



Winter Fuels Outlook 2023–2024

Tim Hess
October 17, 2023
New York Energy Forum



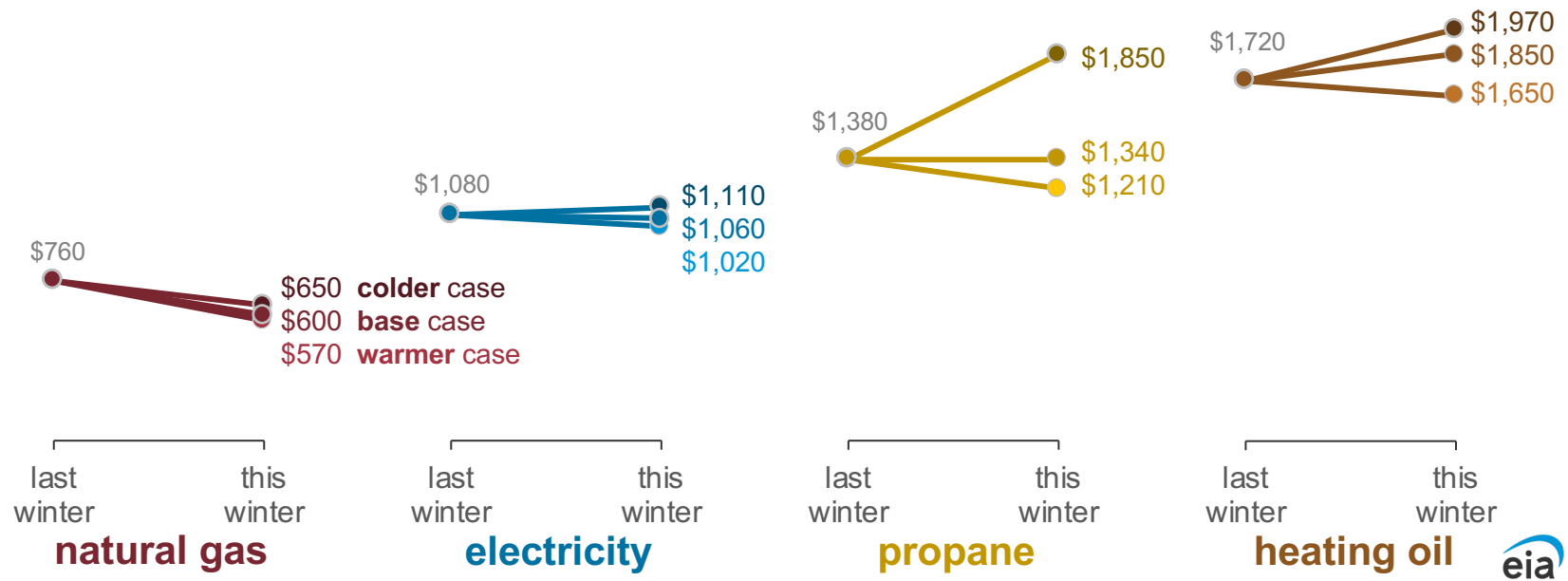
U.S. Energy Information Administration

Independent Statistics and Analysis

www.eia.gov

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

Residential energy expenditures
nominal dollars

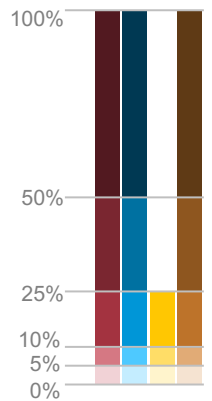


Source: Winter Fuels Outlook

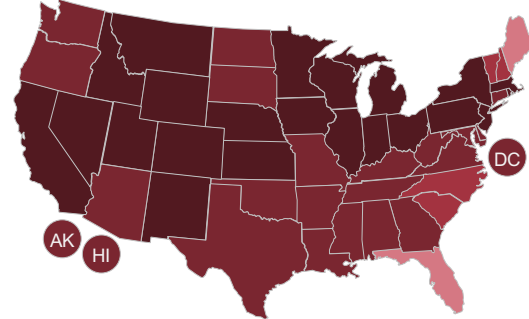
97% of U.S. homes are primarily heated with one of four fuels

Primary home heating fuel by state (2022)

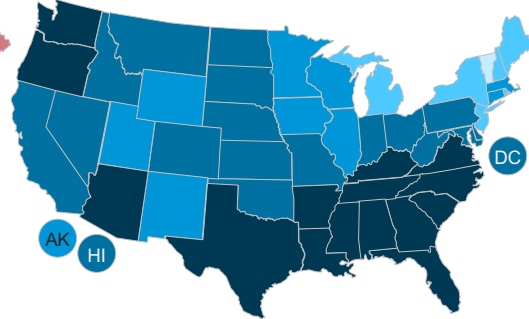
share of homes within each state



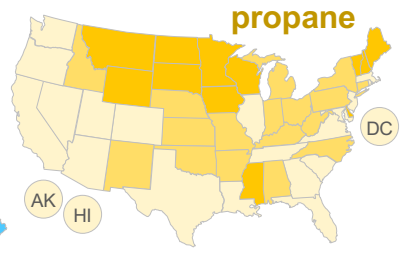
natural gas



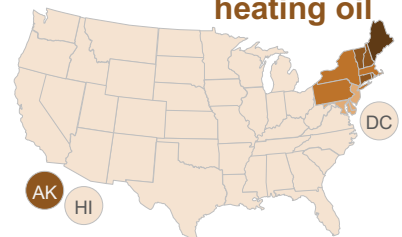
electricity



propane



heating oil



share of U.S. households primarily heated by

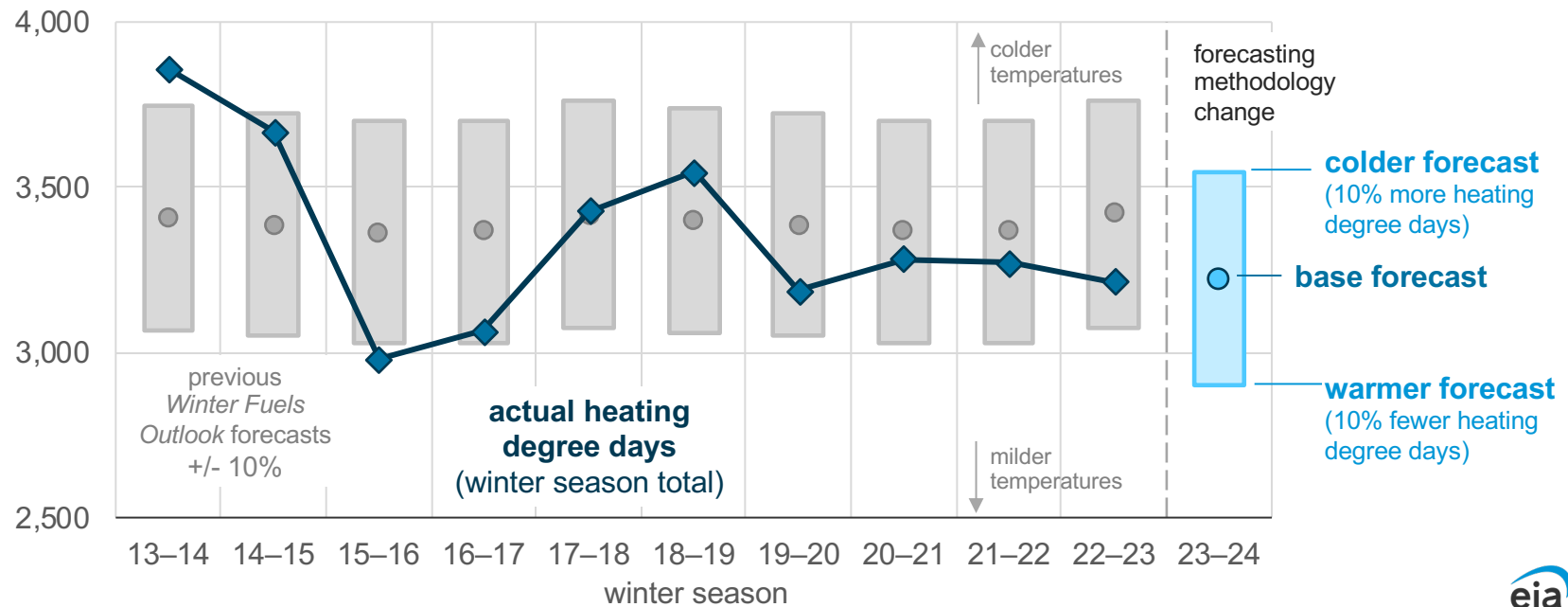


Data source: U.S. Census Bureau American Community Survey (ACS)

Temperatures are a key source of uncertainty in our forecasts

U.S. population-weighted heating degree days

degree days



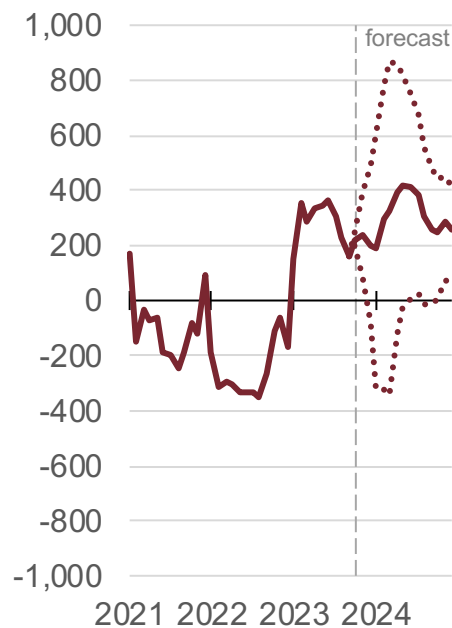
Source: Short-Term Energy Outlook



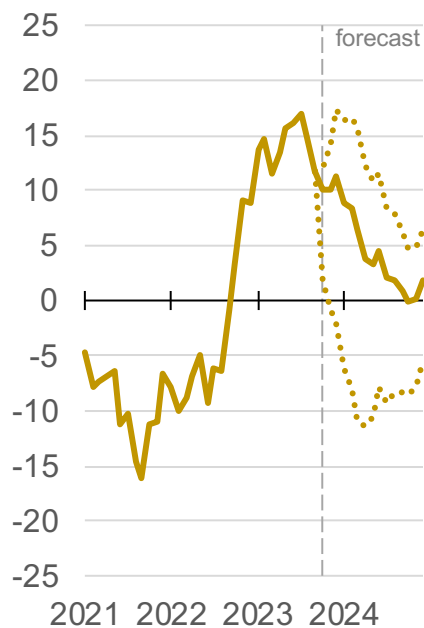
2023-2024 Winter Fuels Outlook Webinar
October 17, 2023

Natural gas and propane inventories are **relatively high**; distillate inventories are **relatively low**

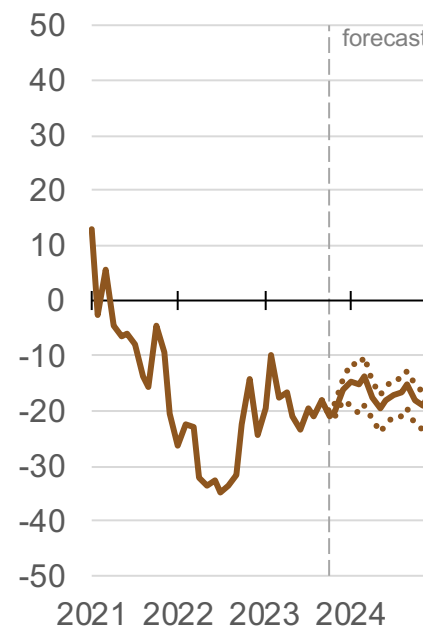
U.S. natural gas inventory
billion cubic feet



U.S. propane inventory
million barrels



U.S. distillate fuel oil inventory
million barrels



↑ **more fuel** in storage than previous five-year average

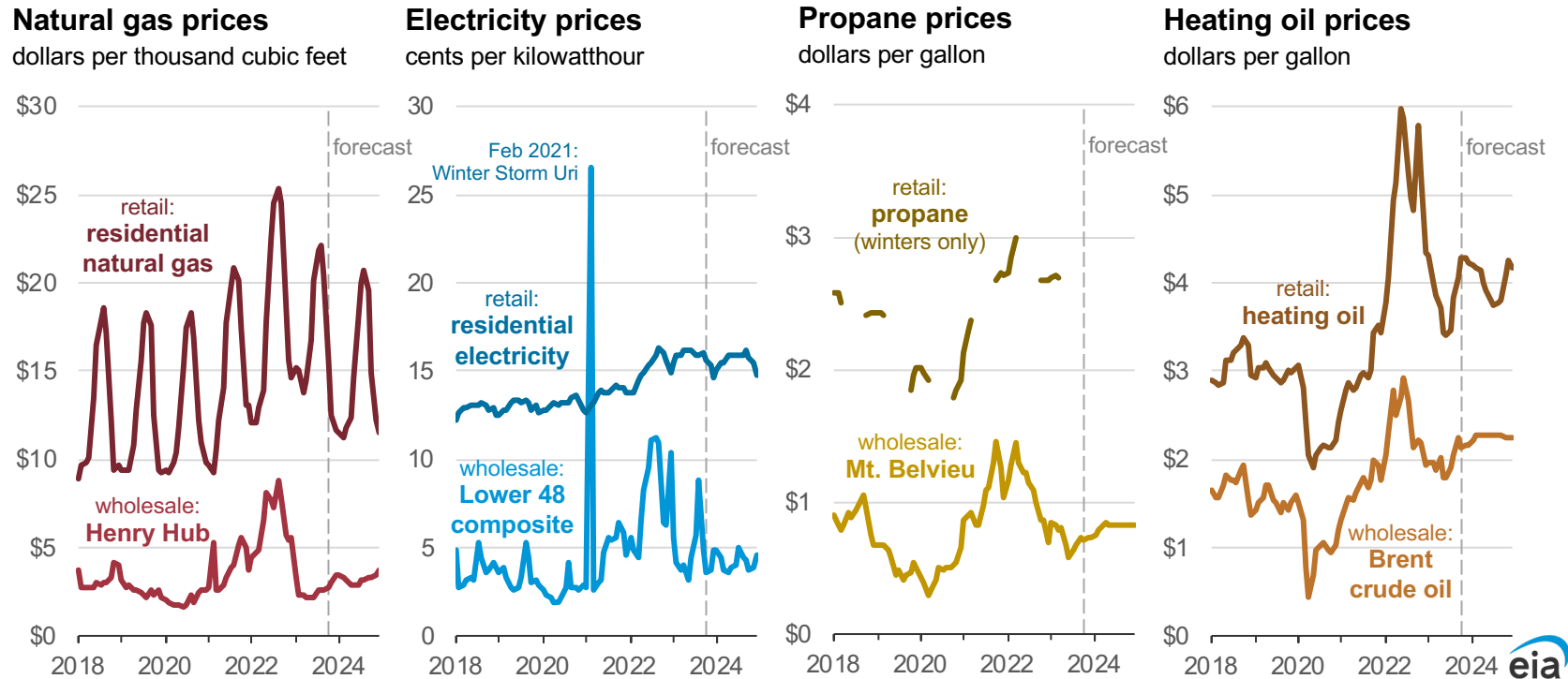
warmer case
base case
colder case

↓ **less fuel** in storage than previous five-year average



Source: Winter Fuels Outlook

Changes in wholesale prices ultimately affect retail prices, but the timing of these changes varies by market

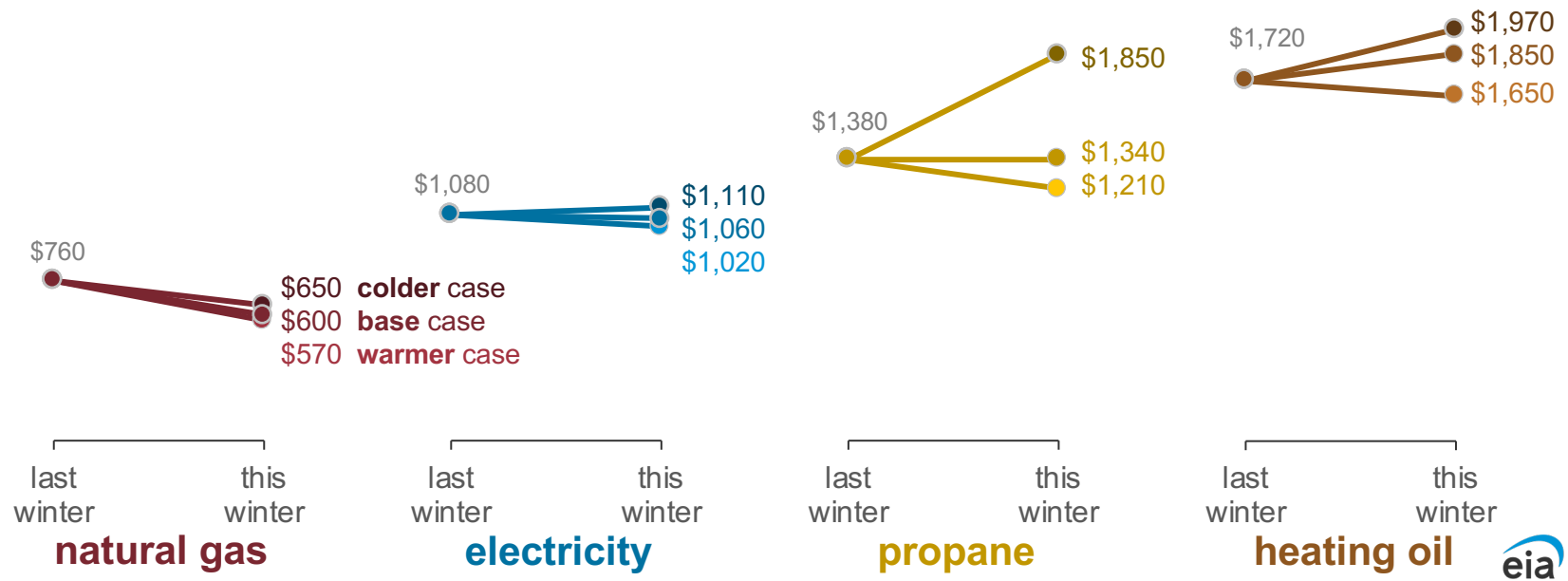


Source: Short-Term Energy Outlook; Heating Oil and Propane Update

Weather affects energy expenditures in **two ways**

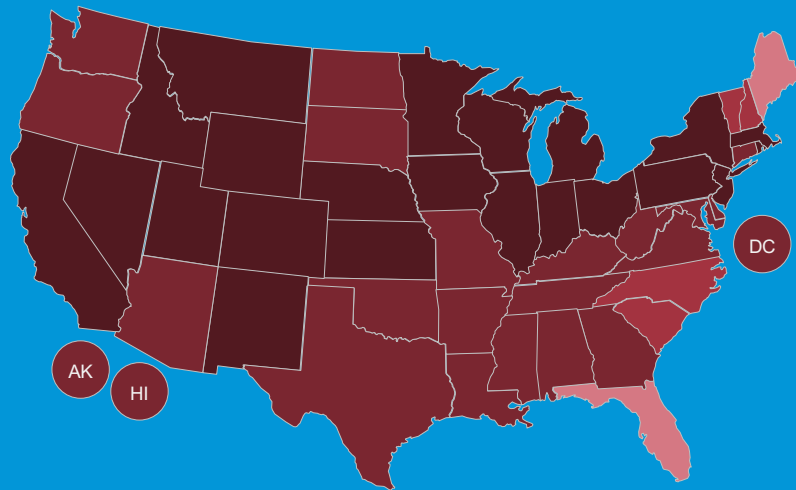
Residential energy expenditures

nominal dollars



Source: Winter Fuels Outlook

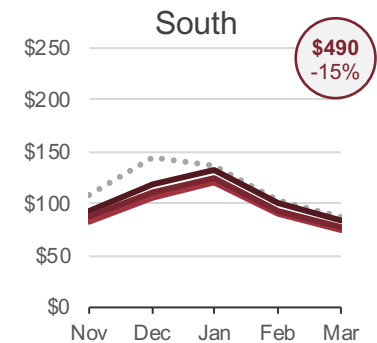
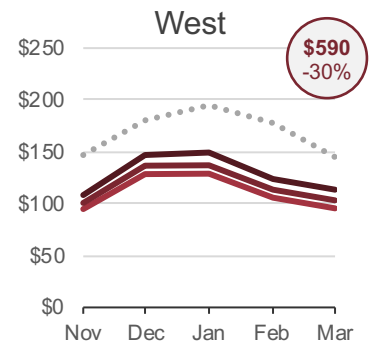
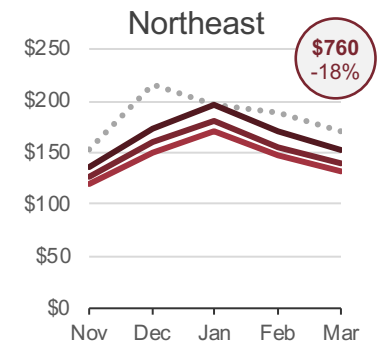
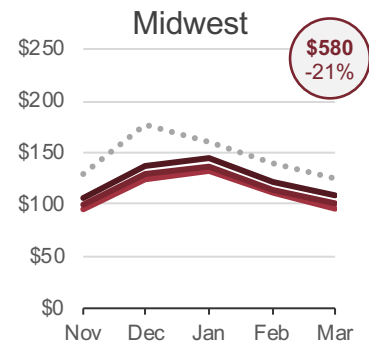
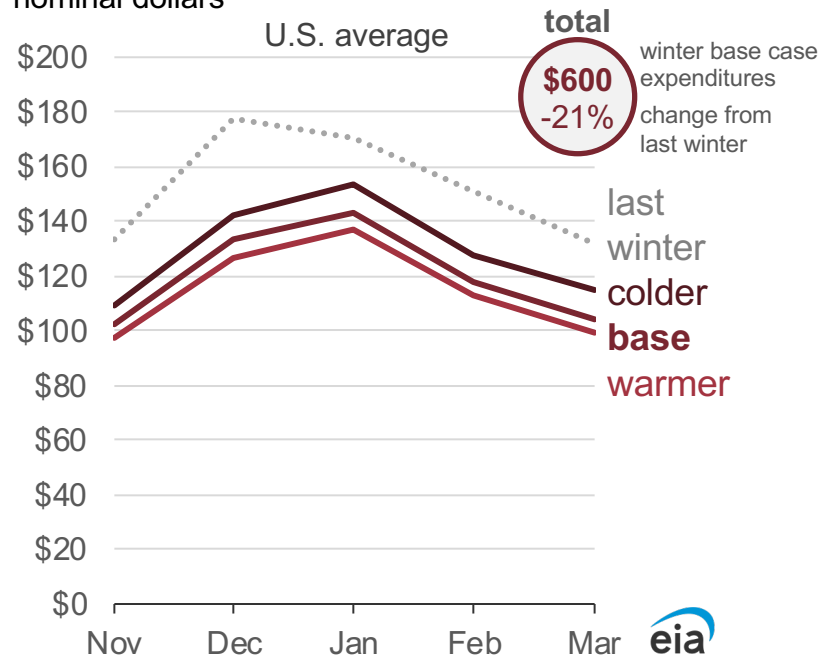
Natural Gas



Natural gas expenditures forecast to be **21% lower** this winter

Monthly natural gas expenditures

nominal dollars

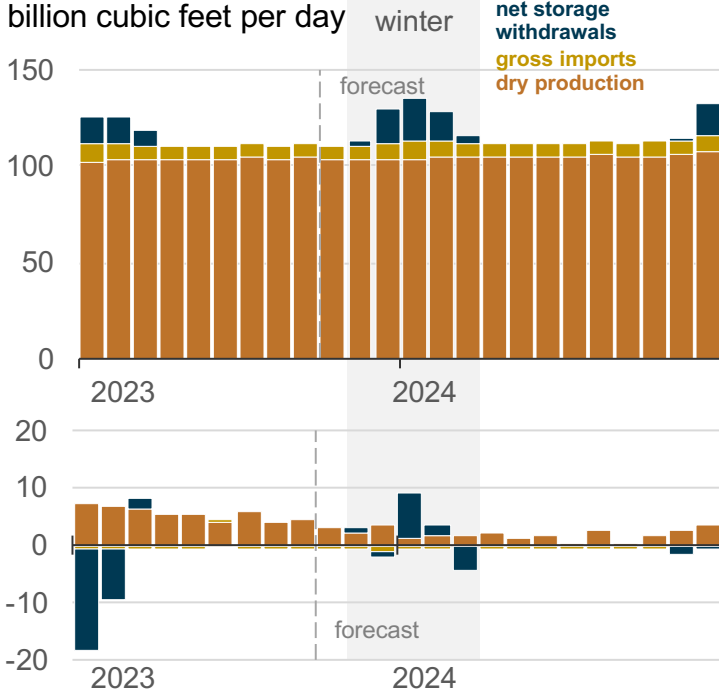


Data source: Winter Fuels Outlook

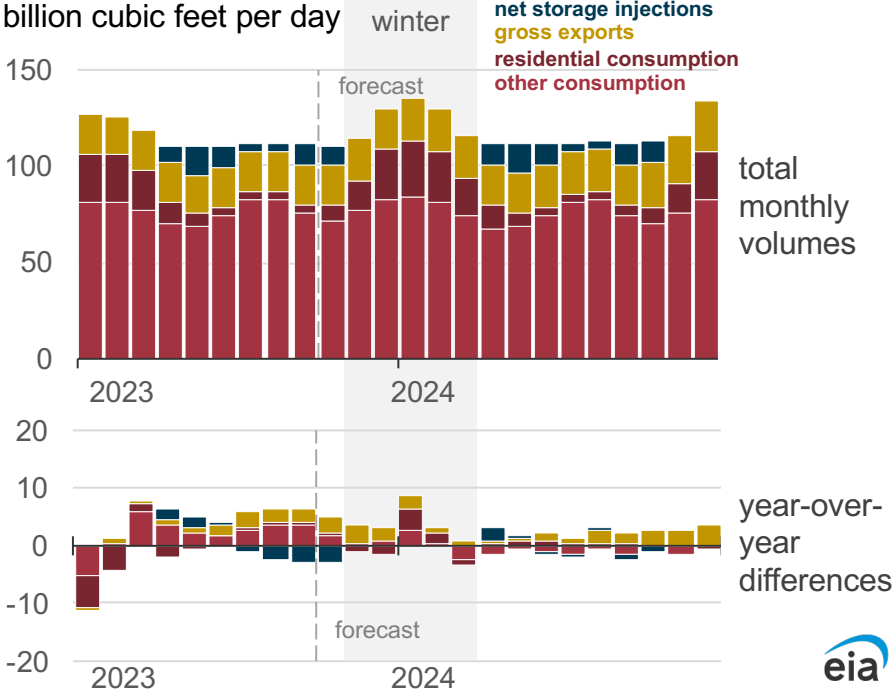


Natural gas production has continued to increase

Natural gas supply



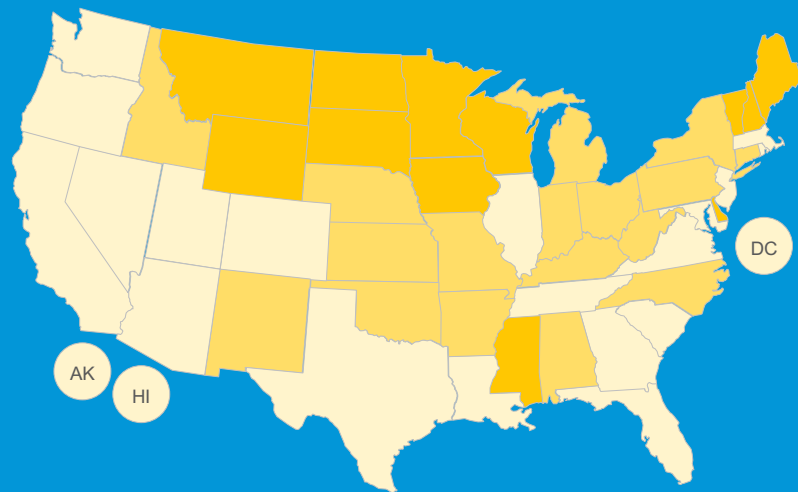
Natural gas disposition



Data source: Short-Term Energy Outlook



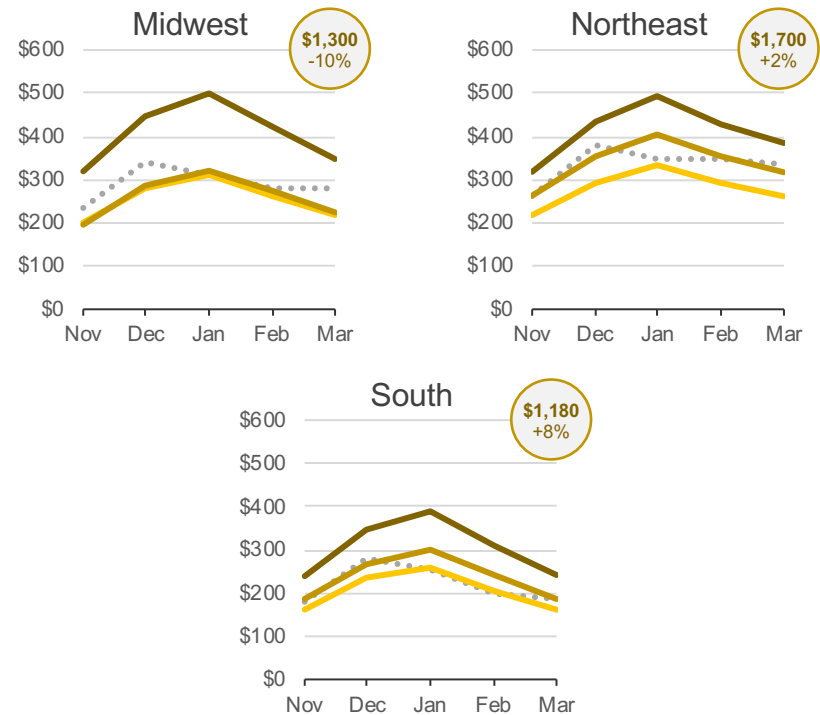
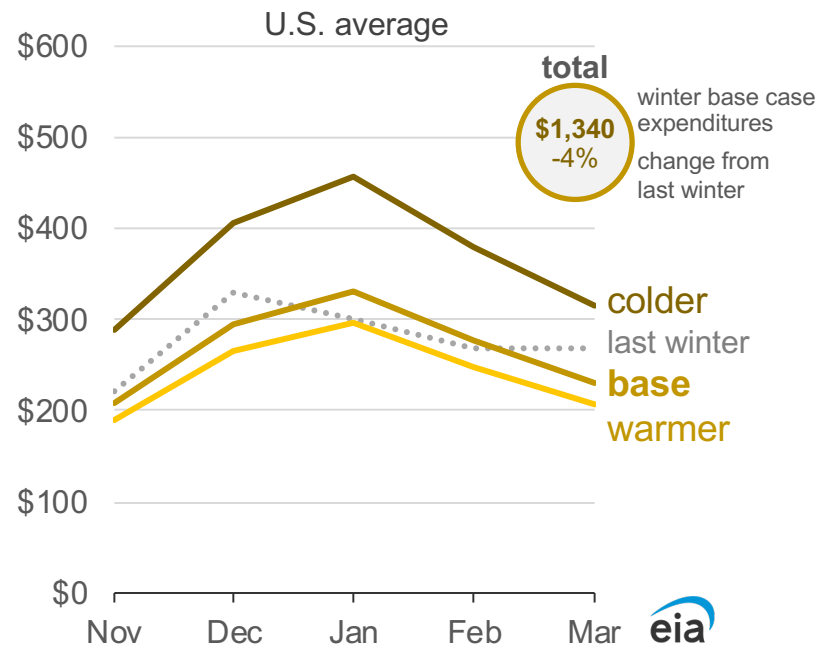
Propane



Propane expenditures forecast to be **slightly lower** this winter

Monthly propane expenditures

nominal dollars

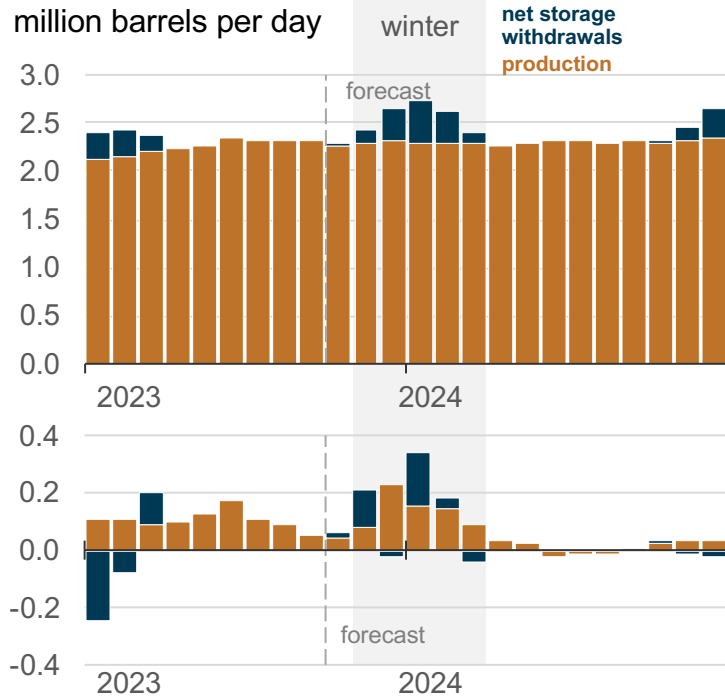


Data source: Winter Fuels Outlook

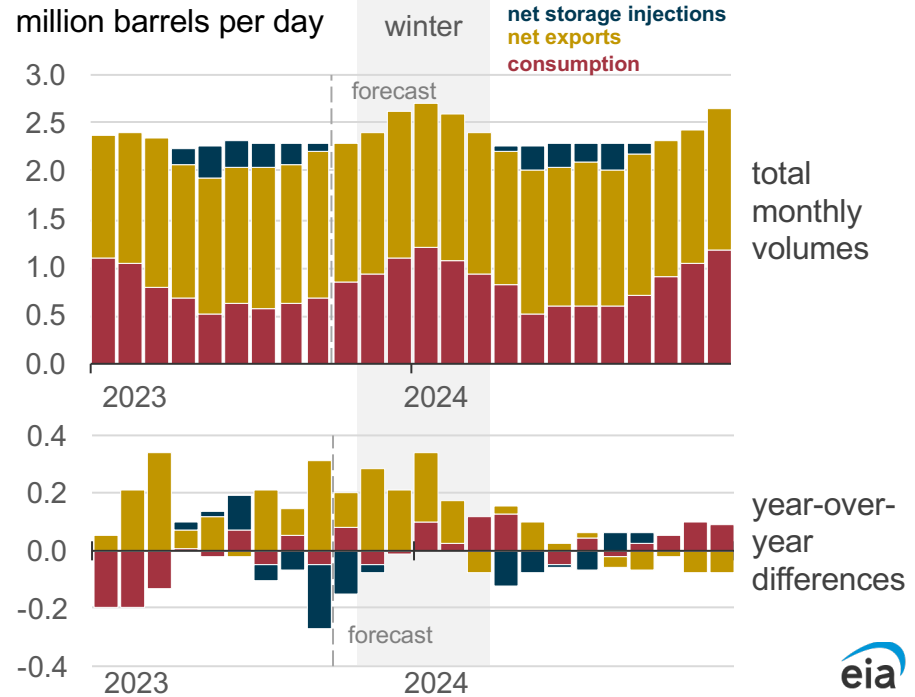


Increases in propane **consumption** can be met with **withdrawals** from inventory; **exports** remain relatively high

Propane supply



Propane disposition

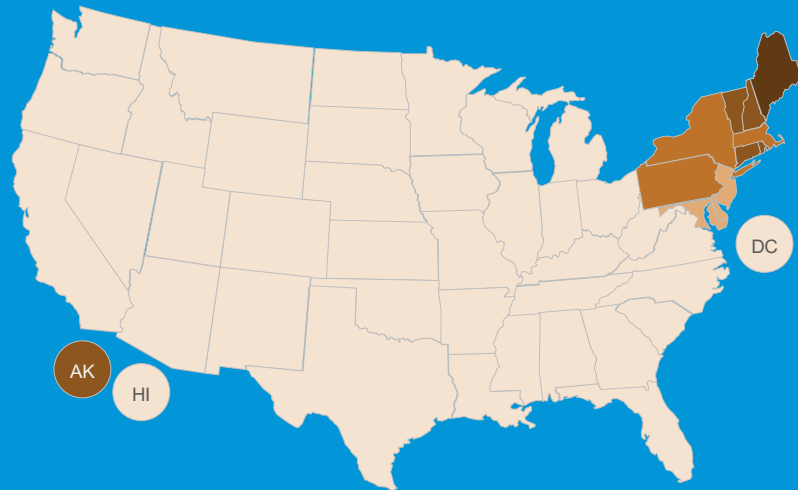


Data source: Short-Term Energy Outlook

Note: Trade volumes include propylene



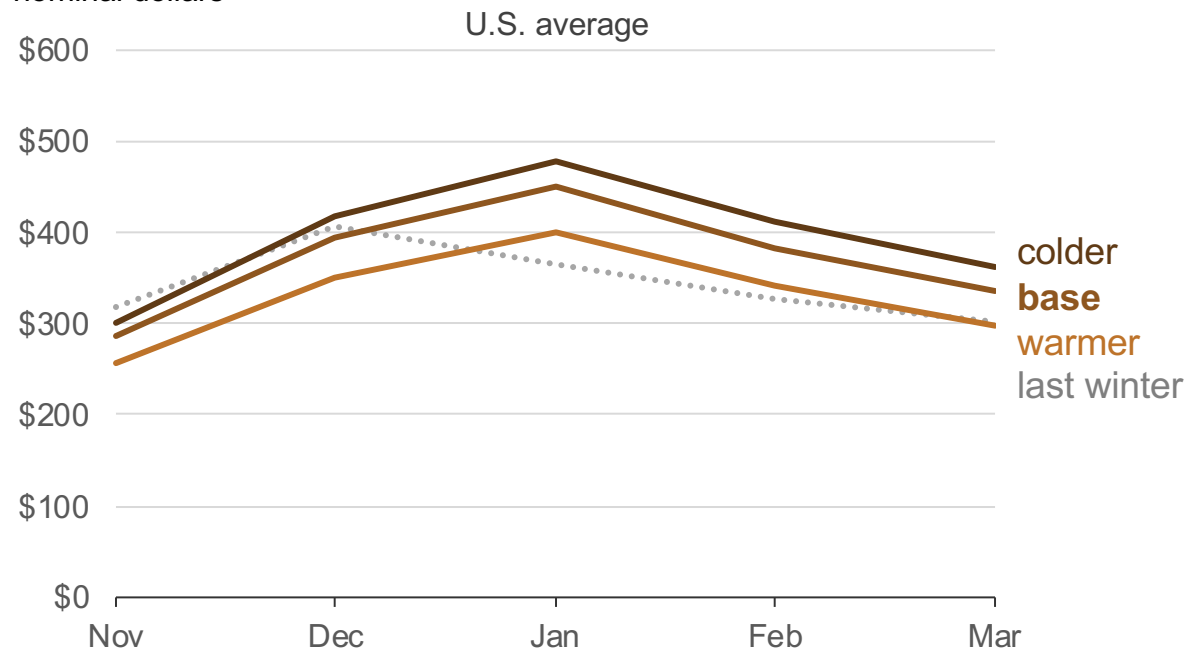
Heating Oil



Heating oil expenditures forecast to be **higher than** last winter

Monthly heating oil expenditures

nominal dollars



total
\$1,850
+8%
winter base case expenditures
change from last winter



Data source: Winter Fuels Outlook

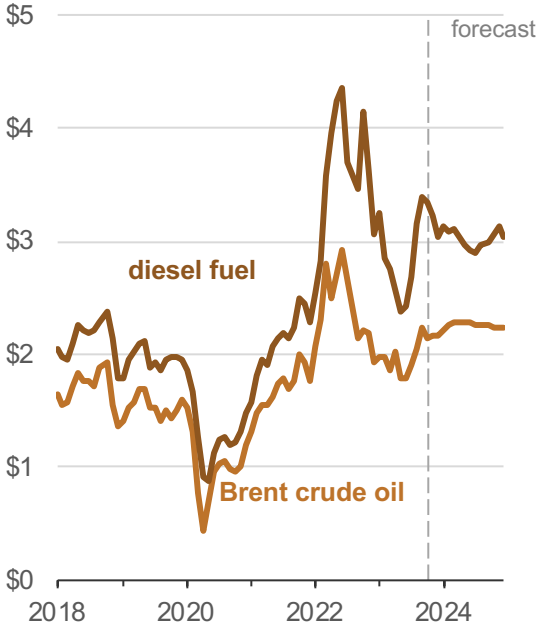


2023–2024 Winter Fuels Outlook Webinar
October 17, 2023

The diesel crack spread is lower than it was last year, but still high and encouraging refinery production

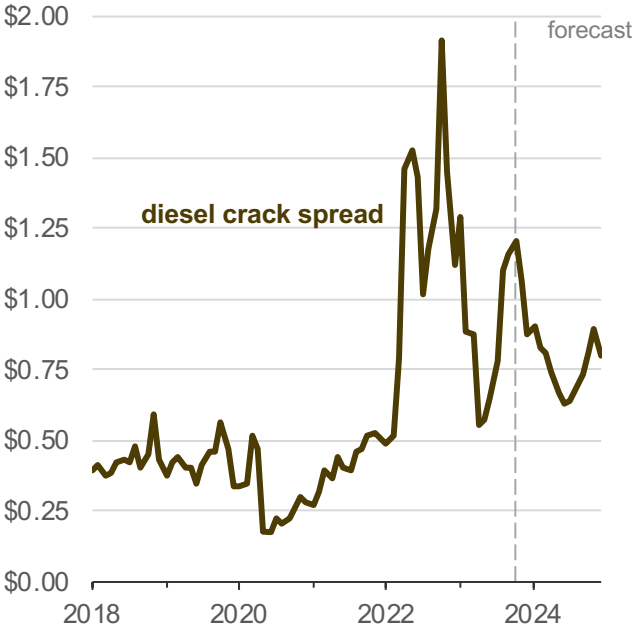
Wholesale spot prices

dollars per gallon



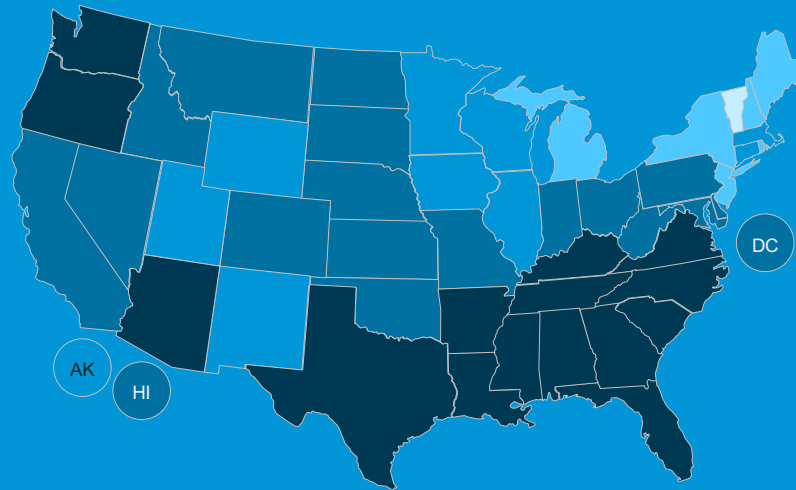
Crack spread

dollars per gallon



Data source: Short-Term Energy Outlook

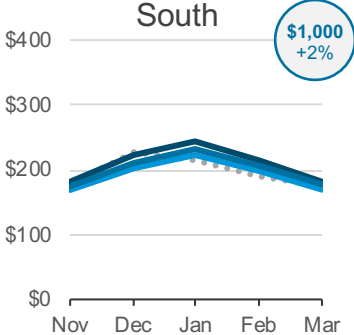
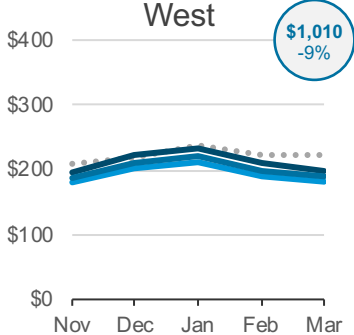
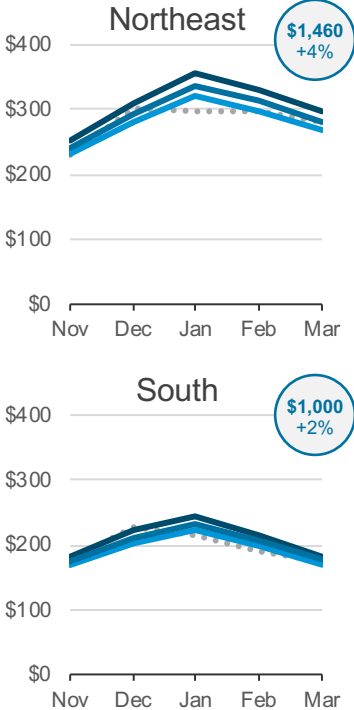
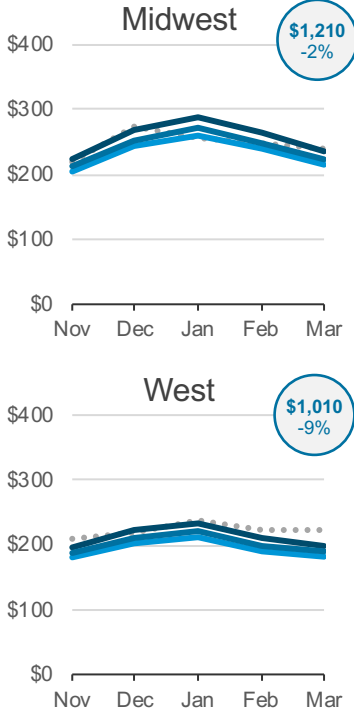
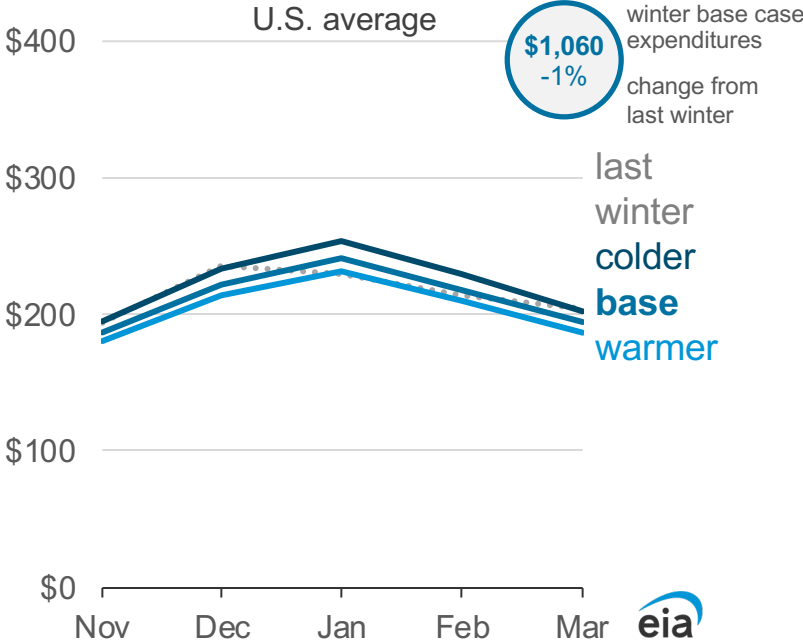
Electricity



Electricity expenditures forecast to be similar to last winter

Monthly electricity expenditures

nominal dollars



Data source: Winter Fuels Outlook



EIA resources

Winter Fuels Outlook updates and other EIA resources

- We plan to update household consumption, price, and expenditure estimates with each edition of the *Short-Term Energy Outlook* through March 2024
- 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](#)