Energy Market Insights

Twice Monthly Independent Market Analysis

ELECTRICITY

CHEAP CCGT BURN DRIVES UK EXPORTS

The UK exported a massive 48 GW of power across the opening fortnight in May as low short-term prices relative to mainland Europe led the country to emerge as an unlikely supplier to the continent. Weakness at the front end of the market was largely a result of lower gas prices improving margins for gas plants – which produced a hefty 15 GW of power on average during the fortnight – an increase of 17% compared to April, with much of the additional production bound for markets elsewhere.

The UK Day-ahead Baseload power index was just shy of £168/MWh in early May, then dropped to a low of £76/MWh before creeping up back up towards £115/MWh at the time of writing. By comparison the same French index was around £189/MWh on average across the two weeks – driven up by nuclear issues as well as weak hydro output – providing a huge incentive for UK exports. On average the UK delivered just over 1.6 GW to France across the two weeks, up by almost 1 GW compared to April.

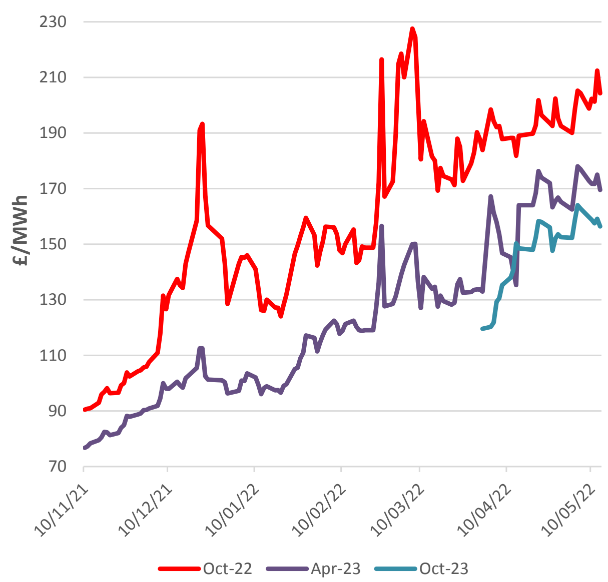
Exports elsewhere were also buoyant with the UK delivering 366 GW on average each day to Norway, 669 GW to Belgium and 592 GW to the Netherlands – after imports of 319 MW, 325 MW and 202 MW respectively during April – as CCGT operators looked to take advantage of the difference between UK and mainland European prices.

The month-ahead clean spark spread – measuring the profitability of gas-fired power generation (including the cost of carbon) – increased from around £23.5/MWh at the start of May to peak above £27/MWh, before crashing to £10/MWh as Russian supply concerns led to a bounce on June '22 gas.

Elsewhere UK carbon spiked close to £89/TCO2e a couple of times, with those upward bursts linked to bounces in the EU emissions market. Analysts indicated that EUAs may hit or exceed the psychological barrier of EUR 100/TCO2e in the coming weeks with European demand for allowances from the power sector expected to be high due to gas-to-coal switching. This week the European Parliament is set to vote on plans to reduce EU emissions by 67% by 2030 – up from 55% currently – potentially providing another boost to EUAs, to which the UK carbon market remains closely correlated.

On the long-term market October '22 Annual Baseload spiked a couple of times – most recently closing at £212/MWh after the latest Russian gas transit flows scare – before rolling back towards £200/MWh at the time of writing. April '23 and October '23 Annual Baseload periods meanwhile pushed to new highs earlier in the month as supply fears, stronger carbon and the continued threat in Ukraine provided support. Both prices have come off over the past few days as some of the heat has been drained from UK carbon.

UK Annual power prices (six-month view)



French nuclear capacity could be further strained by rising river temperatures and extremely dry conditions – according to utility EdF – with around half the country's reactor capacity already offline due to maintenance. Low rainfall has forced 15 departments to restrict water use and hydro production in the country over the first two weeks in May has been around 15% below the five-year average. A forecast from the EU Copernicus service points towards average or below average precipitation in France over the coming month, as well as higher-than-normal temperatures.

PRICES

Power prices for winter delivery continue to rise due to low generation

VOLATILITY

Prices for short term delivery remain extremely volatile with extreme lows and highs

UK renewable and nuclear power generation could be set to exceed demand on 53% of hours from 2030 – according to analysis of the government energy strategy from LCP – up from an estimated 6% this year. The consultancy indicated that in 2030 72TWh of excess renewable and nuclear power is expected to be produced, around a quarter of current annual demand. LCP forecast the UK will need an additional 45 GW of back-up capacity to compensate for periods of low wind and solar output, as well as 50 GW of demand-side flexibility from energy storage, hydrogen electrolysers and interconnectors.

No capacity will be available on the 1 GW BritNed power cable linking the UK and the Netherlands between May 16th and 20th due to maintenance. This month the UK has been a net exporter via this link with 590 MW delivered to the Dutch market on average. The loss of export demand is likely to weigh on short-term UK power prices.

NET EXPORTER

UK becomes a net exporter of power due to supply outages on the continent

KEY POWER INDICATORS:

Long-term UK (£/MWh)				Short-term UK (£/MWh)				European power (£/MWh)			
Oct'22 Annual	chg	Apr'23 Annual	chg	Month-ahead index:	chg	Day-ahead index:	chg	Germany Cal '23	chg	France Cal '23	chg
204.25	11.75	169.50	4.25	169.60	17.60	95.60	-72.13	228.63	27.25	311.50	54.50

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
232.25	19.55	110.81	0.84	84.10	3.35	88.41	4.60	91.31	5.13	95.27	6.15

All changes (chg) are compared to last report

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GAS

RUSSIAN TRANSIT DROP SPOOKS MARKET

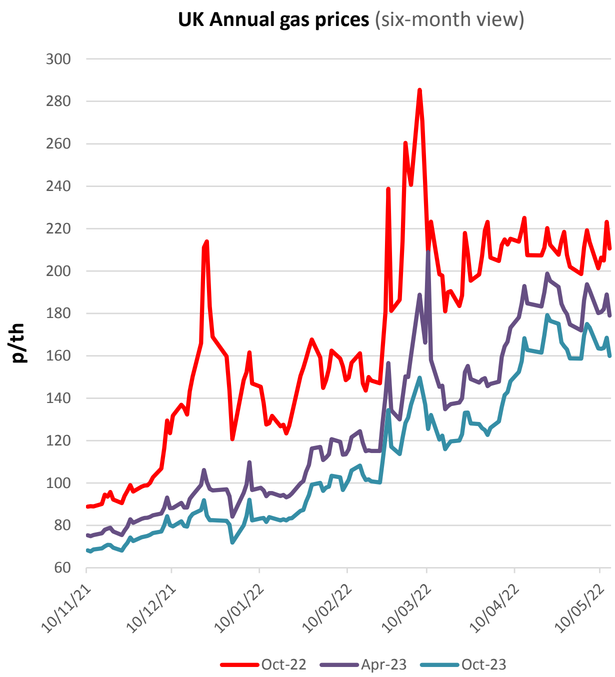
Renewed concerns over Russian gas supply yanked most UK periods higher late last week as Ukraine accused occupying forces of disrupting transit flows and Moscow sanctioned multiple entities in Europe – including former German subsidiaries of Gazprom – leading to a fresh wave of panic that has fizzled out somewhat since. Volumes of Russian gas transiting Ukraine and delivered into Slovakia dropped to a daily average of 58mcm – compared to 68mcm since the conflict began – after Gas TSO of Ukraine (GTSOU) announced disruption to flows due to the invasion, sparking fresh supply concerns across Europe.

Heat was most intense on the immediate summer months, with June '22 closing at a high of almost 176 p/th after the announcement from GTSOU – up 12% since the start of the month – while July '22 and August '22 were up 12.5% and 16%, respectively, on the same date. At the time of writing the three months were moving back down but remained well above values prior to the transit reductions.

October '22 Annual gas started May dipping below 200 p/th before rallying up to 219 p/th as the European Commission announced plans to ban imports of Russian crude within six months. The front Annual started to track down again as some member states pushed back against the proposed embargo, before reviving up to 223 p/th following the cut to transit flows through Ukraine. North Sea oil prices started to creep higher as the midpoint of the month approached with the spectre of EU sanctions hanging over the market, although a bearish economic outlook and lockdown measures in China acted as a counterweight. At the time of writing October '22 Annual gas was easing back towards the 200 p/th mark, in line with where the period ended April.

Elsewhere prices at the front end were crashing at times as the UK was awash with gas with limited delivery options for those volumes, as gas-fired power stations ramped up production and exports were close to capacity. Within-day UK gas traded as low as 15 p/th at one point – down 75% from transactions the day before – but almost tripled in value a day later. UK Day-ahead gas closed at an average price of 64 p/th, down from 169 p/th on average in April, having fallen as low as 30 p/th at one point – its lowest level since September 2020.

Gas demand remained elevated with daily offtake around 50mcm above the seasonal average, largely due to the UK shipping 65mcm to mainland Europe through the Interconnector and BBL pipelines each day – a figure that would have been higher were it not for constraints at the Bacton terminal – while power sector demand remained strong. Much of the gas the UK has exported has been used to inject into European storage with around 440mcm added daily over the fortnight – 52% higher than the five-year average – bringing site fullness up to 40%, compared to 32% a year earlier. EU proposals to mandate member states have a certain volume of gas in store by the winter appear to have stalled but – spooked by the situation in Ukraine – the market has needed no intervention.



GAS: OUTLOOK

LNG demand from southeast Asia is set to step up this year with two import terminals due to open in Thailand alongside facilities in the Philippines and Vietnam. The IEA has predicted emerging economies in Asia – excluding India and China – will be the second-largest growth market for LNG from now until 2025, after China. Across Asia there are plans to bring more than 285 GW of gas-fired power plants online, which is nearly double the current installed capacity.

RUSSIA

Concerns remain over the stability of gas supplies from Russia

EU MANDATE

An expectation that the EU will mandate levels of gas stores for winter may boost prices

Up to £26m has been made available to support projects that demonstrate how industrial gas users in the UK can switch to using hydrogen. The Industrial Hydrogen Accelerator (IHA) – run by BEIS – will provide up to £17m worth of grants for demonstration projects with a maximum of £10m available for specific concepts. Another £2m will be made available for feasibility studies with successful projects in this category able to apply for additional grants worth up to £7m for Front-End Engineering Design (FEED) studies.

UK-based operator IOG indicated that production from the Elgood and Blythe fields in the North Sea was up to a daily average just shy of 1.7mcm over a two-week period. Further guidance on output from the fields is expected later in Q2. The company also announced that it expects to start producing gas from the Southwark field, which is in the same cluster as Elgood and Blythe, in Q4 this year.

CARBON

Carbon markets remain volatile, further boosting prices for generators

KEY GAS INDICATORS:

Long-term UK (p/th):				Short-term UK (p/th):				European gas (€/MWh):		Crude Oil:	
Oct '22 Annual	chg	Apr '22 Annual	chg	Month-ahead index:	chg	Day-ahead index:	chg	TTF 2023:	chg	Oil (Brent) $/bbl:	chg
210.59	8.55	179.01	4.21	150.00	25.00	60.05	-31.95	78.60	0.11	110.81	0.84

All changes (chg) are compared to last report

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