

Consultation – Remaining Questions

Responses required by 28th October 2010.

Prospectus Document

Chapter 2

Question 1: Do you have any comments on the proposed minimum functional requirements and arrangements for provision of the in-home display device?

The proposed minimum functionality for the in home display seems adequate as an initial requirement for the reasons given in the Prospectus. BEAMA feels sure that there will be a considerable development in this area to provide devices to suit varied consumer needs. However, the initial focus must surely be to engage the consumer with a simple set of up to date, valid information to hopefully encourage a reduction in energy usage.

It is possible to provide indication of high and low consumption by non-numerical means. Some have provided lights whilst others have given a graphical indication of near real time information. BEAMA agree that the IHD is mandated to gain maximum benefit to consumers and the country and although we understand the need for a possible consumer opt-out we have difficulty in seeing what satisfactory alternative can provide the near real time indication of load and cost.

-BEAMA also has some concerns re the information on the display relating directly to consumer bills. There is a suggestion that DECC would want account balance information on the IHD relating to billing periods. Whilst this is possible, we understand that since there is a delay between the bill arriving in the post and what the consumer sees on the IHD. The consumer may not be able to relate Bill and display and hence a customer service call is initiated for an explanation. This is not an area that affects BEAMA members directly and is a technology that can be provided, however we would suggest that discussions take place with suppliers to ascertain the possible customer service impact of providing information in this way.

BEAMA note that there is a requirement for the metering system to provide information in the Welsh language. This has not been attempted in the UK before with meters that interface with consumers such as PPMs. Our members would need to understand the mechanism of providing the information and whether both English and Welsh would be available at the same time. No doubt something for the SMDG.

Catering for people with a disability may be difficult. Technology to provide solutions for this group are available but cost will be higher due to the different type of equipment and the volume requirements.

Question 2: Do you have any comments on our overall approach to data privacy?

The approach to data privacy appears to be sensible and workable. However, BEAMA is aware of work in the EU with regard to a standard for this area and would suggest that UK would need to follow the European standards approach. We believe a separate working group should be created to look at both data security and privacy.

Question 4: Have we identified the full range of consumer protection issues related to remote disconnection and switching to prepayment?

Smart Meters provided by BEAMA members will provide for remote payment systems and the ability to switch between credit and debit operation. From BEAMA's perspective you would seem to have covered all the consumer protection issues but we are not best suited to answer this question.

We would want to understand more clearly the alternative approaches to debt management by the use of "trickle" or limited duration disconnection mentioned in 2.39 in the Prospectus document. The technology is possible to provide such solutions but the use and supervision of such a debt management tool has always been seen as difficult and may cause consumers greater problems than total removal of supply. A full review of consumer protections and safety implications needs to be undertaken in this area.

Question 5: Do you have any comments on the proposed approach to smaller non-domestic consumers (in particular on exceptions and access to data)?

BEAMA believes the approach to non-domestic customers covers theirs, their suppliers and the country's needs.

Chapter 3

Question 8: Do you have any comments on the proposals that energy suppliers should be responsible for purchasing, installing and, where appropriate, maintaining all customer premises equipment?

BEAMA feels that at this stage the supplier Hub Principle should prevail and hence the suggested responsibilities should remain with the supplier. – at least until DCC architecture is known (comms hub ownership may then transfer to DCC)

Question 9: Do you have any comments on the proposal that the scope of activities of the central data and communications function should be limited initially to those functions that are essential for the effective transfer of smart metering data, such as data access and scheduled data retrieval?

BEAMA agrees that this is a pragmatic approach.

Question 10: Do you have any comments on the proposal to establish DCC as a procurement and contract management entity that will procure communications and data services competitively?

BEAMA agrees that this is a pragmatic approach.

Question 11: Do you have any comments on the proposed approach for establishing DCC (through a licence awarded through a competitive licence application process with DCC then subject also to the new Smart Energy Code)?

BEAMA agrees that this is a pragmatic approach.

Question 12: Does the proposal that suppliers of smaller non-domestic customers should not be obliged to use DCC services but may elect to use them cause any substantive problems?

BEAMA is ambivalent regarding this proposal except to say it would seem sensible for all metering data to be collected and transported via the uniquely designed and secure DCC system. However, there are already in existence systems collecting data from advanced meters and these should be allowed to remain as required. Advanced metering should be rolled out as quickly as possible.

Question 13: Do you agree with the proposal for a Smart Energy Code to govern the operation of smart metering?

BEAMA has no comments

Question 14: Have we identified all the wider impacts of smart metering on the energy sector?

Whilst the majority of the medium term impacts have been identified, BEAMA is concerned that a number of short term impacts have not been fully analysed. The potential benefits in terms of whole life cycle cost and risk reduction that could be accrued through a proactive, DECC/Ofgem-supported approach to early deployments, for example, appear not to have been fully identified.

At this stage – and until the technical definition of both the smart metering environment and the DCC are better understood – it is unlikely that the wider scope of Smart in the long term (8 years plus) have been fully captured. This is not a criticism of the process – more a by-product of the evolutionary nature of smart energy.

We must ensure that the shorter term objectives of smart metering do not conflict or reduce the ability to provide the smart grids of the future.

Question 15: Is there anything further we need to be doing in terms of our ensuring the security of the smart metering system?

BEAMA consider that it may be valuable for DECC/Ofgem and/or the SMDG to arrange for a comparative assessment by a firm specialising in finance sector security systems (or similar) of current on-line/home banking systems and the potential HAN/WAN security solutions being proposed by industry. This would provide DECC/Ofgem with a relatively simple, quantifiable point-by-point argument to support the security credentials of the final system.

Since we are embarking on the provision of a new national infrastructure CPNI analysis may also be required.

Supporting Document 94a/10 Consumer Protection**Chapter 2**

Question 1: Do you have any views on our proposed approach for addressing potential tariff confusion? What specific steps can be taken to safeguard the consumer from tariff confusion while maintaining the benefit of tariff choices?

It is difficult to understand what consumer reaction to more complex tariffs will be. In the past the majority of domestic consumers have not taken up tariffs that may be more appropriate to their needs and save them money; this was seen with the introduction of 2 rate tariffs back in the 70s and 80s. The consumer is unlikely to change tariff unless they see a benefit, but without proper control, they may be coerced into taking tariffs unsuitable for their needs. BEAMA believes that an illustrative case approach similar to that introduced to regulate companies selling services in the financial sector might be appropriate. At its optimum, this approach would allow Suppliers to show customers a graphical example of the impact of any new tariff on, for example, their previous month's consumption via the customer's own IHD, allowing the customer to make an informed choice on whether the tariff really offers a benefit or not. This would meet with the suggested requirement that "no consumers are offered tariffs that are inappropriate for their circumstances".

Question 2: Do you agree with our proposed approach for addressing unwelcome sales activities during visits for meter installation?

BEAMA feels it is possibly inappropriate for suppliers to use the installation process as a sales opportunity especially since some consumers might consider the meter change as a forced situation,. Also the possible disruption within the home is not in our view the best opportunity for successful and appropriate sales. One of the first principles of selling is to ensure you are talking to the buyer; this cannot be guaranteed at installation since anyone may be left in the house to open the door for the meter fitter.

BEAMA also feel that, apart from the opportunity to ensure that the consumer knows how to use his new smart metering system, energy savings advice will not be absorbed by consumers who may possibly be under some stress due to the change in their normal routine.

Also, due to the large number of installations that will be needed over an accelerated roll-out period, plus the extra time needed to complete a more complex installation, meter operators will have insufficient time to spend selling or giving too much advice.

Many meter fitting companies are contracted by suppliers and have in the past been targeted with a number of installations per day. Without a possible major change in contracts and philosophy of working methods BEAMA cannot envisage metering contractors being used successfully as energy salesmen or energy efficiency advisors.

The creation of an Installation Code of Practice is necessary.

Question 3: What do you consider as acceptable and unacceptable uses of the installation visit and why? See answer to Q2 above.

BEAMA can see the benefit of a revisit to all consumers, following installation of their new smart metering system, by an "Energy Advisor" to ensure understanding of the new installation and to give further advice on energy savings methods. Consumer representatives may still have concern re selling opportunities at this point but with proper appointments made and cooling off periods in place when would a supplier be able to talk to his customer?

There may well be an element of too many people turning up on a consumer's doorstep if the premise has dual fuel from two suppliers!!!

For this and question 2 above BEAMA suggest that engagement with consumer groups and possibly other trade associations and companies covering in the home visit space might provide a good basis for confirming direction.

As above we believe the creation of an Installation Code of Practice is necessary.

Question 4: Do you agree with our proposed approach to ensuring that the IHD is not used to transmit unwelcome marketing messages?

BEAMA agrees and considers that messaging by means of IHD can be both a benefit and in some cases a nuisance. The IHD can be an ideal vehicle for offering energy savings advice and telling of equipment to make this happen and it would seem wrong to us to ban what might be a useful service to some. What might be considered, if the initial IHD has a messaging function, is a consumer opt-out message sent back to the supplier for those who do not want messages from their supplier – similar to opting out of sales emails on contracts or websites. If a subsequent, more complex IHD is provided then the consumer might be offered a similar opt out for messages.

Question 5: Do you agree that consumers should be able to obtain consumption information free of charge at a useful level of detail and format? How could this be achieved in practice?

BEAMA agrees that consumer should have access to his consumption data in a useful level of detail and format, and that it should be free of charge.

BEAMA believe that any such historical data should only be retained by the metering devices in the consumer's home and should ONLY be accessed by the IHD as required.

It is theoretically possible for the IHD to display any level of information stored by the home's metering devices. However, as highlighted in the response to the meter storage requirements in the Functional requirements Catalogue, the extent and detail of the information stored in the meters drives the underlying cost of the solution and it will be important to consider this factor when setting storage limits.

Where the IHD or communications hub has a facility to export data to the consumer's PC or other local storage solution and where such an export of data has been agreed, BEAMA consider that it is most appropriate for the data to be provided on a real time (or near real time) streaming basis only to avoid security and access issues. The streaming of data to an authorised device, rather than supplying data to any device that can connect to the IHD or communications hub, minimises the likelihood of unauthorised access and reduces the cost and complexity of securing the HAN environment.

Chapter 3

Question 6: Do you consider that existing protections in the licence are sufficient to ensure that consumers are not remotely switched to prepayment mode inappropriately?

Yes. So long as the existing protections can be made as part of a Smart Metering Code they seem sufficient. Some areas where there might be consideration for change might be:

- a. The need to ensure that a consumer is capable of visiting a local top-up point to purchase credit. There may be facilities to enable top-up via internet, telephone, mobile phone
- b. For the same reason; the limit of 2 miles for a consumer to travel for top-up.

Question 7: Could provision of an appropriate IHD help overcome meter accessibility issues to facilitate prepayment usage?

It is possible to provide prepayment functionality via the IHD, giving the consumer information as to their credit and debt situation plus the ability to enable emergency credit and credit enablement following total loss of supply due to lack of credit.

However there may be safety issues where the IHD is a long way remote from the meter. Although switches and valves on Meters are not safety isolators it is common safe practice to switch locally to the device. BEAMA consider that, whilst there are no specific technical issues that would prevent remote reconnection where the IHD is distant from the meter concerned, clear safety rules would need to be agreed to ensure that consumers remain adequately protected from accidental misuse and operator error.

Question 8: What notification should suppliers be required to provide before switching a customer to prepayment mode?

BEAMA has no comment.

Question 9: Do you believe that suppliers should be required to provide emergency credit and 'friendly credit' periods to prepayment customers or whether, as now, this can be left to suppliers?

BEAMA believes the move to smart metering may present the opportunity to debate these issues further. We only wish to point out the possibilities and do not wish to comment on the consumer protection issues which are probably best left for discussion between consumer groups and suppliers.

Emergency Credit (EC)

When PPMs were coin operated and therefore tokens (coins) were easily obtainable, there was no offering of EC to customers. EC was only offered when prepayment "tokens" started to be used. Tokens had to be purchased from a shop and where therefore readily available and the purchase of tokens needed to be reconciled with the usage shown on the meter. As we now move to smart metering with the many ways of purchasing credit – phone in particular – there may be an opportunity to dispense with the need for EC or at least reduce the value, which in itself may help reduce debt build up for consumers. The alternative to EC might be to offer a reserve value of the consumer's money, similar to the reserve tank process found on motor bikes, where notice is given that this is approaching or there is a loss of power but it is the consumer's money within the meter and there is no build up of debt.

However, cash payers will always need the facility of EC.

Friendly Credit (FC) or No-disconnect periods

This provides a convenient way of not disturbing the consumer if and when the credit is exhausted during the evening or night time. Again, with the ability to credit by telephone the provision of this service may be reconsidered since it does, by nature, force the consumer into some kind of debt. This may need to be compared with the consumer benefit of not waking to a cold and dark house. There is of course another side to this situation. Suppliers may wish to offer FC during holiday periods such as Christmas and Easter and possibly reduce their call out staff obligations. Perhaps this benefit could be shared by both supplier and consumer as part of the many tariffs that may be on offer.

Question 10: Do you consider that an obligation similar to Prepayment Meter Infrastructure Provision (PPMIP) may be required?

It is inevitable that some form of locally-available cash payment system will be required to support Smart prepayment, regardless of the wider range of top-up options that Smart will offer. However, BEAMA believe that the required infrastructure should be examined in detail – particularly in light of other initiatives within the banking sector to end the use of cheques and to find alternative solutions to cash and cashless transactions. In addition, the ongoing review of Government spending might support the option of directing some proportion of a consumer's fuel benefit payment direct to the Supplier to both ease prepayment issues and reduce the overall cost of administering the benefit system. It would seem to be a wasted opportunity to adhere unnecessarily to a parallel payment infrastructure when such wide ranging changes are likely to take place in the UK during the smart rollout period.

Question 11: Is the obligation which Ofgem is proposing to introduce on suppliers to take all reasonable steps to check whether the customer is vulnerable ahead of disconnection sufficient? If not, what else is needed?
BEAMA has no comment – we believe this is an issue best addressed by suppliers and consumer groups

Question 12: What notification should suppliers be required to provide before disconnecting a customer?
BEAMA has no comment – we believe this is an issue best addressed by suppliers and consumer groups

Question 13: Do you have any views on the acceptability of new approaches to partial disconnection and how they might be used as an incentive to pay bills?

BEAMA feels a great deal of consideration needs to be given as to how “trickle disconnection” or Load Limiting (LL) is applied to consumers. Initially the terms need to be defined to ensure proper understanding of the requirements being proposed.

This section of the support document refers particularly to “New approaches to disconnection” and therefore implies that LL might be used as an alternative or follow on from full prepayment disconnection. This need not necessarily be the case. LL is being used in other countries as a tariff tool and may be capable of educating consumers to live within a certain, not necessarily punishing maximum load.

LL is difficult to apply to gas supplies and therefore a differential is being created between gas and electricity supply at a time when Govt. is trying to bring the functionality of the 2 energy meters together.

If LL is to be used as an alternative to prepayment it will have to be debated; which is more punitive to the consumer who can't or won't pay – total disconnection or the ability to learn how to live with a much reduced supply. Even with LL there is consumption. Who will pay for the consumption of the “won't pay” consumer? Is the incentive to pay bills the removal of service or the inconvenience of disrupted service?.

LL tends to be applied in two ways:

- a. The reduction of the maximum current to a level that allows the use of some “essential” electrical appliances and light. When the limit is reached the meter will trip and the supply will need to be reset.
- b. The agreement on an allowable number of kWh to be consumed over an hour period. Again, once the limit has been reached the meter will trip. In this case the supply can only be reset at the beginning of the next hourly period.

In both cases the choice of limit is difficult. What is acceptable as a load limit during the summer may hardly provide for basic heat and light support during the winter.

Question 14: Do you agree with our approach for addressing issues related to remote disconnection and switching to prepayment?

BEAMA notes, from the comments given in 3.35 of the supporting document that the discussion focuses around reconnection rather than disconnection. BEAMA strongly asserts that the supplier must not be able to remotely reconnect the supply of either gas or electricity. Only the consumer, or a visiting engineer, should be able to reconnect at the consumer's premises. The supplier may only enable the reconnection of the supply for safety reasons. We note that you refer to this in 3.36.

The issue relating to the purging of reconnected gas supplies is interesting. If a gas prepayment consumer self disconnects through running out of credit there is no requirement for a purge even though it may be some time before the consumer re-credits the meter and enables the reconnection, especially if on holiday when the valve closes. BEAMA understands there is consideration the valve may be used to disconnect consumers locally when a major disruption to the gas main has occurred. Remote closure of the valve may allow a faster response and allow a quicker resolution to the problem, especially with regard to the timeliness of reconnection of supply and the meeting of guaranteed standards of performance. In the case of major disruption a large amount of air may be mixed with the gas and a purge would be required. A gas engineer(s) would have to be mobilised to each affected premise to re enable supply and purge anyway.

With the possibility of smart metering attracting a greater number of prepayment or PAYG customers there is a greater likelihood of finding meters not best sited to provide this function easily. Since using the IHD to replicate the PPM functions seems critical to allowing this perhaps a separate working group needs to consider the safety aspects in this area.

Question 15: Have we identified the full range of consumer protection issues associated with the capability to conduct remote disconnection or switching from credit to prepayment terms? If not, please identify any additional such issues.

BEAMA believes so.

Chapter 4

Question 16: What information, advice and support might be provided for vulnerable consumers (e.g. a dedicated help scheme)? Who should it be provided to?

This is an area where BEAMA does not have a great deal of experience. With regard to how different groups of consumers, whether they are classed as vulnerable or not, interact and relate to the new technology is one for the behavioural scientists.

However, it seems obvious to BEAMA that the suppliers and consumer groups will have the greatest experience in providing energy to vulnerable groups, although neither will have had the ability to be provided with so much information (data) regarding the consumer's behaviour and usage in reasonably defined circumstances.

What appears to be a way forward would be for these 2 groups (and the others mentioned) to liaise with regard to:

- a. The creation of a register (PSR) of vulnerable customers and the extent of the vulnerability. This would seem to be best suited to be a central register since smart metering will provide a faster and easier method of changing supplier.
- b. Some form of aftercare/follow-up to ensure the correct understanding of the messages that smart meters and displays will give to the consumer.

As suggested in the answer to question 2 in this document, BEAMA do not believe that the installation of smart meters is the best point to provide the consumer with any more than the basic operation of the equipment. BEAMA believes that this is not a selling opportunity and that energy savings advice would be better offered during a follow up visit. For vulnerable customers this would also offer the time to reinforce the understanding of the information provided by the new metering system.

Chapter 5

Question 17: Do you have any comments on our proposals to prevent upfront charging for the basic model of smart meters and IHDs?

BEAMA agrees with the points made in the supporting document and therefore has no comments with regard to upfront charging.

Supporting Document 94c/10 In Home Display**Chapter 2**

Question 1: We welcome views on the level of accuracy which can be achieved and which customers would expect, in particular in relation to consumption in pounds and pence.

The actual data being collected from smart meters by the IHD is recorded at near real time for electricity and to conserve battery power, every 15/30 mins. for gas and reflects the actual data generated by the meter. In this respect the level of accuracy of the IHD will be that of the meter. The only time when this may vary is when a daily resolving block tariff is used. However, Supplier-created volume discount programmes, other discount offers and so on complicate the picture somewhat. It is these variances that will create any disconnect between meter readings, IHD displayed values and actual billed values.

Question 2: We welcome evidence on whether information on carbon dioxide emissions is a useful indicator in encouraging behaviour change, and if so, how it might be best represented to consumers.

BEAMA has no comment

Question 3: We welcome views on the issues with establishing the settings for ambient feedback.

BEAMA has no comment

Question 4: Do you think that there is a case for a supply licence obligation around the need for appropriately designed IHDs to be provided to customers with special requirements, and/or for best practice to be identified and shared once suppliers start to roll out IHDs?

BEAMA has long advocated the sharing of best practice, particularly during early (pre-main roll out) Supplier deployments. BEAMA believe that DECC/Ofgem should take a strong, opinionated and supportive stance on pre-mainstream Supplier deployments in order to gain the maximum possible benefit from these activities. The shaping, development and use of IHD's will be one of the key areas to benefit from such an exercise.

Question 5: We welcome evidence on whether portability of IHDs has a significant impact on consumer behavioural change.

BEAMA has no comment

Question 6: Do you agree with the proposed minimum functional requirements for the IHD?

BEAMA believes - Yes, taking into account our comments made to a similar question asked in Prospectus Ch2 Q1.

Chapter 3

Question 7: Do you have any views or evidence relating to whether innovation could be hampered by requiring all displays to be capable of displaying the minimum information set for both fuels?

BEAMA believe that there is good evidence to show that well displayed basic consumption information has a marked effect on consumption. Pay-as-you-go deployments in other regions have shown that both gas and electricity consumption are impacted to a relatively equal degree by the provision of effective real-time cost information, for example.

Question 8: Do you agree with the proposals covering the roles of and obligations on suppliers in relation to the IHD?

As currently defined, yes – BEAMA would agree that the roles and scopes are appropriate. But in common with earlier responses, BEAMA recommend an appropriate review once a full set of use cases has been defined and agreed.

Supporting Document 94d/10 Communications Business Model**Chapter 2**

Question 1: Do you agree that access control to secure centrally-coordinated communications, translation services and scheduled data retrieval are essential as part of the initial scope of DCC?

The remit of the DCC is a complex area. BEAMA would certainly agree that it should be responsible for centrally-coordinated communications and for scheduled data retrieval. We are less convinced that, provided the UK establishes appropriate standards for the interfaces to both HAN and WAN, the DCC should have any requirement to provide translation services. BEAMA believes that the DCC should both receive standards based information from the UK's smart metering devices and provide a standards based interface to organisations wishing to interact with it: no translation is required if the UK adopts its target interoperable architecture. The only area where translation may be required, at least in the interim, is for the connection of pre-technical specification smart meters.

Question 2: Do you agree that meter registration should be included within DCC's scope and, if so, when?

Yes – BEAMA believes this is a reasonable task to demand of the DCC. However, it does not need to be a day 1 function PROVIDED that it is able to complete a centralised retrospective take-on of existing smart meters. This should be a relatively simple process provided that an appropriate registration data schema is agreed at the outset of the rollout.

Question 3: Should data processing, aggregation and storage be included in DCC's scope and, if so, when?

Whilst BEAMA is broadly ambivalent to the roll of the DCC in processing and aggregating data, it should certainly be responsible for indexing and persistent data and acting as a central hub for both connecting external parties (suppliers, DNO's, generators etc) to that repository and to authorising each and every request made by such a party for access to that data.

In terms of data aggregation and processing, in common with our response to Question 1 in this section, BEAMA believes that properly defined interface architecture should obviate the need for an additional data processing overhead – aggregation then becomes an indexing function.

Question 4: Do any measures need to be put in place to facilitate rollout in the period before DCC service availability and the transition to provision of services by DCC, for example requiring DCC to take on communications contracts meeting certain pre-defined criteria?

Yes – BEAMA believes that one measure could be for a 'take on or replace at no cost to Supplier' obligation could exist – subject to existing WAN contracts meeting minimum commercial standards. This would ensure that early Supplier deployments could proceed with a lower risk but would also allow the provider of the DCC solution to replace existing communications contracts provided the costs for such a replacement (including new in home communications hub where appropriate) is fully covered by the DCC and is not passed on to the Supplier or end consumer. This allows flexibility for early rollout deployments.

Chapter 3

Question 5: Do you agree that the licensable activity for DCC should cover procurement and management of contracts for the provision of central services for the communication and management of smart metering data?

Yes – BEAMA agrees that this is a sensible approach. However, we consider it to be vital that the 3rd party components (communication links, data centres etc) should be true commercial procurement exercises – the DCC itself should be regulated, the services it procures should remain unregulated provided that they meet the specified functionality.

Question 6: Do you consider that DCC should be an independent company from energy suppliers and/or other users of its services and, if so, how should this be defined?

BEAMA believes that the DCC should be a stand-alone commercially-oriented business (i.e. not a government structure), commercially and legally separate from any other business involved in the UK's smart metering environment. However, this does not mean that the DCC cannot include companies already engaged in or planning to enter the UK energy market. It simply means that the commercial and legal governance of the DCC legal entity should be distinct from any other actions undertaken by its constituent parents. Typically, Defence, Health and other Government programmes employ either consortia-based or JV-based structures to achieve this independence and separation. BEAMA believes that such a structure would be appropriate in the case of the DCC.

Question 7: Do you have any comments on the steps DCC would need to take to be in a position to provide its services and the likely timescales involved?

Typically, an organisation of the size and complexity of the DCC would take considerable effort to define and implement before it could begin to deliver services to its customers. Government will first need to create a tenderable remit for the DCC, defining its scope, technical deliverables, service levels, charging structure and accountability. Once this work is complete, it will be able to call for appropriate submissions, select a suitable individual or consortium and then appoint that body to deliver the DCC. First service delivery is rarely better than 6 months from this point: in practice, evidence suggests that the end-to-end process is likely to take close to 18 months to deliver.

Question 8: Do you have any comments on the proposed approach to cost recovery and incentivisation for DCC?

BEAMA believe that the DCC should work within an open book environment with Government. Once the form and specification of the DCC's initial service has been agreed, a maximum profit for this base capability should be set and managed for (for example) an initial 5 year period. HOWEVER, the DCC should be allowed to improve the underlying cost of any services it buys in during that period by further negotiation with its suppliers – in which case benefit should be split between the users of the DCC and the DCC itself. Finally, the DCC should be free to offer any additional commercial services it believes are commercially viable and to retain all net (i.e. after paying for any other aspect of the DCC used to support the services) profits associated exclusively with those services. This approach should provide an effective set of measurement, control and incentive parameters for the DCC.

Supporting Document 94e/10 Data Privacy and Security**Chapter 3**

Question 1: Do you have any comments on our overall approach to data privacy?

BEAMA agree with the core of government's approach to data privacy.

Question 2: We seek views from stakeholders on what level of data aggregation and frequency of access to smart metering data is necessary in order for industry to fulfil regulated duties.

BEAMA believes that, as the Prospectus notes, it will be important to ensure that an appropriate level of information is available at the right extraction levels to ensure the UK can run an effective smart energy environment. Managing this issue in and amongst wider consumer privacy concerns will be a complex but critical exercise. Just as with the majority of data-rich networks – it will be important to adopt a tiered aggregation approach, providing filtered or striated views of data at different levels in the system. Development of the information sets required at/from each level in the smart network needs to be resolved in conversation with the UK's suppliers, network operators, generators and associated functional bodies (settlement agencies etc) and then vetted for compliance with the proposed privacy strategy.

Question 3: Do you support the proposal to develop a privacy charter?

BEAMA does.

Question 4: What issues should be covered in a privacy charter?

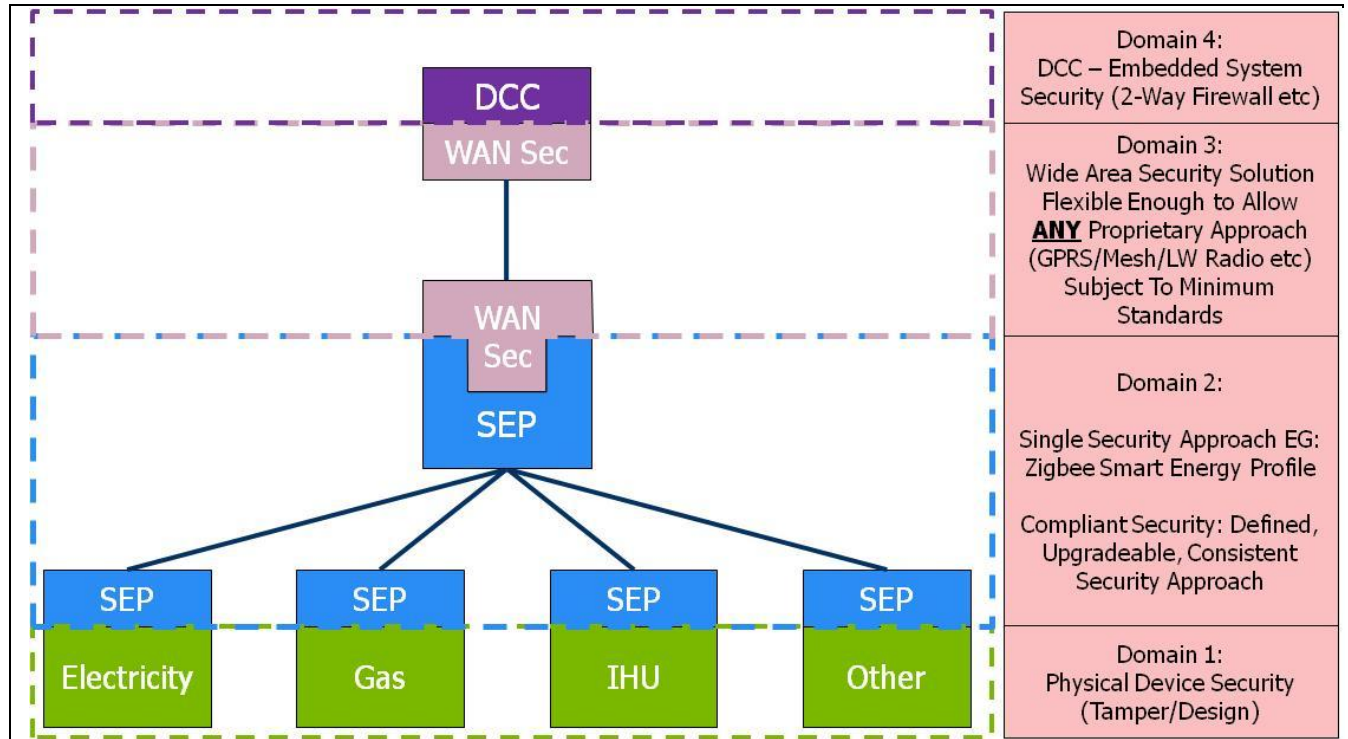
BEAMA believe that this subject should form the basis of a specific working sub-group.

Chapter 4

Question 5: Do you agree with our approach for ensuring the end-to-end smart metering system is appropriately secure?

BEAMA considers that the proposed approach shows a thorough and complete approach to information and system security. In considering its target architecture for HAN and WAN systems, BEAMA will hold a solution (see earlier responses) that segregates security approaches into distinct and manageable areas that, together, create an end-to-end security architecture.. BEAMA believes that the proposed domain-based solution meets all of the key requirements of the Prospectus at an architectural level and allows maximum flexibility with regard to future upgrades to the security of any individual domain.

The diagram below illustrates a possible proposed domain-based approach:



Supporting Document 94h/10 Regulatory and Commercial Framework**Chapter 2**

Question 1: Have we identified all of the key elements that you would expect to see as part of the Smart Metering Regulatory Regime?

BEAMA anticipate that this will be an area for significant debate but that it does NOT need to hinder or delay the progress outlined by the Prospectus towards the UK's smart metering roll out. BEAMA believes that the high level objectives identified are sufficient to guide the debate. We would however comment that every effort should be made to ensure that the smart metering regulatory regime is both dramatically simplified when compared to today's regulatory environment and that – as far as is possible – the gas and electricity regimes are fully aligned.

Chapter 3

Question 2: Do you agree with the proposal to establish a Smart Energy Code?

BEAMA agrees – but harmonisation must be a priority.

Question 3: Do you have any comments on the indicative table of contents for the Smart Energy Code as set out in Appendix 3?

BEAMA considers the list to be comprehensive at this stage.

Question 4: Do you have any comments on the most appropriate governance arrangements for the Smart Energy Code?

BEAMA has no comment.

Chapter 4

Question 5: Do you agree with the proposals concerning the roles and obligations of suppliers in relation to the WAN communications module?

BEAMA believes that the Prospectus should only define the WAN interface(s) required by the DCC and even then, only make the definition once the DCC has tendered for (or has accepted in the case of pre-smart WAN connections) a given 'last mile' solution. The DCC should have the option to own and define the specification of WAN components. The DCC should be perfectly entitled to accept a 'black box' solution from potential last mile providers so long as that black box solution meets the service level and cost parameters desired by the DCC.

Whilst BEAMA anticipate that responsibility for procuring the in-home WAN connection device and the associated WAN service contract will sit with the suppliers in the pre-DCC environment, it would seem to be unnecessarily cumbersome and dilutive to allow Suppliers to continue to procure these elements once the DCC is in place: if the DCC is not able to take a fully aggregated view of the market that it serves, it will not be able to achieve the optimum cost base for universal access provision. This is a potential dead end for the DCC that must be avoided at all costs.

Question 6: We welcome views as to which other additional data items should be included in the mandated HAN data set beyond the list for the IHD.

BEAMA note that the Prospectus does not ask for feedback on section 4.12. We agree with the majority of this section but do NOT agree with the following point:

- *Where a household has two energy suppliers, the second supplier will also be required to provide an IHD except in cases where they can satisfy themselves that the minimum information set for their fuel is accessible to the consumer on an existing display*
- BEAMA believes that a standard should be set for HAN communications such that any IHD installed under the main smart rollout can provide all information delivered by compatible devices in the home. Consumers should not be forced to manually marry data provided by 2 devices simply because they have chosen to take their energy supply from 2 different suppliers. Thus this obligation should be rewritten as:
 - *Where a household has two energy suppliers, the first supplier will be required to provide an IHD that is capable of displaying all consumption information provided by any subsequently installed metering device that is compliant with the relevant HAN communications standard*

In terms of the actual data to be provided by the IHD, the high level list seems to be broadly appropriate for a generic IHD. BEAMA would comment that, whilst such a capability will inevitably drive cost, it may prove cost effective for the overall programme to ensure that all IHD's also support:

- Manual prepayment top up via button press and pre-registered card/account in the event of a communications failure
- A free text screen allowing suppliers to deliver text based information and advice to consumers

All other 'higher level' functions can be catered for by suppliers offering enhanced IHD's in place of the mandated basic unit.

Question 7: Do you agree with the proposal that the WAN and the HAN in customer premises should be shared infrastructure, with the installing supplier retaining responsibility for ongoing maintenance? If not, would you prefer to have an arrangement by which if the gas supplier is the first to install, responsibilities for the common equipment is transferred to the electricity supplier when the electricity smart meter is installed? BEAMA agrees that the WAN and HAN should be shared and also agrees with the analysis of the options considered in the Prospectus. We also agree the Option 2 provides the basis for the most commercially and technically viable solution. However, BEAMA believes that:

- Responsibility for end-to-end WAN management and maintenance should sit with the DCC once WAN devices have migrated to its control
- The DCC should make its own commercial arrangements for supporting/maintaining/replacing WAN devices
- The DCC should take responsibility for remotely diagnosing HAN failures and passing the appropriate fault information to suppliers
- Suppliers (at the time of failure/maintenance requirement) should then take the appropriate commercial responsibility for HAN device or meter replacement as appropriate.

Without this approach, it is likely that WAN and HAN maintenance will be suboptimal in terms of cost and quality.

Chapter 5

Question 8: Are there additional measures that should be put in place to reduce the risks to the programme generated by early movers?

BEAMA believe that more should be done now to ensure that early deployments are aligned with the future direction of the UK roll out. If the recommendations in Q9 below are implemented then the steps suggested earlier in this response with regard to:

- Finalising agreement re interface specifications and defining use cases for UK smart in the next 3-4 months; and Allowing suppliers to deploy meters compliant with those set specifications/use cases without risk of forced meter replacement provided that industry requirements for technical interoperability are fully met

This would ensure that the overall programme is fully and adequately both accelerated and protected.

Question 9: What is needed to help ensure commercial interoperability?

BEAMA believes that – assuming technical interoperability can be agreed by early to mid 2011 (a goal we believe is fully achievable) then commercial interoperability ahead of the DCC can be achieved subject to a relatively small set of high level requirements:

There is clearly a level of detail implied by these requirements, but BEAMA believes that industry is capable of resolving the major elements in line with an end 2011/early 2012 deadline for pre-main roll out deployments.

Question 10: Can current arrangements for delivering technical assurance be developed to gain cost **effective technical assurance for the smart metering system? If so, how would these procedures be** developed and governed?

It would seem sensible that a set of appropriate load, network performance, tamper and other similar 'events' could be agreed for both gas and electricity meters that, if not breached, would allow an extended 'no inspection' period. BEAMA believe that this is a further value achieved by pre-main roll out deployments: with the initial 'condition set' established but a large meter reading force still in situ and prior to the high levels of resource demanded by the main roll out, suppliers will be able to take advantage of meters deployed early, completing sample-based 2, 3 and possibly 4 yearly checks on the base of meters deployed. By looking at the condition of a comparatively large population of smart meters comparing their condition with any default against the 'condition set', it should be possible to:

- Assess whether the condition set provides for an effective measure of a likely safe/unsafe meter
- Propose any tightening of the condition set required by field evidence
- Agree an initial 'safe life' inspection period that could be applied for by the suppliers on a block exemption basis
- Agree appropriate review cycles and sample information rates for future extensions

Based on field experience with dumb meters, BEAMA believe that an initial 'safe life' subject to no breach of the agreed condition set could easily be set at 4 years with this approach.

Question 11: Are there any other regulatory and commercial issues that the programme should be addressing?

Given the scope of the various responses that BEAMA anticipate will have been provided to the Prospectus, BEAMA would recommend reviewing this question post initial review of feedback from industry and any proposed revisions to the Prospectus document.

Chapter 6

Question 12: What evolution do you expect in the development of innovative time-of-use tariffs? Are there any barriers to their introduction that need to be addressed?

BEAMA does not consider there to be any major technical barriers to the introduction of innovative tariffs. The key challenge to introduction will centre on how easily and effectively the value of such tariff structures can be communicated to consumers and how easily consumers can then take advantage of the tariffs.

Question 13: Are there changes to settlement arrangements in the electricity or gas sectors that are needed to realise the benefits of smart metering?

BEAMA believes that the settlement process should be fully revised based on the information that is likely to be available on day 1 from the UK's smart metering system. We also believe that any new or revised system should be designed to cope with further revision and simplification over time as the system – including the DCC – evolves and the quality and quantity of information it provides improves. Settlement needs to be a dynamic process that can be reviewed and improved with the advance of smart.

Question 14: What arrangements would need to be put in place to ensure that customers located on independent networks have access to the same benefits of smart metering as all other customers?

BEAMA believes that the iDNO/iGT's should be required to adopt the same DCC-based approach as all other suppliers. An integrated smart energy system cannot function effectively if pockets of supply are excluded – there should be no difference in the way that smart is delivered for iDNO/IGT customers and those customers of the core DNO/GT's.

Question 15: Are there any other industry processes that will be affected by smart metering and which the programme needs to take into account?

Given the scope of the various responses that BEAMA anticipate will have been provided to the Prospectus, BEAMA would recommend reviewing this question post initial review of feedback from industry and any proposed revisions to the Prospectus document.

Supporting Document 94i/10 Non Domestic Sector**Chapter 3**

Question 1: Are there any technical circumstances where only advanced rather than smart metering would be technically feasible? How many smaller non-domestic customers have U16 or CT meters and what scope is there for full smart meter functionality to be added in these cases?

While it is possible to add smart metering functionality to a CT operated polyphase meters BEAMA believe that larger consumers (such as those with CT operated meters) should be encouraged to move to advanced metering as quickly as possible to ensure maximum knowledge of consumption and possible carbon saving. BEAMA also note that while the polyphase is mentioned in the design catalogue the requirements for these meter type will require further definition such as phase failure monitoring, phase rotation events etc. BEAMA is not aware of the numbers of U16 and CT meters used in smaller non domestic installations

Question 2: Do you agree with our proposed approach to exceptions in the smaller non-domestic sector? BEAMA agrees with the approach and believe an accelerated roll-out of meters for this class of customer should be encouraged

Question 3: Are there technical circumstances that we have not considered that would justify further flexibility around installation of either smart or advanced meters? BEAMA feels it should not be necessary to consider further flexibility

Chapter 4

Question 4: Do you agree with the proposed approach that use of DCC should be optional for non-domestic participants in the sector?

BEAMA believes this is the right approach as there are a number of reasons why it may not be appropriate to move advance meters onto the DCC. The main issue will be that ideally the DCC will not need to 'translate' data as there will be interoperable interfaces between all meters at both HAN & WAN levels. This interoperability will not be available in existing advance metering therefore significant investment would be required in the DCC to enable it to read all types of existing meters. Suppliers of advance meters often offer added value services on the basis of the data collected – this is unlikely to be provided by the DCC therefore it is key that this important mechanism for reducing carbon dioxide is not lost.

Question 5: If use of DCC is not mandated for non-domestic customers, do you agree with the proposed approach as to how it offers its services and the controls around such offers? BEAMA agrees with the proposal

Question 6 To what extent does our proposed approach to the use of DCC for non-domestic customers present any significant potential limitations for smart grids?

While BEAMA agree ideally all meters should be on a single system to enable smooth operation of Smart Grid we do not believe this is essential. The majority of large customers and generators are already measured by meters that are compliant to either CoP1, 2, 3, 5, or 10, there is currently no proposal to bring these meters into DCC so a method of marrying this data must be found. It is likely that the advance meters being installed for class 3 & 4 are going to be CoP10 and therefore could be combined in the other large users and generators to create the smart grid.

Question 7: Is a specific licence condition required to ensure that metering data for non-domestic customers can be provided to network operators or DCC, and should any provision be made for charging network operators for the costs of delivering such data?

[BEAMA cannot comment on these arrangements](#)

Question 8: How can interoperability best be secured in the smaller non-domestic sector?

[This will be difficult to achieve practically since current advanced meters have no provision for firmware download. However many of the existing data collection systems are able to deal with the variety of protocols currently in meters and 'translate' this into a common format for transmission to the various parties.](#)

Chapter 5

Question 9: What steps are needed to ensure that customers can access their data, and should the level of data provision and the means through which it is provided to individual customers or premises be a matter for contract between the customer and the supplier or should minimum requirements be put in place?

[BEAMA believe that given that supply of an IHD is not to be mandated, then it would be sensible to put an obligation on the supplier to provide timely & accurate data including half hour data.](#)

Question 10: Do you agree with our approach to data privacy and security for non-domestic customers?

[In principle we agree but many of the meters that are already installed offer a simpler security mechanism than those being proposed for the roll out of smart metering, this may be appropriate as they do not have the facility for remote disconnection.](#)

Question 11: Is the proposed approach to rollout (for example in terms of targets and a requirement for an installation code of practice) appropriate for the non-domestic sector?

[BEAMA agrees with the roll-out approach](#)