September 8, 2023



Overall Energy & Fuels Markets Summary

- Summary of average spot prices for the following fuels (see page 1).
 - Propane (Mt Belvieu) and crude oil (WTI and Brent) both increased.
 - Natural gas (Henry Hub) prices remained comparable to the prior week.
- Regional fuels inventories (see pages 2 and 3) compared to the previous week:
 - Ultra-low sulfur diesel (ULSD) inventories slightly decreased compared to the prior week.
 - Propane, natural gas and total gasoline inventories all increased compared to the prior week.
- Market Influencers Include:
 - Global factors include the ongoing Russian invasion of Ukraine including the associated geopolitical uncertainties, continued economics concerns, late summer/fall refinery maintenance schedules, and the announcement of continued crude oil production cuts by Saudi Arabia and Russia.
 - Extreme heat continuing in parts of the southern U.S.
- National Oceanic and Atmospheric Administration (NOAA) forecasts leaning below average temperatures and above average precipitation in New York/Northeast for the next 1-2 weeks (Page 6).
- NY retail prices (see pages 4 and 5) for heating and transportation fuels:
 - NY transportation gasoline slightly decreased while diesel slightly increased compared to the prior week.
 - Heating oil, kerosene, and propane all decreased compared to the prior survey.

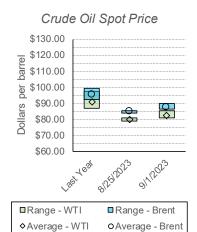
Issue Contents:

National crude and East Region natural gas inventories	Page 2
Regional Inventories: Select Liquid Fuels	Page 3
Transportation Fuels Prices Summary	Page 4
Heating Fuel Prices Summary	Page 5
Weather Outlook	Page 6
Cooling Degree Days Outlook and Summary	Page 7
References.	Page 8

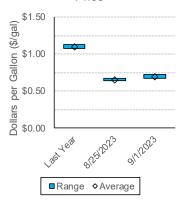
Note

- 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.

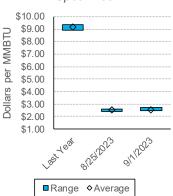
Fundamental Fuels Market Weekly Price Summaries



Propane Mt. Belvieu Spot Price



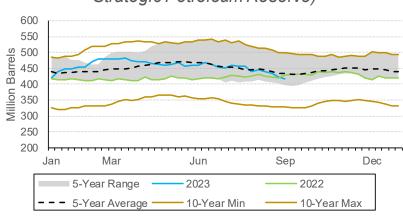
Natural Gas Henry Hub Spot Price

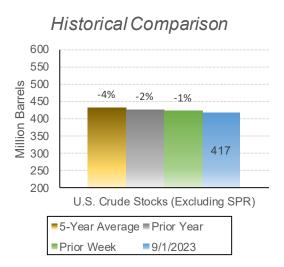




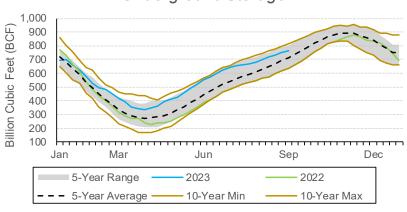
National Crude and East Region Natural Gas Inventories

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

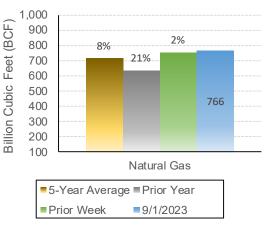




East Region: Natural Gas Working Underground Storage







Note:

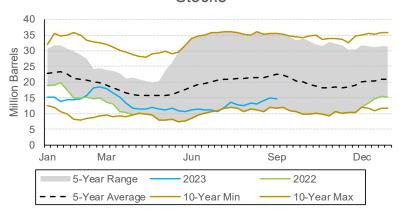
- 1. Data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.
- 2. Graphics summarize available USEIA data from the most recent week ending on Fridays.

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.

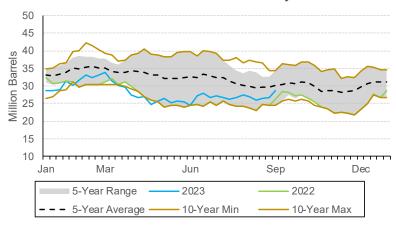


Regional Inventories: Select Liquid Fuels

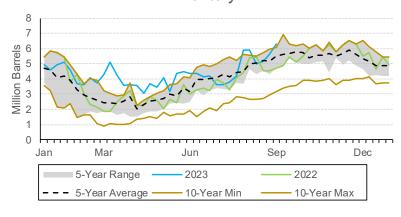
PADD 1B: Distillate (0 - 15 ppm S) Weekly Stocks



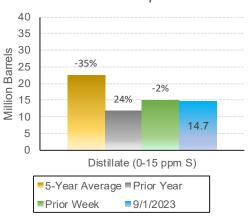
PADD 1B: Total Gasoline Weekly Stocks



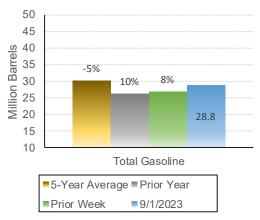
PADD 1B: Propane and Propylene Weekly Inventory



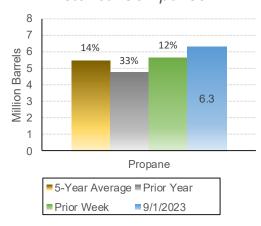
Historical Comparison



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 A	Average Retail Prices		
ruer Type	9/1/2023	8/25/2023	% Difference	Prior Year	% Difference
Regular Gasoline (dollars per gallon) ²	\$3.90	\$3.91	-0.3%	\$4.10	-4.9%
On-road Diesel (dollars per gallon) ²	\$4.59	\$4.57	0.3%	\$5.33	-14.0%

Notes:

^{1.} Wholesale price data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.

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	9/5/2023	8/28/2023	% Difference	Prior Year	% Difference
Ultra-low #2 Heating Oil Posted Credit Prices (dollars per gallon) ²	\$4.252	\$4.310	-1.3%	\$5.028	-15.4%
Propane Posted Credit Prices - 1,100 gallon usage (dollars per gallon) ²	\$3.154	\$3.166	-0.4%	\$3.370	-6.4%
Kerosene Posted Credit Prices (dollars per gallon) ²	\$5.425	\$5.776	-6.1%	\$5.846	-7.2%
Monthly USEIA Reporting	June 2023	May 2023	% Difference	June 2022	% Difference
Monthly Average Residential Natural Gas Prices (dollars per Therm) ³	\$1.907	\$1.617	18.0%	\$2.380	-19.9%

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.

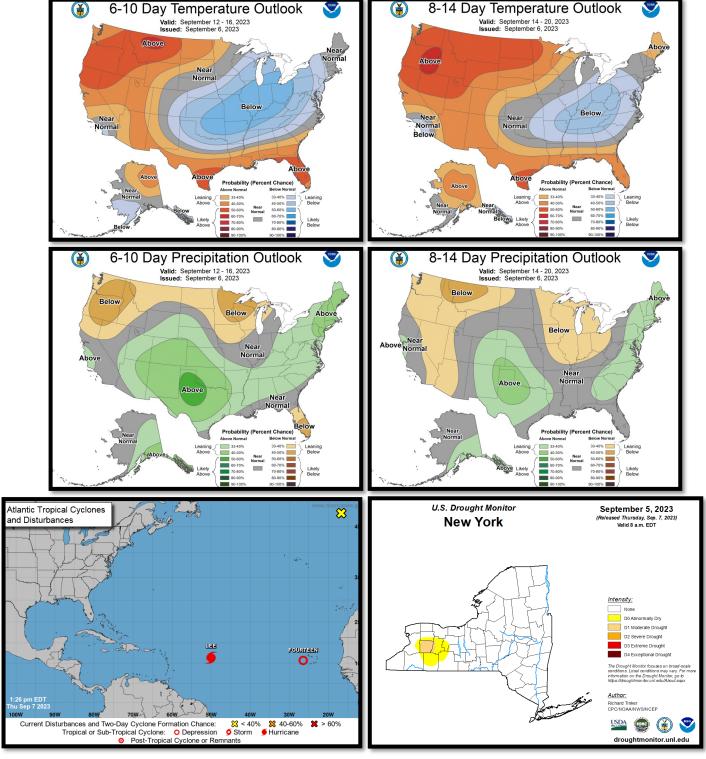
During the non-heating season (April through September), the retail price surveys are only conducted twice per month. Rows shaded blue in the table above indicate data that are from the most recent survey, but not reflective of the current week.

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

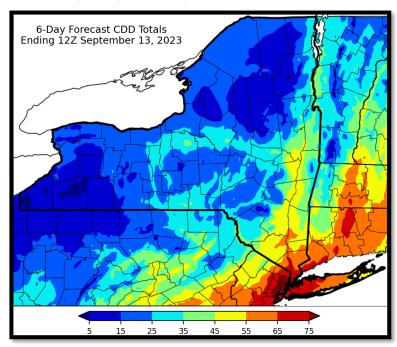


Notes:

- 1. Temperature and precipitation outlook graphics from NOAA. See references section for detailed citations.
- 2. Seasonal threat monitoring for spring/summer. Graphics from NYSDEC. 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.



Cooling Degree Days Outlook and Summary



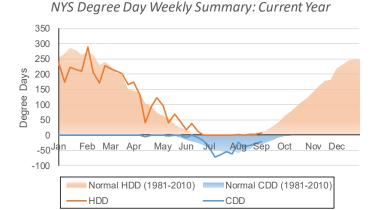
City	6-Day CDD Forecast	Normal	% Difference
Albany	54	18	200%
Binghamton	32	9	256%
Buffalo	19	18	6%
Glens Falls	40	9	344%
Massena	26	9	189%
NYC	87	48	81%
Rochester	23	19	21%
Syracuse	41	17	141%
Watertown	25	11	127%

Forecast Dates:

09/07/2023 - 09/12/2023

Notes:

1. M = Missing data

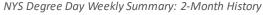


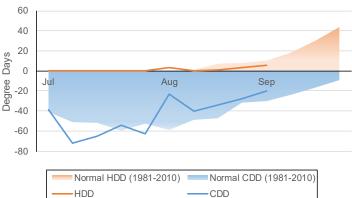
Starting in June, the degree days reflect cooling degree days (CDD) with the arrival of late spring and summer seasons. Heating degree days (HDD) will return in September.

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:

- Cooling degree day (CDD) forecast from NOAA & Northeast Regional Climate Center at Cornell University (NRCC). See references section for detailed citations.
- Heating degree day (HDD) and 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. 2023. 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. 2023. 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. 2023. 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. 2023. 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. 2023. National and State Gas Prices. *New York Average Gas Prices*. Available online: https://gasprices.aaa.com/?state=NY.

USEIA. 2023. Spot Prices for Crude Oil and Petroleum Products. Available online: https://www.eia.gov/dnav/pet/xls/PET_PRI_SPT_S1_D.xls.

USEIA. 2023. 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. 2023. 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). 2023. 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. 2023. Weekly HDD Summary for New York. Available online: http://www.nrcc.cornell.edu/industry/hdd/.

NOAA. 2023. National Weather Service Climate Prediction Center. Degree Days Statistics. Available online: https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/cdus/degree_days/.

NOAA. 2023. National Hurricane Center and Central Pacific Hurricane Center. Atlantic Tropical Cyclones and Disturbances. Available online: https://www.nhc.noaa.gov/.

National Drought Mitigation Center. 2023. 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, <u>Joseph.Osso@nyserda.ny.gov</u>, 518-862-1090 x3345