NYSERDA Heating Fuels Report

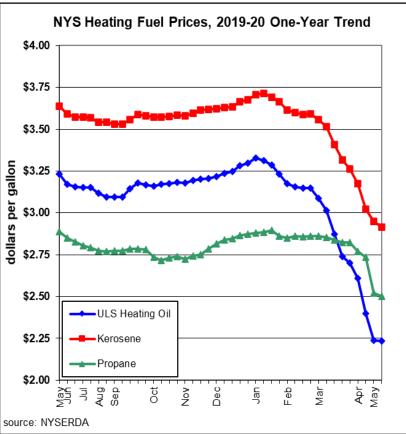
Highlights

- Mid-Atlantic ultra-low sulfur (ULS) distillate inventories increased 3.2 million barrels (12.2%) since last week to 29.7 million barrels. Inventories are 65.5% above the year-ago level and 39.9% above the 5-year average.
- The weekly average U.S. WTI crude oil spot price increased \$6.70 per barrel (25.4%) since last week to \$33.10 per barrel. Current prices are \$27.62 per barrel (45.5%) below the year-ago weekly average of \$60.72 per barrel.
- New York Statewide average retail prices of ultra-low sulfur (ULS) heating oil, kerosene, and propane all decreased since the last survey.

Retail Petroleum Prices—On a statewide basis since the last survey on May 11th, prices decreased 0.004/gallon (0.2%) to 2.233/gallon for ULS heating oil, 0.034/gallon (1.2%) to 2.914/gallon for kerosene, and 0.021/gallon (0.8%) to 2.502/gallon for propane. Compared to a year earlier, prices decreased 1.000/gallon (30.9%) for heating oil, 0.725/gallon(19.9%) for kerosene, and 0.388/gallon (13.4%) for propane.

Crude Oil Prices—For the week ending 5/22/2020, WTI crude oil spot prices a veraged \$33.10/bbl, an increase of \$6.70/bbl(25.4%) from the week-ago average of \$26.40/bbl. WTI prices are now \$27.62/bbl (45.5%) below the year-ago weekly average of \$60.72/bbl. The all-time weekly average high of \$142.52/bbl occurred on 7/04/08.

Spot Natural Gas Prices—For the week ending 5/22/2020, Henry Hub natural gas spot prices averaged \$1.726 per million Btu (mmBtu), an increase of \$0.116/mmBtu(7.2%) from the prior week level of \$1.610/mmBtu. Prices are currently \$0.900/mmBtu (34.3%) below the year-earlier week ly average of \$2.626/mmBtu.



Residential Natural Gas Prices—The NYS average price in March 2020 was \$1.161/therm, an increase of \$0.030/therm (2.7%) from the February 2020 price of \$1.131/therm, and was \$0.108/therm (10.3%) higher than the year earlier average of \$1.053/therm.

Middle Atlantic Stocks-	Current and historic heat	ng fuel inventory data	a is presented in the table below.
-------------------------	---------------------------	------------------------	------------------------------------

Middle Atlantic Region, Weekly Inventories (million barrels)							
Fuel Type	5/22/2020	5/15/2020	% Change vs. Last Week	Year Ago	% Change vs. Last Year	5-Year Average	% Change vs. 5-Year Avg
ULS Distillate (0-15 ppm)	29.7	26.5	12.2%	18.0	65.5%	21.2	39.9%
Non-road Diesel (15-500 ppm)	1.0	1.1	-5.8%	0.7	54.7%	0.9	21.7%
High Sulfur Distillate (>500 ppm)	2.2	2.0	10.4%	2.8	-24.1%	2.7	-19.3%
Total Distillate Oil	32.9	29.5	11.4%	21.5	53.3%	24.8	32.9%
Propane	3.680	3.645	1.0%	3.055	20.5%	2.370	55.2%
#6 Residual Oil	7.8	7.3	6.8%	4.6	68.3%	6.0	29.3%
US Natural Gas	2,612	2,503	4.4%	1,834	42.4%	2,189	19.3%
US Crude Oil	534.4	526.5	1.5%	476.5	12.2%	475.9	12.3%

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	5/25/2020	5/11/2020	% Change vs. Prior Survey	Year Ago	% Change vs. Last Year
Long Island	2.195	2.182	0.6%	3.409	-35.6%
New York City	2.433	2.445	-0.5%	3.332	-27.0%
Lower Hudson	2.131	2.074	2.7%	3.272	-34.9%
Upper Hudson	2.074	2.117	-2.0%	3.100	-33.1%
Capital District	2.082	2.089	-0.3%	2.952	-29.5%
North Country	2.382	2.382	0.0%	3.263	-27.0%
Central	2.043	2.107	-3.0%	3.038	-32.8%
Western	2.823	2.850	-0.9%	3.387	-16.7%
Statewide*	2.233	2.237	-0.2%	3.233	-30.9%
New York St	ate Retail Propane P	osted Credit Prices -	1,100 gallon usage ca	ategory (dollars p	er gallon)
Long Island	2.975	2.970	0.2%	3.128	-4.9%
Mid-Hudson	2.690	2.667	0.9%	2.783	-3.3%
Capital District	2.330	2.414	-3.5%	2.867	-18.7%
North Country	2.606	2.676	-2.6%	3.789	-31.2%
Central	2.373	2.410	-1.5%	2.588	-8.3%
Western	2.258	2.248	0.4%	2.579	-12.4%
Statewide*	2.502	2.523	-0.8%	2.890	-13.4%
	New York State Ret	tail Kerosene Posted	Credit Prices (dollar	s per gallon)	
Mid-Hudson	2.896	2.958	-2.1%	3.733	-22.4%
Capital District	2.692	2.749	-2.1%	3.390	-20.6%
North Country	3.087	3.096	-0.3%	3.757	-17.8%
Central	2.663	2.716	-2.0%	3.494	-23.8%
Western	3.341	3.291	1.5%	3.799	-12.1%
Statewide*	2.914	2.948	-1.2%	3.639	-19.9%
	New York State	Average Residential	Natural Gas Prices	(\$/therm)	
REGIO N	March 2020	February 2020	% Change vs. Prior Month	March 2019	% Change vs. Last Year
Statewide	1.161	1.131	2.7%	1.053	10.3%

* Revision

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

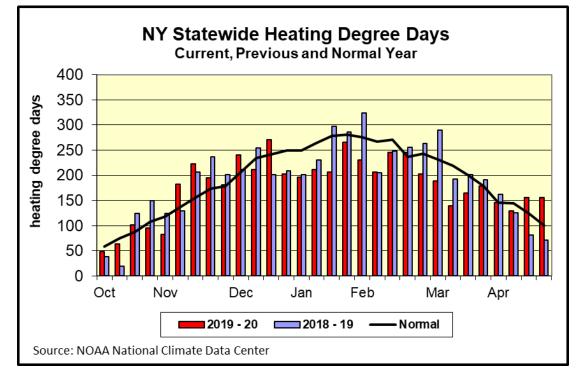
- Heating oil—highest price \$4.778/gallon on 7/14/08, lowest price \$0.876/gallon on 9/08/98.
- Propane—highest price \$3.811/gallon on 2/17/14, lowest price \$1.072/gallon on 9/20/99.
- Kerosene—highest price \$5.068/gallon on 7/14/08, lowest price \$1.309/gallon on 9/09/02.

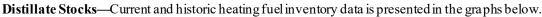
Residential Natural Gas Prices: Statewide average prices are derived from US EIA most currently a vailable data. NYS gas utility specific prices can be found on the NYS DPS website at http://www.dps.ny.gov/TypicalBills.htm#GasRes.

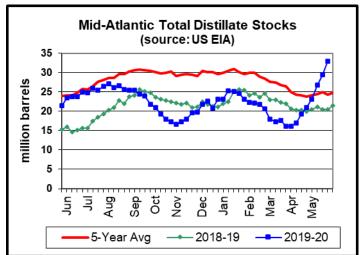
New York State Regions: Long Island: Nassau and Suffolk New York City: Bronx, Kings, New York, Queens, and Richmond Lower Hudson: Dutchess, Putnam, Rockland, and Westchester Upper Hudson: Columbia, Greene, Orange, Sullivan, and Ulster Capital District: Albany, Fulton, Montgomery, Rensselaer, Saratoga, 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.

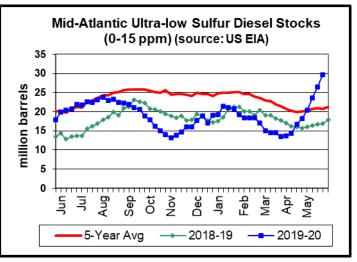
Heating Degree Days— Until the start of the next heating season in October, the heating degree-day information below reflects weekly information through April 25, 2020. Cumulative statewide heating degree-days from October 1st through April 25th end the current season at 5,368, which is behind the year-ago 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

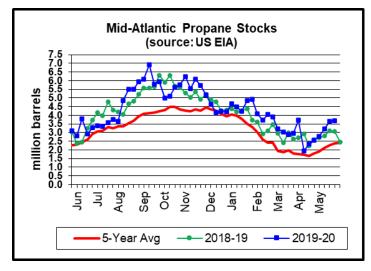




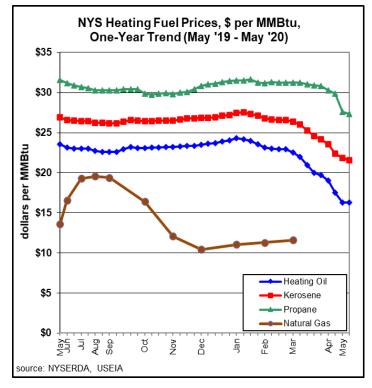




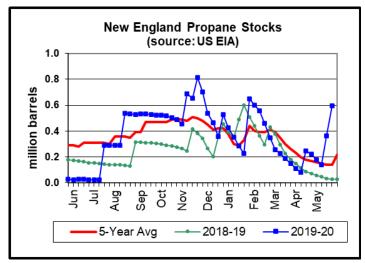
Propane Stocks—Current and historic heating fuel inventory data is presented in the graphs below.



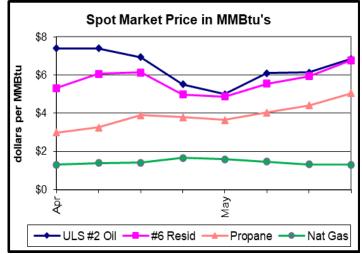
Retail Btu Price Equivalents—The New York State heating fuel prices Btu graph equates the retail price for New York Statewide a verage residential ultra-low sulfur heating oil, kerosene, propane, and natural gas on a dollar per million Btu (MMBtu) basis.



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.



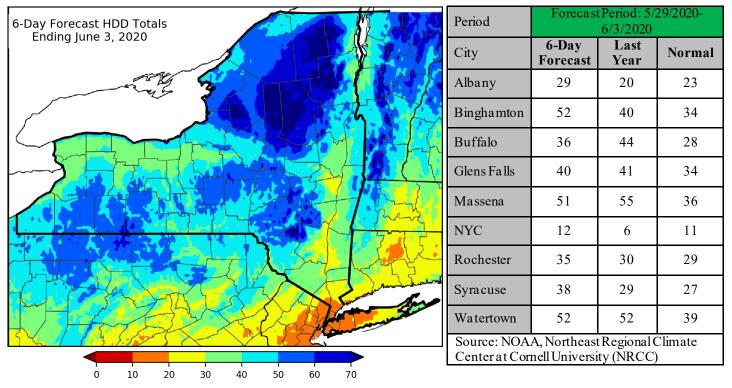
New York Spot Prices, Weekly Average						
Fuel	5/22/2020	Year Ago	% Change			
Ultra LS Diesel	0.951	2.030	-53.2%			
#2 Fuel Oil	0.918	2.004	-54.2%			
#6 Residual 0.3%	1.015	1.848	-45.1%			
Propane	0.462	0.552	-16.4%			
Natural Gas	1.300	2.251	-42.2%			

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).

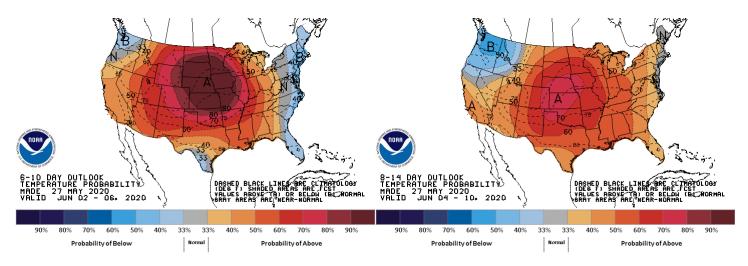
Statewide Forecast HDD: On a statewide basis for the week ending May 30^{th} , the number of forecasted heating degree-days (4) is 81.8% below last year (22) and 87.1% below the normal trend (31). Regional HDD forecasts are provided in the map and table below.





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 June 2, 2020 – June 6, 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 June 4, 2020 – June 10, 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>.