NYSERDA Heating Fuels Report

August 16, 2021

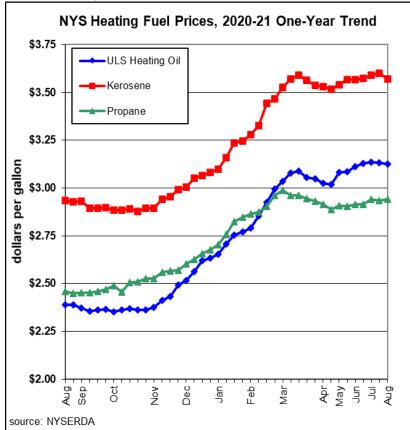
Highlights

- Mid-Atlantic ultra-low sulfur (ULS) distillate inventories increased 0.2 million barrels (1.1%) since last week to 18.1 million barrels. Inventories are 49.9% below the year-ago level and 35.5% below the 5-year average.
- The weekly average U.S. WTI crude oil spot price decreased \$1.17 per barrel (1.7%) since last week to \$68.33 per barrel. Current prices are \$26.25 per barrel (62.4%) above the year-ago weekly average of \$42.08 per barrel.
- New York Statewide average retail prices of ultra-low sulfur (ULS) heating oil and kerosene decreased while the average retail price of propane increased since the last survey.

Retail Petroleum Prices—On a statewide basis since the last survey on July 26^{th} , prices decreased 0.006/gallon (0.2%) to 3.126/gallon for ULS heating oil, 0.031/gallon (0.9%) to 3.570/gallon for kerosene, and the price increased 0.008/gallon (0.3%) to 2.942/gallon for propane. Compared to a year earlier, prices increased 0.736/gallon (30.8%) for heating oil, 0.635/gallon (21.6%) for kerosene, and 0.481/gallon(19.5%) for propane.

Crude Oil Prices—For the week ending 8/13/2021, WTI crude oil spot prices a veraged \$68.33/bbl, a decrease of \$1.17/bbl(1.7%) from the week-ago a verage of \$69.50/bbl. WTI prices are now \$26.25/bbl (62.4%) above the year-ago weekly a verage of \$42.08/bbl. The all-time weekly average high of \$142.52/bbl occurred on 7/04/08.

Spot Natural Gas Prices—For the week ending 8/13/2021, Henry Hub natural gas spot prices averaged \$4.048 per million Btu (mmBtu), a decrease of \$0.036/mmBtu (0.9%) from the prior week level of \$4.084/mmBtu. Prices are currently \$1.916/mmBtu (89.9%) above the year-earlier weekly a verage of \$2.132/mmBtu.



 $\label{eq:residential Natural Gas Prices} The NYS average price in May 2021 was $1.444/therm, an increase of $0.113/therm (8.5\%) from the April 2021 price of $1.331/therm, and was $0.323/therm (28.8\%) higher than the year earlier average of $1.121/therm.$

Middle Atlantic Stocks	-Current and historic h	eating fuel inventor	y data is presented	in the table below.
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Middle Atlantic Region, Weekly Inventories (million barrels)							
Fuel Type	8/13/2021	8/6/2021	% Change vs. Last Week	Year Ago	% Change vs. Last Year	5-Year Average	% Change vs. 5-Year Avg
ULS Distillate (0-15 ppm)	18.1	17.9	1.1%	36.1	-49.9%	28.1	-35.5%
Non-road Diesel (15-500 ppm)	0.4	0.4	-8.7%	1.2	-69.7%	1.2	-67.7%
High Sulfur Distillate (>500 ppm)	1.8	2.2	-17.7%	1.6	15.3%	2.5	-25.7%
Total Distillate Oil	20.3	20.5	-1.1%	39.0	-47.8%	31.7	-35.9%
Propane	5.233	5.562	-5.9%	4.321	21.1%	4.337	20.7%
#6 Residual Oil	5.3	5.0	5.8%	7.6	-30.6%	6.1	-12.9%
US Natural Gas	2,822	2,776	1.7%	3,369	-16.2%	2,996	-5.8%
US Crude Oil	435.5	438.8	-0.7%	512.5	-15.0%	464.3	-6.2%

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	8/16/2021	7/26/2021	% Change vs. Prior Survey	Year Ago	% Change vs. Last Year
Long Island	3.252	3.276	-0.7%	2.573	26.4%
New York City	3.285	3.309	-0.7%	2.553	28.7%
Lower Hudson	3.137	3.121	0.5%	2.336	34.3%
Upper Hudson	3.044	3.065	-0.7%	2.197	38.5%
Capital District	2.895	2.888	0.2%	2.183	32.6%
North Country	3.072	3.043	0.9%	2.391	28.5%
Central	2.848	2.860	-0.4%	2.133	33.5%
Western	3.420	3.403	0.5%	2.723	25.6%
Statewide	3.126	3.132	-0.2%	2.390	30.8%
New York St	ate Retail Propane Po	sted Credit Prices -	· 1,100 gallon usage ca	tegory (dollars p	er gallon)
Long Island	3.449	3.428	0.6%	3.025	14.0%
Mid-Hudson	3.067	3.101	-1.1%	2.704	13.4%
Capital District	2.801	2.787	0.5%	2.317	20.9%
North Country	3.077	3.064	0.4%	2.595	18.6%
Central	2.771	2.727	1.6%	2.308	20.1%
Western	2.816	2.814	0.1%	2.166	30.0%
Statewide	2.942	2.934	0.3%	2.461	19.5%
	New York State Ret	ail Kerosene Posteo	l Credit Prices (dollar	s per gallon)	
Mid-Hudson	3.619	3.730	-3.0%	3.050	18.7%
Capital District	3.415	3.415	0.0%	2.733	25.0%
North Country	3.590	3.549	1.2%	3.027	18.6%
Central	3.414	3.421	-0.2%	2.698	26.5%
Western	3.859	3.859	0.0%	3.141	22.9%
Statewide	3.570	3.601	-0.9%	2.935	21.6%
	New York State	Average Residentia	l Natural Gas Prices (\$/therm)	
REGIO N	May 2021	April 2021	% Change vs. Prior Month	May 2020	% Change vs. Last Year
Statewide	1.444	1.331	8.5%	1.121	28.8%

* Revision

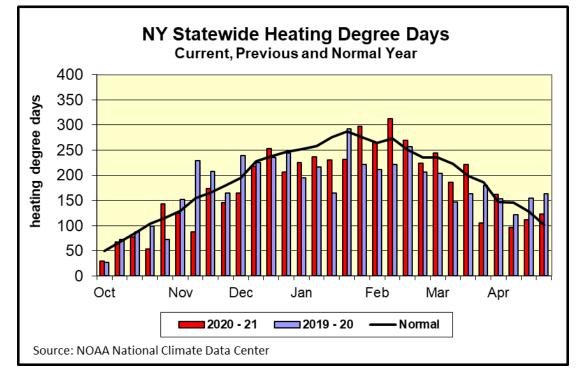
Historic Retail Prices—Statewide average high and low prices since Sept. 1997 for heating oil & propane & Sept. 2000 for kerosene.

- 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.

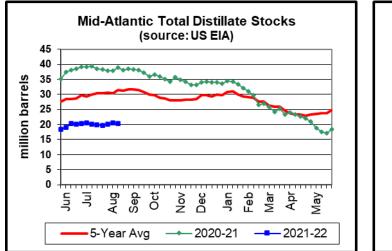
Residential Natural Gas Prices: Statewide average prices are derived from US EIA most currently available data. NYS gas utility specific prices can be found on the NYS DPS website at http://www.dps.ny.gov/TypicalBills.htm#GasRes.

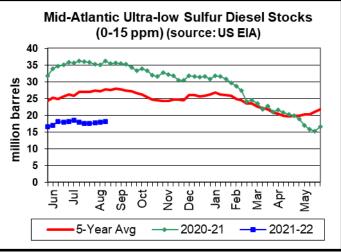
New York State Regions: Long Island: Nassau and Suffolk New York City: Bronx, Kings, New York, Queens, and Richmond Lower Hudson: Dutchess, Putnam, Rockland, and Westchester Upper Hudson: Columbia, Greene, Orange, Sullivan, and Ulster Capital District: Albany, Fulton, Montgomery, Rensselaer, Saratoga, 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**— Until the start of the next heating season in October, the heating degree-day information below reflects weekly information through April 24, 2021. Cumulative statewide heating degree-days from October 1st through April 24th end the current season at 5,287 HDDs, which is behind the year-ago level (5,328) by 0.8% and behind the normal trend (5,699) by 7.2%.

New York State Heating Degree Day Information, Weekly & Cumulative						
Week Ending April 24			Cumulative From October 1			
Region	2021	2020	Normal	2020-21	2019-20	Normal
Albany	147	162	109	6,087	5,452	5,986
Binghamton	162	203	129	6,084	6,199	6,535
Buffalo	151	190	124	5,353	5,552	6,124
Glens Falls	79	194	125	4,771	6,486	6,859
Massena	143	203	135	6,687	6,985	7,409
NYC	64	118	79	3,836	3,953	4,542
Rochester	146	192	121	5,559	5,732	6,142
Syracuse	127	176	120	5,465	5,697	6,233
Watertown	146	200	136	6,283	6,448	6,936
Statewide	123	164	102	5,287	5,328	5,699

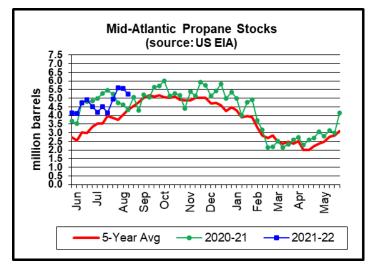


Distillate Stocks-Current and historic heating fuel inventory data is presented in the graphs below.

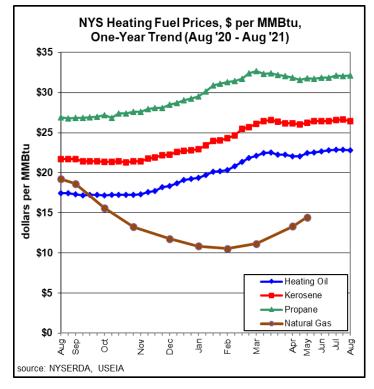




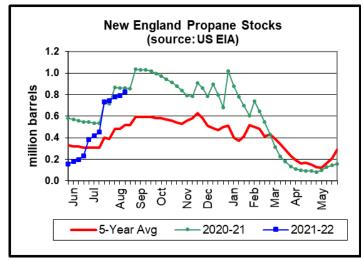
Propane Stocks—Current and historic heating fuel inventory data is presented in the graphs below.



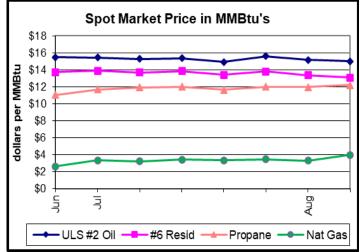
Retail Btu Price Equivalents—The New York State heating fuel prices Btu graph equates the retail price for New York Statewide a verage residential ultra-low sulfur heating oil, kerosene, propane, and natural gas on a dollar per million Btu (MMBtu) basis.



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.



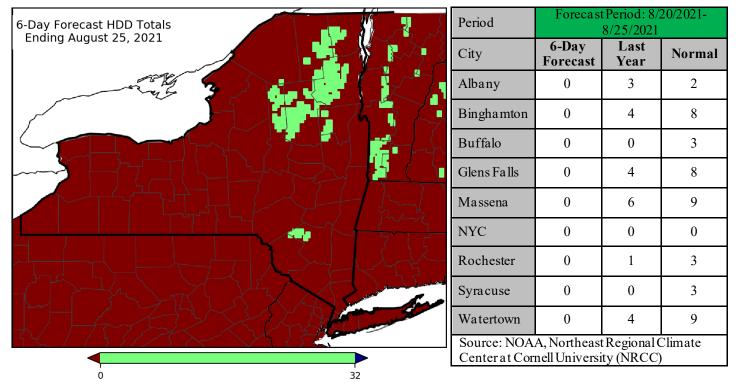
New York Spot Prices, Weekly Average							
Fuel	8/13/2021	Year Ago	% Change				
Ultra LS Diesel	2.079	1.229	69.2%				
#2 Fuel Oil	1.881	1.182	59.2%				
#6 Residual 0.3%	1.960	1.278	53.4%				
Propane	1.116	0.503	122.0%				
Natural Gas	3.959	1.610	145.9%				

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).

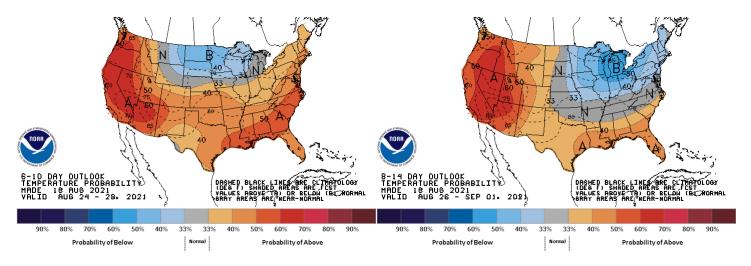
Statewide Forecast HDD: On a statewide basis for the week ending August 21^{st} , the number of forecasted heating degree-days (0) is the same as last year (0) and 100% below the normal trend (4). Regional HDD forecasts are provided in the map and table below.

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 August 24, 2021 – August 28, 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 August 26, 2021 – September 1, 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>.