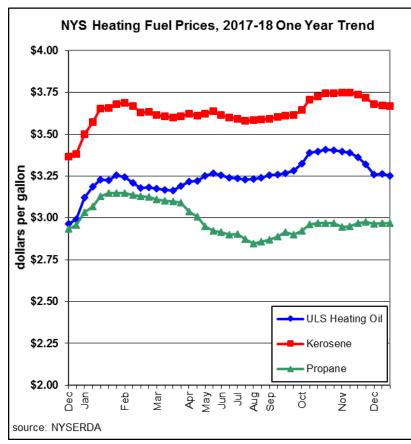
## **Highlights**

- Mid-Atlantic ultra-low sulfur (ULS) distillate inventories decreased 0.9 million barrels (4.6%) since last week to 17.8 million barrels. Current inventories are 33.3% below last year's level and 24.6% below the 5-year average.
- For the week ending December 15, cumulative New York statewide heating degree-days since October 1<sup>st</sup> (1,711) are ahead of last year (1,444) by 18.5% and ahead of the 30-year normal (1,559) by 9.7%.
- New York Statewide average retail prices of ultra-low sulfur (ULS) heating oil, kerosene, and propane all decreased since the last survey.

**Retail Petroleum Prices**—On a statewide basis since the last survey on December 10<sup>th</sup>, prices decreased \$0.010/gallon (0.3%) to \$3.252/gallon for ULS heating oil, \$0.002/gallon (0.1%) to \$3.670/gallon for kerosene, and \$0.001/gallon (0.0%) to \$2.968/gallon for propane. Compared to a year earlier, prices increased \$0.288/gallon (9.7%) for heating oil, \$0.304/gallon (9.0%) for kerosene and \$0.035/gallon (1.2%) for propane.

**Crude Oil Prices**—For the week ending 12/14/18, WTI crude oil spot prices averaged \$51.54/bbl, a decrease of \$1.09/bbl (2.1%) from the week-ago average of \$52.63/bbl. WTI prices are now \$5.63/bbl (9.8%) below the year-ago weekly average of \$57.17/bbl. The all-time weekly average high of \$142.52/bbl occurred on 7/04/08.

**Spot Natural Gas Prices**—For the week ending 12/14/18, Henry Hub natural gas spot prices averaged \$4.262 per million Btu (mmBtu), a decrease of \$0.244/mmBtu (5.4%) from the prior week level of \$4.506/mmBtu. Prices are currently \$1.548/mmBtu (57.0%) above the year-earlier weekly average of \$2.714/mmBtu.



**Residential Natural Gas Prices**—The NYS average price in September 2018 was \$1.952/therm, a decrease of \$0.064/therm (3.2%) from the August 2018 price of \$2.016/therm, and was \$0.198/therm (11.3%) higher than the year earlier average of \$1.754/therm.

Middle Atlantic Stocks—Current and historic heating fuel inventory data is presented in the table below.

Middle Atlantic Region, Weekly Inventories (million barrels)									
Fuel Type	12/14/2018	12/7/2018	% Change ws. Last Week	Year Ago	% Change vs. Last Year	5-Year Average	% Change vs. 5- Year Avg		
ULS Distillate (0-15 ppm)	17.8	18.7	-4.6%	26.7	-33.3%	23.6	-24.6%		
Non-road Diesel (15-500 ppm)	0.7	0.4	84.0%	0.7	-3.4%	1.3	-43.8%		
High Sulfur Distillate (>500 ppm)	2.9	2.8	2.1%	2.4	18.9%	4.8	-40.5%		
Total Distillate Oil	21.4	21.9	-2.2%	29.8	-28.3%	29.7	-28.0%		
Propane	4.279	4.776	-10.4%	4.981	-14.1%	3.854	11.0%		
#6 Residual Oil	4.9	4.6	7.6%	5.0	-0.8%	6.1	-19.5%		
US Natural Gas	2,773	2,914	-4.8%	3,470	-20.1%	3,493	-20.6%		
US Crude Oil	441.5	442.0	-0.1%	436.5	1.1%	413.4	6.8%		

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



			24 52		
REGION	12/17/2018	12/10/2018	% Change ws. Prior Survey	Year Ago	% Change vs. Last Year
Long Island*	3.394	3.408	-0.4%	3.097	9.6%
New York City	3.276	3.286	-0.3%	3.002	9.1%
Lower Hudson	3.288	3.319	-0.9%	3.097	6.2%
Upper Hudson	3.177	3.184	-0.2%	2.872	10.6%
Capital District	2.982	2.982	0.0%	2.775	7.5%
North Country	3.301	3.301	0.0%	2.849	15.9%
Central	3.104	3.110	-0.2%	2.828	9.8%
Western	3.424	3.433	-0.3%	3.098	10.5%
Statewide*	3.252	3.262	-0.3%	2.964	9.7%
Ne	w York State Retail Propane	Posted Credit Prices	- 1,100 gallon usage catego	ory (dollars per gallon)	
Long Island	3.247	3.247	0.0%	3.308	-1.8%
Mid-Hudson	2.873	2.887	-0.5%	2.747	4.6%
Capital District	2.873	2.880	-0.2%	2.980	-3.6%
North Country	3.769	3.773	-0.1%	3.768	0.0%
Central	2.744	2.739	0.2%	2.685	2.2%
Western	2.653	2.645	0.3%	2.589	2.5%
Statewide	2.968	2.969	0.0%	2.933	1.2%
	New York State I	Retail Kerosene Poste	d Credit Prices (dollars per	gallon)	
Mid-Hudson	3.753	3.760	-0.2%	3.430	9.4%
Capital District	3.411	3.411	0.0%	3.231	5.6%
North Country	3.775	3.775	0.0%	3.378	11.8%
Central	3.577	3.570	0.2%	3.309	8.1%
Western	3.810	3.821	-0.3%	3.448	10.5%
Statewide	3.670	3.672	-0.1%	3.366	9.0%
	New York Sta	te Average Residentia	l Natural Gas Prices (\$/the	erm)	-
REGION	September 2018	August 2018	% Change ws. Prior Month	September 2017	% Change vs. Last Year
Statewide	1.952	2.016	-3.2%	1.754	11.3%

<sup>\*</sup> Revision

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

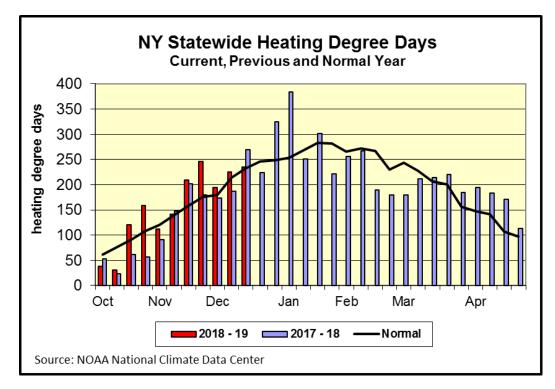
- Heating oil—highest price \$4.778/gallon on 7/14/08, lowest price \$0.876/gallon on 9/08/98.
- Propane—highest price \$3.811/gallon on 2/17/14, lowest price \$1.072/gallon on 9/20/99.
- Kerosene—highest price \$5.068/gallon on 7/14/08, lowest price \$1.309/gallon on 9/09/02.

**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.

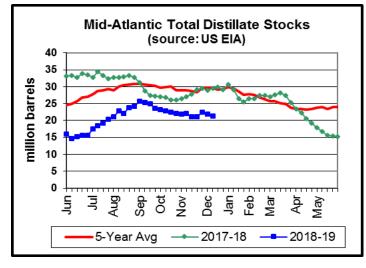
New York State Regions: Long Island: Nassau and Suffolk New York City: Bronx, Kings, New York, Queens, and Richmond Lower Hudson: Dutchess, Putnam, Rockland, and Westchester Upper Hudson: Columbia, Greene, Orange, Sullivan, and Ulster Capital District: Albany, Fulton Montgomery, Rensselaer, Saratoga,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

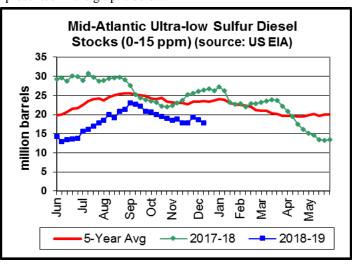
**Heating Degree Days**— On a statewide basis during the past week, the number of heating degree-days (235) was 12.6% below the year-ago level (269) and 0.9% above the normal trend (233). On a cumulative basis since October 1<sup>st</sup>, current year heating degree-days (1,711) are ahead of the year-ago level (1,444) by 18.5% and ahead of the normal trend (1,559) by 9.7%.

New York State Heating Degree Day Information, Weekly & Cumulative								
	W	eek Ending December	15	Cumulative From October 1				
Region	2018	2017	Normal	2018-19	2017-18	Normal		
Albany	244	290	238	1,819	1,550	1,703		
Binghamton	255	319	255	2,065	1,756	1,864		
Buffalo	226	304	238	1,858	1,553	1,678		
Glens Falls	273	314	270	2,062	1,790	1,952		
Massena	306	343	295	2,245	1,813	2,064		
NYC	180	222	182	1,195	957	1,150		
Rochester	221	295	240	1,801	1,506	1,691		
Syracuse	248	301	245	1,942	1,609	1,720		
Watertown	273	327	271	2,102	1,717	1,934		
Statewide	235	269	233	1,711	1,444	1,559		

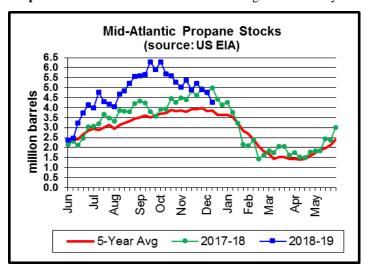


**Distillate Stocks**—Current and historic heating fuel inventory data is presented in the graphs below.

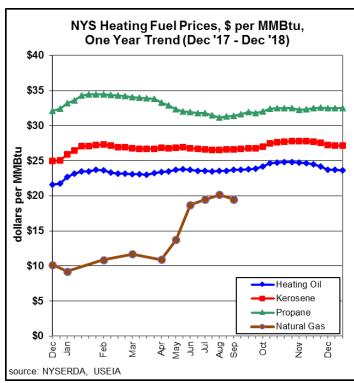




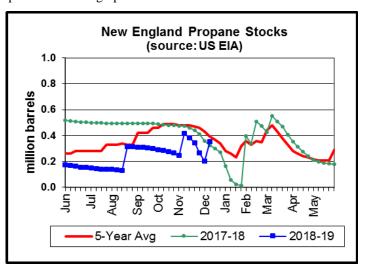
**Propane Stocks**—Current and historic heating fuel inventory data is presented in the graphs below.



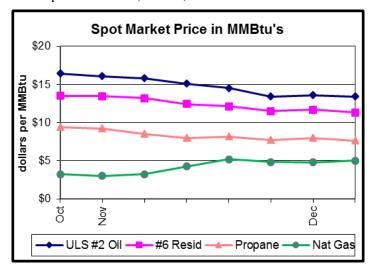
**Retail Btu Price Equivalents**—The New York State heating fuel prices Btu graph equates the retail price for New York Statewide average residential ultra-low sulfur heating oil, kerosene, propane, and natural gas on a dollar per million Btu (MMBtu) basis.



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	12/14/2018	Year Ago	% Change				
Ultra LS Diesel	1.856	1.916	-3.1%				
#2 Fuel Oil	1.842	1.836	0.3%				
#6 Residual 0.3%	1.698	1.457	16.5%				
Propane	0.695	0.920	-24.4%				
Natural Gas	4.997	4.488	11.3%				

Note: Fuel in \$/gallon, natural gas (\$/MMBtu)=NYCitygate

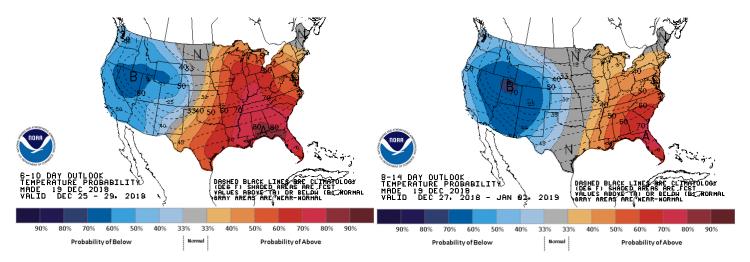
**Weather Outlooks** – Based on data and maps provided by the National Oceanic and Atmospheric Administration (NOAA) and the Northeast Regional Climate Center at Cornell University (NRCC).

**Forecast HDD**: On a statewide basis for the week ending December 22<sup>nd</sup>, the number of forecasted heating degree-days (187) is 15.8% lower than last year (222) and 21.4% lower than the normal trend (238). Regional HDD forecasts are provided in the table below.

## **Regional Heating Degree-Day Forecast**

Period	Forecas	t Period: 12/2	1-12/26	Actual HDD Week Ending 12/19						
City	6-Day Forecast	Last Year	Normal	Weekly	Last Year	Normal	Cumulative	Last Year	Normal	
Albany	181	239	235	231	293	257	1940	1672	1893	
Binghamton	198	238	240	243	299	266	2194	1869	2001	
Buffalo	191	243	224	210	287	246	1969	1671	1802	
Glens Falls	193	256	258	254	352	281	2191	1947	2128	
Massena	229	M	277	281	386	302	2384	2000	2240	
NYC	143	162	175	170	211	189	1296	1051	1218	
Rochester	189	236	224	213	289	247	1915	1630	1820	
Syracuse	195	245	229	238	305	252	2063	1742	1824	
Watertown	207	281	249	253	352	272	2238	1874	2018	
Source: NOAA, Northeast Regional Climate Center at Cornell University (NRCC)										

- **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 December 25-29. 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 December 27, 2018 January 2, 2019. This is in comparison to the 30-year normal (1981-2010).



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