CHOICE! ENERGY SERVICES

April 12, 2018

NYMEX OUTLOOK

BULLS & BEARS REPORT

HOUSTON, TEXAS
LOUISVILLE, KENTUCKY
NEW YORK, NEW YORK

Author
CHRIS AMSTUTZ
Risk Mgmt Associate / Louisville
Ph: 502-408-5122

Author
MATTHEW MATTINGLY
Director, NG Services / Louisville
Ph: 502-895-7882

PAPER TOPIC: NATURAL GAS

INTRODUCTION

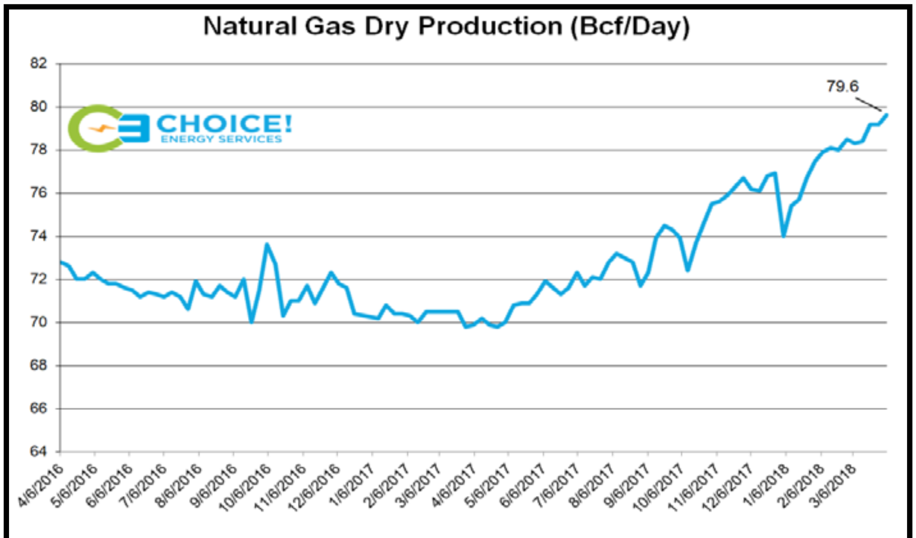
The natural gas market is *still* in hibernation as we enter the shoulder season. An abnormally cold March and beginning to April has continued to push storage levels farther below the 5 year average. So theoretically a storage level this low should indicate higher NYMEX prices, correct? Theoretically yes, fundamentally no. The April settlement price of 2.691/MMBtu is a strong indication that record production numbers are firmly controlling market sentiment. Dry production supply levels continue to climb higher and increased pipleine takeaway capacity will fuel this trend. The country is expected to add near 10 BCF/Day of production in 2018. The US is expected to become the top producing Oil country this year and gas supply will be aided by the contribution of associated gas from oil drilling. So how low is the storage level exactly? After today's withdrawal of 19 BCF, we are now 375 BCF below the five-year average, and the gap is widening. This storage deficit is not bothering traders and a mathematical breakdown of the situation can be found in a section of this report later on. The inability for spring temperatures to break through in March, and now April, may have many people wishing for spring, but will not have much of an impact on gas trading. The non-weather fundamentals will soon reemerge as price-change catalysts as the winter comes to a close, and this issue of the Bulls and Bears will explore their further implications.

The April NYMEX contract is now off the board, settling at 2.691/MMBtu (within $0.06 of March) and May is currently trading near $2.65/MMBtu. So far in April, Gas Weighted Heating Degree Days are 20% higher than the 30-Year normal. We have seen increased heating demand, but fears will remain tampered until we get a more accurate prediction of what this summer's demand will look like. Will a hot summer bring prices back up to the $3 mark, or will mild temperatures allow a break through to the down side of the $2.50 support level? This report will take a closer look into these questions by discussing the fundamentals that are impacting the natural gas market. Since the market seems to be held down by the bears we will begin with these fundamentals...

• THE BEARS •

PRODUCTION RECORDS

We last discussed the rise in natural gas production in December. We have not included this topic as a formal topic in the last 3 reports, not because it isn't the single most bearish fundamental for gas (it is), but rather because of the old adage, there's no sense in beating a dead horse. This topic factors in heavily to other fundamentals, such as the storage topic, but this month we will give a refresher on where we currently stand in production growth and outlook. The [EIA Natural Gas Weekly Update] has shown that Dry Production averaged 79.2 BCF/Day for the week ending on Thursday 3/21. The following weeks resulted in dry production totals of 79.2 BCF/D and 79.6 BCF/D. These three weeks represent an increase in production of 8.7 BCF, 9.4 BCF and 9.7 BCF as compared to the same weeks in 2017. The production record has been broken nearly every week since we last reported on the topic (thus the dead horse adage). Natural gas supply is truly in uncharted territory, and there seems to be no turning back. A majority of this new gas is coming from the Marcellus/Utica shale region and for more information you can reference our last month's report on that regions takeaway capacity growth. Even the EIA has not been able to accurately keep up with supply projections. Their STEO projection data has consistently underestimated the growth we have seen. For example, in April of 2017 they predicted total marketed gas (production and net imports/exports) to be at 81 BCF/Day for March of 2018. We are currently seeing total marketed production numbers top 89 BCF/Day. Almost all of the difference here is due to the growth in dry production.

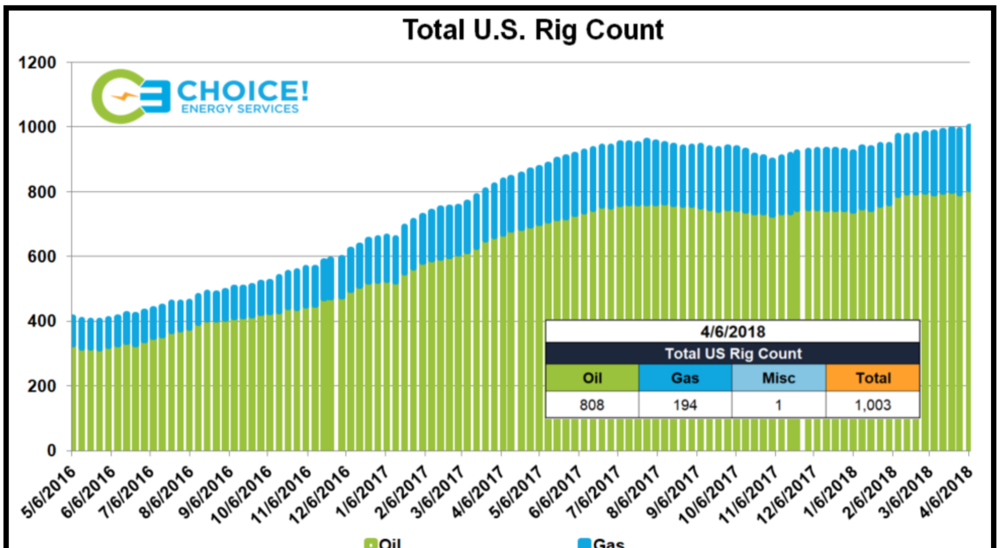


Data: EIA Weekly Update
Graph: Choice Energy Services

Numbers aside, what do these increased production numbers mean for the natural gas market? Obviously more production will have a bearish impact on price, and the market has reflected this fact trading at near $2.60/MMBtu numbers. It is easily argued that the only reason we haven't seen prices drop to the lower $2 range is because the winter heating demand kept pace with the growing supply. As we enter the shoulder months and injection season, production numbers and price will have an important mutually dependent, yet inverse relationship.

RIG COUNT: CLIMBING

This month we saw the total rig count continue to grow to 1003 rigs, up 22 since our last report. Friday 4/6/18 saw the oil rig count rise by 11 to 808. Natural gas rigs have increased by 13 to 194 from a month ago. The rig count is slowly climbing after being constant for so long. We have seen a 17.5% increase in natural gas rigs versus this time last year. The total Rig Count has finally broken out of its nearly yearlong range of 920-960. Following the strong argument that rig count follows the price of oil with a 19 week lag, we should be looking at continuing to increase the current rig count over the next month. Oil prices have been pushing higher to $65/BBL for WTI and over $70/BBL for Brent. With the United States becoming an energy super power, the rig count is an indicator for a growing potential for oil and gas production dominance on the global level. The team at Choice Energy Services will closely monitor the rig count reports in the coming weeks and how this may have a long term impact on pricing in 2018.



4/6/2018			
Total US Rig Count			
Oil	Gas	Misc	Total
808	194	1	1,003

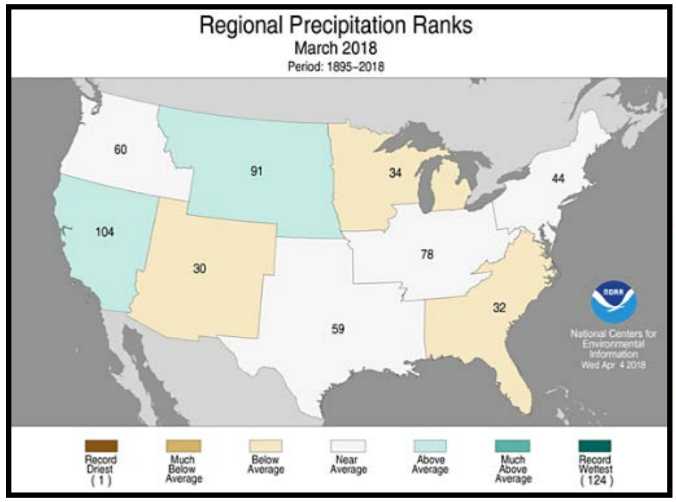
Data: Baker Hughes Rig Count
Graph: Choice Energy Services

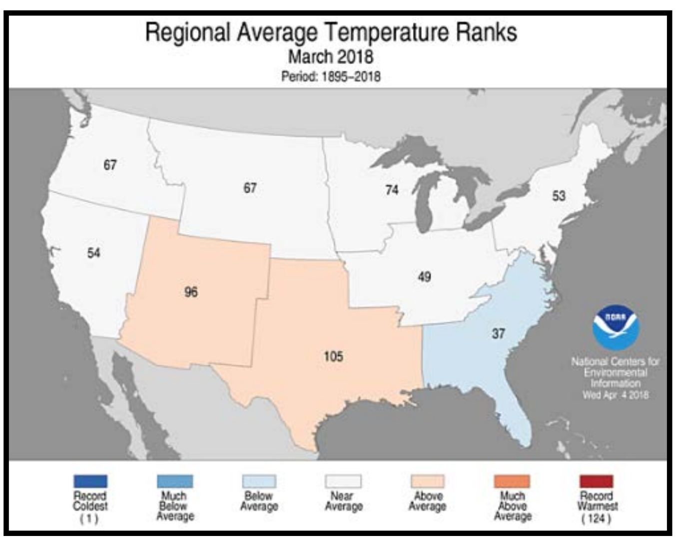
• THE BULLS •

WINTER SUMMARY

Everyone that follows natural gas can tell you that the winter is the most important time of the year for the market. The real test is to be able to apply what you learn from a given winter, in order to better help clients in the future. This winter was strange in more ways than one, but there was much to learn and be cautious of for future winters. While this winter was near normal in terms of temperature, it provided many unique situations that affected the NYMEX market in different ways.

So what situations made this winter unique? It can be summed up as weather volatility. We set a bearish tone for the winter with above average temperatures in December but this quickly changed. On New Years Day, we burned the most natural gas EVER due to record low temperatures across much of the country, and that same week we saw the [largest storage withdrawal] EVER of 359 BCF. This trend persisted in to January and two weeks later we saw a, tied for second largest, 288 BCF withdrawal. It truly was a polar vortex matched only by 2014's. This created gas supply problems for many endusers, especially in the [pipeline constrained Northeast]. This trend was surprisingly reversed and we saw much above average temperatures in February. This allowed gas supply to catch up, due to record production numbers. March followed with a strong high pressure blocking pattern in Greenland that brought more (relative) record low temperatures. This was also the "Month of the Nor'easter". Four of this winters' heavy cyclonic snowstorms ran up the east coast in March, dropping feet of snow. April has continued March's pattern of much below average temperatures. This winter will likely be retroactively confirmed as a La Nina and it kept traders closely watching weather patterns.The NYMEX prompt month settlements followed the monthly trends. We saw the warm December allow the January contract to settle at a bearish \$2.738/MMBtu. The record cold January mixed with February weather uncertainty pushed the February contract up to a 13 month high settlement of \$3.631. The mild February weather allowed the bears (spurred on by production records) to regain control and March and April settled have at \$2.639 and \$2.691 respectively.





While the NYMEX Prompt month settlements do not exactly paint the picture of this winter as a bullish fundamental, the analysts at Choice Energy Services do believe its' impacts are reflected in the price of gas. The last 10 weeks, we have seen gas production climb to records that have never been recorded. If this extremely bearish production impact had been met by a winter like 2016-2017's, we could have easily seen gas prices fall in to the low \$2/MMBtu range. This winter's heating demand helped keep pace with rising production and has helped keep the Bulls and Bears more closely balanced as we start looking to the summer months for what will happen next.

• **NEUTRAL** •

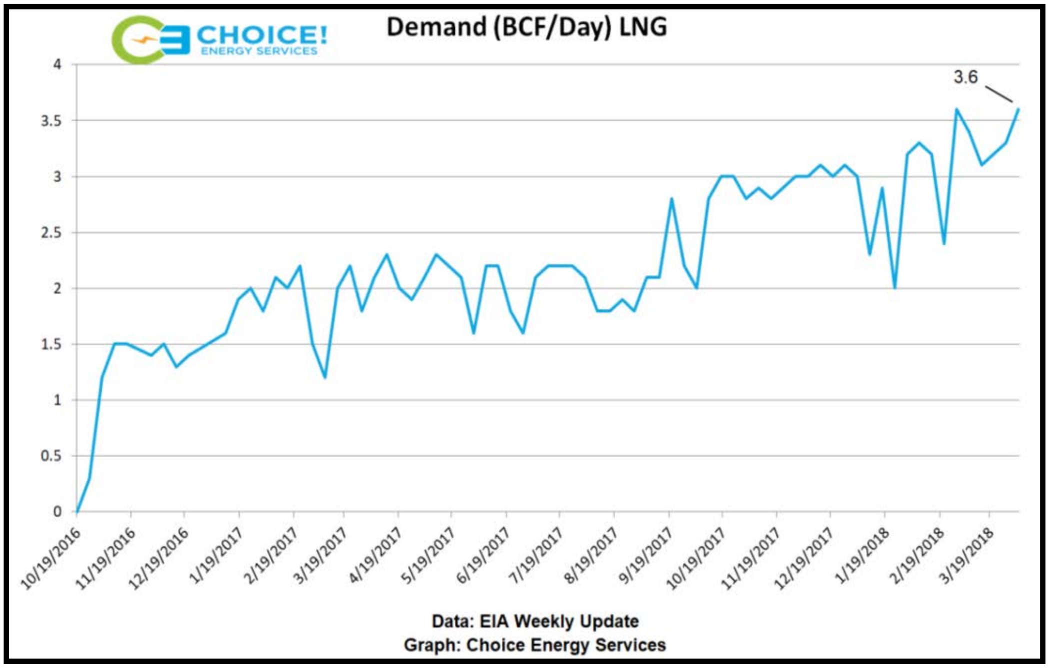
TRADE WARS

One of the most heavily covered topics of 2018 so far has been President Trump's aims at shaking up the global landscape for trade. The news evolves daily, as discussions with China continue to worsen. In early March, the Trump Administration placed a tariff on imported steel and aluminum [from certain countries](). This action, as well as the evolving discussions with China, will have wide reaching implications for the energy industry. In the State of the Union address, President Trump stated that, "We have ended the war on American energy". The new talks of a "Trade War" are setting up a situation in which the US energy industry will be [crippled domestically and globally](). This topic does not serve as a clear cut market indicator, but rather an evolving current event that could impact natural gas markets.

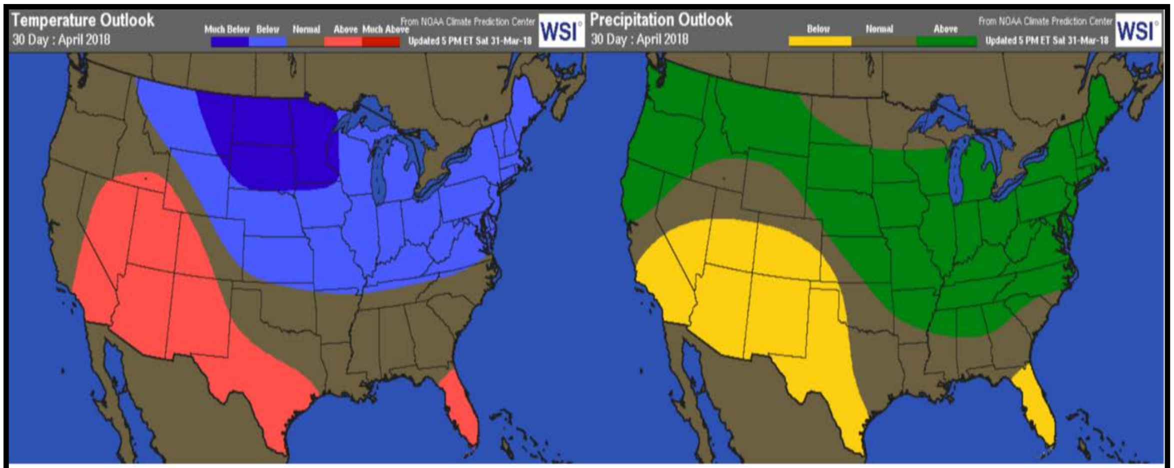
Domestically, the 25% tariff placed on steel has huge implications for nearly every stage of the energy industry processes. Companies will have to factor in higher costs for well construction, which begin the process of capturing the vast reserves of oil and gas that the US has. The specialty-order steel pipelines, that are desperately needed to move oil and gas to profit incentivizing areas/exportation regions, simply cannot be supplied by American companies alone. It is too soon to tell, but this could cause serious delays, or even cancellations of the pipelines the US is lacking. Another foreseeable domestic impact comes in the form of a 5-10% increase in construction costs for heavily steel dependent [LNG exportation facilities]().

Globally, the implications are harder to measure, but have the potential to be of much greater impact. The US energy industry is currently at a critical juncture. The US is set to become the largest producer of oil and natural gas. This has given the US the enormous potential to compete against OPEC and Russia for more market share on the global stage. Exportation facilities are being planned and constructed, but the US just is not quite the global power just yet. The news of tariff talks with China is especially troubling because of [China's potential]() to be our largest energy customer. China is currently taking the brunt of the tariff war talk, but other countries affected by the US steel tariff, like South Korea, Japan and Brazil; happen to be some our largest LNG customers. The threat of a retaliatory tariff on US energy has not yet been discussed but could be a very real possibility.

So how could the natural gas markets react to all of these happenings and potential situations? This answer is as complex as global trade itself. Domestically, the tariff increasing steel costs in the energy industry would mean that we could see higher costs to move gas and potentially higher prices. At the same time, higher LNG facility construction costs would discourage new export facilities, which would keep more gas stateside, in turn depressing natural gas prices. While this is just a small simplified picture of the complex domestic market movements, the implications would obviously be much clearer and more devastating if China or other countries placed a tariff on American energy. While the outcome of a trade war situation is not completely known, the analysts at Choice Energy Services will continue to monitor the situation to better help our clients hedge against potentially volatile price impacts.



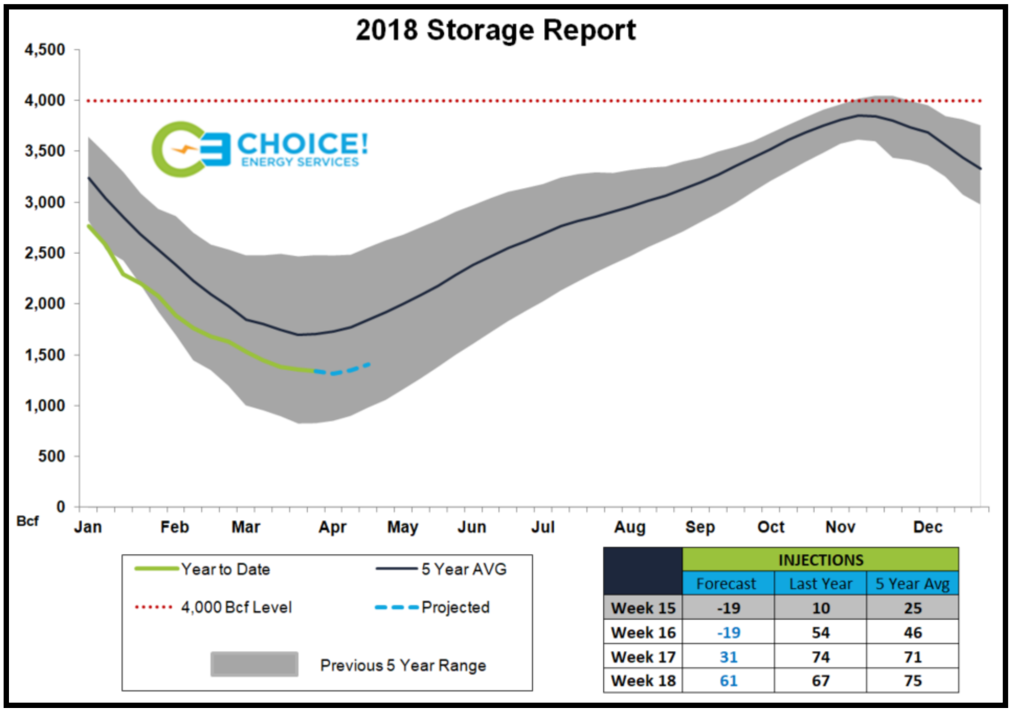
WEATHER/TEMPERATURE FORECAST



Source: National Oceanic and Atmospheric Association
Left: April Temperature Outlook, Right: April Precipitation Outlook

A La Nina advisory is still in effect for the United States and has 45% chance of continuing through May. Pacific Ocean temperatures are about .5° Celsius below normal, which is an indication for continued, yet weakening, La Nina effects. So what are the forecasts telling us? The 30 day temperature outlooks and 30 day precipitation forecasts (see below) are reflecting typical La Nina patterns, just like we saw through the winter. March stayed cold the entire month and produced several Nor'easters and violent convective battles between warm and cold air. We have seen these conditions continue in to April, but with slightly warmer temperatures, the snow storms will be replaced with tornadoes. Extended forecasts through April and even early May are hinting at cooler temperatures to continue. So what will this mean for the natural gas market? Since we are entering the shoulder season, mild spring weather conditions won't have much of an impact on the balance of gas. If temperatures were able to continue to be cold enough to require heating demand, we could just see an even higher increase in production than we are already seeing. Nobody expected spring weather to get delayed this long so anything is a possibility. Drought conditions have slightly worsened. Conditions in West Texas and the Southwest are expected to worsen through the spring. Drought conditions will become more important in the summer when natural gas begins to be used for the electricity cooling demand. Forecasts are in wait and see mode but the chances of a weather surprise are slim during the shoulder period spring months.

STORAGE



	INJECTIONS		
	Forecast	Last Year	5 Year Avg
Week 15	-19	10	25
Week 16	-19	54	46
Week 17	31	74	71
Week 18	61	67	75

March and April have added a surprising twist to the storage total, but traders are not fazed. Historically, the withdrawal season lasts until the third week of March, but this year we are still seeing storage withdrawals due to abnormal April cold temperatures. The current storage level is 1.335 TCF. April is currently tracking 20% cooler than the 30-year normal for Gas Weighted Heating Degree Days. Predictions for storage level lows all focused around the 1400 BCF mark. The end of season low is expected to bottom out near 1320 BCF. Since natural gas is a forwardly traded commodity, traders are looking at supply and demand scenarios that will play in to the injection season. This year will end as the second lowest storage level since 2014 (824 BCF) and the second lowest level in the last ten years. A low of 1,320 BCF would be 375 BCF (-22.2%) below the five-year average low.

So why aren't we seeing a run up in gas prices? This answer is found in the supply and demand scenarios for the rest of 2018. On the demand side, analysts are expecting a 2 BCF/Day increase in exports, a 2 BCF/Day increase from power burn (assuming a normal summer), and about .5 BCF/Day increase in industrial demand, all versus 2017 figures. On the supply side, we are currently producing about 79.6 BCF/Day, and after this week we will need to average storage injections of ~83.7 BCF during the injection season to reach the five-year average pre-winter storage level of 3,829 BCF. The extended cold continues to bump up this number. If any of these fundamentals start to stray from their projections, we could begin to see serious volatility.

SUMMARY

Even with the weather aiding gas heating demand through all of March, the natural gas bears were still able to hold control, with the April contract settling at $2.691/MMBtu. As you can tell from this report, the bears have remained in charge and are dominating the market. Is it possible that the weather kept prices from falling farther? Certainly, but this effect is hard to quantify. The prompt month has moved to the May contract and has been hovering near $2.65. The forward market is flat and unchanged from last month with Cal '19 AND Cal '20 prices at near $2.80 (See Below). Any strong Bullish movement in the market continues to be squashed by the Bearish fundamentals that have been discussed in this report. The Bulls' only near term hope for a sustained rally rests with either undelivered production projections or a hot summer forecast. Attention is now being turned to the summer months, as this year should see an increase in power burn from natural gas fired power plants, ESPECIALLY if NYMEX prices fall under $2.30/MMBtu. As of now, the Bears remain in charge and a serious shake up in the fundamentals will be needed to challenge the status quo.

Source: EOX Live
Graph: Morningstar Commodities