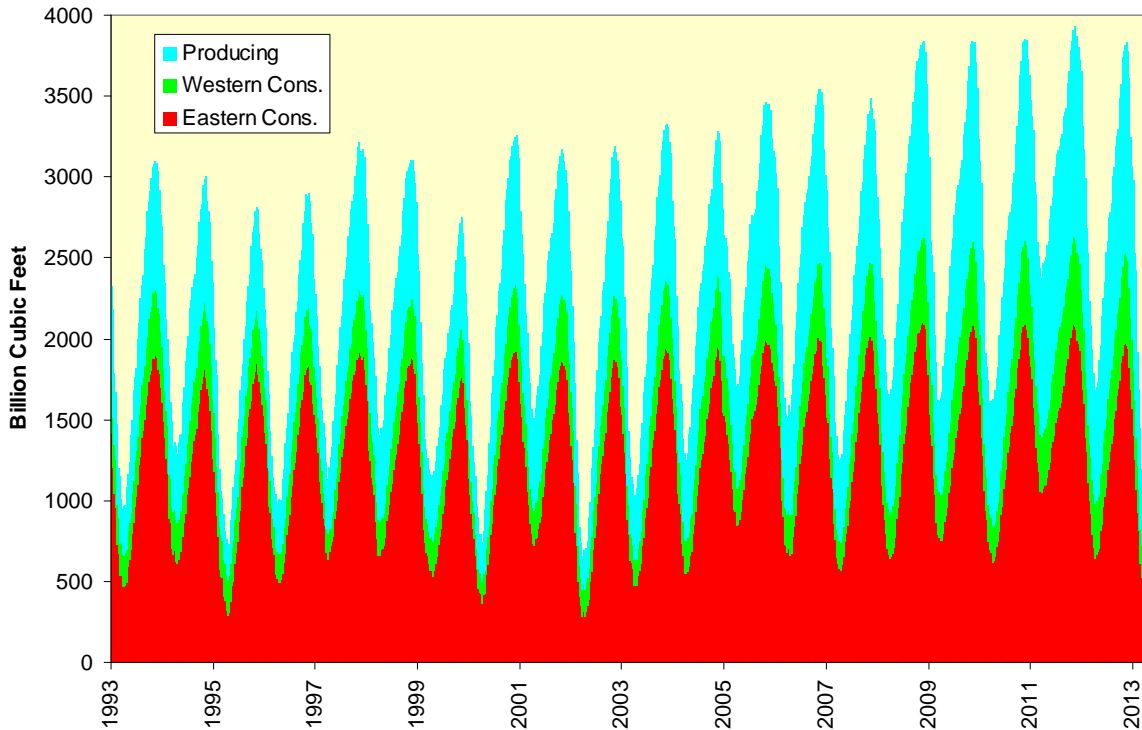


Impending Price Risk For Natural Gas

This past winter will be the gift that keeps on giving, especially when it comes to natural gas. Inventories in what the Department of Energy classifies as the Eastern Consuming region are 52.2% below last year's levels. Declines in the Western Consuming and Producing regions have been substantial as well, 46.7% and 45.0%, respectively.

Working Natural Gas Storage



Now as we all know given the fracking boom, the U.S. is not short on natural gas as a producible resource. The constraints are production rates and pipeline capacity. Gas trapped in shale and sitting hundreds of miles away from its final market and having to compete for limited pipeline capacity may not be available for consumption next winter.

The Forward Curve

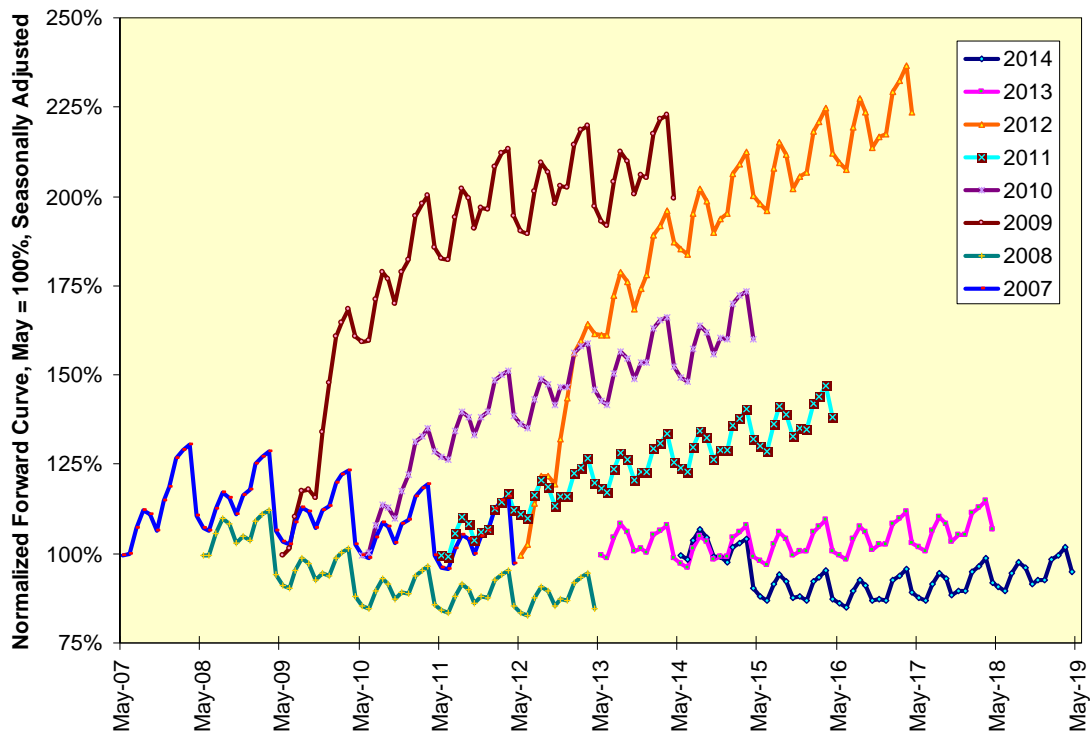
This means large natural gas buyers are going to have to raise their bids for delivery during the summer months to rebuild their depleted supplies with negative consequences for the forward curve. The typical seasonal pattern for natural gas futures at this time of year is for the May-October contracts to be discounted relative to those for November-March. As demand falls seasonally, producers have to compete on the basis of a lower price to move the gas through their system; buyers in turn can buy the gas, put it in storage and sell winter contracts as a hedge.

This is hardly a clockwork trade. Rising use of natural gas a fuel for electric utilities has dampened some of the seasonality of demand, and this increasingly will be the case as everyone who puts solar cells on top of windmills finds they have to have a gas-fired micro-turbine as well for those days when the wind does not blow and the sun does not shine.

If the forward curve is not in its typical summertime carry, gas buyers will have to pay more for pre-winter supplies and will not be able to hedge their costs profitably by selling winter-month futures. As both the supply and demand curves for natural gas are very price-inelastic – a small change in quantity leads to a large change in price – any shortfall by local natural gas utilities in rebuilding inventories can and will lead to substantial price spikes next winter, subject to two weather-related conditions. The first will be this summer's peak-load electrical generating demand and the second will be next winter's heating demand.

We can see the risk already in comparative forward curves for natural gas for 2007-2014, inclusive. I normalized five years' of seasonally adjusted futures prices for each year to the May futures prices and mapped them going forward to illustrate how unusual this year is.

Natural Gas Forward Curves 2007 - 2014
Normalized And Seasonally Adjusted



The forward curves for both 2007 and 2008 were both in greater backwardation after their first winter but retained their pre-first winter carry. The forward curves for 2009, 2010 and 2012 all had pronounced carries associated with natural gas' multi-year bear market as well as the seasonal cycle. This is the only year after 2007 where the forward curve is not in a pre-winter carry.

What does it mean to you? Quite simply, if you like last winter's heating bills, you just might be head-over-heels in love with next winter's.