December 23, 2022



Overall Energy & Fuels Markets Summary

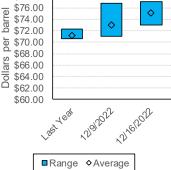
- Crude oil and natural gas (Henry Hub) average spot prices increased compared to the prior week (see page 1).
- Natural gas east region inventories and propane regional inventories dropped slightly below the 5-year average (see pages 2 and 3).
- Ultra-low sulfur diesel (ULSD) and conventional gasoline inventories increased (see page 3).
- Market influencers include:
 - Ongoing war in Eastern Europe and impacts on global economics and supply chain.
 - Significant winter storm and forecasted cold temperatures into next week. Forecasts indicate above average temperatures returning (see page 6).
 - While uncertainties continue, indicators suggest that market backwardation conditions are easing.
- NY consumers are paying elevated prices for fuels due to the market conditions for fossil fuels (see pages 4 and 5).
 - NY retail prices for heating oil and propane slightly increased while kerosene slightly decreased compared to last week. Heating fuel retail prices remain elevated compared to last year.
 - NY transportation fuels retail prices slightly decreased over the past week, but also remain elevated compared to last year.

Issue Contents:

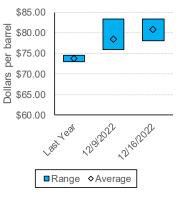
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Brent Crude Spot Price Weekly Summary



Natural Gas Henry Hub Spot Price Weekly Summary



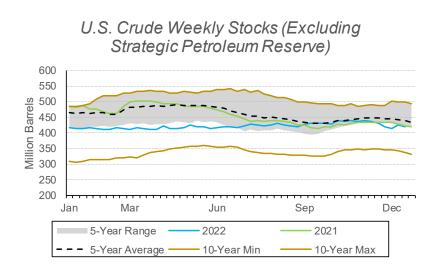
Note

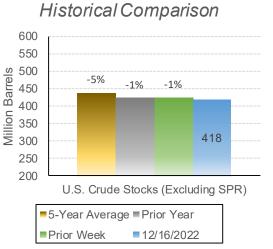
^{1.} Data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.

^{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 Mar Sep Dec Jan Jun 5-Year Range 2022 2021 - 5-Year Average 10-Year Min 10-Year Max

Historical Comparison

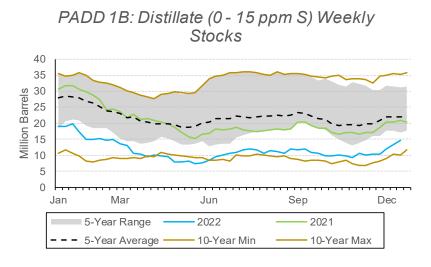


Note:

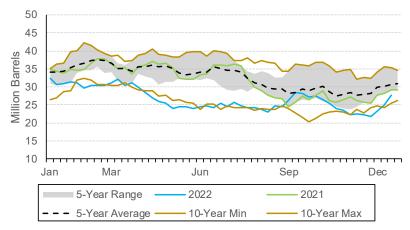
- 1. Data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.
- 2. Graphics summarize available USEIA data from the most recent week ending on Fridays.
- 3. Historical comparison bar chart percentages reflect current week. Positive values indicate current week is greater,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

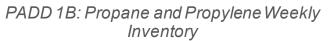


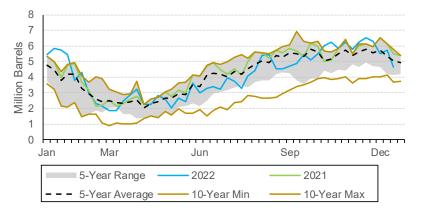
Regional Inventories: Select Liquid Fuels



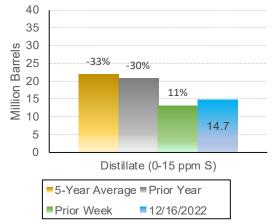
PADD 1B: Total Gasoline Weekly Stocks



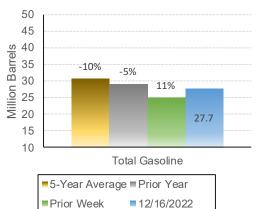




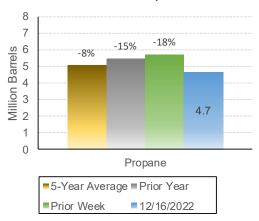




Historical Comparison



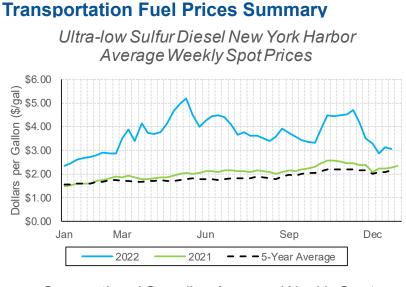
Historical Comparison



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.





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				
ruer Type	12/16/2022		% Difference	Prior Year	% Difference
Regular Gasoline (dollars per gallon) ²	\$3.57	\$3.68	-3%	\$3.52	1%
On-road Diesel (dollars per gallon) ²	\$5.57	\$5.72	-3%	\$3.75	49%

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

2022

2021



No. 2 Heating Oil Average Weekly Spot Prices New York Harbor For regional NYS \$6.00 retail price summaries for heating fuels, visit the following NYSERDA resources: Home Heating Oil Prices Dashboard \$0.00 Jan Mar Jun Sep Dec 2022 2021 - 5-Year Average **Kerosene Prices** Dashboard Propane Mt. Belvieu Average Weekly Spot Prices Propane Prices \$1.80 Dashboard (leg \$1.60 (\$) \$1.40 Lo \$1.20 \$1.00 \$0.80 \$0.60 Heating fuels retail price summaries presented in this report and on the NYSERDA dashboards are part of the Dollars **USEIA State Heating Oil and Propane** \$0.40 Program/NYSERDA Heating Fuel \$0.20 Prices surveys. \$0.00 Jan Mar Jun Sep Dec

Weekly Survey Results by Fuel Type	NYS Average Retail Prices				
weekly Sulvey Results by Fuel Type	12/19/2022	12/12/2022	% Difference	Prior Year	% Difference
Ultra-low #2 Heating Oil Posted Credit Prices (dollars per gallon) ²	\$4.844	\$4.789	1.2%	\$3.540	36.8%
Propane Posted Credit Prices - 1,100 gallon usage (dollars per gallon) ²	\$3.523	\$3.492	0.9%	\$3.294	6.9%
Kerosene Posted Credit Prices (dollars per gallon) ²	\$6.888	\$7.068	-2.5%	\$4.000	72.2%
Monthly USEIA Reporting	September 2022	August 2022	% Difference	September 2021	% Difference
Monthly Average Residential Natural Gas Prices (dollars per Therm) ³	\$2.732	\$2.533	7.8%	\$2.146	27.3%

Notes:

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

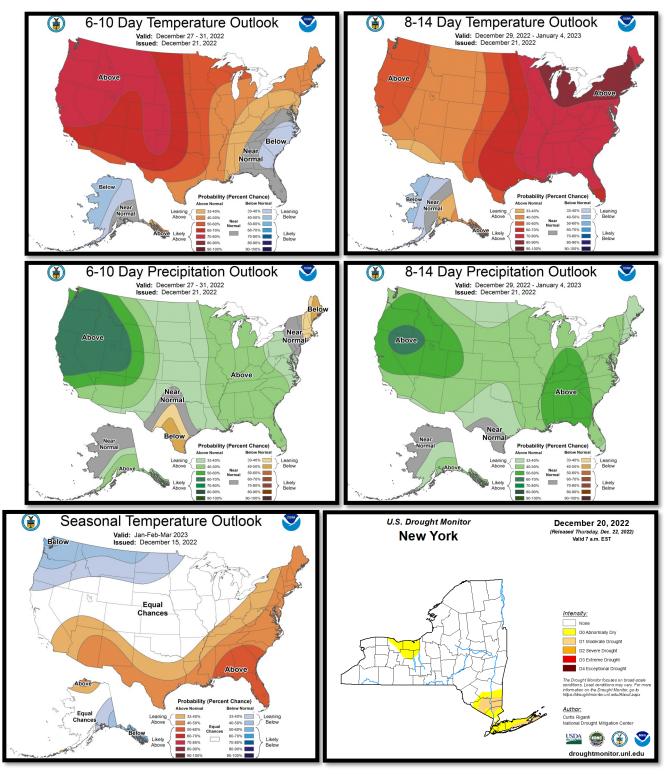
- - - 5-Year Average

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

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



Weather Outlook and Seasonal Threat Monitoring

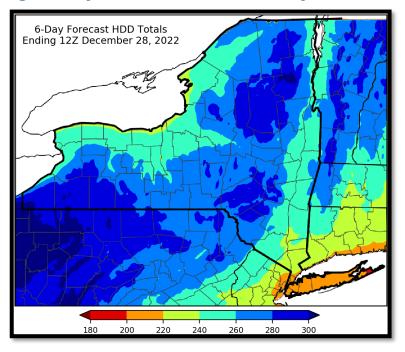


Notes:

- 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.



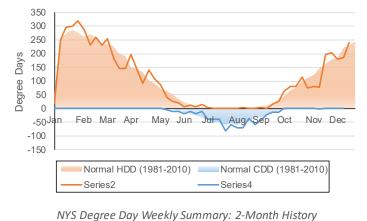
Degree Days Outlook and Summary



City	6-Day HDD	
City	Forecast	
Albany	251	
Binghamton	282	
Buffalo	255	
Glans Falls	260	
Massena	269	
NYC	216	
Rochester	253	
Syracuse	254	
Watertown	245	
Forecast Dates:		
12/22/2022 - 12/27/2022		

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)

Notes:

- 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: 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: <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: https://www.eia.gov/dnav/ng/xls/NG PRI SUM A EPG0 PRS DMCF M.xls.

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 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: 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