LCP monthly power market analysis

Welcome to LCP's monthly power market analysis, designed to give you an overview of the key market activities for the GB energy industry

May 2022

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Enact users can now drill down into this data in more detail through the platform.

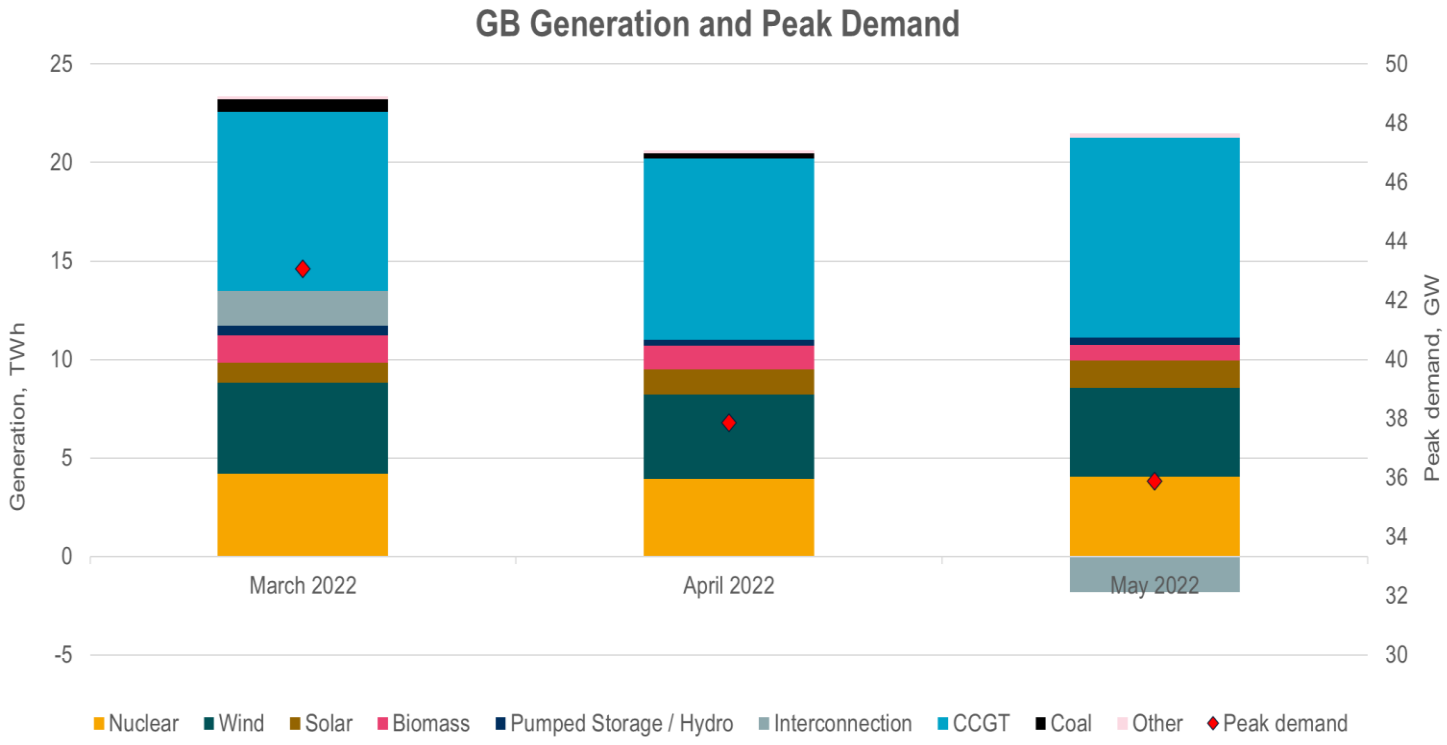
More information on Enact is available here: https://www.lcpenact.com/

Key statistics

- April was the first month in over 4 years where GB was a net exporter of electricity to Europe with net exports of **50GWh,** in May GB exported a further **1.8TWh.**
- Gas in GB sourced from LNG and North sea production has been significantly cheaper than in Europe where the ban on Russian gas has driven up gas prices.
- In May, Day Ahead prices peaked at **£235.2/MWh,** APX prices reached **£240/MWh** and cash out prices reached **£354.8/MWh.**
- The peak demand (ITSDO) was **36GW** in May, slightly lower than the peak demand in April.
- The highest accepted Balancing Market offer in May was **£1,500/MWh**.
- **LCP's NIV bot** averaged **£3.62/MWh** simulated profit over May.

Generation and demand

Generation and demand



Low carbon

56%

Interconnection

-9%

Thermal

52%

Peak demand (ITSDO) was **36GW** in May, lower than that in April.

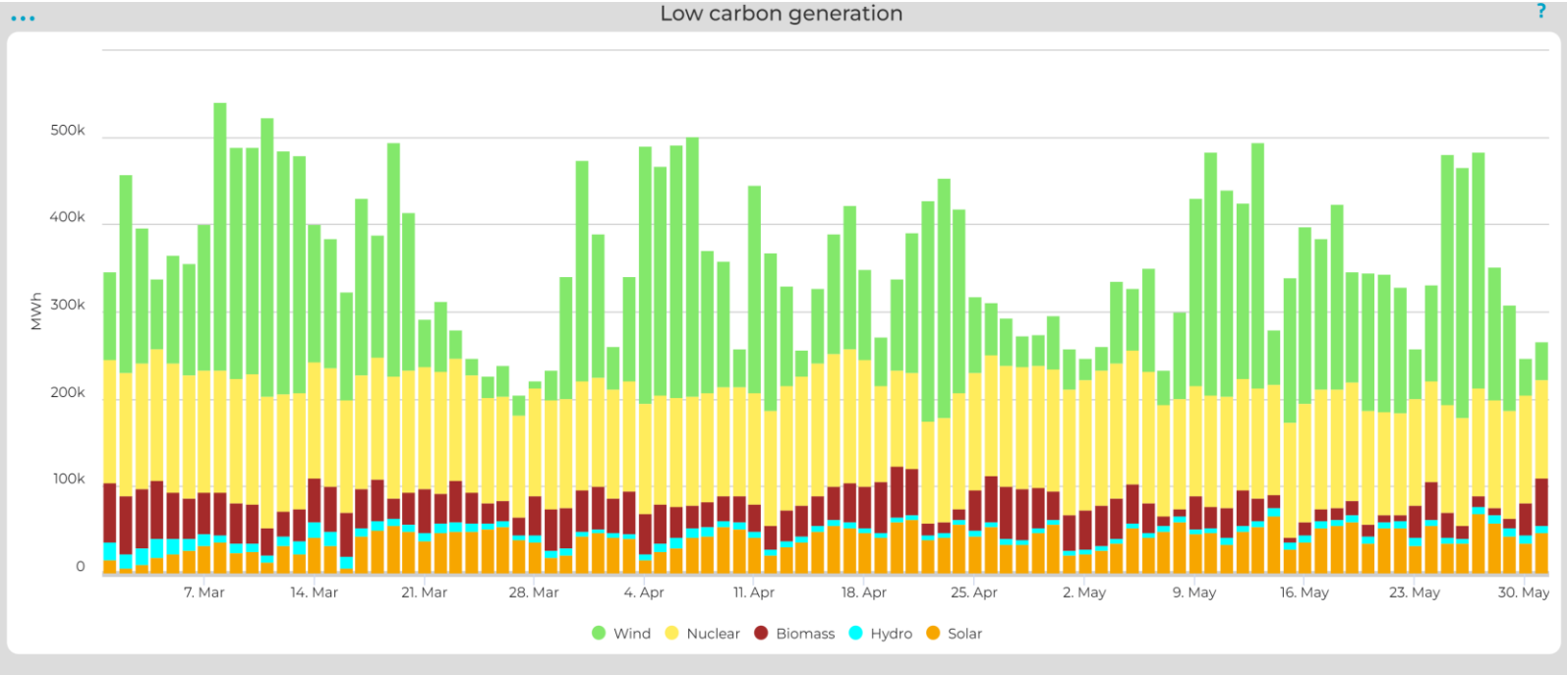
There was **11.0TWh** of low carbon generation in May, up from the **10.9TWh** seen in April.

Thermal generation increased slightly in May with **10.2TWh** produced compared to **9.4TWh** in April.

Net Interconnector generation dropped from **-50GWh** in April to **-1.8TWh** in May. This can be attributed to a disparity in GB / Europe gas prices, as well as the energy crisis in France, nuclear outages have led to the lowest nuclear generation in France in years.

Generation and demand

Low carbon generation



Low carbon sources provided **56%** of power in May, slightly higher than the **53%** in April.

Wind provided the majority of low carbon power in May at **41%.** Nuclear provided the second most low carbon power at **37%.**

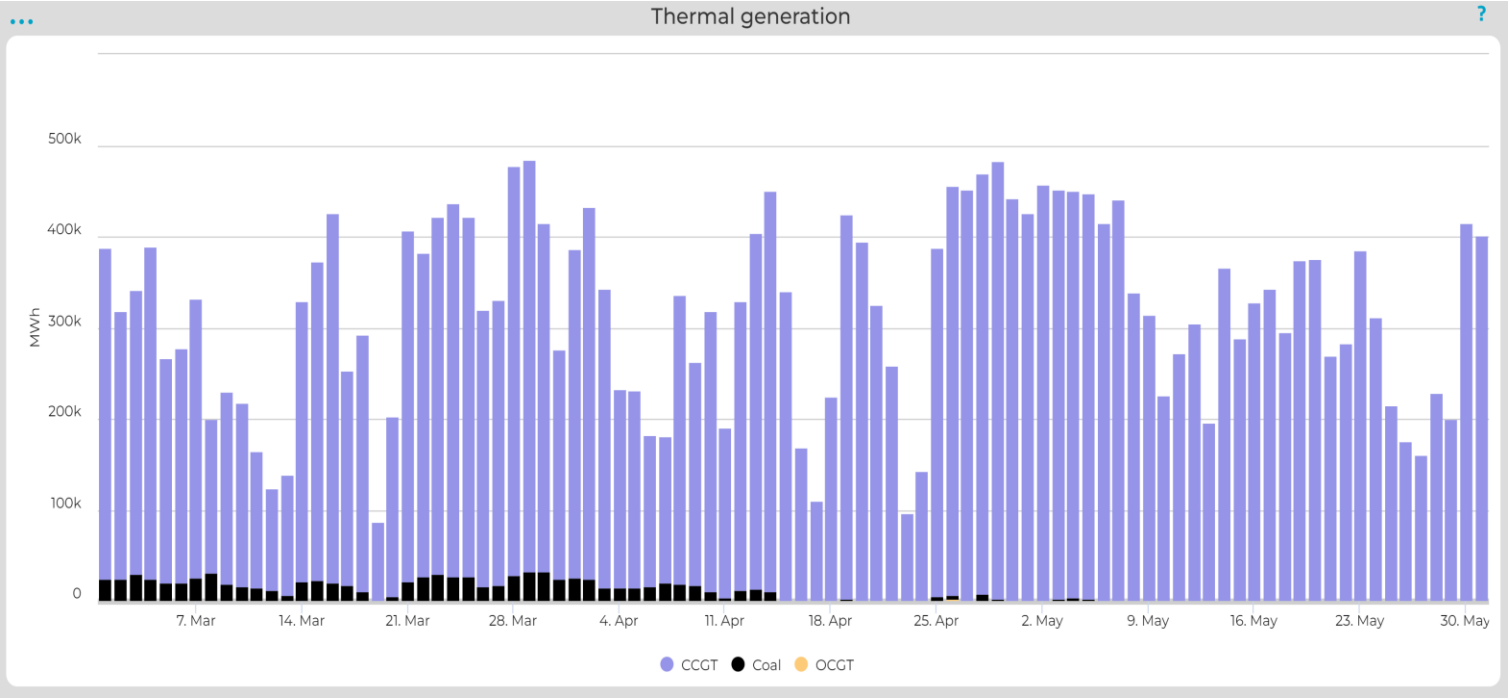
Biomass generation decreased by **4%**. While solar and Hydro remained similar to last month.

Split of low carbon generation

Wind	*Nuclear*	*Biomass*	*Hydro*	*Solar*
41%	*37%*	*7%*	*2%*	*13%*

Generation and demand

Thermal



Thermal generation accounted for **52%** of power production in May, compared to **46%** in April.

CCGTs produced the majority of this power, making up almost **100%** of all thermal production.

Coal's share of thermal production decreased from **3%** in April to **0%** this month.

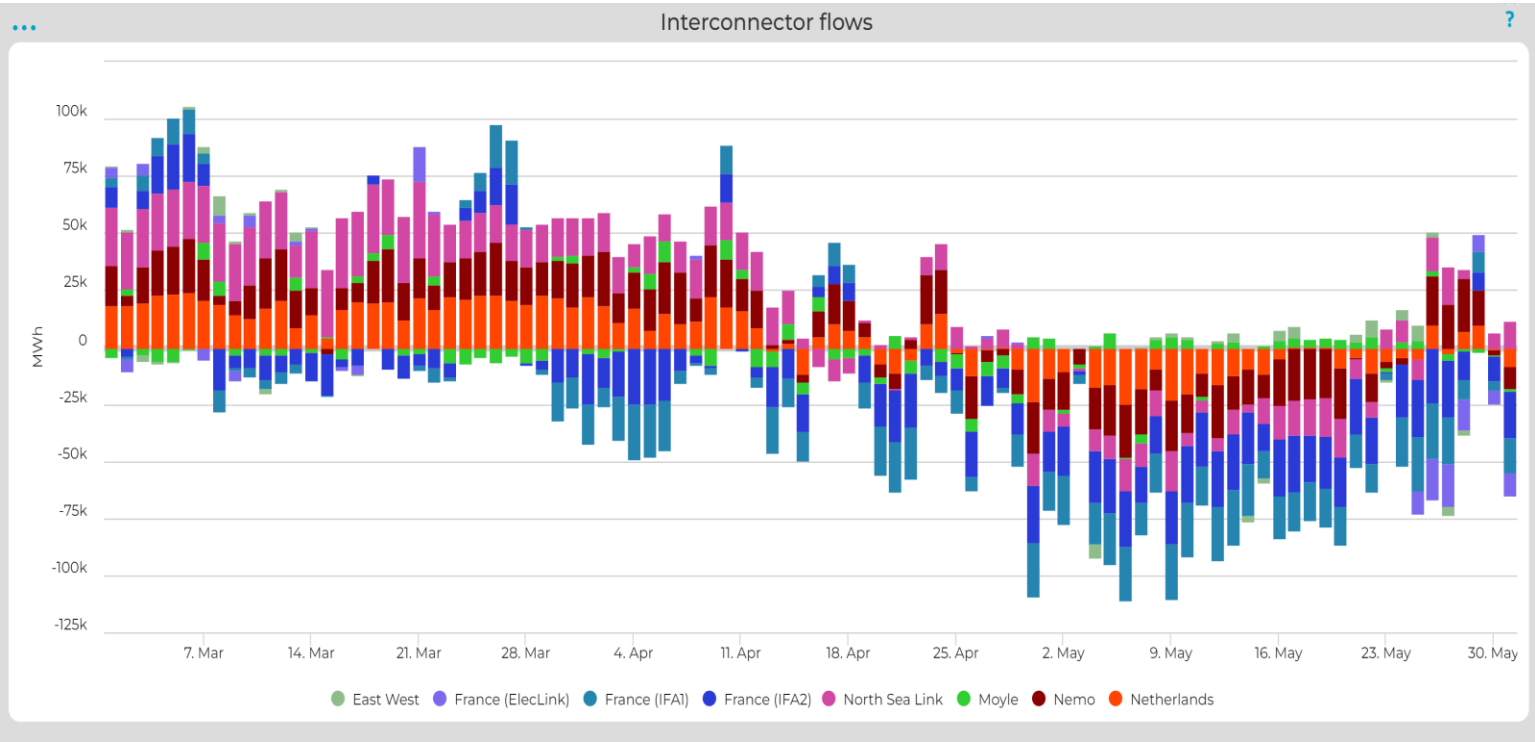
All thermal technologies had a similar output in May compared to April.

Split of thermal generation

CCGT	Coal	OCGT/Recips
100%	0%	0.1%

Generation and demand

Interconnector flows



Interconnector net exports increased by **1.8TWh** in May compared to April.

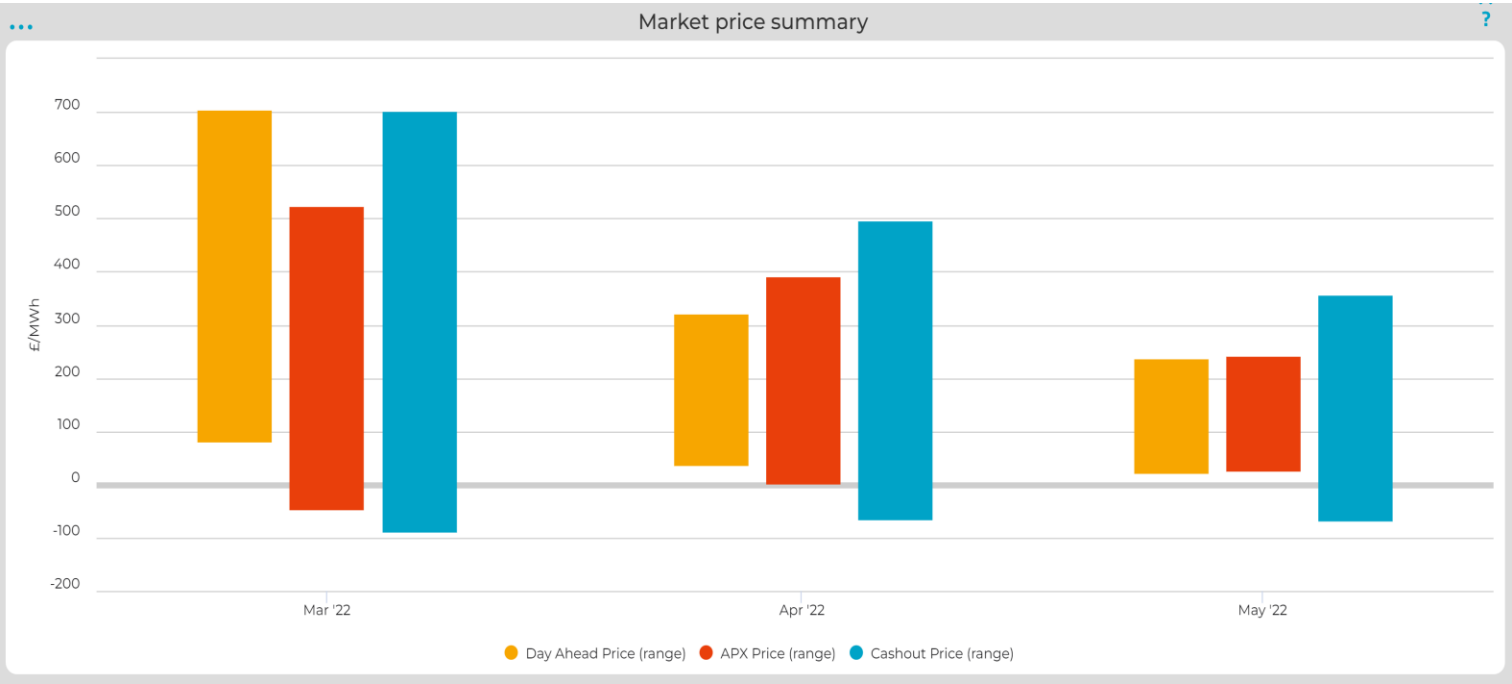
In May net exports to France were increased further from **1.3TWh** in April to **2.3TWh** in May.

The large increase in exports to France can be largely attributed to the energy crisis in France due to outages on numerous French nuclear power plants. This is further exacerbated by the large difference in gas prices between GB and Europe.

Market Prices

Market Prices

Day Ahead, Intraday and Cashout prices



Day ahead, intraday and cashout prices were generally lower in May than they were in April. There was also a smaller spread in the prices than in the previous month

The highest BM offer accepted is **£1,500/MWh** in May, similar to the peak in April.

Day Ahead Price Range

£20.0/MWh - £235.2/MWh

APX Price Range

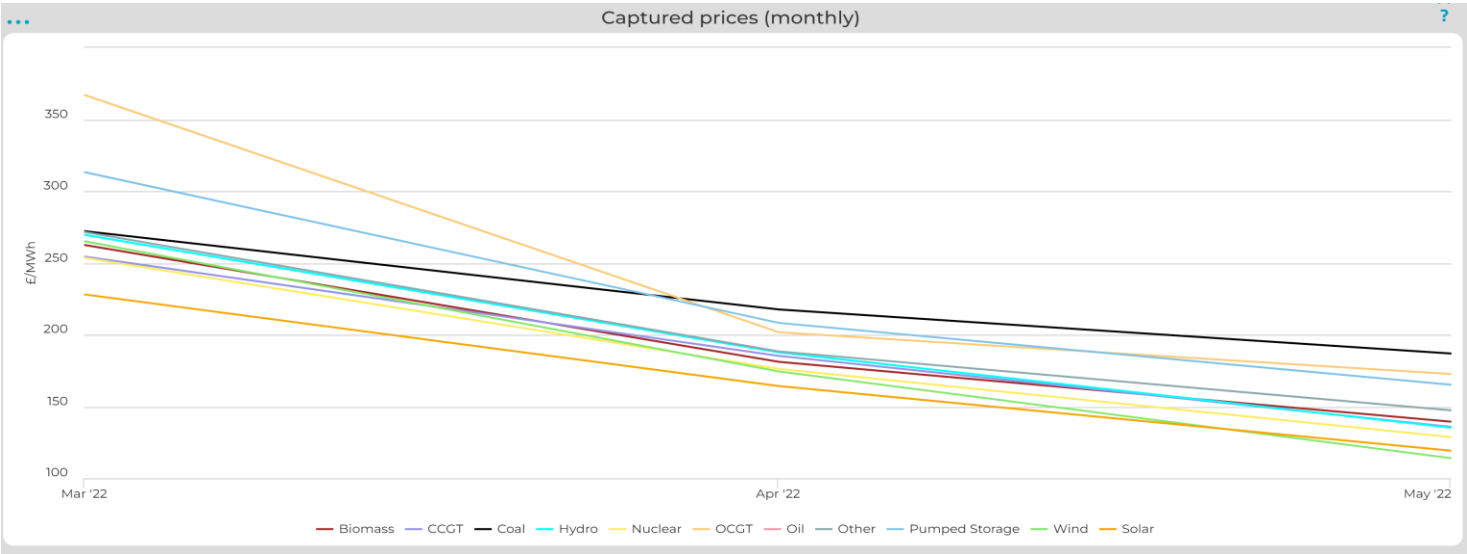
£24.2/MWh - £240.0/MWh

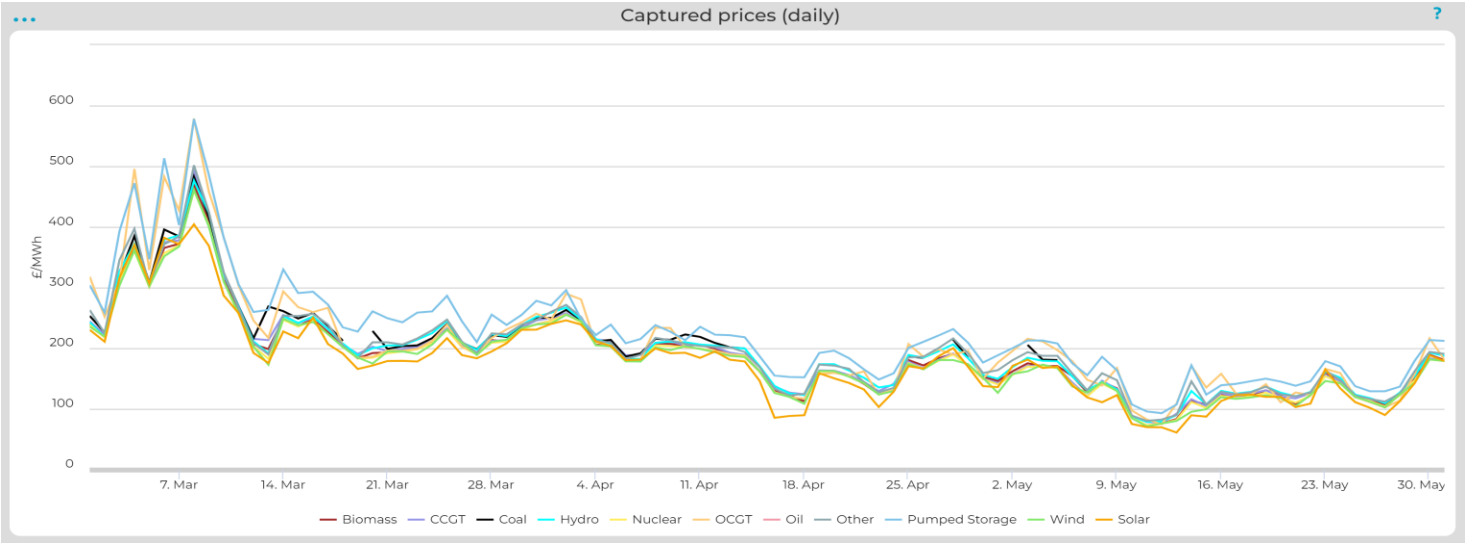
Cashout Price Range

£-69.5/MWh - £354.8/MWh

Market Prices

Captured price





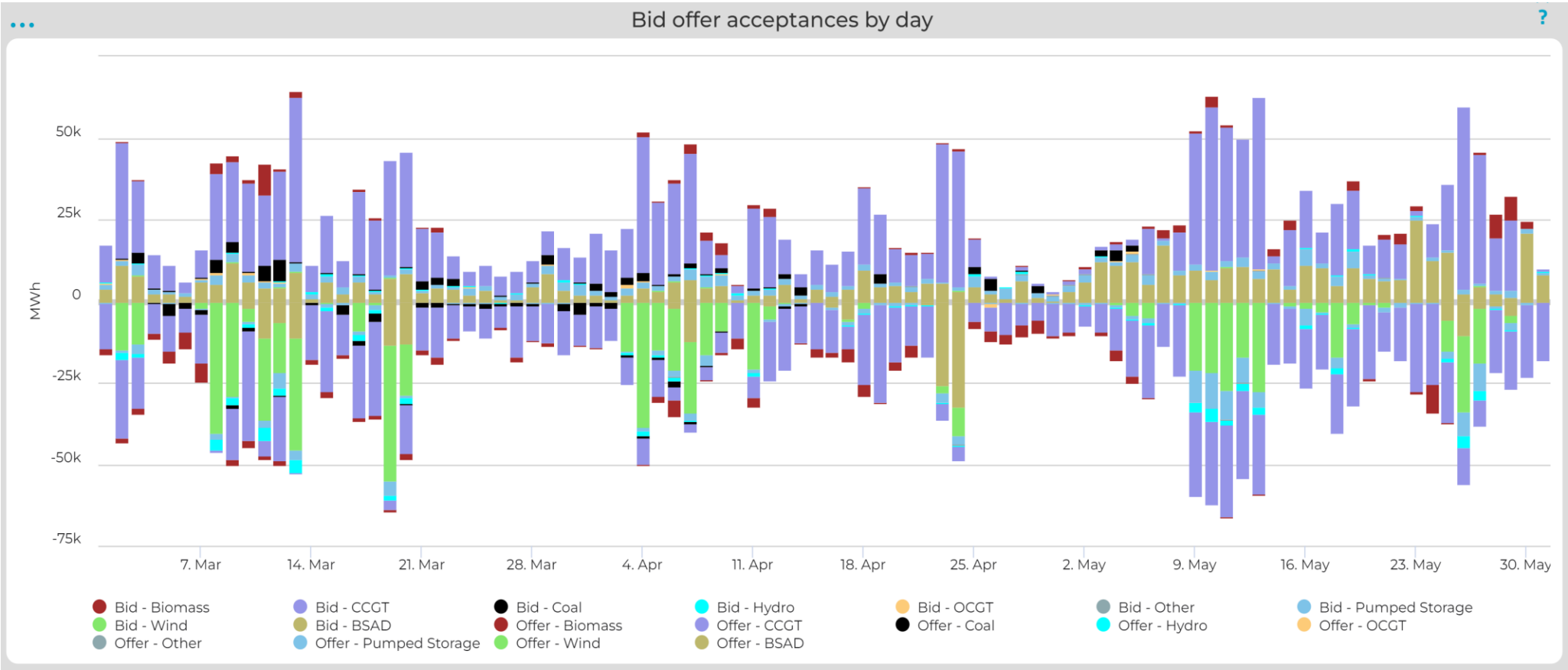
Monthly captured prices

CCGT £135.8/MWh	***Coal*** £186.9/MWh
OCGT £172.7/MWh	***Hydro*** £135.3/MWh
Nuclear £128.7/MWh	***Wind*** £114.0/MWh
Pumped Storage £165.1/MWh	***Solar*** £119.2/MWh
Biomass £139.4/MWh	

Balancing Market

Balancing Market

Bid and offer acceptance summary

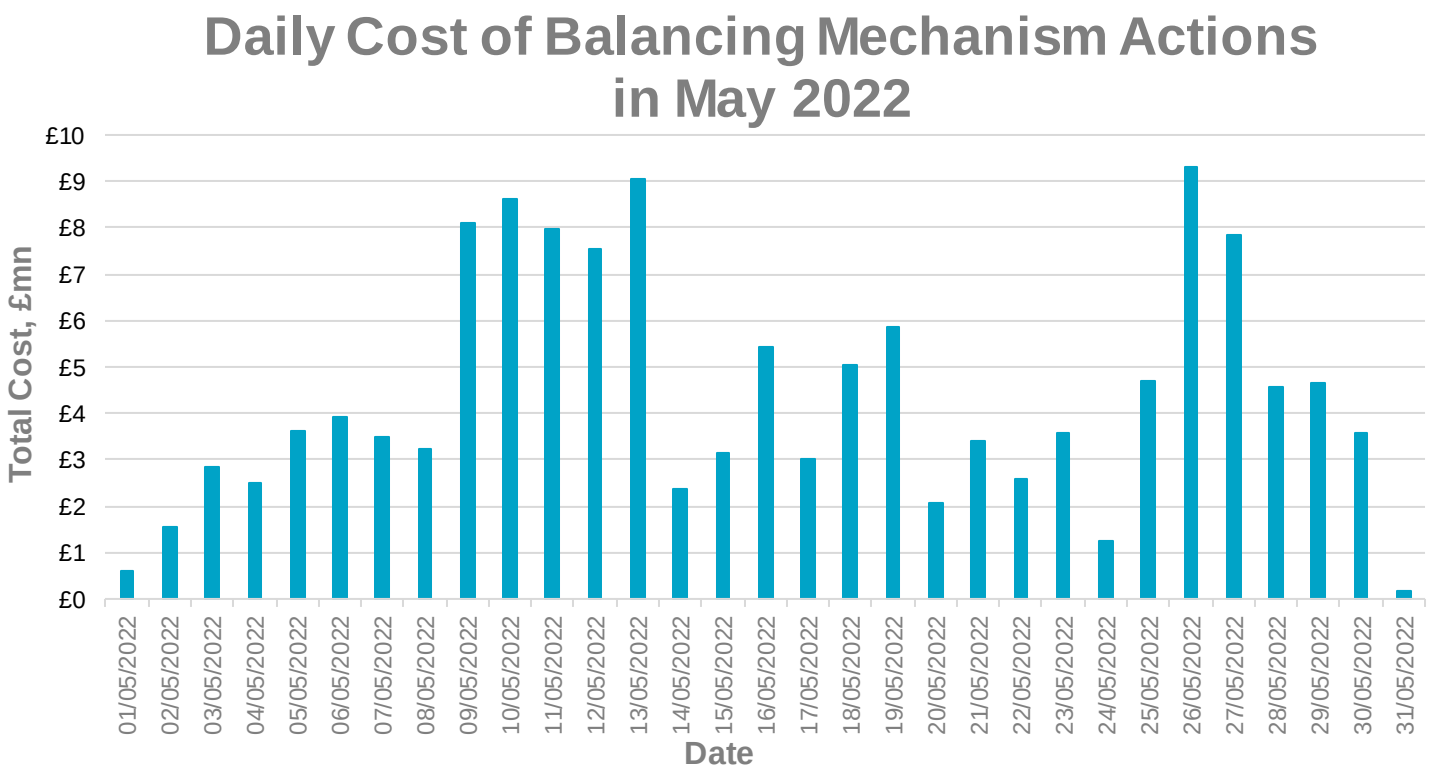


CCGTs provided 61% of accepted BM bid volume in May

CCGTs provided 57% of accepted BM offer volume in May

Balancing Market

Bid and offer acceptance summary



The total cost of all balancing actions in **May** was **£136m**.

All Actions

The total cost of flagged actions was **£50m** with energy actions being **£85.5m**.

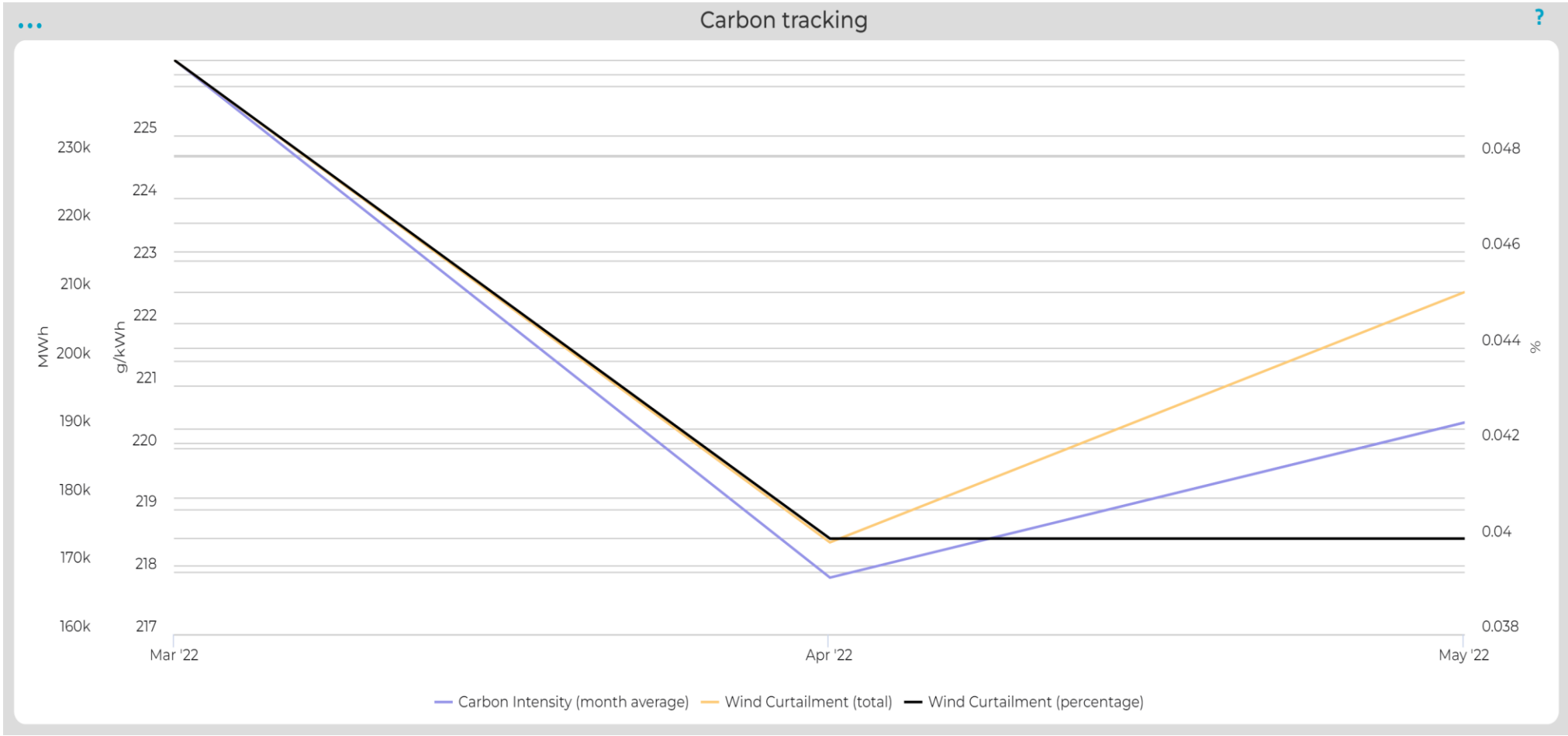
Non-flagged Actions

The total cost of non-flagged bids was **£-27m** with non-flagged offers being **£112m.**

Flagged Actions

The total cost of flagged bids was **£3.6m** with flagged offers being **£46m.**

Curtailment and CO2 intensity



Carbon intensity in May

220.4 g/kWh

Wind curtailment in May

0.04%

Wind curtailment total in May

210GWh

LCP Forecasts

LCP Forecasts

Wind, demand, BSUoS - May

Forecast	National Grid MAE	LCP MAE
Wind	653 MW	260 MW
Demand	568 MW	389 MW
BSUoS*	£4.80/MWh	£2.81/MWh

This table compares the Mean Absolute Error (MAE) of some of LCP's forecasts in real time against the published forecasts.

The LCP wind and demand forecasts are taken at 30 minutes before delivery, and compared against the latest available forecast from NGESO.

The BSUoS forecast compares LCP's live BSUoS calculation against NGESO's half hourly forecast.

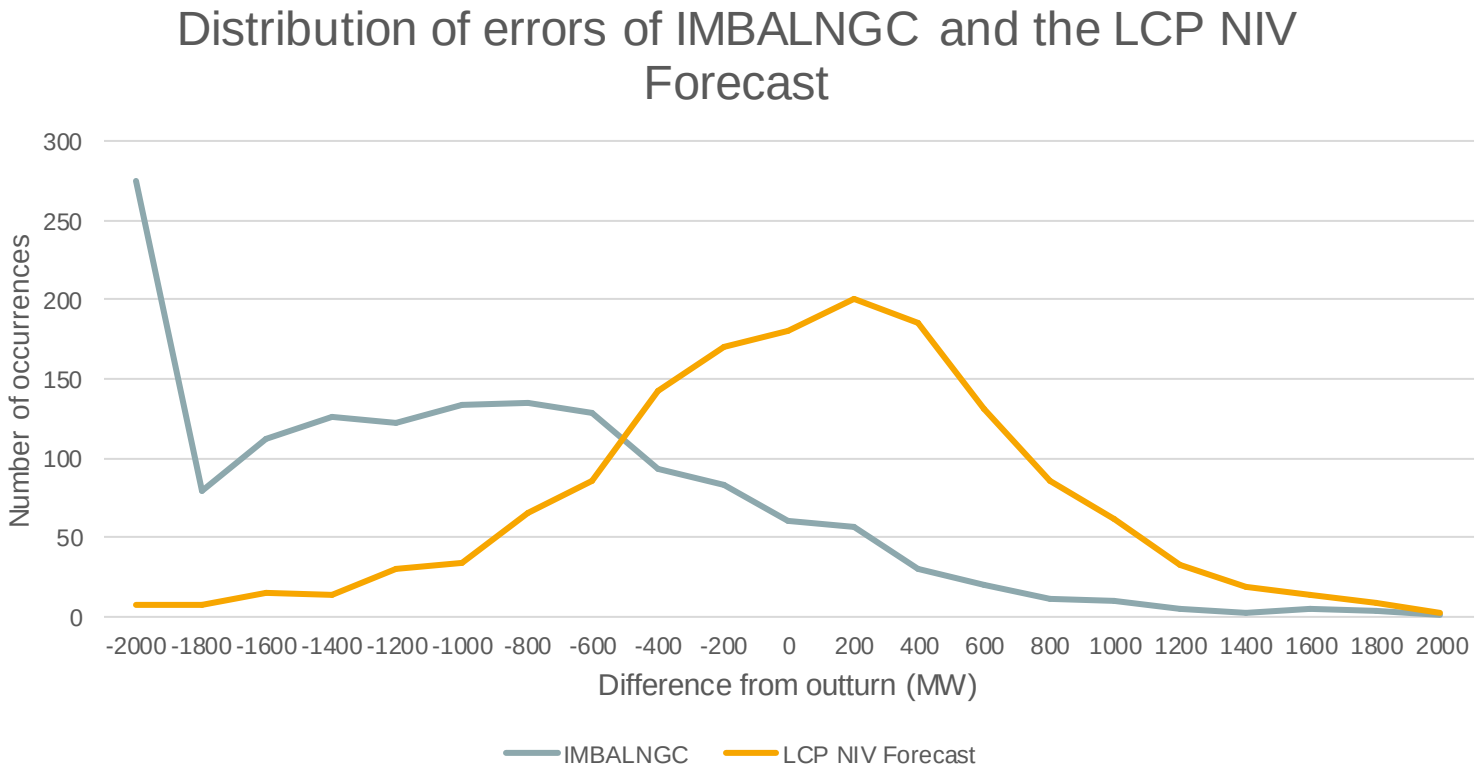
*BSUoS data available until 24/01/2022 at date of publication

LCP Forecasts

Net Imbalance Value (NIV) summary

The average NIV outturn for May was -13.6MW with the maximum being 3,298MW long and minimum being -2,639MW short.

National Grid's NIV forecast was 48% accurate in predicting the direction of the imbalance while **LCP's NIV forecast was 68%** accurate in predicting the direction of the imbalance (30 minutes before the start of the period).



LCP Forecasts

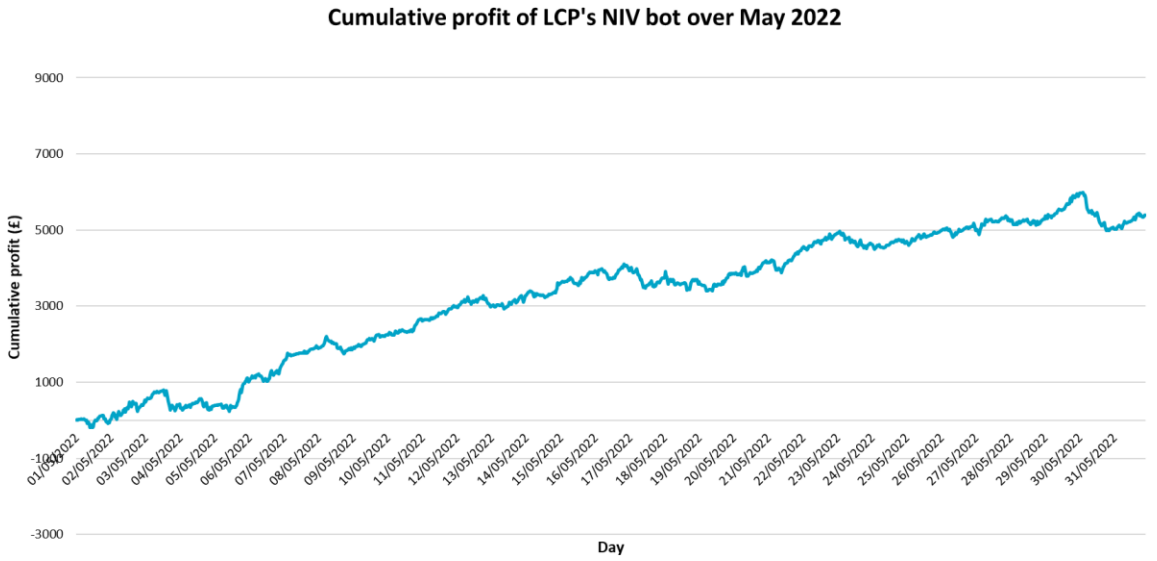
LCP NIV Bot

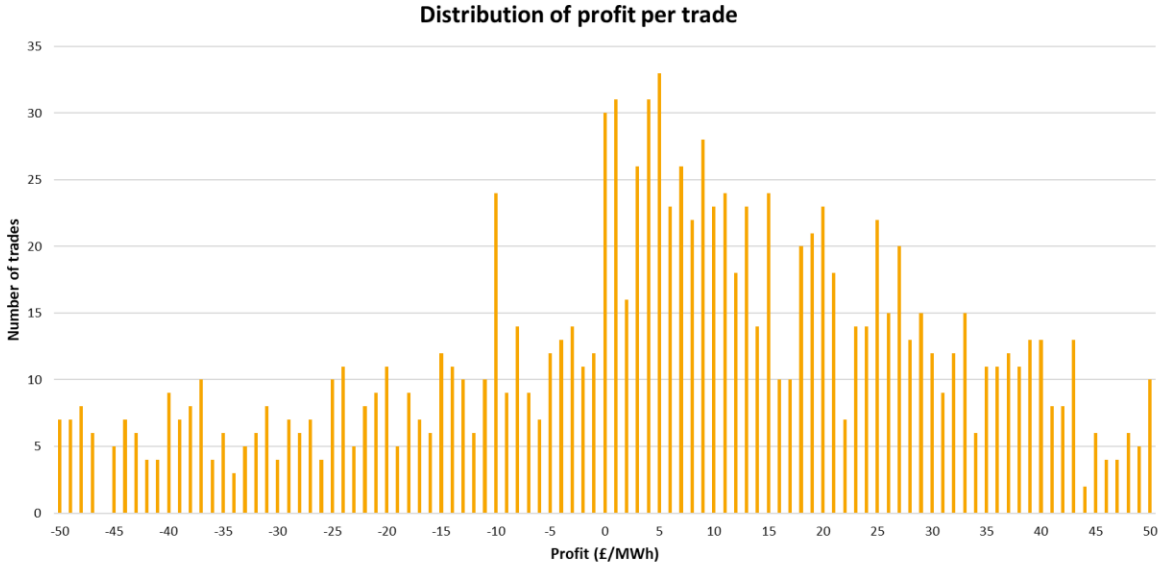
LCP's NIV bot tests the accuracy of our NIV and System price forecasts in real time, by comparing our system price forecast against the price being traded on EPEX 30 minutes before delivery.

The bot chooses to simulate a buy or sell of 1MWh and then rebalance through cashout when the period closes.

The profit/loss (depending on whether it made the right decision to buy or sell power on EPEX) is the difference between the traded price and cashout price.

LCP's NIV bot was able to secure one of the highest simulated profit of **£5,388** in May. The average profit achieved was **£3.62/MWh** over **1488** trades.





Any questions?

If you would like any assistance or further information on the contents of this analysis, please contact one of the team below.

Rajiv Gogna
Partner

rajiv.gogna@lcp.uk.com
+44 (0)20 7432 3097

Govind Grewal
Analyst

govind.grewal@lcp.uk.com
+44 (0)20 3824 7325

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