October 28, 2022



Overall Energy & Fuels Markets Summary

- Crude oil and natural gas (Henry Hub) average spot prices had a slight decrease compared to the prior week (see pages 1, 4, and 5).
 - High uncertainties and volatilities around global events and economic concerns continue to influence the overall market prices
- Global supply chains continue to be strained and influence the regional fuels inventories (see pages 2 and 3).
- Market influencers include:
 - Ongoing war in Eastern Europe and economic impacts on global economics and supply chain.
 - Growing concerns regarding global economic slowdown/ recession influencing market decision-making.
- NY consumers are paying elevated prices for fuels due to the market conditions for fossil fuels.
 - NY retail prices for heating oil and kerosene were comparable to the prior week and remain significantly greater than last year.
- Northeast fuels inventories remain low. Regional storage for liquid fuels and natural gas are below the 5-year range (pages 2 and 3).
- National Oceanic and Atmospheric Administration (NOAA) <u>U.S. 2022</u> -2023 Winter Outlook.

Issue Contents:

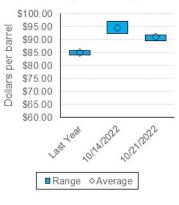
National crude and East Region natural gas inventories	Page 2
Regional Inventories: Select Liquid Fuels	Page 3
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Fundamental Fuels Market Price Summaries

WTI Crude Spot Price Weekly Summary



Brent Crude Spot Price Weekly Summary



Natural Gas Henry Hub Spot Price Weekly Summary



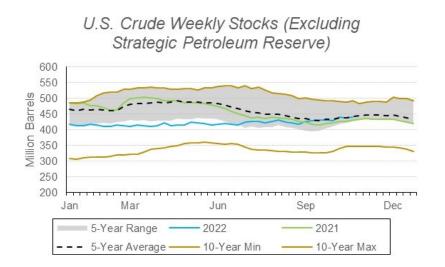
Note

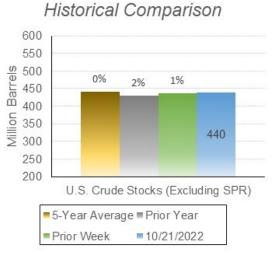
^{1.} Data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.

^{2.} Graphics summarize available USEIA data from the most recent week ending on Fridays, noted by the date.



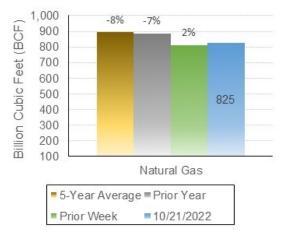
National Crude and East Region Natural Gas Inventories





East Region: Natural Gas Working Underground Storage 1.000 Billion Cubic Feet (BCF) 900 800 700 600 500 400 300 200 100 Sep Dec Jan Mar Jun 5-Year Range 2022 2021 - 5-Year Average 10-Year Min 10-Year Max

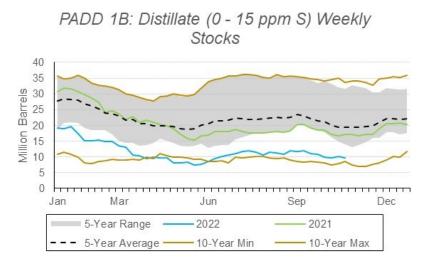
Historical Comparison



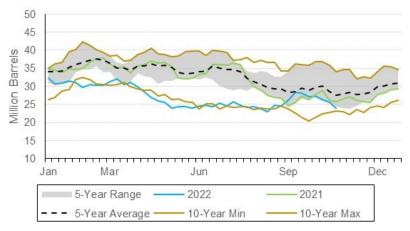
- 1. Data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.
- 2. Graphics summarize available USEIA data from the most recent week ending on Fridays.
- 3. Historical comparison bar chart percentages reflect current week. Positive values indicate current week is greater,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

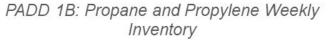


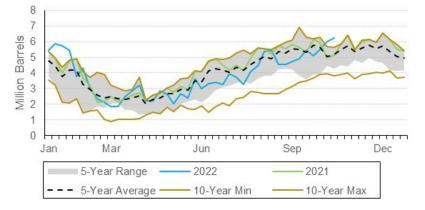
Regional Inventories: Select Liquid Fuels



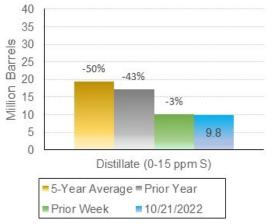
PADD 1B: Total Gasoline Weekly Stocks



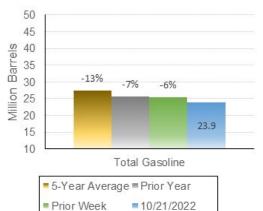




Historical Comparison



Historical Comparison



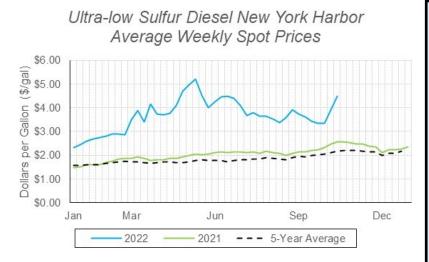
Historical Comparison



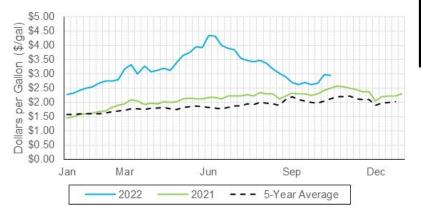
- 1. Data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.
- 2. Historical comparison bar chart percentages reflect current week. Positive values indicate current week is greater, negative values indicate current week is less than the historical value.

Transportation Fuel Prices Summarv





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

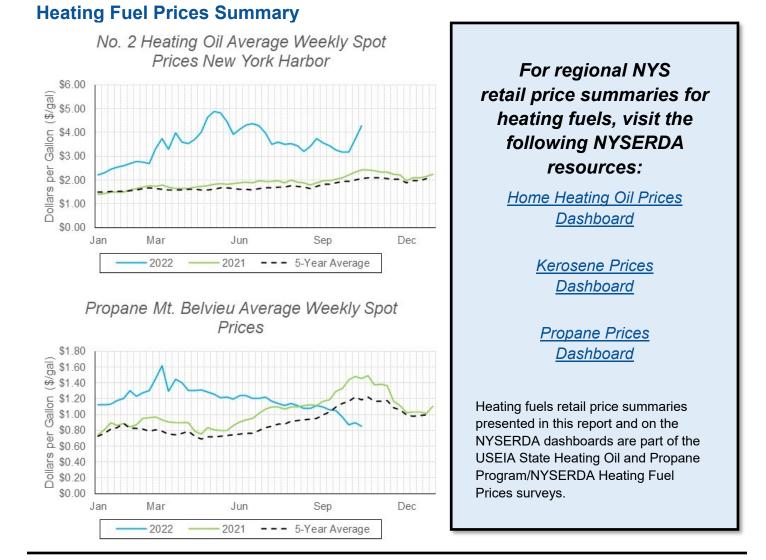
Transportation fuels retail price summaries presented in this report and on the NYSERDA dashboards are collected by the Energy Markets team from AAA and USEIA as part of our ongoing fuels markets analyses and monitoring.

Fuel Type	NYS Average Retail Prices				
Гиеттуре	10/21/2022	10/14/2022	% Difference	Prior Year	% Difference
Regular Gasoline (dollars per gallon) ²	\$3.68	\$3.65	1%	\$3.47	6%
On-road Diesel (dollars per gallon) ²	\$5.62	\$5.22	8%	\$3.57	58%

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.





Weekly Survey Results by Fuel Type	NYS Average Retail Prices				
weekiy Sulvey Results by Fuel Type	10/24/2022	10/17/2022	% Difference	Prior Year	% Difference
Ultra-low #2 Heating Oil Posted Credit Prices (dollars per gallon) ²	\$5.758	\$5.779	-0.4%	\$3.594	60.2%
Propane Posted Credit Prices - 1,100 gallon usage (dollars per gallon) ²	\$3.509	\$3.494	0.4%	\$3.279	7.0%
Kerosene Posted Credit Prices (dollars per gallon) ²	\$6.765	\$6.777	-0.2%	\$3.941	71.6%
Monthly USEIA Reporting	July 2022	June 2022	% Difference	July 2021	% Difference
Monthly Average Residential Natural Gas Prices (dollars per Therm) ³	\$2.536	\$2.380	6.6%	\$2.057	23.3%

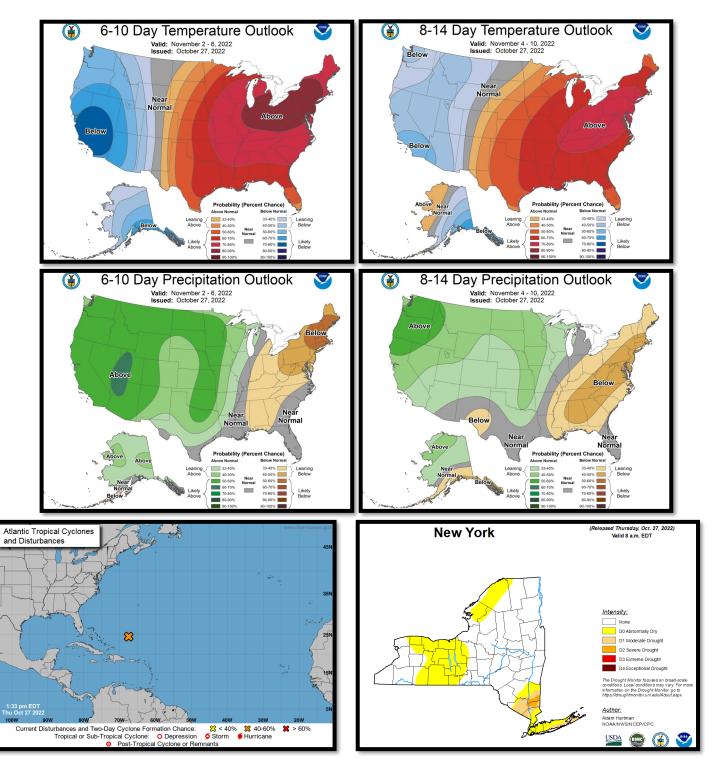
^{1.} Wholesale price data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.

^{2.} Retail price data from USEIA & NYSERDA, see references section for detailed citations. Visualizations by NYSERDA.

^{3.} Residential natural gas price data from USEIA, see references section for detailed citations. Visualization by NYSERDA.



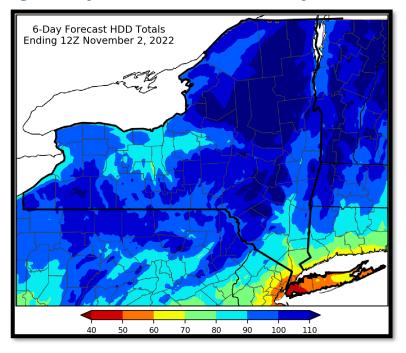
Weather Outlook and Seasonal Threat Monitoring



- 1. Temperature and precipitation outlook graphics from NOAA. See references section for detailed citations.
- 2. Seasonal threat monitoring for hurricane 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.



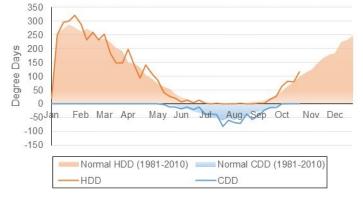
Degree Days Outlook and Summary

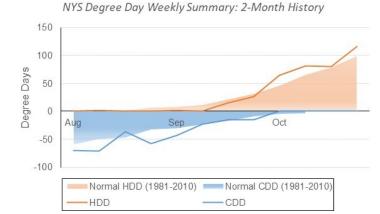


6-Day HDD Forecast			
94			
104			
92			
103			
106			
55			
92			
87			
87			
Forecast Dates:			
11/01/2022			

Notes: 1. M = Missing data

NYS Degree Day Weekly Summary: Current Year





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> (Heating & Cooling)

Weather Data

- 1. Heating degree day (HDD) forecast from NOAA & Northeast Regional Climate Center at Cornell University (NRCC). See references section for detailed citations.
- 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: <u>https://www.eia.gov/dnav/pet/hist_xls/WD0ST_R1Y_1w.xls</u>.

USEIA. 2022. 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. 2022. 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. 2022. National and State Gas Prices. *New York Average Gas Prices*. Available online: <u>https://gasprices.aaa.com/?state=NY</u>.

USEIA. 2022. Spot Prices for Crude Oil and Petroleum Products. Available online: <u>https://www.eia.gov/dnav/pet/xls/PET_PRI_SPT_S1_D.xls</u>.

USEIA. 2022. 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. 2022. Natural Gas. *Natural Gas Residential Prices (Monthly).* Available online: <u>https://www.eia.gov/dnav/ng/xls/NG_PRI_SUM_A_EPG0_PRS_DMCF_M.xls</u>.

USEIA & NYSERDA. 2022. 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). 2022. National Weather Service Climate Prediction Center. Temperature and Precipitation Outlooks. Available online: <u>https://www.cpc.ncep.noaa.gov/</u>.

NOAA. National Hurricane Center and Central Pacific Hurricane Center. Available online: https://www.nhc.noaa.gov/.

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

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

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