Are We Running Out of Natural Gas Storage?

By Greer Gosnell

Even though the US burned the most natural gas for electricity in its history this summer, current month-to-month natural gas price spreads suggest we may be running low on natural gas storage.

Data from the Energy Information Administration demonstrates that the average price spread between two consecutive months is approximately eight cents over the last 25 years. According to this week’s EIA data, the price spread between this month and next month is, however, almost five times that mean, ranging in the 95th percentile of the month-to-month spreads we’ve seen during that period.

The data therefore indicate that gas storage capacity in the US is becoming scarce, a situation reminiscent of the events preceding the dramatic dip in oil prices to -$37 in April.

A futures contract is a contract for a commodity, say natural gas or oil, to be delivered a few months down the line at today’s price. Economics suggests that the difference between the price at which one buys a futures contract and the price at which one sells it—that is, the return on the investment—should roughly come out to the cost of storing the commodity for the length of time specified in the contract.

Back in April, investors dumped futures contracts for oil as it became clear that the demand for oil was collapsing, and that the oil set to be delivered in those contracts would therefore need to be stored at a cost. Of course, that cost increases as storage space becomes more limited.

If the winter turns out to be warmer than we had expected and we therefore use less natural gas than is currently forecasted, it is unclear where we are going to store the natural gas that is being produced.
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Greer is a Senior Researcher at the Payne Institute for Public Policy at the Colorado School of Mines. Her research combines experimental and behavioral economics to reveal cost-effective climate change mitigation strategies at the microeconomic level. Her current research focuses on commercial fuel efficiency, residential energy and resource use, virtual grid capacity, and energy and development. She is also a BITSS Catalyst promoting transparency and reproducibility in social science research.
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