

October 6, 2023

Overall Energy & Fuels Markets Summary

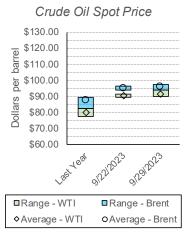
- Summary of average spot prices for the following fuels (see page 1).
 - Propane (Mt Belvieu) slightly decreased.
 - Natural gas (Henry Hub) and crude oil (WTI and Brent) both slightly increased compared to the prior week.
- Regional fuels inventories (see pages 2 and 3) compared to the previous week:
 - Ultra-low sulfur diesel (ULSD) and propane inventories decreased.
 - Natural gas and total gasoline inventories increased compared to prior week. Total gasoline inventories reached the 5-year average for the first time this year.
- Market influencers include:
 - Global factors include the ongoing Russian invasion of Ukraine including the associated geopolitical uncertainties, continued economics concerns related to higher interest rates, late summer/fall refinery maintenance schedules, and continued crude oil availability concerns.
- National Oceanic and Atmospheric Administration (NOAA) forecast for New York/Northeast temperatures varies with both below and above average over the next 6-14 days. Above average precipitation for the next 1-2 weeks is forecasted (Page 6).
- NY retail prices (see pages 4 and 5) for heating and transportation fuels:
 - NY transportation regular gasoline decreased and diesel increased compared to the prior week.
 - Heating oil slightly increased, while kerosene slightly decreased, and propane was consistent with the prior week.

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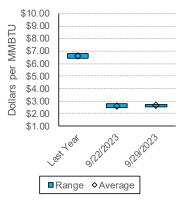


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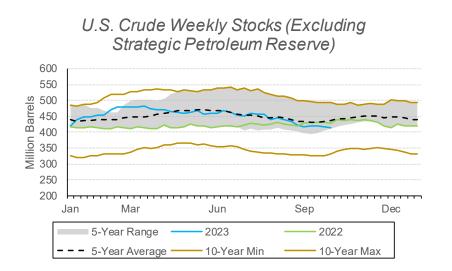
Natural Gas Henry Hub Spot Price



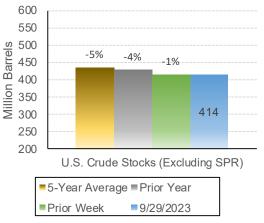
Note:

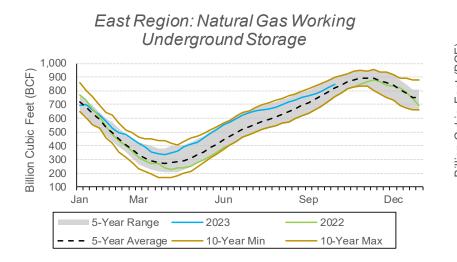


National Crude and East Region Natural Gas Inventories

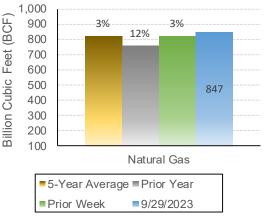








Historical Comparison

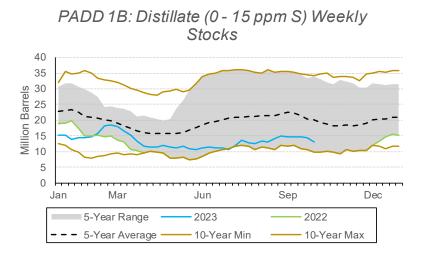


Note:

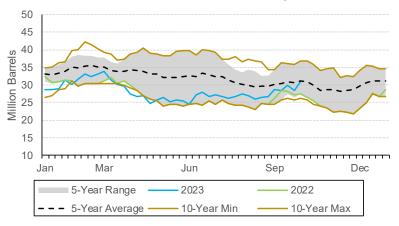
- 1. Data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.
- 2. Graphics summarize available USEIA data from the most recent week ending on Fridays.
- Historical comparison bar chart percentages reflect current week. Positive values indicate current week is greater,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

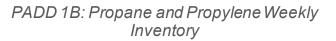


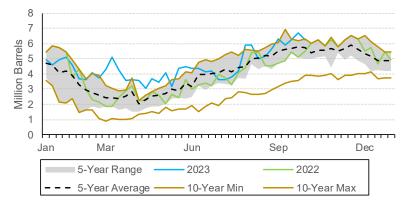
Regional Inventories: Select Liquid Fuels



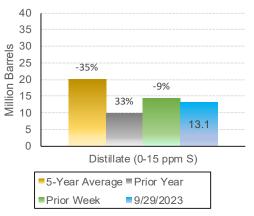
PADD 1B: Total Gasoline Weekly Stocks



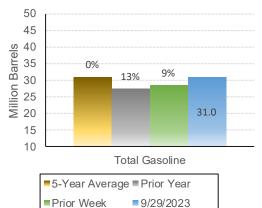




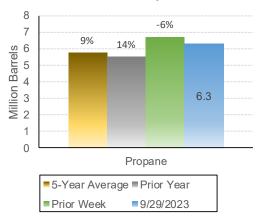
Historical Comparison



Historical Comparison



Historical Comparison



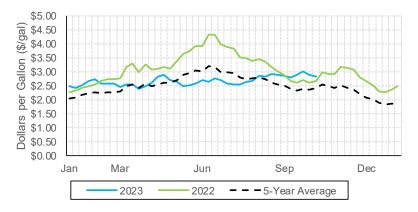
Notes:

- 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*





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				
гиеттуре	9/29/2023	9/22/2023	% Difference	Prior Year	% Difference
Regular Gasoline (dollars per gallon) ²	\$3.91	\$3.92	-0.4%	\$3.64	7.3%
On-road Diesel (dollars per gallon) ²	\$4.75	\$4.73	0.3%	\$5.03	-5.6%

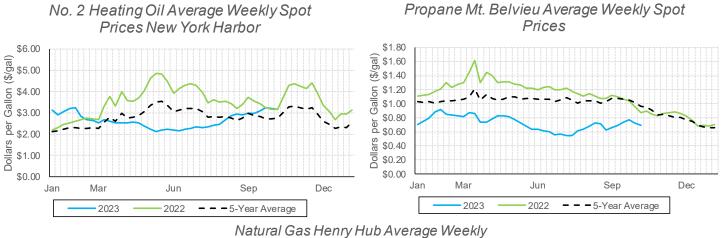
Notes:

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

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



Heating Fuel Prices Summary



Spot Prices



Weekly Survey Results by Fuel Type	NYS Average Retail Prices				
weekly Sulvey Results by Fuel Type	10/2/2023	9/25/2023	% Difference	Prior Year	% Difference
Ultra-low #2 Heating Oil Posted Credit Prices (dollars per gallon) ²	\$4.514	\$4.495	0.4%	\$4.823	-6.4%
Propane Posted Credit Prices - 1,100 gallon usage (dollars per gallon) ²	\$3.119	\$3.118	0.0%	\$3.427	-9.0%
Kerosene Posted Credit Prices (dollars per gallon) ²	\$5.512	\$5.678	-2.9%	\$6.039	-8.7%
Monthly USEIA Reporting	July 2023	June 2023	% Difference	June 2022	% Difference
Monthly Average Residential Natural Gas Prices (dollars per Therm) ³	\$2.105	\$1.907	10.4%	\$2.380	-11.6%
For regional NYS retail price summaries for fuels, visit the following NYSERDA resource <u>Home Heating Oil Prices Dashboard</u>	During the non-heating season (April through August), the retail price surveys are only conducted twice per month. Rows shaded blue in the table above indicate data that are from the most re- cent survey, but not reflective of the current week.				
Kerosene Prices Dashboard Propane Prices Dashboard		 Notes: Wholesale price data from USEIA, see references section for detailed citations. Visualizations by NYSERDA. 			
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/		 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 refer- ences section for detailed citations. Visualization by 			

NYSERDA.

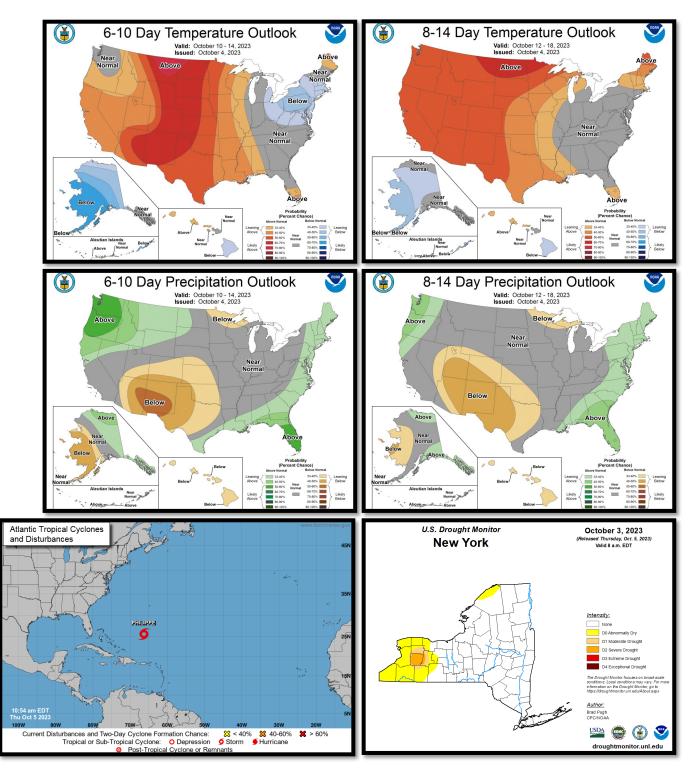
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NYSERDA Heating Fuel Prices surveys.

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Weather Outlook and Seasonal Threat Monitoring

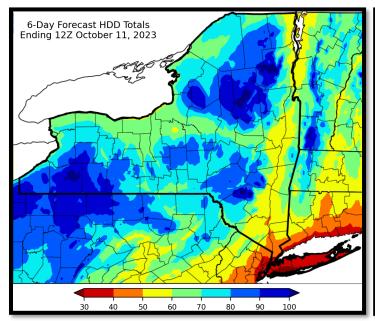


Notes:

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

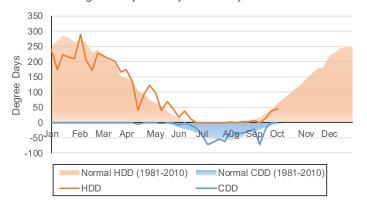


Degree Days Outlook and Summary

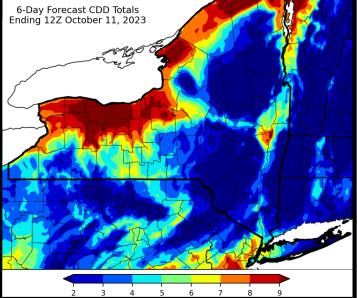


City	6-Day HDD Forecast	Normal	% Difference
Albany	49	65	-25%
Binghamton	68	80	-15%
Buffalo	64	63	2%
Glens Falls	55	84	-35%
Massena	64	87	-26%
NYC	31	24	29%
Rochester	60	61	-2%
Syracuse	57	66	-14%
Watertown	61	80	-24%

Forecast Dates: 10/05/2023 - 10/10/2023



NYS Degree Day Weekly Summary: Current Year



City	6-Day CDD Forecast	Normal	% Difference
Albany	4	2	100%
Binghamton	3	1	200%
Buffalo	10	2	400%
Glens Falls	1	0	#DIV/0!
Massena	10	1	900%
NYC	6	11	-45%
Rochester	9	3	200%
Syracuse	11	2	450%
Watertown	11	1	1000%

Forecast Dates:

10/05/2023 - 10/10/2023

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

Heating Degree Data

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

Notes:

1. Heating degree day (HDD) and cooling degree day (CDD) forecasts from NOAA & Northeast Regional Climate Center at Cornell University (NRCC). See references section for detailed citations. Records noted with "M" indicate missing data.

^{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. 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: <u>https://www.eia.gov/dnav/pet/hist_xls/WD0ST_R1Y_1w.xls</u>.

USEIA. 2023. Weekly Central Atlantic (PADD 1B) Ending Stocks of Total Gasoline (Thousand Barrels). Available online: <u>https://www.eia.gov/dnav/pet/hist_xls/WGTST1B1w.xls</u>.

USEIA. 2023. Weekly Central Atlantic (PADD 1B) Propane and Propylene Ending Stocks Excluding Propylene at Terminal (Thousand Barrels). Available online: <u>https://www.eia.gov/dnav/pet/hist_xls/WPRST1B1w.xls</u>.

National and Regional Price Summaries

AAA. 2023. National and State Gas Prices. *New York Average Gas Prices*. Available online: <u>https://gasprices.aaa.com/?state=NY</u>.

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: <u>https://www.eia.gov/dnav/ng/xls/NG_PRI_FUT_S1_D.xls</u>.

USEIA & NYSERDA. 2023. State Heating Oil and Propane Program/NYSERDA Heating Fuel Prices Survey. Available online: <u>https://www.eia.gov/petroleum/heatingoilpropane/</u>.

Weather Outlook and Data

National Oceanic and Atmospheric Administration (NOAA). 2023. National Weather Service Climate Prediction Center. Temperature and Precipitation Outlooks. Available online: <u>https://www.cpc.ncep.noaa.gov/</u>.

NOAA and Northeast Regional Climate Center (NRCC) at Cornell University. 2023. Weekly HDD and CDD Summary for New York. Available online: <u>http://www.nrcc.cornell.edu/industry/hdd/</u>.

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/.

National Drought Mitigation Center. 2023. U.S. Drought Monitor. New York. Available online at: https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?NY.

NOAA. National Hurricane Center. Atlantic Tropical Cyclones and Disturbances. Available online at: <u>https://www.nhc.noaa.gov/</u>.

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 Policy, Analysis, and Research Group. For any questions, please reach out to:

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