Winter Fuels Outlook 2024–2025

Joseph F. DeCarolis, Administrator October 9, 2024 | Washington, DC



What is the Winter Fuels Outlook?

EIA's forecasts for upcoming winter residential energy expenditures

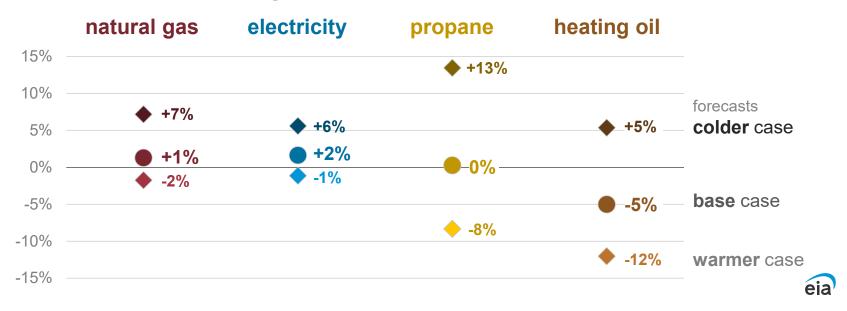
Energy market conditions for heating fuels

We expect the majority of households will **spend about the same** on energy this winter

Residential energy expenditures

percentage change since last winter

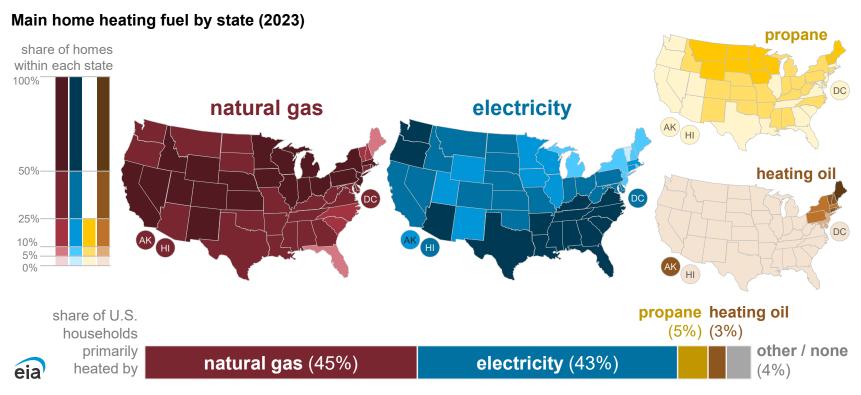
For homes where the main heating fuel is...





Household Characteristics

96% of U.S. homes are primarily heated with one of four fuels



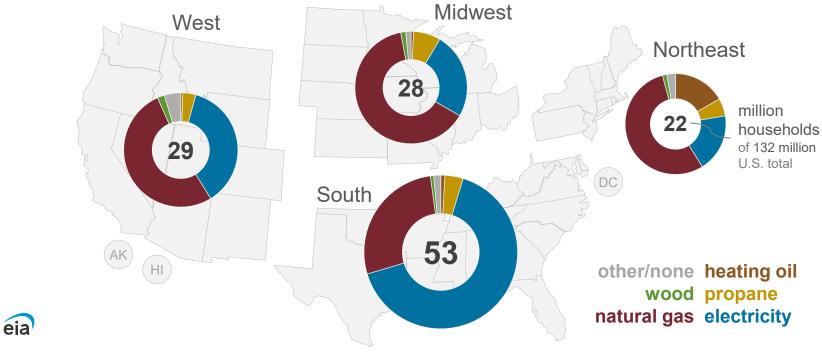
Data source: U.S. Census Bureau, American Community Survey (ACS); U.S. Energy Information Administration, Winter Fuels Outlook



Most Winter Fuels Outlook forecasts are for specific

Census regions

Census regions and their heating fuels (2024)

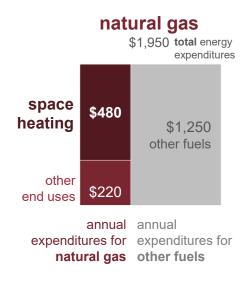


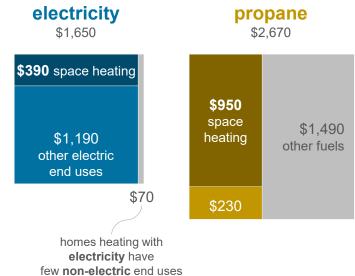


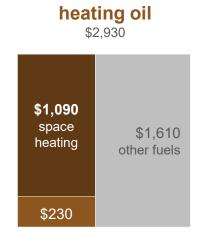
Expenditures from the **main heating fuel** are a portion of **total household spending** on energy

U.S. annual household energy expenditures (2020)

For homes where the main heating fuel is:









Source: U.S. Energy Information Administration, Residential Energy Consumption Survey, 2020, Table CE4.16



Weather Sensitivities

Weather affects energy expenditures in two ways



For your household

Local weather directly affects household energy consumption.



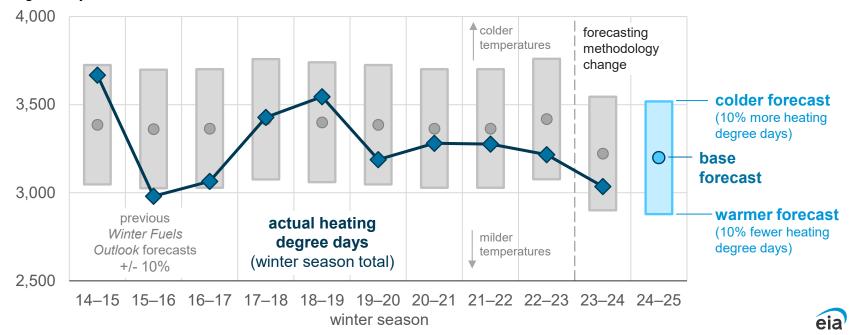
In aggregate

More demand leads to higher wholesale prices, which may be passed along to consumers.

Temperatures are a key source of uncertainty in our forecasts

U.S. population-weighted heating degree days

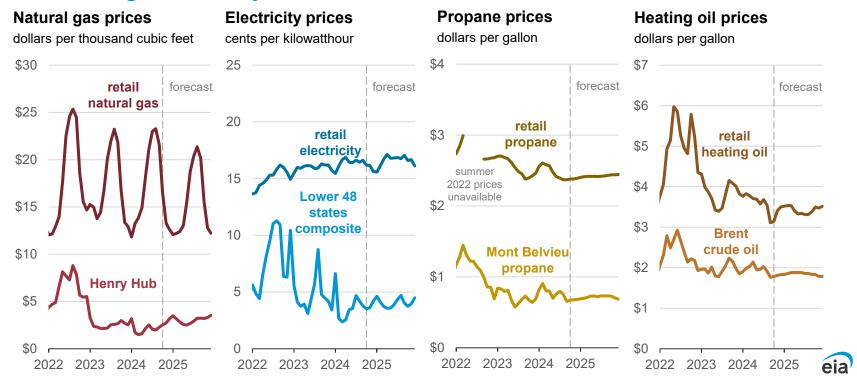
degree days





Energy Market Conditions

Changes in **wholesale** prices ultimately affect **retail** prices, but timing varies by market



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



Residential Energy Expenditures

A note about comparing forecasts across fuels

By dividing the U.S. housing stock by **main heating fuel**, we are showing...

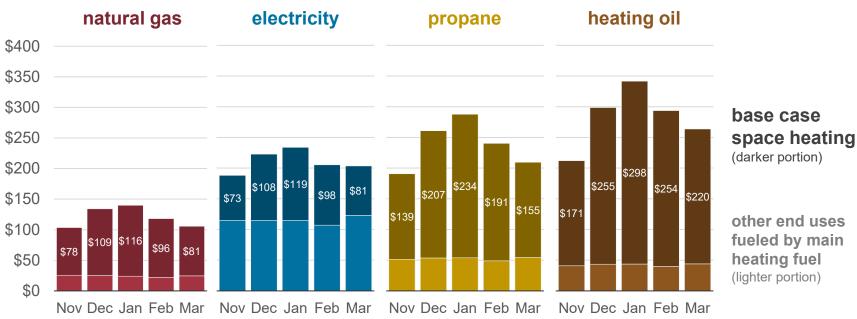
different households with different characteristics in different locations experiencing different weather.

Our forecasts now distinguish **space heating** from other end uses

Energy expenditures for space heating and other end uses (winter 2024–25)



For homes where the **main heating fuel** is:



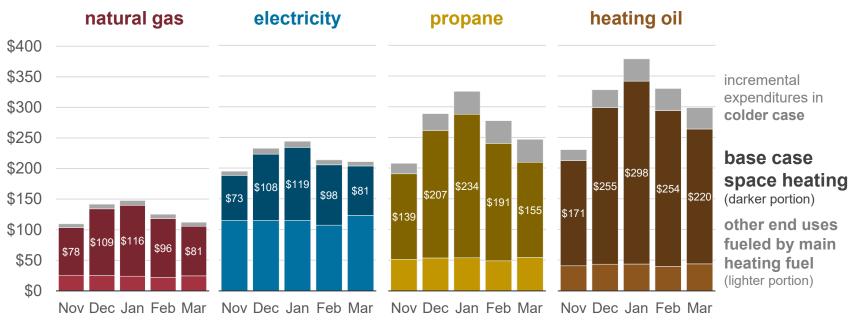


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Energy expenditures for space heating and other end uses (winter 2024–25)



For homes where the **main heating fuel** is:



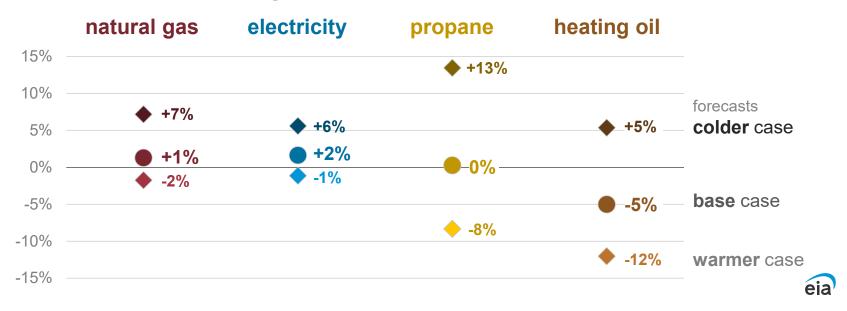


We expect the majority of households will **spend about the same** on energy this winter

Residential energy expenditures

percentage change since last winter

For homes where the main heating fuel is...

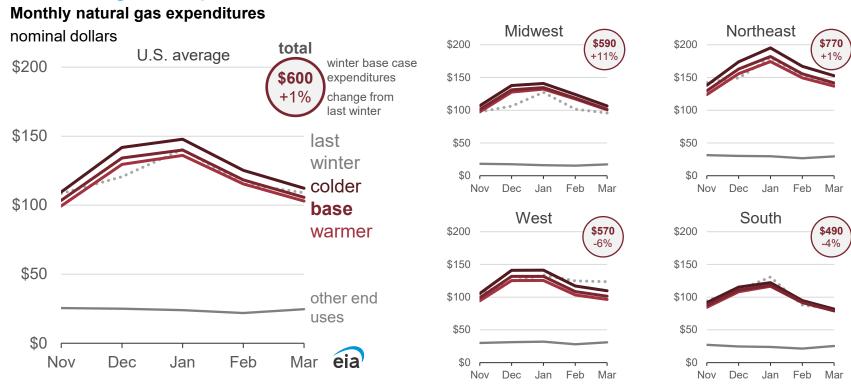




Natural Gas



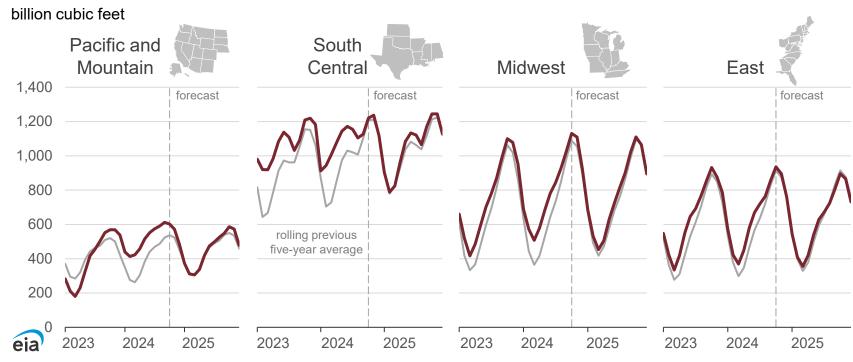
Natural gas expenditures forecast to be similar to last winter





Regional natural gas inventories are near or above average

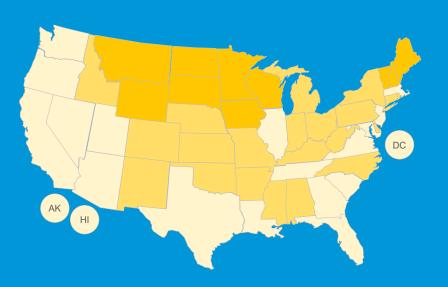
Regional natural gas inventories



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

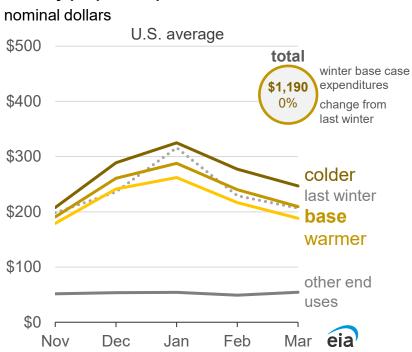


Propane



Propane expenditures forecast to be similar to last winter

Monthly propane expenditures



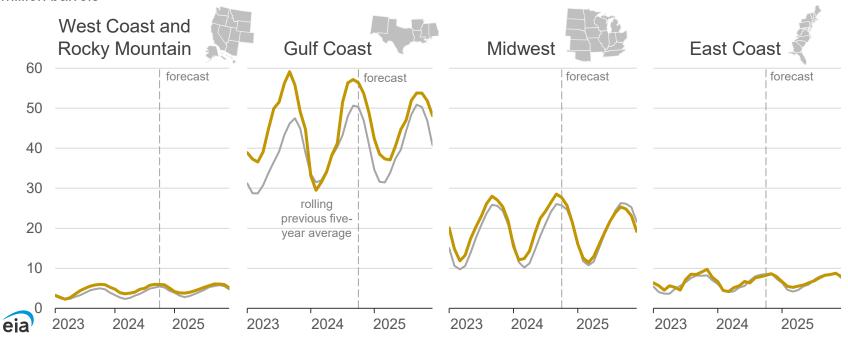




Propane inventories are **above average**, especially in the Gulf Coast region

Regional propane inventories

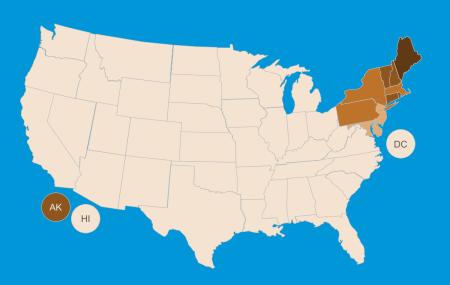
million barrels



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

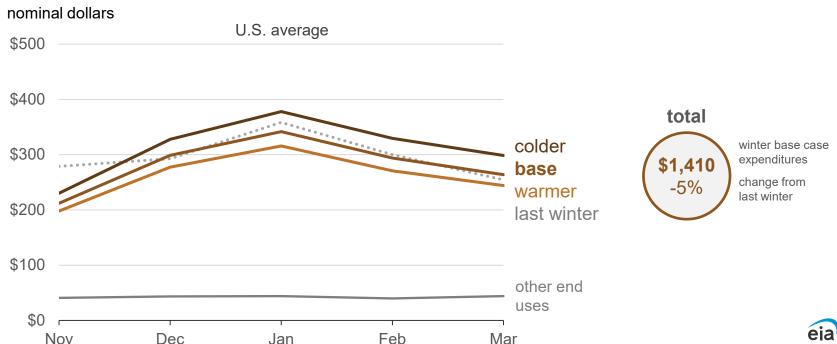


Heating Oil



Heating oil expenditures forecast to be lower than last winter

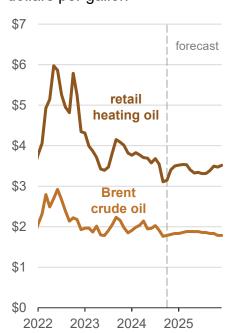
Monthly heating oil expenditures



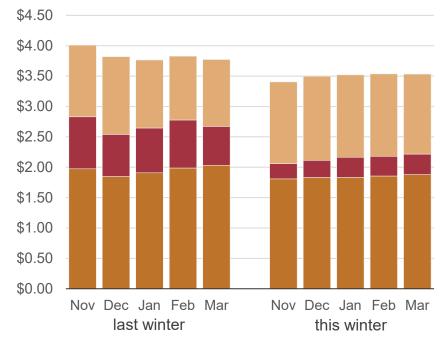


Refining margins for heating oil are lower than last winter

Crude oil and heating oil prices dollars per gallon



Estimated components of retail heating oil prices dollars per gallon



retail spread and taxes

 $$1.15 \rightarrow 1.35

refiner margin $\$0.74 \rightarrow \0.30

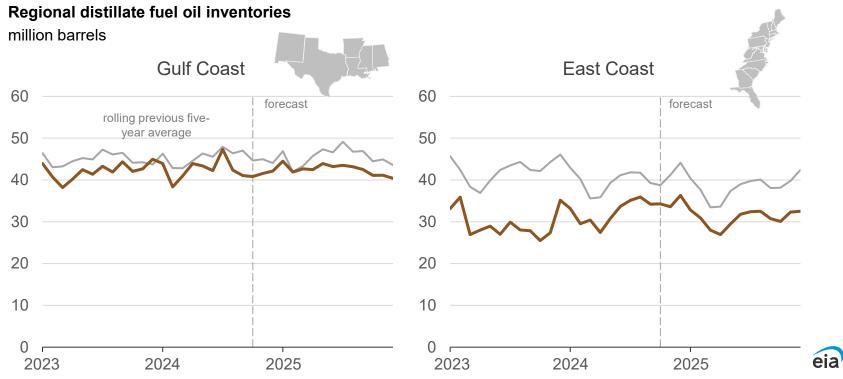
crude oil \$1.95 → \$1.84 per gallon season average



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



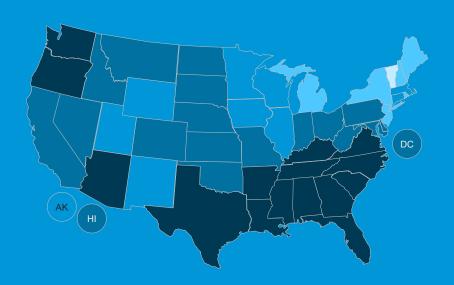
Heating oil inventories are **below average** in the Gulf Coast and East Coast regions



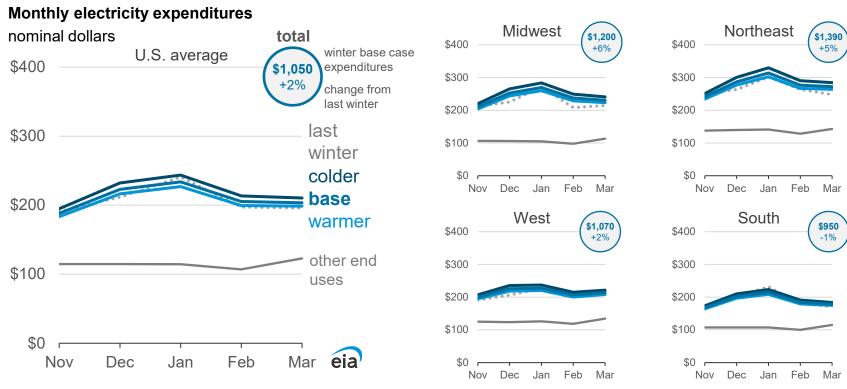
Data source: U.S. Energy Information Administration, Short-Term Energy Outlook



Electricity



Electricity expenditures forecast to be **slightly higher** than last winter

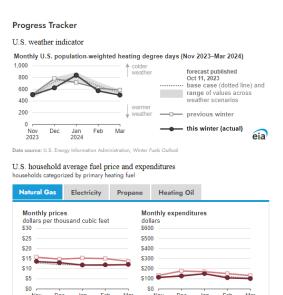




EIA Resources

Winter Fuels Outlook updates and other EIA resources

- We update household consumption, price, and expenditure estimates with each Short-Term Energy Outlook release through April 2025
- EIA data sources
 - Heating Oil and Propane Update
 - Winter Propane Market Update
 - Weekly Petroleum Status Report
 - Weekly Natural Gas Storage Report
 - Hourly Electric Grid Monitor
 - Residential Energy Consumption Survey



—— previous winter

- this winter (actual) eia

Data source: U.S. Energy Information Administration, Winter Fuels Outlook

forecast published Oct 11, 2023

base case (dotted line) and