NYSERDA Heating Fuels Report

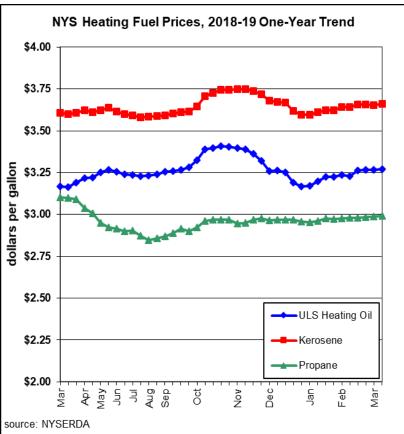
Highlights

- Mid-Atlantic ultra-low sulfur (ULS) distillate inventories increased 0.1 million barrels (0.4%) since last week to 19.1 million barrels. Current inventories are 20.2% below last year's level and 8.6% below the 5-year average.
- For the week ending March 9th, New York statewide heating degree-days (292) were more than last year (210) by 39.0% and more than the 30-year normal (229) by 27.5%.
- New York Statewide average retail prices of ultra-low sulfur (ULS) heating oil, kerosene, and propane increased since the last survey.

Retail Petroleum Prices—On a statewide basis since the last survey on March 4th, prices increased \$0.007/gallon (0.2%) to \$3.273/gallon for ULS heating oil, \$0.009/gallon (0.2%) to \$3.663/gallon for kerosene, and \$0.003/gallon (0.1%) to \$2.992/gallon for propane. Compared to a year earlier, prices increased \$0.098/gallon (3.1%) for heating oil, \$0.047/gallon (1.3%) for kerosene, and the price decreased \$0.120/gallon (3.9%) for propane.

Crude Oil Prices—For the week ending 3/8/19, WTI crude oil spot prices averaged \$56.35/bbl, an increase of \$0.23/bbl (0.4%) from the week-ago average of \$56.12/bbl. WTI prices are now \$5.30/bbl (8.6%) below the year-ago weekly average of \$61.65/bbl. The all-time weekly average high of \$142.52/bbl occurred on 7/04/08.

Spot Natural Gas Prices—For the week ending 3/8/19, Henry Hub natural gas spot prices averaged \$2.934 per million Btu (mmBtu), a decrease of \$0.010/mmBtu (-0.3%) from the prior week level of \$2.944/mmBtu. Prices are currently \$0.222/mmBtu (8.2%) above the year-earlier weekly average of \$2.712/mmBtu.



Residential Natural Gas Prices—The NYS average price in December 2018 was \$1.130/therm, a decrease of \$0.050/therm (4.3%) from the November 2018 price of \$1.180/therm, and was \$0.111/therm (10.8%) more than the year earlier average of \$1.019/therm.

Middle Atlantic Stocks-Current and historic heating fuel inventory data is presented in the table	e below.
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Middle Atlantic Region, Weekly Inventories (million barrels)							
Fuel Type	3/8/2019	3/1/2019	% Change vs. Last Week	Year Ago	% Change vs. Last Year	5-Year Average	% Change vs. 5-Year Avg
ULS Distillate (0-15 ppm)	19.1	19.0	0.4%	23.9	-20.2%	20.9	-8.6%
Non-road Diesel (15-500 ppm)	0.8	0.7	2.2%	1.2	-36.5%	1.2	-34.0%
High Sulfur Distillate (>500 ppm)	3.1	3.2	-3.4%	3.0	5.1%	3.6	-13.0%
Total Distillate Oil	23.0	23.0	0.0%	28.1	-18.2%	25.6	-10.4%
Propane	2.408	2.942	-18.2%	2.057	17.1%	1.505	60.0%
#6 Residual Oil	4.4	4.3	1.8%	4.8	-8.7%	6.3	-30.9%
US Natural Gas	1,186	1,390	-14.7%	1,545	-23.2%	1,755	-32.4%
US Crude Oil	449.1	452.9	-0.9%	430.9	4.2%	440.7	1.9%

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	3/11/2019	3/4/2019	% Change vs. Prior Survey	Year Ago	% Change vs. Last Year
Long Island	3.412	3.408	0.1%	3.287	3.8%
New York City	3.365	3.358	0.2%	3.222	4.4%
Lower Hudson	3.366	3.341	0.7%	3.300	2.0%
Upper Hudson	3.165	3.165	0.0%	3.146	0.6%
Capital District	2.970	2.967	0.1%	2.974	-0.1%
North Country	3.273	3.276	-0.1%	3.063	6.9%
Central	3.094	3.091	0.1%	2.946	5.0%
Western	3.417	3.402	0.4%	3.365	1.5%
Statewide	3.273	3.266	0.2%	3.175	3.1%
New York S	tate Retail Propane Po	sted Credit Prices -	1,100 gallon usage c	ategory (dollars pe	r gallon)
Long Island	3.224	3.224	0.0%	3.388	-4.8%
Mid-Hudson	2.892	2.882	0.3%	2.964	-2.4%
Capital District	2.932	2.901	1.1%	3.166	-7.4%
North Country	3.812	3.819	-0.2%	3.939	-3.2%
Central	2.750	2.757	-0.3%	2.882	-4.6%
Western	2.689	2.689	0.0%	2.751	-2.3%
Statewide	2.992	2.989	0.1%	3.112	-3.9%
	New York State Ret	ail Kerosene Posted	Credit Prices (dolla	rs per gallon)	
Mid-Hudson	3.768	3.753	0.4%	3.735	0.9%
Capital District	3.414	3.414	0.0%	3.448	-1.0%
North Country	3.763	3.749	0.4%	3.610	4.2%
Central	3.546	3.534	0.3%	3.474	2.1%
Western	3.777	3.777	0.0%	3.749	0.7%
Statewide	3.663	3.654	0.2%	3.616	1.3%
	New York State	Average Residential	Natural Gas Prices	(\$/therm)	-
REGIO N	December 2018	November 2018	% Change vs. Prior Month	December 2017	% Change vs. Last Year
Statewide	1.130	1.180	-4.3%	1.019	10.8%

* Revision

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

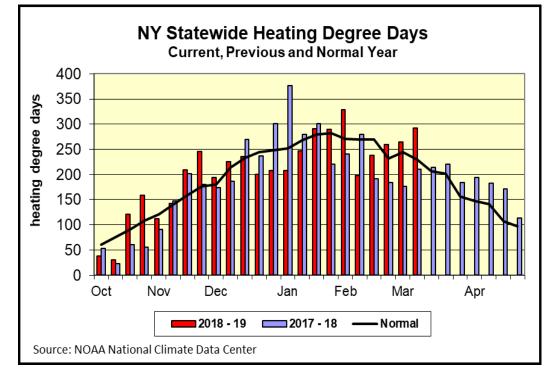
- Heating oil—highest price \$4.778/gallon on 7/14/08, lowest price \$0.876/gallon on 9/08/98.
- Propane—highest price \$3.811/gallon on 2/17/14, lowest price \$1.072/gallon on 9/20/99.
- Kerosene—highest price \$5.068/gallon on 7/14/08, lowest price \$1.309/gallon on 9/09/02.

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.

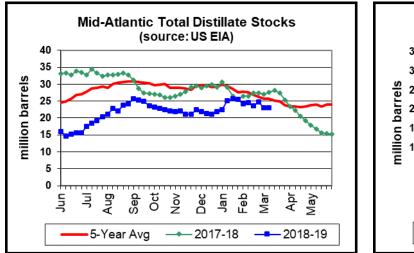
New York State Regions: Long Island: Nassau and Suffolk New York City: Bronx, Kings, New York, Queens, and Richmond Lower Hudson: Dutchess, Putnam, Rockland, and Westchester Upper Hudson: Columbia, Greene, Orange, Sullivan, and Ulster Capital District: Albany, Fulton Montgomery, Rensselaer, Saratoga,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

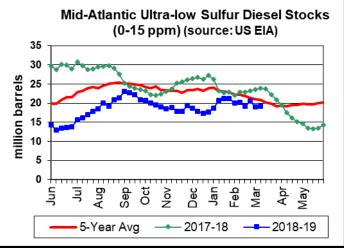
Heating Degree Days— On a statewide basis during the past week, the number of heating degree-days (292) was 39.0% above the year-ago level (210) and 27.5% above the normal trend (229). On a cumulative basis since October 1^{st} , current year heating degree-days (4,735) are ahead of the year-ago level (4,445) by 6.5% and ahead of the normal trend (4,647) by 1.9%.

New York State Heating Degree Day Information, Weekly & Cumulative							
Week Ending March 09				Cumulative From October 1			
Region	2019	2018	Normal	2018-19	2017-18	Normal	
Albany	299	216	226	5,021	4,733	4,919	
Binghamton	328	263	251	5,480	5,091	5,311	
Buffalo	331	251	242	5,103	4,746	4,949	
Glens Falls	331	231	258	5,623	5,436	5,638	
Massena	347	230	285	6,282	5,617	6,065	
NYC	237	179	183	3,659	3,353	3,720	
Rochester	320	234	243	4,962	4,597	4,981	
Syracuse	322	236	243	5,281	4,880	5,073	
Watertown	378	230	269	5,824	5,306	5,640	
Statewide	292	210	229	4,735	4,445	4,647	

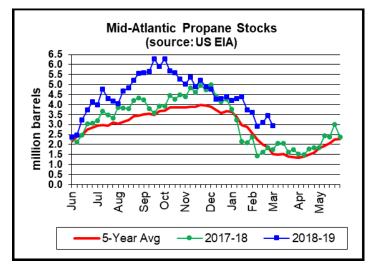


Distillate Stocks-Current and historic heating fuel inventory data is presented in the graphs below.

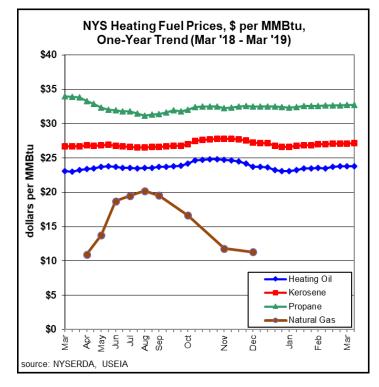




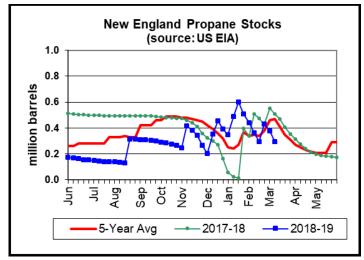
Propane Stocks—Current and historic heating fuel inventory data is presented in the graphs below.



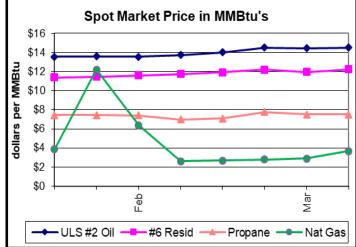
Retail Btu Price Equivalents—The New York State heating fuel prices Btu graph equates the retail price for New York Statewide average residential ultra-low sulfur heating oil, kerosene, propane, and natural gas on a dollar per million Btu (MMBtu) basis.



Note: Natural gas prices are from the U.S. EIA and provided on a monthly basis and delayed by 3 months.



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.



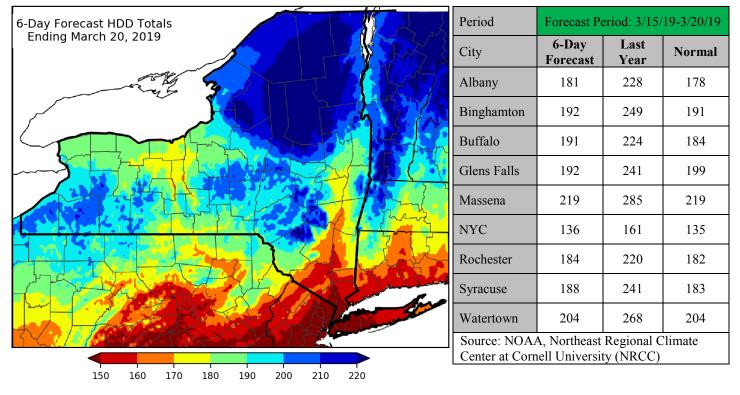
New York Spot Prices, Weekly Average					
Fuel	3/8/2019	Year Ago	% Change		
Ultra LS Diesel	2.011	1.874	7.3%		
#2 Fuel Oil	1.980	1.794	10.3%		
#6 Residual 0.3%	1.834	1.580	16.1%		
Propane	0.687	0.751	-8.5%		
Natural Gas	3.671	2.805	30.9%		

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).

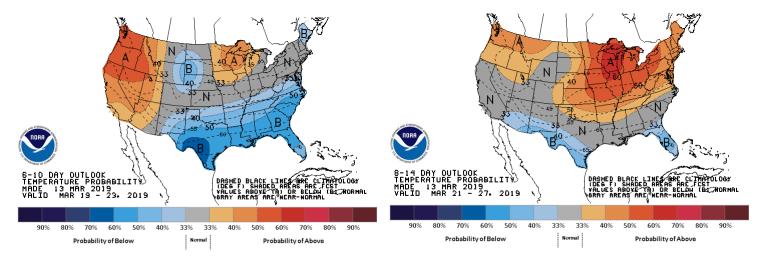
Statewide Forecast HDD: On a statewide basis for the week ending March 9th, the number of forecasted heating degree-days (268) is 26.4% greater than last year (212) and 22.4% greater than the normal trend (219). Regional HDD forecasts are provided in the map and table below.

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 12, 2019 – March 16, 2019. 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 March 14, 2019 – March 20, 2019. This is in comparison to the 30-year normal (1981-2010).



Additional historic <u>regional specific prices and supply information</u> is available 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>