



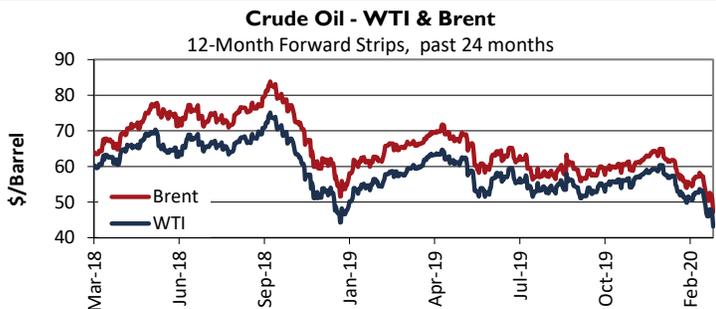
# Competitive Energy Services Weekly Market Summary

March 2 - 6, 2020

## Synopsis of Last Week's Energy Markets

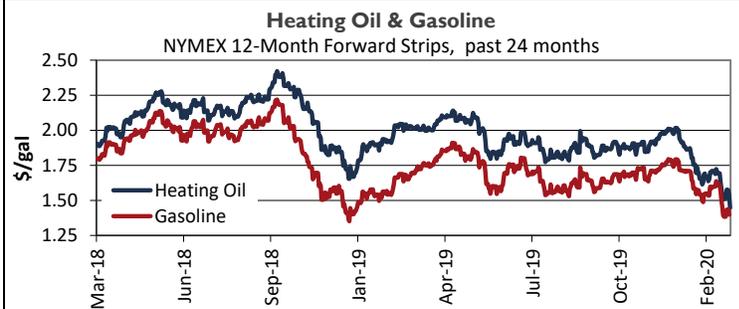
Crude oil prices remained in disarray on Friday, with WTI at \$45.88/Barrel. As has been the trend for nearly two months now, the spread of the coronavirus has suppressed oil demand as many supply chains and factories have been halted due to the virus' impact on their workforces. Natural gas prices rose to \$1.827/MMBtu on Wednesday but declined later in the week settling at \$1.708/MMBtu on NYMEX on Friday. Mild forecasts and the coronavirus outbreak are driving concerns about declining demand domestically and globally.

## Oil Market



| NYMEX WTI              | last close | previous week | 24-month high | 24-month low |
|------------------------|------------|---------------|---------------|--------------|
| 12 month strip, \$/bbl | \$42.79    | \$46.01       | \$75.39       | \$42.79      |
| date                   | 3/6/20     | 2/28/20       | 10/3/18       | 3/6/20       |
| change from last close |            | -7.0%         | -43.2%        | 0%           |

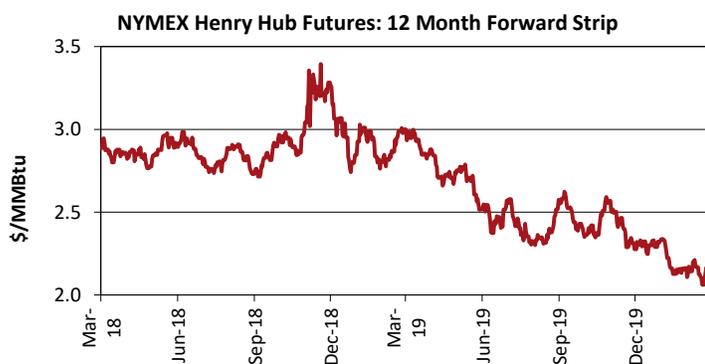
| US STORAGE (in million bbls)   | crude oil |
|--------------------------------|-----------|
| domestic stocks as of          | 2/28/20   |
|                                | 444       |
| gain / loss from previous week | 0.8       |
| comparison to historic range   | within    |



| NYMEX Heating Oil      | last close | previous week | 24-month high | 24-month low |
|------------------------|------------|---------------|---------------|--------------|
| 12 month strip, \$/gal | \$1.44     | \$1.51        | \$2.43        | \$1.44       |
| date                   | 3/6/20     | 2/28/20       | 10/3/18       | 3/6/20       |
| change from last close |            | -5.0%         | -41%          | 0%           |

| US STORAGE (in million bbls)   | distillate | propane | gasoline |
|--------------------------------|------------|---------|----------|
| domestic stocks as of          | 2/28/20    |         |          |
|                                | 134        | 70      | 252      |
| gain / loss from previous week | -4.0       | -3.6    | -4.3     |
| comparison to historic range   | within     | within  | within   |

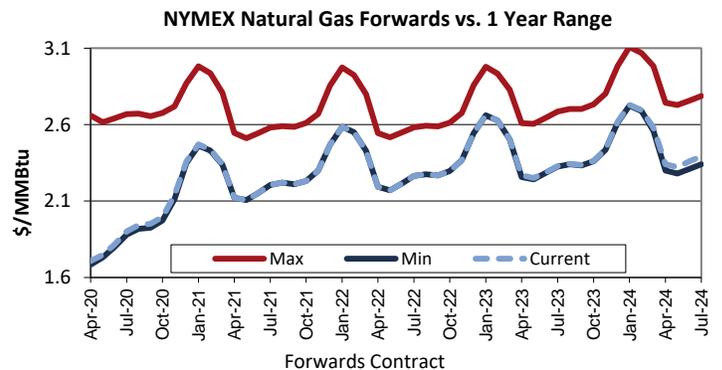
## Natural Gas Market



| NYMEX PRICING          | last close | previous week | 24-month high | 24-month low |
|------------------------|------------|---------------|---------------|--------------|
| 12 mo. strip, \$/MMBtu | \$2.07     | \$2.06        | \$3.43        | \$2.05       |
| date                   | 3/6/20     | 2/28/20       | 11/14/18      | 2/28/20      |
| change from last close |            | 0.3%          | -40%          | 1%           |

| CES SCORE |    |
|-----------|----|
| 12 month  | 98 |
| 18 month  | 98 |
| 24 month  | 99 |
| 36 month  | 99 |

The Score provides a measure of how current prices compare to their 52-week range. A score close to 0 indicates that current prices are close to their 52-week highs; a score close to 100 indicates that current prices are close to their 52-week lows.



| FORWARDS         | 12 month | 18 month | 24 month | 36 month |
|------------------|----------|----------|----------|----------|
| strip (\$/MMBtu) | \$2.07   | \$2.10   | \$2.18   | \$2.24   |

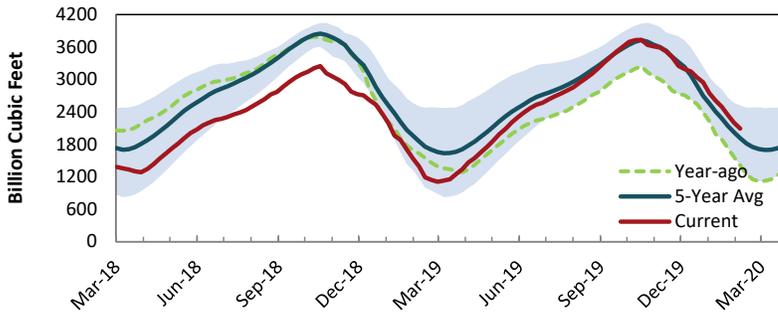
Natural gas futures are useful for both natural gas and electricity consumers because they drive electricity pricing in many U.S. markets. This chart compares the current natural gas price for each forward month on the NYMEX exchange to the highest and lowest prices for the same month over the past 12 months.



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### Natural Gas Storage

Working Gas in Underground Storage Compared With 5-Year Range



This chart shows the amount of natural gas in storage at each point in time (red line) compared to the highest, lowest, and average amounts in the past 5 calendar years.

| EIA Storage Data           | date    | Bcf   | +/-   |
|----------------------------|---------|-------|-------|
| Previous Stock Level       | 2/21/20 | 2,200 |       |
| Most Recent Stock Level    | 2/28/20 | 2,091 |       |
| Year-ago Stock Level       |         | 1,411 | 48.2% |
| 5-Year Average Stock Level |         | 1,915 | 9.2%  |
| Most Recent Net Change     | 2/28/20 | -109  |       |
| Year-Ago Net Change        |         | -152  |       |
| 5-Year Average Net Change  |         | -106  |       |

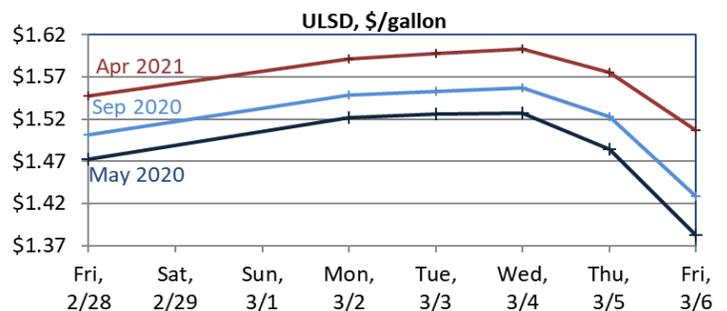
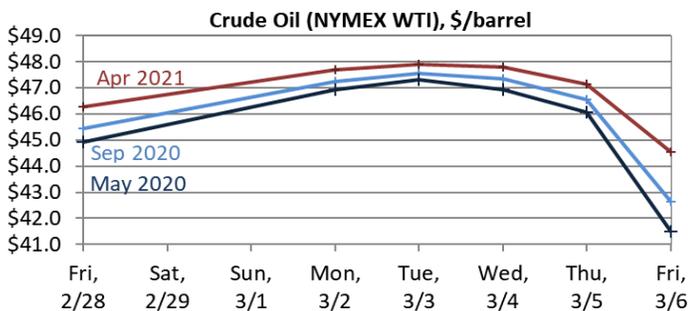
Data Source: EIA <http://tonto.eia.doe.gov/oog/info/ngs/ngs.html>

### Market Assessment

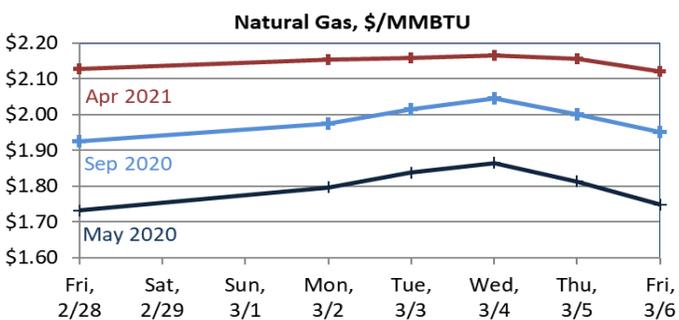
NYMEX Futures Summary Statistics

|             | Last Expired Contract | Exp. Date | Price   | Prompt Month | Price   | Most Expensive Next 12 Months | Price   | Least Expensive Next 12 Months | Price   | Winter Avg (Nov20-Mar21) |
|-------------|-----------------------|-----------|---------|--------------|---------|-------------------------------|---------|--------------------------------|---------|--------------------------|
| Crude oil   | Mar-20                | 2/20/20   | \$53.78 | Apr-20       | \$41.28 | Mar-21                        | \$44.31 | Apr-20                         | \$41.28 | \$44.06                  |
| Heating oil | Mar-20                | 2/28/20   | \$1.49  | Apr-20       | \$1.39  | Mar-21                        | \$1.51  | May-20                         | \$1.38  | \$1.49                   |
| Natural gas | Mar-20                | 2/26/20   | \$1.82  | Apr-20       | \$1.71  | Jan-21                        | \$2.47  | Apr-20                         | \$1.71  | \$2.35                   |

NYMEX End-of-Day Settlements



Crude oil prices remained in disarray on Friday, with WTI at \$45.88/Barrel. As has been the trend for nearly two months now, the spread of the coronavirus has left oil demand in shambles as factories and supply chains, many of which are located in China, have been halted due to the virus' impact on their workforce. Possibilities of a global pandemic have been causing selloffs from investors and unease in futures markets. Adding to the uncertainty, it remains unclear on whether OPEC will be able to reach an agreement on further production cuts. It has been made clear by Saudi Arabia in the December negotiations that they will discontinue their long-standing over-cutting of production should lack of compliance and cooperation continue. Should Saudi Arabia do this, the market would likely see an even more pronounced downward spiral of crude prices.



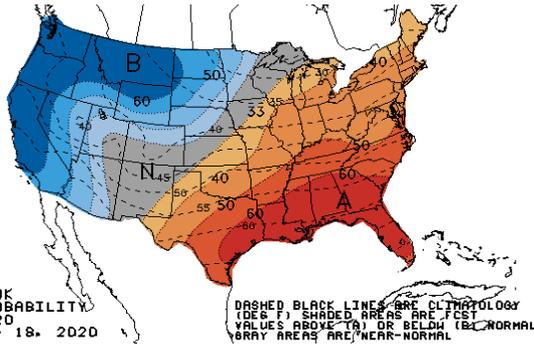
Natural gas prices rose to \$1.827/MMBtu last Wednesday, rebounding from the plunge the previous week. However, the gains were short lived, and prices settled at \$1.708/MMBtu on NYMEX on Friday—a 1% week-over-week increase. Forecasts for above average temperatures through April are stoking concerns about declining domestic demand. Additionally, the coronavirus outbreak is stalling global demand. Chinese gas buyers declared force majeure last week, halting imports to the second largest global economy. All around, commodity prices are dropping amid the uncertainty. Storage withdraws last week were close to the 5-year average for this time of year at 109 Bcf and total inventories remain at a 9% surplus to the 5-year average.

The National Weather Service near-term forecast calls for above average temperatures for most of the Eastern and Southern U.S. U.S., with below average temperatures in the Western U.S. .The CES Market Score on page 1 improved from the previous week. Clients with electricity or natural gas contracts expiring in 2020 should consult with a CES representative for customized guidance.

**National Weather Service Forecast**



6-10 DAY OUTLOOK  
TEMPERATURE PROBABILITY  
MADE 8 MAR 2020  
VALID MAR 14 - 18, 2020



**6 - 10 Day Forecast for Mar 14 - 18**

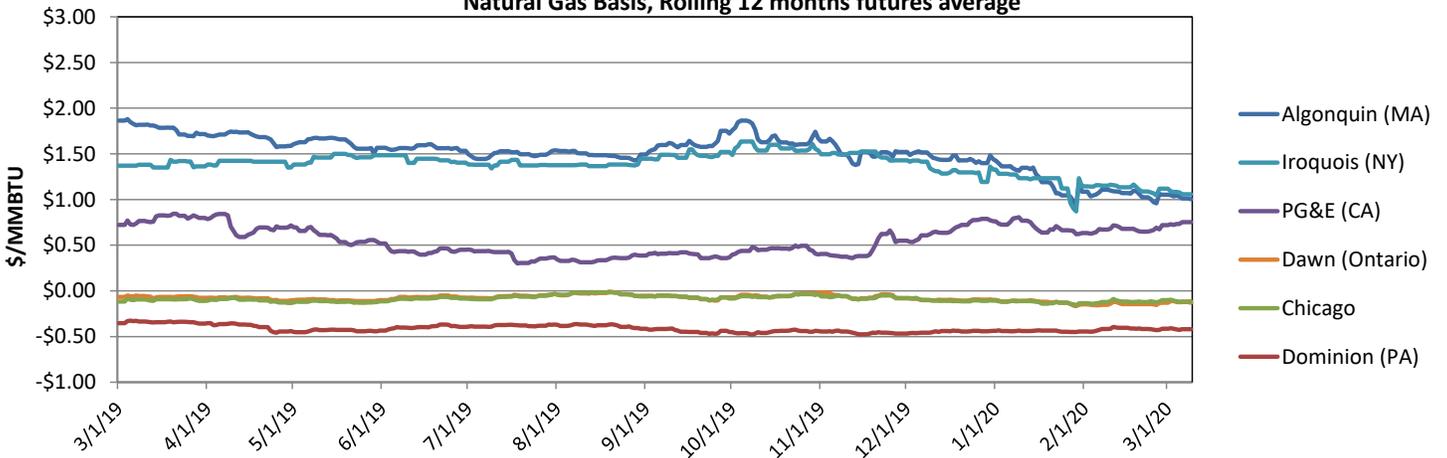
This map depicts forecasted temperatures for next week compared to the long term average. The blue/purple areas are forecast to be colder than normal, white areas are normal, and yellow/orange/red areas are warmer than normal. Abnormally hot weather in the summer and cold weather in the winter can increase the price for natural gas, oil, and electricity.

Source: Chart from the National Weather Service Climate Prediction Center [www.cpc.ncep.noaa.gov](http://www.cpc.ncep.noaa.gov)

**Natural Gas Basis Futures**

Basis is the price differential between Henry Hub, located in Erath, Louisiana, and the liquidity point closest to the end-user. Because Henry Hub is used as the delivery point for NYMEX natural gas futures contracts, the cost of using natural gas in any geographic region of the country can be approximated by adding the basis price for the appropriate liquidity point to the NYMEX futures contract. Basis prices can be negative (indicating that natural gas at a liquidity point is cheaper than at the Henry Hub) or positive (indicating that natural gas at a different liquidity point is more expensive than at the Henry Hub). Basis prices are a key component of regional electricity and natural gas costs.

**Natural Gas Basis, Rolling 12 months futures average**



**Propane**

**Spot propane price for Northeast US**



**Spot Prices**

|                      |                        | <b>New England ISO Real Time Power Pricing By Zone (\$/MWh)</b> |  |        |        |        |        |        | <b>Avg</b> |            |
|----------------------|------------------------|---|--|--------|--------|--------|--------|--------|------------|------------|
|                      |                        | 3/2/20  | 3/3/20   | 3/4/20 | 3/5/20 | 3/6/20 | 3/7/20 | 3/8/20 |            |            |
| Power (\$/MWh)       | Maine RT On Pk         | 21  | 18   | 21     | 26     | 20     |        |        | 21         |            |
|                      | Maine RT Off Pk        | 22  | 15   | 9      | 16     | 16     | 18     | 17     | 16         |            |
|                      | NH RT On Pk            | 21  | 18   | 20     | 27     | 20     |        |        | 21         |            |
|                      | NH RT Off Pk           | 22  | 15   | 9      | 17     | 17     | 18     | 17     | 16         |            |
|                      | Vermont RT On Pk       | 20  | 17   | 20     | 26     | 19     |        |        | 20         |            |
|                      | Vermont RT Off Pk      | 21  | 15   | 9      | 17     | 17     | 17     | 17     | 16         |            |
|                      | Connecticut RT On Pk   | 20  | 17   | 20     | 26     | 19     |        |        | 20         |            |
|                      | Connecticut RT Off Pk  | 21  | 15   | 9      | 17     | 17     | 17     | 17     | 16         |            |
|                      | Rhode Island RT On Pk  | 21  | 17   | 20     | 26     | 20     |        |        | 21         |            |
|                      | Rhode Island RT Off Pk | 21  | 15   | 9      | 17     | 17     | 18     | 17     | 16         |            |
|                      | NE Mass RT On Pk       | 21  | 17   | 20     | 27     | 20     |        |        | 21         |            |
|                      | NE Mass RT Off Pk      | 22  | 15   | 9      | 17     | 17     | 18     | 17     | 16         |            |
|                      | SE Mass RT On Pk       | 21  | 17   | 20     | 27     | 20     |        |        | 21         |            |
|                      | SE Mass RT Off Pk      | 22  | 15   | 9      | 17     | 17     | 18     | 17     | 16         |            |
|                      | WC Mass RT On Pk       | 21  | 17   | 20     | 26     | 20     |        |        | 21         |            |
|                      | WC Mass RT Off Pk      | 21  | 15   | 9      | 17     | 17     | 17     | 17     | 16         |            |
|                      |                        |   | <b>New York ISO Real Time Power Pricing By Zone (\$/MWh)</b> |        |        |        |        |        |            | <b>Avg</b> |
|                      |                        | Capital RT On Pk  | 21   | 17     | 21     | 25     | 22     |        |            | 21         |
|                      |                        | Capital RT Off Pk   | 22   | 17     | 12     | 17     | 24     | 18     | 16         | 18         |
|                      |                        | Central RT On Pk  | 18   | 16     | 18     | 20     | 19     |        |            | 18         |
|                      |                        | Central RT Off Pk   | 6  | 9      | 11     | 15     | 21     | 17     | 14         | 13         |
|                      |                        | Hudson RT On Pk   | 20   | 17     | 20     | 24     | 22     |        |            | 21         |
|                      |                        | Hudson RT Off Pk  | 17   | 15     | 12     | 17     | 23     | 18     | 16         | 17         |
|                      |                        | Mohawk RT On Pk   | 18   | 16     | 18     | 20     | 19     |        |            | 18         |
|                      |                        | Mohawk RT Off Pk  | 6  | 9      | 12     | 15     | 21     | 18     | 14         | 14         |
|                      |                        | Milwood RT On Pk  | 21   | 17     | 20     | 24     | 22     |        |            | 21         |
|                      |                        | Milwood RT Off Pk   | 17   | 15     | 12     | 17     | 24     | 19     | 16         | 17         |
|                      |                        | NYC RT On Pk  | 26   | 22     | 27     | 32     | 25     |        |            | 27         |
|                      | NYC RT Off Pk          | 17  | 15   | 12     | 17     | 24     | 24     | 16     | 18         |            |
|                      |                        | <b>PJM Real Time Power Pricing By Zone (\$/MWh)</b>             |  |        |        |        |        |        | <b>Avg</b> |            |
|                      | Eastern Hub On Pk      | 20  | 19   | 22     | 24     | 21     |        |        | 21         |            |
|                      | Eastern Hub Off Pk     | 17  | 15   | 15     | 19     | 20     | 19     | 16     | 17         |            |
|                      | Western Hub On Pk      | 20  | 19   | 22     | 23     | 21     |        |        | 21         |            |
|                      | Western Hub Off Pk     | 17  | 15   | 15     | 19     | 19     | 19     | 16     | 17         |            |
|                      | PPL Zone On Pk         | 18  | 16   | 19     | 20     | 18     |        |        | 18         |            |
|                      | PPL Zone Off Pk        | 16  | 14   | 14     | 16     | 17     | 16     | 15     | 16         |            |
|                      | AEP RT On Pk           | 20  | 18   | 22     | 24     | 21     |        |        | 21         |            |
|                      | AEP RT Off Pk          | 17  | 15   | 15     | 20     | 19     | 20     | 16     | 17         |            |
|                      | Chicago RT On Pk       | 19  | 18   | 22     | 23     | 21     |        |        | 21         |            |
|                      | Chicago RT Off Pk      | 16  | 14   | 15     | 19     | 19     | 18     | 13     | 16         |            |
|                      | New Jersey Hub On Pk   | 20  | 19   | 22     | 24     | 21     |        |        | 21         |            |
|                      | New Jersey Hub Off Pk  | 17  | 15   | 15     | 19     | 20     | 19     | 16     | 17         |            |
|                      |                        | <b>California ISO Real Time Power Pricing (\$/MWh)</b>          |  |        |        |        |        |        | <b>Avg</b> |            |
|                      | SoCal Edison RT On Pk  | 32  | 27   | 43     | 45     | 24     |        |        | 34         |            |
|                      | SoCal Edison RT Off Pk | 23  | 26   | 23     | 24     | 21     | 19     | 25     | 23         |            |
|                      |                        | 3/2/20  | 3/3/20   | 3/4/20 | 3/5/20 | 3/6/20 | 3/7/20 | 3/8/20 | <b>Avg</b> |            |
| Natural Gas \$/MMBtu | Henry Hub, LA          | 1.94  | 1.93   | 1.96   | 1.81   | 1.79   |        |        | 1.89       |            |
|                      | TZ6, MA                | 2.40  | 2.15   | 2.18   | 2.26   | 2.03   |        |        | 2.20       |            |
|                      | Algonquin, MA          | 1.93  | 1.94   | 2.00   | 2.30   | 1.75   |        |        | 1.98       |            |
|                      | Chicago Hub, IL        | 1.73  | 1.77   | 1.76   | 1.63   | 1.58   |        |        | 1.69       |            |
|                      | New York, NY           | 1.65  | 1.66   | 1.82   | 1.72   | 1.55   |        |        | 1.68       |            |
|                      | Dominion South, PA     | 1.57  | 1.56   | 1.64   | 1.56   | 1.45   |        |        | 1.56       |            |
|                      | Opal Hub, WY           |   | 1.71   | 1.76   | 1.67   | 1.50   |        |        | 1.66       |            |
|                      | PG&E Citygate, CA      | 2.59  | 2.64   | 2.64   | 2.58   | 2.49   |        |        | 2.59       |            |