ERCOT and the End of Summer
U.S. Power and Gas Weekly

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Data Sources Used in This Publication
ERCOT
NOAA
ICE

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

The ERCOT Rollercoaster

ERCOT has had its ups and downs this year with large swings in summer prices. This roller coaster peaked with speculation in May, took a steep dive in June, came roaring back in July, and has fallen a long way down in the middle of August. Here at the mid-August point, we can start to look back on summer to see what has caused this volatility and review what is in store for the remaining few weeks of summer. Does ERCOT have a finale, or have we seen the last of the fireworks? Texas temperatures are still relatively hot and winds are experiencing the August lulls, yet suppressed prices seem to indicate that is all she wrote. With short-term weather outlooks moving to the cooler side, the worst of summer demand may be over, but there's still time for one more heat wave in the Lone Star State.

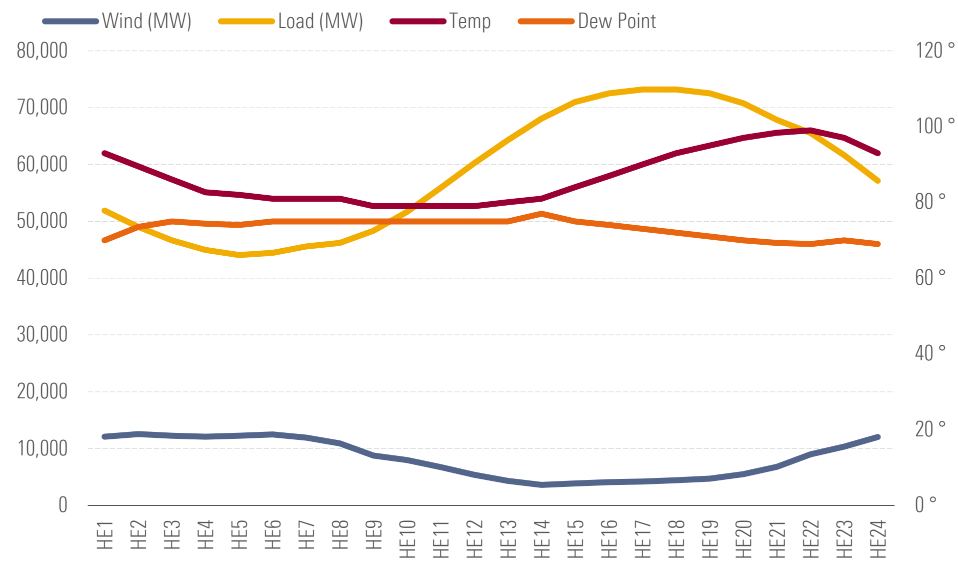
Summer Review

July hourly pricing produced real excitement in the Texas ERCOT ISO with 15 intervals pricing over $1,000/MWh and at least 62 over $100/MWh. On July 19, the ISO hit a new all-time record load at 73,259 MW. July 2018 now has 14 of the top 15 hourly demand interval records in ERCOT. The ISO saw peak loads reach over 70 GW/day from July 16 through July 26. Yet this was not enough to top the May highs, which traded up to $252/MWh at North Hub. Those levels would have required the ISO to be even tighter on resource adequacy or a longer July heat wave.

Both the month of June and August so far experienced a considerably lower range in pricing than the July heat wave produced, due to lower maximum temperatures and ample wind compared with July. As we called out in our May note "Excitement in ERCOT," both high temperatures and low wind in unison are needed to produce exciting price prints. If those two factors don't combine, then ERCOT has enough generation, especially wind, to supply even record demand.

The $1,855.57 price tag for the most expensive hour on July 19 was not garnered from demand alone. There was also a pattern of low wind during peak hours that stretched the ISO's supply stack. This combination can be seen in Exhibit 1. Wind generation is at its lowest, under 4,000 MW, while load is peaking. This low wind profile over the peak hours can be seen throughout the heat wave between July 16 and 26.

Exhibit 1 ERCOT July 19 Wind and Load Profile (Houston Temperatures)



Source: ERCOT, NOAA, Morningstar

The Wind Factor

Wind was key to the high July prices. While the daily mismatch between wind and peak load is important, the overall lower wind generation is significant across the month (Exhibit 2). January through June average wind generation was 3.75 GW higher than July—a gap the ISO's generation stack needed to make up with alternative, more expensive resources. August usually is the lowest wind generation month of the year, averaging at most 4.5 GW over the past five years. So far this month, the average wind generation output is 6.1 GW, which is tracking higher than average for the month. It is also higher than July, which helps to explain the suppressed prices. Yet this generation level is still lower than the 8 or 9 GW we typically see in other months. If August wind generation continues at this level, it may buck the trend of being the lowest generation month and keep prices somewhat subdued.

Exhibit 2 ERCOT Monthly Wind Averages (MW)

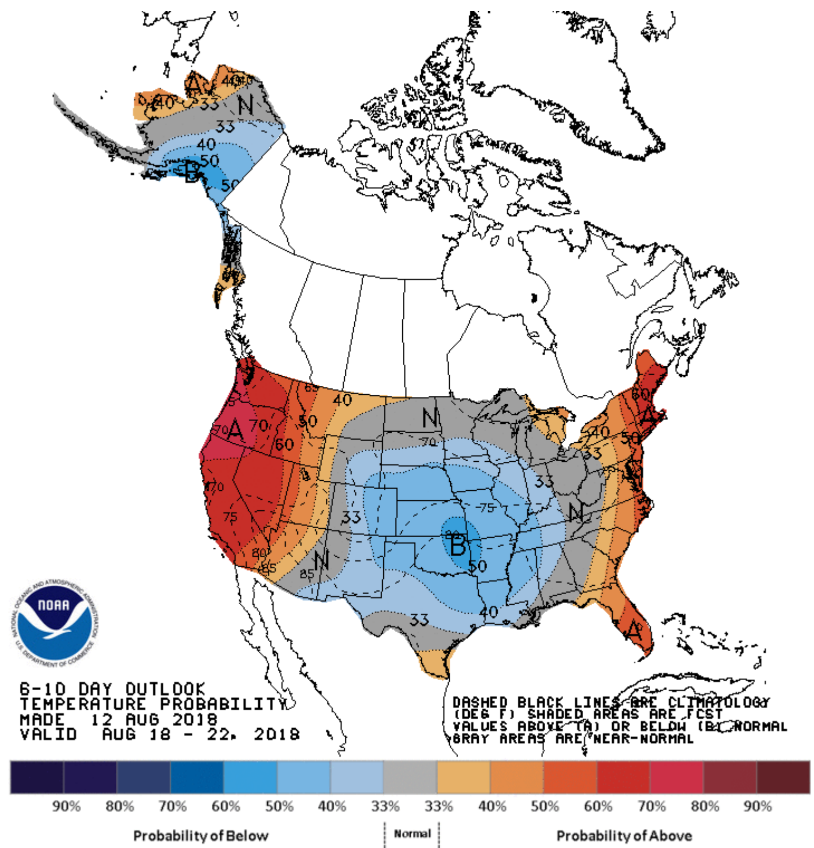
Month	On-peak Average	Off-peak Average	Total Average
Jan	8,841	10,213	9,298
Feb	7,951	8,853	8,252
Mar	8,517	9,837	8,954
Apr	9,073	9,861	9,336
May	8,764	10,987	9,505
Jun	9,085	11,234	9,801
Jul	4,942	7,431	5,771
Aug	6,140	8,562	6,947
Jan -Jun Avg	***8,705***	***10,164***	***9,191***

Source: ERCOT, Morningstar

The Final Stretch

So far, August demand has only reached a peak of 67,205 MW. The sizable cushion between that high and July's all-time peak at 73,259 MW has kept prices soft. This past weekend showed a trend toward cooler weather in the near-term outlook (Exhibit 3) with a good probability of below-average temperatures in the ERCOT region. The cooler outlook should keep August prices in the same range as June. In June, ERCOT's North Hub peak settled at $36.99/MWh on ICE where July saw $112.15/MWh. August's precipitous decline has been from over $100/MWh at the end of July to under $45/MWh on Aug. 10. Summer heat is not yet over in Texas and often continues well into September, bringing with it an upside risk of generators needing maintenance outages after months of grueling summer heat.

Exhibit 3 NOAA 6-10 Day Outlook

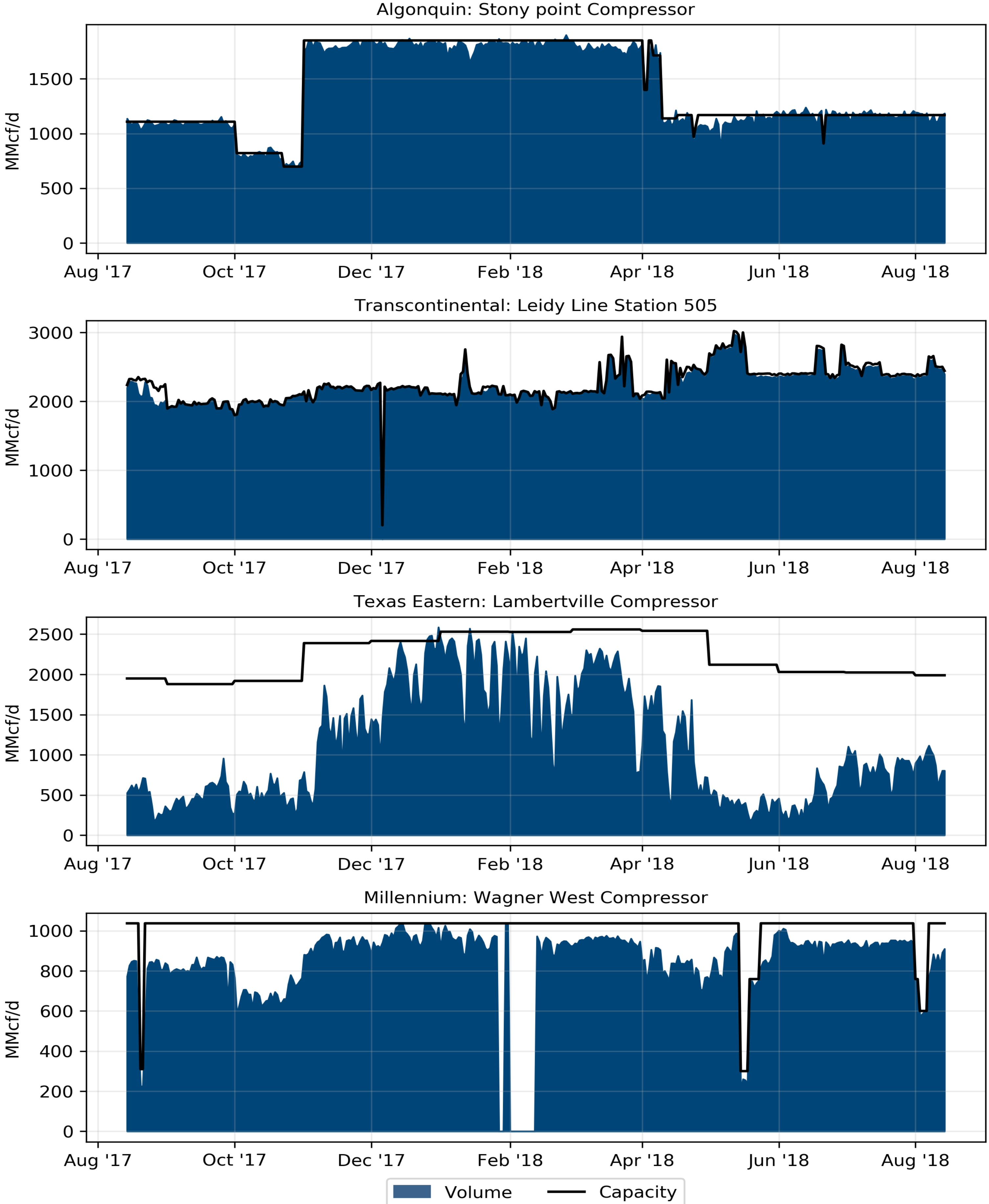


Source: National Oceanic and Atmospheric Administration

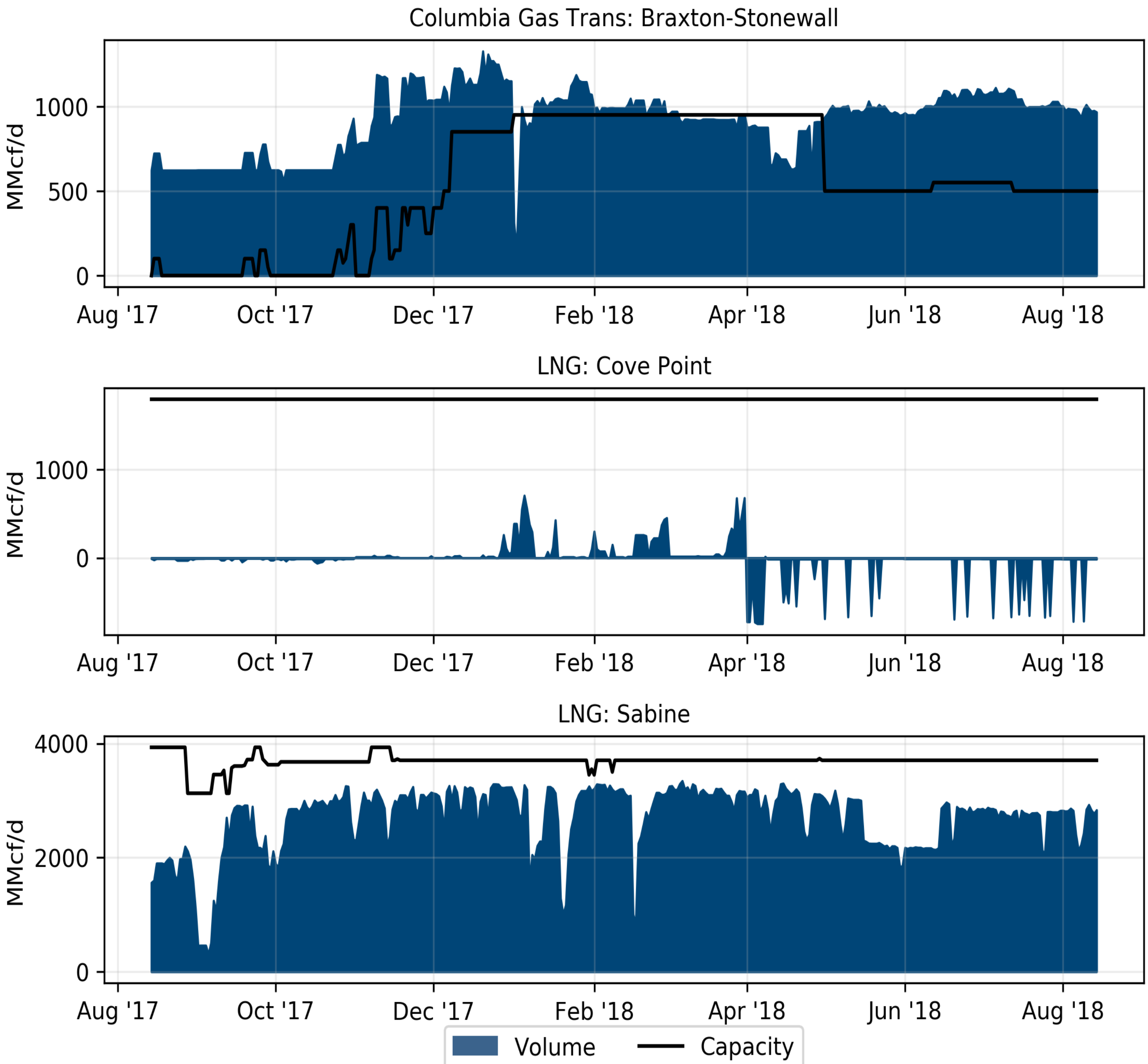
Conclusion

At the moment, the rest of summer in ERCOT looks to be a disappointment. We saw some short-lived excitement in July with new demand records set, but lower temperatures look to be sticking around for the rest of August. This should produce similar pricing to that seen in June, although the low wind impact will keep prices a bit healthier than June and set a floor around $40/MWh. Unless a major heat wave hits or a drop-off in wind generation occurs during the last week of August, we will probably see prices settle around $40/MWh range.

Natural Gas Important Points



Source: Pointlogic Energy



Source: Pointlogic Energy

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