

Overall Energy & Fuels Markets Summary

- Summary of average spot prices for the following fuels (see page 1).
 - Crude oil (WTI and Brent) and natural gas (Henry Hub) average prices decreased.
 - Propane (Mt. Belvieu) average prices slightly increased compared to the prior week.
- Regional fuels inventories (see pages 2 and 3) compared to the previous week:
 - Total gasoline inventories increased 10% compared to the prior week.
 - Natural gas, ultra-low sulfur diesel (ULSD) and propane inventories all decreased, with propane stocks being down 14% compared to the prior week.
- Market influencers include:
 - Global factors include the Russian-Ukraine war and the associated geopolitical uncertainties.
 - Economic concerns related to higher interest rates, Organization of the Petroleum Exporting Countries (OPEC) crude oil production planning and outlook, and global petroleum products demand dynamics as winter heating demand increases.
- In New York/Northeast, National Oceanic and Atmospheric Administration (NOAA) forecasts leaning to likely above average temperatures over the next 6-14 days. The forecast for precipitation is likely to leaning below average for the 6-14 day outlook. (Page 6)
- NY retail prices (see pages 4 and 5) for heating and transportation fuels:
 - NY transportation regular gasoline and diesel both slightly decreased compared to the prior week.
 - Heating oil and kerosene decreased while propane slightly increased compared to the prior week.

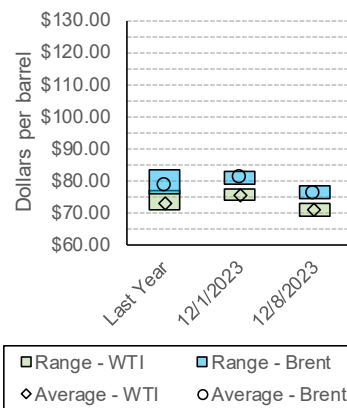
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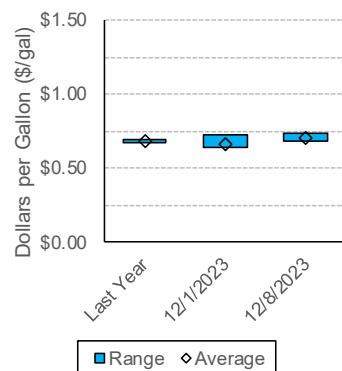
Note:
 1. Data from USEIA, see references section for detailed citations. Visualizations by NYSDERDA.
 2. Graphics summarize available USEIA data from the most recent week ending on Fridays, noted by the date.

Fundamental Fuels Market Weekly Price Summaries

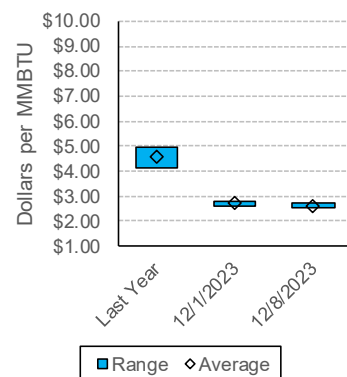
Crude Oil Spot Price



Propane Mt. Belvieu Spot Price

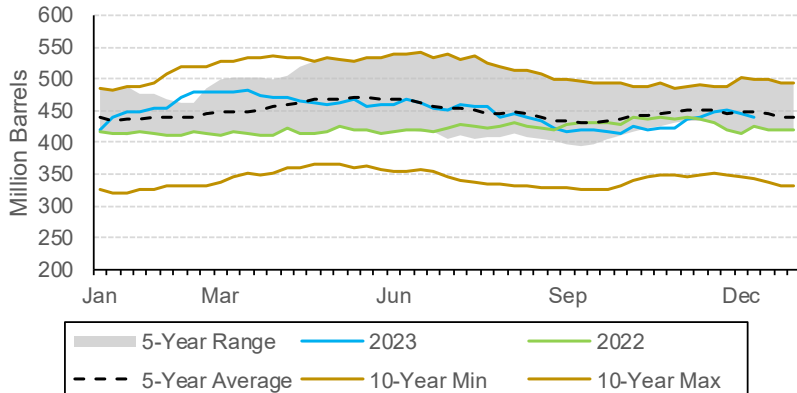


Natural Gas Henry Hub Spot Price

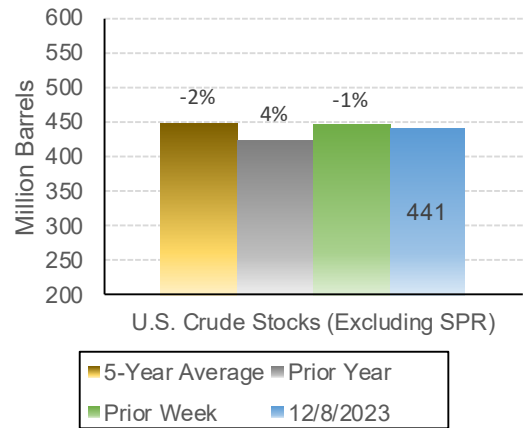


National Crude and East Region Natural Gas Inventories

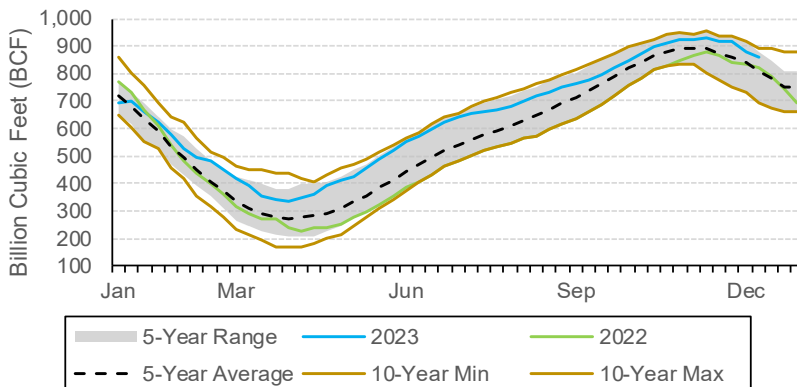
U.S. Crude Weekly Stocks (Excluding Strategic Petroleum Reserve)



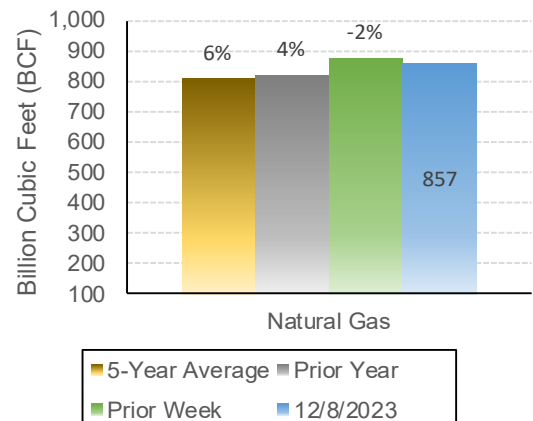
Historical Comparison



East Region: Natural Gas Working Underground Storage



Historical Comparison

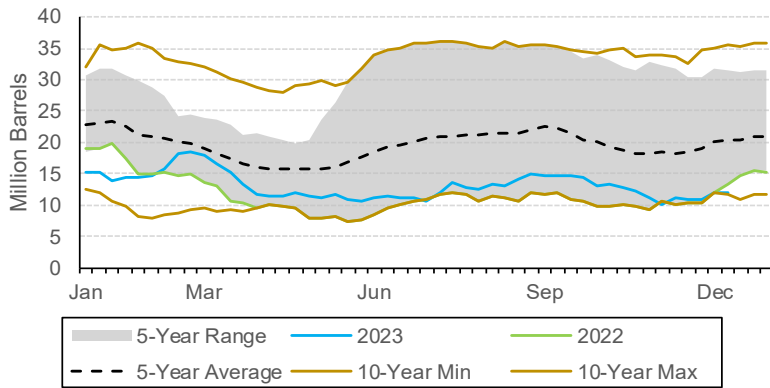


Note:

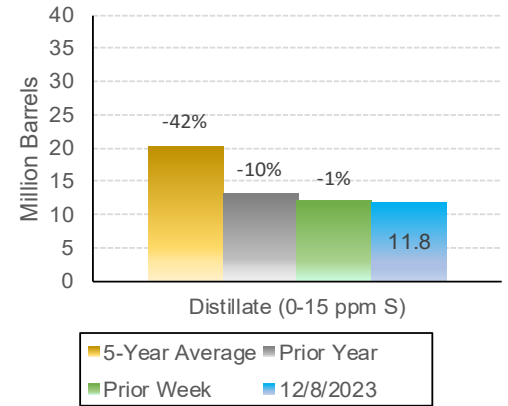
1. Data from USEIA, see references section for detailed citations. Visualizations by NYSEDA.
2. Graphics summarize available USEIA data from the most recent week ending on Fridays.
3. Historical comparison bar chart percentages reflect current week. Positive values indicate current week is greater, negative values indicate current week is less than the historical value.

Regional Inventories: Select Liquid Fuels

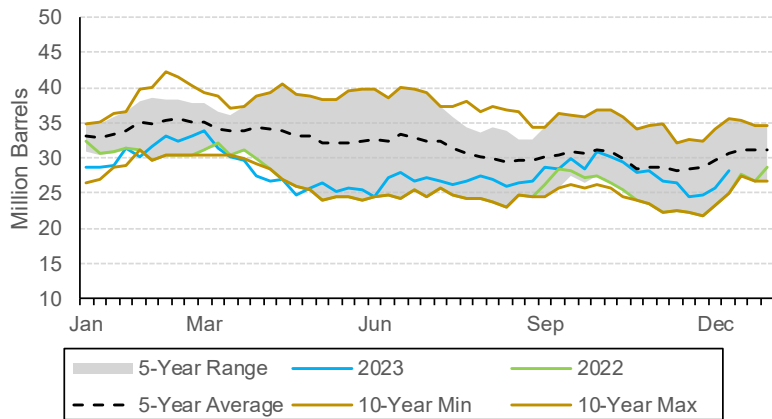
PADD 1B: Distillate (0 - 15 ppm S) Weekly Stocks



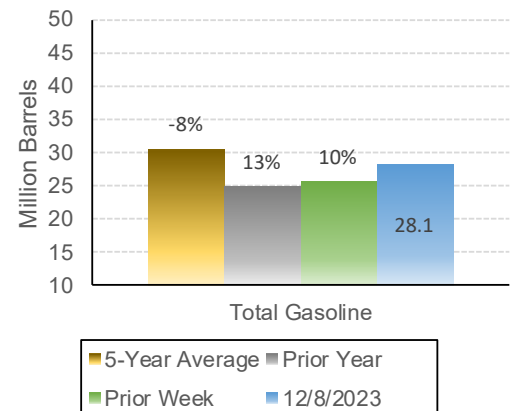
Historical Comparison



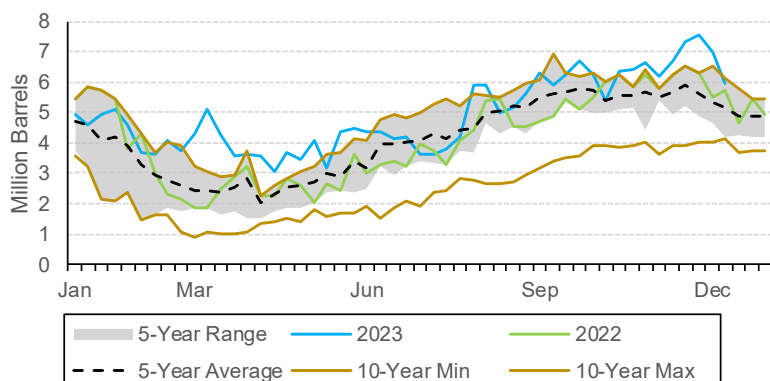
PADD 1B: Total Gasoline Weekly Stocks



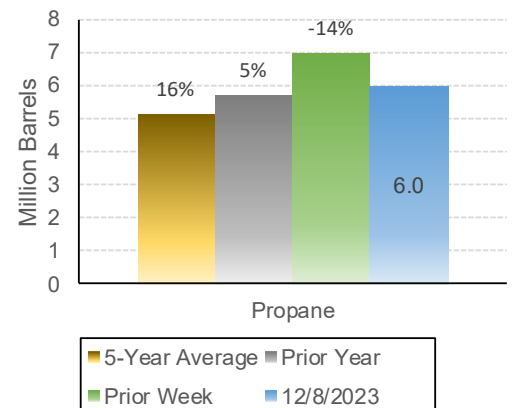
Historical Comparison



PADD 1B: Propane and Propylene Weekly Inventory



Historical Comparison

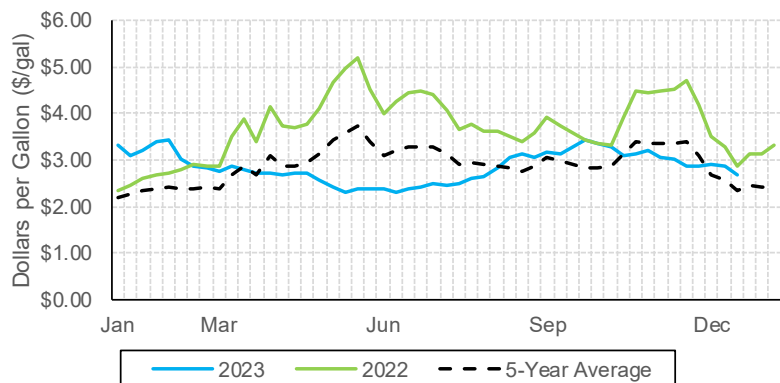


Notes:

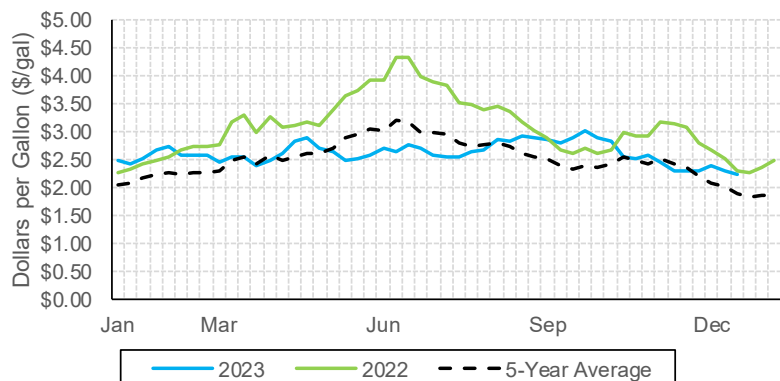
1. Data from USEIA, see references section for detailed citations. Visualizations by NYSDERDA.
2. Historical comparison bar chart percentages reflect current week. Positive values indicate current week is greater, negative values indicate current week is less than the historical value.

Transportation Fuel Prices Summary

*Ultra-low Sulfur Diesel New York Harbor
Average Weekly Spot Prices*



*Conventional Gasoline Average Weekly Spot
Prices New York Harbor*



For regional NYS retail price summaries for transportation fuels, visit the following NYSERDA resources:

[Transportation Fuel Dashboard](#)

Transportation fuels retail price summaries presented in this report and on the NYSERDA dashboards are collected by the Energy Markets team from AAA and USEIA as part of our ongoing fuels markets analyses and monitoring.

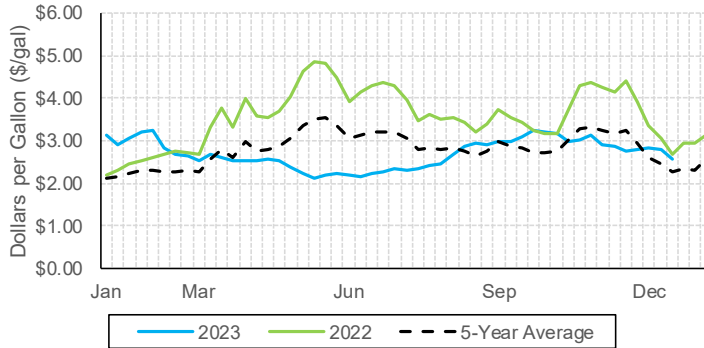
| Fuel Type | NYS Average Retail Prices | | | | |
|--|---------------------------|-----------|--------------|------------|--------------|
| | 12/8/2023 | 12/1/2023 | % Difference | Prior Year | % Difference |
| Regular Gasoline (dollars per gallon) ² | \$3.51 | \$3.56 | -1.3% | \$3.66 | -4.1% |
| On-road Diesel (dollars per gallon) ² | \$4.58 | \$4.61 | -0.5% | \$5.70 | -19.6% |

Notes:

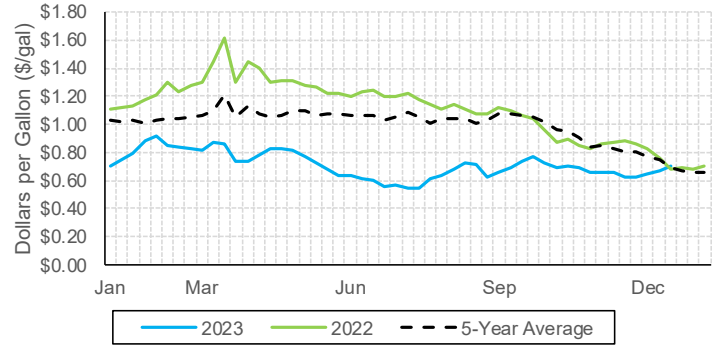
1. Wholesale price data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.
2. Retail price data from AAA, see references section for detailed citations. Visualizations by NYSERDA.

Heating Fuel Prices Summary

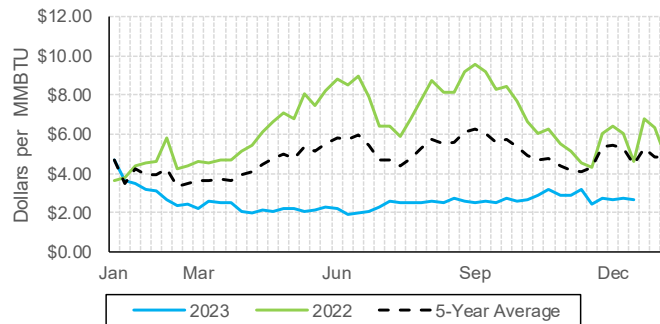
No. 2 Heating Oil Average Weekly Spot Prices New York Harbor



Propane Mt. Belvieu Average Weekly Spot Prices



Natural Gas Henry Hub Average Weekly Spot Prices



| Weekly Survey Results by Fuel Type | NYS Average Retail Prices | | | | |
|---|---------------------------|-------------|--------------|----------------|--------------|
| | 12/11/2023 | 12/4/2023 | % Difference | Prior Year | % Difference |
| Ultra-low #2 Heating Oil Posted Credit Prices (dollars per gallon) ² | \$4.193 | \$4.287 | -2.2% | \$4.728 | -11.3% |
| Propane Posted Credit Prices - 1,100 gallon usage (dollars per gallon) ² | \$3.315 | \$3.283 | 1.0% | \$3.410 | -2.8% |
| Kerosene Posted Credit Prices (dollars per gallon) ² | \$5.067 | \$5.138 | -1.4% | \$7.083 | -28.5% |
| Monthly USEIA Reporting | September 2023 | August 2023 | % Difference | September 2022 | % Difference |
| Monthly Average Residential Natural Gas Prices (dollars per Therm) ³ | \$2.030 | \$2.197 | -7.6% | \$2.729 | -25.6% |

For regional NYS retail price summaries for heating fuels, visit the following NYSEERDA resources:

[Home Heating Oil Prices Dashboard](#)

[Kerosene Prices Dashboard](#)

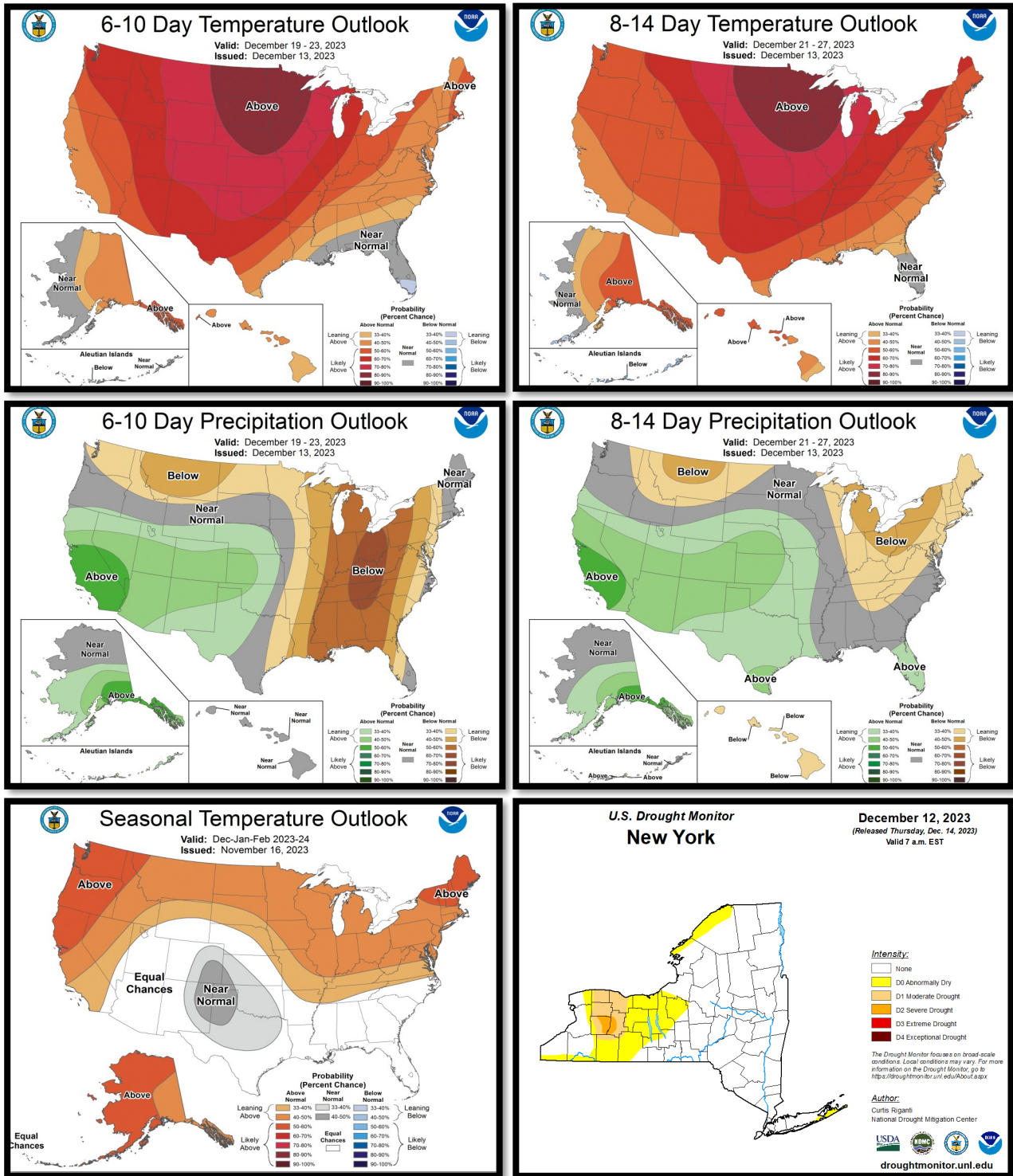
[Propane Prices Dashboard](#)

Heating fuels retail price summaries presented in this report and on the NYSEERDA dashboards are part of the USEIA State Heating Oil and Propane Program/ NYSEERDA Heating Fuel Prices surveys.

Notes:

1. Wholesale price data from USEIA, see references section for detailed citations. Visualizations by NYSEERDA.
2. Retail price data from USEIA & NYSEERDA, see references section for detailed citations. Visualizations by NYSEERDA. Highlighted cells indicate price correction from prior week.
3. Residential natural gas price data from USEIA, see references section for detailed citations. Visualization by NYSEERDA.

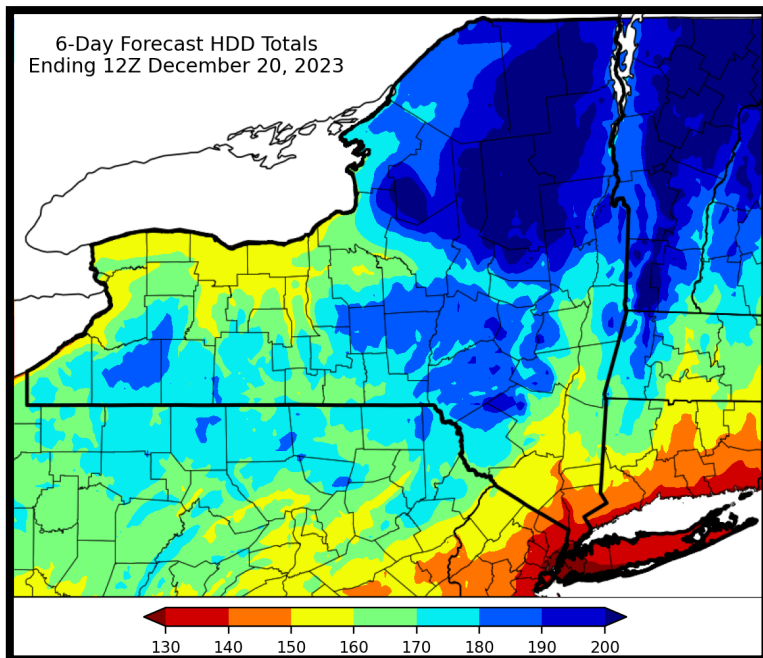
Weather Outlook and Seasonal Threat Monitoring



Notes:

1. Temperature and precipitation outlook graphics from NOAA. See references section for detailed citations.
2. Seasonal threat monitoring for winter season. Graphics from NOAA. See reference section for detailed citation.
3. Seasonal threat monitoring for drought conditions during the spring/summer. Graphic from National Drought Mitigation Center. See references section for detailed citation.

Degree Days Outlook and Summary



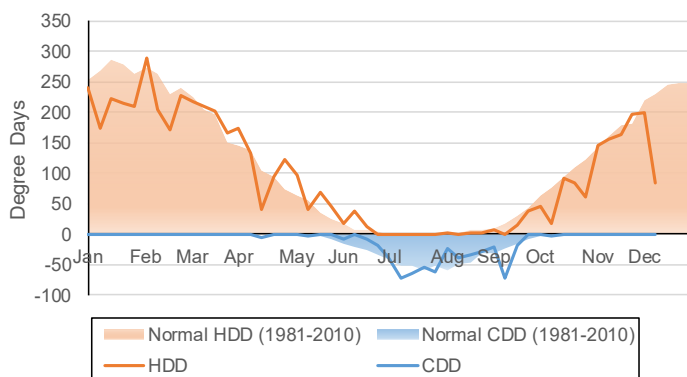
| City | 6-Day HDD Forecast | Normal | % Difference |
|-------------|--------------------|--------|--------------|
| Albany | 167 | 209 | M |
| Binghamton | 175 | 223 | -22% |
| Buffalo | 161 | 203 | -21% |
| Glens Falls | 185 | 232 | -20% |
| Massena | 190 | 249 | -24% |
| NYC | 121 | 151 | -20% |
| Rochester | 158 | 200 | -21% |
| Syracuse | 160 | 210 | -24% |
| Watertown | 175 | 228 | -23% |

Forecast Dates:
12/14/2023 - 12/19/2023

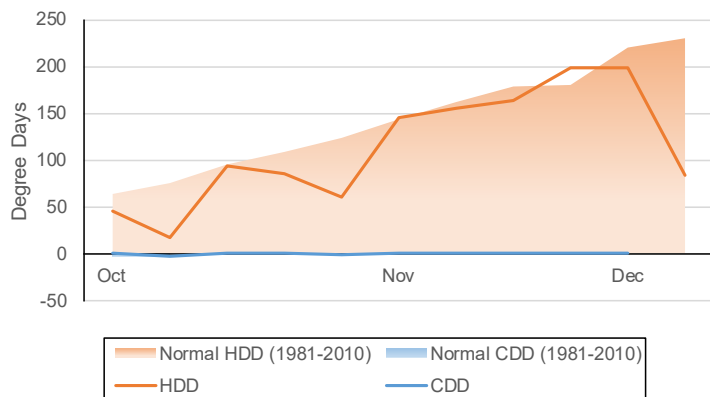
Notes:
1. M = Missing data

We have transitioned to solely reporting heating degree days.

NYS Degree Day Weekly Summary: Current Year



NYS Degree Day Weekly Summary: 2-Month History



For regional NYS Heating and Cooling Degree Data along with additional information, visit the following NYSDERDA resources:

[Heating Degree Data](#)

[Monthly Degree Day Data \(Heating & Cooling\)](#)

Notes:

1. Heating degree day (HDD) forecast from NOAA & Northeast Regional Climate Center at Cornell University (NRCC). See references section for detailed citations.
2. HDD and Cooling Degree Day (CDD) data from NOAA. Positive values represent HDD and negative values represent CDD. See reference section for detailed citation. Visualization by NYSDERDA.

References

National and Regional Fuel Inventories

USEIA. 2022. U.S. Stocks of Crude Oil and Petroleum Products. Available online:

https://www.eia.gov/dnav/pet/xls/PET_STOC_WSTK_DCU_NUS_W.xls.

USEIA. 2022. Weekly Central Atlantic (PADD 1B) Ending Stocks of Distillate Fuel Oil, 0 to 15 ppm Sulfur (Thousand Barrels). Available online: https://www.eia.gov/dnav/pet/hist_xls/WD0ST_R1Y_1w.xls.

USEIA. 2022. Weekly Central Atlantic (PADD 1B) Ending Stocks of Total Gasoline (Thousand Barrels).

Available online: https://www.eia.gov/dnav/pet/hist_xls/WGTST1B1w.xls.

USEIA. 2022. Weekly Central Atlantic (PADD 1B) Propane and Propylene Ending Stocks Excluding Propylene at Terminal (Thousand Barrels). Available online: https://www.eia.gov/dnav/pet/hist_xls/WPRST1B1w.xls.

National and Regional Price Summaries

AAA. 2022. National and State Gas Prices. *New York Average Gas Prices*. Available online:

<https://gasprices.aaa.com/?state=NY>.

USEIA. 2022. Spot Prices for Crude Oil and Petroleum Products. Available online:

https://www.eia.gov/dnav/pet/xls/PET_PRI_SPT_S1_D.xls.

USEIA. 2022. Natural Gas. *Natural Gas Spot and Future Prices (NYMEX)*. Available online:

https://www.eia.gov/dnav/ng/xls/NG_PRI_FUT_S1_D.xls.

USEIA & NYSERDA. 2022. State Heating Oil and Propane Program/NYSERDA Heating Fuel Prices Survey.

Available online: <https://www.eia.gov/petroleum/heatingoilpropane/>.

Weather Outlook and Data

National Oceanic and Atmospheric Administration (NOAA). 2022. National Weather Service Climate Prediction Center. Temperature and Precipitation Outlooks. Available online: <https://www.cpc.ncep.noaa.gov/>.

NOAA and Northeast Regional Climate Center (NRCC) at Cornell University. 2022. Weekly HDD Summary for New York. Available online: <http://www.nrcc.cornell.edu/industry/hdd/>.

NOAA. National Weather Service Climate Prediction Center. Degree Days Statistics. Available online:

https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/cdus/degree_days/.

National Drought Mitigation Center. U.S. Drought Monitor. New York. Available online at:

<https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?NY>.

Note that there may be slight differences between USEIA reported values and this NYSERDA summary due to methodology differences.

Developed weekly by the NYSERDA Energy Markets team, part of the Energy & Environmental Analysis Group.

For any questions, please reach out to:

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