

## Stage 04: Final Modification Report

# 0451/0451A:

## Individual Settlements For Pre-Payment & Smart Meters

At what stage is this document in the process?



Increase the accuracy of reconciliation of for SSP Pre-Payment and Smart Meters



Panel did not recommend implementation of either Modification 0451 or 0451A



High Impact:  
Small Suppliers



Medium Impact:  
Large Suppliers, Xoserve



Low Impact:

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## About this document:

This Final Modification Report will be presented to the Panel on 19 September 2013.

The Authority will consider the Panel's recommendation and decide whether or not either of these changes should be made.

	
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# 1 Summary

## Is this a Self-Governance Modification?

Ofgem decided that urgent procedures should be followed for Modification 0451, and these are not self-governance modifications.

## Why Change?

Under the current regime all SSPs are subject to RbD, and their allocation is determined by the EUC1 banding. Evidence submitted by Winchester Gas suggests that the profile of a pre-payment customer is flatter than that of a standard domestic credit meter (EUC1) customer which effectively results in an over allocation of gas during the winter period and under allocation of gas during the summer period for this sector of the market. The impact of the disparity in allocation of costs compared to the billed consumption has a detrimental financial impact on shippers with above average proportions of pre-payment customers in their portfolio, and especially smaller niche shippers that focus on this market sector.

## Solution

It is proposed that Xoserve develop, before the start of the 2013/14 gas year, an estimated profile for pre-payment meters using the pre-payment usage data submitted by Winchester Gas along with any other supporting data available from other shippers. Each month Xoserve would then calculate energy allocations based on this new profile, applying weather correction values. Prepayment sites would then be reconciled after month end based on the average SAP price for that month. All supply points with either a pre-payment meter or Smart meter operating in pre-payment mode, would be eligible to be billed to this new profile. It is intended that this solution will only apply until the UK Link Replacement is delivered.

## Relevant Objectives

Implementation would facilitate effective competition by improving cost allocations, which would be more reflective of the gas consumed by pre-payment customers. It would also reduce the financial risk that shippers, particularly some smaller niche shippers, are exposed to, thereby facilitating effective competition by removing a barrier to competition.

Modification 0451 proposes a retrospective adjustment to allocations, in order to correct a material and unanticipated impact, back to 01 October 2012. Modification 0451A excludes any retrospective adjustments. Retrospective changes are generally regarded as creating risk and uncertainty and hence, in most circumstances, as not facilitating effective competition.

## Implementation

The urgent timetable set by Ofgem envisages a decision being made by 1 October 2013. Implementation could be immediate following a direction to implement. Although Xoserve would not expect to be in a position to immediately apply revised allocations from 01 October 2013, subsequent adjustments could be applied with effect from the implementation date. In the case of 0451, a retrospective calculation back to 01 October 2012 would also be required.

## 2 Why Change?

There is evidence that pre-payment customers have a flatter profile than that of credit customers. Because pre-payment customers are currently allocated under the RbD regime (EUC1B), this can cause them to be over allocated in the winter and under allocated in the summer. The financial implications of this can be considerable, especially for smaller shippers who concentrate on the pre-payment market. Due to the flatter nature of the pre-payment profile a shipper may find that over the course of the year the under and over allocations cancel themselves out in volume terms. However, due to the variance of system buy and sell prices over the winter and summer months, a shipper can find themselves with a considerable financial deficit. Having a profile that disadvantages any supplier that wishes to concentrate on this area of the market is a barrier to competition.

## 3 Solution

It is proposed that any pre-payment meter or Smart meter, in pre-pay mode, be reconciled on a profile for each LDZ, or group of LDZs dependent on the Transporters' Agent, on behalf of the Transporters, (referred to as Xoserve in the remainder of these business rules) judgement of the most appropriate approach to aggregating the available data, derived for pre-payment meters rather than the current EUC1 profile which is based on the usage from a credit meter. Xoserve shall produce the pre-payment profile ahead of the gas year 2013/14 using the best data available to them at the time the profile is produced.

Detailed Business Rules:

### 1. Scope

1.1 - Any supply point that has a pre-payment or smart meter, in pre-pay mode, which is held on the Supply Point Register (SPR) to be reconciled to the alternative pre-payment profile.

1.2 – For the multi-metered supply points the aggregated AQ will need to be below and remain below the LSP threshold and all meters must be either be pre-payment or smart meters in pre-pay mode for the supply point to use the alternative profile.

1.3 - It is intended that this modification will be superseded by the UK Link Replacement and the UNC modifications related to this.

1.4 – Xoserve will take a snap shot of all meter points that are shown on the SPR as having a pre-payment or smart meter on the 15<sup>th</sup> of the month (or nearest practical business day) to identify the potentially eligible meter points.

1.5 – To identify the smart meters in pre-pay mode, each shipper may provide monthly, no earlier than the 16<sup>th</sup> of the month and no later than the 28<sup>th</sup> of the month, a list of meter points where they reasonably believe a smart meter was installed and operating in pre-pay mode on 15<sup>th</sup> of each month. This list will contain the MPRN. Any not in the Xoserve snapshot taken under 1.4 will not be eligible. If a list has been provided by any Shipper in one month and no list is received in the following month, Xoserve shall use the list provided by the Shipper in the previous month. For the avoidance of doubt, any MPRN included in a list provided by Shippers is expected to remain there for a whole year – reports will be submitted by Xoserve to the Authority to provide reassurance that Shippers are not electing meter points only at times when a credit is expected.

1.6 – Any smart meter not in pre-pay mode, or in pre-pay mode that is not provided in the report in 1.5, will remain subject to the EUC1 profile.

1.7 No subsequent amendments to the snapshot taken by Xoserve nor the information provided by Shippers will be accepted nor actioned – the initial eligible supply point identification will be sacrosanct and this is a one-off adjustment, never to be revisited.

### 2. Conditions for eligibility when the snap shot (1.4) is taken.

2.1 - Must be a SSP, with either a pre-payment or smart meter in pre-pay mode installed that is held on the Supply Point Register. The status of the smart meter will be determined by the monthly shipper report in 1.5.

2.2 - For the avoidance of doubt, it is proposed that this modification is applicable only to supply meter points on Large Transporter networks, i.e. excluding iGTs.

2.3 - The following events will automatically cause the meter point to revert to being subject to the EUC1 Profile:

- i. The meter is exchanged and a dumb credit meter is installed.
- ii. The smart meter is changed to credit mode.

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- iii. As part of an AQ review or appeal the supply point of which the meter point is part becomes an LSP.

### 3. Energy and Transportation Reconciliation

- 3.1 – The supply point remains in the SSP regime for all purposes except it will be subject to the new pre-payment profile rather than the EUC1 profile.
- 3.2 - Energy allocation on the day is unchanged – the supply point retains the same EUC and ALP. WAR bands do not apply.
- 3.3 - The supply points will be billed after month end on an unchanged basis.
- 3.4 - Each reconciliation billing period, for eligible supply points identified by Xoserve in accordance with paragraph 1, a subsequent credit or debit will be calculated as the difference between the energy and transportation commodity charges allocated (as in 3.2) and the energy and transportation commodity charges that Xoserve calculate would have been allocated based on the derived pre-payment profile, with appropriate adjustments made for weather. To derive values, energy will be multiplied by average SAP for the reconciliation billing period. Transportation charges will be based on the applicable charging statement for the reconciliation billing period.

### 4. Reconciliation by Difference

- 4.1 – The volumes and values under 3.4 are assigned to the annual reconciliation pot (E7.2.1 (b)) and therefore fall within RbD. The supply points within the ambit of RbD remain unchanged – i.e. sites eligible under paragraph 1 remain in RbD.

### 5. Threshold Crossers

- 5.1 – If due to any reason an eligible meter point crosses the threshold from an SSP and becomes an LSP after the 15<sup>th</sup> of the month it will continue to benefit from the alternative pre-payment profile until the end of the month in which the snapshot was taken,

### 6. Change of Shipper

- 6.1 – If a change of shipper occurs after the 15<sup>th</sup> of the month the losing shipper will continue to receive the invoice calculated in accordance with 3.4 until the month end based on the alternative pre-payment profile, after which the gaining shipper will then be reconciled going subject to the 3.4 mechanism going forward.

### 7. Charging

- 7.1– The User Pays approach applies for development and ongoing costs, with Shipper invoices based on market share of all SSPs on 15 September 2013 for development costs. A transactional basis is proposed for ongoing costs, with charges based on each Shipper's share of the number of meter points that are adjusted each month.

### 8. Retrospection (not applicable to 0451A)

- 8.1 – During October 2013 Xoserve will run the snap shot report in 1.4 historically for the period 1<sup>st</sup> October 2012 to 30<sup>th</sup> September 2013 to identify those sites eligible for the alternative pre-payment profile as per the conditions in paragraph 2. The shippers will also run the report in 1.5 for the same period so that the smart meters in pre-payment mode can be identified. A shipper will need to of provided this report by the 31<sup>st</sup> October 2013 for the supply points to be re-billed. Xoserve will calculate the difference between the energy and transportation commodity charges allocated and the energy and transportation commodity charges that would have been allocated based on the derived pre-payment profile, with appropriate adjustments made for weather for the period 1<sup>st</sup> October 2012 to 30<sup>th</sup> September 2013. A subsequent credit or debit will then be issued to each shipper.

## User Pays

Classification of the modification as User Pays, or not, and the justification for such classification.

Classification as user pays due to the change that would be required within Xoserve's systems

Identification of Users of the service, the proposed split of the recovery between Gas Transporters and Users for User Pays costs and the justification for such view.

100% cost to users

Proposed charge(s) for application of User Pays charges to Shippers.

All shippers based on their SSP market share on 15 September 2013 for development costs A transactional basis is proposed for ongoing costs, with charges based on each Shipper's share of the number of meter points that are adjusted each month.

Proposed charge for inclusion in the Agency Charging Statement (ACS) – to be completed upon receipt of a cost estimate from Xoserve.

Xoserve development costs are expected to be in the range of £300k to £500k. Ongoing costs are expected to be under £20k per month.

## 4 Relevant Objectives

Impact of the modification on the <b>Relevant Objectives</b> :	
Relevant Objective	Identified impact
a) Efficient and economic operation of the pipe-line system.	None
b) Coordinated, efficient and economic operation of (i) the combined pipe-line system, and/ or (ii) the pipe-line system of one or more other relevant gas transporters.	None
c) Efficient discharge of the licensee's obligations.	None
d) Securing of effective competition: (i) between relevant shippers; (ii) between relevant suppliers; and/or (iii) between DN operators (who have entered into transportation arrangements with other relevant gas transporters) and relevant shippers.	Impacted
e) Provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security standards... are satisfied as respects the availability of gas to their domestic customers.	None
f) Promotion of efficiency in the implementation and administration of the Code.	None
g) Compliance with the Regulation and any relevant legally binding decisions of the European Commission and/or the Agency for the Co-operation of Energy Regulators.	None

### d) Securing of effective competition:

Accurate cost allocations are a fundamental underpinning of a competitive market. Implementation would allocate transportation and energy costs differently, with some Workgroup attendees believing this would more accurately allocate costs by better recognising the true usage pattern of PPMs over the year (Xoserve has produced a profile based on the data it has available to date to show the potential impact of implementation, see Appendix 1 below). Others noted that energy allocation is not reflective of consumption in the SSP market but reflects an averaging of costs. Within this it is possible to identify various groups who may be regarded as over or under allocated, and cherry picking one group is not demonstrably an improvement in allocations. There were also concerns that the proposed approach created a risk since there are no performance assurance steps beyond reporting to protect the wider industry from how eligible supply points are nominated (which Shippers control for smart meters and could potentially elect in and out depending on whether credits or debits are anticipated), or identified (the Pre-Payment (meter type) flag in Xoserve's systems is not currently a billable item and so not necessarily actively monitored).

More cost reflective reconciliation of pre-payment metered customers is especially important for any smaller supplier that would want to focus on this sector of the market. Rejection of this modification could have a detrimental effect on competition as it could put smaller suppliers focussing on this market in a position they cannot sustain, creating risk and uncertainty as the financial impact is volatile and unpredictable.

Implementation of either modification could therefore remove a barrier to entry, and continued market presence, and so facilitate the securing of effective competition. However, some Workgroup attendees felt that any supplier adopting this (or indeed any other) market strategy should have done so with knowledge of the market rules as set out in the UNC and should be able to accurately reflect the costs incurred in their tariffs. As such, any benefit to competition from implementation would not be material, and a retrospective element in particular would not be justified.

Parties held differing views on the merits of a retrospective adjustment, and Modification 0451A was specifically raised to exclude any retrospective adjustments. The prospect of retrospective changes to cost allocations creates uncertainty and risk, and any retrospective change is generally regarded as being damaging to the securing of effective competition. Retrospective changes undermine decisions taken in the past and there is no clear mechanism for any adjustment to be fed back to customers. Implementation of Modification 0451, which includes retrospective cost allocation adjustments with effect from 01 October 2012, could be regarded as creating windfall gains/losses for Shippers. However, retrospective adjustments can be justified, for example if it can be demonstrated that a manifest error has occurred and created an unintended and material impact that should be reversed. , Modification 0451 seeks retrospective repayment of amounts that the Proposer believes have been unexpectedly over charged over the previous year, with the impact of the identified inaccuracies being focussed unfairly towards the PPM sector. The impact seen by Winchester Gas was markedly different from October 2012, such that they could not have reasonably predicted and allowed for the high level of cost incurred. As such, the Proposer believes there is a case that the retrospective element in Modification 0451 is not detrimental to the securing of effective competition. Other than the Proposer, no Workgroup attendee supported the retrospective element of Modification 0451, believing that implementation would be inappropriate and inconsistent with the securing of effective competition.

## 5 Implementation

The urgent timetable set by Ofgem envisages a decision being made by 1 October 2013. Implementation could be immediate following a direction to implement. Although Xoserve would not expect to be in a position to immediately apply revised allocations from 01 October 2013, subsequent adjustments could be applied with effect from the implementation date. In the case of 0451, a retrospective calculation back to 01 October 2012 would also be required.

## 6 Legal Text

Northern Gas Networks informed the Modification Panel that legal text had not been finalised for the Modifications and that the lawyers concerned had indicated that completion would be difficult since the modifications do not clearly articulate the solution that is required.

## 7 Consultation Responses

Representations were received from the following parties:

Company/Organisation Name	Support Implementation or not?		Stated Preference
	O451	O451A	
British Gas	Not in Support	Not in Support	O451A
EDF Energy	Not in Support	Not in Support	
E.ON UK	Not in Support	Qualified Support	O451A
Opus Energy	Not in Support	Neutral	O451A
RWE npower	Not in Support	Not in Support	O451A
Scottish Power	Not in Support	Not in Support	O451A
SSE	Not in Support	Not in Support	O451A
Winchester Gas	Supports	Not in Support	O451

### O451

Of the 8 representations received 1 supported implementation and 7 were not in support.

### O451A

Of the 8 representations received 1 offered qualified support, 1 party remained neutral and 6 were not in support.

Of the 8 representations received 1 expressed a preference for **O451**

Of the 8 representations received 6 expressed a preference for **O451A**.

### Summary Comments

British Gas support the principle of accurate cost allocation but were not able to support either modification, as they do not believe either will improve cost allocation. They particularly highlight; that no evidence had been provided to demonstrate the offline reconciliation will improve the energy/cost allocation; that the allocation of cost will not be based on a site's read history and the new Xoserve deeming allocation profile was not available for review. They also expressed concerns regarding; the validation of the prepayment flag; that the profile will be based on a small sample of customers within a single LDZ and how the smear for unidentified gas will be picked up by the SSP credit meter market, appearing to deteriorate the allocation of energy within the credit meter market, to the detriment of competition. British Gas further express concerns about by-passing the role of the Demand Estimation Sub-Committee, which is responsible for developing and revising EUCs and associated demand models, and that the retrospective element applicable to Modification O451 presents a risk to Shippers by re-opening a closed settlement period.

EDF Energy did not support either modification because they believe the evidence provided is not robust enough to justify the adoption of new profiles for all pre-payment meters and that the cost of these modifications would outweigh the perceived short-term benefit, which would become redundant once Project Nexus is implemented. They also express concern surrounding the pre-payment flag and its scrutiny/accuracy.

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E.ON question the limited evidence used to justify changes to all pre-payment meters but nevertheless recognised, if there was sufficient evidence to support the claim of an imbalance in the allocation of energy, the modifications create a simple mechanism to adjust the allocation until new arrangements are introduced by Project Nexus. E.ON also express concerns about the retrospective elements in Modification 0451 - they believe this is not appropriate and does not facilitate effective competition if other suppliers have to bear the burden of retrospective cost applications, and highlight that it is unclear how customers would benefit from such retrospective application and that implementation may simply create a windfall for suppliers.

Opus Energy understand the basic principle that pre-payment customers may have a slightly different profile but do not believe the analysis is robust enough to support a change, with very little evidence that the benefits would outweigh the costs before Project Nexus is implemented. They also raise concerns about retrospection and how this could create windfall gains and losses.

RWE npower raise issues about the sample size to drive a change and that there is no evidence to suggest that this modification would benefit customers.

Scottish Power raise concerns about the sample size and engagement of the Demand Estimation Sub-Committee. They believe Implementing this modification would result in a cross-subsidy being introduced between customers within the SSP market sector. They do not support the retrospection element in Modification 0451.

SSE also question the sample size, and the period in which it was taken, and the validation of the prepayment flag. They recognise that the SSP profile may not necessarily fit exactly a particular type of customer but is an amalgamation of type of customers and targeting a specific sector will have risks. Recognising supply is a commercial decision with inherent risks, they believe it is not appropriate to raise a retrospective modification against losses incurred. They also question the costs against the short-term benefit.

## 8 Panel Discussions

The Panel Chair summarised that Modifications 0451 and 0451A seek to introduce a supplemental NDM allocation process. After completion of the standard processes as set out in the UNC, sites with a pre-payment meter would be subject to a further adjustment with the change being based on an assumed profile of consumption by pre-payment customers. The proposer of Modification 0451 has provided evidence to Xoserve and Ofgem supporting their view that, relative to credit meter customers, pre-payment customers tend to consume less gas in winter and more in summer. The modification seeks to ensure that these sites are subject to an allocation that is in line with this flatter profile. By doing this, costs for supplying pre-payment customers would be lower in winter and higher in summer, with a net cost reduction anticipated. This would be funded by an equal and opposite change in costs allocated to others. Modification 0451A proposes that this arrangement would apply prospectively while Modification 0451 includes a retrospective element backdated to be effective from October 2012. Members also noted that legal text had not been finalised for the Modifications and that the lawyers had indicated that completion would be difficult since the modifications do not clearly articulate the solution that is required.

Members recognised that the intention of the modification is to deliver more accurate cost allocations for a particular market segment, and acknowledged that appropriate (cost reflective) allocations are a fundamental underpinning of a competitive market. However, Members did not consider evidence had been provided to make a sufficient case that change is justified for pre-payment customers, with the evidence falling short of the statistical standards expected for other aspects of the allocation process. In addition, Members noted that the proposed means of identifying pre-payment metered sites is not robust, being based on a flag in Xoserve's systems which is not used for any billing or allocation purposes, and which is not subject to scrutiny nor validation. As such, the cost reflectivity and associated benefits of the proposed change may not be commensurate with any evidence presented from a sample of pre-payment customers.

Members similarly did not feel that sufficient evidence had been provided to demonstrate that any benefit from implementing the modification would be likely to outweigh Xoserve's projected implementation costs of £300k to £500k, especially since the benefits are only expected to accrue until delivery of the planned UK Link replacement. Members did not, therefore, consider that implementation could be expected to facilitate the relevant objective of securing effective competition.

Regarding the retrospective element proposed in Modification 0451, Members considered that any retrospective modifications create uncertainty and risk and hence are damaging to the securing of effective competition. Members did not feel that compelling evidence had been provided to suggest that there were grounds for a retrospective adjustment in the case of Modification 0451 and, as such, there were no grounds for believing implementation of this element would facilitate the relevant objectives.

Members then voted and, with no votes in favour, failed to determine to recommend that Modification 0451 be implemented. With no votes in favour, Members also failed to determine to recommend that Modification 0451A be implemented.

Members then considered which of Modification 0451 and 0451A would, if one were to be implemented, better facilitate the achievement of the Relevant Objectives. In light of the absence of the retrospective element, Members voted unanimously that, of the two modifications, Modification 0451A would be expected to better facilitate achievement of the relevant objectives.

## 9 Recommendation

### Panel Recommendation

Having considered Modification Report 0451, the Panel recommends:

- that proposed Modification 0451 should not be made;
- that proposed Modification 0451A should not be made; and
- that proposed Modification 0451A would better facilitate the Relevant Objectives than proposed Modification 0451.

## 10 Appendix 1: Initial Xoserve Analysis

The analysis provided by Xoserve, showing variations in consumption between PPM and credit meters, is reproduced below.

## Pre Payment Meters – Updated Analysis – 2009 to 2012 data - SO

### **Nature of the Analysis**

Daily consumption data was provided by one Shipper for one LDZ. We are advised that all meter points (“MSNs”) in this data set are fitted with Smart meters and are operating in prepayment mode. However the data provided was anonymous (i.e. did not include live Meter Point References) and Xoserve is unable to check the status or ownership of the Meter Points.

The data was subjected to the same analysis process as the data from the Xoserve NDM Sample, which is used to determine the NDM Algorithms each year. The outputs of that process include the “Annual Load Profile” (ALP) which is a daily value used in Demand Estimation. The value represents the daily proportion of energy consumed under seasonal normal conditions compared to average daily consumption: a value greater than 1 represents more than the daily average; and a value lower than 1 represents below average consumption.

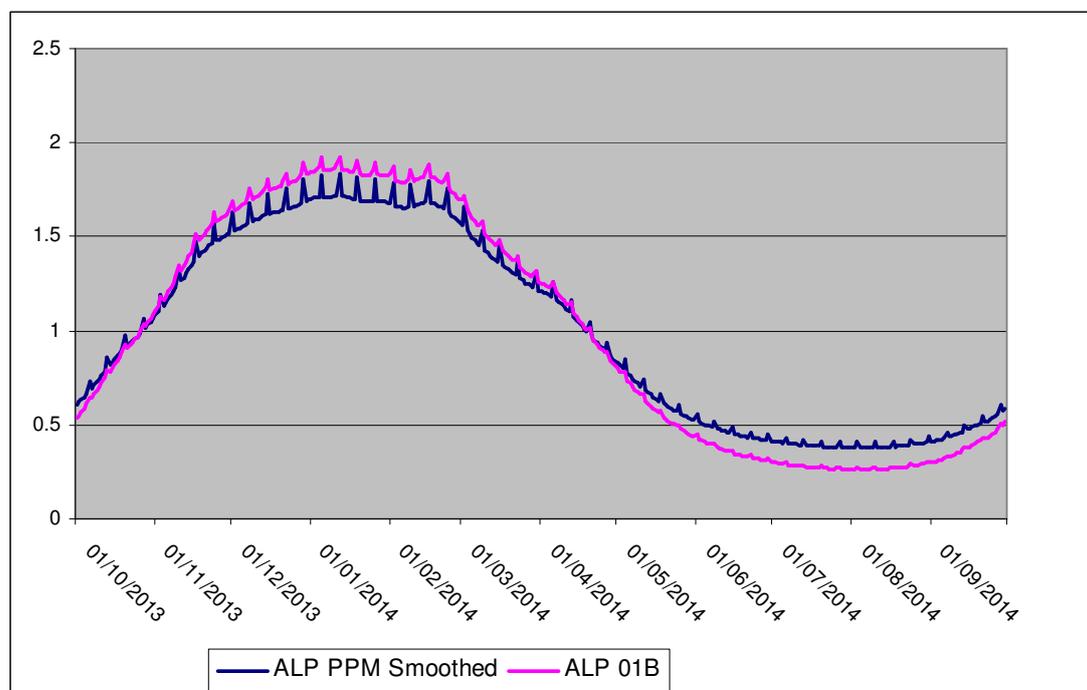
The source data is for the gas years 2009/10, 2010/11 and 2011/12 for SO LDZ only. Prior to the analysis, the data was subjected to the same validation tests as for the NDM Sample data, to ensure that no erroneous data was used. After applying validation to the dataset provided, up to 451 MSNs were eligible to be used in the analysis (71 for 2009/10; 415 for 2010/11 and 332 for 2011/12).

The data was analysed to calculate a relationship to the relevant weather for each year, and the regression parameters were averaged to provide a smoothed model, in line with normal NDM modelling processes. This was then used to determine a “PPM ALP” for 2013/14 under seasonal normal conditions, which could be compared to the proposed EUC1 ALP for SO LDZ, to identify any difference in patterns.

### **Results – all MSNs**

Below is a graph showing the proposed EUC1 ALP for the coming year (2013-2014), for LDZ SO, EUC01, compared to the calculated ALP for PPM, for LDZ SO.

The PPM AQs in this dataset varied between 1,611kwh and 23,299kwh.



## Pre Payment Meters – Updated Analysis – 2009 to 2012 data - SO

### **Analysis by Consumption Band**

Earlier analysis was carried out on the 2009/10 data only by splitting the dataset into the following ranges: AQ between 0 – 10,000kwh and 10-20,000 kWh. That analysis identified that the general trends in both sectors were consistent with the overall profile, but that the weekend effects were slightly more marked in the 0 – 10,000 kWh dataset.

That analysis has not been repeated for subsequent years, as the intention is to develop a single profile for all PPM meters for simplicity and not to sub-divide any calculations.

### **Comparison to 01B Profile**

Below is a table displaying the ALP values at both the peak and trough points within the gas year for SO LDZ.

	<b>12/01/2014</b>	<b>30/07/2014</b>
ALP PPM Smoothed	1.8340184	0.380638406
ALP 01B	1.926613	0.263989
Difference	<b>-5%</b>	<b>44%</b>