.S. natural gas

production. We forecast U.S. natural gas inventories will end March at 1% above the five-year average. In the forecast, the Henry Hub price reaches its winter peak in January at \$4.60/MMBtu.

Henry Hub and West Texas Intermediate (WTI) spot price
dollars per million British thermal units



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, September 2025

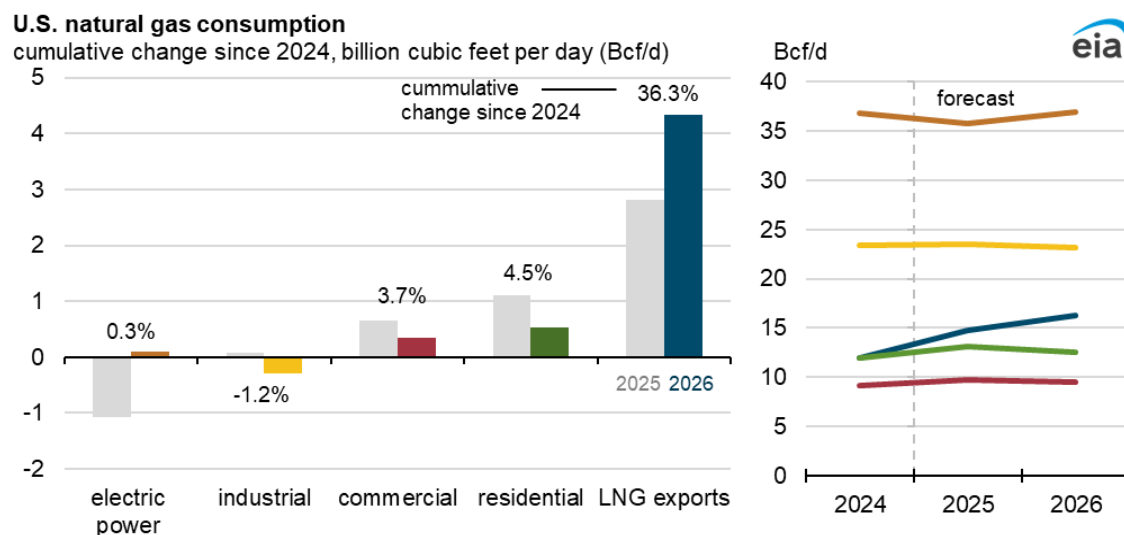
Historically, average annual prices for gas and oil change in tandem. We expect this year will be the first time they move in the opposite direction since 2014. By 2026, we forecast natural gas prices will be nearly double compared with 2024, while the West Texas Intermediate (WTI) crude oil price in our outlook falls 38%, leading to the lowest crude oil-to-natural gas price premium since 2005 at just over \$4.00/MMBtu. The U.S. benchmark Henry Hub natural gas price averaged \$3.66/MMBtu in the first half of 2025 (1H25), 67% higher than the 2024 annual average of \$2.19/MMBtu. In contrast, the U.S. benchmark WTI crude oil price has averaged about \$12.00/MMBtu in 1H25, 11% lower than the 2024 annual average.

With these price movements, we expect decreases in natural gas produced as a byproduct of oil directed drilling will offset increases in that produced by natural gas-directed drilling. Overall, we expect U.S. marketed natural gas production will average 117.1 billion cubic feet per day (Bcf/d) in 2025 and 116.8 Bcf/d in 2026. We expect the [Permian region](#), an oil-rich region that produces large amounts of associated natural gas, to slow production growth. Permian production in our forecast averages 27.6 Bcf/d in 2026, a 0.2 Bcf/d increase from 2025. We also expect natural gas production from the Bakken and Eagle Ford regions, as well as in the STEO region known as the rest of Lower 48 states, will decrease by 1.3 Bcf/d combined. However, we expect the natural gas-rich Appalachia and Haynesville regions will increase by a combined 0.8 Bcf/d in 2026.

Natural gas consumption

LNG exports continue to be the largest source of demand growth for domestically produced natural gas. We forecast U.S. LNG exports will increase by 36% (4.3 Bcf/d) from 2024 to 2026, far outpacing our expected 1.0 Bcf/d of domestic consumption growth over the same period. We forecast U.S. domestic

consumption of natural gas will average 91.4 Bcf/d by 2026, a 1% increase relative to 2024. The largest user of natural gas in the United States is the electric power sector which accounted for around 40% of domestic natural gas consumption last year and is set to remain at that share into next year.



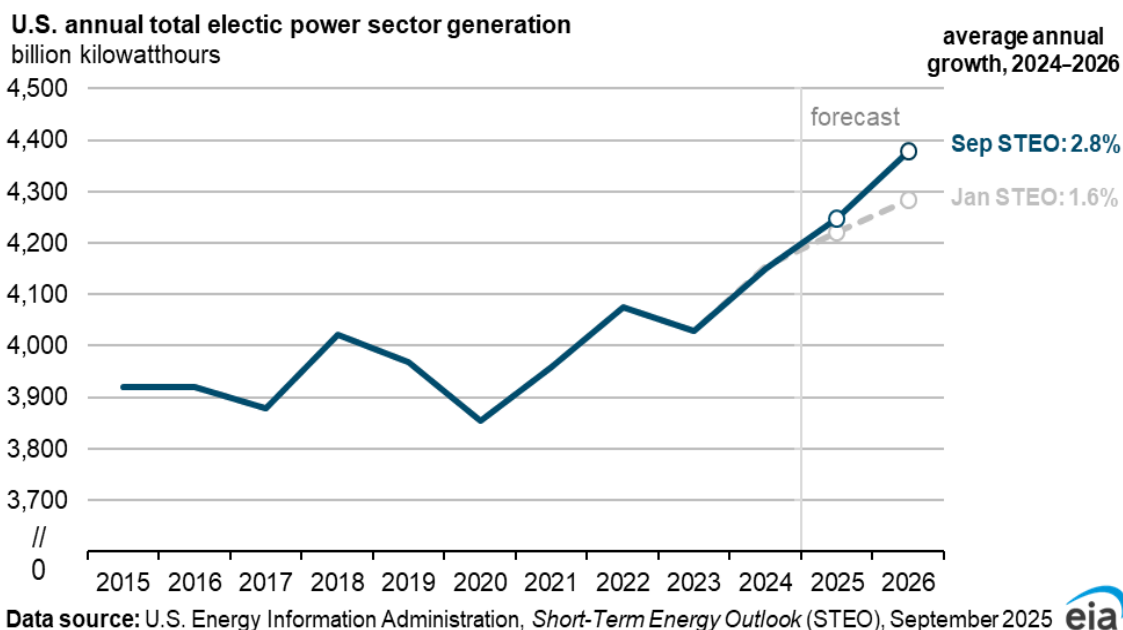
Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, September 2025

Two LNG export facilities—[Plaquemines LNG Phase 1](#) and [Corpus Christi Stage 3](#)—shipped their first cargoes in 4Q24 and 1Q25, respectively. Plaquemines LNG Phase 2 is expected to come online by the end of 2025, which is faster than we anticipated earlier this year, highlighting the uncertainty that project timelines can have on our natural gas balances. Another LNG terminal—Golden Pass I—is expected to come online by the end of 2026. When fully online, these developments will increase baseload LNG export capacity by 53% (6.0 Bcf/d) compared with the end of 2024.

Electricity, Coal, and Renewables

Electricity generation

Electricity generation has been growing rapidly this year as a result of growing demand for power from data centers and industrial customers. We expect that total U.S. generation by the electric power sector will grow by 2.3% in 2025 and a further 3.0% next year. These growth rates are higher than we expected at the beginning of the year when we forecast U.S. electricity generation would grow by an average of 1.5% each year. The higher growth in generation reflects colder-than-expected weather earlier in 2025 along with the [incorporation of load growth assessments](#) by grid operators in [the Electric Reliability Council of Texas \(ERCOT\)](#) and [PJM systems](#).



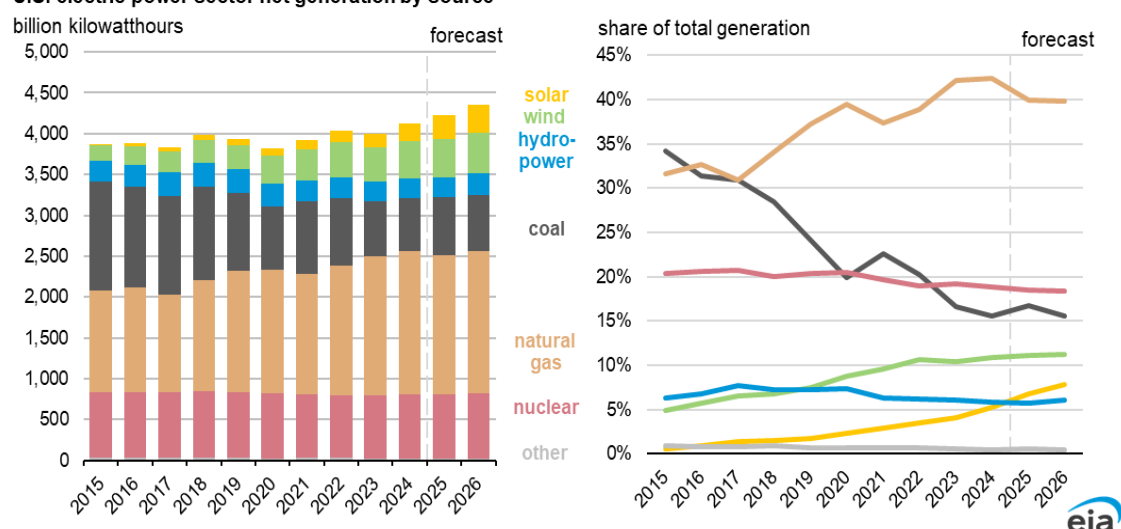
Increasing electricity demand is being met by higher generation from most energy sources in 2025. We expect that utility-scale solar will grow the most, generating 33%, or 72 billion kilowatthours (BkWh), more electricity this year compared with 2024. New solar projects account for more than half of the [new generating capacity](#) expected to come online this year.

Although we are entering the fall shoulder season when fossil fuel power plants operators take these plants offline for maintenance, we expect that coal-fired power plants will generate 9% (61 BkWh) more electricity for all of 2025 compared with last year. This year would be the first year-over-year increase in coal generation since 2021.

Wind, hydropower, and nuclear all grow this year as well. We expect wind will generate 4% more electricity in 2025 than it did in 2024, while we expect hydropower generation will grow by 2%. Nuclear generation will rise slightly this year and about 2% next year with the [restart of the Palisades plant](#) in Michigan.

Natural gas is the exception to our forecast for growth in 2025. Natural gas fuel prices in 2025 are about 40% higher than in 2024, which is encouraging more coal-fired generation but is also reducing the amount of electricity produced by natural gas-fired generators. We forecast that natural gas-fired power plants will generate 3% (61 BkWh) less electricity in 2025 than last year. In some regions, such as Texas and the Midwest, increasing generation from solar is also displacing some natural gas-fired generation.

U.S. electric power sector net generation by source



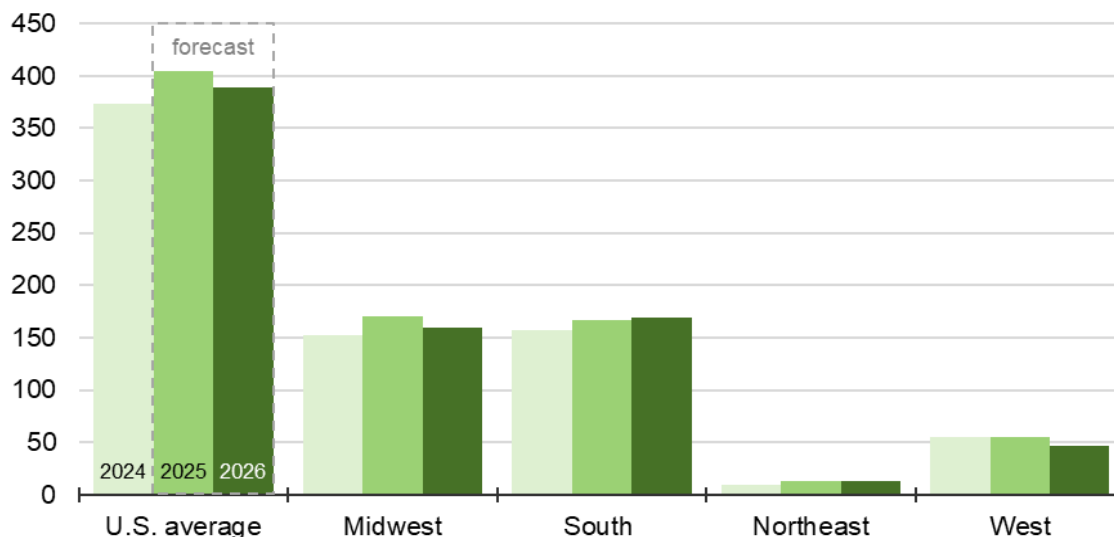
Coal markets

As the U.S. coal market enters the shoulder season, we forecast U.S. coal consumption will fall to 34 million short tons (MMst) in September from 42 MMst in August. For 2H25, we expect that coal consumption will increase by 1% overall compared with 2H24. This rise follows a 13% increase in coal consumption in the first half of the year on the heels of a cold winter. In total, we forecast that coal consumption will total 439 MMst in 2025, a 7% increase over 2024 that reflects the impact of higher natural gas prices and an overall increase in electric power demand.

On a regional basis, we forecast that coal consumption will increase in all four census regions in 2025 compared with 2024. In 2026, we expect coal consumption to fall to 424 MMst, as 6 gigawatts of coal-fired capacity is currently scheduled to retire in 2025. Our 2026 forecast for consumption is 7 MMst higher than we forecast in the August STEO and reflects increased use of coal for power in the eastern half of the country. We forecast modest increases in coal consumption in the South and Northeast in 2026, which are more than offset by decreases in consumption in the Midwest and West census regions.

Our expected 7% increase in consumption in 2025 outpaces the 2% increase in coal production that we forecast for 2025. As a result, we expect end-of-year electric power coal stocks in 2025 to equal 106 MMst, a 17% decline from end-of-year stock levels in 2024. Most of the stock decline in 2025 occurs in the Midwest and South, which overlap with electricity markets where a large share of coal-fired power generation takes place in the United States. In 2026, electric power stocks fall further to end the year at 92 MMst, as a 6% decline in production exceeds the 4% decline that we forecast in consumption. Most of the stock decline in 2026 also occurs in the Midwest and South census regions.

U.S. coal electric power consumption by region
million short tons



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, September 2025

Economy, CO₂, and Weather

U.S. macroeconomics

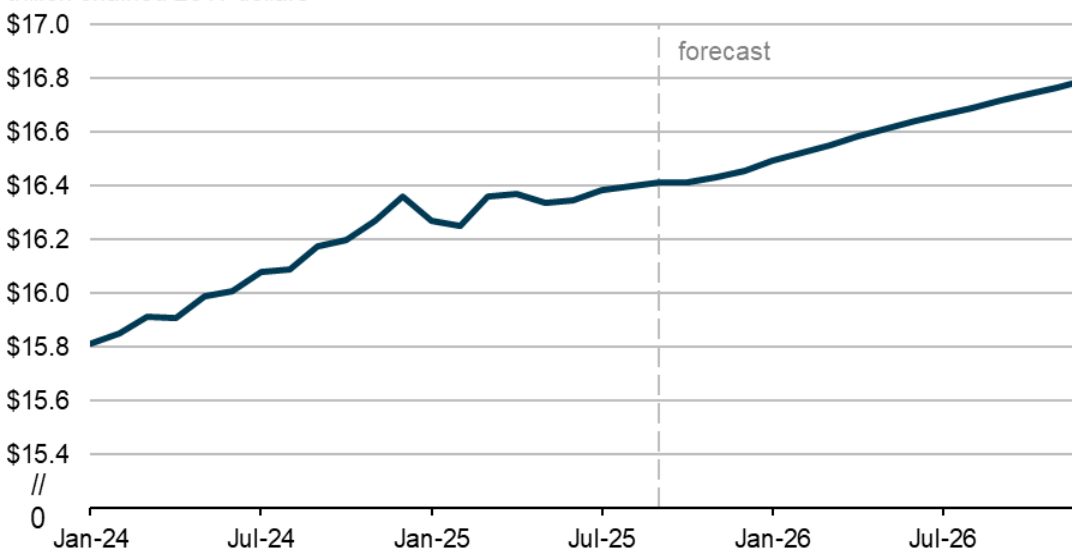
The U.S. Bureau of Economic Analysis released the [Advance Estimate of 2Q25 GDP](#) on July 30, reporting annualized growth of 3.0%, 1.6 percentage points higher than our forecast assumed last month. As a result, our forecast now assumes GDP will grow by 1.7% in 2025 and 2.4% in 2026, an increase of 0.3 and 0.4 percentage points, respectively.

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

However, the macroeconomic forecast underlying the STEO was finalized prior to the release of both the [Second Estimate of 2Q25 GDP](#), released August 28, and the [Personal Income and Outlays Report for July 2025](#), released August 29. Both the revised 2Q25 GDP growth and July consumer spending growth exceeded our current forecast assumptions. GDP growth in 2Q25 is now estimated at an annual rate of 3.3% (compared with our 3.0% assumption), and consumer spending grew 0.3% in July (compared with our 0.2% assumption). Both series will be revised next month as the latest data are incorporated into S&P's forecast.

U.S. consumer spending

trillion chained 2017 dollars



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, September 2025

According to the data we incorporated in our forecast, consumer spending has been relatively flat since the end of March after declining by 0.1% in February and then rebounding by 0.7% in March. Because consumer spending is an input into our gasoline forecast, slower consumer spending growth implies slower growth in gasoline consumption. Our forecast assumes that consumer spending growth will accelerate toward the end of 2025 and grow 1.7% in 2026.

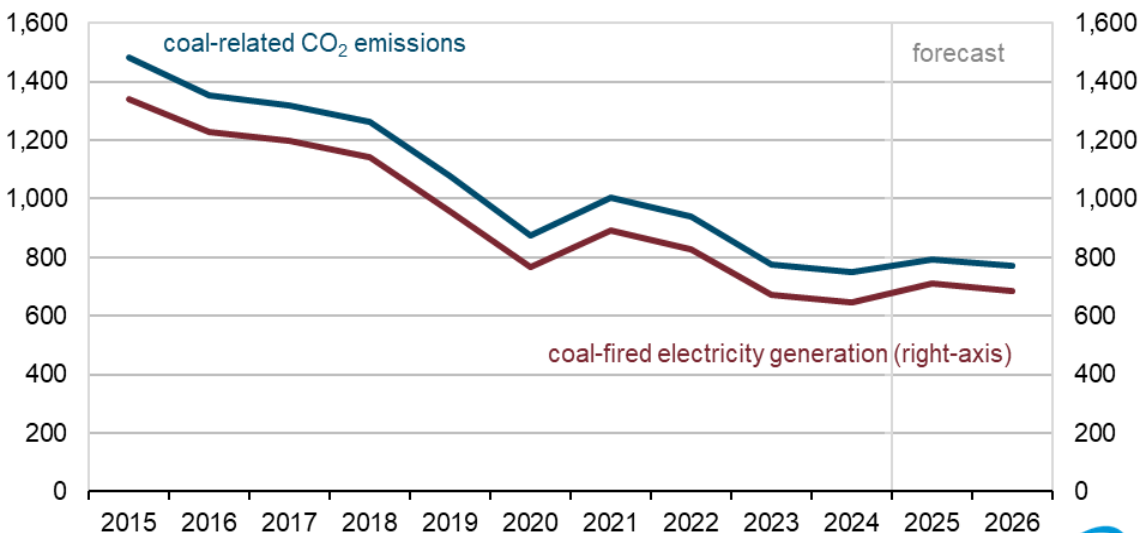
Emissions

We forecast U.S. energy-related carbon dioxide (CO₂) emissions to increase by 1.5% in 2025, followed by a decrease of 0.5% in 2026. Coal, natural gas, and petroleum products all contribute to rising emissions in 2025, with the largest emissions increase observed from coal. Emissions decreases in 2026 are mostly from coal.

Coal-related CO₂ emissions tend to fluctuate more than CO₂ emissions from other fossil fuels both because of coal's high carbon content, as well as coal's substitutability with natural gas for generating electric power. [Coal emits more CO₂ than almost all other fossil fuels](#), so small changes in coal use result in larger CO₂ emissions changes relative to other fossil fuels. Together with its primary role in electricity generation, where generation sources can vary significantly as a result of both economic and non-economic factors, coal emissions are often the most variable over our forecast.

Although coal is used in a variety of economic sectors in the United States, [over 90% is used for electricity generation](#). As a result, forecasts of coal-related CO₂ emissions are largely influenced by changes to forecasts of coal-fired electricity generation. Coal-fired electricity generation and coal-related CO₂ emissions are expected to increase in the 2025 following [expected increases in electricity demand](#), but they have generally been decreasing in recent years as a result diminishing coal-fired generation capacity as well as competition with other electricity generation sources.

U.S. annual coal-related CO₂ emissions and electricity generation
million metric tons



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*, September 2025



Weather

As we approach the final weeks of summer, we expect cooler summer temperatures to extend into September. Based on our current forecasts and data from the National Oceanic and Atmospheric Administration, we expect the United States to average 193 [cooling degree days](#) (CDDs) in September, 8% fewer CDDs than both in September 2024 and compared with the 10-year monthly average. Supported by cooler weather this summer and expected in the fourth quarter of 2025, overall, our forecast assumes 2025 will be cooler than last year, with the United States averaging 7% fewer CDDs and 9% more [heating degree days](#) than in 2024, which had higher-than-average temperatures.