CATALYST ENERGY SOLUTIONS

Energy Element / November 2016

In this issue…

Day-ahead gas soared by 50.6% in October

Day-ahead gas soared 50.6% higher in October, to average 43.1p/th. This was the largest monthly gain since at least 2012. On 26 October day-ahead gas reached 48.0p/th, the highest price since April 2015, as gas demand for power generation and heating was expected to rise significantly the following day.

Seasonal gas prices increased 13.0% on average, with a rise in oil prices. Summer 17 gas experienced the largest gain of 14.9% to average 42.5p/th. Winter 17 moved 13.1% higher to 48.0p/th. Seasonal gas prices were higher than their levels last year.

At the end of October, Centrica announced that it was “still conducting preparatory works and reinstatement testing” at the Rough gas storage site, which is expected to be completed in the second half of November. These additional delays will further tighten supply.

Seasonal baseload power contracts on average increased 11.4% in October, following their gas counterparts higher. Summer 17 power rose 13.7% to £44.1/MWh. Winter 17 power gained 13.7% to £48.9/MWh.

Oil holds above the $50 per barrel mark throughout month

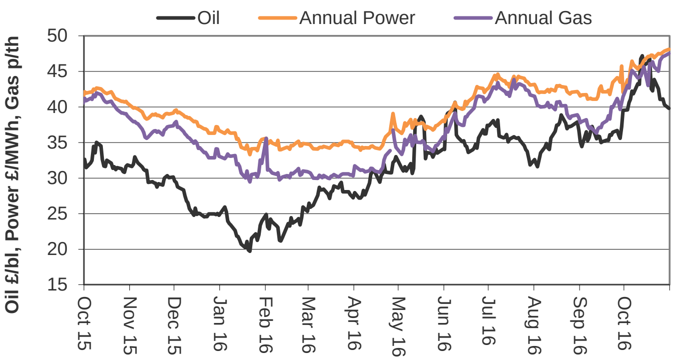
Brent crude oil prices rose 9.5% to average $51.6/bl in October, with prices holding above the $50/bl mark for nearly the entire month.

Oil prices jumped at the start of the month, when they were supported by a large drop in US crude inventory levels. There were also growing expectations that oil producers would agree to cut production levels.

On 10 October prices hit a one-year high of $53.5/bl, after Russia said it was ready to join the proposed deal to cap oil production. Prices then steadied and went on to slip slightly towards the end of the month, as Iraq said it wanted to be exempt from the deal to cut production.

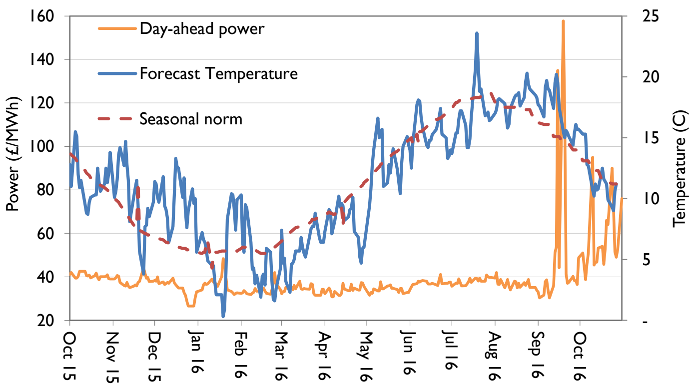
API 2 coal went up 13.1% to average $66.9/t. On 24 October API 2 coal reached $71.0/t, the highest price since December 2014. At the end of October, 20 of France's 58 nuclear reactors were shut for tests and EDF expects to halt four more in the coming months.

Crude oil and annual wholesale gas and power prices



EU ETS carbon jumped 31.6% to average €5.7/t. On 26 October prices reached a 20-week high of €6.0/t, supported by stronger power prices and high coal prices.

Spot power prices and temperatures

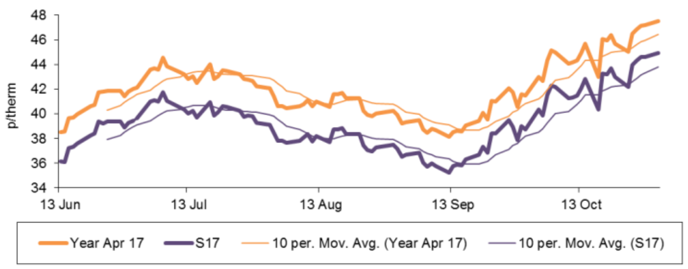


The month-ahead: French nuclear uncertainty

Uncertainty remains as to when France’s nuclear capacity will recover or if more reactors will shut down in the coming weeks. Further price spikes on the short-term markets are possible, particularly if there are any unexpected supply issues and/or the weather turns colder for a sustained period.

Catalyst Commercial Services’ independent approach enables clients to manage their exposure to energy price risk, while at the same time benefiting from a first class service from a range of major and independent suppliers. Catalyst Commercial Services’ procurement solutions make it simple, so contact a member of the team to discuss requirements.

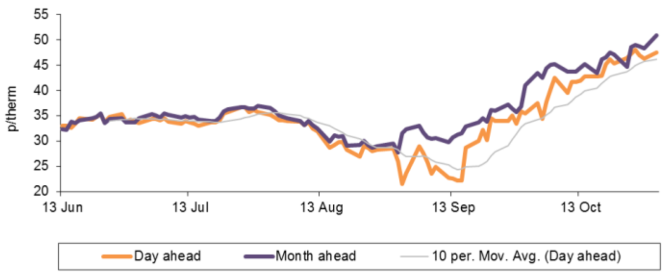
Annual gas prices



All seasonal gas prices increased in October. The annual April 17 gas contract climbed 13.9% to 45.3p/th. Summer 17 gas experienced the largest gain of 14.9% to average 42.5p/th. Winter 17 gas increased 13.1% to 48.0p/th.

Seasonal gas prices increased 13.0% on average, with a rise in oil prices. Seasonal gas prices were higher than their levels last year. At the end of October, Centrica announced that it was “still conducting preparatory works and reinstatement testing” at Rough gas storage site, which is expected to be completed in the second half of November. These additional delays will further tighten supply for the coming winter.

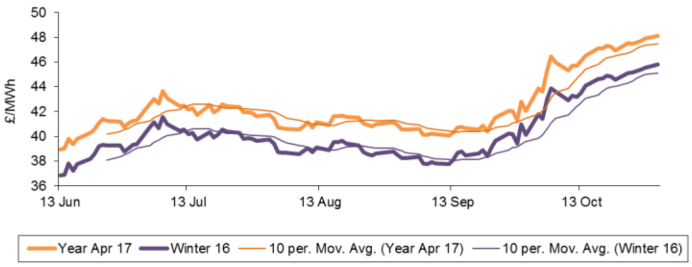
Spot gas prices



In October, day-ahead gas soared 50.6% higher, the largest monthly gain since at least 2012, to average 43.1p/th. On Wednesday 26 October day-ahead gas reached 48.0p/th, the highest price since April 2015, as gas demand for power generation and heating was expected to rise significantly the following day.

The month-ahead contract moved 17.4% to higher average 45.8p/th.

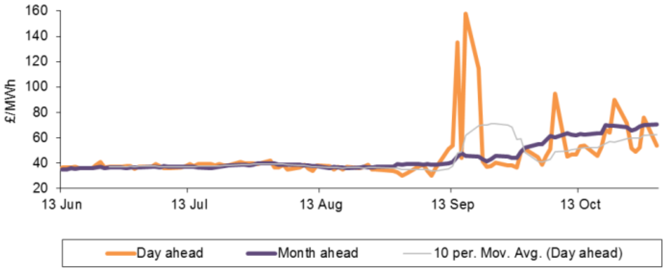
Annual power prices



The annual April 17 baseload power contract rose 13.7% to average £46.5/MWh, following the gas market higher.

Seasonal baseload power contracts on average increased 11.4% in October, following their gas counterparts higher. Summer 17 power rose 13.7% to £44.1/MWh. Winter 17 power gained 13.7% to £48.9/MWh.

Spot power prices



Day-ahead power rose 7.5% to average £56.9/MWh.

Supply concerns from last month are expected to continue into winter, amid reports that 20 of France's 58 nuclear reactors were shut for tests. EDF expects to halt four more in the coming months, sparking concerns over power supply tightness as lower temperatures lift demand. This has boosted French prices and reduced interconnector imports.

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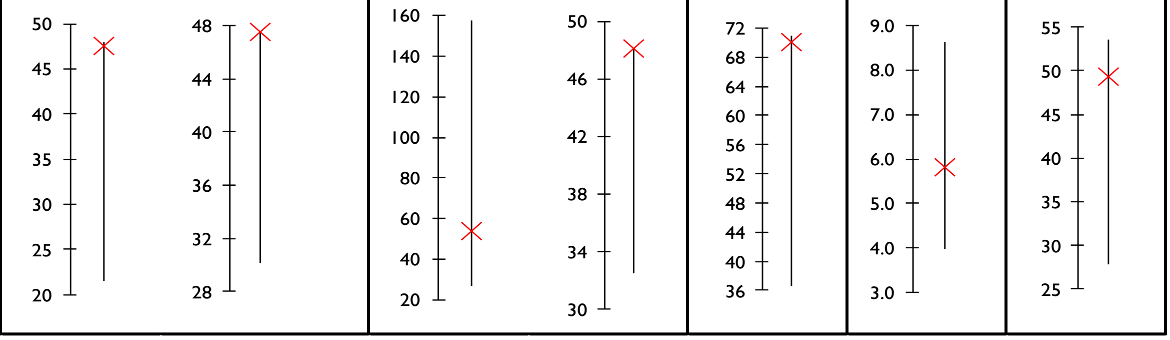
Key market indicators: 31/10/2016

		Gas (p/th)		Electricity (£/MWh)		Coal	Carbon	Brent crude
		Day-ahead	Year-ahead	Day-ahead	Year-ahead	($/t)	(€/t)	($/bl)
This month	31 Oct 16	47.50	47.53	53.97	48.13	70.00	5.81	49.35
Last month	30 Sep 16	35.50	41.46	51.00	42.05	64.75	4.95	48.36
Last year	30 Oct 15	37.80	38.94	39.02	39.48	48.30	8.63	49.18
Year-on-year % change		26%	22%	38%	22%	45%	(33%)	0%
Year high		48.00	47.53	157.73	48.13	71.00	8.64	53.54
Year low		21.50	30.11	26.56	32.47	36.55	3.98	27.83

This table shows the price at the end of this month compared with prices from the previous month and year. The graphs show the position of this month's prices with a red X and the range of prices over the year is represented by the black line.



Commodities

Carbon: EU Emissions Trading Scheme carbon is quoted as over-the-counter (OTC) latest opening prices. All carbon prices are in euros per tonne (€/EUA).

Coal: Coal is quoted as OTC latest opening prices. All coal prices are in US dollars per tonne ($/t).

Electricity: UK power base-load and peak-load are quoted as OTC latest opening prices. All UK electricity prices are in pounds per megawatt hour (£/MWh).

Gas: UK National Balancing Point (NBP) gas is quoted as OTC latest opening prices. All UK gas prices are in pence per therm (p/th).

Oil: Brent crude oil is quoted as OTC latest opening prices. All Brent crude oil prices are in US dollars per barrel ($/bl).

Language/ terms

Bearish: A bearish market shows a general decline in prices over a period of time.

Bullish: A bullish market shows a general increase in prices over a period of time.

Curve: A graph of forward prices over a future time period.

Margin: The indicated UK imbalance of a given settlement period. It is the difference between the sum of the indicated generation available, and the national demand forecast made by National Grid.

Over-the-counter (OTC): The trade of a commodity directly between two parties, often on standardised terms.

Spark/ Dark spread: The theoretical net income of a gas/ coal-fired power plant from selling electricity having purchased the necessary fuel. The clean spark/ dark spread is this net income adjusted for the cost of carbon.

Energy supplies secure for winter, says National Grid

System operator National Grid has confirmed that the risk of winter power blackouts has fallen, with more electricity supplies available than had earlier been anticipated.

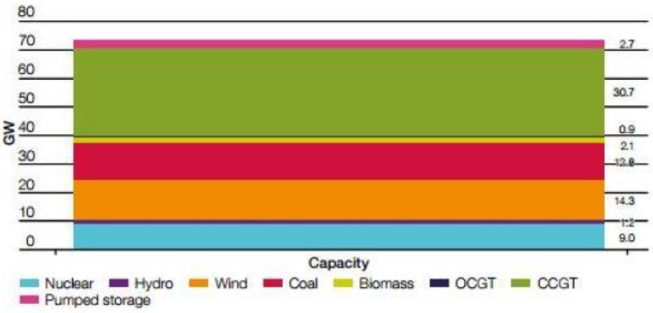
Extra capacity

The company published its annual *Winter Outlook* report on 14 October. It suggested that Britain's capacity margin – the extent to which the supply of electricity on the system would exceed the expected level of demand from consumers – would stand at 6.6%. This was higher than the 5.5% margin forecast by National Grid earlier in the summer.

The report explained that the improved forecast had been driven by two key factors. Firstly, it is now expected that capacity at the Eggborough coal-fired power station will be available. The plant had been due to close this winter, but having secured a contract to provide system services will now stay open until next March.

Secondly, National Grid has reduced its expectation of the level of electricity that will be exported to Ireland this winter. This is a consequence of an outage on the East-West interconnector, which usually exports power from Britain.

Generation capacity for winter 2016-17



Source: National Grid

Tight but manageable system

A total of 73.7GW of electricity capacity is expected to be available over the winter, with a de-rated generation capacity - on which National Grid bases its analysis - of 55GW. Meanwhile, demand on the system is expected to peak at 52.7GW.

The system operator noted that, although recent winters had been mild, it was not complacent, adding that the electricity margin was expected to be "tight but manageable this winter".

National Grid said that it was "confident" that it had the right tools in place to help balance supply and demand on the electricity system, having taken "additional actions" to improve the outlook. For example, it has procured 3.5GW of so-called "contingency balancing reserve" services.

It further expected there to be sufficient gas available to meet demand this winter, while reduced exports to both Ireland and to continental Europe mean that demand will be lower than it was last year.

This analysis will calm nerves about the winter supply picture, but does reinforce the challenges presented by a system in transition away from old fossil fuel plants.

National Grid

Small businesses urge suppliers to commit to renewables

A survey of decision- makers within 100 SMEs has found that more than seven in 10 (72%) want their energy suppliers to be more committed to renewable energy.

The research, by supplier Haven Power, was released on 10 October. It found renewable energy was rated the third most important factor, behind price and service quality, that would prompt businesses to switch suppliers. Just over one in five SMEs (22%) told Haven that they would stay late at work if it meant they could purchase a 100% clean energy product.

Haven Power chief executive Jonathan Kini said: "SMEs want more from their supplier and a commitment to renewable energy is one of the demands they are pushing for. This suggests there is some fundamental change happening, and we in the energy sector need to respond to it by not only helping SMEs reduce their energy usage but also being able to supply 100% renewable energy."

Haven Power

Key fracking project gets go-ahead

The government has given the go-ahead to plans to frack for shale gas at a site in Lancashire.

The decision is regarded as an important milestone in the government's progress towards establishing a shale gas industry as part of its work to ensure the security of the UK's energy supplies. But fracking is highly controversial, with concerns expressed about both its environmental impacts and the extent to which it will deliver the reduction in energy costs that its advocates claim. Indeed, the then coalition government imposed a moratorium on fracking in 2011, only to lift this at the end of the following year.

Communities and local government secretary Sajid Javid announced on 6 October that he had overturned an earlier decision by local councillors against Cuadrilla's plans to frack at the Preston New Road site. Javid delayed a decision on Cuadrilla's application at its Roseacre site in the county, owing to concerns over traffic impacts; however, he noted that, if the issues identified could be "satisfactorily addressed", he would be minded to grant approval to the proposals.

Shale benefits

Javid said that shale gas had "the potential to power economic growth". The industry could, he explained, support 64,000 jobs, with a significant share of the financial benefits being re-invested into local communities. The government is keen to emphasise these benefits as recent surveys have revealed strong public opposition to shale gas development.

But business groups responded positively to the announcement. The British Chamber of Commerce (BCC) welcomed the decision, explaining that tapping domestic energy resources would bolster both energy security and local jobs and was preferable to dependence on supplies from overseas.

Babs Murphy, chief executive of the North & Western Lancashire Chamber of Commerce, said: "Developing a viable shale industry in Lancashire will have positive economic implications for the region in terms of investment, jobs and supply chain engagement, and has the potential to provide security of energy supply to regional manufacturers."

Political opposition

Javid's announcement was criticised by opposition political parties. Shadow energy and climate change secretary Barry Gardiner said fracking "risks locking Britain into an old-fashioned dirty energy infrastructure when we should be seizing the opportunities for new long-term jobs and investment in a clean energy future".

The Liberal Democrats were also critical of the announcement. Energy spokesperson Baroness Lynne Featherstone said the decision set a "dangerous precedent" and that the government was moving in the wrong direction while the rest of the world pushes towards a low-carbon mix.

Richard Black, director of think tank the Energy and Climate Intelligence Unit (ECIU), noted that the economic viability of a domestic UK shale gas industry remained unproven. He said: "Having invested in UK facilities to take advantage of cheap imported gas, is it really wise to be investing in shale gas which is unlikely to bring bills down […]?"

DCLG BCC

UK storage capacity over 3GW

New analysis has shown that the UK has now deployed over 3GW of operational energy storage.

Storage is expected to take on an increasingly important role in the energy system over the next few decades. It can, as the level of intermittent renewable energy sources on the system expands, help to balance the supply and demand of electricity, reducing waste.

The report, released by the Renewable Energy Association (REA) on 4 October, said that the UK was now home to 35 standalone grid-scale storage projects and at least 1,500 residential storage units. It further confirmed that at least 453MW of new storage projects, largely battery-based, were planned or in development, in addition to the 200MW of enhanced frequency response projects recently contracted by system operator National Grid.

Frank Gordon of the REA said: "We need more action to unlock opportunities and the government's awaited *Call for Evidence* should address crucial issues such as a definition for energy storage in legislation or the grid codes."

REA

UK hits all-time low in renewables rankings

The UK has dropped down to 14th place in EY's quarterly index of the most attractive locations for renewables investment - its lowest position to date.

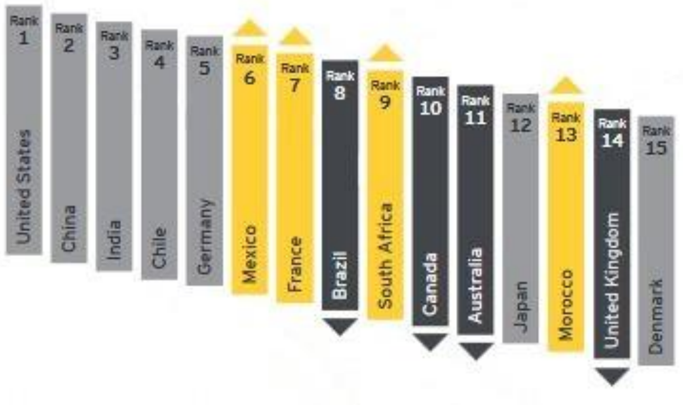
Uncertain future

The report, issued on 26 October, explained that European countries had become increasingly attractive to renewables investors in recent months, having lost pace with emerging markets earlier in the year. But the UK was said to be "bucking the trend" towards this overall improvement, mainly as a consequence of the uncertainty caused by the vote to leave the EU, the dismantling of the Department of Energy and Climate Change, and the approval of the Hinkley Point C nuclear power project. These factors had undermined confidence among investors.

However, the report highlighted the "continuing potential" of offshore wind in the UK. For example, it noted that Hornsea Project Two would become the world's largest offshore windfarm, if built as planned. It further cited figures from the UK Crown Estate that suggested that offshore wind was on course to supply 10% of the country's electricity demand by 2020.

EY concluded that the UK was left facing "an unknown future" ahead of Brexit negotiations, adding that "the deepest and most easily deployable technologies of wind and solar seem to be absent from the government's plans" at this time.

EY renewable energy country attractiveness index



Source: EY

European improvement

Meanwhile, many European countries climbed the rankings - including France, Belgium, Sweden, Ireland, Norway and Finland. This was credited to an increase in renewables programmes, which are helping to drive investment.

Ben Warren, EY global power and utilities corporate finance leader and chief editor of the report, said: "European countries lack the flexibility that exists in emerging markets to transform their energy industries. Their greatest hurdle is integrating renewables with historically centralised conventional power generation. It began to look like European countries were scaling back their renewables ambitions as a result but, in recent months, we've seen promising new programs materialise around the continent."

The report underlines the pressure on the government to make a clear show of intent with regards to its long-term commitment to renewables funding. This month's Autumn Statement could provide more clarity.

EY

Businesses offer significant demand-side response potential

Large industrial and commercial companies can play a major role in ensuring the stability of the electricity system, according to a new report.

The survey, by energy regulator Ofgem, said that these firms had the capacity to increase or lower their electricity demand by substantial volumes, if this were necessary to ensure that the power system remained in balance.

But several barriers were said to be inhibiting the deployment of this demand reduction capacity, despite its potential to make the system more flexible. For example, businesses were said to be concerned about the impact that it would have on their operations. Moreover, the financial benefits of demand response remained unclear.

Ofgem said that it would conduct further analysis of the survey alongside a new call for evidence on system flexibility that it will soon be launching.

Ofgem

LED lighting to bolster energy security

Greenpeace has claimed that a shift to LED lightbulbs in homes could reduce peak electricity demand during the winter by 5%.

The research, published on 14 October, argued that this could be a relatively quick transition and explained that the total cost of partially upgrading all UK homes to energy efficient LED lights would be around £1.7bn. Meanwhile, a similar switch in office and other commercial buildings could save around 4.5GW of peak demand.

Greenpeace chief scientist Doug Parr said: “It is high time the government created an energy system that no longer relies on fossil fuels as part of a 21st century industrial revolution that the UK should embrace.”

Greenpeace

GIB backs Edinburgh energy-from-waste plant

The Green investment Bank (GIB) has committed £28mn of debt finance to a new energy-from waste (EfW) plant near Edinburgh.

It is expected that the Millerhill plant will treat up to 155,000 tonnes of waste and generate 94,000MWh of electricity annually. The plant will also be combined heat and power (CHP) ready. This means it will be able to supply excess heat from its operations to nearby homes and businesses. The project is expected to create up to 350 jobs during this phase, while a further 40 operational jobs will follow upon completion in 2019.

Speaking on 6 October, Ed Northam, head of investment banking at GIB, said: “It’s important that materials are re-used and recycled wherever possible, but it’s equally important that infrastructure is developed to increase the amounts of energy recovered from waste that can’t be reprocessed.”

GIB

Coal’s share of electricity mix continues to fall

Coal’s share of the power generation mix continued to slide in the three months to August, according to new figures released by the government.

A monthly statistical update, issued on 27 October, confirmed that over the period electricity supply from coal-fired power plants had fallen by 77% year-on-year to 2.7TWh - with August at a record monthly low of 0.5TWh.

The figures were driven by reduced capacity following the closures of Ferrybridge C and Longannet, along with the conversion to biomass of the third unit at the Drax plant. Overall, coal’s share of the electricity supplied by major power producers stood at 4.6%, which is down 14.7pp year-on-year. Gas’s share of the mix was up to 50.1%.

Government

Multinationals yet to embrace Paris agreement

A report by the Carbon Disclosure Project (CDP) has revealed that a majority of multinational firms have not yet developed strategies to successfully meet the goals of the Paris agreement.

The report, issued on 25 October, explained that while 85% of these companies had set emissions reductions targets, just 14% had set objectives as far as 2030, and only 9% had targets that could be considered “science-based”. It further said that current targets set were still only 25% of the way to meeting the necessary emissions reductions.

Chief executive Paul Simpson said that the choice for companies had never been clearer: to seize opportunities and “lead the way” in the transition to a sustainable economy, or continue as usual and face “serious risks”.

The CDP further stated that, although there remained a distance to travel with regards to bringing goals and actions in line with the Paris agreement, many companies were already taking meaningful action and more were expected to join them within the coming years.

CDP
