Analysis : Low gas prices add more fuel for summer power burn records in 2023

By J. Robinson Published on - Mon, 27 Mar 2023 17:38:15 EST

- US retired 11.6 GW of coal capacity in 2022
- NOAA sees hotter-than-normal US summer

US gas -fired power burn could be on track for another record-setting summer this year, propelled in part by low gas prices which are already giving the fuel an edge over **coal** generation this spring.

In 2023, domestic power burn demand has averaged a record-high 30.3 Bcf/d, outpacing the previous first-quarter high of 29.6 Bcf/d, set in 2020, data from S&P Global Commodity Insights shows.

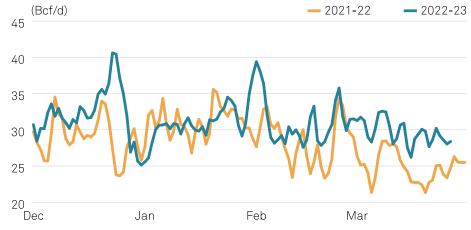
Changes in the US generation stack have been the primary driver behind strong power burn demand this year. In 2022, the US retired an estimated 11.6 GW of coal capacity, with nearly 80% of that total located in PJM Interconnection and the Midcontinent Independent System Operator . Continued coal retirements already gave gas an edge last summer - pushing US power burn demand to record highs, even as benchmark Henry Hub gas prices hit historic highs at nearly \$10.

In 2023, changes to the generation stack in PJM and MISO have already had a big impact.

In PJM, market share for coal is down about 8 percentage points year to date, with the fuel accounting for just 15% of total power generation in Q1. Over the same period, market share for gas is up about 7 percentage points to account for nearly 43% of total power generation in 2023, S&P Global data shows.

A similar trend has been underway in MISO where generation share for coal is down about 8 percentage points to just under 28%, while market share for gas is up roughly 7 percentage points to about 35%.

US gas-fired power burn



Source: S&P Global Commodity Insights

Weather, prices

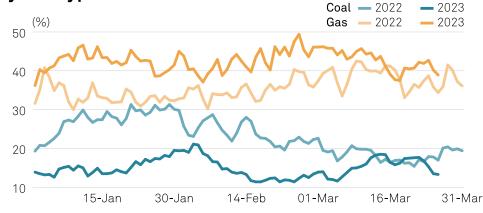
Both nationally and at the system-operator level, weather doesn't appear to explain this year's strong power burn demand. Year-to-date, the US population-weighted temperature has averaged a balmy 46.3 Fahrenheit, or about 3 degrees milder than in Q1 2022. In both the Northeast and the Midwest, population-weighted temperatures are about 5 degrees warmer this year than in first-quarter 2022.

Following the stunningly rapid selloff in gas prices late last year, it already appears that generators have begun dispatching more gas -fired power, especially in MISO . From November through January, market share for coal in MISO averaged just over 32%, compared to about 31% for gas .

By early February, though, just as NYMEX gas futures prices sank below \$3/MMBtu, market share for gas began climbing sharply at the expense of coal . From Feb. 1 to date, generation share for gas in MISO has climbed to an average 36%, while coal 's share has dropped to about 24.5%, S&P Global data shows.

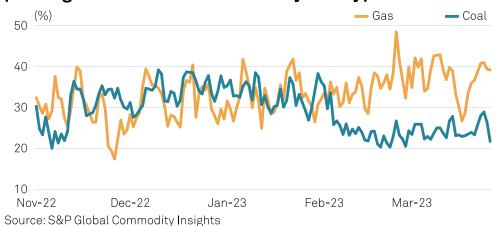
At the US level, a year-on-year comparison for power burn also shows demand outperforming this winter compared to last. Since February, though, the typically large seasonal drop in demand hasn't occurred this year, with lower gas prices in 2023 potentially a key factor behind the continued strength in power burns into early spring.

PJM Interconnection: power generation market-share by fuel type



Source: S&P Global Commodity Insights

Midcontinent Independent System Operator: power generation market-share by fuel type



Summer outlook

Hotter-than-normal weather this summer could multiply the impact of low gas prices, potentially fueling another record-setting season for US gas -fired power burn. According to an updated seasonal outlook published by the National Weather Service, most of the Lower-48 is at risk for above-average temperatures in June, July and August - typically summer's hottest months.

Assuming current forward pricing roughly reflects the outcome for spot prices this summer, Henry Hub gas should remain comfortably below \$3/MMBtu through the summer months - making gas -fired cooling sufficiently cheap to boost power demand above last season's record highs.

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