



Stage 03: Assessment Consultation

Please note this consultation closes on the 14 Oct 2011

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

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

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.



High Impact:

Meter Operator Agents (MOAs), Half Hourly Data Collectors (HHDCs), Non Half-Hourly Data Collectors (NHHDCs), Suppliers



Medium Impact:

Licensed Distribution Service Operators (LDSOs), meter operators



Low Impact:

ELEXON

What stage is this document in the process?

01

Initial Written Assessment

02

Definition Procedure

03

Assessment Procedure

04

Report Phase

P272
Assessment Consultation

23 Sept 2011

Version 1

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About this document:

The purpose of this P272 Assessment Consultation is to invite BSC Parties' and other interested parties' views on the merits of P272. The P272 Modification Group will then discuss the consultation responses, before making a recommendation to the Panel in October 2011 on whether to approve P272.

There are 4 parts to this document:

- This is the main consultation document. It provides details of the solution, impacts, costs, benefits/drawbacks and proposed implementation approach. It also summarises the Modification Workgroup's key views on the areas set by the Panel in its Terms of Reference.
- Attachment A contains more information on the Workgroup's analysis and assessment. It also contains details of the Modification Workgroup's membership and full Terms of Reference.
- Attachment B contains the draft redlined changes to the Code for P272.
- Attachment C contains the specific questions on which the Workgroup seeks your views. Please use this form to provide your response to these questions, and to record any further views/comments you wish the Workgroup to consider.



Any questions?

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Why Change?

By 6 April 2014, all Meters for Non Half-Hourly (NHH) Profile Classes 5-8 must be an 'advanced' meter capable of recording half-hourly electricity flow and capable of being read remotely. However, there is no mandate to settle these Half Hourly capable meters on a Half Hourly basis. Instead profiles would continue to be used, resulting in continued use of less accurate Non Half Hourly data in Settlement.

P272 contends that to settle Half-Hourly (HH) is more accurate than the current baseline of profiled data.

Solution

P272 proposes that as of 6 April 2014 all Supplier Volume Allocation (SVA) Metering Systems for the current Profile Classes 5-8 shall be settled as HH Metering Equipment (where capable metering has been installed).

Suppliers would be required to produce a high level plan to the Performance Assurance Board on how they intend to transfer to HH settlement.

Potential Alternatives

The Workgroup have developed two potential alternative solutions. Both of these potential solutions are identical to the Proposed Modification except for the implementation date. One alternative solution suggests an implementation date of October 2014; the other April 2015. The Workgroup request your views on these potential dates.

Impacts & Costs

The Proposed Modification, and the potential alternatives, would impact Meter Operator Agents, Half Hourly Data Collectors, Non Half-Hourly Data Collectors, Suppliers and Licensed Distribution System Operators.

There is also an impact on PARMS to expand the scope of one serial and introduce a new serial. The estimated BSC Agent implementation costs for this change is around £15,000.

Implementation

The proposed P272 Implementation Date is **06 April 2014**.

The Case for Change

The Proposer believes that:

- The P272 solution facilitate efficiency and thereby Applicable BSC Objective (d);
- Furthermore, the benefit is the effect on competition and Applicable BSC Objective (c).

2 Why Change?

Background

In April 2009 the Secretary of State (through powers granted under the Energy Act 2008) modified the Standard Conditions of an Electricity Supply Licence to mandate that from 6 April 2009 any new Metering equipment installed at non-domestic premises where the metering point falls within Profile Classes 5-8, must be an 'advanced' Meter capable of recording half-hourly consumption and of being read remotely.

Furthermore, from 6 April 2014, all Meters for such Profile Classes will have to be 'advanced' regardless of when installation took place (except where installation has not been possible despite taking all reasonable steps).

Although these changes to Supply Licences mandate the installation of Half Hourly (HH) capable metering for Profile classes 5-8; the Supply Licences do not mandate that HH data is actually collected and used in Settlement.

Current Process

Currently SVA metering can be either settled Half Hourly (HH) or Non Half Hourly (NHH) depending on the circumstances. If the Metering system is defined as being 100kW or above it must be settled as HH. If it is below 100kW then it is usually settled on a NHH basis, unless the Supplier has chosen to settle it on a HH basis.

A set of generic load profiles are created in order to estimate the HH values for sites where NHH meters are installed. These profiles are then used to estimate what customers with a NHH meter would have consumed for any given Half Hour in a year. Below 100kW sites with a HH capable meter installed can be settled on a NHH basis using these load profiles.

To determine what profile to use, all NHH metering systems are 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 attempt to represent the average customer use within the chosen Profile Class.

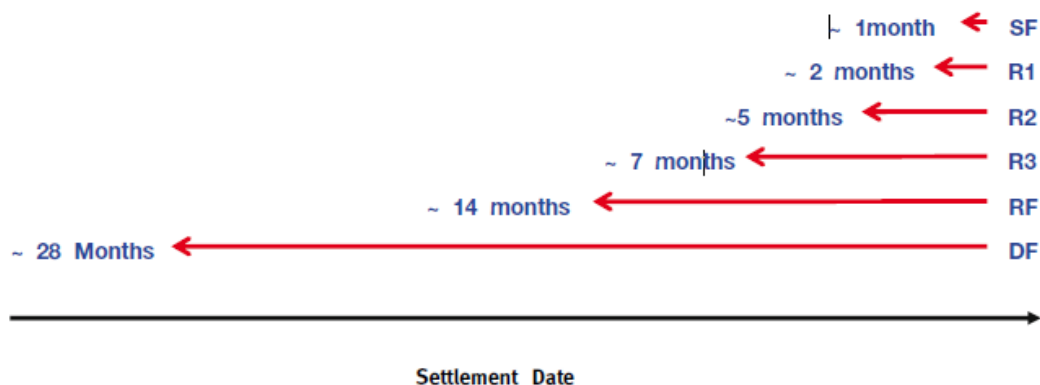
Profile Data into Settlement

Nearly all >100kW HH meters will have accurate data before the Initial Settlement Run (SF). However, the majority of NHH meters will not have been read before SF so the volumes are estimated based on their profile and entered into Settlement.

As time passes, actual meter advances of NHH meters come in and are used to replace the estimates. This should result in a more accurate picture of Settlement at each successive Reconciliation Run. There are four Reconciliation Runs (R1, R2, R3 and RF) and these Runs provide a continually clearer picture of Settlement at spaced dates after the Settlement Date. For some GSP Groups, a further settlement run (DF) is performed later to rectify systematic data errors in the RF run.

The target is for all Suppliers to have read the NHH meters accounting for 97 % of the energy by RF.

The diagram below summarises the settlement process [R2 is closer to 4 months]



Measurement Classes

The Measurement Class of a Metering System reflects how it is settled i.e. HH, NHH or HH elective.

- Measurement Class 'A':**

Is the predetermined Measurement Class for NHH Settled meters. For Measurement Class 'A', suppliers have set performance levels they must adhere to within the Settlement process. These performance levels are determined by the proportion of consumption through NHH Metering Systems that should be settled on actual Meter Advances (rather than estimates) at each of the Supplier Volume Allocation runs.

Reconciliation Run	Performance Level
SF	N/A
R1	30%
R2	60%
R3	80%
RF	97%

- Measurement Class 'C':**

100kW or above Metering Systems are classified as Measurement Class 'C' (unless they are "unmetered" in Class D), and below 100kW Metering Systems that have elected for HH settlement can be classified as Measurement Class 'C' or 'E'.

Measurement Class C Metering Systems must submit 99% actual Meter reading data by the initial settlement (and all subsequent Reconciliations). Where actual Meter reading is unavailable, Data Collectors must provide estimated data.

- Measurement Class 'E':**

Measurement Class 'E' is a Measurement Class for metering systems that would fall under the 100kW limit, and therefore would be settled NHH under Measurement Class A, but their supplier elects to be settled HH.

The difference in Settlement terms between Measurement Class 'C' and 'E' is that for those metering systems that are HH elective in Measurement Class 'E' the supplier need only get

99% actual data by RF. Furthermore, there are no Technical Assurance Agent (TAA) checks on below-100kW metering systems.

What's the issue?

For those Meters installed since April 2009, HH data is typically not being collected or used for settlement despite the meter capability. The automatic reading capability is typically being used, to read periodic meter advances without the need for a site visit. Instead, periodic meter advance reads and profiled NHH data is generally being used (although, Suppliers can elect to settle these customers on a HH basis should they wish to do so).

Profile Classes 5-8 generally include metering systems with larger volumes below 100kW. P272 contends that to settle such sites on average profiled data, rather than on HH data, is not as accurate as it could be, and masks individual customer behaviour.

3 Solution

This section summarises the P272 Proposed Modification, which the Proposer has developed with the Workgroup's assistance. It also captures the detailed requirements of the solution. For further detail on how the Group came to this solution please see Attachment A.

Summary

P272 proposes that as of 6 April 2014 all SVA Metering Systems for the current Profile Classes 5-8 shall be required to be settled using Half-Hourly meter data (where relevant metering has been installed).

It would be left to individual Suppliers to choose how they implement the new requirement prior to 6 April 2014. However, Suppliers would be required to submit a high level transition plan to the Performance Assurance Board (PAB) 3 months after the approval date of the Modification. This would allow the PAB to make Suppliers aware of any potential timetable clashes where a bulk Change of Measurement Class might take place.

For those in Profile Class 5-8 who are unable to install an advanced meter, Profiles would remain however the regression equations for these Profiles would be 'frozen', and errors shared in GSP Group Correction together with other SVA metering systems in the same GSP Group, in particular those in Profile Classes 1-4 remaining settled Non Half-Hourly.

Question 1

Do you believe that P272 would better facilitate the Applicable BSC Objectives when compared with the current Code provisions?

Detailed Requirements

Requirement 1 – All HH capable metering systems in Profile Classes 5-8 Settled HH by 06 April 2014

With effect from 6 April 2014, it would be a breach of the BSC to use NHH Settlement for customers in Profile Class 5-8 with HH capable metering installed. This means there would remain only a relatively small number of meters and volume in Profile Classes 5-8.

Suppliers would have to update metering system registration data through the Change Of Measurement Class (CoMC) process to define the profile class as '00' rather than '05' to '08' at present. This would change the customer's MPAN.

Requirement 2 – Supplier Plan for Transition to HH

It would be left to individual Suppliers to choose how they phase in the new requirement for 6 April 2014. For example, some Suppliers might choose to switch customers to HH Settlement as soon as they install Advanced metering; others might choose to perform a bulk Change of Measurement Class on or just before 6 April 2014.

However, Suppliers would be required to produce a high level plan on how they intend to complete their transition for the PAB to ensure an efficient transition from NHH to HH. This would enable the Performance Assurance Board (PAB) to obtain a better view of the impacts of the transition and better liaise / advise Suppliers who, based upon previous Impact Assessment responses, wish to avoid any problems with bulk COMC.

This plan would have to be submitted to the PAB within 3 months after approval of this Modification.

Requirement 3 – Current HH Elective Transition

Those metering systems under the 100kW limit that would otherwise be within PC 5-8 but for which their supplier has elected to be settled Half-Hourly, will not be able to switch back to being settled as NHH (unless they leave Profile Classes 5-8 for PC1-4) after 6 April 2014.

For avoidance of doubt, until 6 April 2014 any HH elective customers would still have the option of reverting to being settled as NHH.

Requirement 4 – 99% actual HH data at R1 (SP08c)

Suppliers would be required to achieve 99% of energy settled on actual data by the First Reconciliation (R1) for Measurement Class 'E', instead of currently being 99% at Final Reconciliation (RF). The existing Performance Serial SP08c would be amended accordingly.

Requirement 5 – DTC flows: Increased resolution for HH meter data to 0.001kWh from 0.1kWh

The relevant DTC flows that contain HH meter data (D0003, D0022, D0036, and D0275) will need increased resolution to ensure low half-hourly volumes are accurately processed. Currently the format is 7,1 resulting in 0.1kWh resolution (200W). It is proposed that this is changed to 7,3 to avoid rounding errors. Increased resolution is required to avoid energy being inaccurately accounted for in settlement.

The following data flows/items would be amended to increase the format for HH meter readings from 1 to 3 decimal places of kWh/half-hour (0.1 kWh/HH to 0.001 kWh/HH):

Data Item	Data Flow
J0177 (Period Meter Consumption)	D0036 (Validated Half Hourly Advances for Inclusion in Aggregated Supplier Matrix) and D0275 (Validated Half Hourly Advances)
J0021 (Meter Period Value)	D0003 (Half Hourly Advances)
J0281 (Total kWh (and kVArh) of Estimated Periods)	D0022 (Estimated Half Hourly Data Report)

For clarification, the Modification Workgroup has decided against including D0010 (Meter Readings) as this flow is used in both HH and NHH markets (so changing it impacts both).

The data it holds is an advance (over many HH periods), not a HH value, so it is not so susceptible to rounding issues.

Requirement 6 – Profiles 5-8 ‘frozen’

The Profile Administrator would discontinue load research for Profile Classes 5 to 8. The regression equations for BSC Year 2014/15 would therefore be ‘frozen’ and apply to all subsequent years. These ‘frozen’ profiles would be used for those customer who do not have an Advanced Meter installed and for other types of customer currently settled on these profiles, for example NHH Unmetered Supply (NHH UMS) and Micro-generation profiling. It might also be used for estimation of missing data by Half-hourly Data Collectors.

Although the regression profiles would be frozen, the Default Period Profile Coefficients would still need to be determined each year as they are based on the calendar for each year. ELEXON would develop a process (likely as part of annual refresh) for this to occur.

For clarification the intention is to freeze the regression coefficients for Profile Classes 5 to 8. This means that the Profile Administrator will no longer collect sample data for customers in these profile classes and no new regression coefficients will be created for these Profile Classes. The regression data in Market Domain data and the SVAA systems will then be used to create the out-turn profile coefficients for these profile classes by selecting the regression coefficients for the appropriate season and day-type and evaluating them at out-turn temperature and sunset variable (as they would normally do). The regression data would also be used with long run temperatures to calculate date specific ‘default profile coefficients’ for the HH market. Again this is no change from normal practice it is just that the underlying data has not been updated.

Requirement 7 – Expanding PARMS Serial SP04

Profile Class 5-8 metering systems with an Advanced Meter that is being settled on a NHH basis in breach of BSC requirements would be included within the scope of PARMS Serial SP04.

Serial SP04 – ‘Installation of HH Metering’ – relates to the obligation to install Half Hourly (HH) Metering at a site which has qualified for mandatory HH Metering. Currently the standards include –

- Number of Days for which a HH Meter should have been installed;
- Number of Days for which HH Meter was not installed, when it should have been;
- Percentage of Days for which a HH Meter was not installed, when it should have been.

For the avoidance of doubt, this means that the Supplier Charge associated with Supplier Serial SP04 would be payable in respect of any Metering System that is subject to the Licence condition requiring an Advanced Meter, and has had an Advanced Meter installed, but is not being settled Half Hourly (for Settlement Dates on or after 6 April 2014).

Requirement 8 – New PARMS Serial

This is for Profile Class 5-8 metering systems that do not have an Advanced Meter (e.g. those where the Supplier has been unable to install one, despite taking all reasonable steps to do so, as required by the Licence Condition). For clarification this Serial is for monitoring, and it does not have an associated Supplier Charge like the performance serial above. This will enable the Performance Assurance Board (PAB) to understand the number (and hence the impact on Settlement) of residual NHH-metered customers.

4 Potential Alternative Solutions

The Proposer believes that in all likelihood Profile Classes 1-4 will be mandated to move HH in the near future and that it would be sensible to have as limited a timeframe as possible for any transitional period. The Workgroup believe that this approach would encourage suppliers to implement any necessary changes sooner and would free up time to deal with the larger more complicated issues that will arise out of transferring Profile Classes 1-4. As such the implementation date of 06 April 2014 is an integral part of the proposed Modification.

The Workgroup did consider a different implementation approach. Some members of the Modification Workgroup supported the idea of a 6 months transition window after April 2014 in which suppliers would have to complete the transfer of their customers before HH becomes compulsory. It was felt that this would ensure that suppliers first and foremost would meet the mandate of installing the meters by 2014. However, some Modification Workgroup members felt that this was unnecessary as they believe that over 70% of the meters have already been installed.

Other Modification Workgroup members considered longer periods of time such as 12, 18, 36 months post April 2014 which would allow time to resolve all the other contractual and customer issues. Again others believed that contractual issues would still exist and therefore felt that this would just delay the implementation.

The full discussion on why the Group decided upon the potential alternative approaches can be found in Attachment A pages 3-5 and 16-17.

Potential Alternative Solution 1 – Transitional Implementation

Rather than requiring P272 go-live on 06 April 2014, this alternative proposes that 06 April 2014 is the start of a **6 month transitional** period which would end of the 06 October 2014. This would provide a grace period for Suppliers to complete transfer from Non Half Hourly to Half Hourly Metering.

A Modification Workgroup member thought this would enable suppliers to have enough time to get every Advanced Meter installed in line with the Licence Agreement and allow time to collect and analyse actual customer profile data before applying HH settlement.

Potential Alternative Solution 2 – Transitional Implementation

Rather than requiring P272 go-live on 06 April 2014, this alternative proposes that 06 April 2014 is the start of a **12 month transitional** period which would end on 06 April 2015. This would provide a transitional period in which Suppliers would have 12 months to complete the transfer from Non Half Hourly to Half Hourly Metering.

A Modification Workgroup member thought this would enable suppliers to have enough time to resolve other issues arising from this Modification, such as contractual issues between Suppliers, Meter Agent and customers and implement the necessary system changes.

¹Question 3

Do you believe that either of the suggested alternative solutions are an improvement on the Proposed Solution?

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¹ Please note Question 2 is within Attachment C.

Question 4

Do you have a preference for either of the potential alternative Solutions?

5 Impacts & Costs

Impacts of the Proposed Modification

The Impact Assessment responses we received provided ELEXON with a wealth of information into the changes that BSC Parties would need to introduce into their existing practices. However, since this Modification has a wide and varied impact it has been difficult for parties to estimate the exact cost of implementation.

Furthermore, as with the PSRG work previously, Industry is only now beginning to understand fully the implications of these suggested changes and the associated costs that come with it.

However, the key impacts that were highlighted within the Impact Assessments were:

BSC Parties / Party Agents	
Type of Party / Party Agent	Potential impact
Supplier	<ul style="list-style-type: none">Updating customer and Agent contractsImpact on NHH PerformanceThe need to change agents and update forecasting, pricing and billing systems
LDSO	<ul style="list-style-type: none">Issues with IT system scalability and timescales
Agents	<ul style="list-style-type: none">Existing NHH Agents would need to re-qualify for HH, should they wish to continue to act as MOAs

Estimated Costs

As part of the P272 Impact assessment undertaken by the Workgroup, Parties responded with high level costs. These costs were based upon updating systems and processes necessary to implement P272. These estimated costs have been highlighted below; although due to confidentiality they are displayed as rounded averages.

Indicative industry costs	
Type of Party	Potential cost
Supplier	Between £5m – £20m
LDSO	£100k -£130k initial net spend, plus 50k ongoing

The estimated ELEXON cost is 22.5K which can be broken down as follows:

ELEXON Cost		ELEXON Service Provider cost	Total Cost
Man days	Cost		
60	£14,500	£8,000 implementation cost	£22,500

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Impacts and Costs of the Alternative Modification

If the Modification Workgroup decides on the Alternative Modification, its central implementation cost will not differ from the above. The Modification Workgroup can see no difference in cost between the proposed modification and the alternative.

In terms of Impacts we expect that it would relieve some of the pressure placed upon Suppliers, Agents and the like, in the short term allowing more time to resolve issues. However, in the medium to long term this could adversely impact parties as any delay in implementation will likely result in cross over with Smart work that is on the horizon as well as the likely transfer of Profile Classes 1-4, both of which will demand far more time and resource from Industry.

6 Implementation

Proposed Modification

The Modification Workgroup's recommended Implementation Date for the Proposed Modification is 06 April 2014. The Modification Workgroup noted that as over 70% of AMRs have already been installed this should allow sufficient time for the remaining meters to be installed as well as resolving other issues that have been raised.

This date should allow all Suppliers to complete the installation of Advanced meters in accordance with Supply Licence conditions.

Potential Alternative Modification

The Modification Workgroup has yet to decide on what is the best alternative. Currently there are two alternatives being considered. The Implementation Dates for an alternative could be 06 October 2014 or 06 April 2015.

Defining PC 5-8 post implementation date

The Modification Group discussed the fact that there is an issue with the Modification in that the Modification relates to mandating that Profile Classes 5-8 be settled HH. However, once the customers within Profile Classes 5-8 are settled HH they are no longer considered to be in Profile Classes 5-8 and in addition to this those profile classes will no longer exist.

The Group discussed how best to try and put such a requirement into the Code and concluded that this would have to be linked to the direction of the Supply Licence

7 The Case for Change

By 06 April 2014 all customers with metering systems in Profile Classes 5-8 (except in a minority of circumstances) should have advanced meters as mandated by The Secretary of State. The P272 Modification Workgroup has examined the potential use of Half Hourly data from these meters in Settlement. Currently, the majority of those Meters that have/will be installed are using NHH averaged profiled data which, although it is the current baseline, is less accurate than HH data.

A potential benefit of having these meters is that they are able to accurately and reliably measure half-hourly usage and relay this information into Settlement. However, for the Market to utilise this information it will need to make the necessary changes, which are numerous and have a significant cost.

In spite of the cost of implementing these changes, the Modification Group believes that mandating HH settlement for PC 5-8 will lead to more accurate settlement.

The Proposer believes that P272 would better facilitate the achievement of **Applicable BSC Objective (d)**. They did so because they thought the reduction in work of the Profile administration agent would be more efficient to the running of the BSC. However, the Group have subsequently noted that any effort or cost reductions from the PrA are likely to be minimal.

The Proposer also believes that P272 would better facilitate the achievement of **Applicable BSC Objective (c)**. They argue that increased HH data used in Settlement will enable Suppliers to offer greater flexibility to customers. The Group have also discussed that increased HH data into Settlement will lead to more accurate forecasting and that more accurate Settlement might provide an incentive to join the market and increase completion and market liquidity.

Looking ahead

There is a view that the Mandate put in place by The Secretary of State is just the first step in a process towards having an entirely HH settled market within the UK.

With that in mind, a majority of the workgroup believe it is practical to make the necessary changes early for half-hourly settlement for current Profile classes 5-8, as this will avoid overlap with the greater obstacles that will arise in possible later implementation of half-hourly settlement for current Profile Classes 1-4 HH.

Furthermore, it has been suggested by some members of the Workgroup that should the industry delay on this issue, then at some point in the near future it will be obliged by the Secretary of State, and the cost of mandatory implementation at short notice would in all likelihood be greater.

PSRG

The Workgroup agreed that the work conducted by the PSRG was still relevant and its findings were still accurate. Some members noted that they agreed with several responses to the Impact Assessment stating that the cost benefit analysis is overstated, but it is crucial to point out that the conclusions had been based upon information provided by the industry.

The Workgroup noted that the costs have changed in the period since the PSRG work was conducted but this is reflected in the greater understanding throughout the industry of the true impact and changes that will need to be made. However the Workgroup still stands behind the benefits of these changes.

Benefit	Central CBA benefit (£m)
Annual settlement	£17m
Other	<ul style="list-style-type: none"> • Better risk management for Suppliers and potential less exposure to imbalance costs • More accurate demand forecast • More cost effective tariffs • Reduced carbon emissions, peak load shifting demand side reduction

Other Benefits

Demand Forecasting – With increased availability of HH data for these sites, demand forecasting should be more accurate as based on more detailed and timely meter data;

Product Innovation – Parties should be able to construct more cost effective tariffs with the increased resolution in metered data from HH. Also the potential availability of new services to customers, such as energy management products;

Customer Invoicing and more accurate billing – Benefits can be achieved with more accurate and timely bills for the customer as the costs can be based on actual consumption. However, the majority of this benefit will be in having an Advanced meter and there would be smaller additional benefit on settling HH over NHH. The potential for lower costs for consumers as they are enabled to reduce or change their energy consumption. The reductions may be due to lower DUoS or TNUoS charges due to changes in customer behaviour and shifting load away from peak periods. Also customers with flat load profiles (when compared with a settlement profile) should be able to reduce their costs;

Reduced Agency Costs – there is the potential for economies of scale and reduction in HH agency costs as the number of HH settled meters changes by 150% (from 115,000 to 279,000);

Settlement Cashflows – Parties should be able to plan their settlement cashflows more accurately and thereby reduce processing and financing costs. There is also a potential reduction in Supplier internal costs by the fact that 99% is settled on actual data by R1;

More accurate DUoS billing and better reporting of losses – Due to the availability and timeliness of the HH data; and

Better system planning and less requirements for reinforcement – HH data would allow for more timely planning of system development, reduced need for reinforcement, more cost reflective reactive or capacity charging;

Other benefits – Reduced carbon emissions resulting from behavioural change of customers and peak load shifting. Peak load shifting may also lead to security of supply benefits.

For a more compressive understanding of the work the PSRG conducted please see their Cost Benefit Analysis.

8 Further Information

More information is available in

Attachment **A**: Detailed Assessment.

This information includes:

- Terms of reference
- Modification Workgroup's discussions on requirements
- Modification Workgroup's discussions on Impact Assessment
- Timetable and responsibility

A complete version of the consultation and impact assessment responses received are available on the P272 page of the ELEXON website.

Attachment **B**: Legal Text Proposed

Attachment **C**: Consultation Questions