



BSC OPERATIONS HEADLINE REPORT

1 In this report you will find commentary on BSC market operation, identification of key events and reporting of key data.

2 The [Trading Operations Report](#) publishes key market data graphically, giving a performance indicator for the Balancing and Settlement arrangements.

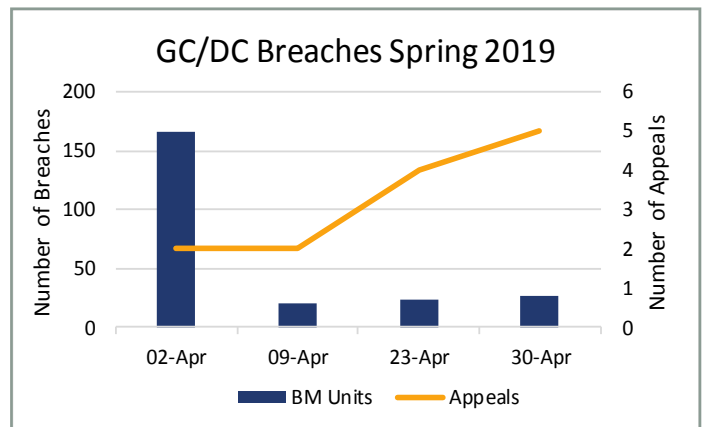
3 Trading Operations Report [Data](#). The graphs and backing data are available in Excel format on the ELEXON website.

P359 GENERATION/DEMAND CAPACITY UPDATE

Generation/Demand Capacity (GC/DC) values are submitted each BSC season. During a BSC Season, BSC Parties with Balancing Mechanism Units (BMUs) that breach their declared Generation or Demand Capacity (GC/DC) beyond the permitted BSC tolerances are contacted by ELEXON. These Parties are requested to make a mid-season re-declaration, with new GC/DC values for any BMUs that have breached.

At the beginning of the BSC Season Spring 2019, BSC Modification [P359: 'Mechanised process for GC/DC declarations'](#) was implemented (28 February 2019). The Modification automatically re-declares a replacement GC/DC value if a BMU breaches its existing GC/DC level. The replacement GC/DC value is based on the most positive (for GC) or negative (for DC) Metered Volumes, from either the current BSC Season or last years corresponding BSC Season, whichever is greater.

Since the implementation of P359, there have been 237 BMUs identified as breaching their GC/DC values. These are displayed in the graph, split across the four breach monitoring runs that have been performed (as at 30 April 2019). Of the 13 appeals to date, all have been upheld in favour of the Party.



If an appeal is upheld, ELEXON will submit a new GC/DC value. This will take into account any analysis or evidence provided by the Lead Party, along with any other mitigating factors. The reason for appeals are usually due to erroneous settlement data.

SPIKE IN FLAGGED BALANCING ACTIONS IN MID-APRIL 2019

The number of Flagged balancing actions spiked in mid-April, with an average of 49% of all actions Flagged on 13, 14 and 15 April 2019. Of these, 87% went on to become Second Stage Flagged. Across these three days, 13,314 balancing actions were taken; 40% were Buy actions and 60% were Sell actions.

Wind generation accounted for an average of 51% of Sell actions, and CCGT plants an average of 96% of Buy Actions. 99.6% of Wind Sell actions were System Operator (SO) or Continuous Acceptance Duration Limit (CADL) Flagged during this period; these accounted for 70% of Flags applied to Sell actions. In contrast, only 10% of Buy actions were CADL or SO Flagged in the same period. If these SO and CADL actions were Second Stage Flagged and still remain in the System Price calculation after NIV tagging, they would have been repriced at the most expensive non-Flagged action, and therefore their price would have reduced.

SYSTEM PRICES IN APRIL¹

Monthly average System Prices for April 2019 were lower when the market was short (-7%) and higher when long (3%), compared to March 2019. The average System Price regardless of length was **£42.75/MWh**; 1% lower than last month.

System Prices did not exceed £100/MWh this month, compared to six times in March. The highest System Price of the month, **£100.00/MWh**, occurred in Settlement Period 19 on 23 April 2019. This price was set by 10 Buy Actions from a Pumped Storage BMU all priced at £100.00/MWh.

The lowest System Price, **-£61.00/MWh**, occurred in Settlement Period 2 on 27 April 2019. This was set by five Sell actions, all priced at -£61.00/MWh, that came from one Biomass BMU.

| Period | Average (£/MWh) | | Average (£/MWh) Peak 07:00-19:00 | |
|---------------------|-----------------|-------------|----------------------------------|-------------|
| | Short System | Long System | Short System | Long System |
| Apr-19 | 57.87 | 29.92 | 60.94 | 30.07 |
| Mar-19 | 62.28 | 29.08 | 64.11 | 29.03 |
| Feb-19 | 70.21 | 37.09 | 76.89 | 37.31 |
| Spring 19 | 60.28 | 30.04 | 62.99 | 30.00 |
| Winter 18/19 | 79.64 | 42.31 | 85.94 | 44.31 |
| Autumn 18 | 82.75 | 45.80 | 86.62 | 48.39 |
| Summer 18 | 73.46 | 42.02 | 76.60 | 42.52 |
| Spring 18 | 83.53 | 37.68 | 92.59 | 37.97 |
| Apr-18 | 72.65 | 39.28 | 78.42 | 39.58 |

¹ System prices are based on the previous month's Interim Information (II) run data. The last two days of April System Price data are based on BMRS data.

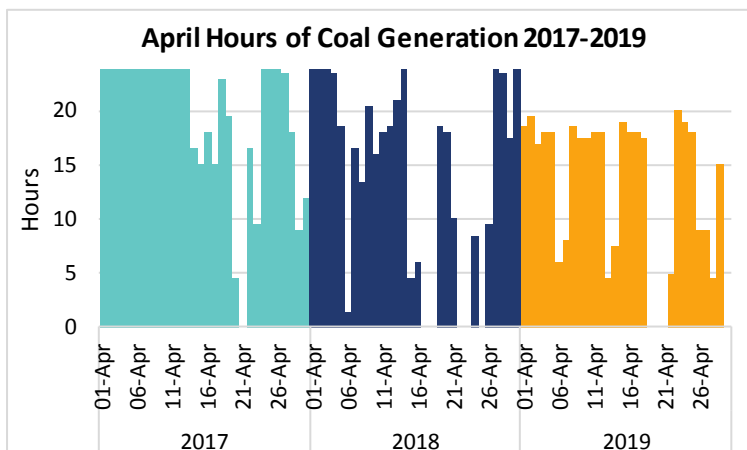
LONGEST CONTINUOUS PERIOD WITH NO COAL GENERATION²

Between 22:30 on 18 April 2019 and 17:00 on 22 April 2019, no generation in Great Britain came from coal-fired power stations. This 90.5 hours without coal is the longest continuous period without coal generation ever. During this period, power was generated mainly from gas sources (47%) with the rest made up of nuclear (26%) and wind generation (13%).

The first 24-hour period without any coal generation occurred on 21 April 2017. Every April since, the record for the number of consecutive full days without coal generation has been broken. In April 2018 there were two periods with no coal generation which lasted over 24 hours; one of 54.5 hours from 16 to 19 April, and a second of 76 hours from 21 to 24 April.

Coal generation has experienced a sharp decline over the past 5 years due to lower gas costs, increased renewable generation at an increasingly lower cost, and government pressures to meet emissions targets. The UK government aims to phase-out coal by 2025 so the decline is expected to continue.

To find out more, please read ELEXON's related insight article: [Rapid decline in coal-fired generation](#).



BALANCING MECHANISM VOLUMES IN MARCH³

The total volume of balancing actions taken in the Balancing Mechanism (BM) for March 2019 was 2,512GWh, a 60% increase from February 2019. The majority (74%) of balancing volume in March came from Gas BMUs.

Accepted **Bid** volume increased by 41% from February. Coal Bid volumes decreased by 94%, whilst Bid volume from Wind and Biomass generation increased by 203% and 112% respectively. Gas Bid volume accounted for 50% of all Bid volume, and Wind accounting for 38%.

Accepted **Offer** volume in March increased by 80% from February 2019. Biomass and Wind Offer volume increased 256% and 69% respectively from February, but still only accounted for 1.6% of the total Offer volume for March. Gas accounted for 95% of Offer volume, and contributed 86% more Offer volume than in February.

Volume from **Other** fuel types (mainly Battery Storage) continues to increase. Total BM volume from this fuel type increased 34% from February 2019.

| Fuel Type | Bid Volume (MWh) | | Offer Volume (MWh) | |
|--------------------|-------------------|-----------------|--------------------|----------------|
| | Mar-19 | Feb-19 | Mar-19 | Feb-19 |
| Coal | -2,345 | -37,915 | 13,134 | 20,801 |
| Gas | -576,382 | -563,870 | 1,279,552 | 688,097 |
| Hydro | -54,766 | -30,662 | 4,991 | 2,969 |
| OCGT | 0 | 0 | 270 | 157 |
| Pumped Storage | -77,609 | -44,306 | 28,350 | 27,738 |
| Wind | -441,186 | -145,717 | 2,635 | 1,557 |
| Biomass | -11,320 | -5,351 | 18,952 | 5,330 |
| Other | -286 | -227 | 700 | 509 |
| Grand Total | -1,163,893 | -828,049 | 1,348,584 | 747,156 |

TRADING CHARGES IN MARCH³

Gross Party Imbalance cashflows were £98m in March 2019, a decrease of 7.4% from February. Credits for being long decreased by £7m, and debits for being short decreased by £0.7m, between February and March 2019.

Gross Party Imbalance Volumes increased by 11%. Energy Imbalance Volumes were unchanged for Parties for that were long compared to February, but increased by 23% for those that were short.

March **Offer** cashflow increased by 63% and the volume of Offers increased by 80%, compared to the month before. The average price per MWh of Offer volume decreased by 9% to £63.96/MWh.

Net **Bid** cashflow was £17m in March, compared to -£9.8m in February. March Bid cashflow decreased by 19% for positive Bids, but increased by 221% for positive Bids, compared to the month before. This is mainly due to the large number of negative bids accepted on 24 March, where negative System Prices were seen for 13 consecutive Settlement Periods.

| Total Cashflow (£m) | Mar-19 | Feb-19 | Jan-19 | Dec-18 |
|---------------------------------------|--------|--------|--------|--------|
| Long Imbalance Charge (Credit) | -47.23 | -54.34 | -73.40 | -68.62 |
| Short Imbalance Charge (Debit) | 50.50 | 51.19 | 70.06 | 68.91 |
| RCRC Credit | 10.86 | 6.95 | 9.02 | 12.84 |
| RCRC Debit | -7.60 | -10.11 | -12.36 | -12.55 |
| Offer Cashflow | 86.26 | 52.79 | 41.52 | 60.18 |
| Bid Cashflow (Positive Bids) | -16.45 | -20.29 | -24.16 | -31.15 |
| Bid Cashflow (Negative Bids) | 33.47 | 10.44 | 9.96 | 11.92 |

² Generation data is taken from the ELEXON Portal from the [Historic Fuel HH](#) webpage. This records data from CVA registered generators, and excludes embedded generation where much of solar capacity operates.
³ Balancing volumes and trading charges appear as per the latest month with Initial Settlement (SF) run data available.