BSC OPERATIONS HEADLINE REPORT

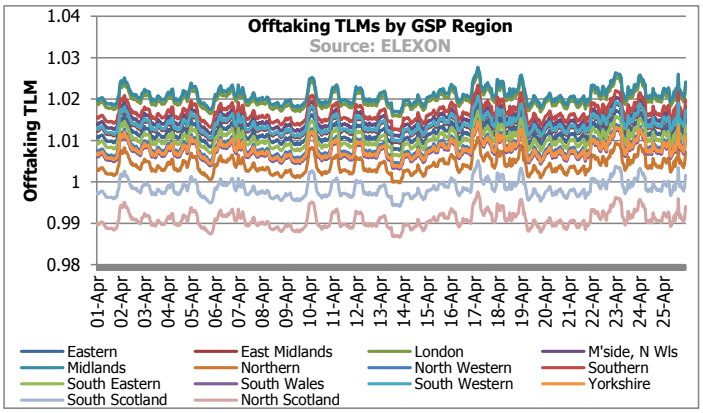
1 In this report you will find commentary on BSC market operation, identification of key events and reporting of key data.

2 The Trading Operation 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.

SCOTTISH OFFTAKING TLMS LESS THAN ONE

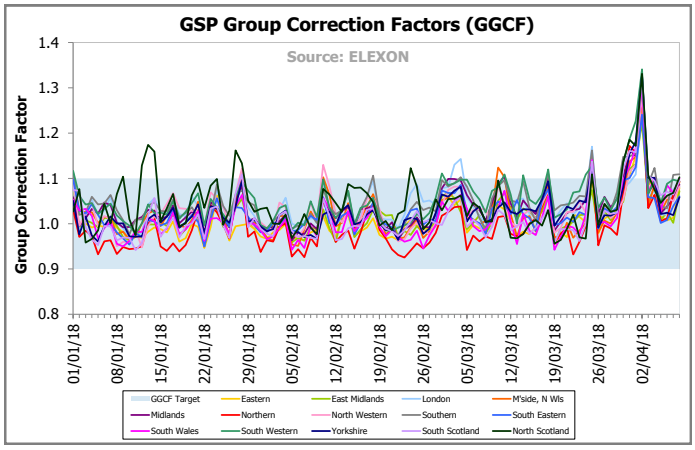
The average offtaking Transmission Loss Multipliers (TLMs) in April are 0.998 and 0.991 for South Scotland and North Scotland respectively. Since the implementation of BSC Modification P350 on 1 April 2018, the Offtaking TLM has been less than one in 81% of Settlement Periods in South Scotland and all Settlement Periods in North Scotland. This is due to the two Scottish regions having negative Transmission Loss Factors (TLFs).



A negative TLF means an increase in generation (or a decrease in consumption) increases the total losses. The majority of generation is in the north, whilst the majority of consumption is in the south, so the energy 'flows' from north to south to met demand. In Scotland, a Generator is likely to be negatively impacted by P350, but a Supplier should benefit as the energy produced is consumed 'locally'.

HIGH GGCFS ON EASTER MONDAY

This graph is an adaptation of "Daily Average GSP Group Correction Factor (GGCF)" from the Trading Operations Report. GGCF values usually range between 0.9 and 1.1, while values outside of this range may indicate an issue with metered volumes. On Easter Monday (2 April 2018), the daily average GGCF across all GSP Groups was above the usual range at 1.29.



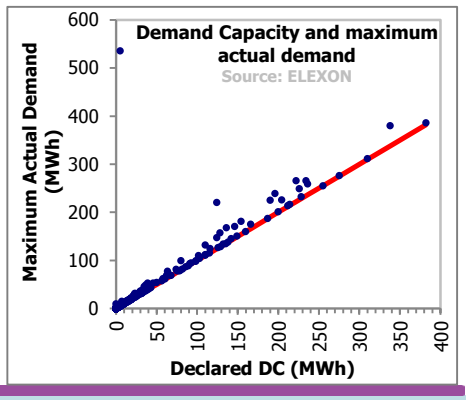
Traditionally profiles for Non-Half Hourly customers are less accurate on Bank Holidays. A GGCF greater than 1 scales up applicable Suppliers' volumes (mainly Non-Half Hourly) to match the GSP Group Take. The average Noon Effective Temperature for this day was 6.12°C, which was 3.81°C lower than the 10-year average for this date. After investigation, ELEXON has found no issues with metered volumes, so believe this anomaly is due to 2 April 2018 being a bank holiday.

METERED VOLUMES EXCEEDING DEMAND CAPACITY

During March 2018, there have been 1,048 incidences of a BMUs maximum demand being greater than their declared Demand Capacity (DC), based on metered volume data from the SF run.

In this period, 324 BMUs exceeded their DC by more than the permitted tolerances specified in the BSC. The relevant BSC Parties have been contacted and asked to re-declare their DC values. This graph shows one BMU exceeding their DC by 561MWh, and ELEXON is currently investigating this anomaly.

DC is used to calculate indebtedness in the Credit Cover Calculation where no metered data is available. DC re-declarations can be made at anytime using the online forms held on the ELEXON Portal.



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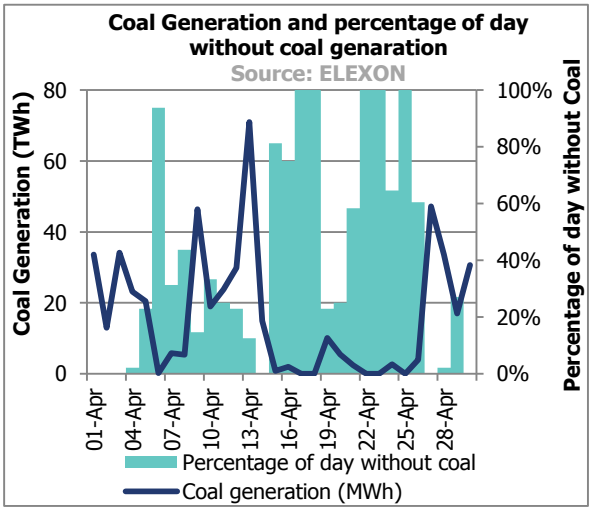
NO COAL GENERATION FOR FIVE DAYS IN APRIL

Generation from Coal BMUs did not contribute to the GB fuel mix during five Settlement Days in April 2018. The longest continuous period without coal was three days, between Settlement Period 21 on 21 April and Settlement Period 28 on 24 April (152 Settlement Periods, or 76 hours). The first day without Coal generation since the industrial revolution occurred a year earlier on 21 April 2017.

During April 2018, 41% of Settlement Periods had no generation from Coal BMUs. In comparison, in April 2017 19% of Settlement Periods had no Coal generation.

Coal generation accounted for 2% of the fuel mix in April 2018. The remaining fuel mix consisted of: Gas (45%), Nuclear (23%), Wind (14%), Interconnectors (8%), Biomass (6%), and Hydro/Pumped Storage (2%). During Settlement Periods without Coal generation, Wind generation accounted for 20% of the fuel mix.



SYSTEM PRICES IN APRIL[1]

Monthly average System Prices for April were lower when short (28.7%) and when long (13.4%), compared to March 2018. The average System Price regardless of length was **£50.41/MWh**, and 27% lower than last month. In April 2018, the market was long for the majority (61%) of Settlement Periods.

The lowest System Price, **-£92.38/MWh**, occurred during Settlement Period 31 on 26 April**.** This was one of two negative System Prices during the month, and was set by negatively priced Bids from Biomass and Gas BMU's.

The highest System Price, **£158MWh**, occurred in Settlement Periods 25 and 26 on 13 April 2018. System Prices exceeded £100/MWh 49 times in April 2018, compared to 128 times in March.

	Average (£/MWh)		Average (£/MWh) Peak 07:00-19:00	
Period	**Short System**	**Long System**	**Short System**	**Long System**
Apr-18	73.39	35.53	79.96	36.00
Mar-18	102.98	41.02	114.55	41.52
Feb-18	66.11	38.53	71.93	38.64
Spring 18	90.96	38.56	101.06	39.17
Winter 17/18	72.05	38.01	77.97	39.14
Autumn 17	67.00	32.68	72.19	34.44
Summer 17	65.87	25.10	72.67	25.42
Spring 17	69.15	28.58	80.98	28.12
Apr-17	65.82	27.22	71.40	25.95

BALANCING MECHANISM VOLUMES IN MARCH[2]

The total volume of balancing actions taken in the Balancing Mechanism for March was 1,208GWh, a 12% increase from February 2018. The majority (68%) of balancing volume came from Gas BMUs.

Accepted **Bid** volume increased by 4% from February. 61% of total Bid volume came from Gas, whilst Coal accounted for 25% of Bid volume.

Accepted **Offer** volume increased by 24% from February. Coal and Gas Offer volumes increased by 34% and 27% respectively, whilst Pumped Storage Offers decreased by 9.3%. Coal accounted for 16% of Offers in March, whilst Gas Offers accounted for 77%.

	Bid Volume (MWh)		Offer Volume (MWh)	
Fuel Type	**Mar-18**	**Feb-18**	**Mar-18**	**Feb-18**
Coal	-163,791	-131,934	87,290	64,991
Gas	-396,277	-438,416	423,824	332,587
Hydro	-5,774	-4,998	2,394	2,241
OCGT	0	0	1,989	1,391
Pumped Storage	-37,378	-22,488	38,122	42,053
Wind	-50,220	-30,571	548	572
Biomass	-614	-289	0	2,988
Other	0	0	0	0
Grand Total	-654,054	-628,695	554,167	446,823

TRADING CHARGES IN MARCH[2]

Gross imbalance cashflows were £673m in March 2018, a 57% increase from £428m in February. This increase is a result of average Imbalance Price, regardless of direction, increasing by 31%, and gross Energy Imbalance Volumes increasing by 12%.

The **Offer** cashflow increased by 63% in March, with the volume of Offers increasing by 24%. The average price per MWh of Offer volume increased by 31% to £107.30/MWh.

Net **Bid** cashflow was -£19.8m in March, compared to -£19.9m in February. Bid cashflow increased by 6% for positive Bids, and by 66% for negative Bids, compared to last month.

Total Cashflow (£m)	**Mar-18**	**Feb-18**	**Jan-18**	**Dec-17**
Long Imbalance Charge (Credit)	-328.91	-214.19	-224.05	-240.06
Short Imbalance Charge (Debit)	344.08	213.98	225.00	248.46
RCRC Credit	28.14	11.14	11.59	17.44
RCRC Debit	-12.97	-11.35	-10.65	-9.04
Offer Cashflow	59.46	36.49	53.67	60.74
Bid Cashflow (Positive Bids)	-23.34	-22.02	-23.14	-25.76
Bid Cashflow (Negative Bids)	3.52	2.12	6.60	8.69

[1] System prices are based on the previous month's Interim Information (II) run data. Where no II data exists for the Settlement Day indicative data have been used.
[2] Balancing volumes and trading charges appear as per the latest month with Initial Settlement (SF) run data available.

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