

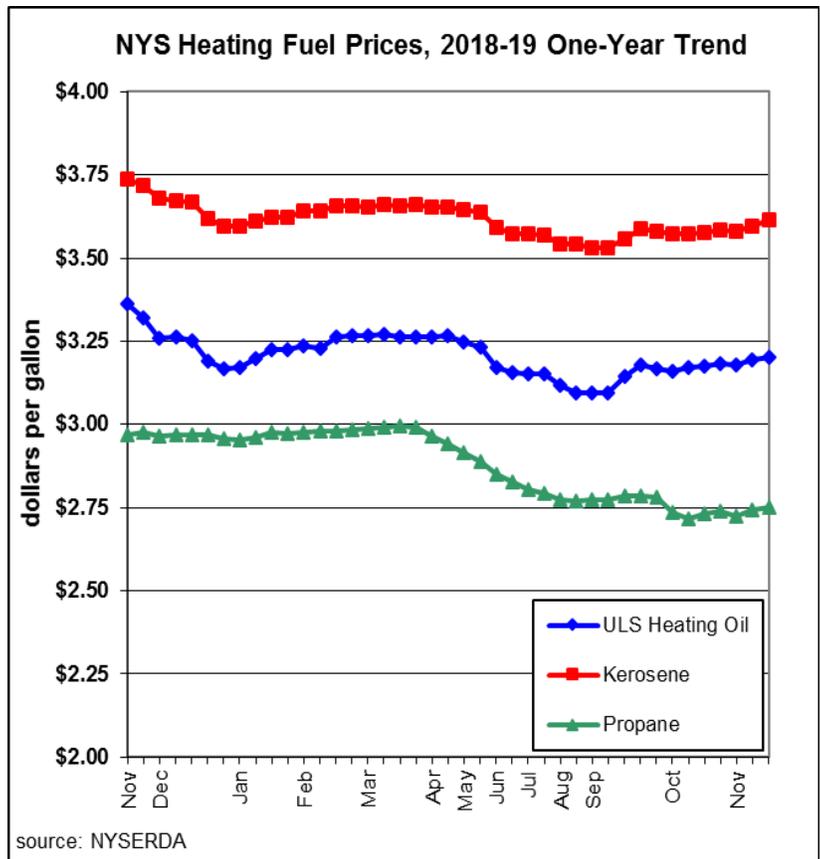
Highlights

- Mid-Atlantic ultra-low sulfur (ULS) distillate inventories increased for the second week in a row, increasing by 0.8 million barrels (6.0%) since last week to 14.6 million barrels. Current inventories are 17.7% below last year’s level and 40.2% below the 5-year average.
- For the week ending November 16th, New York statewide heating degree-days (223) were more than last year (207) by 7.7% and more than the 30-year normal (156) by 42.9%.
- New York Statewide average retail prices of 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 November 11th, prices increased \$0.008/gallon (0.3%) to \$3.203/gallon for ULS heating oil, \$0.021/gallon (0.6%) to \$3.616/gallon for kerosene, and \$0.007/gallon (0.3%) to \$2.750/gallon for propane. Compared to a year earlier, prices decreased \$0.159/gallon (4.7%) for heating oil, \$0.120/gallon (3.2%) for kerosene, and \$0.219/gallon (7.4%) for propane.

Crude Oil Prices—For the week ending 11/15/19, WTI crude oil spot prices averaged \$56.85/bbl, an increase of \$0.16/bbl (0.3%) from the week-ago average of \$56.69/bbl. WTI prices are now \$0.07/bbl (0.1%) below the year-ago weekly average of \$56.92/bbl. The all-time weekly average high of \$142.52/bbl occurred on 7/04/08.

Spot Natural Gas Prices—For the week ending 11/15/19, Henry Hub natural gas spot prices averaged \$2.676 per million Btu (mmBtu), a decrease of \$0.114/mmBtu (4.1%) from the prior week level of \$2.790/mmBtu. Prices are currently \$1.610/mmBtu (37.6%) below the year-earlier weekly average of \$4.286/mmBtu.



Residential Natural Gas Prices—The NYS average price in August 2019 was \$1.957/therm, an increase of \$0.027/therm (1.4%) from the July 2019 price of \$1.930/therm, and was \$0.061/therm (3.0%) lower than the year earlier average of \$2.018/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	11/15/2019	11/8/2019	% Change vs. Last Week	Year Ago	% Change vs. Last Year	5-Year Average	% Change vs. 5-Year Avg
ULS Distillate (0-15 ppm)	14.6	13.8	6.0%	17.8	-17.7%	24.5	-40.2%
Non-road Diesel (15-500 ppm)	0.7	0.8	-10.1%	0.6	12.7%	1.1	-39.8%
High Sulfur Distillate (>500 ppm)	2.7	2.7	-1.0%	2.7	-0.1%	4.1	-34.6%
Total Distillate Oil	18.0	17.2	4.2%	21.0	-14.6%	29.7	-39.5%
Propane	6.100	5.524	10.4%	5.362	13.8%	3.894	56.6%
#6 Residual Oil	6.5	7.0	-6.4%	3.8	69.8%	6.2	5.7%
US Natural Gas	3,638	3,732	-2.5%	3,132	16.2%	3,698	-1.6%
US Crude Oil	450.4	449.0	0.3%	446.9	0.8%	439.6	2.4%

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



New York State Retail ULS #2 Heating Oil Posted Credit Prices (dollars per gallon)					
REGION	11/18/2019	11/11/2019	% Change vs. Prior Survey	Year Ago	% Change vs. Last Year
Long Island	3.382	3.400	-0.5%	3.542	-4.5%
New York City	3.326	3.317	0.3%	3.429	-3.0%
Lower Hudson	3.239	3.220	0.6%	3.469	-6.6%
Upper Hudson	3.080	3.044	1.2%	3.268	-5.8%
Capital District	2.912	2.912	0.0%	3.085	-5.6%
North Country	3.219	3.200	0.6%	3.305	-2.6%
Central	2.968	2.963	0.2%	3.190	-7.0%
Western	3.363	3.361	0.1%	3.446	-2.4%
Statewide	3.203	3.195	0.3%	3.362	-4.7%
New York State Retail Propane Posted Credit Prices - 1,100 gallon usage category (dollars per gallon)					
Long Island	2.997	2.978	0.6%	3.264	-8.2%
Mid-Hudson	2.720	2.718	0.1%	2.918	-6.8%
Capital District	2.576	2.558	0.7%	2.828	-8.9%
North Country	3.539	3.528	0.3%	3.748	-5.6%
Central	2.486	2.479	0.3%	2.745	-9.4%
Western*	2.487	2.492	-0.2%	2.650	-6.2%
Statewide*	2.750	2.743	0.3%	2.969	-7.4%
New York State Retail Kerosene Posted Credit Prices (dollars per gallon)					
Mid-Hudson	3.745	3.692	1.4%	3.843	-2.6%
Capital District	3.338	3.338	0.0%	3.518	-5.1%
North Country	3.688	3.677	0.3%	3.790	-2.7%
Central	3.430	3.428	0.1%	3.641	-5.8%
Western	3.835	3.835	0.0%	3.821	0.4%
Statewide	3.616	3.595	0.6%	3.736	-3.2%
New York State Average Residential Natural Gas Prices (\$/therm)					
REGION	August 2019	July 2019	% Change vs. Prior Month	August 2018	% Change vs. Last Year
Statewide	1.957	1.930	1.4%	2.018	-3.0%

* Revision

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

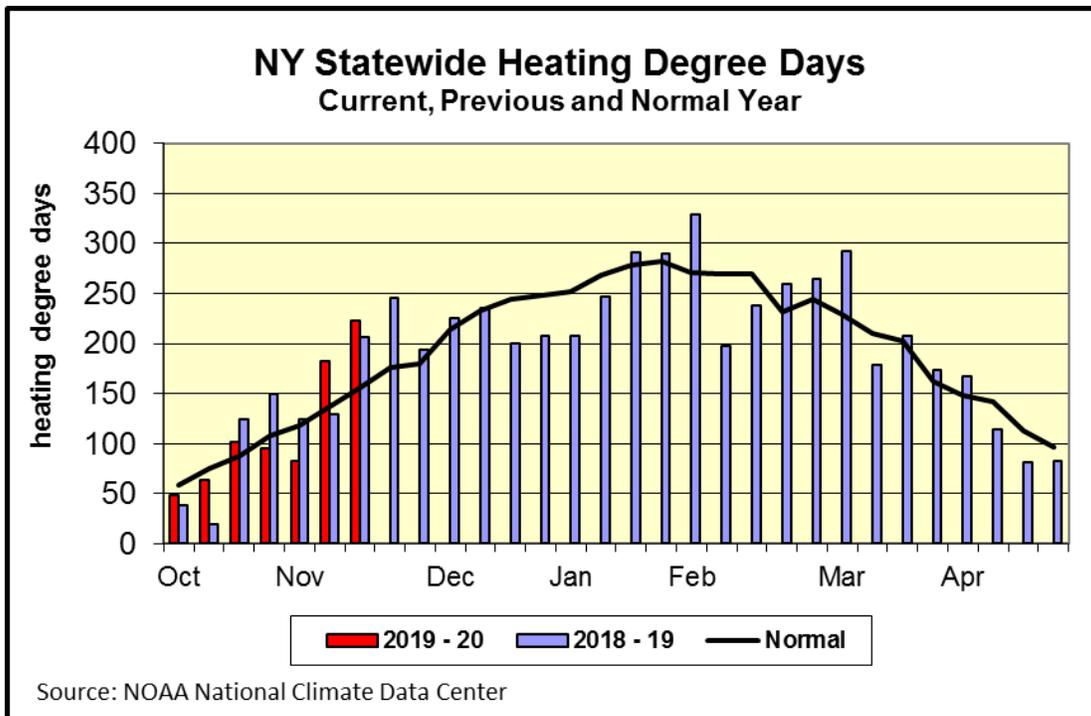
- Heating oil—highest price \$4.778/gallon on 7/14/08, lowest price \$0.876/gallon on 9/08/98.
- Propane—highest price \$3.811/gallon on 2/17/14, lowest price \$1.072/gallon on 9/20/99.
- Kerosene—highest price \$5.068/gallon on 7/14/08, lowest price \$1.309/gallon on 9/09/02.

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>.

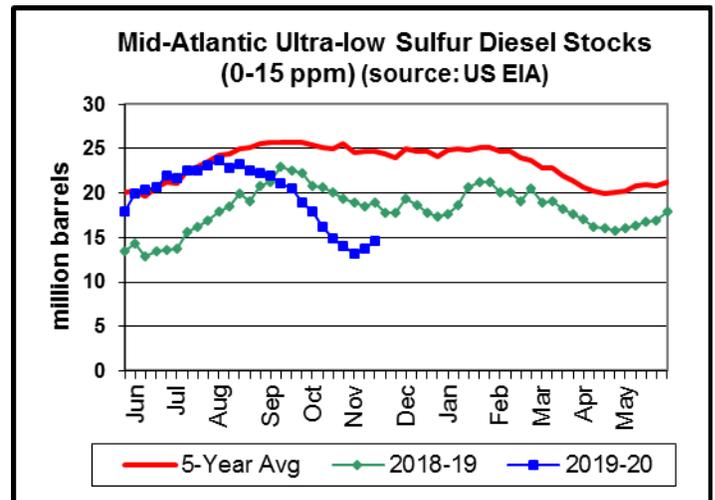
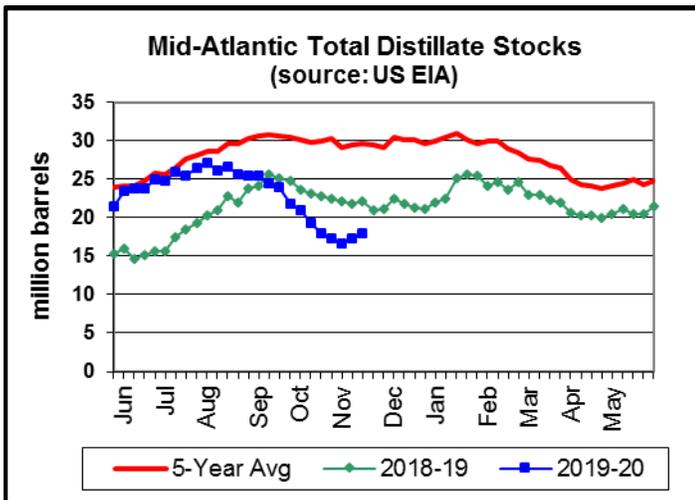
New York State Regions: *Long Island:* Nassau and Suffolk *New York City:* Bronx, Kings, New York, Queens, and Richmond *Lower Hudson:* Dutchess, Putnam, Rockland, and Westchester *Upper Hudson:* Columbia, Greene, Orange, Sullivan, and Ulster *Capital District:* Albany, Fulton, Montgomery, Rensselaer, 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. B5 heating oil is required for Downstate New York including Nassau, Suffolk, NYC, and Westchester counties.

Heating Degree Days— On a statewide basis during the past week, the number of heating degree-days (223) was 7.7% above the year-ago level (207) and 42.9% above the normal trend (156). On a cumulative basis since October 1st, current year heating degree-days (797) are ahead of the year-ago level (790) by 0.9% and ahead of the normal trend (739) by 7.8%.

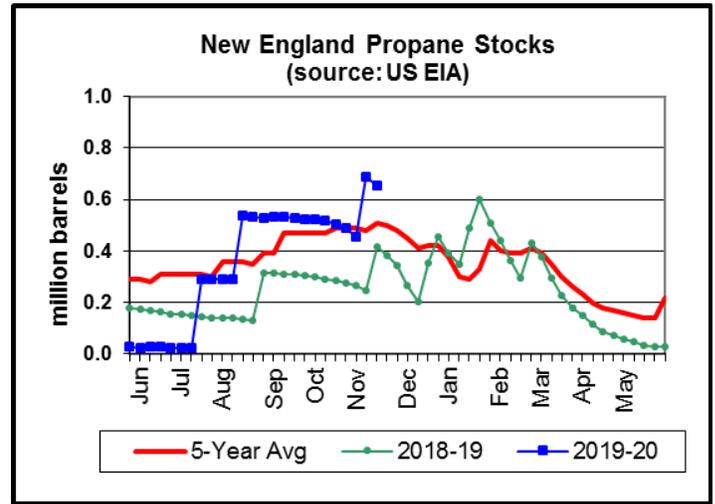
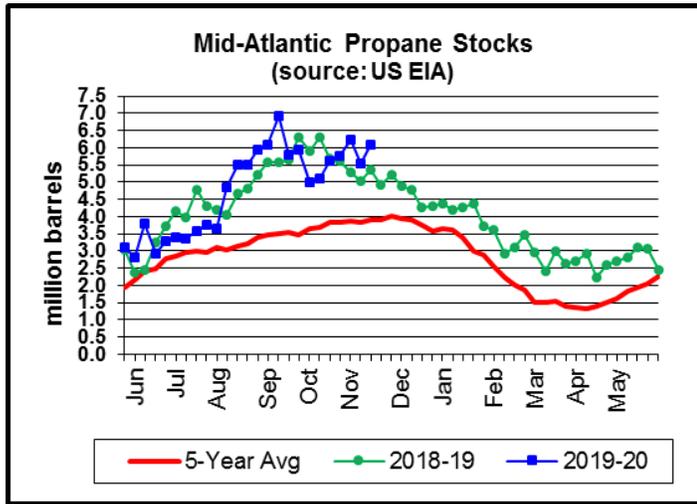
New York State Heating Degree Day Information, Weekly & Cumulative						
Region	Week Ending November 16			Cumulative From October 1		
	2019	2018	Normal	2019-20	2018-19	Normal
Albany	233	221	166	824	864	838
Binghamton	262	250	182	993	997	928
Buffalo	255	226	166	905	909	814
Glens Falls	271	244	187	1,012	1,019	977
Massena	303	260	197	1,099	1,112	1,010
NYC	161	161	117	469	472	500
Rochester	259	222	166	881	876	820
Syracuse	252	237	168	856	925	837
Watertown	291	240	186	999	1,035	959
Statewide	223	207	156	797	790	739



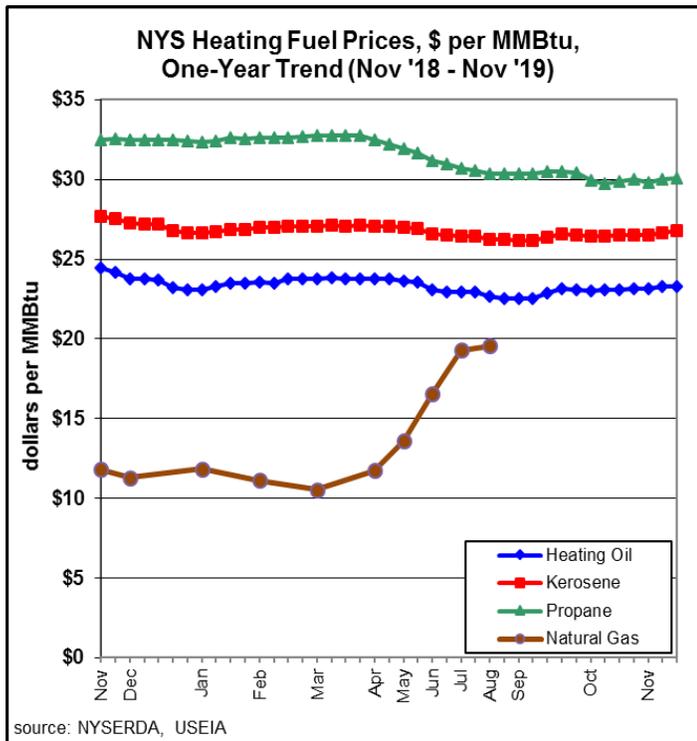
Distillate Stocks—Current and historic heating fuel inventory data is presented in the graphs below.



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

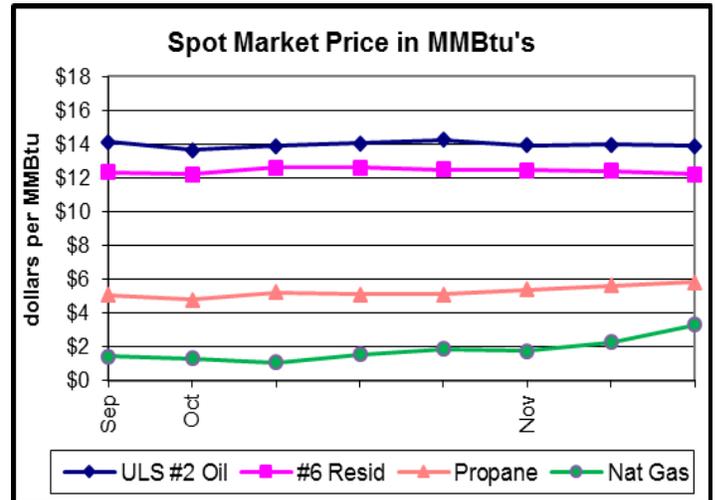


Retail Btu Price Equivalents—The New York State heating fuel prices Btu graph equates the retail price for New York Statewide average residential ultra-low sulfur heating oil, kerosene, propane, and natural gas on a dollar per million Btu (MMBtu) basis.



Note: Natural gas prices are from the U.S. EIA and provided on a monthly basis and delayed by 3 months. The monthly average price of natural gas is higher during the summer months due to low delivery volumes and fixed delivery charges and does not necessarily indicate a higher underlying supply price. Higher average natural gas prices in the summer months are not indicative of higher future prices during the winter 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.



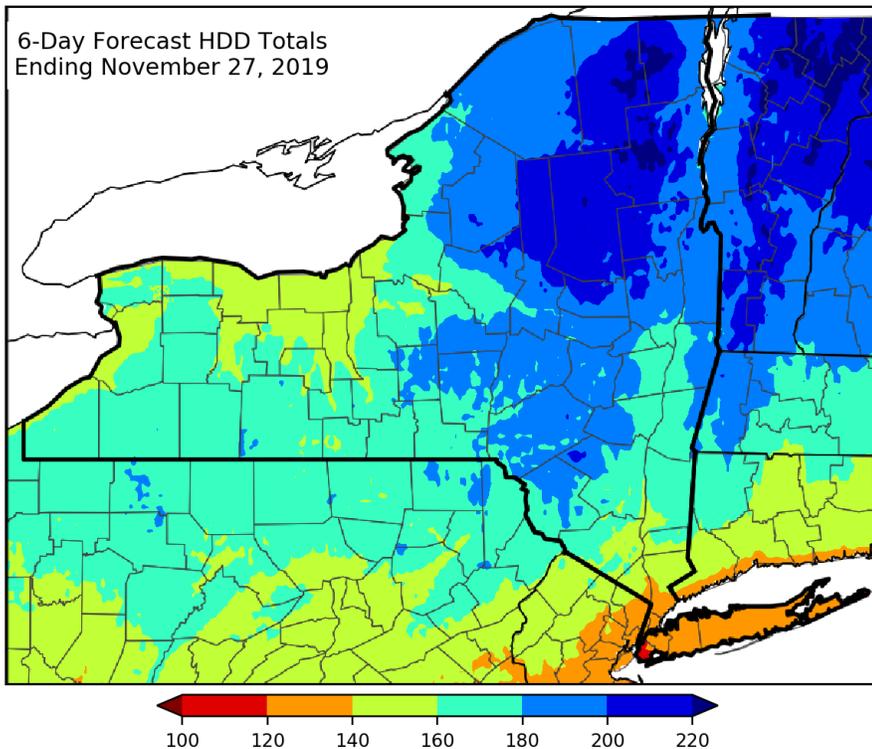
New York Spot Prices, Weekly Average			
Fuel	11/15/2019	Year Ago	% Change
Ultra LS Diesel	1.927	2.092	-7.9%
#2 Fuel Oil	1.908	2.075	-8.0%
#6 Residual 0.3%	1.827	1.861	-1.8%
Propane	0.530	0.730	-27.4%
Natural Gas	3.300	4.255	-22.4%

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).

Statewide Forecast HDD: On a statewide basis for the week ending November 23rd, the number of forecasted heating degree-days (173) is 24.5% below last year (229) and 3.0% above the normal trend (168). Regional HDD forecasts are provided in the map and table below.

Regional Heating Degree-Day Forecast

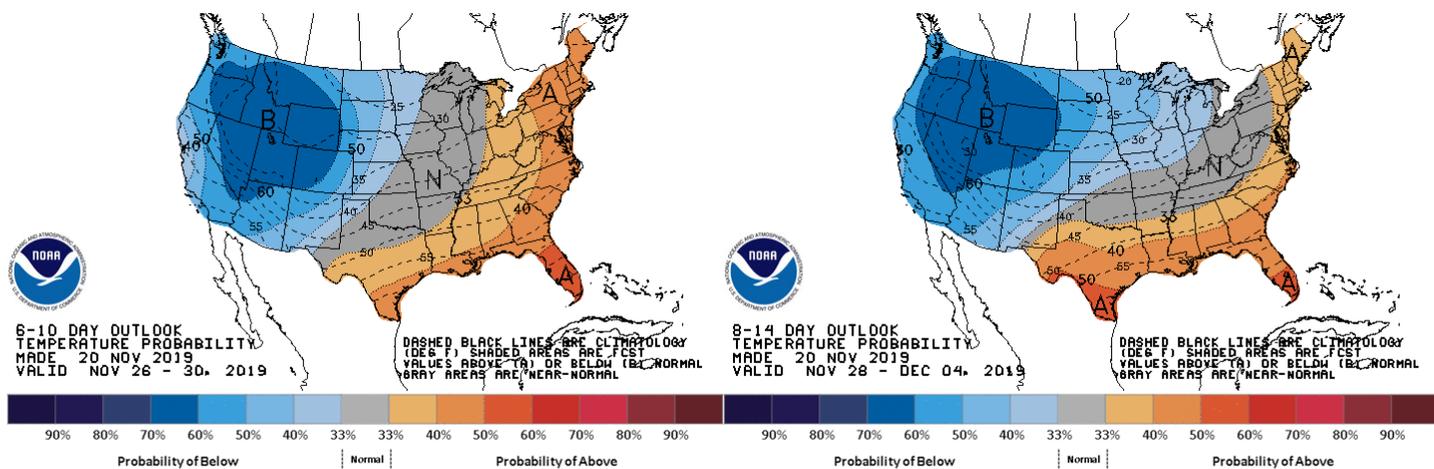


Period	Forecast Period: 11/22/19-11/27/19		
City	6-Day Forecast	Last Year	Normal
Albany	175	215	170
Binghamton	178	236	181
Buffalo	160	197	165
Glens Falls	188	237	187
Massena	196	233	199
NYC	125	156	119
Rochester	159	200	167
Syracuse	163	226	166
Watertown	173	224	180

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 November 26, 2019 – November 30, 2019. 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 November 28, 2019 – December 4, 2019. This is in comparison to the 30-year normal (1981-2010).



Additional historic **regional specific 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 matthew.milford@nyserda.ny.gov.