

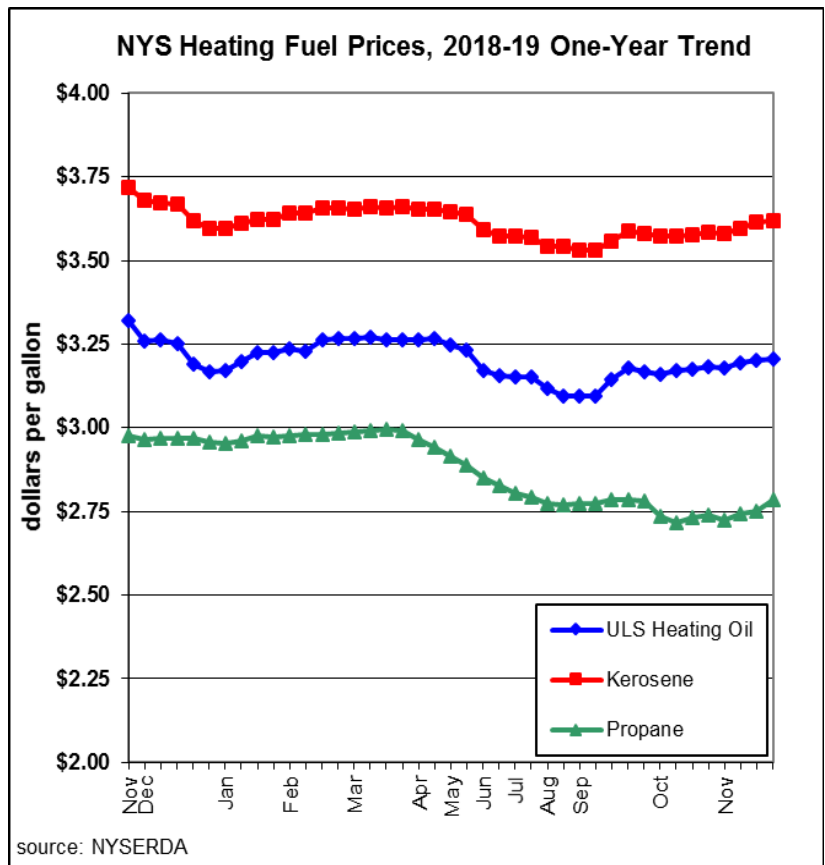
Highlights

- Mid-Atlantic ultra-low sulfur (ULS) distillate inventories increased for the third week in a row, increasing by 1.5 million barrels (10.0%) since last week to 16.1 million barrels. Current inventories are 9.8% below last year’s level and 33.1% below the 5-year average.
- For the week ending November 23rd, New York statewide heating degree-days (195) were less than last year (237) by 17.7% but more than the 30-year normal (174) by 12.1%.
- 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 18th, prices increased \$0.003/gallon (0.1%) to \$3.206/gallon for ULS heating oil, \$0.003/gallon (0.1%) to \$3.619/gallon for kerosene, and \$0.035/gallon (1.3%) to \$2.785/gallon for propane. Compared to a year earlier, prices decreased \$0.115/gallon (3.5%) for heating oil, \$0.100/gallon (2.7%) for kerosene, and \$0.191/gallon (6.4%) for propane.

Crude Oil Prices—For the week ending 11/22/19, WTI crude oil spot prices averaged \$56.90/bbl, an increase of \$0.05/bbl (0.1%) from the week-ago average of \$56.85/bbl. WTI prices are now \$1.91/bbl (3.5%) above the year-ago weekly average of \$54.99/bbl. The all-time weekly average high of \$142.52/bbl occurred on 7/04/08.

Spot Natural Gas Prices—For the week ending 11/22/19, Henry Hub natural gas spot prices averaged \$2.506 per million Btu (mmBtu), a decrease of \$0.170/mmBtu (6.4%) from the prior week level of \$2.676/mmBtu. Prices are currently \$2.164/mmBtu (46.3%) below the year-earlier weekly average of \$4.670/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	11/22/2019	11/15/2019	% Change vs. Last Week	Year Ago	% Change vs. Last Year	5-Year Average	% Change vs. 5-Year Avg
ULSDistillate (0-15 ppm)	16.1	14.6	10.0%	17.8	-9.8%	24.1	-33.1%
Non-road Diesel (15-500 ppm)	0.7	0.7	7.6%	0.6	32.1%	1.2	-40.8%
High Sulfur Distillate (>500 ppm)	2.8	2.7	4.8%	2.8	-0.2%	4.0	-30.1%
Total Distillate Oil	19.6	18.0	9.1%	21.2	-7.4%	29.3	-33.0%
Propane	5.728	6.100	-6.1%	4.911	16.6%	3.885	47.4%
#6 Residual Oil	7.0	6.5	7.1%	4.1	70.1%	6.0	16.1%
US Natural Gas	3,610	3,638	-0.8%	3,062	17.9%	3,641	-0.9%
US Crude Oil	452.0	450.4	0.3%	450.5	0.3%	440.0	2.7%

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



New York State Retail ULS #2 Heating Oil Posted Credit Prices (dollars per gallon)					
REGION	11/25/2019	11/18/2019	% Change vs. Prior Survey	Year Ago	% Change vs. Last Year
Long Island	3.379	3.382	-0.1%	3.461	-2.4%
New York City	3.332	3.326	0.2%	3.365	-1.0%
Lower Hudson	3.241	3.239	0.1%	3.405	-4.8%
Upper Hudson	3.086	3.080	0.2%	3.241	-4.8%
Capital District	2.912	2.912	0.0%	3.069	-5.1%
North Country	3.227	3.219	0.2%	3.307	-2.4%
Central	2.968	2.968	0.0%	3.166	-6.3%
Western	3.365	3.363	0.1%	3.449	-2.4%
Statewide	3.206	3.203	0.1%	3.321	-3.5%
New York State Retail Propane Posted Credit Prices - 1,100 gallon usage category (dollars per gallon)					
Long Island	3.065	2.997	2.3%	3.264	-6.1%
Mid-Hudson	2.749	2.720	1.1%	2.912	-5.6%
Capital District	2.612	2.576	1.4%	2.876	-9.2%
North Country	3.579	3.539	1.1%	3.751	-4.6%
Central	2.506	2.486	0.8%	2.750	-8.9%
Western	2.529	2.487	1.7%	2.655	-4.7%
Statewide	2.785	2.750	1.3%	2.976	-6.4%
New York State Retail Kerosene Posted Credit Prices (dollars per gallon)					
Mid-Hudson	3.750	3.745	0.1%	3.807	-1.5%
Capital District	3.338	3.338	0.0%	3.497	-4.5%
North Country	3.697	3.688	0.2%	3.799	-2.7%
Central	3.434	3.430	0.1%	3.627	-5.3%
Western	3.835	3.835	0.0%	3.821	0.4%
Statewide	3.619	3.616	0.1%	3.719	-2.7%
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.

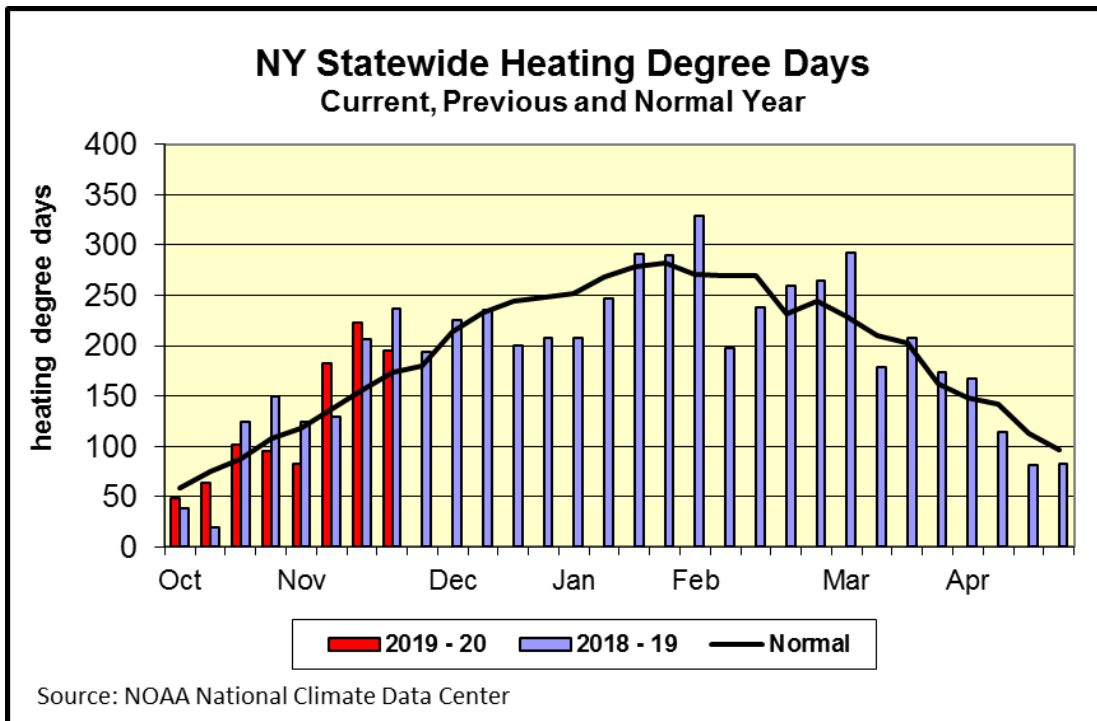
- Heating oil—highest price \$4.778/gallon on 7/14/08, lowest price \$0.876/gallon on 9/08/98.
- Propane—highest price \$3.811/gallon on 2/17/14, lowest price \$1.072/gallon on 9/20/99.
- Kerosene—highest price \$5.068/gallon on 7/14/08, lowest price \$1.309/gallon on 9/09/02.

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>.

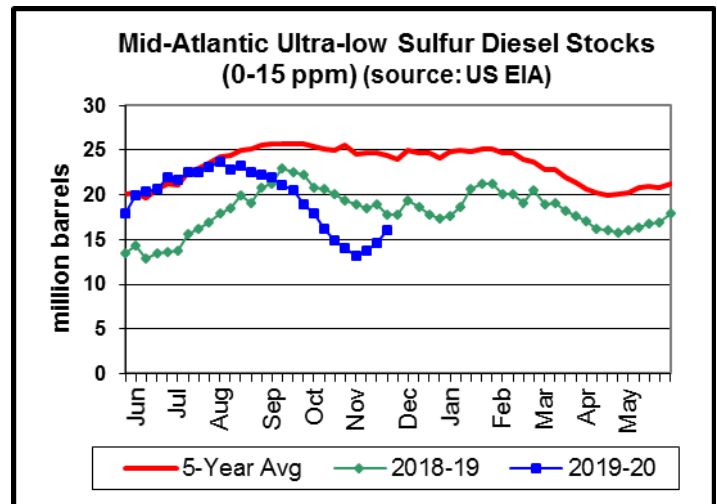
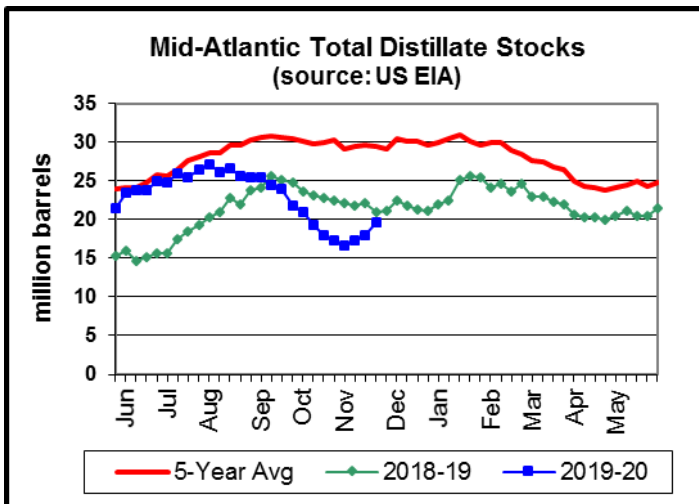
New York State Regions: *Long Island:* Nassau and Suffolk *New York City:* Bronx, Kings, New York, Queens, and Richmond *Lower Hudson:* Dutchess, Putnam, Rockland, and Westchester *Upper Hudson:* Columbia, Greene, Orange, Sullivan, and Ulster *Capital District:* Albany, Fulton, Montgomery, Rensselaer, 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 (195) was 17.7% below the year-ago level (237) and 12.1% above the normal trend (174). On a cumulative basis since October 1st, current year heating degree-days (992) are behind the year-ago level (1,027) by 3.4% and ahead of the normal trend (913) by 8.7%.

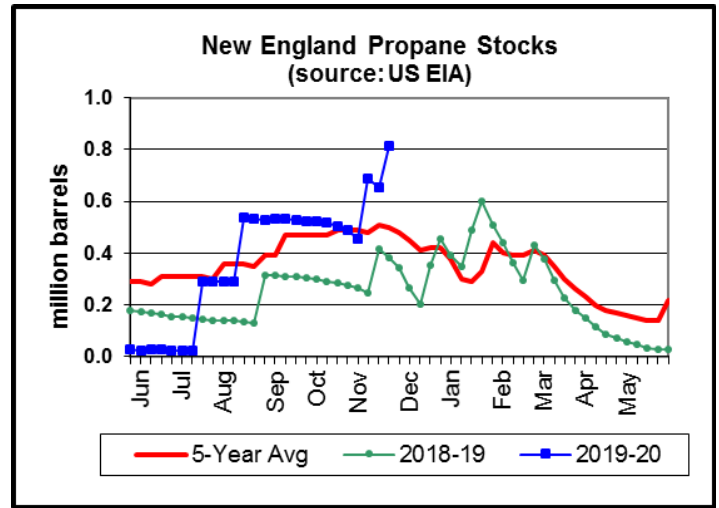
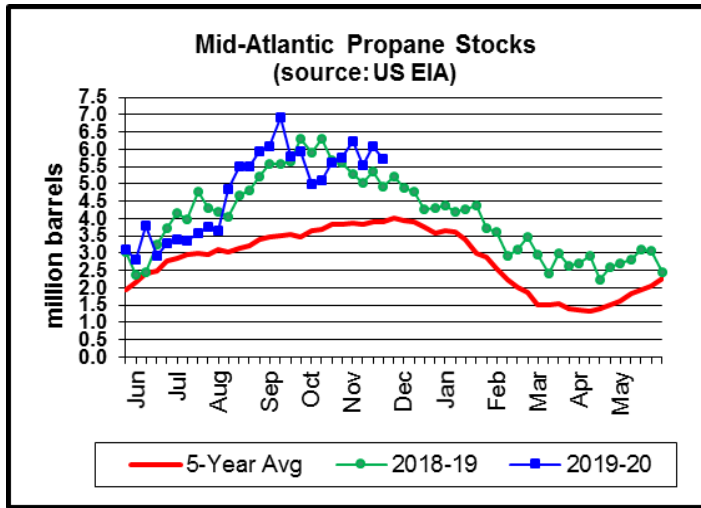
New York State Heating Degree Day Information, Weekly & Cumulative						
Region	Week Ending November 23			Cumulative From October 1		
	2019	2018	Normal	2019-20	2018-19	Normal
Albany	204	252	182	1,028	1,116	1,020
Binghamton	216	287	201	1,209	1,284	1,129
Buffalo	195	259	182	1,100	1,168	996
Glens Falls	239	277	205	1,251	1,296	1,182
Massena	261	319	219	1,360	1,431	1,229
NYC	152	194	133	621	666	633
Rochester	203	262	184	1,084	1,138	1,004
Syracuse	192	277	185	1,048	1,202	1,022
Watertown	231	302	204	1,230	1,337	1,163
Statewide	195	237	174	992	1,027	913



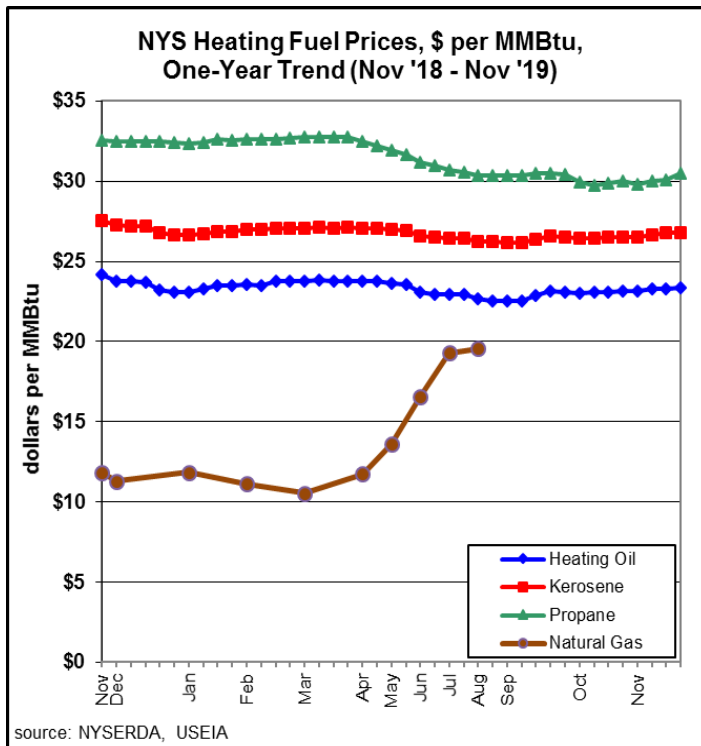
Distillate Stocks—Current and historic heating fuel inventory data is presented in the graphs below.



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

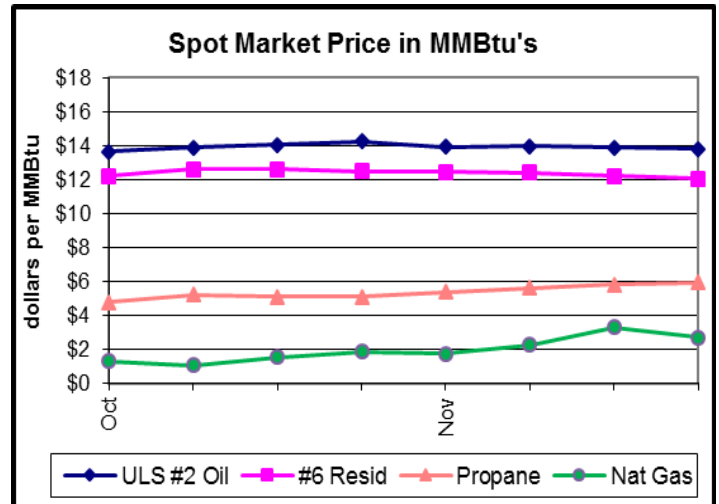


Retail Btu Price Equivalents—The New York State heating fuel prices Btu graph equates the retail price for New York Statewide average residential ultra-low sulfur heating oil, kerosene, propane, and natural gas on a dollar per million Btu (MMBtu) basis.



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

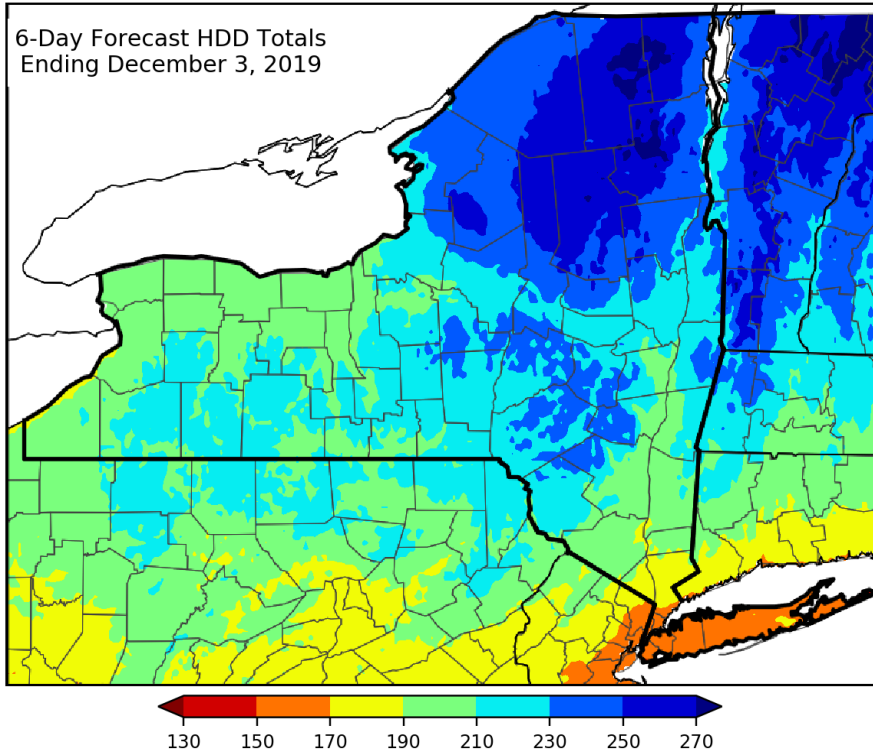
Fuel	11/22/2019	Year Ago	% Change
Ultra LS Diesel	1.913	2.016	-5.1%
#2 Fuel Oil	1.892	2.001	-5.4%
#6 Residual 0.3%	1.806	1.814	-0.4%
Propane	0.543	0.746	-27.3%
Natural Gas	2.699	5.199	-48.1%

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 30th, the number of forecasted heating degree-days (168) is 10.6% below last year (188) and 9.7% below the normal trend (186). Regional HDD forecasts are provided in the map and table below.

Regional Heating Degree-Day Forecast

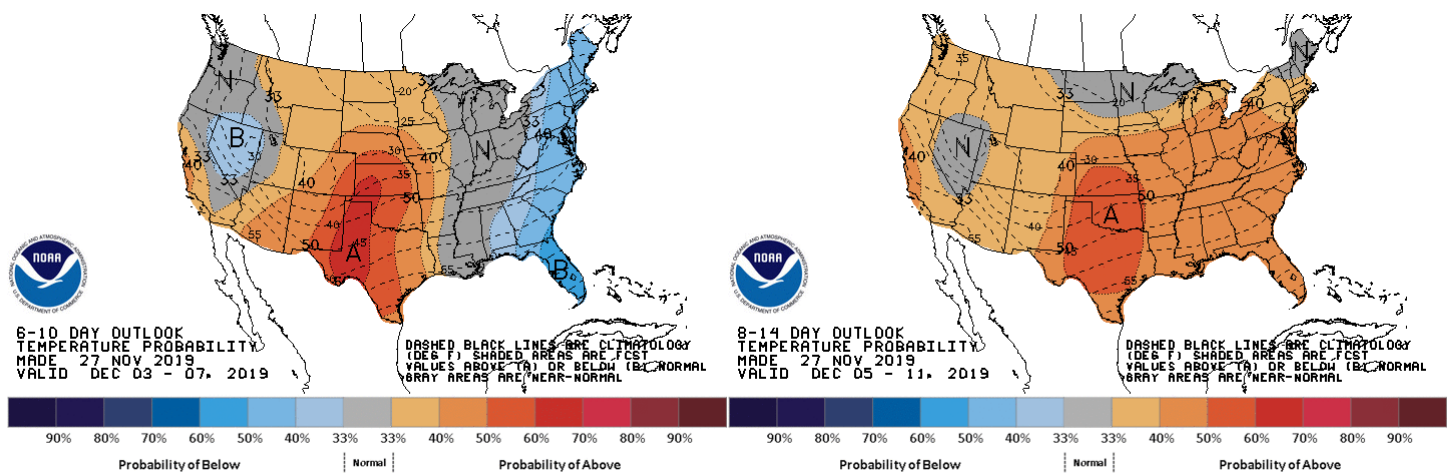


Period	Forecast Period: 11/28/19-12/3/19		
City	6-Day Forecast	Last Year	Normal
Albany	213	160	185
Binghamton	219	194	195
Buffalo	201	173	179
Glens Falls	224	170	202
Massena	249	175	216
NYC	157	123	131
Rochester	206	162	180
Syracuse	212	178	180
Watertown	229	175	196

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 3, 2019 – December 7, 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 December 5, 2019 – December 11, 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@nyserdera.ny.gov.