

The Last Winter Month in PJM

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Data Sources Used in This Publication
NOAA
ICE

The Winter Seesaw

So far, the 2018/2019 winter has put the market through an emotional rollercoaster, with forecasts swinging between cold and mild throughout the season. A strong start excited an otherwise flat natural gas market in November, pushing spot month prices close to \$5.00/mmBtu. Prices eventually moved down to \$3/million Btu, or mmBtu, after a generally mild December and first half of January recovering to around \$3.50 by mid-January. But even with a polar vortex at the end of January spot prices have been stuck in a range between \$2.50/mmBtu and \$3.00/mmBtu. This piece looks at how things are shaping up as the Northeast moves into March, the last month of winter.

March Forecast Trends

Much like other months this winter, the 2019 March PJM heating degree forecast has transitioned from mild to more in line with historic norms, and back to mild (Exhibit 1). The March 2019 forecast generated by the National Oceanic and Atmospheric Administration, or NOAA, from October through January showed heating degree days in line with the 30-year average. The February NOAA forecast, however, shows a milder picture. Looking at the major states within the PJM footprint, most forecasts for March are expected to fall short of historic levels, with the six-state forecast averaging 13 fewer heating degree days.

Exhibit 1 Monthly Heating Degree Day Forecast for March (PA, WV, VA, OH, NJ, MD)

Forecast Date	PA	MD	OH	WV	VA	NJ
8/16/2018	797	654	779	690	599	749
9/20/2018	816	663	797	696	603	764
10/18/2018	817	663	800	697	602	763
11/15/2018	817	663	800	698	603	764
12/20/2018	817	662	799	696	599	762
1/17/2019	816	664	803	706	606	760
2/21/2019	804	652	793	689	594	747
Historic Norm	818	666	801	701	607	765

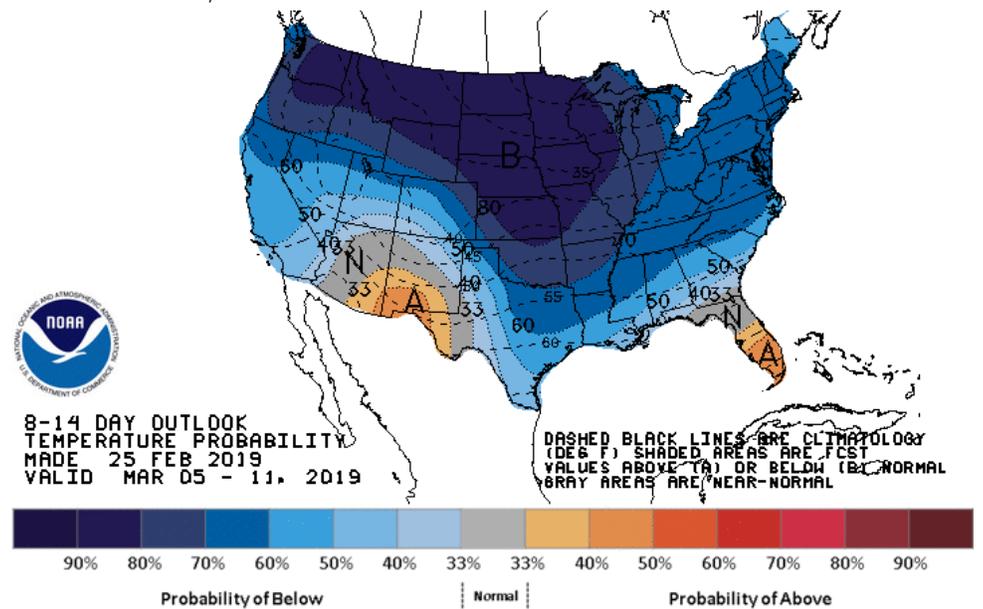
Source: NOAA

Short-Term Forecasts

While monthly forecasts for March did not trend warmer until very recently, the short-term forecasts are telling a mixed story. NOAA's 8-14-day forecast shows temperatures across most of the country trending much colder than normal (Exhibit 2), with the northern part of the country expected to experience the

brunt of the system. The coldest day for the continuous 48-states over the next two weeks is expected to be March 6, with temperatures gradually rising after that point. While the 8-14 day forecast from NOAA shows cold, the three- to four-week forecast shows something a little different. Some cold is expected to hang around for the Midwest, but the eastern and western parts of the country are forecast to see warmer-than-normal temperatures, which may still align with the monthly degree day forecast in aggregate.

Exhibit 2 NOAA 8-14 Day Outlook



Source: NOAA

The daily seven-day heating degree forecast for Pennsylvania has been trending colder over the last few days, which supports the short-term narrative pointing toward colder temperatures (Exhibit 3). Heating degree days for the next few days will likely be higher from the cold, with some small hints of milder temperatures. Despite the colder short-term trend, prices have really moved only a few cents.

Exhibit 3 Daily 7-day Heating Degree Forecast - Pennsylvania

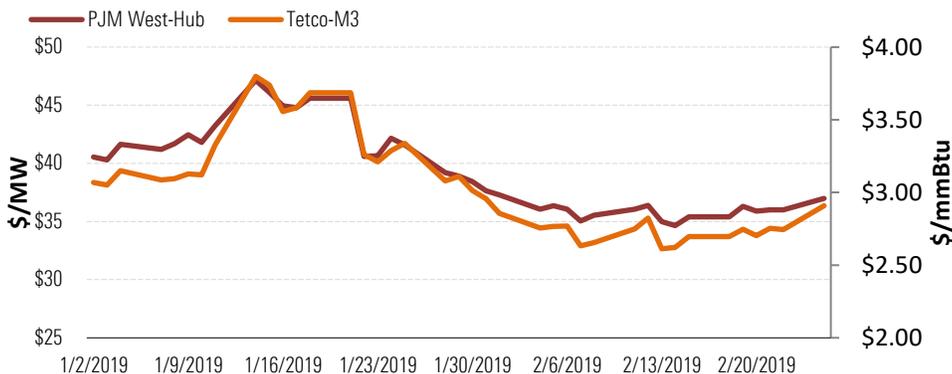
Pennsylvania	2/17/2019	2/18/2019	2/19/2019	2/20/2019	2/21/2019	2/22/2019	2/23/2019	2/24/2019	2/25/2019	2/26/2019
2/17/2019	38									
2/18/2019	31	31								
2/19/2019	38	39	39							
2/20/2019	37	37	37	38						
2/21/2019	28	26	26	26	27					
2/22/2019	31	30	29	30	30	31				
2/23/2019	30	28	28	29	29	30	30			
2/24/2019		25	21	20	18	19	19	20		
2/25/2019			27	28	31	31	33	34	36	
2/26/2019				32	35	35	38	39	40	39
2/27/2019					31	33	36	38	39	38
2/28/2019						35	35	36	33	32
3/1/2019							33	34	31	31
3/2/2019								29	25	26
3/3/2019									38	40
3/4/2019										44

Source: NOAA

March Futures

Although it appears March will start on the colder side this year, March futures have stayed relatively flat since the end of January (Exhibit 4). The absolute price for the March 2019 contract at Tetco-M3 and for PJM West-Hub Day-Ahead Peak power settled at \$2.91/mmBtu and \$37/megawatt, or MW, respectively, on Feb. 25. Even with the colder temperatures, the market appears to be signaling an end to winter, though it may not feel like it to most Americans.

Exhibit 4 Tetco-M3 and PJM West-Hub Day-Ahead On-Peak Prices (March 2019)



Source: PJM, ICE

Flatter March 2019 price forecasts are likely driven by two main factors. The first is a return to normal fundamentals in natural gas production and storage. Although northeast production was down in January 2019, February production is expected to recover, ending the month about 0.2 billion cubic feet per day, or bcf/d, higher than the previous month. Natural gas storage also returned to its historic range, with eastern working gas stocks sitting at 395 billion cubic feet, or bcf, as of the week ending Feb. 15, which is 48 bcf below the five-year average but 39 bcf higher than the lowest level in the past five years. The second factor is a belief that any additional weather-related demand will be short at the tail end of the season, especially as heating degree days in the regions are forecast to end the month milder than normal.

Conclusion

This winter weather roller coaster ride does not appear to be over, with short-term forecasts still showing some cold, while long-term outlooks appear to show an overall milder March. The futures market for both natural gas and power, however, appear to be unfazed with the inconsistency, as prices have remained somewhat range-bound since the end of January. Despite the risk of some additional weather-driven demand, the overall fundamentals appear to be stable enough to absorb any short-term need. Unlike the weather, which may still surprise us, prices are not pointing to a March surprise. ■■■

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