

P272 'Mandatory Half Hourly Settlement for Profile Classes 5-8' Assessment Consultation Responses

Consultation issued on 23 September 2011

We received responses from the following Parties

Company	No BSC Parties / Non-Parties Represented	Role of Parties/non-Parties represented
Power Data Associates Ltd	0/1	Meter Administrator
SmartestEnergy	1/0	Supplier/ Trader/ Consolidator
IMServ Europe	0/5	Party Agents, HHDC, HHDA, NHHDC, NHHDA and MOP
Good Energy	1/0	Supplier
RWE npower	10/0	Supplier/ Generator/ Trader/ Consolidator/ Exemptable Generator/ Party Agent
Electricity North West Ltd	1/0	LDSO
Haven Power Limited	1/0	Supplier
Western Power Distribution	4/0	Distributors
British Gas	1/0	Supplier
TMA Data Management Ltd	0/1	HHDC, HHDA, NHHDC and NHHDA
UK Power Networks plc	4/0	LDSO, SMRS
SSE Plc	6/1	Supplier/ Generator/ Trader/ Party/ Agent/ Distributor
G4S Utility Services (UK) Ltd	0/1	NHHDC/ NHHDA/ MOP
CE Electric UK	2/0	Distributor
IBM on behalf of ScottishPower	3/0	Supplier/ Distributor
Wessex Water	0/1	Customer
E.ON UK	5/0	Supplier
EDF Energy	10/0	Supplier/ Party Agent/ Generator/ Trader/ Consolidator/ Exemptable Generator

What stage is this document in the process?

01 Initial Written Assessment

02 Definition Procedure

03 Assessment Procedure

04 Report Phase

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Responses

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Version 1.0

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Question 1: Do you believe that P272 would better facilitate the Applicable BSC Objectives when compared with the current Code provisions?

Summary

Yes	No	Neutral/Other
11	6	1

Responses

Respondent	Response	Rationale
Power Data Associates Ltd	Yes	Settlement data will be more accurate. For metered sites accurate profile, derived from actual data; and more frequent meter reading will result in more accurate volume data. For unmetered customers the profile will be substantially more accurate.
SmartestEnergy	Yes	<p>The proposed modification meets 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 by increasing the amount of energy which is settled half hourly, thus enabling suppliers to offer customers greater flexibility to loadshift.</p> <p>The proposed modification meets BSC Objective (d): Promoting efficiency in the implementation and administration of the balancing and settlement code arrangements, by reduced BSC costs due to discontinuing the load research programme for PCs 5-8 and any potential savings in performance assurance costs.</p>
IMServ Europe	Yes	<p>BSc Objective 'd' efficiency: Inaccuracy in settlements would be reduced and the work and resultant costs of all Parties and Agents monitoring and managing the inaccuracy. In addition the introduction of a increase in performance completeness to 99% at R1 would bring significant increases in efficiency, particularly for billing and invoice reconciliation; this would be of great benefit to many parties.</p> <p>BSc Objective 'c' competition:</p> <ul style="list-style-type: none"> • Reduces financial risks and removes barriers to new entrants and smaller Suppliers through: <ul style="list-style-type: none"> o Improved demand forecasting/settlement providing greater opportunities for better informed cash flow planning • Enables Customer tariffs to be based on actual profile data incentivising customers to utilise EM

Respondent	Response	Rationale
		<p>reporting and change purchasing behaviours</p> <ul style="list-style-type: none"> o Provides opportunities for the provision of more innovative EM solutions to a wider group of customers and better pricing due to economies of scale o Enables customers to procure more innovative and competitive tariffs leading to greater competition amongst suppliers
Good Energy	No	<p>We don't believe that the introduction of P272 will make any difference to 'Objective C' of the BSC when compared to current procedures. The modification proposal does not give justification of change in this respect.</p> <p>It will not promote efficiency in the implementation and administration of the code ('Objective D') and will in fact increase the costs currently faced by suppliers and consumers.</p>
RWE npower	Yes (conditional)	<p>We believe that the timing of the removal of the DUoS pricing differential to be a major barrier to implementing P272 by 06 April 2014. As a Supplier, we would wish to start to move these sites over to HH settlement prior to 06 April 2014 providing it is not detrimental to the customer. We would need a sufficient timescale to complete the transfer of these sites by 06 April 2014 and develop systems and processes at least cost. Any narrowing of this timescale would significantly increase system and process costs.</p> <p>We concur with the findings of the PSRG Cost Benefit Analysis and believe that the modification proposal better facilitates the following Applicable BSC Objectives when compared with the current Code provisions:</p> <ul style="list-style-type: none"> • The proposed modification meets BSC Objective (c) by increasing the amount of energy which is settled half hourly it will provide greater cost transparency and enable suppliers to offer customers greater flexibility to manage their energy usage; • The proposed modification meets BSC Objective (d) as there would no longer be the requirement for load research PC5 – 8 sites as profiles would be 'frozen'. <p>However, it should be noted that our support for the proposed modification is based on the timing of the removal of the DUoS pricing differential. As stated later in our response we support a later implementation date over the proposed implementation date.</p>
Electricity North	Yes	Our view is that P272 will better facilitate C and D of

Respondent	Response	Rationale
West Ltd		<p>the Applicable BSC Objectives by:</p> <ul style="list-style-type: none"> • Improving efficiency and accuracy of the data collection process • Improving accuracy of settlement data • Potential reduction in profiling of data in settlement runs • Potential to fix the date to freeze profiled data for PCs 5-8s
Haven Power Limited	No	<p>Unless the current issues surrounding interoperability of advanced or smart meters are resolved in advance of any mandatory HH Settlement then we don't believe that the solution promotes efficiency and better competition. Without a workable solution, then the reverse is likely to be true – with the Change of Supplier (CoS) becoming more onerous and involved rather than more efficient.</p>
Western Power Distribution	Yes	<p>We believe that using HH data for PC 5-8 customers will decrease the level of settlements error and encourage competitive pricing regimes from suppliers for these customers</p>
British Gas	No	<p>We believe that P272 would not facilitate the Applicable Objectives of the current code provisions particularly "the efficient, economic and co-ordinated operation by the Transmission Company of the Transmission System and "promoting effective competition in the generation and supply of electricity and (so far as consistent with) promoting such competition in the sale and purchase (as defined in the transmission Licence) of electricity"</p> <p>The reasons for this is as follows:</p> <ol style="list-style-type: none"> i) The financial business case for mandating HH settlement for PC 5-8 has not been made. This can be seen by the responses to the P272 industry impact assessment. Virtually no quantifiable benefits have been put forward and those that have (£17m per annum) refer to the value of energy more accurately allocated amongst suppliers and not a saving to the industry as a whole. Additional costs of between £5m and £20m per supplier have been identified and of between £100k and £130k per distribution company plus ongoing annual costs of £50k per distribution company. ii) We believe the current system of profiling although not perfect provides an efficient mechanism of allocating energy costs between suppliers. To change this system for a small segment of the market, at high cost relative to the

Respondent	Response	Rationale
		<p>benefits would not provide good value to customers.</p> <p>iii) Until the future settlement system for the whole market, including profile classes 1-4 has been agreed by the industry it is uneconomic to invest in changes for a relatively small segment of the market which may not be required once the final settlement system is decided upon.</p> <p>We also do not believe that the proposal would better facilitate the objective "that the code is given effect without undue discrimination between Parties or classes of Party."</p> <p>By moving the threshold where sites are settled HH we are preventing existing NHH only suppliers and agents from being able to service a significant element of the market. This is forcing costs into these businesses to gain accreditation with no measurable benefit to justify these costs.</p>
TMA Data Management Ltd	Yes	Applicable BSC Objectives b and d would be better facilitated by the implementation of P272. It will promote better Supply competition with product innovation in the Half-Hourly Market and it will also ensure that the discharge of the functions and Responsibilities of the Panel is done as practically and efficiently as possible. The costs of implementation might at first mask this but in the long run it will make the Settlement process more efficient and accurate.
UK Power Networks plc	Yes	-
SSE Plc	Yes	-
G4S Utility Services (UK) Ltd	No	We agree that applying settlements runs earlier will improve the accuracy of market consumption data. However, since the cost will be greater we do not agree that in the overall context of the benefit that it will be more efficient. Some organisation currently performing services in the NHH sector will be disqualified from operating these MPANs so we do not agree it benefits competition.
CE Electric UK	Yes	We agree that P272 better facilitates the Applicable BSC objectives of promoting effective competition in the generation and supply of electricity along with the efficiency in the implementation and administration of the balancing and settlement code arrangements.
IBM on behalf of ScottishPower	Yes	Moving to HH Settlement as part of the overall AMR/Smart metering rollout is the correct course of action as it will ensure we maximise the benefits of these changes from the earliest opportunity. With regard to the customer base within PC 5-8, due to its

Respondent	Response	Rationale
		size, the recording of usage in settlement based on the actual HH data should improve settlement accuracy.
Wessex Water	n/a	-
E.ON UK	No	<p>Since suppliers are now able to offer customers in Profile Classes 5 – 8 half hourly (HH) settlement arrangements on an elective basis there is no BSC barrier preventing suppliers and customers from having access to more innovative tariffs that come from having increased access to metered data that could also facilitates load switching.</p> <p>The elective regime effectively improves competition for those suppliers who can differentiate the offerings to customers based on the best combination of factors, including the energy costs, DUoS and DC/DA/MOP costs. This modification could potentially create an additional cost burden for this category of customer and particularly smaller suppliers who could face increased DC/MOP & DUoS costs because of a change in the settlement arrangements that aren't combined with increased opportunity or the ability to absorb those additional costs across a larger portfolio. HH settlement is clearly right for the largest consumers and our experience has shown for those customers who currently face the mandatory move to HH from NHH because of consumption changes, the migration isn't often welcomed because of the additional complexity and cost burden that accompanies this change, therefore to impose this on an even wider band of customers without their engagement and consent seems an unreasonable thing to do.</p> <p>We have provided details of the cost impact should settlement arrangements move from an elective to a mandatory requirement as outlined in our earlier confidential response to the Impact Assessment. In terms of the economic and efficiency of the BSC arrangements, since BSC will still be required to perform profile research for other profile classes, the very marginal benefit that will come from not undertaking the activity for PC 5-8 is immaterial versus the costs of making the change.</p>
EDF Energy	No	<p>For BSC Objective (c), we see benefit in mandating HH settlement for current PC5-8 sites in the longer term, but think the total industry costs (including our own) of mandating it from April 2014 would outweigh the benefits in the short term. We think some of the significant transition issues and costs for participants, identified in the previous Impact Assessment consultation, would be reduced if a later mandatory</p>

Respondent	Response	Rationale
		<p>date was used.</p> <p>A later date would allow time for a more efficient and orderly transition, and reduce the risk that those customers that might ultimately face additional costs as a consequence of half-hourly settlement would actively seek to avoid AMR metering installation.</p>

Question 2: Do you have any further views or examples of customer issues that would arise from the implementation of P272 apart from those already highlighted within Modification Group discussions? (See Attachment A).

Summary

Yes	None	Neutral/Other
6	12	

Responses

Respondent	Response	Rationale
Power Data Associates Ltd	Yes	<p>Cannot see any mention about impact on larger UMS? The group have identified the significant benefits for settlement/stakeholders of increased HH settlement. The proposal should also mandate that all UMS above ~100kW should be traded HH.</p> <p>I presented information to the latest May 2010 UMSUG (http://www.elexon.co.uk/ELEXON%20Event%20Documents/impact_of_cdc_m_on_ums.pdf) demonstrating the perverse situation that large unmetered local authorities can trade NHH. So despite the thrust of this consultation being to include under 100kW metered customers in the settlement process, the work should consider that the current arrangements allow for large NHH unmetered customers. To give some scale, in April 2010 we had a single local authority transfer their unmetered from NHH to HH this customer alone has a an annual consumption of 54GWh and MD of 12.8MW. There are some GSP Groups where 80+% of the energy is traded HH, while (since April 2011) only one remains with the majority NHH. Again, the slides demonstrate the split. The Settlement profile for NHH unmetered is considerably different from the 'real' HH profile. This difference is acceptable for parish/town councils where the consumption is far lower, but there are thousands of individual customers.</p> <p>To protect the integrity of settlement the PSRG should</p>

Respondent	Response	Rationale
		consider the need to mandate in the BSC that unmetered customers above a threshold should trade HH. I would be willing to attend a PSRG meeting to present up to date slides and debate these issues.
SmartestEnergy	No	-
IMServ Europe	No	Affected Customers can only benefit from more timely and accurate bills and increased competition driving down prices. The overhead of re-negotiation of contracts either with Supplier or Agents would be offset by the opportunity to obtain more competitive pricing
Good Energy	Yes	We can see the benefits of more frequent readings, a major issue that should not be although believe some of the benefit is already gained by having actual monthly readings; however the increase in costs for half hourly data capture from agents will (likely) be borne by consumers. We would suggest that this is viewed lightly.
RWE npower	Yes	We believe a later implementation date would allow time to resolve contractual and customer issues. We also wish to reiterate that this has considerable implication for customers in terms of the Carbon Reduction Commitment Energy Efficiency Scheme (CRC). This Modification could potentially bring customers into the CRC (either as full participants or as information disclosers) who would otherwise not have qualified. In view of this, we would suggest the Modification Group communicate these concerns to those involved with the development of CRC policy.
Electricity North West Ltd	No	-
Haven Power Limited	No	-
Western Power Distribution	No	N/A
British Gas	Yes	We believe the Modification Group has severely underestimated the impact of on customers of implementing P272. The costs of implementing P272 that have been highlighted in the impact assessment will have to be passed on to those PC 5-8 customers to prevent any cross subsidy occurring. This will mean significant increases in the costs of energy supply for those customers.
TMA Data Management Ltd	No	-
UK Power Networks plc	No	-
SSE Plc	No	-
G4S Utility	No	Aside from significant commercial issues relating to

Respondent	Response	Rationale
Services (UK) Ltd		contracts we have in place with end users, we have no view.
CE Electric UK	No	If the majority of suppliers choose to carry out a bulk change of customers to half hourly then our current internal processes would be affected in terms of managing registration data against a volume of customers within our half-hourly billing system. We will also need to carry out significant IT changes in order to accommodate a larger volume of customers being billed.
IBM on behalf of ScottishPower	No	Our previous views relating to the impact on customers from a forced change from NHH MD to available HH tariff structures are still applicable. It is possible that this change could lead to material volatility in DUoS tariffs for both the group transferring to HH settlement and other customer groups, especially those remaining in the NHH sector (PC1-4). It is likely that this could impact such tariffs over a number of years.
Wessex Water	Yes	If the meter is located in an area without good mobile signal, then data cannot be collected. This could result in failure to achieve 99% of energy settled on actual data at R1, as required.
E.ON UK	No	-
EDF Energy	Yes	As customers become more familiar with the potential capabilities of AMR (and Smart) meters, and more tariffs based on half-hourly usage are developed, the demand for half-hourly settlement by those customers that could benefit from it, and their suppliers, may increase voluntarily. Mandatory half-hourly settlement might result in a proliferation of tariffs more reflective of individual customer's time-of-use. Ultimately, in theory, half-hourly settlement could lead to individual cost-reflective charging for groups or even each customer. This is counter to apparent broad consumer opinion and current regulatory initiatives to simplify tariffs.

Question 3: Do you believe that either of the suggested Alternative Solutions would be an improvement on the Proposed Solution?

Summary

Yes	No	Neutral/Other	No response
6	11	1	

Responses

Respondent	Response	Rationale
Power Data Associates Ltd	No	The proposed solution seems logical.
SmartestEnergy	No	Alignment with the obligation on Suppliers to have Half Hourly metering installed makes the most sense. Licence condition 12.21 states: "As from 6 April 2014, the licensee must not supply electricity to any relevant premises other than through an advanced meter." If customers are to make full use of half hourly data they need to be settled on half hourly data; suppliers will not take the shape risk of billing customers on actual half hourly data and settling with Central Systems on profiles.
IMServ Europe	No	We believe that a limited timeframe is essential to encourage Suppliers and Agents to implement changes sooner and free up time to resolve the more complicated issues arising out of the larger impact of the proposed changes to Profile Classes 1- 4 and the roll-out of smart metering.. Whilst Impact on our systems is not insignificant the impact on contractual arrangements is minimal. The costs are identical for all of the suggested timeframes, We do not anticipate any barriers to early implementation. We would favour a phased implementation to run in parallel to the final completion of installation of the remaining 30% of advanced meters required by the deadline of 6th April 2014. We plan to work closely with Suppliers to assist with the change depending on each Supplier preference. We believe that there is ample time for these changes to be completed by the deadline and that the benefits should be realised at the earliest date.
Good Energy	No	The alternative solutions are an improvement but it is our view that neither the proposed or alternative solutions are acceptable. We agree that a period of transition would be better than a straight switch to HH settlement on 6th April 2014. However we do not agree that this timeline is reasonable or practical for suppliers to implement. This will be at a time when suppliers are beginning full smart meter roll outs and have already faced the system changes (and costs) to ensure readiness for the roll out. To mandate a further 'big' change to process and systems to suppliers (of all sizes) is not reasonable.
RWE npower	Yes	We would support either of the suggested Alternative Solutions over the Proposed Solution. The timing of the removal of certain barriers to HH is crucial to the date at which we will start to move sites over to HH settlement. Any narrowing of the timescale i.e. the period between the date of the removal of the DUoS

Respondent	Response	Rationale
		<p>pricing differential and the P272 implementation date, would significantly increase system and process costs. A later implementation approach of 06 October 2014 or 06 April 2015 would go some way to alleviating the risk of a more restrictive implementation date of 06 April 2014, and would have less impact on systems and processes.</p> <p>The Supply Licence condition is that from 06 April 2014 all Meters for PC 5 – 8 sites must be an 'advanced' Meter. It's possible that we may be installing AMRs at sites right up to that date.</p> <p>Extending the implementation date by which such sites must also be HH settled to 6 or 12 months after the Supply Licence condition date would allow a reasonable period of time to address a number of potential issues and provide the following benefits:</p> <ul style="list-style-type: none"> • Avoids the need to do a meter exchange and CoMC at the same time; • Allows a reasonable period of time to resolve issues at problem sites; • Ability to gain some additional usage history to aid forecasting and hedged position; • Allows additional time for commercial arrangements to have been put in place with the customer; • Provides for a slippage in the timing of the removal of the DUoS pricing differential which would impact transition planning and increase system and process costs.
Electricity North West Ltd	No	As Advanced Metering has already been installed for 70% of these sites, it would seem appropriate to implement the change as a soon as practicable in order to improve the accuracy of settlement data.
Haven Power Limited	In part	Either of the Alternative Solutions would allow some of the benefits highlighted in our Alternative Solution (see Question 5) to be achieved to a greater or lesser extent (e.g. more time for CoS interoperability issues to be addressed). However, neither Alternative Solution has any phasing. This could encourage suppliers to undertake bulk Change of Measurement Class (CoMC) close to the deadline. If this does not run smoothly, then it would not only affect the Parties directly involved, but will impact the wider industry.
Western Power Distribution	No	Suppliers can begin the process with immediate effect, depending on the level of headroom that each DNO has in their HH billing system (see recent responses to DCP103 request for information to find out this information). April 2014 is already a reasonable timeframe for migration. We believe that ensuring suppliers are planning on spreading out their

Respondent	Response	Rationale
		CoMCs by getting them to submit a plan to PAB is sufficient.
British Gas	No	A delay to October 2014 or April 2015 will not impact on the additional costs of implementing P272 that been identified.
TMA Data Management Ltd	No	Introducing a transitional period would not be beneficial and therefore does not improve on the proposed solution. The possibility to register PC5 to 8 sites as HH as soon as the advanced metering is installed provides enough time for Suppliers to fulfil their obligations prior to April 2014 without having to resort to Bulk change of change of measurement class if desired. This transitional period prior to the deadline is sufficient, a transitional period after the deadline is not mandated.
UK Power Networks plc	No	Our view remains unchanged; we would like to see customers with advanced meters traded HH by their Suppliers from the earliest opportunity. Furthermore, we continue to believe it is imperative that the P5-8 migration is complete before the ramping up of the wider smart metering programme
SSE Plc	Yes	We believe the implementation of a acceptable new DUoS Charging Structure will not be implemented in time to give a adequate window to allow a timely migration to HH by 1 April 2014.
G4S Utility Services (UK) Ltd	Yes	The lead time to April 2014 is insufficient to accommodate the system changes and scale of migration involved.
CE Electric UK	Yes	Only in that it will give parties more time to prepare for the transition of customers.
IBM on behalf of ScottishPower	Yes	An extended implementation date give BSC parties more time to ensure all the relevant equipment and processes is working correctly before considering the use of HH Settlement. This would also provide additional comfort around the complicated CoMC process that will be carried out by Suppliers once metering is installed. It should also be noted that any methodology and rules with regard to the change criteria are agreed and clearly defined before any 'transitional date'.
Wessex Water	No	Ideally, this would be implemented as soon as possible as we believe it has many benefits.
E.ON UK	No	We believe that it is right to enable suppliers to make the decisions when they should elect to move this category of customer into HH settlement arrangements. The costs burden that suppliers will face, which customers will effectively absorb, aren't related to the BSC arrangements alone, and taken in the round, the cost benefits for the change if re-

Respondent	Response	Rationale
		<p>assessed would probably deliver a different outcome that the PSRG work did previously. Additionally, we are facing a brave new world which will have more data and when you consider that all domestic and SME sites will have the same type of data available once the smart rollout has completed it may well be that the settlement arrangements will look very different entirely and that it won't be a case of trying to shoe-horn all the meter points through the HH processes and that with potentially centralised DC and DA services that may come in with the DCC a more radical solution could be developed which would allow settlements better data without crippling the customer with significant additional costs.</p> <p>So in summary – once the scope of the DCC is fully understood and decisions are more clear on centralised DC/DA services, suppliers may want entirely different settlement arrangements that make use of all the additional data available.</p>
EDF Energy	Yes	<p>We see benefit in mandating HH settlement for PC5-8 sites in the longer term, but think the industry costs (including our own) for implementation would be reduced with a later implementation date, better meeting BSC Objective (c) and BSC objectives overall. The suggested alternatives have a later implementation date, and will have lower implementation cost, and therefore will better meet BSC Objectives overall than the proposal. However, we think costs for implementation in October 2014 or April 2015 will still be high, and outweigh the short term benefits.</p>

Question 4: Do you have a preference for either of the Alternative Solutions?

Summary

Yes	No	Neutral/Other	No response
12	6		

Responses

Respondent	Response	Rationale
Power Data Associates Ltd	No	-
SmartestEnergy	Yes	We are not in favour of either of the alternatives but if we had to choose between them we would go for the one with the earlier implementation date.
IMServ Europe	Yes/No	Our first preference is the Proposed Solution however

Respondent	Response	Rationale
		if this should be rejected then Solution 1 is preferable to Solution 2 because of the arguments outlined in our response to Q3.
Good Energy	Yes	The second Alternative solution would appear to be preferable, given the choice. However as per our answer to question 3; we do not feel that the proposed or alternative solutions are reasonable or practical in terms of implementation timing.
RWE npower	Yes	Both Alternative Solutions would deliver additional benefits over the Proposed Solution and we believe there is little to choose between Alternative Solution 1 and Alternative Solution 2. However, we would have a preference for Alternative Solution 1 as this would provide additional benefits (as provided in Q3), whilst not overly delaying the date by which Suppliers are required to move PC 5 – 8 sites over to HH settlement.
Electricity North West Ltd	No	We feel that Apr-14 is achievable for implementation of P272. We welcome the requirement for suppliers to submit migration plans soon after the decision on this change proposal so that we can ensure that any early movers can be accommodated by our business processes and applications.
Haven Power Limited	Yes	Out of the two Alternative Solutions proposed, "Potential Alternative Solution 2 – Transitional Implementation" has the closest timeframe fit to our Alternative Solution. We have made another Alternative Solution (see Question 5).
Western Power Distribution	Yes	We prefer the six month increase to the deadline as this again encourages suppliers to take action sooner rather than a one year extension that will encourage them to leave it and take action later, increasing the chances of a big bang approach.
British Gas	No	We do not believe that either alternative better facilitate the objectives of the BSC for the reasons stated in question 1 above.
TMA Data Management Ltd	No	As explained in response 3, there should not be any need for a transitional period after P272 implementation date.
UK Power Networks plc	No	-
SSE Plc	Yes	Our preference is as stated in the Modification. If either were made, we prefer Option 1, as it early of the date.
G4S Utility Services (UK) Ltd	Yes	We believe that the later alternative date (April 2015) represents least risk to settlements
CE Electric UK	No	We do not have a preference, as we would still want to be ready for April 2014.

Respondent	Response	Rationale
IBM on behalf of ScottishPower	Yes	Our current preference is with solution 2. We believe this would allow sufficient time to manage sites through the CoMC process and ensure any issues relating to the installation of AMS / Smart metering do not compromise the accuracy of the existing HH Settlement. Given the ability to adjust HH volumes through GCF is not yet available we must ensure every measure is taken to maintain the integrity of HH Settlement during this transition.
Wessex Water	Yes	Potential Alternative Solution 1 would be preferable over Potential Alternative Solution 2 as we are keen for this to be implemented as soon as possible.
E.ON UK	Yes	If we were to support one of the modifications, it would be the Alternate. A number of factors relating to the customer contract would have to be considered as well as significant system changes required to deliver this. The elective option allows suppliers/customers who wish to take advantage of any of the opportunities they can identify in these arrangements to do so by going early and therefore the commercial decisions and competitive market should naturally drive suppliers to make the decisions that are right for their business without being forced to implement a change which currently doesn't prevent anyone from access to HH arrangements anyway.
EDF Energy	Yes	April 2015 would have lower implementation cost than October 2014, and would provide opportunity for collection of a year's worth of half-hourly data from all AMR meters, to inform future customer pricing under half-hourly settlement.

Question 5: Do you think another alternative solution would better meet the BSC Objectives (e.g. a different date for half-hourly settlement for PC5-8 becoming mandatory)?

Summary

Yes	No	Neutral/Other
6	12	

Responses

Respondent	Response	Rationale
Power Data Associates Ltd	No	There should be a reasonable lead in period for over a year. The expectation is to <i>double</i> the number of HH metered MPANs – this brings risk, and is unlikely to be achieved successfully in a very short period.
SmartestEnergy	No	Alignment with the obligation to have Half Hourly

Respondent	Response	Rationale
		metering installed makes the most sense.
IMServ Europe	Yes	We would also support an implementation timeframe as early as 2013 should the DuoS charging barrier be resolved by then as we feel the benefits would justify this timeframe.
Good Energy	Yes	We would suggest that optional HH settlement for a period of time (2-3 years) gives all suppliers reasonable time to implement change to settlement processes and systems while also giving them the ability to manage a resource intensive smart meter roll out.
RWE npower	Yes	As a Supplier, we would wish to start to move these sites over to HH settlement prior to the implementation date providing it is not detrimental to the customer. We would need a sufficient timescale to complete the transfer of these sites by the implementation date and develop systems and processes at least cost. We believe the implementation date should be driven by the work being done by DCMF to resolve the DUoS pricing differential. We would not wish to be in the position where there is a short period of time between the date for implementing the full solution to resolve the DUoS pricing differential and the P272 implementation date.
Electricity North West Ltd	No	-
Haven Power Limited	Yes	We proposed an alternative in our earlier response to this consultation (sent via email 11 August 2011 to modifications@elexon.co.uk). This would have a number of advantages – e.g. high number of proven AMRs in place (i.e. free from meter change issues), additional time for interoperability issues to be overcome and for all parties involved to put in place appropriate commercial arrangements.
Western Power Distribution	No	We do not believe that a timescale change alters the interaction with the overall solution and the BSC Objectives.
British Gas	No	This question makes the assumption that half-hourly settlement better meets the BSC objectives in itself. Therefore any suggested solution alternative would need to include this in the proposal. Until a full review of the complete enduring settlement system has been carried out we cannot conclude that HH settlement as designed some 20 years ago is the right solution for the complete smart enabled market.
TMA Data Management Ltd	No	-
UK Power	No	-

Respondent	Response	Rationale
Networks plc		
SSE Plc	No	-
G4S Utility Services (UK) Ltd	Yes	Leave as is, as we believe it will be more expensive to settle this data on a Half Hourly basis. This will therefore add cost for end users unnecessarily. Those suppliers and end users who wish to settle on a Half Hourly basis can already do so on an elective basis.
CE Electric UK	No	The alternative solution would assist in our preparation to manage these customers; however we would still want to be ready for April 2014.
IBM on behalf of ScottishPower	No	From a Distribution perspective we believe that April 2014 is achievable, given the volumes of customers impacted by this change. There is an assumption that DUoS Billing for this customer base will switch from inclusion within Supercustomer which still requires confirmation. We believe our DUoS IT systems are or will be capable of dealing with what will effectively be a doubling up of sites being billed for DUoS on a HH site by site basis (12,000 to 28,000)
Wessex Water	No	-
E.ON UK	No	We don't believe the proposal or the alternative facilitate the BSC objectives for the reasons previously given, therefore the response must be No.
EDF Energy	Yes	We think implementation in April 2017 would allow more cost-effective implementation approaches. Also, it may be possible to move directly to use new functionality and services introduced for smart meters and by the Data Communications Company, rather than incur expenditure on what may turn out to be interim arrangements.

Question 6: What do you believe the barriers will be for agents wishing to re-qualify from NHH to HH? Please consider the requalification process, system changes etc.

Summary

Yes	No	Neutral/Other
N/A	N/A	

Responses

Respondent	Response	Rationale
Power Data Associates Ltd	No/Yes	-
SmartestEnergy		It may be unfortunate for those companies that have to qualify as half hourly agents but half hourly data is where the future of the industry lies.

Respondent	Response	Rationale
IMServ Europe	Yes/No	There are no barriers to any specific prospective entrants to the HH market. All Agents are equal in terms of the investment required to benefit from the opportunity to offer services to a larger HH market and the associated qualification process. It should also be noted that existing HH Agents will also be impacted as they will be required to invest in systems changes in addition to the investment already made in qualification. This is true at any time and not just as a result of the proposed change and in fact the HH market will now provide greater opportunity to new entrants in terms of size in order to justify their investment.
Good Energy	N/A	This is not a question that we would have the required knowledge to answer.
RWE npower	N/A	-
Electricity North West Ltd	N/A	-
Haven Power Limited		We believe that the key barriers for NHH agents wanting to re-qualify as HH will be: <ul style="list-style-type: none"> the investment required for new systems and processes; equipping their staff with the required knowledge to operate in a new market sector (and possible associated resource constraints associated with staff learning new skills); and recovery of costs associated with NHH as number of MPANs serviced by these reduces.
Western Power Distribution		This question is best answered by agents, as a DNO we cannot comment.
British Gas		Current NHH agents will need to invest in new systems and processes to meet the HH accreditation requirements.
TMA Data Management Ltd		There are no additional barriers for agents wishing to re-qualify from NHH to HH than for new entrants to the market. They will have to take into consideration the timescales required for re-qualification, not forgetting BSCP601 testing. Elexon offers support and guidance for all qualification and re-qualification candidates now, this support will also be available for NHH agents desiring to move to HH.
UK Power Networks plc	N/A	-
SSE Plc	Yes/No	Requalification, cost, lack of expertise & knowledge of the HH Market for the NHH only agents.
G4S Utility Services (UK) Ltd	Yes	There will be barriers in terms of the costs of entry for example developing or buying systems, and the entry processes for market entry. There is also a question around the willingness of suppliers to place this

Respondent	Response	Rationale
		business with newly qualified market entrants which could further negate the applicable BSC objective relating to competition.
CE Electric UK	N/A	-
IBM on behalf of ScottishPower	Yes	<p>System development may be a large barrier for agents who currently operate in the NHH market. Whether it is development of an existing system or the creation of a new system to handle HH market operations there will be a significant cost associated.</p> <p>The cost associated with developing new systems to accommodate HH market operations may outweigh the potential benefits, especially with smaller parties who operate a small portfolio. This could in turn limit the options for customers in the future and give additional power to the parties who can maintain HH agent activities.</p> <p>From a Distribution perspective, we are not party to the full requirements and costs that agents will incur, but given our own experience of the requalification process we know that this would likely to be a time consuming and costly undertaking.</p>
Wessex Water	n/a	-
E.ON UK	?	<p>Agents who currently manage these meters who may not meet the requirements for HH qualification will effectively have their business taken away from them. The meter remains in situ however because of an external requirement which they cannot influence they may be forced to exit the market.</p>
EDF Energy		Cost.

Question 7: The DUoS charging differential should be resolved prior to implementation. Do you believe that a new distribution company billing and/or customer pricing and billing system would be needed?

Summary

Yes	No	Neutral / Other	No response
3	8	7	

Responses

Respondent	Response	Rationale
Power Data Associates Ltd	Yes	This has already been considered in respect of UMS – it is complex. A single new group has been formed to consider changes to CDCM for metered and unmetered for implementation in 2013.
SmartestEnergy	No	We agree that the DUoS charging differential should be resolved prior to implementation in the sense that it ought to be but it shouldn't be a pre-requisite.

Respondent	Response	Rationale
		We're not entirely convinced that our beliefs of the need for distribution companies to renew their billing/pricing systems are relevant. Ultimately the distributors need to cope with the situation.
IMServ Europe	Not knowm	Not known but the DuoS charging differential should be resolved by whatever means is most cost effective as soon as possible in order to remove this barrier to the change
Good Energy	N/A	This is not a question that we would have the required knowledge to answer.
RWE npower	No	Our best view based on the ongoing work to resolve the DUoS charging differential is that we should be able to incorporate any changes into existing customer pricing and billing systems.
Electricity North West Ltd	No	The differential is more applicable to PC's 1-4's rather than 5-8s, as currently 5-8s could be elective HH and billing and customer pricing systems are already in place to bill on a site specific basis. The only impact will be the need to accommodate the change in the data flows where there is a need to move to three decimal places and the need to amend the HH tables due to a threefold increase in HH billed sites. As indicated in our earlier response this needs to be completed in advance of April 2014 to accommodate any request to move earlier.
Haven Power Limited	No	The current proposals for changes to the UoS charging regime are aimed at domestic profile classes. We would expect these to have been extended to non-domestic profile classes in advance of any roll out of mandatory HH settlement. We do not believe that the proposals for changes to UoS charges as written would require distribution companies to implement entirely new billing systems. We are mindful that some distributors have indicated capacity constraints which could potentially limit the number of HH metering points serviced and that some investment in hardware would therefore be required. Suppliers would need to make substantial changes to their existing end to end systems and internal processes (or develop new ones) (i.e. sales through to billing and customer service) HH billing in an intensive data processing activity and as the overall number of HH MPANs will more than double, significant investment could be required to achieve this.
Western Power Distribution	No	We would set up a new tariff with new LLFCs with tariffs as set by the CDCM.
British Gas	Yes	We agree that the Duos charging differential is a barrier to both mandatory and elective HH settlement.

Respondent	Response	Rationale
		Responses to the DCP 103 (DUoS Charges for sub 100kw HH settled sites) suggest that distribution business would need to invest in upgrading existing Duos billing systems to be able to handle the increased number of HH settled sites.
TMA Data Management Ltd	n/a	The DuoS charging differential is cited by many respondents as a barrier to the move from NHH to HH so in order to facilitate Modification P272 implementation, it needs to be resolved prior to its implementation.
UK Power Networks plc	No	Our current billing system has the capabilities to cope with the additional PC 5-8 volumes of HH accounts, although, fundamental changes would be required
SSE Plc	No	We are not clear on the question but from the distribution point of view, if we are only looking at 5-8 in isolation, our answer is probably no, but wider consideration have to be taken into account. We would be able to continue under the current systems, however, this would be at the extreme limit of operating systems and business processes capabilities. Prices/tariffs would need amending.
G4S Utility Services (UK) Ltd	No view	Not applicable
CE Electric UK	no	DCUSA change proposal 103 (DCP103) is currently looking to introduce an interim solution to the charging differential. The intent of this proposal is to provide a mechanism whereby distribution businesses are able to charge the same Use of System charges for customers currently on profile classes 1 – 8 whose suppliers choose to transfer to measurement class E as those customers on Profile classes 1 – 8 and settled under measurement class A. In addition the Methodologies Issue Group (MIG) is currently initiating a working group to investigate the enduring solution. The 'HH NHH CDCM anomalies sub-group' will be formed by the distribution network operators (DNOs) to address the anomalies between the two different cost allocation mechanisms for HH and NHH tariffs in the CDCM. The group will consider whether the current charging methodology is appropriate for sub 100kW HH metering systems given the licence obligation to install Advanced Metering for Profile Classes 5 to 8, and the rollout of smart metering. It is envisaged that the deliverables of the sub- group will be a draft report that will form the basis of a DCUSA change proposal (CP) to deliver a change to the CDCM where appropriate for implementation by April 2013 which given the open governance arrangements will require submission of a

Respondent	Response	Rationale
		<p>CP to the DCUSA panel for their considerations by July 2012.</p> <p>For P272 we anticipate that a new billing system would not be required due to the volumes we expect to see. However we would need to carry out IT development changes to our existing billing system in order to manage the increase in the volume of customers.</p> <p>In order to accommodate a larger volume of customers being billed, we would have carry out significant IT changes.</p>
IBM on behalf of ScottishPower	Yes	<p>SP Energy Retail Response:</p> <p>We believe that the introduction of either the proposed or alternate versions of P272 should not be implemented until such time as the DUoS Charging differential between NHH and HH PC5-8 customers has been resolved. Any adverse impact on customers i.e. from higher pass through charges cannot be justified and would act as a disincentive to migrate customers early. Also, Distributors should be encouraged to look at the method of charging DUoS for these type of customers- rather than Billing Suppliers the same as Half Hourly i.e. an monthly invoice for each MPAN, why can't a we receive an aggregated Supercustomer Bill for these customers based on the aggregated HH consumption values available from these new AMR meters?</p> <p>SP Distribution Response:</p> <p>Any DUoS charging methodology should be properly cost-reflective. Given the Industry-wide CDCM and EDCM Models, it is important to recognise that any changes to existing tariff structures will require approval before implementation, alongside a full review of existing DNO Pricing Models to understand the impact of such changes. We also believe that an April 2014 effective date is the earliest realistic implementation date given the obligations on DNOs to notify prices (3 months (Licence) and 40 days (Contract)prior to effective date) and use reasonable endeavours to only notify price changes for April and Oct (Note current Supplier DCUSA change proposal seeks to mandate only April and Oct). One final consideration is that there is no midyear CDCM model necessary to deal with such a transition above.</p> <p>The modification group may wish to note that a working group under DCMF has been convened to look at the differential between NHH and HH DUoS charges. This group will be looking to address any</p>

Respondent	Response	Rationale
		anomalies between the two different cost allocation mechanisms for HH and NHH tariffs within the CDCM. It will also consider whether the current charging methodology is appropriate for sub-100kW HH metering systems given the licence obligation to install Advanced Metering for PC 5-8, and the rollout of smart metering.
Wessex Water	N/a	-
E.ON UK	n/a	The disincentive presented by the DUoS costs is being discussed outside the BSC, it is not clear yet that this will be resolved. Depending upon the solution implemented in respect of DUoS charges or billing system it is impossible to say whether this will be required or not. If site specific billing for DUoS remains the only option for HH settlement then a number of DNOs have indicated new billing systems will be required.
EDF Energy	(1) Yes (2) No	<p>Systematic differences in DUoS and TNUoS charges between NHH and HH settled sites, as exist currently, create artificial differences in costs to serve customers. On average, it appears that DUoS charges for current PC5-8 customers would increase if these differences are not removed. These costs are ultimately passed on in customer prices, so customer support for HH settlement requires this issue to be resolved. If P272 was implemented without this issue being resolved, there could be arbitrary winners and losers among suppliers and customers, according to individual contract terms. This could act against BSC Objective (c).</p> <p>We think the increase in numbers of HH settled sites should be able to be accommodated within existing distribution company billing systems and supplier systems for handling the information and charges. Our response to the previous P272 Impact Assessment consultation was on the basis of using existing systems and processes, and there could be significant additional costs to develop new systems if HH DUoS billing processes were changed.</p>

Question 8: Do you have any further views or comments that you would like the Group to consider (including any comments on the solution, the proposed Implementation Date or the draft Code legal text)?

Summary

Yes	No	Neutral/Other
12	6	

Responses

Respondent	Response	Rationale
Power Data Associates Ltd	Yes	The scope of the proposed changes should include larger NHH UMS customers and mandate that from 2013 or 2014 that they should trade HH. Larger UMS is, say, greater than 100kW ~50% load factor = 450MWh/year. CRC will change in April 2014 to include all UMS within scope, this would lead this to be a sensible target date.
SmartestEnergy	No	-
IMServ Europe	Yes	We fully support this change which we see as less onerous and certainly more beneficial than many of the changes to the market that we have previously experienced. We appreciate the concerns expressed by some respondents regarding system development costs, as we are constantly subject to this same issue however we still believe that the costs in this particular instance are totally justifiable and the benefits to multiple parties will outweigh these costs
Good Energy	No	-
RWE npower	Yes	As previously stated, extending the implementation date by which such sites must also be HH settled for a reasonable period of time after the Supply Licence condition date would allow time to address a number of potential issues and provide the following benefits: <ul style="list-style-type: none"> • Avoids the need to do a meter exchange and CoMC at the same time; • Allows a period of time to resolve issues at problem sites; • Ability to gain some additional usage history to aid forecasting and hedged position; • Allows additional time for commercial arrangements to have been put in place with the customer; • Provides for a slippage in the timing of the removal of the DUoS pricing differential which would impact transition planning and increase system and process costs.
Electricity North West Ltd	No	-
Haven Power Limited	Yes	The Group needs to consider the wider picture as there are a number of activities and changes that need to be coordinated to achieve the desired end result as indicated by this Modification's Proposer. These include changes to BSC systems, UoS charging regimes and improved interoperability between DA/DC & MOP agents. Timing is essential and the Modification will fail to deliver the benefits to the consumer if all of the pieces are not in place when

Respondent	Response	Rationale
		<p>required – e.g. UoS charging regime is unaltered at the time of mandatory HH settlement.</p> <p>Furthermore, the group should take into account that bulk change meter programmes carry substantial risks, especially when the meters that are being replaced have not been read for some time. These risks are associated with the verification of meter standing data and closing reads after the meter has been removed. As part of the meter change programme, a high level of quality assurance will be essential to mitigate these risks.</p>
Western Power Distribution	Yes	<p>We would strongly recommend against a big bang approach, as this will test billing systems, suppliers' systems and SMRS to the point of overload creating the possibility of a critical overload that will have a significant impact on the flow of data and the capacity to bill customers across the whole system. A more gradual approach will ensure that most systems can cope and any that can't will give warning signs before they melt down allowing people to carry out any unanticipated upgrades without crashing systems.</p>
British Gas	Yes	<p>It would be inefficient for the industry to spend significant millions of pounds upgrading systems to allow a relatively small proportion of the market to be settled HH without understanding what the full enduring settlement system for profile classes 1-8 may look like.</p> <p>The existing NHH settlement regime is a stable, efficient and cost effective way of allocating energy across suppliers and the proposed mandation of HH settlement will add significant risk to suppliers which will impact on consumers energy bills.</p> <p>We would suggest that this proposal is rejected and the PSRG continues with it's efforts to:</p> <ul style="list-style-type: none"> i) Review the current settlement system with a view to designing a fit for purpose settlement system once full AMR and Smart metering roll out has been completed ii) Removes any barriers to elective HH settlement. <p>We do not believe that the first task above should be rushed. We need further clarity on how the DCC will work and what services, at what cost, will be delivered. The driver for any new settlement system will be the roll out of dynamic Time of Use Tariffs. These will be required once there is a critical mass of wind generation, embedded generation and new high consuming products such as electric vehicles and heat pumps. We do not anticipate this to be required until 2016/17.</p> <p>The second of the above tasks should be completed</p>

Respondent	Response	Rationale
		<p>as soon as possible to enable suppliers to use elective HH settlement should they so wish.</p> <p>We believe Elexon should be investigating the possibility of linking the tariff that is offered to the customer with the way the metering system is settled as this would prevent potential gaming of the elective HH settlement regime.</p>
TMA Data Management Ltd	Yes	P272 supports OFGEM's goal for encouraging price signal mechanisms. It provides opportunities to have a more direct link between the wholesale prices and the retail prices to encourage a more even spread of energy consumption throughout the day.
UK Power Networks plc	No	-
SSE Plc	No	-
G4S Utility Services (UK) Ltd	Yes	We believe that the proposed legal drafting for section S, 2.6.1A could be taken to include Profile classes 1 to 4 where an Advanced Meter is fitted, should this be implemented. We would draw your attention to Supplier Licence condition 12.19 which gives the definition of an advanced meter. We recommend the drafting is amended to ensure it can only be understood to apply to Profiles Classes 5 to 8 as they currently stand.
CE Electric UK	Yes	In addition how will LLFCs be assigned to these new customers, as if the current arrangements remain i.e. a manual assignment of the LLF, there would be a significant resource impact.
IBM on behalf of ScottishPower	No	<p>SP Distribution comments:</p> <p>As stated in response to Q5 above, there is an assumption throughout all consultation documentation that moving to HH Settlement automatically requires individual collection of data (D0036) and thereafter individual site-specific DUoS Billing. We do not believe this to necessarily be the case. NHH MD sites used to be billed as a separately category before being adopted within the Supercustomer category in April 2002. This simplified and reduced DUoS Billing and Settlement volumes and costs across all Parties. We believe the DUoS Methodology can be maintained at these more efficient levels. This would involve the Suppliers collating the actual data relating to these sites as they do just now, but going forward instead of using estimated data and estimated profiling, they would be collating the actual HH data. This would thereby improve the accuracy contained within the Data Aggregation Volumes submitted via D0030 Flows. This would also avoid the need to increase volumes of individual Dataflows (additional 16,000</p>

Respondent	Response	Rationale
		<p>D0036's per day) and DUoS invoices/payments (additional 16,000 per month).</p> <p>Within our Network many Unmetered Supplies MPANs are currently categorised within PC 8 – these are for 24-hour supplies and are currently settled on an NHH basis. These need to be considered as part of the impact of P272.</p>
Wessex Water	Yes	<ol style="list-style-type: none"> 1. It is preferable to settle on the Half-Hourly data. This would avoid many issues such as creating actual reads which coincide with the bill dates and defining Standard Settlement Configurations for each supply as well as reducing noticeable differences in consumption between the billed reads and the metered Half-Hourly data. 2. With the current profile classes 05-08 adopting the "00" profile class, it will be very difficult to distinguish whether a supply is HH or NHH. This would cause problems when taking over an existing electricity supply from another person or company or, due to the different costs for HH or NHH contracts, for customers modelling the data for billing. 3. Requirement 6 (p.8) states that the 'frozen' profiles 05-08 might be used for estimation of missing data. It would be preferable to calculate estimation from Half-Hourly data either side of the missing period, as already practised in the Half-Hourly market. 4. Requirement 5 (p.7) states that Half-Hourly meter data must have a resolution of 0.001kWh/HH. There will be a cost to Wessex Water of many thousands of pounds if these proposals are enacted, as it appears that its existing portfolio of fully installed AMR meters operating under its NHH supply contract would have to be reprogrammed. This is likely to be the case for many other I&C business, so this impact on customers should be fully taken into account. 5. It is unclear how the mandated change will impact on existing contracts. Wessex Water's AMR metered sites are currently supplied under a Non-Half-Hourly contract that runs until 31-3-2015 and would not wish to have to change its supply arrangements for the 12 month period between the proposed introduction of these changes on 1-4-2014 to the end date of the contract 12 months later. As there are sets of billing rates in place that smear costs across the whole contract, cutting that contract short would have a significant impact on the cost of that contract, and having to negotiate other

Respondent	Response	Rationale
		<p>arrangements or even re-tender the whole contract would be unwelcome. Wessex Water would therefore expect suitable transitional arrangements to be put in place to enable existing NHH contracts to continue being supported through these changes until such customer supply contracts reach their natural end date. These proposed changes will also impact the composition of portfolios for future supply contracts and as tenders for periods beyond 2016 are already being discussed and could be held as early as Q2'12, clarity on the ways in which these proposed changes will be implemented and in particular their effect on customers' contractual arrangements needs to be made clear.</p>
E.ON UK	Yes	<p>It is clear that not enough of the complexity of the issues and impacts were understood by the PSRG when the CBA was done for PC 5-8. The modification group have identified a number of additional problems, including the change of Measurement Class process, the HH DC/MOP costs, the impact on contracts that customers already have for their smart meters if those MOPs are not HH qualified and contracts have to be exited, amongst other things. Having considered PSRG's PC 1-4 consultation responses, the industry is recommending a delay in progressing development of settlement changes until the role of the DCC is clear and decisions have been made on centralised DC/DA services. An alternative solution may then evolve that would be cost effective for all PC customers.</p> <p>This modification seeks to remove the ability to elect to be HH or NHH for these customers groups and yet it's not clear that customers are unable to take advantage of the elective option nor does it seem reasonable to suggest that mandated HH settlement is something customers want or should be obligated to do while the current processes and barriers continue to exist.</p>
EDF Energy	Yes	<p>The modification group should give further consideration to a later implementation date; to the possibility of a phased introduction; and to the monitoring and incentives for transition to HH settlement.</p> <p>The modification group should take into consideration the possibility of consumer resistance to full roll-out of AMR metering, where supplier's cannot install or use AMR metering capabilities despite having taken all reasonable steps to do so in accordance with licence conditions.</p>