MORNINGSTAR®

Natural Gas Price Movement Hidden in the Basis

U.S. Power and Gas Weekly

Morningstar Commodities Research
29 August 2018

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

Data Sources Used in This Publication
ICE
EIA

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

Forward and Basis Action Provide the Summer Excitement

On the surface—by measure of daily benchmark prices at the Henry Hub in Louisiana—the summer gas market has been flat even as a new production and storage paradigm has come to fruition. All the excitement has been hidden in the Henry forward curve and in basis prices at key supply and demand market hubs. This note reviews the summer's gas market action as well as expectations for a price collapse in the fall.

Flat Henry Hub

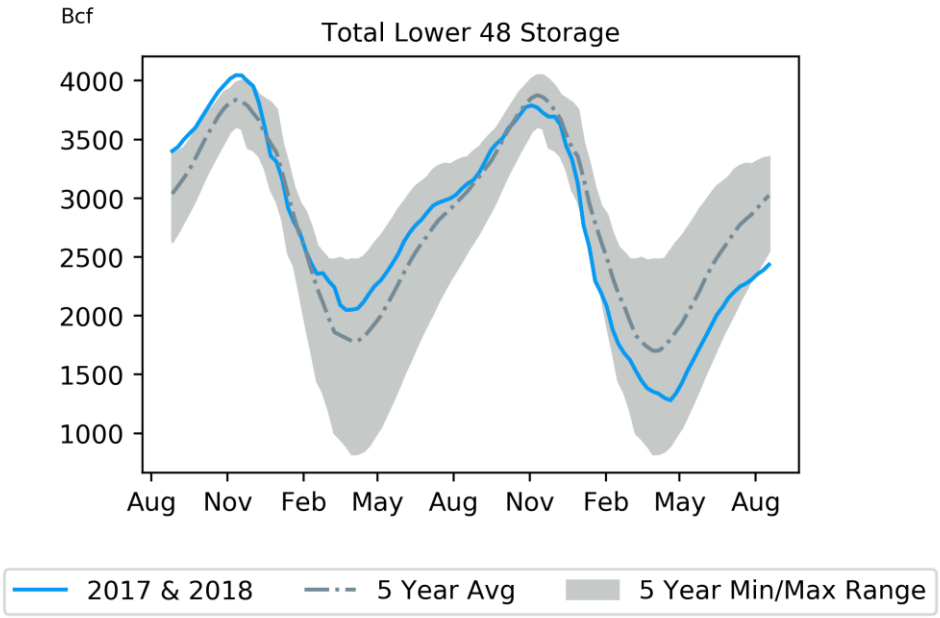
The 2018-19 Henry Hub winter strip has been relatively flat all summer, trading between $2.95/MMBtu and $3.05/MMBtu (Exhibit 1). Prices only breached $3/MMBtu during this past winter's bomb cyclone and the recent summer power burn. This absence of volatility comes during the advent of a new normal state in the natural gas storage market (see Storage Shortage in the East). April storage levels were 534 Bcf under the five-year average at the start of injection season and now at the end of summer are still 120 Bcf below the five-year minimum and 599 Bcf below the five-year average (Exhibit 2).

Entering injection season with such low storage levels would normally have resulted in higher natural gas prices, but record production levels appear to have changed that expectation. Even now, at the end of summer prices are subdued relative to historical norms and have only seen a slight move up. The culprit is record production levels that have underpinned bearish sentiment since the end of 2017 when prices collapsed under the $3.00/MMBtu mark. However, despite the flat Henry outlook, forward basis and regional hub basis spreads do offer plenty of action.

Exhibit 1 ICE Winter Strip $/MMBtu

Source: ICE

Exhibit 2 EIA Storage Levels



Source: EIA

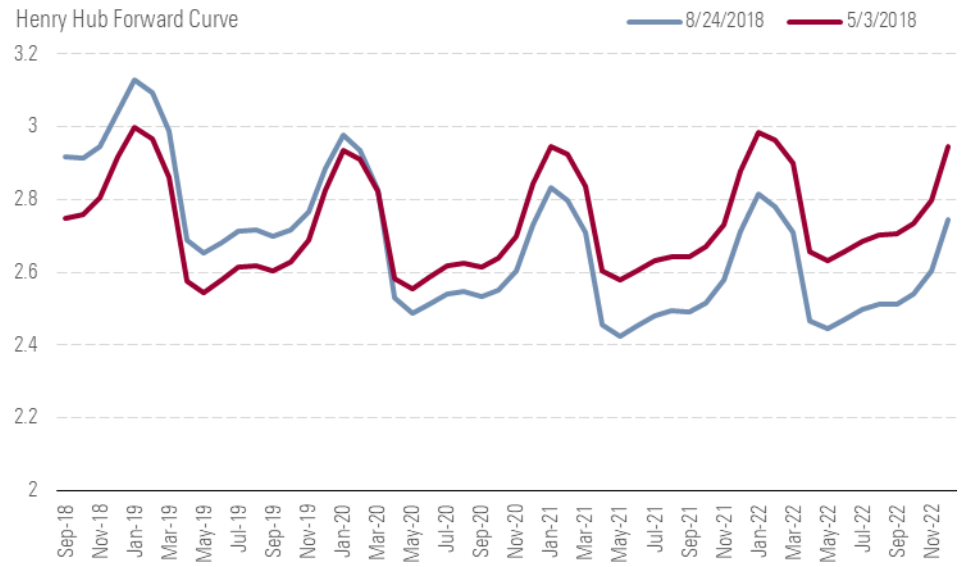
Increasing Henry Backwardation

Backwardation in the Henry Hub forward curve has increased throughout the summer (Exhibit 3). Overlooking the expected seasonal swings, the curve was nearly flat at the beginning of May (red line in Exhibit 3). By Aug. 24 (blue line), near-term prices had risen slightly in the wake of low storage levels,

but production expectations weigh on the forward curve further out. This contest between low storage levels on the one hand and higher production on the other is key to understanding why we see Henry Hub so flat this year. There is no incentive to hold gas for later use without a significant forward spread.

We expect forward prices to remain subdued until the supply/demand ratio widens either way. This is likely to continue until the market reverts to contango, encouraging storage again. With negative time spreads discouraging injections, the storage number is likely to stay suppressed with some withdrawals during higher demand situations as we saw this summer. Continued high production with lower demand in the fall, however, leaves few options but to park the gas. At current production levels that leaves a distinct possibility of record injections when demand does fall off in the shoulder months.

Exhibit 3 ICE Henry Hub Forward Curve $/MMBtu



Source: ICE

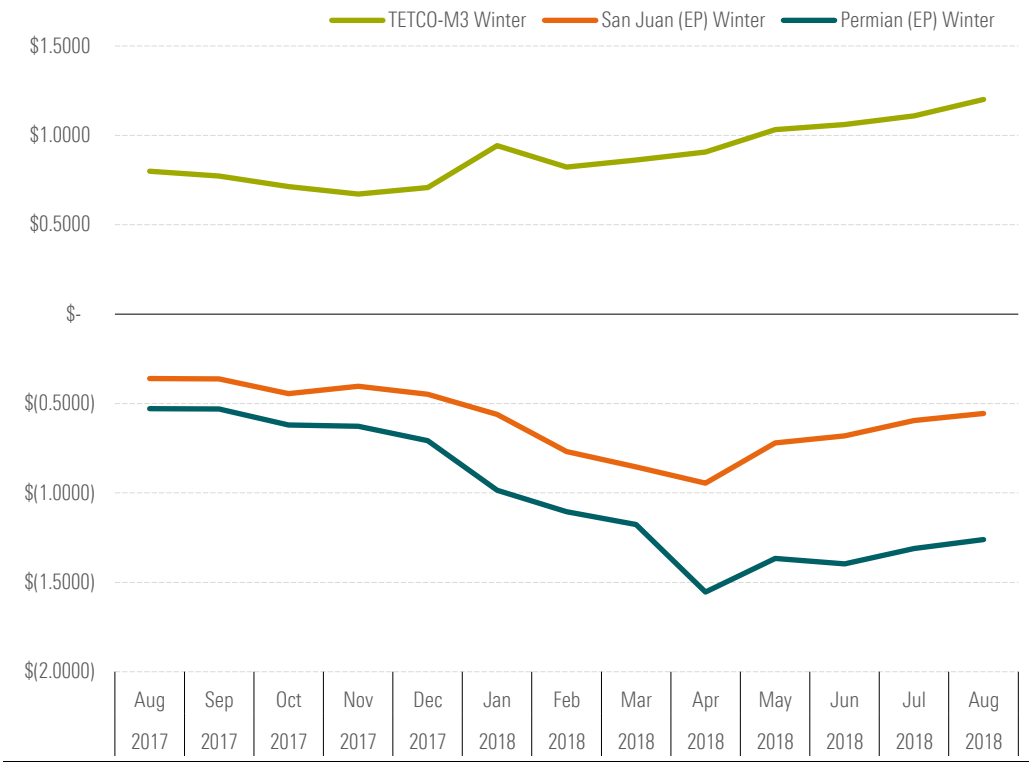
Supply Basin Discounts

While Nymex Henry Hub winter strip has remained relatively flat, during the past year, basis hubs near the high growth Permian and Marcellus supply basins have seen greater movement (Exhibit 4). A trend emerges with exacerbated movements showing steeper discounts growing in the early portion of 2018 as production expanded.

Summer has seen price appreciation around the Appalachian area in large part due to the Rover and Leach pipeline builds coming online to bring Marcellus shale to demand centers as well as an expectation that others such as the Atlantic Sunrise looking to come online in the first half of September. Normally northeast basis spreads widen during the summer months in the absence of winter peak demand, encouraging storage builds. With added capacity moving more volume out of the region, and incentives to burn now, we have seen additional transportation rather than added storage this summer. The average trade price from April to August has seen an appreciation of the winter strip of over $0.29/MMBtu for Tetco which beats the $0.05 move at Henry Hub.

The average prices for Permian and San Juan basis prices in the southwest have risen $0.29/MMBtu and $0.38/MMBtu, respectively. Even as both still see a discount to Henry Hub with production out of the basin suppressing prices. However, sizable demand in adjacent regions in the latter portion of summer has seen enough gas demand encouraging more transport out of the region.

Exhibit 4 Winter Strip Basis Supply Hubs ($/MMBtu)

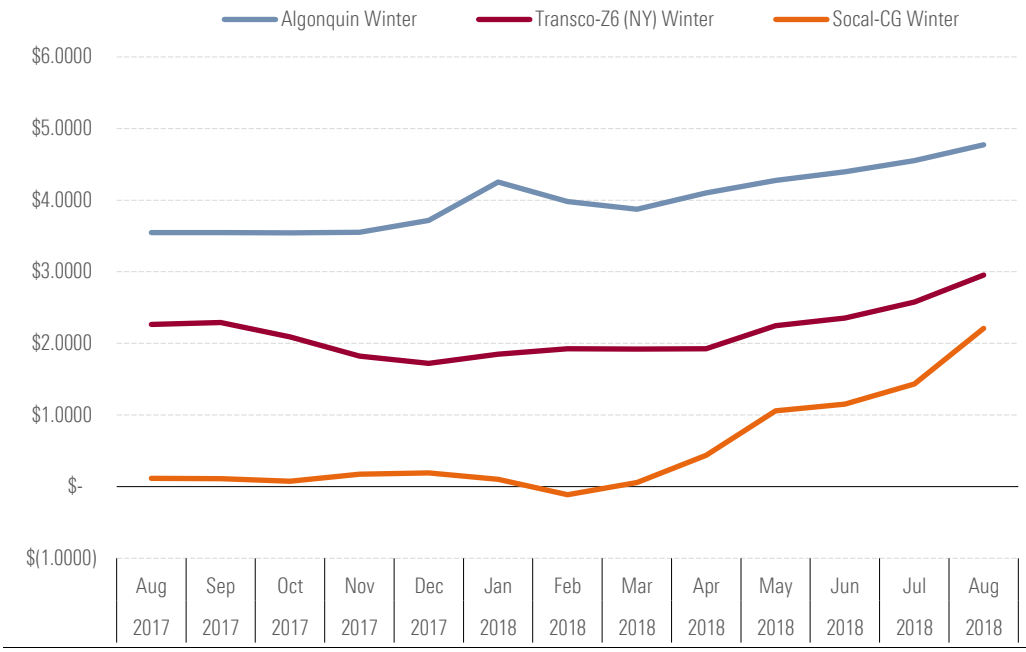


Source: ICE

Demand Hub Premiums

Turning to more isolated demand centers in SOCAL and the northeast, we can really see some basis price movement (Exhibit 5).

Exhibit 5 Winter Strip Basis Demand Hubs ($/MMBtu)

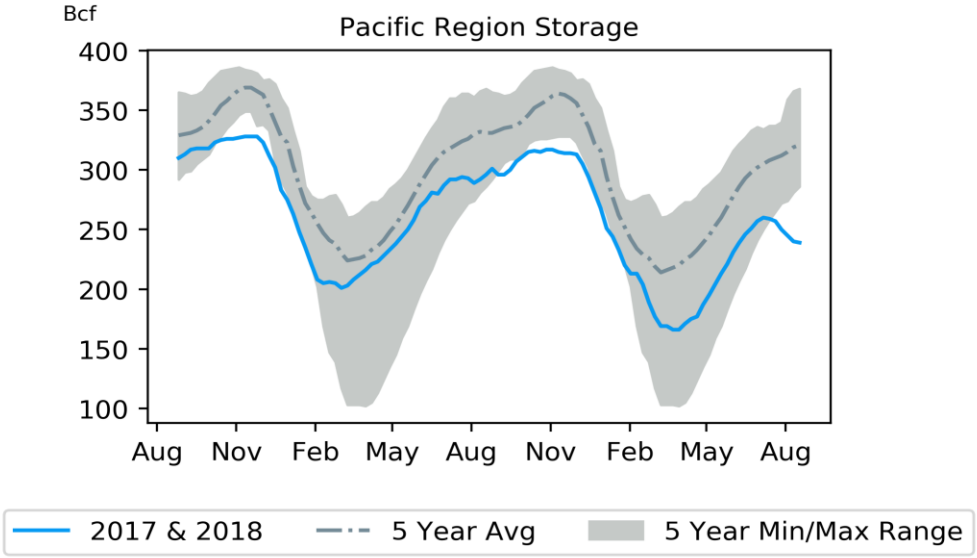


Source: ICE

SOCAL

One demand hub of particular note is SOCAL basis, which has been on a tear all summer. As shown in Exhibit 6, storage is well below the five-year minimum. Coming off the heels of issues in 2017 with Alyiso Canyon the region has been short of gas for some time. Excessive summer heat saw considerable power burn to meet cooling demand, leaving storage well below the five-year range this month. As a result, SOCAL winter strip basis has risen by an average of more than $1.75/MMBtu since April. Southern region storage levels tend to flatline and even draw on storage during heavy demand summer months. Luckily, this is followed by a longer injection season with mild fall temperatures where they can rebuild storage. This summer's draw in SOCAL is beyond the norm but not yet dangerous by any means.

Exhibit 6 Pacific Region Storage Picture

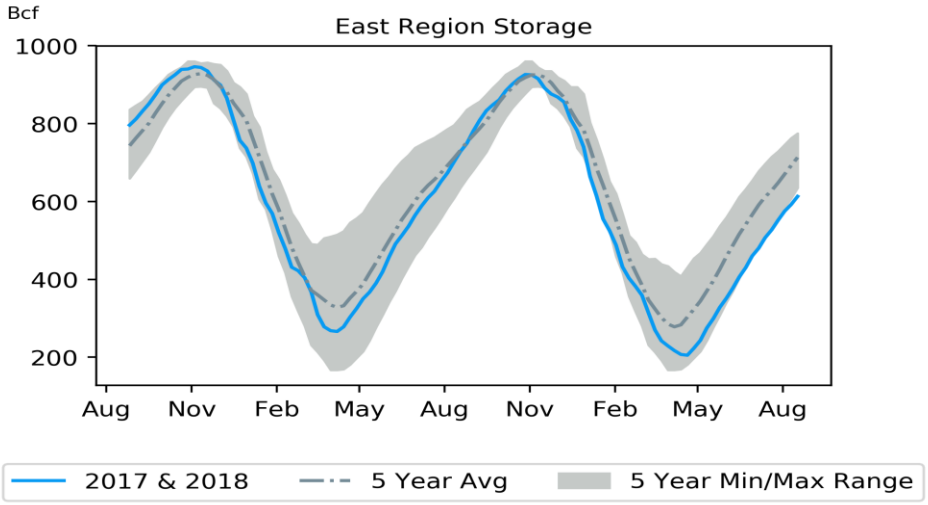


Source: EIA

Northeast Demand

The Northeast has seen its share of upward movement this summer, as well. Transco Z6 NY and Algonquin basis have enjoyed price increases of $1.03/MMBtu and $0.67/MMBtu, respectively, since April. Unlike the southern portion of the lower 48, the east region does not enjoy the luxury of longer injection seasons that regions further south receive. With colder winter temperatures driving in earlier they need to replenish storage levels earlier. The northeast storage picture is currently looking healthy compared with the other five lower 48 regions. Even so, it is still tracking below the five-year minimum, and the deficit has pushed up basis prices in New England.

Exhibit 7 East Region Storage Picture

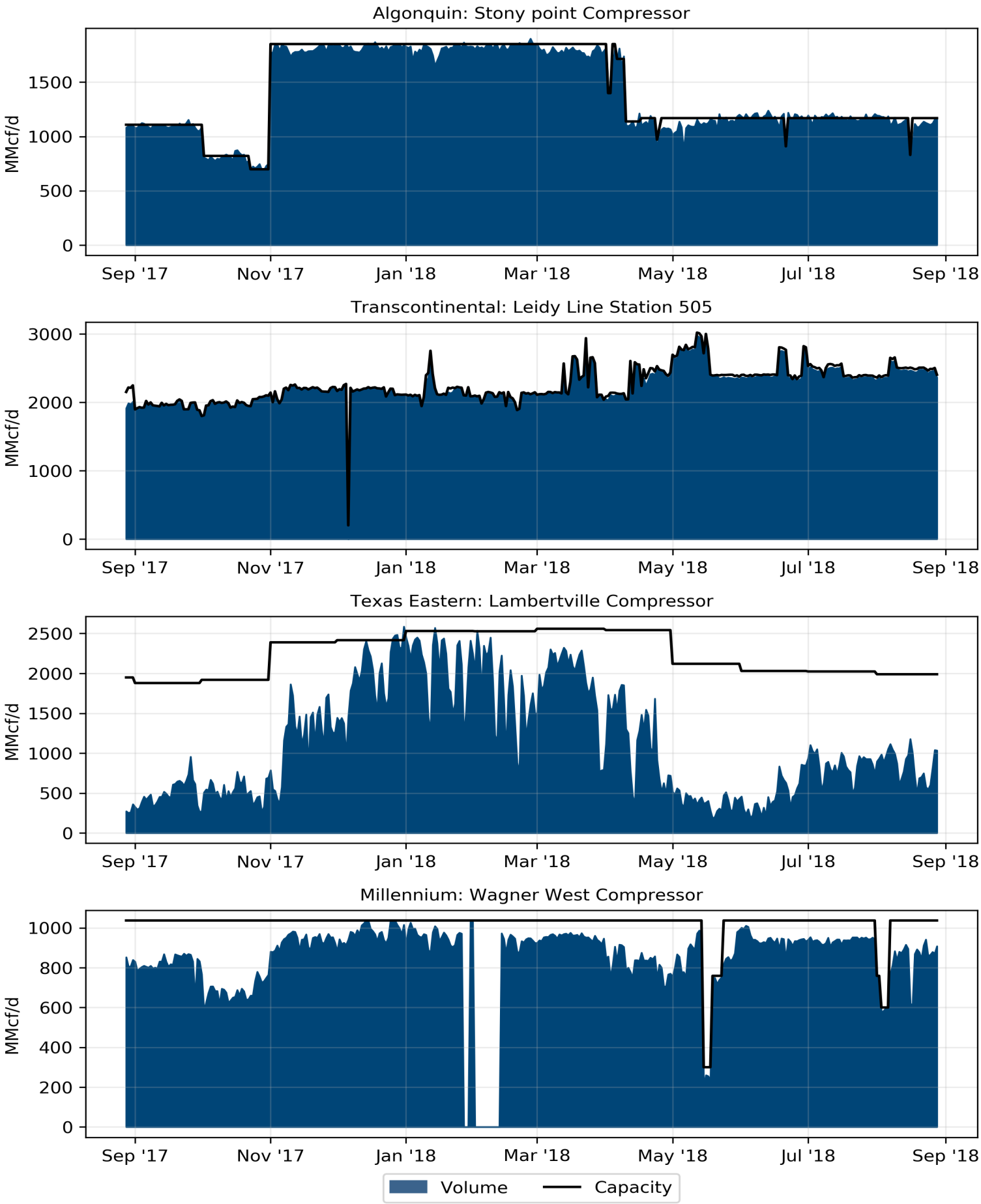


Source: EIA

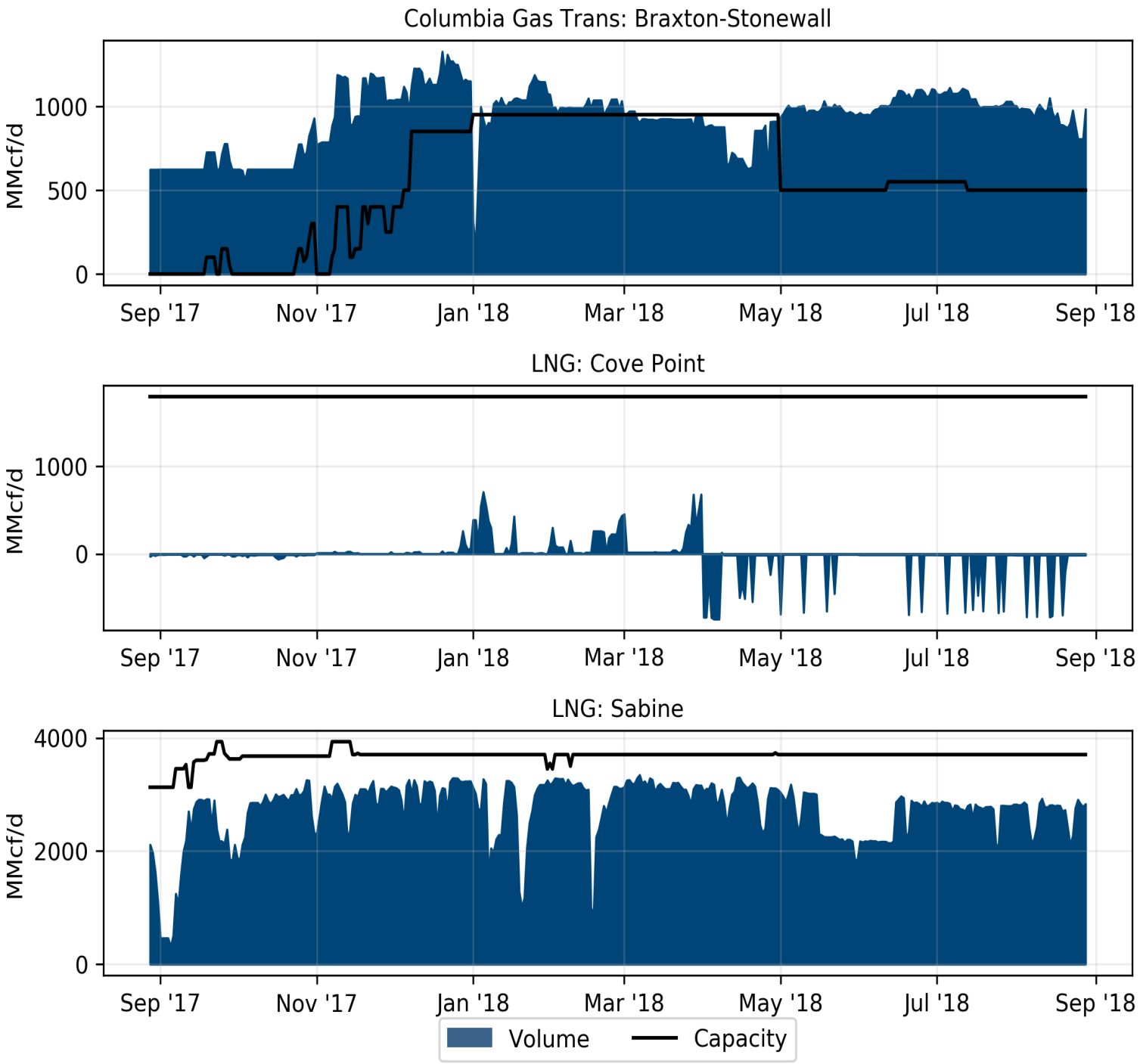
Conclusion

Henry Hub trading this summer seems pretty flat by historical standards, leaving some scratching their heads as to why the usual fundamental price drivers like storage are not moving the ticker. The truth is, while near-term Nymex Henry Hub trading has remained flat, we have seen an orchestra of price movement on the forward curve and in regional basis markets. Current and expected production levels are continually pushing down the longer dated portion of the forward curve and creating a further and further backwardated market. With increased transport capacity and an added bump from summer power demand, we have seen an appreciation of supply basin basis prices relative to Nymex. This in turn has collapsed storage spreads to an unfavorable level. Additionally, a number of demand regions have seen a substantial rise in basis over the summer. These increased basis price differentials have increased the capability to bear higher transport costs and use gas now rather than park it in storage. Over the next couple of months, we expect to see the front end of the curve collapse as demand drops off and higher production levels flood the market with cheap gas that has nowhere to go but storage.

Natural Gas Important Points



Source: Pointlogic Energy



Source: Pointlogic Energy

About Morningstar® Commodities Research

Morningstar Commodities Research provides independent, fundamental research differentiated by a consistent focus on the competitive dynamics in worldwide commodities markets. This joint effort between Morningstar's Research and Commodities & Energy groups leverages the expertise of Morningstar's 23 energy, utilities, basic materials, and commodities analysts as well as Morningstar's extensive data platform. Morningstar Commodities Research initially will focus on North American power and natural gas markets with plans to expand coverage of other markets worldwide.

Morningstar, Inc. is a leading provider of independent investment research in North America, Europe, Australia, and Asia. The company offers an extensive line of products and services for individuals, financial advisors, and institutions. Morningstar's Commodities & Energy group provides superior quality market data and analytical products for energy data management systems, financial and agricultural data management, historical analysis, trading, risk management, and forecasting.

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