



# Trading Operations Report - Consultation

Chris Braley  
23 January 2014



# What are we proposing and why?

## What is ELEXON proposing?

ELEXON want to:

- Update and develop the Trading Operations Report
- Ensure it meets customer requirements
- Enhance and improve the commentary and descriptions
- Establish Trading Operations as a dynamic report to enable relevant information to be added on a monthly basis where needed
- Remove unnecessary or unused information
- Restructure the report into subject areas
- Add in new information which helps offer more insight on the market

## Why are we proposing this?

This proposal is to:

- Increase the usability of the report and relevance for customers
- Make it easier for customers to understand what is being presented without assistance
- Ensure the report is meeting its purpose of “publishing key market data graphically whilst giving a performance indicator for the Balancing and Settlement Code arrangements”
- Make it easier for customers to navigate
- Reduce the average length of the Trading Operations Report

- Please respond if the changes being proposed meet your needs
- Consultation period: 23 January 2014 - 21 February 2014

### **Next steps**

- Receive and discuss responses
- Take the proposal/responses to The SVG, The ISG and The BSC Panel
- Go live with new report by May 2014.

Please send comments or responses to Chris Braley:

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# Summary of changes

The following table refers to graphs/tables within the different sections of the current Trading Operations Report

| Add  | Change  | Remove  | Keep  |
|--|---|---|---|
| <ul style="list-style-type: none"> <li>2 new graphs on pricing</li> <li>1 new graphs on bid/offer volumes</li> <li>2 new graphs on cash flow.</li> </ul> | 2.02, 2.03, 2.06, 2.07, 2.08, 2.12, 2.13, 2.15, 2.16, 3.01, 3.02, 3.04, 3.12, 3.37, 4.03, 4.04, 4.11, 4.12. | 2.01, 2.04, 2.05, 2.09, 2.14, 3.08, 3.11, 3.14, 3.15, 3.16, 3.17, 3.18, 3.20, 3.23, 3.24, 3.25, 3.26, 3.27, 3.29, 3.33, 3.34, 3.35, 3.38, 4.07, 4.08, 4.09, 4.10, 4.13. | 2.10, 2.11, 3.03, 3.05, 3.06, 3.07, 3.09, 3.10, 3.13, 3.19, 3.21, 3.22, 3.28, 3.30, 3.31, 3.32, 3.36, 4.01, 4.02, 4.05, 4.06. |

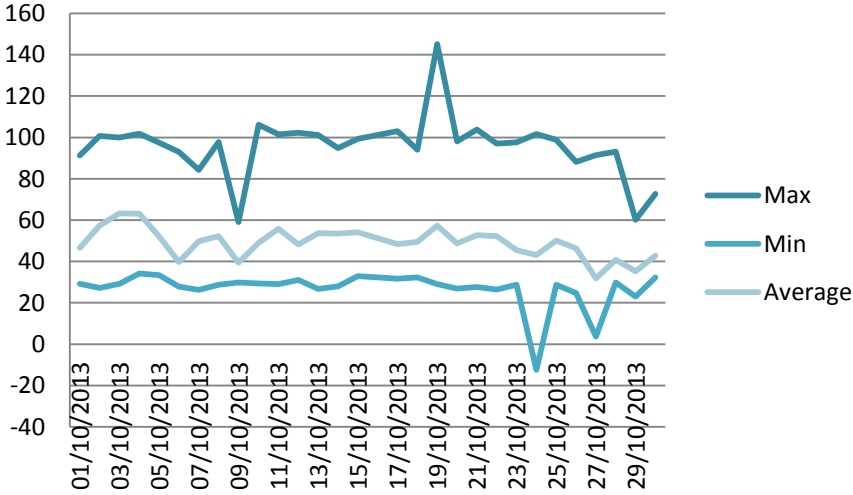
Graphs/Tables we are proposing to remove are because we do not feel they offer any insight or information needed by our customers

Proposed below are the new subject headings to replace Headline Statistics, CVA Market Charts and SVA Market Charts

|                    |                     |          |                                |
|--------------------|---------------------|----------|--------------------------------|
| System Performance | Prices              | Credit   | Imbalance Volumes              |
| Cash flows         | Demand              | GSP GCF  | Energy Settled on Metered Data |
| Generation         | Transmission Losses | Metering |                                |

# New graphs: pricing

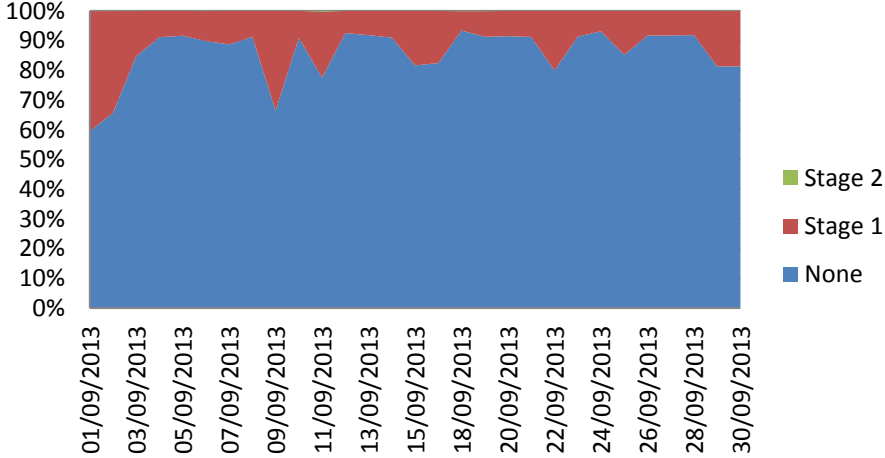
**Main Price by Settlement Day**



For each half hour trading period, depending on the net position of National Grid Transmission System, one of the 'cash-out' or 'energy imbalance' prices (System Sell Price and System Buy Price) will be associated with Balancing Mechanism Bids and Offers. In this case the price will be known as the 'main' price.

The main energy imbalance price is calculated using the balancing actions that the SO accepted for that Settlement Period. Parties whose imbalance is in the opposite direction to the Transmission System will be charged their imbalance at the main energy imbalance price.

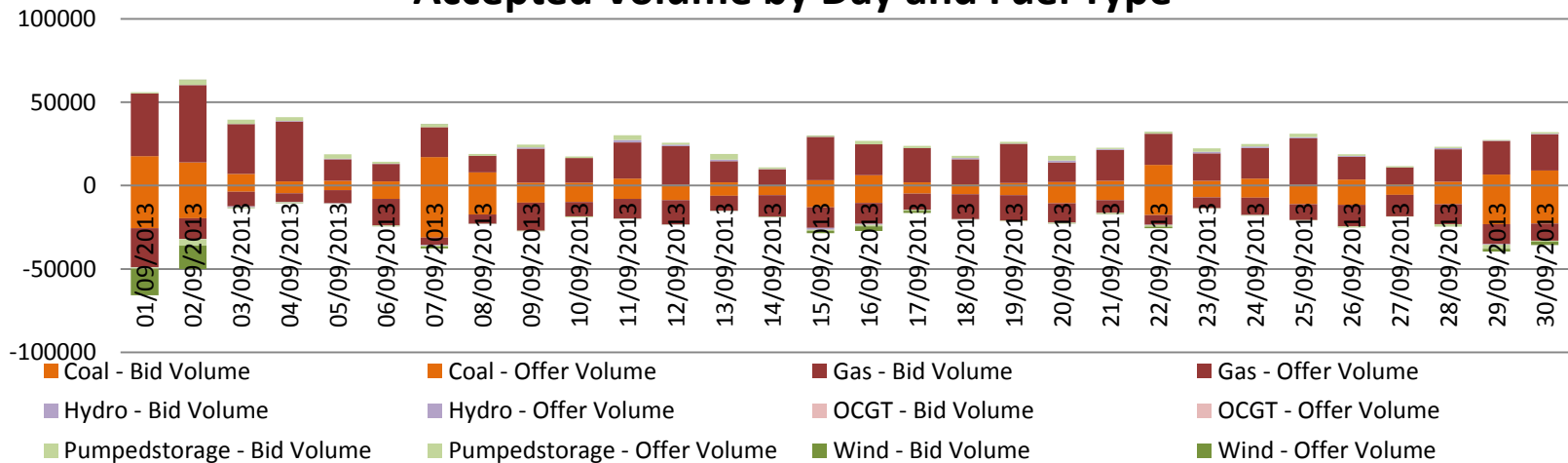
**Flagged Balancing Actions in System Price Calculations**



The purpose of this graph is to monitor price calculations. The graph shows the ration of system balancing actions (stage 1 and 2) to energy balancing actions (none). Stages 1 and 2 reflect balancing done through the system, either by system operator or once the offer is placed. The blue shaded part of the graph represents the actions taken by National Grid. Bigger the red and green area means worse performance of the system.

# New graphs: accepted bid/offer volumes

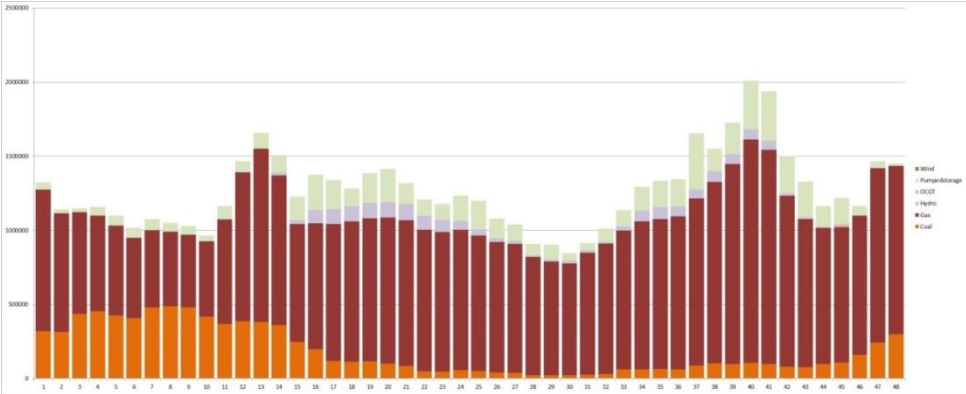
## Accepted Volume by Day and Fuel Type



The chart shows how the energy bids and offers were distributed each day by generation fuel type. A Bid is a proposal to reduce generation or increase demand and an offer is a proposal to increase generation or reduced demand. This is used by the system operator to balance the market to best satisfy the balancing requirements of the transmission system. Looking at the fuel type it shows which type of BMUs are mainly used to balance the system.

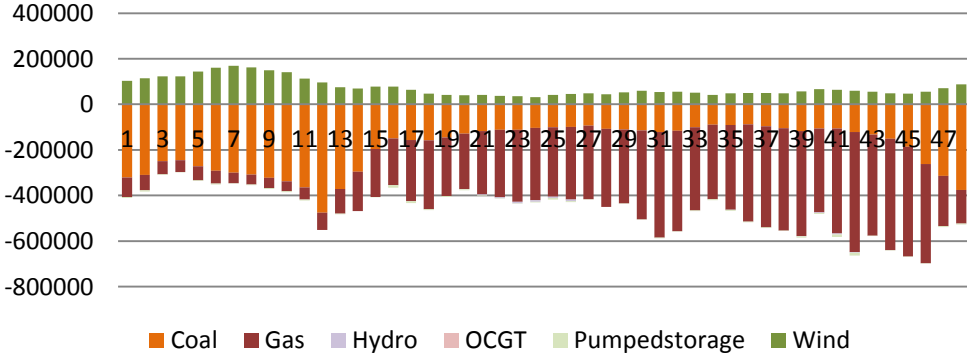
# New graphs: cash flows

Accepted Offer Cash flow by Period and Fuel Type



The two graphs depict the cash flow associated with accepted bids and offers by Period and Fuel Type. It provides an insight into how much do balancing actions cost and how the amount is influenced by the time of day and type of BMU used for balancing.

Accepted Bid Cash flow by Period and Fuel Type

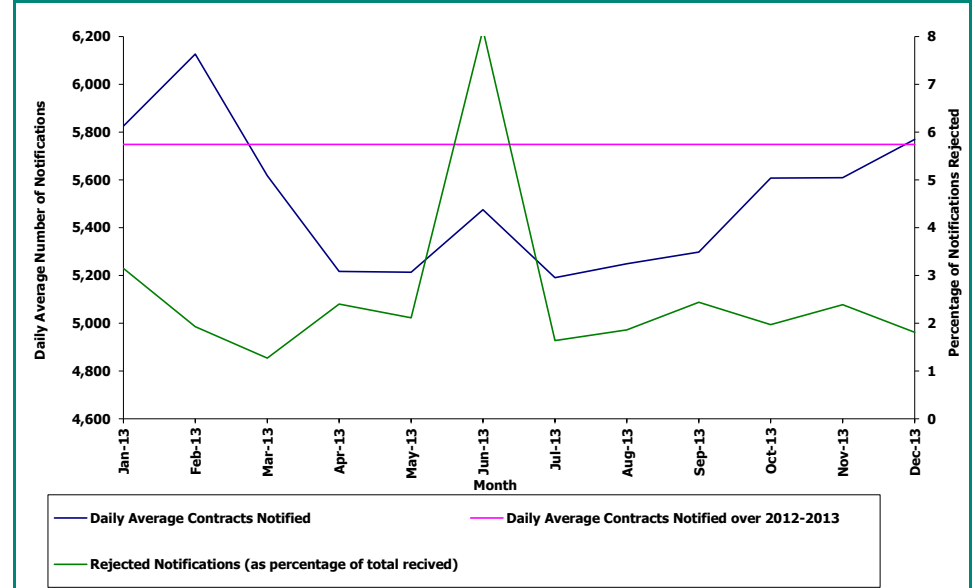


# Changes

**Table 2.06 Price Derivation Codes**

| Description (Code) |   | % of Occurrences |        |        |
|--------------------|---|------------------|--------|--------|
|                    |   | Dec 13           | Nov 13 | Oct 13 |
| Short Market       | NIV is Positive: SBP is the Main Price  |                  |        |        |
|                    | SSP = Reverse Price (A)                 | 34.21            | 36.18  | 38.66  |
|                    | SSP capped to SBP (B)                   | 0.94             | 1.18   | 2.21   |
|                    | SSP defaulted to SBP (C)                | 0.00             | 0.00   | 0.00   |
|                    | SSP & SBP defaulted to Market Price (D) | 0.00             | 0.00   | 0.00   |
|                    | SSP & SBP defaulted to Zero (E)         | 0.00             | 0.00   | 0.00   |
| Long Market        | NIV is Negative: SSP is the Main Price  |                  |        |        |
|                    | SBP = Reverse Price (F)                 | 58.13            | 57.92  | 53.96  |
|                    | SBP capped to SSP (G)                   | 6.72             | 4.72   | 5.17   |
|                    | SBP defaulted to SSP (H)                | 0.00             | 0.00   | 0.00   |
|                    | SSP & SBP defaulted to Market Price (I) | 0.00             | 0.00   | 0.00   |
|                    | SSP & SBP defaulted to zero (J)         | 0.00             | 0.00   | 0.00   |
| Balanced Market    | NIV is Zero                             |                  |        |        |
|                    | SSP & SBP defaulted to Market Price (K) | 0.00             | 0.00   | 0.00   |
|                    | SSP & SBP defaulted to zero (L)         | 0.00             | 0.00   | 0.00   |

**Chart 2.02 Daily Average Submitted Notifications and % of Notifications Rejected**



## Changes

### 2.02

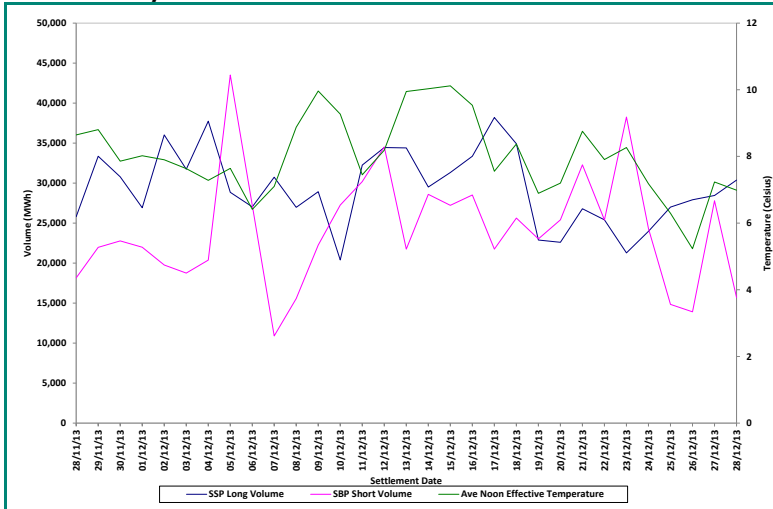
- Add in a threshold to show where rejections move outside the norm

### 2.06

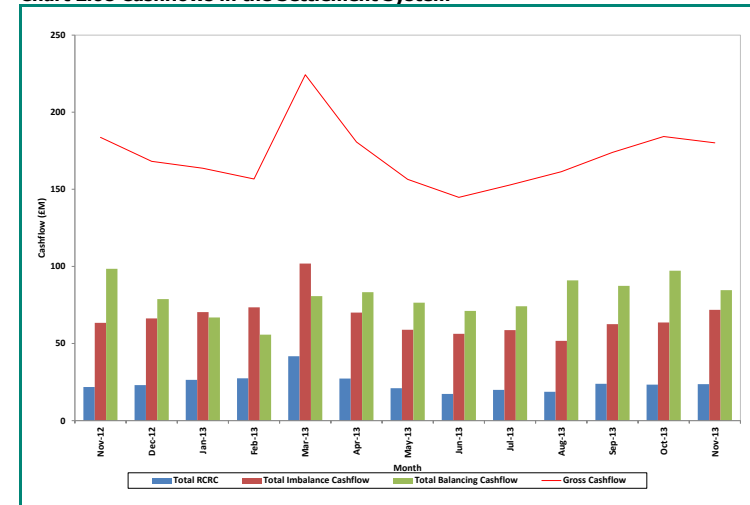
- Change to a graph showing the percentages of long and short market occurrences for every month over the last year



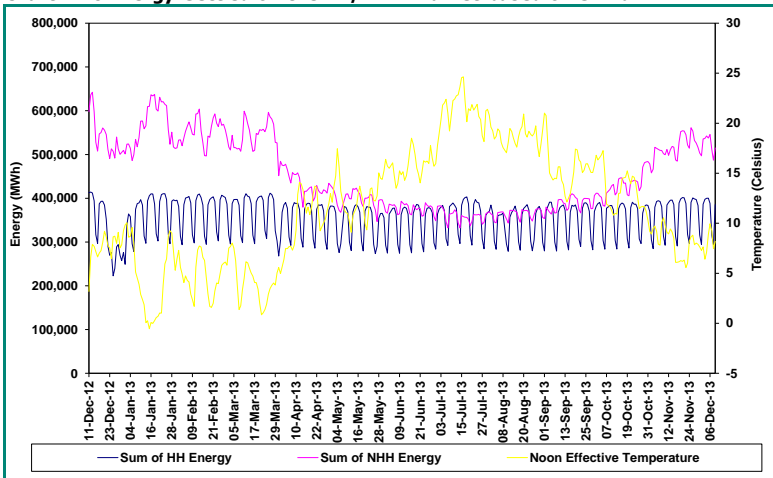
**Chart 2.07 Daily Imbalance Volumes**



**Chart 2.08 Cashflows in the Settlement System**



**Chart 2.10 Energy Settled on the HH/NHH Market based on SF Run**



## Changes

### 2.07

- Change the long and short volume to a stacked chart to allow for easier viewing

### 2.08

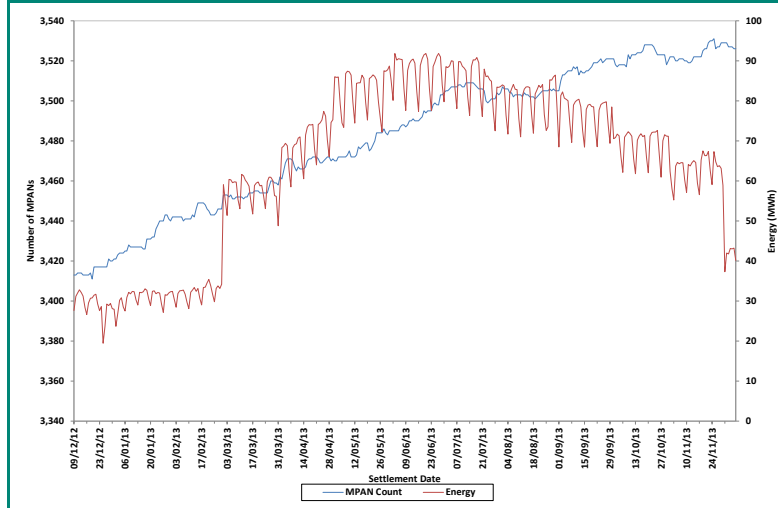
- Move to a stacked chart and remove the gross cash flow as this will be shown by the height of the bars

### 2.10

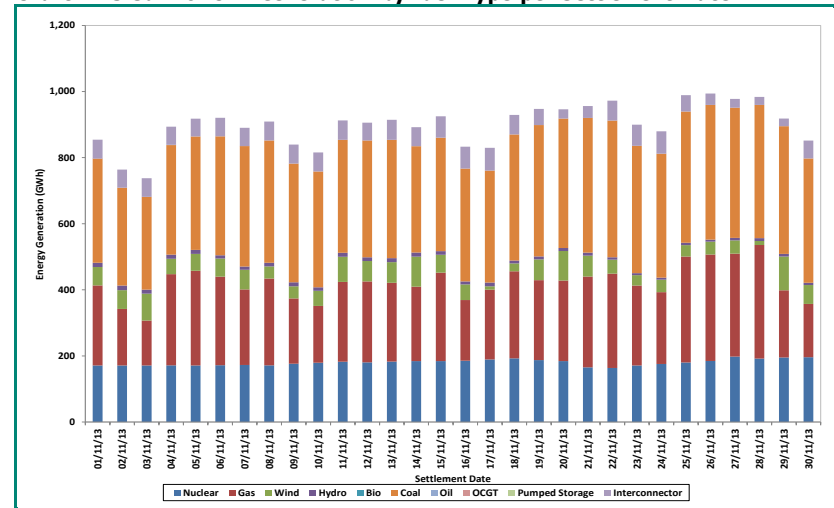
- Change to a table showing, sum of HH settled volume, sum of NHH settled volume, Average Noon Effective temperature for each season and compare with the previous year

# Changes

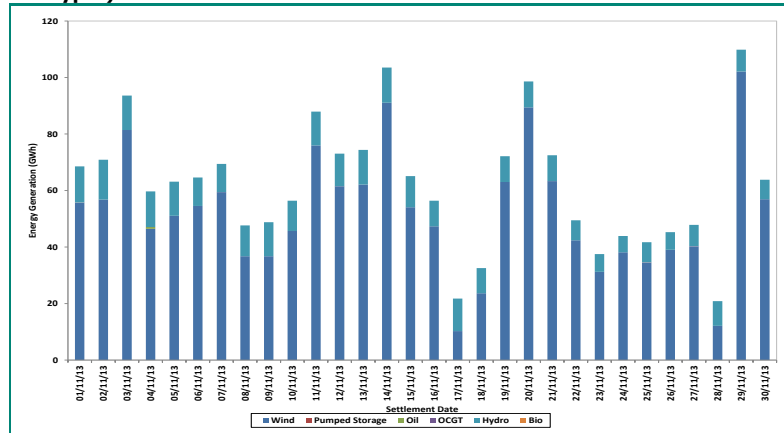
**Chart 2.12 Microgeneration: Number of Metering Systems and Energy Exported**



**Chart 2.13 Sum of CVA Generation by Fuel Type per Settlement Date**



**Chart 2.15 Sum of CVA Generation by Fuel Type per Settlement Date (less used fuel types)**



## Changes

### 2.12

- Better explanations and commentary

### 2.13

- Change to area graph and show detail for a whole year

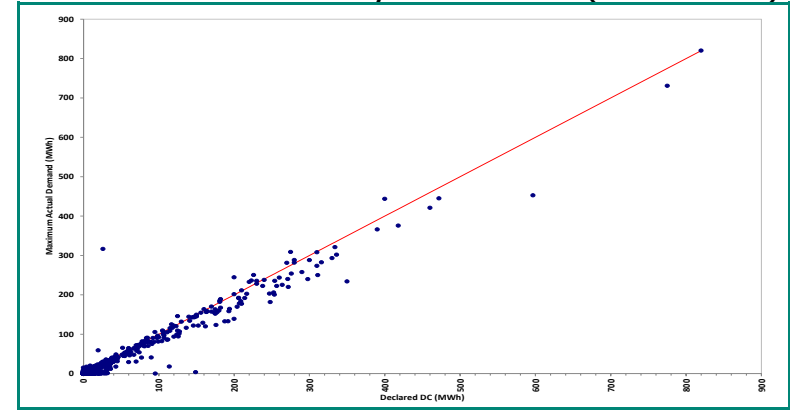
### 2.15

- Show data for wind only

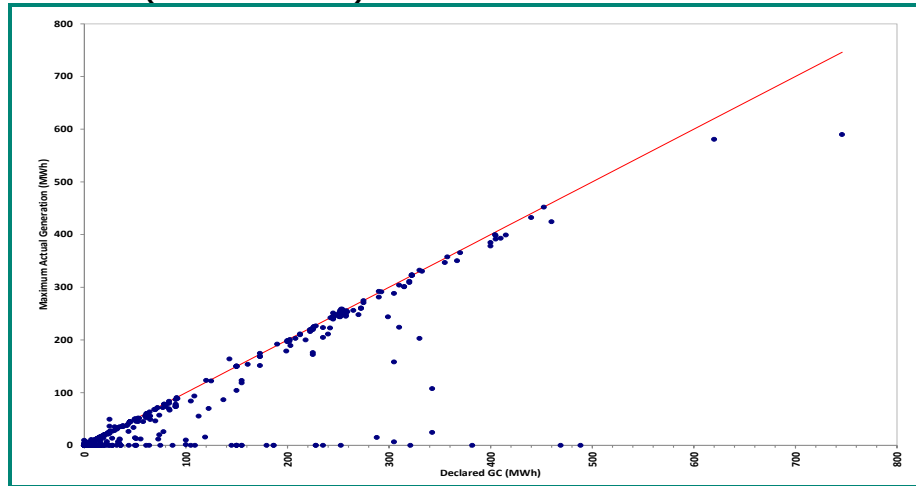
**Table 3.01 Credit Defaults/ Credit Cover Percentages**

| Period | No. of Parties in Query Period | No. of Parties in Credit Default |         | Party Maximum Credit Cover Percentage (%) |        |       |       |       |       |     |
|--------|--------------------------------|----------------------------------|---------|---|--------|-------|-------|-------|-------|-----|
|        |                                | Level 1                          | Level 2 | >100                                      | 90-100 | 80-90 | 60-80 | 30-60 | 10-30 | <10 |
| Dec-13 | 2                              | 0                                | 0       | 1   | 1      | 0     | 7     | 10    | 27    | 214 |
| Nov-13 | 2                              | 0                                | 0       | 2   | 0      | 0     | 3     | 8     | 22    | 224 |
| Oct-13 | 1                              | 0                                | 0       | 0   | 0      | 1     | 2     | 12    | 22    | 222 |
| Dec-12 | 0                              | 0                                | 0       | 0   | 0      | 0     | 3     | 11    | 15    | 213 |

**Chart 3.05 Declared DC and Monthly Maximum Demand (based on SF data)**



**Chart 3.06 Comparison between Declared GC and Monthly Maximum Generation (based on SF data)**



## Changes

### 3.01

- Move to a graph showing trends over an annual term

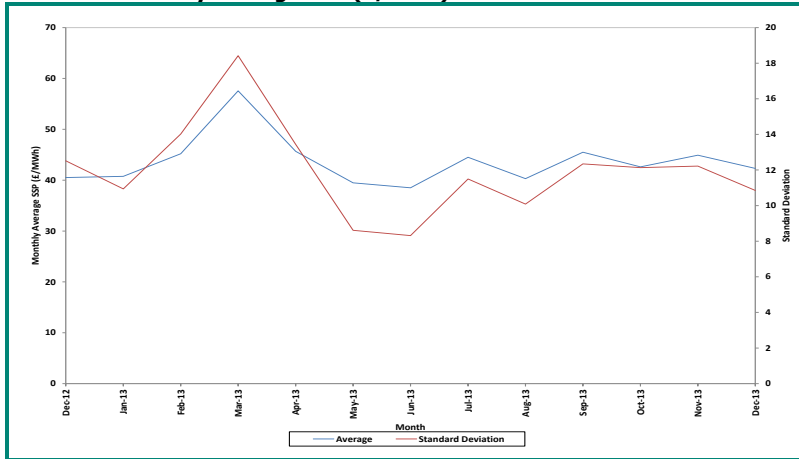
### 3.05

- Change the graph to show only where Maximum Demand is greater than DC

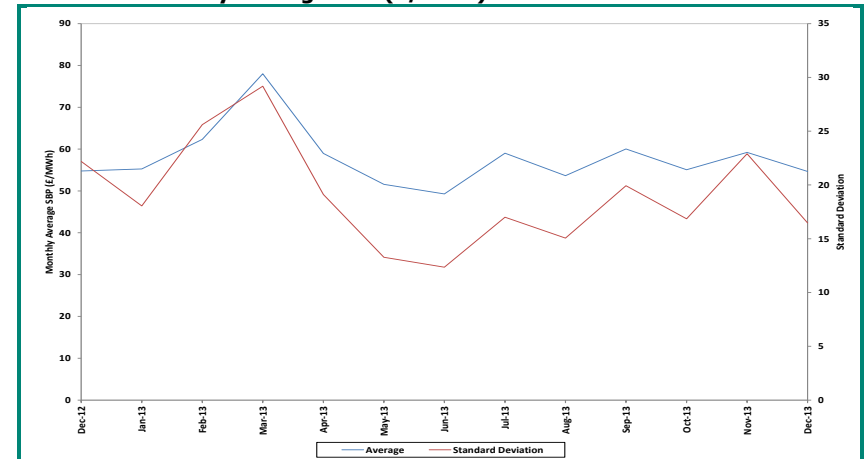
### 3.06

- Change the graph to show only where Maximum Generation is greater than GC

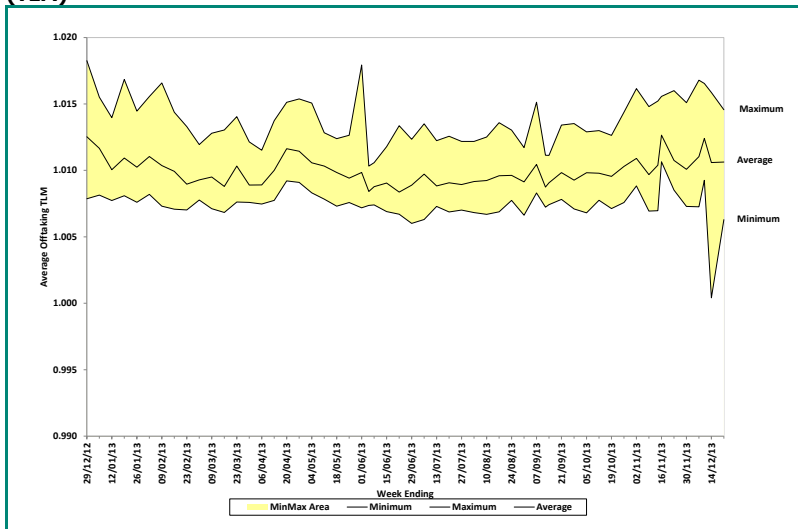
**Chart 3.12 Monthly Average SSP (£/MWh) and Standard Deviation**



**Chart 3.15 Monthly Average SBP (£/MWh) and Standard Deviation**



**Chart 3.36 Weekly Max, Min and Average Offtaking Transmission Loss Multiplier (TLM)**



## Changes

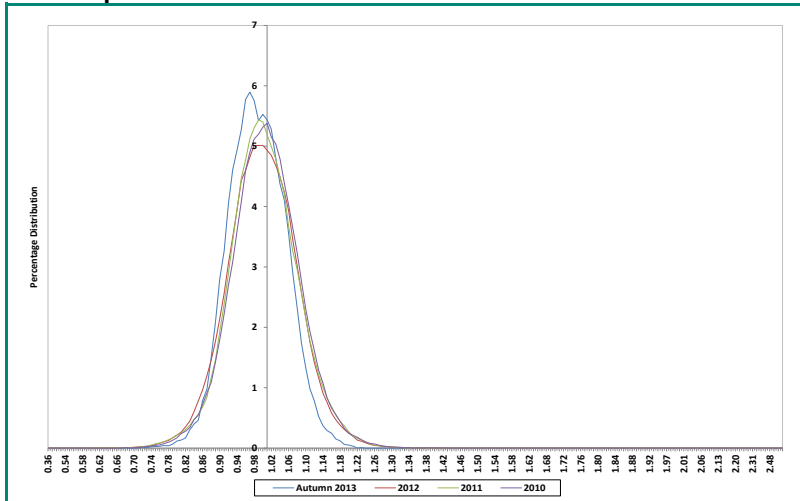
### 3.12 & 3.15

- Combine these two graphs, add in market price and remove the standard deviation

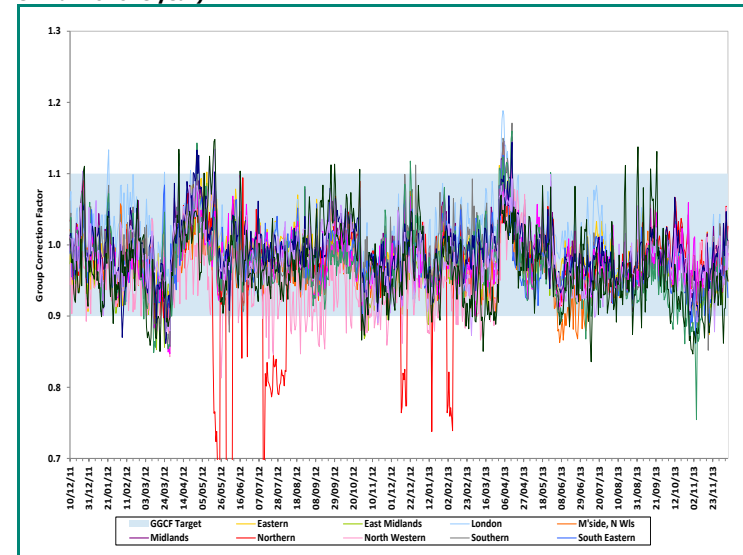
### 3.36

- Move to using SF data only to make this consistent with other views in the report

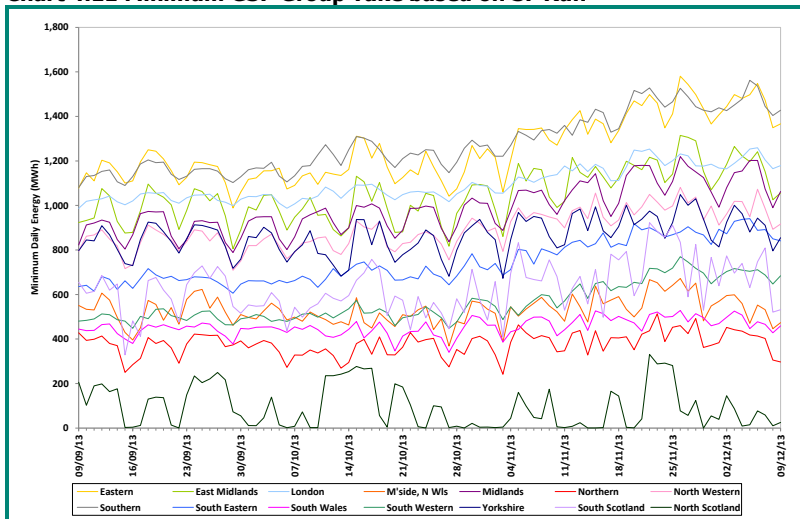
**Chart 4.01 Distribution of Half-Hour GSP Group Correction Factors across all GSP Groups**



**Chart 4.03 Daily Average GSP Group Correction Factor by GSP Group (based on SF Run for one year)**



**Chart 4.11 Minimum GSP Group Take based on SF Run**



## Changes

### 4.01

- Move this graph to compare seasons only

### 4.03

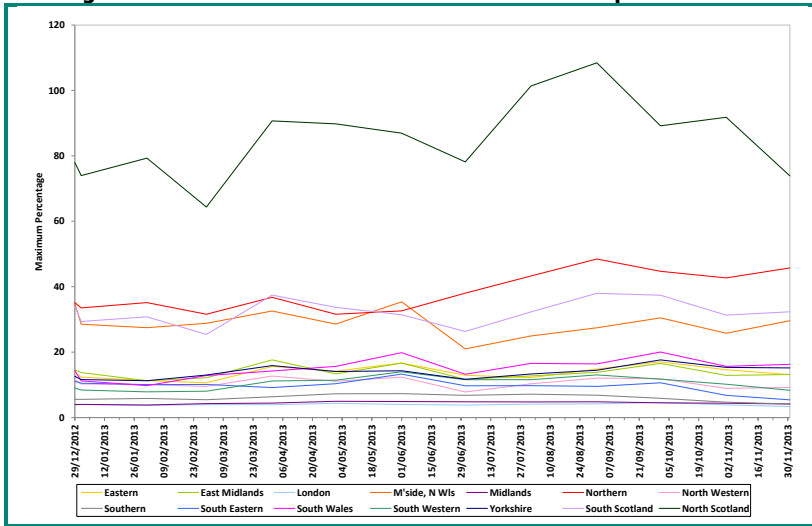
- Ensure the legend is expanded to show all areas

### 4.11

- Introduce a shaded area up to 500MWh to show the GSPs close to exporting

# Changes

**Chart 4.12 Percentage of Maximum GSP Group Metered Volume Supplied by SVA Registered Embedded Generation for each GSP Group**



## Changes

### 4.12

- Move from percentage to show total volume by GSP area

# Charts/tables to remove

**Table 2.01 Energy Contract Volume Notification Submissions**

|                  | Dec-13 |           | Nov-13 |           | Oct-13 |           |
|------------------|--------|-----------|--------|-----------|--------|-----------|
|                  | Normal | Web based | Normal | Web based | Normal | Web based |
| Received         | 178688 | 166       | 167987 | 282       | 173552 | 276       |
| Rejected         | 3226   | 0         | 4015   | 0         | 3415   | 0         |
| Total % Rejected | 1.81%  |           | 2.39%  |           | 1.97%  |           |

**Table 2.04 System Sell Price**

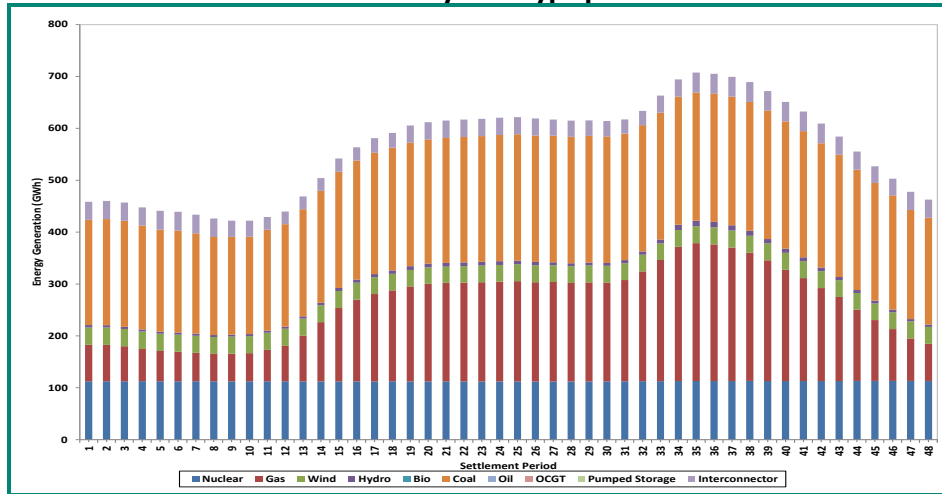
|          | Min    | Max    | Median | Mean  | St. Dev |
|----------|--------|--------|--------|-------|---------|
| Dec 2013 | 3.89   | 101.70 | 42.03  | 42.30 | 10.85   |
| Nov 2013 | 17.29  | 161.73 | 41.94  | 44.91 | 12.22   |
| Oct 2013 | -12.45 | 95.17  | 40.35  | 42.61 | 12.14   |
| Dec 2012 | 1.38   | 159.34 | 38.76  | 40.52 | 12.52   |

**Table 2.05 System Buy Price**

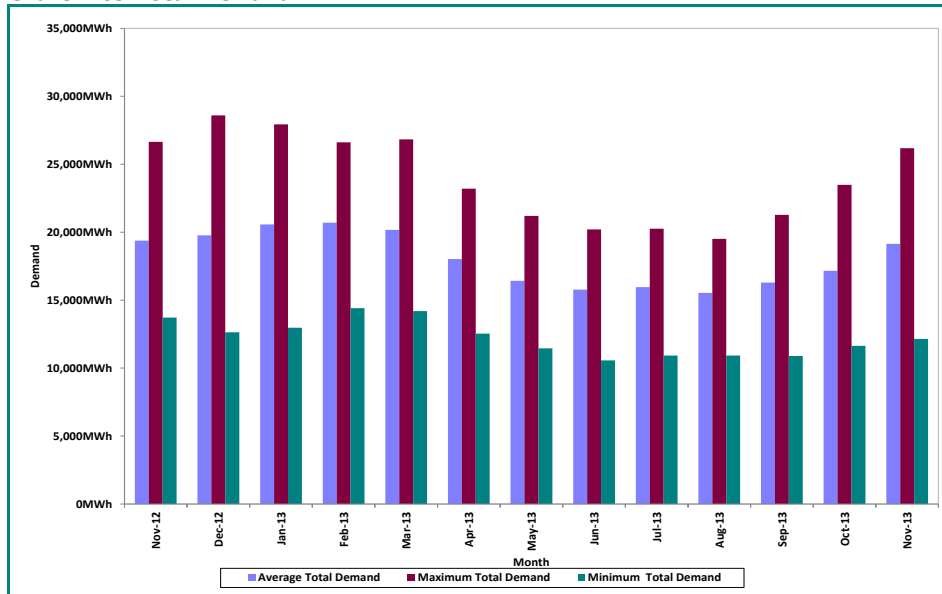
|          | Min   | Max    | Median | Mean  | St. Dev |
|----------|-------|--------|--------|-------|---------|
| Dec 2013 | 16.84 | 156.71 | 53.32  | 54.67 | 16.47   |
| Nov 2013 | 28.12 | 343.53 | 55.40  | 59.21 | 22.91   |
| Oct 2013 | 21.11 | 145.06 | 53.74  | 55.08 | 16.86   |
| Dec 2012 | 23.53 | 239.79 | 50.10  | 54.76 | 22.20   |

# Charts/tables to remove

**Chart 2.14 Sum of CVA Generation by Fuel Type per Settlement Period**



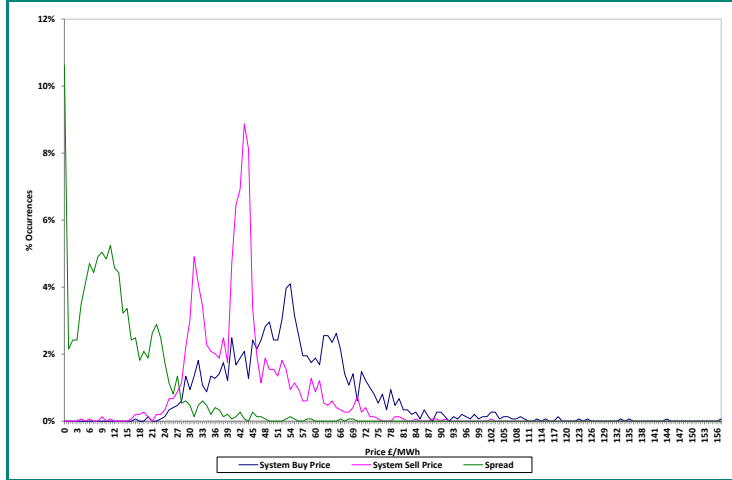
**Chart 2.09 Total Demand**



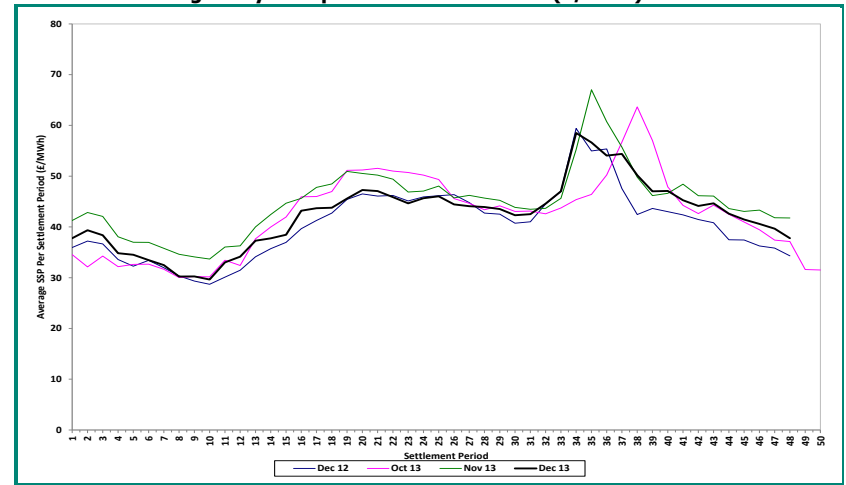


# Charts/tables to remove

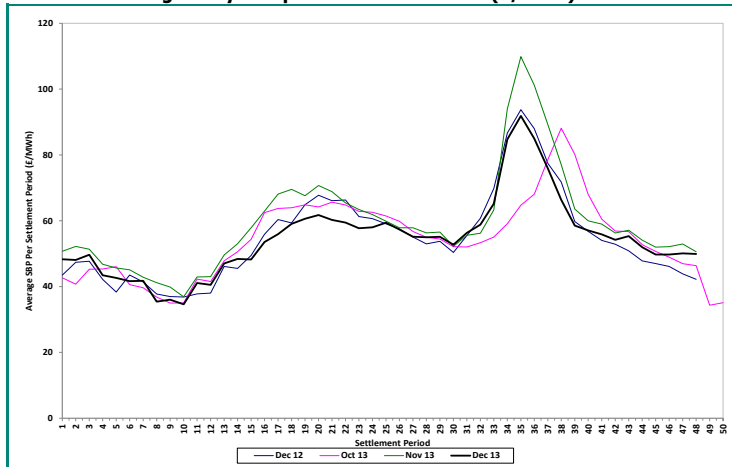
**Chart 3.08 Price Distribution Curve for System Sell Price and System Buy Price**



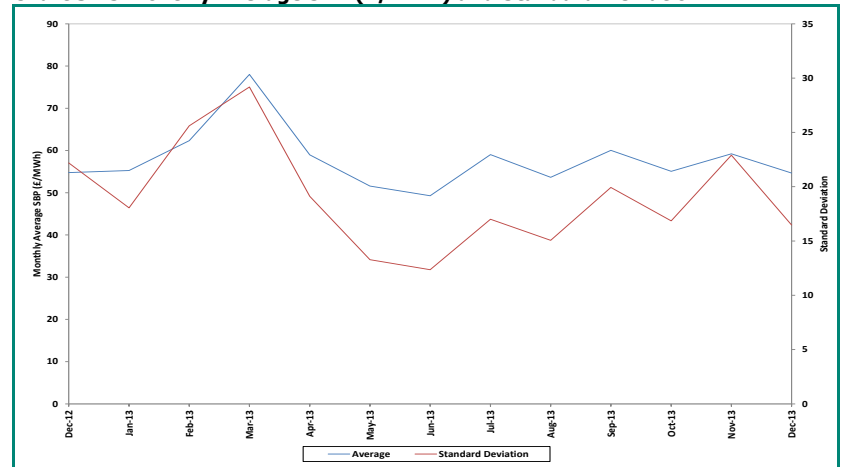
**Chart 3.11 Average Daily SSP per Settlement Period (£/MWh)**



**Chart 3.14 Average Daily SBP per Settlement Period (£/MWh)**



**Chart 3.15 Monthly Average SBP (£/MWh) and Standard Deviation**



# Charts/tables to remove

Chart 3.16 Average Price Spread per Settlement Day (£/MWh)

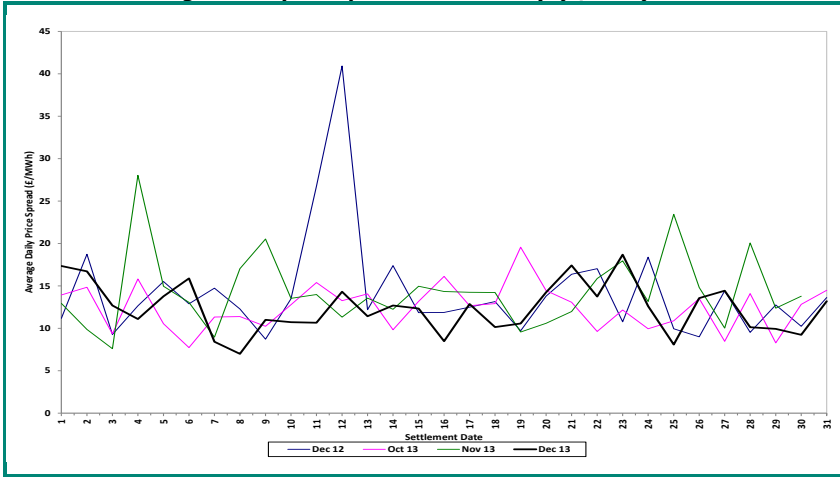


Chart 3.17 Average Price Spread per Settlement Period (£/MWh)

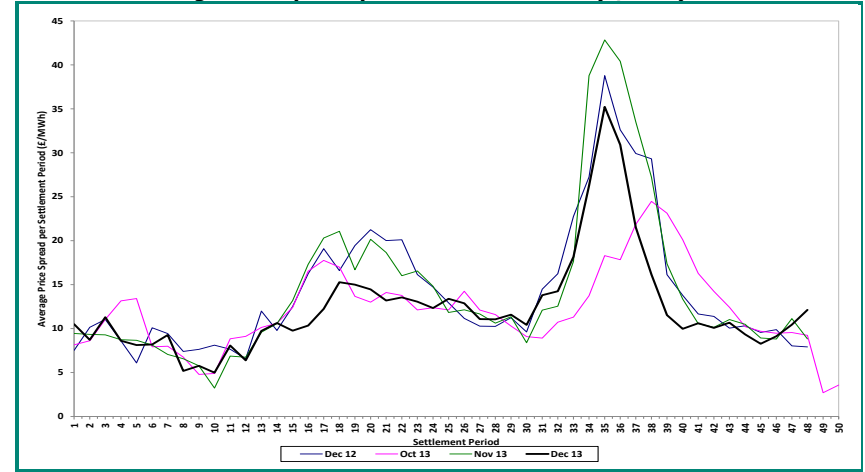


Chart 3.18 Monthly Average Price Spread (£/MWh) and Standard Deviation

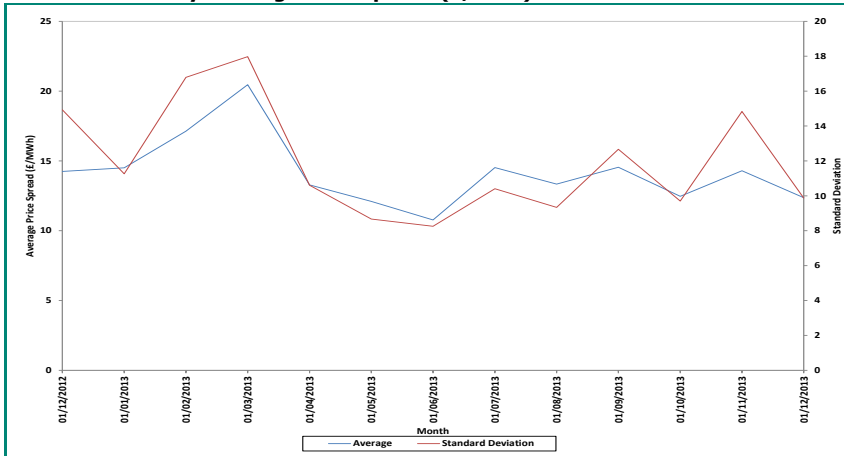
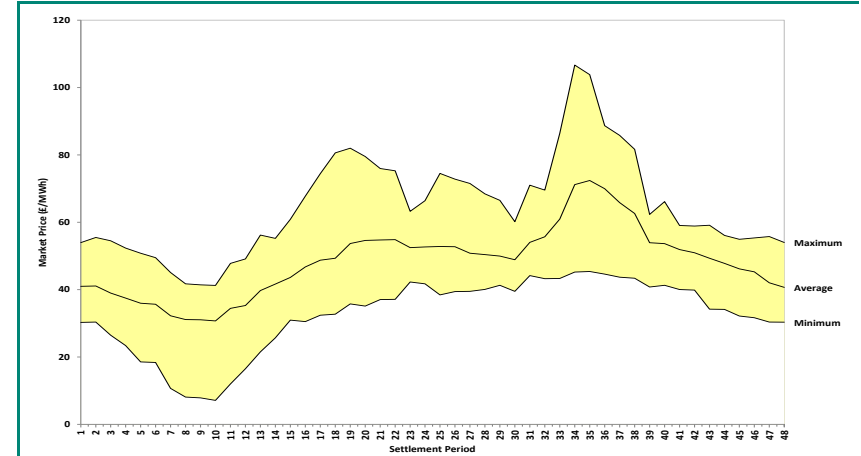
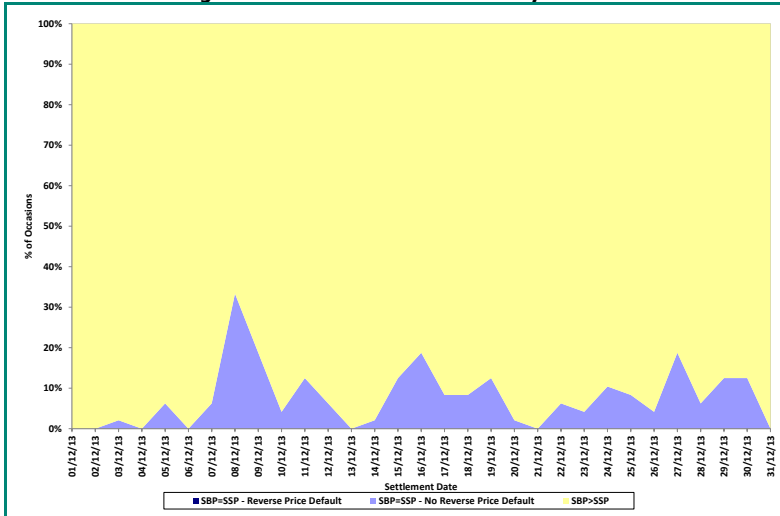


Chart 3.20 Market Price provided by Market Index Data Provider by Settlement Period

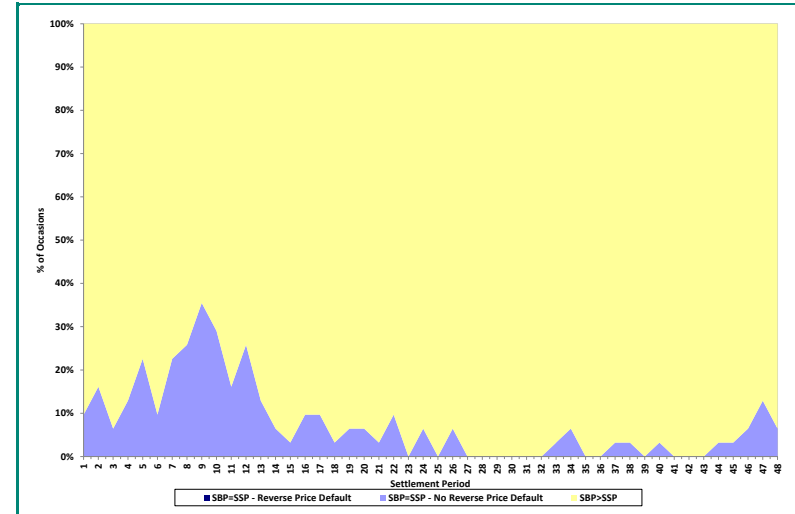


# Charts/tables to remove

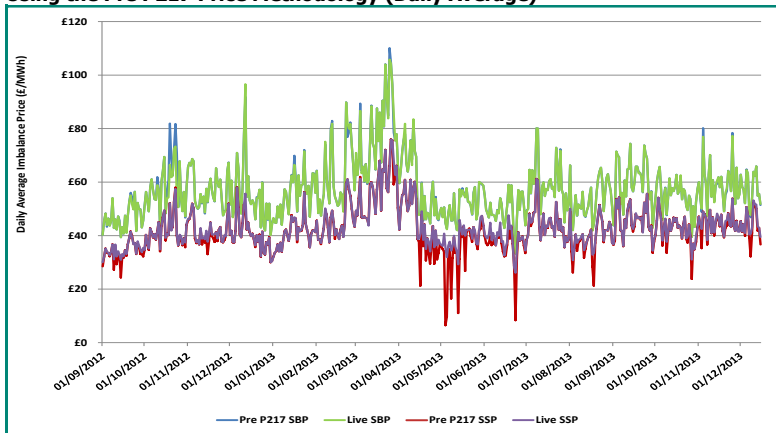
**Chart 3.23 Percentage of occasions where SBP=SSP by Settlement Date**



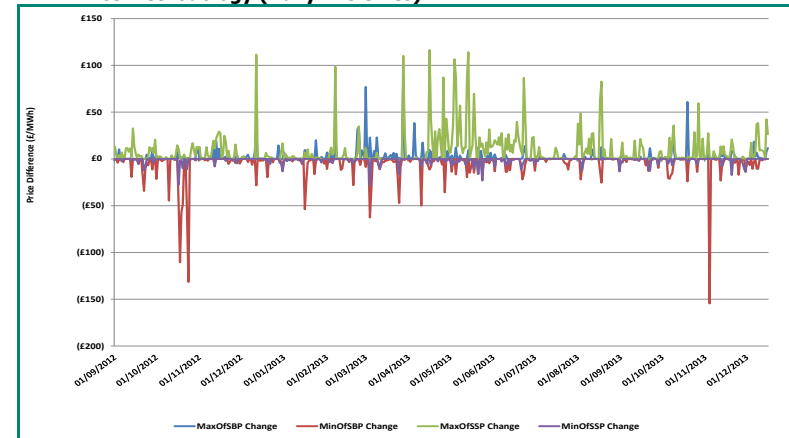
**Chart 3.24 Percentage of occasions where SBP=SSP by Settlement Period**



**Chart 3.25 Live (P217) Imbalance Prices in comparison to Prices Calculated Using the Pre P217 Price Methodology (Daily Average)**

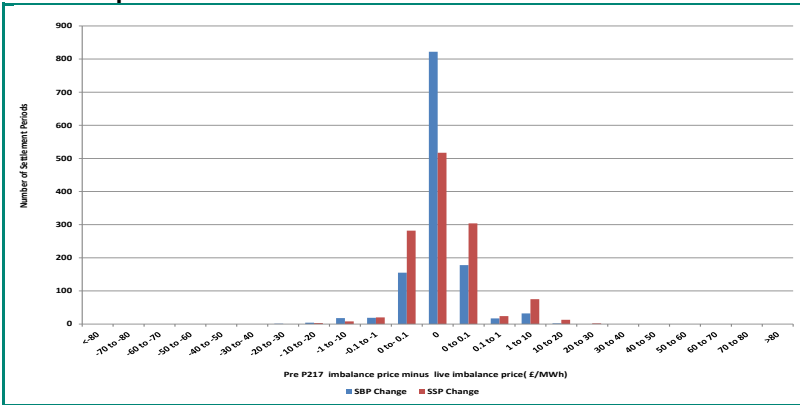


**Chart 3.26 Live (P217) Imbalance Prices Minus Prices Calculated Using the Pre P217 Price Methodology (Daily Extremes)**



# Charts/tables to remove

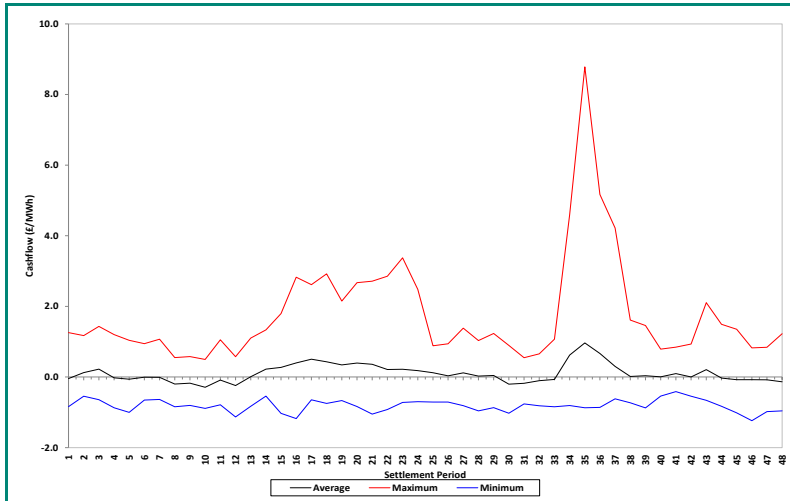
**Chart 3.27 Live (P217) Change in Pre P217 and Live Imbalance Prices for the Latest Complete Month for which SF Date is Available**



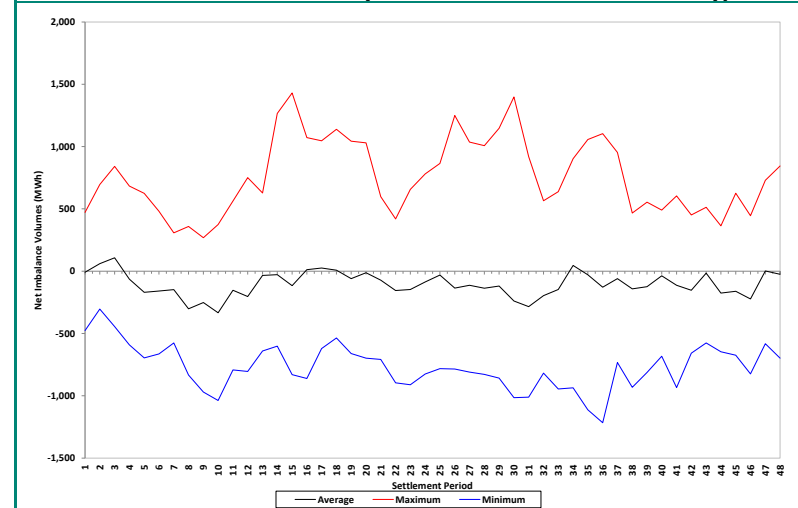
**Table 3.34 Total System Residual Cashflow (£/MWh)**

|        | Average | Maximum | Minimum |
|--------|---------|---------|---------|
| Nov-13 | 0.11    | 1.96    | -0.76   |
| Oct-13 | 0.14    | 3.40    | -1.17   |
| Sep-13 | 0.26    | 3.54    | -1.29   |
| Nov-12 | 0.16    | 3.24    | -1.14   |

**Chart 3.33 Total System Residual Cashflow per Metered MWh by Settlement Period**



**Chart 3.29 Net Imbalance Volume by Settlement Period at Latest Run Type**



# Charts/tables to remove

Chart 3.35 Weekly Transmission Losses for latest Settlement Run Type

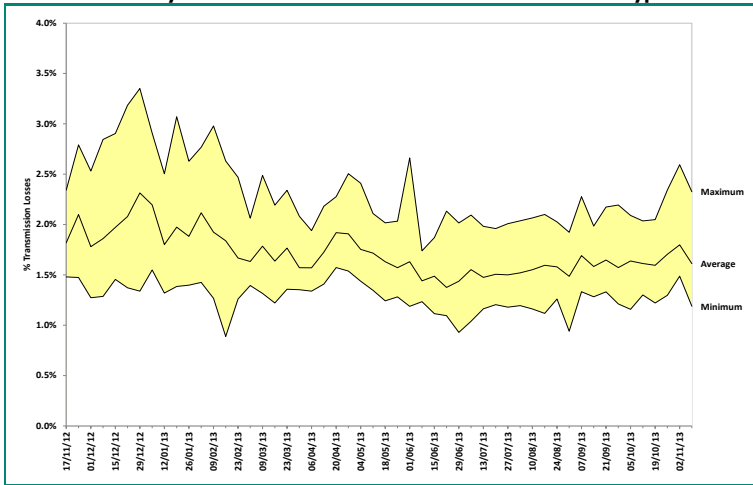


Chart 3.38 System Imbalance and Reserve Available on Part Loaded Generation – Settlement Periods of Daily Maximum and Minimum Demand

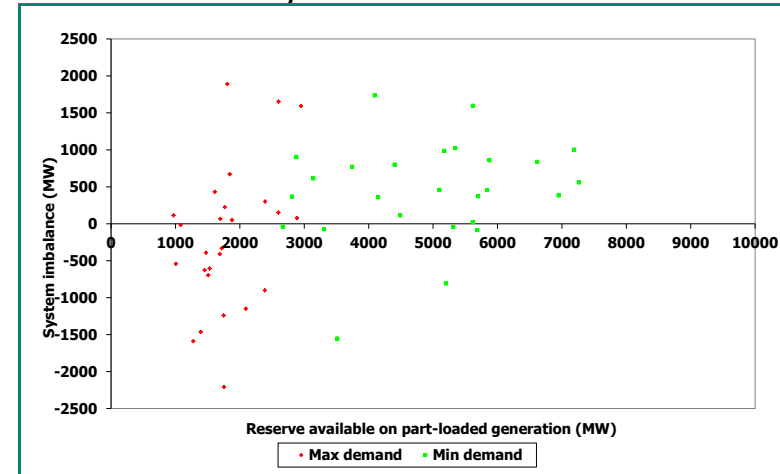


Chart 4.07 Percentage of HH Energy Settled on Actuals by GSP Group based on RF Run

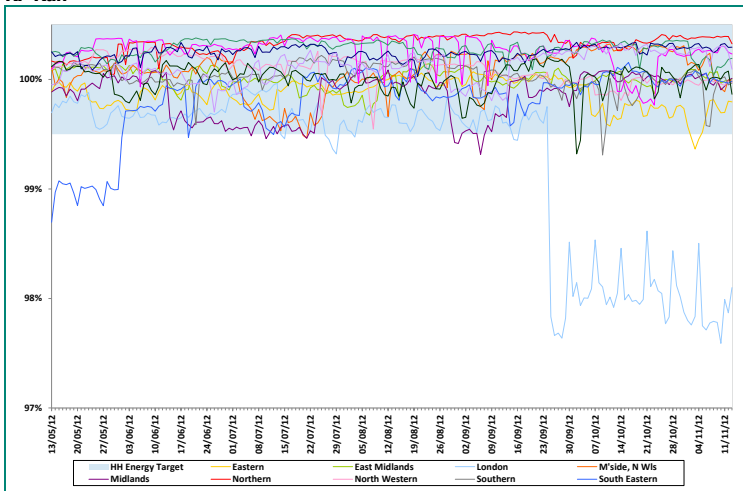
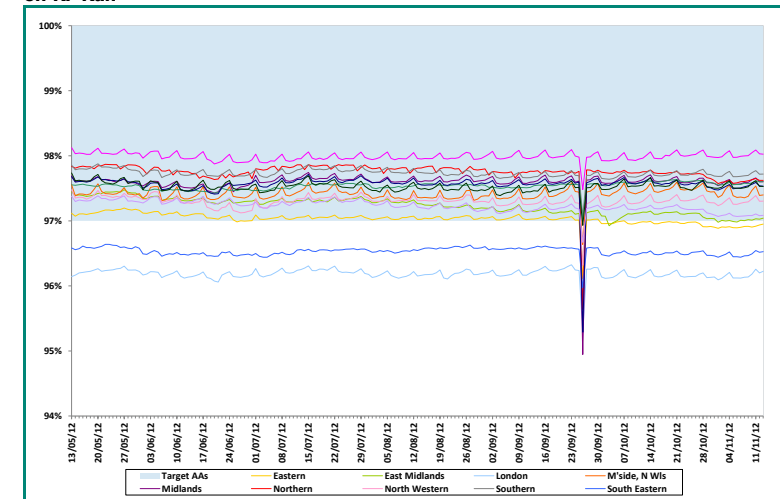
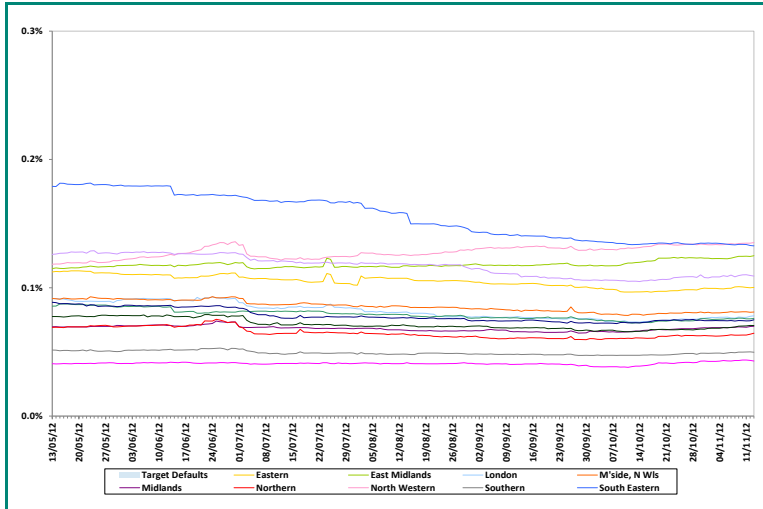


Chart 4.08 Percentage of NHH Energy Settled on Actuals by GSP Group based on RF Run

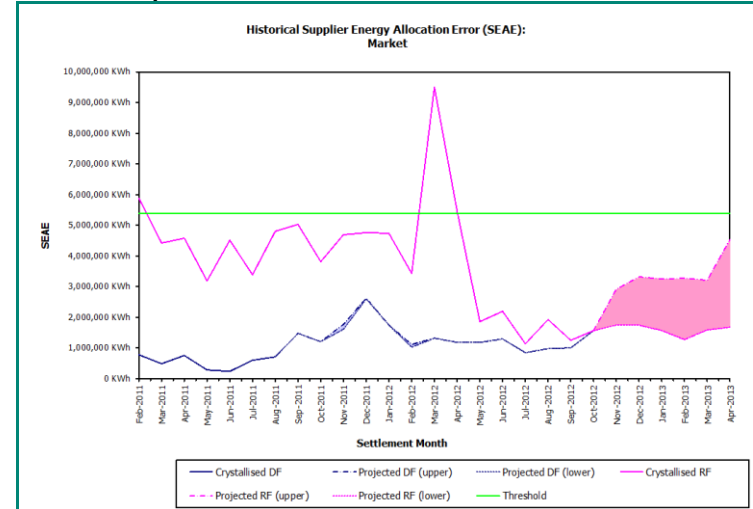


# Charts/tables to remove

**Chart 4.09 Percentage of NHH Meters Settled on Default EACs by GSP Group based on RF Run**



**Chart 4.10 Erroneous large EACs/AAs: Market Supplier Energy Allocation Error at RF and DF by Settlement Month**



**Chart 4.13 Sum of the Relevant Capacities of the BM Units in each Base Trading Unit**

