

# Save your energy

With rising fuel prices providing a constant flow of grim news, Emma Clarke looks at the supply side challenges and how buyers can trim bills next winter

## **The era of cheap fuel is over, Viktor Khristenko, Russia's energy minister announced earlier this month.**

Depressing news. But this statement - from the country with a quarter of the world's gas reserves and 5 per cent of its oil reserves - may not come as a surprise for businesses accustomed to the daily onslaught of doom-laden headlines about the energy crisis.

"Supply fears push oil beyond \$73"; "Oil prices rise on Iran's warning"; "UK gas supply running short"; "Gas shortage sends prices soaring"; "Carbon trade to push up utility bills"; "UK overpaying £1 billion for power". **But where do we really stand?**

### **Oil and gas**

This month, oil prices did indeed go above \$73 a barrel. And uncertainty continues with the unstable geopolitical situation in the Middle East and South America and output from the Gulf of Mexico still affected by last year's hurricane season.

But oil is only part of the story. Gas - once the cheap and clean energy choice for the UK - has also been hit by escalating wholesale prices and threats of supply shortages. In March, National Grid issued its first gas balancing alert signaling to buyers and sellers that demand needed to be reduced. This sent prices up to a record 250p a therm.

Rates are now at the whim of producers and trading markets; and with offshore gas fields from the North and Irish Sea depleting, the UK is also at the mercy of imports from foreign providers. And complications come from further afield. When Gazprom of Russia - the world's largest gas production company - temporarily cut gas supplies to the Ukraine this January, Europe and consequently the UK, paid attention.

### **Security of gas supply**

Gas imports currently flow through an interconnector pipeline between Britain and Belgium or arrive in tankers in the form of liquefied natural gas (LNG) from the Middle East, Central Asia, South America and Africa, and are drawn from gas storage facilities.

Security of gas supply not only depends on having enough gas to meet demand, but on having the right infrastructure for transporting and storing it from these sources. A recent fire that closed the large Rough Field North Sea gas storage site off the East Yorkshire coast heightened concerns about limited gas storage facilities in the UK, sending prices to sky-high levels again.

The market has responded to the need for transportation and storage infrastructure with a new LNG terminal at the Isle of Grain in Kent, and the expansion of the interconnector import capacity. Next winter a new pipeline from Norway is expected to be completed and the Belgian interconnector further expanded. There are also plans for a pipeline from the Netherlands to be in place this winter, and a new Excelerate LNG ship import facility in Teesside has recently been announced.

In terms of storage, the Humbly Grove facility in Hampshire became operational last November and should be able to fill up with gas over this summer. Looking ahead, an additional four storage facilities are under development and a further five are in the planning or concept stage.

Though these new installations could bring about some increase in supply this winter, their full impact is not expected to be felt until winter 2007. The bad news, according to National Grid's draft Winter Consultation Document published in May, is that supplies of gas this winter are expected to be tight.

Even by 2007, when the improved infrastructure is in place, it is not assured that prices will drop. For lower prices to be a reality, facilities for importing gas must be used at full capacity when required. For this to happen the European gas market needs to become more competitive and more transparent.

European gas companies largely have the control of the interconnector pipeline: controlling the flow of gas as well as the flow of information about gas supplies. Consequently it is not always known if companies are importing as much as they are able. The adverse effect of this was demonstrated last December when import flows through the interconnector were only running at half capacity even though demand and prices were high in the UK.

The European Commission is currently investigating why gas was not flowing at expected levels and why operators were not opening their pipelines to competitors.

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## Advice for buyers

Rising gas prices are expected to pose the greatest concern to buyers this winter, says John Hall, managing director of energy management consultancy John Hall Associates, but the extent of this concern remains unclear. What we can't predict is if it is going to be a quadrupling of the price again or price increases of around 5-10 per cent above where they are today.

So what can be done? While promoting energy efficiency and shopping around for best deals from suppliers is important, these options are unlikely to yield significant financial benefits, says Jeremy Nicholson, director of the Energy Intensive Users Group. Instead, he suggests, it is a question of damage limitation through reconsidering the length of the contracts buyers are placing.

To that end, more buyers - especially at larger energy-using companies - are moving away from fixed-price deals to some kind of flexible pricing. Three quarters of the volume of gas bought by large energy users is now on a day-ahead basis or in tranches throughout the year, says Nicholson. This is cheaper than buying fixed price but also exposes them to higher seasonal prices and is therefore an inherently risky way of buying energy.

Flexible buying is only really open to larger users spending more than £100,000 a year for gas and some £1 million for electricity, says Chris Lewis, energy consultant and member of the CIPS Energy Committee. And then only with certain suppliers: If you are below those thresholds you have got to go for a fixed price, 12-month contract. Most yearly contracts start around October for electricity and gas, but this doesn't mean they should be thinking about renewing contracts at the end of August or September.

Hall says: Most buyers should have made some sort of provision for October 2006 for both gas and electricity. If they haven't, they either need to get their skates on and do something quickly or take a gamble.

"There is a chance that at the point of delivery the price could be much lower and they could find that by waiting to the last minute they could get a better deal. This is a big risk though, because you don't know what is going to happen between now and then.

"Buyers really need to make sure they are covered, not just for October 2006, but for October 2007," he adds.

Automotive industry supplier Continental buys its gas and electricity in both fixed and variable contracts. Andreas Geisbrecht, its head of purchasing services and energy, says organisations need a clear purchasing strategy that includes risk management.

It is against Continental's risk analysis to buy years in advance. Contracting for two or three years ahead involves a higher share of speculation. Our strategy is rather to buy closer to the period of consumption. You also need a detailed overview about your consumption and access to market information, he says. Lewis agrees, adding it is important to choose a supplier that can provide market information. Though he warns that too much data can overwhelm a buyer not used to these markets.

## Breaking down the costs

Geisbrecht also advises buyers to separate the commodity cost from all the other components such as route access and transport access. Once you have got everything separated you are free to buy only the commodity on the market.

Lewis adds that only by knowing the costs of gas and electricity supply can buyers begin to determine how much margin suppliers are going to make. Suppliers all look at the Heren Reports [independent publications on the energy market] to determine the wholesale commodity price of gas and electricity. They will then add on other elements such as transportation and put on a margin for themselves. The only bit that the customer can influence is that margin.

## Buying structure and training

A centralised energy purchasing team is important, says Geisbrecht. At Continental, the energy-buying team is responsible for the needs of four divisions: passenger and light truck tyres and commercial vehicle tyres; automotive systems; and supplier of industrial products ContiTech.

"This is a day-to-day business. Staff need to monitor the development of the energy markets and be empowered to make decisions. You do not have the time for a drawn out internal signature procedure - you have to take the decision within hours."

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To provide purchasers with the skills needed to buy energy, Geisbrecht says it is important to provide training and consider setting up visits to trading companies, banks and other businesses to provide staff with an overview of the market. Advice can also be sought from consultants that can advise on buying energy or buy it on behalf of firms. As Lewis points out, around 60 per cent of the energy bought in this country is done through consultants.

These have recently come under fire for lack of transparency and, in December, gas and electricity watchdog Energywatch warned purchasers to make sure consultants give independent advice and declare any commission received from suppliers. Backed by CIPS and Ofgem, Energywatch called for the code of conduct to ensure consultants promote the best deals for clients.

### Electric power

Electricity is perhaps the most secure form of energy. Nevertheless with around one third of electricity generation capacity gas-fired, volatility in gas markets will continue to affect electricity prices. National Grid expects electricity supply to be similar to the last two winters with a safety cushion of reserve generation at around 20 per cent.

Another factor to consider in terms of electricity will be the cost of carbon allowances under the EU Emissions Trading Scheme.

### Alternative energy

With the high prices of gas and electricity looking as if they are going to be a long-term problem, alternative energy such as on-site generation using wind or combined heat and power (CHP) plants are starting to become more viable. British Sugar, for example, uses six CHP plants to power its sugar-making operation, and also to sell into the electricity market.

Conventional power plants emit the heat created as a by-product of electricity generation into the environment through cooling towers, but CHP captures the excess heat and supplies it to the factories.

"In engineering units we export around 100 megawatts or £25 million worth of power every year which means we are still a net exporter of power," says Ian Calvert, development manager. "This is a big investment but in the long term it takes risk out and means we are not exposed to the high power prices."

British Sugar is not alone in generating its own power. According to the DTI Digest of UK Energy Statistics (DUKES), the electricity generated by CHP schemes in 2004 represented nearly 7 per cent of the UK total. The government has a target to double this and achieve at least 10,000 MWe of good quality CHP capacity by 2010.

To minimise its exposure to the volatile energy market, British Sugar uses an interruptible gas supply and can switch to coal or fuel oil at times of high gas prices.

Last year, the regulator allowed them to switch fuels but it has since been told that the company may not be able to do the same next winter. And although the government has announced it will be working to ensure that the environmental regulatory regime allows flexibility for power generators to switch from gas to alternative fuels, nothing is certain.

### Efficiency and demand

Cutting the demand for energy in business is also now beginning to receive some attention. The Carbon Trust is offering free advice and energy surveys for organisations wanting to save money by reducing consumption.

Even if businesses think they have effective energy efficiency measures in place, there is likely to be room for improvement, says Hall. Some of the bigger companies will say they have done everything, but there is probably still more they can do.

With gas shortages a threat again for this winter, it is expected that intensive users will have to exercise a demand-side response by cutting back or changing production.

British Sugar practiced such a policy last winter and switched to more efficient ways of working when gas prices rose. You can look at the energy intensiveness of your product mix and at times of high gas prices make a switch to less energy intensive end products.

For us this will involve, for instance, not producing dried animal feed at times of high gas prices. You need to be agile in terms of your response and how you run the business, says Calvert.

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Flexibility seems to be the key for a commodity at the mercy of so many uncertain ebbs and flows. But through quick decision-making, a strong risk mitigation strategy and making the most of market knowledge, buyers may be able to enjoy a less volatile and stressful winter.

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