



## Highlights

- UK energy prices for the coming winter increased in Q3 2017 as a result of nuclear power supply issues in France and rising global coal costs
- There are signs of confidence however that the country's energy supply is flexible enough to meet demand in an efficient manner this coming winter
- As ever going into winter the temperature, both in the UK and further afield, and the timing of any cold snap will be key to energy price movements

## Price trends and key drivers

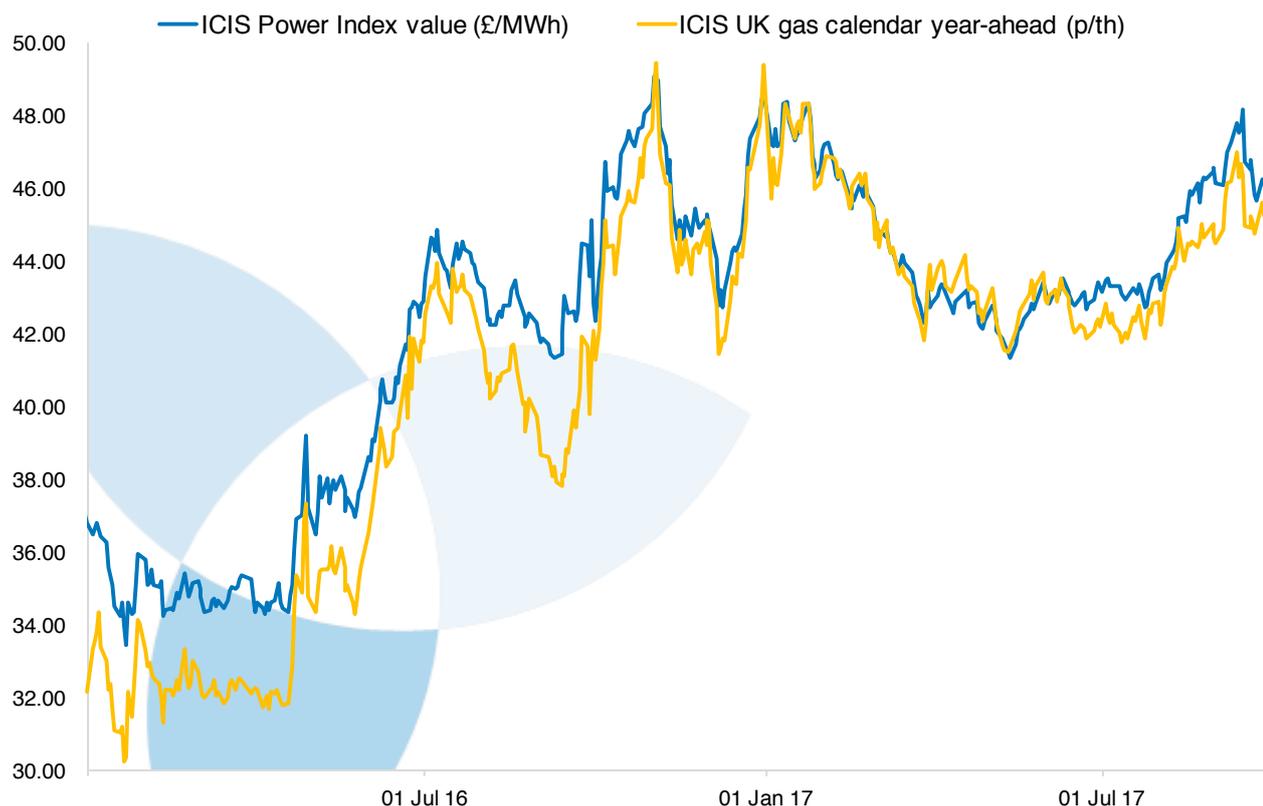
A sharp increase in wholesale electricity and gas prices in the UK throughout August and the first half of September threatened to push the energy markets to a new high for 2017 in Q3, before a sudden late reversal saw prices retreat from near-12-month highs with winter just around the corner.

The average value of the ICIS Power Index (IPI) was up 5.3% from Q2. Based on actual transactions, the IPI tracks the price of electricity to be consumed for 12 months starting from the beginning of the next season, in this case, winter 2017-18.

The average price of gas to be delivered over the next calendar year edged up 2.9%.

While nuclear power issues in France had a palpable influence over the higher price of UK electricity, a swathe of other, more global drivers also weighed in.

These included high global coal prices driven by a tightening of fundamentals in China, high Asian LNG prices due to a lack of incremental supply – this means supply that is not already tied up in long-term contracts –, and production controls in the global crude oil market.





Closer to home however, signals from the domestic UK markets did suggest that, despite the mix of bullish global drivers, energy traders have confidence in the market's ability to meet demand during this winter and beyond.

This was in part reflected by a reversal in UK power and gas prices from mid- to late-September. While a sudden sell-off on the global coal market fed into this price decline, the downward shift would not have happened – particularly coming as it did on the cusp of the high-demand winter season – unless energy traders had confidence that, fundamentally, the UK energy supply landscape would have the structural flexibility necessary to respond to, and meet, demand.

## Price drivers – in depth

### UK energy prices rise as French nuclear power fears emerge, winter looms

With memories of price spikes that occurred last winter still fresh, UK energy traders have moved to guard against a repeat this year, the ICIS Power Index for Q3 2017 shows. But, despite the concerns over tight supply, there are signs the UK energy system is ready for the onset of high demand.

An increasing risk of disruption to nuclear power output in France contributed to a sharp increase in wholesale electricity and gas prices in the UK throughout August and the first half of September.

This, combined with rising global fuel markets, threatened to push UK wholesale energy prices to a new high for 2017 in the third quarter.

But a late reversal saw prices retreat with winter looming. In mid-September, having spiked above £48.00/MWh for the first time since January, the ICIS Power Index (IPI) declined, signalling that the UK is better equipped to deal with any price spikes which might emerge in France this winter.

The IPI was £44.98 per megawatt hour (MWh) on average over Q3 2017, up 5.3% quarter on quarter. The average price of gas to be delivered over the next calendar year rose 2.9%.

“Last winter, UK energy prices spiked to record highs because of unexpected nuclear power disruption in France. This year, the risk of a repeat performance has steadily increased, and UK markets have been pricing in this risk,” said ICIS power markets editor Jamie Stewart.

“UK traders are worried about being ‘caught short’, which could mean having to buy electricity to satisfy delivery obligations at a time when severe price spikes are occurring. So, to mitigate this risk, traders have bought more electricity on the forward market which has itself pushed up prices.”

The price of gas has also risen, not only in the UK but in Western Europe too, partly because more fuel may be needed to run gas-fired power plants in the event of nuclear power plant closures.

Moreover, the UK will enter this winter with a near-total absence of capacity at Rough, the country's only large-scale natural gas storage site. This means forward prices have had to be sufficiently high to encourage gas to flow from the continent into Britain.

While nuclear power in France was the dominant driver of UK energy prices, a swathe of other, more global drivers also weighed in during Q3. These included high global coal prices driven by a tightening of fundamentals in China, high Asian LNG prices due to a lack of supply on the short-term market, and production controls in the global crude oil market.

But other factors will go some way to countering this risk of higher prices. One such factor, the UK electricity capacity market, is in play for the first time this winter. Under this mechanism a number of power plants must guarantee their availability at times of system stress. This makes harsh, short-term price spikes less likely to occur.



## UK gas: Rough times ahead?

Pricing for the coming winter at Britain's NBP natural gas hub has been dictated by a need to draw gas supplies from mainland European and Norwegian sellers through the season due to the near-total absence of capacity at the UK's only large-scale natural gas storage site.

The Rough facility is soon to cease operating as a storage site, although remaining recoverable volumes will be delivered to the market over the coming years, making it in effect a gas field that can now deliver much less than over previous winters.

This means the market must look towards Norwegian suppliers and its two interconnectors.

The NBP Winter '17 contract was last priced by ICIS before expiry at a clear premium to the Belgian Zeebrugge and Dutch TTF equivalents. This is indicative of the additional risk placed on the British market without Rough and the potential for greater price spikes if a sustained cold snap pushes demand higher – and keeps it there.

Pricing patterns reflect the loss of capacity at Rough. While the average price of gas to be delivered over the next calendar year rose 7.3% on a year-on-year basis in Q3 2017, the equivalent IPI increase was less at just 4.5%.

The NBP premium will also see British buyers outbid their peers on mainland Europe for flexible Norwegian production. The 75 million cubic metre per day Langeled pipeline, which beaches in Britain, will likely flow close to nameplate capacity as demand picks up through the winter.

But only a severe shortfall in supply and the resulting price spikes would enable British shippers to compete globally for spot LNG volume, given high global prices. Therefore, LNG arrivals will be at the mercy of demand at premium markets in Asia and South America.

## Global drivers

### LNG

Britain received fewer LNG cargoes over summer 2017 than in 2016, with strong demand in Iberia brought about by hot weather and low hydropower stocks making the region more attractive for deliveries.

Additionally, October and November LNG prices in Asia were substantially higher in 2017, driven largely by a lack of incremental volume from Qatari suppliers. This blew out the Asian price premium to European markets, particularly in late-September, which led to more reloads taking place at European LNG facilities.

Whether this trend continues will depend on the weather in Asia up until the end of the year, but in the short-term, European reloads look likely to continue as a result of the Asian price premium.

### Coal

Coal emerged as a key driver of UK energy prices during Q3 2017 despite playing a sharply diminished role in the summer energy mix. This is because coal-fired power stations will remain an important source of electricity generation over the winter to meet peak, day-time demand.

In fact, as the marginal fuel – meaning coal fired power plants will generally be switched off and on to balance the system against peaks and troughs in demand – coal will be a key price-setter of UK power prices this winter.

The impact of coal was very clear in Q3 2017. A bullish market, driven by growing Chinese demand and supply controls, combined with unforeseen constraints on global supply including Australian strikes, Indonesian flooding and a ban on North Korean coal exports, to drive UK energy prices higher.



### Carbon

The EU carbon market was less bullish than coal until prices jumped in early September. This was caused primarily by two factors:

- News that France and Germany were pushing for an agreement on carbon market reform by November
- The fundamentals of forward hedging, as price increases in other energy commodities resulted in healthy profit margins for power generators, meaning a greater need to buy permits to emit carbon

Since this increase, prices have been volatile, if flat from week to week. French nuclear availability and progress on post-2020 reform will be the main drivers of carbon in Q4.

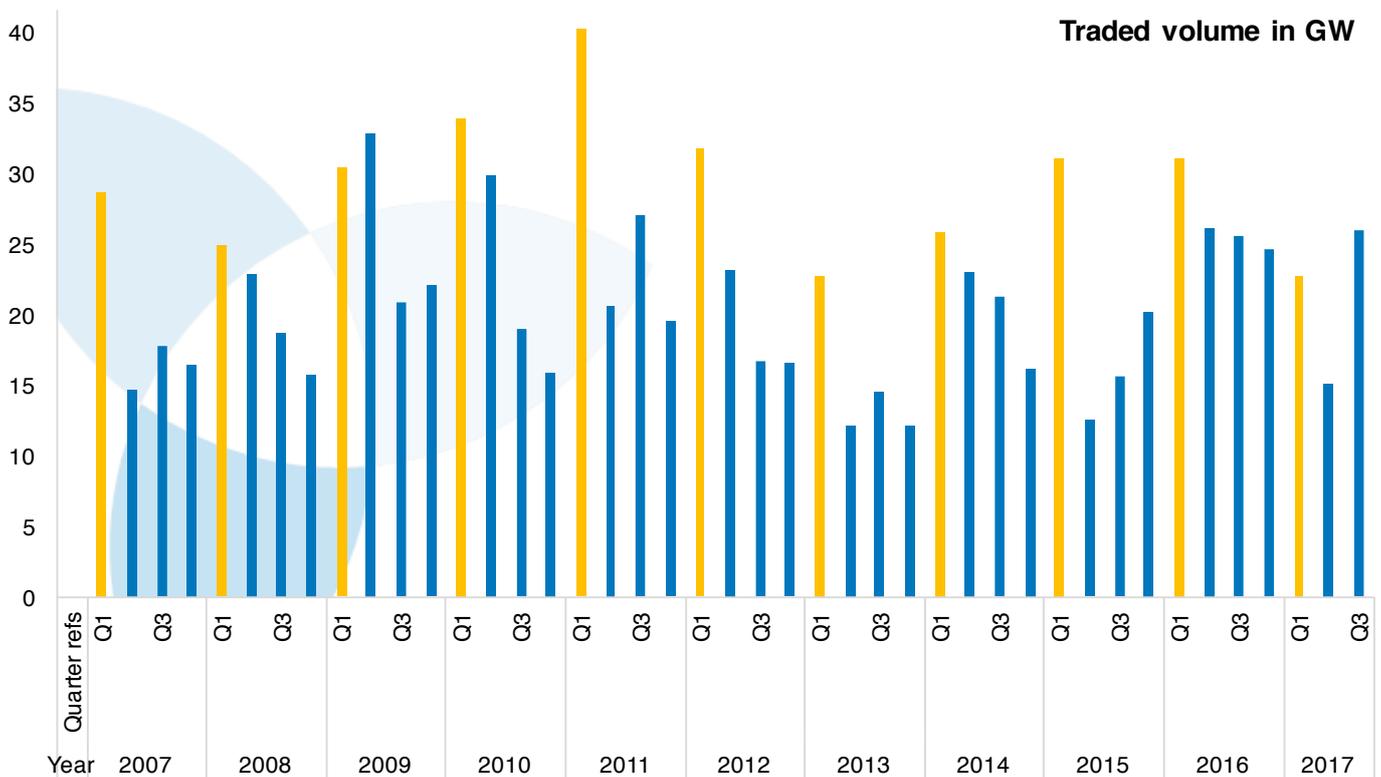
### Crude oil

Crude oil prices tracked steadily higher throughout Q3 2017, largely due to an output-curbing deal struck by the Organisation of the Petroleum Exporting Countries (OPEC), supply disruptions and higher forecasts for global demand.

While OPEC members indicated that supply and demand was starting to rebalance, there was speculation that the organisation could extend, or even deepen, the output controls. The market will likely have to wait until January for a decision.

### Outlook

All of this makes for a complex outlook. The UK wholesale electricity and gas markets enter the winter with a general air of confidence that an effective supply landscape with the appropriate





mechanisms is in place to ensure supply security by meeting demand in an efficient manner.

But risks of disruption, and resulting price increases, are not far away and will be closely monitored. Principle among these is French nuclear generation. A further tightening of fundamentals could lead to a tug-of-war across the 2GW interconnector, as both markets compete for the other's electricity supply by offering the highest price.

How the UK gas market handles the loss of large-scale storage at Rough for the first winter will also be pivotal.

Offsetting these risks, the electricity capacity market should go some way to lessening the risk of short-term price spikes and by extension long-term price rises. The effectiveness of this measure should have an impact on the IPI's year-ahead value going forwards into Q4 '17 and Q1 '18.

And as ever the one predominant winter driver – the weather – will play a very significant part. A prolonged cold period over Europe would drain

gas stocks and pull prices higher, yet the UK must remain priced above mainland Europe to attract the necessary pipeline imports in a post-Rough world. This would intensify the effect of a cold winter, and in effect creates a more interdependent Western European gas market: a cold week in central Germany can in theory lift UK gas prices more so than before.

Finally the UK will remain exposed to a host of global energy market drivers it can do little to influence: will the supply and demand of Chinese coal balance out? Will OPEC extend, or even deepen, its crude oil output controls? We should know more by January; how will carbon market reform impact the value of permits to emit CO<sub>2</sub> on the forward market? The UK has a voice here at the EU's table – but only for the time being.

All of these factors, and no doubt some unknowns that are yet to rear their heads, will define the direction of UK wholesale energy prices as this winter rolls on. To what extent, and in what direction, will emerge in time as risks either subside, or intensify.



## About the IPI

The IPI delivers independent insight into the complex world of wholesale power prices for both households and industrial electricity consumers, based on real market trading. The IPI is updated every working day and is freely available from the [ICIS website](#), along with ICIS' quarterly analysis of price trends and volume.

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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, analytics tools and independent consulting, enabling our customers to make better-informed trading and planning decisions.

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