

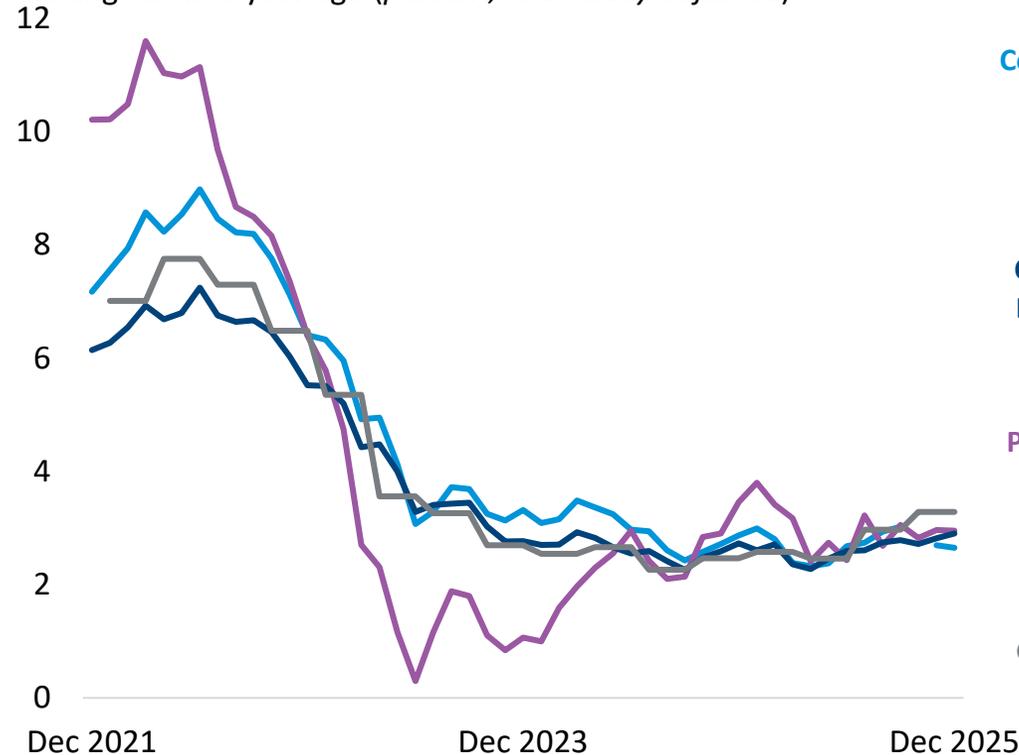
Energy & the Consumer Price Index, 2025



There are four common measures that track inflation for different parts of the economy. CPI focuses on urban consumers.

US Inflation by Index, Dec 2021 - 2025

Change from a year ago (percent, seasonally adjusted)



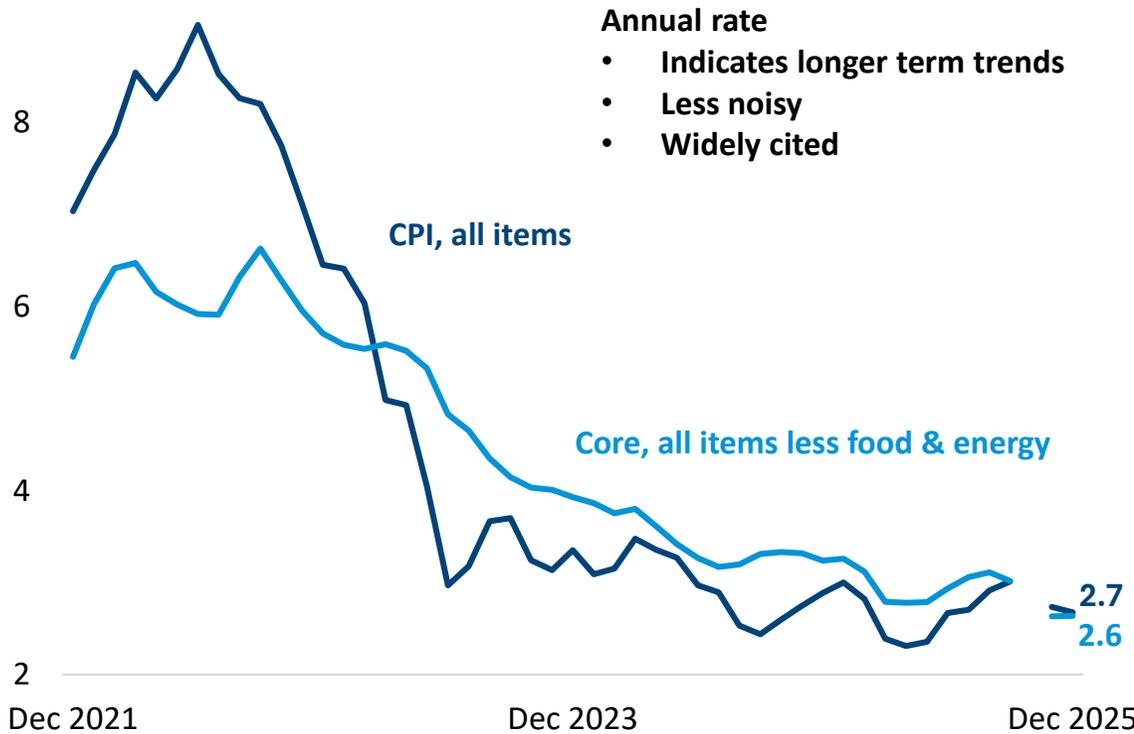
- Consumer Price Index** Tracks *urban* consumer expenditures—includes sales & excise tax—using a fixed basket of goods & services. Includes imports. Many laws use the CPI to adjust tax & eligibility thresholds.
- Personal Consumption Expenditures** Tracks *all* households & nonprofits serving households. Allows for item substitution—e.g., buying tea when coffee prices increase—instead of using a fixed basket. Includes imports. The Federal Reserve’s preferred index.
- Producer Price Index** Tracks the prices domestic *producers* receive for marketed output. Does not include sales or excise taxes, or imports.
- GDP Deflator** Tracks price changes in domestic production purchased by “consumers, businesses, government, and foreigners.” It does not include imports.

Notes: Based on latest available data. GDP deflator is quarterly. PPI is final demand.
Source: Bureau of Labor Statistics; Bureau of Economic Analysis; API calculations.

CPI is reported as an annual & monthly rate.

Consumer Price Index Annual Rate, Dec 2021 - 2025

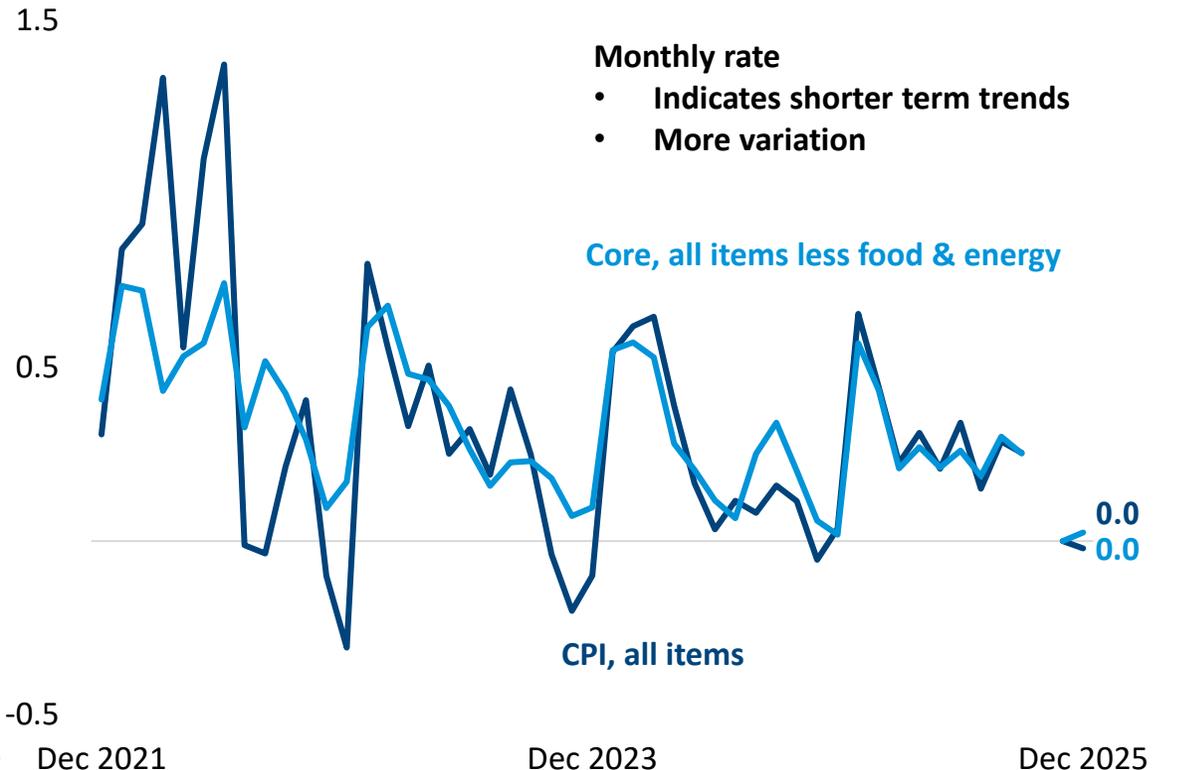
Change from a year ago (percent, not seasonally adjusted)



Source: Bureau of Labor Statistics.

Consumer Price Index Monthly Rate, Dec 2021 - 2025

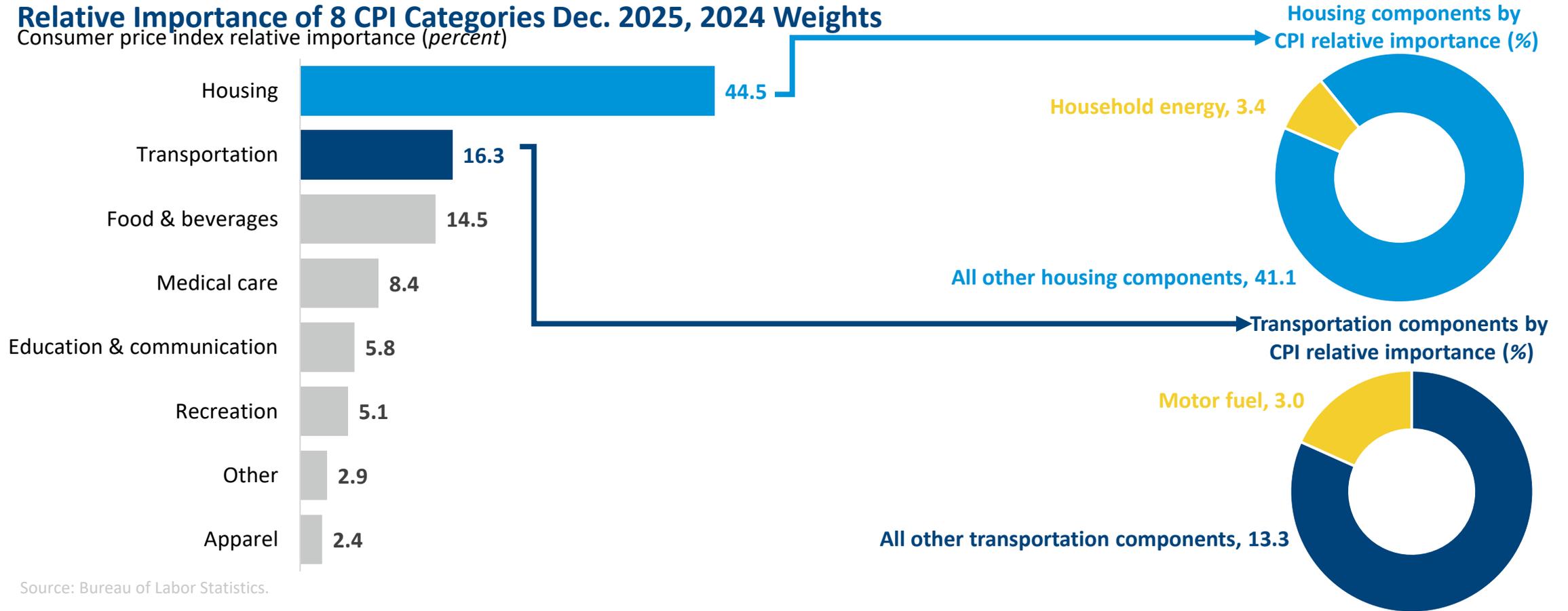
Change from a month ago (percent, not seasonally adjusted)



Source: Bureau of Labor Statistics.

The CPI has 8 major groups based on expenditure patterns. Energy expenditures are found within housing & transportation.

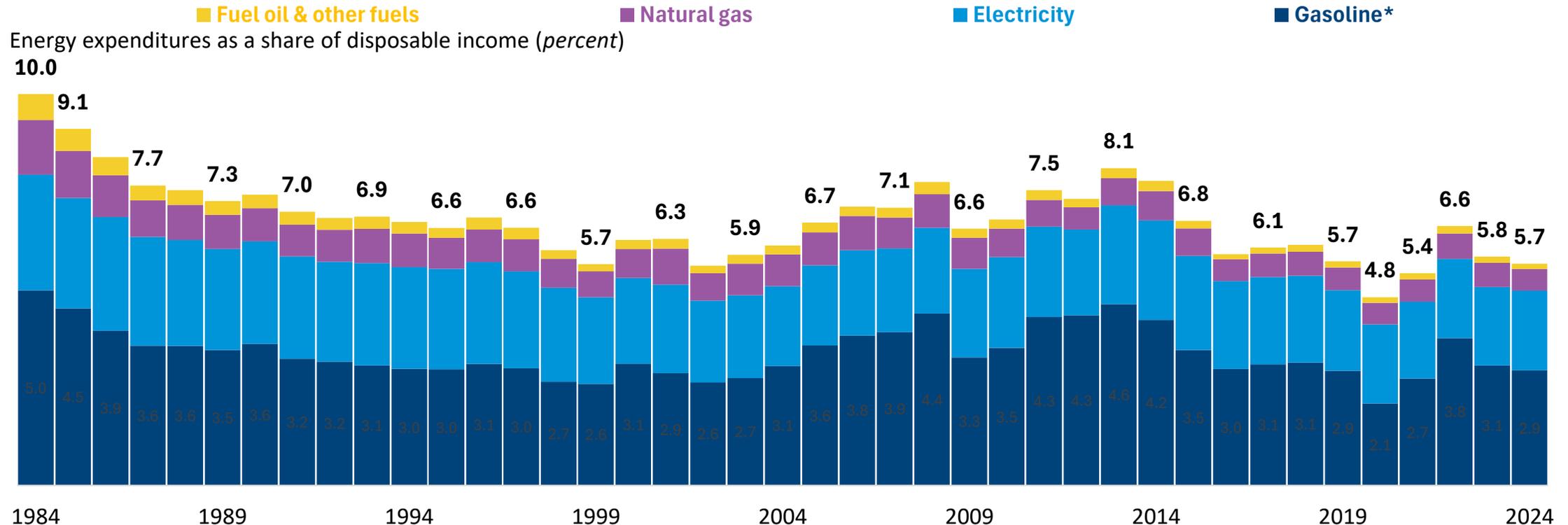
Relative Importance of 8 CPI Categories Dec. 2025, 2024 Weights
 Consumer price index relative importance (percent)



Source: Bureau of Labor Statistics.

As a share of disposal income, energy expenditures have fallen since 1984.

Energy Expenditures by Component, 1984 - 2024



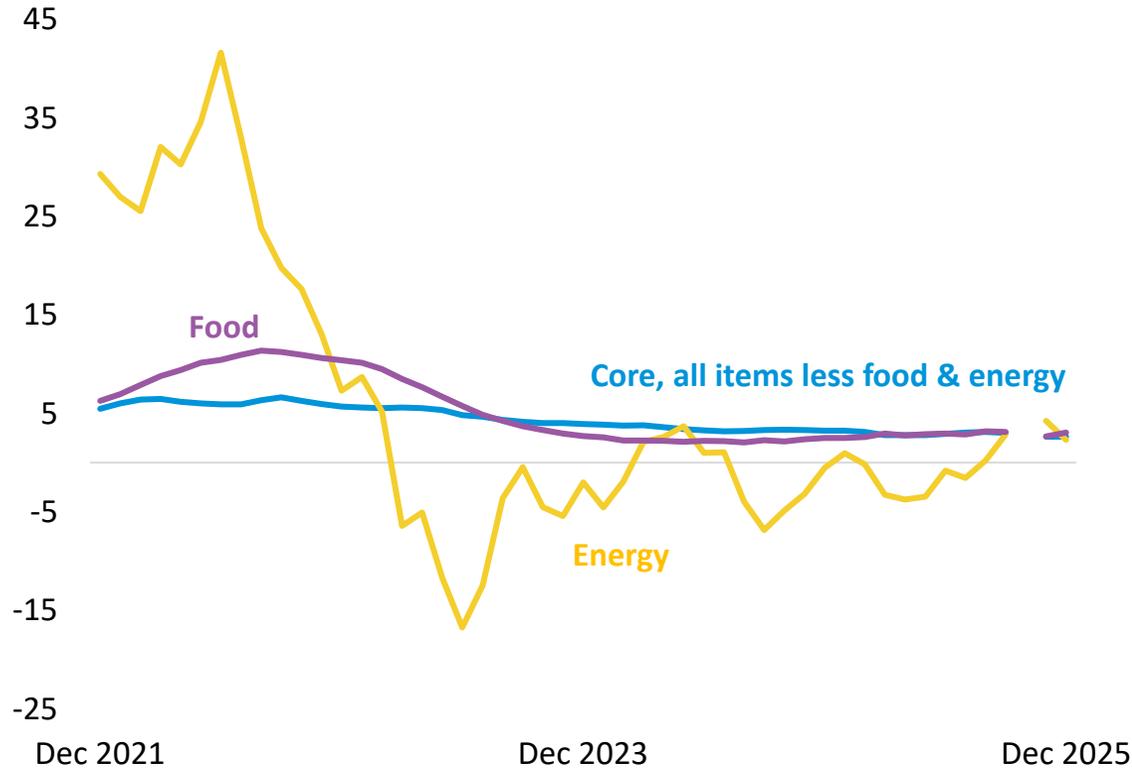
Notes: Energy expenditures - natural gas; electricity; fuel oil & other fuels; gasoline* which includes gasoline, other fuels, and motor oil. Disposable income equals after tax income. We estimate 2024's after-tax income by multiplying the CES's 2023 implied tax rate and the CES's average income before taxes estimate for 2024.

Source: Bureau of Labor Statistics; API calculations.

Core inflation measures inflation without energy & food which are more volatile. Energy's importance in the Dec 2025 CPI was ~6.3%.

Consumer Price Index Annual Rate, Dec 2021 - 2025

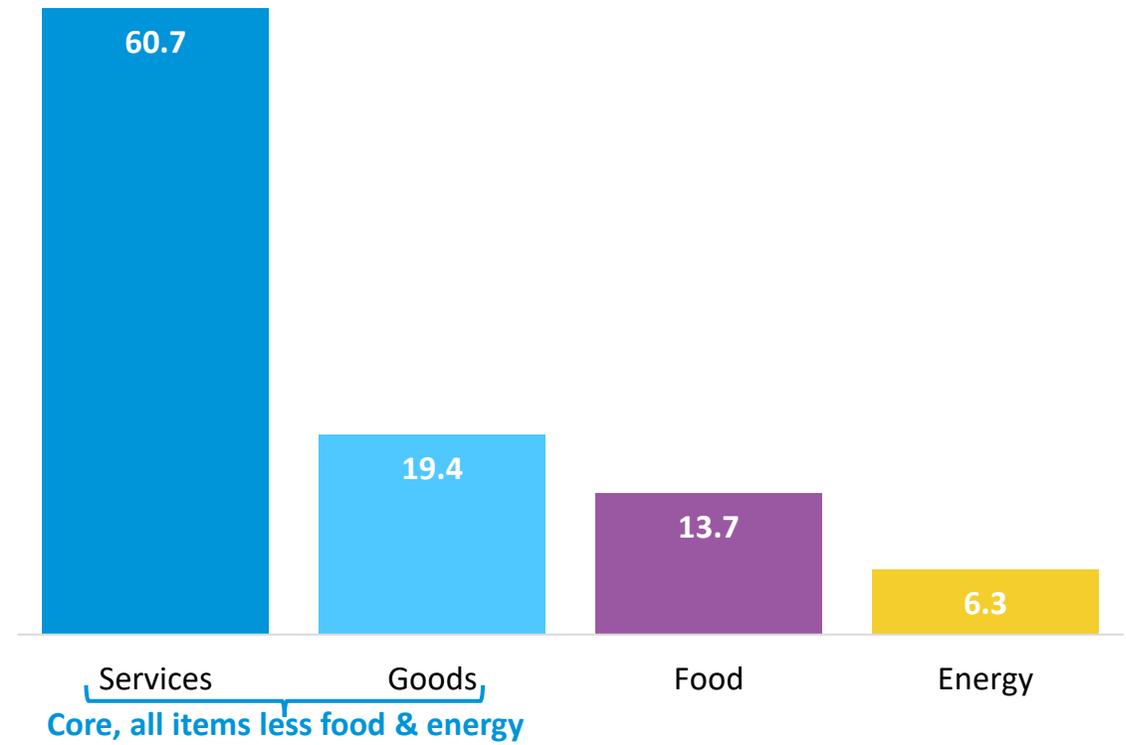
Change from a year ago (percent, not seasonally adjusted)



Source: Bureau of Labor Statistics.

CPI Components by Relative Importance, Dec 2025

Consumer price index relative importance (percent)



Source: Bureau of Labor Statistics; Bloomberg.

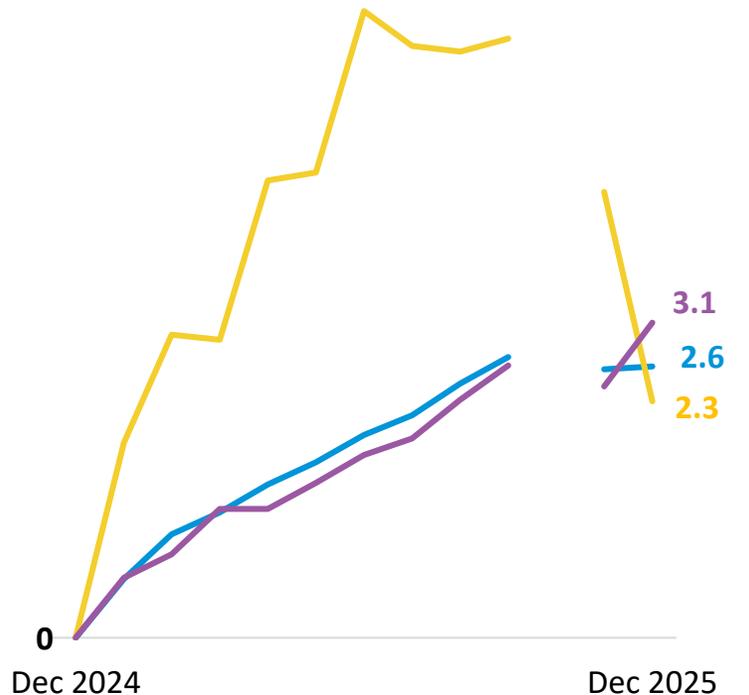
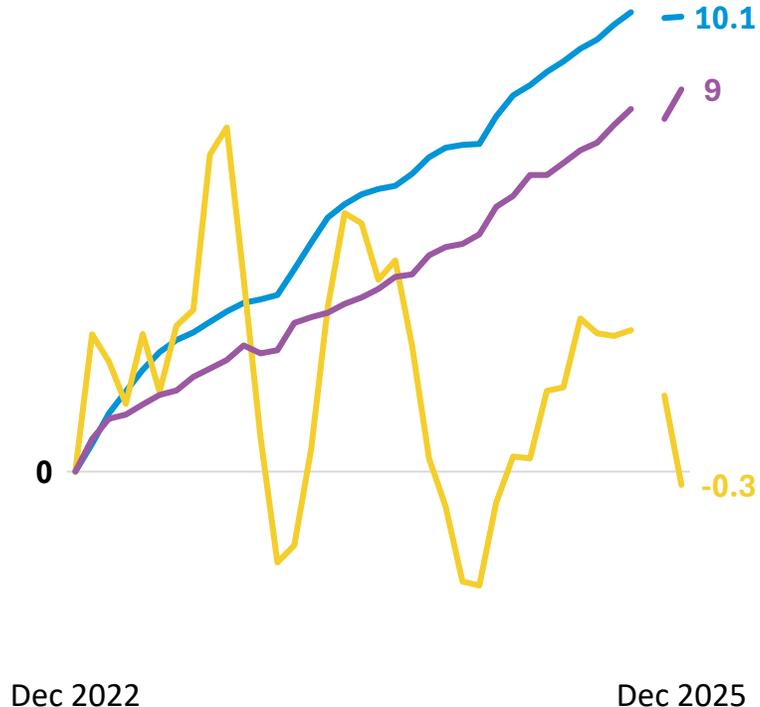
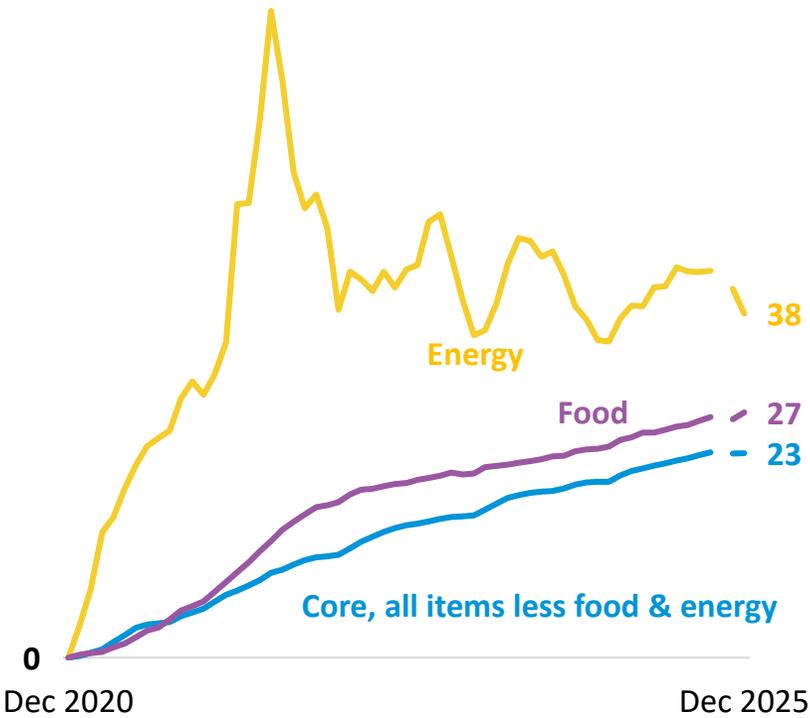
Because the CPI measures change from a specific point, the base year matters. Compared to pandemic lows, 5 years ago, the energy index is up 38% but from Dec 2022 it is down 0.3%.

Change in Consumer Price Index Components by Base Year

Change from 5 years ago (% , nsa)

Change from 3 years ago (% , nsa)

Change from 1 year ago (% , nsa)

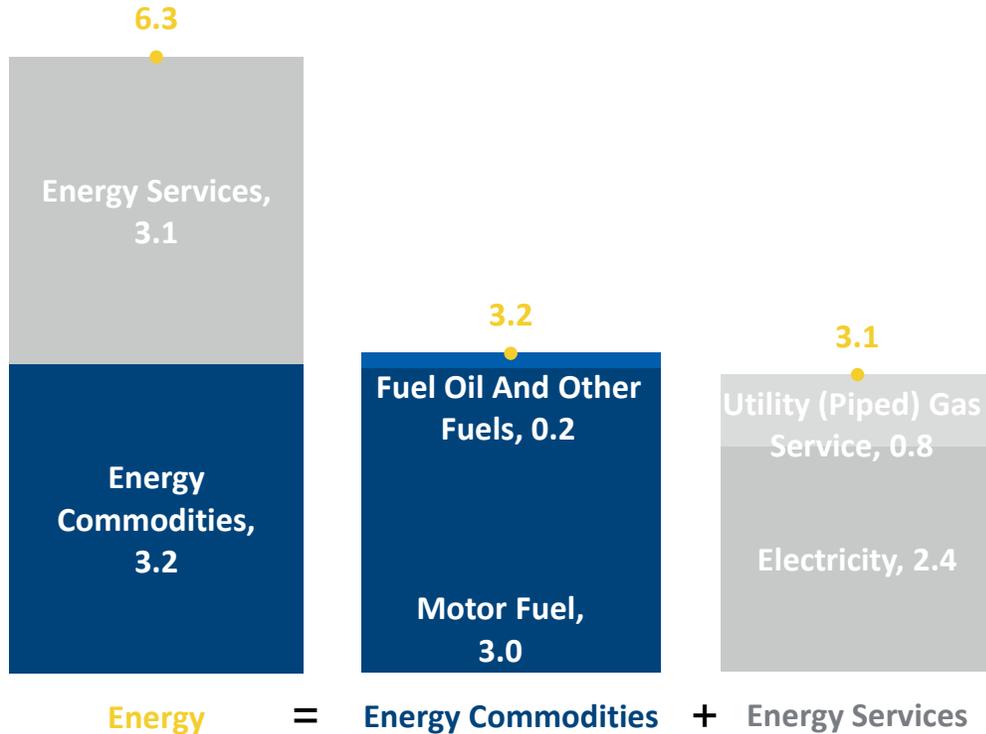


Source: Bureau of Labor Statistics; API calculations.

CPI's energy component is split into commodities & services. The primary drivers are motor fuel (48%), electricity (38%), & utility piped gas service (12%).

CPI Energy Components by Relative Importance, Dec 2025

Consumer price index relative importance (percent)



Source: Bureau of Labor Statistics; Bloomberg.

CPI Energy Components by Relative Importance, Dec 2025

Component or Subcomponent	Within Energy (Relative importance, percent)	Within CPI
Energy	100	6.3
Energy Commodities	50	3.2
Motor Fuel	48	3.0
Gasoline All Types	47	2.9
Other Motor Fuels	1	0.1
Fuel Oil And Other Fuels	2	0.1
Propane, Kerosene, and Firewood	1	0.1
Fuel Oil	1	0.1
Energy Services	50	3.1
Electricity	38	2.4
Utility (Piped) Gas Service	12	0.8

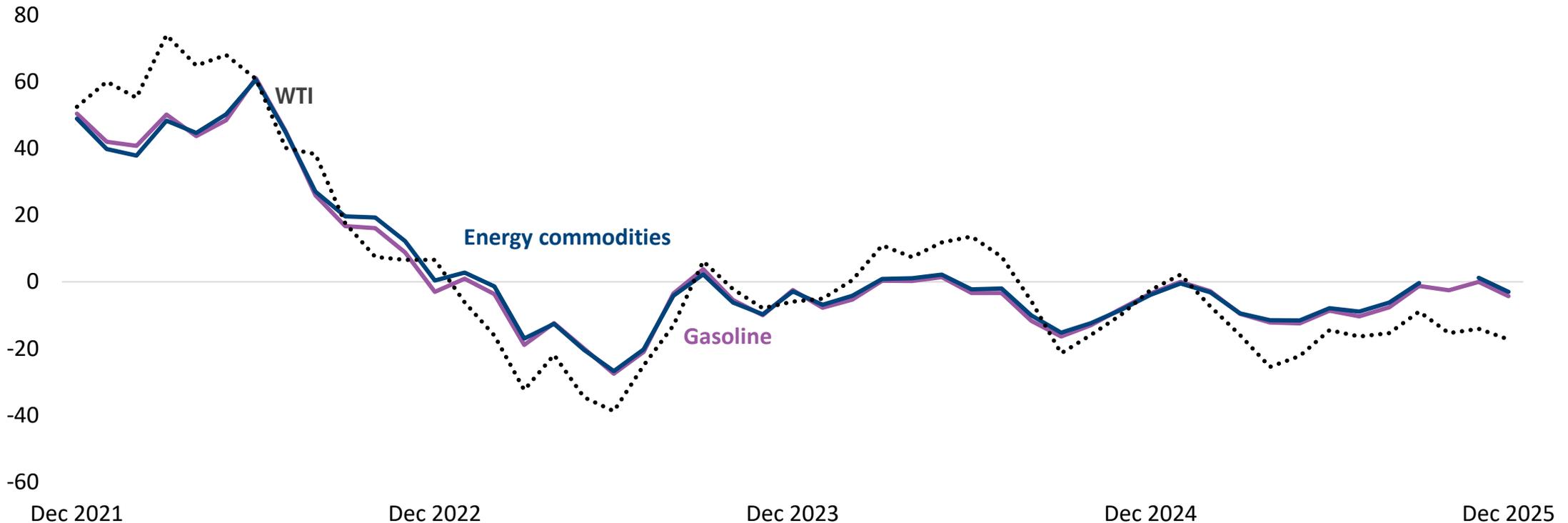
Source: Bureau of Labor Statistics; Bloomberg.

Electricity & utility (piped) gas service *includes* service/consumption charges, charges/credits, & taxes. Local fees & policies can cause changes in local electricity or utility (piped) gas service prices.

Crude oil prices can affect the energy commodities component of CPI through motor gasoline, but CPI does not include crude oil directly.

Energy Commodities, Gasoline, & WTI; Dec 2021 - 2025

Change from a year ago (percent, not seasonally adjusted)



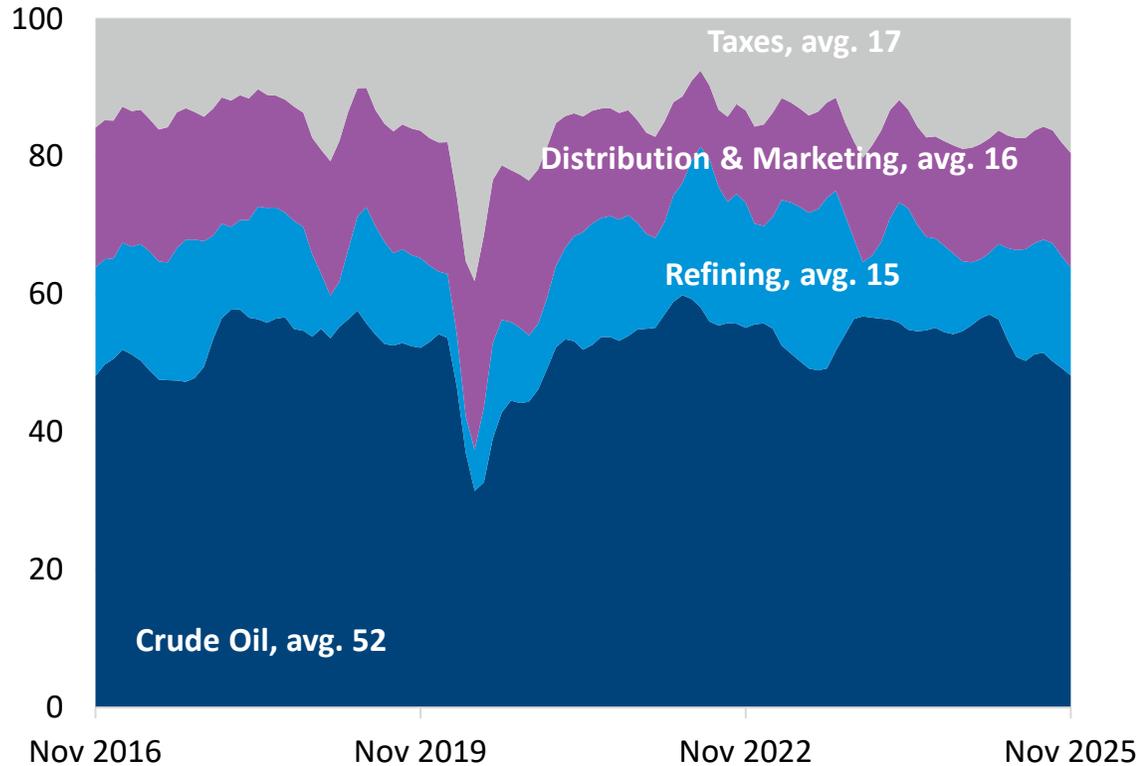
Notes: Energy commodities gasoline all; other motor fuels; propane, kerosene & firewood; fuel oil.

Source: Bureau of Labor Statistics; Energy Information Administration; API calculations.

Crude oil accounts for 52% of gasoline's price, so their price changes tend to be correlated. In real terms, gasoline prices are lower in Q4:2025 than in 1976.

Regular Gasoline by Component, Nov 2016 - 2025

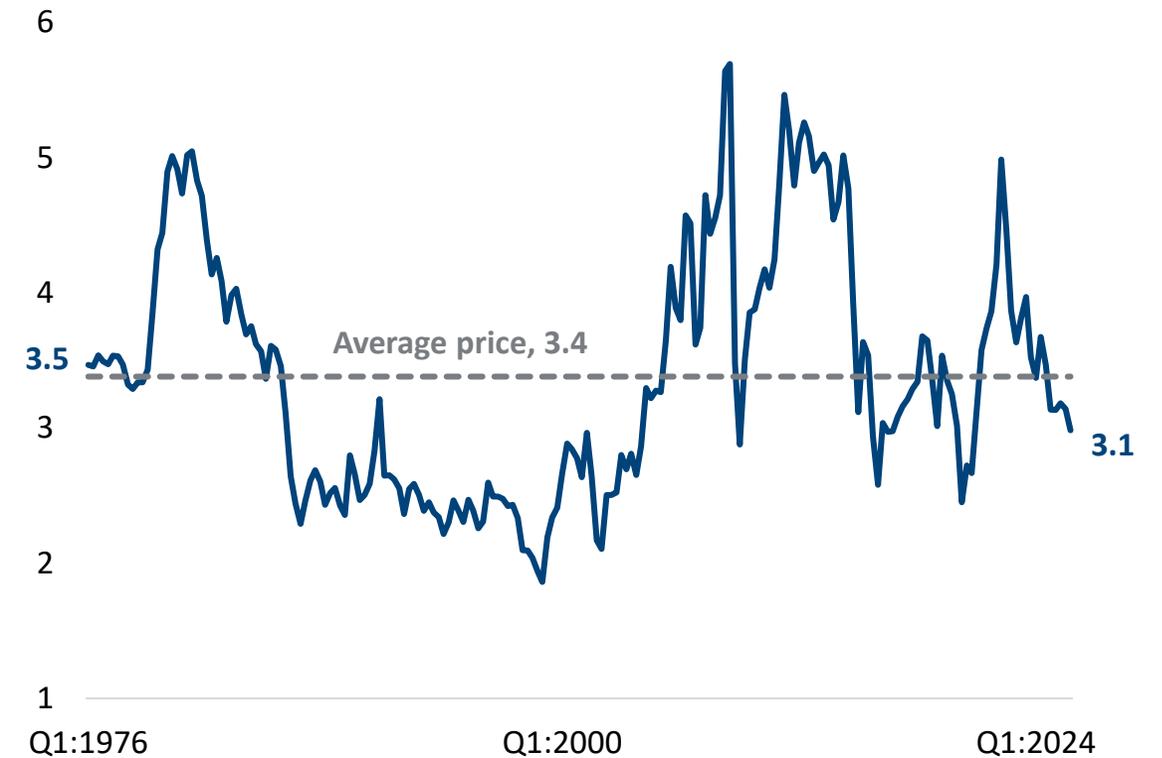
Regular gasoline price by component (three month rolling average, percent)



Source: Energy Information Administration; API calculations.

Inflation Adjusted Motor Gasoline Prices, Q1'76 - Q4'25

Motor gasoline (2025 dollars per gallon)

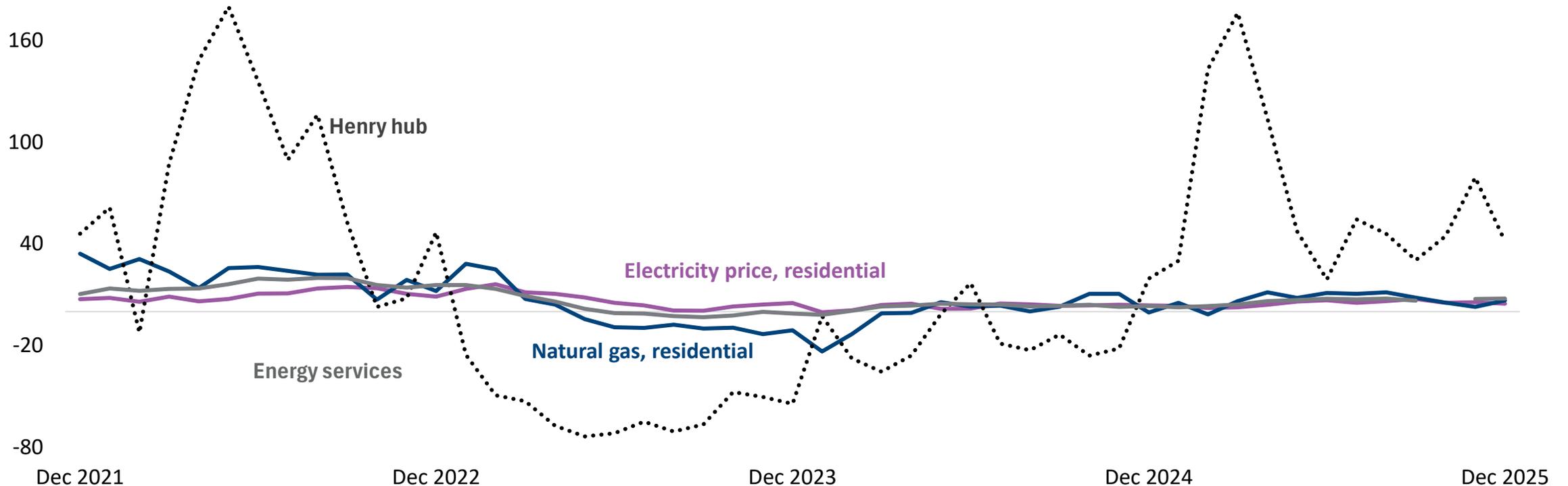


Source: Energy Information Administration; API calculations.

Because electricity/utility markets are regulated & fuel costs are only part of generation costs; wholesale natural gas prices are not a good proxy for energy services.

Energy Services & Selected Proxies, Dec 2021 - 2025

Change from a year ago (percent, not seasonally adjusted)



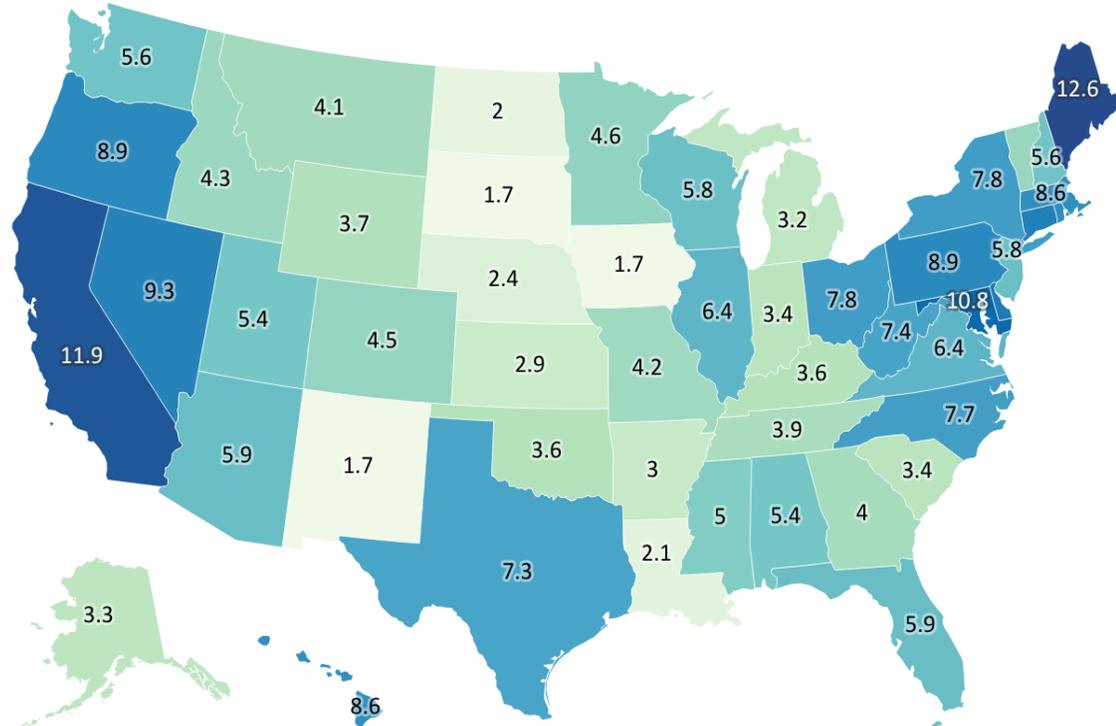
Notes: Energy services include electricity prices & utility (piped) gas service.

Source: Bureau of Labor Statistics; Energy Information Administration; API calculations.

In nominal terms, avg. residential electricity prices increased 6.5% & natural gas prices increased 6% per year between 2021 & 2024. However, there was significant variation between states.

Annual Change in Residential Electricity Prices, 2021 to 2024

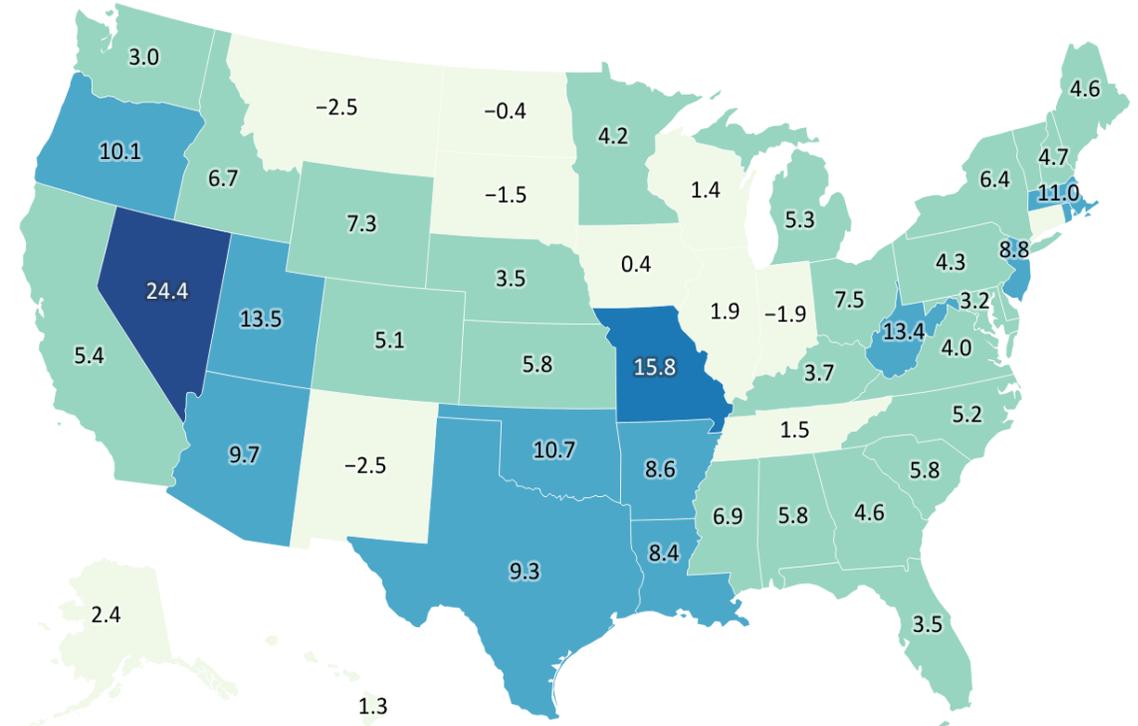
Annual change (annualized rate)



Source: Energy Information Administration; API calculations.

Annual Change in Residential Natural Gas Prices, 2021 to 2024

Annual change (annualized rate)

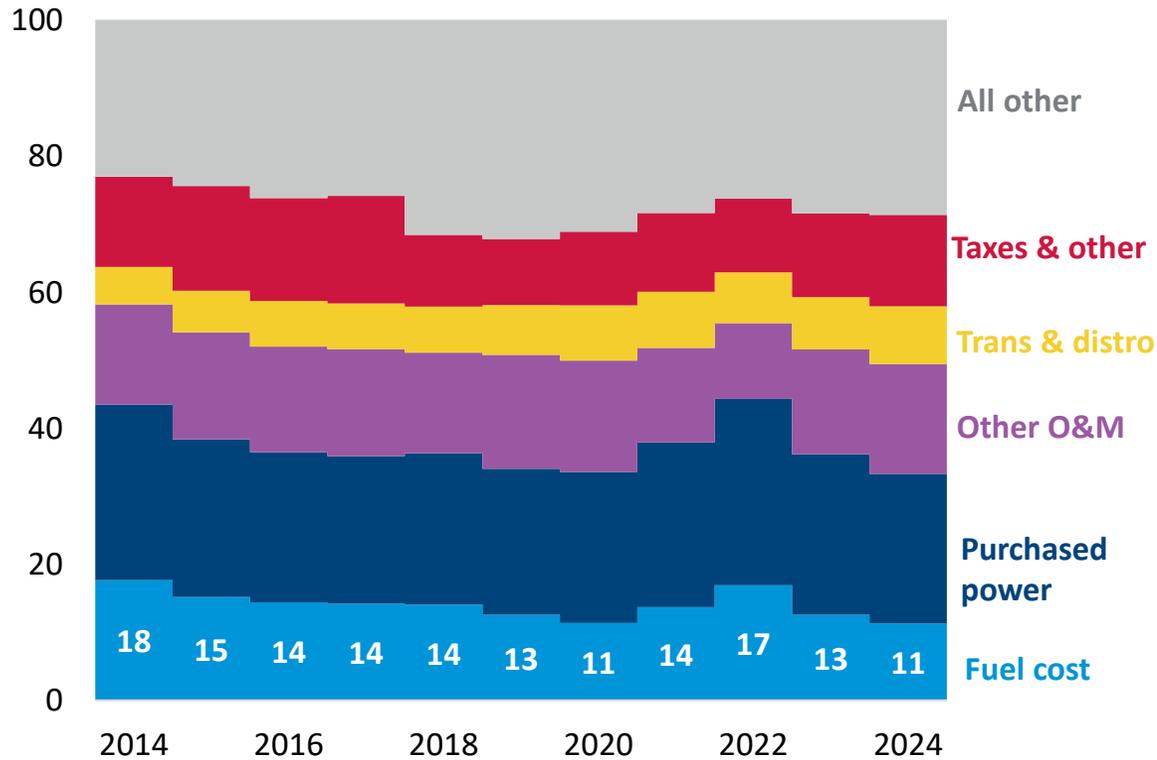


Source: Energy Information Administration; API calculations.

Fuel costs have been declining for investor-owned electric utilities. And despite a recent uptick, in real terms, residential electricity prices have declined since 1964.

Major Investor-Owned Electric Operating Expenses, 2014 - 2024

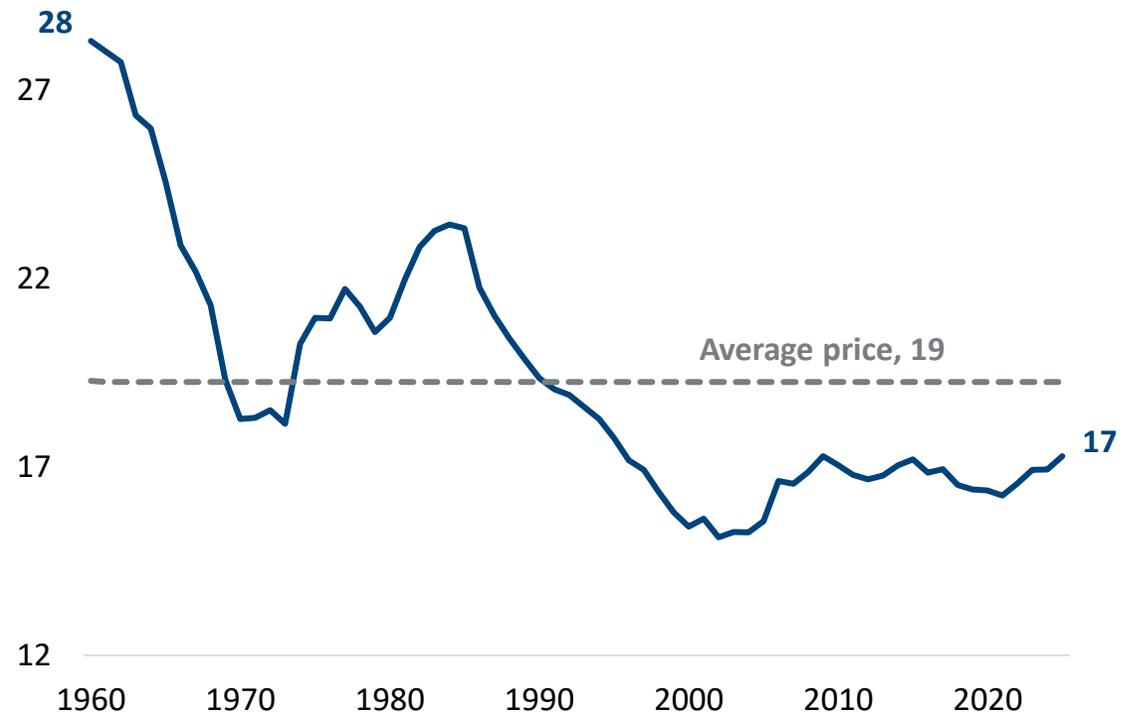
US Investor-owned electric utilities (share of operating expenses)



Source: Energy Information Administration; API calculations.

Inflation Adjusted Residential Electricity Price, 1960 - 2025

Residential electricity price (2025 cents per kilowatt hour)

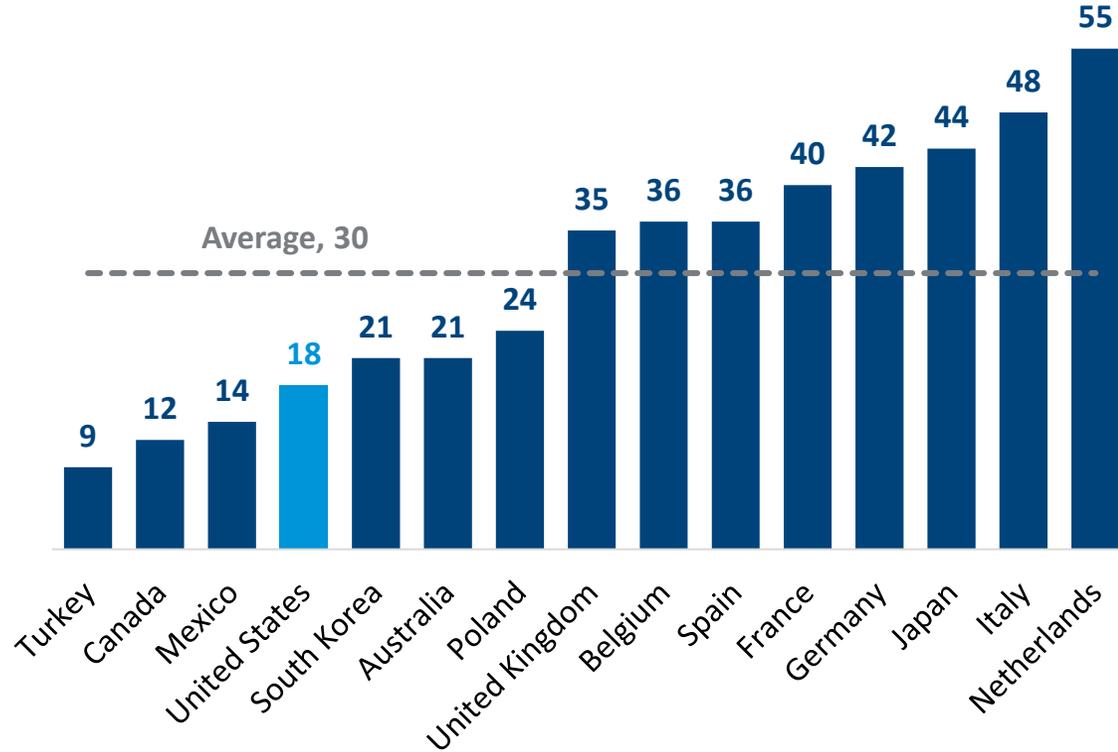


Source: Energy Information Administration; API calculations.

Since 2020, real residential natural gas prices retraced some of their long-term declines. However, they remain some of the lowest compared to other OECD countries.

Selected OECD Countries Residential Natural Gas Prices

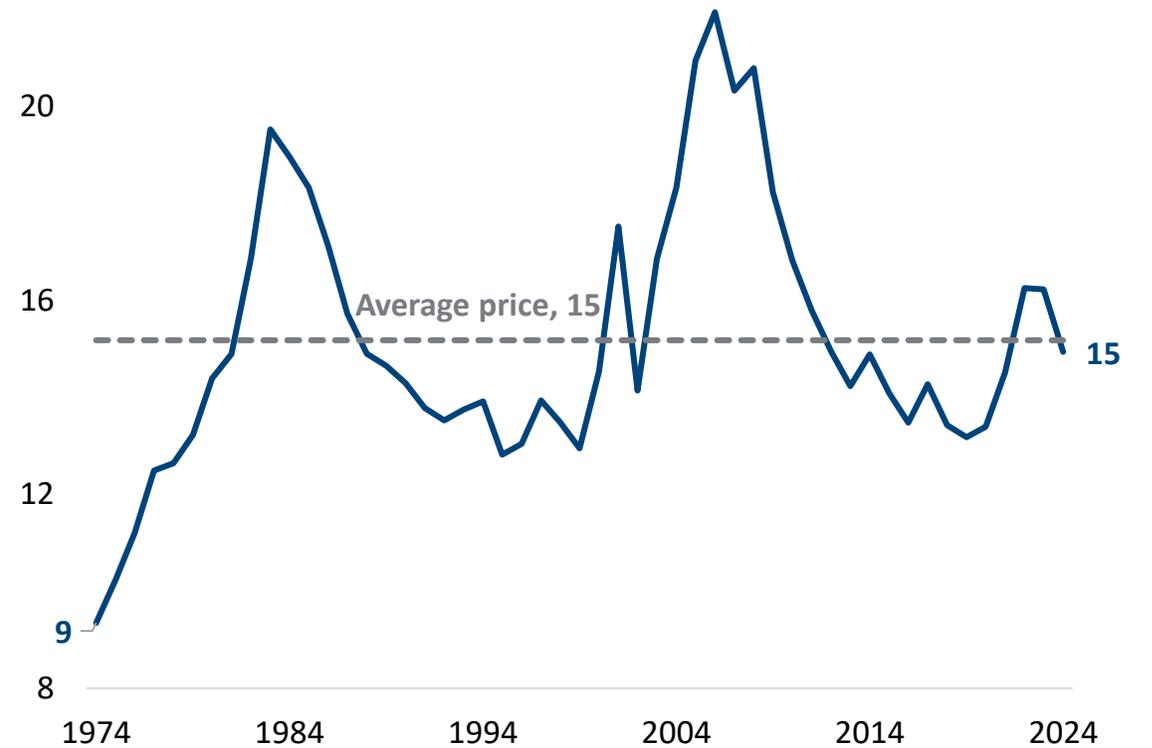
2024 average residential natural gas price (dollars per million btu)



Source: S&P Global Commodity Insights; IEA.

Inflation Adjusted Residential Natural Gas Price, 1974 - 2025

Residential natural gas price (2025 dollars per thousand cubic feet)

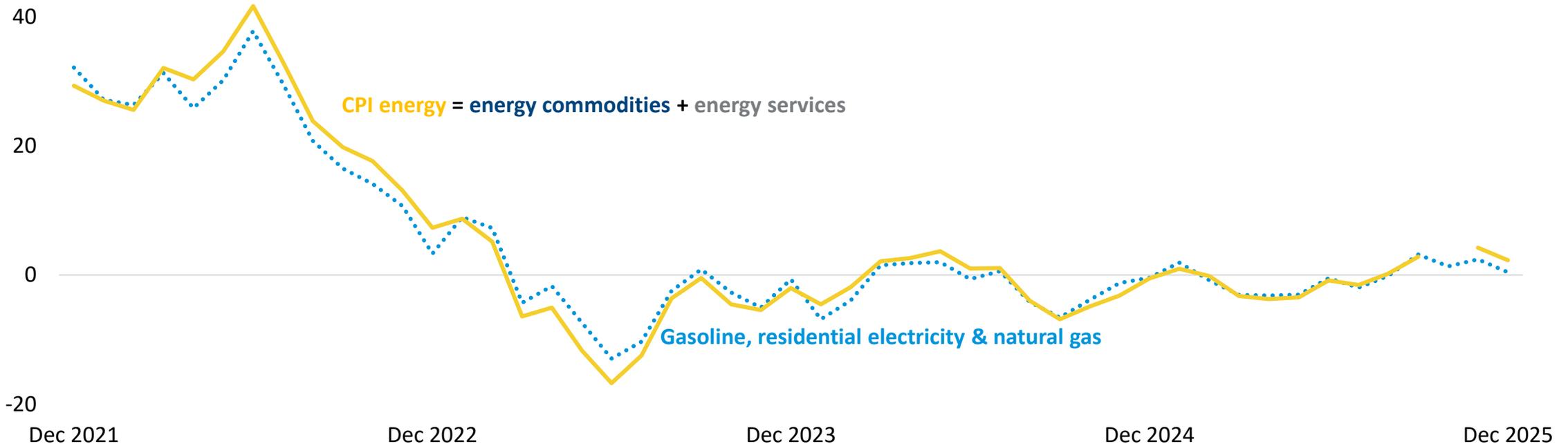


Source: Energy Information Administration; API calculations.

Roughly 98% of CPI energy is based on three items—motor gasoline, electricity & utility (piped) gas service.

CPI Energy Components by Subcomponent, Dec 2021 - 2025

Change from a year ago (percent, not seasonally adjusted)



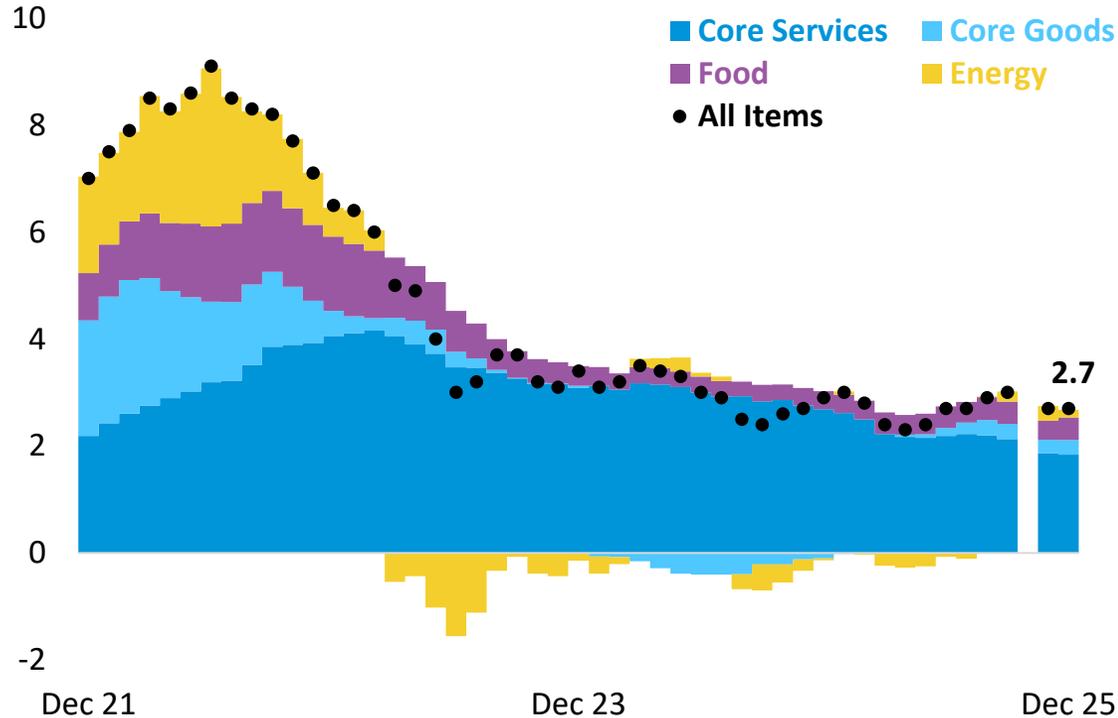
Notes: Energy commodities gasoline all; other motor fuels; propane, kerosene & firewood; fuel oil. Energy services include electricity prices & utility (piped) gas service.

Source: Bureau of Labor Statistics; Energy Information Administration; API calculations.

Typically, inflation is driven by core services & food given their larger share of consumer expenditures.

Consumer Price Index by Components' Contribution

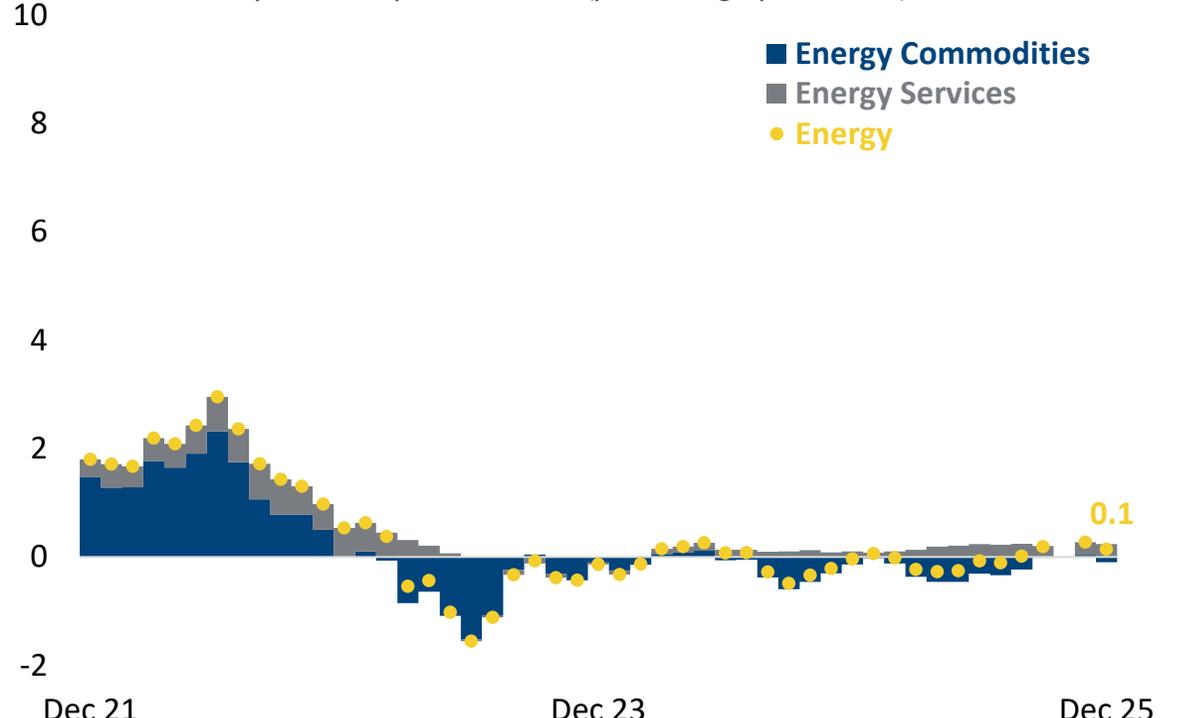
Contribution to year over year inflation (percentage point, nsa)



Source: Bureau of Labor Statistics; Bloomberg.

Energy Components' Contribution to CPI Inflation

Contribution to year over year inflation (percentage point, nsa)



Notes: Energy commodities gasoline all; other motor fuels; propane, kerosene & firewood; fuel oil.

Energy services include electricity prices & utility (piped) gas service.

Source: Bureau of Labor Statistics; Bloomberg.



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