August 11, 2023



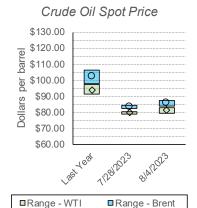
Overall Energy & Fuels Markets Summary

- Summary of average spot prices for the following fuels (see page 1).
 - Natural gas (Henry Hub) remains relatively flat compared to the prior week.
 - Crude oil (WTI and Brent) and Propane (Mt Belvieu) increased compared to the prior week.
- Regional fuels inventories (see pages 2 and 3) compared to the previous week:
 - Propane and total gasoline slightly decreased compared to the prior week.
 - Ultra-low sulfur diesel (ULSD) and natural gas inventories slightly 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 liquid fuels supply outlook for the second half of the year.
 - Extreme heat continuing in the southern U.S.
- National Oceanic and Atmospheric Administration (NOAA) forecasts temperatures and precipitation to be leaning above average 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 and diesel prices both increased compared to the prior week.

Issue Contents:

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

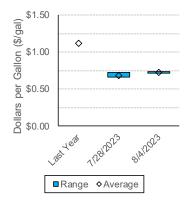
Fundamental Fuels Market <u>Weekly Price Summaries</u>



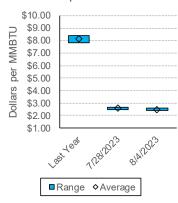
Propane Mt. Belvieu Spot Price

O Average - Brent

♦Average - WTI



Natural Gas Henry Hub Spot Price



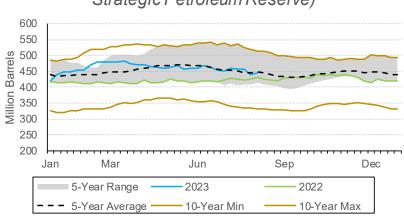
Note

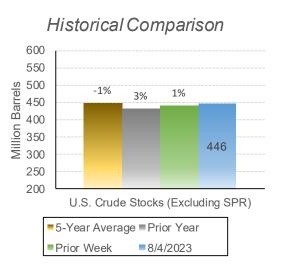
- 1. Data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.
- 2. Graphics summarize available USEIA data from the most recent week ending on Fridays, noted by the date.



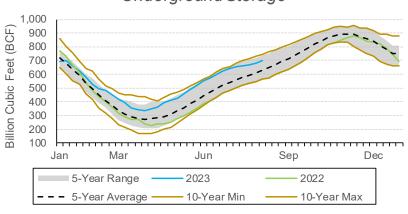
National Crude and East Region Natural Gas Inventories

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

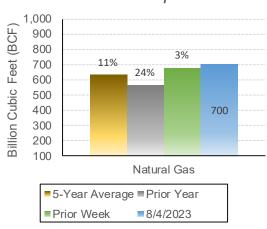




East Region: Natural Gas Working Underground Storage



Historical Comparison



Note:

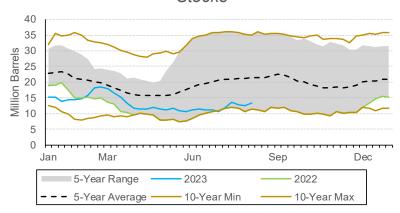
- 1. Data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.
- 2. Graphics summarize available USEIA data from the most recent week ending on Fridays.

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.

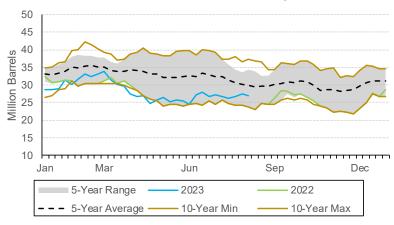


Regional Inventories: Select Liquid Fuels

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



PADD 1B: Total Gasoline Weekly Stocks



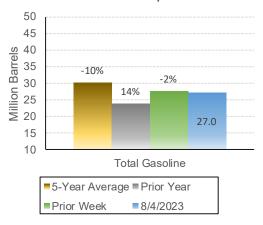
PADD 1B: Propane and Propylene Weekly Inventory



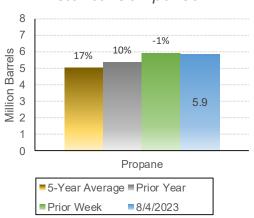
Historical Comparison



Historical Comparison



Historical Comparison



Notes:

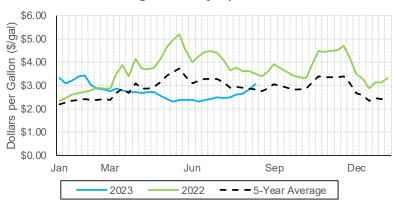
1. Data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.

^{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			
ruer Type	8/4/2023	7/28/2023	% Difference	Prior Year	% Difference			
Regular Gasoline (dollars per gallon) ²	\$3.87	\$3.76	3.0%	\$4.49	-13.8%			
On-road Diesel (dollars per gallon) ²	\$4.43	\$4.37	1.5%	\$5.69	-22.1%			

Notes:

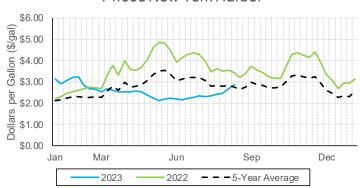
^{1.} Wholesale price data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.

^{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 - Next Survey: 08/14/2023				
weekly Survey Results by Fuel Type	7/31/2023	7/17/2023	% Difference	Prior Year	% Difference
Ultra-low #2 Heating Oil Posted Credit Prices (dollars per gallon) ²	\$3.996	\$3.866	3.4%	\$5.242	-23.8%
Propane Posted Credit Prices - 1,100 gallon usage (dollars per gallon) ²	\$3.115	\$3.129	-0.4%	\$3.517	-11.4%
Kerosene Posted Credit Prices (dollars per gallon) ²	\$5.240	\$5.313	-1.4%	\$6.160	-14.9%
Monthly USEIA Reporting	May 2023	April 2023	% Difference	May 2022	% Difference
Monthly Average Residential Natural Gas Prices (dollars per Therm) ³	\$1.617	\$1.530	5.7%	\$1.705	-5.2%

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.

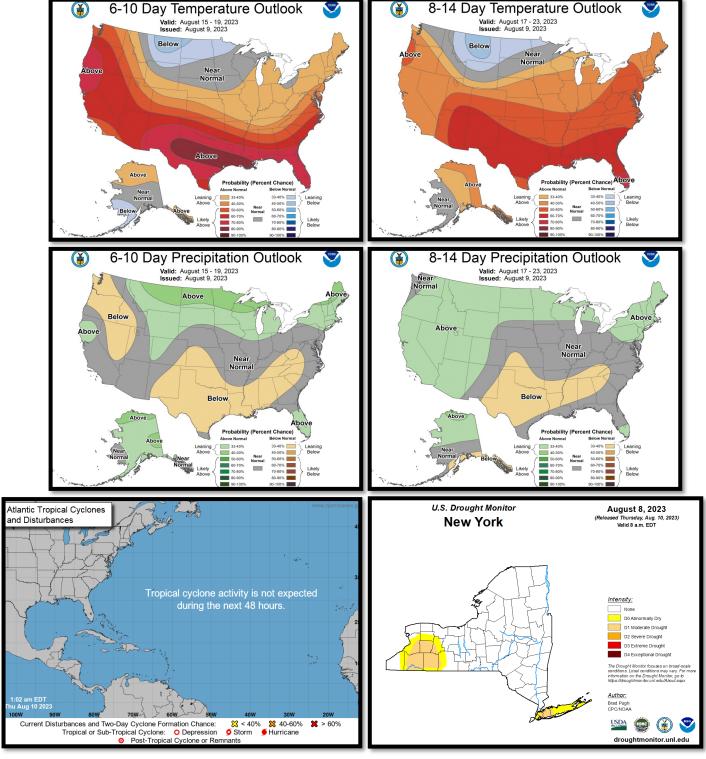
During the non-heating season (April through September), the retail price surveys are only conducted twice per month. Rows shaded blue in the table above indicate data that are from the most recent survey, but not reflective of the current week.

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

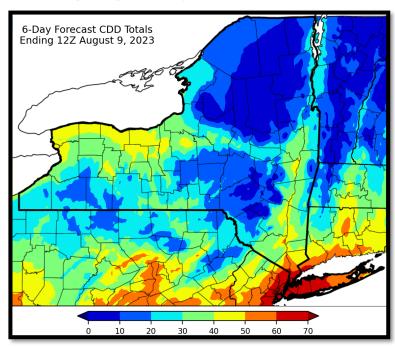


Notes:

- 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



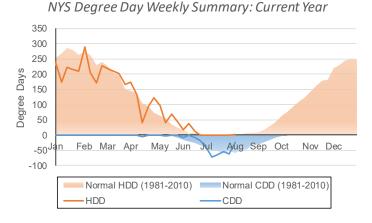
City	6-Day CDD Forecast	Normal	% Difference
Albany	34	43	-21%
Binghamton	14	23	-39%
Buffalo	26	37	-30%
Glens Falls	21	25	-16%
Massena	10	25	-60%
NYC	75	80	-6%
Rochester	31	40	-23%
Syracuse	24	38	-37%
Watertown	20	25	-20%

Forecast Dates:

08/10/2023 - 08/15/2023

Notes:

M = Missing data



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

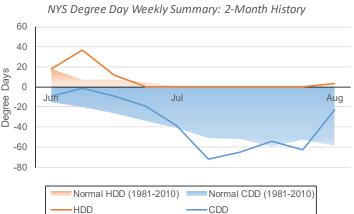
Starting in June, the degree days reflect cooling degree days (CDD) with the arrival of late

spring and summer seasons. Heating degree

days (HDD) will return in September.

Heating Degree Data

<u>Monthly Degree Day Data</u> <u>(Heating & Cooling)</u>



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, Brad.Leach@nyserda.ny.gov, 518-862-1090 x3364

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