

# Monthly Update

December 2018



## Market Commentary

*Powered by Transparent Energy and Gary Graham, Director of Energy Management*

We're officially one month into the natural gas withdrawal season and we have already witnessed considerable inter-day and intra-day volatility in the energy markets - the likes of which we haven't seen since the Polar Vortex of 2013-14, and prior to that, 2005 following Hurricane Katrina. The commodity's price soared 18% in a single session (\$4.837) on Nov. 14 only to come crashing down 17% the following day (\$4.038). The extreme nature of that inter-day volatility suggests technical trading factors (short squeezes) were exacerbating the fundamental factors at play (a shift to colder than normal winter forecast vs. extremely low working underground storage levels). However, the upside price risk and the eventual determinants are by no means behind us. At the time of the largest price move in recent memory, working underground storage levels were right around 15% below levels for the same week last year, and a hair over 16% lower than the 5-year average for the same week.

As of today, that storage deficit has expanded in the four weeks since, and outside of a bearish short-term weather outlook that is pushing out to Dec. 26th, there haven't been any major revisions to the long-term winter weather outlook. There is growing concern that the major demand centers in the Northeast and upper Midwest are still projected to experience colder than normal winters for most of January and February, which would put even greater pressure on the commodity if the storage deficit continues to expand during that timeframe. Should these colder-than-normal projections come to fruition, we could easily be looking at our current storage levels of 2.914 bcf reduced to around 800 bcf come mid-March, which would be the lowest mark since Katrina, when the price of natural gas ballooned to as much as \$16. While that exact scenario is much more unlikely today with domestic production no longer isolated to one specific geographic part of the country (not to mention vast improvements and expansion in infrastructure), the most important facet to consider is the fallout of such a similar event and to consider that a supply deficit and its impact on price can only truly be negated by equally exceptional production.

Even with natural gas production continuing to set daily output records, the expansion of flatter demand verticals like increased gas-fired power generation, additional LNG exporting capabilities, and increasing industrial chemical demand, it will be a tall task to contract the storage deficit in the months, that follow this upcoming winter. Is it possible to erase the current deficit? Entirely so – but the timeframe in which that will happen will continue to be the primary moving target going forward and the price of the commodity is likely going to remain elevated from the very consumer-friendly \$3-level we have grown accustomed to over the past 3-4 years. As volatile as the commodity can be in a short amount of time, it can be just as stubborn for a much longer period. That shift from sustained \$3 to sustained \$5 could very well be right around the corner.

## Quick Hits

- The EIA reported Thursday morning that, for the week ending December 7, U.S. inventories decreased by 77 bcf, compared to last year's withdrawal of 59 bcf for the same week. The five-year average withdrawal for the same week is about 78 bcf.
- The daily price ranges have calmed over recent sessions sending daily historical volatility from over 150% in late November to the 57.8% level late last week.

## Bullish Factors

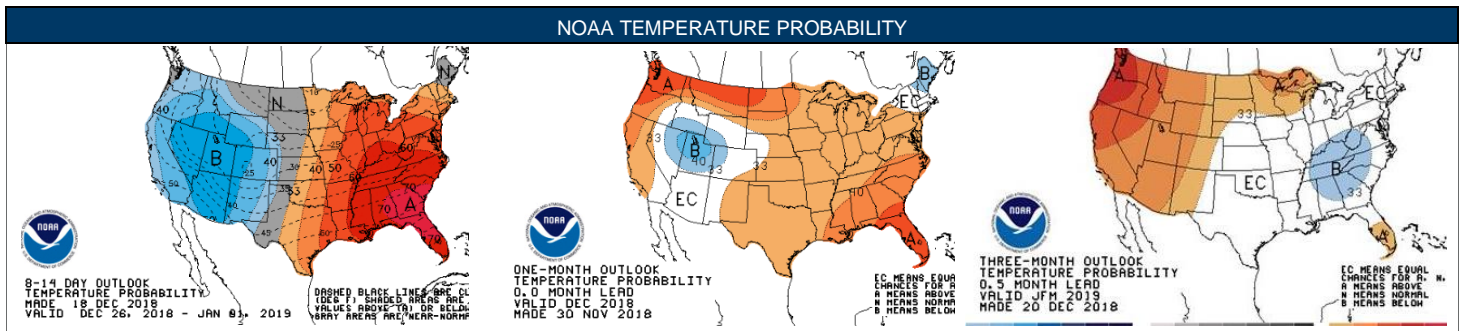
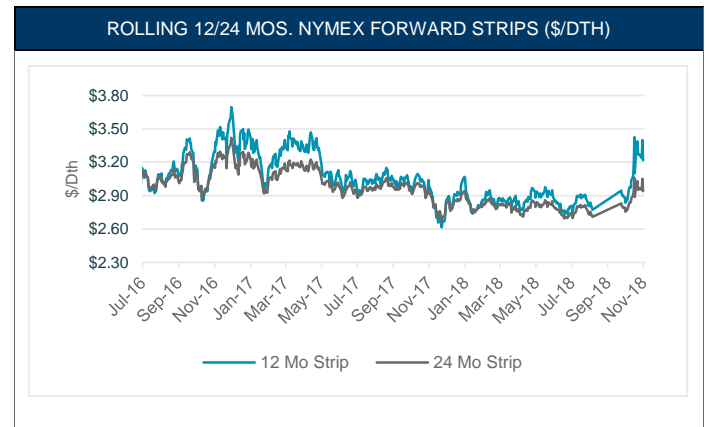
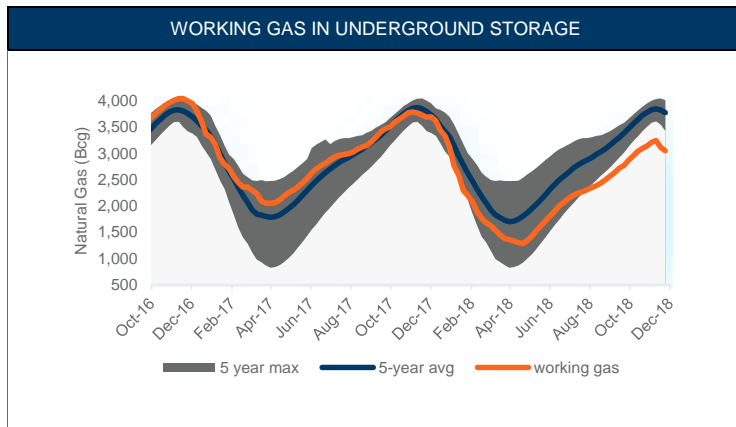
- The deficit to the 5-year average is expected to revert to ~600 Bcf by the end of 2018
- Natural gas bulls are currently relying on the idea that the current winter set-up looks very familiar to 2002 and 2014. In both years, November was colder than normal followed up with a warmer than normal December. Both years had weak to moderate El Nino conditions, and both years showed much more bullish January and February weather set-ups.
- Pipeline exports to Mexico are at about the same level as a year ago, but overall exports (including LNG supplies) are steadily growing. LNG exports were flat week over week as eight vessels were loaded and departed US ports, totalling 26.2 bcf.

## Bearish Factors

- All weather models now agree that December will be warmer than normal.
- Total gas demand has been trending lower versus last year's and will continue to do so into Jan as last year had the coldest week on record resulting in ~350 Bcf draw in just a week.
- Last week saw forward power prices pull back with NYMEX, with the biggest retracements in 2019 & '20 but the moves lower were only 05.-1.0%. ERCOT & CAISO saw largest pullback in 2019 prices after recent moves

## Natural Gas

Region	CURRENT/HISTORICAL STORAGE (Bcf)					HENRY HUB PROMPT MONTH NAT GAS SETTLEMENTS								
	11/23/2018	11/16/2018	% Chg.	Year Ago	5-Yr Avg.	Trade Date	Open	High	Low	Settle	% Chg.	Est. Vol		
East	778	803	-3.11%	▼	876	893	12/3/2018	4.527	4.536	4.243	4.339	▼	-4.15%	211,587
West	1363	1391	-2.01%	▼	1603	1632	11/30/2018	4.584	4.776	4.640	4.612	▲	0.61%	178,150
Producing	914	919	-0.54%	▼	1214	1249	11/29/2018	4.671	4.674	4.452	4.646	▼	-0.54%	199,557
<b>TOTAL</b>	<b>3055</b>	<b>3113</b>	<b>-1.86%</b>	<b>▼</b>	<b>3693</b>	<b>3774</b>	<b>11/28/2018</b>	<b>4.219</b>	<b>4.728</b>	<b>4.209</b>	<b>4.699</b>	<b>▲</b>	<b>11.38%</b>	<b>315,410</b>

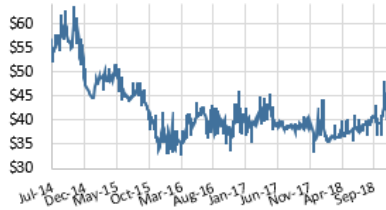


## Weekly Average Retail Electricity Price Trends (Jan Start)

Week Ending	New Jersey	New York	Massachusetts	Ohio	Illinois	Texas	DC	Pennsylvania	Connecticut
11/9/2018	\$0.1053	\$0.0643	\$0.1193	\$0.0595	\$0.0585	\$0.0589	\$0.0796	\$0.0692	\$0.1000
11/30/2018	\$0.1080	\$0.0663	\$0.1217	\$0.0604	\$0.0594	\$0.0603	\$0.0812	\$0.0714	\$0.1016
12/7/2018	\$0.1070	\$0.0664	\$0.1210	\$0.0604	\$0.0597	\$0.0612	\$0.0811	\$0.0718	\$0.1012

\*actual rates may vary by usage. Rates are aggregated from sources reflecting the General Service (GS) rate class

## NYISO - Zone J



## PJM - PSEG



## ERCOT - TX NORTH



## NE-ISO - MASS HUB



## PJM - COMED



## PJM - ATSI



## Energy Market News

Clean energy policies set to impact capacity rules across northeast markets

<https://bit.ly/2PLS6IC>

Baker Hughes Norther American Rig Count

<http://bit.ly/1eIov2d>

EIA Short Term Energy Outlook

<http://www.eia.gov/forecasts/steo/>

## Data Highlights

## WTI crude oil futures price

12/03/2018: \$52.95 /bbl

↑ \$1.32 from week earlier

↑ \$5.41 from year earlier

## Natural Gas Inventories

11/23/2018: 3,055 Bcf

↓ 58 Bcf from week earlier

↓ 638 Bcf from year earlier

## Natural gas futures price

12/03/2018: \$4.339/MMBtu

↑ \$0.091 from week earlier

↑ \$1.278 from year earlier

## Weekly coal production

11/24/2018: 13.924 million tons

↓ 0.678 million tons week earlier

↓ 0.275 million tons year earlier

## For more Information:

## Gary Graham

Director of Energy Management  
Cushman & Wakefield  
+1 312.470.1851  
gary.graham@cushwake.com

## Luke Nemes

Transparent Energy  
+1 862.210.8770  
lnemes@transparentedge.com

Copyright © 2018 Cushman & Wakefield. All rights reserved. The information contained within this report is gathered from multiple sources considered to be reliable. The information may contain errors or omissions and is presented without any warranty or representations as to its accuracy.

The information contained in this report has been gathered from public and/or private sources and is provided "as is" and is not intended for trading purposes or advice. Transparent Energy makes no guarantee's or warranties, express or implied, as to the accuracy, quality, reliability, or completeness of the information provided herein. Transparent Energy is not liable for any informational errors or incompleteness or for any transactions made based on the information provided herein. Report sources: <http://eia.gov>, <http://bit.ly/1Gi07Z3>, <http://bit.ly/1HBGL1Q>