



Market Commentary

Powered by Luke Nemes, Transparent Energy and Gary Graham, Director of Energy Management

As we transition to the arrival of peak season in the natural gas market, there is an abundance of both existing supply and forthcoming demand, so it should be viewed as a fulcrum of sorts in several ways.

Firstly, underground natural gas storage will have reached its highest levels of the year at this point, as the injection season has officially come to an end per EIA reporting data for the week ending Nov. 8th. Heading into peak season last year, there were grave concerns about the levels of working underground storage (~17% deficit to 5-year average) that led to extreme volatility in late November and early January. Today, there are very few concerns about natural gas stockpiles (3,638 bcf) as production is now at an all-time high, and while we expect Lower 48 gas production to fall in Q1 2020 (March), this bodes bearishly for prices going forward.

Secondly, peak season also signifies the beginning of peak demand season, driven by a gradual increase in heating demand and corresponding increases in the accumulation of heating degree days (HDDs). Increased heating demand has a more profound impact on withdrawals than ever before, as the commodity has continually earned a larger share as a fuel source of the electricity generation mix. In fact, the commodity's relatively low price throughout the past two years has launched natural gas' share of domestic electricity generation to 37%, up significantly from 25% in 2011. The first withdrawal (when overall demand outweighs supply/production) of the season was reported for the week ending Nov. 15th (94 bcf), and while that is a substantial initial withdrawal on the heels of elevated demand levels in mid-November, the price has still failed to reach the \$3 mark. Considering that overall, this November has been equally cold when compared to last November, this further underpins the bearish market sentiment. It will take a major cold front to have any significant bullish impact on the market as we move into December.

Finally, this time of the year is traditionally associated with marked volatility, with both the potential for extreme highs and lows (historically speaking), a high degree of weather-sensitivity (both to existing and forecasted events), and especially so as it pertains to extreme weather events. There is more than a trivial chance that this winter will be colder than the "most-likely" forecasts that are currently in place, which could very quickly push the commodity over the \$3 mark. Presently, January looks to be the most likely timeframe for the arrival of extreme price volatility and any unhedged exposure is best addressed in the coming weeks. Significant consecutive withdrawals during Jan-Feb would quickly put the bulls back in control if a deficit begins to appear and expand. That said, the critical piece of the weather equation today is the short-term outlook. While the first week of December is expected to be much colder than normal, national holidays typically lead to losses of industrial and commercial demand, which should offset any gains from increased heating demand. If forecasts turn warmer, look for markets to head lower after Thanksgiving – I expect opportunities to lock in historically-low long-term natural gas and electricity supply contracts to persist throughout much of December.

Wishing you and your families a safe and warm Happy Thanksgiving.

Quick Hits

- The EIA reported Thursday morning that, for the week ending November 15, U.S. inventories decreased by 94 Bcf. This fell within, albeit on the higher side of, the trading range of 82 to 99 Bcf, and more than the consensus withdrawal estimate of 89 Bcf.
- Total stockpiles now stand at 3,638 Bcf, up by 16.2% from a year ago but 1.6% below the five-year average for the same week.
- Monday, November 25th saw the front-month NYMEX Natural Gas Futures Contract open at \$2.527, fourteen cents below Friday's closing price of \$2.665. Descending into the afternoon, December closed 5% lower on Monday at \$2.531.
- The nomination of Republican James Danly to the Federal Energy Regulatory Committee (FERC) advanced out of the Senate Energy and Natural Resources Committee last week along with over a dozen of energy bills. This nomination is important to PJM's capacity market because once he is confirmed by the Senate, FERC will again gain quorum so that they can begin to review proposals on the restructuring of the PJM capacity auction that has been in limbo from delays going back to May of this year.

Bullish Factors

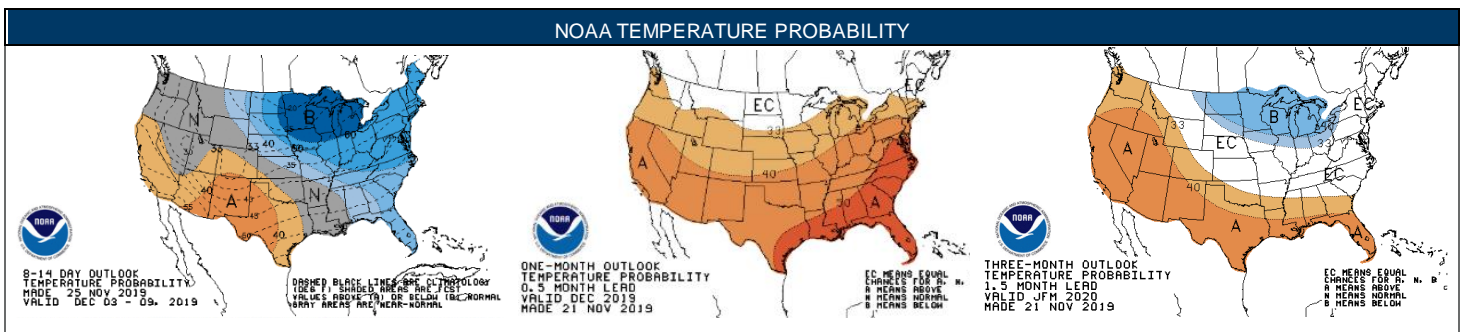
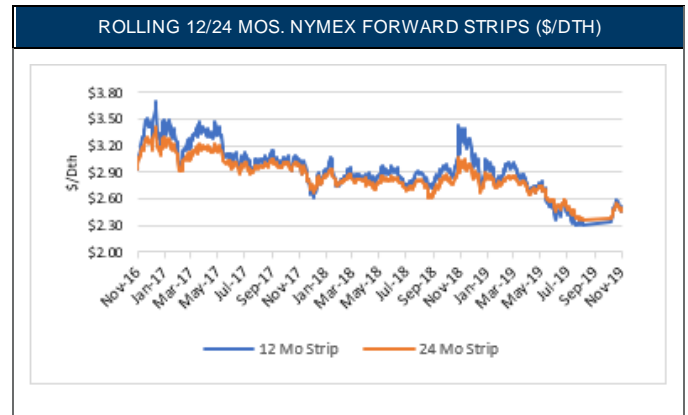
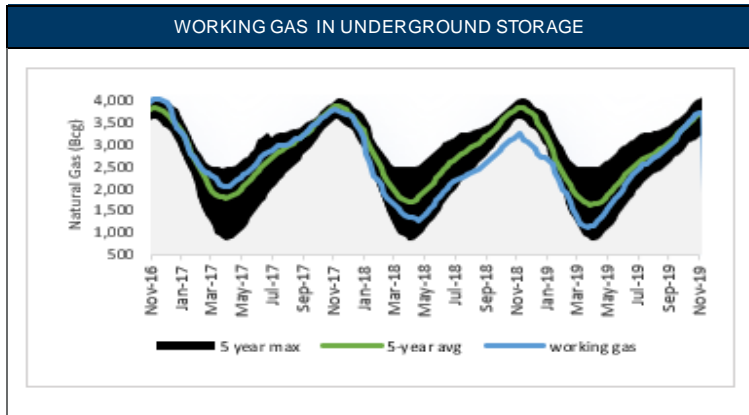
- All of the main forecast models, led by the American GFS, continue to advertise the return of a highly amplified jet stream pattern over North America that supports the risk for cold air outbreaks and an overall cooler than normal pattern during the opening week of December.
- According to Marine Traffic, U.S. LNG export terminals (Sabine Pass, Cove Point, Corpus Christi, Cameron, and Freeport) served 13 LNG vessels with a total natural gas capacity of 47 bcf (just 1.2 bcf short of an all-time high).
- The Federal Energy Regulatory Commission approved three proposed new liquefied natural gas export facilities in Texas and the expansion of another, which will roughly double current U.S. LNG export capacity.

Bearish Factors

- Month to date, natural gas production has averaged 93.7 Bcf per day, up 1.7 Bcf per day from last month, third parties reported.
- Later in the outlook (11-15-day), a variable pattern will take over as both the Arctic and North American Oscillations indices turn positive (warmer signals) but confidence remains low.

Natural Gas

CURRENT/HISTORICAL STORAGE (Bcf)						HENRY HUB PROMPT MONTH NAT GAS SETTLEMENTS						
Region	11/08/2019	11/01/2019	% Chg.	Year Ago	5-Yr Avg.	Trade Date	Open	High	Low	Settle	% Chg.	Est. Vol
East	932	932	0.00%	834	904	11/19/2019	2.547	2.56	2.501	2.510	-1.45%	227,984
West	1603	1608	-0.31%	1433	1626	11/18/2019	2.641	2.715	2.533	2.566	-2.84%	191,471
Producing	1197	1189	0.66%	1200	1101	11/15/2019	2.636	2.724	2.606	2.688	1.97%	178,856
TOTAL	3732	3729	0.08%	3241	3730	11/14/2019	2.674	2.696	2.642	2.647	-1.01%	228,702

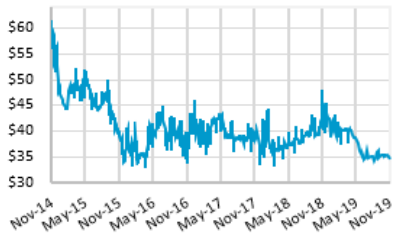


Weekly Average Retail Electricity Price Trends (January Start)

Week Ending	New Jersey	New York	Massachusetts	Ohio	Illinois	Texas	DC	Pennsylvania	Connecticut
12-month	\$0.0933	\$0.0876	\$0.1087	\$0.0516	\$0.0553	\$0.0571	\$0.0699	\$0.0622	\$0.0967
24-month	\$0.0943	\$0.0885	\$0.1064	\$0.0523	\$0.0556	\$0.0547	\$0.0712	\$0.0621	\$0.0940
36-month	\$0.0936	\$0.0885	\$0.1052	\$0.0530	\$0.0558	\$0.0527	\$0.0722	\$0.0617	\$0.0928

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

NYISO - ZJ (NYC)



PJM - PSEG (NJ)



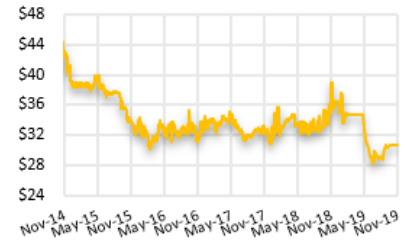
ERCOT - North (TX)

NE-ISO - MASS HUB
(Northeast)

PJM - COMED (IL)



PJM - ATSI (OH & PA)



Energy Market News

NYISO expects slightly lower power demand this winter, cites slightly warmer forecast

<https://bit.ly/33jpcWy>

China Oct LNG imports fall 12% on year to 4 mil mt

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

PJM, NYISO and ISO-NE pay \$1.4B annually for excess capacity: Report

<https://bit.ly/2OnN9bf>

Baker Hughes North American rig count

<http://bit.ly/1elov2d>

EIA Short Term Energy Outlook

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

Data Highlights

WTI crude oil futures price

↑ \$0.19 from week earlier

11/18/2019: **\$57.05 /bbl**

↑ \$0.59 from year earlier

Natural Gas Inventories

↑ 3 Bcf from week earlier

11/8/2019: **3,732 Bcf**

↑ 485 Bcf from year earlier

Natural gas futures price

↓ \$0.071 from week earlier

11/18/2019: **\$2.556/MMBtu**

↓ \$1.706 from year earlier

Weekly coal production

↑ 0.448 million tons week earlier

11/2019: **13.067 million tons**

↓ 1.396 million tons year earlier

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