

ASSESSMENT REPORT for Modification Proposal P223 'Profile Administrator Service'

Prepared by: P223 Modification Group

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Proposed Modification P223 seeks to improve the accuracy of the profiles used to settle Non Half Hourly (NHH) consumption, by ensuring that a random and representative sample of customers is created and maintained. To resolve existing difficulties experienced by the Profile Administrator (PrA) in identifying and recruiting the appropriate customers to achieve such a sample, P223 proposes to make Suppliers responsible for annually recruiting new customers to address any shortfall or deficiency in the profiling sample. Suppliers will also be responsible for replacing these customers' existing NHH Settlement meters with Half Hourly (HH) capable meters, so that HH consumption data can be collected for profiling alongside the normal NHH data used in Settlement. Upon a Change of Supplier (CoS), the New Supplier is required to either retain the existing customer in the sample or to nominate a replacement customer. The PrA is responsible for identifying that a CoS has occurred and will contact the New Supplier.

Suppliers have the choice to either use their own Party Agents to provide/install the necessary meters and collect the HH data (in which case they will be reimbursed for these costs), or to use the PrA's nominated agents free of charge for these services as well as normal NHH data collection.

Alternative Modification P223 is identical to the Proposed Modification except that, where a CoS occurs, no action is taken to retain the customer and the customer is lost from the profiling sample. The resulting shortfall in sample numbers is then taken into account in the following year's annual recruitment exercise, when a replacement customer will be recruited.

MODIFICATION GROUP'S RECOMMENDATIONS

The P223 Modification Group invites the Panel to:

- **AGREE** a provisional recommendation that Proposed Modification P223 **should not** be made;
- **AGREE** a provisional recommendation that Alternative Modification P223 **should** be made;
- **AGREE** a provisional Implementation Date for both the Proposed/Alternative Modifications of:
 - **1 December 2009** if an Authority decision is received on or before 27 November 2008; or
 - **1 April 2010** if an Authority decision is received after 27 November 2008 but on or before 5 March 2009;
- **AGREE** the draft legal text for Proposed Modification P223;
- **AGREE** the draft legal text for Alternative Modification P223;
- **AGREE** that Modification Proposal P223 should be submitted to the Report Phase; and
- **AGREE** that the draft Modification Report will be issued for consultation and submitted for consideration at the Panel's meeting on 11 September 2008.

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1 HIGH LEVEL SUMMARY

Background

P223 has been raised by the BSC Panel (on the recommendation of BSCCo¹), following Issue 29 'Profile Administration (PrA) Model', to address issues with the current Profile Administration process which have led to a deterioration in profiling accuracy in Settlement.

High Level Analysis

Objective:

- To increase the accuracy and quality of the profiling data used in Settlement by ensuring that a random and representative sample of customers (needed to produce profiling data) can be created and maintained.

Strategy:

- To place responsibility on Suppliers to provide suitable customers so that a random and representative load research sample can be maintained and to collect the required consumption data from these customers.

Method:

- Use Modification Group meetings to develop solutions to the proposals in P223 and to identify and troubleshoot any critical areas and any potential problems in the solution;
- Issue a consultation to elicit views from the industry;
- Issue an impact assessment to identify the P223 implementation costs and lead times to the industry;
- Undertake modelling to quantify the potential benefits of improved P223 profiling accuracy to Suppliers, as well as any central efficiency savings to the PrA and ELEXON (the 'cost-benefit analysis');
- Provide a report to the Panel on the findings of the Modification Group as to whether P223 (Proposed and Alternative Modifications) better facilitates the achievement of Applicable BSC Objectives; and
- Put finalised obligations in the Balancing and Settlement Code (BSC) and Code Subsidiary Documents (CSDs) subject to P223 being recommended by the Modification Group and Panel, and approved by the Authority.

Impacts

Industry:

- Suppliers;
- The PrA;
- Non Half Hourly Data Collectors (NHHDCs);
- Meter Asset Providers (MAPs);
- Meter Operator Agents (MOAs); and
- BSCCo.

**Non Half Hourly Data Aggregators (NHHDA) are not directly impacted but may wish to read Sections 7.6 – 7.11 of this document.*

¹ The Balancing and Settlement Code Company (ELEXON).
Version Number: 2.0

Documentation:

- Section S of the BSC;
- BSC Procedures (BSCPs) 504, 510 and 514; and
- The PrA's Service Description.

Further detail can be found in Appendix 4.

Costs (rounded figures – more precise estimates can be found in Section 3)**Central implementation costs:**

- BSCCo: £20-30k (Proposed and Alternative Modifications)
- PrA: £5-10k (Proposed and Alternative Modifications)

Operational Costs (per year):

- BSCCo: £5k (Proposed and Alternative Modifications)
- PrA: £20-100k (Proposed Modification) to £45-200k (Alternative Modification) – representing 'worst case scenario' costs of replacing customers lost on a Change of Supplier (CoS), increasing year on year as the proportion of the sample recruited under the P223 process becomes larger.

Supplier/Supplier Agent implementation costs:

Costs provided in the impact assessment ranged from minimal costs for some Suppliers/agents, to £350k for one large Supplier. Further information can be found in Section 3.

Modification Group's identified Benefits and Drawbacks under Applicable BSC Objectives (c) and/or (d)

(Summary of the arguments in Section 6. The views contained below were not shared by all members)

Benefits:

- The current process is untenable in the long term and could lead to further deterioration in profiling accuracy. Short term measures will not address the issues with the PrA process;
- No obvious alternatives to P223 approach identified in previous Standing Issue/Supplier Volume Allocation Group discussions;
- Suppliers able to recruit more representative sample than PrA, as Suppliers have a larger 'pool' of customers from which to target appropriate customers (therefore more efficient process);
- Not believed to be onerous on Suppliers as only a small proportion of Suppliers' customers would be recruited;
- P223 process more efficient due to use of single meter (resolving most space issues) and use of Supplier Agents to provide consumption data to PrA;
- Recruitment/space benefits will be seen immediately;

Drawbacks:

- Effort and cost required by Suppliers/Supplier Agents to implement and operate P223 arrangements. P223 process is more efficient for PrA but not necessarily for Suppliers/Agents;
- Not proven that Suppliers will be more successful than PrA in recruiting customers/installing meters, therefore benefits of improved profile accuracy (e.g. reduction in potential imbalance exposure) may not be obtained;
- Suppliers still likely to encounter resistance from customers to meter replacement – some Suppliers may choose to offer financial incentives to overcome access issues (though not a P223 requirement);
- The need to retain/replace customers under the Proposed Modification on CoS

<ul style="list-style-type: none"> • More representative sample will lead to improvement in profiling accuracy; • Improved accuracy gives reduction in volatility in Grid Supply Point (GSP) Group Correction Factors; • Enables Suppliers to forecast their market imbalance positions more accurately; • Resulting reduction in Suppliers' potential imbalance exposure/risk; • Reduced imbalance risk may have greatest benefit for small niche Suppliers who are less able to absorb volatility; • Natural incentive on Suppliers to support P223 as impacted by inaccurate profiles; • P223 costs are less than financial effects of inaccurate profiles; • Compatible with future national smart metering roll-out, as utilises Half Hourly capable meters and profiles will still be needed as long most domestic customers consumption continues to be settled on a Non Half Hourly basis; • Facilitates other types of potential sampling in the future – e.g. for Export metering; • Proposed Modification enables retention of customers on CoS, minimising customer churn (more efficient); • Alternative Modification more pragmatic in that avoids costs/complexity to Suppliers of retaining/replacing customers on CoS. • The Group acknowledges that the current profiles are inaccurate and strongly supports the principle of achieving accurate profiling through the establishment of a random representative sample. 	<p>is an overly complex and inefficient process which will have effort and cost implications for Suppliers. Potential increase in central costs under the Alternative Modification, due to higher numbers of customers being lost on a CoS and thereby higher numbers of replacement customers being recruited;</p> <ul style="list-style-type: none"> • Any benefits of improved profiling accuracy won't materialise until 2 years after implementation, as customers first need to be recruited and a year's worth of data collected; • Putting obligations on Suppliers is not the best solution to the current inaccurate profiles, as it is just moving the issues elsewhere.
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Quantifiable benefits (summary of full cost-benefit analysis in Section 4)

Total Potential Supplier Benefit (first year of implementation)

£2.3m – £12.1m

These benefits are for all Suppliers across all GSP Groups, and arise through an improvement in profiling accuracy leading to less volatility in GSP Group Correction Factors and thereby less potential exposure to imbalance costs. The benefit to individual Suppliers depends on their Market Share and the forecasting capability of the Supplier.

Central Cost Savings to PrA/BSCCo (per year):

£20k

These represent short-term savings. In the longer term the savings may be greater as the proportion of 'old' customers in the sample reduces, and following the repurchase of the PrA service in 2009/2010.

Implementation approach

The Modification Group recommends the following Implementation Dates:

- **1 December 2009** if P223 is approved by 27 November 2008. Draft redlined BSCP changes would be available in February 2009 and finalised in March 2009. The first P223 customer recruitment requests would be sent to Suppliers in January 2010.
- **1 April 2010** if P223 is approved after 27 November 2008 but by 5 March 2009. Draft redlined BSCP changes would be available 9 months before implementation, and the first P223 customer recruitment requests would be sent to Suppliers in January 2011.

It is proposed that both dates are provided to Ofgem, although the Group's preference is for the 1 December 2009 date as this allows earlier realisation of any benefits.

Further detail can be found in Section 3.

Modification Group's Final Recommendation

The final views of the Modification Group are:

- A **minority** view that the Proposed Modification is better than the current arrangements;
- A **unanimous** view that the Alternative Modification is better than the current arrangements; and
- A **unanimous** view that the Alternative Modification is better than the Proposed Modification.

The Group's unanimous recommendation is that **P223 Alternative Modification SHOULD be made.**

2 BACKGROUND

Issues with the profiling service have been recognised by the industry for a number of years and have been the subject of discussions at several Supplier Volume Allocation Group (SVG) meetings, resulting in two Standing Issues (Issue 21 and 29) being debated by industry expert groups.

The identified issues with the Profile Administration process focus mainly on concerns over data collection equipment and sample recruitment. It is believed that these issues have historically led to dwindling sample sizes, and consequently degradation in the data accuracy of load research samples, as the Profile Administrator (PrA) is unable to target the appropriate type and number of customers to achieve the required sample.

Issue 21 'Scope of Profiling Administration Service' discussed these issues in late 2005/early 2006. Under Issue 21, the Volume Allocation Standing Modification Group (VASMg) examined the ability of the PrA to meet the service obligations set out in the Balancing and Settlement Code ('the Code'). The VASMg concluded that a Modification Proposal was not required; since there were a number of measures which it believed could be taken to strengthen the processes in the short term without requiring a change to the scope of the PrA Service (Reference 9). However, the short term measures to boost sample size have led to the sample being an increasingly less random representative sample of customers' different consumption patterns, leading to diminished confidence in the accuracy of the resulting profiles.

In July 2007, BSCCo presented a paper to the SVG highlighting further PrA Service issues (Reference 8). The SVG considered the issues presented and recommended to the BSC Panel ('the Panel') that a Standing Issue should be raised to address the documented concerns. At its meeting on 23 August 2007 the Panel agreed with the SVG recommendation and raised Issue 29 'Profile Administration Model'. The VASMg, who considered Issue 29, were asked to consider a new 'straw man' model of the PrA service to resolve the concerns raised.

Issue 29 discussions led to the VASMg concluding that a modification should be raised to implement the alternative profiling recruitment/data collection process developed by the Group (the Issue 29 'straw man'). The Panel duly raised P223 on 10 April 2008, on the recommendation of BSCCo, seeking to implement the 'straw man' solution developed by the Issue 29 Group.

What is a profile? Why do we need profiling?

A 'Profile/ Load Profile' is a broad term that refers to the pattern of electricity usage of a segment of supply market customers. These profiles represent the Half Hourly (HH) pattern of usage across the day and the pattern across the year for the average customer in each of eight groups known as Profile Classes. Put simply, a Profile Class is a generic representation of large populations of similar customer usage patterns.

Since Privatisation of the electricity market in 1990 and opening of the Non Half Hourly market to competition in the late nineties, electricity is traded between Suppliers and generators on a HH basis. This would mean that meter readings would need to be taken every half hour. However, most small customers (less than 100 kW Maximum Demand) only have their meters read monthly or quarterly, on a 'Non Half Hourly' (NHH) basis.

Since the cost of installing meters that can provide HH data is expensive, it was decided at Privatisation that these NHH customers should have their consumption divided into HH periods using profiling data. As long as this NHH side of the market exists, there will always be a need for profiles, even if there were to be a nationwide rollout of smart meters². The load profiles allow meter advances calculated from monthly/quarterly meter readings to be allocated to the half-hourly periods over which the meter readings were taken.

Does it matter if these profiles are not accurate?

Put simply, yes it does. As outlined above, the HH consumption of domestic customers and the majority of non-domestic customers are estimated using load profiling. This sample is designed to be representative of the types of customer in each Profile Class and the required numbers in the sample are derived from a statistical calculation broken down by Profile Class, customer type and customer consumption. This technique is reliant on the analysis of historic consumption patterns of a representative sample of customers. As with any statistical technique, in order for it to provide an accurate estimate, the underlying sample data must be representative of its customer type and consumption level (represented under the BSC by its Profile Class).

Failure to maintain a representative sample leads to deterioration in the quality of the load profiles, and this in turn leads to the NHH data used in Settlement becoming less and less reflective of actual average consumption patterns. If the number of customers in the sample decreases, and/or the sample of customers becomes less random and representative, this impacts confidence that the resultant profiles accurately reflect an average customer's consumption in a Profile Class. Settlement addresses any errors through the use of the Grid Supply Point (GSP) Group Correction Factor.³ Faced with deteriorating profile data, this factor becomes more volatile and Suppliers find it increasingly difficult to predict the physical position that they will be attributed in Settlement. Due to the dwindling sample sizes over the past few years this confidence has decreased, to such an extent that the SVG agreed that the profiles for use in Settlement for April 2008 to end of March 2009 should reuse the Settlement profiles from the previous year.⁴

Profiles which do not accurately reflect the average daily shape in a Profile Class could lead to large and potentially unpredictable variances in GSP Group Correction Factors. This could impact both large and small Suppliers by exposing them to imbalance if they are not able to predict this variance. Inaccurate profiles are likely to have the biggest impact on small niche Suppliers, since such Suppliers are more likely to only be active in one particular Profile Class.

Who is the PrA?

The Profile Administrator (PrA) is the BSC Agent responsible for the production of load profiles that are used in the Settlement of NHH consumption. These profiles are based on HH data obtained for a sample of domestic and non-domestic NHH customers. The PrA is currently required to recruit customers to the sample and collect the resulting data.

What is the current PrA process like?

Section S4.2.1 of the Code requires the PrA to create and maintain a load research sample using customer data provided by Suppliers, and to carry out a programme of load research to collect HH demand data from customers.

² A smart meter is a type of advanced meter (usually an electrical meter) that identifies consumption in more detail than a conventional meter. In some instances such a meter can communicate information via a network to the Supplier/Supplier Agent for monitoring and/or customer billing.

³ GSP Group Correction Factor is a factor that adjusts correctable energy so that the total energy is equal to the GSP Group Take (e.g. it corrects errors such as Large Estimated Annual Consumption (EAC) / Annualised Advance (AA) values and errors with Profiling).

⁴ See Panel Paper [137/01b](#).

A summary of the current processes which support these obligations is provided below:

- a) Each Supplier Meter Registration Agent (SMRA) provides BSCCo with a report containing all Metering Systems Identifiers (MSIDs) registered by a Supplier in each GSP Group. This report is received twice annually relating to Settlement Days 15 January and 15 July.
- b) BSCCo produces a separate report to the PrA containing all NHH MSIDs registered by each Supplier. The PrA uses this information to ensure that there are a sufficient number of customers in the profiling sample and to maintain an up-to-date list of these customers.
- c) The PrA keeps Suppliers informed of all MSIDs belonging to them which are currently participating in the profiling sample. The Supplier is then responsible for maintaining a record of all of their MSIDs participating in the profiling sample, and for advising the PrA of any changes to the status of the respective MSIDs.
- d) Where requested by the PrA, Suppliers provide (via BSCCo) information relevant to sampling requirements such as address of the customer, confirmation of the Profile Class ID and Standard Settlement Class (SSC) ID, as well as customer contact details.
- e) The PrA is responsible for recruiting customers to the sample. The PrA identifies those customers who are appropriate candidates for participation in the profiling sample, and contacts these customers directly to attempt to recruit them to the sample. Where a customer agrees to participate, that customer is required to enter into specific terms and conditions with the PrA.
- f) For all recruited customers the PrA is responsible for arranging the installation of a 'secondary' HH capable meter to collect HH consumption data for profiling purposes. Normal NHH consumption data continues to be separately collected through the usual Settlement meter by the Supplier's own agents.
- g) Where a Change of Supplier (CoS) occurs, the Old Supplier informs the PrA that it is no longer the Supplier for the applicable MSID. The PrA then contacts the customer to obtain the New Supplier details, so that the New Supplier can be informed that the respective MSID is part of the profiling sample.

Under the existing process, the PrA therefore has responsibility for the direct recruitment of, and subsequent relationship with, each profiling sample participant. Further details on the current PrA process can be found in BSCP510 'The Provision of Sampling Data to the Profile Administrator' (Reference 5).

Due to the difficulties experienced by the PrA in directly recruiting customers, P223 proposes that Suppliers should instead be responsible for recruiting customers to the sample and for collecting the resulting data.

What are the current problems faced by the PrA?

The table below shows the decrease, over the last 4 complete data years, in the number of customers from whom profiling data is successfully collected, and the data collection target for 2007/08.

Profile Class	Actual 2003/04	Actual 2004/05	Actual 2005/06	Actual 2006/07	Target 2007/08
1	518	448	406	343	500
2	415	353	355	285	450
3	245	279	232	156	300
4	209	217	188	132	250
5	125	134	116	73	180
6	75	88	71	36	100
7	81	83	75	42	100
8	144	149	130	70	180
Total	1812	1751	1573	1137	2060

Note that the actual 2007/08 target sample size (2,500) is set higher than the data collection target (2,060) to take account of natural attrition in the sample (approx. 7.5% per year) and difficulties in collecting data (e.g. faulty secondary metering).

The PrA is subject to financial penalties for any shortfall in the actual sample size and/or amount of data collected in comparison with its targets. These penalties are levied per customer by which the sample size/data collection is short, and increase on a sliding scale such that they become higher the greater the number of missing customers/sets of data.

Detailed below are some of the difficulties experienced by the PrA in recruiting customers to the profiling sample. It is believed that these issues result from the PrA's lack of an existing relationship with customers.

- Data protection issues when approaching Suppliers for customer contact information –**
 Under the current process, the PrA approaches the Supplier with a list of MSIDs to obtain information about the customer's details (e.g. billing address, type of meter and consumption estimates). Some Suppliers have declined to provide such information based on concerns regarding data protection and the supply of information to 'third party' agents. This creates difficulties for the PrA in identifying suitable customers for the PrA sample. *P223 intends to overcome this as the Supplier has the option to enlist the services of its own agents, or to appoint the PrA's nominated agents. Consequently, there will be no provision of any information to third parties who are not the appointed Supplier Agents for the customer.*
- Inability to 'cold call' customers who are registered with the Telephone Preference Service (TPS) -** The TPS is the central opt-out register on which a customer can record a preference not to receive unsolicited sales and marketing telephone calls. There is a legal requirement that no organisations make such calls to numbers registered on the TPS unless they have consent to do so. The PrA has no prior relationship with the customer and is largely reliant on cold calling in order to recruit customers to the sample. With the introduction of TPS, the PrA has been unable to contact an increasing proportion of potential Sample Participants. *P223 intends to overcome this by placing an obligation on Suppliers to provide customers to the PrA sample. Suppliers can take advantage of the existing Supplier-customer relationship, as opposed to the PrA creating a customer relationship from scratch. Customers will feel less threatened when dealing with their own Supplier, as opposed to the PrA which they may not know about.*

- Unwillingness of customers to participate in the sample and/or sign up to the PrA's Terms and Conditions** - As part of the PrA installing a secondary HH meter, customers are required to sign up to Terms and Conditions. Significant numbers are reluctant to sign these and do not always state their reasons. One issue highlighted by customers is the liability of £100k for any damage to the domestic Sample Participant's property. Some customers feel that the £100k offered is not reflective of current property prices. *P223 intends to overcome this, as the customer will not be required to sign up to any Terms and Conditions with the PrA. Instead of a secondary meter, a single meter solution is used where the customer's Supplier will provide both profiling and Settlement data from this single meter.*
- Lack of space at customer premises for secondary metering equipment** – Not all customer premises have space to install the secondary meter, with a result that a large number of potential Sample Participants cannot be used. *P223 intends to overcome this by providing a single metering solution (to record both HH data for profiling and NHH data for Settlement), as opposed to the current 2-part metering solution.*
- Lack of Global System for Mobile communication (GSM) signal at customer premises** - some potential Sample Participants who have been contacted by the PrA do not have a sufficient GSM signal in order for data to be collected remotely, and as a result cannot be used in the sample. The PrA can fit high-gain aerials in some instances, but cannot undertake any work that significantly affects the Sample Participant's property. *Although P223 cannot offer any improvements in this area, the Supplier can provide a replacement customer from its portfolio who has adequate GSM signal, where applicable. Under the current process, the PrA would have to start the process of cold calling again to replace such a customer.*
- Unwillingness of customers to power down their premises to allow the PrA's equipment to be fitted** - In order to fit the secondary meter there is a requirement to power down the Sample Participant's premises for a short period of time. The PrA is not able to undertake any work without approval from the Sample Participant. There are a number of customers who are unwilling to allow this to happen as it would affect their business. As a result, these customers cannot be used in the sample. *Although P223 cannot directly offer any improvements in this area, a customer may be more willing to co-operate with its Supplier based on an existing Supplier-customer relationship in comparison to obliging to a third party that a customer may not have knowledge about.*
- Access issues to customer premises** - There have been a large number of instances where the PrA has been unable to obtain access to existing sample customer premises in order to fit the secondary metering. *P223 intends to overcome this issue as it may be easier for a Supplier to arrange for a Meter Operator to gain access to the customer's premises than it would be for the PrA alone. Additionally, HH meter readings will be collected remotely. If the Supplier is aware of access issues to a premises, the Supplier can offer a replacement customer for the PrA sample. Under the current process, the PrA would have to start the process of cold calling again to replace such a customer.*

- Lack of diversity in regional dispersion of domestic Sample Participants** - The shortfall in participant numbers is also compromising the randomness of the sample. Instead of being in a position to recruit randomly from across the entire national population (portfolio) of customers, the PrA can only recruit parties who are willing to take part in the sample, thus building in a bias. The PrA is required by the Code to maintain a 'stratified random sample', but as the sampling variable is consumption it is nearly impossible for the PrA to identify which customers in the population are suitable for recruitment since the PrA is not able to establish their consumption (this information is held by the Supplier). The current recruitment methods such as using electricity industry staff and their friends and family has raised a number of issues, most notably that Sample Participants were too frequent in certain geographic regions and non-existent in others. For example, recruitment of the PrA's own staff has led to overrepresentation in the Milton Keynes area. [P223 intends to overcome this by enabling the Supplier to choose appropriate customers from its portfolio and by empowering the PrA to reject Sample Participants where the PrA feels there is a lack of diversity.](#)
- Lack of diversity in non-domestic Sample Participants when targeting group customers** - Although potentially large numbers of Sample Participants can be gained through targeting group customers (e.g. branches of a supermarket chain), this has the potential to bias the sample in a number of ways. For example, the PrA has signed up Staffordshire County Council. They have a number of potential sites all in the Staffordshire region. If the PrA accepted all these sites into the sample the site would be over-represented in both customer type and regional spread. There are similar issues with retail groups and the Ministry of Defence, all of whom have large numbers of potential sites. [P223 intends to overcome this by sending sample requests to Suppliers based on shortfalls in the PrA sample, enabling Suppliers to choose appropriate customers from its portfolio and by empowering the PrA to reject Sample Participants where the PrA feels there is a lack of diversity.](#)

Despite the ongoing efforts of the PrA to overcome the above concerns under the existing process, it is believed that the identified issues are increasingly compromising the representative nature of the sample in the longer term and thereby the resulting profiling accuracy.

As noted previously, the model put forward in P223 (as developed by the Issue 29 Group) seeks to address the issues by using the Supplier's existing customer relationships to recruit sample participants. Other issues such as the lack of space for secondary metering will be resolved as P223 seeks to use one meter to obtain both Settlement and profiling data.

How successful has the PrA been at recruiting customers under current BSCP510 processes?

The difficulties faced by the PrA are further complicated by the fact that not just any customers can be recruited, due to the need to match customers to a given GSP Group, Profile Class and annual consumption load, and to maintain a 'random' unbiased sample. The table below demonstrates the difficulties faced by the PrA.

Stage of Recruitment Process	Number (approximate figures)
Datasets requested from Suppliers	7,500
Datasets received from Suppliers	7,000
Datasets where sufficient customer contact details provided	2,000
Customers who could be contacted	400

Stage of Recruitment Process	Number (approximate figures)
(i.e. those not registered with TPS)	
Customers who verbally agreed to participate in sample	4
Customers who agreed to sign contract	0

It should be noted that the above figures were obtained from the 2005 PrA customer recruitment exercise. This exercise took place before a number of short term measures (as a result of Issue 21) were taken to boost sample numbers, for example recruiting electricity industry staff and obtaining HH data from customers outside the PrA sample which complements the existing HH profiling data. Although these have had some success in boosting numbers, the effort involved is disproportionate to the results as it is estimated that the PrA has to cold-call 80 customers to obtain one customer for the load research sample.

Since these difficulties mean that the PrA has to accept any customers it can sign up, rather than target those who are most needed to achieve the desired sample, it is also believed that such short term measures are increasingly compromising the principle that the sample should be random and representative across different:

- Geographic regions (i.e. GSP Groups);
- Consumption patterns (i.e. Profile Classes);
- Levels of consumption (i.e. Strata); and
- Customer type (e.g. type of business/site for non-domestic customers).

This in turn leads to diminishing confidence in the resulting profiling data. The Panel believes that deterioration in profile data will lead to the NHH data used in Settlement becoming less reflective of actual consumption patterns.

How do we know that the existing profiles are inaccurate?

This is demonstrated by the current increase in the sample precision errors. The precision error is the estimate of the potential error in the sample, which is calculated for each Profile Class.

The table below shows how the precision error has increased in comparison to previous years. In particular, the 2006/07 precision for Profile Class 6 has declined by 8% in comparison with the previous year. The 2002/03 figures can be used as a benchmark of the size of error that would be expected in a representative, accurate sample.

Profile Class	Precision 06/07	Precision 05/06	Precision 02/03
1	7.64%	6.31%	5.98%
2	12.84%	10.16%	8.32%
3	14.8%	7.77%	6.98%
4	12.1%	8.85%	9.18%
5	12.34%	11.03%	12.18%

Profile Class	Precision 06/07	Precision 05/06	Precision 02/03
6	18.95%	10.69%	11.02%
7	13.44%	9.21%	7.34%
8	9.94%	6.16%	4.85%

Although work is ongoing to meet the overall recruitment 2007/08 target of 2,500 customers, this does not solve the underlying issue that there are particular Strata with little or no customers. This is because the PrA is reliant on accepting any customers who are willing to participate, rather than being able to identify and recruit the appropriate customers to achieve a random, representative sample.

The overriding aim of P223 is to put in place a process (based on the Issue 29 'straw man') which will enable the ongoing recruitment and maintenance of a random, representative sample regardless of the target sample size.

What are the Panel's initial views?

The Panel as the Proposer of P223 believes that the following Applicable BSC Objectives may be better facilitated by P223:

- **Applicable BSC Objective (d) 'Promoting efficiency in the implementation and administration of the balancing and settlement arrangements'.**

The Panel believes that this modification may initiate improvements in the way that the PrA acquires its profiling sample data, ensuring that the PrA receives the required amount of representative profiling data and that accurate consumption data is therefore entered into Settlement; and

- **Applicable BSC Objective (c) 'Promoting effective competition in the generation and supply of electricity, and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity'.**

The Panel believes that, by improving profiling accuracy, this modification may improve the Settlement of NHH (i.e. reduce the potential exposure to volatile GSP Group Correction Factors) for Suppliers – and especially for niche/small Suppliers who have customers/demand focussed in particular areas.

3 DESCRIPTION OF MODIFICATION

This section outlines the solution for the Proposed and Alternative Modifications as developed by the Modification Group ('the Group'). For a full description of the original Modification Proposal as submitted by the Panel ('the Proposer'), please refer to the P223 Initial Written Assessment (IWA, Reference 1).

P223 will require Suppliers to randomly select MSIDs from their own customer records which are suitable to partake in the PrA sample. Such selections should not be biased towards any particular subset of a Supplier's portfolio, e.g. customer type or GSP Group.

3.1 Proposed Modification

The Proposed Modification seeks to replace the current PrA process of recruiting new customers/MSIDs with one that is based on the Issue 29 straw man. Under this process there would be:

- 1) An annual obligation on Suppliers to randomly select a proportion of their own customers to participate in the profiling sample, based on targets set by the PrA/BSCCo according to the sample shortfall/requirements and the Supplier's market share;
- 2) A one-off obligation on Suppliers (via their appointed Meter Asset Provider (MAP) / Meter Operator Agent (MOA)) to replace these customers' existing Settlement meters with meters which are capable of recording both NHH consumption data for normal Settlement purposes and HH consumption data for profiling purposes;
- 3) An ongoing obligation on Suppliers (via their appointed Non Half Hourly Data Collector (NHHDC)) to remotely collect the recorded HH data from these meters and provide this to the PrA on a monthly basis, in addition to collecting normal NHH data for the customers under the existing Settlement processes;
- 4) An ongoing obligation on the PrA to identify a Change of Supplier (CoS) for any customer within the profiling sample, and to contact the New Supplier for that customer;
- 5) An ad-hoc obligation on the New Supplier for a customer in the profiling sample after a CoS to either:
 - a) Retain that customer in the sample; or
 - b) Randomly select another of their customers to participate in the sample (in which case obligations 2) and 3) above will apply); and
- 6) An annual obligation on Suppliers to confirm whether there has been a Change of Tenant for any of their customers within the profiling sample, and for the PrA to assess the continuing suitability of any such customer for the sample (to feed into the annual recruitment process outlined in 1) above).

In order to fulfil obligations 2 and 3, the Supplier can choose to:

- i) Appoint the PrA's own nominated agents (MAP, MOA, NHHDC and Non Half Hourly Data Aggregator (NHHDA)) to install the metering and collect both NHH and HH data. Under this option the PrA will bear the entire cost of these agent services, and there will be no direct charge to the Supplier; or
- ii) Appoint its own preferred Supplier Agents (MAP, MOA, NHHDC and NHHDA) to install the metering and collect both NHH and HH data. Under this option the PrA will reimburse the Supplier for the cost of the meter, and will provide an annual rebate to the Supplier (based on an amount determined by the PrA) to cover the cost of installing the meter, the associated MOA costs, and the airtime and dial cost of the NHHDC in obtaining the HH data. The rebate will exclude normal NHH data collection and NHHDA costs, since no changes are proposed to these processes.

Regardless of the chosen option, all of these agents (MAP, MOA, NHHDC and NHHDA) must be either the PrA's or the Supplier's. There is no option to mix the agents (i.e. choose the PrA's NHHDC and MOA but retain the services of the Supplier's NHHDC).

3.2 Alternative Modification

The Alternative Modification is identical to the Proposed Modification other than where a CoS is concerned.

Under the Alternative Modification where a CoS occurs, the customer will automatically be lost from the PrA sample.

There will be no obligation on the Old Supplier, New Supplier or PrA to retain the customer. The meter will therefore be classed by the Old Supplier/PrA as a lost asset and the New Supplier will take ongoing responsibility for the maintenance of that meter under existing industry processes. There will be no responsibility on the Old or New Supplier to provide a replacement customer following a CoS.

This shortfall will be taken into account at the following year's sample recruitment process, where the number of required customers will again be pro-rated across all Suppliers by market share.

3.3 Implementation Costs

The tables below show the estimated 'one-off' central implementation and ongoing operational costs for the PrA and BSCCo under P223.

The proposed implementation date has no bearing on the costs. However, a BSCCo cost range is provided, as costs will be lower if other changes are implemented in the same period allowing project overheads to be shared. The actual cost to BSCCo is therefore likely to be somewhere between the 'implemented alone' and 'shared overhead' costs.

The implementation costs are the same for both the Proposed Modification and Alternative Modification. However, the ongoing operational costs of the Alternative Modification will be higher since more customers will be 'lost' from the sample on a CoS, and the PrA will therefore need to fund the installation of additional meters for the replacement customers (see cost-benefit analysis in Section 4 for further details).

PROPOSED/ALTERNATIVE MODIFICATION IMPLEMENTATION COSTS⁵

		December 2009 or April 2010 (implemented alone)	December 2009 or April 2010 (shared overheads)	Tolerance
PrA Cost	Development, testing & deployment	£5,000 - £10,000	£5,000 - £10,000	+/-30%
Total Demand Led Implementation Cost		£5,000 - £10,000	£5,000 - £10,000	+/-30%

ELEXON Implementation Resource Cost		131 Man days £28,820	81 man days £17,820	+/- 30%
Total Implementation Cost		£38,820	£27,820	+/- 30%

PROPOSED MODIFICATION OPERATIONAL COSTS

	Cost	Tolerance
PrA Operational Cost	£20,000 – £100,000	+/-30%
ELEXON Operational Cost	£ 3,300	+/-30%

ALTERNATIVE MODIFICATION OPERATIONAL COSTS

	Cost	Tolerance
PrA Operational Cost	£45,000 - £200,000	+/-30%
ELEXON Operational Cost	£3,300	+/-30%

⁵ An explanation of the cost terms used in this section can be found on the BSC Website at the following link:
http://www.elexon.co.uk/documents/Change_and_Implementation/Modifications_Process_-_Related_Documents/Clarification_of_Costs_in_Modification_Procedure_Reports.pdf

a) PrA Impact

The PrA would be required to amend its processes to support P223. Many of the processes are variants on those already undertaken by the PrA, and have minimal impact. In addition, until such time as 100% of the sample has been replaced under the P223 process, the PrA will need to continue to act as data retriever for existing customers' secondary metering. The implementation costs are driven by the need to establish processes to support the new P223 communications with Suppliers and Supplier Agents. The operational costs reflect the need to support the annual recruitment round and to calculate the annual rebate amounts to Suppliers for the costs of meters/agent services. They also reflect the possible 'churn rate' of customers lost from the sample on a CoS, since replacement customers will need to be recruited and additional meters installed and funded by the PrA. Further detail in this area can be found in Section 4.

b) BSC Party and Party Agent Impact

With the exception of one respondent, Party/Party Agent impact assessment respondents stated that they would be impacted by P223 in varying degrees. Generally the smaller Suppliers indicated that they would be able to support P223 through manual processes at low cost, whilst larger Suppliers (given the greater number of customers involved) would need to implement system changes in order to support the different treatment of sample customers compared with the rest of their portfolio. Costs quoted ranged from £600 to £350k, and generally varied significantly by Supplier. Copies of the responses received can be found in Appendix 5.

The Group noted the responses received from the P223 impact assessment, and that Suppliers had found it difficult to provide accurate cost information (in particular operational costs) due to the wide-ranging effects of P223 on their organisations. However, the Group believed that the costs provided are the best estimates available at this stage.

The Group also noted that, separate to the implementation/operational costs to Suppliers, P223 would result in changes to profiles whose effects on GSP Group Correction Factor would need to be factored into Suppliers' forecasting of their imbalance positions. However, the Group did not view this as a negative effect, since the changes would result from an improvement in profile accuracy and thereby reduce Suppliers' exposure to imbalance risk. Further details of the effect of P223 on imbalance exposure can be found in Section 4.

c) Transmission Company Impact

The Transmission Company has indicated in their assessment that P223 has no impact on its activities, systems or documentation, and that no costs would therefore be incurred.

It has also noted that both the Proposed and Alternative Modifications seek to address a valid issue and as such it believes that P223 better facilitates the Applicable BSC Objectives.

However, the Transmission Company has not distinguished which of the two proposals would better facilitate the Applicable BSC Objectives, due to its unfamiliarity with the issues.

A full copy of the Transmission Company's response can be found in Appendix 4.

d) BSCCo Impact

BSCCo would be required to:

- Make changes to the impacted Code Subsidiary Documents (CSDs);
- Update Local Working Instructions (LWIs) to reflect the new processes; and
- Manage the implementation project, including amending the PrA contract and overseeing the PrA's implementation activities.

3.4 Implementation Approach

3.4.1 Views of impact assessment respondents

The table below shows the range of implementation lead times requested by respondents to the Party/Party Agent impact assessment. The requested timescales are the same for impacted Parties/Agents regardless of whether the Proposed or Alternative Modification is implemented.

Participant	Requested lead time
Profile Administrator	3 months from Ofgem decision to approve (to run in parallel with participant lead times)
AccuRead	9 months from receiving final redlined CSDs
BizzEnergy	No lead time provided
British Energy	12-18 months
Centrica	12 months from received final redlined CSD changes
E.ON UK Energy Services	Approximately 6 months
EDF	2 years from the date of the impact assessment (i.e. June 2010)
Npower	12 months
Scottish Power	Approx. 6 months
SSE	9-12 months from Ofgem decision
Total Gas & Power	1 day
Western Power Distribution	Minimum 6 months from receiving final redlined CSDs

Please note that some participants have indicated lead times from an Ofgem decision, while others have indicated lead times from the point where final redlined CSD changes are made available.

3.4.2 Group's proposed Implementation Dates

The Implementation Dates suggested by the Group are based on a total 12-month lead time from an Ofgem decision to the point at which the new P223 requirements become effective. Within this overall timetable, the final redlined CSD changes would be made available 8-9 months prior to the Implementation Date (with draft redlined CSD changes being available 9-10 months prior to implementation).

The Group has noted the request from one Supplier for a two-year lead time, and that the Supplier wishes to keep the detailed reasons for this lead time confidential from the Group. On balance, the Group considers that a 12-month lead time is sufficient, since the time taken to implement needs to be balanced against the desire for earliest possible realisation of benefits. The benefits of improved profile accuracy to Suppliers will take two years to be achieved, as it is necessary to recruit customers and obtain a year's worth of data before the data can be used.

Please note also that the day on which the P223 requirements become effective is not necessarily the day on which the first recruitment requests will be sent, since these are sent in January each year.

Two Implementation Dates have been suggested by the Group, which are: 1 December 2009 and 1 April 2010.

In order to achieve a **1 December 2009** implementation, an Authority decision would be required by the end of November 2008 (2.5 months from the submission of the final P223 Modification Report in mid-September 2008). Draft redlined BSCP changes would be provided for review in February 2009 and finalised during March 2009. The first customer recruitment requests would be sent out to Suppliers on 1 January 2010.

In order to achieve a **1 April 2010** implementation, an Authority decision would be required by the end of March 2009. Final redlined BSCP changes would be made available by the end of June 2009. The first P223 customer recruitment requests would not be sent out to Suppliers until 1 January 2011.

BSCCo's normal release of approved changes occur in February, June and November each year. However, non-release dates have been proposed for P223 for the following reasons:

- a) As there are no changes to the main BSC Agent central systems and a non-standard release date has no bearing on BSCCo or PrA implementation cost, it is believed to be unnecessary to tie the deployment to a regular release date;
- b) Implementation of P223 will interact with BSCCo's re-procurement of the PrA service, due to begin in August 2009 with the new contract effective from 1 April 2010. Although the re-procurement is not part of P223, it will affect the implementation of P223 by requiring:
 - o An Authority decision to approve/reject P223 before the procurement process begins so that BSCCo and potential service providers have certainty as to the service being procured (i.e. service providers' proposals should be based on the P223 requirements); and
 - o Given the possibility that the procurement could result in a new PrA service provider, there will be a point in time at which it will become more efficient to wait for the new contract to be awarded before implementing P223. This avoids the risk of the existing service provider implementing the arrangements, running them for a few months and then transitioning the service to the new service provider. For this reason, implementation in the February 2010 Release is believed to be inefficient. Additionally the P223 Implementation Date needs to be before the commencement date of the new contract, to ensure that any new service provider would not spend time implementing the old arrangements only to then change to those required by P223. With this in mind, the suggested 'fall-back' Implementation Date is 1 April 2010.

It should be noted that the annual P223 recruitment process begins in December each year as detailed in Section 7, when the PrA sends its recruitment targets to BSCCo. This allows time for the necessary meters to be installed prior to the start of each data collection year on 1 April. The 1 December 2009 Implementation Date is designed to fit this timetable and gives earlier realisation of any potential benefits. The 1 April 2010 date fits less well with the enduring annual timetable with the first recruitment requests going out in January 2011. However, it is believed to be the most appropriate 'fall-back' date for the PrA procurement for the reasons set out above.

The Group proposes that both dates should be put forward to Ofgem (in case the Authority is unable to make a decision within 2.5 months for a December 2009 implementation). However, it has expressed its preference for the earlier of the two dates, in order to deliver the potential benefits as early as possible.

3.4.3 Views of consultation respondents

The Group agreed to ask a specific question on its proposed Implementation Dates as part of the Assessment Procedure consultation. The majority of respondents agreed with the Implementation Dates put forward and echoed the Group's preference for the earlier date of 1 December 2009, as it was felt that a later Implementation Date would delay the perceived benefits of improved profiling accuracy. There was a separate concern raised around the area of profile accuracy in the interim. The Group considered this and a response is noted in Section 3.4.4.

One respondent commented that they were unaffected by the Implementation Dates as they currently have systems and processes in place that can support the P223 requirements. Two respondents had opposing views to the majority, but for contrasting reasons. One stated a preference for an even earlier implementation date, as any delay would worsen the accuracy of the profiles due to the current deterioration in the profiles. The other respondent expressed an opinion for a later Implementation Date based on a two-year lead time as, being unconvinced of the benefits of P223, they wished to complete other (separate) significant internal work which they are already undertaking before developing their systems for P223.

3.4.4 Modification Group's final views

The Group was keen to implement P223 as soon as possible, and initially suggested moving the Implementation Date to April 2009. The Group did not believe that the implementation of P223 should take more than 6 months and that an earlier date would provide quicker realisation of improved profiling data. However, after reviewing the responses to the impact assessment and consultation the Group were disappointed to note that the majority of respondents had requested a minimum of 12 months' lead time.

In order to accommodate the respondents, the Group agreed to keep to its original proposed dates with a 12-month lead time, but stressed a strong preference for the earlier implementation date of 1 December 2009.

The Group noted that there was nothing to prevent Suppliers from beginning to provide HH data to the PrA before the Implementation Date on a voluntary basis, if any Supplier was in a position to do so. BSCCo noted that the PrA would welcome any data which could be provided early.

The Group also noted that in the interim period prior to the Implementation Date there are several methods which BSCCo and the PrA are considering to bolster the sample size and data used for the load research sample, such as:

- Investigation of options at the Profiling Expert Group (PEG) to ensure that the profiles produced are the best they can be given the limitations of the current sample. For example, for the year 2008 data from previous years (2007, 2006 and 2005) could be pooled with the existing 2008 data and used in the load research sample. This may prove desirable since it mitigates the risk of poor estimates that may be obtained by single year data due to other effects such as temperature;
- Obtaining top-up HH data from Suppliers on a voluntary basis to boost the load research sample;
- Continuing to following the existing BSCP510 process to obtain customers for the sample (supporting the PrA and Suppliers in this process); and
- Working with the PrA and Suppliers to target missing customers in specific strata/geographical areas for the required profiles classes to boost the sample..

Thus, in conclusion the Group maintained its overall preference for a P223 implementation in December 2009 (with a fall-back date if necessary of April 2010).

4 COST-BENEFIT ANALYSIS

4.1 Aim of cost-benefit analysis

In accordance with its Terms of Reference, the Group agreed that it was important to try to quantify the potential benefits of improved profiling accuracy to Suppliers, as well as any savings to the PrA/BSCCo which would result from P223.

On behalf of the Group, ELEXON undertook a modelling exercise to establish the potential cost benefits. This section summarises the results of the cost-benefit analysis undertaken by ELEXON, as well as the Group's discussions of the results. For details of the cost-benefit analysis undertaken, please refer to Appendix 6.

The main benefit to Suppliers is achieved through the following logic:

A more representative sample → brings about lower sampling error → which results in lower regression error → and in turn less volatility in GSP Group Correction → this will help improve forecasting of a Supplier's position → and consequently decrease Supplier's exposure to Imbalance costs.

4.2 Analysis results

The main cost benefits can be summarised in the table below. These benefits are based on the assumption that P223 will improve profiling accuracy by between 0-2%.

Total Supplier Benefit (application year)	Total Supplier Cost (one-off)	Central Benefits	Central Costs
£2.3m -£12.1m*	<i>Supplier costs provided in impact assessment responses range from minimal cost to £350k</i>	£20k per year savings to PrA	ELEXON implementation costs = £20-30k ELEXON operational costs = £5k per year PrA implementation costs = £5-10k Total PrA Operational costs =£20-100k (Proposed Modification) or £45-200k (Alternative Modification) per year

**These figures are for all Suppliers across all GSP Groups. The benefit to individual Suppliers depends on their Market Share and forecasting capability of the Supplier (range goes from good to poor forecasting) and is based on a reduction in exposure to imbalance costs. It should also be noted that it is estimated that it would take two years before the benefits are seen by Suppliers, as it takes 1 year to collect the data and a year to analyse and produce the profiles. A sampling rebalancing exercise in terms of addressing shortfalls in the sample by size and regional distribution of the sample customers would ensure that the benefits start to be realised at the earliest opportunity.*

A further explanation of the model used to derive these results, the assumptions used, and the results themselves can be found in Appendix 6. A copy of the model itself can also be made available to interested parties on request.

4.3 Group's initial discussion of results

The Group noted that it had been necessary to make assumptions for the purposes of the modelling, but considered that the modelling process followed was appropriate. It also agreed that an improvement in profiling accuracy could broadly deliver benefits in the region of the amounts quoted. One member suggested that the benefits might actually be higher in practice, since prices had recently become 'spikier' than the historic imbalance prices used in the modelling.

It was noted that, for every customer lost from the sample on a CoS under P223, a replacement customer would need to be recruited and an additional meter installed for that replacement customer. BSCCo advised

that a recent Ipsos MORI poll had shown that 19% of electricity customers changed Supplier during 2007. For each set of customers recruited each year under P223 (likely to be 10% of the overall sample or 250 out of 2,500 customers), 19% of these (48) could therefore be lost from the sample under the Alternative Modification. Under the Proposed Modification, the Supplier has the choice to retain or replace the customer – but assuming half the Suppliers choose to replace the customer, this equates to around 10% (24) of that year's customers being lost and requiring a new recruitment and meter installation. As the proportion of the sample recruited under P223 increases, and the proportion of existing customers with secondary metering (who are unaffected by a CoS) decreases, more customers would be lost. By the time that 100% of the sample has been replaced under P223, a 19% churn rate would equate to 475 customers. The operational costs shown for the PrA therefore include the costs of installing additional meters to replace those lost on a CoS (roughly £400 per meter). The costs of these additional meters would be paid by BSCCo (as part of the PrA service cost) and ultimately recouped from BSC Parties as part of BSCCo Costs. For further information, please refer to Appendix 7.

The majority of the Group believed that the potential costs of installing extra meters due to the CoS 'churn' under the Alternative Modification were preferable to the complexity of Suppliers of having to retain or replace customers throughout a year under the Proposed Modification. One member commented that the cost of additional meters quoted was a 'worst case scenario', since in the future smart meters might be able to be used for newly recruited customers without needing to put in a different meter.

Some members of the Group commented that they had expected higher cost savings for the PrA. BSCCo clarified that many of the immediate savings to the PrA (e.g. in recruitment costs, unsuccessful site visits) would be offset by other activities which it would need to undertake under P223 (e.g. administering the rebate process) whilst other changes were relatively cost-neutral as they were variants on existing processes (e.g. obtaining and storing HH data). In addition, in the short term, the PrA would need to continue acting as data retriever for those existing customers in the sample with secondary metering. The Group noted that, as the proportion of 'old' customers in the sample reduced, there was the potential for greater savings to be achieved.

4.4 Views of consultation respondents

The Group agreed to include a specific question on the findings of the cost-benefit analysis within the Assessment Procedure consultation. Not all respondents commented when asked for their views. Of those that did comment, the majority supported the rationale underlying the cost-benefit analysis.

Respondents who agreed with the cost-benefit analysis held the view that improved profiling delivers benefits in the form of reduced imbalance charges. One respondent believed that the real benefit to industry would be the confidence in knowing that each Supplier is correctly allotted the energy that they are responsible for consuming. There was acknowledgement that modelling the benefits was a difficult exercise and that some assumptions had to be made, however the respondents in agreement with the analysis did support the rationale behind these assumptions.

Respondents who disagreed with the cost-benefit analysis held the view that better profiling would not always lead to better forecasting and reduction in imbalance charges. It was also felt that the assumptions made could not be tested to determine if they were robust. It was also suggested that historic data could have been used to support or disapprove whether there is a link between reduced volatility of Group Correction Factors and Supplier costs.

One of the respondents who remained neutral agreed that more representative sample data has a positive impact on the accuracy of profiling data.

4.5 Modification Group's final views

The Group acknowledged that the cost-benefit analysis was a difficult exercise, but held their belief that the assumptions made were as accurate an estimate as could be made of the potential benefits of P223.

In response to the questions on why historic data was not analysed, the Group agreed that if any historic data was analysed e.g. GCFs and Suppliers' imbalances, it would prove difficult to highlight the direct interaction between profiling and GCF. This is because there are many factors besides profiling that influence GCF, such as EAC/AAs and temperatures. Furthermore, the cost-benefit analysis commissioned by the Group presented potential reductions in Supplier's exposure to imbalance charges from improvements in profiling accuracies.

5 SMART METERING AND PROFILING

5.1 Group's initial views

Based on current information from the Department of Business, Enterprise and Regulatory Reform (BERR), there is the possibility that P223 may interact with a future national smart metering rollout. However, the Group believes that such an interaction would not be negative in nature.

The Group noted that the earliest possible implementation of P223 was December 2009, and that any benefits of improved profiling accuracy could take a further two years to be seen. The Group therefore considered whether P223 was likely to deliver long-term benefits, or whether the need for its solution might be negated if a national smart meter rollout occurred.

However, it was agreed that a scenario where smart meters are installed for all domestic customers was some way off. It also noted that, even if this scenario occurred, profiles would still be needed as long as Suppliers settled these customers consumption on a NHH basis. In conclusion, it was agreed that profiling accuracy would therefore continue to be an important long-term issue, and that P223 intends to provide a robust long-term solution for achieving such accuracy.

Some Group members (who were experienced in carrying out smart metering trials) also considered that any future smart meter rollout could support the P223 PrA process. In such instances, smart meters would be the standard meter used across the industry and this could be used to acquire profiling data, thereby avoiding the current problems associated with the fitting of HH capable meters (e.g. power down issues to swap meters). With this in mind, the Group concluded that a recruitment process to target the appropriate customers for the PrA sample would still be required, even if smart meters were standard amongst these customers.

Finally, it was noted that the Proposed / Alternative solutions could facilitate the setting up of other samples in the future, such as an Export profile sample for microgeneration which is believed to increase in the next few years.

5.2 Views of consultation respondents

The Group agreed to ask a specific question in the area of smart metering as part of the Assessment Procedure consultation. A majority of respondents agreed with the Group's view that there would be no negative interaction, and did not identify any conflict between P223 and a future smart metering rollout. One respondent expressed a view that there was no relationship between smart meters and P223, other than the fact that existing smart meters could be used in the PrA sample. One respondent believed that the Alternative Modification gives flexibility to future changes when compared to the Proposed Modification.

5.3 Modification Group's final views

The Group concluded that profiles would continue to be required as long as the NHH side of the market exists.

There was consideration given to a future where every meter in Great Britain would be settled on a HH basis. The Group felt that if the industry as a whole adopted such an arrangement, it would require a

significant system change not possible using current technology and therefore was not likely to happen in the near future.

6 ASSESSMENT OF MODIFICATION AGAINST APPLICABLE BSC OBJECTIVES

This section outlines the views of consultation respondents and the Modification Group regarding the merits of P223 against the Applicable BSC Objectives.

6.1 Summary of Group's initial views

There was broad agreement with the findings of the cost-benefit analysis and that there would be potential benefits to Suppliers. All members agreed that there were issues with the existing process and that the current profiles are inaccurate. All members also agreed that it was desirable to achieve more accurate profiling through the recruitment of a random, representative sample. However, whilst the Group agreed that the current PrA process needs improvement, not all members were convinced that P223 would in practice deliver the aim of accurate profiles.

Overall within the Group, the initial views were:

- A **SPLIT** as to whether the Proposed Modification would better facilitate the achievement of the Applicable BSC Objectives when compared with the existing arrangements (some members believed that both (c) and (d) were better facilitated, whilst others believed that benefits under (c) would be outweighed by disadvantages under (d) due to the perceived inefficiencies for Suppliers of the CoS process);
- A **MAJORITY** view that the Alternative Modification would better facilitate Applicable BSC Objectives (c) and/or (d) when compared with the existing arrangements (members gave different weight to the two Objectives, with some believing that improvements would be marginal while others identified more significant benefits); and
- A strong **MAJORITY** view that the Alternative Modification would better facilitate Applicable BSC Objectives (c) and/or (d) when compared with the Proposed Modification, due to the different treatment of customers under a CoS (again, members gave different weight to the two Objectives).

Further details of the Group's initial views can be found in the P223 Assessment Consultation Document (Reference 10).

6.2 Views of respondents to the P223 consultation

The Group agreed that the P223 consultation responses contained no material new arguments which had not already been covered in its previous discussions. One respondent suggested that P223 better facilitated all the BSC Objectives (a, b, c and d), as the reduction in GSP Group Correction Factors should assist the Transmission Company in balancing the transmission network. The Group noted this view but also noted that the Transmission Company does not use Group Correction Factors for their forecast, as it uses different tools to assess the supply and demand in Great Britain. Thus the Group agreed that P223 had no impact on Applicable BSC Objectives (a) and (b).

In summary, respondents believed:

1. By **majority**, that the **Proposed Modification does not better facilitate the BSC Objectives** ('c' and 'd') when compared with the current PrA process. Respondents felt that the requirement to retain a customer on a CoS made the implementation and administration of the modification inefficient and placed a cost burden on participants as a result of system developments.

The opposing minority views suggested that the Proposed Modification did better facilitate these BSC Objectives as it addressed existing issues with profiling sampling and accuracy. Other views expressed were that the Proposed Modification may improve the situation surrounding customer recruitment as the responsibility will be shifted to Suppliers who can capitalise on the Supplier-customer relationship. As a result, any improvements in

sample size and stratification could in turn improve profile data and the accuracy of Supplier short-term forecasts with a reduction in financial exposure.

2. By **majority**, that the **Alternative Modification does better facilitate the BSC Objectives** ('c' and 'd') when compared with the current PrA process. One of the main reasons surrounded the reduction in system development costs and reduction in resources required to manage the process throughout the year. Additionally, comments made in support of the Proposed Modification were also made for the Alternative Modification.

However, there was concern whether an increase in customer churn would overshadow any potential benefits of the Alternative Modification.

3. By **majority, that the Alternative Modification does better facilitate the BSC Objectives** ('c' and 'd') when compared to the Proposed Modification. Respondents believed that the Alternative was advantageous when it came to a CoS. In such instances, costs of replacing lost customers in between the annual recruitment drive would be minimised. Other reasons provided were that it is easier to implement and administer and that it removes the layer of complexity that large Suppliers would have during a CoS.

The argument made in favour of the Proposed Modification was that it was inefficient to remove customers from the load research sample just because of a CoS. Losing customers with suitable P223 metering and replacing them with new customers who need new meters installed would reduce the effectiveness of the sample and increase costs. The respondents argued that a CoS should not mean that a customer is not available to the PrA sample.

6.3 Group's final views

The table below shows the final views expressed by members for and against P223, both Proposed and Alternative, when compared with the current arrangements. The arguments made by the Group regarding the potential overall benefits and disadvantages of P223 have not changed from the Group's initial views prior to consultation. Note that not all of the arguments shown were necessarily shared by all members.

Objective	For	Against
<i>Applicable BSC Objective (c)</i>	<ul style="list-style-type: none"> Current process is untenable and if P223 is rejected could lead to further deterioration in profiling accuracy; Current inaccurate profiles are anti-competitive as they expose Suppliers to volatility in Group Correction Factors, and thereby the risk of being exposed to imbalance for volumes unrelated to their actual position if they cannot predict this effect; Inaccurate profiles are also anti-competitive as small Suppliers are less able to absorb this imbalance risk – more accurate profiles help give 'level playing field'; P223 would enable the recruitment of a more representative sample, leading to improved profiling accuracy and reduction in Supplier imbalance risk by less Group Correction Factor volatility (benefit greatest for small niche Suppliers); Enables more 'correct' allocation of energy in Settlement, helping Suppliers to forecast their positions more accurately; P223 Supplier/agent implementation costs are less than financial effects of inaccurate profiles; Should be a natural incentive on Suppliers to support P223, as they are the most impacted by inaccurate profiles. 	<ul style="list-style-type: none"> Effort and cost required by Suppliers/Supplier Agents to implement and operate P223 arrangements; Not proven that Suppliers will be more successful than PrA in recruiting customers/installing meters, and that benefits of improved profile accuracy (e.g. reduction in imbalance exposure) will therefore be obtained; Any benefits of improved profiling accuracy will not materialise until 2 years after implementation (as first need to recruit customers and collect a year's worth of data).

Objective	For	Against
<i>Applicable BSC Objective d</i>	<ul style="list-style-type: none"> • P223 costs are less than the financial effects of inaccurate profiles on Suppliers; • Suppliers able to recruit more representative sample than PrA, as have larger 'pool', the consumption info needed to target appropriate customers and an existing relationship with those customers – therefore P223 is more efficient process; • Suppliers do not need customer's permission to put them in sample and install the HH capable meter – can be undertaken as a normal meter replacement and covered through Suppliers' Terms and Conditions with their customers; • The existence of current smart metering trials demonstrates that it is possible for Suppliers to install and retrieve data from HH meters • Only a small proportion of a Supplier's customers would need to be recruited – not onerous; • Efficient method of data collection and providing this data to the PrA as opposed to the current arrangements where the PrA has to collect data additionally to the Supplier's NHHDC; • P223 process more efficient due to use of single meter (resolving current space issues with secondary meters); • Recruitment/space benefits will be seen immediately; • Customers are suspicious about intrusion; it will appear less threatening to a customer when dealing with a known Supplier than when dealing with the PrA; • The existing Supplier-customer relationship can mean that a customer is more willing to allow a meter exchange in the knowledge that there will be a short loss of supply to the customer's premises; • No obvious alternatives to P223 approach were identified in previous SVG discussions or Standing Issues 21 and 29; • P223 is compatible with a future national smart metering roll-out, as the solution utilises HH capable meters; • Even if all domestic customers had smart meters, profiles would still be needed in the longer-term while these customers' consumption continues to be settled on a NHH basis; • P223 process facilitates other types of potential sampling in the future – e.g. for 	<ul style="list-style-type: none"> • Effort and cost required by Suppliers/Supplier Agents to implement and operate P223 arrangements – P223 process more efficient for PrA but not necessarily for Suppliers/agents; • Not proven that Suppliers will be more successful than PrA in recruiting customers/installing meters, and that the benefits of improved profile accuracy will therefore be obtained; • Uncomfortable with not telling customers that they are in the sample, as could affect Supplier's reputation – some Suppliers may therefore ask for customer consent (although not a P223 requirement), and be dependent on this in the same way PrA is now; • Suppliers likely to still encounter resistance from customers to meter replacement – some Suppliers may choose to offer financial incentives to overcome access issues (though this is not a P223 requirement); • Effort and cost implications for Suppliers in needing process to retain/replace customers under the Proposed Modification on CoS – overly complex and inefficient process; • Is putting obligations on Suppliers the best solution to the current inaccurate profiles, or is this moving issues elsewhere?

	Export metering/microgeneration. <ul style="list-style-type: none"> The Group acknowledges that the current profiles are inaccurate and strongly supports the principle of achieving accurate profiling through the establishment of a random, representative sample. 	
Overall	Unanimous support for Alternative Modification; Minority support for Proposed Modification	

The table below shows the Group's views on the relative merits of the Proposed Modification and Alternative Modification **compared with each other**, rather than with the current arrangements.

Objective	For Alternative Modification	For Proposed Modification
Applicable Objective (c)	<ul style="list-style-type: none"> Less effort/cost implications for Suppliers as removes the need to retain/replace customers throughout a year following a CoS. 	<ul style="list-style-type: none"> Proposed Modification gives ability to retain customer on CoS, mitigating impact of sample 'churn' on amount/quality of data received in a given year and therefore maximising benefits of more accurate profiles.
Applicable Objective (d)	<ul style="list-style-type: none"> Alternative is more efficient/workable, as removes the CoS implications for Suppliers during a year. Although Alternative requires recruitment of additional customers at end of year (to replace those lost on CoS), and results in the meters of the 'lost' customers becoming stranded assets, this may become less of an issue over time as smart meters become more common amongst customers and can act as the 'HH capable' meter for profiling purposes. 	<ul style="list-style-type: none"> More efficient to give the ability to retain the customer on a CoS under the Proposed Modification. Alternative will have higher central costs (due to need to install additional meters to replace those lost on CoS), which will ultimately be recouped from Parties.
	UNANIMOUS SUPPORT for Alternative	UNANIMOUS REJECTION for Proposed

The Group noted that there were no new arguments against the Applicable BSC Objectives made during the P223 consultation. Furthermore, the Group's views of the potential benefits and drawbacks of P223 overall remained unchanged from those made prior to the P223 consultation.

However, one member who had previously believed that neither the Proposed nor Alternative Modifications would be an improvement on the current arrangements, changed their view to support the Alternative Modification. The member clarified that, having given the issues further reflection, they believed that the Alternative Modification was the best solution that could be developed and no better options could be identified. Due to the significant implications to Settlement if the current profiling problems and profile deterioration are not addressed, the member believed that a 'do nothing' option was not viable.

Some Group members also changed their opinion when distinguishing between the Proposed and Alternative Modifications, which had the effect of changing a 'Majority Support' to a 'Unanimous Support' in favour of the Alternative Modification.

These members changed their opinion because:

- One member, who had previously expressed a preference for the Proposed Modification, now believed that the Alternative Modification has no negative impacts on small Suppliers and is deemed more efficient for large Suppliers due to the simplified CoS process. Therefore, they felt the right option was to support the Alternative Modification overall.
- Previously, it had been noted that under the Alternative Modification an increase in the customer churn rate would increase overall costs as meters would need to be replaced on a CoS event. One member had been concerned that this cost could outweigh any benefits, and had therefore felt initially unable to state whether the Alternative was better than the Proposed Modification. However, having subsequently given the issue further consideration, the member concluded that the customer churn rate would not increase to a level that would render the benefits of P223 obsolete. On balance, this member therefore supported the Alternative as the best option.

One member suggested that, to dampen any increases in customer churn rates, Supplier's might wish to pick customers on long contracts where possible (e.g. if a customer was nearing the end of a contract, a replacement customer could be randomly selected). Additionally the Group noted that if required, the SVG have the power to increase the target sample size – and that this ability could be used if CoS 'churn' began to affect the PrA's ability to obtain the required amount of consumption data from customers.

Overall, within the Group there was therefore:

- A final **MINORITY** view that the Proposed Modification would better facilitate the achievement of the Applicable BSC Objectives when compared with the existing arrangements (some members believed that both (c) and (d) were better facilitated, whilst others believed that benefits under (c) would be outweighed by disadvantages under (d) due to the perceived inefficiencies for Suppliers of the CoS process);
- A final **UNANIMOUS** view that the Alternative Modification would better facilitate Applicable BSC Objectives (c) and/or (d) when compared with the existing arrangements (members gave different weight to the two Objectives, with some believing that improvements would be marginal while others identified more significant benefits); and
- A final **UNANIMOUS** view that the Alternative Modification would better facilitate Applicable BSC Objectives (c) and/or (d) when compared with the Proposed Modification, due to the different treatment of customers under a CoS event.

The Group also unanimously agreed that the importance of P223 was the principle of accurate profiling, and not just financial benefits to Suppliers.

6.4 Final Recommendation to the Panel

Based on the above assessment, the Modification Group therefore agreed a **UNANIMOUS** final recommendation to the Panel that:

- The Proposed Modification **SHOULD NOT** be made; and that
- The Alternative Modification **SHOULD** be made.

For details of the Group's recommended Implementation Dates and legal text, please refer to Section 3.4 and Appendix 1 respectively.

7 DETAILED PROPOSED MODIFICATION SOLUTION REQUIREMENTS

As required by the P223 Terms of Reference, the Group has discussed and developed the detailed requirements to underpin the solution proposed by the Modification Proposal.

As the proposed P223 solution is based on the Issue 29 straw man, BSCCo (on behalf of the Panel as Proposer) has walked the Group through the straw man. The Group has noted/agreed the straw man solution requirements, or has identified changes or further detail, which it believes are necessary. The following sections set out the Group's agreed requirements and its rationale for these, along with any details of any alternative approaches, which were considered but not progressed by the Group. Flowcharts of the solution can be found on the [P223 webpage](#), under '[P223 impact assessment documents](#)'.

7.1 PrA sends recruitment requirement to BSCCo

BSCCo explained that the PrA will establish the shortfall in Sample Participants by specifying the sample size required for each GSP Group, Profile Class, Stratum, consumption level and type of customer, and send this information to BSCCo.

The Group noted the intention of the Issue 29 straw man that this should be an annual process, and agreed that such information would be sent on a yearly basis by the first Working Day in December. This timescale was set in order that all recruitment requests could be processed and all necessary meters installed in time for the start of the data collection year on 1st April.

The Group also noted that P223 will only apply to new or replacement Sample Participants that are required for the load research (i.e. it will not apply to customers who are already in the sample), to avoid any wholesale changes to the profiles.

The Group noted that the recruitment requirement would be broken down as follows:

Profile Class	Recruitment target broken down by
1 and 2	<ul style="list-style-type: none"> • GSP Group • Strata
3	<ul style="list-style-type: none"> • GSP Group • Strata • Industrial and commercial
4	<ul style="list-style-type: none"> • GSP Group • Strata
5-8	<ul style="list-style-type: none"> • GSP Group • Strata / consumption level • Industrial and commercial

The PrA will need to provide BSCCo (as a one-off implementation exercise) with details of all customers currently in the sample, as part of identifying the shortfall to be recruited under P223.

7.2 Requirement 2: BSCCo processes the PrA sample requirement

As in the current process, BSCCo will assess the PrA's requirement and pro-rata the number of required customers across Supplier by each Supplier's market share, so that the number of customers that Suppliers are asked to recruit is in proportion to their size. Additionally it will also mean that the effort Suppliers have to spend supporting the process should be proportionate to their resources.

BSCCo will calculate each Supplier's market share by Market Participant ID (MPID), using a snapshot of Supplier Purchase Matrix (SPM) data as at 1 December each year. This data is received regularly by BSCCo from the Supplier Volume Allocation Agent (SVAA), and can be used to count how many Annualised Advances (AA) and Estimated Annual Consumptions (EAC) each MPID has in each SSC/Profile Class within SPM. BSCCo will then aggregate these figures at an organisational level (i.e. across all of the Supplier's MPIDs) to establish:

- The MPID's total market share for Great Britain; and
- The MPID's share per GSP Group and Profile Class.

Each Supplier will therefore receive a target recruitment figure for each category shown in the table in Section 7.1, reflecting its market share in that category.

In calculating each Supplier's target, BSCCo will also take account of how many customers the Supplier already has in the sample, such that the request reflects the Supplier's true market share in that GSP Group/Stratum etc. For example, if the Supplier has a 60% market share, 250 customers are being recruited in total that year, and the Supplier already has 100 customers in the sample, a simplistic overview of the Supplier's recruitment target is:

$$(0.6 * 250) - 100 = 50 \text{ customers}$$

In reality, the calculation will be more complex and take into account Supplier market share at the GSP Group/Profile Class level. Further detail can be found in Appendix 7.

Each Supplier will be required to annually confirm to the PrA (using its single point of contact – see below) the list of all its associated MPIDs (Supplier IDs) for use in calculating its market share.

BSCCo will consequently provide the pro-rated numbers back to the PrA within 10 Working Days. The Group queried the number of customers a Supplier would be required to provide under the P223 process. BSCCo explained that that the sample requirement for a large Supplier (based on the existing target sample size of 2,500 customers) would be unlikely to exceed 200 customers based on existing market shares, and for a small Supplier would be a much smaller number (e.g. 2 or 3 or perhaps none at all). Appendix 7 provides further detail regarding the number of customers, which Suppliers would be required to provide.

7.3 PrA requests Sample Participants from Suppliers

For simplicity, this requirement has been divided into sub headings below.

Appropriate line of communication

The Group noted that once the number of required customers has been pro-rated across Suppliers (as detailed in Section 7.2) the PrA will request, via email, new Sample Participants from Suppliers using a single dedicated point of contact for each Supplier at the aggregate company level.

The Group agreed that this point of contact should cover all the Supplier's different IDs/MSIDs (i.e. where a Supplier has multiple Supplier IDs) and therefore the single point of contact would provide all the required information for all its MSIDs partaking in the sample.

It was noted that there were several possible lines of communication between the PrA and Suppliers, but it was felt that email communication was the best solution. The Group agreed that a standard template be used when requesting Sample Participants from Suppliers. Such requests will be based on GSP Group, Profile Class, and Stratum and customer type and sent to Suppliers by the first Working Day in January each year.

A 'guidance note' will be provided to Suppliers with the request, detailing:

- The list of excluded customer types which cannot be used in the sample (see below);
- An explanation of what is meant by 'random selection' of customers (see below);
- Details of the minimum metering requirements for the HH capable meter (see Section 7.8); and
- Details of the options for agent services/rebates (see Section 7.6).

Principle of random sampling

Due to the difficulty in obtaining sample participants, a 'take any available participant' approach has been adopted. The Group suggested that this has introduced bias in the current sample for reasons mentioned in Section 2.

There was debate surrounding the effect of using existing smart meter data as opposed to randomly selected data and whether existing smart meter data had an adverse effect on the shape of the profile classes. It was noted that many Suppliers are currently carrying out their own smart metering installation trials amongst their own customers, and it was suggested that customers involved in a Supplier's smart meter trial should be used in the PrA sample. The possible advantages were that such customers would have existing smart meters, saving Suppliers the effort of installing HH capable meters for those customers. The Group felt that if a Supplier recruited its required number of customers for the profiling sample from an existing smart metering trial, there would be no adverse impact on profiling data.

The counterinterviews made to this suggestion were that different Suppliers would use different subsets of customers in smart metering trials (e.g. a particular GSP Group, customer type or property size), and that this had the potential to skew the representation in the sample. Another counterinterview was that, since under P223 Suppliers would be offered a rebate for the cost of the meter, installing the meter and/or collecting data, there was no direct cost to the Supplier from installing HH capable metering (and therefore no direct saving to the Supplier from using existing smart metering customers). However, it was noted that the costs of the meter installations would ultimately be recouped from BSC Parties as part of the costs of the PrA service. For details of the P223 rebate arrangements, please refer to Sections 7.9 – 7.10.

A request was made for BSCCo to undertake analysis on the impact of using existing smart metering customers on the accuracy of profiling, but this was not undertaken because it was the majority view of the Group that:

- Such analysis, using customers from a particular Supplier would show the effect of one Supplier's customers and not the effect of customers from a different Supplier;
- Different Suppliers would have different requirements for customers participating in the trials and this would contribute to skewing the shape of the profile further;
- The choosing of such customers is not random or representative of customer consumption patterns across a Supplier's entire portfolio, and is therefore likely to compromise the accuracy of profiles by skewing the sample;
- There is a possibility that smart metering customers would alter their usage patterns, again affecting the representativeness of the sample;

- The results obtained from any analysis would have no accurate baseline for comparison as the current profiles are already known to be skewed and inaccurate (in other words, it would not be possible to see if using smart metering customers would make profiles more or less accurate); and
- Whilst it might be financially advantageous or more efficient for one Supplier to use customers from its smart metering trial, it might be equally advantageous to another Supplier to use a different subset of its portfolio – making it difficult to only justify one 'exception' to the rule without moving further away from the principle of a random, representative sample.

With this in mind, the majority of the Group agreed that the current Code obligation of random sampling should remain and that no further analysis should be undertaken. It was felt that any data analysis could only be compared to the current inaccurate profiles, and it would be difficult to draw any conclusions in the absence of a baseline of 'accurate' comparison profile.

Therefore, the Group by majority agreed that the MSIDs selected by Suppliers under P223 must be a random representation of their entire portfolio and are not biased in favour of a particular customer type, region or other subset of the Supplier's customers. These members agreed that this requirement would allow the most accurate/representative data to be used in profiling, reflecting consumption patterns across the whole of the GB customer base.

The Group noted that this did not mean that smart metering customers should be excluded from the sample, but rather that such customers should not deliberately be targeted. It was noted the intention was that customers selected by the Supplier should be representative of its portfolio. If 80% of the Supplier's portfolio consisted of smart metering customers, then it would be entirely appropriate for 80% of the customers it recruited to have existing smart meters, as this would continue to be representative of GB consumption patterns. However, if only 5% of a Supplier's portfolio was existing smart metering customers, then it would be expected that smart metering customers would only form a small proportion of those recruited by that Supplier.

Exclusions from the profiling sample

A list of customer types to be excluded from the profiling Sample was created by the Group, and this includes:

- **Customers using or requesting the use of their own agents**

It is not possible to put an obligation on the customer and there would be difficulty in relying on the customer to provide HH data, as the customer is not a signatory to the Code.

- **Customers that use a prepayment meter**

Currently it is not possible to provide for prepayment metering and HH data collection at the same time, using the same meter. This requirement may be reconsidered in the future.

- **Customers that already have a 'smart' meter which is not HH capable**

Such meters will not be able to provide HH data for the PrA to create profiles. Additionally having just replaced the customer's original meter with this smart meter, it would not be in the interests of efficiency or a good customer relationship to swap it out for a second time.

- **Customers that own their own meter**

In most cases, customer owned meters are not HH capable.

- **Customers whose meters are controlled by the Radio Teleswitch Service (RTS)**

The Teleswitch equipment is incompatible with the minimum metering requirements required for P223 (i.e. it is not possible to have a HH capable meter with GSM access and Teleswitch equipment in a single meter).

- **Customers in Profile Classes 2 and 4 who are not on a continuous tariff, which is one hour, either side of 00.30 to 07.30 hours.** *For the avoidance of doubt, the PrA would require customers with two rate metering and where the low rate is overnight in one continuous time period (i.e. economy 7 where the high rate is 07:00 – 23.59 and the low rate 00:00 – 06:59). Low rate time periods such as 02:00 – 09:00 would mean that the customer is excluded from the sample. Customers that have their low rate split into two or more time periods would also be excluded. Please note that the switch load should be synchronised with the register.*

Where a randomly selected customer falls into one of the above groups, the Supplier shall randomly select a replacement customer before sending the list of selected MSIDs to the PrA. Such customers should not be provided to the PrA.

The Group agreed that Suppliers may also reject a randomly selected customer where there may be known access issues to that customer's premises. The Supplier will have to randomly select a replacement customer to send to the PrA.

Appropriate sample size

Subsequently the Group explored the issue on what the appropriate sample size would be ideal. One view looked at the possibility of significantly increasing the sample size, to buffer the loss of customers throughout the year. It was suggested that Suppliers could be requested for more customers than required.

The Group noted that currently the same is chosen in an unbiased manner and that there is no ideal way to deal with the attrition to the PrA sample. However, the majority of the Group felt that before the issue of sample size was looked at, a robust PrA process (for recruiting in an unbiased way) was required. In doing so Sample Participants would contribute to the creation of more accurate profiles.

It was concluded that this was outside the scope of P223 as the modification sought to replace the current PrA process with a new PrA process for recruiting customers, and not the issue of what the ideal sample size should be. Any changes to Sample sizes would have to be undertaken by the PEG (an expert group set up by SVG to consider profiling issues) and the SVG.

7.4 Supplier sends a list of suitable Sample Participants to the PrA

The Group agreed that the line of communication for the Supplier to send details of the selected customers to the PrA should be via email, using a standard template/format.

Having randomly selected the appropriate MSIDs, the information sent would contain the following:

- MSID;
- Name of customer and, if appropriate, a contact name;
- Address of customer, including billing address if different from the site address;
- Confirmation of Profile Class and SSC ID;
- Confirmation of GSP Group;
- Total annual energy consumption based on the latest 12-month period;
- Where applicable, day/night split of annual energy consumption based on the latest 12-month period;
- Where applicable, details of switching times for registers and/or load;
- The applicable annual Maximum Demand in kW based on the latest 12-month period;
- Whether the customer already has a HH capable meter that meets the minimum requirements for P223 (for rebate purposes and to know whether the PrA's DC can dial the meter if they are appointed as the agent);

- Whether the Supplier will use its own or PrA's agents for that customer (see Section 7.6 for further detail);
- Where applicable (e.g. for Profile Classes 5 to 8), the type of customer concerned (e.g. commercial); and
- Stratum.

It should be noted that the intention of P223, as supported by the majority of the Group, is that the concept of random sampling should be used by Suppliers. By this, we mean that the sample chosen should be a random and representative sample of the Supplier's customer base.

The reasons for the PrA requiring this information from the Supplier are noted below:

- In order that the PrA knows how many meters have been installed (for rebate calculation);
- In order that the PrA can identify a CoS (i.e. to recognise if data has not been received data, and to know where the shortfall is if the customer leaves the sample);
- If using PrA's agents, the PrA's MOA can assess whether it is practical to install the meter;
- In order that the PrA can identify any potential non-compliance with the requirement for random selection (see below);
- To allow PrA to track how representative the sample is (i.e. if needed to report to ELEXON/SVG etc.); and
- So that the PrA knows which customers, its agents will be appointed to (so that it can begin the meter installation process for these customers, and so it knows the amount it needs to rebate Suppliers who have kept their own agents).

The Group discussed that there is no obvious efficient method by which the PrA can monitor the Supplier choosing the Sample Participants. This would mean that Suppliers could affect the randomness of the sample if it was cheaper and easier to use, for example, existing smart meter customers rather than randomly chosen customers. However, it was noted that in doing so the Supplier would be in breach of its P223 Code obligations. It was understood that if a customer with a smart meter was randomly chosen, then they can partake in the PrA sample as long as customers with a smart meter are not over-represented in the sample as a result of deliberate recruitment.

It was suggested that the means by which a Supplier chooses the customer could be audited, but this was not pursued further as the Group could not identify an efficient method by which the PrA could monitor/observe the Supplier's selection.

It was noted that any obvious non-compliance with the principle of random sampling could be picked up by the PrA from the customer details provided. In conclusion it was agreed that the PrA/BSCCo will have the ability to either challenge the Supplier's selection by requesting replacement customers or inform the Performance Assurance Board (PAB) via BSCCo if it has reason to believe (from the customer details provided) that any Supplier has not selected customers in a random manner. Should any such circumstances occur, the PAB will deal with the suspected non-compliance under its existing assurance processes.

7.5 PrA assesses the customer's details sent by the Supplier

The Group agreed that the PrA will assess the customers provided by each Supplier using ECOES (Electricity Central Online Enquiry Service) to understand the suitability of the customer for the sample. The PrA will reject customers where information suggests that there would be significant difficulty in fitting HH metering equipment and collecting data, the customers do not appear to represent a sufficiently random sample (the PrA can challenge the Supplier's selection and inform the PAB where relevant) or the customer falls into one of the groups listed under Section 7.3.

BSCCo explained that the PrA will confirm with Suppliers which customers have been chosen for the sample and request alternatives for any customers that have been rejected. The Supplier will note the customers that have been accepted by the PrA as part of the sample. The Group agreed that the best form of correspondence between the PrA and the Supplier would be via email.

Under this arrangement the Supplier will not be required by the Code to inform the customer that they are part of the profiling sample. The Group has sought legal advice from BSCCo on whether there are any issues in not informing a customer that they are part of the PrA sample, due to concerns that there might be reputation issues for Suppliers if a customer inadvertently discovered that they were part of the sample without previously having been informed by their Supplier. A copy of the legal advice is reproduced in Appendix 1 for information. In summary, the legal advice is that there would be no requirement under the Code to inform the customer; however, Suppliers may wish to do so for their own customer relationship-management reasons.

The Group decided that the PrA will need to confirm/reject Sample Participants by the first Working Day in February each year in order that the necessary meters could be installed in time for the start of the data collection year on 1st April. The Supplier will be obliged to provide randomly selected replacement customers for any that are rejected by the PrA.

The Group noted that the reasons why the PrA might reject a customer include:

- The customer has not been selected randomly (the PrA has the ability to inform ELEXON/PAB);
- Location issue – e.g. sites that cannot be reasonably accessed; and/or
- Safety issues – this may be a physical safety risk or a personal safety risk to the installation staff.

It was noted that rejection for any of these reasons would be a rare event.

7.6 Choice of agent services

The Group considered the suggestion of the Issue 29 straw man that, under P223, MOAs for the sample customers could be retrospectively appointed following the installation of a meter. The logic behind this is that it is inefficient to appoint a MOA who might subsequently find that they are unable to install the metering solution at the customers premises, and consequently has to be de-appointed again.

While the Group agreed with the logic, the following concerns were highlighted:

- The introduction of a non standard process could lead to confusion amongst Supplier Agents and the Supplier deeming the whole process inefficient; and
- The retrospectively appointed MOA will not be able to use flows until appointed.

The Group also felt that the number of occasions when the MOA would have trouble installing the meter would be small, since the Supplier should have filtered out any customers with known access issues earlier in the process. However, the Group agreed to seek views via the impact assessment as to whether Suppliers/MOAs believed that they would have problems installing meters for sample customers.

The Group agreed not to progress the idea of retrospective appointment under P223, and that MOAs for sample customers should continue to be appointed prospectively. The Group noted that this change to the detail of the solution did not require an Alternative Modification, since the Modification Proposal itself was silent on the process for appointing MOAs.

As per the Issue 29 straw man, it was noted that the Supplier has the choice to procure, install and maintain the necessary metering for a customer using either its own Supplier Agents or the PrA's nominated agents.

The Group agreed that regardless of which option is chosen, the agents must either be the Supplier's or PrA's NHHDC, NHHDA, MAP and MOA. There is no option to mix the agents i.e. choose the PrA's NHHDC and MOA

but retain the services of the Supplier's NHHDC. If the Supplier elects to use the PrA's nominated agents, then those agents will therefore undertake all of the following requirements for that customer. The requirements are:

- Obtaining and installing the HH-capable meter (MAP/MOA – new process). It should be noted that customers with an existing HH capable meter will not be required to have their meter replaced as the existing meter can be used to collect HH data⁶;
- Collecting normal NHH data from that meter for Settlement (NHHDC – no change to existing industry processes);
- Aggregating the normal NHH data for Settlement (NHHDA – no change to existing industry processes); and
- Collecting HH data from the meter for profiling (NHHDC – new process).

The Group agreed that if a Supplier chooses to use its own nominated agents, then the Supplier's own agents will be responsible for fulfilling all of the above roles. The appointment and de-appointment of Party Agents in both cases follows the standard existing appointment/de-appointment processes and timescales under the BSC, e.g. D0155 'Notification of New Meter Operator or Data Collector Appointment and Terms' and D0209 'Instruction(s) to Non Half Hourly or Half Hourly Data Aggregator'.

The Supplier may choose an agent at a MSID level, i.e. if a Supplier has two MSIDs in the sample, the Supplier can choose the PrA's nominated agents for one MSID, and its own Supplier Agents for the other MSID.

The Group highlighted that there might be a preference among the larger Suppliers to use their own Supplier Agents, as such agents would be familiar with the respective Supplier's systems and the PrA's nominated agents may not. Another reason for a Supplier using its own agents could be explained if there are existing commercial arrangements in place with their agents (e.g. a contractual right to represent all their customers in a particular area). It was suggested that if larger Supplier has used the PrA's nominated agents, then there may be the need for system changes in order for there to be compatibility between the PrA's nominated agents and the respective Supplier. However, where Suppliers use their own agents, they and their agents would need to familiarise themselves with the changes brought about by P223. In such instances the Supplier will require a mechanism to inform its agents that a particular customer is part of the PrA sample and the appropriate lines of communication between the PrA, Supplier and Supplier agents be set up.

As a consequence, the Group agreed that a question should be asked in the P223 impact assessment in order to elicit details on whether Suppliers would prefer to use their own agents or the PrA's.

Responses received from the P223 impact assessment indicated that there was an even split between Suppliers wishing to choose the PrA's nominated agents and those that preferred to use their own Supplier Agents. In conjunction with the views of the Modification Group, this had the effect of changing the original choice of agent services solution. Originally a Supplier would have had to choose between the agent services for all its MSIDs at a Supplier level, but based on the views received from respondents and the Modification Group, this was changed to giving a Supplier the ability to choose its agent at an MSID level.

The Group noted that whilst some Suppliers may choose to use their own agents, there were potential advantages in choosing the PrA's agents, as these agents would be familiar with the P223 processes and there would be less effort involved for the Supplier in the PrA process. It was suggested that this would be a particular advantage for smaller Suppliers, since by using the PrA's agents they could reduce the effort they might need to spend supporting the process. The Group noted that this was originally a view expressed by some members of the Issue 29 Group, which had led them to develop the option for a Supplier to choose the PrA's nominated agents.

⁶ In instances where the PrA's nominated agents have been appointed and the customer has a HH capable meter that the PrA's DC cannot dial, the PrA would discuss with the Supplier the best approach.

7.7 Supplier's responsibility for the agents and Terms & Conditions

The Group agreed that the Supplier will remain responsible for the performance of all its agents (e.g. compliance with BSC Audit and PARMS standards), including where the PrA's agents have been appointed.

In instances where the Supplier chooses to use the PrA's nominated agents, the Supplier will need to enter into a contractual arrangement with the PrA. The PrA's Terms and Conditions will only cover the provision of agent services for the purposes of normal Settlement and profiling purposes (MAP, MOA, NHHDC, NHHDA), since these will be offered at zero direct cost to the Supplier.

The Group noted that one respondent to the impact assessment and consultation had expressed concern over the contents of the PrA's Terms and Conditions, specifically in the area of liability for any damage which might be caused to the customer's premises by the meter. The Group noted BSCCo's advice that standard Terms and Conditions in the market for Meter Operator Agents providing services to Suppliers cover off any liability as a result of damage caused by:

- a) A meter being wrongly installed; or
- b) A meter fault.

Therefore, where a Supplier has chosen the services of the PrA's nominated agents, the above standard terms and conditions will apply, and liability for any damage or injury will lie with the PrA's MOA (if the PrA's nominated MOA has installed the meter). BSCCo subsequently contacted the respondent to clarify this area.

Any further services that a Supplier may wish to obtain from the PrA's agents are possible as a separate matter of commercial negotiation and cost.

7.8 Minimum requirement specifications for the metering solution

The Group discussed and agreed that the meter used in the P223 solution must be HH capable, in order to obtain the required HH data for profiling purposes. As previously stated (Section 7.6), customers that already have a HH capable meter will not require to have their meter swapped, providing that it meets the meter requirements set out below and the appointed DC is able to dial the meter. It should be noted that the Group wished to specify the minimum meter requirements and that, if a Supplier wishes, it may install a meter which has additional functionality. However, obtaining and installing this additional functionality will be at the Supplier's own cost – see funding arrangements in Section 7.11.

The minimum requirements as agreed by the Group, for the HH capable meter are that it must:

- a) Comply with Schedule 7 of the Electricity Act, which details the legislative requirement for the meter to be used for Supplier billing;
- b) Be Ofgem-approved;
- c) Have the capability for the communications link to be replaced without needing to replace the meter or invalidating its certification;
- d) Have protocols that are compatible with the practices of the appointed NHHDC;
- e) Physically display NHH consumption information (the NHHDC will obtain the HH data by remote access e.g. GSM);
- f) Comply with [Code of Practice A](#) (CoP A) (Reference 6); and
- g) Meet the selected provisions as shown in the table below of CoP Five (Reference 3) and CoP Eight (Reference 4).

Area of requirements	Document	Sections
Accuracy	CoP8 Issue 1 v4.0	4.2 and 5.2

Area of requirements	Document	Sections
Measurement criteria	CoP8 Issue 1 v4.0	4.1, 5.1 and 6.3.1
Displays	CoP8 Issue 1 v4.0	6.3
Sealing arrangements	CoP8 Issue 1 v4.0	5.2.6, 5.2.8 and 7.3
Communications	CoP5 Issue 6 v5.0	5.6
Security requirements	CoP5 Issue 6 v5.0	5.6
Data Storage	CoP5 Issue 6 v5.0	5.5.1
Time keeping	CoP5 Issue 6 v5.0	5.5.2
Monitoring facilities	CoP5 Issue 6 v5.0	5.5.3

Please note that the above requirements are the minimum requirements. There may currently be no metering systems which match these minimum requirements. However, there are existing metering systems that exceed these requirements and can be used.

The solution does not require changes to Data Transfer Network (DTN) flows; the MOA/DC will need to use manual workarounds for any data that cannot be sent using the existing flows.

The appointed MOA will be responsible for ensuring that the installed HH-capable meter meets these requirements.

7.9 Installation of metering equipment process

P223 proposes that the HH consumption data necessary for profiling be obtained by installing a meter with HH capability at each sample customer's premises.

The Group has sought legal advice from BSCCo on whether the installation of HH capable metering at a NHH site is allowable under existing primary legislation. BSCCo has not established any existing legislation which would prevent such an installation. A copy of the legal advice is provided in Appendix 1 for information.

As discussed in Section 7.6, the Supplier will have two options available i.e. choose the PrA's nominated agents or its own agent and this will affect the installation of a meter as noted below:

a) ***If the Supplier utilises the option to use the PrA's nominated Agents***

The PrA will inform its nominated agents which MSIDs have been identified by the Supplier and the MOA will contact the customer (using contact information obtained from the Supplier) and swap out the customer's existing meter for a suitable HH capable meter (please refer to Section 7.8 for details of the minimum metering requirements).

If the PrA's nominated MOA declares that the customer is not suitable to have the new metering equipment fitted, the PrA will re-contact the Supplier and the customer is rejected. This would mean that the process of randomly recruiting a replacement customer will begin as per Section 7.3

If MOA informs that the customer is suitable, then the MOA will fit equipment provided by the MAP and use current industry processes.

b) ***If the Supplier utilises the option to use its own agents***

The Supplier will need to inform its own agents the MSIDs that have been identified as potential recruits to the PrA Sample.

The MOA will contact the customer and will swap out the customer's existing meter for a suitable HH capable meter.

In this instance, if the Supplier's own MOA declares that the customer is not suitable to have the new metering equipment fitted, the MOA will have to inform the Supplier. Consequently the Supplier will inform the PrA that the customer's meter cannot be swapped.

As with the option of the Supplier choosing the PrA's agents, the PrA will reject the customer and the process of randomly recruiting a replacement customer will begin as detailed in Section 7.3

If MOA informs that the customer is suitable, then the MOA will fit equipment provided by the MAP and use current industry processes.

7.10 NHHDC obligations

For simplicity this sub section has been divided into several sub headings as below:

Appropriate communication method for meter readings

The Group noted that the NHHDC would have additional obligations and discussed the best line of communication between the NHHDC and the PrA for the submission of HH data. The following options were discussed:

- **Email:** A standard format and template would be adopted;
- **A new D flow:** The Group did not pursue this further as the creation of a new D flow would require significant Supplier and NHHDC system changes, would require changes to the Data Transfer Network (DTN)/ Data Transfer Catalogue (DTC), and as a consequence would have increased cost implications;
- **The use of existing HH data D flows:** The use of existing D flows would still require changes to the DTC/DTC, to add the PrA as a flow recipient, and was therefore not seen as a cost effective solution. Additionally it was felt that this option had the potential to confuse agents, especially Data Collectors who operate in both HH and NHH markets. Such confusions could arise from sending a normal HH Settlement flow through a non standard route or for Data Collectors who only operate in the NHH market and are not familiar with sending HH flows. As a consequence, this could create inefficiencies in the HH and NHH data provision to the PrA and into Settlement respectively.

The Group therefore agreed that the default form of communication should be email. However, the Group agreed that P223 should allow for another method to be agreed between the NHHDC, PrA and the Supplier if an alternative and more efficient solution was found (e.g. if it was more efficient for the Supplier/NHHDC to let the PrA download data from a specified server). The method would need to be agreed with the Supplier as well as the PrA, as the Supplier is ultimately responsible for the Data Collector's actions.

NHHDC responsibilities

In conclusion, the Group agreed that the following obligations be placed on the NHHDC:

- a) Collect NHH data from MOA fitted equipment (as currently);
- b) Calculate meter advances based on the NHH data collected or by obtaining a NHH register read from the meter (as currently);
- c) Submit the calculated Annualised Advance (AA) via a D0019 'Metering System EAC/AA' to the NHHDA for Settlement purposes and a copy to the Supplier (as currently);
- d) Remotely collect and provide HH data to the PrA within 10 Working Days of the start of each month. Alternatively the NHHDC can provide the Supplier with the HH data, who in turn can provide the data to the PrA. The NHHDC will batch data from all MSIDs into one data file so as to reduce the volume of email correspondence, and send this via either a standard email template/format or another method as agreed between the NHHDC, Supplier and the PrA. By using a standard format, a more consistent

approach would be adopted and it would help reduce processing time for the PrA. This will be undertaken on a monthly basis for Profile production whilst sending a copy to the Supplier for its own research purposes. Obtaining the data on a monthly basis will enable the PrA to pick up any events such as Change of Supplier. It was felt that sending readings more frequently would not be as efficient due to the large volume of email correspondence which in turn would require more effort from the NHHDC (to send) and the PrA to process.

Provision of HH data to the customer

In line with the existing Code requirement on the Supplier (BSC Section L5.1 'Ownership of Metering Data'), the Supplier shall provide HH data to the customer if requested. This is not a mandatory requirement of P223 and, unless requested, the Supplier would not usually pass such data to the customer, as there is the risk that the participant's future consumption patterns may consequently alter (thus making the sample less representative). If the Supplier does pass HH data to the customer, they will inform the PrA of this occurrence.

For the avoidance of doubt, the PrA itself (or the PrA's agents) shall not provide HH data to the customer from which it has been obtained. If the customer requests such data from the PrA or the PrA's agents, then the PrA/its agents shall refer the customer to their Supplier.

The Group acknowledged that the provision of such data could lead to the customer changing their usage, but believed that such a change would be short term. The Group felt that there were other factors, most notably price, that could have bigger impacts on the behaviour of a customer.

Legal advice was sought from BSCCo as to whether it is appropriate for a Supplier to pass a customer's HH consumption data to the PrA without the customer's express permission. BSCCo has not found any reason why the Code could not place a requirement on Suppliers to provide this HH information to the PrA in respect of NHH customers. However, in complying with this requirement, Suppliers will need to be mindful of relevant Data Protection legislation, and may wish to review their Terms and Conditions in this area. A copy of the legal advice is provided in Appendix 1 for information.

Treatment of communication link failures

If the NHHDC becomes unable to obtain HH data for a customer (e.g. due to a communications link failure with the meter), the NHHDC shall notify the Supplier (if the NHHDC is the Supplier's own agent) or the PrA (if the NHHDC is the PrA's preferred agent). The Supplier or the PrA (as appropriate, and with the support of the MOA if necessary) shall be responsible for investigating and rectifying the problem (e.g. repairing the meter).

If the PrA notifies the Supplier that data has not been received from the NHHDC for a Sample Participant (where the NHHDC is the Supplier's own agent), then the Supplier shall also be responsible for investigating and rectifying the problem with support from the NHHDC and MOA as required. However, this requirement does not apply where there has been a Change of Supplier for the customer. The obligations relating to a Change of Supplier are set out separately in Section 7.12 below.

7.11 Details of funding for the PrA process (funding for the recruitment and meter installation process)

The intention of the original Issue 29 straw man was that the PrA would fund all applicable MAP, MOA NHHDA, NHHDC and meter costs if a Supplier chose to use the PrA's agents. However Suppliers who chose to use their own agents would have no financial support from the PrA and would have to pay for the associated costs themselves.

The Group felt that this was inappropriate as it would give a financial incentive to Suppliers to use the PrA's agents rather than providing two comparable options. It was believed that this could be seen as anti-competitive. As a result, it was agreed that regardless of what 'agent option' is chosen the cost to the

Supplier should remain cost-neutral as far as possible. Therefore, a solution was developed that would refund Suppliers for the cost of obtaining and installing the meter and obtaining the HH data, where the Supplier chose to use its own agents.

It was noted that this did not require an Alternative Modification, since the Modification Proposal itself was silent with respect to funding arrangements. The Group noted that the PrA will fund the cost of obtaining the metering equipment for the Supplier if:

- The Supplier uses the PrA's Agent services; or
- The Supplier's own agents install a meter that meets the minimum metering requirements required to obtain the HH data for the PrA. The PrA will annually pay each Supplier a standard amount per meter based on the cost of obtaining a meter which only met the minimum requirements as set out in Section 7.8 of this document (the PrA will review the amount paid on an annual basis). The Supplier will not be required to inform the PrA of the number of meters it has installed (or the corresponding MSIDs), as the PrA will hold this data and will automatically issue a rebate to the Supplier each year.
Please note that if the Supplier wished to install a meter which went beyond the minimum metering requirements the Supplier would be expected to fund the cost of the extra functionality since this would not be needed for the purposes of profiling.

If a Supplier has previously installed a HH capable meter that meets the minimum requirements in Section 7.8 at the customer's premises, prior to that customer being chosen for the sample, the Supplier will not be offered a rebate by the PrA as such a meter has been installed prior to the customer being part of the PrA sample and therefore no meter replacement has been undertaken.

The Group felt that the choice of agent services should be left to Suppliers. It was also noted that including the requirement for the PrA to rebate Suppliers where a Supplier keeps their own agents would reduce the potential overall cost savings of P223 to the PrA.

For those Suppliers that wish to use the PrA's nominated agents there will be no direct cost to the Supplier for the agency services provided by the PrA. However, the costs incurred by the PrA in funding metering installations and agency services will ultimately form part of the PrA's overall service costs. PrA service costs fall under the SVA Costs under Annex D-2 of the Code, which are in broad terms chargeable 50% to generators (divided between them on generation market share) and 50% to suppliers (a fixed charge per HH meter with the residual recovered from NHH suppliers by NHH market share).

It was agreed that Suppliers which choose to use their own Supplier Agents, an annual rebate will be offered by the PrA that includes:

- The cost of installing a meter which meets the minimum P223 metering requirements (with any additional meter functionality to be separately paid for by the Supplier);
- The associated MOA costs; and
- The airtime and dial costs for the NHHDC to collect the HH data.

The PrA will automatically calculate and issue this rebate to Suppliers once a year, based on its records of which sample customers use Suppliers' own agents.

The Group agreed that the rebate should exclude the costs of collecting normal NHH data for Settlement and associated NHHDA costs, since no changes are proposed to these processes.

It should be noted that the rebate will be calculated on an annual basis and based on the average cost to the PrA in the previous year of providing its own services in these areas for a Sample Participant.

For customers who have only been in the sample for part of the year (due to a CoS), the Supplier will receive 50% of the full agent rebate cost. It was agreed that customer movement on a CoS would work out to be 6 months on average. For example, the Supplier would have a customer leaving the sample at the beginning of the year, but have other customers leaving towards the end of the year. In this example, the average time

stayed in the sample for these two customers is around 6.5 months. Additionally it was felt that this arrangement would be easier to implement and administer when compared to providing a rebate based on the number of months that a customer was in the PrA sample.

7.12 Change of Supplier

The Group noted that the 'description of the Proposed Modification' in the Modification Proposal specified that, upon a Change of Supplier (CoS), the New Supplier would be obliged to continue providing HH data to the PrA. The Group noted that it would therefore need to develop the detailed requirements to underpin this Proposed Modification solution, and that any change to this principle would require an Alternative Modification.

Under the Proposed Modification, the Group agreed that the responsibility shall be on the PrA to identify where a CoS has occurred and to contact the New Supplier to inform them that the customer is part of the PrA sample (the PrA would be aware through the normal de-appointment process). The new Supplier would be obliged to continue providing HH data to the PrA. Prior to the Group agreeing that it was the PrA's responsibility to identify a CoS, they explored the possibility of placing an obligation on Suppliers to track the movement of the customer and inform the PrA of a CoS. However, it was concluded that this was likely to result in significant system and process costs to the Supplier.

The actual CoS process remains unaltered from existing industry processes. If the Supplier uses the Supplier's own agents for the recruitment and data collection processes, then the New Supplier may not know that the customer is a PrA Sample Participant. In such instances the PrA may no longer receive data from the Supplier's NHHDC. In such circumstances, the PrA will use the Electricity Central Online Enquiry Service (ECOES) to find out whether a CoS has occurred. If the PrA establishes that a CoS has taken place, the PrA will contact the customer's New Supplier. If ECOES indicates that a CoS has not occurred, the PrA shall contact the current Supplier to establish why it is no longer receiving data for that customer.

In instances where the Supplier has used the PrA's nominated agents, the PrA's nominated agents will be de-appointed on CoS in accordance with existing industry processes. The PrA will contact the New Supplier (using information from ECOES on who the New Supplier is, and through the dedicated profiling contact at the New Supplier) to inform the New Supplier that the customer is part of the PrA sample.

In both scenarios, the Group agreed that the New Supplier will have a choice between either retaining the existing customer in the sample, or retiring that customer from the sample and providing a replacement Sample Participant with another MSID randomly selected from that Supplier's customers. The New Supplier has the option to use its own agent services or the PrA's nominated agents for the customer. The PrA will update its records to show the following:

Where the existing customer is retained:

- Reflect the New Supplier contact details for the existing customer;
- Cease any further rebates to the Old Supplier (if the Old Supplier had used its own agents); and
- Ensure that future rebates are issued to the New Supplier (if the New Supplier chooses to use its own agents), or

Where the existing customer is retired and a replacement customer provided by the Supplier:

- Remove the old customer from the list of Sample Participants;
- Cease any further rebates to the Old Supplier (if the Old Supplier had used its own agents);
- Add the new customer to the list of Sample Participants; and
- Ensure that future rebates are issued to the New Supplier (if the New Supplier chooses to use its own agents).

If on a CoS the existing Sample Participant leaves the PrA sample (e.g. the new Supplier's agents have swapped the meter to one that they are familiar with) then their HH capable meter will be classed by the Old Supplier/PrA as a lost asset. The New Supplier will take ongoing responsibility for the maintenance of that meter under existing industry processes.

The group debated the following Alternative approaches to supporting the retention of customers on a CoS under the Proposed Modification:

- **Supplier to Supplier customer tracking:** The principle behind this suggestion was to enable a Supplier to identify whether a particular customer was part of the PrA sample or not, so that a New Supplier would be aware of this at the point of a CoS without needing to be notified by the PrA. The Group felt that tracking a customer on Supplier systems, especially on a CoS, would require significant system changes and as a result significant cost implications when compared to a small number of customers that were part of the PrA sample. For this reason this option was not considered further; and
- **Labelling of PrA meters:** There was a suggestion that PrA meters should be labelled, as a means to identify to the New Supplier that a particular customer is part of the PrA sample. This could highlight to the new Supplier to investigate what further actions would be need to be taken under such scenarios. Additionally it could also stop the new Supplier from replacing the meter to one that it is familiar with, which would mean that the customer has to be withdrawn from the PrA sample.

However, there were concerns from some members that a requirement for such labelling could be overly prescriptive and could result in further financial implications, as agents would have to be trained to identify these labels. As a result this suggestion was not pursued further.

Having agreed the solution for the Proposed Modification, concerns over the costs to Suppliers of retaining/replacing customers on a CoS led the Group to substantially develop an Alternative Modification whereby customers would automatically be lost from the sample on a CoS and not replaced until the following year's recruitment round. Details of this Alternative can be found in Section 8. Other Alternative Modification options which were considered but not progressed by the Group are documented in Section 9 of this document.

7.13 Change of Tenant

BSCCo explained that the intention of the Issue 29 straw man was that the PrA will re-confirm the customer details of each Sample Participants with the relevant Suppliers on a yearly basis, and in particular will request information on any Change of Tenant (CoT) that have occurred during the year. Where a CoT has occurred the PrA would need to review whether the customer is in the correct Profile Class/Stratum for the forthcoming year.

It was agreed that the Supplier shall inform the PrA on a yearly basis if there has been a CoT for any of its customers who form part of the profiling sample. Where a CoT has occurred, the PrA will review the data subsequently collected from the meter and will decide where the new tenant sits within the sampling frame. Where appropriate the PrA will consequently review its recruitment requirements for the forthcoming year as necessary (e.g. if the CoT has created a shortage of a particular type of Sample Participants in a specific Profile Class).

A majority of members believed that running a once-yearly report to identify any CoT would not be an onerous requirement for Suppliers given the small numbers of customers involved, a view supported by many of the impact assessment respondents.

8 DETAILED ALTERNATIVE MODIFICATION SOLUTION REQUIREMENTS

As required by the P223 Terms of Reference, the Group considered whether there might be any Alternative Modification which would better facilitate the achievement of the Applicable BSC Objectives when compared with the Proposed Modification. The Group subsequently developed an Alternative Modification by majority, details of which can be found below.

The requirements for the Alternative Modification are identical to that of the Proposed Modification other than where a Change of Supplier (CoS) is concerned.

Under the Alternative Modification, where a CoS occurs, the customer will automatically be lost from the PrA sample. There will be no obligation on the Old Supplier, New Supplier or PrA to retain the customer. The meter will therefore be classed by the Old Supplier/PrA as a lost asset and the New Supplier will take ongoing responsibility for the maintenance of that meter under existing industry processes. There will be no responsibility on the Old or New Supplier to provide a replacement customer following a CoS.

This shortfall will be taken into account at the following year's sample recruitment process as explained in Section 7.1, where the number of required customers will again be pro-rated across all Suppliers by market share.

In instances where the PrA's nominated agents have been used, the PrA will become aware of the Change of Supplier at the point of agent de-appointment. Where the Supplier has used its own agents, the PrA will stop receiving data for the customer without any notification⁷. In such circumstances, the PrA will use ECOES to identify whether a CoS has occurred. Following a CoS, the PrA will update its records to:

- Remove the old customer from the list of Sample Participants (in order that the PrA can correctly identify the shortfall in the sample for the following year); and
- Cease any further rebates to the Old Supplier (where the Old Supplier used its own agents).

This Alternative Modification was developed as a majority of Group members felt that it would be unworkable for the New Supplier to keep the existing customer in the sample. These members considered that by the time the PrA became aware of the CoS and contacted the New Supplier, the New Supplier was likely to have already replaced the meter. This was because these members believed that it is common practice amongst some Suppliers (especially larger Suppliers) to automatically swap out meters following a CoS.

In addition, it was also believed that requiring the New Supplier to provide a replacement customer on an ad-hoc basis through the year would be an onerous requirement, and that it was preferable to simply lose the customer and replace them in the next year's recruitment round.

A minority of the Group disagreed with these views and believed that nominating replacement customers would not require significant effort. These members noted that not all Suppliers automatically swap out meters following a CoS. These members also believed that high numbers of customers would be likely to change Supplier during a given year, and that this high churn rate would prove to be costly to the industry as a whole. If such customers were automatically lost from the sample, their previously installed meters would become stranded assets with the result that more meters would have to be installed for replacement customers at the beginning of the subsequent year. These members noted that this would increase the costs to the PrA of funding meter installations, which would ultimately be recouped from Parties as part of the PrA's service costs to BSCCo. The cost implications of the Alternative Modification were subsequently considered as part of the Group's cost-benefit analysis of P223, details of which can be found in Section 5.

It was agreed by the Group that the industry impact assessment should ask a specific question as to the costs to Suppliers of retaining/replacing customers on an ad-hoc basis following a Change of Supplier (Proposed Modification), compared with automatically losing the customer from the sample (Alternative Modification) without further Supplier action being taken. The Group noted that the potential cost savings to Suppliers

⁷ If ECOES indicates that a CoS has not occurred, the PrA shall contact the Old Supplier to establish whether there is another reason why it is no longer receiving data for that customer (see section 4.10).

from not replacing the customer until the following year could then be balanced against the increased central costs which would result from replacing the meters lost on a CoS.

Responses from the P223 impact assessment felt that when compared to the Proposed Modification, the loss of meters under the Alternative Modification would prove to be costly while removing the complication of customer tracking during a CoS. The Modification Group noted these concerns and stated that this issue would diminish as smart meters become more common amongst customers. It was suggested that another approach could be to increase the target sample size (i.e. to ask Suppliers for more customers than actually needed each year), so that it would not matter if customers are lost and not replaced following a CoS. However, on balance, the Group did not progress this further as:

- The target sample size is already set higher than the actual data collection target, to take account of natural attrition and data loss in the sample;
- The SVG has the existing ability to amend the sample size at any time outside of P223, and it was not the original intention of P223 to adjust the sample target but to put in place a process to enable the recruitment of a random, representative sample regardless of the target size; and
- There would be no difference in central costs in recruiting these 'buffer' customers in advance at the beginning of the year compared with recruiting them in arrears at the end of the year (since the costs of obtaining and installing the additional meters would be the same). The number of stranded assets which would result from CoS would be the same, as under both approaches customers would still automatically be retired from the sample on a CoS.

9 ALTERNATIVE MODIFICATION SOLUTIONS CONSIDERED BUT NOT PROGRESSED

The Group considered, but agreed not to progress, four other potential Alternative Modifications as set out below:

(a) PrA dials meter irrespective of who the Supplier is (variance on the CoS and agent services aspects of the solution): The Group considered the suggestion of allowing the PrA to dial a meter for HH readings irrespective of who the Supplier and DC were. It was suggested that, under such circumstances, the PrA would not need to be aware or take any action on a CoS and the Supplier could keep its own Supplier Agents. It was noted that this would need to be progressed as an Alternative Modification, since the 'description of Proposed Modification' in the Modification Proposal form specified that Suppliers would either appoint their own agents or the PrA's to obtain the HH data.

The Group discussed the following implications of this option:

- The PrA would be required to dial all types of meters in light of there being different protocols for accessing different meters, and the PrA would be required to communicate between all MOAs;
- The Group acknowledged that this would also provide complications for the MOA, in that there would be password and access issues. The MOA would be required to set password levels and differing access permissions for the customer, NHHDC and NHHDA;
- Some members of the Group felt uncomfortable in having an organisation who is not the appointed NHHDC accessing a customer's meter readings. It was noted that there are no existing provisions in the Code for such instances;
- Some members also felt that this could potentially cause errors in data that is obtained from the meter. For example, the NHHDC and MOA could align the meter clock with their respective systems, or mistakenly reset the meter clock. In such instances the PrA would not be aware of this and in turn could cause either missing HH data or inaccurate HH data for profiling purposes;

- There could be technical problems with two Parties dialling the meter at the same time. Some members also felt that this suggestion could conflict with the provisions of CoP 5; and
- This solution would not prevent the risk that, following a CoS, the New Supplier might remove the HH capable meter due to not realising that the customer was in the PrA sample.

On balance, the Group considered that this option would create more complications than it resolved and therefore did not pursue this further since they believed it would not be the most efficient solution.

(b) De-minimus threshold (variant of recruitment request process): This suggestion put forward a threshold below which Suppliers would not be requested to provide Sample Participants for the PrA sample. The Group questioned whether it was efficient for a smaller Supplier to put in place systems and/or processes to support P223 if they were only requested to provide a handful of customers. However, the Group on balance did not progress this option further since:

- It did not believe that requesting a very low volume of customers from small Supplier would be an onerous requirement, noting that small Suppliers could probably implement this requirement through manual processes without any costly system changes (this view was subsequently borne out by the impact assessment responses received from small Suppliers, which indicated only minor costs and impacts resulting from P223);
- Excluding all small Suppliers from the requirement to provide customers could make the sample selection less random and representative of the different types of consumption in Great Britain (e.g. a small niche Supplier may cater to a specific customer type which would not be represented in the sample if that Supplier was excluded);
- It was queried whether it was equitable for only some Suppliers to support the sample recruitment process, given that the pro-rating the number of required customers by market share was already designed to achieve an equitable allocation across different sizes of Supplier; and
- Under the Proposed Modification, if a small Supplier was excluded because of the De-minimus threshold, it would still pick up customers on a CoS and be required to keep these customers or provide new ones. Including the threshold would therefore not prevent small Suppliers from having to implement processes to support P223.

(c) Supplier appoints the PrA as its appointed MOA whilst enlisting the services of its own Supplier NHHDA and NHHDC (variant of the CoS and agent services aspects of the solution):

Under this arrangement, the Supplier would appoint the PrA's agent as MOA while retaining their own NHHDA and NHHDC. It was suggested that this would give a consistent approach in managing the metering solution, as the PrA would install the meters for all Sample participants across all Suppliers. In addition, the PrA's MOA would have direct access to HH data (acting in effect as the data retriever), such that the Supplier could retain its own NHHDC without needing to provide the HH data. With respect to costs, the PrA would pick up the cost of installing the meter. The Supplier's agent management processes are largely unaffected. Where a CoS occurs, it was suggested that standard industry processes could be employed and the likelihood of having a stranded asset or change of meter would be relatively low, which would mean that a consistent PrA sample would be maintained (i.e. on a CoS, the old Supplier could de-appoint its agents via normal existing processes). On notification of de-appointment, the PrA's MOA could contact the old Supplier to enquire about the CoS. Consequently, the MOA could contact the new Supplier and request to be appointed as the MOA for that customer. However, on balance, the Group agreed not to progress this option for the following reasons:

- This approach might cause issues for those Suppliers who have exclusivity arrangements with their MOAs since, if introduced as a mandatory solution, these Suppliers would have to break such arrangements to use the PrA's MOA; and

- Making this approach optional would not solve the issues around CoS, as there would still be the potential that the customer is lost from the sample and Suppliers would still need to put in place special processes for communicating with the PrA following a CoS (adding complexity).

There were also concerns on whether the PrA's MOA could provide its services nationally.

(d) Choice of retaining or losing a customer on a CoS: This arrangement would adopt a 'half way' point between the Proposed and Alternative Modifications. When a CoS occurs, the Supplier would have a choice to either retain or lose the customer. The PrA would contact the new Supplier on becoming aware that a CoS has taken place. The Group noted from the P223 impact assessment that some Suppliers preferred customers to be retained in the sample, and others for customers to be withdrawn. However, on balance, the Group felt by majority that this option would add more complexity, since it would still require Suppliers to put in place special processes to communicate with the PrA on a CoS. It was felt that smaller Suppliers who would potentially find it the easiest to retain the customer and as a result, only a small proportion of customers would actually be retained.

10 TERMS USED IN THIS DOCUMENT

Other acronyms and defined terms take the meanings defined in Section X of the Code.

Acronym/Term	Definition
BSCP	Balancing and Settlement Code Procedures
CoP	Code of Practice
CoS	Change of Supplier
CoT	Change of Tenant
DTN	Data Transfer Network
EAC/AA	Estimated Annual Consumption / Annualised Advance
ECOES	Electricity Central Online Enquiry Service
GCF	Group Correction Factor
GSM	Global System for Mobile
GSP	Grid Supply Point
HH	Half Hourly
IWA	Initial Written Assessment
MAP	Meter Asset Provider
MOA	Meter Operator Agent
MSID	Metering System Identifier
NHH	Non Half Hourly
NHHDA	Non Half Hourly Data Aggregator
NHHDC	Non Half Hourly Data Collector
PARMS	Performance Assurance Reporting and Monitoring System
PrA	Profile Administrator
RTS	Radio Teleswitch Service
SSC	Standard Settlement Class
SME	Small and Medium Enterprises
SMRA	Supplier Meter Registration Service
SPM	Supplier Purchase Matrix
TPS	Telephone Preference Service

11 DOCUMENT CONTROL

11.1 Authorities

Version	Date	Author	Reviewer	Reason for Review
0.2	22/07/08	Sherwin Cotta	Kathryn Coffin/Adam Lattimore	For peer review
0.3	23/07/08	Sherwin Cotta		For Modification Group review
0.5	30/08/08	Sherwin Cotta	Kathryn Coffin/Adam Lattimore	For quality review
0.7	05/08/08	Sherwin Cotta	Steve Francis	For technical review
1.0	08/08/08	Change Delivery		For Panel decision

11.2 References

Ref.	Document Title	Owner	Issue Date	Version
1	P223 'Profile Administrator Service' Initial Written Assessment	ELEXON	04/04/08	1.0
2	Issue 29 'Profile Administrator (PrA) Model' - Panel paper 135/01e	ELEXON	11/01/08	1.0
3	Code of Practice Five 'Code of Practice for the metering of Energy transfers with a Maximum Demand of up to (and including) 1MW for Settlement purposes'	ELEXON	28/02/08	5.0
4	Code of Practice Eight 'Code of Practice for the metering of Import Active Energy via Low Voltage Circuits for Non Half Hourly Settlement purposes'	ELEXON	23/08/07	4.0
5	BSCP510 'The Provision of Sampling Data to the Profile Administrator'	ELEXON	BETTA effective date	2.0
6	Code of Practice A 'Code of Practice for the metering of Electricity Transfers between the National Grid Company plc and public Electricity Suppliers using the national interim metering scheme'	ELEXON	21/11/06	n/a
7	P223 'Profile Administrator Service' Requirements Specification	ELEXON	29/04/08	1.0
8	Straw Man PrA Model for discussion by Potential Issue Group – SVG Paper 78/05 ELEXON - Supplier Volume Allocation Group (SVG) Papers - Meeting Number 078 - 31/07/07	ELEXON	09/07/07	1.0
9	Issue 21 'Scope of Profiling Administration Service' – Panel Paper 112/06 ELEXON - BSC Panel Paper Meeting number 112 - 09/03/06	ELEXON	02/03/2006	1.0
10	P223 'Profile Administrator Service' consultation document	ELEXON	01/07/08	1.0

APPENDIX 1: DRAFT LEGAL TEXT AND LEGAL ADVICE

BSCCo developed the draft legal text for P223 and provided an explanation of this to the Modification Group at the final P223 meeting. The Group reviewed the draft legal text by correspondence and unanimously agreed that the draft Legal text delivered the intended solution.

Draft legal text for the Proposed Modification is attached as a separate document, Attachment 1a.

Draft legal text for the Alternative Modification is attached as a separate document, Attachment 1b.

A copy of the BSCCo legal advice referred to in this document is attached as a separate document, Attachment 1c.

A copy of a requirements matrix which shows where the P223 requirements lie in the BSC and BSCPs is attached as Attachment 1d.

APPENDIX 2: APPLICABLE BSC OBJECTIVES

For reference the Applicable BSC Objectives, as contained in the Transmission Licence, are:

- (a) The efficient discharge by the licensee [i.e. the Transmission Company] of the obligations imposed upon it by this licence [i.e. the Transmission Licence];
- (b) The efficient, economic and co-ordinated operation of the GB transmission system;
- (c) Promoting effective competition in the generation and supply of electricity, and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity;
- (d) Promoting efficiency in the implementation and administration of the balancing and settlement arrangements.

APPENDIX 3: PROCESS FOLLOWED

Copies of all documents referred to in the table below can be found on the BSC Website at:

<http://www.elexon.co.uk/changeimplementation/ModificationProcess/modificationdocumentation/modProposalView.aspx?propID=243>

Date	Event
10/04/08	Modification Proposal raised by the Panel
10/04/08	IWA presented to the Panel
11/04/08	First Assessment Procedure Modification Group meeting held
18/04/08	Second Assessment Procedure Modification Group meeting held
02/05/08	Third Assessment Procedure Modification Group meeting held
08/05/08	One-month timetable extension agreed by the Panel
14/05/08	Requirements Specification issued for PrA impact assessment
14/05/08	Request for Party/Party Agent impact assessments request issued
14/05/08	Request for BSCCo impact assessment issued
30/05/08	BSCCo impact assessment returned
11/06/08	PrA impact assessment returned

Date	Event
11/06/08	Party/Party Agent impact assessment responses returned
19/06/08	Fourth Assessment Procedure Modification Group meeting held
02/07/08	Assessment Procedure consultation issued
02/07/08	Request for Transmission Company analysis issued
15/07/08	Consultation responses returned
15/07/08	Transmission Company analysis returned
18/07/08	Final Modification Group meeting
14/08/08	Assessment Report presented to the Panel

Estimated Costs of Progressing P223 through the Modification Process ⁸	
Meeting Cost	£ 2,500
Legal/Expert Cost	£ 0
Impact Assessment Cost	£ 5,000
ELEXON Resource	103 man days £ 21,965

The above costs have changed from the IWA phase, reflecting the one-month extension to the P223 Assessment Procedure.

Modification Group Membership						
Member	Organisation	11/04	18/04	02/05	19/06	18/07
Kathryn Coffin	ELEXON (Chair)	√	√	√	√	√
Sherwin Cotta	ELEXON (Lead Analyst)	√	√	√	√	√
Mo Rezvani	Scottish and Southern	√	Part	X	√	√
Neil Lawrence	Centrica	Part	X	√	√	√
Louisa Stuart-Smith	npower	√	√	√	√	√
Tim Roberts	Scottish Power	√	Part	√	√	√
Malcolm Davis	Bizz Energy	√	√	√	√	√
Colette Baldwin	E.ON	X	√	√	√	√
Ed Reed	Cornwall Energy Associates	√	√	√	X	X
Attendee	Organisation	11/04	18/04	02/05	19/06	18/07
Kevin Spencer	ELEXON (Technical Support)	√	√	√	√	X
Richard O'Malley	ELEXON (Lawyer)	X	Part	X	X	X
Steve Francis	ELEXON (Design Authority)	√	√	√	X	X

⁸ Clarification of the meanings of the cost terms in this appendix can be found on the BSC Website at the following link:
http://www.elexon.co.uk/documents/Change_and_Implementation/Modifications_Process_-_Related_Documents/Clarification_of_Costs_in_Modification_Procedure_Reports.pdf.

Justin Andrews	ELEXON (Technical Support)	X	X	X	√	√
Nigel Nash	Ofgem	X	Part	X	X	X
Claire Rosyn	Ofgem	x	√	X	X	X
Matthew Osborne	Ofgem	X	X	X	√	√

Modification Group Terms Of Reference

Modification Proposal P223 will be considered by the P223 Modification Group (which will be formed from the Volume Allocation Standing Modification Group), in accordance with the VASMG's Terms of Reference and this Appendix.

P223 – Profile Administrator Service

- 1.1 The Modification Group will carry out an Assessment Procedure in respect of Modification Proposal P223 in accordance with Section F2.6 of the Code.
- 1.2 The Modification Group will produce an Assessment Report for consideration at the BSC Panel Meeting on 10 July 2008.
- 1.3 In addition to the areas set out in Annex F-1 of the Code, the Modification Group shall consider and/or include in the Assessment Report as appropriate:
 - The detailed solution requirements to support the Issue 29 'straw man', including:
 - The most appropriate line of communication between Suppliers, Party Agents and the Profile Administrator (PrA) (including whether any changes may be required to the Master Registration Agreement's (MRA) Data Transfer Catalogue (DTC) or Data Transfer Network (DTN));
 - The process by which the PrA informs Suppliers which Participant Samples are required;
 - How Suppliers would utilise the option to use the PrA's Party Agents (NHHDC, NHHDA and MOA);
 - Whether there is an issue with P223 introducing the retrospective appointment of MOAs;
 - How the proposed P223 process would interact with a Change of Supplier, Change of Supplier Agent or/and Change of Tenant, to ensure continuity of a participant in a Sample; and
 - The minimum metering requirements to collect Half Hourly consumption data from Non Half Hourly customers.
 - Confirm whether the proposed P223 solution does not create barriers to any industry-wide smart meter roll-out which may occur within the next few years (including any specific considerations in this area which may arise for individual Profile Classes or types of customers)⁹;
 - Whether placing a Code obligation on Suppliers to install certain metering is compatible with existing primary legislation;
 - A cost-benefit analysis of P223, to be undertaken by:

⁹ Please note that this depends on the forthcoming decision from BERR on smart metering.

- Establishing when the benefits of P223 will be realised in practice, and considering whether these benefits are likely to continue to be realised in the long term (e.g. will the P223 solution become redundant under an industry-wide smart meter roll-out?);
 - Establishing any central cost/effort savings to the PrA/BSCCo which will occur as a result of P223;
 - Modelling hypothetical scenarios to attempt to identify the materiality of the issue/defect identified by P223 and its impact on types of participant; and
 - The implementation costs to Suppliers and Supplier Agents from P223, over and above the current costs of supporting Suppliers' existing Code obligations in relation to profiling.
- Whether the solution set out in the Modification Proposal is appropriate, or if there may be any Alternative Modification which (when compared with the Proposed Modification) would better facilitate the achievement of the Applicable BSC Objectives in relation to the issue or defect identified in the Modification Proposal.

APPENDIX 4: RESULTS OF IMPACT ASSESSMENT

a) Impact on BSC Agent contractual arrangements

BSC Agent Contract	Impact of Proposed/Alternative Modification
Profile Administrator	The Profile Administrator will need to implement and operate the new PrA process as proposed by P223.

b) Impact on BSC Parties and Party Agents

- **Suppliers** will be required to fulfil the obligations of:
 - a) The provision to the PrA of applicable MSIDs for the Profiling Sample;
 - b) The provision of a metering solution which will deliver the PrA data requirements; and
 - c) The responsibility for collecting Half Hourly data and sending it to the PrA.
- **NHHDCs will be required to:**
 - a) Collect NHH data from MOA fitted equipment (as currently);
 - b) Calculate meter advances based on the NHH data collected or by obtaining a NHH register read from the meter (as currently);
 - c) Submit the calculated Annualised Advance via a D0019 'Metering System EAC/AA' to the NHHDA for Settlement purposes and a copy to the Supplier as per existing industry processes (using existing industry processes); and
 - d) Collect HH data remotely and provide the HH data to the PrA (new process). This will be undertaken on a monthly basis for Profile production whilst sending a copy to the Supplier for its own research purposes.
- **MOAs** will be required to support the metering solution for the new PrA process.
- **No changes are required to any NHHDA processes.**

c) Impact on Transmission Company

Q	Question	Response
1	Please outline any impact of the Proposed Modification (and, if applicable, any Alternative Modification) on the ability of the Transmission Company to discharge its obligations efficiently under the Transmission Licence and on its ability to operate an efficient, economical and co-ordinated transmission system.	No Impact
2	Please outline the views and rationale of the Transmission Company as to whether the Proposed Modification (and, if applicable, any Alternative Modification) would better facilitate achievement of the Applicable BSC Objectives.	In principle both the modification and the alternative seek to address a valid issue and as such we believe they would better facilitate the applicable BSC objectives. However we are not overly familiar with the issues in this area and do not feel it would be appropriate to provide an opinion as to which of the two proposals would better facilitate the relevant objectives.
3	Please outline the impact of the Proposed Modification (and, if applicable, any Alternative Modification) on the computer systems and processes of the Transmission Company, including details of any changes to such systems and processes that would be required as a result of the implementation of the Proposed Modification (and, if applicable, any Alternative Modification)	No Impact
4	Please outline any potential issues relating to the security of supply arising from the Proposed Modification (and, if applicable, any Alternative Modification).	No Impact
5	Please provide an estimate of the development, capital and operating costs (broken down in reasonable detail) which the Transmission Company anticipates that it would incur in, and as a result of, implementing the Proposed Modification (and, if applicable, any Alternative Modification).	We do not believe this modification will have any impact on system operator costs.
6	Please provide details of any consequential changes to Core Industry Documents and/or the System Operator Transmission Owner Code that would be required as a result of the implementation of the Proposed Modification (and, if applicable, any Alternative Modification).	We do not believe this modification will require any consequential changes to other industry documents
7	Any other comments on the Proposed Modification (and Alternative Modification if applicable).	No

d) Impact on BSCCo

Area of Business	Impact of Proposed/Alternative Modification
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Area of Business	Impact of Proposed/Alternative Modification
Contractual	Contractual amendments to the terms and charges in the PrA contract will need to be drafted, negotiated and agreed with the PrA. This may also have an impact depending on date of implementation on the re-procurement activity of the PrA contract in 2009/10 with the new contract starting on 1 April 2010.
Operational	BSCCo will be required to facilitate the new annual P223 recruitment process, by pro-rating the PrA's number of required customers across Suppliers by market share.
Change Management	BSCCo will be required to oversee the implementation of P223, including any necessary changes to BSC Systems, processes and documentation.

e) Impact on Code

Code Section	Impact of Proposed/Alternative Modification
Section S 'Supplier Volume Allocation'	Changes to sub sections 2.7.5 and 4.2 would be required to reflect the new process that is proposed under P223.

f) Impact on Code Subsidiary Documents

Document	Impact of Proposed/Alternative Modification
Profile Administrator Service Description	Changes would be required to reflect the new process that is proposed under P223.
BSCP504 'Non Half Hourly Data Collection for SVA Metering Systems registered in SMRS'	
BSCP510 'The Provision of Sampling Data to the Profile Administrator'	
BSCP514 'SVA meter operations for Metering Systems registered in SMRS'	

g) Impact on Core Industry Documents/System Operator-Transmission Owner Code

None, as no changes to any D flows are proposed by P223, there is no impact on the MRA, DTC or DTN.

h) Impact on other configurable items

None.

i) Impact on BSCCo Memorandum and Articles of Association

None.

j) Impact on governance and regulatory framework

None.

APPENDIX 5: INDUSTRY IMPACT ASSESSMENT RESPONSES

See separate document Attachment 2.

APPENDIX 6: FULL COST-BENEFIT ANALYSIS

See separate document Attachment 3.

APPENDIX 7: NUMBER OF CUSTOMERS REQUIRED FROM SUPPLIERS

See separate document Attachment 4.

APPENDIX 8: RESULTS OF ASSESSMENT PROCEDURE CONSULTATION

10 responses were received to the P223 Assessment Procedure consultation. A summary of responses is provided below.

Q	Consultation question	Yes	No	Neutral
1.	Do you believe that Proposed Modification P223 would better facilitate the achievement of the Applicable BSC Objectives when compared with the current profiling arrangements (i.e. the existing Code baseline)?	4	6	0
2.	Do you believe that Alternative Modification P223 would better facilitate the achievement of the Applicable BSC Objectives when compared with the current profiling arrangements (i.e. the existing Code baseline)?	7	2	1
3.	Do you believe that Alternative Modification P223 would better facilitate the achievement of the Applicable BSC Objectives when compared with the Proposed Modification?	8	2	0
4	<p>Do you support the Modification Group's proposed Implementation Dates of:</p> <ul style="list-style-type: none"> 1 December 2009 if P223 is approved before the end of November 2008; or 1 April 2010 if P223 is approved between December 2008 and the end of March 2009. <p>Note that both dates would be provided to Ofgem but that the Group has a preference for the earlier date.</p>	6	2	2
5	<p>The Modification Group has identified potential benefits of P223 to Suppliers in the region of £2.3m - £12.1m, resulting from improved profiling accuracy and thereby reduced imbalance exposure.</p> <p>Do you agree that these benefits would be realised?</p>	4	3	3
6	<p>The Modification Group has not identified any conflict between the P223 solution and any future national smart metering rollout.</p> <p>Do you agree with this view?</p>	9	0	1
7	Do you believe there are any alternative solutions that the Modification Group has not identified and that should be considered under the scope of P223?	3	6	1
8	Does P223 raise any issues that you believe have not been identified so far and that should be progressed as part of the Assessment Procedure?	2	7	1
9	Are there any further comments on P223 that you wish to make?	2	8	0

Details of the arguments made by respondents can be found in Sections 3-6, along with the Group's consideration of these arguments. Full copies of the consultation responses are attached as a separate document, Attachment 5.