NYSERDA Heating Fuels Report

October 10, 2016

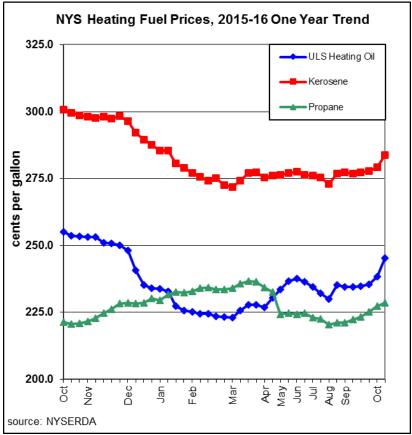
Highlights

- Weekly U.S. crude oil inventories increased by 4.9 million barrels since last week to 474.0 million barrels and are now 37.4 million barrels (8.6%) higher than last year's level of 436.6 million barrels. U.S. Energy Information Administration (EIA) reported U.S. crude oil inventories no longer include lease stocks. The data reported below reflects this change, which reduced reported crude oil inventories by approximately 30 million barrels.
- New York statewide average retail prices for ultra-low sulfur (ULS) heating oil, kerosene, and propane all increased since the last survey.

Retail Petroleum Prices—On a statewide basis since the last survey on October 3^{rd} , prices increased $6.9 \notin/gallon (2.9\%)$ to $245.3 \notin/gallon$ for ULS heating oil, and $4.4 \notin/gallon (1.6\%)$ to $283.7 \notin/gallon$ for kerosene, and $1.2 \notin/gallon (0.5\%)$ to $228.4 \notin/gallon$ for propane. Compared to a year earlier, prices decreased $9.8 \notin/gallon (3.8\%)$ for heating oil, $17.1 \notin/gallon (5.7\%)$ for kerosene and the price increased $7.1 \notin/gallon (3.2\%)$ for propane.

Crude Oil Prices—For the week ending 10/7/16, WTI crude oil spot prices averaged \$49.48/bbl, an increase of \$2.93/bbl (6.3%) from the week-ago average of \$46.55/bbl. WTI prices are now \$1.12/bbl (2.3%) above the year-ago weekly average of \$48.36/bbl. The all-time weekly average high of \$142.52/bbl occurred on 7/04/08.

Spot Natural Gas Prices—For the week ending 10/7/16, Henry Hub natural gas spot prices averaged \$2.886 per million Btu (mmBtu), a decrease of \$0.086/mmBtu (2.9%) from the prior week level of \$2.972/mmBtu. Prices are currently \$0.492/mmBtu (20.6%) above the year-earlier weekly average of \$2.394/mmBtu.



Residential Natural Gas Prices—The NYS average price in July 2016 was \$1.614/therm, an increase of \$0.191/therm (13.4%) from the prior month of \$1.423/therm, and was \$0.042/therm (2.5%) lower than the year earlier average of \$1.656/therm.

Middle Atlantic Stocks-Current and historic heating fuel inventory	data is presented in the table below.
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Middle Atlantic Region, Weekly Inventories (million barrels)							
Fuel Type	10/7/2016	9/30/2016	% Change vs. Last Week	Year Ago	% Change vs. Last Year	5-Year Average	% Change vs. 5- Year Avg
ULS Distillate (0-15 ppm)	34.6	34.2	1.4%	30.7	12.7%	16.6	108.5%
Non-road Diesel (15-500 ppm)	2.5	2.3	8.5%	1.0	141.0%	1.2	102.4%
High Sulfur Distillate (>500 ppm)	3.2	2.9	8.7%	5.4	-40.7%	9.7	-67.1%
Total Distillate Oil	40.3	39.4	2.3%	37.1	8.6%	27.5	46.5%
Propane	4.455	4.579	-2.7%	3.964	12.4%	3.227	38.1%
#6 Residual Oil	7.7	8.0	-3.8%	6.9	11.4%	6.0	29.2%
US Natural Gas	3,759	3,680	2.1%	3,703	1.5%	3,567	5.4%
US Crude Oil	474.0	469.1	1.0%	436.6	8.6%	354.9	33.5%

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



REGION	10/10/2016	10/3/2016	% Change vs. Prior Survey	Year Ago	% Change vs. Last Year
Long Island	264.1	258.7	2.1%	270.8	-2.5%
New York City	260.3	251.0	3.7%	277.8	-6.3%
Lower Hudson	256.2	244.7	4.7%	257.1	-0.4%
Upper Hudson*	235.5	231.9	1.6%	242.1	-2.7%
Capital District	228.9	225.2	1.6%	243.6	-6.0%
North Country	228.6	221.7	3.1%	246.1	-7.1%
Central	227.4	218.8	3.9%	230.4	-1.3%
Western	237.9	232.7	2.2%	254.3	-6.4%
S tate wide*	245.3	238.4	2.9%	255.1	-3.8%
Ne	w York State Retail Propan	e Posted Credit Prices	s - 1,100 gallon usage categor	y (cents per gallon))
Long Island	281.3	282.7	-0.5%	273.8	2.7%
Mid-Hudson	226.8	224.4	1.1%	227.0	-0.1%
Capital District	239.6	239.2	0.2%	233.2	2.7%
North Country	274.2	273.5	0.3%	233.9	17.2%
Central	199.5	197.1	1.2%	198.4	0.6%
Western	202.7	201.9	0.4%	204.3	-0.8%
Statewide	228.4	227.2	0.5%	221.3	3.2%
	New York State	Retail Kerosene Post	ed Credit Prices (cents per ga	ullon)	
Mid-Hudson	294.3	290.9	1.2%	314.9	-6.5%
Capital District	277.0	274.5	0.9%	297.6	-6.9%
North Country	286.9	283.4	1.2%	294.9	-2.7%
Central	277.5	269.1	3.1%	289.7	-4.2%
Western	270.5	265.6	1.8%	293.0	-7.7%
Statewide	283.7	279.3	1.6%	300.8	-5.7%
	New York St	ate Average Residenti	al Natural Gas Prices (\$/ther	m)	
REGION	July 2016	June 2016	% Change vs. Prior Month	July 2015	% Change vs. Last Year
Statewide	1.614	1.423	13.4%	1.656	-2.5%

* Revision

Historic Retail Prices—Statewide average high and low prices since Sept. 1997 for #2 & propane & Sept. 2000 for kerosene.

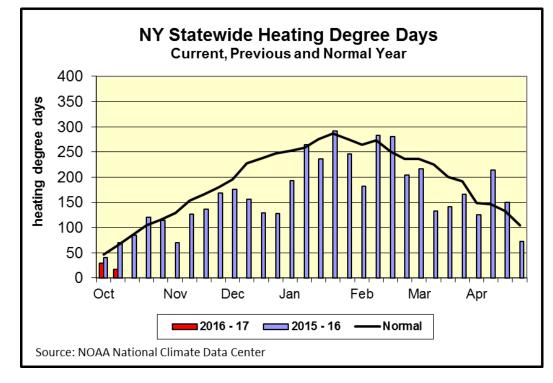
- Heating oil—highest price 477.8¢/gallon on 7/14/08, lowest price 87.6¢/gallon on 9/08/98.
- Propane—highest price 381.1¢/gallon on 2/17/14, lowest price 107.2¢/gallon on 9/20/99.
- Kerosene—highest price 506.8¢/gallon on 7/14/08, lowest price 130.9¢/gallon on 9/09/02.

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.

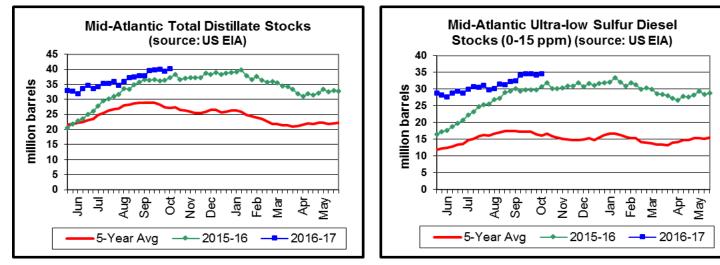
New York State Regions: Long Island: Nassau and Suffolk New York City: Bronx, Kings, New York, Queens, and Richmond Lower Hudson: Dutchess, Putnam, Rockland, and Westchester Upper Hudson: Columbia, Greene, Orange, Sullivan, and Ulster Capital District: Albany, Fulton Montgomery, Rensselaer, Saratoga, 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 (17) was 75.7% below the year-ago level of (70) and 73.8% below the normal trend (65). On a cumulative basis since October 1^{st} , current year heating degree-days (46) are behind the year-ago level (111) by 58.6% and the normal trend (111) by 58.6%.

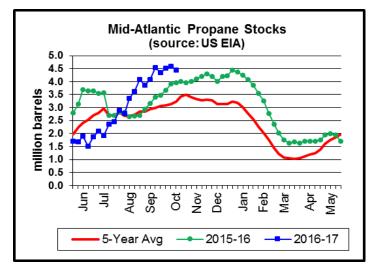
New York State Heating Degree Day Information, Weekly & Cumulative							
Week Ending October 08				Cumulative From October 1			
Region	2016	2015	Normal	2016-17	2015-16	Normal	
Albany	34	73	76	89	107	131	
Binghamton	62	96	89	140	140	161	
Buffalo	16	73	73	46	103	131	
Glens Falls	53	93	96	124	138	172	
Massena	49	115	98	113	188	175	
NYC	6	39	34	15	50	58	
Rochester	18	78	75	54	108	133	
Syracuse	32	77	77	90	108	138	
Watertown	42	104	94	105	150	170	
Statewide	17	70	65	46	111	111	



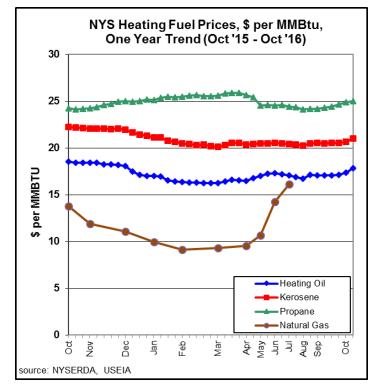
Distillate Stocks—Current and historic heating fuel inventory data is presented in the graphs below.



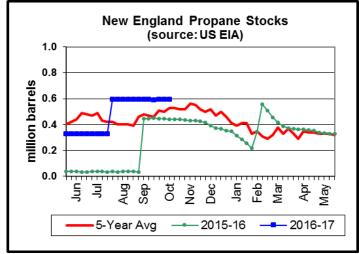
Propane Stocks—Current and historic heating fuel inventory data is presented in the graphs below.



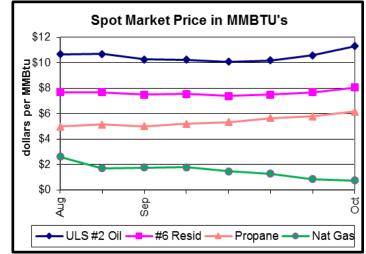
Retail Btu Price Equivalents—The New York State Heating Fuel Prices Btu graph equates the retail price for New York Statewide average residential ultra-low sulfur heating oil, kerosene, propane, and natural gas on a dollar per million Btu (MMBtu) basis.



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 City gate natural gas price on a dollar per million Btu (MMBtu) basis.



New York Spot Prices, Weekly Average					
Fuel	10/7/2016	Year Ago	% Change		
Ultra LS Diesel	156.7	154.8	1.2%		
#2 Fuel Oil	149.6	148.5	0.7%		
#6 Residual 0.3%	120.5	109.7	9.8%		
Propane	56.1	49.1	14.3%		
Natural Gas	0.754	2.026	-62.8%		

Note: Fuel in ¢/gallon, natural gas (\$/mmBtu)=NYcitygate

Additional historic <u>regional specific prices and supply information</u> is available at NYSERDA's website. For more information please contact Charlie Wesley at (518) 862-1090 ext. 3364, e-mail <u>Charles.Wesley@nyserda.ny.gov.</u>