## NYSERDA Heating Fuels Report

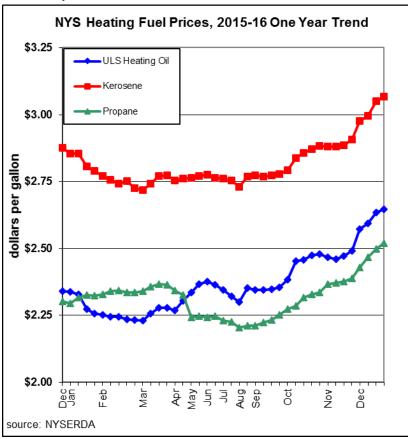
## **Highlights**

- New York statewide heating degree-days for the week ending December 24<sup>th</sup> were 72.3% above the year-ago level while the cumulative heating degree-days since October 1st, (1,741) are ahead of the year-ago level (1,516) by 14.8% but remain behind the normal trend (1,899) by 8.3%.
- The weekly average WTI crude oil spot price averaged \$51.95 per barrel, 43.3% higher than last year's price of \$36.26 per barrel.
- For the sixth week in a row, 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 December 19<sup>th</sup>, prices increased \$0.012/gallon (0.5%) to \$2.646/gallon for ULS heating oil, \$0.016/gallon (0.5%) to \$3.067/gallon for kerosene, and \$0.022/gallon (0.9%) to \$2.520/gallon for propane. Compared to a year earlier, prices increased \$0.306/gallon (13.1%) for heating oil, \$0.192/gallon (6.7%) for kerosene and \$0.217/gallon (9.4%) for propane.

**Crude Oil Prices**—For the week ending 12/23/16, WTI crude oil spot prices averaged \$51.95/bbl, an increase of \$0.04/bbl (0.1%) from the week-ago average of \$51.91/bbl. WTI prices are now \$15.69/bbl (43.3%) above the year-ago weekly average of \$36.26/bbl. The all-time weekly average high of \$142.52/bbl occurred on 7/04/08.

**Spot Natural Gas Prices**—For the week ending 12/23/16, Henry Hub natural gas spot prices averaged \$3.510 per million Btu (mmBtu), a decrease of \$0.028/mmBtu (0.8%) from the prior week level of \$3.538/mmBtu. Prices are currently \$1.858/mmBtu (112.4%) above the year-earlier weekly average of \$1.653/mmBtu.



**Residential Natural Gas Prices**—The NYS average price in September 2016 was \$1.678/therm, a decrease of \$0.053/therm (3.0%) from the prior month of \$1.731/therm, and was \$0.018/therm (1.0%) lower than the year earlier average of \$1.696/therm.

Middle Atlantic Region, Weekly Inventories (million barrels)							
Fuel Type	12/23/2016	12/16/2016	% Change vs. Last Week	Year Ago	% Change vs. Last Year	5-Year Average	% Change vs. 5- Year Avg
ULS Distillate (0-15 ppm)	35.9	35.3	1.8%	31.7	13.4%	15.0	138.9%
Non-road Diesel (15-500 ppm)	1.9	2.0	-5.8%	1.4	34.3%	1.2	60.2%
High Sulfur Distillate ( >500 ppm)	3.4	3.9	-13.8%	5.7	-40.8%	9.6	-64.7%
Total Distillate Oil	41.2	41.2	-0.1%	38.8	6.2%	25.8	59.7%
Propane	3.747	3.660	2.4%	4.436	-15.5%	3.229	16.0%
#6 Residual Oil	7.0	7.2	-2.0%	8.0	-12.1%	7.1	-1.2%
US Natural Gas	3,360	3,597	-6.6%	3,773	-10.9%	3,439	-2.3%
US Crude Oil	486.1	485.4	0.1%	455.1	6.8%	355.7	36.7%

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



			% Change vs. Prior		% Change vs. Last
REGION	12/26/2016	12/19/2016	Survey	Year Ago	Year
Long Island	2.801	2.792	0.3%	2.471	13.4%
New York City	2.753	2.735	0.7%	2.391	15.1%
Lower Hudson	2.733	2.731	0.1%	2.309	18.4%
Upper Hudson	2.553	2.548	0.2%	2.309	10.6%
Capital District	2.502	2.462	1.6%	2.228	12.3%
North Country	2.517	2.503	0.6%	2.277	10.5%
Central	2.450	2.446	0.2%	2.152	13.8%
Western	2.714	2.709	0.2%	2.513	8.0%
Statewide	2.646	2.634	0.5%	2.340	13.1%
Ne	w York State Retail Propane	Posted Credit Prices	• 1,100 gallon usage catego	ry (dollars per gallon)	-
Long Island	2.960	2.953	0.2%	2.790	6.1%
Mid-Hudson	2.396	2.374	0.9%	2.272	5.5%
Capital District	2.784	2.752	1.2%	2.483	12.1%
North Country	2.990	2.973	0.6%	2.505	19.4%
Central	2.296	2.271	1.1%	2.116	8.5%
Western	2.225	2.202	1.0%	2.094	6.3%
Statewide	2.520	2.498	0.9%	2.303	9.4%
	New York State F	Retail Kerosene Poste	l Credit Prices (dollars per	gallon)	
Mid-Hudson	3.174	3.160	0.4%	2.989	6.2%
Capital District	2.989	2.950	1.3%	2.771	7.9%
North Country	3.088	3.069	0.6%	2.880	7.2%
Central	2.933	2.931	0.1%	2.732	7.4%
Western	3.067	3.056	0.4%	2.926	4.8%
Statewide	3.067	3.051	0.5%	2.875	6.7%
	New York Sta	te Average Residentia	l Natural Gas Prices (\$/the	rm)	
			% Change vs. Prior		% Change vs. Las
REGION	September 2016	August 2016	Month	September 2015	Year
Statewide	1.678	1.731	-3.0%	1.696	-1.0%

\* Revision

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

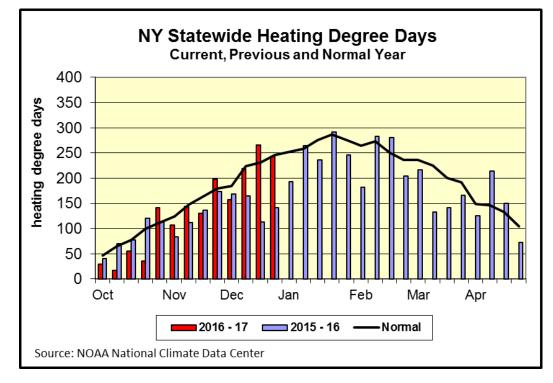
- Heating oil—highest price \$4.778/gallon on 7/14/08, lowest price \$0.876/gallon on 9/08/98.
- Propane—highest price \$3.811/gallon on 2/17/14, lowest price \$1.072/gallon on 9/20/99.
- Kerosene—highest price \$5.068/gallon on 7/14/08, lowest price \$1.309/gallon on 9/09/02.

**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.

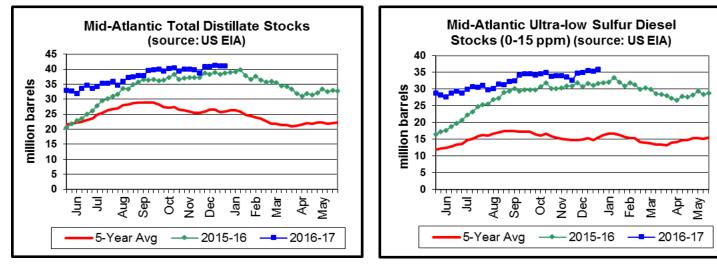
New York State Regions: Long Island: Nassau and Suffolk New York City: Bronx, Kings, New York, Queens, and Richmond Lower Hudson: Dutchess, Putnam, Rockland, and Westchester Upper Hudson: Columbia, Greene, Orange, Sullivan, and Ulster Capital District: Albany, Fulton Montgomery, Rensselaer, Saratoga, 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 (243) was 72.3% above the year-ago level of (141) and 1.2% below the normal trend (246). On a cumulative basis since October  $1^{st}$ , current year heating degree-days (1,741) are ahead of the year-ago level (1,516) by 14.8% and behind the normal trend (1,899) by 8.3%.

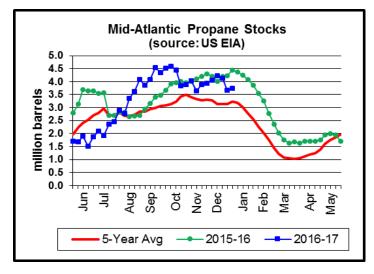
New York State Heating Degree Day Information, Weekly & Cumulative							
Week Ending December 24				Cumulative From October 1			
Region	2016	2015	Normal	2016-17	2015-16	Normal	
Albany	252	148	256	1,962	1,599	2,067	
Binghamton	277	177	274	2,212	1,737	2,264	
Buffalo	246	156	255	1,764	1,508	2,043	
Glens Falls	278	176	292	2,114	1,862	2,376	
Massena	279	174	319	2,242	2,012	2,524	
NYC	177	98	199	1,151	891	1,419	
Rochester	241	156	256	1,774	1,512	2,058	
Syracuse	254	158	263	1,990	1,588	2,097	
Watertown	260	152	292	2,083	1,799	2,358	
Statewide	243	141	246	1,741	1,516	1,899	



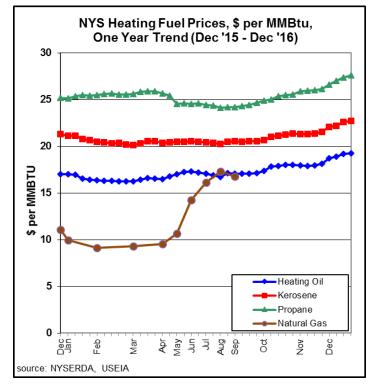
Distillate Stocks—Current and historic heating fuel inventory data is presented in the graphs below.



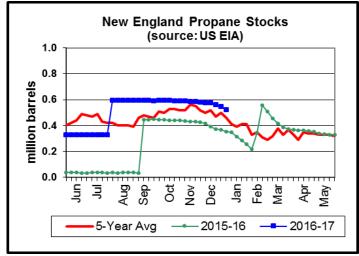
Propane Stocks—Current and historic heating fuel inventory data is presented in the graphs below.



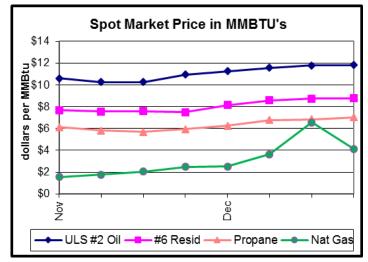
**Retail Btu Price Equivalents**—The New York State Heating Fuel Prices Btu graph equates the retail price for New York Statewide average residential ultra-low sulfur heating oil, kerosene, propane, and natural gas on a dollar per million Btu (MMBtu) basis.



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	12/23/2016	Year Ago	% Change			
Ultra LS Diesel	1.640	1.069	53.4%			
#2 Fuel Oil	1.548	0.971	59.5%			
#6 Residual 0.3%	1.311	0.766	71.2%			
Propane	0.640	0.376	70.3%			
Natural Gas	4.140	1.416	192.4%			

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>