NYSERDA Heating Fuels Report

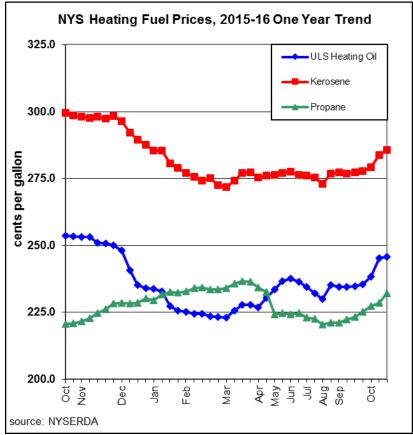
Highlights

- Weekly U.S. crude oil inventories decreased by 5.3 million barrels since last week to 468.7 million barrels but remain 24.1 million barrels (5.4%) higher than last year's level of 444.6 million barrels.
- The weekly average WTI crude oil spot price averaged \$50.29 per barrel, 1.6% higher than last week and 7.4% higher than last year's price. The weekly average was higher than \$50 per barrel for the first time since June.
- 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 10^{th} , prices increased $0.5\phi/gallon (0.2\%)$ to $245.8\phi/gallon$ for ULS heating oil, and $1.9\phi/gallon (0.7\%)$ to $285.6\phi/gallon$ for kerosene, and $3.7\phi/gallon (1.6\%)$ to $232.1\phi/gallon$ for propane. Compared to a year earlier, prices decreased $7.8\phi/gallon (3.1\%)$ for heating oil, $13.9\phi/gallon (4.6\%)$ for kerosene and the price increased $11.5\phi/gallon$ (5.2%) for propane.

Crude Oil Prices—For the week ending 10/14/16, WTI crude oil spot prices averaged \$50.29/bbl, an increase of \$0.81/bbl (1.6%) from the week-ago average of \$49.48/bbl. WTI prices are now \$3.47/bbl (7.4%) above the year-ago weekly average of \$46.82/bbl. The all-time weekly average high of \$142.52/bbl occurred on 7/04/08.

Spot Natural Gas Prices—For the week ending 10/14/16, Henry Hub natural gas spot prices averaged \$3.160 per million Btu (mmBtu), an increase of \$0.274/mmBtu (9.5%) from the prior week level of \$2.886/mmBtu. Prices are currently \$0.712/mmBtu (29.1%) above the year-earlier weekly average of \$2.448/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 Region, Weekly Inventories (million barrels)							
Fuel Type	10/14/2016	10/7/2016	% Change vs. Last Week	Year Ago	% Change vs. Last Year	5-Year Average	% Change vs. 5- Year Avg
ULS Distillate (0-15 ppm)	35.0	34.6	1.2%	31.9	9.7%	16.8	108.5%
Non-road Diesel (15-500 ppm)	2.4	2.5	-6.1%	1.0	125.0%	1.3	76.0%
High Sulfur Distillate (>500 ppm)	3.0	3.2	-4.9%	5.4	-44.0%	9.5	-67.9%
Total Distillate Oil	40.4	40.3	0.2%	38.4	5.3%	27.6	46.5%
Propane	3.835	4.455	-13.9%	4.003	-4.2%	3.438	11.6%
#6 Residual Oil	7.4	7.7	-3.5%	7.2	3.7%	6.2	20.6%
US Natural Gas	3,836	3,759	2.0%	3,790	1.2%	3,651	5.1%
US Crude Oil	468.7	474.0	-1.1%	444.6	5.4%	361.1	29.8%

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	10/17/2016	10/10/2016	% Change vs. Prior Survey	Year Ago	% Change vs. Last Year
Long Island	263.8	264.1	-0.1%	269.0	-1.9%
New York City	259.7	260.3	-0.2%	277.0	-6.2%
Lower Hudson	255.4	256.2	-0.3%	256.7	-0.5%
Upper Hudson	236.3	235.5	0.3%	239.9	-1.5%
Capital District	229.2	228.9	0.1%	242.1	-5.3%
North Country*	231.9	228.5	1.5%	243.7	-4.8%
Central	227.4	227.4	0.0%	228.7	-0.6%
Western	242.1	237.9	1.8%	253.5	-4.5%
Statewide	245.8	245.3	0.2%	253.6	-3.1%
Ne	w York State Retail Propan	e Posted Credit Prices	s - 1,100 gallon usage categor	y (cents per gallon))
Long Island	283.0	281.3	0.6%	269.8	4.9%
Mid-Hudson	228.3	226.8	0.7%	226.7	0.7%
Capital District	251.8	239.6	5.1%	229.6	9.7%
North Country	277.4	274.2	1.2%	233.9	18.6%
Central	202.4	199.5	1.5%	199.0	1.7%
Western	205.1	202.7	1.2%	204.3	0.4%
Statewide	232.1	228.4	1.6%	220.6	5.2%
	New York State	Retail Kerosene Post	ed Credit Prices (cents per ga	llon)	
Mid-Hudson	294.9	294.3	0.2%	311.1	-5.2%
Capital District	280.6	277.0	1.3%	292.8	-4.2%
North Country	291.0	286.9	1.4%	297.7	-2.3%
Central	276.4	277.5	-0.4%	291.2	-5.1%
Western	274.9	270.5	1.6%	293.0	-6.2%
Statewide	285.6	283.7	0.7%	299.5	-4.6%
	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.

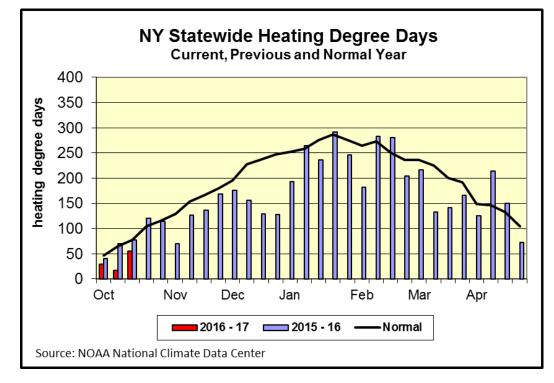
- Heating oil—highest price 477.8¢/gallon on 7/14/08, lowest price 87.6¢/gallon on 9/08/98.
- Propane—highest price 381.1¢/gallon on 2/17/14, lowest price 107.2¢/gallon on 9/20/99.
- Kerosene—highest price 506.8¢/gallon on 7/14/08, lowest price 130.9¢/gallon on 9/09/02.

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.

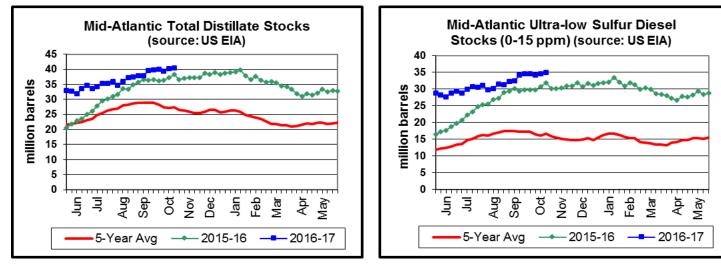
New York State Regions: Long Island: Nassau and Suffolk New York City: Bronx, Kings, New York, Queens, and Richmond Lower Hudson: Dutchess, Putnam, Rockland, and Westchester Upper Hudson: Columbia, Greene, Orange, Sullivan, and Ulster Capital District: Albany, Fulton Montgomery, Rensselaer, Saratoga, 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 (55) was 28.6% below the year-ago level of (77) and 29.5% below the normal trend (78). On a cumulative basis since October 1^{st} , current year heating degree-days (101) are behind the year-ago level (188) by 46.3% and the normal trend (189) by 46.6%.

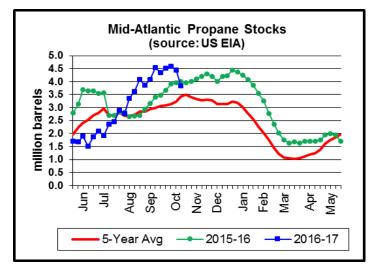
New York State Heating Degree Day Information, Weekly & Cumulative							
Week Ending October 15				Cumulative From October 1			
Region	2016	2015	Normal	2016-17	2015-16	Normal	
Albany	101	75	96	190	182	227	
Binghamton	127	84	107	267	224	268	
Buffalo	84	69	91	130	172	222	
Glens Falls	117	95	115	241	233	287	
Massena	120	104	118	233	292	293	
NYC	38	19	48	53	69	106	
Rochester	92	64	92	146	172	225	
Syracuse	107	66	96	197	174	234	
Watertown	118	88	112	223	238	282	
Statewide	55	77	78	101	188	189	



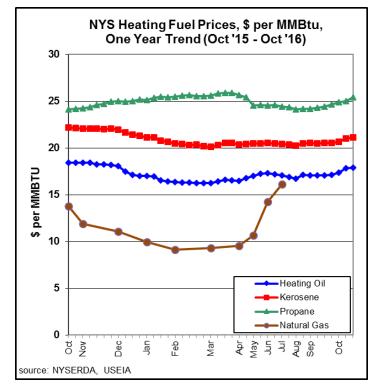




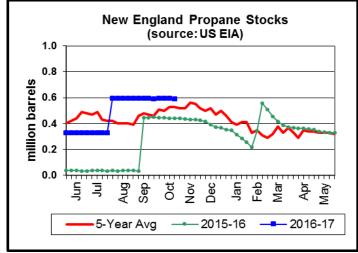
Propane Stocks—Current and historic heating fuel inventory data is presented in the graphs below.



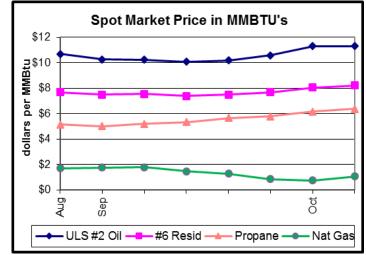
Retail Btu Price Equivalents—The New York State Heating Fuel Prices Btu graph equates the retail price for New York Statewide average residential ultra-low sulfur heating oil, kerosene, propane, and natural gas on a dollar per million Btu (MMBtu) basis.



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	10/14/2016	Year Ago	% Change			
Ultra LS Diesel	156.6	144.9	8.1%			
#2 Fuel Oil	149.9	138.7	8.1%			
#6 Residual 0.3%	122.6	108.8	12.7%			
Propane	58.3	44.0	32.4%			
Natural Gas	1.062	2.332	-54.5%			

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>