## NYSERDA Heating Fuels Report

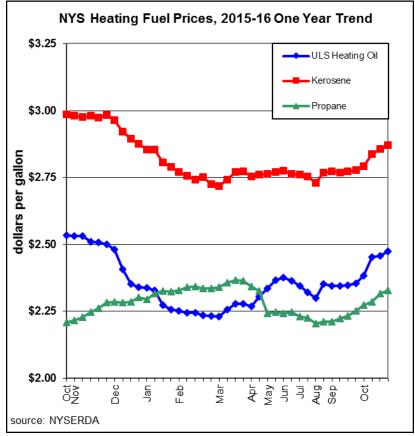
## **Highlights**

- Weekly U.S. crude oil inventories decreased by 0.5 million barrels since last week to 468.2 million barrels but remain 20.2 million barrels (4.5%) higher than last year's level of 448.0 million barrels.
- The weekly average WTI crude oil spot price averaged \$50.56 per barrel, 0.5% higher than last week and 12.0% higher than last year's price.
- 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  $17^{\text{th}}$ , prices increased 0.016/gallon (0.7%) to 2.474/gallon for ULS heating oil, and 0.016/gallon (0.6%) to 2.872/gallon for kerosene, and 0.012/gallon (0.5%) to 2.329/gallon for propane. Compared to a year earlier, prices decreased 0.059/gallon (2.3%) for heating oil, 0.114/gallon (3.8%) for kerosene and the price increased 0.120/gallon (5.4%) for propane.

**Crude Oil Prices**—For the week ending 10/21/16, WTI crude oil spot prices averaged \$50.56/bbl, an increase of \$0.27/bbl (0.5%) from the week-ago average of \$50.29/bbl. WTI prices are now \$5.40/bbl (12.0%) above the year-ago weekly average of \$45.16/bbl. The all-time weekly average high of \$142.52/bbl occurred on 7/04/08.

**Spot Natural Gas Prices**—For the week ending 10/21/16, Henry Hub natural gas spot prices averaged \$3.088 per million Btu (mmBtu), a decrease of \$0.072/mmBtu (2.3%) from the prior week level of \$3.160/mmBtu. Prices are currently \$0.712/mmBtu (30.0%) above the year-earlier weekly average of \$2.376/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	10/21/2016	10/14/2016	% Change vs. Last Week	Year Ago	% Change vs. Last Year	5-Year Average	% Change vs. 5- Year Avg
ULS Distillate (0-15 ppm)	33.7	35.0	-3.7%	30.2	11.7%	15.9	112.6%
Non-road Diesel (15-500 ppm)	2.3	2.4	-3.4%	1.4	60.5%	1.4	67.6%
High Sulfur Distillate ( >500 ppm)	3.3	3.0	8.6%	4.9	-32.5%	9.5	-65.2%
Total Distillate Oil	39.3	40.4	-2.7%	36.5	7.7%	26.7	47.2%
Propane	3.889	3.835	1.4%	3.963	-1.9%	3.499	11.1%
#6 Residual Oil	7.5	7.4	1.2%	7.0	7.2%	6.3	19.9%
US Natural Gas	3,909	3,836	1.9%	3,857	1.3%	3,727	4.9%
US Crude Oil	468.2	468.7	-0.1%	448.0	4.5%	363.0	29.0%

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	10/24/2016	10/17/2016	% Change vs. Prior Survey	Year Ago	% Change vs. Last Year
Long Island	2.647	2.638	0.3%	2.693	-1.7%
New York City	2.610	2.597	0.5%	2.756	-5.3%
Lower Hudson	2.562	2.554	0.3%	2.580	-0.7%
Upper Hudson	2.399	2.363	1.5%	2.397	0.1%
Capital District	2.304	2.292	0.5%	2.406	-4.2%
North Country	2.323	2.319	0.2%	2.422	-4.1%
Central	2.301	2.274	1.2%	2.280	0.9%
Western	2.433	2.421	0.5%	2.230	-4.2%
Statewide	2.433	2.458	0.7%	2.533	-2.3%
	_	1	- 1,100 gallon usage category		1
Long Island	2.830	2.830	0.0%	2.698	4.9%
Mid-Hudson*	2.276	2.272	0.2%	2.264	0.5%
Capital District*	2.537	2.502	1.4%	2.296	10.5%
North Country	2.774	2.774	0.0%	2.332	19.0%
Central	2.038	2.024	0.7%	2.005	1.6%
Western	2.069	2.051	0.9%	2.049	1.0%
Statewide*	2.329	2.317	0.5%	2.209	5.4%
	New York State	Retail Kerosene Poste	d Credit Prices (dollars per g	allon)	
Mid-Hudson	2.973	2.949	0.8%	3.116	-4.6%
Capital District	2.810	2.806	0.1%	2.913	-3.5%
North Country	2.919	2.910	0.3%	2.960	-1.4%
Central	2.781	2.764	0.6%	2.903	-4.2%
Western	2.763	2.749	0.5%	2.908	-5.0%
Statewide	2.872	2.856	0.6%	2.986	-3.8%
	New York St	ate Average Residenti	al Natural Gas Prices (\$/ther	<b>m</b> )	
REGION	July 2016	June 2016	% Change vs. Prior Month	July 2015	% Change vs. Las 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 heating oil & propane & Sept. 2000 for kerosene.

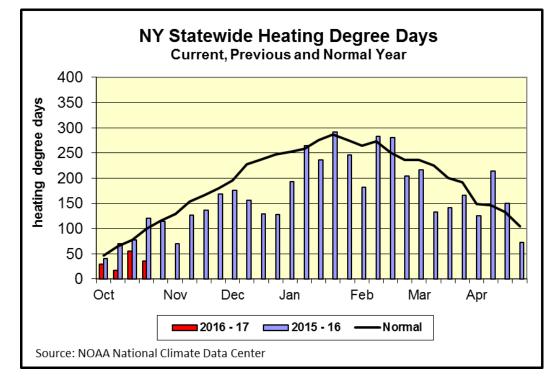
- Heating oil—highest price \$4.778/gallon on 7/14/08, lowest price \$0.876/gallon on 9/08/98.
- Propane—highest price \$3.811/gallon on 2/17/14, lowest price \$1.072/gallon on 9/20/99.
- Kerosene—highest price \$5.068/gallon on 7/14/08, lowest price \$1.309/gallon on 9/09/02.

**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.

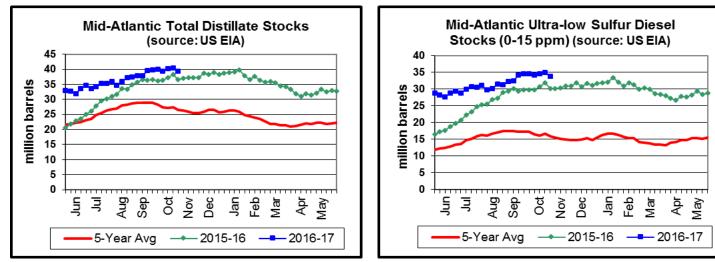
New York State Regions: Long Island: Nassau and Suffolk New York City: Bronx, Kings, New York, Queens, and Richmond Lower Hudson: Dutchess, Putnam, Rockland, and Westchester Upper Hudson: Columbia, Greene, Orange, Sullivan, and Ulster Capital District: Albany, Fulton Montgomery, Rensselaer, Saratoga, 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 (35) was 70.8% below the year-ago level of (120) and 64.6% below the normal trend (99). On a cumulative basis since October 1<sup>st</sup>, current year heating degree-days (136) are behind the year-ago level (308) by 55.8% and the normal trend (288) by 52.8%.

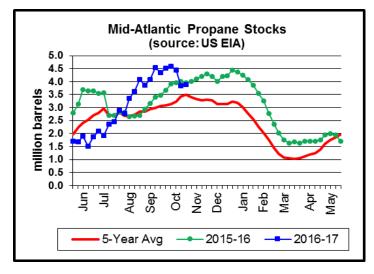
New York State Heating Degree Day Information, Weekly & Cumulative							
Week Ending October 22				Cumulative From October 1			
Region	2016	2015	Normal	2016-17	2015-16	Normal	
Albany	48	128	113	238	310	340	
Binghamton	64	130	124	331	354	392	
Buffalo	53	110	107	183	282	329	
Glens Falls	62	141	133	303	374	420	
Massena	78	154	135	311	446	428	
NYC	9	67	62	62	136	168	
Rochester	47	108	109	193	280	334	
Syracuse	59	119	112	256	293	346	
Watertown	74	144	129	297	382	411	
Statewide	35	120	99	136	308	288	



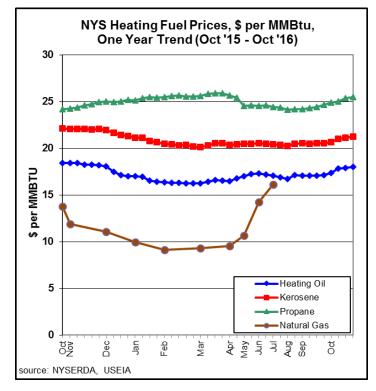
Distillate Stocks—Current and historic heating fuel inventory data is presented in the graphs below.



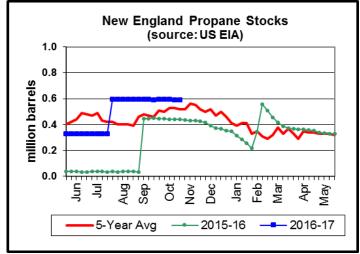
Propane Stocks—Current and historic heating fuel inventory data is presented in the graphs below.



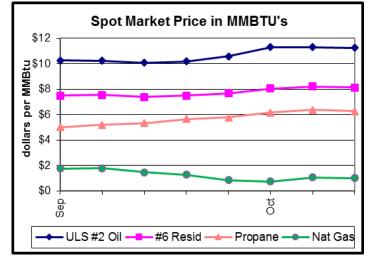
**Retail Btu Price Equivalents**—The New York State Heating Fuel Prices Btu graph equates the retail price for New York Statewide average residential ultra-low sulfur heating oil, kerosene, propane, and natural gas on a dollar per million Btu (MMBtu) basis.



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	10/21/2016	Year Ago	% Change			
Ultra LS Diesel	1.559	1.432	8.9%			
#2 Fuel Oil	1.490	1.359	9.7%			
#6 Residual 0.3%	1.218	1.064	14.4%			
Propane	0.571	0.423	35.0%			
Natural Gas	1.001	2.369	-57.7%			

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>