

Energy Market Insights

Twice Monthly Independent Market Analysis

ELECTRICITY

MARKET ENDURES CHILL AND LOW WINDS



Plummeting temperatures, weak winds and emergency supply measures have played havoc with short-term UK electricity prices this week, while longer-term periods have shown more resilience with the remaining winter months – as well as the quarters and seasons beyond – all coming down as the UK and Europe coped fairly easily with the first taste of true winter conditions. At the start of this week National Grid instructed Drax to warm up two coal-fired units to provide back-up during the evening peak demand period, although later told them to stand down. Low winds and freezing conditions had led to concerns around supply margins, although the system held up in the end and emergency measures were not required.

April '23 Annual Baseload power has been shedding value this week and is currently around £287/MWh – a drop of 10% since the start of December – having peaked at £335/MWh earlier this month as demand forecasts were hiked up on the gas side just as renewable output was starting to falter. There have been similar moves on the October '23 and April '24 Annuals – valued around £252/MWh and £221/MWh, respectively, at the time of writing – shedding 9% and 4% across the fortnight. The three annuals are now back in line with late November levels.

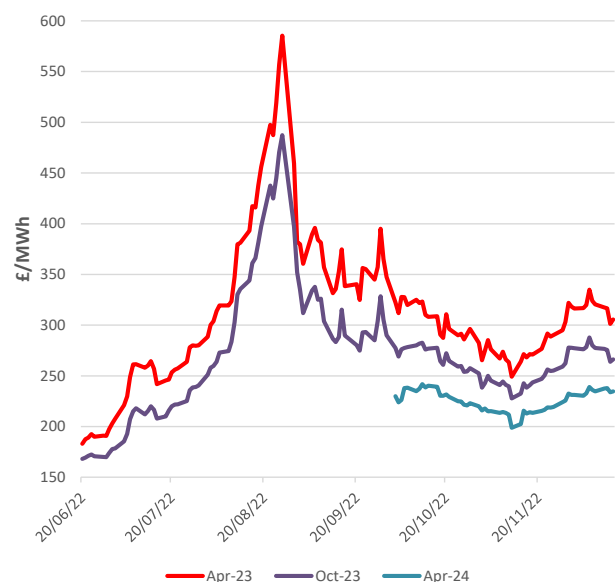
On the short-term market UK wind output has dropped to an average of around 5.5 GW during December to date – bumping up gas-fired generation by 20% compared to the latter half of November (there are indications of much higher production from next week). The lack of wind could have led to frequent emergency calls from National Grid were it not for a switch to net imports to the tune of 450 MW per day, after the UK exported more than 2 GW on average the previous two weeks. Flows to France collapsed by 52% to just under 1 GW – helped by French nuclear generation rising 27% compared to November – while the UK enjoyed net imports from Belgium, Ireland and the Netherlands.

The Day-ahead Baseload index had ballooned to a new 2022 high of £667/MWh when wind farm generation plummeted and the UK was a net exporter, before tumbling below £350/MWh a few days later. Prices then edged higher before crashing under £200/MWh this morning on signs of strong winds from Monday. It was

a completely different story on the front month – often strongly correlated to the Day-ahead – where the trajectory has been almost entirely downwards. January '23 Baseload has shifted from more than £535/MWh at the start of the month all the way down to £320/MWh at the time of writing – a 40% drop – as confidence has grown that markets throughout Europe could survive cold spells this winter.

Elsewhere carbon values have nosedived after the upwards momentum of late November finally ran out of steam, with expiring options and technical indicators helping to bring both EUA and UKA prices down. Front month UK emissions prices are around £69/TCO_{2e}, having shed 12% over the past couple of weeks.

UK Annual power prices (six-month view)



ELECTRICITY: OUTLOOK

 French capacity market prices at a recent auction rose by a third to reach the EUR 60,000/MW ceiling. All suppliers in France have been required to purchase capacity guarantees for electricity bought on the wholesale market to secure supply during peak winter demand. The auctions finance the availability of capacity with costs passed on to consumers. The high prices at the most recent tender reflect the tight supply picture, with TSO RTE recently warning of a high risk of shortages in January due to delayed nuclear restarts.




VOLATILITY


Short term UK energy prices drop as cold snap ends, following extreme volatility



2022 RECORD

Day ahead electricity hit a 2022 record during the cold snap

 For the first time a nuclear fusion experiment has produced more energy than was used in the input process, scientists based in California said this week. Nuclear fusion – as opposed to the conventional fission method used to generate power today – seeks to emulate a star and involves smashing elements together to create energy, but without the possibility of meltdown that fission has. Although the news is a positive step it is still likely to be decades before the process can be scaled up, which may not be possible at all.

 The UK government has hinted it may perform another U-turn on onshore wind – the cheapest form of power generation – saying it will introduce legislation in April next year that will relax planning laws for new projects. Local communities will still have to approve developments and investors are likely to be wary of protracted legal disputes.



WIND

Wind output drops due to still weather

KEY POWER INDICATORS:

Long-term UK (£/MWh)				Short-term UK (£/MWh)				European power (£/MWh)			
Apr'23 Annual	chg	Oct'23 Annual	chg	Month-ahead index:	chg	Day-ahead index:	chg	Germany Cal '23	chg	France Cal '23	chg
305.55	-16.45	266.18	-11.83	348.20	-6.80	357.47	26.62	327.20	-44.00	360.80	-86.95

KEY OTHER INDICATORS:

Coal (\$/MT) '23	chg	Oil (Brent) \$/bbl	chg	UKA '22 (£/TCO2)	chg	EUA '22 (€/TCO2)	chg	EUA '23 (€/TCO2)	chg	EUA '24 (€/TCO2)	chg
220.50	-54.27	82.14	-3.24	70.59	-1.41	85.08	0.24	88.69	0.44	92.61	0.75

All changes (chg) are compared to last report

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GAS

DEMAND SURGE FAILS TO BUOY GAS PRICES



The UK has experienced the first period of cold winter weather pushing demand substantially above average – exports also played a part in this – for the first time in Q4, catalysing a fresh wave of volatility that was most intense at the front end of the market. But signs the cold snap is likely to abate, rising renewable expectations and falling exports (as short-term UK prices have caught up with mainland Europe) have helped to pressure most periods, with April '23 Annual gas shedding 10% across December – to 311 p/th currently.

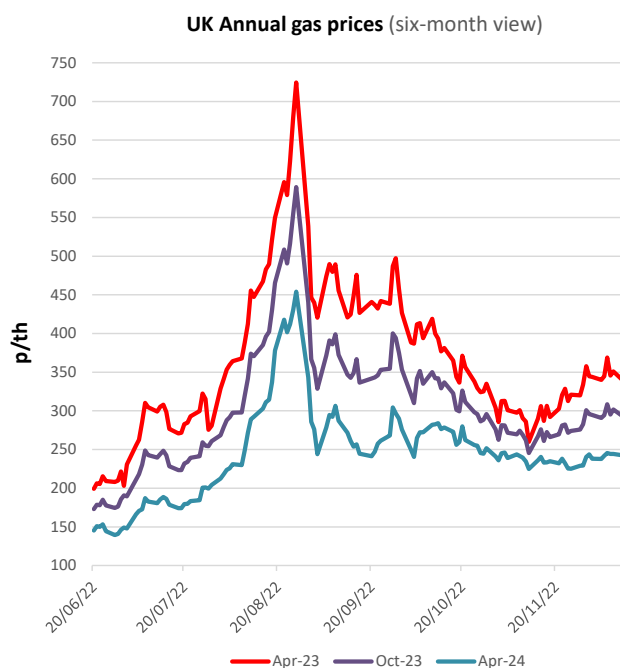
The impetus has mainly been on the demand side – a welcome change from fretting over Russian exports – with UK gas use more than a fifth higher than the seasonal average over the last couple of weeks, after being 16% below normal in November. UK Day-ahead gas was yanked from 330 p/th to a peak of 373 p/th as the cold snap approached, but has since eased down towards the 300 p/th mark as falling exports and strong LNG supply helped to mitigate rising household demand. It is worth noting the Day-ahead is still more than double the levels seen through most of November when conditions were mild, with the main impact of falling temperatures being that short-term prices have converged with the remaining winter periods where weather-related risk was already priced in. January '23 has followed a similar trajectory, hitting a high of 375 p/th at the same point the Day-ahead plateaued, but coming down to around 310 p/th over the past few days.

On the policy front EU energy ministers remain at odds over whether to implement a ceiling for trades on the Dutch TTF front month – the benchmark for the continent – with the next round of talks slated for Monday. The European Commission has proposed a bidding limit of EUR 275/MWh – the front month is currently trading around EUR 124/MWh – a level most periods on the Dutch market have not breached since the storage-related surge in August.

Speaking of storage, the EU is very much in withdrawal mode now that demand has started to bite, after shippers had been extremely sparing with using stocks over the past couple of months (abundant LNG has helped there). Sites are now just below 87% full – down from more than 92% a couple of weeks ago – compared to 60% normally at this point over the last five years. Should withdrawals continue at

the same pace as they have over the past fortnight – always a big if – then sites will be at more than 50% of capacity by the end of February when the threat of cold conditions will be far less acute. This may lead to some easing of prices but there is a long way to go until that point and the war in Ukraine – not to mention Kremlin policy towards the West – remains a destabilising wildcard.

Elsewhere oil values have been rising for reasons that were also completely unrelated to Russia for a change! Leaking crude on the North American Keystone pipeline and indications China is finally starting to relax its zero Covid stance – following protests – have helped to push North Sea oil towards \$80/bbl at the time of writing, bouncing off lows of around \$76/bbl earlier this month.



GAS: OUTLOOK

 China's National Development and Reform Commission (NDRC) has told state-owned LNG importers to stop selling excess inventories into the European market as Q1 approaches, according to the International Gas Union, potentially reducing imports.




UK COAL


UK fires up coal plants as backup supply



EU GAS

EU begins to pull from gas storage, though levels expected to be strong through winter

 Global gas storage capacity could increase by 30% in the coming years – according to lobbying group Cedigaz – as countries look to shore up security following Russia's invasion of Ukraine. Projects with a combined capacity of 133 BCM are currently in the pipeline, compared to 424 BCM in operation currently. Cedigaz said that five countries – the US, Russia, Ukraine, Canada and Germany – account for almost 70% of existing capacity, with China and several Middle East nations driving the growth in new storage.

 The European Commission has said that EU gas storage must be 45% full by February 1st – while urging member states to aim for 55% - to ensure energy security across the bloc. On February 1st over the past five years sites have been 53% full on average and the last time aggregate fullness on this date was below 45% was in 2017 (40%).



NUCLEAR

Nuclear fusion produces more energy than was used in the input for the first time, though any commercial use is decades off

KEY GAS INDICATORS:

Long-term UK (p/th):				Short-term UK (p/th):				European gas (€/MWh):		Crude Oil:	
Apr '23 Annual	chg	Oct'23 Annual	chg	Month-ahead index:	chg	Day-ahead index:	chg	TTF 2023:	chg	Oil (Brent) \$/bbl:	chg
334.00	-23.63	289.50	-11.50	335.10	-20.68	340.93	-14.20	134.16	-11.17	82.14	82.14

All changes (chg) are compared to last report

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