April 7, 2023



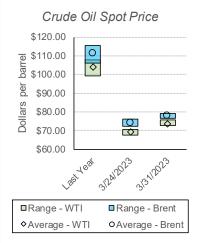
Overall Energy & Fuels Markets Summary

- Crude oil (WTI and Brent) and propane (Mt. Belvieu) weekly average spot prices slightly increased, while natural gas (Henry Hub) weekly average spot prices remained similar compared to the previous week (see page 1).
 - Natural gas (Henry Hub) prices have steadily declined in 2023 to reach October 2020 levels.
- Regional fuels inventories (see pages 2 and 3) compared to the previous week:
 - Ultra-low sulfur diesel (ULSD) and total gasoline inventories decreased again.
- Market influencers include:
 - Global factors include the ongoing Russian invasion of Ukraine, continued global economics, and seasonal transition.
 - Organization of the Petroleum Exporting Companies (OPEC) production cuts for 2023 and may influence fuels prices/market activity in the coming months.
- National Oceanic and Atmospheric Administration (NOAA) forecast for New York/Northeast to see above average temperatures over the next 1
 2 weeks with below average precipitation.
- NY retail prices (see pages 4 and 5) for gasoline and diesel are below prices last year:
 - NY transportation gasoline remained comparable to the prior week while diesel fuel retail prices increased compared to the prior week.

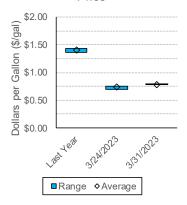
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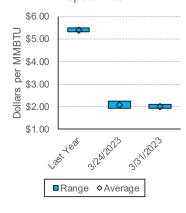
Fundamental Fuels Market <u>Weekly Price Summaries</u>



Propane Mt. Belvieu Spot Price



Natural Gas Henry Hub Spot Price



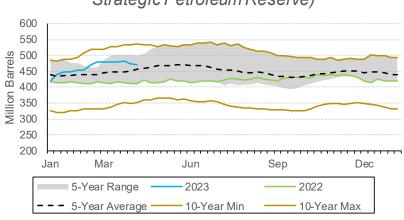
Note

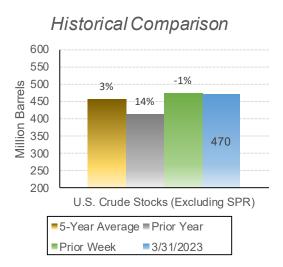
- Data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.
- 2. Graphics summarize available USEIA data from the most recent week ending on Fridays, noted by the date.



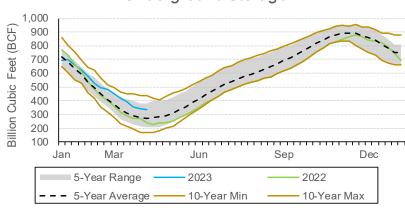
National Crude and East Region Natural Gas Inventories

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

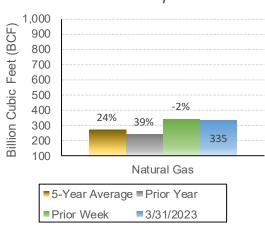




East Region: Natural Gas Working Underground Storage







Note:

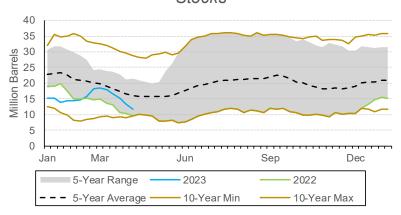
- 1. Data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.
- 2. Graphics summarize available USEIA data from the most recent week ending on Fridays.

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.

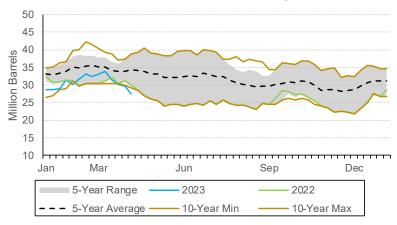


Regional Inventories: Select Liquid Fuels

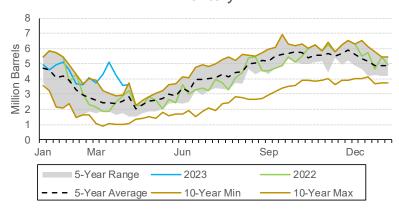
PADD 1B: Distillate (0 - 15 ppm S) Weekly Stocks



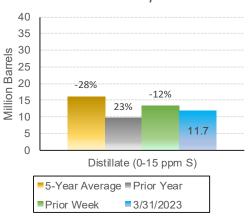
PADD 1B: Total Gasoline Weekly Stocks



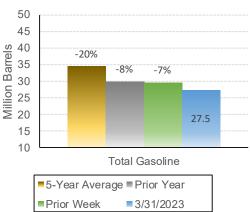
PADD 1B: Propane and Propylene Weekly Inventory



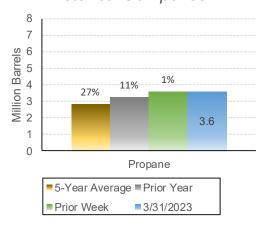
Historical Comparison



Historical Comparison



Historical Comparison



Notes:

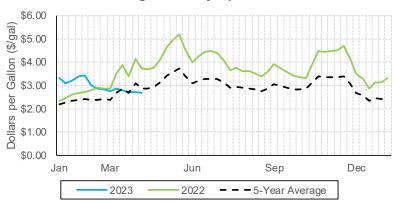
1. Data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.

^{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				NYS Average Retail Prices		
i dei Type	3/31/2023	3/24/2023	% Difference	Prior Year	% Difference		
Regular Gasoline (dollars per gallon) ²	\$4.34	\$4.36	-0.6%	\$2.91	49.2%		
On-road Diesel (dollars per gallon) ²	\$5.34	\$5.25	1.6%	\$3.16	68.9%		

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

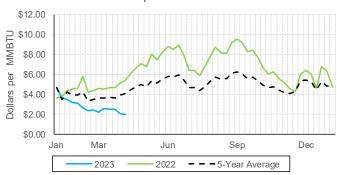
No. 2 Heating Oil Average Weekly Spot Prices New York Harbor



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				
weekly Survey Results by Fuel Type	3/27/2023	3/20/2023	% Difference	Prior Year	% Difference
Ultra-low #2 Heating Oil Posted Credit Prices (dollars per gallon) ²	\$4.321	\$4.345	-0.5%	\$5.372	-19.6%
Propane Posted Credit Prices - 1,100 gallon usage (dollars per gallon) ²	\$3.462	\$3.483	-0.6%	\$3.716	-6.9%
Kerosene Posted Credit Prices (dollars per gallon) ²	\$5.780	\$5.871	-1.5%	\$5.670	1.9%
Monthly USEIA Reporting	January 2023	December 2022	% Difference	December 2021	% Difference
Monthly Average Residential Natural Gas Prices (dollars per Therm) ³	\$1.665	\$1.621	2.7%	\$1.410	18.1%

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

Home Heating Oil Prices Dashboard

Kerosene Prices Dashboard

Propane Prices Dashboard

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

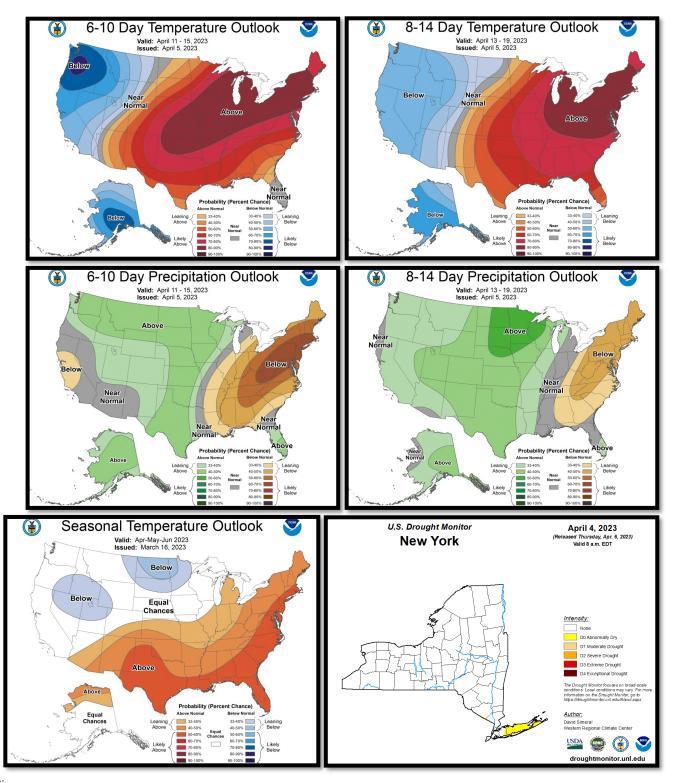
During the non-heating season (April through September), the retail price surveys are only conducted twice per month. Rows shaded blue in the table above indicate data that are from the most recent survey, but not reflective of the current week.

Notes:

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



Weather Outlook and Seasonal Threat Monitoring

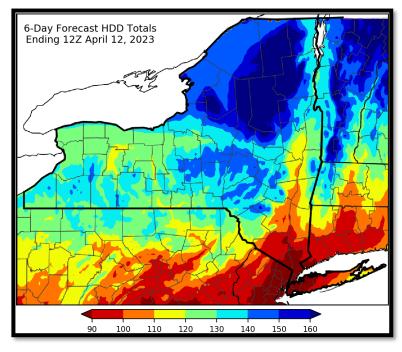


Notes:

- 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



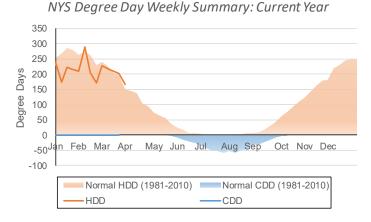
City	6-Day HDD Forecast	Normal	% Difference	
Albany	107	121	-12%	
Binghamton	132	142	-7%	
Buffalo	123	135	-9%	
Glens Falls	125	141	-11%	
Massena	154	154	0%	
NYC	77	85	-9%	
Rochester	124	128	-3%	
Syracuse	128	132	-3%	
Watertown	141	150	-6%	

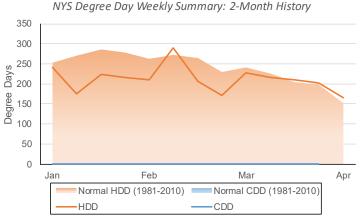
Forecast Dates:

04/06/2023 - 04/11/2023

Notes:

1. M = Missing data





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

Heating Degree Data

Monthly Degree Day Data (Heating & Cooling)

Notes:

- 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 NYSERDA.



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:

Brad Leach, Senior Advisor, <u>Brad.Leach@nyserda.ny.gov</u>, 518-862-1090 x3364

Joseph Osso, Jr., Project Manager, Joseph Osso@nyserda.ny.gov, 518-862-1090 x3345