

## **P223 – number of customers likely to be requested from Suppliers**

In response to a request from a Modification Group member, ELEXON has considered whether it is possible to provide a more detailed indication of the numbers of customers which each individual Supplier would be required to provide for the PrA sample under P223.

The total number of customers which each Supplier will be required to provide in any given year will depend on the following variables:

- The shortfall in the sample needing to be made up through the annual recruitment round (can be estimated to some extent);
- What proportion of this shortfall falls into each GSP Group / Profile Class / Strata (cannot be estimated at this stage);
- The Supplier's market share in each relevant GSP Group / Profile Class / Strata (can be estimated to some extent based on existing market share);
- The number of customers which the Supplier already has in the relevant GSP Group / Profile Class / Strata within the sample (not currently available); and
- Under the Proposed Modification only - how many sample customers the Supplier may inherit under a Change of Supplier on an ad-hoc basis throughout the year (can be estimated to some extent).

Further detail in each of these areas is provided below.

### **1) Annual sample shortfall**

#### **Proposed Modification:**

The exact shortfall number will be different every year. However, since there are known concerns regarding the representativeness of the current sample, a reasonable assumption is that 10% of the sample would be recruited via Suppliers each year under the Proposed Modification for the first 10 years of implementation (i.e. until 100% of the sample has gradually been replaced).

This gives a total annual recruitment target of 250 customers per year, based on the assumption that the existing overall target sample size of 2,500 will be retained.

Note that this excludes any sample customers inherited by a Supplier under a Change of Supplier (CoS) during the year (see 5 below).

#### **Alternative Modification:**

The shortfall will be higher under the Alternative Modification, due to the need for a one-off annual replacement of all customers who have been lost on a CoS throughout the previous year.

A recent Ipsos MORI poll indicated that 19% of electricity customers changed Supplier during 2007. However, this does not mean that 19% of the total PrA sample will be lost each year initially, as only new sample customers recruited under the P223 process will be affected (existing sample customers would continue to have secondary metering and a direct agreement with the PrA which is unaffected by a CoS, until such time as these customers are replaced).

If 250 customers are recruited under the P223 process each year, the potential number which could be lost on a CoS under the Alternative is therefore 48 in the second year of implementation (19% of 250). Note that there will be no additional customers to recruit in the first year over and above the 250, since customers will only begin to be lost on a CoS after this point. The number of additional replacement customers to be recruited will become larger each year as the proportion of customers in the sample who have been recruited under the P223 process increases, and the proportion of old customers with existing secondary metering decreases.

Table 1 below shows the potential effect of the Alternative Modification over 10 years, assuming that:

- The number of customers recruited each year is 10% of the sample plus however many customers have been lost on a CoS in the previous year;
- The target sample size remains at 2,500; and
- The 'churn rate' of customers changing Supplier remains at 19% each year.

**Table 1 – Total required customers under Alternative Modification (estimate only)**

<b>Year</b>	<b>% of sample which has been recruited under P223 process</b> (based on 10% or 250 customers per year)	<b>Potential number of customers lost on CoS under Alternative Modification</b> (based on 19% churn per year)	<b>Total number of customers to be recruited in annual round</b> (250 + shortfall from previous year)
1	10% (250 customers)	48	250
2	20% (500 customers)	95	298
3	30% (750 customers)	143	345
4	40% (1,000 customers)	190	393
5	50% (1,250 customers)	238	440
6	60% (1,500 customers)	285	488
7	70% (1,750 customers)	333	618
8	80% (2,000 customers)	380	583
9	90% (2,250 customers)	428	630
10	100% (2,500 customers)	475	678

From year 10 onwards, the potential number of customers lost annually on a CoS would continue to be 678 (assuming the above assumptions remain constant).

A key assumption behind these figures is that the target sample size remains constant at 2,500. However, if large numbers of customers are lost from the sample during a year, there is a risk that the required amount of profiling data may not be able to be obtained for that year. If this proves to be the case in practice, then the SVG may wish to increase the target sample size to reduce this impact. As this decision would be taken separately outside the scope of P223, it is not possible to estimate the effect of this on the numbers of customers which Suppliers would be required to provide.

## **2) Constitution of shortfall**

As the number of customers which an individual Supplier will be required to provide depends on that Supplier's market share in a particular GSP Group/Profile Class/Strata (see below), it will therefore also depend on the level of shortfall in each specific GSP Group/Profile Class/Strata as well as the overall shortfall in the sample.

It is not possible at this stage to estimate what proportion of the shortfall would occur in specific GSP Groups/Profile Classes/Strata, since (due to the fact that customers are currently recruited directly by the PrA without involvement from the Supplier) the PrA does not always currently have the necessary consumption data to identify which Strata many of the existing sample customers lie in. Under the existing process, the PrA initially calculates the customer's Stratum on a pro-rata basis by extrapolation from the Half Hourly data collected from the customer - until a full year of data has been collected. Once an entire year's data is available for that customer, the appropriate Stratum is accordingly reviewed by the PrA. For the customers recruited during the 2007/08 year, the PrA is working towards providing this information to ELEXON by the end of July 2008.

## **3) Supplier's market share**

As a Supplier's market share will change over time, any estimate of how many customers an individual Supplier may be required to provide in the future can therefore only be based on existing market share information.

At a simple level, the total number of customers which a Supplier would be required to provide each year under the Proposed Modification can be estimated as follows:

$$\text{Supplier's total \% market share} * 250 \text{ customers (10\% of sample)}$$

For example, a Supplier with a 60% national market share would be required to provide 150 customers. A Supplier with a 2% national market share would be required to provide 5 customers.

Suppliers will therefore be able to obtain a broad estimate of their Proposed Modification recruitment requirement using the above calculation and their own individual market share figure.

Suppliers can also estimate how many customers they would be required to provide under the Alternative Modification by replacing '250' in the above calculation with the relevant numbers given in Table 1.

In reality, the calculation of each Supplier's target will be more complex due to the other factors set out in this note. Although the effect of these cannot be quantified at this time, the above calculation gives a reasonable indication of the likely numbers involved.

## **4) Supplier's existing sample customers**

The actual number of customers requested from each Supplier in a given year will take account of how many customers that Supplier already has in the sample. In other words, the required total might therefore broadly be calculated as follows:

*(Suppliers % total market share \* total annual sample shortfall (e.g. 250 customers)) – Supplier's existing number of sample customers*

So, if a Supplier had a 60% market share and 100 customers already in the sample, the Supplier's net target would be 50 customers:  $(0.6 * 250) - 100$ .

In reality it is likely that the calculation will be more sophisticated than this and take into account Supplier market share within each GSP Group. ELEXON intends to build a system that takes each Supplier's market share by GSP Group from an Supplier Volume Allocation Agent (SVAA) extract and then calculates a target sample size for each Supplier within each GSP Group. The Supplier's existing number of sample customers within each GSP Group will be deducted from the target to obtain the Supplier net shortfall. The Supplier's net shortfall will then be applied to the Stratum shortfall as appropriate.

However, the individual Supplier's net annual recruit target cannot be estimated at this time since:

- The Settlement MSID is not currently available for all sample participants (the PrA has been requested to work towards completing this information as soon as possible);
- A one-off implementation exercise by ELEXON/the PrA will be needed to establish the Supplier for each existing customer in the sample (using ECOES) before the first set of P223 recruitment requests can be issued (the PrA does not currently hold this information since it recruits the customer directly rather than through the Supplier). In the longer term it is hoped to obtain this data by running a list of MSIDs against ECOES; and
- The number of existing sample customers for a particular Supplier will change year on year as a result of:
  - Losing customers under natural attrition or a CoS (Proposed and Alternative Modifications);
  - Gaining customers on a CoS (Proposed Modification only); and
  - The number of customers recruited via that Supplier in the previous year.

## **5) Change of Supplier**

Under the Proposed Modification, Suppliers will be required to either retain existing sample customers inherited on a CoS or to provide a replacement customer.

However, the effect of this on Suppliers' individual recruitment numbers cannot easily be estimated at this stage since:

- The number of sample customers required to be retained/replaced on a CoS will change year-on-year in the first years of implementation (see 'churn' figures in column 3 in Table 1); and
- It is difficult to estimate the proportions of customers who will switch to specific Suppliers.

Suppliers may wish to assume that the number of customers they might inherit on a CoS would be proportionate to their market share (e.g. % market share \* total number of customers changing Supplier), and factor this into the calculations set out in 3 above.