Consultation on regulatory measures to address the effects of gross volume correction and other settlements data adjustments on the distribution losses incentive mechanism

To:

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From:

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A. CONSULTATION RESPONSE - Executive Summary

SP Energy Networks (SPEN) welcomes the opportunity to respond to this consultation. This response is submitted on behalf of SP Manweb plc (SPM) and SP Distribution Ltd (SPD). This Part A executive summary is repeated in an accompanying letter. We repeat here for completeness. Part B below forms our detailed response to specific questions and issues raised in the consultation.

1. **We believe that the SP/ Engage methodology provides the optimal means to rectify SPM and SPD's reported losses.**

Our methodology quantifies abnormal settlements movements in a manner that is founded on a robust rationale. The methodology includes statistical analysis of non half hourly settlements data to isolate abnormal run type variations by comparing standard industry data reported during the DPCR4 period with natural cyclical variations during normal periods. The method is straightforward to apply and is auditable given its use of readily available industry data which we have verified with Elexon. Furthermore in its normalisation of the SF position the approach automatically allows for *all* underlying factors including consumer behaviour, i.e. recessionary impact, weather effects and most importantly Supplier behaviour changes in a non-discriminatory and therefore balanced way. For the avoidance of doubt, the SP/ Engage methodology cites the existence of negative EACs as being a *symptom* of abnormal patterns of behaviour but does not rely on these (negative EACs only) or subsequent monitoring of these as a key components of the *remedial calculation.*

In our published methodology we set out clear application guidance and our advisors Engage Consulting have set out how it can be applied by DNOs who use alternative reporting approaches to our own.

2. **We were surprised at Ofgem's current preference for the CE methodology. It is not clear to us that even Ofgem's own analysis of strengths and weaknesses which we believe to be flawed leads logically to this, albeit interim, view**

Ofgem list four strengths and five weaknesses of the **CE methodology**, and six strengths and two weaknesses of the **SP/ Engage methodology**.

We are not convinced of Ofgem's perceived strength that the **CE methodology** can be easily replicated by other DNOs. Its use of negative EACs in the remedial calculation has presented difficulties for SPEN at least as we do not have a complete history of EAC data. The 'P222' report which holds information on EACs is not available retrospectively

and we understand from Suppliers that this report is not fit for purpose in the context of corrections to reported losses. In completing Appendix 2 to the consultation we have had to make judgments in how to incorporate negative EACs to calculate the correction on a CE basis. A further strength quoted by Ofgem is that negative EACs are dealt with symptomatically when they arise. We have heard from Suppliers on several occasions that CE's use of negative EACs is problematic and as Ofgem highlight may actually be considered a weakness, one that the our methodology does not share.

Ofgem's first perceived weakness of the **SP/ Engage methodology** centres on subjectivity around the choice of normal period. Firstly we accept that any 'top down' methodology could be considered less than perfect. However our normal period is not *chosen*, rather it is identified by statistical comparison to normal settlement data cycles. We would stress that our findings were that a 'bottom-up' approach was not possible, which we discuss later. Elexon say that while they don't hold sufficient data to support a 'bottom-up' approach, DNO's receive sufficient data at aggregate level to support a 'top-down' analysis.[1]

Ofgem consider that the SP/ Engage methodology exhibits one other weakness, namely that it fails to take into account certain factors such as severe weather that could have a compensatory impact. This is simply not a valid criticism. The means by which we normalize SF takes into account *all* factors which are observably different from the normal period and therefore isolates abnormal variations in a balanced, non-selective way, i.e. we remove positive as well as negative abnormalities.

In summary we remain of the view that the SP/ Engage methodology has several key advantages and that these make it preferable in considering SPEN's and potentially other future DNO submissions. Whilst we do not seek to dispute that CE's methodology *could* be made to work for other DNO's it would present significant challenges to SPEN in its application due to unavailability of data.

3. We consider our submitted correction proposal to be fair to customers

One of ours and Ofgem's key considerations is fairness to customers. We believe we achieve this in our submission. Even if Ofgem approve our submitted correction, SPEN receives no reward and is in fact left with a very material penalty in the region of £50M across its two licensees despite the fact we have no evidence to suggest that actual underlying losses in our network have deteriorated.

4. In Developing and explaining the SP/ Engage Methodology we have very actively engaged with stakeholders to provide complete transparency

In addition to meeting and corresponding with Ofgem on several occasions, we and our advisors Engage Consulting, have actively engaged with Suppliers, other DNO's and Elexon on this issue. We have carried this out on a bi-lateral basis and via attendance and presentations to the DCMF Gross Volume Correction/ Losses workshop, DCP30 Supplier calls and the recent Stakeholder Workshop. We are extremely grateful for all input.

These meetings have variously shaped our submitted correction methodology, allowed us to explain the methodology, raised awareness of the losses mechanism and kept Suppliers informed of the likely profile of forecast prices changes.

We would highlight one important part of that process, namely our Supplier Questionnaire which we issued in February this year. We wrote to all DCUSA Supplier Contract Managers seeking to understand better recent observed trends in settlement

[1] Market Data Available from Elexon, DCMF workshop on GVC/Losses, 29th June 2011

data. We asked for information on the use of GVC and other settlement adjustments and provided a template for the input of monthly GWhs adjusted during the DPCR4 period. The responses were very limited for reasons that we now understand, but importantly our attempt to gather data did lead us to conclude that a ‘bottom-up’ approach was not feasible.

PART B: CONSULTATION RESPONSE – Detailed Questions & Issues

1 Introduction

1.1 Ofgem ask no specific questions in its introductory chapter.

1.2 We understand Ofgem's comments and welcome the acknowledgement that atypically high reconciliation adjustments have affected the losses incentive mechanism.

1.3 We note that Ofgem believe that the losses mechanism has proved an effective method of encouraging DNOs to achieve an efficient level of losses on their distribution networks. We are of the view that the measurement difficulties presented by the use of settlements data has compromised the effectiveness of the mechanism and are likely to support a fundamental overhaul of the mechanism at RIIO-ED1 to improve its effectiveness.

2 Settlement data adjustments and their impact

Question box
Question 1: Do you think we have identified the main data/billing adjustment techniques used by electricity suppliers and their impacts?
Question 2: Are there any other factors you think we should take into consideration in assessing the impact of settlement data volatility?

2.1 **Question 1:** Yes. It is our understanding that, during DPCR4, most Suppliers instigated intensive data cleansing programmes. These programmes address a broad range of issues including, but not limited to: incorrect meter multipliers; incorrect energisation status; incorrect profile class; swapped registers; incorrect readings; and missing readings. As part of the corrective action undertaken in these programmes - GVC, DMX data correction techniques were often used.

2.2 SPEN's success in obtaining details and volumes via our Supplier Questionnaire, described above was limited but we understand via interactions with Suppliers through the DCMF workshops that adjustment techniques are many and varied as noted above.

2.3 **Question 2:** We believe that Ofgem have captured the relevant factors.

3 Normalisation of 2009-10 Settlements data

Question box
Question 1: Do you agree with the general principles and constraints we have identified with respect to the correction of data used for the losses incentive scheme?
Question 2: Do you think we have identified the only two practical methodologies for normalising losses incentive data for 2009-10? If not, what other approaches do you think we should consider?
Question 3: Do you agree that Options 1 and 2 are distinct approaches such that a hybrid incorporating the best points of each is unachievable?

3.1 **Question 1:** Yes, save for the point on negative EACs detailed below.

3.2 It would appear that Suppliers do not hold records that would adequately and consistently support a bottom up determination of the abnormal levels of Settlement adjustments. Even if they did, such an approach would be extremely complex, expensive and time consuming; and would not be sufficiently transparent or auditable.

3.3 As the consultation notes, DNOs and Suppliers (along with ELEXON representation) considered this matter carefully in the DCMF Losses Working Groups over the summer. The group concluded that a "bottom up" approach is not practical; and was unable to identify any suitable alternative "top down" methodologies.

3.4 Both the CE and SP methodologies seek to quantify the levels of Settlement adjustments that are abnormal compared to the point in time when the DPCR4 loss targets were set. These levels have increased significantly as a result of Supplier data cleansing programmes that have been set up to address a broad range of data quality issues such as those described in section 2.1. As part of the corrective action undertaken in these programmes - GVC, DMX data correction techniques have sometimes been used.

3.5 Section 3.2 of the consultation states that dealing with negative EACs is an integral part of both methodologies – which suggests commonality in this respect. However, as noted elsewhere in this consultation response, the methods are very different in the manner in which they deal with negative EACs. The CE method measures negative EACs in place at an arbitrary point in time – some of which might never have been used in Settlements; and the SP method considers all unrepresentative EACs used in Settlements (positives as well as negatives). Critically, the SP Method does not employ the negative EAC data directly to quantify abnormal behaviour.

3.6 **Question 2:** Yes, as noted above

3.7 **Question 3:** Yes. The key differences between the two methods are the R3 capping of run type variations and addition of negative EACs in the CE method; and the SF normalisation in the SP method.

3.8 We believe that the SP method is founded on robust rationale, based on how Settlements works. We do not agree with key aspects of the CE method, particularly the treatment and determination of negative EACs and treating all run type variations post R3 as abnormal. As a consequence we cannot identify any hybrid method that is itself founded on robust rationale.

4 Comparison of Options 1 and 2 and [Ofgem's] preferred way forward

Question box

Question 1: Have we identified the important strengths and weaknesses of each option? If not, what additional points should be considered?

Question 2: Do you think that the impact of particular factors on SF data can be clearly identified? Can a recessionary impact be separated from other factors such as extreme weather? How important is it for the purposes of the adjustments methodology to also take account of other variables affecting SF data such as extreme weather conditions?

Question 3: Do you consider that both methodologies can deal equally well with all types of settlements data correction?

Question 4: Should Option 2 allow DNOs to select different „normal" periods or is there a case for setting a standard period? What would the benefits or drawbacks be of selecting a standard „normal" period across all DNOs? Would the selection of different „normal" periods substantially affect the outcome?

Question 5: Do you support our preferred approach to have a single methodology that would be used across all DNOs that have adequate evidence of abnormally high settlement data corrections?
Question 6: Do you consider that Option 1 should be that single methodology? If not please give reasons for your response.
Question 7: Are suppliers still undertaking significant levels of settlement data adjustments? What has been the impact of the changes to the BSC to limit the use of GVC, and what will be the impact of P274? Are ongoing settlement data adjustments likely to be on the same scale as those observed for 2009-10?

4.1 **Question 1:** No – we believe that certain key aspects of this assessment are inaccurate.

4.2 However, what we find most perplexing, is the conclusion drawn from this assessment. The CE method appears to have few substantive advantages and several key weaknesses; the SP method has many advantages and two perceived disadvantages. It is difficult to understand how this assessment resulted in Ofgem provisionally preferring the CE method as the way forward.

4.3 The only strength that we can identify with the CE method is that it is easy to understand. It cannot be easily replicated by other DNOs, as not all DNOs have the P222 data to quantify negative EACs in the way the method intends. However, more fundamentally, we do not believe that the method is based on robust rationale.
The key weaknesses it has are that it:

- treats all post R3 run type variations as abnormal – and we know that is not the case;
- does not have any credible basis for simply adding in a set of negative EACs – and, furthermore, quantifies these:
    - at an arbitrary point in time, despite the results being sensitive to this timing; and
    - often by extrapolating and sometime by merging disparate datasets – to overcome the unavailability of data;
- uses a “one size fits all” normalisation period – despite the period of normality being different for each network;
- does not adjust for the fact that the SF position, from which abnormal run type variations are measured, is impacted significantly by:
    - reductions in customer usage relating to the recession – resulting in EACs being higher than the volumes actually consumed, and SF being overstated; and
    - prior year data correction adjustments – resulting in a predominance of negative EACs, and SF being understated.

4.4 The SP method, however, addresses many of these weaknesses. It allows for normal adjustments post R3; it provides for a normal period that is appropriate for each network; it is based on data that is available to the same extent to all DNOs; and it deals with changes in customer behaviour and unrealistic EACs in a consistent manner, regardless of whether they result in overstatements or understatement of consumption.

4.5 The two “disadvantages” cited in the consultation are: the provision for selecting a network specific normalisation period; and the impact of extreme temperatures. As detail in Q4 and Q2 respectively, we believe that selecting a normal period that is appropriate for each network is a distinct advantage; and that the arguments about extreme weather are incorrect.

4.7 **Question 2:** It is clear from both theory and measurement that the SF position (and, more specifically, the EACs used in SF) was impacted materially by the by prior year Settlement adjustments and most likely also by recessionary impacts. We know from GSP Group Takes that consumption levels reduced during the recession; and we also know, from P222 data, that a significant number of negative EACs were created as a by-product of data correction techniques employed by Suppliers on earlier Settlement Days. We can measure the net impact on SF of this but cannot measure each effect individually. However, the scale of this net impact is sufficiently large for it to be necessary to take it into consideration.

4.8 We believe that “extreme weather conditions” is an invalid argument in this context. AAs and EACs are converted to half hourly energy profiles using Profile Coefficients that are themselves a function of temperature (and time of year). So both EACs and AAs, once profiled, are reflective of the temperature – and it is this profiled data that is use in the method. It is true that these profiling techniques are less accurate at temperatures outside of the range of the samples used in the load research; but this is an accepted feature inherent in the design of the Settlement systems and processes.

4.9 The SF normalisation process does assume that the percentage losses based on SF NHH data, are consistent across the normal and abnormal periods. If one or other of these periods contains materially higher or lower average consumption (arising from the recession, or higher or lower average temperatures, for example) then there would be an impact, as we know that copper losses are a non linear function of the current. However, this is a level of detail that goes beyond both methods and one which the loss incentive mechanism itself does not attempt to address.

We consider the cruder alternative employed in the CE method, of adding in an arbitrary set of negative EACs, to be inferior.

4.10 **Question 3:** No. We believe that quantification of the levels of Settlement adjustments that are abnormal compared to the point in time when the DPCR4 loss targets were set is the right approach to dealing equally well with all types of settlements data correction.

4.11 However, for reasons expanded upon elsewhere in this consultation response, we believe that the SP method achieves this significantly better than the CE method, principally because it is founded on a more robust rationale.

4.12 **Question 4:** Without doubt, the “normal period” should be network specific. Suppliers’ increased data cleansing programmes all differ in terms of the:

- time they were initiated;
- types of issues they addressed first;
- point in the Settlement window they targeted (typically uniformly or RF focused); and
- techniques they employed to address these issues.

4.13 As Suppliers’ market shares vary significantly by network, it is inevitable that the divergence from what was normal also varies significantly by network. For both methods,

selection of a “normal period” that is as close as possible to what was normal when the DPCR4 targets were set is essential.

4.14 Our modelling confirms that the results for both methods are sensitive to selection of the “normal period”. We believe that this re-enforces the fact that the “normal period” must be appropriate for each network – otherwise results for either method could be unsatisfactory. We do acknowledge that some simple controls or assurance relating to the selection of this period might be required – but firmly believe that that the benefits of an appropriate “normal period” for each network outweigh this.

4.15 **Question 5:** A single methodology for all DNOs would be preferable. However, different methodologies should not be ruled out if appropriate.

4.16 Regardless, we believe that the normalisation period should be network specific. This is because the period of normality is different for each, this being a function of Supplier market share, and data cleansing timing and approach.

4.17 **Question 6:** No. We do not believe that the CE method is founded on robust enough rationale for it to be the single methodology used for all DNOs – and find the decision to provisionally select it as the preferred way forward perplexing. As detailed in section 4.3 it has four key weaknesses, these being:

- treating all post R3 run type variations as abnormal;
- the illogical treatment of negative EACs;
- a normalisation period that is not necessarily appropriate for all networks; and
- the lack of consideration for an SF position that is impacted materially by various factors.

5 Interaction with the losses rolling retention mechanism and targets for DPCR5

Question box
Question 1: Do you agree that in calculating the LRRM, the selected adjustment methodology should be applied to the 2009-10 losses reported under both the DPCR4 and DPCR5 methodologies?
Question 2: Do you believe that either Option 1 or Option 2 could be applied to the 2009-10 losses re-reported under the DPCR5 common reporting methodology?
Question 3: Do you agree that in setting the DPCR5 ALP we should not include any settlements data adjustment?
Question 4: Do you believe that the type of adjustment (GVC, DMX or other) impacts how the targets should be calculated? If so, how should this be done?

5.1 We take these questions to relate specifically to the LRRM and associated DPCR5 target setting in terms of effecting the correct (i.e. avoiding windfall gains or losses) transition between DPCR4 and DPCR5. This is distinct from establishing and in no way effects the adjusted DPCR4 total penalty.

5.2 **Question 1:** We do not believe that the selected adjustment methodology should be applied to the 2009-10 losses reported under the DPCR5 methodology. We would welcome further discussion on this issue due to its complexity.

5.3 We understand this question to be referring to ensuring that the close out LRRM mechanism succeeds in achieving its stated aim of ensuring no windfall gains or losses to DNOs arise as stated in paragraph 5.6. We believe that to achieve this there must be consistency between the treatment here and under the answer to Question 3. In question 3 we (agree) that settlement data adjustments should not be included in setting the DPCR5 ALP and that without this consistent approach the transitional calculation will not work correctly.

5.4 We believe that for the purposes of achieving the close out and LRRM correctly the adjustment referred to would also have to be applied consistently to the terms *within* paragraph 5.9 in the consultation.

5.5 If we understand the question and the algebra correctly it would be illogical to answer other than in the affirmative to Question 3 (as we do). We would be happy to discuss further with Ofgem and other DNOs if there is any misunderstanding around this issue. For the avoidance of doubt we support the calculation that achieves the stated objectives of the algebra.

5.6 **Question 2:** We do believe that either could be applied.

5.7 Notwithstanding our stated strong preference for Option 2 we are not aware of any reason why either could not be applied for the purpose of re-reporting under a DPCR5 reporting basis to achieve the end as we understand it.

5.8 **Question 3:** We agree. Use of the adjustment methodology should be confined to establishing the close out reward or penalty position for DPCR4.

5.9 Early data from DPCR5 shows no sign of reverting to a losses pattern consistent with our previously normal period. As such it would appear that the impact upon settlements may well be of an enduring nature.

5.10 It would therefore be appropriate to consider the unadjusted DPCR4 data when setting the DPCR5 ALP since to adjust would leave the target at a level which is even lower than will be the opening reported actual losses.

5.11 Subject to our understanding of the algebra we believe that in financial terms, and subject to the DPCR5 cap and collar working as originally intended, it makes no difference whether adjustments are included or not for the purpose of target setting provided there is consistent treatment with the LRRM discussed under Question 1 since the transition part of the calculation is intended to equitably deal with any windfall gain or loss arising from the opening reported actuals and the target (however wide the differential) where there is no underlying change in performance.

5.12 Again for the avoidance of doubt we support the calculation that achieves the stated objectives of the algebra.

5.13 **Question 4:** There is insufficient data available to attempt to factor this into target setting.

5.14 We believe that the type of correction may affect the degree to which the effects of the particular supplier adjustments already made persist in settlement. However, with 28 million metering points, there is likely to be a large volume of issues yet to address and significant numbers of new issues are likely to appear. The scale of Supplier adjustments going forwards is far more likely to be bound by the resources employed in addressing issues rather than the number of issues left to address or the nature of issues already addressed. Consequently, whilst it is difficult to predict, we

believe that the most likely level of Supplier adjustments going forwards is that currently being observed.

5.15 Reconstructing how this mix might affect settlement from the bottom up is likely to prove impracticable given the lack of audit trail required of Suppliers.