

What stage is this document in the process?

**01** Initial Written Assessment

02 Definition Procedure

03 Assessment Procedure

04 Report Phase

## Stage 01: Initial Written Assessment

# P272 Mandatory Half Hourly Settlement for Profile Classes 5-8

The BSC does not currently enforce the use of Half Hourly Settlement for Profile Classes 5-8. However, some Metering Equipment is already capturing Half Hourly data, and by 2014 the vast majority of Meters will be due to the roll out of 'advanced' Meters.

P272 proposes to make Half Hourly Settlement mandatory for Profile Classes 5-8, as the use of Non Half Hourly data is not as accurate and masks individual customer behaviour.

 ELEXON recommends  
A 4 month Assessment Procedure

 High Impact:  
Meter Operator Agents (MOAs), Half Hourly Data Collectors (HHDCs), Non Half-Hourly Data Collectors (NHHDCs)

 Medium Impact:  
Licensed Distribution Service Operators (LDSOs), Suppliers

 Low Impact:  
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## About this document:

This document is an Initial Written Assessment (IWA), which ELEXON will present to the Panel on 9 June 2011. The Panel will consider the recommendations and agree how to progress P272.

Further information is available in the P272 Modification Proposal which is which is **Attachment A** to this document.



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### Any questions?

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# 1 Why Change?



## Background

### Profile Classes

Settlement is based upon Half Hourly periods (Settlement Periods). For those sites where Non Half Hourly (NHH) meters are installed, a load profile is created. This profile is then used to estimate what customers with a NHH meter would have consumed for any given Half Hour in a year.

To determine what profile to use, all customers with NHH metering is placed into one of eight Profile Classes. Profile Classes 1 and 2 are for domestic premises and Classes 3 to 8 are for non-domestic premises. The profiles applied represent the average customer use within the chosen Profile Class.

P272 does not attempt to change the Profile Classes. However, it proposes to change the way certain types of Profile Classes (namely 5-8) are settled.

The full set of Profile Classes (as defined in BSCP516) are as follows:

Code	Profile Class
01	Domestic Unrestricted
02	Domestic Economy 7
03	Non-Domestic Unrestricted
04	Non-Domestic Economy 7
05	Non-Domestic, with Maximum Demand (MD) recording capability and with Load Factor (LF) less than or equal to 20%
06	Non-Domestic, with MD recording capability and with LF less than or equal to 30% and greater than 20%
07	Non-Domestic, with MD recording capability and with LF less than or equal to 40% and greater than 30%
08	Non-Domestic, with MD recording capability and with LF greater than 40%

## What is the Issue?

The Secretary of State (through powers granted under the Energy Act 2008) declared that the Standard Conditions of an Electricity Supply Licence were to be updated to mandate that from 6 April 2009 any new Metering equipment installed, for Profile Classes 5-8, must be an 'advanced/smart' (i.e. Half Hourly capable) Meter.

Furthermore, from 6 April 2014, all Meters for such Profile Classes will have to be 'advanced/smart' regardless of when installation took place (the Supplier Licence Condition states that Suppliers shall make all reasonable efforts to change the Meter by 2014).

### Accuracy

Those Meters installed since 2009 are therefore capable of HH Settlement. However, the HH data which is being recorded through these Meters is typically not yet used for

### Domestic/Non domestic

A Domestic Customer means a customer supplied or requiring to be supplied with electricity at domestic premises (but excluding any customer that is supplied or requires to be supplied at premises other than Domestic premises). A Non-Domestic Customer means any customer not included in the above Domestic definition.

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**Electricity Supply Licence key paragraphs:**

12.17 This paragraph has effect on and after 6 April 2009 and applies where the licensee installs or arranges for the installation of an Electricity Meter at Non-Domestic Premises where the metering point falls within profile class 5, 6, 7 or 8 as defined in the Balancing and settlement Code (for this condition only, "relevant premises").

12.18 If paragraph 12.17 applies, the Electricity Meter installed at the relevant premises must be an advanced meter.

Settlement, and instead profiled NHH data is being used. Suppliers can select to settle these customers HH if they wish (or if the customer wishes them to do so). Although the amount of Meters that have been installed since 2009 may be only a small percentage of the overall market, by 2014 all Meters will have this capability. Currently, Profile Classes 5-8 makes up 10% of the energy of NHH market and there are approximately 164,000 Meters.

Profile Classes 5-8 are consumers of larger volume and more variable load shapes than other consumers. P272 contends that to settle such sites on average profiled data, rather than on HH data, leads to inaccuracies in Settlement and masks individual customer behaviour.

### **Development of advanced Meters**

As stated, it is envisaged that the vast majority of Profile Class 5-8 Meters will be 'advanced' by April 2014. However, the Proposer believes that there is currently no incentive for Suppliers to settle such consumers on a HH basis.

Currently, it costs a Supplier more to settle a consumer on a HH basis, mainly due to costs associated with HH Distribution Use of System charges (DUoS). P272 contends that under the current circumstances no Supplier would voluntarily move to HH Settlement as this would put them at a competitive disadvantage. The Distribution Charging Methodologies Forum (DCMF) is looking to implement changes to the DUoS charging structure under the Common Distribution Charging Methodology (CDCM) so that there is no financial difference between HH and NHH.

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### Summary

P272 proposes to mandate that all Supplier Volume Allocation (SVA) Metering Systems for the current Profile Classes 5-8 shall be settled as Half Hourly Metering Equipment.

The Proposer believes that P272 should be implemented before 2014 in order to tie in with the Supply License requirement.

The proposer believes that, by using HH data, Settlement for these Profile Classes will more accurately reflect their consumers' usage. This will also avoid the smearing effects of profiling NHH Meter data which is how the majority of Meters are currently settled.

### Applicable Objectives

The Proposer believes that P272 will better facilitate the achievement of:

- **Applicable BSC Objective (c)**. By increasing the amount of energy which is settled Half Hourly, P272 will enable Suppliers to offer customers greater flexibility to load shift (enabling Suppliers to offer more innovative tariffs to customers based on time or use); By and lowering costs, and reducing barriers to entry, therefore increasing competition; and;
- **Applicable BSC Objective (d)**. P272 will reduce BSC costs due to discontinuing the load research programme for Profile Classes and may give rise to potential savings in Performance Assurance costs

### 3 Things to consider

In this section we highlight areas which we believe the Panel should consider when making its decision on how to progress this Modification Proposal.

If P272 goes into the Assessment Procedure, then we recommend that the areas below form the basis of the Workgroup's Terms of Reference.

#### Supplier impacts/benefits

A study by the Profiling and Settlement Review Group (PSRG) ([CBA report PCs 5-8](#)) concluded that over a five-year period mandating HH Settlement would increase industry costs of around £35m but that the potential benefits were valued at £85m. Other benefits highlighted included, better risk-management opportunities for Suppliers arising from less exposure to imbalance costs, more accurate demand forecasting, more cost reflective tariffs and reduced emissions from demand-side response at times of peak demand.

#### Interaction with previous work of PSRG

The P272 Workgroup should confirm whether it is satisfied with the analysis undertaken by the PSRG, or whether any further analysis of costs, impacts and benefits is required. This modification arises from the work of the PSRG and the Cost Benefit Analysis Report of mandatory HH Settlement for Profile Classes 5-8 (CBA report PCs 5-8).

Any modification working group should address the related issues contained in this work, such as:

- Using measurement Class "E" to effect the change, until now the use of Class E has been voluntary for suppliers;
- Changing the existing Performance Serial SP08c (Energy on Actual Readings at each Volume Allocation) to 99% performance at R1, currently the existing performance is 99% at final reconciliation 14 months after the event, whereas R1 is 39 working days after the event;
- Ensuring the SVA specified charge continues to recover the costs of the HH SVA processes; with a transfer of metering systems from NHH to HH; and
- Not changing existing Codes of Practice, Site visit requirements and DC/DA requirements.

They should also consider likely impact to the BSC Audit, Technical Assurance of Metering, SVA Qualification and Profile Administration (PrA) processes. As well as Annex D-3 (Specified BSC Charges) and whether or not this is still appropriate because of the possible impact on the Charges and Annex S-1 (Performance Levels and Supplier Charges) because of the possible impact on Supplier Performance Serials.

#### Environmental Impact

We do not recommend conducting a detailed analysis on the environmental impact, as we do not feel that this will affect the arguments. However, there is a further justification of P272 within the realm of environmental impact. This is the argument that by making HH Settlement mandatory, consumers will use data from advanced or Smart Metering to amend their consumption patterns - thus making more efficient use of the energy they consume and saving them money. However, customers have this option at present regardless of how they are Settled.

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## Implementation Approach

This modification proposes that to ensure a level playing field the switch-over for all relevant Metering Systems occurs during a very short transition phase (or even as a one-off changeover) during Q4 2013 or Q1 2014. The intention is for distribution companies to have removed any pricing differential between HH and NHH by that time. The workgroup should consider the implication if this does not occur.

We have already received comments from other Parties regarding the potential implementation approach for P272, and will share these with the Group. We recommend that the Group gives careful consideration to the appropriate approach.

## Consideration of PC 3-4 and micro-generation

Whilst the main focus of this Modification Proposal is mandatory HH Settlement for Profile Classes 5-8, the Workgroup may wish to consider extending the scope to include mandatory HH Settlement in the following circumstances: where there is micro-generation and the Meter is capable of recording both HH Import and HH Export; and/or Profile Classes 3-4 where advanced or Smart Meters are fitted.



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### Micro-generation

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Micro-generation is the small-scale generation of energy by individuals, small businesses and communities to meet their own needs, as alternatives or supplements to traditional centralised grid-connected power

## 4 Proposed Progression

### Terms of Reference

We recommend that P272 follows a three-month Assessment Procedure conducted by the Settlement Standing Modification Group (SSMG), supplemented with any other relevant experts and interested parties.

As identified in section 3 we recommend the workgroup considers:

1	Assessment of P272 against Applicable BSC objectives
2	Materiality of the issue identified by P272
3	Quantification of P272 costs and benefits where possible (where not already covered by PSRG)
4	Implications for micro-generation
5	Potential extension to Profile Classes 3-4
6	Using measurement Class "E" to effect the change
7	Changing the existing Performance Serial SP08c to 99% performance at R1

### Timetable

Proposed progression timetable for P272 Assessment Procedure	
Activity	Date
Present IWA to Panel	9 June 2011
Workgroup meeting 1	Week commencing 20 June
Workgroup meeting 2	Week commencing 4 July
Issue P272 for Impact Assessment (10 WD)	Week commencing 11 July
Workgroup meeting 3	Week commencing 25 July
Issue P272 for industry consultation (15 WD)	Week commencing 5 August
Workgroup meeting 4	Week commencing 22 August
Present Assessment Report to Panel	13 October 2011

### Estimated Progression Costs

Estimated progression costs based on timetable for P272	
Meeting costs (including Workgroup member expenses)	£2,000 (based on four Workgroup meetings)
Non-ELEXON legal and expert costs	Zero
ELEXON resource	65 man days, equating to approximately £15.6k

The ELEXON resource cost is an estimate of how much time and effort it will take us to progress P272 through the Assessment Procedure and Report Phase. It includes time spent supporting industry groups, drafting documentation and producing legal text.

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<b>Estimate of total industry assessment costs</b>					
Workgroup support	Est #mtgs	Est # att	Est effort	Est rate	Sub-total
	4	8	1.5	605	£29,040
Consultation response support	Est #con	Est # resp	Est effort	Est rate	Sub-total
	2	10	2.5	605	£30,250
<b>Total</b>					<b>£59,290</b>

Workgroup support costs reflect the expected number of Workgroup meetings and the industry effort spent supporting these meetings. The calculation is based upon an anticipated average number of eight members at each meeting putting in an average of 1.5 man days effort per meeting. A standard rate of £605 per man day is applied.

Consultation costs represent an estimation of the anticipated industry response to consultations issued to support P272 and the approximate time and effort spent on responses. The calculation is based upon an anticipated number of 10 responses to the intended two consultations (i.e. the Assessment Procedure and Draft Modification Report consultations), and assumes each response requires 2.5 man days of industry effort. A standard rate of £605 per man day is applied.

## 5 Likely Impacts

This an initial view of the likely impacts of P272. Impacts will be further assessed as P272 is progressed and the P272 solution is developed.

The impact of this proposed modification is wide ranging in that it will impact a number of players within the Supplier Hub.

### Impact on BSC Agent/service provider contractual arrangements

- Potential Impacts on the Technical Assurance Agent & BSC Auditor.

### Impact on BSC Parties and Party Agents

- Meter Operator Agents (MOAs) – Will need to adapt their Meter configurations.
- Half Hourly data collectors (HHDCs) – Will collect the data instead of the Non Half-Hourly data collectors (NHHDCs).
- Non Half-Hourly data collectors (NHHDCs) – will be indirectly affected as they will no longer collect the data.
- Suppliers – will be affected as they will need to appoint new agents, also, they will need to update billing systems and may need to engage in large scale Change of Measurement Class activities.

### Impact on Transmission Company

None

### Impact on ELEXON

Potential impacts: Settlement Risk(s) which might change the application of some PAF techniques including SVA Qualification.

### Impact on Code

Code section	Potential impact
<ul style="list-style-type: none"> <li>• The primary impact will be on Section L (as this Section of the BSC contains the rules for which consumers are settled HH or NHH).</li> </ul>	<ul style="list-style-type: none"> <li>• Annex X-1 and Annex X-2 (for amended definitions)</li> <li>• Annex D-3 (because of the possible impact on Specified BSC Charges)</li> <li>• Annex S-1 (because of the possible impact on Supplier Performance Serials)</li> </ul>

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## 6 Recommendations

On the basis of the initial written assessment, ELEXON invites the Panel to:

- DETERMINE that Modification Proposal P272 progresses to the Assessment Procedure;
- AGREE the Assessment Procedure timetable such that an Assessment Report should be completed and submitted to the Panel at its meeting on 13 October 2011;
- DETERMINE that the P272 Workgroup should be formed from members of the Settlement Standing Modification Group (SSMG); and
- AGREE the Workgroup's Terms of Reference.

## 7 Further Information

More information is included in the P272 Modification Proposal form (Attachment A to this document).