Natural Gas New Demand Season

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Dan Grunwald
Associate, Power and Gas
+1 312 244-7135
daniel.grunwald@morningstar.com

Data Sources Used in This Publication
EIA
CME

To discover more about the data sources used, click here.

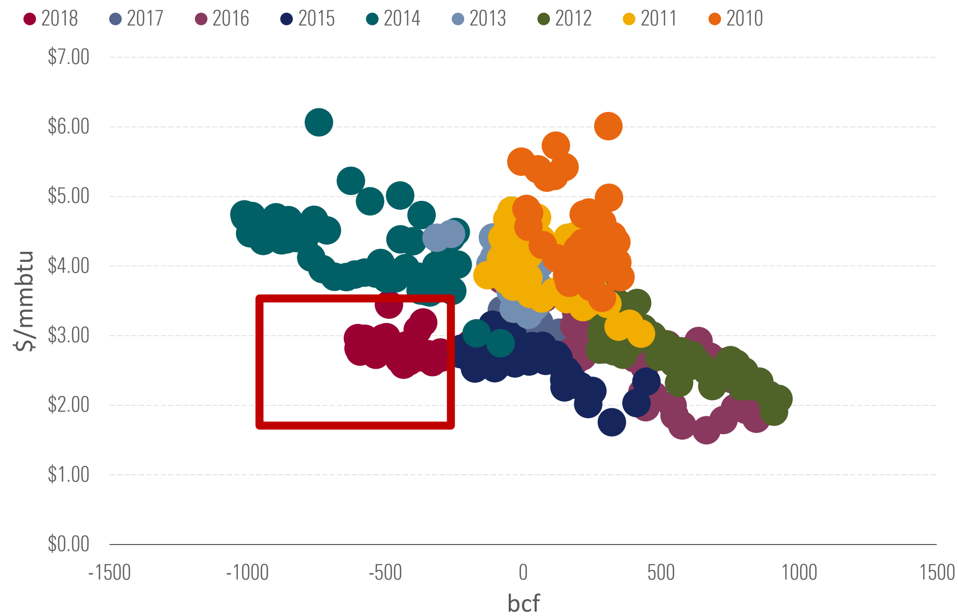
Small Breakout

The winter natural gas strip broke above $3 per million British thermal units last week and the near-dated October contract followed suit this week. While this year has so far seen near-month contracts struggle to break above the $3 ceiling, historically low storage levels are finally taking their toll as we get closer to winter. This phenomenon is likely to be short-lived since there has been some willingness to postpone injections until now given a low summer/winter spread and higher summer demand. As a result, we should see prices drop off again this fall until winter demand shows up. This note looks at changing seasonal demand patterns in the gas market that have implications for storage injection patterns.

Natural Gas Reserves

The low-price ceiling in place so far this year is an outlier historically, as seen in Exhibit 1. Lower-than-average storage levels have been around all year following sizable winter demand draws and higher than normal summer demand. Yet prices at Henry Hub have not followed the historical correlation and remained range-bound below $3/mmBtu for most of the year due to excess production capacity supply expectations in the Marcellus and other shale plays. In this way the market exhibits growing similarities to crude oil where surging supply has kept the lid on prices. We need only follow the reserve numbers, both proven and unproven, to see that future production capacity is causing forward curve backwardation. However, while the annual strips have shifted into backwardation that has clouded some new seasonal trends we'll turn to next.

Exhibit 1 Working Gas in Storage Relative to Average vs Near Month Futures Prices

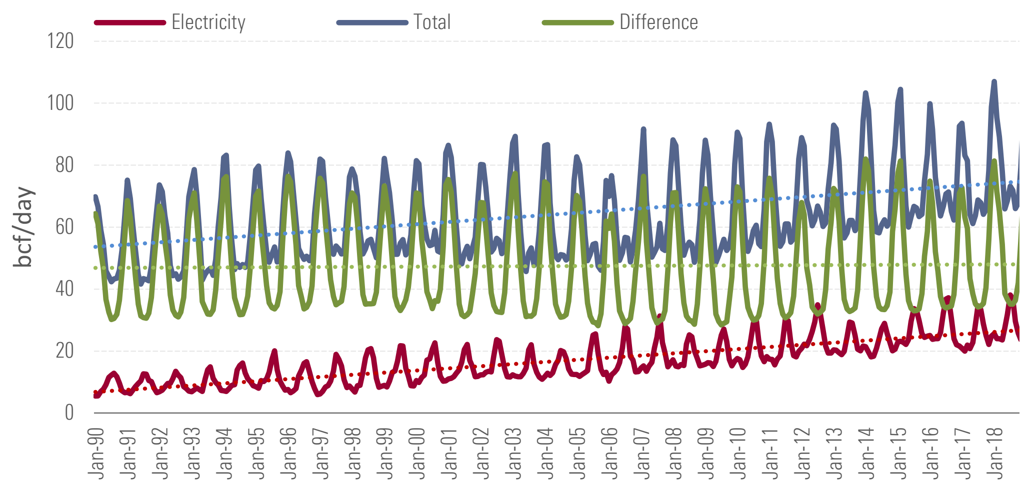


Source: EIA, CME, Morningstar

Power Demand Growth

One overall source of natural gas demand growth in the last couple of decades come from power consumption, as seen in Exhibit 2. Yet while power demand has expanded, the rest of the market has flatlined over the same period. As power consumption has grown to become a bigger slice of the daily natural gas demand picture, summer is showing greater excitement for the market. So, although traditionally natural gas traders viewed winter as the exciting season, with added heating demand, now power demand is having a similar effect in the summer cooling season. And that summer power footprint is growing. The current summer is on pace to set a new natural gas power demand record. The average of the previous five years was 27 billion cubic feet per day with the maximum just over 30 bcf/d. This summer we are on pace to beat 30.5 bcf/d.

Exhibit 2 Total Natural Gas Demand Relative to Power

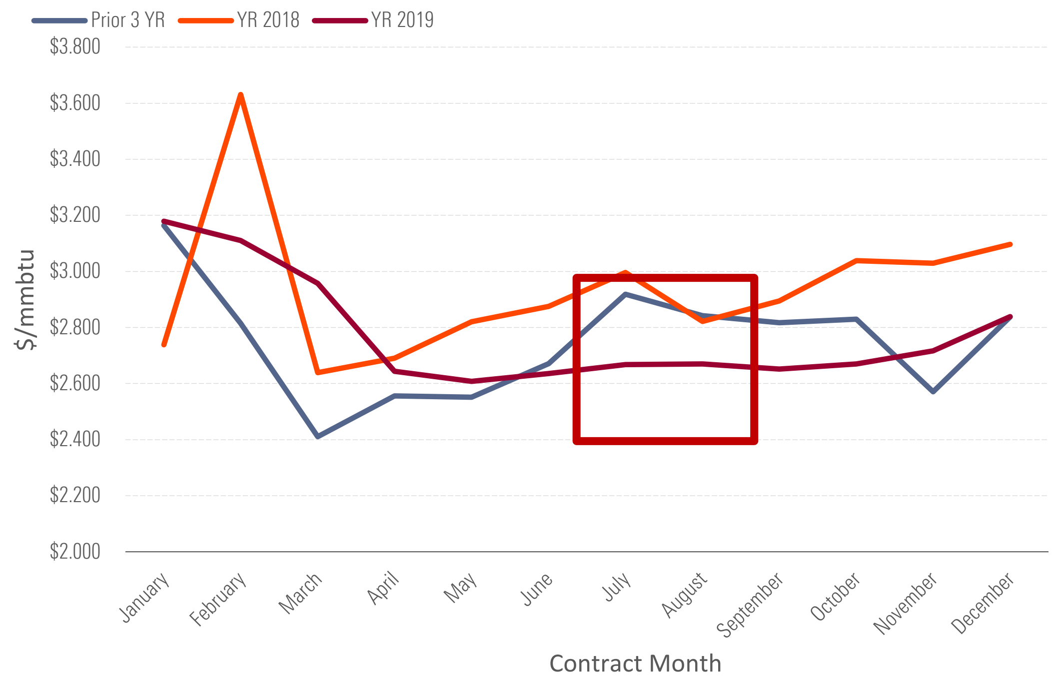


Source: EIA, Morningstar

New Demand Season

With natural gas power generation still growing and contributing to an ever-expanding demand footprint, we see historical summer prices following the new trend. As seen in Exhibit 3, average settlement prices over the last three years and this year to date show increasing summer prices as natural gas is called on in high cooling demand months. The only year in recent history when weekly storage withdrawals were seen during summer was 2016, but higher demand now raises that possibility in the summer months. So far, the 2019 curve, seen in Exhibit 3, shows a normal pattern of high winter pricing followed by a low spring but is missing the rising summer and fall price although less pronounced than 2018. If the trend of two demand seasons in winter and summer continues then the shoulder seasons in the spring and fall will need to become heavier and more concentrated storage injection periods to make up the deficit.

Exhibit 3 Annual Futures Contract Curves



Source: CME, Morningstar

Conclusion

Longer term, we see a clear signal that production is growing and should be able to meet demand. If reserve numbers hold, natural gas production will keep prices low and the forward curve backwardated for years out for the time being. Demand though still has plenty to say in near- and short-term price volatility. While spring saw some sizable storage builds, the summer season so far has been averaging even with the sizable power draw. Winter demand is not going anywhere but summer demand looks to be a growing trend that leaves the opportunity to build storage mainly on spring and fall shoulder months as the mainstay of summer sees stronger demand and a flatter summer and winter spread.

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For More Information

+1 800 546-9646 North America
+44 20 3194 1455 Europe
commoditydata-sales@morningstar.com

MORNINGSTAR®

22 West Washington Street
Chicago, IL 60602 USA