NYSERDA Heating Fuels Report

September 7, 2020

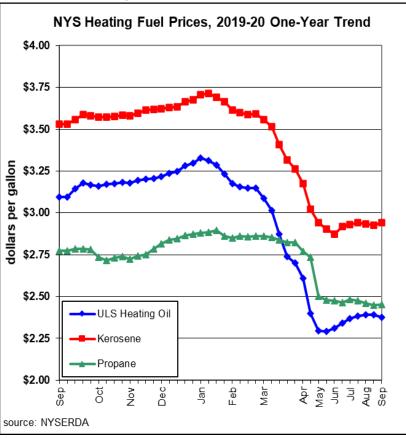
Highlights

- Mid-Atlantic propane inventories increased 918,000 barrels (21.4%) since last week to 4.293 million barrels. Inventories are 14.6% below the year-ago level but are 14.3% above the 5-year average.
- Mid-Atlantic ultra-low sulfur (ULS) distillate inventories decreased 0.1 million barrels (0.2%) since last week to 35.5 million barrels. Inventories are 61.5% above the year-ago level and 31.2% above the 5-year average.
- 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 August 31^{st} , the price decreased 0.016/gallon (0.7%) to 2.374/gallon for ULS heating oil, prices increased 0.013/gallon (0.4%) to 2.941/gallon for kerosene, and 0.004/gallon (0.2%) to 2.453/gallon for propane. Compared to a year earlier, prices decreased 0.723/gallon (23.3%) for heating oil, 0.591/gallon (16.7%) for kerosene, and 0.319/gallon (11.5%) for propane.

Crude Oil Prices—For the week ending 9/4/2020, WTI crude oil spot prices a veraged \$41.84/bbl, a decrease of \$1.09/bbl(2.5%) from the week-ago average of \$42.93/bbl. WTI prices are now \$13.89/bbl (24.9%) below the year-ago weekly average of \$55.73/bbl. The all-time weekly average high of \$142.52/bbl occurred on 7/04/08.

Spot Natural Gas Prices—For the week ending 9/4/2020, Henry Hub natural gas spot prices a veraged \$2.164 per million Btu (mmBtu), a decrease of \$0.340/mmBtu (13.6%) from the prior week level of \$2.504/mmBtu. Prices are currently \$0.232/mmBtu (9.7%) below the year-earlier weekly a verage of \$2.396/mmBtu.



Residential Natural Gas Prices—The NYS average price in June 2020 was 1.561/therm, an increase of 0.437/therm (38.9%) from the May 2020 price of 1.124/therm, and was 0.095/therm (5.7%) lower than the year earlier average of 1.656/therm.

Middle Atlantic Stocks-Current and historic heating fuel inventory da	ta is presented in the table below.
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Middle Atlantic Region, Weekly Inventories (million barrels)							
Fuel Type	9/4/2020	8/28/2020	% Change vs. Last Week	Year Ago	% Change vs. Last Year	5-Year Average	% Change vs. 5-Year Avg
ULS Distillate (0-15 ppm)	35.5	35.6	-0.2%	22.0	61.5%	27.1	31.2%
Non-road Diesel (15-500 ppm)	1.0	1.2	-10.9%	0.4	154.3%	1.2	-15.2%
High Sulfur Distillate (>500 ppm)	1.9	1.7	10.8%	3.1	-39.6%	3.1	-39.5%
Total Distillate Oil	38.4	38.4	-0.1%	25.5	50.8%	31.4	22.5%
Propane	5.211	4.293	21.4%	6.099	-14.6%	4.560	14.3%
#6 Residual Oil	7.1	7.7	-8.9%	6.7	5.3%	6.1	15.6%
US Natural Gas	3,525	3,455	2.0%	2,997	17.6%	3,116	13.1%
US Crude Oil	500.4	498.4	0.4%	416.1	20.3%	436.3	14.7%

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	9/7/2020	8/31/2020	% Change vs. Prior Survey	Year Ago	% Change vs. Last Year
Long Island	2.552	2.565	-0.5%	3.294	-22.5%
New York City	2.482	2.538	-2.2%	3.251	-23.7%
Lower Hudson	2.339	2.349	-0.4%	3.091	-24.3%
Upper Hudson	2.202	2.214	-0.5%	2.916	-24.5%
Capital District	2.184	2.186	-0.1%	2.842	-23.2%
North Country	2.418	2.404	0.6%	3.115	-22.4%
Central	2.109	2.122	-0.6%	2.882	-26.8%
Western	2.696	2.716	-0.7%	3.264	-17.4%
Statewide	2.374	2.390	-0.7%	3.097	-23.3%
New York St	ate Retail Propane Po	sted Credit Prices	- 1,100 gallon usage ca	itegory (dollars p	er gallon)
Long Island	3.034	3.016	0.6%	3.053	-0.6%
Mid-Hudson*	2.649	2.641	0.3%	2.731	-3.0%
Capital District	2.303	2.316	-0.6%	2.702	-14.8%
North Country	2.561	2.593	-1.2%	3.621	-29.3%
Central	2.308	2.310	-0.1%	2.469	-6.5%
Western	2.218	2.179	1.8%	2.447	-9.4%
Statewide*	2.453	2.449	0.2%	2.772	-11.5%
	New York State Ret	ail Kerosene Poste	d Credit Prices (dollar	s per gallon)	
Mid-Hudson	3.056	3.051	0.2%	3.628	-15.8%
Capital District	2.729	2.720	0.3%	3.296	-17.2%
North Country	3.104	3.036	2.2%	3.642	-14.8%
Central	2.676	2.699	-0.9%	3.346	-20.0%
Western	3.113	3.069	1.4%	3.735	-16.7%
Statewide	2.941	2.928	0.4%	3.532	-16.7%
	New York State	Average Residenti:	nl Natural Gas Prices ((\$/therm)	
REGIO N	June 2020	May 2020	% Change vs. Prior Month	June 2019	% Change vs. Last Year
Statewide	1.561	1.124	38.9%	1.656	-5.7%

* Revision

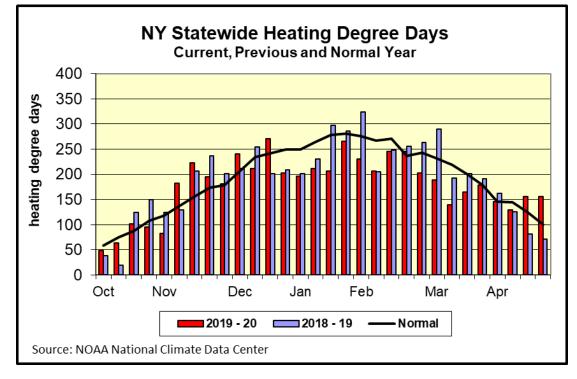
Historic Retail Prices—Statewide average high and low prices since Sept. 1997 for heating oil & propane & Sept. 2000 for kerosene.

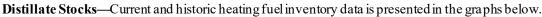
- Heating oil—highest price \$4.778/gallon on 7/14/08, lowest price \$0.876/gallon on 9/08/98.
- Propane—highest price \$3.811/gallon on 2/17/14, lowest price \$1.072/gallon on 9/20/99.
- Kerosene—highest price \$5.068/gallon on 7/14/08, lowest price \$1.309/gallon on 9/09/02.

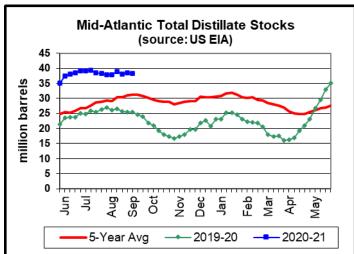
Residential Natural Gas Prices: Statewide average prices are derived from US EIA most currently available data. NYS gas utility specific prices can be found on the NYS DPS website at http://www.dps.ny.gov/TypicalBills.htm#GasRes.

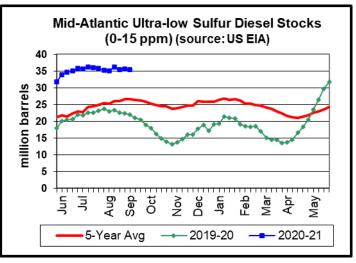
New York State Regions: Long Island: Nassau and Suffolk New York City: Bronx, Kings, New York, Queens, and Richmond Lower Hudson: Dutchess, Putnam, Rockland, and Westchester Upper Hudson: Columbia, Greene, Orange, Sullivan, and Ulster Capital District: Albany, Fulton, Montgomery, Rensselaer, Saratoga, 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 25, 2020. Cumulative statewide heating degree-days from October 1st through April 25th end the current season at 5,368, which is behind the year-ago level (5,728) by 6.3% and behind the normal trend (5,737) by 6.4%.

New York State Heating Degree Day Information, Weekly & Cumulative						
Week Ending April 25				Cumulative From October 1		
Region	2020	2019	Normal	2019-20	2018-19	Normal
Albany	140	33	106	5,475	5,979	6,020
Binghamton	178	67	126	6,229	6,615	6,570
Buffalo	170	111	121	5,586	6,275	6,161
Glens Falls	171	79	122	6,509	6,797	6,893
Massena	194	97	131	7,025	7,659	7,447
NYC	107	36	77	3,982	4,384	4,574
Rochester	179	93	119	5,771	6,025	6,179
Syracuse	157	71	118	5,725	6,348	6,269
Watertown	190	108	133	6,485	7,111	6,974
Statewide	156	71	100	5,368	5,728	5,737

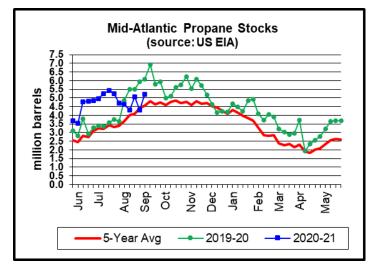




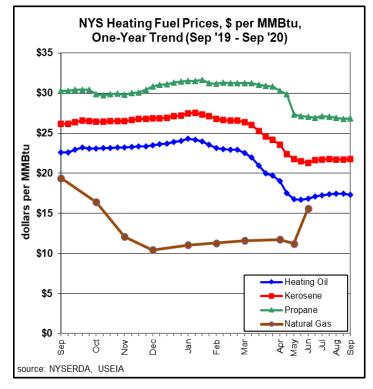




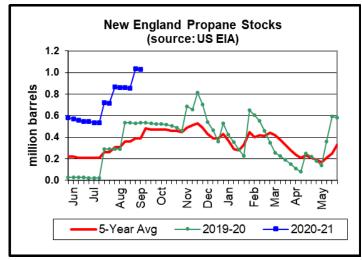
Propane Stocks—Current and historic heating fuel inventory data is presented in the graphs below.



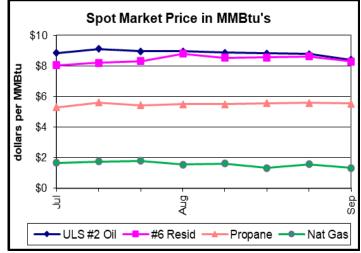
Retail Btu Price Equivalents—The New York State heating fuel prices Btu graph equates the retail price for New York Statewide a verage residential ultra-low sulfur heating oil, kerosene, propane, and natural gas on a dollar per million Btu (MMBtu) basis.



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.



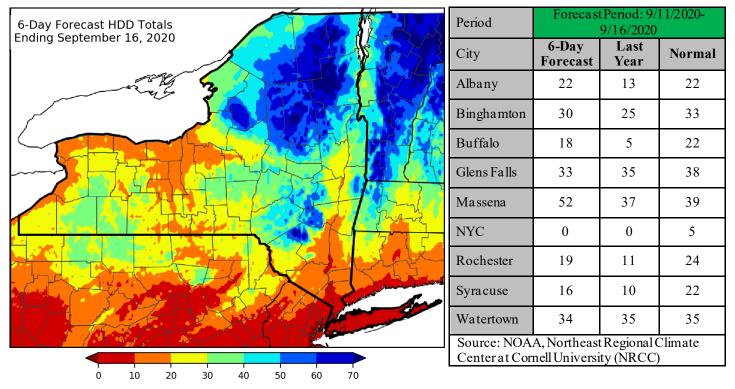
New York Spot Prices, Weekly Average						
Fuel	9/4/2020	Year Ago	% Change			
Ultra LS Diesel	1.166	1.865	-37.5%			
#2 Fuel Oil	1.124	1.848	-39.2%			
#6 Residual 0.3%	1.240	1.639	-24.4%			
Propane	0.506	0.429	18.2%			
Natural Gas	1.324	1.724	-23.2%			

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).

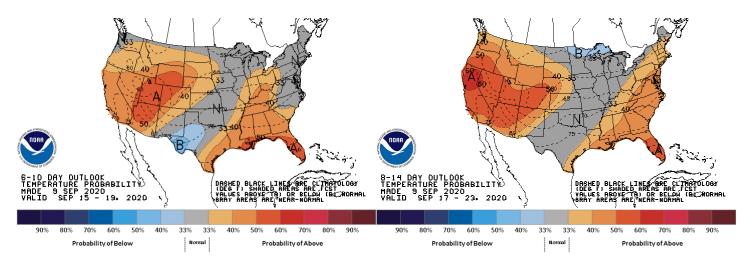
Statewide Forecast HDD: On a statewide basis for the week ending September 12^{th} , the number of forecasted heating degree-days (0) is 100% below last year (6) and 100% below the normal trend (14). Regional HDD forecasts are provided in the map and table below.

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 September 15, 2020 – September 19, 2020. 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 September 17, 2020 – September 23, 2020. 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>.