



U.S. Energy Information
Administration

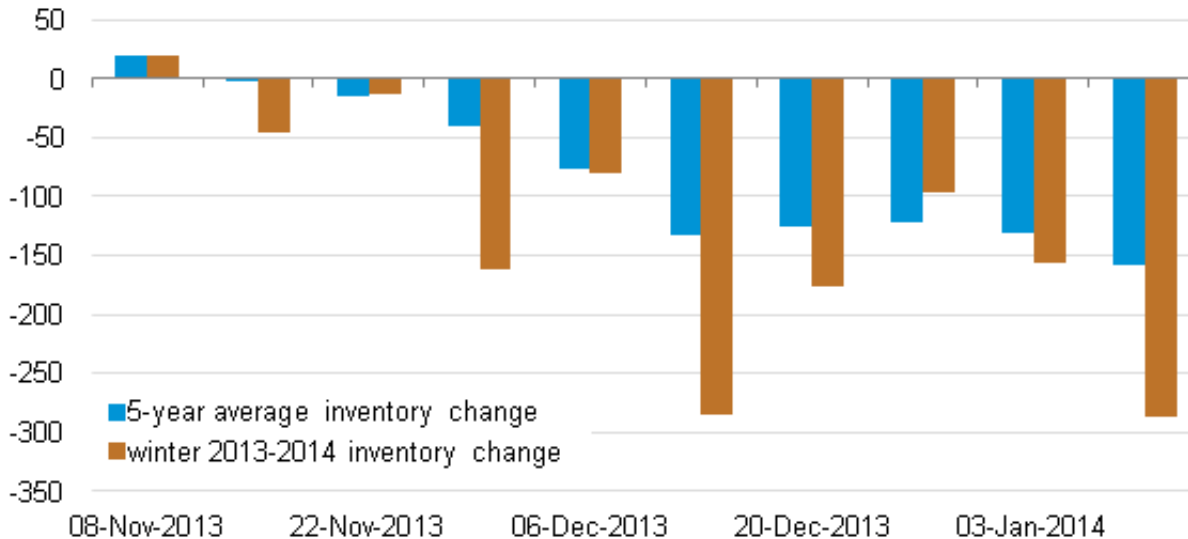
Today in Energy

January 17, 2014

Cold weather led to record-high natural gas storage withdrawals

Winter 2013-14 and 5-year average net storage withdrawals

billion cubic feet



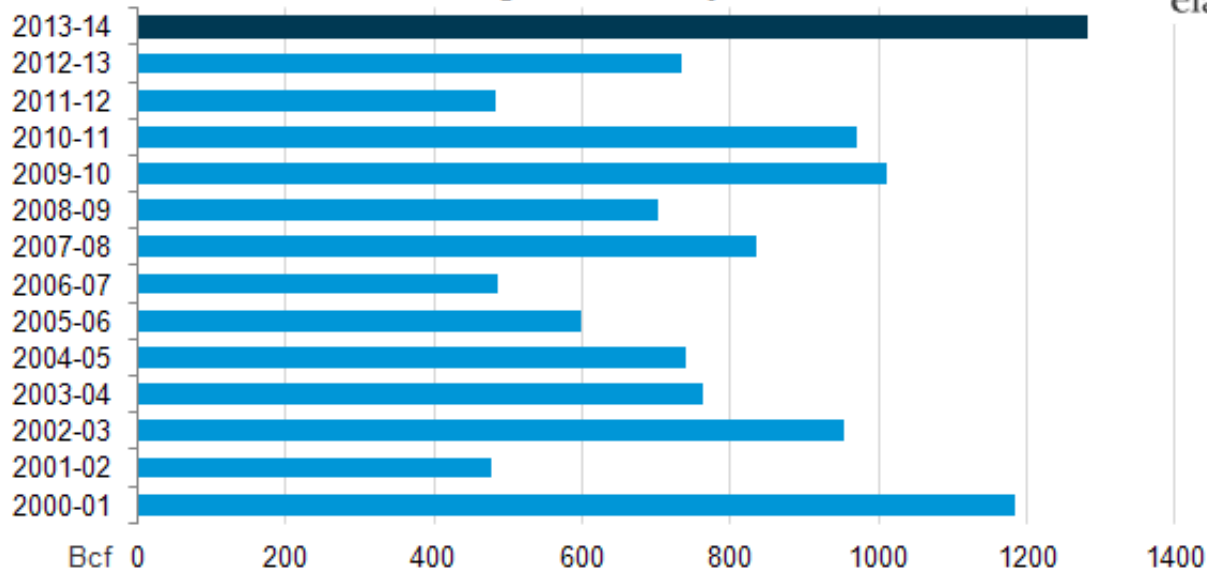
Source: U.S. Energy Information Administration, [Weekly Natural Gas Storage Report](#)

Last week's widespread, record-breaking cold weather had significant effects across virtually all segments of the U.S. natural gas market. The frigid temperatures led to record highs in demand, storage withdrawals, and prices.

The week ending January 10 posted a record-high net withdrawal of 287 billion cubic feet (Bcf) from underground, natural gas storage facilities. The January 10 withdrawal is the largest for the 20 years for which data exist and the latest in a season already characterized by withdrawals much larger than average. This week's storage withdrawal was the second record-breaking weekly stock draw this season; the withdrawal of 285 Bcf for the week ending December 13 exceeded the previous record of 274 Bcf from January 2008. Cumulative net withdrawals, as of January 10, 2014, exceeded the previous record levels posted during the 2000-2001 heating season. Bentek Energy estimated stock draws hit 57.1 Bcf on January 6, and then 67.9 Bcf the following day. The next-highest draw was 52.9 in February 2011.

High storage withdrawals were expected to meet surging demand for heating from the residential, commercial, and electric power sectors, with analyst estimates, as published by Bloomberg, ranging between 278 and 321 Bcf. The cold weather also impacted natural gas production. [Freeze-offs](#) occurred in the parts of the Marcellus Shale in northeastern Pennsylvania and in the Fayetteville Shale in Arkansas, according to Bentek Energy. Dry natural gas production dropped to 61.9 Bcf on January 8, the lowest level since September 2012, and has been gradually increasing since then, reaching nearly 66 Bcf as of January 16.

Net seasonal withdrawals from storage as of January 10



Source: U.S. Energy Information Administration, [Weekly Natural Gas Storage Report](#)

Note: Data above reflect withdrawals between October 31 and January 10. 2008-13 average = 780 Bcf.

In the Northeast, where more than half of homes use natural gas as their primary space-heating fuel, [several pipelines issued critical notices and operational flow orders](#) (OFOs) to prevent system imbalances. Additionally, Texas Eastern Pipeline, a major interstate pipeline supplying the Northeast, issued a force majeure (which frees both parties from upholding contractual obligations in the event of extraordinary circumstances) following unplanned maintenance at a compressor station in Pennsylvania.

Natural gas prices in the Northeast spiked to between \$30 and \$40 higher than the benchmark Henry Hub price. On the Transcontinental Pipeline's Zone 5 line, which serves Mid-Atlantic customers, prices reached \$72.43/MMBtu on Monday. Prices in New York and New England also rose far into the double digits, with Transco's Zone 6 delivery point, serving New York City, at \$56.59/MMBtu, and the Algonquin Citygate, serving Boston, at \$34.14/MMBtu.

The extreme cold temperatures that affected Northeast natural gas markets during the first half of last week arrived earlier in the Midwest, where about 68% of households use natural gas for heating. While it is common for prices to spike in the Northeast during times of high demand, Midwest prices are normally close to Henry Hub prices, as the region does not typically have major supply bottlenecks. Prices at the Chicago Citygate rose to levels almost \$10/MMBtu greater than Henry Hub prices on Friday, January 3, as temperatures in the Midwest dipped to levels that prompted the Chicago Zoo to bring its polar bear indoors. Both ANR Pipeline and NGPL, major interstate pipelines that send natural gas to the Midwest, issued OFOs, and many other pipelines in the region issued critical notices that curtailed normal gas-flow scheduling to maintain balance on their systems.

Principal contributor: Katherine Teller