



# **A forward look at 2020's impact on oil and natural gas heating demands**

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## Introduction

2020 has been a unique year in many areas.

COVID-19 has decimated the global economy, leaving large parts of the world still trying to recover and work their way back to some form of normal — or as some refer to it, “the new normal.”

The hurricane season isn’t over yet (it officially ends on November 30), but the National Hurricane Center has already run out of names for storms. [After NHC officials named a “Wilfred,”](#) they resorted to using the Greek alphabet for only the second time in the organization’s history. The first time wasn’t that long ago, either: 2005. Climate change is also part of our “new normal.” Fortunately, there has not been any long-term infrastructure damage from the storms, as of this writing.

With this as the backdrop, it’s important to note that discussing the impact of the latest DTN winter weather outlook on the natural gas (“nat gas”) and heating oil markets can’t be done in isolation. We must include the non-weather-related factors that continue to impact the energy complex each day.



## Looking ahead at winter

To set the U.S. nat gas market stage, we must start with the overall size of the market. While most of us are familiar with home appliances running on nat gas, the market has a far deeper reach. Home utilization — such as for furnaces, ranges/ovens, water heaters, and clothes dryers — of nat gas accounts for roughly 16% of total U.S. use.

Businesses? The commercial sector uses only 11% of the total U.S. nat gas used annually.

The bulk of nat gas use in the United States is drawn to generate electricity. In 2019, "The electric power sector accounted for about 36% of total U.S. natural gas consumption, and natural gas was the source of about 31% of the U.S. electric power sector's primary energy consumption," [according to EIA data](#).

Add those three sector percentages together (63% total of total nat gas draw, for those keeping score at home), and you can easily see why the winter outlook is closely watched by market analysts. Sudden changes in heating or electricity demand could have massive impacts on available nat gas inventories.

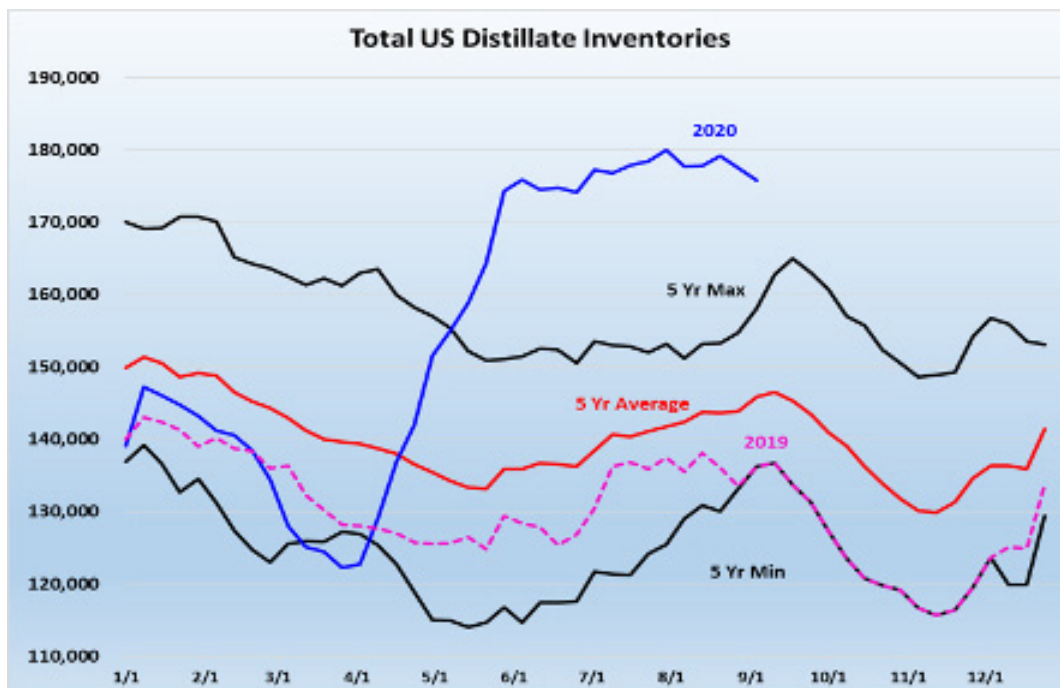
As for home heating oil, it accounts for a decreasing percentage of the energy market, but still, over five million U.S. households (primarily in the Northeast) rely on oil to keep warm during the long winter months. Inventories remain well above normal for both heating oil and nat gas — as well as most everything in the total fuel complexes — due to reduced global demand for energy products.



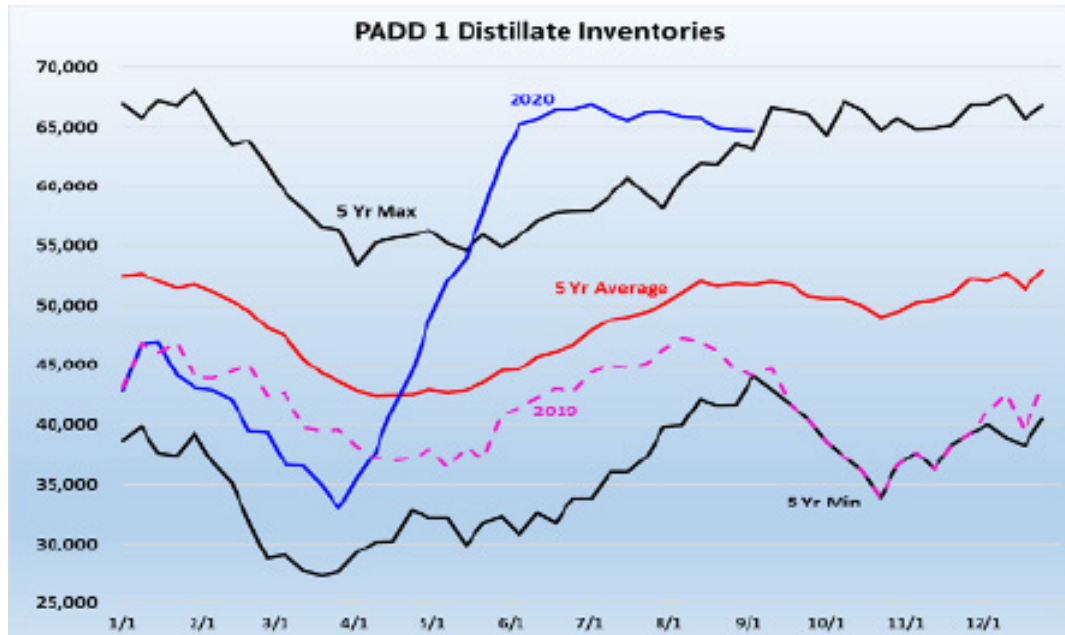


## Distillate fuel

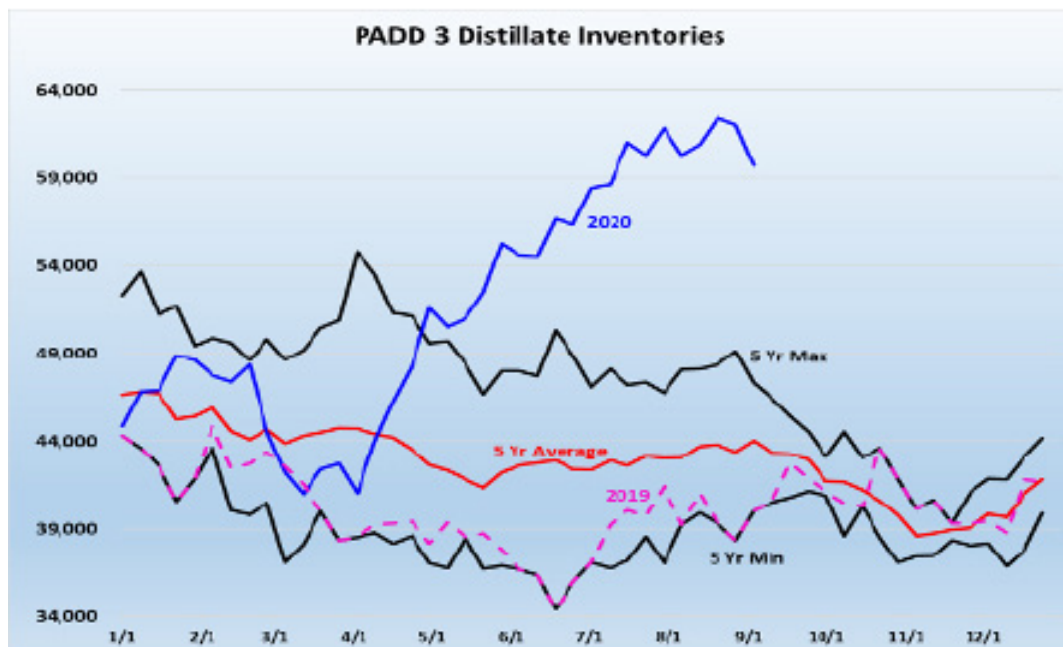
As shown in the first chart of total U.S. distillate fuel, inventories may have peaked as U.S. refiners have kept refinery run rates well below the historical average for this time of the year as distillate demand continues to underperform. The bad news is distillate is peaking from a very oversupplied level and will enter the start of the heating oil season at well above the five-year average or so-called “normal” level.



In the second chart of total distillate stocks in PADD 1, for the U.S. East Coast (which consumes the majority of the heating oil for residential use) we see the current destocking level is rather mild. It could reverse, building modestly as we head into the end of the year — if the weather remains as mild as projected for the first half of the winter season.



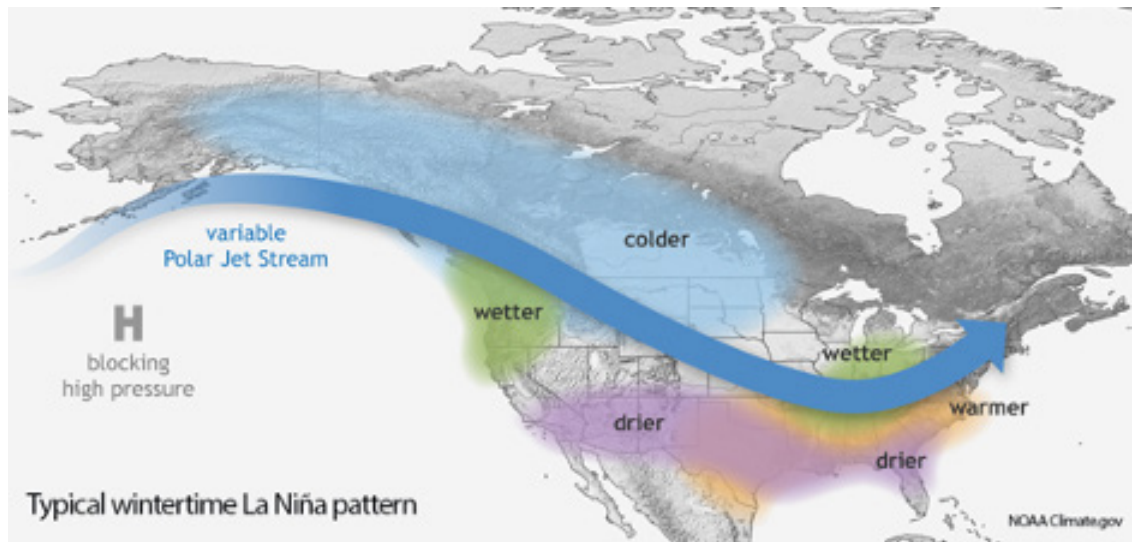
In the third chart of PADD 3 total distillate stocks, the U.S. Gulf Coast (the nation's main refinery producing area) we can see the abnormal build was much steeper, and the destocking could also turn out to be steeper than in PADD 1. This is because it is not only a supplier to the PADD 1 area but also the main exporting region of the United States. Currently, the country has been exporting, on average, around 1.2 to 1.4 million barrels per day.



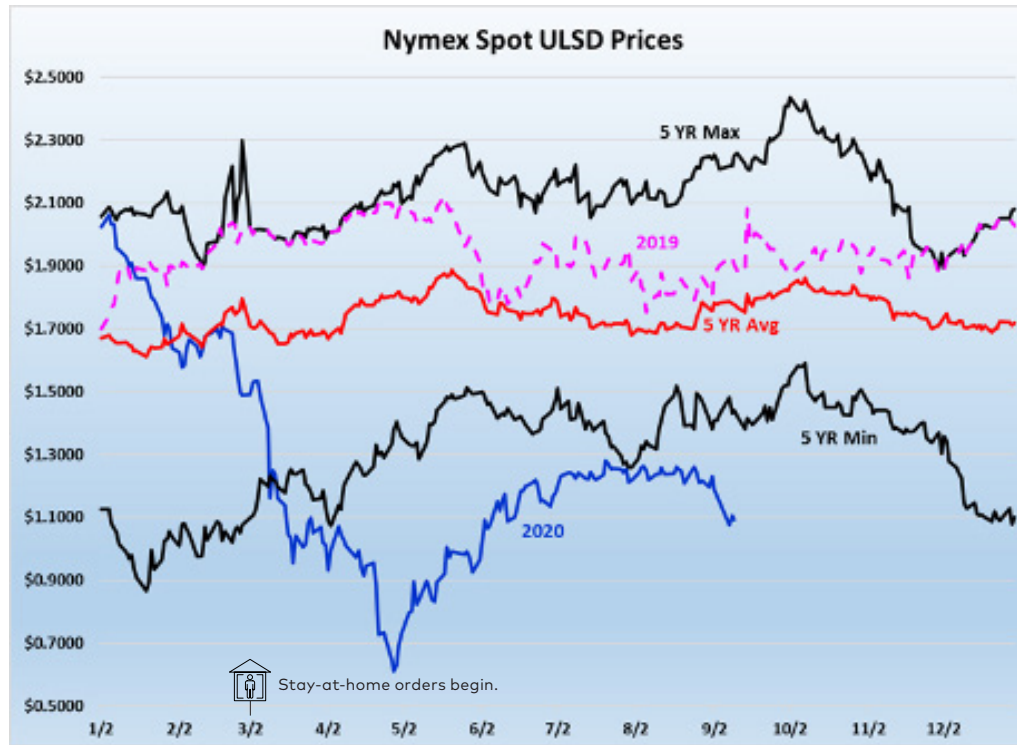
Further adding to the oversupply of distillate fuel heading into winter is the current oversupply of jet fuel (which can also be downgraded to diesel/heating oil) due to plummeting air travel since the start of COVID-19. Much of this surplus is already working its way into the overall distillate inventory pool. Airline utilization of jet fuel is projected to remain far below the historical normal until well into 2021, and possibly 2022.

The latest DTN winter forecast projects average temperatures over the main U.S. heating oil consumption region (PADD1/East Coast) to be above normal for the coldest months of December through February, as well as the broader November to March period. Currently, the only month projected to experience colder than normal temperatures along the U.S. East Coast is March 2021.

This forecast aligns with the development [of this year's La Niña event](#). While it does increase the energy that fuels hurricanes in the Atlantic, it also somewhat moderates the North American winter weather.



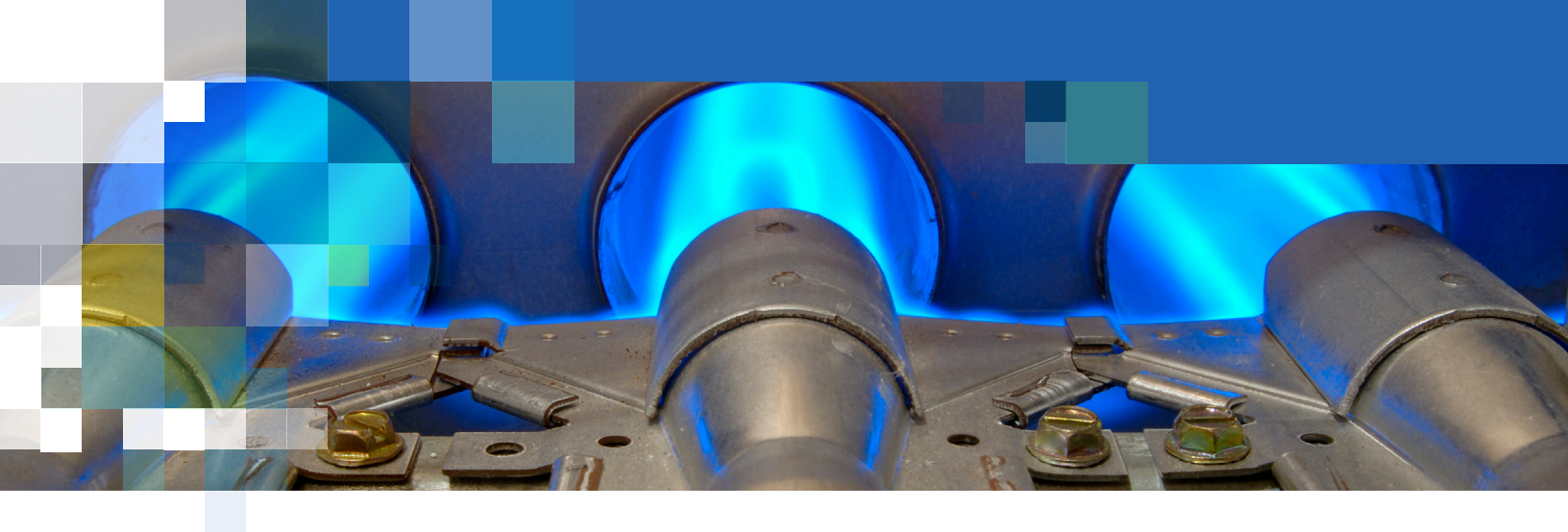
The next chart shows the price performance of the Nymex ultra-low sulfur diesel (ULSD) contracts over the last five years. The 2020 price pattern is a direct reflection of the impact COVID-19 on demand. Since early March, prices have been running well below the five-year minimum.



Barring a significant change in the U.S. and global supply and demand balances for distillate fuel between now and the start of the heating season, there is every reason to believe that supply will be ample throughout, and prices will likely average below the five-year average level. That said, it does not mean there will not be short-term price spikes from time to time, especially if an extended polar vortex pattern emerges during the season.

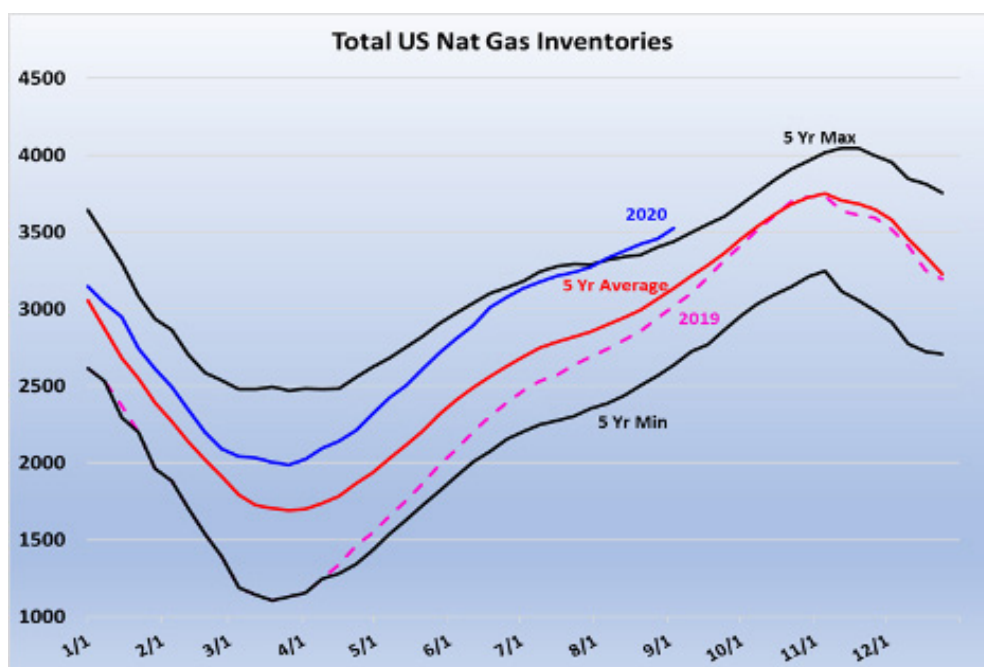
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## Nat gas

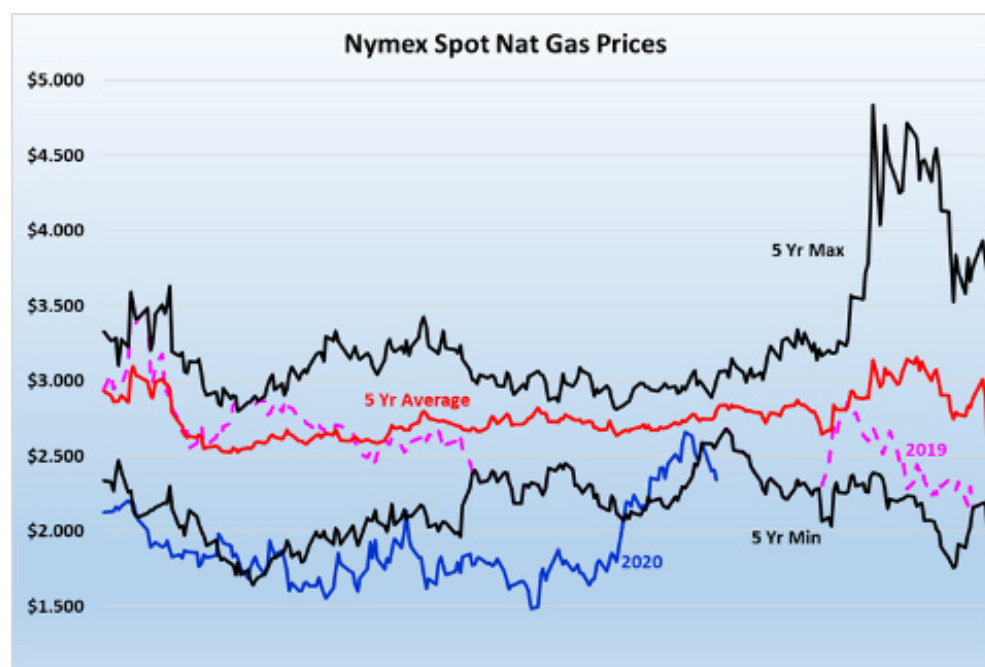
While most of the distillate/heating oil consumed for home heating is primarily along the upper East Coast, nat gas consumption for heating covers a broad area of the country. A look at total U.S. nat gas inventories is shown in the following chart.



Much like the global oil supply, U.S. nat gas inventories remain well above normal and even above the maximum level over the last five years as of Labor Day. Unlike distillate fuel oil, the nat gas inventory injections season is not showing any signs of peaking. If it follows historical data, injections could continue to the end of November or even further, if cold weather does not show up.

On a total U.S. gas-weighted, heating degree day basis, DTN meteorologists are forecasting both the December to February and November through March periods to be colder than last year's warm winter, but slightly warmer than average. If that forecast holds, there will be ample stock to supply a normal winter's load of nat gas-related heating demand.

The next chart shows the price performance of Nymex nat gas contracts over the last five years. Interestingly, the 2020 price pattern has also been impacted by the pandemic, but not to the extent of the oil complex. Prices have been running well below the five-year minimum since early March, except for a brief price rally during an August heatwave. It has since returned to its earlier depths.





Currently, there are no signs of a significant change in the U.S. or global nat gas supply and demand balances between now and the start of the heating season. Thus, there is every reason to believe that supply will be ample throughout the season and prices will likely average between the normal five-year average and the five-year minimum level. Of course, there may be short-term price spikes from time to time, especially if an extended polar vortex pattern emerges during the winter.

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## Considerations

Hanging over all of the supply and demand dynamics and weather predictions, there is the specter of COVID-19. Will there be a second wave as more people gather indoors during cold weather and holiday festivities? Will the seasonal flu add to an already burdened healthcare system? Will there be a vaccine in early 2021?

Only time will provide answers to these unknowns. In the meantime, it is wise to pay close attention to supply levels, look for demand indicators, but position your assets for profitable long-term storage. The demand needle is not going to move anytime soon.