



Highlights

- The ICIS Power Index averaged a two-year high over Q4 2016, while gas prices for delivery over the next year reached their highest quarterly average in 18 months.
- Short-term supply concerns boosted UK wholesale market values for both gas and power, with storage levels for gas at their lowest since market liberalisation in the 1990s and ongoing concerns over tighter power margins.

Price trends

UK wholesale energy market prices continued to trend upwards in Q4 2016, as concerns over power and gas supply availability pushed quarterly average prices for UK energy to hit two-year highs.

The ICIS Power Index (IPI) average value of £45.937/MWh reached levels not seen since Q4 2014, up 7% from the previous quarter, and 16% year on year.

The average quarterly gas price rose to its highest since Q2 2015 over the same period, to 45.018p/th. This was a rise of 10% from the average Q3 value, and 22% year on year.

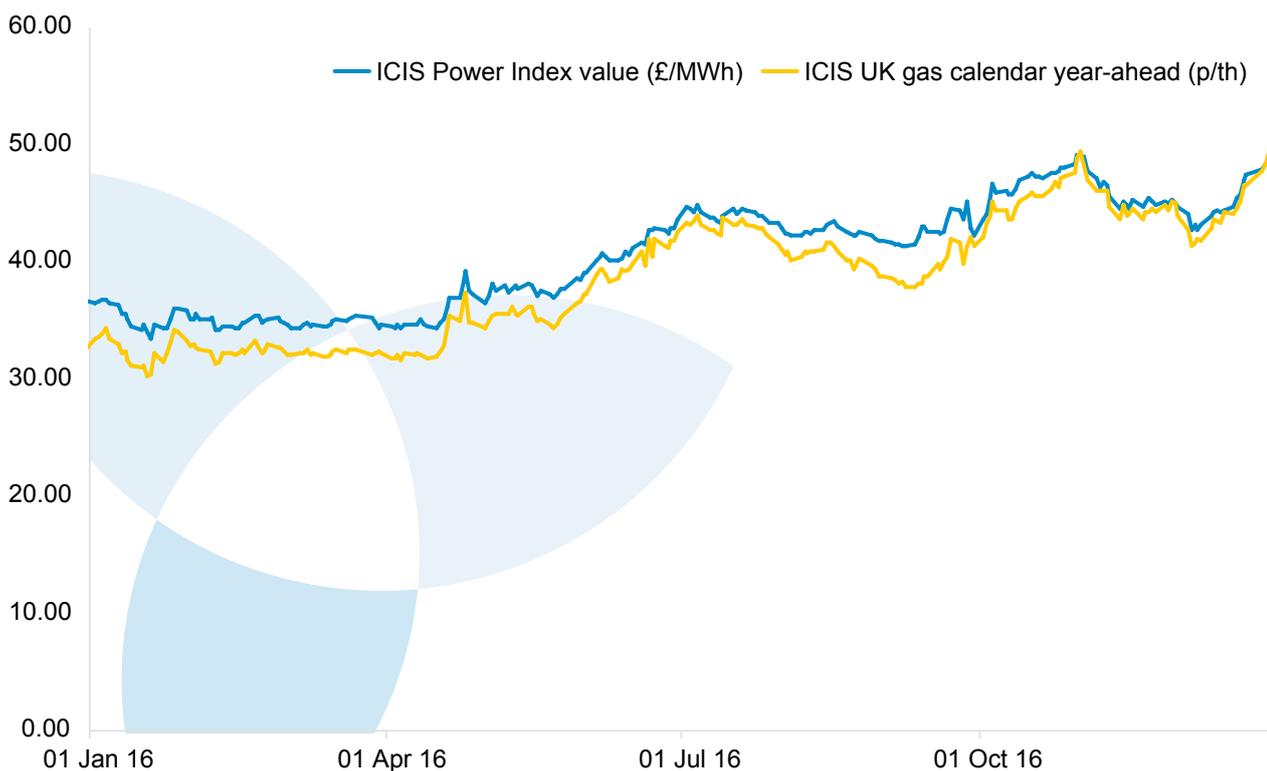
Prices were volatile during Q4 as well. The IPI hit its highest level in almost 12 months in early November, with UK and French power supply concerns boosting the UK electricity price to £49.10/MWh.

The UK price for gas delivered over the next year was also affected as traders expected more demand for gas-fired power generation, reaching a 20-month high at 49.40 pence per therm (p/th).

The IPI finished 2016 32% higher over the year, while gas rose by 54%.

Short-term concerns for UK power

The UK's tight winter electricity supply margin certainly made itself felt throughout Q4, with high prices for short-term delivery having a bullish impact on the price of longer-term supply contracts on which the IPI is based.





The IPI reached its highest level in almost a year in early November, when lower wind generation caused electricity system operator National Grid to forecast a shortfall in power production of 500MW during peak demand at certain times of the day – around 1% of the UK's peak consumption.

The forecast was calculated against an allowance for a small number of units suffering unplanned outages, so demand was unlikely to outstrip supply in delivery, but the tighter margins encouraged higher prices for those half-hours affected, reaching almost £400/MWh, in stark contrast to the usual delivery prices reflected by the IPI.

Concerns over French power supply also exacerbated UK short-term prices, with a similar effect on long-term contracts.

Late in September, news broke that some nuclear units would not return from maintenance until 2017 as operator EDF performs additional safety checks. The French nuclear safety authority ASN then ordered an additional five reactors to be removed from supplying the grid in October, with concerns peaking in November, as colder weather coincided with a delay in restarting seven units while the ASN analysed EDF's safety case.

Nuclear generation usually provides three quarters of France's electricity demand, so the shortage drove up French power prices. Typically UK prices are more expensive than France, making it profitable for the UK to import power from mainland Europe, but data from National Grid shows that imports from France during Q4 2016 dropped by 73% year on year to 785GWh – the lowest in more than five years. Import volumes were also affected by storm damage to the IFA in late November, halving its usual 2GW capacity.

Gas-fired generation accounted for 48% of the UK's total 77.9TWh of electricity during Q4 2016, compared with 30% over the same period a year earlier.

Sterling continued to lose ground over Q4 against the dollar, which helped to support power prices at a higher level. Coal is traded in dollars, so if the dollar gains value against sterling, UK generators must spend more in sterling for the same amount of fuel. While the proportion of coal used for power generation is lessening, the fuel still provides enough volume during colder months to have an impact on market sentiment. Coal-fired generation accounted for 10% of the UK's generation in Q4 2016, up from 3% in Q3 as demand increased.

Gas supply concerns

With the coming of winter, gas supply concerns came to the fore, particularly over storage volume.

Gas stocks ended 2016 at their lowest point since the UK gas market was liberalised in the 1990s, boosting short-term prices and increasing the risk premium for longer-term prices.

The amount of gas in storage at the end of 2016 was almost half the same amount the year before, according to National Grid storage data, at 2,260 million cubic metres (mcm), compared with 4,056 mcm the year before.

Britain's largest long-term gas storage facility, Rough, has had technical issues which have prevented gas injections to the facility since June and throughout the winter, preventing the usual build in stocks over the summer in preparation for the winter season.

In addition to low stocks, the ability to withdraw gas has also been cut to nearly half its technical capacity until early 2017. The facility accounts for around three-quarters of the UK's total storage capacity.

Higher UK gas prices have helped to attract gas imports from other markets via the Interconnector pipeline with Zeebrugge in Belgium, and the UK has made up the shortfall by importing record gas volume.



However, concerns grew as operator Centrica Storage requested in mid-December to reduce the amount of gas storage capacity offered, as the facility’s capability no longer match the obligations, signifying less capacity for future seasons as well.

Previously, liquefied natural gas (LNG) volume has made up for pipeline gas shortfalls, and the role of LNG in the UK’s energy consumption has increased in recent years. However, Asian demand for LNG has also attracted cargoes, leaving fewer available to come to northwest Europe. South Korea has been buying heavily to replace its nuclear generation, and Australian production outages have further increased demand.

The price difference between Asian LNG and northwest European equivalents has risen, making it more attractive to send cargoes with flexible destination clauses to Asia. Asian LNG prices began Q4 2016 28% higher than northwest European gas prices, but finished the year 60% higher, at \$9.25/mmbtu.

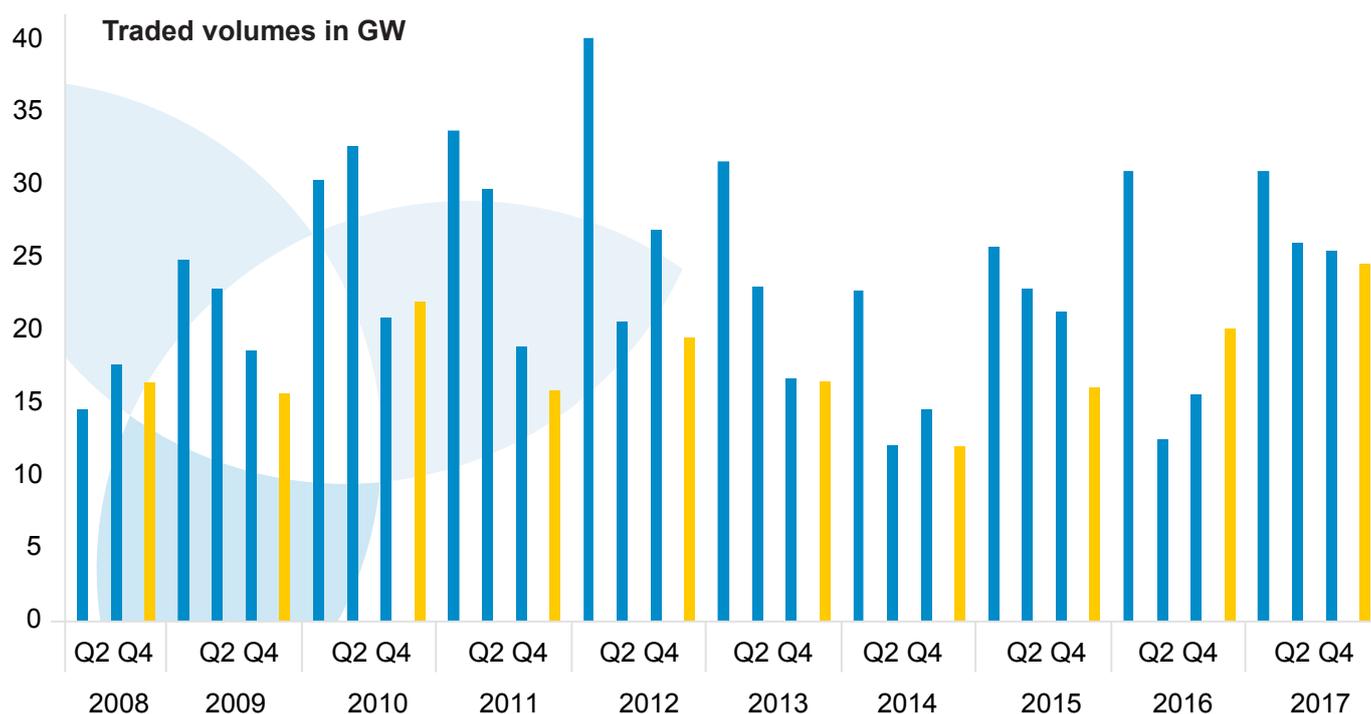
Data from analytics platform ICIS LNG EDGE shows that the number of LNG vessels coming to the UK has fallen from 32 in Q4 2015 to eight in the same period last year.

Macroeconomic drivers

The energy complex also responded to macroeconomic drivers.

The Brent crude oil futures front month finished 2016 at an annual high of \$56.78/bbl – more than double its 2016 low of \$27.49/bbl in January.

Oil market sentiment in Q4 hinged on an agreement between oil producing nations to tackle the current oversupply, brokered by the Organization of the Petroleum Exporting Countries (OPEC). OPEC member states agreed to cut 1.2m barrels per day (bbl/day) from the start of 2017, with non-OPEC states also agreeing to cut an additional 600,000 bbl/day. While similar agreements to cut supply have not stuck in recent years, the deal includes individual country quotas





and an independent monitoring committee, which gave market participants more confidence that this time, the deal would hold.

Liquidity

Once again, volatile prices led to strong traded volume on the two seasonal contracts comprising the IPI. The amount of electricity changing hands in Q4 reached 24.6GW, less than the 25.1GW traded in Q3, but the largest amount for the last quarter of the year in the last decade. Q4 is usually the quietest quarter of the year as markets and industry wind down for year's end.

Outlook

- The government's decision in March to bring the capacity market forward to cover electricity delivered in winter 2017 could bring long-term power prices in the IPI lower, as plants that are successful in the auction on 30 January will receive a payment to incentivise them to remain online despite lower wholesale prices. The government is aiming to procure 53.6GW of capacity for a guaranteed period of one year from 1 October 2017.
- UK long-term power prices have been lifted by short-term supply concerns in Q4 because of tighter margins, so if the weather turns colder, this is likely to continue to have more impact in Q1. Otherwise, French nuclear supply is expected to return to near-normal levels in January, so the expectation is for power prices to follow fuel prices as would usually be the case.
- Gas supply in the UK is tighter than usual for the rest of the winter, so higher prices in the UK are expected to attract gas imports from mainland Europe via the Interconnector pipeline. Storage availability remains a concern because of the dwindling technical capability of the Rough facility, making for more volatile price movements over the year. Without as much storage, even long-term prices are likely to fall in summer because there are fewer options to send gas that is not being used, while the following winter, less gas to draw on is likely to increase prices once again.
- Asian demand for LNG is expected to remain high during Q1, which is likely to continue to divert any surplus cargoes away from northwest Europe, although later in the year, these cargoes may be at least partly replaced by US exports as production continues to ramp up.
- One unknown remains the impact of the triggering of Article 50 to begin the UK's exit from the European Union. If the value of sterling falls relative to the euro, market participants paying in euros will be able to buy more gas for the same price, so UK gas prices would likely rise further because of the additional demand.



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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