## NYSERDA Heating Fuels Report

## March 23, 2020

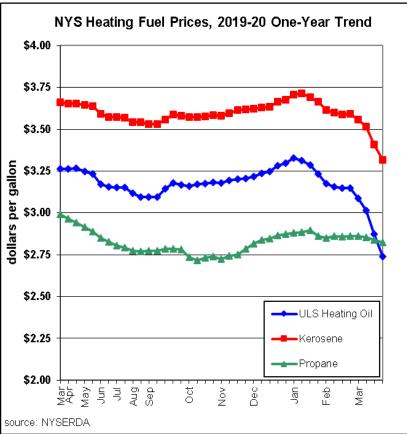
## **Highlights**

- The weekly average U.S. WTI crude oil spot price decreased \$8.20/barrel (25.3%) since last week to \$24.19/barrel. Current prices are \$35.25/barrel (59.3%) below the year-ago weekly average of \$59.44/barrel.
- For the week ending March 21<sup>st</sup>, New York statewide heating degree-days (165) were less than last year (201) by 17.9% and less than the 30-year normal (200) by 17.5%.
- 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 March  $16^{th}$ , prices decreased 0.135/gallon (4.7%) to 2.740/gallon for ULS heating oil, 0.092/gallon (2.7%) to 3.316/gallon for kerosene, and 0.012/gallon (0.4%) to 2.825/gallon for propane. Compared to a year earlier, prices decreased 0.524/gallon (16.1%) for heating oil, 0.344/gallon(9.4%) for kerosene, and 0.166/gallon (5.5%) for propane.

**Crude Oil Prices**—For the week ending 3/20/2020, WTI crude oil spot prices a veraged \$24.19/bbl, a decrease of \$8.20/bbl (25.3%) from the week-ago a verage of \$32.39/bbl. WTI prices are now \$35.25/bbl (59.3%) below the year-ago weekly average of \$59.44/bbl. The all-time weekly average high of \$142.52/bbl occurred on 7/04/08.

**Spot Natural Gas Prices**—For the week ending 3/20/2020, Henry Hub natural gas spot prices averaged \$1.722 per million Btu (mmBtu), a decrease of \$0.128/mmBtu (6.9%) from the prior week level of \$1.850/mmBtu. Prices are currently \$1.108/mmBtu (39.2%) below the year-earlier weekly average of \$2.830/mmBtu.



**Residential Natural Gas Prices**—The NYS average price in December 2019 was 1.044/therm, a decrease of 0.165/therm (13.6%) from the November 2019 price of 1.209/therm, and was 0.083/therm (7.4%) lower than the year earlier a verage of 1.127/therm.

Middle Atlantic Stocks-Current and historic heating fuel inventory data is presented	ed in the table below.
--	------------------------

Middle Atlantic Region, Weekly Inventories (million barrels)							
Fuel Type	3/20/2020	3/13/2020	% Change vs. Last Week	Year Ago	% Change vs. Last Year	5-Year Average	% Change vs. 5-Year Avg
ULS Distillate (0-15 ppm)	14.5	14.5	-0.1%	17.7	-17.7%	21.5	-32.6%
Non-road Diesel (15-500 ppm)	0.9	0.8	13.2%	0.8	16.0%	1.0	-2.1%
High Sulfur Distillate ( >500 ppm)	2.2	2.0	8.9%	3.4	-36.8%	3.5	-37.3%
Total Distillate Oil	17.6	17.4	1.6%	21.9	-19.5%	26.0	-32.1%
Propane	2.882	3.038	-5.1%	3.002	-4.0%	1.975	45.9%
#6 Residual Oil	6.2	6.6	-5.6%	5.6	9.9%	6.1	1.1%
US Natural Gas	2,005	2,034	-1.4%	1,117	79.5%	1,713	17.0%
US Crude Oil	455.4	453.7	0.4%	442.3	3.0%	468.0	-2.7%

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



<b>REGIO</b> N	3/23/2020	3/16/2020	% Change vs. Prior Survey	Year Ago	% Change vs. Last Year
Long Island	2.884	3.043	-5.2%	3.424	-15.8%
New York City	2.708	2.897	-6.5%	3.348	-19.1%
Lower Hudson	2.547	2.719	-6.3%	3.331	-23.5%
Upper Hudson	2.635	2.766	-4.7%	3.151	-16.4%
Capital District	2.543	2.635	-3.5%	2.982	-14.7%
North Country	2.966	3.084	-3.8%	3.269	-9.3%
Central	2.599	2.687	-3.3%	3.079	-15.6%
Western	3.176	3.227	-1.6%	3.408	-6.8%
Statewide	2.740	2.875	-4.7%	3.264	-16.1%
New York S	State Retail Propane Po	sted Credit Prices -	1,100 gallon usage	category (dollars pe	r gallon)
Long Island	3.201	3.201	0.0%	3.224	-0.7%
Mid-Hudson*	2.747	2.766	-0.7%	2.875	-4.5%
Capital District*	2.666	2.694	-1.0%	2.936	-9.2%
North Country	3.597	3.601	-0.1%	3.815	-5.7%
Central	2.558	2.588	-1.2%	2.750	-7.0%
Western	2.563	2.549	0.5%	2.695	-4.9%
Statewide*	2.825	2.837	-0.4%	2.991	-5.5%
	New York State Ret	ail Kerosene Posted	Credit Prices (dolla	rs per gallon)	
Mid-Hudson*	3.346	3.498	-4.3%	3.751	-10.8%
Capital District	3.084	3.104	-0.6%	3.430	-10.1%
North Country	3.441	3.548	-3.0%	3.763	-8.6%
Central	3.134	3.220	-2.7%	3.541	-11.5%
Western	3.655	3.688	-0.9%	3.777	-3.2%
Statewide*	3.316	3.408	-2.7%	3.660	-9.4%
	New York State	Average Residential	Natural Gas Prices	(\$/therm)	
REGIO N	December 2019	November 2019	% Change vs. Prior Month	December 2018	% Change vs. Last Year
Statewide	1.044	1.209	-13.7%	1.127	-7.4%

\* Revision

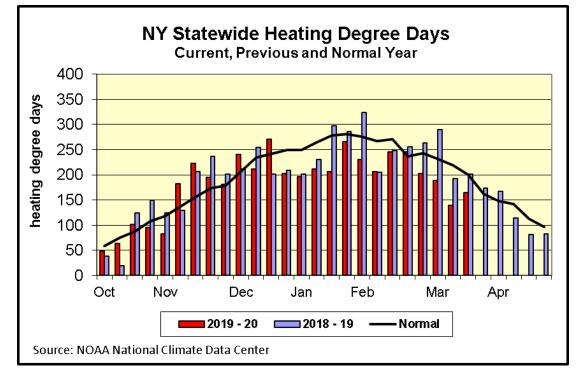
Historic Retail Prices—Statewide average high and low prices since Sept. 1997 for heating oil & propane & Sept. 2000 for kerosene.

- 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.

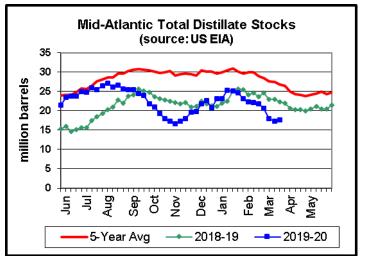
**Residential Natural Gas Prices:** Statewide average prices are derived from US EIA most currently available data. NYS gas utility specific prices can be found on the NYS DPS website at http://www.dps.ny.gov/TypicalBills.htm#GasRes.

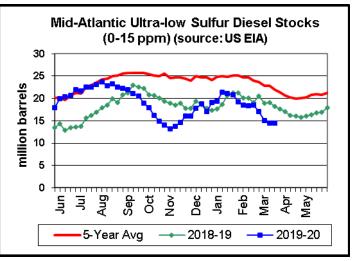
New York State Regions: Long Island: Nassau and Suffolk New York City: Bronx, Kings, New York, Queens, and Richmond Lower Hudson: Dutchess, Putnam, Rockland, and Westchester Upper Hudson: Columbia, Greene, Orange, Sullivan, and Ulster Capital District: Albany, Fulton, Montgomery, Rensselaer, Saratoga, 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 (165) was 17.9% below the year-ago level (201) and 17.5% below the normal trend (200). On a cumulative basis since October 1<sup>st</sup>, current year heating degree-days (4,603) are behind the year-ago level (5,098) by 9.7% and behind the normal trend (5,043) by 8.7%.

New York State Heating Degree Day Information, Weekly & Cumulative							
Week Ending March 21				Cumulative From October 1			
Region	2020	2019	Normal	2019-20	2018-19	Normal	
Albany	161	175	196	4,763	5,379	5,309	
Binghamton	196	216	220	5,340	5,897	5,748	
Buffalo	178	204	212	4,802	5,503	5,369	
Glens Falls	202	207	223	5,647	6,044	6,082	
Massena	223	237	247	6,110	6,747	6,557	
NYC	116	137	156	3,437	3,942	4,030	
Rochester	191	187	211	4,946	5,326	5,400	
Syracuse	186	198	211	4,942	5,677	5,492	
Watertown	214	216	234	5,597	6,256	6,105	
Statewide	165	201	200	4,603	5,098	5,043	

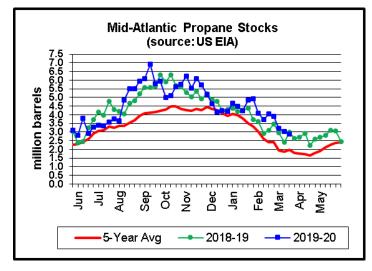


Distillate Stocks-Current and historic heating fuel inventory data is presented in the graphs below.

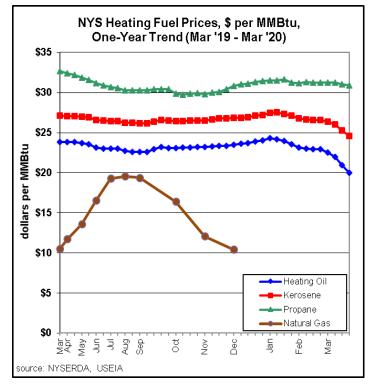




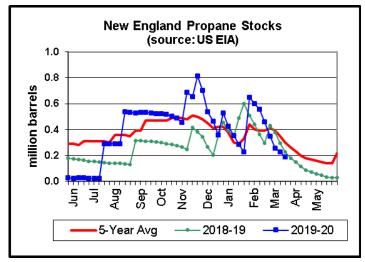
Propane Stocks—Current and historic heating fuel inventory data is presented in the graphs below.



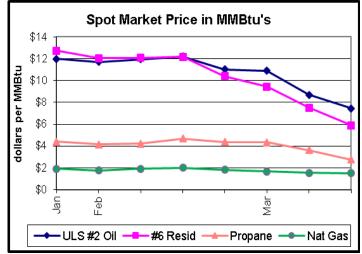
**Retail Btu Price Equivalents**—The New York State heating fuel prices Btu graph equates the retail price for New York Statewide a verage residential ultra-low sulfur heating oil, kerosene, propane, and natural gas on a dollar per million Btu (MMBtu) basis.



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.



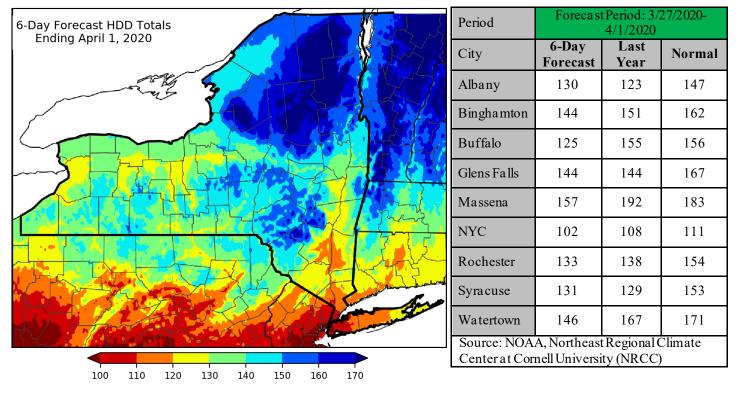
New York Spot Prices, Weekly Average					
Fuel	3/20/2020	Year Ago	% Change		
Ultra LS Diesel	1.031	1.979	-47.9%		
#2 Fuel Oil	1.000	1.958	-48.9%		
#6 Residual 0.3%	0.881	1.795	-50.9%		
Propane	0.252	0.663	-61.9%		
Natural Gas	1.499	2.779	-46.1%		

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).

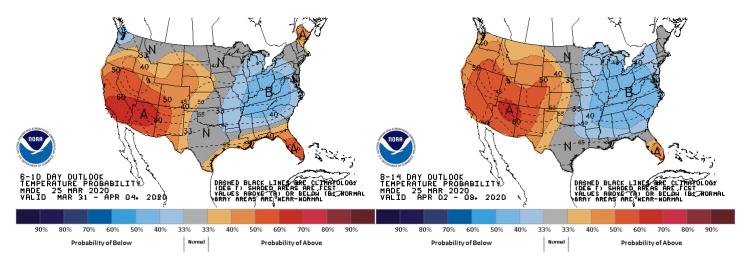
**Statewide Forecast HDD**: On a statewide basis for the week ending March  $28^{th}$ , the number of forecasted heating degree-days (152) is 18.3% below last year (186) and 13.1% below the normal trend (175). Regional HDD forecasts are provided in the map and table below.

## **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 March 31, 2020 – April 4, 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 April 2, 2020 – April 8, 2020. This is in comparison to the 30-year normal (1981-2010).



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