



Highlights

Long-term wholesale energy prices stabilised in Q2 2017 after three months of declines that started at the beginning of this year.

UK gas and electricity price movements unusually decoupled mid-way through the quarter. This was driven by the potential for coal plants to play a continuing role in ensuring peak power demand is met in future.

Longer-term patterns showed some risk premium remained as the energy system's transition from fossil fuels to renewable energy continues. The success – or not – of the electricity capacity market this coming winter could define future pricing.

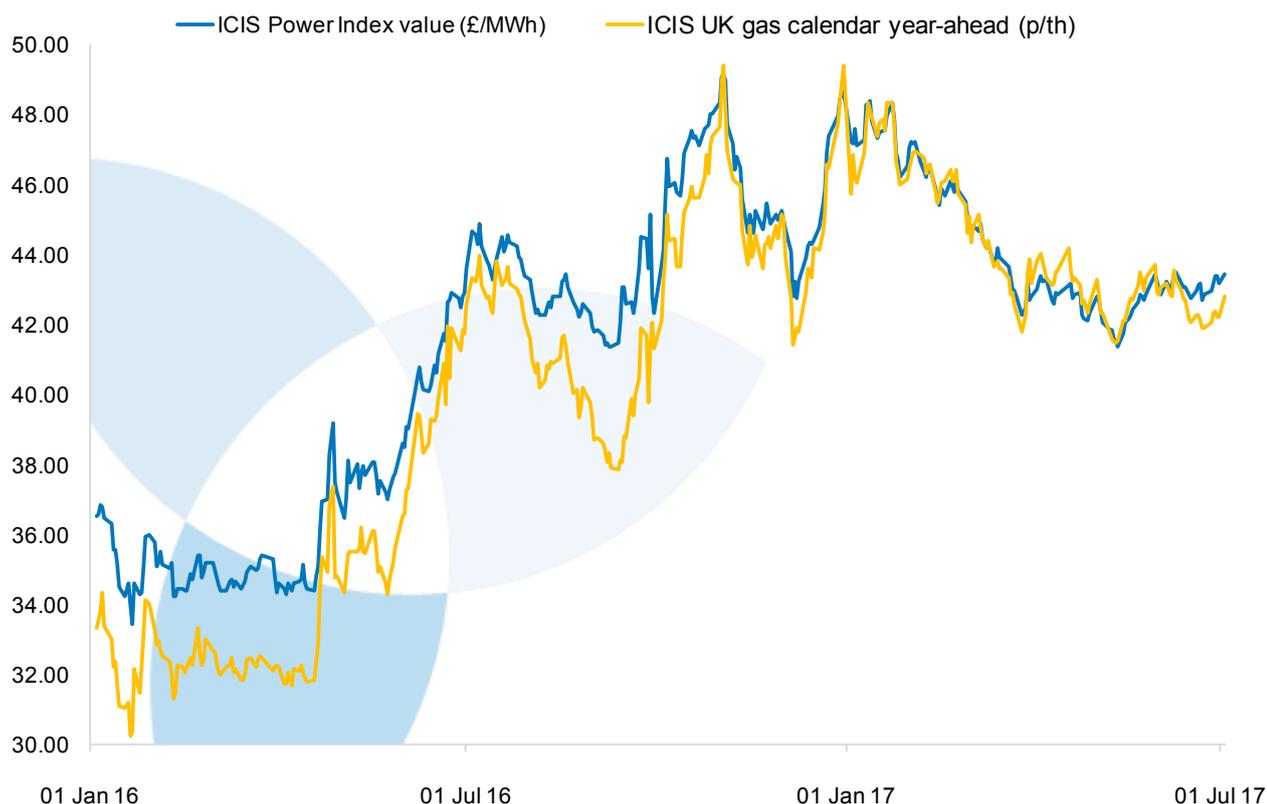
Price trends and key drivers

Prices on the forward market for wholesale gas and electricity eased in Britain in Q2 of 2017 on a quarter-by-quarter basis, as a comfortably supplied

picture for European gas emerged for winter 2017-18 as well as the following summer. This encouraged participants to sell some of the risk premium out of the long-term market.

The average value of the ICIS Power Index (IPI) was down 6.5%. The IPI records the price of electricity based on actual transactions to be delivered for 12 months starting from the beginning of the next season, in this case, winter 2017-18. The price of gas to be delivered over the next calendar year also fell, by 6.2%.

The longer-term trend however conveyed a certain amount of risk premium remains priced into Britain's wholesale energy markets as the transition from a system based on fossil fuels to one with a far greater reliance on renewable power generation continues. On a year-on-year basis the IPI was 12% higher. Calendar year-ahead gas recorded a greater gain of 18%.





In the early weeks of Q2, both the IPI and wholesale gas prices declined, continuing a trend that had set in at the start of 2017 amid a relatively mild second half of winter.

From mid-May however this pattern finally reversed as the sustained spell of price declines ran out of steam. This reflected a general feeling among buyers, for example energy supply companies that would be in a naturally short position, that forward market prices had fallen low enough to entice them to lock in a portion of their future costs. This drove a relatively small increase in energy prices from mid- to late-May.

The pattern was also influenced by the sterling-to-euro exchange rate. Energy prices fell as the pound gained in strength, while the later price increase coincided with a weakening pound. The exchange rate impacts UK energy prices by increasing or decreasing demand from countries where energy is traded in euros.

Decoupling

From early June the trend of electricity and gas prices moving largely in tandem, which had been evident since at least last November and is usually a steadfast characteristic of the relationship between the two commodities, came to a surprising, although most likely temporary, end. Wholesale gas and electricity prices decoupled, with electricity maintaining more of its value than gas, which meant an increase in future profit margins for gas-fired power plants.

This decoupling was driven largely by the potential for coal plants to play a larger role in ensuring the UK is able to ensure secure energy supply in future at times of high demand, which had not been considered by the wholesale energy markets as a likely scenario until it happened on a number of occasions in Q2 2017.

Although this is a short-term fundamental event, such events can and do influence pricing of the forward market because energy traders have to

consider the prospect that such an event – along with its associated costs – could happen again in the future, meaning that risk must be priced into the forward market.

On this occasion the impact was more pronounced because of the relatively high price of coal on the global market, which pulled up the European import price for delivery in 2018 to a high since the start of this year.

Energy market price drivers in Q2

Natural gas

Shorter-term contracts, referred to as the prompt market, moved lower in Q2 2017 as winter supply risk subsided. Although this is to be expected every year, the short-term market feeds into projections of longer-term supply-demand fundamentals via areas such as gas storage, as the picture for the year-ahead becomes clearer. This helped ease forward prices too.

Volatility, as is again typical moving from winter into summer, dropped from the first quarter but the market remained trapped in a downward trend through April, May and June.

News that the Rough long-range storage site – the UK's only seasonal gas storage facility – was to be permanently shut hit the markets during Q2, but the spread between winter and summer products, which would reflect the amount of storage capacity in a market, failed to shift. Participants had largely expected the site to close after years of faltering performance from the ageing asset, hence the lack of price movement.

The lack of Rough has however put a lot of pressure on the Interconnector, a pipeline linking Britain with Belgium, to export volume to mainland Europe so participants can access storage sites there.



LNG

A total of 1.54 million tonnes of LNG was delivered into the UK in Q2 2017, well below any of the previous five years. This reflected the British gas system's ability to cope with demand without resorting to LNG imports. The figure fell from 2.32 million tonnes in Q2 2016.

Qatar supplied almost the entire volume, according to ICIS analytics platform LNG Edge. While NBP prices were higher than in 2016 Qatar instead supplied more cargoes into developing Middle East markets, notably Pakistan. Qatar's supply contracts with the UK are on a flexible basis. This reduction in Qatari delivery was not linked to diplomatic actions taken against the country in June with LNG production not affected.

The reduction came despite an overall increase in European LNG demand, with new US and Australian production due to start up in the second half of 2017.

Coal

Rotterdam calendar year ahead coal prices ended Q2 2017 at a high for the year of just over \$70/tonne, according to platform Intercontinental Exchange's data.

Underpinning the rise was sentiment on global coal markets from a Chinese government plan to limit domestic coal production.

Firmer coal futures lifted long-term power prices. The increased correlation to coal reflected expectations that coal-fired power plants – more expensive to run from day to day than gas, nuclear and renewables in the UK power generation mix – will increasingly act as the marginal price-setting generation at times next winter and summer. This was in response to several high settlements on short-term day-ahead contracts due to coal plants being forced into the generation mix in response to low renewable generation and gas-fired plants being offline for maintenance.

A cyclone in Australia disrupted coal supply infrastructure and initially supported wholesale prices around the start of the second quarter. Coal prices then dropped with the oil market until mid-May before closing strongly.

A stronger euro against the dollar then encouraged buying of coal contracts, which are priced in dollars, in the latter half of the quarter.

Carbon

A bearish trend in prices over the first four months of 2017 gave way to no clear direction in the carbon market in Q2, with ICE EUA futures hovering around €5.00/tonne CO₂ equivalent.

Carbon price fundamentals remain bearish, with the culmination of the European Commission's back-loading measure in 2016 meaning that auctions are adding EUAs into the market at the highest rate in years.

Since May, nuclear unavailability in the power sector has combined with low European reservoirs which means poor stocks of hydropower, to drive a greater need for fossil-fuelled power generation. This means greater demand for EUAs has partly negated the bearish trend.

Crude oil

Oil markets were dominated by OPEC announcements throughout Q2 2017, as the price of the Brent crude benchmark product fell, then rose again. However, the most recent meeting failed to impress traders and crude futures steadily fell on concerns that extended OPEC-led production cuts would be insufficient to remove oversupply from the market .

High levels of compliance with the OPEC cuts has served to reduce supply from the Middle East



Meanwhile, supplies of light sweet crude from areas such as the North Sea, Russia and West Africa, including barrels from OPEC member Nigeria which is exempt from the cut agreement, increased. US rig counts and production continued to rise on a weekly basis, adding to the global glut.

In Asia, particularly in the northeast, reduced regional demand resulting from refinery maintenance in the second quarter created a buyers' market.

Along with this increased US oil output, the unexpected rebound of Libyan and Nigerian production slowed any price recovery, regardless of the overall high compliance rates elsewhere.

Crude futures at the end of Q2 were struggling to lift themselves above \$50/barrel. This compares with an average over the five years 2012-16 of \$83/barrel.

Liquidity

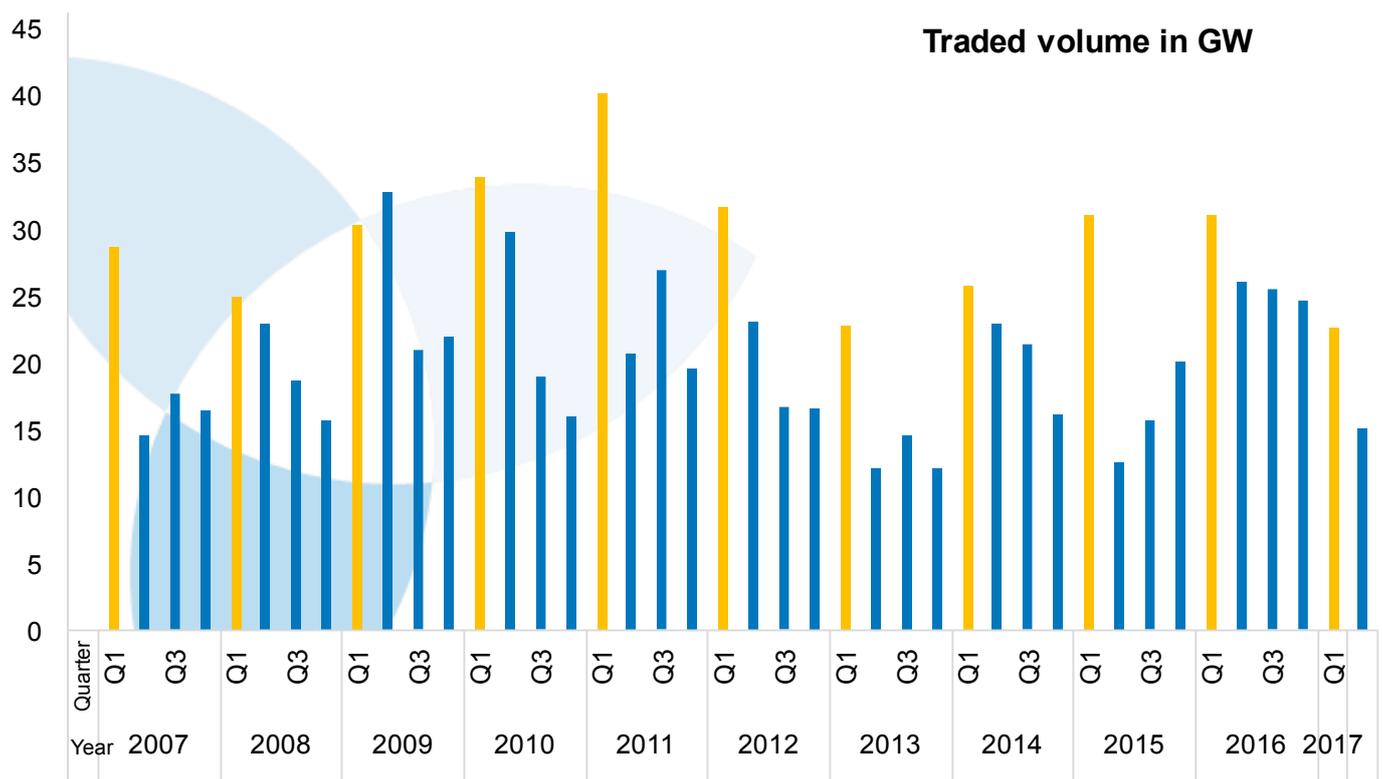
Total UK electricity market volume traded for delivery over the next two seasons was 15.1GW in Q2 2017, up 21% year on year, but down by a third quarter on quarter.

The fall is to be expected at the time of year because less short-term trade in the summer compared to the winter means less need to adjust forward positions.

Outlook

Key drivers affecting long-term contracts making up the IPI will continue to be fuel prices, including gas and coal. The success – or not – of the UK's electricity capacity market, taking effect from 1 October 2017, may also influence future power prices from Q4 onwards.

The immediate natural gas market outlook is balanced. Availability from Europe's two largest





suppliers, Norway and Russia, is set to remain strong through the third quarter. There will be some restrictions due to planned maintenance but weak demand, as is typical for summer, will lessen the impact of the work.

However, there remains a large gap in European storage sites that market participants will need to fill in order to insulate themselves from spikes during the high-demand winter. Data collated by ICIS shows storage across Europe at around 41 billion cubic metres (bcm), a substantial 10bcm down on 2016.

The two largest areas of uncertainty will be demand and LNG supply. The former will shift according to temperatures while the latter will depend on the global gas market, where a lack of transparency makes it harder to predict supply patterns.

The electricity market outlook will be defined by the system's ability to handle any high summer demand that emerges, while how much risk premium is priced into the winter 2018 delivery period on the forward curve will be defined by the how the system copes this coming winter.

Over the longer-term, the UK's wholesale electricity market is expecting a steady price decline over the years up to the end of this decade, latest ICIS price assessments of the forward curve demonstrate.

This reflects the steady deployment of renewable energy generation, which will overlap with the introduction of a capacity market which is intended to deal with the issue of variability in solar and wind power output by ensuring back up capacity, most of which is gas-fired, will always be available when needed.

The longer-term NBP natural gas forward curve, meanwhile, which was until the start of this year also reflecting an assumption of small price declines year-on-year, in Q2 became largely flat. This was because the additional LNG that some in the market had assumed would wind its way to the UK has not materialised. Instead it has been absorbed by other global regions.

On the carbon front, assuming that coal and power prices stabilise, carbon prices are expected to resume their bearish trend until a market stability reserve (MSR) is introduced, which will start to cut auction volumes from 2019.

If the EU agrees to double the MSR's intake rate before then, removing 24% instead of the current 12% of unallocated EUAs from the market each year, a bullish trend might emerge. ICIS analysts believe that this could occur as early as September.



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 600, 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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