NYSERDA Heating Fuels Report

October 18, 2021

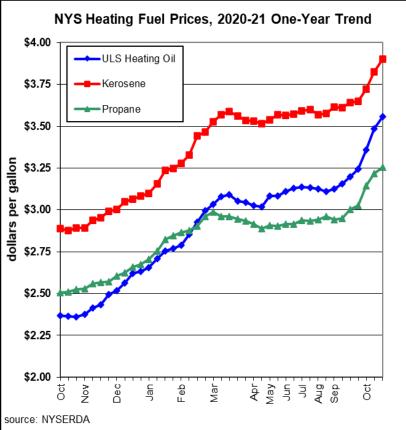
Highlights

- Mid-Atlantic ultra-low sulfur (ULS) distillate inventories decreased 0.3 million barrels (2.1%) since last week to 16.7 million barrels. Inventories are 47.8% below the year-ago level and 32.8% below the 5-year average.
- The weekly average U.S. WTI crude oil spot price increased \$2.68 per barrel (3.4%) since last week to \$81.18 per barrel. Current prices are \$40.85 per barrel (101.3%) above the year-ago weekly average of \$40.33 per barrel.
- New York Statewide average retail prices of ultra-low sulfur (ULS) heating oil, kerosene, and propane all increased since the last survey.

Retail Petroleum Prices—On a statewide basis since the last survey on October 11^{th} , prices increased 0.075/gallon (2.2%) to 3.559/gallon for ULS heating oil, 0.076/gallon (2.0%) to 3.903/gallon for kerosene, and 0.037/gallon (1.1%) to 3.256/gallon for propane. Compared to a year earlier, prices increased 1.191/gallon (50.3%) for heating oil, 1.013/gallon(35.1%) for kerosene, and 0.751/gallon (30.0%) for propane.

Crude Oil Prices—For the week ending 10/15/2021, WTI crude oil spot prices a veraged \$81.18/bbl, an increase of \$2.68/bbl(3.4%) from the week-ago average of \$78.50/bbl. WTI prices are now \$40.85/bbl (101.3%) above the year-ago weekly a verage of \$40.33/bbl. The all-time weekly average high of \$142.52/bbl occurred on 7/04/08.

Spot Natural Gas Prices—For the week ending 10/15/2021, Henry Hub natural gas spot prices a veraged \$5.500 per million Btu (MMBtu), a decrease of \$0.360/MMBtu (6.1%) from the prior week level of \$5.860/MMBtu. Prices are currently \$3.326/MMBtu (153.0%) above the year-earlier weekly a verage of \$2.174/MMBtu.



Residential Natural Gas Prices—The NYS average price in July 2021 was 2.057/therm, an increase of 0.358/therm (21.1%) from the June 2021 price of 1.699/therm, and was 0.185/therm (9.9%) higher than the year earlier average of 1.872/therm.

Middle Atlantic Stocks-Current and historic heating fuel inventory data is presented	in the table below.
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Middle Atlantic Region, Weekly Inventories (million barrels)							
Fuel Type	10/15/2021	10/8/2021	% Change vs. Last Week	Year Ago	% Change vs. Last Year	5-Year Average	% Change vs. 5-Year Avg
ULS Distillate (0-15 ppm)	16.7	17.0	-2.1%	32.0	-47.8%	24.8	-32.8%
Non-road Diesel (15-500 ppm)	0.5	0.4	20.6%	0.8	-44.2%	1.0	-54.6%
High Sulfur Distillate (>500 ppm)	1.8	1.8	0.2%	2.2	-20.7%	2.6	-31.4%
Total Distillate Oil	18.9	19.2	-1.4%	35.1	-46.0%	28.5	-33.5%
Propane	5.128	4.971	3.2%	5.291	-3.1%	5.100	0.5%
#6 Residual Oil	4.4	5.1	-12.8%	6.8	-35.0%	6.0	-26.4%
US Natural Gas	3,461	3,369	2.7%	3,919	-11.7%	3,612	-4.2%
US Crude Oil	426.5	427.0	-0.1%	488.1	-12.6%	452.6	-5.8%

Notes: Natural Gas in billion cubic feet (Bcf); Middle Atlantic is DE, DC, MD, NJ, NY, and PA

ppm = parts per million sulfur content

Source: US DOE/EIA



REGIO N	10/18/2021	10/11/2021	% Change vs. Prior Survey	Year Ago	% Change vs. Last Year
Long Island	3.759	3.695	1.7%	2.563	46.7%
New York City	3.727	3.660	1.8%	2.522	47.8%
Lower Hudson	3.640	3.543	2.7%	2.333	56.0%
Upper Hudson	3.410	3.357	1.6%	2.215	53.9%
Capital District	3.333	3.227	3.3%	2.135	56.1%
North Country	3.393	3.293	3.0%	2.331	45.5%
Central	3.332	3.239	2.9%	2.146	55.3%
Western*	3.634	3.614	0.6%	2.614	39.0%
Statewide*	3.559	3.484	2.2%	2.368	50.3%
New York St	tate Retail Propane Po	sted Credit Prices	· 1,100 gallon usage ca	tegory (dollars p	er gallon)
Long Island	3.776	3.707	1.8%	3.014	25.3%
Mid-Hudson	3.482	3.423	1.7%	2.695	29.2%
Capital District	3.121	3.091	1.0%	2.330	33.9%
North Country	3.366	3.337	0.9%	2.605	29.2%
Central	3.093	3.048	1.5%	2.329	32.8%
Western	3.014	3.011	0.1%	2.349	28.3%
Statewide	3.256	3.219	1.2%	2.505	30.0%
	New York State Ret	ail Kerosene Poste	l Credit Prices (dollar	s per gallon)	
Mid-Hudson	3.916	3.839	2.0%	2.946	32.9%
Capital District	3.864	3.720	3.9%	2.738	41.1%
North Country	3.766	3.720	1.2%	2.974	26.6%
Central	3.867	3.783	2.2%	2.698	43.3%
Western	4.144	4.133	0.2%	3.130	32.4%
Statewide	3.903	3.827	2.0%	2.890	35.1%
	New York State	Average Residentia	l Natural Gas Prices ((\$/therm)	· · · · ·
REGIO N	July 2021	June 2021	% Change vs. Prior Month	July 2020	% Change vs. Last Year
Statewide	2.057	1.699	21.1%	1.872	9.9%

* Revision

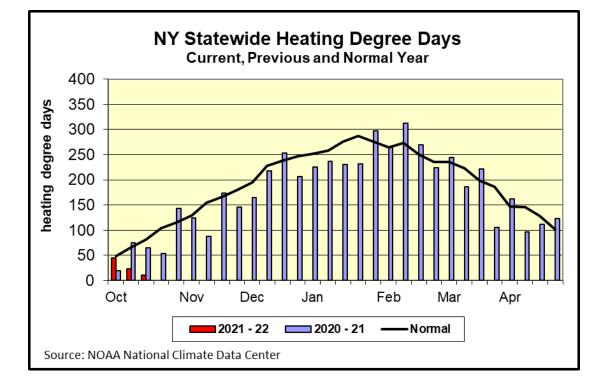
Historic Retail Prices—Statewide average high and low prices since Sept. 1997 for heating oil & propane & Sept. 2000 for kerosene.

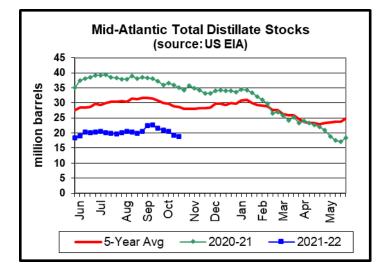
- Heating oil—highest price \$4.778/gallon on 7/14/08, lowest price \$0.876/gallon on 9/08/98.
- Propane—highest price \$3.811/gallon on 2/17/14, lowest price \$1.072/gallon on 9/20/99.
- Kerosene—highest price \$5.068/gallon on 7/14/08, lowest price \$1.309/gallon on 9/09/02.

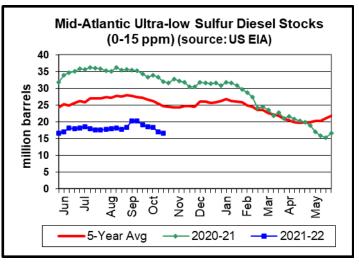
Residential Natural Gas Prices: Statewide average prices are derived from US EIA most currently available data. NYS gas utility specific prices can be found on the NYS DPS website at http://www.dps.ny.gov/TypicalBills.htm#GasRes.

New York State Regions: Long Island: Nassau and Suffolk New York City: Bronx, Kings, New York, Queens, and Richmond Lower Hudson: Dutchess, Putnam, Rockland, and Westchester Upper Hudson: Columbia, Greene, Orange, Sullivan, and Ulster Capital District: Albany, Fulton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, and Washington North Country: Clinton, Essex, Franklin, Hamilton, Jefferson, Lewis, St. Lawrence, and Warren Central: Broome, Cayuga, Chenango, Cortland, Delaware, Herkimer, Madison, Oneida, Onondaga, Oswego, Otsego, Tioga, and Tompkins Western: Allegany, Cattaraugus, Chautauqua, Chemung, Erie, Genesee, Livingston, Monroe, Nia gara, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Wyoming, and Yates counties. Propane & Kerosene: Mid-Hudson: Columbia, Dutchess, Greene, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester counties. B5 heating oil is required for Downstate New York including Nassau, Suffolk, NYC, and Westchester counties. **Heating Degree Days**—On a statewide basis during the past week, the number of heating degree-days (11) was 83.1% below the year-ago level (65) and 86.4% below the normal trend (81). On a cumulative basis since October 1st, current year heating degree-days (79) are behind the year-ago level (159) by 50.3% and behind the normal trend (195) by 59.5%.

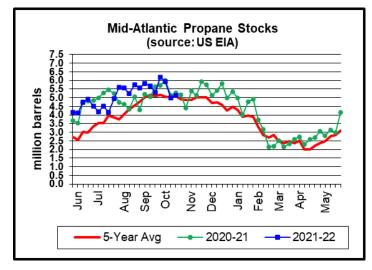
New York State Heating Degree Day Information, Weekly & Cumulative							
Week Ending October 16				Cumulative From October 1			
Region	2021	2020	Normal	2021-22	2020-21	Normal	
Albany	13	90	98	108	210	235	
Binghamton	28	74	110	124	208	276	
Buffalo	7	52	93	42	152	229	
Glens Falls	0	35	118	13	68	295	
Massena	20	101	120	162	250	301	
NYC	0	24	50	8	41	111	
Rochester	6	59	95	64	172	233	
Syracuse	2	58	98	45	157	241	
Watertown	11	96	114	111	219	289	
Statewide	11	65	81	79	159	195	



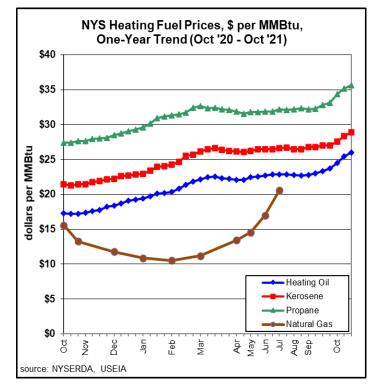




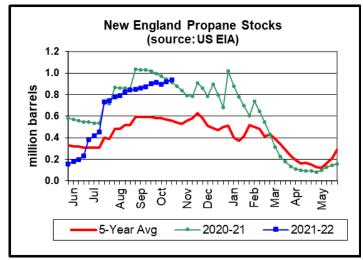
Propane Stocks—Current and historic heating fuel inventory data is presented in the graphs below.



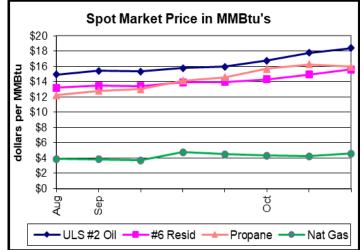
Retail Btu Price Equivalents—The New York State heating fuel prices Btu graph equates the retail price for New York Statewide a verage residential ultra-low sulfur heating oil, kerosene, propane, and natural gas on a dollar per million Btu (MMBtu) basis.



Note: Natural gas prices are from the U.S. EIA and provided on a monthly basis and delayed by 3 months. The monthly average price of natural gas is higher during the summer months due to low delivery volumes and fixed delivery charges and does not necessarily indicate a higher underlying supply price. Higher a verage natural gas prices in the summer months are not indicative of higher future prices during the winter months.



Spot Btu Price Equivalents—The Btu spot market graph equates the spot market price, in table below, for NY Harbor ultra-low sulfur diesel fuel and 0.3% sulfur high pour #6 residual fuel, Mont Belvieu propane, and the New York Citygate natural gas price on a dollar per million Btu (MMBtu) basis.



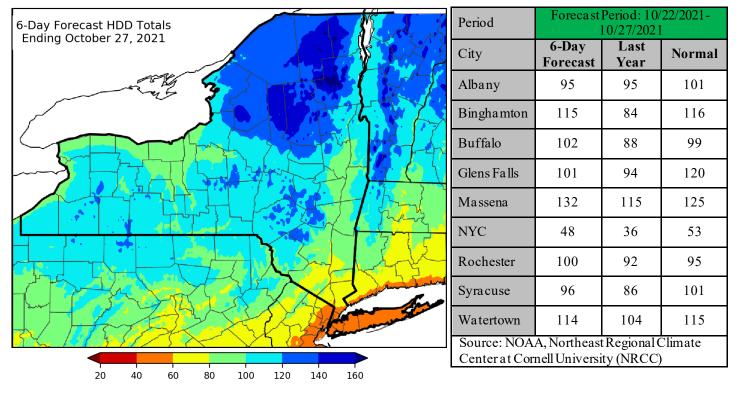
New York Spot Prices, Weekly Average					
Fuel	10/15/2021	Year Ago	% Change		
Ultra LS Diesel	2.555	1.183	115.9%		
#2 Fuel Oil	2.412	1.133	112.9%		
#6 Residual 0.3%	2.338	1.263	85.1%		
Propane	1.457	0.531	174.3%		
Natural Gas	4.605	1.003	359.1%		

Note: Fuel in \$/gallon, natural gas (\$/MMBtu)=NYCitygate

Weather Outlooks – Based on data and maps provided by the National Oceanic and Atmospheric Administration (NOAA) and the Northeast Regional Climate Center at Cornell University (NRCC).

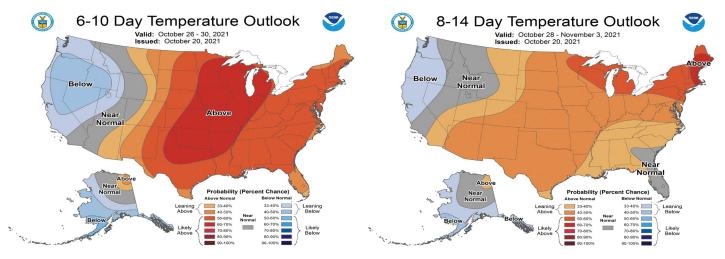
Statewide Forecast HDD: On a statewide basis for the week ending October 23^{rd} , the number of forecasted heating degree-days (72) is 41.2% above last year (51) and 28.7% below the normal trend (101). Regional HDD forecasts are provided in the map and table below.

Regional Heating Degree-Day Forecast



6-10 Day Outlook Temperature Probability from the Climate Prediction Center (NOAA). The forecasted map presents the 6-10 day temperature probability outlook for the United States for October 26, 2021 – October 30, 2021. This is in comparison to the 30-year normal (1981-2010).

8-14 Day Outlook Temperature Probability from the Climate Prediction Center (NOAA). The forecasted map presents the 8-14 day temperature probability outlook for the United States for October 28, 2021 – November 3, 2021. This is in comparison to the 30-year normal (1981-2010).



Additional historic <u>regional specific prices and supply information</u> is a vailable at NYSERDA's website. For more information, please contact Matthew Milford at (518) 862-1090 ext. 3416, e-mail <u>matthew.milford@nyserda.ny.gov</u>.