Ofgem Consultation Response Settlement Data Adjustments

19th December 2011

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This is Engage Consulting's response to Ofgem's consultation on regulatory measures to address the effects of gross volume correction and other settlements data adjustments on the distribution losses incentive mechanism. It is limited to the sections and questions that relate to Ofgem's assessment of the strengths and weaknesses of the two quantification methods considered.

1 Introduction

We believe that Ofgem has described: Settlement adjustments and their impact (in Section 2 of the consultation) and both methodologies (in Section 3 of the consultation), appropriately.

Our consultation response focuses on the matters raised in Section 4 of the consultation – the comparison of the CE and SP/Engage methodologies, and Ofgem's preferred way forward.

Accordingly, we have not provided any views on the interactions with the roller and DPCR5 target setting (Section 5 of the consultation).

Engage Consulting is a subject matter expert energy and utilities consulting practice, specialising in market operations, Settlements, revenue and margin assurance, industry design, regulation, governance, networks, smart metering and smart grids. We have extensive experience and expertise in electricity Settlements and losses and have worked with 5 of the 6 DNOs in relation to issues with the loss incentive scheme.

We hope that our comments will prove helpful in progressing this difficult industry issue.

2 Section 4 - Comparison of Methods

Fundamentally, we believe that the SP/Engage methodology is founded on robust rationale – and that its components all have substantive arguments based on how Settlements works. We believe that this provides for a fair and reasonable assessment of the level of abnormal adjustments.

In contrast, we believe that the CE method has some key features that lack this same degree of rationale. We believe that this means that it has the potential to provide inappropriate results.

The key features of the CE method are:

- Normalisation of SF-R3 movements based on a fixed normalisation period;
- Setting to zero all R3-RF and RF-DF movements; and
- Adding in a set of negative EACs.

These are considered further below.

2.1 Normalisation of SF-R3 Movements

Both methods share the technique of normalising reconciliation movements based on past "normal" levels. However, the CE method only employs this to R3 and uses the same "normal period" for each DNO network. Furthermore, it does not adjust the SF position, from which reconciliation movements are measured, to take into consideration that fact that this is impacted materially by unrepresentative EACs.

These issues are described further below.

2.1.1 Fixed Normalisation Period[1]

We know that 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; and
- techniques they employed to address issues.

We also know that Suppliers' market shares vary significantly by DNO network. As a consequence, it is inevitable that the divergence from what was normal also varies significantly by network.

The modelling we have undertaken confirms that results are sensitive to selection of the "normal period" – which means that having a fixed normalisation period for all DNOs has the potential to provide inappropriate results.

2.1.2 SF Impact

When normalising reconciliation movements – the basis of the movements in the normal period and the abnormal (normalised) period has to be consistent; otherwise the normalisation is not valid.

We know that several factors impacted the SF position in the abnormal (normalised) period. These include:

[1] Whilst it is clear that this normalisation period is fixed in the CE method, it is not clear whether the intention is for SF to R1, R1 to R2 and R2 to R3 movements for Settlement Dates in the period to be considered when determining what was "normal"; or whether the intention is for SF to R1, R1 to R2 and R2 to R3 movements effected in Settlement Runs in the period to be considered.

- changes in Customer usage behaviour (through the recession for example), resulting in unrepresentative EACs being used in SF; and
- data corrections on earlier Settlement Dates, also resulting in unrepresentative EACs being used in SF (such as, but not limited to, negative EACs).

It is this SF position from which reconciliation movements are measured and so, for the normalisation to be valid, these factors must be taken into consideration. The modelling we have undertaken confirms that these factors are significant. Not taking them into consideration has the potential to provide inappropriate results.

2.2 Setting Post R3 Movements to Zero

The CE method treats all post R3 run type variations as abnormal – and sets them to zero. However, we know from our modelling that there is a significant normal variation between R3 and RF, and RF and DF – which means that treating all such variations as abnormal has the potential to provide inappropriate results.

2.3 Negative EACs

The CE method adds in a set negative EACs in place at an arbitrary point in time; and then monitors these over an extended period, netting off those that are replaced by AAs.

We cannot understand the logic of adding in a set of negative EACs – and do not understand the arguments for this being undertaken in conjunction with the normalisation of SF-R3 movements and setting to zero of post R3 movements (as described above in Sections 2.1 and 2.2).

Furthermore, we believe that there are significant issues with the quantification of negative EACs – that preclude the consistent treatment of all DNOs. We also foresee operational issues and overheads with monitoring these negative EACs and identifying those that are replaced by AAs; and consider the protracted uncertainty that this creates, undesirable.

We believe that this has the potential to provide inappropriate results.

These issues are described in more detail below.

2.3.1 Rationale for Negative EACs

Negative EACs can be a by-product of certain data correction techniques, undertaken on earlier Settlement Days. However, they are not a suitable means of quantifying the extent to which the levels of Supplier adjustments are abnormal. This is because:

- only a subset of certain types of data corrections result in negative EACs;
- some corrections result in large positive EACs – which are not taken into consideration;
- the energy volume associated with a data correction is very unlikely to be the negative EAC value – as the latter is smoothed and annualised and the former is not;
- the negative EACs will not necessarily have been used in Settlements; and

- the negative EACs that are used in Settlements are likely to be replaced with positive AAs before RF.

2.3.2 Determination of Negative EACs

Notwithstanding the arguments for adding in a set of negative EACs in place at a certain point in time, there are non-trivial issues associated with establishing this figure.

DNOs obtain negative EACs from the P222 files they receive from Non Half Hourly Data Aggregators (agents of Suppliers). This new file type was made available, upon request, in June 2009. It was designed to support DNO network planning (by providing DNOs with an estimate of annual consumption for each MPAN in their network).

However, many DNOs were satisfied with the network planning methods and processes they had in place and did not did not believe that P222 data could improved them. As a consequence, some DNOs requested P222 data and others did not. At that stage, no-one could foresee that the data would underpin one option for addressing issues with the loss incentive scheme.

A consequence of all of this is that DNOs all have differing sets and sub-sets of P222 data. Some have full sets form an early point in time (e.g. September 2009); others have partial sets from a subset of Data Aggregators from a range of dates; and some do not have any substantive data until a later point in time (e.g. November 2011).

Very relevant to this diverse range of P222 data availability, is the fact that changes were made to the ELEXON provided standard EAC/AA calculator in June 2010, to prevent the creation of new negative EACs. This means that P222 data obtained before this date contain significantly more negative EACs than P222 data taken after this date (as many of the original negative EACs would have been replaces by positive AAs and no new negative EACs would have been created, regardless of the types and levels of Supplier data correction activity).

The net result of all of this is that DNOs' ability to quantifying negative EACs in place before the creation of new negative EACs ceased, varies considerably:

- some need to merge data sets from different Data Aggregators from different points in time;
- some need to extrapolate results from a sub-set of Data Aggregators to estimate the figure for the whole network; and
- others have no option but to use data sets created significantly after the creation of negative EACs ceased.

Notwithstanding the fact that there is not a sound basis for adding in a set of negative EACs, the availability of P222 data is such that DNOs cannot determine this value on an equitable basis.

2.3.3 Monitoring of Negative EACs

The CE method requires that negative EACs be monitored over an extended period and that those replaced with an AA be netted off any adjustment. As well as this being an operational overhead, this approach does not provide for timely

closure of the issue. It protracts uncertainty in allowable revenue longer than is necessary (which has Supplier and potentially Customer impact).

2.4 SP / Engage Method

The SP / Engage method overcomes 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.

The two "disadvantages" cited in the consultation are: the provision for selecting a network specific normalisation period; and the impact of extreme temperatures.

We believe that selecting a normal period that is appropriate for each network is a distinct advantage – particularly as results are sensitive to this.

We also believe that the arguments about extreme temperature are spurious. The method uses profiled data (and so reflects temperature variations to the same extent that Settlements does). Furthermore, whilst average temperatures might have differed between the normal and abnormal periods, resulting in different average consumptions, the loss incentive itself does not attempt to model copper losses having a non linear relationship with the current; and so we believe that this is a level of detail that goes beyond either method.

3 Section 4 – Ofgem's Preference

We were surprised at Ofgem's preference for the CE method – even based on its own assessment of the relative strengths and weaknesses.

Ofgem cites four strengths and five weaknesses of the CE method, and six strengths and two weaknesses of the SP/ Engage method. It is difficult to understand how this assessment resulted in the preference expressed.

Notwithstanding this, as described in Section 2, we also believe that key aspects of this assessment were incorrect. We trust that Ofgem will re-assess the strengths and weaknesses in light of the consultation responses it receives, and that it will draw a balanced and well reasoned conclusion.

4 Section 4 – Questions

4.1.1 Question 1

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

No – as described in section 2, we do not believe that the consultation contains an accurate representation of the relative strengths and weaknesses of each method.

4.1.2 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?

It is clear both from an understanding of the way in which Settlements works and from modelling undertaken, that the SF position in the abnormal period was impacted materially by unrealistic EACs, caused by a number of factors.

As described in section 2.1.2, these factors include Customer behaviour changes (due to the recession for example); and data corrections on earlier Settlement Days.

These effects can be measured in aggregate, and are significant, but cannot be decomposed. They are taken into consideration in the SP/ Engage method; but are not in the CE method.

4.1.3 Question 3

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

No. As described in section 2, the SP/Engage method is based on robust rationale and is designed to deal equally well with all types of data correction.

However, some of the features of the CE method mean that different types of adjustment are treated differently. For example, Supplier corrections that focused on the R3-RF window would be capped at zero; whereas the same volume of adjustments undertaken in the SF-R3 window would be normalised. Likewise, Suppliers adjustments that resulted in negative EACs would be quantified; whereas the same absolute volume of adjustments, resulting in large positive EACs, would not.

4.1.4 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?

As described in section 2.1.1, we believe that it is very important that the "normal period" is network specific. This is because:

- the period of normality is different for each network, this being a function of Supplier market share, and data cleansing timing and approach; and
- the results are sensitive to this normal period.

4.1.5 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?

A single method would be preferable.

4.1.6 Question 6

Do you consider that Option 1 should be that single methodology? If not please give reasons for your response.

No. For all of the reasons described in detail in section 2, we believe that that single methodology should be the SP/Engage method.

4.1.7 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?

No comment. Suppliers and DNOs are better placed to comment on this.