

# 2023/24 Winter Propane Market Update



---

*October 4, 2023 | Washington, DC*

*(Inventory data as of 09/29/23; residential heating fuel prices as of 10/02/23)*

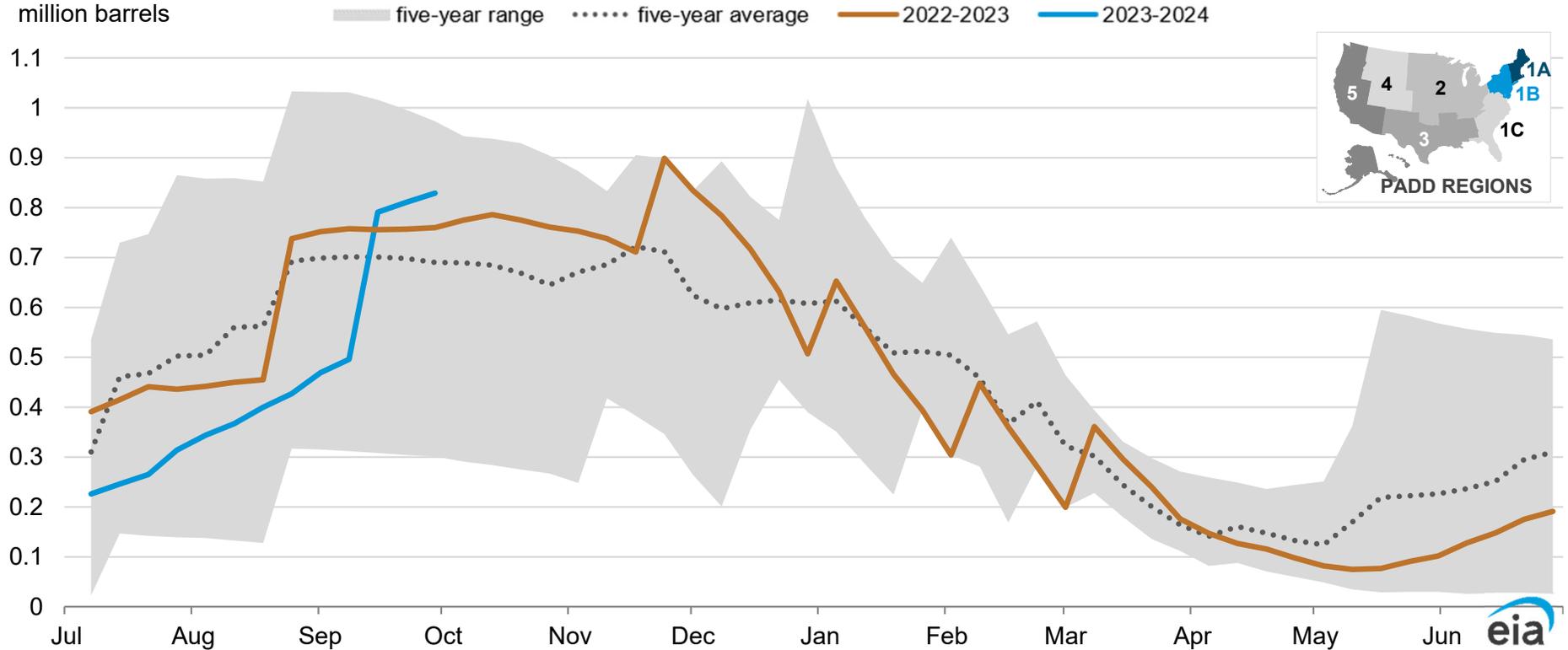
*By*

*U.S. Energy Information Administration*



# PADD 1A (New England) propane inventories above the 5-year average

PADD 1A propane inventories  
million barrels

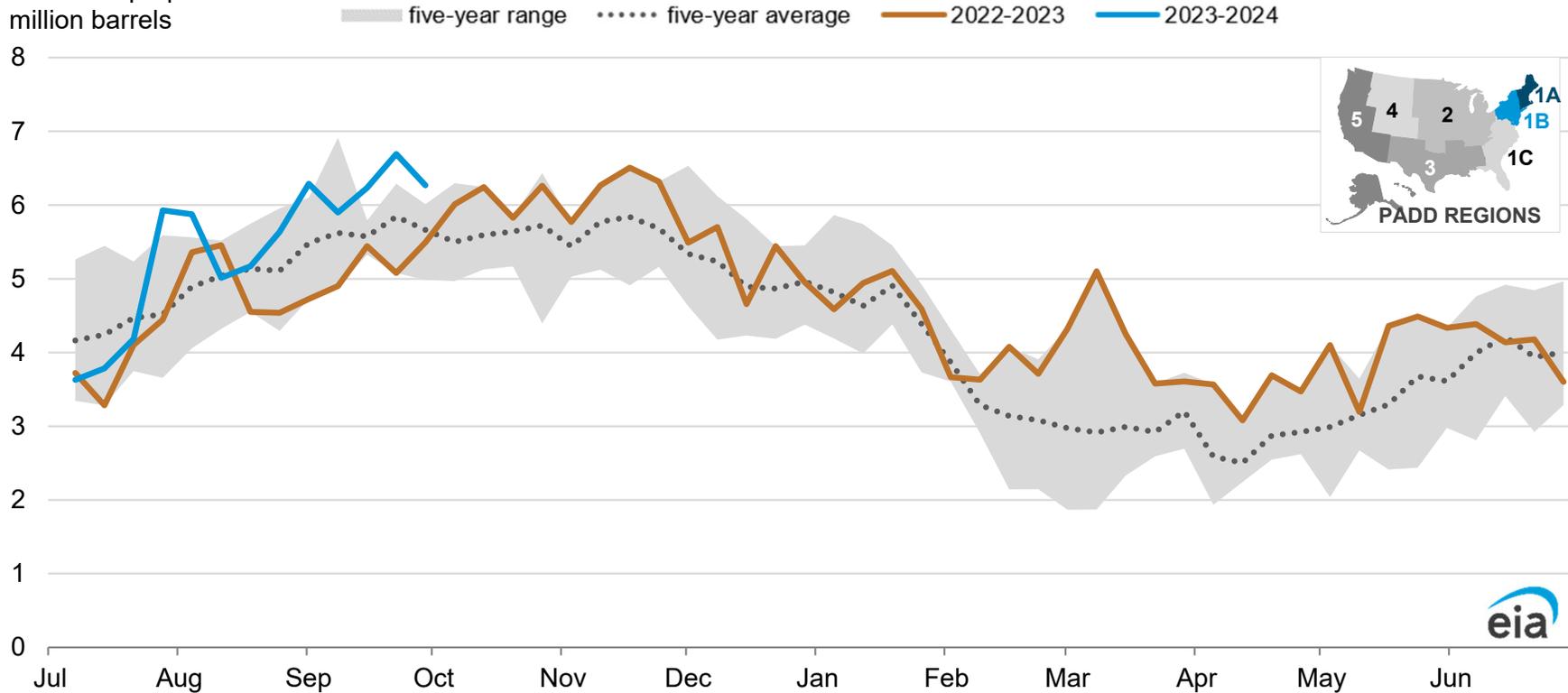


Data source: EIA, *Weekly Petroleum Status Report*, October 04, 2023

Note: PADD 1A is composed of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.  
 data through September 29, 2023

# PADD 1B (Mid-Atlantic) propane inventories above the 5-year range

PADD 1B propane inventories  
million barrels

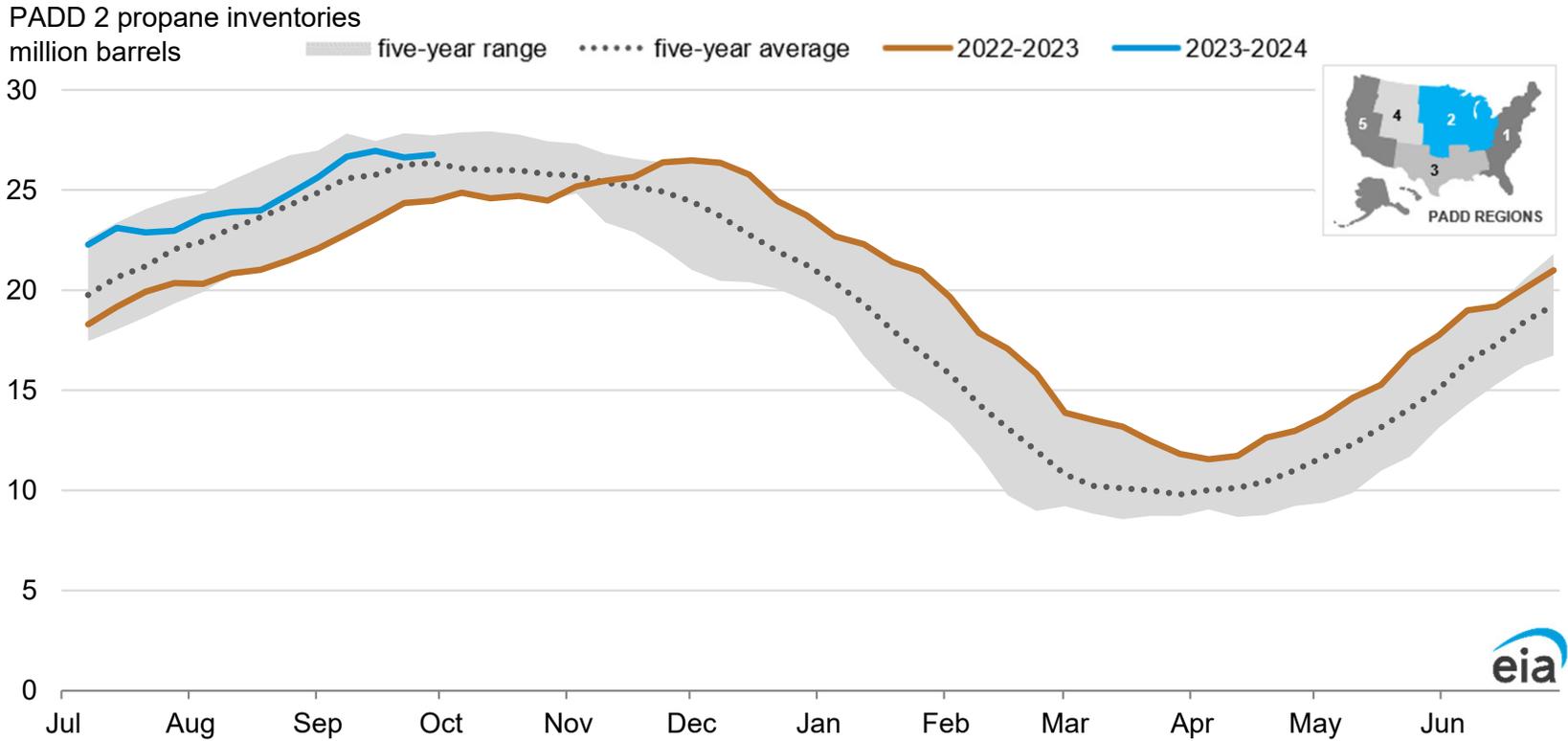


Data source: EIA, *Weekly Petroleum Status Report*, October 04, 2023

Note: PADD 1A is composed of Delaware, District of Columbia, Maryland, New Jersey, New York, and Pennsylvania.

data through September 29, 2023

# PADD 2 (Midwest) propane inventories above the 5-year average

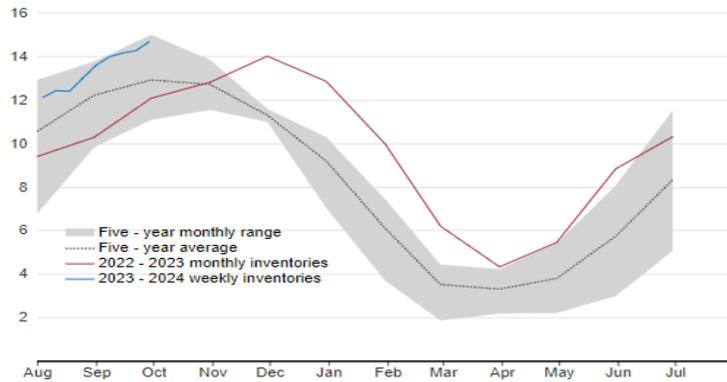


Data source: EIA, *Weekly Petroleum Status Report*, October 04, 2023

Note: PADD 2 is composed of Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio Oklahoma, South Dakota, Tennessee, and Wisconsin.  
 data through September 29, 2023

# Selected state propane\* inventories

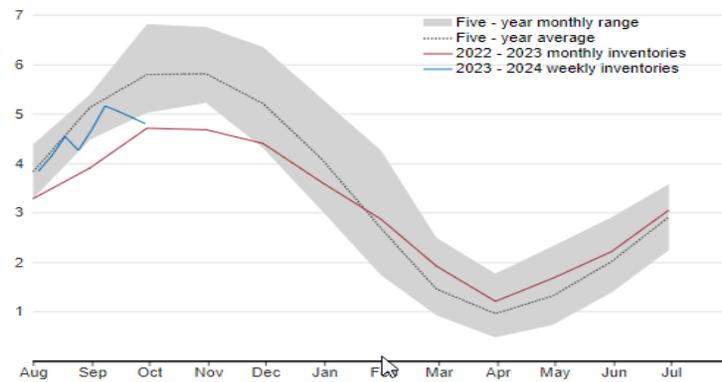
**Kansas propane/propylene stock at refineries, terminals, and natural gas plants (not pipelines)**  
million barrels



Source: U.S. Energy Information Administration, *Petroleum Supply Monthly and Weekly Petroleum Status Report*



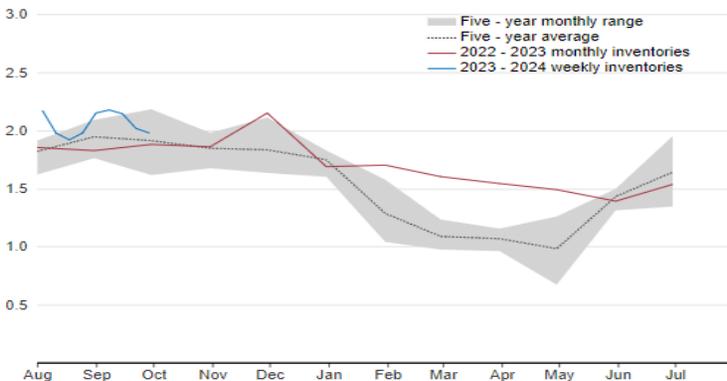
**Michigan propane/propylene stock at refineries, terminals, and natural gas plants (not pipelines)**  
million barrels



Source: U.S. Energy Information Administration, *Petroleum Supply Monthly and Weekly Petroleum Status Report*



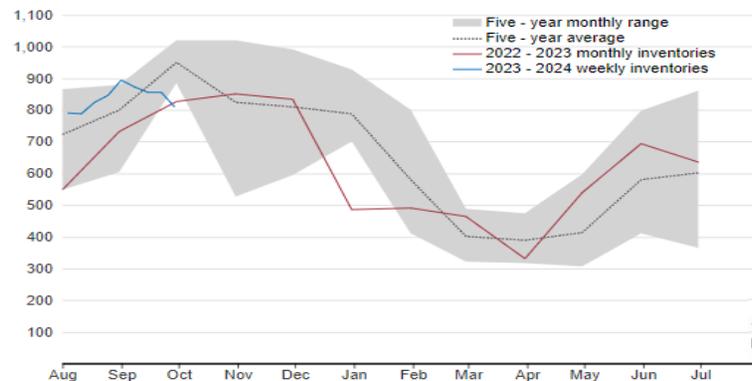
**Illinois, Indiana, Ohio propane/propylene stock at refineries, terminals, and natural gas plants (not pipelines)**  
million barrels



Source: U.S. Energy Information Administration, *Petroleum Supply Monthly and Weekly Petroleum Status Report*



**Iowa, Minnesota, Wisconsin propane/propylene stock at refineries, terminals, and natural gas plants (not pipelines)**  
thousand barrels



Source: U.S. Energy Information Administration, *Petroleum Supply Monthly and Weekly Petroleum Status Report*

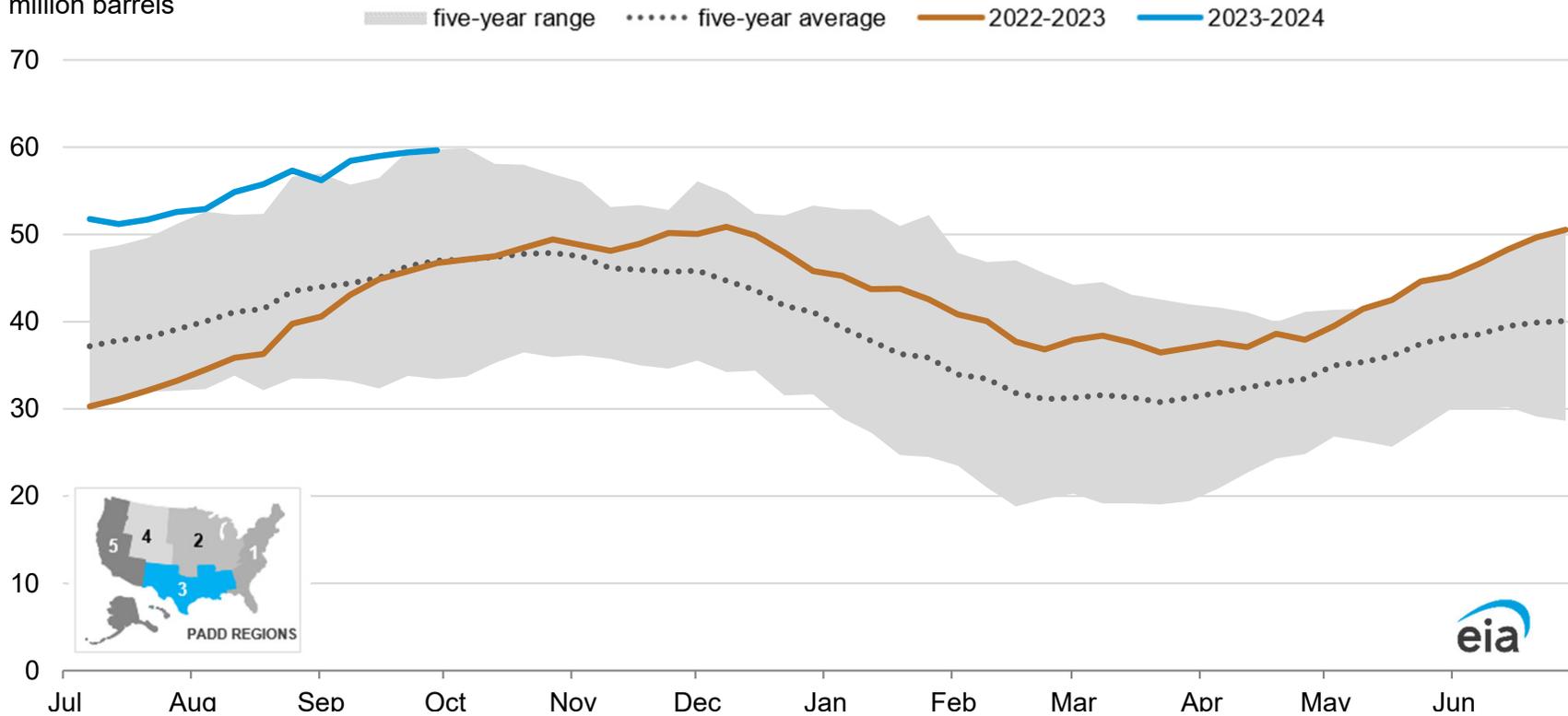


Data Source: EIA, *Weekly Petroleum Status Report*, data through September 29, 2023

\*propane/propylene for fuel use only

# PADD 3 (Gulf Coast) propane inventories at the top of the 5-year range

PADD 3 propane inventories  
million barrels

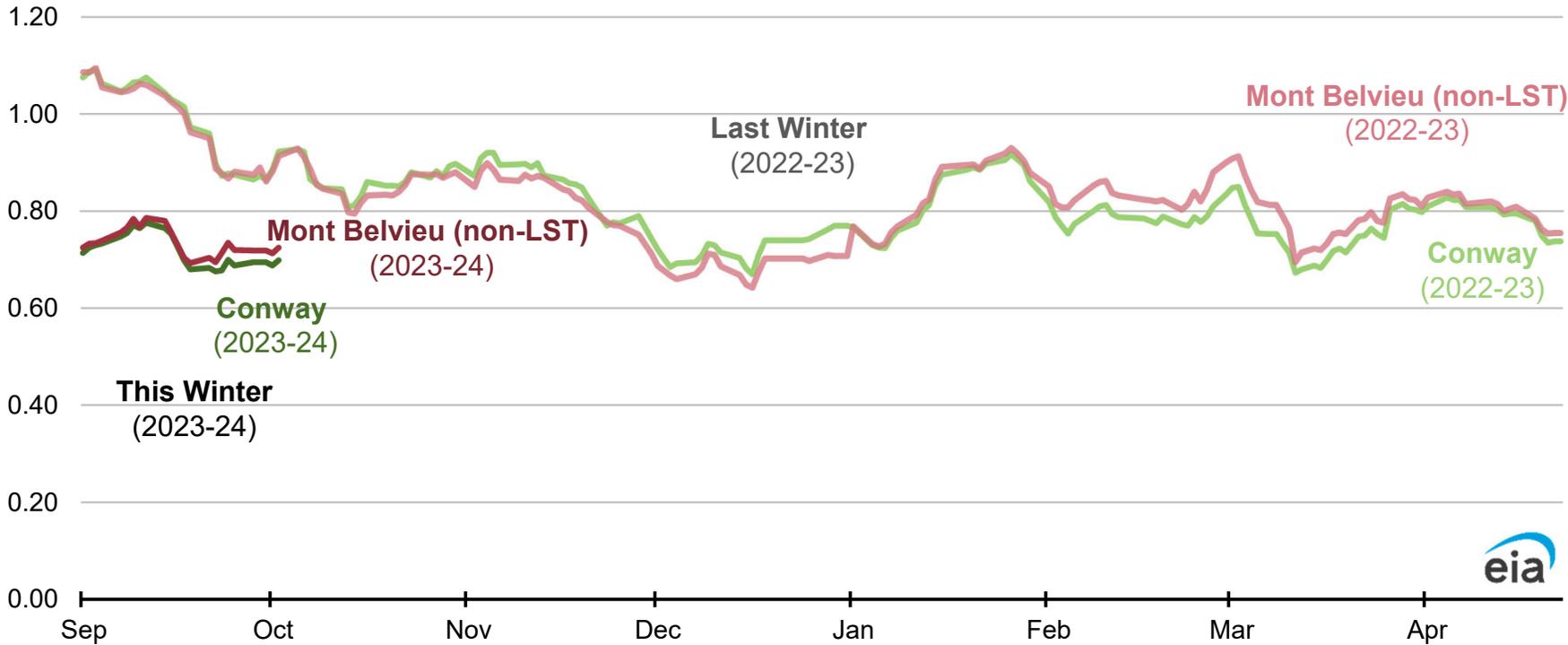


Data source: EIA, *Weekly Petroleum Status Report*, October 04, 2023

Note: PADD 3 is composed of Alabama, Arkansas, Louisiana, Mississippi, New Mexico, and Texas.  
data through September 29, 2023

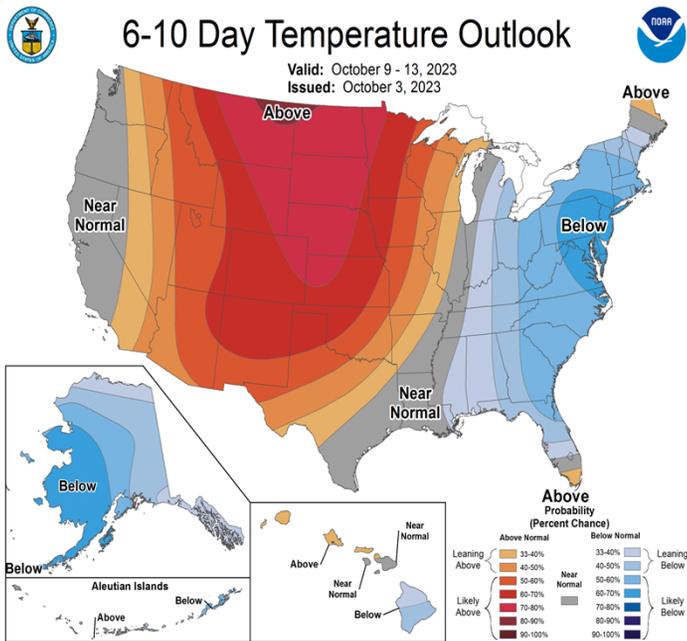
# Mt. Belvieu, TX to Conway, KS propane spot prices moving together; Mt. Belvieu at a 3¢/gal premium since mid September

Propane spot prices (Conway, KS and Mont Belvieu, TX)  
dollars per gallon



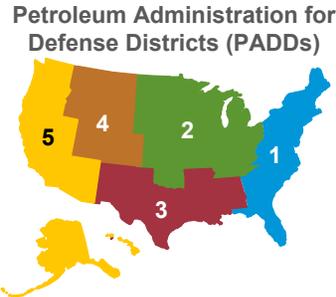
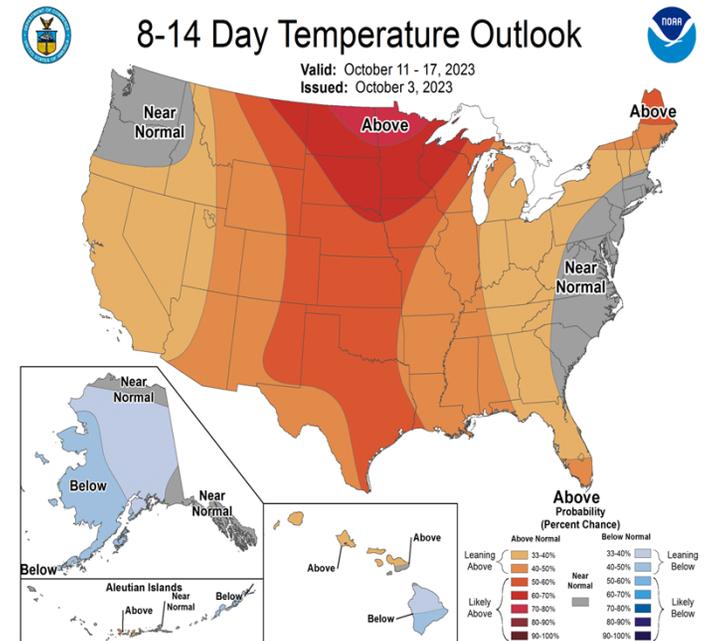
Data source: Bloomberg L.P., data through October 3, 2023

# NOAA's projected temperatures: October 9 – Oct. 13, 2023, and October 11 – Oct. 17, 2023



A = temperatures above normal  
N = equal chance that temperatures are above normal, normal, or below normal  
B = temperatures below normal

Data source: [NOAA](https://www.noaa.gov), Oct. 3, 2023

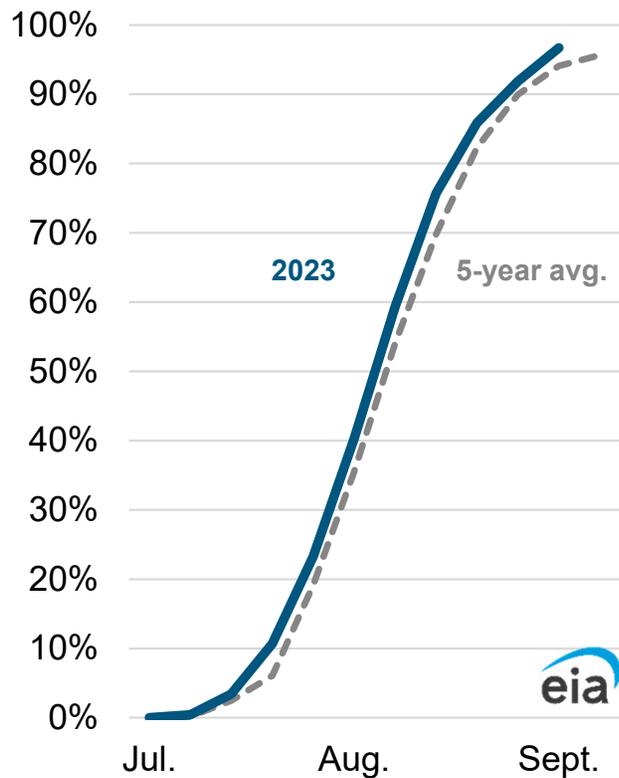


- NOAA forecasts a chance of above-normal temperatures from the Rockies (PADD 5), to parts of the Great Lakes, with the highest probability in the northern Rockies and upper-Plains. The Atlantic Coast is expected to have below-normal temperatures, stretching past the Appalachian states. Later in the forecast, most of the country excluding Alaska is forecast to have above-normal temperatures.
- The cooler-than normal start to the heating season forecasted for PADD 1 could result in above-average propane demand over the coming week for this time of year. Consumption in the rest of the country will likely fall below-average for this time of year through mid-October.

# With corn crop maturity slightly ahead of the 5-year average, we expect low propane consumption for grain drying this season

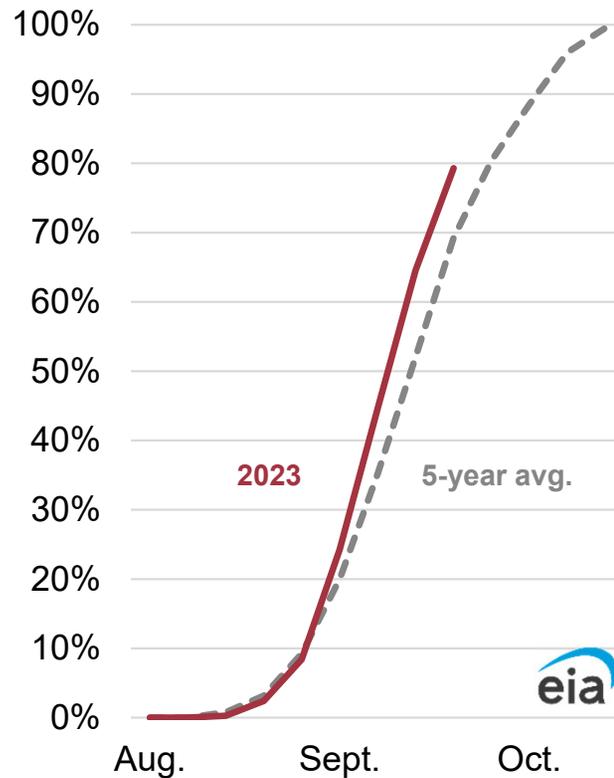
corn dough progress

%, by week



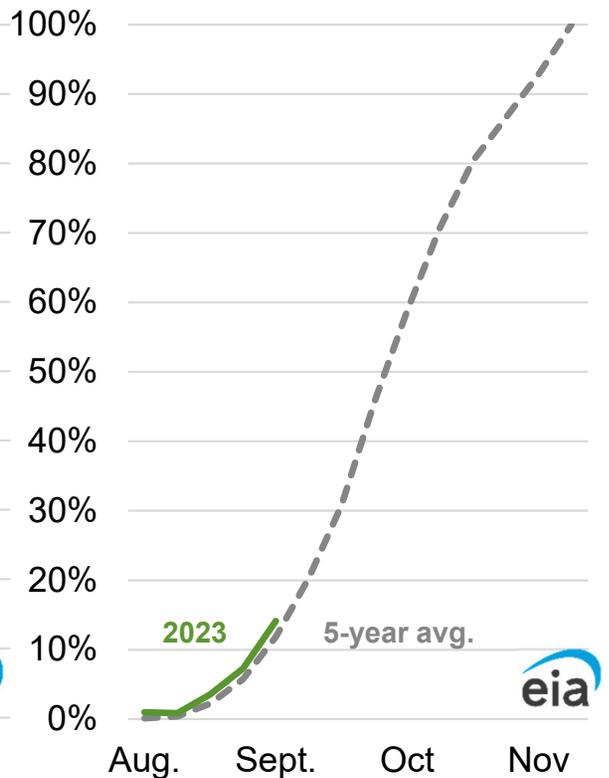
corn maturity progress

%, by week



corn harvest progress

%, by week

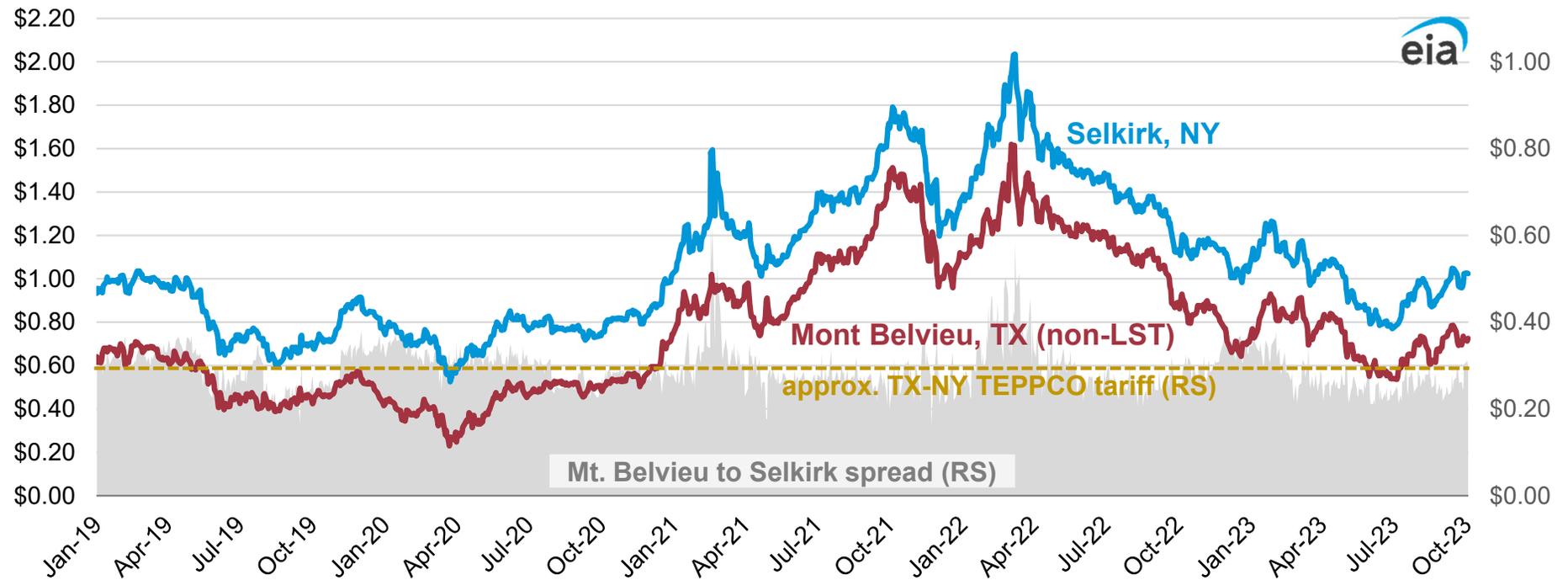


Data source: USDA [National Agricultural Statistics Service](#), Oct. 2, 2023

# Northeast propane prices, generally dictated by tariff on TEPPCO\* pipeline, currently high enough to pull product from the Gulf Coast

propane spot prices  
dollars per gallon

propane price spread  
dollars per gallon

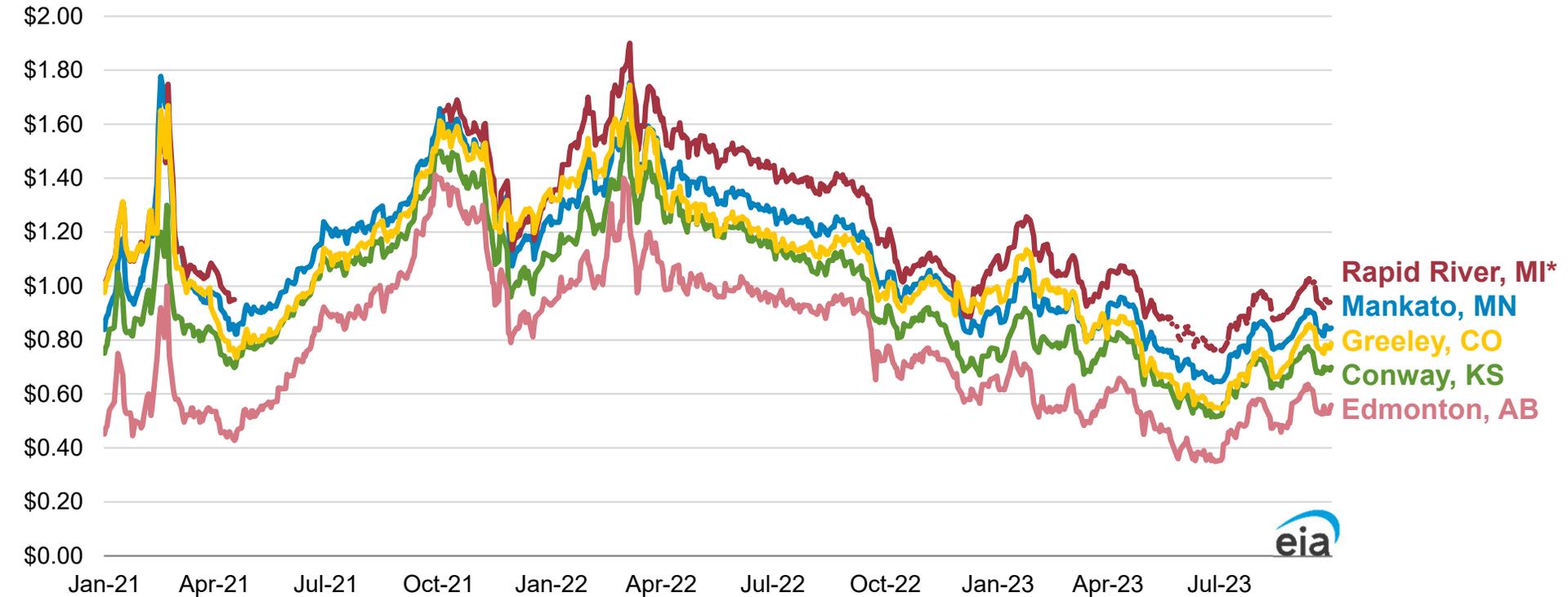


TEPPCO = Enterprise TE Products Pipeline Company LLC

Data source: Bloomberg L.P., data through October 3, 2023; Enterprise Products Partners L.P., [Effective Tariffs](#), FERC No. 54.69.0

# Prices at major Midwest market centers closely correlated with Conway, now at lower premium to Edmonton hub propane spot prices

propane spot prices  
dollars per gallon



Data source: Bloomberg L.P., data through October 3, 2023

\*Rapid River, MI rack prices not consistently available during summer months

# Propane prices at international hubs are at higher premiums relative to North American hubs than this time last year

propane spot prices  
dollars per gallon

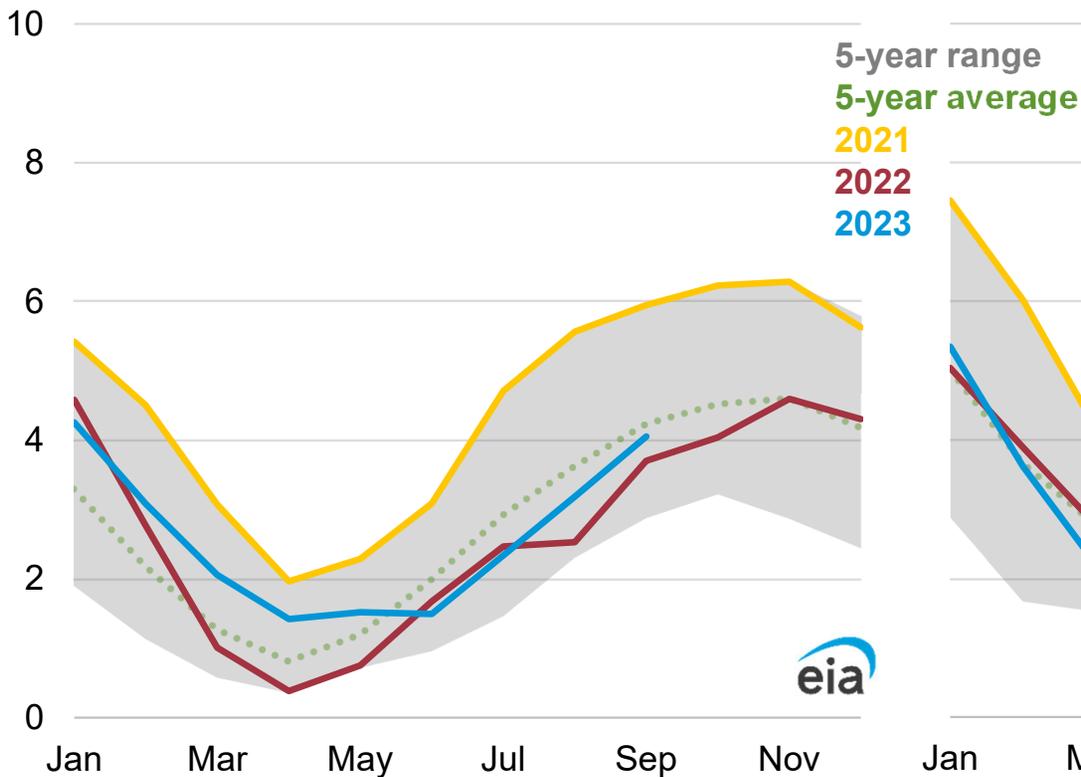


Data source: Bloomberg L.P., data through October 3, 2023

# September 1 inventories in Eastern Canada are near the 5-year average; inventories in Western Canada are below the 5-year average

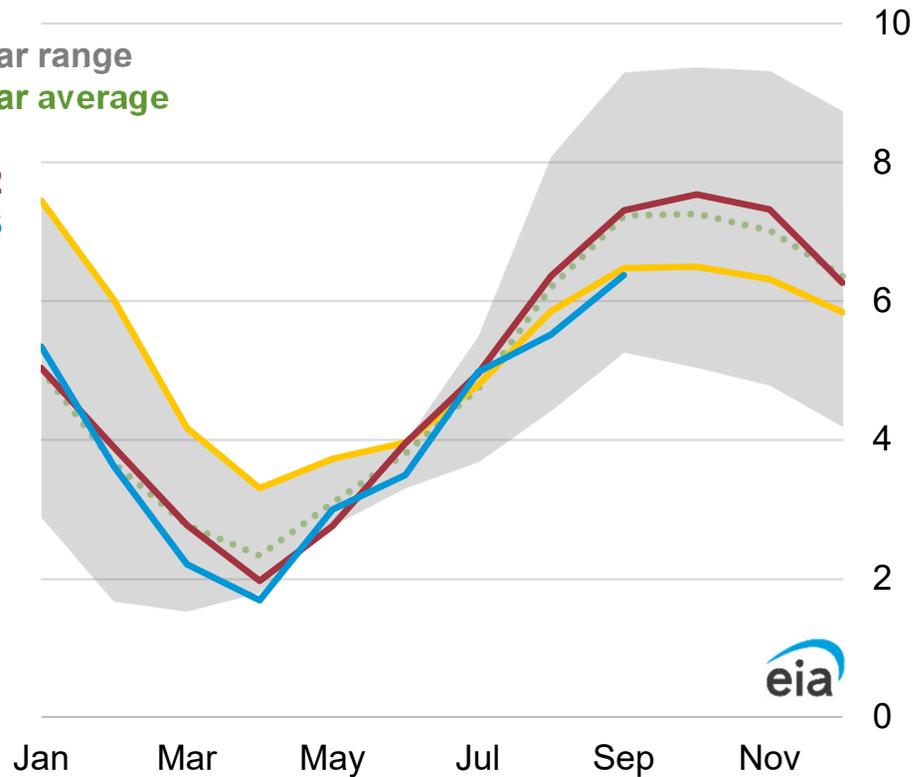
propane inventories in Eastern Canada

million barrels



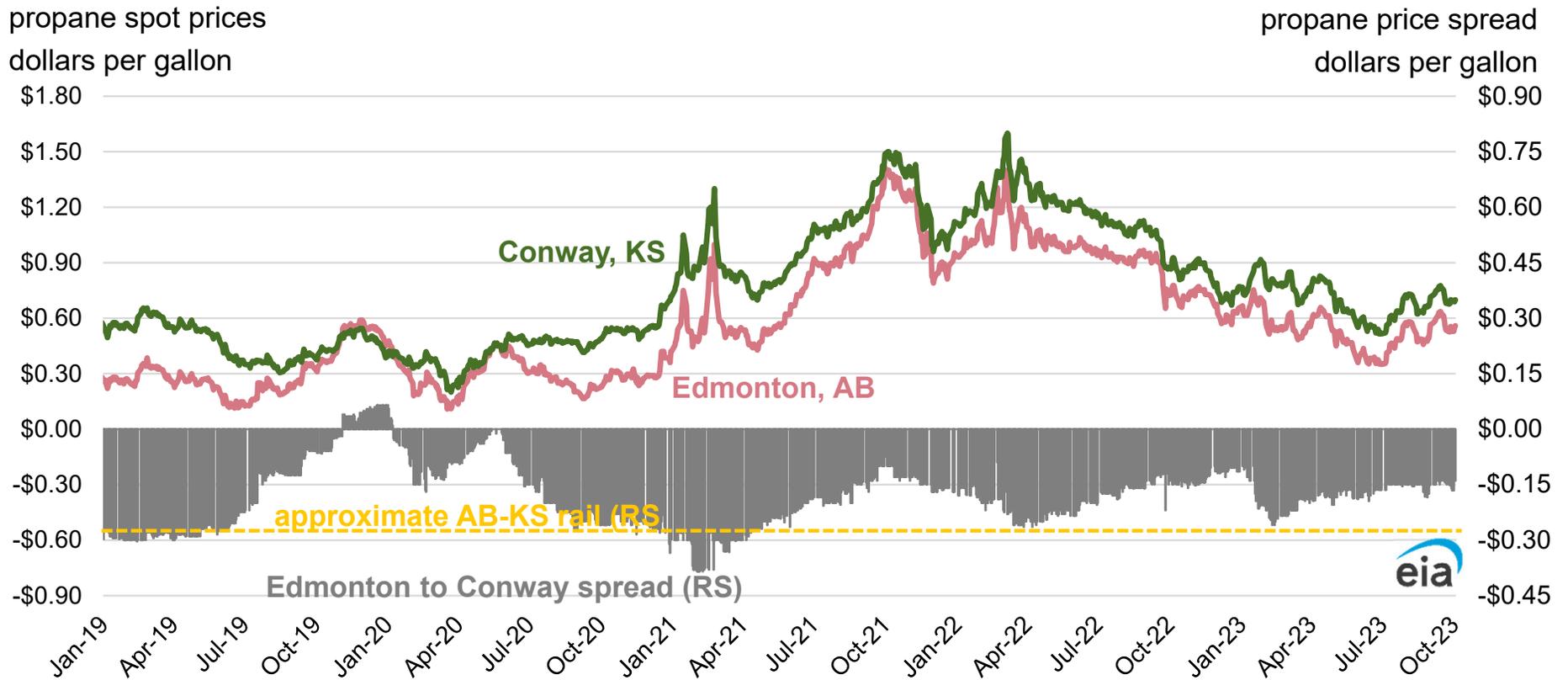
propane inventories in Western Canada

million barrels



Data source: [Canada Energy Regulator](#), September 27, 2023

# Discount for Edmonton propane relative to Conway, around ~15¢/gal, not enough to cover rail transportation costs into most Midwest markets

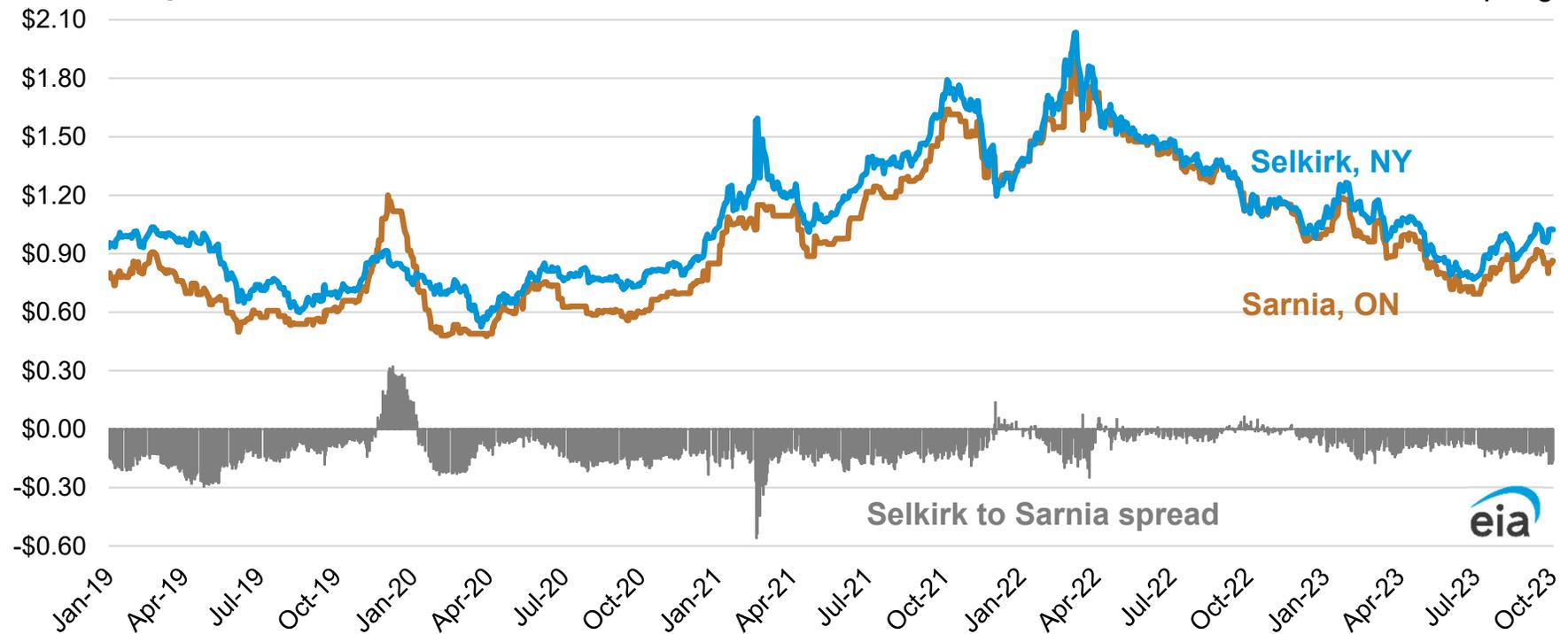


Data source: Bloomberg L.P., data through October 3, 2023

## Prices at the Sarnia, Ontario propane storage hub, at slight discount to Selkirk, NY, the main pricing point for New England and the Mid Atlantic markets

propane spot prices  
dollars per gallon

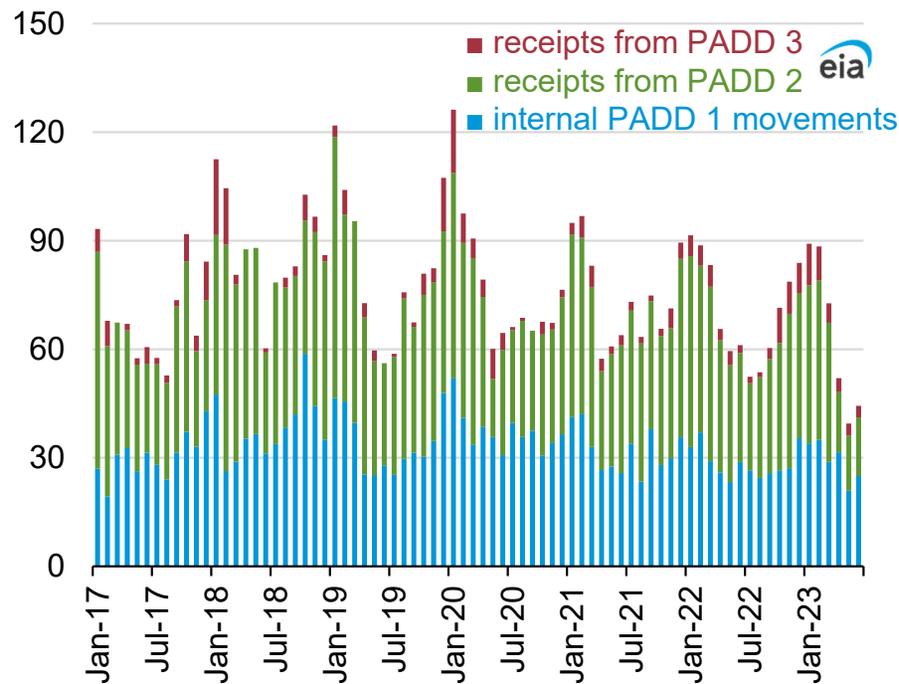
propane price spread  
dollars per gallon



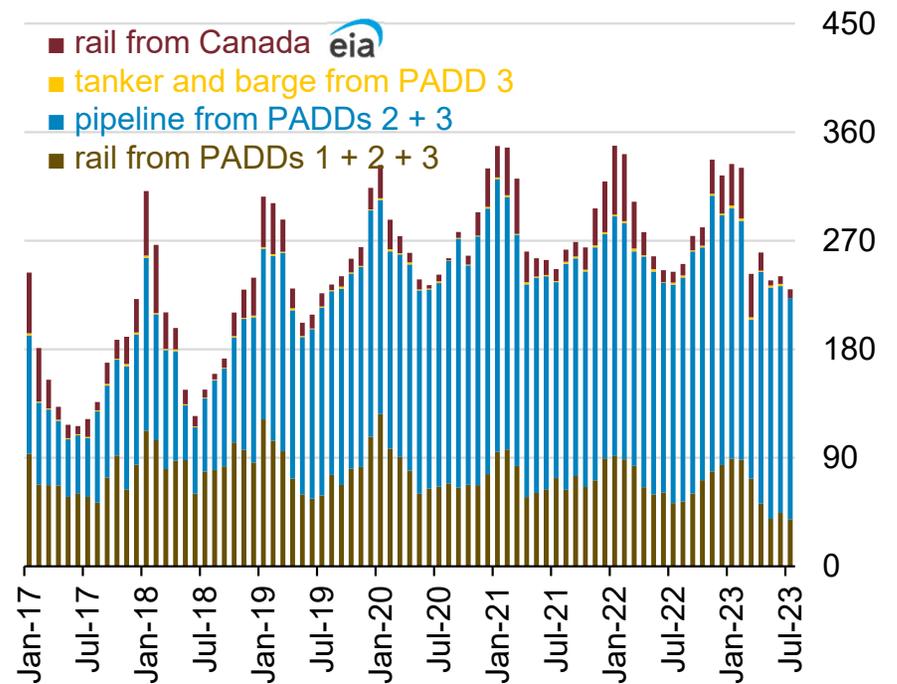
Data source: Bloomberg L.P., data through October 3, 2023

# In PADD 1 (East Coast) rail remains vital to propane supply, even with increased pipeline capacity

East Coast propane receipts by rail  
thousand barrels per day



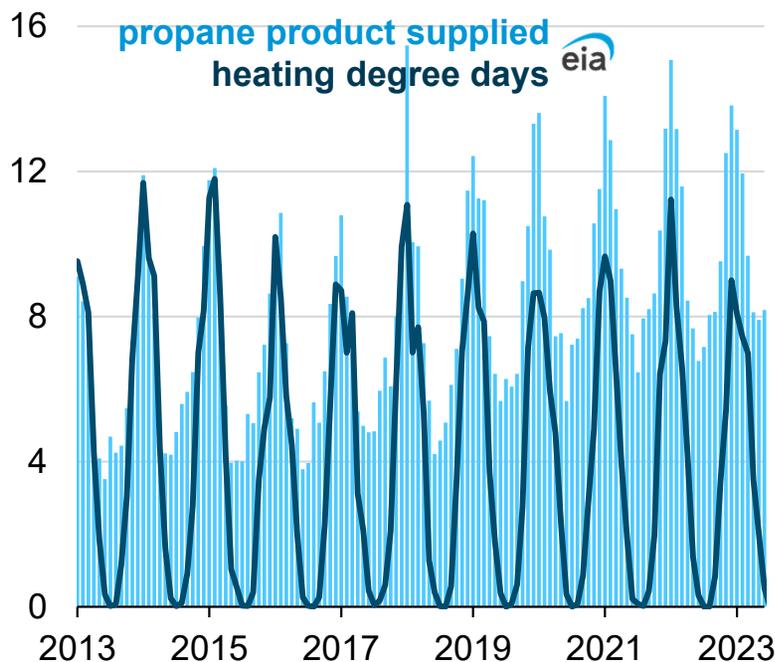
East Coast propane receipts by mode  
thousand barrels per day



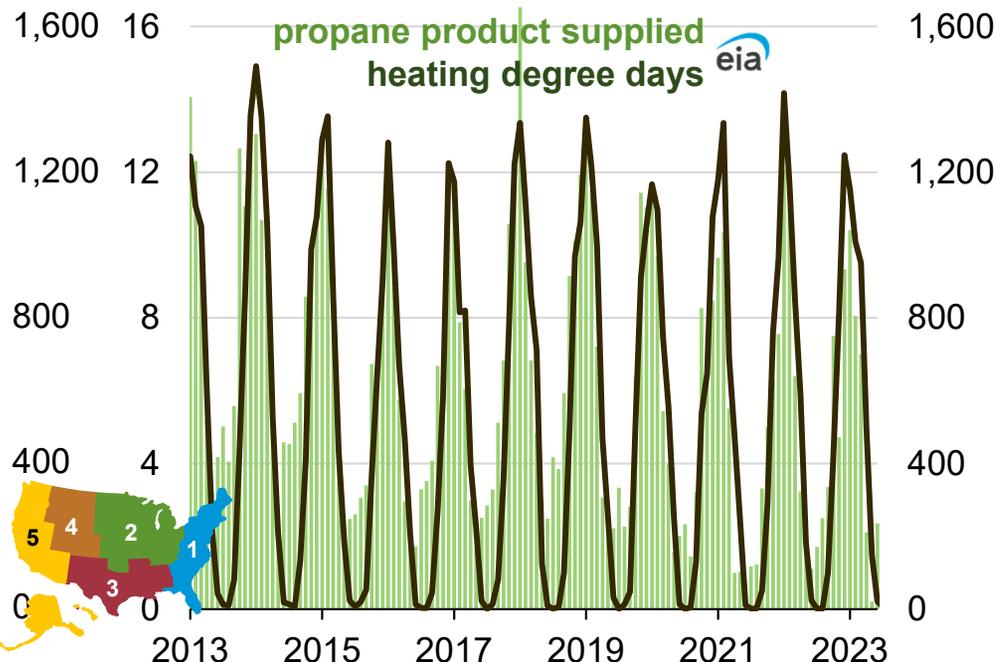
Data source: EIA, [Petroleum Supply Monthly](#)

# Heating demand remains the primary determinant of propane consumption in PADDs 1 (East Coast) and 2 (Midwest)

PADD 1 propane product supplied  
million barrels/month



PADD 2 propane product supplied  
HDDs million barrels/month

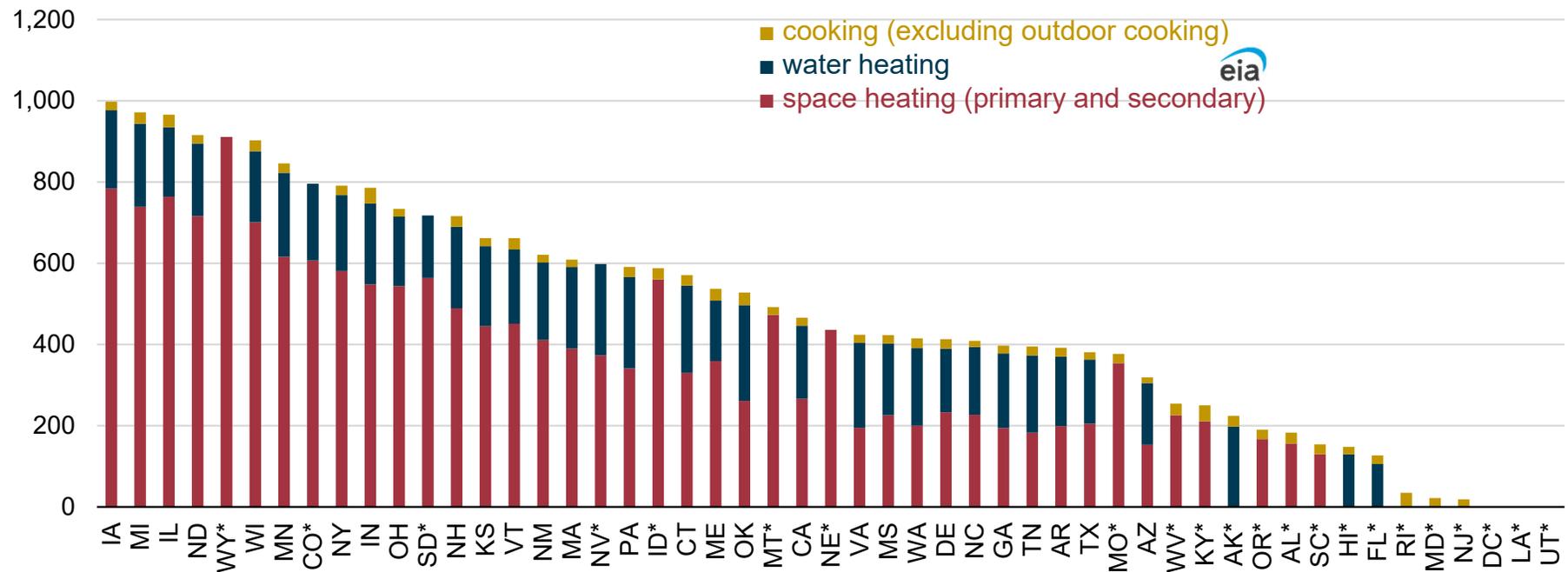


Note: heating degree days are weighted for propane

Data source: EIA, [Propane Product Supplied](#); National Oceanic and Atmospheric Administration, [Weighted Heating Degree Days](#)

# Recently-released Residential Energy Consumption Survey data allows for disaggregation of propane use at the household level

2020 residential propane consumption by state and end use  
gallons per household



\*Data withheld because either the relative standard error (RSE) was greater than 50% or fewer than 10 households in reporting sample.

Data source: EIA, [Residential Energy Consumption Survey](#)

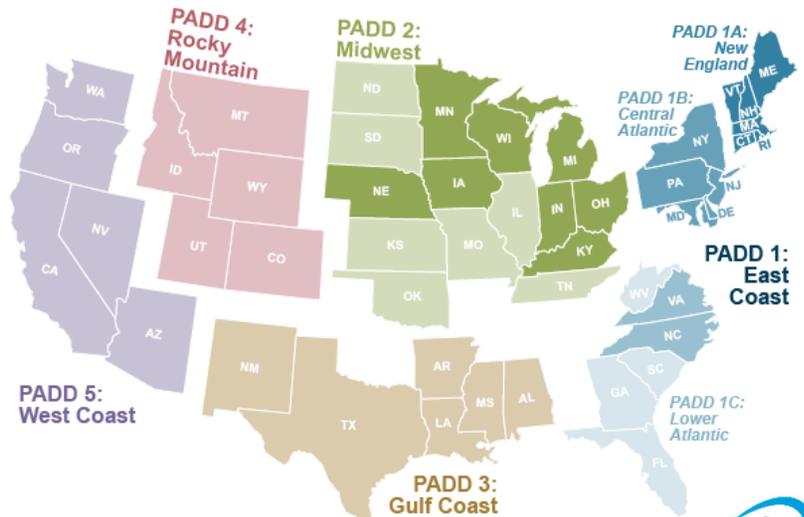
## State Heating Oil and Propane Program (SHOPP) updates

- SHOPP is a collaborative program between states and EIA that provides weekly wholesale and retail prices for heating oil and propane at the state level.
- EIA expanded SHOPP in October 2014 to include 14 additional states in propane price data collection. In 2016, EIA added 10 new states to its wholesale propane price publication. This should be taken into consideration when comparing the average prices for the U.S., PADD 1, PADD 1B, PADD 1C, and PADD 2 averages.
- EIA has been providing more granular inventory data to states on a weekly basis since the 2016/2017 heating season.
- EIA implemented two new samples for residential heating oil and propane in October 2019. Under the new [sampling methodology](#), EIA is publishing [standard errors](#) for SHOPP prices.

# Maps of states participating in Winter Fuels Survey

## Petroleum Administration for Defense Districts

Winter Heating Fuels Survey — PADD 1 and 2 represented States



### HEATING OIL



#### PADD 1: East Coast

##### PADD 1A: New England

Connecticut New Hampshire  
Maine Rhode Island  
Massachusetts Vermont

##### PADD 1B: Central Atlantic

Delaware New Jersey  
District of Columbia New York  
Maryland Pennsylvania

#### PADD 2: Midwest

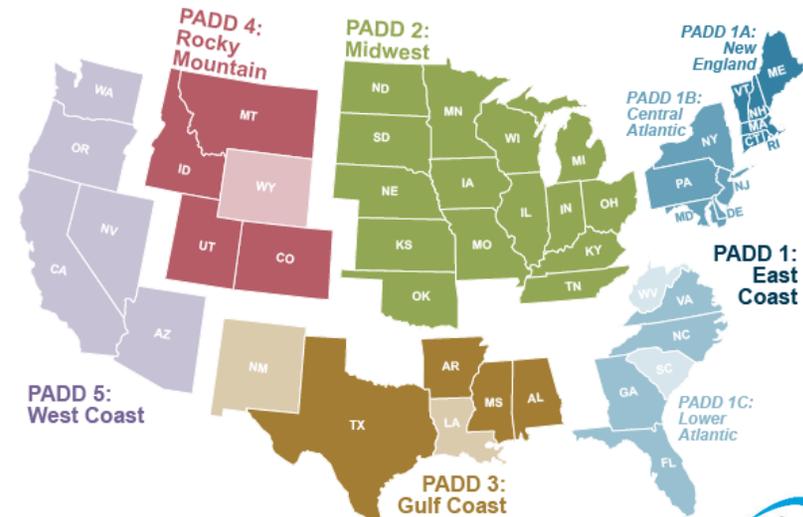
Indiana Minnesota  
Iowa Nebraska  
Kentucky Ohio  
Michigan Wisconsin

##### PADD 1C: Lower Atlantic

North Carolina Virginia

## Petroleum Administration for Defense Districts

Winter Heating Fuels Survey — PADD 1, 2, 3, and 4 represented States



### PROPANE



#### PADD 1: East Coast

##### PADD 1A: New England

Connecticut  
Maine  
Massachusetts  
New Hampshire  
Rhode Island  
Vermont

##### PADD 1B: Central Atlantic

Delaware  
Maryland  
New Jersey  
New York  
Pennsylvania

##### PADD 1C: Lower Atlantic

Florida  
Georgia  
North Carolina  
Virginia

#### PADD 2: Midwest

Illinois Nebraska  
Indiana North Dakota  
Iowa Ohio  
Kansas Oklahoma  
Kentucky South Dakota  
Michigan Tennessee  
Minnesota Wisconsin  
Missouri

#### PADD 3: Gulf Coast

Alabama Mississippi  
Arkansas Texas

#### PADD 4: Rocky Mountain

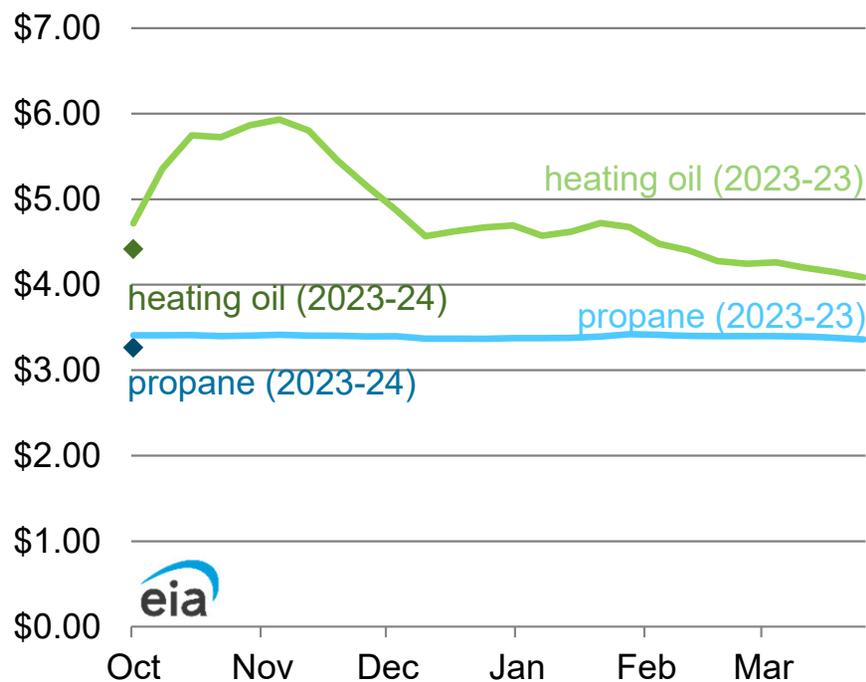
Colorado Montana  
Idaho Utah

Data source: EIA, [Heating Oil and Propane Update](#)

# Retail propane prices at the start of this heating season are lower compared to the end of the last heating season in both PADDs 1 and 2

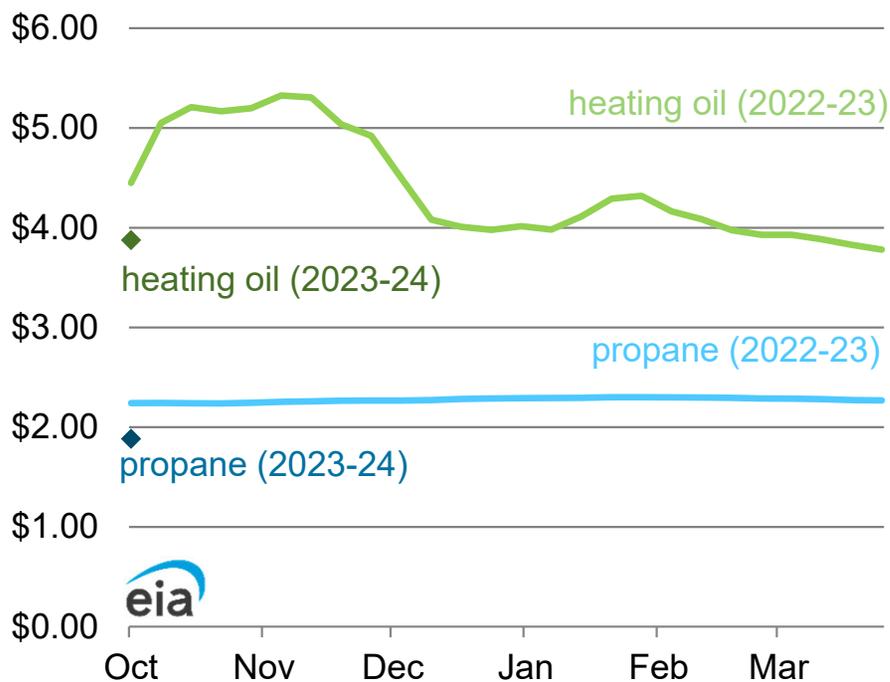
## PADD 1

dollars per gallon



## PADD 2

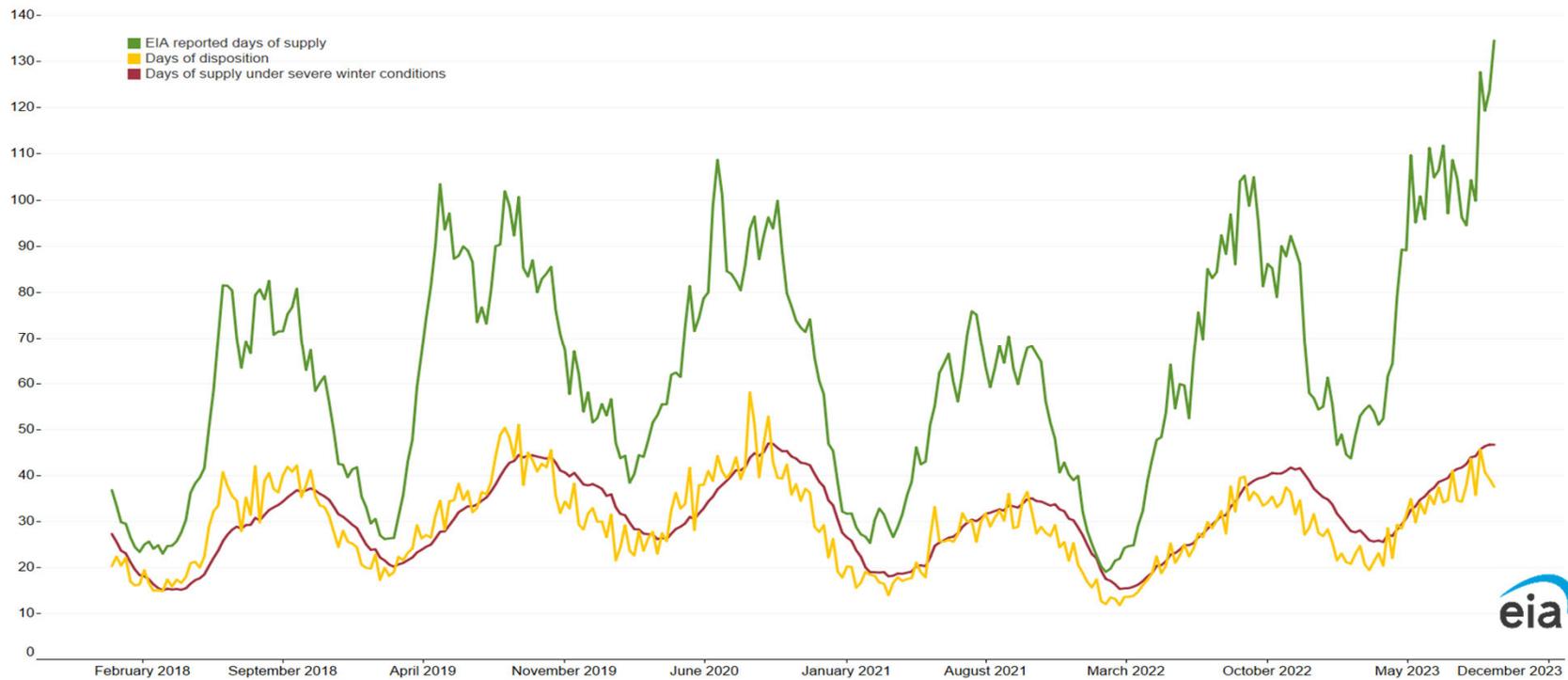
dollars per gallon



Data source: State Heating Oil and Propane Program, data through October 2, 2023

# Various days-of supply/disposition measures

U.S. weekly stocks of propane/propylene  
days of supply & disposition



Note: \*disposition = domestic product supplied + exports

Data source: U.S. Energy Information Administration, Weekly Petroleum Status Report, data through September 29, 2023

For more information, please see EIA's [webinar on Propane Market Indicators and Measures of Supply Adequacy](#)

## For more information

U.S. Energy Information Administration home page | [www.eia.gov](http://www.eia.gov)

State Energy Portal | [www.eia.gov/state](http://www.eia.gov/state)

Winter Heating Fuels Site | [www.eia.gov/special/heatingfuels/](http://www.eia.gov/special/heatingfuels/)

Movements of Propane by Rail |

[http://www.eia.gov/dnav/pet/pet\\_move\\_railNA\\_a\\_EPLLPA\\_RAIL\\_mbb1\\_m.htm](http://www.eia.gov/dnav/pet/pet_move_railNA_a_EPLLPA_RAIL_mbb1_m.htm)

Today in Energy | [www.eia.gov/todayinenergy](http://www.eia.gov/todayinenergy)

Short-Term Energy Outlook | [www.eia.gov/steo](http://www.eia.gov/steo)

Energy Explained – Hydrocarbon Gas Liquids |

[http://www.eia.gov/energyexplained/index.cfm?page=hgls\\_home](http://www.eia.gov/energyexplained/index.cfm?page=hgls_home)

Annual Energy Outlook | [www.eia.gov/aeo](http://www.eia.gov/aeo)

International Energy Outlook | [www.eia.gov/ieo](http://www.eia.gov/ieo)

Monthly Energy Review | [www.eia.gov/mer](http://www.eia.gov/mer)