## NYSERDA Heating Fuels Report

## December 20, 2021

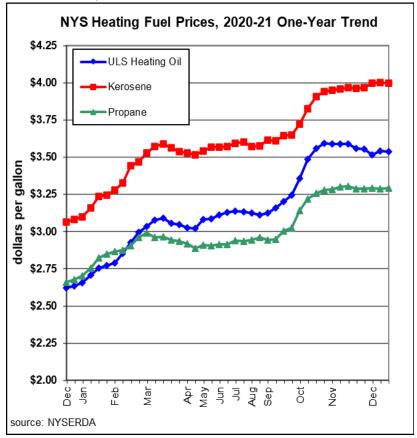
## **Highlights**

- Mid-Atlantic ultra-low sulfur (ULS) distillate inventories increased 0.3 million barrels (1.6%) since last week to 20.8 million barrels. Inventories are 33.5% below the year-ago level and 18.8% below the 5-year average.
- The weekly average U.S. WTI crude oil spot price decreased \$0.13 per barrel (0.2%) since last week to \$71.18 per barrel. Current prices are \$23.21 per barrel (48.4%) above the year-ago weekly average of \$47.97 per barrel.
- New York Statewide average retail prices of ultra-low sulfur (ULS) heating oil and kerosene decreased while the average retail price of propane increased since the last survey.

**Retail Petroleum Prices**—On a statewide basis since the last survey on December  $13^{th}$ , prices decreased 0.002/gallon (0.1%) to 3.538/gallon for ULS heating oil, 0.003/gallon (0.1%) to 4.000/gallon for kerosene, and the price increased 0.008/gallon (0.2%) to 3.294/gallon for propane. Compared to a year earlier, prices increased 0.919/gallon (35.1%) for heating oil, 0.934/gallon (30.5%) for kerosene, and 0.636/gallon (23.9%) for propane.

**Crude Oil Prices**—For the week ending 12/17/2021, WTI crude oil spot prices a veraged \$71.18/bbl, a decrease of \$0.13/bbl(0.2%) from the week-ago a verage of \$71.31/bbl. WTI prices are now \$23.21/bbl (48.4%) above the year-ago weekly a verage of \$47.97/bbl. The all-time weekly average high of \$142.52/bbl occurred on 7/04/08.

**Spot Natural Gas Prices**—For the week ending 12/17/2021, Henry Hub natural gas spot prices a veraged \$3.730 per million Btu (MMBtu), an increase of \$0.062/MMBtu (1.7%) from the prior week level of \$3.668/MMBtu. Prices are currently \$1.060/MMBtu (39.7%) above the year-earlier weekly a verage of \$2.670/MMBtu.



| Middle Atlantic Region, Weekly Inventories (million barrels) |            |            |                           |          |                           |                   |                            |
|--|------------|------------|---------------------------|----------|---------------------------|-------------------|----------------------------|
| Fuel Type  | 12/17/2021 | 12/10/2021 | % 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)                                    | 20.8       | 20.5       | 1.6%                      | 31.3     | -33.5%                    | 25.6              | -18.8%                     |
| Non-road Diesel (15-500 ppm)                                 | 0.4        | 0.3        | 13.3%                     | 0.8      | -50.1%                    | 1.0               | -63.4%                     |
| High Sulfur Distillate ( >500 ppm)                           | 2.0        | 2.1        | -2.6%                     | 1.9      | 5.4%                      | 2.8               | -27.6%                     |
| Total Distillate Oil   | 23.2       | 22.9       | 1.4%                      | 34.0     | -31.7%                    | 29.5              | -21.2%                     |
| Propane  | 5.483      | 6.120      | -10.4%                    | 5.811    | -5.6%                     | 4.574             | 19.9%                      |
| #6 Residual Oil  | 3.5        | 3.9        | -9.2%                     | 6.1      | -42.4%                    | 6.0               | -41.3%                     |
| US Natural Gas   | 3,362      | 3,417      | -1.6%                     | 3,596    | -6.5%                     | 3,328             | 1.0%                       |
| US Crude Oil   | 423.6      | 428.3      | -1.1%                     | 499.5    | -15.2%                    | 460.9             | -8.1%                      |

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   | 12/20/2021               | 12/13/2021           | % Change vs.<br>Prior Survey | Year Ago             | % Change vs. Las<br>Year  |
|------------------|--------------------------|----------------------|------------------------------|----------------------|---------------------------|
| Long Island      | 3.661                    | 3.680                | -0.5%                        | 2.815                | 30.0%                     |
| New York City    | 3.636                    | 3.647                | -0.3%                        | 2.795                | 30.1%                     |
| Lower Hudson     | 3.590                    | 3.544                | 1.3%                         | 2.660                | 35.0%                     |
| Upper Hudson     | 3.528                    | 3.511                | 0.5%                         | 2.496                | 41.3%                     |
| Capital District | 3.257                    | 3.283                | -0.8%                        | 2.323                | 40.2%                     |
| North Country    | 3.448                    | 3.483                | -1.0%                        | 2.508                | 37.5%                     |
| Central          | 3.358                    | 3.354                | 0.1%                         | 2.412                | 39.2%                     |
| Western          | 3.711                    | 3.719                | -0.2%                        | 2.740                | 35.5%                     |
| Statewide        | 3.538                    | 3.540                | -0.1%                        | 2.619                | 35.1%                     |
| New York S       | State Retail Propane Pos | sted Credit Prices - | 1,100 gallon usage           | category (dollars pe | r gallon)                 |
| Long Island      | 3.943                    | 3.967                | -0.6%                        | 3.075                | 28.2%                     |
| Mid-Hudson       | 3.544                    | 3.530                | 0.4%                         | 2.810                | 26.1%                     |
| Capital District | 3.015                    | 3.016                | 0.0%                         | 2.542                | 18.6%                     |
| North Country    | 3.390                    | 3.370                | 0.6%                         | 2.830                | 19.8%                     |
| Central          | 3.171                    | 3.153                | 0.6%                         | 2.512                | 26.2%                     |
| Western          | 3.031                    | 3.032                | 0.0%                         | 2.457                | 23.4%                     |
| Statewide        | 3.294                    | 3.286                | 0.3%                         | 2.658                | 23.9%                     |
|                  | New York State Reta      | nil Kerosene Posted  | Credit Prices (dolla         | rs per gallon)       |                           |
| Mid-Hudson       | 4.133                    | 4.138                | -0.1%                        | 3.199                | 29.2%                     |
| Capital District | 3.788                    | 3.817                | -0.8%                        | 2.903                | 30.5%                     |
| North Country    | 3.862                    | 3.871                | -0.2%                        | 3.024                | 27.7%                     |
| Central          | 3.935                    | 3.922                | 0.3%                         | 2.957                | 33.1%                     |
| Western          | 4.222                    | 4.200                | 0.5%                         | 3.168                | 33.3%                     |
| Statewide        | 4.000                    | 4.003                | -0.1%                        | 3.066                | 30.5%                     |
|                  | New York State           | Average Residentia   | Natural Gas Prices           | s (\$/therm)         |                           |
| REGIO N          | September 2021           | August 2021          | % Change vs.<br>Prior Month  | September 2020       | % Change vs. Last<br>Year |
| Statewide        | 2.148                    | 2.237                | -4.0%                        | 1.863                | 15.3%                     |

\* Revision

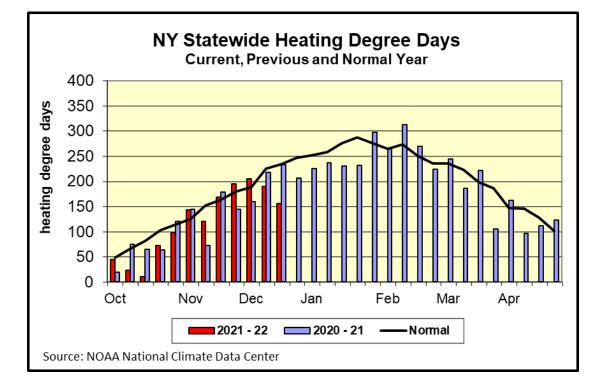
Historic Retail Prices—Statewide average high and low prices since Sept. 1997 for heating oil & propane & Sept. 2000 for kerosene.

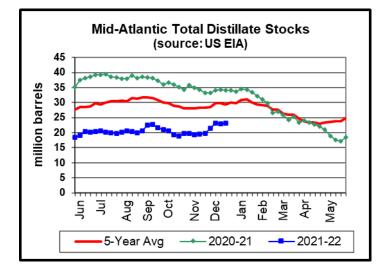
- Heating oil—highest price \$4.778/gallon on 7/14/08, lowest price \$0.876/gallon on 9/08/98.
- Propane—highest price \$3.811/gallon on 2/17/14, lowest price \$1.072/gallon on 9/20/99.
- Kerosene—highest price \$5.068/gallon on 7/14/08, lowest price \$1.309/gallon on 9/09/02.

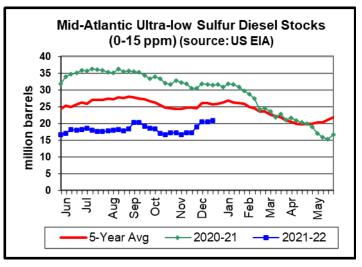
**Residential Natural Gas Prices:** Statewide average prices are derived from US EIA most currently a vailable data. NYS gas utility specific prices can be found on the NYS DPS website at http://www.dps.ny.gov/TypicalBills.htm#GasRes.

New York State Regions: Long Island: Na ssau 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, Sa atoga, Schenectady, Schoharie, and Washington North Country: Clinton, Essex, Franklin, Hamilton, Jefferson, Lewis, St. La wrence, and Warren Central: Broome, Cayuga, Chenango, Cortland, Dela ware, 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 (156) was 33.0% less than the year-ago level (233) and 33.3% less than the normal trend (234). On a cumulative basis since October 1<sup>st</sup>, current year heating degree-days (1,428) are behind the year-ago level (1,493) by 4.4% and behind the normal trend (1,682) by 15.1%.

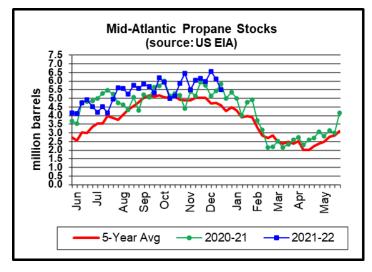
| New York State Heating Degree Day Information, Weekly & Cumulative |      |      |        |                           |         |        |  |
|--|------|------|--------|---------------------------|---------|--------|--|
| Week Ending December 18  |      |      |        | Cumulative From October 1 |         |        |  |
| Region   | 2021 | 2020 | Normal | 2021-22                   | 2020-21 | Normal |  |
| Albany   | 165  | 255  | 245    | 1,565                     | 1,815   | 1,840  |  |
| Binghamton   | 178  | 246  | 261    | 1,734                     | 1,737   | 2,019  |  |
| Buffalo  | 159  | 220  | 244    | 1,380                     | 1,504   | 1,817  |  |
| Glens Falls  | 135  | 224  | 278    | 1,045                     | 1,241   | 2,115  |  |
| Massena  | 200  | 237  | 304    | 1,931                     | 1,914   | 2,240  |  |
| NYC  | 103  | 164  | 188    | 883                       | 882     | 1,245  |  |
| Rochester  | 166  | 226  | 246    | 1,477                     | 1,570   | 1,831  |  |
| Syracuse   | 154  | 219  | 251    | 1,380                     | 1,520   | 1,863  |  |
| Watertown  | 180  | 253  | 278    | 1,631                     | 1,767   | 2,097  |  |
| Statewide  | 156  | 233  | 234    | 1,428                     | 1,493   | 1,682  |  |



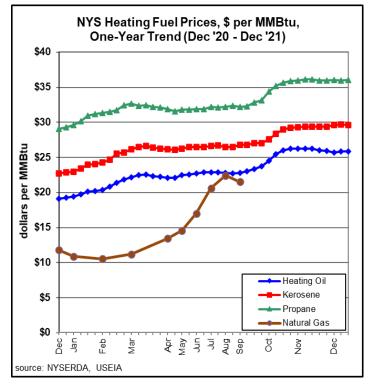




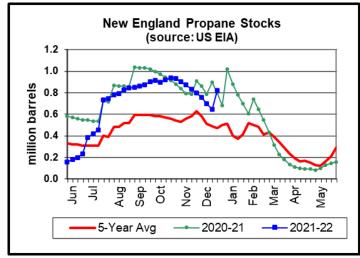
Propane Stocks—Current and historic heating fuel inventory data is presented in the graphs below.



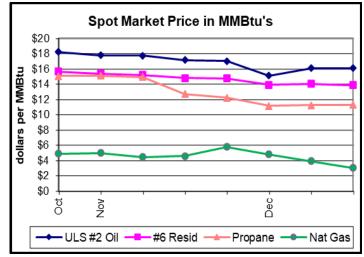
Retail Btu Price Equivalents—The New York State heating fuel prices Btu graph equates the retail price for New York Statewide a verage residential ultra-low sulfur heating oil, kerosene, propane, and natural gas on a dollar per million Btu (MMBtu) basis.



Note: Natural gas prices are from the U.S. EIA and provided on a monthly basis and delayed by 3 months. The monthly a verage 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.



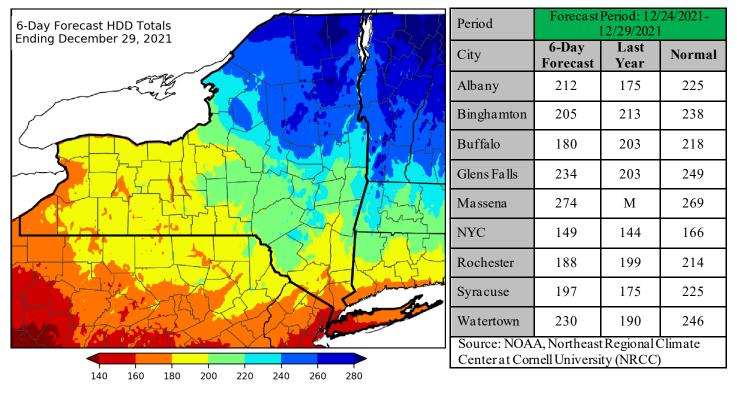
| New York Spot Prices, Weekly Average |            |          |          |  |  |  |
|--------------------------------------|------------|----------|----------|--|--|--|
| Fuel                                 | 12/17/2021 | Year Ago | % Change |  |  |  |
| Ultra LS Diesel                      | 2.233      | 1.479    | 51.0%    |  |  |  |
| #2 Fuel Oil                          | 2.084      | 1.396    | 49.3%    |  |  |  |
| #6 Residual 0.3%                     | 2.078      | 1.501    | 38.4%    |  |  |  |
| Propane                              | 1.033      | 0.631    | 63.7%    |  |  |  |
| Natural Gas                          | 3.022      | 3.474    | -13.0%   |  |  |  |

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

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

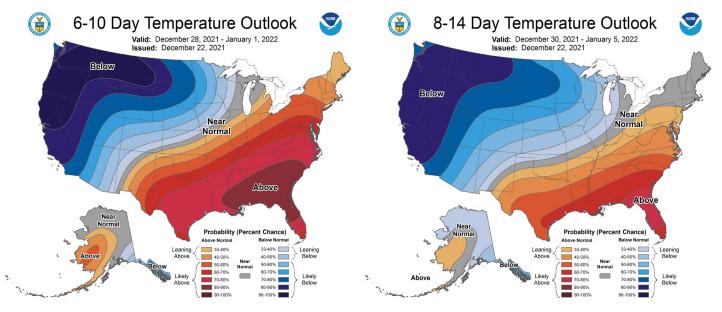
**Statewide Forecast HDD**: On a statewide basis for the week ending December 25<sup>th</sup>, the number of forecasted heating degree-days (230) is 14.4% above last year (201) and 5.3% below the normal trend (243). Regional HDD forecasts are provided in the map and table below.

## **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 December 28, 2021 – January 1, 2022. 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 30, 2021 – January 5, 2022. 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>.