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.

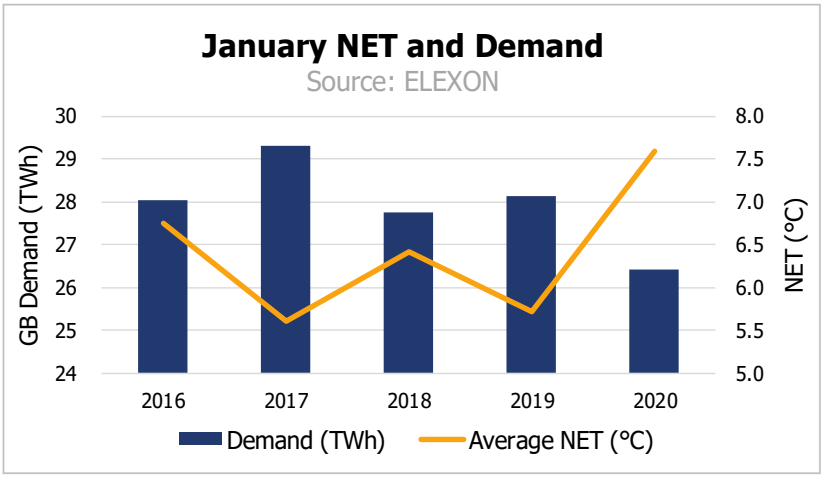
LOW DEMAND AND WARM JANUARY TEMPERATURES[1]

The Noon Effective Temperature (NET) is a weighted average temperature using the noon temperature from three days. The NET is an input into the production of profile coefficients used in Non-Half Hourly settlement.

The 10 year average NET for January is 6.0°C. In January 2020 the average NET was 7.6°C, the highest in the last five years. In 2019, the NET for January was 5.7°C, and that month had the lowest average NET value for 2019.

As the graph shows, warmer temperatures appear to impact the national demand for electricity. In each of the past years (2016 to 2019), January had the highest total monthly demand in each year. Prior to 2020, the average January demand from 2016 to 2019 was 28.3TWh, although this was inflated by the January 2017 demand of 29.3TWh.

This year, higher temperatures suppressed demand to 26.4TWh; the lowest January demand since ELEXON records began in 2002.The lower demand and higher temperatures may have impacted System Prices in January. You can read more about System Prices in the 'System Prices In January 2020' article below, or in the January 2020 System Price Analysis Report due to be publish later this month.



SYSTEM PRICES IN JANUARY 2020[2]

Monthly average System Prices for January 2020 were lower when the market was both short (10%) and long (2%), compared to December 2019. The average System Price regardless of length was **£35.03/MWh**; 9% lower than last month and the lowest average System Price for January since BSC Modification P305 was implemented on 5 November 2015.

System Prices exceeded £100.00/MWh on eight occasions in January, compared to 10 occasions in December. The highest System Price of the month, **£150.00/MWh**, occurred in Settlement Periods 34, 35 and 36 on 4 January, and, Settlement Periods 25 and 26 on 22 January. In all five of these Settlement Periods, the price was set by Offers from a single OCGT BM Unit.

There were two negative System Prices in January 2020, compared to 28 in December 2019. The lowest System Price, **-£11.21/MWh**, occurred in Settlement Period 8 on 15 January 2020. The price was set by eight Bids from Hydroelectric BM Units.

The average short and long System Prices were at their lowest since the implementation of BSC Modification P305; the average short and long System Price in January 2020 was £51.94/MWh and £14.11/MWh, compared to £84.77/MWh and £44.46/MWh in January 2019.

	Average (£/MWh)		Average (£/MWh) Peak 07:00-19:00	
Period	**Short System**	**Long System**	**Short System**	**Long System**
Jan-20	51.94	14.11	55.57	15.05
Dec-19	57.74	14.33	62.29	16.91
Nov-19	60.32	24.19	65.41	27.62
Winter 19/20	54.84	14.22	58.93	15.98
Autumn 19	55.53	19.30	58.64	21.65
Summer 19	56.72	24.94	59.81	25.06
Spring 19	59.77	28.26	62.85	28.22
Winter 18/19	79.64	42.31	85.94	44.31
Jan-19	84.77	44.46	91.92	46.26

[1] NET is a weighted average temperature using the noon temperature from last three days. It is calculated using the following equation: $NETH = 0.57TH_T + 0.28TH_{T-1} + 0.15TH_{T-2}$.
[2] System prices are based on the previous month's latest Initial Settlement (SF) & Interim Information (II) run data available.

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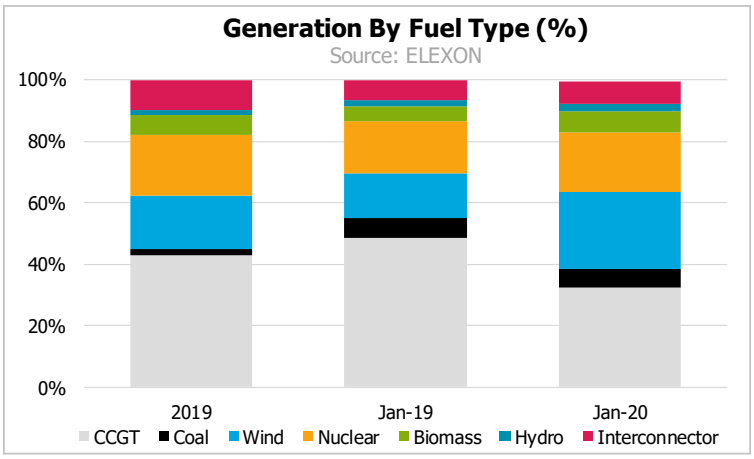
WIND SECOND HIGHEST CONTRIBUTOR TO GB GENERATION[3]

Wind generation contributed 25% of GB transmission connected electricity in January 2020 compared to 15% in January 2019. This ranked wind generation as the second highest contributor of electricity for the month, behind CCGT (33%) and ahead of Nuclear (20%). Also note Biomass generation has risen from this time last year; it provided 7% of total generation in January 2020 compared to 5% in January 2019.

January 2020 saw CCGT generation contributions shrink as Wind generation was available and demand stayed low (see "Low Demand and Warm January Temperatures" article on the previous page). CCGT contributed an average of 43% of generation in 2019, and 48% in January 2019. Coal, another traditional fuel source, saw an 18% drop in generation from last January.

The shrinking use of fossil fuels such as Gas and Coal has meant low CO_2 fuel types (not including embedded sources of Solar and Wind) accounted for 54% of generation in January 2020. This shows progress on the electricity market's road to Net Zero.

You can read more about fuel mix changes in the ELEXON Insights: Low CO2 fuel sources powered 2019 and ELEXON Insights: The electricity industry – ten years of change articles on the ELEXON website.



BALANCING MECHANISM VOLUMES IN DECEMBER 2019[4]

The total volume of balancing actions taken in the Balancing Mechanism (BM) for December 2019 was 2,339GWh, a 43% increase from November 2019. The majority (79%) of balancing volume in December came from Gas BMUs. The total volume of balancing actions was 45% higher than the same month in 2018.

Accepted **Bid** volume in December increased by 25% from last month. 63% of total Bid volume came from Gas BMUs, with 24% coming from Wind and 4% from both Coal and Pumped Storage BMUs. This is the highest contribution of Wind to monthly Bid volume since March 2019 (38%).

Accepted **Offer** volume in December increased by 62% compared to the previous month. Gas accounted for 93% of all Offer volume, with Coal responsible for a further 4%. Coal Offer volume increased by 12GWh (36%) compared to November 2019.

	Bid Volume (MWh)		Offer Volume (MWh)	
Fuel Type	**Dec-19**	**Nov-19**	**Dec-19**	**Nov-19**
Coal	-47,391	-39,313	46,913	34,444
Gas	-678,935	-719,701	1,178,837	719,886
Hydro	-34,037	-6,106	3,128	4,114
OCGT	-155	-97	4,392	3,027
Pumped Storage	-38,280	-20,777	20,132	18,662
Wind	-253,476	-57,782	1,219	59
Biomass	-19,220	-11,228	8,482	12
Other	-2,276	-1,728	1,884	1,290
Grand Total	-1,073,770	-856,733	1,264,986	781,494

TRADING CHARGES IN DECEMBER 2019[4]

Gross Party Imbalance cashflows were £96m in December 2019, an decrease of 6% from November. Debits for being short decreased by £0.7m, and credits for being long decreased by £5.6m, between November and December 2019.

Gross Party Imbalance Volumes increased by 9% from November to December 2019. Energy Imbalance Volumes for Parties that were long decreased by 2% this month, compared to November, whilst Energy Imbalance Volumes for Parties that were short rose by 19%.

December **Offer** volume and cashflow increased by 62% and 55% respectively compared to the previous month. The average price of Offers decreased by £2.83/MWh to £63.16/MWh this month.

Net **Bid** cashflow in December was £12.65m, compared to -£8.03m in November. This means payment received by Parties for negative Bids were higher than payments from Parties for positive Bids.

Total Cashflow (£m)	Dec-19	Nov-19	Oct-19	Sep-19
Long Imbalance Charge (Credit)	-42.23	-47.80	-38.45	-33.99
Short Imbalance Charge (Debit)	54.22	54.90	47.10	37.78
RCRC Credit	14.62	10.16	11.55	7.10
RCRC Debit	-2.63	-3.05	-2.89	-3.30
Offer Cashflow	79.90	51.57	71.78	55.41
Bid Cashflow (Positive Bids)	-9.14	-13.59	-10.15	-7.53
Bid Cashflow (Negative Bids)	21.79	5.55	21.82	12.86

[3] Generation data is taken from the ELEXON Portal from the Historic Fuel HH webpage.
[4] Balancing volumes and trading charges appear as per the latest month with Initial Settlement (SF) run data available.

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