October 7, 2022

# Overall Energy & Fuels Markets Summary

- Liquid fuels and natural gas average spot prices slightly decreased and are comparable to the prior week, but remain elevated compared to last year/historical during this similar time. (see pages 1, 4, and 5)
  - Fuel price volatility remains high.
- 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.
- Consistent with elevated spot prices, NY consumers are paying elevated retail prices for fuels due to the market conditions for fossil fuels.
- Northeast distillate and East Region natural gas inventories are below the 5-year and 10-year ranges, respectively (see pages 2 and 3), as regional and local markets adjust for heating season demand. Natural gas inventories continue to rise and propane inventories are at typical levels for this time of year.
- Governor Hochul <u>Announces Actions</u> to Prepare New Yorkers for Rising Global Energy Costs This Winter.

### **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
Degree Days Outlook and Summary	. Page 7
References	Page 8

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

**NYSERDA** 



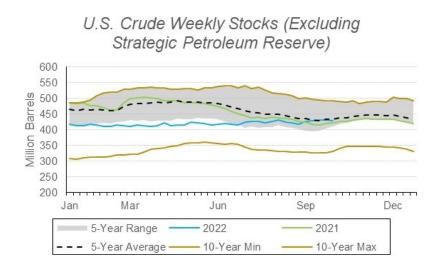
Note

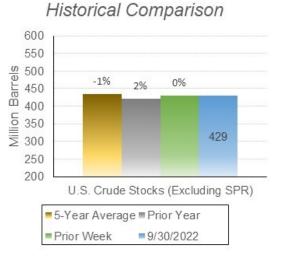
<sup>1.</sup> Data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.

<sup>2.</sup> Graphics summarize available USEIA data from the most recent week ending on Fridays, noted by the date.



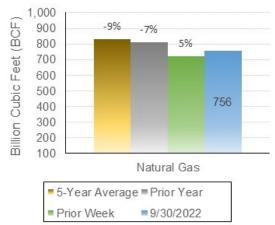
### National Crude and East Region Natural Gas Inventories





#### 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 2022 5-Year Range 2021 - 5-Year Average 10-Year Min 10-Year Max

### Historical Comparison

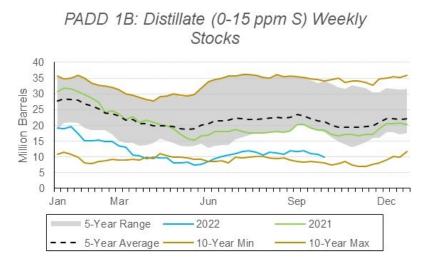


Note:

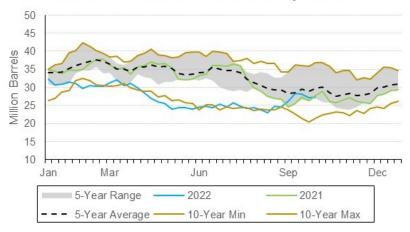
- 1. Data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.
- 2. Graphics summarize available USEIA data from the most recent week ending on Fridays.
- 3. Historical comparison bar chart percentages reflect current week. Positive values indicate current week is greater,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

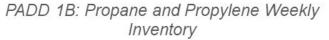


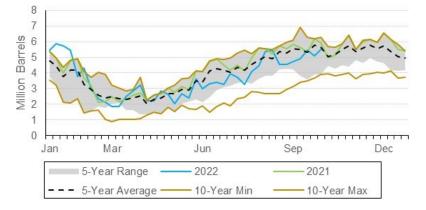
### **Regional Inventories: Select Liquid Fuels**



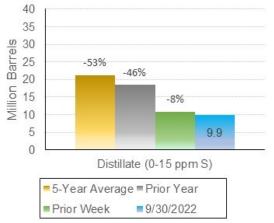
### PADD 1B: Total Gasoline Weekly Stocks



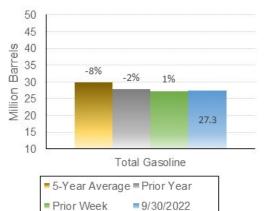




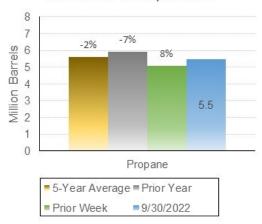
# Historical Comparison



### Historical Comparison



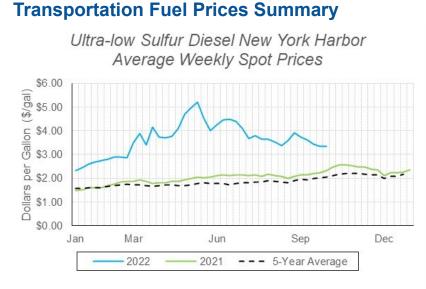
### Historical Comparison



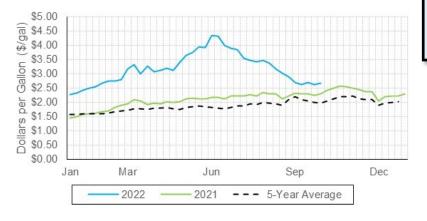
#### Notes:

- 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				
Fuertype	9/30/2022	9/23/2022	% Difference	Prior Year	% Difference
Regular Gasoline (dollars per gallon) <sup>2</sup>	\$3.66	\$3.75	-3%	\$3.28	12%
On-road Diesel (dollars per gallon) <sup>2</sup>	\$5.04	\$5.11	-1%	\$3.39	49%

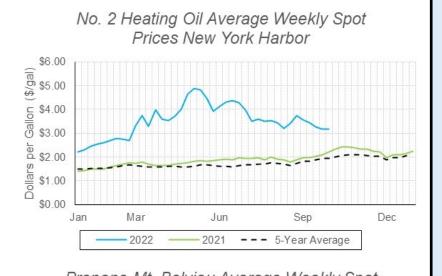
Notes:

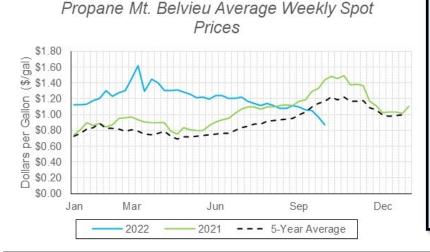
1. Wholesale price data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.

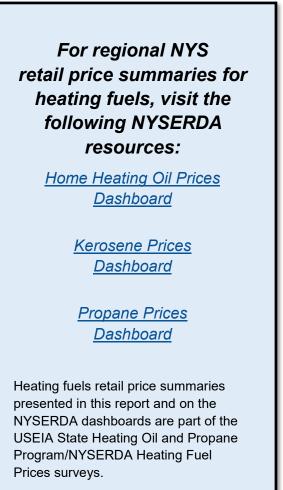
2. Retail price data from AAA, see references section for detailed citations. Visualizations by NYSERDA.



### **Heating Fuel Prices Summary**







Weekly Survey Results by Fuel Type	NYS Average Retail Prices				
	10/3/2022	9/26/2022	% Difference	Prior Year	% Difference
Ultra-low #2 Heating Oil Posted Credit Prices (dollars per gallon) <sup>2</sup>	\$4.817	\$4.752	1.4%	\$3.360	43.4%
Propane Posted Credit Prices - 1,100 gallon usage (dollars per gallon) <sup>2</sup>	\$3.525	\$3.491	1.0%	\$3.143	12.1%
Kerosene Posted Credit Prices (dollars per gallon) <sup>2</sup>	\$5.957	\$5.774	3.2%	\$3.723	60.0%
Monthly USEIA Reporting	July 2022	June 2022	% Difference	July 2021	% Difference
Monthly Average Residential Natural Gas Prices (dollars per Therm) <sup>3</sup>	\$2.536	\$2.380	6.6%	\$2.057	23.3%

Notes:

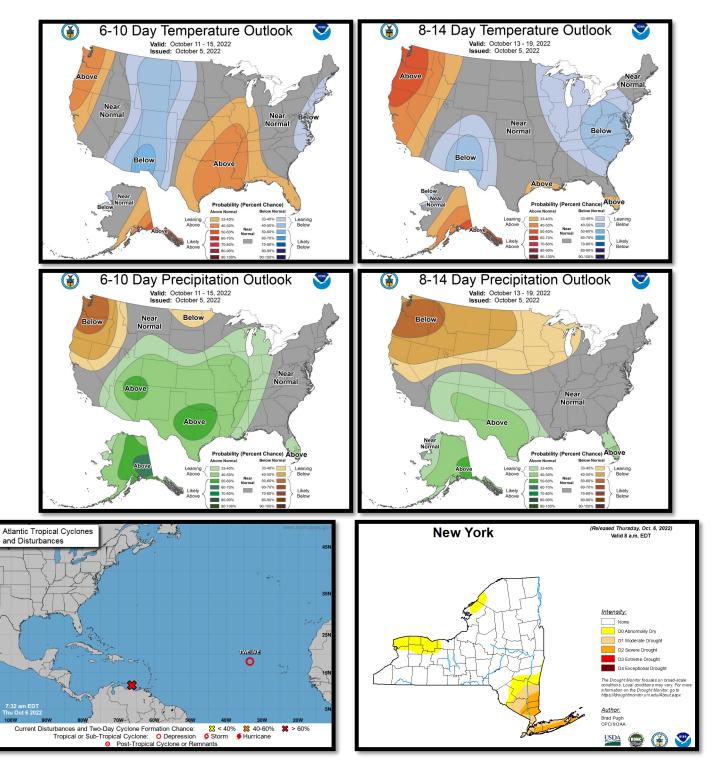
3. Residential natural gas price data from USEIA, see references section for detailed citations. Visualization by NYSERDA.

<sup>1.</sup> Wholesale price data from USEIA, see references section for detailed citations. Visualizations by NYSERDA.

<sup>2.</sup> Retail price data from USEIA & NYSERDA, 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 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**

Heating Degree Day Forecast Map is currently unavailable due to technical difficulties.

Forecast map will resume once available.

City	6-Day HDD Forecast		
Albany	78		
Binghamton	88		
Buffalo	81		
Glans Falls	86		
Massena	106		
NYC	37		
Rochester	81		
Syracuse	74		
Watertown	91		
Forecast Dates:			

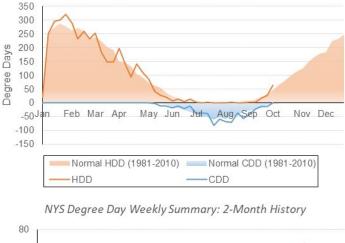
10/06/2022 - 10/11/2022

Notes: 1. M = Missing data

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)



NYS Degree Day Weekly Summary: Current Year

80 60 40 20 90 0 -20 -60 -80 Normal HDD (1981-2010) HDD CDD (1981-2010)

#### 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: <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>

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