NYSERDA Heating Fuels Report

November 1, 2021

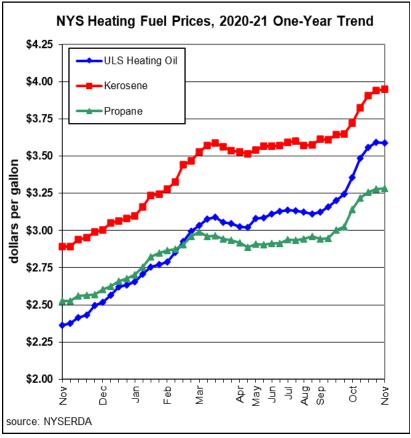
Highlights

- U.S. natural gas inventories end October (week ending October 29) at 3,611 Bcf in storage, 8.0% lower than last year and 2.7% below the 5-year average.
- The weekly average U.S. WTI crude oil spot price increased \$0.36 per barrel (0.4%) since last week to \$83.84 per barrel. Current prices are \$46.52 per barrel (124.7%) above the year-ago weekly average of \$37.32 per barrel.
- The New York Statewide average retail price of ultra-low sulfur (ULS) heating oil decreased while the average retail prices of kerosene and propane increased since the last survey.

Retail Petroleum Prices—On a statewide basis since the last survey on October 25^{th} , the price decreased 0.002/gallon (0.1%) to 3.590/gallon for ULS heatingoil, prices increased <math>0.009/gallon (0.2%) to 3.950/gallon for kerosene, and 0.006/gallon (0.2%) to 3.285/gallon for propane. Compared to a year earlier, prices increased 1.229/gallon (52.1%) for heating oil, 1.056/gallon (36.5%) for kerosene, and 0.760/gallon (30.1%) for propane.

Crude Oil Prices—For the week ending 10/29/2021, WTI crude oil spot prices a veraged \$83.84/bbl, an increase of \$0.36/bbl(0.4%) from the week-ago average of \$83.48/bbl. WTI prices are now \$46.52/bbl (124.7%) above the year-ago weekly a verage of \$37.32/bbl. The all-time weekly average high of \$142.52/bbl occurred on 7/04/08.

Spot Natural Gas Prices—For the week ending 10/29/2021, Henry Hub natural gas spot prices a veraged \$5.614 per million Btu (MMBtu), an increase of \$0.648/MMBtu (13.0%) from the prior week level of \$4.966/MMBtu. Prices are currently \$2.572/MMBtu (84.5%) above the year-earlier weekly a verage of \$3.042/MMBtu.



Residential Natural Gas Prices—The NYS average price in August 2021 was \$2.237/therm, an increase of \$0.180/therm (8.8%) from the July 2021 price of \$2.057/therm, and was \$0.318/therm (16.6%) higher than the year earlier a verage of \$1.919/therm.

Middle Atlantic Region, Weekly Inventories (million barrels)							
Fuel Type	10/29/2021	10/22/2021	% Change vs. Last Week	Year Ago	% Change vs. Last Year	5-Year Average	% Change vs. 5-Year Avg
ULS Distillate (0-15 ppm)	17.1	17.1	-0.2%	32.8	-47.9%	24.3	-29.6%
Non-road Diesel (15-500 ppm)	0.5	0.5	-1.7%	1.0	-53.1%	1.2	-59.2%
High Sulfur Distillate (>500 ppm)	2.2	2.0	10.6%	1.9	19.3%	2.7	-19.6%
Total Distillate Oil	19.8	19.6	0.9%	35.7	-44.6%	28.2	-29.8%
Propane	6.433	5.844	10.1%	4.394	46.4%	4.857	32.5%
#6 Residual Oil	5.0	5.0	0.8%	6.2	-18.8%	6.1	-18.3%
US Natural Gas	3,611	3,548	1.8%	3,924	-8.0%	3,712	-2.7%
US Crude Oil	434.1	430.8	0.8%	484.4	-10.4%	458.9	-5.4%

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	11/1/2021	10/25/2021	% Change vs. Prior Survey	Year Ago	% Change vs. Last Year
Long Island	3.754	3.772	-0.5%	2.536	48.0%
New York City	3.747	3.762	-0.4%	2.499	49.9%
Lower Hudson*	3.682	3.707	-0.7%	2.310	59.4%
Upper Hudson	3.436	3.422	0.4%	2.214	55.2%
Capital District	3.386	3.355	0.9%	2.123	59.4%
North Country	3.444	3.443	0.0%	2.350	46.6%
Central	3.376	3.354	0.7%	2.187	54.4%
Western	3.694	3.686	0.2%	2.628	40.6%
Statewide*	3.590	3.592	0.0%	2.361	52.1%
New York St	tate Retail Propane Po	sted Credit Prices	· 1,100 gallon usage c	ategory (dollars po	er gallon)
Long Island	3.899	3.876	0.6%	3.016	29.3%
Mid-Hudson*	3.530	3.516	0.4%	2.716	30.0%
Capital District	3.123	3.112	0.4%	2.375	31.5%
North Country	3.394	3.367	0.8%	2.628	29.2%
Central	3.121	3.117	0.1%	2.348	32.9%
Western	3.010	3.035	-0.8%	2.362	27.4%
State wide *	3.285	3.279	0.2%	2.525	30.1%
	New York State Reta	il Kerosene Poste	l Credit Prices (dolla	rs per gallon)	
Mid-Hudson	3.962	3.967	-0.1%	2.940	34.7%
Capital District	3.892	3.892	0.0%	2.734	42.4%
North Country	3.811	3.779	0.8%	2.976	28.1%
Central	3.937	3.911	0.7%	2.753	43.0%
Western	4.189	4.189	0.0%	3.097	35.3%
Statewide	3.950	3.941	0.2%	2.894	36.5%
	New York State	Average Residentia	l Natural Gas Prices	(\$/therm)	
REGIO N	August 2021	July 2021	% Change vs. Prior Month	August 2020	% Change vs. Last Year
Statewide	2.237	2.057	8.8%	1.919	16.6%

* Revision

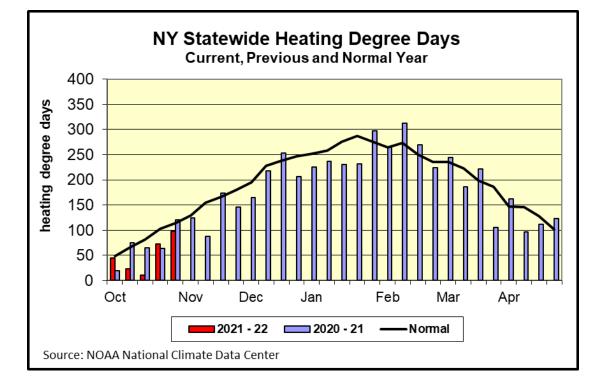
Historic Retail Prices—Statewide average high and low prices since Sept. 1997 for heating oil & propane & Sept. 2000 for kerosene.

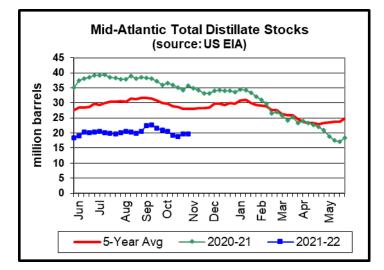
- Heating oil—highest price \$4.778/gallon on 7/14/08, lowest price \$0.876/gallon on 9/08/98.
- Propane—highest price \$3.811/gallon on 2/17/14, lowest price \$1.072/gallon on 9/20/99.
- Kerosene—highest price \$5.068/gallon on 7/14/08, lowest price \$1.309/gallon on 9/09/02.

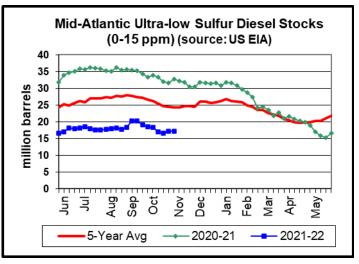
Residential Natural Gas Prices: Statewide average prices are derived from US EIA most currently available data. NYS gas utility specific prices can be found on the NYS DPS website at http://www.dps.ny.gov/TypicalBills.htm#GasRes.

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 (98) was 18.3% below the year-ago level (120) and 14.0% below the normal trend (114). On a cumulative basis since October 1st, current year heating degree-days (249) are behind the year-ago level (343) by 27.4% and behind the normal trend (412) by 39.6%.

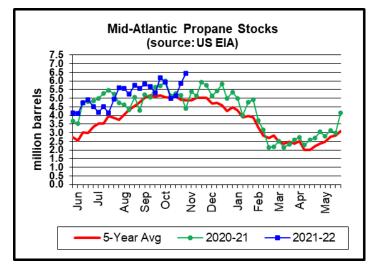
New York State Heating Degree Day Information, Weekly & Cumulative							
Week Ending October 30				Cumulative From October 1			
Region	2021	2020	Normal	2021-22	2020-21	Normal	
Albany	113	139	131	294	443	482	
Binghamton	112	129	142	344	433	544	
Buffalo	108	123	126	230	372	465	
Glens Falls	49	82	151	87	183	581	
Massena	140	150	156	412	528	595	
NYC	44	57	79	80	126	254	
Rochester	114	122	126	267	403	470	
Syracuse	98	118	128	215	362	483	
Watertown	131	139	147	321	471	568	
Statewide	98	120	114	249	343	412	



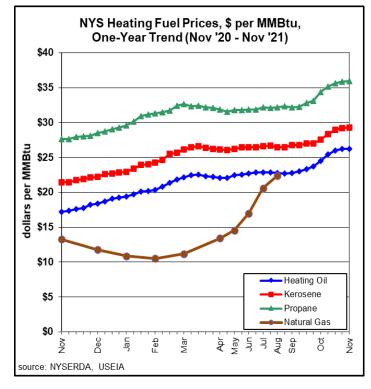




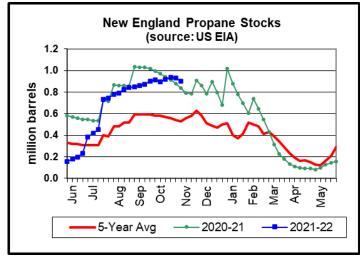
Propane Stocks—Current and historic heating fuel inventory data is presented in the graphs below.



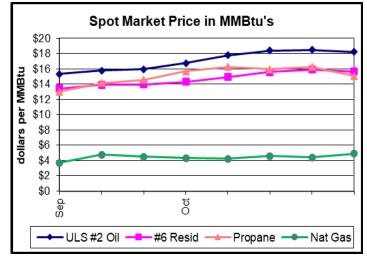
Retail Btu Price Equivalents—The New York State heating fuel prices Btu graph equates the retail price for New York Statewide a verage residential ultra-low sulfur heating oil, kerosene, propane, and natural gas on a dollar per million Btu (MMBtu) basis.



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.



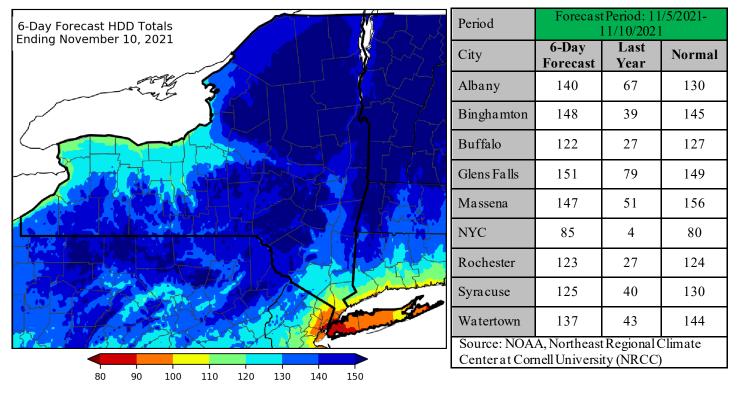
New York Spot Prices, Weekly Average						
Fuel	10/29/2021	Year Ago	% Change			
Ultra LS Diesel	2.529	1.117	126.4%			
#2 Fuel Oil	2.388	1.055	126.3%			
#6 Residual 0.3%	2.345	1.208	94.2%			
Propane	1.377	0.534	157.9%			
Natural Gas	4.926	1.716	187.1%			

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).

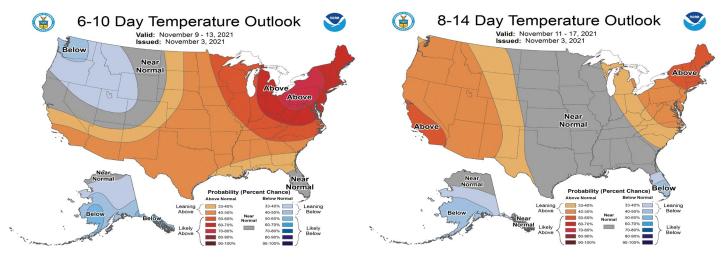
Statewide Forecast HDD: On a statewide basis for the week ending November 6^{th} , the number of forecasted heating degree-days (130) is 3.2% above last year (126) and the same as the normal trend (130). Regional HDD forecasts are provided in the map and table below.

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 November 9, 2021 - November 13, 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 November 11, 2021 - November 17, 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>.