

# Energy crisis takes a summer break

This month, GlobalView Software takes a look at the state of the energy market so far this year, following last year's sky-high price levels

In 2000 there were increases in US energy prices the like of which have never been seen before. The wellhead price of natural gas skyrocketed by 400%. Gasoline prices in some regions reached record highs. In short, there was the sharpest upward trend the US has ever seen, outdoing even the oil spikes of the 1970s and the Persian Gulf War in the 1990s.

The price hikes hit homeowners, businesses and industry alike. One industry expert described the situation as a "train wreck". For 2001, many analysts predicted a repeat performance. So what has the market done so far this year?

## NATURAL GAS

US natural gas prices set historic highs in 2000 as below-normal temperatures drove large storage withdrawals, causing low inventories. Previous warm winters had masked solid growth in base demand for natural gas.

As of the first week of August 2001, spot prices for natural gas appear to have stabilised just above the

\$3-per-million-British-thermal-units (mmBtu) mark, following a steady decline from more than \$8/mmBtu in January. Net injections of natural gas into storage have consistently fallen within the range of market expectations and contributed to the stability of the price level (see figure 1). Net injections were 80 billion cubic feet (bcf) for the week ended August 3, raising storage levels to an Energy Information Administration (EIA)-estimated 2,342 bcf, more than 5% higher than the average for the past six years. The EIA is a statistical agency of the US Department of Energy (DoE).

Nymex Henry Hub Futures prices for December 2001 and January 2002 delivery exceeded the Henry Hub spot price by \$0.636 and \$0.765/mmBtu, respectively, providing a clear incentive for continued injections into storage.

Consumption grew by around 1 trillion cubic feet in 2000, showing a 4.8% annual increase as compared to an average annual increase of 1.7% for the previous 10 years.

Increased drilling pushed gas

production to 52.78 billion cubic feet per day (bcf/d) in 2000, an increase of more than 3% from 1999, with projections by the DoE for new highs well above 53 bcf/d this year. Moreover, governments and natural gas industry organisations are forecasting unfettered production growth for the foreseeable future.

On the demand side, merchant electrical generators are building or proposing gas-fired power plants that will increase dependency on the fuel. There are more than 200 power plants scheduled to come online in the US, most of them to be fuelled by natural gas, according to the trade publication *Oil & Gas Journal*.

## ELECTRICITY

The general consensus is that the electricity market is in a strong downward cycle. Financial analysts Salomon Smith Barney (SSB) now predict lower prices for US power due to rapid growth in the construction of new generating capacity that will exceed power demand by a wide margin in most regions.

Prices in June 2001 fell lower than

the previous year for the first time recently, and forward markets suggest that the third quarter will be the first full quarter of lower prices.

SSB says this June power prices fell to an average of \$50.21 a megawatt hour (MWh), with the spark spread – the difference between the power price and price of natural gas used to generate the power – measured at \$23.77/MWh. June 2000 power prices averaged \$83.25/MWh, with the spark spread at \$56.93/MWh (see figure 2). The annualised spark spread peaked at \$41.28/MWh in 2000, with a slight drop to \$40.65/MWh predicted this year (see figure 3).

Some 27,000 MW of generating capacity was added in the US last year, up from a 11,000 MW increase in 1999. But SSB expects 47,000 MW to be added this year, and a further 87,000 MW in the next two years.

Projections for growth in electricity consumption remain steady at 1.8% a year. As a result, the national US average reserve is on the rise and is projected to reach 14% this year, following a recent low of 7% in 1999.

## GASOLINE

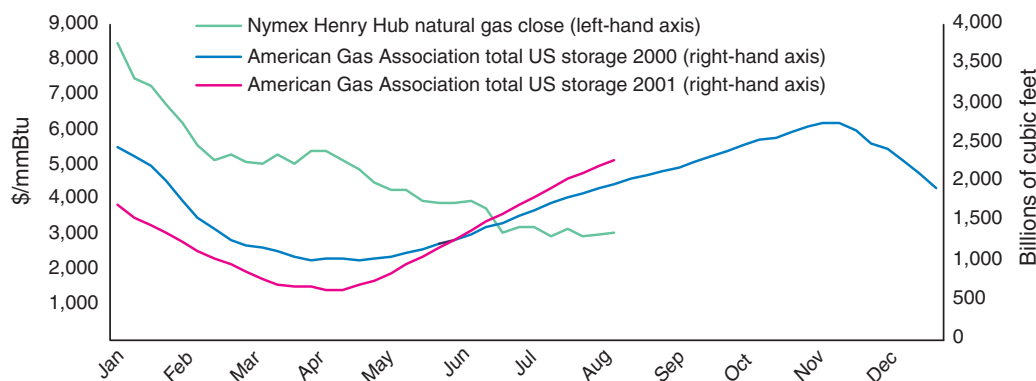
Rapid gasoline price increases tend to occur in response to crude oil shortages or delivery delays and refinery production problems.

Worldwide crude oil supply and demand is heavily influenced by the Organisation of the Petroleum Exporting Countries (Opec), whose members produce nearly 40% of the world's crude oil and hold close to 70% of the estimated reserves.

Gasoline prices tend to display high volatility due to supply variance coupled with consistent demand. Expected increases in demand come before and during the summer 'driving season' and then fall in the winter in the US.

EIA data put the average US price of regular gasoline at \$1.376

Figure 1: US natural gas storage – year-on-year vs Nymex Henry Hub spot price



Source: Nymex; American Gas Association

US natural gas storage levels at the start of 2001 were nearly 30% lower than in 2000, in tandem with record high prices. Recent measures show inventories at 15% higher than last year, helping to stabilise prices around the \$3/million-British-thermal-units mark

a gallon on August 6, 2001. This represents the lowest price this year, and is 8.6 cents lower than a year ago. The price at the pump has fallen nearly 34 cents since May 14 this year, when it reached a high of \$1.713 a gallon.

In April, the EIA projected a price of \$1.49 a gallon for this summer. Since then, its estimates were pushed higher to a range between \$1.50 and \$1.75 a gallon, only to be revised downward in July. The agency now expects summer prices in a range between \$1.45 and \$1.64 a gallon. And according to EIA predictions made in August, gasoline prices are likely to remain fairly flat – between \$1.38 and \$1.40 a gallon – for the rest of the year and through the winter.

Analysts believe we have seen this year's peak prices. But this view could change suddenly. A rash of refinery outages or pipeline disruptions would shrink supplies of gasoline and cause fuel prices to spike again. Yet lagging inventories, which have been largely blamed for higher fuel prices in recent months, have recovered substantially, thanks to the production of more gasoline.

There also are signs that demand has fallen. By the end of May 2001, gasoline inventories had risen beyond year-ago levels. Stockpiles peaked at more than 8% above year-ago levels at the start of July, according to the DoE. (see figure 4).

## SUMMARY

Sufficient supplies and injections have brought natural gas levels within the range of expectations, providing stability to natural gas prices despite the extraordinarily high temperatures that prevailed throughout much of the US in recent months.

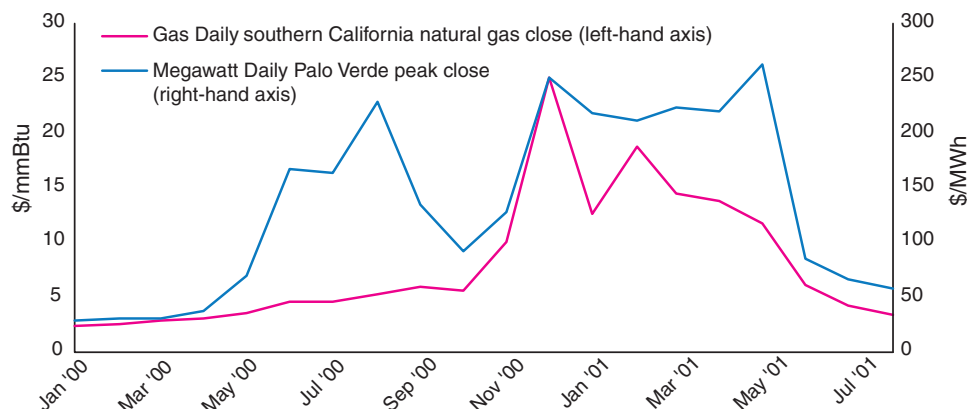
Electricity prices have fallen nearly 40% from their level a year ago, and are projected to continue this trend.

Adequate supplies and maximum refinery production have kept gasoline prices in check at levels well below last year's. With the weakened economy helping diminish consumption, production growth has allowed energy prices to reverse a trend that many predicted. ■

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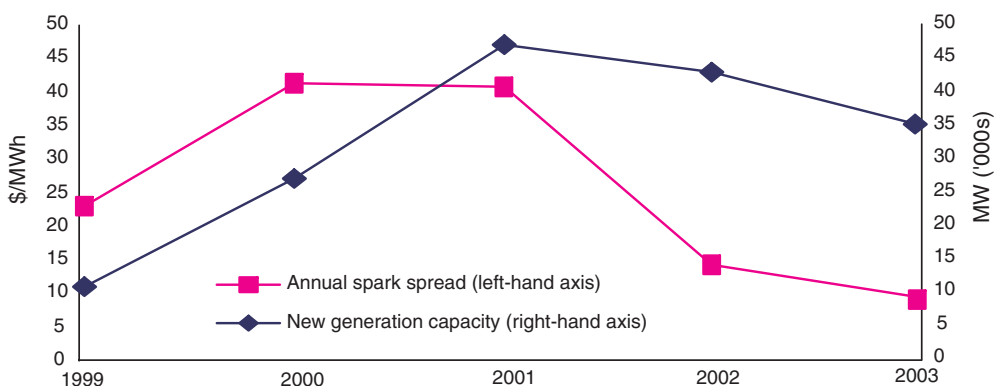
### Figure 2: Natural gas spot price vs electricity spot price in southern California



Source: Financial Times Gas Daily; Megawatt Daily

Electricity prices in California have fallen recently after peaking late in 2000 and earlier this year. Comparing natural gas prices with power prices demonstrates some correlation due to the fact that many generation facilities are gas-fired

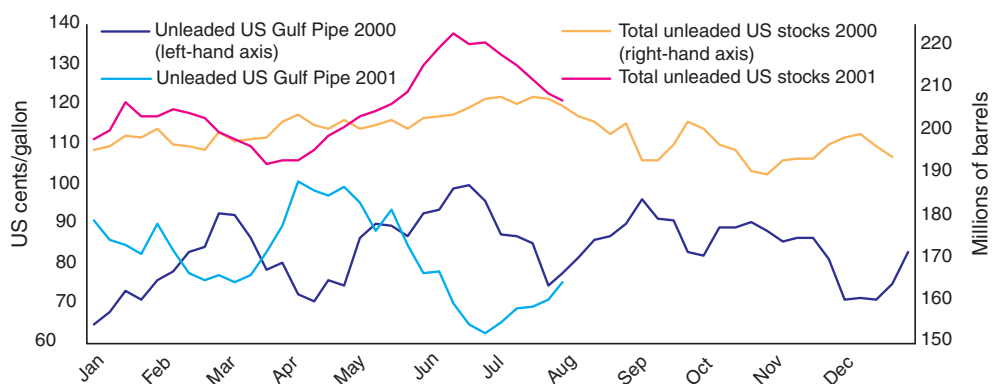
### Figure 3: Actual and projected US power generation capacity and spark spread



Source: Salomon Smith Barney

Projections show the addition of new US power generation nearly doubling year-on-year again in 2001 after doing so in 2000. Capacity growth is expected to drive prices even lower and dramatically reduce the spark spread

### Figure 4: Year-on-year US unleaded gasoline spot price vs storage



Source: Platts; American Petroleum Institute

Steady demand with seasonal peaks has left the US gasoline market heavily supply-side driven. This year-on-year comparison shows gasoline inventories recently peaking at levels about 7% higher than during the summer peak last year, while prices peaked earlier than last year at the same level and fell further