

2003 is a year of many energy surprises

Matthew R Simmons, Simmons & Company International

THIS YEAR HAS been a year of continual energy surprises, ranging from a fast rebound in natural gas prices following the 2002 collapse, to subsequent spikes in gas prices in February and again in the spring. By this fall, US gas prices appear to be creating a base of price support in the high \$4 range and with prices soaring whenever gas storage injection numbers are not extremely high or when any mention of a cold winter arises. It is now anyone's guess what will happen to gas prices if we have another colder than average winter like we did last year.

NATURAL GAS STORAGE

Natural gas storage ended last winter at record lows. A pending disaster seemed somewhat probable once the 2003/2004 heating season began. Then came the spring, summer and early fall with record levels of storage injections. This enabled gas storage to return to a five-year average as this year's winter heating season begins.

The mysterious surprise of how gas storage rebounded so rapidly was a constant source of confusion and worry for most gas analysts. This rapid storage growth sent chills up the spines of many E&P and oil service executives who sensed a *deja vu* of another 2001 summer when gas prices collapsed. Most gas observers attributed this rapid storage build up to a continued growth of "industrial demand destruction." A few observers even began to wonder whether gas supplies had finally rebounded.

The real story about why storage got rebuilt is just beginning to unfold as the summer statistics for total energy demand by each sector and by each energy source are finally reported. Industrial demand for natural gas was only modestly lower than a year earlier, despite far higher gas prices. So far, there is no sign of any major additional industrial demand. Instead, the big "demand relief" was a significant drop in air conditioning electricity consumption. This created just enough extra natural gas supply to enable storage to get "full." Had the summer of 2003 been

muggy or hot through the band of states east of the Mississippi and north of the Gulf Coast states, gas demand would have been far higher and storage, as the winter of 2003/2004 begins, could easily have been as great a "pending disaster" as so many worried about as last winter came to an end.

ELECTRICAL BLACKOUT

The biggest summer energy surprise was the worst blackout in North American history. The blackout occurred just after 4 p.m. on August 14. Ironically, this was one of the few days all summer when the weather was hot and muggy across the entire band of the Atlantic Coast, New England, Southern Canada and the Midwest.

The final investigation of exactly what series of unplanned events ultimately "tripped" or shut down hundreds of power generators and transmission lines across seven states and two provinces in just 12 seconds is still under review. But the ultimate culprit was a system lacking sufficient spare capacity to get through a very hot, muggy afternoon.

Ironically, the US/Canadian blackout was followed two weeks later by a brief blackout in London and subsequent blackouts on Thursday, September 25 in Denmark and Sweden. Then, on Sunday, September 28, Italy was inflicted. Within a six week time period, over 110 million people experienced the consequences of energy demand inching ever closer to the physical limit where there is no longer excess energy supply. The cost to create a sufficient cushion in electricity generation and transmission in the US alone is likely to exceed \$100 billion.

OIL MARKET

The final 2003 energy surprise was the oil markets where prices stayed far higher than most oil analysts assumed, although most analysts are still convinced that prices must soon fall. For nine months, the \$28-\$35 oil price range was blamed on a "war premium" because of Iraq. Once the Iraq war began, oil prices collapsed by \$12 within a couple of days. But as soon as it became clear that a liberated Iraq was not about to flood the world with extra

oil, prices soon climbed back to the \$29-\$32 range.

In the midst of this extreme oil price volatility, reported oil stocks continued to fall, not only in the US where stock changes are closely watched, but throughout the OECD. On a day usage basis, oil stocks are now at low or even record low levels in many key regions.

One reason for such low stocks was the inevitable pending "surge" in non-OPEC supplies, which has been many energy observers' constant mantra for the last six to eight years, once more petering out except for robust growth in Russian and Caspian exports.

Anyone carefully analyzing the global oil markets should have been struck by the lack of supply growth in almost all regions of the world, the growing anecdotal evidence that many, if not most, OPEC producers were now pumping all the oil they could safely sustain, and the peaking of supply in key regions like the UK and prime fields in the Norwegian sectors of the North Sea. Moreover, Nigeria struggled all year with civil strife that constantly led to shut-in oil production. Venezuela's beleaguered oil sector is in danger of being grossly over produced in the areas where more oil can be produced to compensate for accelerating declines in its older heavy oil regions. China and Mexico are warning that their prime oilfields now seem likely to begin fairly steep declines over the next three to four years.

TIGHT ENERGY MARKETS

The bottom-line of these various energy surprises is how tight most of the world's energy markets really are. North American natural gas supply has now peaked. It will take a series of remarkable exploration successes and the construction of Arctic pipelines merely to stabilize gas supplies.

Electricity capacity is very tight. Otherwise, we would never have experienced so many blackouts this summer.

Oil markets are perceived by many analysts to be the one market where ample supply still exists, but this could be the ultimate surprise and even if lots of spare capacity still exists, it will take

years to rebuild depleted OECD stocks to a level where a genuine safety cushion against any unplanned supply outages exists.

DRILLING MARKET

In light of the unplanned and surprisingly strong oil and gas prices that have now been in place for over a year, one added surprise is the lack of any major growth in global drilling.

Some of the key drilling markets have actually been stronger than many think in terms of activity increase, although not in increased drilling rates. Canadian drilling is almost double what it was a year ago and is set to perhaps test the drilling records it set in 2001.

Land drilling in the US is up almost 40% from a year ago. In several foreign countries, land drilling is up from last year, although nowhere near the growth levels in US and Canadian land drilling.

The disappointing surprise is the offshore basins of the world. Gulf of Mexico drilling is off 6% from a year ago. This weakness includes both shelf drilling as well as deepwater drilling.

Offshore drilling is soft worldwide. In September 2003, there were 229 offshore rigs working, a gain of 13 rigs over August's levels. But a year earlier, 4 more were drilling.

The only major region showing growth was the Asia/Pacific region where 77 rigs were drilling through September compared to 68 a year ago. (This also means that the rest of the world's offshore rigs, including those in the US, fell from 276 rigs at work in the fall of 2002 to 257 rigs today.)

A possible answer to why the Gulf of Mexico shelf-based drilling is currently decreasing is a lack of drilling prospects. Area-wide leasing has now been in practice for almost two decades. Over 50,000 wells have been drilled on the shelf. The only frontier shelf areas left are in the Eastern part of the Gulf, most of which is under bans and/or in deep formation wells below 15,000 feet.

The eastern portion of the Gulf cannot grow outside the deepwater territory in the reduced acreage that was finally leased in Lease Sale 181. Deep shelf wells in the central and western part of the Gulf will almost certainly grow, but

these wells are extremely complex to even plan, let alone drill.

The deepwater slowdown is more surprising. It cannot be blamed on having drilled up all the possible well sites. If deepwater drilling worldwide does not quickly pick up, all the oil and gas supply forecasts which assume steady to even dramatic growth in deepwater production need to be downgraded.

On the US and Canadian land drilling side, when 10%-15% more rigs are put back to work, the industry will revert to the tight rig market of 2000 and early 2001. Historically, this not only causes dayrates and margins to strengthen, but also brings the oldest and least efficient drilling rigs back to work which leads to a decrease in drilling efficiency.

ENERGY STOCKS

The weakness in energy stocks in general seems tied to a lack of apparent interest for institutional investors to add any energy stocks to their portfolios

when it is widely believed that prices of both oil and gas will soon undoubtedly fall. No smart institution ever wants to add to energy holdings when a price collapse is ahead.

This urge to wait until energy prices finally adjust to a much lower level is keeping many large investors on the energy market sidelines. At some point as the oil and gas industry heads into 2004, the price of oil and gas finally needs to fall or, if prices stay high, the industry's think-tank experts, its analysts and the industry executives need to begin re-thinking their strong beliefs that such a price collapse is inevitable. There is a chance that current prices are not so abnormal. They might even turn out to be low.

Predicting future energy prices is an impossible job at any time and even harder in today's highly volatile energy markets. But, any serious study into the industry's tight fundamental condition argues that waiting for prices to collapse could become a very long wait. ■