



Highlights

- UK energy prices are at their lowest point for more than six years ahead of the winter, despite previous alarm over tighter supply.
- Prices have reacted to lower fuel prices with macroeconomic trends, but these also show the market responding to supply fundamentals, such as increased amounts of gas in storage, and greater renewable electricity generation. Infrastructure operators have also moved to safeguard both gas and power systems.
- The historical trend of falling energy prices may have influenced energy prices this year, but supply margins remain tight.

Winter 2015 is one of the tightest seasons for UK power in a decade, so ICIS looks in depth at how the UK is placed to deal with the coming winter in the accompanying white paper '[The UK Energy Market – Fit for this Winter?](#)' which examines the supply situation and potential risk factors for the UK energy markets.



Source: ICIS Power Index (www.icis.com)



Price moves

There has been some alarm about this winter for UK power supply, given the system faces its tightest margins in the last decade.

However, UK energy prices have continued to fall in Q3, with power and gas prices reaching their lowest quarterly average price since 2010, with power at £42.86/MWh and gas at 43.095p/th.

Gas prices have fallen more sharply than power since the end of Q2, with the price of gas to be delivered to the UK over the next calendar year falling by 11.5% over the quarter. In fact, the price of gas for delivery during winter 2015 actually hit historic lows during Q3, at less than 43 pence per therm (p/th).

However, falls on the ICIS Power Index have been less pronounced, at 3.8%, which relates to the perception of greater supply risk in the electricity markets than for gas.

The largest single day-on-day rise for both gas and power prices over the quarter was 1 September, responding to unseasonably cold weather at the start of the month, which boosted UK demand for gas to more than a third above seasonal average.

The largest day-on-day fall for energy prices was 3 August, when the market responded to a sharp rise in the amount of UK gas in storage, once more coupled with falling oil prices.

However, compared with the more volatile price swings around last winter, when the gas year gained or lost as much as 3.5% of its value in a single day, prices have been more stable this year, with neither gas nor power moving more than 1.8% in a day – a period of comparative calm, alongside a slow decline in energy prices.

Underlying price trends

So why have gas prices in particular fallen so markedly? One reason is the continued fall in the

Brent crude oil price – from \$62.87 per barrel (bbl) at the end of June, the oil price tumbled further to hit a low of \$43.17/bbl on 24 August, a level last seen in 2009.

The price of oil has an impact on the price of gas supplied under long-term contracts, where gas is sold on the basis of the average Brent crude oil price over the previous six to nine months. As the oil price has fallen, these lower levels feed through to price gas supplied under contract, which becomes increasingly cheap.

Very little gas is sold using this pricing formula in the UK, but some gas is still sold this way in European markets. If gas supplied via long-term contract is cheaper, there is little need to buy the corresponding gas on the European market, which has a knock-on effect on UK gas prices because of the pipeline links between the UK and Belgian markets – it costs less to import European gas into the UK, and conversely, there is less demand for gas imports from the UK.

Oil is also an indicator of macroeconomic confidence, which has been dented in Q3 by downbeat economic data from China, and an equity market crash in late August. This has been reflected in equity markets around the world, and had an effect on energy markets, where less economic activity means less need for energy and therefore lower prices.

Gas supply

Another reason is that UK gas storage levels are once again healthy, improving over Q3 from 37% to reach 68% of total capacity by mid-September, and these levels have persisted.

Low levels of gas storage was seen as one of the risks for the coming winter earlier this year, and the level of gas in storage is 25 percentage points less than the same period last year, but the market considers these figures as acceptable for winter supply – and therefore there is less risk of any disruption.



Storage injections have been delayed early in the quarter as market participants expected lower prices later in the summer as the oil price continued to fall.

However, market participants expected more gas to be injected into storage over the summer, as the lower oil price brought gas prices down, so buying cheap gas to store and sell in more expensive times was once more economic, and ensured more supply for the winter.

Originally, one risk factor was less gas storage at the Rough facility. This facility stores gas in a depleted oil field and accounts for 80% of the UK's gas storage availability, with a maximum of around 3.8 billion cubic metres (bcm). However, a potential issue with the integrity of the facility in March led to a cap on maximum capacity at 2.7-3.0bcm, initially until September 2015, and then extended until the end of summer 2016, so the UK would not be able to store as much gas for use during the winter months.

These concerns eased in July, when the new UK offshore regulator the Oil and Gas Authority granted Centrica Storage approval to increase working capacity at the Rough long-range site by around 10%, or 412 million cubic metres (mcm). Centrica is able to increase the size of the site by reducing the lower threshold of its working capacity in its reservoir.

Liquefied natural gas (LNG) also remains a strong source of supply, with volumes from Qatar coming into the South Hook LNG terminal so plentiful in August, that they forced some gas out of tanks at the terminal to make room for more.

ICIS data shows that 25 LNG cargoes imported gas into the UK during Q3, most of these originating from Qatar – up from 16 cargoes in Q2.

Potential upside

But while market participants are more relaxed about the adequacy of UK gas supply this winter,

shown by prices continuing to fall, there are still some potential risk factors.

Some of these include more demand from the Netherlands, as production from the giant Groningen gas field has been capped due to environmental concerns. In addition, there is less short-term storage in the UK with the removal of capacity at the Hornsea storage facility.

All these factors are examined in more detail in ICIS' white paper '[The UK Energy Market – Fit for this Winter?](#)' which gives a more in-depth outlook for how the UK is placed to deal with the coming winter, examining the supply situation and potential risk factors.

The relationship between Russia and the Ukraine remains strained, but at the very end of September, Ukraine, Russia and the European Commission also agreed to terms for a winter package. The deal will see Russia deliver 2bcm of gas to Ukraine during the six-month period to the end of March next year. This will provide confidence to the market that winter flows from Russia will not be interrupted, and should be bearish across Europe.

Power trends

UK power prices are very closely correlated to gas prices, because gas is the most flexible fuel for power generators to burn, so the fall in the gas price has inevitably had an impact on the power price. Added to this, other fuel prices have also fallen, boosting profitability for coal-fired power generation. Prices for coal for European delivery have fallen further, as global demand has fallen and the European storage sites have been used as a 'dumping ground' for oversupply as miners continue to resist production cuts.

Tighter margins

But the UK power market is faced with the prospect of the tightest supply margin in ten years. This concern means that power prices reflected in the IPI have resisted the full impact of falls in the main fuel markets.



National Grid puts the supply margin at 1.2% for the coming winter, meaning that peak winter demand could reach 98.8% of generation supply. Peak demand is likely to be 52.5GW.

This margin is indeed the tightest for a decade, driven by the closure of coal-fired plants with EU legislation, and tighter profit margins for gas-fired generation plants. During Q3, more plant closures have been announced, including ScottishPower's 2.4GW Longannet coal-fired plant, which was expected, and the 2GW Eggborough plant, which was not.

However, all of these plants are due to remain operational during the winter, and will only leave the grid at the end of March, after the coldest weather is typically over.

Planning ahead

National Grid has also widened the supply margin with its own market interventions, securing 2.56GW of additional generation through the supplemental balancing reserve (SBR) and demand side balancing reserve (DSBR) schemes.

The SBR initially added 620MW last December, with an extra 1.8GW of capacity in the second round in June. The SBR requires power stations to be available to National Grid between 06:00 London time and 20:00 from the start of November to the end of February. However, these stations are then removed from the open market.

Meanwhile the DSBR scheme ensures that up to 177MW of demand could be called upon to reduce demand at peak times.

Market uncertainties

Another uncertainty is the weather, which will not only impact demand, but also influence the amount of renewable generation supplied to the UK grid over the winter.

National Grid has changed the way that supply margins are calculated over the last decade to

reflect this additional generation in the supply mix. There was little wind generation the last time margins were this narrow. So, the grid operator typically expects wind to generate 30% of its total 13.7GW onshore and offshore capacity, with 1.6GW added in the last year to the end of June. This equates to 4.1GW on a typical day, but on windy days, it could generate far more.

While solar capacity is less effective during winter with fewer daylight hours, this capacity has also expanded as well. From 4.4GW at the start of Q3 last year, installed solar capacity was 8.3GW at the start of this year, which is likely to have some impact on short-term prices.

The UK also has more interconnection cables with other markets, such as the 1GW Britned line that links Britain to the Netherlands. These cables could prove a source of additional power – or take power out of the UK if the continental markets experience shortages.

Ahead of last winter, more than 4GW amount of nuclear capacity was offline which caused some significant price spikes for short-term prices.

All these risk factors are examined in more detail in ICIS' white paper '[The UK Energy Market – Fit for this Winter?](#)' which gives a more in-depth outlook for how the UK is placed to deal with the coming winter, examining the supply situation and potential risk factors.

Traded volumes

Traded volumes making up the IPI for Q3 reached 15.6GW.

This volume was the lowest for a third-quarter period since 2013, which was the historical low for the UK power market. However, traded volumes rose from Q2, which was the third lowest volume for any quarter since the IPI began.

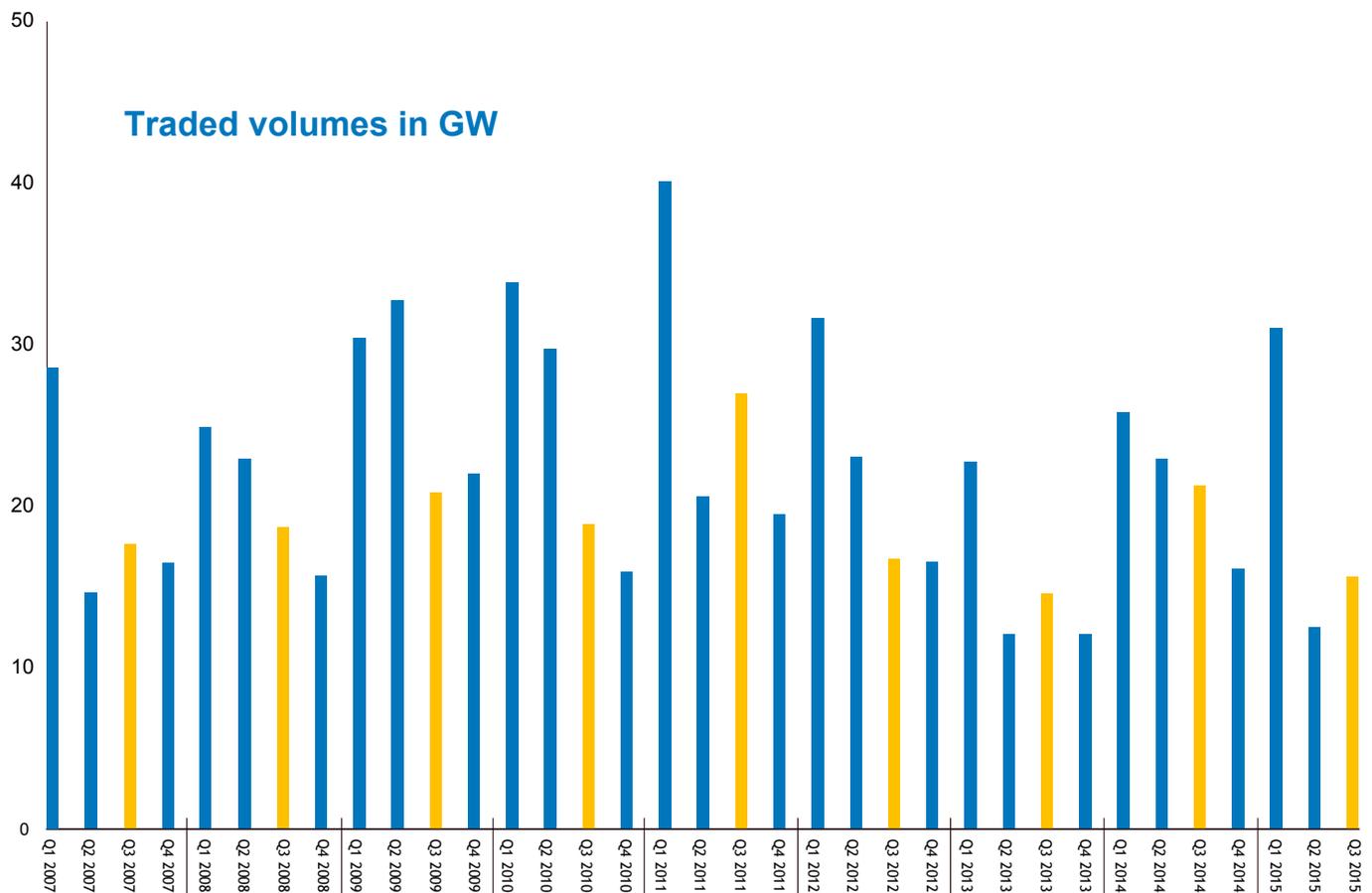
Once again, stable pricing has impacted the amount of volume changing hands, with less



dramatic swings in price ensuring that there is less need for market participants to trade to keep up with current market prices.

British energy regulator Ofgem announced in September that its mandatory market-making obligation to boost trading activity would be extended for another two years. The obligation was

first introduced in March 2014, and requires the largest market participants to post bids and offers within two hour-long windows during the trading day. The idea is to increase trading activity and make it easier for smaller suppliers to trade in the wholesale markets, increasing competition and bringing down consumer prices.



Source: ICIS Power Index (www.icis.com)



About the IPI

The ICIS Power Index (IPI) gives homes and businesses an insight into price trends on the UK wholesale electricity market.

Robust energy markets are vital to the UK economy, and the IPI makes electricity price trends and activity more visible and accessible to household consumers and commercial buyers, as well as media and policy-makers.

The IPI is published daily by ICIS, an independent authority on UK electricity market pricing, and is available at:

www.icis.com/energy/electricity/icis-power-index/

About ICIS

ICIS is an independent price reporting agency focusing on global energy, petrochemical and fertilizer markets, and we have covered the complex UK electricity market for nearly two decades. Every day, we assess electricity contracts for more than 40 different delivery periods in the UK market alone. The analysis and data that we produce is widely used as a reference price in energy contracts.

It is our aim to give companies in global commodities markets a competitive advantage by delivering trusted pricing data, high-value news, analysis and independent consulting, enabling our customers to make better-informed trading and planning decisions. With a global staff of more than 800, ICIS has employees based in Houston, Washington, New York, London, Montpellier, Dusseldorf, Karlsruhe, Milan, Mumbai, Singapore, Guangzhou, Beijing, Shanghai, Yantai, Tokyo and Perth. ICIS is a division of Reed Business Information, part of Reed Elsevier Plc.

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