## NYSERDA Heating Fuels Report

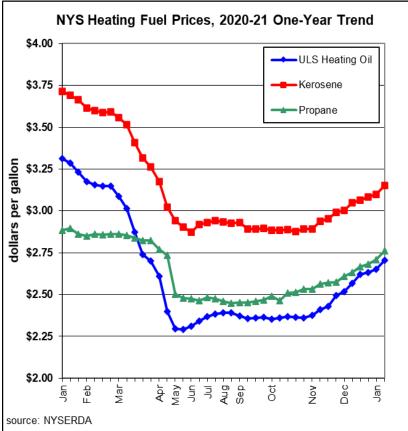
## **Highlights**

- Mid-Atlantic propane inventories decreased 381,000 barrels (7.1%) since last week to 4.968 million barrels. Inventories are 10.9% above the year-ago level and 19.2% above the 5-year average.
- Mid-Atlantic ultra-low sulfur (ULS) distillate inventories increased 1.0 million barrels (3.2%) since last week to 31.8 million barrels. Inventories are 48.7% above the year-ago level and 16.8% above the 5-year average.
- 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 January 4<sup>th</sup>, prices increased 0.053/gallon (2.0%) to 2.706/gallon for ULS heating oil, 0.053/gallon (1.7%) to 3.152/gallon for kerosene and 0.054/gallon (2.0%) to 2.762/gallon for propane. Compared to a year earlier, prices decreased 0.606/gallon (18.3%) for heating oil, 0.562/gallon(15.1%) for kerosene, and 0.122/gallon (4.2%) for propane.

**Crude Oil Prices**—For the week ending 1/8/2021, WTI crude oil spot prices a veraged \$50.09/bbl, an increase of \$2.11/bbl(4.4%) from the week-ago average of \$47.98/bbl. WTI prices are now \$10.75/bbl (17.7%) below the year-ago weekly average of \$60.84/bbl. The all-time weekly average high of \$142.52/bbl occurred on 7/04/08.

**Spot Natural Gas Prices**—For the week ending 1/8/2021, Henry Hub natural gas spot prices a veraged \$2.650 per million Btu (mmBtu), an increase of \$0.275/mmBtu (11.6%) from the prior week level of \$2.375/mmBtu. Prices are currently \$0.584/mmBtu (28.3%) above the year-earlier weekly a verage of \$2.066/mmBtu.



**Residential Natural Gas Prices**—The NYS average price in October 2020 was 1.561/them, a decrease of 0.304/therm (16.3%) from the September 2020 price of 1.865/therm, and was 0.074/therm (4.5%) lower than the year earlier average of 1.635/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  | 1/8/2021 | 1/1/2021 | % Change vs.<br>Last Week | Year Ago | % Change vs.<br>Last Year | 5-Year<br>Average | % Change vs.<br>5-Year Avg |
| ULS Distillate (0-15 ppm)                                    | 31.8     | 30.8     | 3.2%                      | 21.4     | 48.7%                     | 27.2              | 16.8%                      |
| Non-road Diesel (15-500 ppm)                                 | 0.8      | 0.8      | -2.4%                     | 1.0      | -19.4%                    | 1.3               | -37.6%                     |
| High Sulfur Distillate ( >500 ppm)                           | 1.8      | 2.0      | -11.5%                    | 3.0      | -40.1%                    | 3.5               | -49.1%                     |
| Total Distillate Oil   | 34.4     | 33.6     | 2.2%                      | 25.4     | 35.5%                     | 32.0              | 7.4%                       |
| Propane  | 4.968    | 5.349    | -7.1%                     | 4.480    | 10.9%                     | 4.168             | 19.2%                      |
| #6 Residual Oil  | 6.2      | 6.0      | 2.3%                      | 5.6      | 9.8%                      | 6.0               | 3.1%                       |
| US Natural Gas   | 3,196    | 3,330    | -4.0%                     | 3,070    | 4.1%                      | 2,978             | 7.3%                       |
| US Crude Oil   | 482.2    | 485.5    | -0.7%                     | 428.5    | 12.5%                     | 443.9             | 8.6%                       |

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



| <b>REGIO</b> N   | 1/11/2021             | 1/4/2021              | % Change vs.<br>Prior Survey | Year Ago           | % Change vs. Last<br>Year |
|------------------|-----------------------|-----------------------|------------------------------|--------------------|---------------------------|
| Long Island*     | 2.913                 | 2.853                 | 2.1%                         | 3.482              | -16.3%                    |
| New York City    | 2.846                 | 2.800                 | 1.6%                         | 3.426              | -16.9%                    |
| Lower Hudson     | 2.774                 | 2.731                 | 1.6%                         | 3.385              | -18.1%                    |
| Upper Hudson     | 2.605                 | 2.535                 | 2.8%                         | 3.214              | -18.9%                    |
| Capital District | 2.402                 | 2.350                 | 2.2%                         | 3.033              | -20.8%                    |
| North Country    | 2.589                 | 2.550                 | 1.5%                         | 3.303              | -21.6%                    |
| Central          | 2.509                 | 2.449                 | 2.4%                         | 3.074              | -18.4%                    |
| Western          | 2.798                 | 2.767                 | 1.1%                         | 3.423              | -18.3%                    |
| Statewide*       | 2.706                 | 2.653                 | 2.0%                         | 3.312              | -18.3%                    |
| New York S       | tate Retail Propane P | osted Credit Prices - | 1,100 gallon usage c         | ategory (dollars p | er gallon)                |
| Long Island      | 3.239                 | 3.198                 | 1.3%                         | 3.201              | 1.2%                      |
| Mid-Hudson       | 2.888                 | 2.832                 | 2.0%                         | 2.828              | 2.1%                      |
| Capital District | 2.644                 | 2.565                 | 3.1%                         | 2.732              | -3.2%                     |
| North Country    | 2.940                 | 2.877                 | 2.2%                         | 3.726              | -21.1%                    |
| Central          | 2.610                 | 2.577                 | 1.3%                         | 2.608              | 0.1%                      |
| Western          | 2.577                 | 2.521                 | 2.2%                         | 2.579              | -0.1%                     |
| Statewide        | 2.762                 | 2.708                 | 2.0%                         | 2.884              | -4.2%                     |
|                  | New York State Re     | tail Kerosene Posted  | Credit Prices (dollar        | rs per gallon)     | - *<br>-                  |
| Mid-Hudson       | 3.254                 | 3.219                 | 1.1%                         | 3.845              | -15.4%                    |
| Capital District | 2.976                 | 2.908                 | 2.3%                         | 3.479              | -14.5%                    |
| North Country    | 3.170                 | 3.134                 | 1.1%                         | 3.768              | -15.9%                    |
| Central          | 3.069                 | 2.981                 | 3.0%                         | 3.567              | -14.0%                    |
| Western          | 3.235                 | 3.190                 | 1.4%                         | 3.835              | -15.6%                    |
| Statewide        | 3.152                 | 3.099                 | 1.7%                         | 3.714              | -15.1%                    |
|                  | New York State        | Average Residential   | Natural Gas Prices           | (\$/therm)         |                           |
| REGIO N          | October 2020          | September 2020        | % Change vs.<br>Prior Month  | October 2019       | % Change vs. Last<br>Year |
| Statewide        | 1.561                 | 1.865                 | -16.3%                       | 1.635              | -4.5%                     |

\* Revision

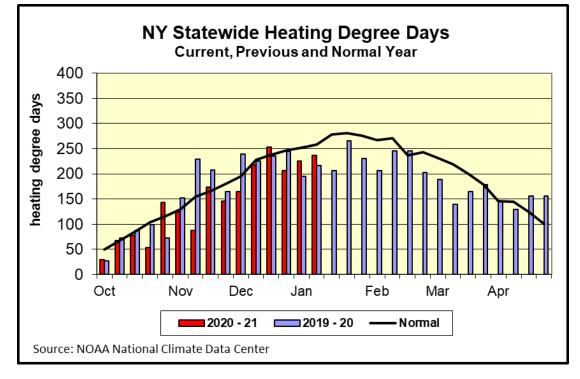
Historic Retail Prices—Statewide average high and low prices since Sept. 1997 for heating oil & propane & Sept. 2000 for kerosene.

- 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.

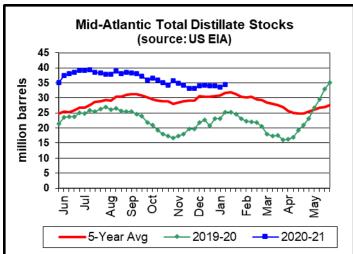
**Residential Natural Gas Prices:** Statewide average prices are derived from US EIA most currently available data. NYS gas utility specific prices can be found on the NYS DPS website at http://www.dps.ny.gov/TypicalBills.htm#GasRes.

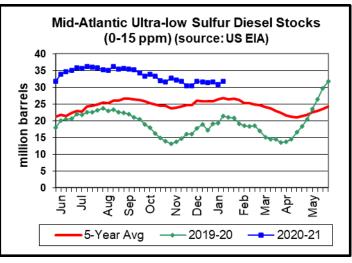
New York State Regions: Long Island: Nassau and Suffolk New York City: Bronx, Kings, New York, Queens, and Richmond Lower Hudson: Dutchess, Putnam, Rockland, and Westchester Upper Hudson: Columbia, Greene, Orange, Sullivan, and Ulster Capital District: Albany, Fulton, Montgomery, Rensselaer, Saratoga, 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, Nia gara, 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 (237) was 9.7% above the year-ago level (216) and 8.1% below the normal trend (258). On a cumulative basis since October 1<sup>st</sup>, current year heating degree-days (2,206) are behind the year-ago level (2,467) by 10.6% and behind the normal trend (2,470) by 10.7%.

| New York State Heating Degree Day Information, Weekly & Cumulative |      |      |        |                           |         |        |  |
|--|------|------|--------|---------------------------|---------|--------|--|
| Week Ending January 09   |      |      |        | Cumulative From October 1 |         |        |  |
| Region   | 2021 | 2020 | Normal | 2020-21                   | 2019-20 | Normal |  |
| Albany   | 269  | 226  | 279    | 2,649                     | 2,589   | 2,678  |  |
| Binghamton   | 274  | 254  | 295    | 2,602                     | 2,900   | 2,907  |  |
| Buffalo  | 235  | 217  | 278    | 2,252                     | 2,531   | 2,650  |  |
| Glens Falls  | 245  | 259  | 322    | 1,995                     | 3,000   | 3,075  |  |
| Massena  | 301  | 276  | 346    | 2,791                     | 3,176   | 3,280  |  |
| NYC  | 190  | 183  | 222    | 1,476                     | 1,795   | 1,907  |  |
| Rochester  | 240  | 230  | 279    | 2,332                     | 2,599   | 2,668  |  |
| Syracuse   | 253  | 226  | 286    | 2,289                     | 2,595   | 2,722  |  |
| Watertown  | 281  | 248  | 317    | 2,596                     | 2,960   | 3,049  |  |
| Statewide  | 237  | 216  | 258    | 2,206                     | 2,467   | 2,470  |  |

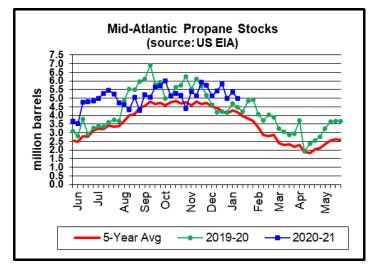


Distillate Stocks-Current and historic heating fuel inventory data is presented in the graphs below.

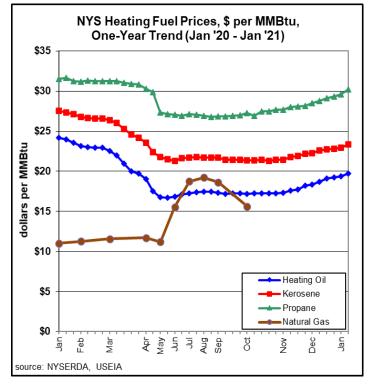




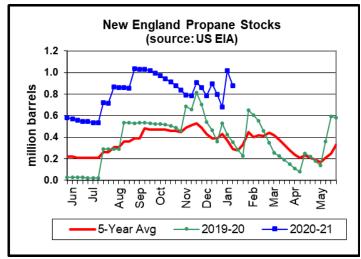
Propane Stocks—Current and historic heating fuel inventory data is presented in the graphs below.



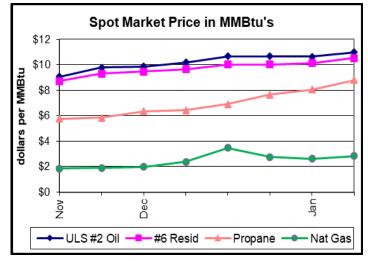
**Retail Btu Price Equivalents**—The New York Stateheating fuel prices Btu graph equates the retail price for New York Statewide a verage residential ultra-low sulfur heating oil, kerosene, propane, and natural gas on a dollar per million Btu (MMBtu) basis.



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 a verage 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.



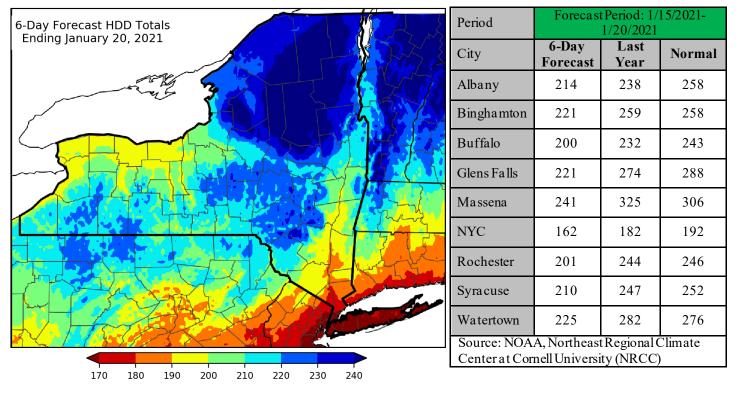
| New York Spot Prices, Weekly Average |          |          |          |  |  |  |
|--------------------------------------|----------|----------|----------|--|--|--|
| Fuel                                 | 1/8/2021 | Year Ago | % Change |  |  |  |
| Ultra LS Diesel                      | 1.525    | 1.977    | -22.9%   |  |  |  |
| #2 Fuel Oil                          | 1.431    | 1.963    | -27.1%   |  |  |  |
| #6 Residual 0.3%                     | 1.577    | 2.254    | -30.0%   |  |  |  |
| Propane                              | 0.804    | 0.462    | 74.2%    |  |  |  |
| Natural Gas                          | 2.851    | 2.110    | 35.1%    |  |  |  |

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).

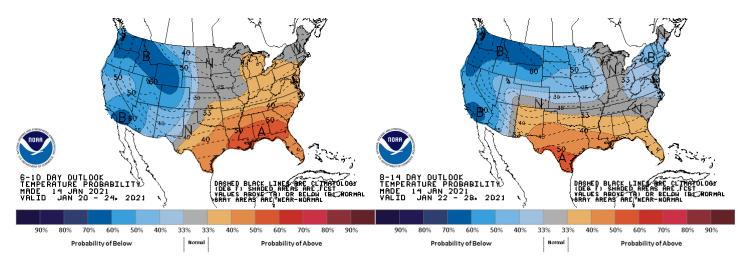
**Statewide Forecast HDD**: On a statewide basis for the week ending January 16<sup>th</sup>, the number of forecasted heating degree-days (214) is 32.1% above last year (162) and 20.4% below the normal trend (269). Regional HDD forecasts are provided in the map and table below.

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



**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 January 20, 2021 – January 24, 2021. 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 January 22, 2021–January 28, 2021. This is in comparison to the 30-year normal (1981-2010).



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