

**FURTHER CONSULTATION ON RESTATEMENT OF 2009-10 DATA AND
CLOSING OUT THE DPCR4 LOSSES INCENTIVE MECHANISM:**

**COMMENT FROM NORTHERN POWERGRID ON ADDITIONAL SUPPLIER
DATA ON GVC ACTIVITY**

22 January 2013

INTRODUCTION AND SUMMARY

1. On 21 October 2013 Ofgem published a consultation entitled *Further Consultation on restatement of 2009-10 data and closing out the DPCR4 losses incentive mechanism* ('the Consultation'). This was supplemented on 9 January 2014 by a file containing data from energy suppliers on settlements corrections activity using gross volume correction (GVC), dummy meter exchange (DMX) and other techniques.
2. This document sets out a commentary on the data on behalf of Northern Powergrid Holdings Company ('Northern Powergrid'), Northern Powergrid (Northeast) Ltd ('Northeast') and Northern Powergrid (Yorkshire) plc ('Yorkshire').
3. We note that Ofgem highlighted that the dataset may be incomplete, and we are conscious that it may not reflect all of the abnormal supplier corrections activity that took place. We also note that the data relates to other forms of settlements corrections activity, not just GVC. Our understanding is, however, that the predominant technique used in the Northern Powergrid distribution services areas was GVC, and so for the purposes of this response we have assumed that all the data in Ofgem's excel tab covering 'GVC and other techniques' relates to GVC. Our response would be broadly unchanged even if there were material non-GVC volumes of corrections in the dataset.
4. In short, our analysis with respect to the Yorkshire and Northern grid supply point (GSP) areas, which broadly correspond to Northern Powergrid's distribution services areas, has demonstrated the following.
 - a) Northern Powergrid was materially affected by a change in supplier settlements behaviour which will have increased the level of measured losses, through a significant increase in the use of GVC in 2008-09 and later years.
 - b) The corrections activity affected settlements data as it flowed (and as Northern Powergrid measured it on its DPCR4 reporting methodology) during and beyond 2009-10, supporting the additional evidence set out in Northern Powergrid's restatement application of August 2013 for restatement of the post 2009-10 years.
 - (i) The direct impact of GVC activity was at its most pronounced on settlements data that flowed during 2009-10 and 2010-11, proving

beyond any doubt the case that these two years must be restated, and continued at abnormal levels during 2011-12 and 2012-13.

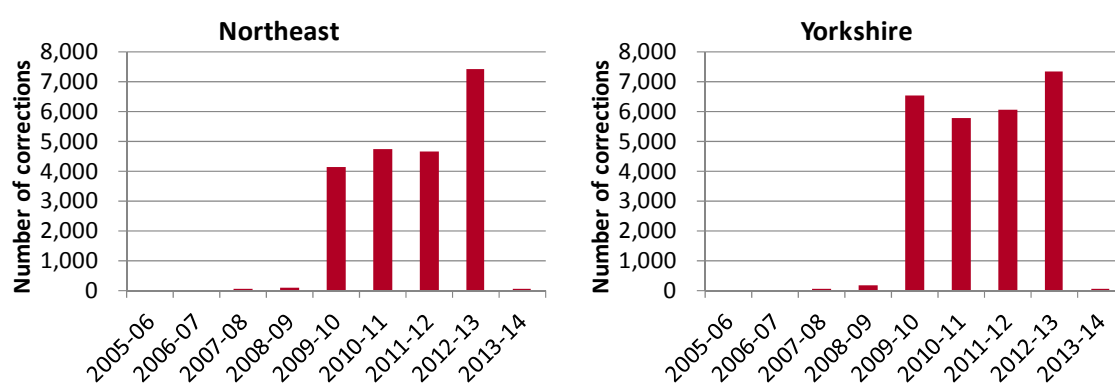
- (ii) The data demonstrates that the use of GVC will have had a lasting impact on other aspects of the settlements process. The volume and scale of negative estimated annual consumption (EAC) values created by the GVC cannot plausibly have failed to have affected settlements data on an ongoing basis.
- c) The change in supplier settlements behaviour materially affected fully reconciled data in 2007-08 in Northern Powergrid's distribution services areas, highlighting the importance of ensuring this data does not flow into the cap.

5. We set out the data supporting each of these four conclusions below.

The data proves unequivocally that a change in supplier settlements activity took place, and that this will have had a material impact on losses

6. The figure below show the number of GVC corrections undertaken in the Northeast and Yorkshire GSP areas over 2005-06 to 2013-14.

Figure 1: The volume of GVC corrections undertaken by suppliers



7. The charts demonstrate that the volume of GVC operations in Northern Powergrid's areas first rose noticeably above zero in 2008-09, but then rose markedly in 2009-10. As set out in Northern Powergrid's August 2013 restatement application, these GVC operations will then have propagated through the settlements system. There are two routes by which they will have affected the settlements data.

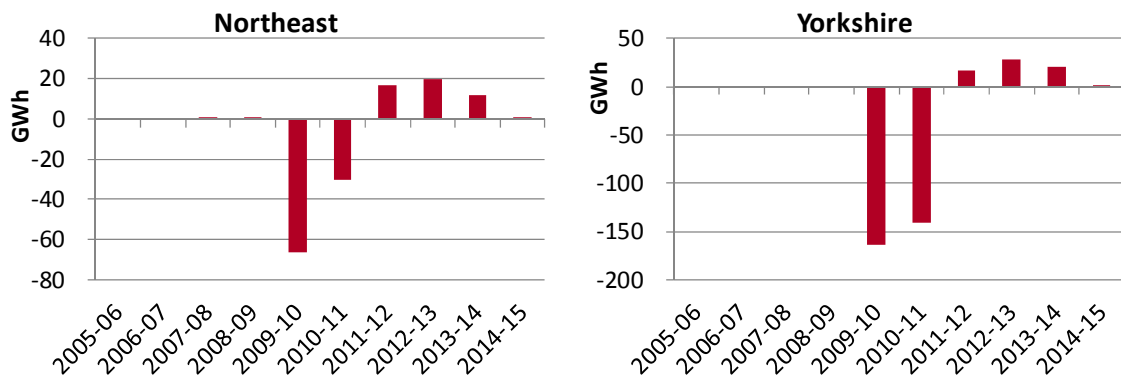
- a) Directly, as reconciliation runs ‘opened up’ the historical dates that the GVC was targeted to adjust electricity usage for, a process which will have typically taken several months to run to completion.
 - b) Indirectly, since the GVC operation will have affected the EAC for the meter point in question, in many cases making it significantly lower than it previously would have been (or even making it negative), which would then have reduced settlements final (SF) relative to levels it would have run at before the use of GVC.
8. We have used the data to assess these two transmission routes, and set out our conclusions in the next two sub-sections.

A significant direct impact of GVC is seen on data reported in 2009-10 and 2010-11, with smaller direct effects during 2011-12 and 2012-13

9. A GVC operation undertaken by a supplier can continue to have had a direct effect on settlements (through its intended correction of historical data) for many months.
10. For example, if a GVC is made that affects a settlements date for which the RF settlements run has already passed, the GVC will not affect a settlements run until the dates it affects reach their DF run. Since there are around 14 months between RF and DF, in an extreme case there can be 14 months between a GVC operation being undertaken and its direct effect flowing through settlements via a reconciliation run. Since Northern Powergrid’s reported dataset is on an ‘as gathered’ basis (i.e. as it flowed), a GVC operation undertaken in late 2009-10 could have a material impact on the data for the entirety of 2010-11, and part of 2011-12.
11. In order to assess the direct impact of GVC on settlements, we have assessed when the corrections it was intended to bring about to historical data would have flowed through the settlements reconciliation run system.¹ The figure below shows our estimates.

¹ To do this we estimated the run type affected by each correction by looking at the difference between the date the correction was performed and the ‘effective from’ settlement date. For example, if this period was between approximately 7 and 14 months, we have assumed the correction affected the RF run. If it was over 14 months, we have assumed the correction affected the DF run. Using the estimated run type and the settlements date affected, we used the settlements calendar to identify the working day on which this data would have flowed, apportioning the energy equally across the number of affected days.

Figure 2: The impact of GVC operations on reported data



12. As can be seen from the charts:

- a) The GVC activity had no impact on settlements data that flowed during 2005-06 and 2006-07, and only a low level of impact on data that flowed during 2007-08 and 2008-09.
 - b) Settlements corrections reported during 2009-10 and 2010-11 were materially affected, with GVC leading to a (net) direct impact on settlements reconciliation runs of -66GWh and -30GWh in Northeast and -164GWh and -140GWh in Yorkshire, over the two years respectively.
 - c) Settlements corrections reported during 2011-12 and 2012-13 due to GVC activity continued to be abnormal relative to the low levels seen over 2005-06 to 2008-09, although they were now positive, and at lower levels (in absolute terms) than seen during 2009-10 and 2010-11.
13. This data firstly proves that, as per the results of the statistical tests, the 2009-10 reported data for Northeast and Yorkshire was affected by abnormal supplier corrections activity.
14. This data also unequivocally proves Northern Powergrid's case that the 2010-11 reported data for both Northern and Yorkshire must be restated in order to create the dataset which would have flowed had suppliers not changed their settlements behaviour. We now know, with certainty, that the change in supplier GVC corrections activity materially affected settlements data which flowed during 2010-11. This demonstrates that the 2010-11 reported data in Northeast fails the statistical test

because of the relatively low power of that test, rather than because the data was not materially affected by abnormal supplier settlements behaviour.

15. Lastly, the data lends weight to Northern Powergrid's case that the 2011-12 and 2012-13 reported data for both Northern and Yorkshire must be restated, even where it does not pass the statistical tests. The direct impact of GVC on the dataset continued during these years, demonstrating the persistence of the change in supplier behaviour. There will also have been an indirect effect, as the propagation mechanism from the GVC activity to reported losses evolved. The next sub-section sets out the available evidence on this indirect effect.

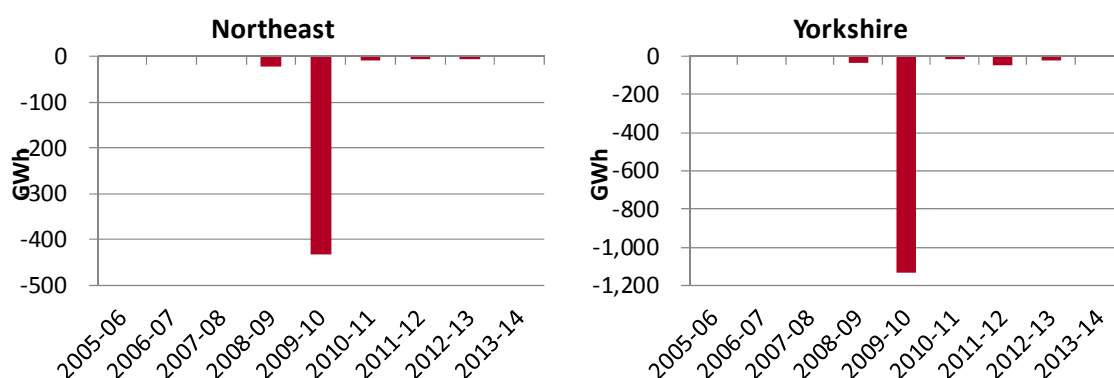
The data also shows that the corrections activity will have had a lasting impact on other aspects of the settlements process

16. When a GVC operation is undertaken, it can also affect the EAC for the meter point in question. EACs are used in the settlements process until they can be replaced by a known value of consumption (called an annual advance, AA). For example, EAC's are used in the vast majority of settlements final readings, the first step in the settlements process. We calculate that around 93% of energy attributed at settlements final in 2009-10 was based on an EAC.² EACs then tend to be progressively replaced by AAs over time. Suppliers have a target for the proportion of actual reads achieved by RF, to cover 97% of the total energy attributed. By the DF settlements run we calculate that in 2009-10 between 2% and 4% of energy in Northern Powergrid's GSP areas was still being settled using an EAC (depending on which GSP group is considered).³
17. The GVC operations undertaken by energy suppliers during 2009-10 in particular will have materially reduced the EACs for the affected meter points. Many will have been reduced from a relatively high number to a much lower number. We do not have data on the change in EACs caused by the GVC operation, so cannot fully quantify the scale of this issue. The available dataset does however allow us to identify EACs that were negative following the GVC operation, which are likely to have been created by the GVC itself.

² Based on data received by Northern Powergrid in 2009-10.
³ Based on data received by Northern Powergrid in 2009-10.

18. The figure below show the total value of negative EACs which were created by the supplier operations covered by Ofgem's dataset.

Figure 3: The value of negative EACs created by GVC operations



19. As can be seen from the charts, the GVC operations during 2009-10 in particular gave rise to negative EACs that would have had a significant impact on the SF run, and subsequent settlements runs, on an ongoing basis. Moreover, in addition to these negative EACs, many other abnormally low (but still positive) EACs are likely to have been created by the GVC operations of suppliers.
20. We do not know when in the settlements process these abnormally low (or negative) EACs will have been replaced with AAs. However, some will not have been corrected by the time the data 'freezes' at DF. *On average*, we have found that 2% to 4% of DF runs are conducted on EACs.⁴ But since the GVC operations are likely to have been carried out in relation to meter points where the historical data was poor (e.g. because the meters are very difficult to read) it is likely that a much higher than average proportion of EACs affected by GVC will not have been replaced by AAs at any stage in the settlements process. This in turn means that they could continue to flow into settlements data indefinitely. Moreover, even if changes to supplier data management practices mean that they have been replaced by AAs, these AAs may well differ from the level of consumption that suppliers would have measured before they began their programme of settlements corrections.
21. This data therefore supports the additional evidence presented in Northern Powergrid's restatement application, that 2010-11 and 2012-13 should be restated in Northeast, and

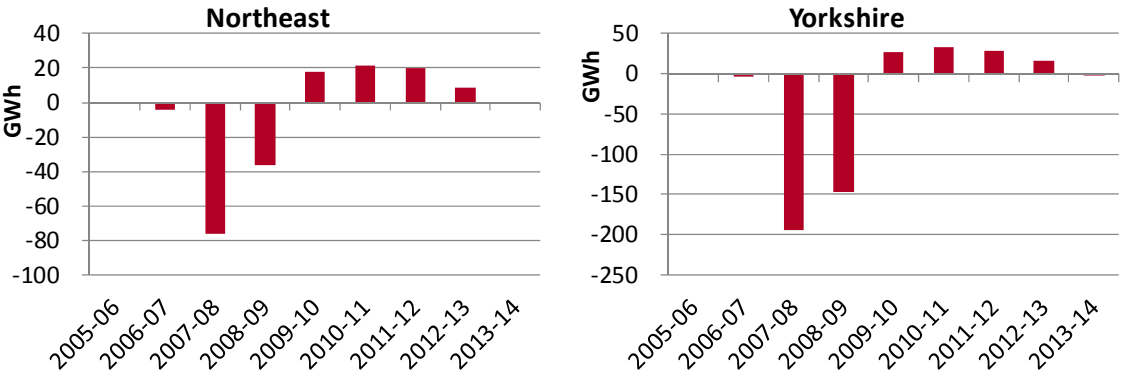
⁴ Based on data received by Northern Powergrid in 2009-10.

2010-11, 2011-12 and 2012-13 in Yorkshire, in addition to restatement of the years found to be abnormal on the statistical test.

On a fully reconciled basis, 2007-08 data was materially affected and so should not be allowed to flow into the cap

22. We note that the data is also relevant to chapter 2 question 3 of Ofgem’s Consultation, in relation to the cap.
23. Ofgem’s cap draws on two legs – one is the losses target, less 5%, the other is the average level of fully reconciled losses seen during 2006-07 and 2007-08 less 5%. Northern Powergrid’s consultation response observed that it was inappropriate to use 2007-08 data in the cap for Northern Powergrid since it is in itself materially affected by the change in supplier settlements behaviour that the process is intended to normalise out of the final result.⁵
24. The figure below show the extent to which GVC activity affected fully reconciled losses.⁶

Figure 4: The impact of GVC operations on fully reconciled losses



25. As can be seen from the charts, the abnormally high level of GVC activity undertaken during 2009-10 had a material effect on fully reconciled losses for 2007-08. This data therefore proves Northern Powergrid’s point that the cap set out in Ofgem’s Consultation is inappropriate, since it is itself affected by the change in supplier

⁵ Paragraphs 28 to 32 of Northern Powergrid’s response to the Consultation.
⁶ The charts are based on the settlements days which the GVC was intended to correct, rather than the calendar days on which settlements reconciliations actually took place (which could be up to 28 months after the relevant settlements day). Charts on the basis of when the reconciliations took place are set out earlier in this consultation response.

settlements behaviour and so it cannot represent an appropriate outcome to the current process.

26. Our consultation response called for Ofgem to remove 2007-08 data from the cap. It set out an alternatively designed cap which would achieve this at paragraphs 53 to 58, based on making each of the two legs significantly more robust.
27. If, however, Ofgem instead chooses to maintain a cap that draws on data from 2007-08, as described in the Consultation, it should at an absolute minimum adjust fully reconciled losses for 2006-07 and 2007-08 in order to remove the effect of the abnormal GVC activity which has been proven to have taken place in subsequent years.⁷ The charts above show the GWh adjustment that would be necessary to the fully reconciled data on units exiting in both Northeast and Yorkshire for 2006-07 and 2007-08.
28. As well as resulting in a value of the cap which is not as badly affected by the abnormal settlements correction activity as the current cap, it would also reduce the not insignificant problem of the current cap discriminating between those DNOs that saw their 2007-08 data being materially affected by the change in supplier settlements behaviour, and those which did not. Neither problem would, however, be eliminated entirely, since we note that the dataset may not contain relevant corrections where suppliers have been unable to retrieve these from their database.
29. Based on adjusting the cap in this way, the cap for Northeast would still be defined at the same level (since it remains set by reference to the target level of losses less 5%). However, the cap for Yorkshire would change from being set by reference to the target level of losses (less 5%) to being set by reference to the average level of losses seen during 2006-07 and 2007-08 (less 5%). By removing the settlements data which flowed as a result of the abnormal supplier behaviour, based on the dataset compiled by Ofgem, the cap for Yorkshire would be reduced from 5.61% to 5.18%.

⁷ This adjustment is possible in relation to 2006-07 and 2007-08 since the abnormal supplier settlements GVC activity only started in large volumes in 2008-09, so could only have affected 2006-07 and 2007-08 data on losses directly through the reconciliations the GVC was intended to bring about. For subsequent years, the fully reconciled data on losses will have been affected directly by the GVC, and indirectly via its ongoing impact on settlements processes. This means that a similar direct adjustment to 2008-09 and 2009-10 fully reconciled losses would not provide an estimate of the data which would have flowed in the absence of the change in supplier settlements behaviour.