

## News Tracker:

-Natural gas spot prices were mixed for the period of Wednesday, March 22 through Wednesday, March 29 (the Report Week). The Henry Hub spot price rose from \$2.98 per million British thermal units (MMBtu) to \$3.03/MMBtu from beginning to end of the Report Week.


-At the New York Mercantile Exchange (Nymex), the April 2017 natural gas futures contract expired Wednesday, March 29 at \$3.175/MMBtu. The May 2017 natural gas futures contract price increased to \$3.231/MMBtu, up 16¢ from start to finish of the Report Week.

- Despite warming temperatures during the storage week in most of the Lower 48 states, net withdrawals for the storage week ending March 24 exceeded the five-year average. Net withdrawals from storage totaled 43 Bcf, compared with the five-year (2012-16) average net withdrawal of 27 Bcf and last year's net withdrawals of 19 Bcf during the same week. Withdrawals from working gas totaled 150 Bcf during the previous storage week, as most of the Lower 48 states were significantly colder than normal. Working gas stocks totaled 2,049 Bcf, which is 250 Bcf (14%) more than the five-year average and 423 Bcf (17%) less than last year at this time.

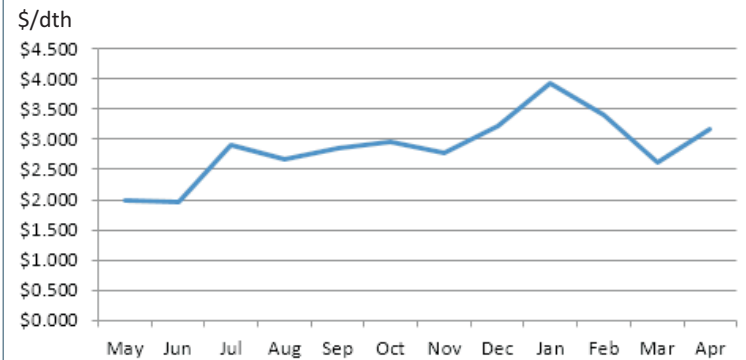
-Total U.S. consumption of natural gas fell by 10% compared with the previous report week, according to data from PointLogic. Power burn declined by 2% and industrial sector consumption decreased by 3% week over week. In the residential and commercial sectors, consumption declined by 22% as temperatures moderated from the previous weeks' cold snap in the Northeast. Natural gas exports to Mexico decreased 2%.

- U.S. liquefied natural gas (LNG) exports. Natural gas pipeline deliveries to the Sabine Pass liquefaction terminal averaged 1.8 Bcf/d for the report week, 16% lower than in the previous week. Last week, FERC issued a letter order authorizing the start of liquefaction and export activities for Train 3. On March 24, FERC issued a letter order granting Sabine Pass' request to introduce gas and commission the Train 4 fuel gas system. Two vessels (combined LNG-carrying capacity of 7.6 Bcf) departed Sabine Pass last week and two vessels (LNG-carrying capacity of 6.8 Bcf) were loading at the terminal on Wednesday, March 29.

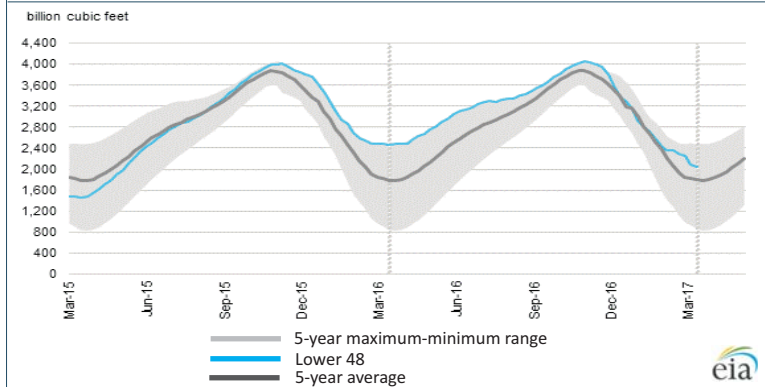
-According to Baker Hughes, for the week ending Friday, March 24, the natural gas rig count decreased by 2 to 155. The number of oil-directed rigs rose by 21 to 652. The total rig count increased by 20 for a total of 809.

Excerpted from 

## Monthly NYMEX Natural Gas Settle Price: May2016 - Apr 2017:



## Working nat. gas in underground storage as of March 24, 2017



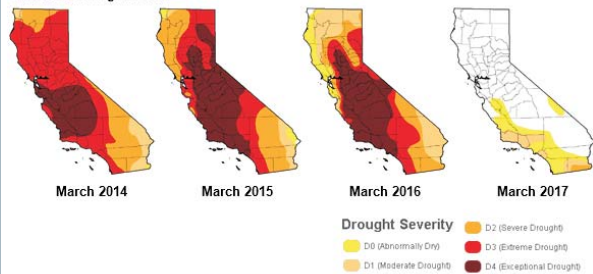
## Forward 12-month NYMEX natural gas strip price - May17-Apr18:

Process Load-weighted \$3.379/dth - w/o/w = ▲\$0.133  
 Typical Heat Load-weighted \$3.405/dth - w/o/w = ▲\$0.123

## Record precipitation, snowpack in California expected to increase hydro generation in 2017:


California's drought is significantly weakening, a result of one of the wettest winters on record. California has experienced record levels of precipitation this winter, and unlike last winter, cooler temperatures over the 2016-2017 winter season have enabled the precipitation to build up snowpack (the total accumulated snow and ice on the ground). High precipitation and snowpack levels suggest that hydroelectric generation in California in 2017 will significantly exceed 2016 levels. Although the drought state of emergency declared by California authorities in January 2014 is still in place, drought conditions have noticeably improved, and the northern half of the state is no longer classified in any stage of drought severity. The area of the state classified as being in exceptional drought (D4), has dropped to zero, compared to the 40% and 35% of the state's land area classified as being in exceptional drought in March 2015 and 2016, respectively. Only 8% of the state is still in a moderate drought (category D1) status or worse. Snowpack levels have increased significantly from the

California drought status



Source: U.S. Department of Agriculture Drought Monitor

near-zero levels measured in April 2015. As of March 21, 2017, statewide snowpack was reported at 158% of normal for that date. Snow water equivalent (SWE) levels - the total amount of water contained within the snowpack - have noticeably increased this year, and as of March 21, the state reported that the statewide snow water equivalent was also 158% of average for that date. Snowpack and SWE are strong drivers of hydroelectric generation because runoff from melting snowpack feeds hydroelectric plants in the spring and summer months. California's hydroelectric generation increased through most of 2016, especially toward the end of the year. Total 2016 hydroelectric generation in California was well above the 2013-2015 range and was nearly as high as the longer-term, pre-drought generation average over 2001-2010. High levels of SWE from the 2016-2017 winter suggest increases in hydroelectric generation in California later in 2017.

Excerpted from 

"If a man's wit be wandering, let him study the mathematics." -Francis Bacon<sup>1</sup>