ENERGY MARKET

Monthly Update

May 2019

Market Commentary

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

As anticipated, April and May have provided ample opportunities for energy buyers to lock in (or slice off a decent piece of unhedged risk if on a managed product) both natural gas and electricity forward contracts at significant discounts to historical price levels. With the arrival of repeated triple-digit injections into working storage, we saw the 12-mo and 24-mo natural gas strips plummeting to around $2.65/MMBtu for the first time in several years (Spring 2016) in April and May. Coupled with relatively subdued demand resultant of mild weather, natural gas production has continued to chip away at the sizeable deficit since the beginning of the injection season and most of the concerns about where those levels will be next Fall have been put to rest. For those who have not felt so compelled to take advantage of favorable buying conditions driven by what is presently an imbalanced market (+17.5% bcf/d for unadjusted supply/demand), you still have some time. But not much.

While the present supply/demand balance remains bearish, those fundamentals are gradually shifting to more "rightful" positions due to a number of factors. In fact, some of that shift is already underway – as of Monday morning, natural gas futures rose to a five-week high as U.S. gas production hit a six-month low over the weekend (86.2 bcf/d), due to significant declines in both West Virginia (WV) and the offshore Gulf areas. While some of this drop in production is related to pipeline issues in WV, a fair share of it is associated with price producers availability of technology vs. their capex budgets. In a vacuum, this news would arrive with a slightly bullish sentiment, but it arrives on the heels of forecasted increased demand for the next week(s) tied to consumption by the power sector to meet higher cooling needs in much of the country. This effectively diminishes the surplus supply and establishes a much tighter balance heading into June. And, if the tighter balance persists throughout the summer months (and beyond), whether that be weather-driven, production-driven, or a combination of both, the market will likely continue to teeter on the viability and activity of one of our newest demand factors, which has increasingly come under focus, LNG exports.

LNG has finally been fully dragged into the fray that is the U.S.-China trade war. China has recently announced an increased tariff rate of 25% on U.S. LNG imports, up from the original 10% rate. While this represents a substantial increase, many believe it will have little-to-no impact on the short-term and long-term viability of LNG, as we stopped sending much of our LNG to China when the original 10% tariff was imposed. While much of the LNG will find a home elsewhere (and already has in Europe and Southeast Asia), the fact remains that the U.S. is the world's fastest growing exporter of LNG, and China is the world's fastest growing importer. And that is not changing anytime soon – just last week, FERC authorized additional liquification capacity at the Freepoint export terminal in Texas, a few weeks after fast-tracking two other LNG projects in Louisiana. There are currently 10 other LNG export projects pending at the Commission.

Quick Hits

- Working natural gas in storage as of May 10th totalled 1,653 Bcf, which is 130 Bcf (8.5%) more than last year's level and 286 Bcf (-14.7%) lower than the five-year average of 1,939 Bcf.
- Triple digit injection in jeopardy late May with strong cooling demand expected in the 8-14 day period.
- Natural gas rallied after the Chinese increased tariff levels on US gas exports to the world's most populous nation to 25%. China's imports of liquefied natural gas (LNG) soared 32% in 2018, making China the world's largest importer of LNG.

Bullish Factors

- Warmer, but active/stormy pattern to set up over the Plains/Midwest over next 7 days before potentially turning warm to hot and drier in the 8-14 day.
- FERC tells NYISO and PJM to revamp their wholesale markets to include "fast-start" units, which will increase average LMP prices
- The Federal Energy Regulatory Commission approves a fourth train at the Freeport LNG export terminal in Texas that would add as much as 5.1M mt/year of liquefaction capacity to the facility.
- Freeport says it expects to receive approval from the U.S. Department of Energy for Train 4 to sell liquefied natural gas to non-Free Trade Agreement countries later this quarter.

Bearish Factors

- Thursday's storage report reflected an injection of 106 Bcf, marking the ninth straight week injections have outpaced the five-year average.
- After reaching a low point of 1,107 Bcf in March, we should expect to see between 3,700 and 3,800 Bcf of natural gas in storage at the beginning of the next withdrawal season.
- Nuclear outages have remained below the norm (some 11 GW of nuclear power were offline this week - as much as 28% below the historical mean).
- Natural gas inventories deviation from 5-year average is currently projected to narrow from -286 bcf (or -14.75%) today to -246 bcf (or -11.05%) for the week ending May 31.

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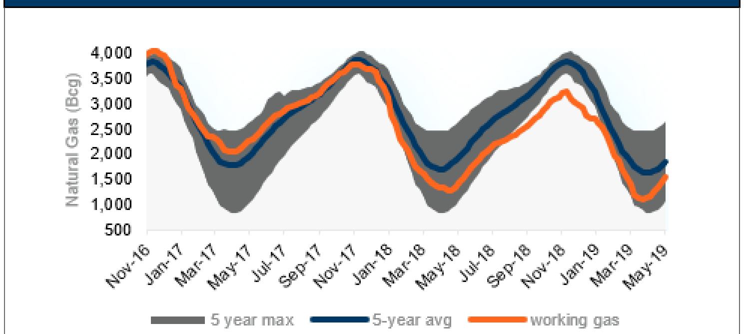
Natural Gas

CURRENT/HISTORICAL STORAGE (Bcf)						
Region	5/3/2019	4/26/2019	% Chg.		Year Ago	5-Yr Avg.
East	299	279	7.17%	▼	243	317
West	549	517	6.19%	▼	527	719
Producing	699	666	4.95%	▼	662	814
TOTAL	1547	1462	5.81%	▼	1432	1850

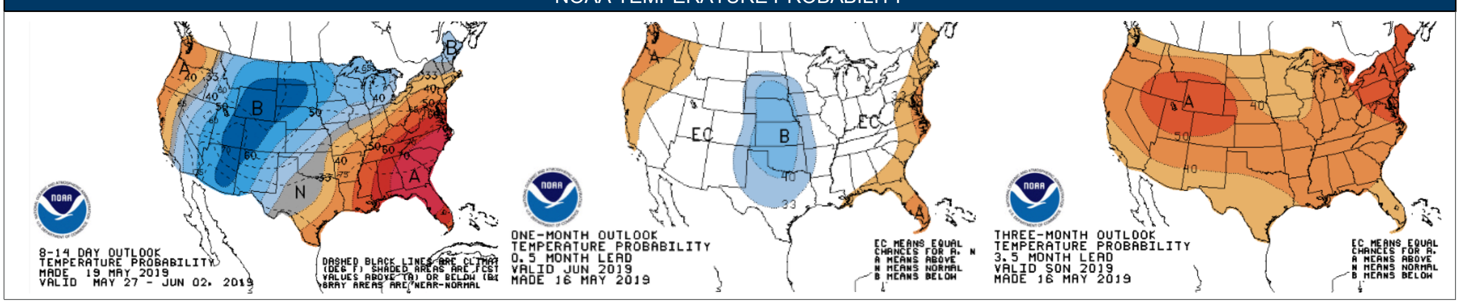
HENRY HUB PROMPT MONTH NAT GAS SETTLEMENTS							
Trade Date	Open	High	Low	Settle		% Chg.	Est. Vol
5/7/2019	2.515	2.556	2.514	2.537	▲	0.87%	127,813
5/8/2019	2.542	2.615	2.536	2.646	▲	4.09%	181,096
5/9/2019	2.604	2.607	2.561	2.595	▼	-0.35%	132,778
5/10/2019	2.59	2.647	2.574	2.619	▲	1.12%	141,275

WORKING GAS IN UNDERGROUND STORAGE



ROLLING 12/24 MOS. NYMEX FORWARD STRIPS ($/DTH)

NOAA TEMPERATURE PROBABILITY

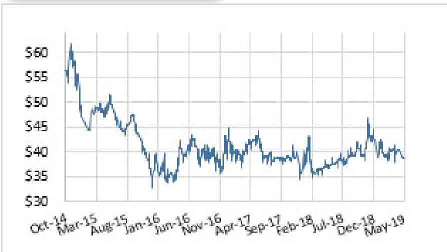


Weekly Average Retail Electricity Price Trends (Jul Start)

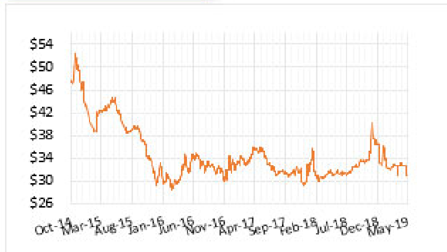
Week Ending	New Jersey	New York	Massachusetts	Ohio	Illinois	Texas	DC	Pennsylvania	Connecticut
5/3/2019	$0.1008	$0.0891	$0.1180	$0.0605	$0.0600	$0.0571	$0.0751	$0.0706	$0.1029
5/10/2019	$0.0989	$0.0877	$0.1168	$0.0590	$0.0586	$0.0541	$0.0825	$0.0689	$0.1022
5/17/2019	$0.0998	$0.0892	$0.1172	$0.0597	$0.0593	$0.0536	$0.0815	$0.0698	$0.1026

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

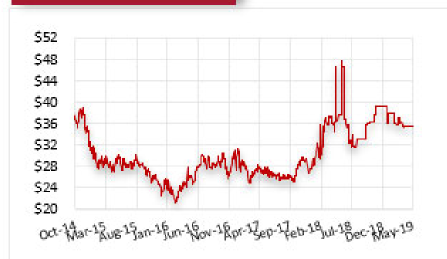
NYISO - Zone J



PJM - PSEG

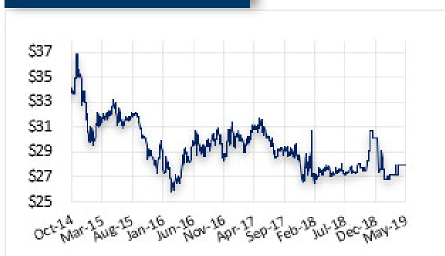


ERCOT - TX NORTH



NE-ISO - MASS HUB

PJM - COMED



PJM - ATSI

Energy Market News

New York to phase out coal by 2020 through strict emissions regulations
https://bit.ly/2EkqGXi

Nuclear Subsidies Still on the Table in Pennsylvania
https://bit.ly/2El8op0

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	05/17/2019: **$62.72 /bbl**
↑ $1.10 from week earlier	↓ $8.73 from year earlier
Natural Gas Inventories	05/08/2019: **1,547 Bcf**
↑ 85 Bcf from week earlier	↑ 115 Bcf from year earlier
Natural gas futures price	05/17/2019: **$2.631/MMBtu**
↑ $0.012 from week earlier	↓ $0.228 from year earlier
Weekly coal production	05/11/2019: **13.688 million tons**
↓ 0.649 million tons week earlier	↓ 0.319 million tons year earlier

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