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**Re: Modification Proposal 0228 'Correct apportionment of NDM Error - Energy'**  
**Modification Proposal 0228A 'Correct apportionment of NDM Error - Energy'**

Dear John,

Thank you for your invitation seeking representations with respect to the above Modification Proposals.

National Grid Distribution (NGD) is able to offer support in principle for implementation of either Proposal. This is on the grounds that the evidence, to the extent that it can be reasonably quantified, suggests that there is an opportunity for energy costs to be apportioned more equitably between Shippers. This underpins our belief that the relevant objectives under Standard Special Condition A11.1(d) of the Transporters Licence are better facilitated.

We believe that the variations which would potentially arise if the Reconciliation by Difference (RbD) mechanism were used as would be the case under Proposal 0228 give rise to a greater risk of levying genuine RbD costs to the wrong parties. On this basis we would prefer implementation of 0228A which in our opinion would provide a better tool to achieve a more accurate reflection of cost allocation.

We have participated in all discussions during the development of Modification Proposal 0228<sup>1</sup> and in addition have sought comprehensive information from our service provider, xoserve to substantiate our views. It should be noted that there was no Workstream discussion on the cited GWh energy values contained within Proposal 0228A. Consequently we have chosen to concentrate on validating and commenting on data provided within 0228A.

### **Background**

In September 2006, BGT raised UNC Modification Proposal 0115 'Correct Apportionment of NDM Error' which proposed that all RbD energy be smeared across all Non Daily Metered (NDM) Supply Points. The current RbD process allocates primary reconciliation only to Smaller Supply Points (SSPs).

Modification Proposal 0115A 'Correct Apportionment of NDM Error' advocated a similar regime except that any Monthly Read Meter would be excluded from the Larger Supply Point (LSP) smear.

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<sup>1</sup> Modification Proposal 0228 only was subjected to Development procedures.

Ofgem subsequently rejected both Modification Proposals on the grounds that they did not address the underlying issues behind the perceived imbalance, and because those issues had not been adequately quantified.

In September 2008 BGT raised UNC Modification Proposal 0194 'Framework for correct apportionment of NDM error'. This proposed extending the RbD smear to the LSP market for energy only. The proposal included an allocation table which apportioned the entire RbD smear to the SSP market. In effect therefore the Proposal was an enabling tool which did not change the existing position.

Corona Energy raised alternative Modification Proposal 0194A 'Framework for correct apportionment of LSP unidentified gas'. This proposed creating a table within the UNC to enable a fixed amount of energy to be transferred from SSP to LSP via RbD in monthly instalments. The LSP values are not populated. In this respect the Proposal is similar to 0194 in that it would facilitate a later Modification Proposal to populate the table.

Both Proposals are with Ofgem awaiting a decision on implementation.

### ***Modification Proposal 0228/Alternative Modification Proposal 0228A***

BGT has raised Modification Proposal 0228 'Correct apportionment of NDM Error - Energy'. This features all of the aspects of 0194 but also populates the allocation table.

The percentage allocations identified within the table have been the subject of much discussion and contention within the Development Workgroup. Given the extent of the debate, we have chosen not to comment on these further for the purposes of this representation.

Scottish Power raised alternative Modification Proposal 0228A 'Correct apportionment of NDM Error - Energy'. This also features all of the aspects of 0194A but as with Modification Proposal 0228 populates the allocation table.

For the purposes of this representation we have particularly focussed on the calculations and formulae identified within Proposal 0228A, and the audit trail of the quoted figures.

### ***Genuine Reconciliation Principle***

Modification Proposal 0228 introduces the concept of 'Genuine Reconciliation'. This represents the amount of energy which is accepted as having flowed through RbD, and which should not be re-distributed to LSP Supply Points.

If the total value of the Annual Quantities (AQs) within both the SSP and NDM LSP markets were equally overstated or understated, there should be no requirement for a net flow of energy via RbD from one sector to another. However if, for example, NDM LSP AQs are overstated compared to SSP, there would be a requirement for reconciliation to flow from LSP to SSP to correct the initial allocated position. Such an overstatement would occur if LSP AQs reduced more quickly during the year compared to SSP. The Genuine Reconciliation calculation takes the difference between the rates of decline in LSP and in the whole market over a gas year, and applies it to the whole market AQ at the start of the year, to derive a GWh figure.

That GWh figure is assumed to be Genuine Reconciliation, and any other amounts which have flowed through RbD in the year are deemed to have arisen for other reasons, e.g. Unregistered Sites or Theft of Gas.

## Limitations of the Genuine Reconciliation Approach

This approach has the benefit of using a mathematical calculation, based on industry data, to assess the accuracy of RbD. However, it also has a number of limitations:

- It assumes that AQs evolve steadily through the year and that it is appropriate to apply the same percentage to all RbD energy for the year.
- It assumes that all Meter Point reconciliation takes place in the gas year during which the change of AQ occurs.
- It ignores errors in Supply Point metering and reading, resulting in erroneous LSP reconciliation.
- It ignores errors in the calculation of AQs in either year due to erroneous reads or meter asset details.
- It ignores the impacts of read performance on the level of recalculations of AQs. On average Shippers read LSP meters more frequently and each year more AQs are recalculated in the LSP market than SSP. In times of declining demand this will have the effect of exaggerating the rate of reduction in LSP compared to SSP, because more of the former have been recalculated and have reduced.
- Due to the lead times in producing AQ data and in performing the genuine reconciliation calculation, the approach will adjust a future year's Modification 228A charges based on past year's AQ performance: e.g. if the Proposal were approved in 2009, information about the 2009 AQ review would be available in December 2009 and a revised allocation table would not take effect until Spring 2010. The 2009 AQs would be based on Meter Readings taken in late 2008 or early 2009.

## Value of Genuine Reconciliation

Scottish Power calculates the value of Genuine Reconciliation for Gas Year 2007/08 as follows:

$$\left[ \begin{array}{cc} \text{LSP Share of} & \text{LSP Share of} \\ \text{NDM AQs} & \text{NDM AQs} \\ \text{(2007/08)} & \text{(2006/07)} \end{array} \right] \times \begin{array}{c} \text{Total} \\ \text{NDM AQs} \\ \text{(2007/08)} \end{array}$$

This equates to (27.45% - 27.55%) x 510,057 GWh = 510 GWh.

The Modification Proposal quotes a figure of 1.77 TWh for Genuine Reconciliation. We have not been able to validate this calculation.

## Initial Population of the Allocation Table

Scottish Power has populated the Allocation Table for Proposal 0228A with values for inclusion in UNC. We have reviewed the table and have a number of comments relating to the source of the data.

Per Modification			Comments	
Source of error	LSP NDM GWh	LSP DM GWh	Source of Scottish Power data	Comments
Late confirmed, unregistered and orphaned Sites	211.83	5.72	DWG0194 – 11 July 2008	We are unable to identify the GWh figures quoted within xoserve presentations.  % split by sector is taken from BGT's presentation given at that meeting, but we are unable to trace these figures to xoserve

Per Modification			Comments	
Source of error	LSP NDM GWh	LSP DM GWh	Source of Scottish Power data	Comments
				presentations
iGT issues	68.70	0.00	DWG0194 – 27 March 2008	The presentation at that meeting was on RbD Verification, we are unable to find reference to iGT errors.  % split by sector is taken from BGT's presentation given at 11 July meeting, but figures cannot be traced to xoserve presentations
Shrinkage contribution	0.009	0.005	DWG0194 – 12 June 2008 – xoserve figures	We believe there was no DWG194 meeting on the quoted date. The NGD presentation on 9 June did not quote GWh error.  % split by sector is taken from BGT's presentation given at 11 July meeting, but figures cannot be traced to xoserve or NGD presentations.  The difference between initial and final Shrinkage values is billed to Shippers year after the end of the Gas Year and no correction is required via this mechanism.
Theft and unreported open meter by-passes	2691.74	0.00	Balancing figure. Proportions taken from xoserve data.	% split is the average of two significantly different values: % of claims by AQ of site and % of claims by reported GWh. BGT has calculated the former from data provided by xoserve.
Total	2972.279	5.725		
	2978.004			

It should be noted that the total figure for reallocation to LSP represents 29.7% of the volume of 'unknown gas' as quoted within the Modification Proposal 0228A. There is no evidence to support the application of that percentage, but this is roughly in line with the proportion of LSP AQ within the total NDM Market (27.4% at October 2008).

### Calculation of Energy value

The use of a 30-day average SAP price was also identified within Modification Proposal 0194A and would be a new concept within the UNC: no current clauses use this arrangement. Specifying a 30-day average introduces the following issues:

- In January, March, May, July, August, October and December each year the SAP price for the last day of month would not be included in the average (31-day months).
- In a standard February (28-day month) the 30-day average would also include the first two days of the following month. Those two days would be used again in determining the 30-day average for the following month. Invoice preparation would be delayed by a further two days, awaiting final SAP values.

A calendar month average, whilst still new to UNC, may have been more appropriate.

## ***Calculation and presentation of invoices***

Modification Proposal 0228A states that invoices would be issued at M+1. The calculations required under all of the related Modification Proposals (0194 and 0194A included) are more complex than those envisaged under the previous Modification Proposal 0115, because they deal with energy only. Current RbD calculations link energy and transportation very closely, and this would be a more significant change to xoserve systems. M+1 timing (i.e. issue in same month as RbD invoices) may not be achievable.

Proposal 0228A moves a fixed amount of energy from SSP to LSP, in fixed monthly amounts of 1/12 of the total annual figure. It is possible that total RbD Energy for a month is less than the monthly "transfer" and that the balance of energy left in RbD changes from a debit to a credit. LSP Supply Points would only benefit from improved efficiency in allocation and reconciliation through implementation of a Modification to change the allocation table.

## ***Impacts on Shippers***

RbD charges are typically a debit to SSP Shippers, although the amounts cannot be predicted with any certainty and can vary significantly month on month. All of the current Modification Proposals require the transfer of a proportion of these charges to the LSP market.

With respect to Modification Proposal 0228A, Shippers may find these charges easier to validate than those under the other proposed schemes, since they would only vary from month to month in line with changing market share and would not be influenced by levels of primary reconciliation.

## ***Impacts on Transporters***

Each Modification Proposal excludes transportation charges and only deals with energy. Therefore there is no direct impact on Distribution Network Operators' (DNOs) revenues or processes. There would be additional processes and costs for xoserve in calculating the additional RbD charges, depending on the system solution and the timing of the invoices. No User Pays elements have been identified for each Proposal, consequently Transporters would be expected to bear the costs of development and operation of the new framework, including the annual review of the values. Following a request from NGD, in August 2008 a Rough Order of Magnitude (ROM) was undertaken by xoserve with respect to Modification Proposal 0194. Indicative implementation costs ranged from £110,000 to £360,000 dependant on the chosen solution. Similar costs could be expected should 0228/0228A require implementation.

## ***Impact on Neutrality***

Modification Proposal 0228A should be marginally easier to administer, because the monthly charge is known and can be calculated in advance. It should also be easier to align the debit charges with the RbD credits and thereby minimise the costs of funding the Neutrality bank account during a timelag.

## ***RbD Verification Analysis***

The RbD Verification figures presented by xoserve within DWG0194 meetings suggested a total RbD imbalance of 14.71 TWh, after deducting issues such as Theft of Gas and Late Confirmed sites. Adding back those 2 issues would give an "unknown energy" figure of 21.7 TWh. That figure has accrued over 4 years: an annual value would be 5.425 TWh. A straightforward transfer of 27% to LSP sites would result in the transfer of 1.46 TWh, which is approximately half of the value proposed in Modification Proposal 0228A.

Considerations regarding sampling reliability and confidence levels should be borne in mind.

## **Summary and Conclusions**

While we suggest further explanation and discussion of the figures within each Modification Proposal may be beneficial to ensure they are complete and correctly calculated, we acknowledge that such values are by their nature open to interpretation and contention.

In view of the level of uncertainty concerning the use of RbD as a basis for a re-apportionment of energy to LSP, we believe the methodology advocated by Modification Proposal 0228A is more reliable and predictable given its relative simplicity and transparency.

We have some sympathy with the view articulated by LSP Shippers that Modification Proposal 0228A is more logical in approach. We believe that the assessment of a fixed contribution outside of RbD provides an equitable solution and avoids RbD fluctuations.

However, the quantity of energy which both Proposers may seek to reallocate through each Modification Proposal is open to debate. There is some evidence that their arguments have foundation based on sampling so far undertaken but clearly this is a difficult area to quantify.

We note that Ofgem intends to undertake an Impact Assessment with respect to the current suite of 'energy' related UNC Modification Proposals. We believe this could serve as an opportunity to further validate statistics provided in support of each Proposal.

Please contact Chris Warner on 01926 653541 ([chris.warner@uk.ngrid.com](mailto:chris.warner@uk.ngrid.com)) should you require any further information with respect to the above.

Yours sincerely,

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