



# SERCNote #5

## Natural Gas Prices Return Slowly to Normal after the Winter of 2014

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The extreme cold of the winter of 2014 sent natural gas prices in the United States climbing to their highest levels since late 2009. As spring spread across the country, prices declined, though not all the way back to average values for April in 2011, 2012, and 2013. Since elevated prices during the winter were primarily a consequence of seasonal demand, inventories should build over the next six months, thereby allowing prices to return to their seasonal averages by late summer.

Natural Gas Summary

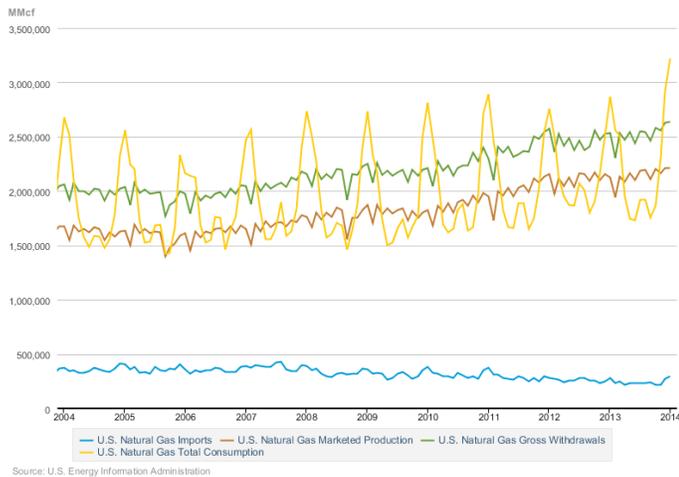


Figure 1

rate than residences. Power generation’s share of natural gas consumption declined through the winter, though in line with normal seasonal patterns.

The yellow line in Figure 1 shows aggregate US consumption through January 2014, including the sharp increase this past winter. Residential and commercial consumption in January 2014 was higher than in any other single month since 1973. In Figure 2, the effects of low temperatures are seen through the level of inventories. As of November 29th, inventories were at the midpoint for the last five years. By late March, storage levels were approximately half of the lowest volume seen in the past five years, which resulted in sharply higher spot prices.

As recently as late November 2013, natural gas working stocks were near their five-year maximum. However, the arrival of the first blast of frigid air over most of North America sent residential and commercial demand sharply higher. As the winter progressed, with repeated bouts of extreme cold, natural gas supplies could not keep up as working inventories fell lower and lower. Residential and commercial demand were the primary drivers for increased usage, as most homes and businesses are on contracts with prices regulated by state agencies. In contrast, industrial plants and power generators make significant purchases on the spot market. Industrial users did increase consumption, likely due to additional heating demands, but at a much slower

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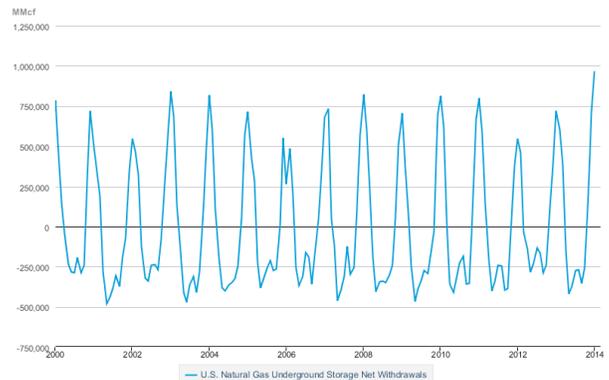


Figure 2

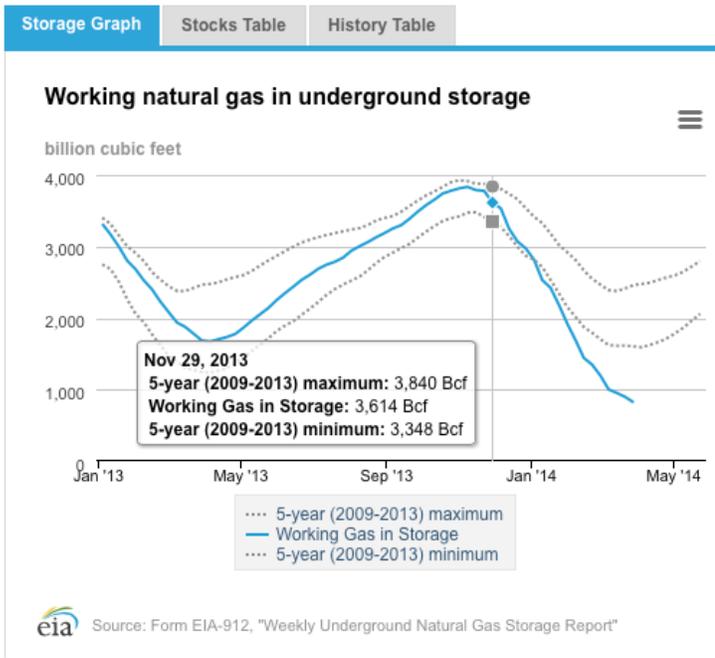


Figure 3

As the brown line in Figure 1 indicates, the recent scarcity of natural gas is entirely a demand-side phenomenon, given that production continues at the highest levels ever recorded in North America. Futures markets reflect confidence in the sustained upward trajectory of output, with the caveat that two full summers of inventory-building may be required for a complete recovery from the winter of 2013-2014. On 1 October 2013, the NYMEX price for natural gas delivered in December 2015 to the Henry Hub in Louisiana was \$4.28 per million British thermal units (mmBTUs). As of 3 March 2014, the price was 4.25/mmBTU. In contrast, the price of natural gas for near-term delivery rose from 3.61/mmBTU to 4.90/mmBTU during that same period. So near-term prices increased rapidly to drive down consumption, but prices quoted for later dates changed little. The stability of the December

2015 contract-price indicates that commodity traders believe that recent developments in the natural gas market are not systemic. However, the temporary shock of cold weather may be great enough that inventories will take two full summers to recover.

The final wildcard in rebuilding inventories will be the weather this coming summer. If temperatures remain mild, peak demand, which will be driven by air conditioning, should be lower than normal, thereby reducing the strain on natural gas inventories and allowing them to build toward normal more quickly. But if this summer is hot, the additional demand that results as air conditioners are run full blast could set the stage for prices during the winter of 2014-2015 that are even higher than what we experienced in recent months.

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