



BSC OPERATIONS HEADLINE REPORT

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

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

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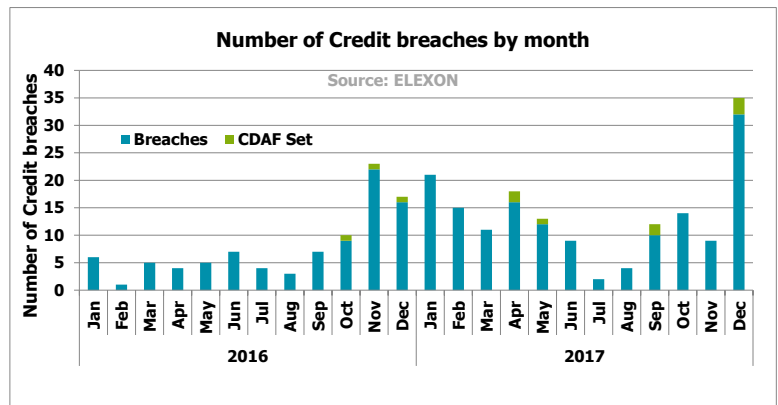
Trading Operations Report [Data](#). The graphs and backing data are available in Excel format on the ELEXON website.

RECORD NUMBER OF CREDIT BREACHES IN DECEMBER 2017

There were 35 Credit breaches in December 2017, a year high and over double the 17 breaches seen in December 2016.

Two main factors have contributed to more breaches. Firstly, there was an increased amount of estimated data in the Credit Cover calculation, due to non-working days over the festive period. Secondly, new seasonal Demand Capacity values to reflect winter demand became effective, which usually requires Parties to lodge additional collateral.

This month, three Parties were unable to resolve their Credit Defaults by the end of the Query Period and had a CDAF set. The defaults were posted on the www.bmreports.com website. Following three instances in 2016, there have been eight in 2017.

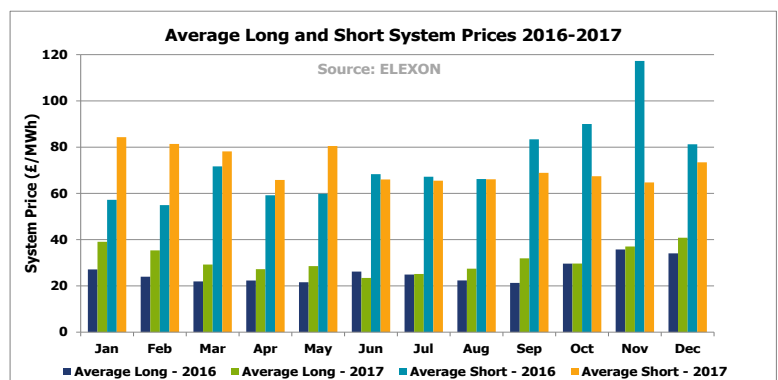


SYSTEM PRICES IN 2017: A COMPARISON WITH 2016

Average short System Prices between September and December 2017 were significantly lower than those seen in the same period in 2016. The largest difference was in November, with an average short System Price of £117.26/MWh in 2016, falling to £64.75/MWh in 2017.

Between January and May, both average short and long System Prices were higher in 2017 than 2016. The highest monthly average short System Price in 2017 was in January at £84.32/MWh.

The average System Price, regardless of length, was over £5/MWh higher in 2017 than in 2016 (£45.06/MWh compared to £40.03/MWh).

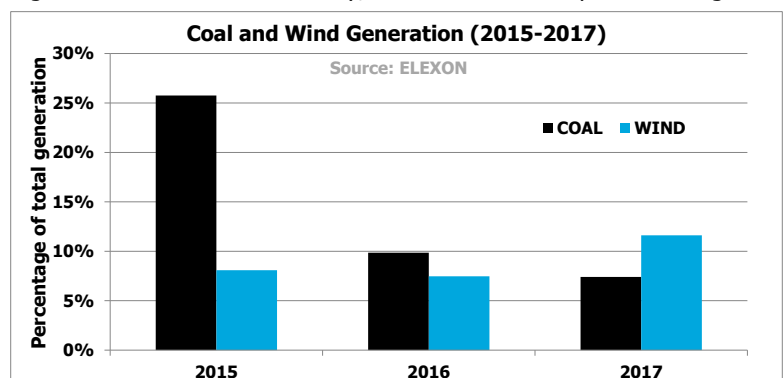


WIND GREATER THAN COAL GENERATION IN 2017

In 2017, the BSC Operations Headline Report has documented the rise of transmission connected wind and the fall of coal generation. We reported on wind generation beating the highest seen in 2016 in February, with the October report including a story on record wind generation that month.

In contrast, coal generation has declined; quarter 2 output was particularly low and the first Settlement Day without coal occurred in April.

Last year, 75% of Settlement Days had more transmission connected Wind generation than coal generation. Transmission connected Wind represented 11.6% of total transmission connected generation in 2017, up from 7.5% two years ago. Coal represented just 7.4% of total generation this year, down from 25.8% in 2015.



SYSTEM PRICES IN DECEMBER¹

Monthly average System Prices for December were higher when both short (13.1%) and long (5.3%) compared to November 2017. The average System Price regardless of length was **£56.77/MWh**, which is 17% higher than last month. In December 2017 the market has been long in 48%, and short in 52%, of Settlement Periods. In contrast, the market was long in 59%, and short in 41%, of Settlement Periods last month.

System Prices **exceeded £100/MWh** 67 times in December 2017 (compared to 19 times in November), with these System Prices occurring on 17 different days. The highest System Price, **£178/MWh**, occurred in Settlement Period 23 on 12 December and was set by an Offer from a CCGT BMU.

In two **Settlement Periods** the System Price was **£0/MWh** in December. These System Prices were set by a combination of Bids priced at £0/MWh by Hydro, Pumped Storage and CCGT BMUs.

There were **nine negative** System Prices in December, ranging between -£64.22/MWh and **-£68.91/MWh** (the lowest System Price of the month). Occurring in consecutive Settlement Periods 9 to 17 on 31 December 2017, these prices were set by a combination of Balancing Services Adjustment Actions and Bids by Wind BMUs.

Period	Average (£/MWh)		Average (£/MWh) Peak 07:00-19:00	
	Short System	Long System	Short System	Long System
Dec-17	74.63	42.26	81.25	43.74
Nov-17	64.79	37.04	70.61	38.36
Oct-17	67.12	29.00	71.58	30.84
Winter 17/18	74.63	42.26	81.25	43.74
Autumn 17	67.00	32.55	72.26	34.32
Summer 17	65.87	25.10	72.67	25.42
Spring 17	69.15	28.58	80.98	28.12
Winter 16/17	82.60	35.93	92.90	37.27
Dec-16	81.23	34.07	93.77	35.39

TRADING CHARGES²

Gross imbalance cashflows were £401m in November 2017, a 16% increase from £347m in October 2017. Credits for being long, and debits for being short, increased by £28m and £26m respectively between October and November.

Energy Imbalance Volumes for Parties that were long increased by 7%, and by 5% for Parties that were short.

The **Offer** cashflow decreased by 11% in November, with the volume of Offers falling by 14%. The average price per MWh of Offer volume increased by 3% to £68.59/MWh.

Net **Bid** cashflow decreased compared with October, from £10.5m to -£15.7m in November. Bid cashflow from positive Bids increased by 85%, but decreased by 62% for negative Bids, compared to last month.

Total Cashflow (£m)	Nov-17	Oct-17	Sep-17	Aug-17
Long Imbalance Charge (Credit)	-201.92	-173.70	-161.94	-139.61
Short Imbalance Charge (Debit)	199.44	173.02	162.27	137.69
RCRC Credit	7.85	8.56	7.68	5.34
RCRC Debit	-10.33	-9.24	-7.35	-7.26
Offer Cashflow	56.35	63.41	42.00	47.58
Bid Cashflow (Positive Bids)	-24.68	-13.31	-10.61	-7.98
Bid Cashflow (Negative Bids)	8.98	23.82	7.15	10.27

ENERGY BALANCING VOLUMES²

The total volume of balancing actions for November was 1,728GWh, a 10% decrease from October 2017.

Accepted **Bid** volume decreased by 7% from October. Wind and Pumped Storage Bid volumes decreased by 61% and 17%, but Gas and Coal Bid volume increased by 18% and 252%. 63% of total Bid volume came from Gas, with Coal accounting for more Bid volume than Wind (15% and 14% respectively).

Accepted **Offer** volume decreased by 14% from October. Whilst Coal Offers increased by 123%, Gas Offer volume decreased by 25%. Coal accounted for 19% of Offers this month compared to only 7% last month. Gas Offers accounted for 77% of Offers in November, compared to 88% the month before.

Fuel Type	Bid Volume (MWh)		Offer Volume (MWh)	
	Nov-17	Oct-17	Nov-17	Oct-17
Coal	-137,929	-39,238	154,009	69,017
Gas	-566,822	-479,910	629,909	835,671
Hydro	-25,064	-52,660	1,114	1,682
OCGT	0	0	259	753
Pumped	-47,949	-57,868	35,882	36,149
Wind	-127,770	-330,715	320	1,912
Biomass	-1,296	-9,565	10	6,362
Other	0	0	0	0
Grand Total	-906,830	-969,955	821,502	951,545

¹ System prices are based on the previous month's Interim Information (II) run data.

² Balancing volumes and trading charges appear as per the latest month with Initial Settlement (SF) run data available.