

Natural Gas Supply: Changes in Perception and Reality

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In the energy world of the past couple of decades few things have changed more than our perception of natural gas. From the reality of curtailed supplies and high prices along with the perception of a limited and rapidly depleting resource of the 1970's and early 1980's we now see plentiful and growing supply, remarkably lower prices and costs, and an abundant remaining resource base. The reason for the changes, it seems generally agreed, has been the rapid pace a striking advancement of exploration and recovery technology and the vigorous application of that technology as an offset to relatively low wellhead prices.

Two decades ago future production of natural gas was projected to decline dramatically to as little as 10 trillion cubic feet (Tcf) by the year 2000. Current production is nearly twice that projected level and several current projections show a near 30 Tcf level 15 years from now. Price projections made in the early 1980's showed steep climbs reaching two digit levels in current dollars. Current prices are a fraction of those then projected and are now seen to remain essentially flat (in real terms) for the next decade and a half. Estimates of the amount of remaining natural gas resources in the 1970's and early 1980's averaged about 260 Tcf when adjusted for subsequent production. Estimates now are nearly an order of magnitude greater. And finally the average gas well of the past five years adds twice the amount of gas at half the real drilling cost of wells in the early 1980's.

Will this remarkable revitalization of the natural gas industry be sustained and enlarged to reach the currently projected production and price levels? Most likely--if the deep Gulf and subsalt plays come along as expected, if the inferred reserve base is as large as now believed, if the nonconventionals hold their own, and if the potential of deep gas on land is realized. A lot of "ifs" to be sure but all realizable with the technology trajectory we have been on maintained.