

Request from SP Manweb and SP Distribution for consent to calculate distribution losses for 2009/10 on a basis that differs from that specified to under Special Licence Condition C1

1 Summary

1.1 This submission is made under paragraph 9 of Electricity Distribution Special Licence Condition C1, in force as at 31 March 2010, on behalf of SP Manweb plc (SPM) and SP Distribution Ltd (SPD). In this paper we will provide evidence that there has been a material change in the quality of information used to derive adjusted units distributed.

1.2 Our circumstances are the same as those seen by CE Electric and our proposed correction methodology is similar in principle to that contained within their recent request by normalising affected data with reference to earlier periods.

1.3 In the absence of the corrections that we propose we believe that the purpose of the condition to establish the amount of the incentive that adjusts allowed demand revenue so as to reflect the performance of the licensees will not be met and that like for like comparison of targets and reported performance will not be achieved.

1.4 Since the summer of 2010 we have become increasingly aware of unusually high reductions in Settlement units between successive reconciliation runs for SP's distribution service areas. These have resulted in dramatic increases in SPs reported losses under our basis of reporting which reflects Settlements data.

The overall estimated position pre and post corrections we propose is summarised below.

Volume of Sales (GWhs)

SP Manweb	2005/06	2006/07	2007/08	2008/09	2009/10
Volume of Sales	17,245	16,983	16,852	16,405	16,173
Correction	-	-	-	-	237
Corrected Volume of Sales	-	-	-	-	16,410
% Correction	-	-	-	-	1.5%

SP Distribution	2005/06	2006/07	2007/08	2008/09	2009/10
Volume of Sales	21,664	20,946	21,097	20,750	20,084
Correction	-	-	-	-	362
Corrected Volume of Sales	-	-	-	-	20,446
% Correction	-	-	-	-	1.8%

- 1.5 Final reconciliations of Settlements data in respect of regulatory year 2009/10 will be available in May 2011. ***In the absence of approval of our proposed correction SP would incur an estimated total penalty from the DPCR4 incentive mechanism of some £227M. Our corrections leave SP with a total penalty of around £50M.***
- 1.6 We believe the observed reductions in Settlements data and resultant apparent increases in distribution losses primarily arise from Supplier initiatives to adjust Settlements data. In this representation we are seeking to redress only the unwarranted penalty impact of an apparent deterioration in losses performance.
- 1.7 We have consulted with Elexon, sought information from Suppliers and worked with Engage Consulting, to investigate the nature and extent of these unusual movements in Settlement data. This submission reflects these investigations and our analysis. A standalone and independent paper prepared by Engage Consulting is attached as an Appendix. Our proposed methodology is similar in principle to that recently approved in respect of CE Electric. However our approach differs in certain areas and we would be hopeful that our methodology could lay the foundation for an industry solution for other DNOs similarly impacted.
- 1.8 If Ofgem were to use its powers to elicit information from Suppliers an empirical, absolute correction could be calculated in theory for SP and any other individual DNO. However it is our opinion and one shared by Engage Consulting that a reasonable and pragmatic correction methodology which we detail in section 4 represents a more practical and no less realistic solution.
- 1.9 In this request we are seeking Ofgem's consent to calculate reported distribution losses on a basis that differs from that specified under Special Licence Condition C1 used for 2002/03 to correct for specific data issues that impact 2009/10. These impacts have emerged as Settlement runs reach maturity during 2010 through to May 2011.

1.10 Whilst we believe that anomalous adjustments have affected also 2008/09 in particular, we have focused our request on an adjustment to reported losses for 2009/10, as that year is critical to the calculation of the losses close-out for DPCR4. This is essential to reduce the uncertainty surrounding future distribution charges. We understand that Ofgem and Suppliers regard such an outcome as better facilitating effective competition in supply.

1.11 In accordance with Ofgem's open letter on this matter dated 21st March SP would not seek to reflect any decision through UOS pricing prior to April 2012.

1.12 This submission is structured as follows:

- 1 A summary of our request
 - 2 Observations on Settlements data movements
 - 3 Explaining the causes of these movements
 - 4 Proposed methodology for correction
 - 5 Financial impacts
 - 6 Request
- Appendix 1 – methodology paper by Engage Consulting
Appendix 2 – Supplier information request
Appendix 3 - our losses reporting methodology
Appendix 4 – summary of communications with Ofgem

2 Settlements Data – Observations on Systematic Trends and on Underlying Volatility

2.1 In the summer of 2010 unexpected and sustained trends of a worsening reportable losses position began to emerge in each of the SP Distribution and SP Manweb areas. Extrapolating these trends through to an expected position when final Settlements data is available in respect of 2009/10 gave expected losses percentages of 7.5% for SP Manweb and 7.4% for SP Distribution. When compared with allowed losses targets for DPCR4 of 5.3% and 5.1% respectively, we were in no doubt that such a differential and such a steep deterioration could not be a reflection of true underlying losses performance and could not be in any way ascribed to changes in our network operation or network configuration.

The operation of the DPCR4 losses mechanism is such that the overall penalty or reward is wholly dependent on performance in the final year. As such our estimate of the total penalty was some £227M. At this point we began to carry out analysis of the underlying data.

2.2 Natural Variation in NHH energy between Settlement run types

2.2.1 Most NHH meters are typically read between every six months and a year. When they are read, the advance between the reading and the previous reading is determined. This advance is annualised by dividing by the sum of the Profile Coefficients in the advance period. These coefficients represent the proportion of annual energy used in each day.

2.2.2 So, for example, if there was a reading of 2,000 on 15th December and another reading of 6000 on the 15th March and the sum of the Profile Coefficients over this (winter quarter) period was 0.4, the Annualised Advance (AA) would be $(6000-2000)/0.4 = 10,000\text{kWh}$.

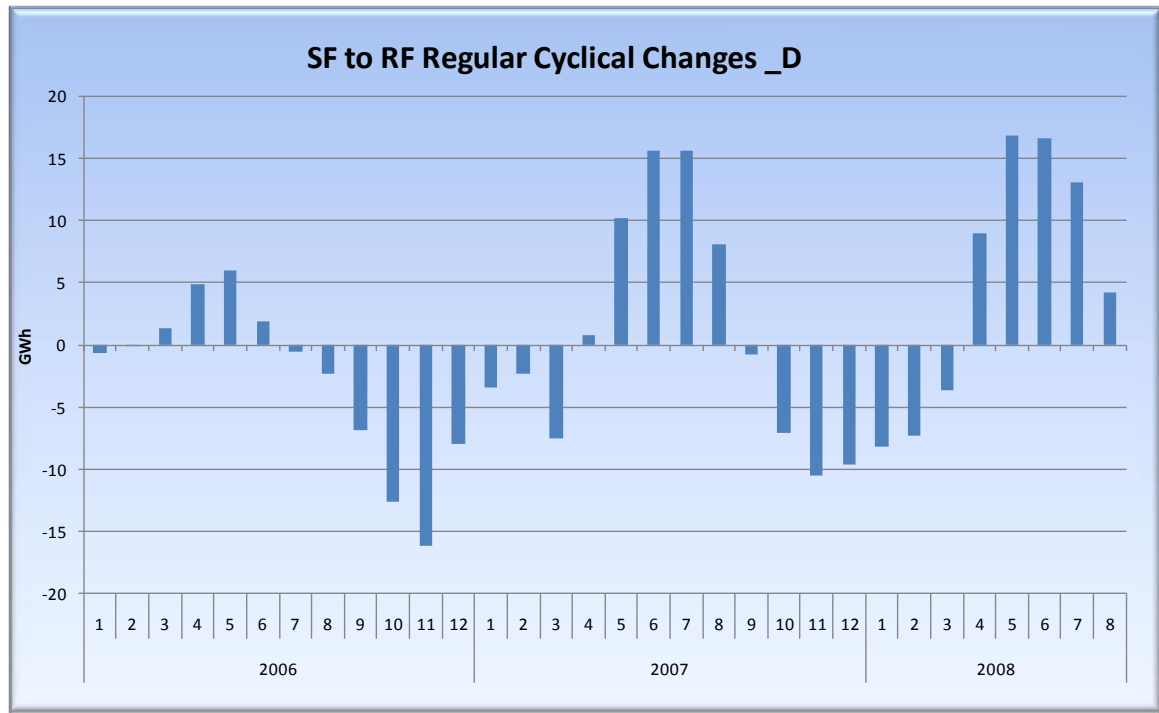
2.2.3 Whenever an AA is calculated, an annualised estimate of future consumption is also calculated. This Estimated Annual Consumption (EAC) is determined from the AA and the previous EAC. This has the effect of “smoothing” changes to EACs. These calculations are undertaken by Suppliers’ agents, using industry standard EAC/AA software provided by ELEXON.

2.2.4 Profile Coefficients are determined by ELEXON from load research and are calculated once a year for each of 5 profiling seasons (winter, spring, summer, high summer and autumn). The impact of different sets of Profile Coefficients across profiling season boundaries and profiling year boundaries is observable in Settlement energy volumes and the correction factors used to account for any over or understated volumes.

2.2.5 EACs are determined from AAs and previous EACs; and are replaced with AAs when the meter is read subsequently. As a consequence, EACs are usually determined from a different set of Profile Coefficients than the AAs that replace

them. The impact of this is a complex function of meter reading cycles; meter advance periods; and the Profile Coefficient sets and boundaries. Nonetheless, it does give rise to a regular cyclical pattern throughout the reconciliation period as EACs are replaced by AAs. An example of this effect can be seen in Chart 1.

Chart 1: Example of regular cyclical changes between SF and RF for Manweb (_D) GSP Group



2.3 Observed variations in NHH energy between Settlement run types

2.3.1 It is clear that Settlement reconciliations have become increasingly subject to movements of greater magnitude. Charts 2 and 3, which present Engage's analysis of data from Elexon, show that the magnitude of the movements in Settlement reconciliations, for our GSP Groups, has increased since late summer 2008.

Chart 2: NHH Settlement variations since SF for Manweb (_D) GSP Group

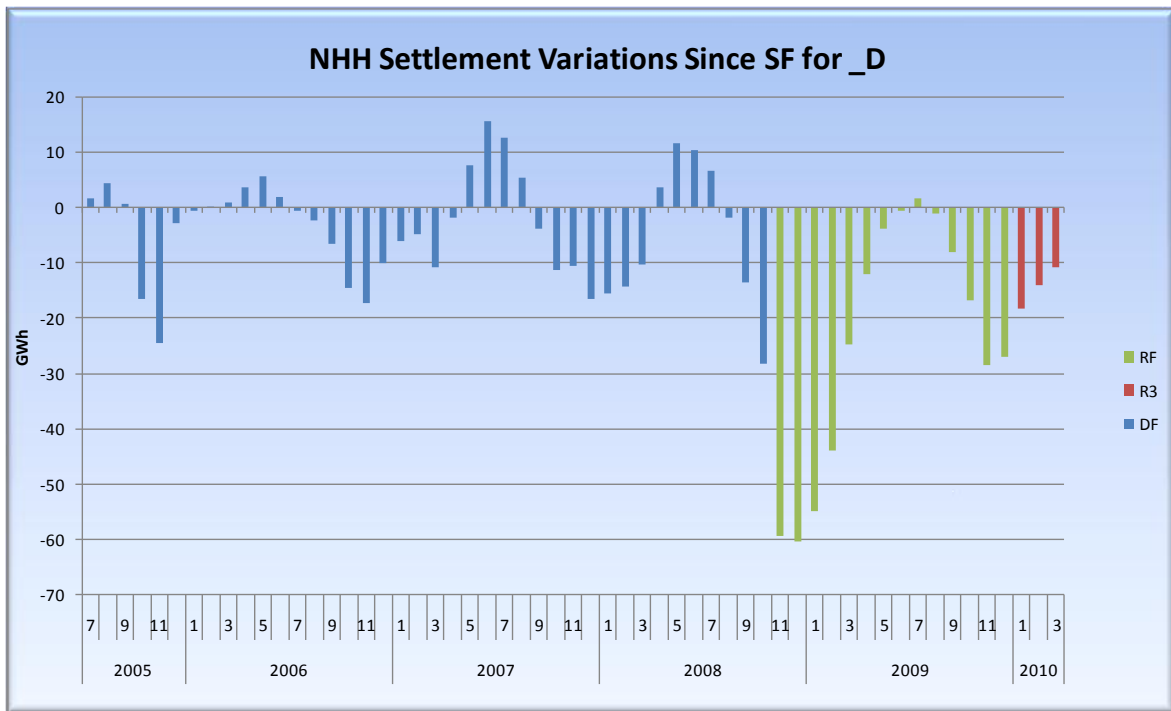
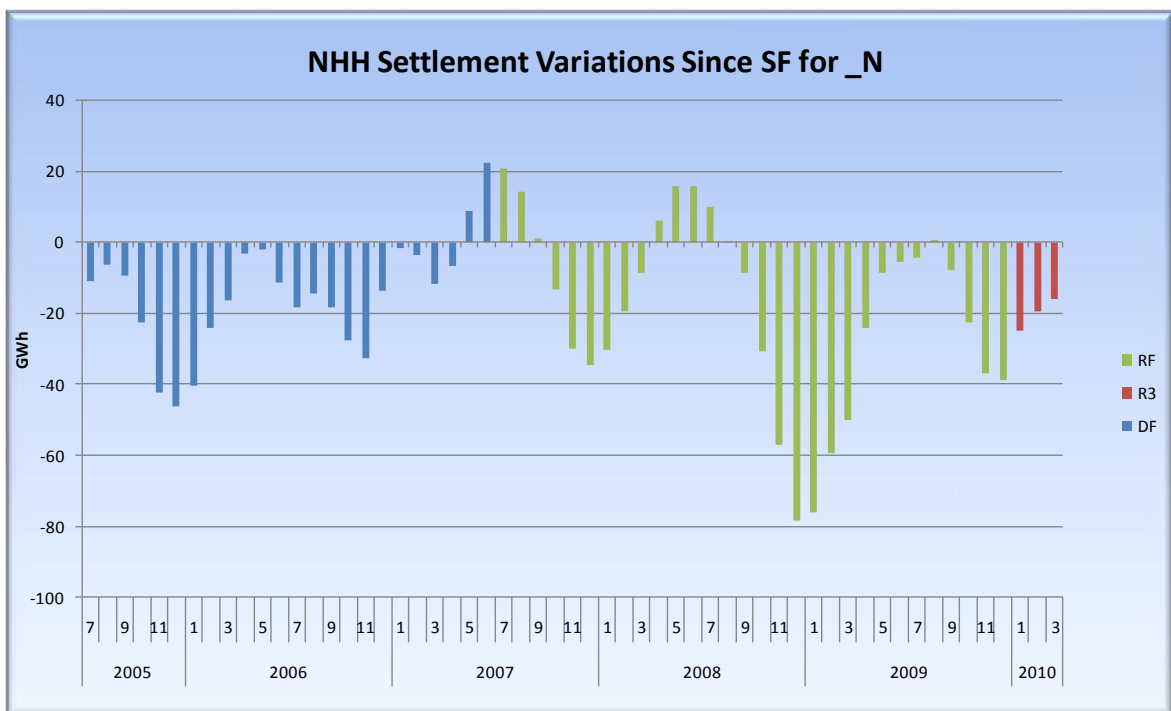


Chart 3: NHH Settlement variations since SF for South of Scotland (_N) GSP Group



The Settlement variations for 2008/09 and 2009/10 in both are markedly more than would be expected from the typical cyclical pattern.

2.4 The more recent reconciliation movements appear to be lower, as all of the reconciliations runs for the latest months have not yet been completed and also because the SF 'base' is significantly lower in 2009/10 as is explained more fully and dealt with later.

2.5 Further analysis of these reconciliation movements shows that there has been a structural break in the data from late summer 2008. We monitor the relation between the initial loss percentage at SF and the percentage point change in the losses percentage which arises subsequently from reconciliation movements. Figures 1 and 2, below, show that the data points from late summer 2008 onwards when plotted form a separate group, which is above to the right of previous data points.

Figure 1 SP Manweb - Plot of change in loss percentage due to reconciliation movements against initial loss percentage

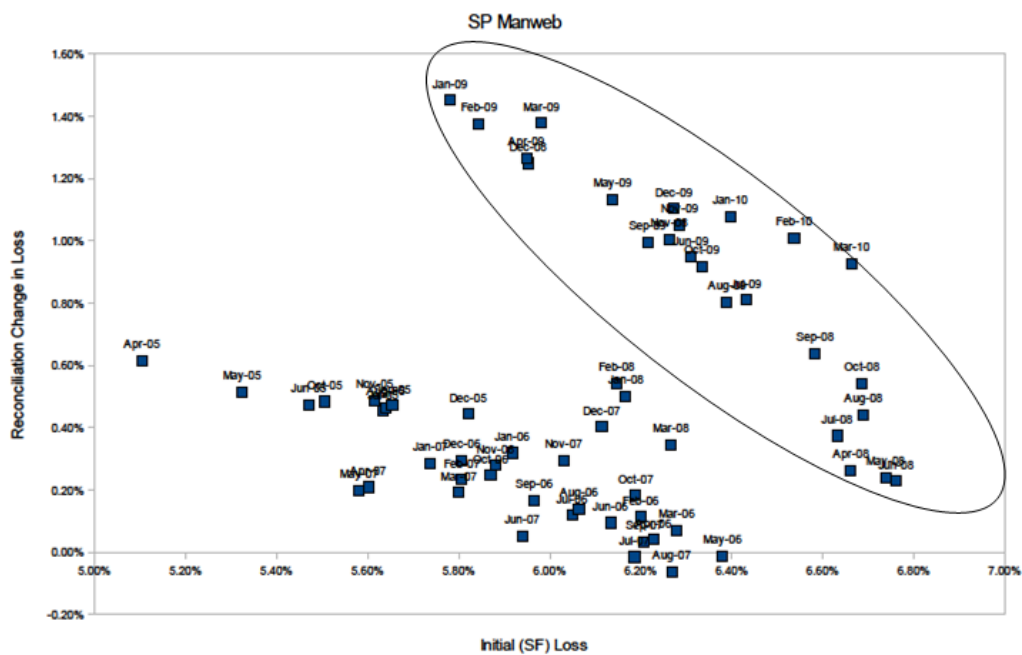
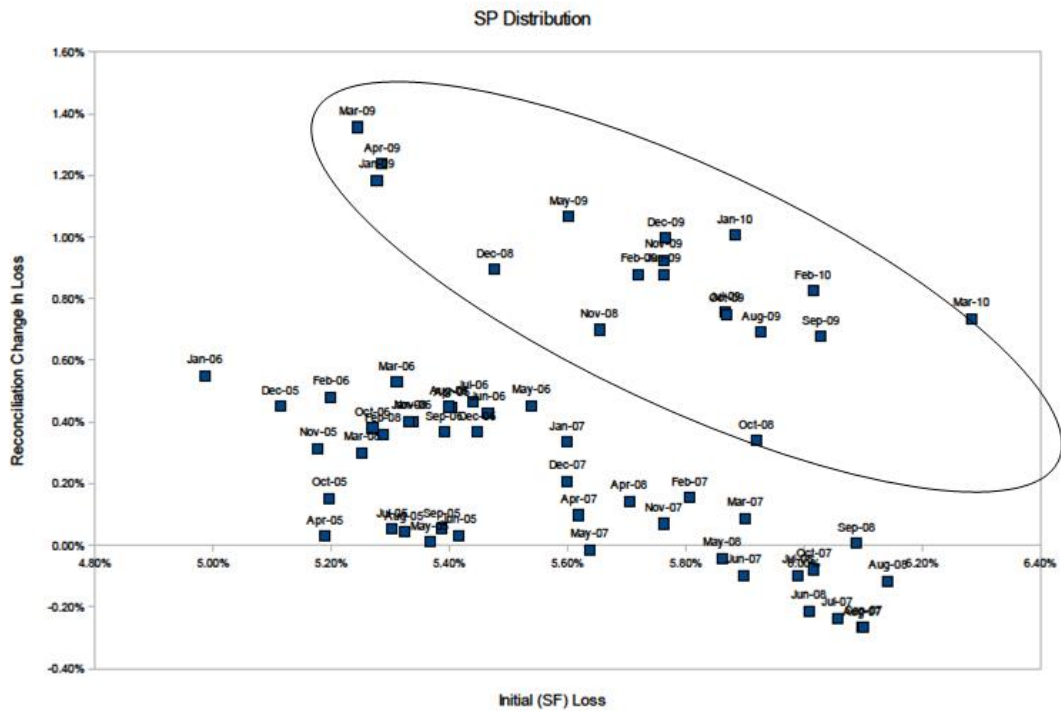


Figure 2: SP Distribution - Plot of change in loss percentage due to reconciliation movements against initial loss percentage



2.6 These figures also illustrate the significant month to month fluctuation in losses calculated from Settlement data, which partly arises from accepted limitations in the profiling arrangements used to estimate non-half-hourly (NHH) consumption.

3 Settlement Data – Explaining the Observations on Systematic Trends and on Underlying Volatility

3.1 Over the last few years, we understand that several Suppliers have increased activities which adjust Settlements data. For example, Suppliers have used “revenue assurance” teams which focus on minimising unbilled volumes (to increase revenue) and to ensure that Settlement volumes are not overstated (to reduce costs).

3.2 These overall adjustments do not affect Suppliers to the same extent as they do DNOs as any net over or understatements of volume in a GSP Group is smeared across all Suppliers in proportion to their non-half-hourly market share in the GSP Group.

3.3 There are a range of techniques which Suppliers can use to adjust Settlements data. These include Gross Volume Corrections and Dummy Meter Exchanges, both of which are described in the following sections

3.4 Gross Volume Correction

3.4.1 Many of the adjustments to Settlement data referred to above have been made using a technique called Gross Volume Correction (GVC). This is a process that compensates for error in days that have been subject to Final Reconciliation, or the Disputes Final Reconciliation where these are being undertaken, by adjusting energy volumes for days that have not yet been subject to Final Reconciliation. This is an attempt to ensure that the right volume of energy is settled, albeit in the wrong days.

3.4.2 For example, if Final Reconciliation took place for a period that had 10MWh too much energy associated with it, Suppliers could compensate for this by removing 10MWh from a period within the Settlement reconciliation window.

3.4.3 As Suppliers pay for the volume of energy at Final Reconciliation, there is an apparent financial incentive to compensate for past overstatements of energy by removing energy from the Settlement reconciliation window. Similarly, there is an apparent disincentive to compensate for past understatements of energy by moving energy into the Settlements reconciliation window.

3.5 Dummy Meter Exchanges

3.5.1 A similar technique is that of “dummy” meter exchanges. This technique seeks to minimise previous errors but does not compensate for them; and to correct the situation going forward from a point in time.

3.5.2 For example, if a meter reading history was especially poor – possibly after one or more change of Supplier events – the Supplier and its Data Collector might not be able to establish what the correct reading history was. In such a situation, they can

obtain a correct reading and use this (or estimate a reading in the past from this correct reading) to act as a “starting point” for correct readings going forward.

3.5.3 To implement this, they follow the meter exchange business event but without a physical meter exchange taking place. This event requires a final reading for the “old meter” and an initial reading for the “new meter”. A reading in the period of uncertain meter reading history is used as the final reading; and the good reading obtained or established is used as the initial reading, with all uncertain readings after this time being removed.

3.5.4 Again, as Suppliers pay for the volume of energy at Final Reconciliation there is an apparent incentive to use this technique to remove (rather than add) energy from Settlements.

3.6 Evidence Gathered

3.6.1 We have made every effort to gather substantive evidence. We and our consultants have met with Elexon on several occasions for the purposes of taking advice on the relevance of data, collecting data from them and keeping them informed of the principles behind our correction methodology. We have also consulted with other DNOs through various forums.

3.6.2 [REDACTED]

As we will explain later however, due to difficulties in proving and evidencing complete data we do not rely on any absolute figures in our correction methodology but merely highlight this to evidence that this type of Supplier activity is taking place.

3.6.3 In terms of formal Supplier-wide requests, on 30th December 2010 we circulated our indicative Use of System Charges to all Suppliers. The covering e-mail asked for Suppliers to advise us of any operational activity that they may be undertaking in relation to correcting Settlements data affecting 2008/09 and 2009/10 data e.g. Gross Volume Corrections, reconciliation of purchases versus sales or any other activity that may have had an impact on Settlement data in our GSP Groups. We received no replies.

3.6.4 We followed this up as part of a Stakeholder teleconference on 20th January and again there was no response although we accept that Suppliers would be reticent about revealing such matters publicly.

3.6.5 We took further steps to gather evidence by issuing a formal questionnaire to all Suppliers on 22nd February. The questionnaire is attached as Appendix 3 along with a summary of responses. In general the response was disappointing although one other Supplier, **[REDACTED]** agreed to meet with us. We were careful not to limit the questionnaire to 'GVC' since this has a specific definition within the BSC and as such would allow Suppliers to remain silent on any other means they may use to systematically derecognise Settlements units.

3.7 GVC and similar adjustments to Settlements data

3.7.1 Some Suppliers have told us that they have used GVCs to adjust Settlements data. **[REDACTED]** sent us details of GVCs performed since late July 2009. This Supplier was of the view that if the error occurs within the RF Settlement window then the meter reading can be withdrawn and replaced without using GVC. Another Supplier, **[REDACTED]**

sent us a summary of their GVC volumes, in our GSP Groups, for regulatory years 2007/08, 2008/09 and 2009/10. However, one other major Supplier, **[REDACTED]** did not wish to provide data to individual distributors. We will consider further data as and when it is forthcoming.

3.7.2 While the error concerned might have accrued over a prolonged period, the GVC adjustment would deduct the entire amount claimed by the Supplier in a particular period.

3.7.3 This would have the effect of distorting the apparent performance of SPM and SPD, since the GVC adjustment would artificially depress the reportable number of units distributed for the period in which it was executed.

3.7.4 As highlighted above, **[REDACTED]**

, although it does not consider this to require the use of GVCs.

3.7.5 Nevertheless, this would have the effect of distorting the apparent performance of SPM and SPD, since these adjustments would artificially depress the reportable number of units distributed.

3.7.6 Section 2 sets out evidence to show that for relevant years 2008/09 and 2009/10, a very high level of adjustments affecting the SPM and SPD DSAs, which has led to a significant reduction in the number of units reportable as having been distributed through our networks under our normal reporting methodologies.

3.8 Negative EAC values

3.8.1 Our review of P222 data provided by **[REDACTED]** has highlighted a significant number of instances where meter points had erroneously been ascribed a negative estimated annual consumption figure.

3.8.2 The table below paragraph 3.9.3 shows an estimated total effect of the negative EACs on Settlements data for relevant year 2009/10.

3.8.3 These negative EACs have caused a further material reduction in the number of units reportable as having been distributed through our networks under our normal reporting methodology.

3.9 Use of Evidence Gathered

3.9.1 In addition to evidence gathered from Suppliers highlighted above, we have obtained data from Elexon.

3.9.2 Working with Engage Consulting we have collated, reviewed and analysed the available data.

3.9.3 Our conclusions, for each issue, are set out below.

i) GVCs

A number of Suppliers told us that they have used GVCs to varying extents but detailed records were generally not provided.

Consequently, we have been unable to quantify the precise effect of these corrections on Settlement data for 2008/09 and 2009/10 for our GSP Groups. It seems that, in general, Suppliers do not keep sufficiently detailed records to enable an exact unwinding of these adjustments.

ii) Similar adjustments to Settlements data

Again, as discussed above, **[REDACTED]**

although it does not consider this to require the use of GVCs.

iii) Negative EACs

We have analysed the data provided by a **[REDACTED]** and extrapolated this to the totals for our GSP groups. On this basis we estimate that in 2009/10 the error due to negative EAC values in Settlements data in our GSP groups amounted to:

	2009/10
Manweb	92GWh
South of Scotland	138GWh

It should be noted that we do not attempt to factor these GWhs directly into our proposed correction.

3.9.4 Our investigations have greatly enhanced our understanding of how Suppliers can impact Settlements data. However it has proved impossible to gather a full audit trail of actual adjustments or the means by which these adjustments are effected with any certainty. However it is clear to us that Suppliers' actions have had a major impact on our reported losses whether this be by means of GVC by its strict definition or any other means of adjusting volumes. If Ofgem were to use its powers to elicit information from Suppliers an empirical, absolute correction could be calculated in theory for SP and any other individual DNO. However it is our opinion and one shared by Engage Consulting that a reasonable and pragmatic correction methodology which we detail in section 4 represents a more practical and no less realistic solution.

3.9.5 We set out our correction methodology below which has been developed with considerable input from Engage Consulting. It relies upon industry standard information that is available from Elexon and subject to potential DNO specific parameters could be used to correct other DNO's reported losses where they believe these have been impacted by Suppliers actions. A standalone paper prepared by Engage containing further detail is attached as Appendix 1.

4 SPEN's proposals to correct reported losses

In summary, our proposed corrections comprise two steps. The first quantifies abnormal variations compared to SF with reference to natural variations compared to SF. The second step normalises the SF reference point.

4.1 Abnormal Run Type Variation Quantification

4.1.1 In order to quantify the Abnormal Variations (AV) between run types, natural variations were determined from "stable" historical periods and these were netted off Observed Variations (OV).

4.1.2 For the Manweb (_D) GSP Group, the stable period chosen was the earliest date for which data was available from ELEXON (1 July 2005) and 31 August 2008. For the South of Scotland (_N) GSP Group, the stable period chosen was 1 September 2006 to 31 August 2008. The reason for this difference is that, for the South of Scotland GSP Group, atypical variations are also observable in the latter part of 2005 and early part of 2006.

4.1.3 For each of the two GSP Groups, a Percentage Natural Variation (PNV) in energy from non-half-hourly (NHH) read meters was determined for each combination of run type and later run type, for each month in the historical period (with the same month in different years being considered together).

4.1.4 Then, for each month (m) on and after September 2008, Abnormal Variations (AV) between SF and the latest run type (LRT) that had taken place were determined as:

$$AV_{m,sf-lrt} = OV_{m,sf-lrt} - (NHH_{m,sf-lrt} * PNV_{m,sf-lrt})$$

Chart 4: Abnormal Settlement variations between SF and latest run type for Manweb (_D) GSP Group

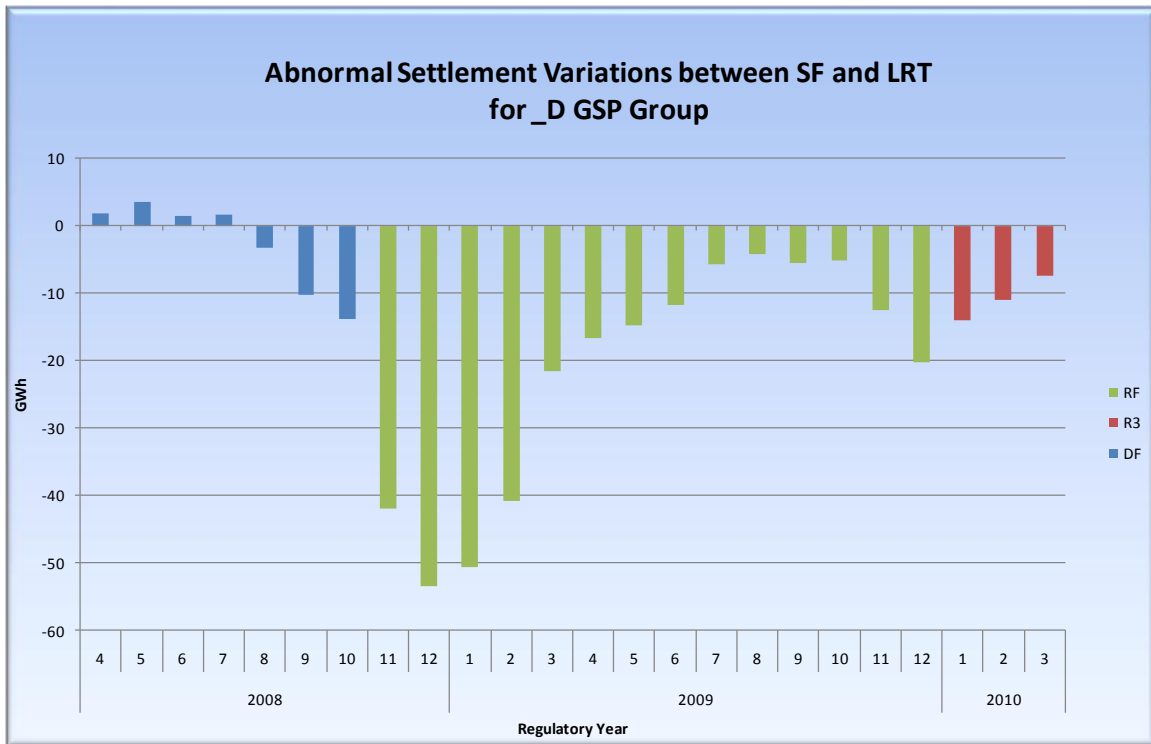
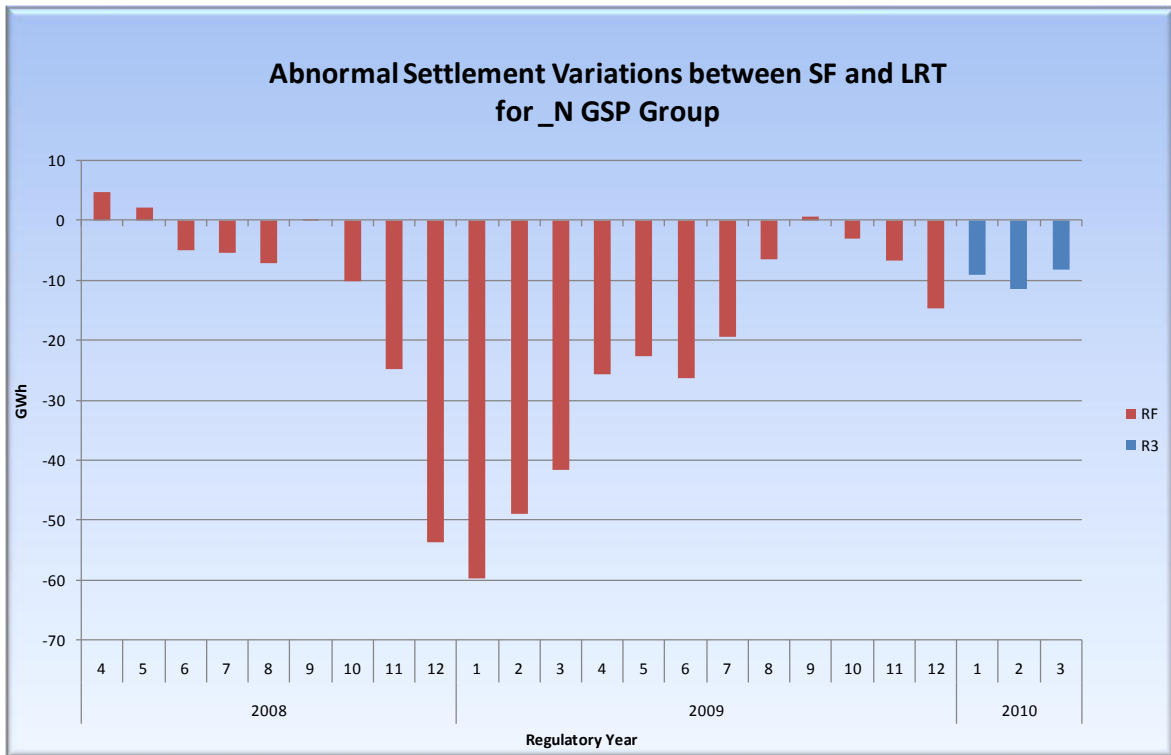
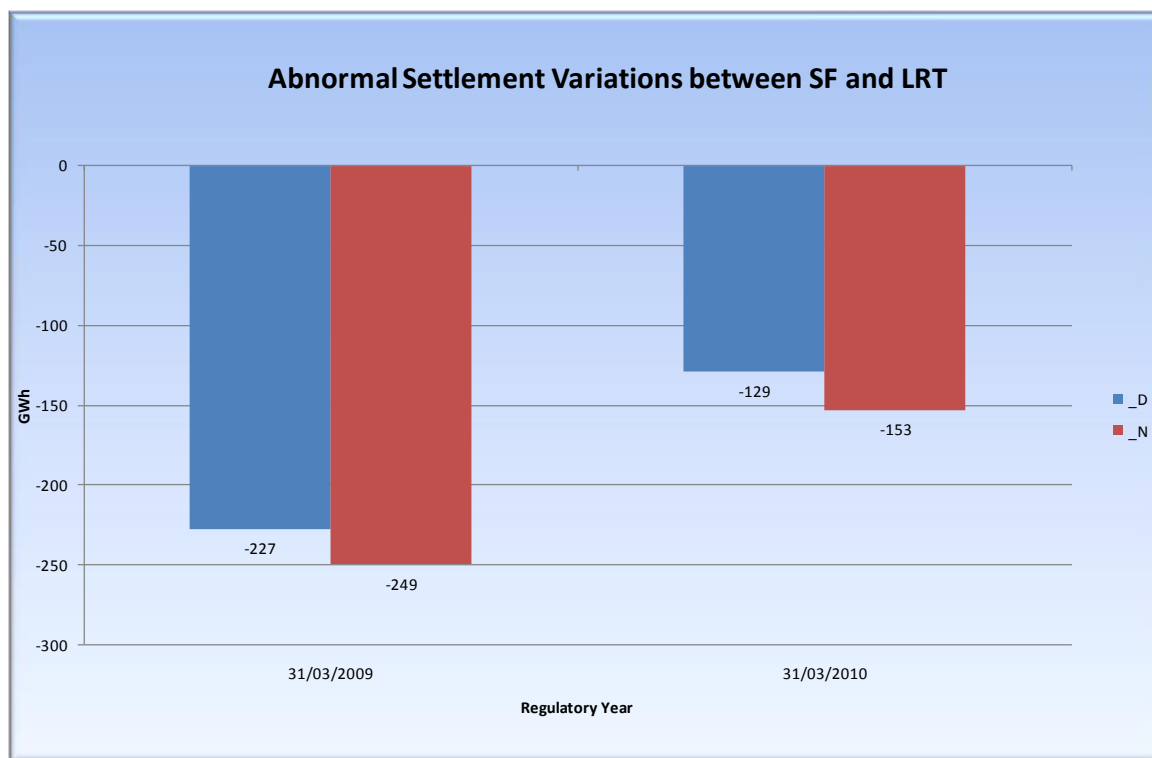


Chart 5: Abnormal Settlement variations between SF and latest run type for South of Scotland (_N) GSP Group



4.1.5 Chart 6 shows the abnormal Settlement variations, between the initial Settlement figures (SF) and the latest run type, for Manweb (_D) and South of Scotland (_N) GSP Groups for regulatory years 2008/09 and 2009/10.

Chart 6: Abnormal Settlement variations between SF and latest run type for 2008/09 and 2009/10



4.2 Prior year adjustments and negative EAC values

4.2.1 EACs are derived from AAs and previous EACs and so those in effect in the recessionary period, derived from AAs and previous EACs prior to this period, would have been overstated to some extent. SF is based almost exclusively on EACs and so would also have been overstated because of this; far more so than for subsequent Settlement run types where these EACs would have been replaced by AAs. However, modelling the impact of this would be extremely difficult as it is a complex function of many variables.

However, the abnormal adjustments made to regulatory year 2008/09, will also have impacted the forward looking EAC effective for subsequent periods. These adjustments removed a large volume of energy from Settlements; and this will have had the effect of understating in EACs for later periods – particularly for regulatory period 2009/10.

4.2.2 Again, as SF is based almost exclusively on EACs, this too would have been understated for these later periods; far more so than for subsequent Settlement run types where these EACs would have been replaced by AAs.

4.2.3 Modelling this impact would also be extremely difficult, as it is a function of the nature of the adjustments made and the adjustment techniques used. However, P222 data from the early part of 2010 was analysed and confirms that there was a very significant volume of negative EACs in place, consistent with previous adjustments (particularly through GVC) having been made.

4.3 Normalisation of the SF position

4.3.1 The SF position for regulatory years 2008/09 and 2009/10 was normalised to remove these complex effects. This was done for each GSP Group, by assuming that the average percentage losses at SF for these regulatory years – as measured using SF NHH sales reconstructed from Settlement data¹ – should have been the same as the average percentage losses for the three preceding years (AL) – again, as measured by using SF Settlement data for NHH sales. This was used to determine a revised Initial Settlement NHH Units Out figure as explained below.

We know:

$$\text{Observed Percentage Losses} = PL = 100 * \frac{\text{Units In} - \text{Units Out}}{\text{Units In}}$$

Following the same construct, normalisation parameter AL:

$$AL = 100 * \frac{\text{Units In}_{ry} - (\text{HH Units Out}_{ry} + \text{SF NHH Units Out}_{ry})}{(\text{HH Units Out}_{ry} + \text{SF NHH Units Out}_{ry})}$$

Therefore:

$$\text{Units Out} = \text{Units In} \left(1 - \frac{PL}{100}\right)$$

We also know:

$$\text{Units Out} = \text{HH Units Out} + \text{NHH Units Out}$$

Therefore:

$$\text{NHH Units Out} = \text{Units In} \left(1 - \frac{PL}{100}\right) - \text{HH Units Out}$$

Therefore:

$$\text{Revised SF NHH Units Out}_{ry} = \text{Units In}_{ry} \left(1 - \frac{AL}{100}\right) - \text{HH Units Out}_{ry}$$

Where:

- ry is regulatory year, 2008/09 and 2009/10; and
- AL is average losses at SF as calculated above using NHH SF Settlement data for regulatory years 2005/06, 2006/7 and 2007/08.

Our approach to normalisation of the SF position is equivalent to that set out by Engage within Appendix 1. To simplify the algebra slightly, we have used losses PL measured with respect to purchases rather than sales. As we are converting back to units of energy the result is not sensitive to this intermediate choice of denominator.

The normalised and un-normalised SF NHH Units Out were then differenced. This indicates that the un-normalised SF values, used in the determination of the volume

¹ We take NHH sales at SF and HH Sales at Latest Reconciliation to remove HH adjustments from the normalisation.

of abnormal Settlement run type variations (described in section 4.1 and shown in Chart 6), are overstated (+'ve) and understated (-'ve) by the following amounts:

Regulatory Year	SPM	SPD
2008/09	10GWh	-27GWh
2009/10	-108GWh	-209GWh

These results are consistent with negative EACs arising from adjustments in 2008/09 which is the predominant factor impacting regulatory year 2009/10.

4.4 Resultant quantification of total abnormal adjustments

The magnitude of the abnormal adjustments is the abnormal run type variances described in section 4.1 minus the abnormal SF starting position as described in section 4.3.

These figures give net abnormal adjustment volumes:

Regulatory Year	SPM	SPD
2008/09	217GWh	276GWh
2009/10	237GWh	362GWh

5 Effects on total losses incentive after reporting of 2009/10 according to proposed methodology

5.1 The effect on SPM's and SPD's total losses incentive after restatement of 2009/10 is expected to be:

£m	SPM before restatement	SPM after restatement	SPD before restatement	SPD after restatement
Total DPCR4 Losses incentive	£-98M	-£28M	£-129M	£-22M

5.2 Even after correction, the DPCR4 total losses incentive leaves SP with a very material penalty.

We do not expect these adjustments to cause SPEN's use of system charges to increase by more than would have been anticipated under the DPCR5 price control Settlement.

5.3 In any case we do not propose to adjust use of system charges before 1 April 2012. Subject to approval of this proposal we propose to identify a net adjustment to the value of penalty already paid and smooth this over 2012/13, 2013/14 and 2014/15 in order to minimise price volatility. This is explained in the context of our recent treatment below.

6 SPEN's treatment to date of the potential total impact on the losses incentive

6.1 Communication with Suppliers

6.1.1 In DCP030 teleconferences and in our indicative prices notification, we have referred to material negative Settlements adjustments affecting primarily 2008/09 and 2009/10; and we requested explanations from Suppliers. During these calls we have explained our prudent policy for recognising potential penalties through our pricing. This policy has been designed to minimise price volatility.

6.2 Smoothing prices

6.2.1 Special Condition CRC7 of the Licence provides for the DR4 losses incentive true-up to be reflected in allowed revenue from 2012/13. However, our previous forecasting of the impact of the material negative Settlement adjustments suggested a significant increase in our negative losses incentive compared with the position at the end of 2009/10 in the absence of a correction.

6.2.3 Therefore, in an attempt to smooth price volatility, in our 1 October 2010 price change notification (in respect of 2010/11) we began to provide for the DR4 emerging lag/losses roller impact by deliberately pricing to under recover; and in our DCP030 submissions to Suppliers we indicated a further under recovery impact in 2011/12. The position at that time was as follows:

Under recovery re emerging lag/losses roller impact (£m)	2010/11	2011/12
SP Distribution	-6	-16
SP Manweb	-4	-14

6.2.4 We have continued to provide for the DR4 emerging lag/losses roller impact through both under recovering in 2010/11 and a specific provision for the losses incentive in our formal 2011/12 pricing notification. The current position is:

Losses incentive provision in allowed revenue (£m)	As at end 2009/10	Provision for 2011/12	Total to 2011/12	<i>Total forecast losses incentive</i>
SP Distribution	53.6	14.5	68.1	128.8
SP Manweb	37.3	25.9	63.2	98.2
Total	90.9	40.4	131.3	227.0

6.2.5 As such, based on pricing to cap in 2011/12, by the end of 2011/12 our pricing reflects a total negative provision for the DR4 losses incentive of £131.3m compared with a forecast total penalty of £227.0m.

7 Request to the Authority

7.1 SP Manweb and SP Distribution each request the consent of the Authority to calculate distribution losses for 2009/10 in accordance with the proposed approach set out in section 4 above.

7.2 This will result in the reported number of units distributed being increased by 237GWh for SPM and 362GWh for SPD in 2009/10.

Appendix 1 – Report Prepared by Engage Consulting

Appendix 2 – Questionnaire to Suppliers

Appendix 3 Previous Communications with Ofgem

- 3.1 SP has been and remains actively engaged in discussions with Ofgem regarding losses and Settlements data. We remain of the view that the losses mechanism is compromised by the volatility and quality of Settlements data. This view has been expressed in various consultation responses and working groups.
- 3.2 During the DPCR5 price control review for instance, we referred Ofgem, *inter alia*, to paper SVG92/06, “Changes to Settlement Data after the Final Reconciliation Run (RF) – Update”, which was presented to Elexon’s Supplier Volume Allocation Group on 30 September 2008. This paper referred to Elexon’s analysis of the volumes of changes made between the RF Run and the Post Final Settlement Run (PFSR) for Non-Half Hourly (NHH) data. This paper concluded that Gross Volume Correction (GVC) was being applied to varying degrees by different Suppliers.
- 3.3 Specifically with regard to this submission we have engaged with Ofgem and other stakeholders to explain our position and analysis. These are set out below for reference.
- 3.4 On 31st August we responded to Ofgem’s consultation regarding its minded-to position regarding over recoveries arising from GVCs and losses reporting. We supported Ofgem’s position.
- 3.5 On 30th December 2010, we issued our use of system charging notice for 2011/12 and included a request to Suppliers to advise us of any operational activity that Suppliers may be undertaking in relation to correcting Settlements data affecting 2008/09 and 2009/10 data e.g. Gross Volume Corrections, reconciliation of purchases versus their sales or any other activity that may have had an impact on Settlement data in our GSP groups.
- 3.6 On 19th January 2011, we met with Ofgem to inform them that we were suffering from marked increases in losses for SPM and SPD, primarily driven by Suppliers’ actions to adjust Settlement data. We also informed Ofgem that we had started to prepare this submission.
- 3.7 On 22nd February 2011, we issued a questionnaire to Suppliers, seeking detailed information on GVCs and other adjustments to Settlement data, in Merseyside and North Wales and South of Scotland GSP Groups. A pre submission draft was provided to Ofgem.
- 3.8 On 25th February 2011, we responded to Ofgem’s questions relating to Suppliers GVC and data cleansing activities and their effect on our losses incentive and allowed revenues.
- 3.9 On 23rd March 2011, we met with Ofgem to present the provisional findings of the analysis undertaken by ourselves in conjunction with Engage Consulting.

Appendix 4 Losses Reporting Methodology

4.1 Our losses reporting methodology for DPCR4 was submitted to Ofgem on 9 March 2009, as part of our response to Ofgem's request for information relating to the calculation of distribution losses, which was undertaken during the development of the losses incentive mechanism and associated losses reporting requirements for DPCR5. We wish to emphasise that we report in accordance with final Settlement data, when this becomes available and not on any alternative engineering model.

4.2 Recognising the lengthy Settlement process and systematic over- or under-estimates, which are evident within early reconciliation runs, we apply a methodology that compensates for these, prior to final Settlement data becoming available.

4.3 In summary, our losses reporting methodology for DPCR4 comprised the following steps:

- Monitor losses monthly.
- Review current figure quarterly.
- 6-month trailing average of the 12 month totals is calculated. Where a data point is sub-R3, a regression-corrected value is used.
- Measure difference between current reported loss and latest 6 month trailing average
- Revision triggered if, in preceding quarter, difference exceeds 1 standard deviation or cumulative deviation Z values (fraction of standard deviations) sum to ≥ 1.5 .
- Revision implemented if trend is supported by two consecutive months' data.
- Updated recommended figures are generated from 6 month average and rounded to 1 decimal place of percentage.

4.4 However, recent analysis has demonstrated that the regression relationships between the initial loss estimate and the reconciliation impact have shifted from late summer 2008. We now believe that this "break" in the data is caused by initiatives undertaken by Suppliers to correct Settlement data.

4.5 By its nature our methodology is less sensitive to sudden changes in data and resulted in a delay before we identified the full impact of recent changes to Settlement data later in the reconciliation process.