

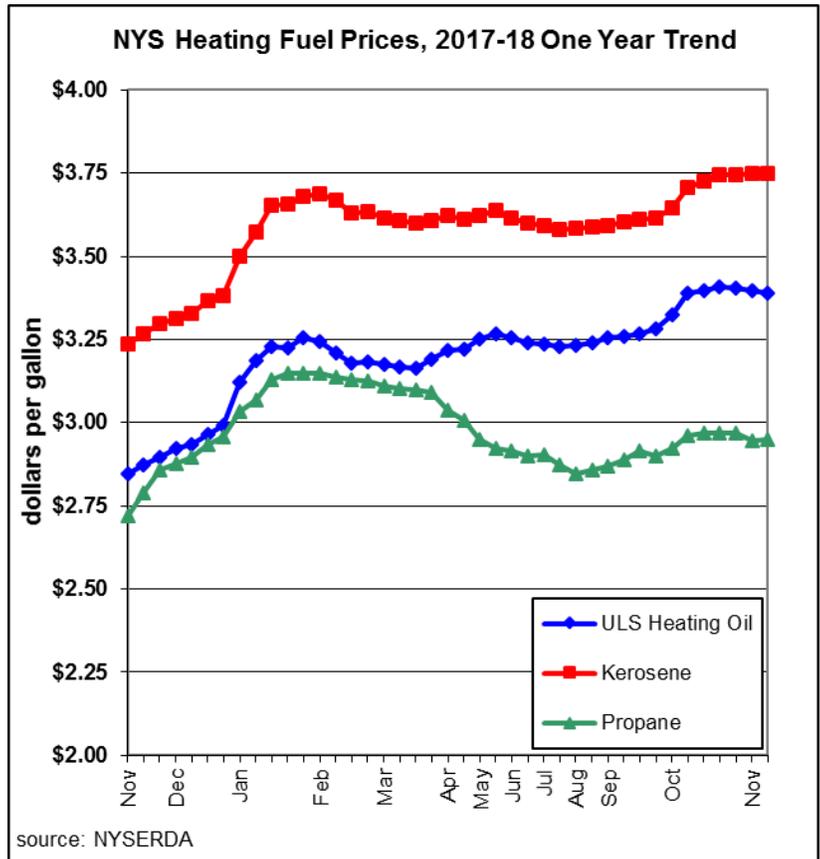
**Highlights**

- Beginning this week, NYSERDA is adding a weather outlook section to the end of this report. Included is a forecast for the number of heating degree-days statewide for the upcoming week and a comparison to last year and the 30-year normal. Also included are maps from the National Oceanic and Atmospheric Administration (NOAA) displaying U.S. 6-10 day and 8-14 day temperature probability outlooks.
- The New York Statewide average retail price of ultra-low sulfur (ULS) heating oil decreased while the average price of kerosene remained the same and the average propane price increased since the last survey.

**Retail Petroleum Prices**—On a statewide basis since the last survey on November 5<sup>th</sup>, the price decreased \$0.008/gallon (0.2%) to \$3.388/gallon for ULS heating oil, the price remained the same at \$3.750/gallon for kerosene and the price increased \$0.004/gallon (0.1%) to \$2.951/gallon for propane. Compared to a year earlier, prices increased \$0.540/gallon (19.0%) for heating oil, \$0.512/gallon (15.8%) for kerosene and \$0.231/gallon (8.5%) for propane.

**Crude Oil Prices**—For the week ending 11/9/18, WTI crude oil spot prices averaged \$61.57/bbl, a decrease of \$3.49/bbl (5.4%) from the week-ago average of \$65.06/bbl. WTI prices are now \$4.52/bbl (7.9%) above the year-ago weekly average of \$57.05/bbl. The all-time weekly average high of \$142.52/bbl occurred on 7/04/08.

**Spot Natural Gas Prices**—For the week ending 11/9/18, Henry Hub natural gas spot prices averaged \$3.570 per million Btu (mmBtu), an increase of \$0.326/mmBtu (10.0%) from the prior week level of \$3.244/mmBtu. Prices are currently \$0.448/mmBtu (14.3%) above the year-earlier weekly average of \$3.122/mmBtu.



**Residential Natural Gas Prices**—The NYS average price in August 2018 was \$2.016/therm, an increase of \$0.069/therm (3.6%) from the July 2018 price of \$1.947/therm, and was \$0.172/therm (9.3%) higher than the year earlier average of \$1.844/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	11/9/2018	11/2/2018	% Change vs. Last Week	Year Ago	% Change vs. Last Year	5-Year Average	% Change vs. 5-Year Avg
ULS Distillate (0-15 ppm)	18.9	18.5	2.3%	23.7	-20.5%	23.2	-18.5%
Non-road Diesel (15-500 ppm)	0.6	0.7	-13.7%	1.2	-45.1%	1.3	-49.3%
High Sulfur Distillate (>500 ppm)	2.6	2.6	1.3%	2.9	-8.2%	4.7	-43.4%
<b>Total Distillate Oil</b>	<b>22.2</b>	<b>21.8</b>	<b>1.6%</b>	<b>27.8</b>	<b>-20.3%</b>	<b>29.1</b>	<b>-23.8%</b>
Propane	5.362	5.029	6.6%	4.397	21.9%	3.807	40.8%
#6 Residual Oil	4.3	4.6	-5.4%	5.4	-19.4%	6.3	-31.0%
US Natural Gas	3,247	3,208	1.2%	3,775	-14.0%	3,848	-15.6%
US Crude Oil	442.1	431.8	2.4%	459.0	-3.7%	422.4	4.6%

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	11/12/2018	11/5/2018	% Change vs. Prior Survey	Year Ago	% Change vs. Last Year
Long Island	3.574	3.575	0.0%	3.033	17.8%
New York City	3.468	3.478	-0.3%	2.957	17.3%
Lower Hudson	3.500	3.536	-1.0%	2.957	18.4%
Upper Hudson	3.290	3.288	0.1%	2.745	19.9%
Capital District	3.128	3.126	0.1%	2.660	17.6%
North Country	3.304	3.312	-0.2%	2.702	22.3%
Central	3.219	3.226	-0.2%	2.635	22.2%
Western	3.449	3.450	0.0%	2.933	17.6%
<b>Statewide</b>	<b>3.388</b>	<b>3.396</b>	<b>-0.2%</b>	<b>2.848</b>	<b>19.0%</b>
New York State Retail Propane Posted Credit Prices - 1,100 gallon usage category (dollars per gallon)					
Long Island	3.214	3.207	0.2%	3.260	-1.4%
Mid-Hudson*	2.924	2.907	0.6%	2.667	9.6%
Capital District	2.850	2.854	-0.1%	2.687	6.1%
North Country	3.685	3.668	0.5%	3.319	11.0%
Central	2.721	2.721	0.0%	2.491	9.2%
Western	2.636	2.650	-0.5%	2.380	10.8%
<b>Statewide*</b>	<b>2.951</b>	<b>2.947</b>	<b>0.1%</b>	<b>2.720</b>	<b>8.5%</b>
New York State Retail Kerosene Posted Credit Prices (dollars per gallon)					
Mid-Hudson	3.847	3.842	0.1%	3.331	15.5%
Capital District	3.557	3.563	-0.2%	3.118	14.1%
North Country	3.796	3.796	0.0%	3.249	16.8%
Central	3.670	3.674	-0.1%	3.117	17.7%
Western	3.821	3.821	0.0%	3.317	15.2%
<b>Statewide</b>	<b>3.750</b>	<b>3.750</b>	<b>0.0%</b>	<b>3.238</b>	<b>15.8%</b>
New York State Average Residential Natural Gas Prices (\$/therm)					
REGION	August 2018	July 2018	% Change vs. Prior Month	August 2017	% Change vs. Last Year
<b>Statewide</b>	<b>2.016</b>	<b>1.947</b>	<b>3.6%</b>	<b>1.844</b>	<b>9.3%</b>

\* Revision

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

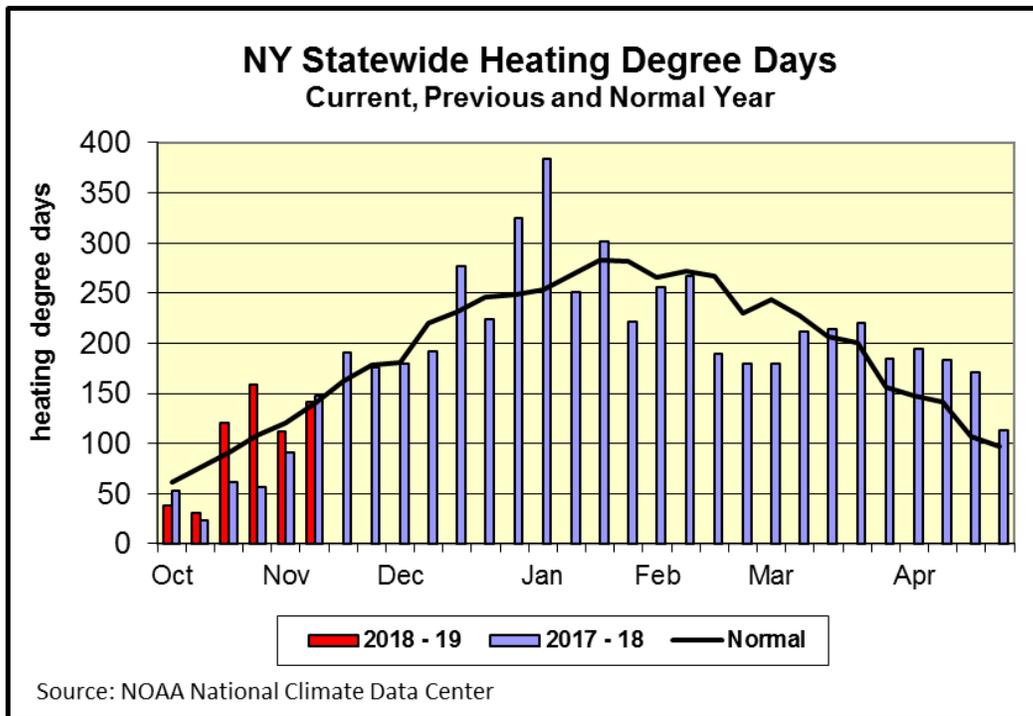
- Heating oil—highest price \$4.778/gallon on 7/14/08, lowest price \$0.876/gallon on 9/08/98.
- Propane—highest price \$3.811/gallon on 2/17/14, lowest price \$1.072/gallon on 9/20/99.
- Kerosene—highest price \$5.068/gallon on 7/14/08, lowest price \$1.309/gallon on 9/09/02.

**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>.

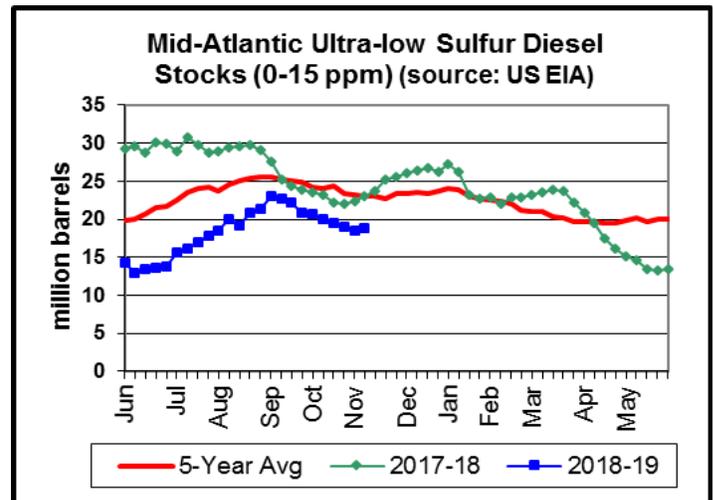
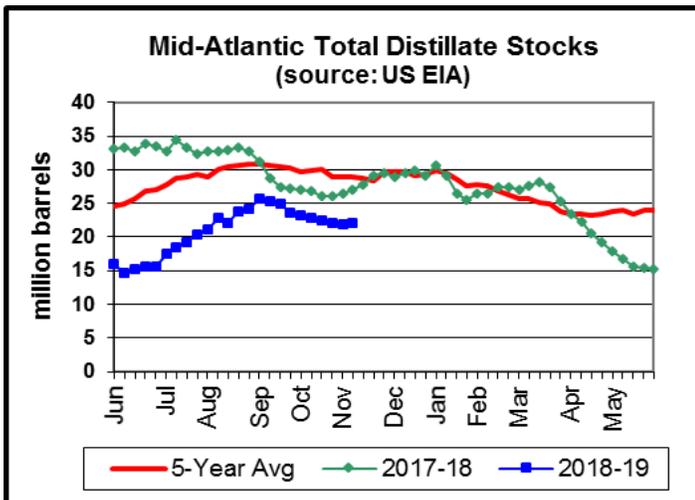
**New York State Regions:** *Long Island:* Nassau and Suffolk *New York City:* Bronx, Kings, New York, Queens, and Richmond *Lower Hudson:* Dutchess, Putnam, Rockland, and Westchester *Upper Hudson:* Columbia, Greene, Orange, Sullivan, and Ulster *Capital District:* Albany, Fulton Montgomery, Rensselaer, 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 (142) was 4.1% below the year-ago level (148) and 1.4% above the normal trend (140). On a cumulative basis since October 1<sup>st</sup>, current year heating degree-days (602) are ahead of the year-ago level (432) by 39.4% and ahead of the normal trend (597) by 0.8%.

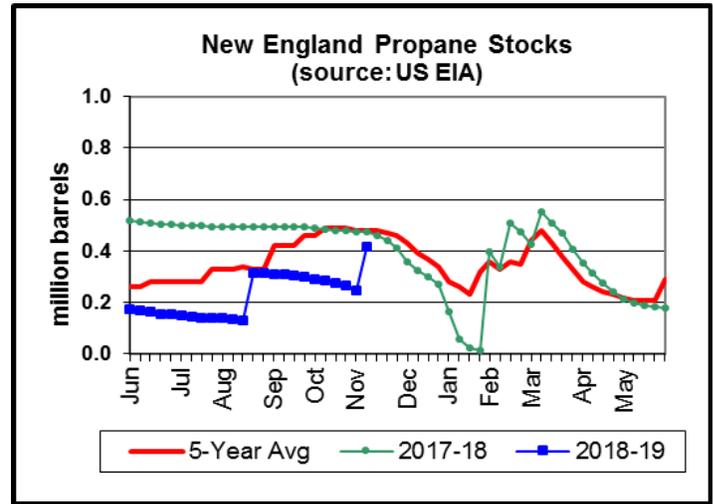
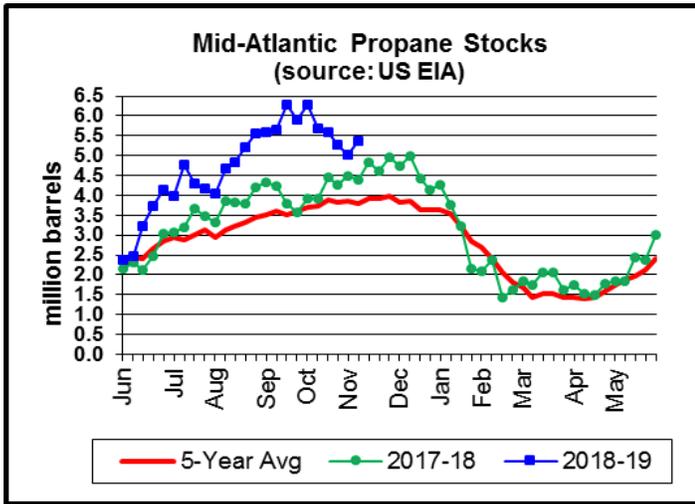
New York State Heating Degree Day Information, Weekly & Cumulative						
Region	Week Ending November 10			Cumulative From October 1		
	2018	2017	Normal	2018-19	2017-18	Normal
Albany	161	172	154	662	468	687
Binghamton	176	194	168	767	589	760
Buffalo	155	173	151	706	498	662
Glens Falls	173	193	173	792	605	805
Massena	174	188	182	871	575	829
NYC	90	109	103	331	202	395
Rochester	147	165	152	674	471	668
Syracuse	154	181	153	708	507	683
Watertown	170	181	170	815	568	787
<b>Statewide</b>	<b>142</b>	<b>148</b>	<b>140</b>	<b>602</b>	<b>432</b>	<b>597</b>



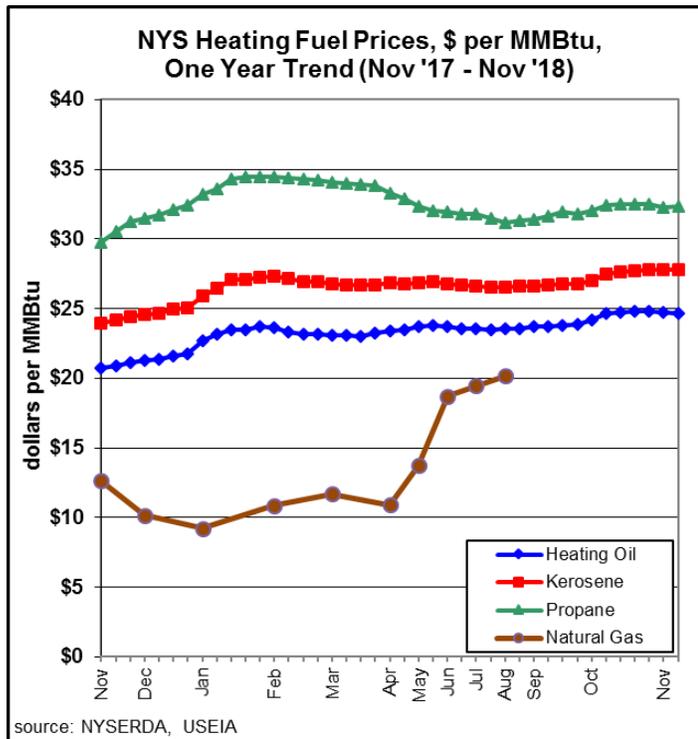
**Distillate Stocks**—Current and historic heating fuel inventory data is presented in the graphs below.



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

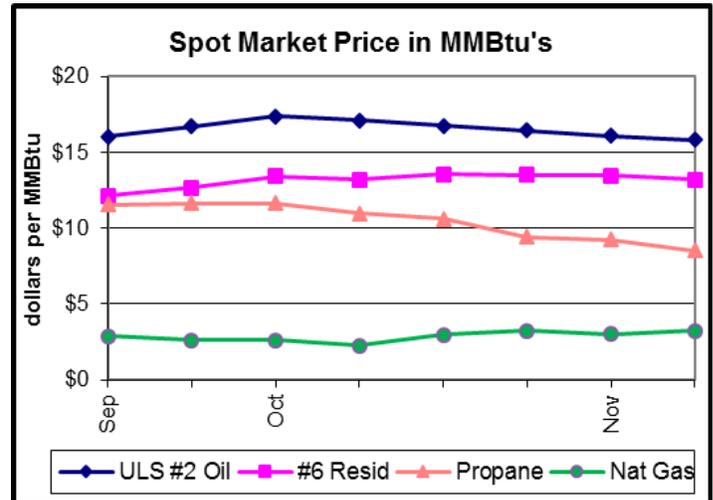


**Retail Btu Price Equivalents**—The New York State heating fuel prices Btu graph equates the retail price for New York Statewide average residential ultra-low sulfur heating oil, kerosene, propane, and natural gas on a dollar per million Btu (MMBtu) basis.



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.



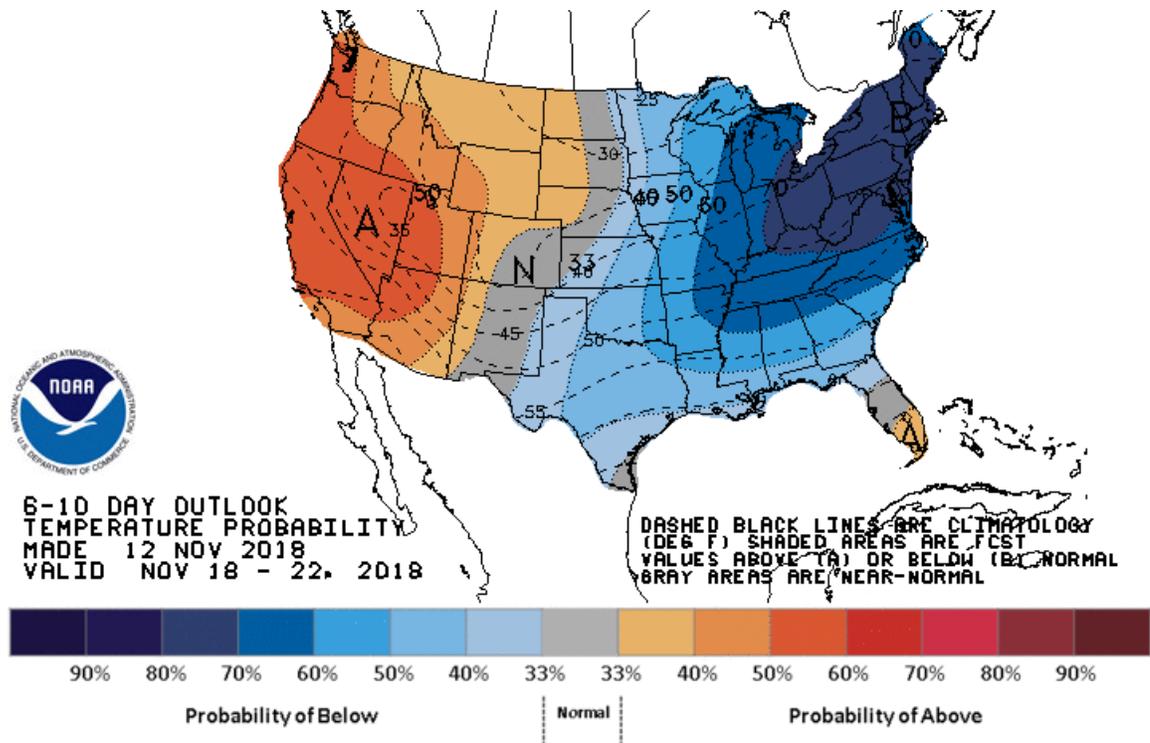
New York Spot Prices, Weekly Average			
Fuel	11/9/2018	Year Ago	% Change
Ultra LS Diesel	2.189	1.928	13.5%
#2 Fuel Oil	2.173	1.827	18.9%
#6 Residual 0.3%	1.974	1.564	26.2%
Propane	0.777	0.956	-18.7%
Natural Gas	3.250	2.777	17.0%

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

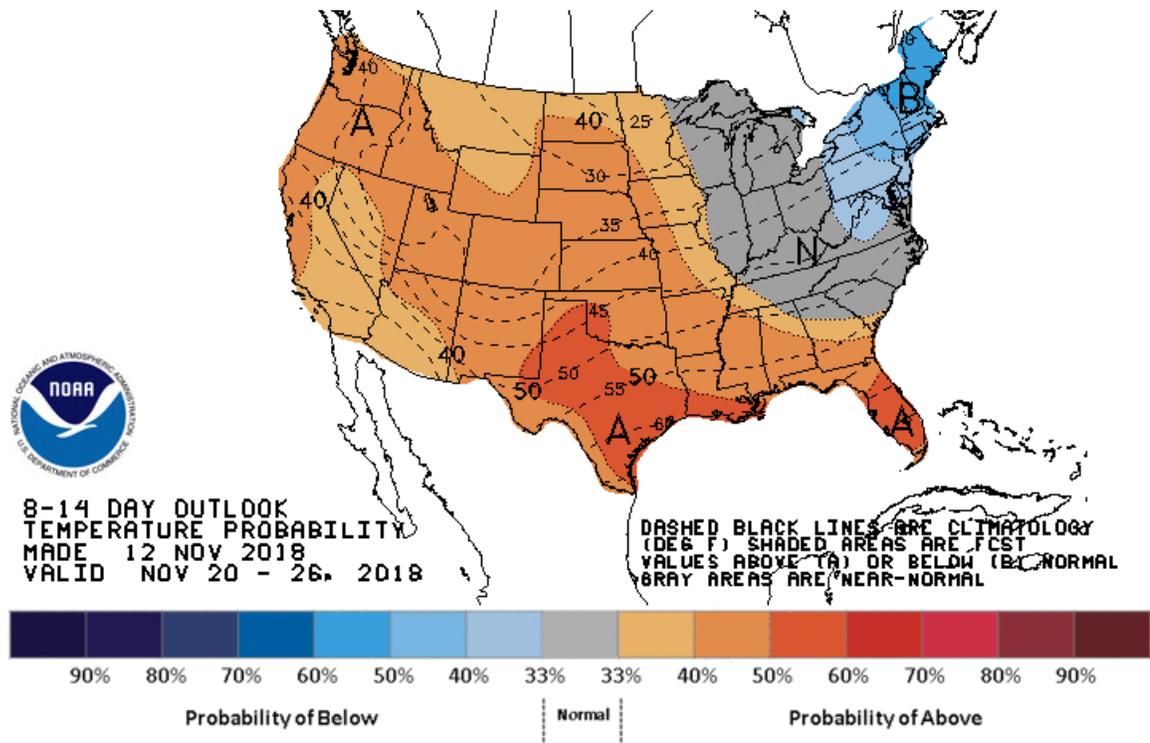
**Weather Outlooks** – Based on data and maps provided by the National Oceanic and Atmospheric Administration (NOAA)

**Forecast HDD:** On a statewide basis for the week ending November 17th, the number of forecasted heating degree-days (187) is the same as last year (187) and 21.4% higher than the normal trend (154).

**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 18-22. 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 20-26. 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](mailto:matthew.milford@nyserdera.ny.gov).