SCOTTISHPOWER ENERGY RETAIL LIMITED RESPONSE TO SMART METERING IMPLEMENTATION PROGRAMME PROSPECTUS

OCTOBER 2010 RESPONSE

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EXECUTIVE SUMMARY

ScottishPower have reviewed the full Prospectus documentation and are now able to provided responses to those questions which were requested for the October 2010 submission.

We have welcomed the Prospectus and recognise the additional clarity which it provides in addition to our continued input into the various expert groups that have been established.

Following our detailed review of the Prospectus, we would like to take this opportunity to draw your attention to the following important observations:

Data Privacy & Security

We recognise that robust data privacy and security measures are critical to the success of smart metering in Great Britain and support the principle of customer data ownership, though this should not prevent the supplier and network operator having full access to the data for appropriate purposes. It is unclear how we can move to smarter grids and settlement processes if customers can choose whether to make their metering data available.

We would recommend that the safeguards set out in the Data Protection Act remain appropriate, in the context of smart metering, and should be fully factored into technical design (interim or enduring) from the outset to ensure that the use of customer data is fair, secure and in accordance with their rights.

In terms of areas where we believe further detailed assessment is required, we would recommend the central Programme determines the most appropriate and secure method of data storage and customer access to their data (i.e. at the IHD, at the meter or via a secure DCC facilitated service). It will also be essential to ensure the system is robustly protected against fraud and cyber vandalism or attack. Further focus is also required to determine how access to customer data is practically managed and clearly define what constitutes 'regulatory' data. The future ability to access half-hourly data will directly benefit customers, enabling the correct tariffs to be applied and Wholesale Energy to be procured in the most efficient manner.

We believe that Network Operators will also require access to data at a regular frequency, particularly where meters generate alarms for abnormal conditions and for smart network management of potential over voltages or over loadings.

We look forward to the opportunity to contribute further to this area of the central Programme based on the recent invitation to attend the Security Working Group.

Consumer Protection

We believe that existing consumer protections are sufficient and should be retained, however, we recognise that the initial complexity of services pre-DCC and in the initial stages of DCC start-up should be minimised to reflect a 'controlled market start-up' approach and protect consumers from confusion. This may mean delaying services such as Pre-Payment (which may in any event need more technical work before they are fully defined) until the market has confidence in the basic smart metering services.

ScottishPower supports the Programme's intentions to establish an independent national smart metering brand to support the key points raised above.

Regulatory & Commercial Framework

While we agree that the key elements of the smart metering regime have been considered we believe it is imperative to ensure that the framework provides 1) an appropriate level of commercial focus on the management of appointed service providers and 2) an appropriate level of focus on the management of the Smart Energy Code which we believe will have a wider scope than that of the services provided by the DCC. We would also wish to bring to the central Programme's attention the consideration of impacts on Network Operators and the way in which any costs which are incurred above and beyond price control settlements are recovered – particularly increases in unmetered supply.

It will also be necessary to consider any consequential impacts on network price controls, particularly the impact on losses for electricity DNOs if the power consumed by the WAN communication module and the meter itself is not metered. There will also have to be adequate overload protection measures to deal with any fault in the WAN module.

The utilisation of shared infrastructure in the smart metering system poses several commercial interoperability challenges both for the provision and maintenance of IHD's and WAN communications modules. It may make sense for the DCC to own the WAN Communications Module and further work may also be required to develop suitable arrangements for IHD commercial interoperability. A clear process will have to be

developed for dealing with faults in the HAN, as customers will not welcome multiple visits from different parties each saying that another party's equipment is at fault.

ScottishPower would recommend that smart meters installed in the interim period must comply with an agreed standard before being accepted into the DCC to ensure appropriate levels of data privacy, security and data protection to guarantee future interoperability. We also believe that while GPRS communications technology is good for trials, it may have limitations which would be adverse for the eventual roll-out. The DCC's specification should not be constrained by the need to work within any limitations of GPRS if better technologies are finally chosen.

IHD

We are generally supportive of the minimum functional requirements for the IHD. However, the requirement to display current balance information may prove to be technically challenging and costly while also posing additional data privacy challenges and customer confusion. We would welcome further analysis of this requirement. We also believe that the presentation of gross generation and/or export volume should not be a requirement of the minimum specification for the IHD; the great majority of customers will not have micro-generation, and making this a mandatory IHD feature is likely to increase costs unnecessarily.

There are also significant concerns regarding the commercial interoperability of IHD's and we would suggest that these items are considered separately from communications modules or meters. Due to significantly shorter asset lives (potentially less than 1 year) and their vulnerability to stranding on Change of Supplier we would welcome further consideration, beyond technical specifications, of how to improve the level of commercial interoperability associated with IHD's.

Non-Domestic Sector

We believe that use of the DCC should be mandatory for both domestic and non-domestic smart meters to ensure that a single smart metering process can be adopted, to deal with premises which switch between domestic and non-domestic use, and to minimise industry complexity. Of equal importance, for future smart grid requirements, is the sourcing of smart metering data from a single point relating to the current sub-station infrastructure mapping, rather than a potential situation where there is a reliance on suppliers to populate data into the DCC on a real-time basis.

INTRODUCTION

Approach to submitting responses to Prospectus questions

To assure continuity with our September 2010 submission, ScottishPower worked through all Prospectus questions and responses as a single exercise, and where applicable identified dependencies between individual questions.

ScottishPower therefore believes that responses to specified questions and topics in this document complement the positions stated in our September 2010 Prospectus submission.

PROSPECTUS

The following section contains ScottishPower's responses to questions contained within the Smart Metering Implementation Programme's Prospectus dated 27th July 2010, specifically requested for the October submission.

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

Response summary:

ScottishPower:

- believes IHD provision presents significant commercial interoperability challenges e.g. features; branding, cost recovery.
- would recommend a further impact assessment is undertaken with regard to IHD provision and the associated costs of minimum specification against the current business case.
- in principle supports the specified minimum IHD functional requirements.
- recommends further consideration be given to the proposal for displaying current account balance information and the potential associated costs, technical complexity and data privacy and security implications.
- would recommend the central Programme further defines the customer 'opt in' / 'opt out' process associated with IHD provision and the impacts on Supplier roles and obligations.
- seeks further clarification of obligations surrounding 'lead suppliers'; any changes in obligations as a result of either change of supplier or change of tenancy, and the calculation of maintenance periods where IHD's are subsequently requested and supplied in the period after initial smart meter installation.

Detailed response:

IHD functional requirements:

In principle ScottishPower supports the minimum in-home display (IHD) device functional requirements specified in the Prospectus but would recommend that further consideration be given to the proposed provision of current account balance information. We believe the calculation of timely and meaningful values based on energy consumption pose a number of technical challenges, which if not addressed in a robust manner will quickly lead to reduced customer confidence in the IHD, potentially having a detrimental impact on the benefits

associated with their provision. We would recommend that further detailed analysis is therefore undertaken in the following areas:

- Technical challenges – i.e. the impact on Supplier/Industry systems and processes to provide accurate refreshed balance information based on consumption;
- Frequency of update – the potential impact on the performance of the WAN, in addition to providing timely and meaningful information to the customer; and
- Security - the application of secure messaging, with access restrictions on the IHD to protect consumer data privacy.

IHD provision:

We believe that IHD provision presents significant challenge with regard to commercial interoperability and requires further detailed consideration in the following areas:

- Differing IHD features or branding as a result of Supplier innovation leading to consumer stranding and potential asset stranding upon Change of Supplier; and
- Potential asset life and associated cost recovery.

ScottishPower in principle would support the proposed provision of a minimum specification IHD upon meter installation, but would request further clarity is provided with regard to the Supplier's roles and obligations – particularly surrounding customer 'opt in' / 'opt out'.

Supplier IHD maintenance obligations:

We support the principle of an obligation on Suppliers to maintain IHDs for one year from the point of installation of a smart meter but would recommend further detailed analysis is required in the following areas:

- Maintenance obligations in the context of a 'lead Supplier';
- Whether there is a transfer of obligation upon Change of Supplier;
- Whether obligations are altered following a Change of Tenancy.

ScottishPower would request that reference is also made to our responses to In-Home Display Questions 6 and 8 later in this document.

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

Response summary:

ScottishPower:

- supports the central Programme principle of 'security by design'.
- believes current Data Protection Act protections remain fit for purpose.
- would recommend that further detailed analysis is required to determine the legitimate and necessary uses of data in a smart metering context.
- believes data privacy principles should also apply to interim solution design and selection.
- would recommend that full access to half-hourly data is key to Suppliers delivering key consumer benefits.
- recommends that lessons learned from other smart metering implementations around the world should be assessed and where necessary incorporated into a better practice approach for smart metering roll out in Great Britain.

Detailed response:

ScottishPower supports the central Programme 'security by design' principle which will enable safeguards set out in recognised standards, such as EC Directive 95/46 and the Data Protection Act 1998, to be embedded in the enduring smart metering detailed design from its inception. We believe it is also necessary that the same measures are applied to any interim solution, especially where the working practices will be subsequently carried over into the enduring industry design.

Suppliers already process customer's personal information including bank account details, dates of birth and account information detailing invoicing and payment, which in some circumstances include complex arrangements for the processing of personal data by multiple third parties. These processing arrangements are subject to the rules of the existing data protection framework as set out in the EC Directive 95/46 and the Data Protection Act 1998. Whilst this framework will be reviewed at a European level in 2011, we believe that whilst modifications to the existing framework can usefully include recognition of significant increases in data volumes brought about by smart metering, the Data Protection Act provides the appropriate balance between protecting the security and rights of consumer data, enabling organisations to process personal data for legitimate and necessary purposes.

We would however recommend that further detailed analysis is undertaken to determine the legitimate and necessary uses of data in a smart metering context and would propose that full access to half-hourly data is key to Suppliers delivering key consumer benefits.

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

Response summary:

ScottishPower:

- supports current rules for disconnection but recommends more detailed anaylsis is requried regarding reconnection rules.

Detailed response:

ScottishPower believes the current rules for disconnection remain relevant in the context of smart metering. However, we would recommend that greater consideration is given to the issues associated with remote reconnection as we believe this is yet to be fully defined. In particular, we believe greater consideration needs to be given to customer responsibilities when supply is being restored.

In addition to the points raised above, we believe the central Programme needs to clarify the inter-relationship between the regulatory framework around disconnection and other industry initiatives, such as the Green Deal and how payments through such a scheme would be segmented. Particularly whether the Green Deal payments, or any other energy services payments, could be considered to energy debt.

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

Response summary:

ScottishPower:

- recommends that use of the DCC should be mandatory for all smart meters.
- recognises the benefit of all smart metering data being held centrally for the purposes of both enduring smart metering and smart grid operation.
- believes that a market-led roll out strategy for non-domestic customers is the most appropriate.

Detailed response:

We believe that use of the DCC should be mandatory for all smart meters, whether they are being used for domestic or non-domestic purposes. The increasing sensitivity towards energy costs and existence of established energy management services may well result in consumer demand for smart meters in this sector being stronger than that of the domestic sector, once the full smart roll out is underway. Use of the DCC will ensure that smart metering data is held in a central location which will benefit both smart metering deployment and provide a robust platform for future smart grid initiatives.

Mandating the use of the DCC for all smart meter deployments, we believe, will deliver the following benefits:

- Ensure interoperability;
- Minimise operational costs and complexity (i.e. the number of segments and operating procedures);
- Support the evolution of DCC functions (e.g. Supplier registration and data processing);
- Assist in dealing with cases where premises change from non-domestic to domestic use; and
- Support current and future smart grid requirements.

We believe that a market-led roll out strategy for non-domestic customers is the most efficient method of deploying smart meters.

ScottishPower support the principle of two clear segments for the provision of advanced and smart meter solutions (subject to agreed exceptions), namely:

- Standard smart meters for domestic and smaller non-domestic customers, with communications for these meters managed by DCC; and,
- Advanced meters for larger business customers, with optional use of the DCC for communications.

For Profile Class 5-8 Advanced Meters, we believe that the DCC may be used for communications (and indeed may be attractive from a cost and process standardisation perspective), but this should not be mandatory, given the varied and complex contractual arrangements already in place for metering, meter reading, and energy management services in this sector. However, we believe there is a key requirement that all data is populated directly into the DCC recognising future smart grid requirements.

We accept that there will be exceptional cases where flexibility will be required regarding the installation of smart or advanced meters from an operational or commercial perspective. From a technical perspective, however, we do not envisage any instances where only advanced metering would be suitable for certain smaller non-domestic customers.

We believe that smaller non-domestic customers will have a range of different data requirements, and that appropriate commercial arrangements are the best way of offering smaller non-domestic customers flexibility in accessing the appropriate level of data to manage their consumption. Nonetheless, in developing systems and processes to accommodate the requirements of domestic customers, it may be considered opportune to extend similar provisions to smaller non-domestic customers.

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?

Response summary:

ScottishPower:

- believes provision of the WAN communications module should be the responsibility of the DCC.
- requires further clarification from the central Programme of the obligations of a 'lead Supplier.
- would recommend that further detailed assessment is required regarding roles and responsibilities surrounding HAN operation and associated incidents of failure.
- believes that responsibility for maintenance should transfer to the new Supplier following a Change of Supplier event – including the IHD.
- would recommend that the central Programme develops sufficient mitigation to support commercial interoperability during the pre-DCC period.

Detailed response:

ScottishPower believes that the provision of the WAN communications module should be the responsibility of the DCC, and while we accept it would be the responsibility of the Supplier to install the module during initial smart meter installation, we would recommend that the central Programme needs to further define the obligations of the Supplier, particularly in the role of 'lead Supplier'.

Upon Change of Supplier, we believe that responsibility for maintenance should transfer to the new 'lead Supplier'. We will continue to work with and support the central Programme, through representation at the various working groups to ensure remaining issues surrounding commercial interoperability are resolved with an appropriate commercial framework.

With regards to HAN ownership and maintenance, it is ScottishPower's view that each component of the smart metering system will have its own HAN capability, and that these will be included in the associated provision costs for each component. We would recommend that further consideration is required in relation to the identification of HAN failure given that it may not be apparent as to which particular part of the HAN has failed. Customers will not wish to receive a succession of visits from different parties each of which thinks the HAN failure is another party's responsibility. We do however accept experiences to date demonstrate high reliability of HAN components.

ScottishPower would recommend that whilst focus is on the enduring smart metering solution for Great Britain, the central Programme should also ensure appropriate mitigations are in place during the interim period leading up to the establishment of the DCC, ensuring a standard level of interoperability for smart metering system solutions and associated devices.

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?

Response summary:

ScottishPower:

- supports a controlled market start-up where only the essential elements of the DCC are deployed based on risk and that capability and complexity is built up over time.
- believes essential DCC services should initially be limited to security monitoring, translation services and communications management.
- supports the view that data processing and data aggregation could be regarded as 'non core' DCC services at the point of go-live, but would strongly support that their inclusion forms part of carefully planned enhancement roadmap.

- believes that the current timescales between licence award and DCC go-live will be challenging to achieve and requires further evaluation.

Detailed response:

ScottishPower would recommend a controlled market start-up where only the DCC services which are absolutely essential to enable communications and the transfer of data to and from smart meters are deployed. Whilst we believe that DCC services can be extended over time, we would recommend that the central Programme quickly determines 'core' and 'non core' activities within a phased DCC implementation plan.

Based on our own detailed analysis, we believe that the following activities should be considered as the initial scope of the DCC:

- security monitoring and assurance;
- translation services; and
- communications management.

With a relatively small number of technically compliant smart meters which will have been installed by the time the DCC is established, we do not believe that scheduled data retrieval (as opposed to data retrieval on supplier request) should be regarded as an essential element of the initial DCC scope. Whilst data volumes remain proportionately low, we would support the view that active management of the communications network capacity by the DCC will not initially be required.

Based on our principle of controlled market start-up, ScottishPower supports the view that data processing and aggregation should not be regarded as 'core' activity for the initial scope of the DCC we would strongly recommend that the central Programme defines an appropriate implementation plan to ensure these services are fully considered and established over time.

We would recommend that the timescales currently proposed by Ofgem between the awarding of the DCC licence and the DCC being operational will be challenging to achieve and will require further review. Please reference our response to Question 7 of the Communications Business Model which outlines the key considerations which have led us to this conclusion.

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?

Response summary:
ScottishPower:

- agrees in principle with the proposed DCC model.
- would propose that that there is equal focus on both the management/administration of the Smart Energy Code and the commercial delivery of the DCC.
- would welcome the opportunity to work with Ofgem and other market participants in developing the DCC licence.
- would recommend a full Cost Benefit Analysis is undertaken with regard to the way in which the DCC licence is delivered and governed, ensuring industry change is not constrained.
- would recommend the central Programme gives appropriate consideration to the potential commercial risks of differing contract tenures for the DCC, data and communications providers.

Detailed response:
ScottishPower agree in principle with the proposed DCC model. However, would recommend that appropriate performance measures will be necessary to ensure DCC service levels are properly established and maintained. This will provide the user community with a measure that value for money is being delivered, whilst also recognising that Supplier and Network Operator licence compliance may to some extent rely on the DCC's performance. It would therefore be appropriate that there is equal focus on both the management/administration of the Smart Energy Code and the commercial delivery of the DCC.

We would recommend that there is industry involvement in the development of the DCC licence. This process should take into account the way in which the DCC licence is constructed, including the possibility of wider industry changes beyond the current scope set out by the central Programme - e.g. Settlements. We would also recommend that a full Cost Benefit Analysis is undertaken with regard to the way in which the DCC licence is delivered and governed, ensuring that industry change is not constrained and that lessons learnt from a controlled market start-up approach can be applied at a future point in time if deemed necessary.

The proposed ten year contract for the DCC, should provide for reasonable stability, however, the much shorter tenures for service providers should take in to due consideration the commercial risks associated with this process, ensuring it does not detract from the enduring service delivery and stability which the industry requires.

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)?

Response summary and detailed response:

ScottishPower is supportive of the approach set out. We would recommend that there is equal focus on both the management/administration of the Smart Energy Code and the commercial delivery of the DCC.

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?

Response summary:

ScottishPower:

- supports the view that DCC services should be mandatory for all smart meters and that a single central model will enable the realisation of previously stated central Programme benefits.
- believes that making the services provided by the DCC optional would have a potential impact on future interoperability, consistency of industry processes and the future success of smart grids.
- would recommend that allowing alternative communications arangements to be established would result in differing commercial charging mechanisms and varied smart metering customer experiences across Great Britain.

Detailed response:

ScottishPower believes that the implementation of a central DCC model provides the opportunity to align and rationalise electricity and gas processes, enabling the realisation of significant benefits associated with interoperability, consistency of processes, data access and common infrastructure. As a matter of principle we believe the exclusion of a subset of

customers from an otherwise uniform model could lead to reductions in these benefits and potentially present operational issues with regard to interoperability and competition.

We would make the central Programme aware that premise classifications are not necessarily static, and that transition from domestic to commercial status and vice versa during a period of occupation can occur. Mandating the use of the DCC for communications with domestic properties but allowing communications with commercial properties to be processed outside the DCC could complicate this transition process and lead to a two-tier consumer experience.

A fundamental principle of establishing a central communications provider is that no individual market participant is able to leverage competitive advantage from the service provision. This principle provides the level playing field that is essential to the delivery of smart/AMR metering to all customers, and ensures that customers are not charged a premium for the communication component of their energy / energy management service based on the communication provider.

The approach of making the use of the DCC optional also has implications for commercial interoperability, technical interoperability and smart grids.

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

Please refer to Regulatory and Commercial Framework, Question 2 response.

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

Response summary and Detailed response:

ScottishPower:

- would propose further thought is given to how Green Deal initiatives will be delivered consistently across the energy sector;
- would propose further thought is given to the disposal of non-smart metering assets during roll out and the management of carbon foot prints associated with the smart metering supply chain.

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

Response summary:

ScottishPower:

- supports the central Programme principle of 'security by design'.
- recommends that individual smart metering system components are fully certified and tested prior to deployment.
- recommends that all market participants undergo a level of accreditation to ensure that common processes are adopted across the industry.
- would recommend particular attention is given to devices connecting to HAN and the appropriate and necessary measures which are required.
- believes that application of security measures should be as robust and far-reaching in the periods prior to an interoperability solution being implemented and the period up to the DCC being established.
- would recommend that further consideration is given to the way in which customers access their data and how it is securely stored e.g. is the data accessed via the IHD, web services facilitated via the DCC.
- welcomes the opportunity to engage in the Security Working Group.

Detailed response:

ScottishPower supports the central Programme principle of 'security by design' to ensure the challenges which smart metering presents around information security and data privacy are mitigated as much as possible. We believe that a robust process of certifying individual smart metering components and possible accreditation of all market participants must be undertaken based on the assurance gained from comprehensive end to end process and technical testing (e.g. penetration testing). We would recommend that particular attention is given to devices connecting to HAN and the appropriate and necessary measures which are required.

Whilst the enduring infrastructure against which smart metering in Great Britain will be rolled out is of paramount importance, focus should not be detracted from current smart metering activities and the need for the same levels of rigour. We recognise that as technology evolves over time, the technical sophistication and capabilities of those wishing to challenge national infrastructure or to undertake fraud also evolves.

We therefore believe that comprehensive plans must be established in which all market participants have a role to play to ensure that timely, robust and effective counter-measures can be deployed. Establishing these plans whilst meter volumes are relatively low would ensure that common approach to risk treatment and deployment can be established prior to mandated roll out commencing.

ScottishPower would recommend that further detailed assessment is required in relation to how customers access their data and the way in which this is securely stored e.g. is the data accessed via the IHD or web services facilitated via the DCC.

ScottishPower take information security and data privacy in this field very seriously and welcomes the opportunity to attend the Security Working Group.

COMMUNICATIONS BUSINESS MODEL

The following section contains ScottishPower's responses to questions contained within the Smart Metering Implementation Programme's Prospectus Supporting Document 94d/10 Communications Business Model, 27th July 2010.

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?

Response summary:

ScottishPower:

- believes that the scope of the DCC should enable sufficient flexibility to allow for both 'core' and 'innovative' services.
- believes further clarity is required around the Change of Supplier services; WAN communications module and IHD services; consumer protection and network planning.
- remains of the opinion that the proposed timescales between DCC award and go-live are challenging and should therefore be revisited.
- believes that scheduled data retrieval services could be considered non-essential during initial stages of DCC implementation.

Detailed response:

ScottishPower supports the view that:

- security monitoring and assurance;
- translation services; and
- communications management

are essential components of the initial scope of the DCC. Whilst scheduled data retrieval can be considered beneficial for the effective management of the communications network load and the reduction of Supplier interactions, it could be considered non-essential during the initial stages of DCC implementation. However, were we to agree to this principle, we would wish to see a detailed and transparent implementation plan provided by Ofgem detailing when enhanced DCC services would be implemented.

Translation Services

ScottishPower believe translation services are just one component of an overall messaging service comprising of the following elements:

- Message Receipt and Validation

  This would comprise functionality to accept message requests and validate them against the DCC service catalogue, associated MDD and access privileges.

- Message Confirmation

  The DCC provides responses to the requesting market participant notifying them either that their message was received and accepted for processing or of a processing error. This is particularly important in cases where the actual processing of a request occurs a period after the request has been made and would also enable market participants interacting with the DCC to maintain an audit of their end to end process status. Internally, we would expect the DCC to maintain an audit of messages received, accepted and rejected with a sufficient level of detail to facilitate exception resolution and for its own service charging purposes.

- Message Translation

  Depending on the request type, converting the message to a format understood by the target metering system. In the case of responses generated from a metering system, the translation should convert messages to an industry standard format.

- DCC Service Catalogue

  It is ScottishPower's view that the DCC service catalogue should support innovation by way of a two-tier service model which would enable consistent levels of service and performance for core functions whilst avoiding the DCC becoming a limiting factor in the delivery of new innovative services.

- Core Services

  Core services comprise of those already identified by DECC/Ofgem as part of DCC functionality and any new services added as part of the Prospectus consultation process. We would expect core services to be delivered with a minimum service level appropriate to maintain industry functions. With respect to bandwidth and

processing power, core services should operate in a high-priority mode over and above other services.

- Additional (innovative) services

  Constraining DCC functionality to cater only for core services could hinder innovation within the energy sector. The delivery of DCC services in a manner which does not limit the level of innovation and timescales at which that innovation can be delivered is critical; however we recognise that to preserve the capability of the DCC a balance needs to be maintained between the two service types. Provision of a generic messaging service would enable individual market participants to innovate whilst the DCC maintains focus on the delivery of core services. The generic messaging service would simply act as a "pass-though" service delivering a message from a market participant to the target smart metering system(s), subject to appropriate security filters. This would mean new device capabilities could be utilised as they are introduced without delaying either the updating of core DCC services or the need for multi-lateral agreement between market participants. Optionally, as new functionality becomes commonly accepted the DCC may choose to implement them as a managed service (similar to core services).

  It is important that additional services are established and operated at a lower priority to core services within the DCC service catalogue and that the differential between core and generic messaging services is clearly explained to all service users.

Points of Further Clarification

Within the consultation documents reference is made to a number of additional activities which need to be undertaken to support smart meter operations. The obligations of the DCC and Suppliers are ambiguous, particularly in relation to consumer protection. Outlined below are the areas where ScottishPower believes further clarity is required:

- Change of Supply (CoS) Services
  - Identify CoS events
  - Cos read provision - provide reads to gaining and losing Suppliers
  - Store CoS meter readings

- Change of Tenancy
    - Data Privacy management

- WAN Comms Module and IHD Management Services
    - Record who owns and maintains IHDs / WAN communications module
    - Record meter location and details of inaccessible meters
    - Record customer IHD "opt-outs"

- Consumer Protection
    - Record and maintain customer access permissions
    - Record and maintain meter point marketing restrictions
    - Vulnerable customer registration service
    - Data Aggregation Service – aggregate data for Suppliers

- Network Planning
    - Data Aggregation Service – aggregated data for Networks businesses
    - Data structure of the DCC – meters are aligned to existing network structures e.g. smart meters logically link to an appropriate sub-station

In order to determine the evolution of the DCC it is essential that a clear baseline of core and non-core services is established. Services which are regarded to be non-essential in the initial DCC implementation can form part of a realistic service enhancement roadmap.

Timescales

Following detailed analysis of the Prospectus documents and associated programme plan, ScottishPower remains of the opinion that the implementation timescales currently outlined for the establishment and implementation of the DCC and services which are deemed essential are challenging, presenting significant risk to the programme, the operation of the industry as whole and customer perception of smart metering rollout in the Great Britain. The key considerations resulting in this viewpoint are outlined in *Question 7*.

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

Response summary:

ScottishPower:

- agrees that meter registration should be included within the scope of the DCC for domestic and non-domestic smart meters based on advanced thinking within the DCG Expert Group – ScottishPower will provide further detailed analysis in their Smart Metering:DCC Scope Options Information Request submission.
- remains fully supportive of the opportunity to align and rationalise electricity and gas processes.
- believes a single registration process for domestic and non-domestic meters will avoid the complexity and costs of multiple processes, systems and differing customer experiences.
- recognises that undertaking significant industry change should be part of a controlled market start-up approach assessed against risk and a comprehensive implementation plan.

Detailed Response:

ScottishPower understands "meter registration" as the industry processes that associate Electricity and Gas Metering Points with a nominated Supplier (for energy purchasing, settlement and DuoS billing purposes), and facilitates the transfer of responsibility for these metering points between Suppliers within a Change of Supplier process.

ScottishPower believes that meter registration should be included in the scope of the DCC for both domestic and non-domestic meters – ScottishPower will provide further detailed analysis in their Enduring Information Request submission. At an industry level, it is already accepted that the DCC will require access to meter registration information to manage remote access to smart meters and to direct messages received from smart meters to the correct Supplier. Meter registration information will also be required to facilitate communication network charging and may be used by the DCC to trigger the collection and provision of a Change of Supplier reading to the gaining and losing Suppliers on the Change of Supply date.

Centralising the meter registrations process will support the development of a single, premise-level database of UK properties and enable a standardised set of dual fuel processes that streamline, for example, the Change of Supplier process, and provide a single customer experience. The creation of a single registration database should be considered as a cross-cutting activity and a pre-requisite for the evolution of the DCC, and addition of future services such as Data Processing and the support of Smart Grid management.

ScottishPower recognises that adding meter registrations to the DCC will require migration of data from the existing MPAS, Xoserve, and IGT registration systems and significant industry testing for the DCC meter registration functions, alongside a programme of data cleansing and alignment activities to create a single premise database within the DCC. We would also highlight the potential cost implications on Network Operators, costs which we believe are not covered by price control settlements, and the need for an appropriate cost recovery mechanism.

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

Response summary:

ScottishPower:

- support the inclusion of data processing, aggregation and storage in the DCC's scope.
- recognise that the addition of these services would be an additional enhancement and complexity to initial essential DCC services.
- would recommend that such enhancements to the DCC's scope should be part of a controlled market start-up approach and detailed risk assessment.
- would recommend that such services form part of a comprehensive and transparent implementation roadmap for the DCC and its services.

Detailed response:

ScottishPower understands "data processing, aggregation and storage" as the mandatory industry activities associated with the collection and validation of meter readings, the calculation of energy consumed (in Kwh) and conversion of this figure to an annualised consumption figure (AQ , EAC or AA) for each meter point, and the aggregation of this information by customer class, area, and Supplier for purposes of settlement.

Data Processing and Aggregation activities are currently conducted using separate processes for electricity and gas meter points, and within gas using separate processes for Large Gas Transporters (via Xoserve) and Small, Independent Gas Transporter meter points. The market models for electricity and gas are also different, with decentralised data processing and aggregation for electricity, and a mix of decentralised reading validation and consumption calcuation and centralised annualised consumption calculation and aggregation for gas.

The inclusion of data processing and aggregation functions within the scope of the DCC would enable the current, separate industry processes for electricity and gas to be aligned, simplified, and centralised to remove duplication of effort and cost in the industry.

At an industry level, the arrangements and procedures for Data Processing and Aggregation are also likely to evolve as the smart meter rollout progresses, due to:

- the increase in consumption data available from smart meters, and the impact this will have on current industry systems and procedures;
- the opportunity to progress from an annual AQ re-calculation for gas to a more accurate consumption calculation process using smart meter data (e.g. rolling AQ calculation or daily consumption calculation); and
- the opportunity to progress from existing Non Half Hourly profiles and procedures to a more accurate consumption calculation process (e.g. smart meter profiles or Half Hourly consumption calculation) for electricity using smart meter data.

Indeed, the mandated introduction of advanced metering infrastructure for non-domestic electricity and gas customers has already triggered a review of the data processing and settlement arrangements for advanced meters (by the Profiling and Settlement Group for electricity and Project Nexus for gas) to identify the opportunities to use the consumption data provided by advanced meters to improve the accuracy of the data processing and settlements processes.

Adding data processing, aggregation and storage activities to the scope of the DCC offers an opportunity either to implement procedures and systems that are designed for, and make best use of, the smart meter data based upon the findings of the current industry reviews, or to centralise the current Data Processing and Aggregation arrangements, and then implement new Data Processing and Aggregation processes as industry requirements evolve, with minimal impact to parties outside the DCC.

For these reasons, it is ScottishPower's view that data processing, aggregation and storage activities should be added to the scope of the DCC.

ScottishPower is aware that the addition of data processing, aggregation and storage is a complex change, involving:

- significant enhancements to DCC systems;
- a complex data migration from existing industry systems;
- a parallel data cleansing and alignment exercise;
- a dependency upon the migration of meter registration activities to the DCC, particularly for gas;
- industry testing and assurance activities for the DCC and related industry parties; and
- changes to the regulatory framework to enable and govern the additional DCC activities and responsibilities (e.g. Responsibility for Gas AQ calculation.)

The central Programme must not lose sight of the benefits associated with the centralisation of non-competitive industry processes and the opportunity to remove duplication of effort and cost in the industry. It is therefore recommenced that a detailed cost benefit analysis is undertaken at the earliest opportunity by the DCC expert group to take account of the end to end transformation of the current industry structure and the way in which the DCC can support these services over time.

The impact assessment must take into account the additional programme risks associated with the migration of data processing services which will be more complex than for registrations when taking the additional development, migration, testing and governance requirements into account.

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?

Response summary:

ScottishPower:

- continues to recommend a 'controlled market start-up' approach which will mitigate against the inherent risk of new technologies and mass smart metering deployment,

based on a continuous risk assessment and Suppliers adopting a common rollout framework.

- would recommend appropriate accreditation procedures are put in place to accept meters which meet an agreed specification.
- would recommend that as part of a comprehensive risk review, lessons learned from other smart metering programmes around the world are fed into the Programme where relevant.
- would recommend the development of working practices for changes in smart metering system component specifications.
- would recommend the development of working practices to address the migration of inconsistent industry data.
- supports the requirement for a process whereby communications contracts are novated into the enduring DCC service and would recommend this is built into the contract for communications infrastructure provision.
- would propose full resolution of interoperability issues in the interim period up to the DCC being established.

Detailed response:

We would highlight a number of challenges which we believe pose significant risk to the overall delivery of smart metering in the UK as the technologies underpinning the enduring smart metering system and supporting framework (DCC) continue to be determined.

Whilst Ofgem has clearly stated that Suppliers proceed at their own financial risk during the pre-DCC period, ScottishPower believes there is a requirement for a transparent, over-arching risk identification and evaluation process to be established within the central Programme. This would enable roll out risks, indentified by either internal or external stakeholders from across the Programme, to be appropriately impact assessed, mitigation plans developed and where necessary lessons learned fed into the subsequent stages of the Programme. We believe that by adopting the principle of controlled market start-up, it will be possible to address risks and issues in a timely manner, as opposed to significantly higher smart meter installation volumes where mitigating controls would be much more difficult to implement .

As part of an on-going joint risk managment review, ScottishPower believes that suitable minimum working practices/mitigation plans need to be determined for the following:

- Rigourous industry end to end testing interfacing to the DCC environment;

- Changes in smart meter, WAN, HAN and IHU specifications;
- Migration of inconsistant industry data (migration of pre-DCC meters into the DCC);
- Migration of systems; and
- Novation of communications contracts in to the enduring DCC service delivery.

Whilst ScottishPower recognises that DECC and Ofgem wish to optimise the Progamme cost associated with smart meter roll out, we believe that Suppliers should operate in a framework which meets customer expectations and minimises risk within the confines of a "controlled market start-up" and which avoids exacerbating the risks associated with new technology and mass meter deployment prior to the establishment of the DCC.

ScottishPower would propose that early selection of the DCC communications method would be advantageous and de-risk the future integration of smart metering systems rolled out in the interim period upto the DCC being established. It would also avoid a potential situation where GPRS becomes the default communications technology; while GPRS communications technology is good for trials, it may have limitations which would be adverse for the eventual roll-out. The DCC's specification should not be constrained by the need to work within any limitations of GPRS if better technologies are finally chosen.

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?

Response summary:
ScottishPower:

- agrees in principle with the proposed DCC model.
- proposes a full Cost Benefit Analysis is undertaken by the central Programme to establish the way in which the DCC licence is delivered and governed with involvement from the Industry.

Detailed response:

ScottishPower agrees in principle with the proposed DCC model. We would propose that a full Cost Benefit Analysis is undertaken by the central Programme with involvement from the Industry, to establish the way in which the DCC licence is delivered and governed, ensuring that industry change is not constrained and that lessons learnt from a 'controlled market start-up' can be applied at a future time if deemed necessary.

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?

Response summary:

ScottishPower:

- agree in principle with the proposed DCC model.
- would recommend Industry engagement during the development of the DCC licence and Smart Energy Code.
- would propose that the management/administration of the Smart Energy Code is separate from the commercial delivery of the DCC.

Detailed response:

ScottishPower agree in principle with the DCC model proposed but would recommend that the Industry has appropriate engagement during the development of the DCC licence and Smart Energy Code.

We would recommend that a Cost Benefit Analysis is undertaken by the central Programme to establish the way in which the DCC licence is delivered and governed and would propose there is equal focus on both the management/administration of the Smart Energy Code and the commercial delivery 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?

Response summary:

ScottishPower:

- believes the following key conisderations: Procurement; Service Catalogue; Migration Strategy; Testing Strategy; Go-Live Criteria require further development.
- believes the currently proposed timescales for the awarding and subsequent establishment of the DCC are challenging and require further evaluation.

Detailed response:

Based on the detailed analysis of the smart metering operating model ScottishPower has undertaken to date, we recommend the following areas are key considerations in the establishment and subsequent roll out of the DCC:

- Procurement: ScottishPower believes that Suppliers should have greater engagement in the procurement process including the specifying of service requirements and related key performance indicators. Supplier involvement in this process will also provide the opportunity for service provisions to be sufficiently tested to ensure that DCC services procured are fit for purpose and do not pose a risk to the delivery and cost effectiveness (including cost to individual market participants) of the on-going smart metering rollout programme.

- Service Catalogue:

  The DCC service catalogue must be fully defined prior to award demonstrating sufficient flexibility to enable the delivery of core services and on-going innovation. It is critical that the DCC does not stifle innovation in the market over time.

  A framework of Key Performance Indicators (KPI's) with associated measurements must also be established to ensure easy assessment of the service delivery to the industry as a whole and to an individual market participant.

- Migration Strategy:

  A robust migration strategy for the population of industry data within the DCC must be fully defined, including the level of input from market participants across the industry. The level of data quality established pre and post DCC establishment will be a critical factor in its on-going service delivery to the industry and therefore ScottishPower believe mitigation plans must exist for:

  - Mis-alignment of Supplier registrations (electricity and gas) on a portfolio by portfolio basis;
  - The management of customers who are 'in-flight' as the result of key industry process such as Change of Supplier; and
  - Roll-back plans should initial migration be unsuccessful outlining the associated communication strategy to the industry and necessary market participant support.

- Testing Strategy: Robust test strategy which outlines in detail (timescales and resources:
    - Interface testing with individual market participants;
    - Volume testing;
    - Established disaster recovery processes and procedures at an industry level; and
    - Overall success criteria measurements.

- Go-Live Criteria:
  Agreement of pre-established criteria which determine whether the DCC is implemented and the on-going industry arrangements and impacts should this not be achieved.

Timescales

Based on the activities outlined above, ScottishPower believes that the current programme timetable for awarding DCC contract, establishment of commercial contracts with individual market participants, data population and subsequent rigourous performance testing across the industry is challenging.

ScottishPower recommends that the timescales for the establishment of the DCC should be revisited prior to the commencement of the detailed design phase. This approach will ensure that overall programme delivery is achievable, mitigating any direct risk to the establishment of enduring smart metering delivery across Great Britain and the associated consumer experience.

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

Response summary:

ScottishPower:

- supports the principle of fair and equitable charging for all users and new market entrants.
- believes that there will be emergent costs for Network Operators which are not accounted for in price control settlements.

- would expect that any Network Operator costs over and above current settlements (including asset stranding) are reimbursed through an appropriate mechanism.
- would recommend management/administration of the Smart Energy Code should be separate from the commercial delivery of the DCC and given the appropriate level of focus.
- would recommend that the WAN communications module should be owned by the DCC.
- would welcome the opportunity to work with Ofgem and other market participants to develop the Smart Energy Code and a review of charging mechanisms.

Detailed response:

ScottishPower supports the principle that costs associated with the use of the DCC are fair and equitable for all users and new market entrants. As a result of the Smart Metering Programme a number of emergent costs will arise for Network Operators that were not considered by the price control settlements, the scale and timing of which will only become clear as the Programme progresses. We would therefore expect that any resulting new or accelerated Network Operator costs incurred over and above the relevant settlement, including asset stranding, will be reimbursed through an appropriate mechanism. The timing and scale of these costs should be the primary consideration for whether this would result in reopeners of the existing controls or funding in the next one.

We believe that the industry should adopt the principles of good governance for smart metering operation. As part of these principles we believe that management/administration of the Smart Energy Code should be separate from the commercial delivery of the DCC and given the appropriate level of focus. We would welcome the opportunity to work with Ofgem and other market participants to develop the Smart Energy Code including a review of charging mechanisms.

REGULATORY AND COMMERCIAL FRAMEWORK

The following section contains ScottishPower's responses to questions contained within the Smart Metering Implementation Programme's Prospectus Supporting Document 94h/10 Regulatory and Commercial Framework, 27th July 2010.

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

Response summary:

ScottishPower:

- would agree that the key elements of the smart metering regulatory regime have been considered.
- recognises the need to licence the DCC function to protect the user community.
- would recommend Smart Energy Code management/administration should be separate from the commercial delivery of the DCC and given the appropriate level of focus.
- would welcome the opportunity to work with Ofgem and other market participants in the development of the different aspects of future smart metering regulation.
- believes further detailed analysis is required to determine either the extent to which existing codes can be utilised or the approach for transition to new arrangements.
- would recommend that the DCC licence is constructed in such a way that it does not constrain future industry change or lessons learnt from a 'controlled market start-up'.
- would recommend that the central Programme undertakes a full Cost Benefit Analysis to confirm the most efficient way in which the DCC licence can be delivered and governed.
- would recommend that the potential risks associated with the difference of tenures for DCC and service provision is taken into full account during the construction of the enduring regulatory model.

Detailed response:

ScottishPower would agree that the key elements of the smart metering regulatory regime have been considered (i.e. DCC, Supplier/Network Operator licences and Smart Energy

Code). We would however recommend further detailed analysis is undertaken by the central Programme in the following areas:

- the transition to the new smart metering regulatory regime and the way in which existing codes can be utilised.
- a full cost benefit analysis of the proposed DCC licence against other models whereby a separate governance model exists.

Appropriate performance measures will be necessary to ensure DCC service levels are properly established and maintained. This will provide the user community with a measure that value for money is being delivered, whilst also recognising that Supplier and Network Operator licence compliance may to some extent rely on the DCC's performance. We would therefore recommend that equal focus is given to the management/administration of the Smart Energy Code and the commercial delivery of the DCC.

ScottishPower would welcome the opportunity to work with Ofgem and other market participants in developing all aspects of the Smart Metering Regulatory Regime. We feel it is important that this involvement extends to the development of the DCC licence as well as any proposed amendments to the existing Supplier or Network Operator licences. This process should take into account the way in which the DCC licence is constructed including the possibility of wider industry changes beyond the current scope set out by the central Programme - e.g. Settlements. We would also recommend that a full Cost Benefit Analysis is undertaken with regard to the way in which the DCC licence delivered and governed, ensuring that industry change is not constrained and the lessons learnt from a 'controlled market start-up' can be applied at a future time if deemed necessary.

The proposed ten year contract for the DCC, should provide for reasonable stability, however, the much shorter tenures for service providers should take into due consideration the commercial risks associated with this process, ensuring it does not detract from the enduring stability which the industry requires.

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

Response summary and Detailed response:
ScottishPower:

- supports the proposed development of a Smart Energy Code.
- would recommend that the central Programme undertakes further detailed analysis to determine the future application of existing codes and timescales in which they would transition to the new smart metering regulatory framework.

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

Response summary:

ScottishPower:

- would recommend that during the development of the DCC licence due consideration is given to the way in which any additional services can be introduced over time.
- believes further consideration should be given to linking MPAN and MPRN at a premise level; the future evolution of DCC services and roles and obligations of Suppliers in relation to IHD provision, 'lead Supplier' and WAN communications module arrangements.
- believes the approach to accreditation and technical assurance requires further definition and should encompass all market participants and smart metering system components and supporting systems.

Detailed response:

ScottishPower has reviewed in detail the indicative table of contents for the Smart Energy Code. We believe the scope will need to be clearly defined with the handshakes from the Code to existing industry codes and working practices. In addition, clear distinction between Code obligations for interim and enduring arrangements will need to be made along with the inclusion of technical assurance (accreditation for smart metering system components).

We would also recommend that the central Programme gives appropriate consideration to the following:

<u>8. Meter registration</u>

- approach for linking of MPAN and MPRN e.g. the opportunity to create a Universal Property Reference Number (UPRN) or use of the National Land & Property Gazetteer (NLPG) to aid establishment of a central smart metering registration database within the DCC.

13. Data services provided by DCC

- whether an exhaustive list of DCC services is listed and the way in which new DCC services are proposed, assessed and introduced.

14. Responsibilities of suppliers with respect to meter system operation

- we believe the WAN communications should be the responsibility of the DCC along with the future WAN technology strategy;
- clear definition of roles and obligations in the context of IHD provision and maintenance;
- clear definition of roles and obligations in the context of 'lead Supplier'.

17. Security and business continuity management

- as part of a market participant accreditation process , assessment aligned to security and business continuity management best practice (BS25777 and BS25999) and allied to an ongoing technical assurance process;
- requirements and assessment measurements for Disaster Recovery, with periodic reassessment.

20. System and process assurance

- definition of a technical assurance process for all smart metering system components and supporting systems / technologies;
- risk based performance assurance framework recognising the assurance framework already established under the BSC.

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

Response summary and Detailed response:

ScottishPower:

- recognises the potential benefit of maintaining appropriate governance of the Smart Energy Code within the scope of the DCC.
- would recommend that the management/administration and commercial delivery of the Smart Energy Code are given equal focus.
- believes Code development should include industry engagement with appropriate voting arrangements.

- would recommend a detailed cost benefit analysis is undertaken to determine the costs associated with the governance of the Smart Energy Code and the ways in which this could be feasibly delivered.
- believes that the Code needs to be designated under section 173 of the Energy Act 2004 so that it is subject to code modification appeals if Ofgem over-rides the industry vote

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

Response summary:

ScottishPower:

- believes the DCC should be responsible for the provision of the WAN communications module and the enduring WAN technology strategy.
- would recommend that further detailed analysis needs to be undertaken by the central Programme to determine the most appropriate procurement and provisioning model; the roles and obligations of a 'lead Supplier' – particularly the scenarios of two Suppliers providing services to a single property and Change of Supplier.
- would propose consideration is given to determining the most appropriate WAN technology as quickly as possible to provide greater confidence in the procurement of other smart metering system components ahead of roll out.

Detailed response:

ScottishPower believes the DCC should be responsible for the end-to-end provision of the WAN infrastructure and that the DCC should be the only party which has a WAN technology strategy.

We would recommend that further detailed analysis needs to be undertaken by the central Programme to confirm the following:

- the most appropriate purchasing/provisioning model for the WAN communications module;
- the way in which communications failures are diagnosed and communicated to responsible parties;
- the roles and obligations of the 'lead Supplier', particularly in scenarios where electricity and gas services are provided by two different Suppliers; and

- the changes to roles and obligations following Change of Supplier.

We would also recommend that determining the preferred WAN communications technology and infrastructure as quickly as possible would provide greater confidence in the preparations for roll out and the procurement of other elements of the smart metering system e.g. smart meters.

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.

Response summary:

ScottishPower:

- acknowledges the minimum IHD functional requirements but believes that the provision of current account balances could result in technical challenges and customer confusion.
- believes that considerations surrounding the HAN should include how it can be ensured that devices connecting to the HAN conformed to certifications standards; that the HAN does not involve opportunities for fraud or pose a security risk to the smart metering system as a whole; and the way in which the HAN can remain compatible with other smart metering system components over time.

Detailed response:

ScottishPower acknowledges the minimum functional requirements specified in the Prospectus but would recommend further consideration be given to the proposed provision of current account balance information and potential issues around technical delivery and customer confusion. Whilst we accept the provision of prepayment credit balance (potentially a link between the smart meter and the IHD) is technically feasible, any requirements above and beyond this for credit meters with interaction back to Supplier systems would require significant change and inherent technical challenges.

We believe that the key considerations relating to the HAN should include:

- ensuring that devices connecting to the HAN conform to certification standards;
- ensuring the HAN is secure and does not involve opportunities for fraud or pose a risk to the wider smart metering system and supporting infrastructure.
- The way in which the HAN can remain compatible with other elements of the smart metering system over time.

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?

Response summary:

ScottishPower:

- would recommend that further detailed analysis needs to be undertaken by the central Programme to determine the most appropriate procurement and provisioning model for the WAN communications module; the roles and obligations of a 'lead Supplier' – particularly the scenarios of two Suppliers providing services to a single property and Change of Supplier.
- Would recommend that further detailed safety and technical analysis is undertaken with regard to the location of the WAN communications module and the implications for losses (due to the power consumed by the module) and emergence of physical installation issues (such as overload protection in the event of faults).
- would propose that HAN capability is the responsibility of the owner of the individual smart metering component.
- would recommend that further detailed analysis is required to determine how the above HAN arrangement would work in practice and the way in which faults are initially identified.

Detailed response:

ScottishPower would recommend that further detailed analysis of WAN and HAN provision is required to clearly define roles and responsibilities.

WAN:

We believe the most appropriate owner of the WAN module is the DCC or communications agent(s) of the DCC. This view is based on the principle that the DCC is responsible for the end-to-end WAN communications infrastructure including the future technology strategy.

Whilst we would agree that Suppliers install the WAN module on behalf of the DCC as part of the initial smart meter installation, we would recommend that further detailed analysis is necessary to determine the roles and responsibilities of the Supplier and the on-going obligations in the contexts of:

- ‘the most appropriate purchasing/provisioning model for the WAN communications module;
- the way in which communications failures and diagnosed and communicated to responsible parties;
- the roles and obligations of the ‘lead Supplier’, particularly in scenarios where electricity and gas services are provided by two different Suppliers; and
- the changes to roles and obligations following Change of Supplier.

In addition, there are also a number of detailed considerations (safety and technical) that will arise from any proposal to position an independent WAN communications module prior to the electricity meter (whether the meter is smart or non-smart). These considerations include:

- whether a separate protective device is necessary rather than reliance on Network Operator fuses – which could be deemed inappropriate.
- whether the volume of electricity consumption by a WAN communications module which will become material and affect Network Operator losses / incentives and accuracy of settlement processes. If the communications module is positioned prior to the electricity meter we would recommend that the module owner (the DCC) should register the consumption as unmetered supplies.
- whether transitional suspension of the Network Operator incentive mechanism is appropriate.
- the location of the WAN communications module prior to the electricity meter resulting in potential electricity meter installation issues (such as asbestos meter boards) extending to gas meter installations – a consideration which would need to be reflected in roll out plans.

HAN:

ScottishPower recognises that the HAN is an essential element of the smart metering system with capability required in each individual smart metering system component. It would therefore be sensible to assume that the owner of the individual asset assumes responsibility for ensuring the HAN capability continues to function with maintenance logically following the same approach.

Whilst approach outlined above is relatively simple, the identification of HAN related faults could be less simple to manage. In addition, it is still unknown how HAN faults will be identified remotely together with associated legal and practical issues regarding one

Supplier's agent replacing HAN components on a device for which they have no responsibility (e.g. can an electricity metering agent replace a HAN component on a gas meter). It is thought unlikely that customers will respond positively to a number of different representatives turning up to attend to a defective HAN, each of whom say the fault lies in another party's equipment.

We therefore recommend that like the WAN provision further detailed analysis needs to be undertaken and foresee the benefits of both areas being considered at the same time.

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

Response summary:

ScottishPower:

- recognises the Government's desire to impose interim completion targets to ensure roll out is achieved within agreed timescales.
- would be more supportive of a roll out approach based on completion target dates and interim reporting measures.
- would recommend that comprehensive technical standards are made available as quickly as possible to aid procurement of smart metering system components.
- would recommend that a risk based approach is taken to smart meter roll out based on the principle of 'controlled market start-up'.
- would recommend that smart meters installed in the interim period must meet an agreed standard before being accepted into the DCC - to ensure appropriate levels of data privacy, security and data protection to guarantee future interoperability.
- would recommend transition processes are developed to confirm the method by which pre-DCC meters and technologies are transferred into the DCC.

Detailed response:

ScottishPower recognise the Government's desire to impose interim completion targets to ensure completion of the roll out within agreed timescales. However, the loss of flexibility and imposition of rigid targets could impose additional costs to the Programme.

ScottishPower would be more supportive of a roll out approach based on completion target dates and interim reporting, which we believe would still support the Government's desire

for clarity and visibility of delivery and would suggest an annual review once the DCC goes live.

In the early stages of roll out we would advocate a risk based approach delivered through controlled market start up which would operate until DCC go-live. This would ensure meter installation volumes are based on the risks identified at that time. This approach would also ensure a rigorous degree of system and process testing while monitoring consumer response and ultimately allowing for adjustments to be made before consumer perceptions could be adversely impacted.

ScottishPower would recommend that smart meters installed in the interim period must meet an agreed standard before being accepted into the DCC, to ensure appropriate levels of data privacy, security and data protection to guarantee future interoperability. We would propose that the agreed standard has mandatory requirements upon the provision of the unique smart meter identifier, meter technical details, meter data as well as communications and security access details for each meter populated in a specified file format. Only if all mandatory data item requirements have been satisfied should 'non-compliant' meters be accepted into the DCC upon its establishment.

We would recommend that the proposed interim process will require rigorous end to end testing.

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

Response summary:

ScottishPower:

- would recommend a standard approach to meter installation charges and rental agreements is facilitated by the central Programme.
- would recommend careful consideration is given to both interim and enduring arrangements.
- would recommend that the central Programme gives appropriate consideration to the areas of IHD provision, asset tracking, smart metering component maintenance arrangements and approach to Smart Metering Code development.

Detailed response:

ScottishPower believes that a standard approach to meter installation charges and rental agreements should be established by the central Programme, in addition to determining the scope of the DCC and interim interoperability arrangements.

We would also recommend that the central Programme gives the following appropriate consideration:

IHD

- Maintenance obligations (ref. Maintenance arrangements below).
- Differing IHD features as a result of Supplier innovation leading to consumer stranding on Change of Supplier;
- Cost recovery – would recommend further detailed cost benefit analysis is undertaken taking into account current minimum functional requirements against the current business case and the different asset life compared to other smart metering system components.

Asset tracking

- The way in which Suppliers identify smart meters during the interim period up to the DCC being established.
- The alignment of electricity and gas processes and the associated data carriage.
- The hosting of a national record of smart meters by the DCC to facilitate accurate cost recovery and billing.

Maintenance arrangements:

- WAN communications module provision and on-going maintenance;
- the role and obligations of a 'lead Supplier';
- the commercial changes as a result of key industry processes such as Change of Supplier or Change of Tenancy; and
- the maintenance obligations for components such as the IHD and how these obligations are calculated from the point of initial smart meter installation.

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?

Response summary:

ScottishPower:

- believes previous approach to assuring conformity of metering systems in both electricity and gas sectors is a sound basis upon which to base smart metering requirements.
- would recommend that technical specifications are managed within the Smart Energy Code and that Codes of Practice can be referenced from a single point of reference.
- would propose that smart metering technical assurance audits are approached on a risk basis.

Detailed response:

Codes of Practice (CoP) have traditionally been used in assuring conformity of metering systems in both electricity and gas sectors. It would appear sensible that past experience is drawn upon to develop of appropriate technical assurance measures for smart meters.

It would be beneficial to ensure technical standards are only referenced in one place. We would therefore consider the most appropriate place to set out the specifications for the associated communications equipment to be within the Smart Energy Code with Codes of Practice referenced from there.

With regard to on-going technical assurance of installed smart meters, whilst we acknowledge the effectiveness of the audit approach undertaken in the HH electricity market, there is no equivalent precedent for domestic gas sites. Taking into account the sheer numbers of meters in the NHH/NDM markets some form of sampling approach may be acceptable in addition to the various diagnostic features currently within the smart metering functional specification. Ultimately, any smart meter technical assurance audit will need to operate in a cost effective manner which could be defined by taking a risk based approach.

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

Response summary:

ScottishPower:

- believes smart metering offers a good opportunity to reduce operational complexity.
- would recommend the central Programme gives further consideration to non-standard smart meter installations, IHD provision, Network Operator costs, meter inspection visits and Radio Teleswitched supplies.

Detailed response:

Smart metering offers a good opportunity to reduce operational complexity and the options for introduction of Registrations and other functions into the DCC should be fully assessed. We believe there is a need for a fair and equitable financial mechanism which should be considered in addition to DCC service scope and interim interoperability arrangements.

ScottishPower would recommend that the following areas are given further consideration by the central Programme – with some areas addressed under the Smart Energy Code:

<u>Non-standard smart metering installations</u>

- The commercial issues surrounding responsibility for non-standard smart metering installations and any replacement of essential related equipment e.g. broken meter boards, broken meter boxes also needs to be addressed.
- Further consideration of the Network Operators' potential exposure to costs related to smart metering, in particular, costs outwith price control settlement arrangements and the appropriate recovery mechanism.

<u>Meter inspections</u>

- We would recommend that further consideration be given to meter inspection requirements, taking into account the technology advances which smart metering will deliver balanced against any health and safety risk. We would welcome the opportunity to work with Ofgem, the HSE and other market participants in undertaking a detailed review recognising a reduction in site visits represents a significant proportion of smart metering benefits.

IHD

ScottishPower believes the following elements of IHD provision cause potential commercial interoperability issues and require appropriate consideration by the central Programme:

- Differing IHD features or branding as a result of Supplier innovation leading to consumer confusion and potential asset stranding upon Change of Supplier; and
- Potential asset life and associated cost recovery.

Radio teleswitched supplies

The Prospectus provides little detail with regard to the impact of smart metering on radio teleswitched supplies. A great many customers, (c.12-15% of ScottishPower's customer base for which this currently represents >800MW of heating load), enjoy the benefits of these arrangements, which also serve to facilitate management of heating loads – the original time of use tariff. Allied to this, predicted growth in the market for electric vehicles will, if realised, require that suitable metering arrangements be made available to support electric vehicle charging in the home; metering arrangements that will mirror those currently deployed for radio-teleswitch customers. We believe far greater account must be taken of both these requirements in the forthcoming planning exercise.

Connection agreement:

We would raise concern that the connection agreement does not feature anywhere in the document. Although these agreements tend to be fairly robust to changes of metering equipment, we would expect more detailed examination of potential impacts e.g. no consideration appears to have been given to the installation of a HAN and its possible uses.

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?

Response summary:

ScottishPower:

- supports the principle of controlled market start-up.

Detailed response:

ScottishPower believe that the development of Time of Use tariffs be driven by the competitive market, given that consumers will have information to help make more informed decisions to best suit their needs. To support this evolution, it is necessary that Suppliers have the sufficient level of data granularity to support the offering of Time of Use tariffs.

Applying our recommended principle of controlled market start-up we do not believe Time of Use tariffs should be offered at the point of initial DCC start-up, in an attempt to minimise service and technical complexity and potential consumer confusion. We would also support a Significant Code Review to determine the level of change required to support Time of Use tariffs across the industry.

A key issue for Time of Use tariffs will be ensuring that consumers do not run up very high bills by using them incorrectly. This may limit the strength of the timing signal that it is possible to send.

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

Response summary:

ScottishPower:

- believes significant changes to current settlements arrangements are not required to realise smart metering benefits currently stated by the central Programme.
- would recommend that following the principles of 'controlled market start-up', complex DCC services are further considered once the DCC is fully established and volumes of smart meters are significantly higher.
- would recommend that Settlements considerations form part of a phased DCC implementation plan.

Detailed response:

ScottishPower do not believe that there are any significant changes required to current settlement arrangements to realise the smart metering benefits currently stated by the central Programme. Applying the principle of 'controlled market start-up' we believe that any such considerations should be undertaken at a later stage of Great Britain's smart metering programme to avoid over-complicating initial DCC services.

We would recommend that this assessment is undertaken when the DCC is fully established and volumes of smart meters is significantly higher, forming part of a phased DCC implementation plan.

ScottishPower would also make reference to the ERA's previously published Smart Metering Strategic Vision paper:
http://www.energyretail.org.uk/documents/SRSMStrategicVisionSummary.pdf

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?

Response summary:

ScottishPower:

- believes it is essential that all market participants both get access and contribute to the benefits of smart metering.
- would recommend it is essential that independent networks be included in all aspects of smart meter roll out and should be reflected as such in the application of the Smart Energy Code.

- believes that Network Operators will require access to Independent Network Operator customer data in order to have complete data for network management purposes.
- would recommend it is necessary for the central Programme to identify how iGT charges will be determined.

Detailed response:

It is essential that all customers, irrespective of the network to which they are connected, get access to and contribute to the benefits of smart metering. To deliver this, it is essential that independent networks be included in all relevant aspects of the smart meter roll out and should be reflected as such in the application of the Smart Energy Code.

Ofgem's decision to remove the metering requirement at Network Operator and Independent Network Operator boundaries means that Network Operators will require access to Independent Network Operator customer data, particularly LV connections, in order to have complete data for network management purposes.

We believe it is also necessary for the central Programme to identify how iGT charges will be determined.

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

Response summary:

ScottishPower:

- would recommend that the central Programme facilitates an on-going assessment of change on key industry processes.
- expects that all key industry processes will be assessed in a comprehensive and logical manner by the central Programme expert groups.
- would propose that any wholesale change to Settlements arrangements is undertaken in a later phase of the Programme

Detailed response:

ScottishPower would recommend that the central Programme facilitates an on-going assessment of change on key industry process, with the assumption that this detailed work

is undertaken within the appropriate expert working groups. We would anticipate that the following areas are included in the expert groups' assessments:

- Green deal initiatives and the role of the DCC in recording associated payments;
- Meter registration and any associated migration requirements;
- Data processing and data aggregation (DC and DA functions/interactions);
- Industry data quality.

To facilitate a controlled market start-up and to ensure that DCC services are established in a logical manner, we would propose that any consideration of wholesale changes to current Settlements arrangements is considered in a later phase of the Programme.

ScottishPower would also make reference to the ERA's previously published Smart Metering Strategic Vision paper:
http://www.energyretail.org.uk/documents/SRSMStrategicVisionSummary.pdf

NON-DOMESTIC SECTOR

The following section contains ScottishPower's responses to questions contained within the Smart Metering Implementation Programme's Prospectus Supporting Document 94i/10 Non-Domestic Sector, 27th July 2010.

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?

Response summary:

ScottishPower:

- recognises that as a result of technical challenges, multiple communications methods may be required.
- does not believe there would be any scenarios where an AMR meter would be favoured over a smart meter in the context of either non-CT or under U16 meter specifications.
- would note that remote disconnection is not appropriate for larger installations.
- expects interoperability measures between AMR and smart meters.
- expects common working practices (possibly stated within the Installation Code of Practice) with regard to identifying and recording all instances where smart meter installation cannot be undertaken.
- proposes that based on our records there are no U16 meters and c.3000 CT meters.

Detailed response:

ScottishPower recognises that technical challenges may be identified which challenge roll out in either certain geographical areas or building types and as a result requires multiple communications methods to be used. Whilst we would expect interoperability between AMR and smart meters, we do not anticipate any scenarios where an AMR meter would be favoured over a smart meter in the context of non-CT and below U16 meter specifications. We would however note that remote disconnection would not be appropriate for larger installations.

During roll out we would expect a common work practice, possibly forming part of the Installation Code of Practice, that requires the recording of all instances where a smart meter cannot be installed together with the technical and/or physical reasons.

According to ScottishPower's, records at the time of this response submission, we believe there to be no U16 meters and c.3000 CT meters.

Question 2: Do you agree with our proposed approach to exceptions in the smaller non-domestic sector?

Response summary:

ScottishPower:

- agrees in principle with the proposed exceptions.
- believes that the central Programme should engage with all customers including those receiving metering from third party providers.
- would recommend that standards set out by the central Programme ensure commercial interoperability across the non-domestic sector.

Detailed response:

ScottishPower agrees in principle with the proposed exceptions, however there is a need for the Programme to engage with all customers, including those receiving metering from third party metering providers. Where third party meters are used, all standards agreed by the Programme (i.e. functional, technical, security, interoperability, etc) must be achieved to ensure commercial interoperability is maintained.

We would recommend that the central Programme put measures in place to capture sites where suppliers have been unable to install smart meters and/or the supporting infrastructure and record the reasons for this.

Question 3: Are there technical circumstances that we have not considered that would justify further flexibility around installation of either smart or advanced meters?

Response summary:

ScottishPower:

- recognises that technical challenges may be identified during roll out which will result in multiple communications technologies being required.
- would recommend that issues identified during pre-installation checks are factored into any mandated roll out targets.
- anticipates that where smart metering systems cannot be established, installation attempts are fully recorded and notified to the central Programme.

Detailed response:

ScottishPower recognises technical challenges may be identified during the roll out which result in the need for multiple communications technologies. Scenarios could include:

- geographical location (remote);
- tower blocks.

We would recommend that situations where a single, perhaps the preferred communications method, is unsuitable are identified as part of wider pre-installation checks and factored into any mandated roll out targets.

It is also anticipated that as part of a Smart Metering Installation Code of Practice, where issues are identified and smart metering cannot be established, that the incident is fully recorded with the reasons why and notified to the central Programme for resolution.

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

Response summary:

ScottishPower:

- believes the DCC should be mandatory for all market participants (domestic and non-domestic) to maintain interoperability.

- would recommend the existence of seperate arrangements and systems would be costly to support for small numbers of customers.
- would recommend that optional use of the DCC would result in poorer services for those customers outside the DCC and more complex processes for premises which transfer between domestic and commercial status and vice versa.
- recommends that optional use of the DCC will have a direct impact on the future effectiveness and associated benefits of smart grids.

Detailed response:

ScottishPower believes that ideally all market participants (domestic and non-domestic) would use the DCC to maintain interoperability and avoid the existence of separate arrangements and systems, which would be costly to support for small numbers of customers.

If the scope of the DCC includes meter registration, there is the potential for different switching processes and associated timescales, resulting in poorer service for those customers outside the DCC. Where premises transfer between domestic and commercial status, additional process complexity would be encountered as services are moved between DCC and non-DCC arrangements and vice-versa.

Optional use of the DCC would also have a direct impact on the future benefit of a smart grid where to obtain a single view of energy consumption and performance would need to be obtained from several sources.

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?

Response summary:

ScottishPower:

- agrees that the commercial activities of the DCC should be limited but not to the extent that innovation is impacted.
- agrees that the DCC offers non-discriminatory terms for domestic and non-domestic customers.

Detailed response:

To encourage existing market participants (i.e. Suppliers, Meter Providers, Energy Management Service Providers) to use the DCC and to ensure these participants are not adversely affected by the service, ScottishPower agrees that the commercial activities of the DCC should be limited. We also agree that the DCC offer non-discriminatory terms for domestic and non-domestic customers.

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?

Response summary:

ScottishPower:

- believes the DCC should be mandatory for both domestic and non-domestic smart meters.
- believes non-mandatory use of the DCC will result in disparate smart metering data which will directly challenge the future efficiency of smart grids.
- would recommend that non-mandatory use of the DCC will lead to complex processes and inter-dependencies between market participants to ensure smart metering data is made available at the correct times and at the levels of granularity – particularly where premises switch between domestic and non-domestic status and vice versa.

Detailed response:

Mandating the use of the DCC for communications with all technically compliant smart meters will provide a central point for the collection and distribution of metering and consumption information as well as the additional power quality and meter event information (e.g. supply outage or "last gasp" alerts, supply restoration notifications, and tamper alerts) specified within the Statement of Design Requirements. The DCC would then be in a position to direct any power quality and meter alerts received from the meter to the Network Operator to support effective network management.

As the single point of access to smart meters for all industry participants, the DCC will support different data and access requirements for Suppliers, Network Operators and third parties. For Network Operators, the DCC may provide specific metering data to support Smart Grids (frequent detailed consumption information) independently of the data provided

to the supplier. Subject to the appropriate customer consents the DCC may also, in time, allow Network Operators to interact with individual meters and customer appliances to manage network load.

Non-mandatoy use of the DCC for communications for non-domestic smart meters will result in a direct dependency upon the Supplier to provide the DCC or Network Operator with metering and consumption data, power quality information, and meter alerts with sufficient detail and frequency to meet the Network Operators' needs and obligations.

Collecting this information from disparate Suppliers (or Supplier Agents) at the correct frequency and level of detail will require more complex technical and operational arrangements for the DCC or the Network Operator (dependent on who collects the data), supported by appropriate regulatory and commercial arrangements with Suppliers.

As Ofgem has highlighted, Suppliers have an existing obligation under DCUSA condition 29.3 to provide network operators with information to support the operation, design and planning of their distribution system. This obligation is currently fulfilled by Suppliers (via their agents) providing Distribution operators with details of any new or updated meter technical details, and a copy of meter readings collected for billing and settlement. Any requirement for Suppliers to provide information at a level and frequency that exceeds their own requirements (for billing and settlement) will require both technical and commercial agreement.

The additional complexity and cost of this solution may impact the contribution of smart grids towards the overall smart business case. More importantly, while the DCC will support the development and delivery of both current and future smart grid requirements (such as the facility for Distribution operators to manage load at individual meter points and end-devices), it is unclear how future smart grid requirements could be supported for Smart meters operated outside the DCC.

If smart meters operated outside the DCC cannot support future Smart Grid requirements (both from a demand side and supply side management perspective) and will therefore need to be migrated to the DCC at a future point to support this requirement, the programme should include this migration exercise in its' consideration of the relative costs and benefits of allowing communications with Smart meters to operate outside the DCC.

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?

Response summary:

ScottishPower:

- considers DCUSA provisions adequate to meet the immediate needs of Network Operators.
- recognises that over time it would possibly be more appropriate for Network Operators to receive data via the DCC to meet future demands on network management.

Detailed response:

We consider the DCUSA provisions adequate to meet the immediate requirements of Network Operators. Going forward, however, it would seem sensible for the Network Operator to receive this data from the DCC, rather than from the Supplier; something that could simply be added to the standard list of DCC services. However, were the proposed non-domestic specific provisions to prevail, they may require that the Supplier provide the data to the DCC first and in sufficiently timely fashion to meet the more demanding future needs of the network management.

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

Response summary:

ScottishPower:

- would recommend that interoperability is best achieved if the DCC is mandated for all technically compliant smart meters.

Detailed response:

In ScottishPower's view, interoperability in the small non-domestic could be achieved either through the Smart Energy Code or as a licence condition.

Interoperability would be best delivered via the mandatory use of the DCC for all technically compliant smart meters (domestic and non-domestic) as this would guarantee common

standards and processes for all smart metering system components, communication protocols, supplier interfaces, industry data, access control mechanisms, system security and data privacy.

Should the use of the DCC be optional for non-domestic supply points then, whilst we support the work that has already been done to establish a degree of interoperability for larger non-domestic sites, we believe that the additional challenges presented by smart meters means that the programme will need to put in place a number of additional measures to secure full interoperability for the non-domestic sector. We believe that these measures should be defined using the following guiding principles; all smart and AMR meters and communications equipment comply to the same stringent security and privacy standards, regardless of the communications provider and; the commercial and service options available to suppliers will in no way be restricted by the choices of the previous supplier of a supply point.

To support these principles we believe that, when supply point registrations are transferred to the DCC, this should be done for all smart meter sites and not just those sites which use the DCC for communications. In addition to this we also believe that the minimum capabilities of all smart metering equipment that is deployed, regardless of whether or not it will be using the DCC, should be mandated by the programme and should be consistent with the level of functionality that will be required for use of the DCC. The primary aim of this would be to ensure that, on gaining a supply point, suppliers would be able to select the communications provider of their choice without having to exchange any elements of the smart metering system. This capability should also facilitate any decisions that may be taken at a future date to mandate the use of the DCC for the non-domestic sector if it is identified that this is required to facilitate smart grid developments. To support this possibility the Programme may also want to specify that any 'non DCC' communications contracts that are entered into should have suitable break points or be capable of being novated to the DCC if required.

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?

Response summary:

ScottishPower:

- agrees that the DCC should be established as a procurement and contract management entity.
- believes that data provision should be a matter of contract between the customer and the Supplier.
- would welcome the opportunity to work with Ofgem and other market participants to develop the DCC licence in conjunction with the establishment of the Smart Energy Code.
- would look to work with the customer to define the appropriate mechanisms.

Detailed response:

ScottishPower agrees that the DCC should be established as a procurement and contract management entity, and that it should procure the communications and data services central to the smart meter implementation. We also support the principles of competitive tender, so welcome proposals that the DCC adhere to the principles of competition in awarding these contracts.

We also fully support the proposal to introduce the DCC as a new licensed entity. Applying price control principles to the DCC performance management regime could go a long way to ensuring service levels are properly developed and maintained, offering some comfort to DCC users that both they and their customers are benefiting from a value for money service.

However, the level of industry input into shaping the provisions of the DCC licence and the commercial tendering process, which will ultimately determine the successful bidder, are not yet clear. ScottishPower would welcome the opportunity to work with Ofgem in developing all aspects of the Smart metering regulatory regime. We feel it is important that this Industry involvement extends to the development of the DCC Licence, Smart Energy Code as well as any proposed amendments to the existing Distribution or Supply licences.

ScottishPower believe data provision should be a matter of contract between the customer and Supplier, with recognition that data privacy challenges are presented with both options. We would propose to work with the customer to define the appropriate mechanisms.

We would also reference our responses in the Data Privacy and Security section of this document.

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

ScottishPower believes the same data privacy and security considerations relate to domestic and non-domestic customers and as such we would refer to our responses in the Data Privacy and Security section of this document.

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?

Response summary:

ScottishPower:

- believes that a market-led rollout strategy will deliver the quickest and most efficient rollout of smart metering, the scope of which should include the non-domestic sector.

Detailed response:

As previously stated in our September Prospectus response, ScottishPower believes that a market-led rollout strategy will deliver the quickest and most efficient rollout of smart metering. We do not see any reason to deviate from this strategy for the non-domestic sector.

IN HOME DISPLAY

The following section contains ScottishPower's responses to questions contained within the Smart Metering Implementation Programme's Prospectus, Supporting Document 94c/10 In Home Display, 27th July 2010.

Question1: 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.

Response summary:

ScottishPower:

- recognises the reliance on communications between individual components of the smart metering system to ensure accurate and timely data transfer.
- believes direct connectivity between an accredited smart meter and an IHD via a HAN is more accurate than use of a 'clip on' device.
- acknowledges that the display of current credit balance on an IHD for pre-payment purposes is achievable.
- would recommend further detailed analysis is required to determine how the accuracy of data is maintained during core industry processes such as change of supplier or change of tenancy; as a result of dynamic tariffs or switching times or following scenarios of communications failure.

Detailed response:

Accredited metering systems operate to a very high degree of precision. In terms of energy volume measurement, the IHD takes its data source direct from accredited meters via a HAN, rather than for example a less accurate clip on (CT clamp) device. For pre-payment purposes, the presentation of a smart meter's current credit balance on the IHD should not present technical challenges.

Customer confidence in smart metering is reliant on processes between the Supplier, DCC and the smart metering system being fully defined and rigorously tested, underpinned by a resilient WAN and HAN communications infrastructure. ScottishPower believes there are a number of key areas where further detailed analysis is required to ensure that data presented to the customer is both accurate and available in an acceptable timeframe:

- change of supplier process;
- change of tenancy;
- dynamic tariffs;

- dynamic switching times; and
- communications failure resulting in scenarios of either 'missing' consumption data within the IHD or energy consumption represented at either a higher or lower price than the host Supplier had intended.

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.

Response summary:

ScottishPower:

- supports the current view that indicative carbon dioxide emissions has little influence on consumer behaviour.

Detailed response:

ScottishPower supports Ofgem's view that the display of indicative carbon dioxide generation has little direct influence on consumer energy consumption behaviour. Based on our experience to date we have observed a more positive customer response where energy usage is represented in pounds and pence.

We would propose that carbon dioxide generation is communicated to customers by other channels, for example on-line applications or billing material and is an example of an area where differentiation in Supplier services and innovation can deliver key energy management messages.

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

Response summary:

ScottishPower:

- has so far observed positive customer responses to ambient feedback due to its simplicity and easy interpretation.
- believes that an 'average' household cannot be easily defined and therefore personalised ambient settings hosted by the IHD would be the most appropriate application.

- would recommend that any further study takes into account the current technology which exists and the cost of providing either tailored or dynamic settings.

Detailed response:

In our own experience customers have responded most positively to information which is presented in a format which meets personalised or tailored preferences. Visualisation of energy use through ambient feedback, for example using a simple traffic light sequence to indicate the level of power / and/or gas throughput, has been well received due to its simplicity and easy interpretation.

We believe that an 'average' household cannot be easily defined and therefore personalised energy use thresholds to trigger ambient settings managed via the IHD would be the most appropriate method.

ScottishPower would recommend further consideration be given to the ways in which ambient feedback can be best applied and the consumer reactions which would wish to be stimulated using this communication method. Further study should also recognise the balance between current technology and the cost of providing either tailored or dynamic settings.

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?

Response summary:

ScottishPower:

- does not believe a licence obligation is required for the provision of IHDs to customers with special needs.
- believes that the use of technology during smart metering roll out should be proportionate to the benefits it can deliver.
- recommends consideration be given to existing initiatives through which customers with special needs receive support and the ways in which they can be enhanced.

Detailed response:

ScottishPower does not believe that a licence obligation is required for the provision of IHDs to customers with special needs requirements. We believe that the technology made available during smart metering roll out is proportionate to the associated benefits that it can deliver.

We believe that further consideration be given to existing initiatives and methods providing to those in the community who require additional/specialised help and the ways in which these services can be enhanced to support smart metering.

It would of course be helpful to have a simple means of sharing best practice information that would be of use in purchasing IHDs, to encourage for example reasonable contrast levels and character sizes in displayed information.

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

Response summary:

ScottishPower:

- has not to date observered any circumstances which would suggest that IHD portability is directly linked to customer behaviour.
- recognises that in some circumstances the ability to connect with fixed end points such as boiler control could be desirable.
- would recommend that further consideration be given to requirements for the portability of data and whether this can be best achieved through applications accessed via devices other than the IHD e.g. laptop or smart phone.

Detailed response:

In our own experience ScottishPower has not observed any circumstances which would suggest that the portability of an IHD has any significant effect on customer behaviour. It may however be feasible that in some instances the combination of usage controls and fixed end points such as boiler operation would be desirable.

We would recommend that further consideration is given to requirements for portability of data, how it can be delivered for minimal cost whilst maintaining secure access, and whether delivery can be best achieved by applications delivered via other devices than the IHD, for example, laptop or smart phone.

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

Response summary:

ScottishPower:

- is in general agreement with the minimum IHD functional requirements proposed.
- agrees with accurate account balance being displayed for pre-payment customers.
- would express some reservations with regard to the technicalities of displaying current balance information and supporting an increasing number of tariff schemas e.g. Time of Use, Block, Peak Day etc.
- would recommend further detailed analysis is undertaken within the central Programme to address the issues above, including a re-evaluation of the cost of provision of a minimum specification IHD against the current benefits case.
- does not believe the presentation of gross generation and/or export volume should be a requirement of the minimum specification for the IHD.

Detailed response:

ScottishPower is in general agreement with the proposed minimum functional requirements. However, we would hold a degree of reservation with regard to the requirement to display current balance information. Whilst we agree with accurate account balance information in real time for pre-payment customers, however with regard to accurate balance information on at least a monthly basis we believe there are technical challenges in associated with this process. Significant technology development would be required in Suppliers' systems to enable this functionality with a risk of impacting delivery of the overall smart metering programme. We believe that the role of the IHD is to encourage customers to reduce their energy consumption. Billing and account information would not align with the customer's actual bill which could lead to confusion. We would therefore recommend that this type of information is best served through other methods such as web services where, for example, the financial balance for customers on direct debit is not indicative of their consumption pattern.

We would also hold some reservation around the technicalities of catering appropriately for the variety of tariff schemas that will develop and evolve e.g. Time of Use, Block, Peak Day,

etc and do not believe the presentation of gross generation and/or export volume to be a requirement of the minimum specification for the IHD.

ScottishPower would recommend that further detailed analysis is undertaken within the central Programme to resolve the issues highlighted, including a re-evaluation of the cost of provision of a minimum specification IHD against the current benefits case.

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?

Response summary:

ScottishPower:

- believes there are no reasons why innovation would be hampered as a result of minimum information sets being displayed for both fuels.

Detailed response:

ScottishPower has identified no reasons why innovation would be hampered by having all displays capable of a minimum set of functional requirements. If anything, having a minimum standard for all displays encourages innovation beyond that level to facilitate a competitive edge to product delivery at an individual Supplier's expense and risk.

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

Summary response:

ScottishPower:

- believes that initial IHD provision should only be provided where the consumer has positively requested a device as part of their smart meter installation.
- would recommend further detailed analysis needs to be undertaken by the central Programme to determine the Supplier obligations in the event of industry processes such as Change of Supplier and Change of Tenancy and the way in which IHD provision and maintenance arrangements are calculated following initial smart meter installation.

- would recommend the central Programme provides further clarity with regard to the term ‘lead Supplier’ and the associated roles and obligations.
- would recommend the central Programme provides further clarity with regard to the role of the IHD for Pre-Payment services as a ‘primary’ device and the Supplier’s associated role and obligations.

Detailed response:

Whilst ScottishPower recognises the importance of customer engagement, we believe that IHDs are only provided where the customer has specifically requested a device during their pre-installation exchanges with their Supplier.

We would recommend that further detailed analysis is undertaken by the central Programme to address the following key points:

- the way in which customers opt to receive an IHD during roll out to ensure consistency across the industry;
- the timeframe and obligations on Suppliers to provide an IHD where a customer has initially chosen not to receive a device as part of the initial smart meter installation;
- the impact on both Supplier IHD provision and maintenance obligations following either Change of Supplier or Change of Tenancy events – with particular emphasis on the way in which IHD provision and maintenance periods are calculated following initial smart meter installation;
- the definition of a ‘lead Supplier’ and the associated obligations including the impacts of key industry events highlighted in the point above;
- the role of the IHD in the delivery of Pre-Payment services and the Supplier’s obligations associated with an IHD used as a ‘primary’ device.

CONSUMER PROTECTION

The following section contains ScottishPower's responses to questions contained within the Smart Metering Implementation Programme's Prospectus Supporting Document 94a/10 Consumer Protection, 27th July 2010.

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?

Response summary:

ScottishPower:

- supports the proposed retention of existing protections for consumers.
- would recommend that the initial complexity of services provided by the DCC is minimised to reflect a 'controlled market start-up' approach and protect consumers from confusion.
- would recommend that additional regulation is applied only where it is necessary.
- supports the Programme's intentions to establish an independent national smart metering brand to provide customers with the necessary tools and information to address areas of confusion.

Detailed response:

ScottishPower supports the proposed approach within the Prospectus whereby existing protections for customers are retained and remain under review with additional regulation only be applied where it is necessary.

We believe it is important that initial complexity of the services provided by the DCC is kept to a minimum to avoid customer confusion – this supports our recommended approach of 'controlled market start-up'. As consumers become more confident with the concept of smart metering and the overall infrastructure becomes more mature, then a more diverse range of tariffs and products/services can be introduced.

ScottishPower supports the existing regulatory framework, such as the Overarching Standards, which we believe provides a sound basis for protecting customers from potential confusion, whilst allowing Suppliers sufficient flexibility to develop their own marketing

communications. We believe that this, coupled with competitive incentives, will encourage the market to provide sufficient clarity to develop consumer confidence and engagement whilst continuing to develop new and dynamic product offerings.

To ensure clarity and coordination at an industry level, we support proposals for a national campaign led by an independent brand, as we believe this will engender greater consumer confidence and understanding of smart metering issues. Ultimately we believe the aim of such initiatives should be to provide customers with the necessary tools and information to resolve areas of concern such as tariff confusion.

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

Response summary:

ScottishPower:

- agree that sales approaches during an installation visit could create adverse consumer perceptions towards smart metering.
- believes clear definitions of what constitutes 'unwelcome sales activities' and what constitutes 'meter installation activities' are required from the central Programme;
- would expect 'unwelcome sales activities' to be contained within the Customer Code of Practice.
- would recommend that prohibiting sales activities during 'meter installation' does not extend to such activities during most pre and post installation customer engagements;
- would recommend that 'unwelcome sales activities' specifically includes scenarios where customers are asked to sign a contract with a supplier for either electricity or gas products but excludes energy efficiency / energy services activities.
- would recommend that meters installers can leave explanatory literature with supplier contact details to enable future product opportunities in addition to details of Green Deal initiatives.
- gives continued support to sales being undertaken through the appropriate elements of the EnergySure Code and existing supply licence.

Detailed response:

ScottishPower agrees that unwelcome sales approaches during installation visits could create customer concern and mis-trust towards the rollout and therefore support the proposal to prohibit such activity. As consumer sensitivity around doorstep sales continues to exist, it is important that customers are confident about the purpose of the smart metering installation visit and that they have comfort that they will not be subject to undue pressure of a sales approach from the meter installer.

It is important that all parties, particularly customers, can be clear on what constitutes 'unwelcome sales activities' and in this instance a definition of 'meter installation'. However, it is also important that suppliers retain the right to sell to customers both before and after the installation, including appropriate pre and post-installation communication with the customer. The definition of 'meter installation' therefore needs to be a narrow one, limited to the visits where smart metering equipment is being physically installed, in order to allow suppliers to make the most of any commercial opportunities arising from engaging with customers as part of their communications plans pre and post installation. Consideration should be given as to whether or not sales activities should be permitted during customer contact made for the purpose of arranging the time of the installation visit.

In contrast, we believe that a fairly broad definition of 'unwelcome sales activities' should be taken, specifically including any case where the customer is asked to sign a contract with the supplier for a gas or electricity supply product. We would expect the agreed definitions to form part of the Customer Code of Practice.

Recognising some of the key benefits of smart metering, there is a unique opportunity to engage with the customer on energy efficiency issues, we do not believe that 'unwelcome sales activities' should extend to the provision of energy efficiency advice or information including the Government's Green Deal initiatives. Installers can and should be able to provide energy efficiency advice or information at the point of install, assuming that they are trained to a suitable standard. But, recognising Ofgem's viewpoints, this should exclude the provision of energy efficiency products or energy services offerings. Whilst meter installers are on site we believe that they should be able to leave explanatory literature that may reference product opportunities for the customer, as well as being able to refer customers back to the supplier for sales follow up opportunities (such as a sales call back or future visit). We think that this should be reflected in the Code of Practice.

In any case, the sale should be carried out in accordance with the EnergySure Code (where appropriate) and comply with the relevant requirements of the supply Licence, including ensuring that appropriate agents are conducting the sale and that the customer is provided with all relevant information.

Question 3: What do you consider as acceptable and unacceptable uses of the installation visit and why?

Response summary:

ScottishPower:

- recognise customer confusion must be avoided to ensure sustained confidence in smart meter rollout.
- believes engagement with the customer at the point of smart meter installation offers a valuable opportunity to discuss the wider benefits of smart metering e.g. property efficiency, carbon savings.
- considers acceptable smart metering installation activities to include energy efficiency information and energy services, promotion of the Priority Service Register, consent for future smart metering engagement and demonstration of smart metering system components.
- considers unacceptable smart metering installation activities to include direct sales approaches including signing of contracts with suppliers or product offerings from communications providers.

Detailed response:

We believe that it is essential to avoid customer confusion and ensure sustained support for the roll out of smart metering across Great Britain. Engagement with the customer at the point of the installation visit provides a valuable opportunity to assess the efficiency of the property, demonstrate components of the smart metering system and highlight the potential for carbon savings. We would consider the following activities to be examples of acceptable uses of the installation visit:

- Provision of energy efficiency information or advice including Green Deal audit or referrals;
- Promotion of energy services offerings;
- Promotion of Priority Services Register or other support services for vulnerable customers;

- Obtaining customer consent for referrals for marketing purposes, including giving the customer literature that may highlight tariff or product offerings; and
- Training for the customer in using the smart metering system components including smart meter and IHD.

Unacceptable uses of the sales visit would include direct sales approaches, signing customer to contract for energy tariff and sales of communications offers or products associated with mobile technology service providers.

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

Response summary:

ScottishPower:

- believes the IHD presents an additional opportunity to communicate with customers.
- recognises that inappropriate use of any communication channel will result in a reduction in on-going engagement.
- would recommend that the central Programme provide further definition of what is deemed 'unwelcome' activities.
- would recommend a clear distinction is made between marketing messages and regulatory messages i.e. those communicating current tariff and those informing price changes.
- would recommend careful consideration is given to how customers would acknowledge receipt of messages as part of the ongoing consideration of technical specification and associated manufacturing cost of IHD devices.
- would recommend consideration is given to the practicalities of the competing demands of two Suppliers at a single property.

Detailed response:

It is important that if the IHD is to be of any value to customers they must be able to trust and engage with it. We understand the concern that unwelcome marketing messages could become 'spam', creating negative connotations for customers and dissuading them from engaging with the IHD to the same extent.

However, the IHD is a new technology which if used correctly, could enhance existing communication methods with customers and presents the opportunity to promote further cost efficiencies which will further add to the benefits of smart metering. Care must therefore be taken in not restricting the use of the IHD to the extent that consumers cannot realise these benefits.

While we support the proposal to exclude 'unwelcome marketing messages' from the legitimate uses of the IHD, it is important that there is sufficient clarity over what is 'unwelcome'.

It may be helpful to allow consumer choice over the use of the IHD – for example, giving the customer the opportunity to opt in / opt out of marketing messages. Where a customer accepts use of the IHD for receipt of messages, Suppliers should be able to utilise it.

It is also important that marketing messages – specifically the promotion of additional products and services to customers - is distinguished from regulatory messages or messages regarding customer's current tariff, such as a price change communication. It is important that suppliers are able to use the IHD for such purposes since this will bear a relation to the other information that the customer will receive through the IHD in relation to their usage.

Careful consideration should also be given as to how Suppliers can confirm that the customer has received a message; and how in practice the competing demands of two Suppliers at a single property, are managed.

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?

Response summary:

ScottishPower:

- supports the need for customers to receive clear messages whilst balancing access with security and privacy.
- believes that additional measures beyond those within the current Data Protection Act could limit the levels of data processed by Suppliers resulting in a direct impact on the benefits to customers.

- would recommend further detailed analysis is required to determine how consumers access their data securely – e.g. whether the data is held at the IHD; the meter; via secure web services and whether access is facilitated by the DCC.
- believes Suppliers have an appropriate range of options for processing consumption data to enable the full realisation of smart metering programme benefits – including effective and appropriate consumer products and efficient industry operation.

Detailed response:

Data privacy and security are key components of the central Programme delivery, enabling customer confidence in both smart metering roll out and the ability to access their own data.

A robust and appropriate data protection framework already exists in the UK, to which Suppliers currently conform. This is applicable not only to the consumption data that Suppliers manage, but also reflective of the volumes of sensitive personal information that it is necessary for Suppliers to hold whilst managing customer accounts - including name, date of birth and bank details. We believe that this existing legislation remains robust, appropriate and particularly relevant for smart metering.

ScottishPower does not believe that there should be restrictions on customers accessing their own data, in whatever format meets the customer's expectations, but the way in which data is accessed securely requires further consideration – e.g. whether data is made available at the IHD; the meter or via the secure web services and whether access is facilitated by the DCC. However, in line with data protection principles, once a Supplier obtains and processes the data, it becomes data controlled by the Supplier and therefore subject to the rights and restrictions of the Data Protection Act. This remains relevant, providing the right balance between flexibility for the business and protection for the customer.

ScottishPower would recommend that being too restrictive about Supplier access to consumption data, to an extent where it is only for the purposes of fulfilling 'regulated' functions goes beyond the Data Protection Act. We continue to retain reservations that this approach would be too restrictive and burdensome to manage, with a direct impact on customers.

Suppliers will continue to have a wide range of requirements for processing consumption data, not just for 'regulated purposes' (which still requires further definition) but also necessary for improving the efficiency and operation of their individual businesses. For

example, improved consumption data will help facilitate more accurate, efficient settlements processes, which would provide cost savings for customers. Businesses may also need to utilise increased consumption data to bring efficiencies in the supply chain, which would bring real benefits to customers but which Suppliers may not otherwise have a direct 'regulated purpose' for holding or using that level of information. Again, the Data Protection Act would allow Suppliers to use this data in an appropriate way while still ensuring that the integrity of the data is not compromised and customers remain protected.

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?

Response summary:

ScottishPower:

- views Prepayment as an active choice for a growing consumer base rather than an option of last resort.
- believes existing regulation provides sufficient controls for Suppliers to act appropriately when managing pre-payment arrangements.
- would recommend that current legislation will remain fit for purpose following the introduction of smart metering, whilst recognising that changes to Supplier business processes will be required.
- recognises that pre-payment / Pay As You Go is not suitable for all customers and will continue to apply the same considerations as with current non-smart meters.
- would recommend that further detailed analysis of the prepayment process including customer types and remote disconnection and reconnection before this customer segment is targeted for smart meter roll out.

Detailed response:

Prepayment is no longer a payment method of last resort but an active choice for a growing customer group who value 'Pay As You Go' (PAYG) technology. This will be further facilitated by the introduction of Smart Metering. It is ultimately our vision that the ability to remotely switch a customer to a PAYG technology will eventually remove the need for almost all full disconnections.

The Supply Licence builds upon the basic right in the Gas and Electricity Acts to use a prepayment meter (PPM) to recover a debt that has been outstanding, and balances that right with suitable protections for customers. We believe that the existing regulation provides sufficient controls on suppliers to act appropriately when using a PPM while still allowing suppliers to exercise their basic right to use a PPM to collect the debt.

The only real change is the physical method in which the technology is changed, meaning that suppliers no longer need a physical visit to change the meter, however all other considerations remain the same. We believe that the current provison in the Licence only requiring a PPM to be offered where it is safe and practicable does not entail an attempt to regulate the safety and practicality of PPM installations. Instead, it relieves the supplier from the obligation to offer the PPM if there is a safety or practicality problem. It will of course be for the HSE and not Ofgem to regulate the safety aspects.

We do not believe that this will change, moving in to a smart metering environment. It is not in the interest of either the supplier or the customer for a switch to be made to PAYG where the customer is unable to use that functionality and we believe that suppliers will continue to apply the same considerations to such a change as they do with current non-smart meters.

This issue needs a careful balance. There is a real risk that too many restrictions on suppliers in this area will inhibit customers from realising some of the benefits of remote switching to PAYG. Suppliers should therefore be free to manage all aspects of marketing and communication to customers who will be moving to PAYG, as determined appropriate for the strategic direction of their business

In terms of the roll out of smart meters however, we feel that there are additional complexities relating to PPM customers that need further detailed consideration before these customers are targeted with smart meters. For example, the types of customers potentially involved, and practical considerations around the role of the IHD, payment network and the way in which remote disconnection or reconnection is undertaken.

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

Response summary:

ScottishPower:

- recognises the benefits associated with IHD becoming a component of the Pay As You Go infrastructure.
- believes further consideration be given to the way in which IHD functionality could feasibly support Pay As You Go before mandating specific requirements.
- believes that further clarity is required with regard to Supplier obligations – specifically the obligations of a 'lead Supplier' and the provision and maintenance of a 'primary' smart metering system device.
- believes that Pay As You Go product offerings can be through innovation and individual suppliers competitive offerings.

Detailed response:

We believe that the IHD offers the potential for real benefits to Pay As You Go customers in the future, particularly as product offerings and technologies develop. For example, it may be that the IHD could be utilised as a payment device, or facilitate greater communication with the Supplier.

However, these developments would mean repercussions on the requirements for the future PAYG network and would also critically depend on the final functionality agreed for the IHD. We therefore believe that mandating requirements on Suppliers should not be undertaken until the minimum IHD functionality has been agreed together with the obligations of a 'lead Supplier' and the provision of a 'primary' smart metering system device. .

We believe that the central Programme should recognise that where pre-payment features are not mandated, the opportunity still remains for commercial opportunities through innovative offerings on an individual Supplier basis.

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

Response summary:

ScottishPower:

- believes that the current notice period of seven working days, as specified in the Electricity and Gas Acts, will continue to be a valid obligation.
- would recommend that any further notification requirements are considered carefully in order that the benefits of Pay As You Go do not become too restrictive whilst offering sufficient customer protection.

Detailed response:

The Electricity and Gas Acts currently require the supplier to provide the occupier of the property, or owner, seven working days written notice prior to installing a PPM to recover a debt. We believe that this gives the customer fair notice of any intended change and that this obligation therefore remains relevant.

Care needs to be taken in layering further notification requirements beyond the existing considerations in the Acts, so as not to restrict the ability for customers to access Pay As You Go (PAYG) products as quickly as possible where they ask or agree to move on to the different technology. For example, where the customer and supplier agree to a move to PAYG as part of new product or debt recovery agreement, the communication should not be regulated. We think that the existing regulation provides the best approach to give customers adequate notice, in line with suppliers' wider process for identifying customers in need of support throughout the debt follow up process.

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?

Response summary:

ScottishPower:

- would highlight that relatively standard emergency credit and 'friendly credit' periods are already offered by Suppliers to their key customers.
- is willing to work with other market participants to define an industry defined set of minimum standards.
- does not believe that regulation in this area is required given the current adopted working arrangements across the industry.

Detailed response:

All Suppliers currently offer both emergency credit and ' friendly credit' periods to key meter customers, which aim to reduce the impact of self-disconnection on customers. While this may vary by Supplier, it is mostly standardised. ScottishPower would however welcome the opportunity to work with other market participants to define a formally recognised set of industry standards.

On this basis, ScottishPower does not believe that regulation is required in this area, as suppliers are already providing this service on a commercial basis to similar customers and there is no evidence that this would not be the same in a smart metering environment.

Throughout the Programme, to ensure that the implementation is a success and so as not to reduce the overall benefits of smart metering, it will be important to utilise additional regulation only where it is necessary and where smart metering presents new challenges for the industry in its day to day operation.

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

Response summary:

ScottishPower:

- does not believe a PPMIP-type obligation is required.
- continues to support the need for cost effective and reliable pre-payment services.
- identifies that historical issues associated with providing pre-payment services have declined with competitive service offerings now available.
- would recommend the standardisation of some process elements to ensure innovation does not lead to interoperability issues.

Detailed response:

ScottishPower does not believe that a PPMIP-type obligation is required for Smart Metering.

For Smart metering technologies, as with Key, we believe that Suppliers can more readily provide or separately source a PPMIP offering as opposed to relying on an obligation to provide a traditional PPMIP service.

The provision of a cost effective and reliable PPMIP service is essential for suppliers that compete across Great Britain for PPM customers. However, the historical issues associated with providing PPMIP services, including the geographical spread of services and older technology have declined, and with key metering we have seen the development of competitive PPMIPs.

ScottishPower would recommend the standardisation of some process elements to ensure innovation does not lead to interoperability issues.

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?

Response summary:

ScottishPower:

- continues to fully support the obligation on Suppliers to manage disconnections in a responsible manner.
- would reiterate that disconnection is regarded as a debt management process of last resort.
- believes that following the roll out of smart metering there will a reduced need to disconnect customers given the opportunities for more proactive customer engagement and monitoring.
- believes smart metering PAYG services will offer the potential to introduce more tailored and innovative products which meet individual customer needs.
- proposes that the recently enhanced ERA Safety Net offers sufficient protections for vulnerable customers.
- believes the licence amendment currently under consultation by Ofgem will reinforce existing protections for vulnerable customers and will remain relevant for smart metering.
- would recommend that specifying additional requirements such as site visits in all cases prior to disconnection would not be necessary and could cause difficulty for example if there was no access.

Detailed response:

ScottishPower fully supports the obligation that Suppliers have a duty to exercise the right to disconnect customers in a responsible manner. We believe that Ofgem's recent reviews of current approaches to disconnection and vulnerable customers have demonstrated that Suppliers undertake this duty seriously with current processes and practices designed to ensure that disconnection for debt only takes place as a last resort. Where it is known that a customer at a premise may be vulnerable, disconnection is avoided.

We agree that the protection of vulnerable customers should be a key consideration of the Programme, whilst recognising that disconnection is ultimately an action of last resort to enable Suppliers to manage the build up of energy debt, which has wider impacts on all

customers. ScottishPower anticipate a reduced need to disconnect customers through the development of smart Pay As You Go services delivering innovative and desirable payment methods, with options to suit a customer's particular circumstances. However, protections around disconnection will remain and we agree the importance of ensuring that the most appropriate level of protection is in place for customers.

The ERA Safety Net has recently been enhanced, with additional protections for vulnerable customers and more controls in place to support these. We also believe that the licence amendment on which Ofgem is currently consulting will reinforce the existing protections in place for vulnerable customers. We believe that the proposed change is sufficient to protect vulnerable customers from disconnection and that this obligation remains fully relevant as we move into a smart world.

The proposed licence change provides a suitable balance between protection of customers and allowing suppliers to realise the benefits of smart metering. For example, a supplier may be able to positively identify the status of a customer prior to disconnection without the need for a visit. Mandating additional requirements, such as a visit prior to disconnection in every case, may not be necessary and cause difficulty if htere is no access. The proposed change to take all reasonable steps allows a more flexible case-by-case approach which we feel is appropriate and sufficiently robust.

Question 12: What notification should suppliers be required to provide before disconnecting a customer?

Response summary:

ScottishPower:

- believes that the current requirement specified in the Electricity and Gas Acts where customers are notified at least seven working days in advance of disconnection for debt remains appropriate.
- recognises that customers require appropriate information on the disconnection and subsequent reconnection process, and the possible interactions with their Supplier and smart metering system to reinstate supply.
- believes that the way in which communication of disconnection / reconnection is undertaken should be a responsibility of the individual Supplier.

- recognises that the IHD may offer a way by which the disconnection / reconnection process can be supported in conjunction with other communication methods but such considerations should be part of the on-going definition of a minimum set of functional requirements for IHDs.
- believes load limiting and trickle disconnection may be appropriate for future housing developments but would recommend further detailed assessment is required.

Detailed response:

Ultimately it will be our aim to avoid disconnection by way of dynamic switching to Pay As You Go and an appropriate supporting product. However, we recognise that there will always be some cases where this may not be possible. ScottishPower therefore believe that the existing requirement from the Electricity and Gas Acts, to notify a customer seven working days in advance of disconnection for debt, remains relevant.

ScottishPower recognise that reconnection may require some engagement between the supplier and the customer and may in fact require the customer to engage directly with the metering system. Suppliers should therefore be required to provide the customer with advice that they have been disconnected and information on how they can arrange for a reconnection. However, the way in which this is communicated should be left to the individual supplier, based on their own relationship with their customer, provided that information is provided in a timely and appropriate manner.

We believe that the IHD has the potential to provide good opportunities to connect with the customer more directly in some circumstances, by providing the customer with a real time contact, possibly via a flashing light or warning message. However, we recognise that care needs to be taken in the use of the IHD, to ensure that the customer receives and reacts to the message. Such considerations should be part of the on-going definition of a minimum set of IHD functional requirements and the associated commercial considerations.

ScottishPower believes that schemes such as load limiting and trickle disconnection may be appropriate for future housing developments where a consumer unit could feed into the meter so that specific circuits could operate whilst others would not. However, we would recommend that any such options require careful assessment due to the associated level of complexity.

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?

Response summary:

ScottishPower:

- would welcome further consideration of ways in which partial disconnection could be introduced.
- believes load limiting and trickle disconnection may be appropriate for future housing developments but requires careful assessment given the associated complexity.
- recognises the opportunities to manage Change of Tenancy and vacant properties more effectively.
- believes that blanket restrictions on partial disconnection would be inappropriate, particularly when considering vulnerable customers who may only require some energy supply.

Detailed response:

ScottishPower would consider new approaches to partial disconnection, as we believe that they present innovative opportunities for Suppliers to recover energy debts without requiring full disconnection. We believe that schemes such as load limiting and trickle disconnection may be appropriate for future housing developments where a consumer unit could feed into the meter so that specific circuits could operate whilst others would not. However, such options would require careful assessment given the level of complexity.

Our vision is that as consumers start to engage more with their energy supply, Pay As You Go options will become a more dynamic and a sustainable alternative to flat disconnection. Restricted disconnection being a potential option for customers where their needs do not match PAYG services or who want energy for limited purposes (e.g. holiday homes or premises that are not used on a full time basis). Such options also provide greater scope for managing supplies on Change of Tenancy or for vacant sites, where customers may currently be reluctant to contact their Supplier to agree a contract. This will provide greater incentives for new tenants to engage with their suppliers, allowing for more accurate billing and allowing suppliers to better manage the wider costs to their customers.

We agree that Ofgem will need to consider the impacts of such measures on customers and we look forward to further consideration of such options over time. However, we would caution against applying a blanket restriction on such approaches as they could offer more flexibility to customers who are potentially 'vulnerable' and require some energy supply but do not need a constant supply.

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

Response summary:

ScottishPower:

- believes that the correct balance is being achieved between providing suitable protection for customers, whilst enabling the realisation of projected smart metering benefits.
- would support an on-going review facilitated by the central Programme as smart metering is rolled out and operated across Great Britain.
- would propose that regulation is applied in an evidence based approach.
- would recommend that examples of the PAYG mobile phone services are considered and the flexibility which these arrangements offer to mobile phone customers.

Detailed response:

Generally we believe that the central Programme approach provides the correct balance between providing suitable protection for customers whilst allowing the benefits associated with smart metering to be realised.

ScottishPower would recommend that the existing regulatory framework in this area is proportionate, realistic and fit for purpose. We agree that it is suitable to undertake an on-going review therefore avoiding the risk of regulatory measures where there is no clear evidence that they are required.

We would strongly recommend that Ofgem ensures a suitably flexible framework is retained to allow successful remote switching to PAYG, in particular, to ensure that consumers can quickly realise the benefits of this technology. This product offers the potential to become as desirable as Pay As You Go Mobile phones and we believe that that the current regulatory

framework allows for this growth whilst still providing customers with a suitable level of protection.

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.

Response summary:

ScottishPower:

- would recommend further consideration is given to the end to end remote reconnection process.
- recognises a level of Supplier and DCC process change to take into account customer responsibilities when reinstating their supply, and the associated commercial considerations to achieve reconnection in a 'timely' manner.
- would recommend that the central Programme details the inter-relationships between the current regulatory framework and initiatives such as the Green Deal and the ways in which this initiative will operate in practice.

Detailed response:

ScottishPower would recommend that greater consideration is given to the remote reconnection end to end process and how it will work in practice. In particular, we do not believe there is currently sufficient clarity with regard to what responsibilities the customer would have in order to restore the supply. The commercial practicalities of reconnection also have to be considered, specifically how suppliers could manage reconnection in a timely manner.

Consideration should be given to the inter-relationship of the regulatory framework around disconnection and other industry initiatives, such as the Green Deal. Clarification is needed as to how payments through such a scheme would be segmented and particularly whether the Green Deal payments, or any other energy services payments, could be considered energy debt.

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?

Response summary:

ScottishPower:

- supports the principles of a neutrally branded smart metering awareness campaign;
- recognises that it is essential to establish consumer trust through consistent approach, education and the transparency of the supporting information which is provided.
- believes that suppliers working in partnership with local trusted third parties will be able to identify and support vulnerable customers.
- would recommend that roll out co-ordination at a local level takes into account the work already being undertaken by Suppliers with the Department of Work and Pensions in relation to identifying and supporting vulnerable customers in the community.
- believes there is a potential risk where customers are potentially qualified as being 'vulnerable' against central Programme measures during smart metering roll out may be different to those qualifying under normal operational circumstances.
- believes it is more appropriate for Suppliers to assess customer needs at a local level during roll out.
- would recommend that existing schemes such as the Home Heat Helpline could be used to support customers requiring a particular level of assistance.

Detailed response:

ScottishPower supports the approach to launch a national awareness campaign to promote consumer engagement and awareness of smart metering. Given the anticipated impact that smart metering will have on the energy behaviour of consumers, it will be essential to establish one trusted brand to objectively and consistently educate and inform the public of the huge change affecting both the industry and the consumer. We would expect the scope of the campaign to launch a generic brand to drive awareness of smart metering, educate and inform and keep the consumer informed of programme timings. We would envisage a heavy weight national Above the Line campaign to launch the smart metering discussion and

a sustained advertising presence to support the national rollout plan to keep the topic front of mind.

Beyond this, we recognise that there may be a need to provide additional support, advice or assistance for vulnerable customers and welcome the points considered in the Prospectus in relation to this. It is important however that this is targeted in an appropriate way.

Local trusted third parties will have the best insight in to vulnerable customers within their community and, beneath the national, independent awareness campaign; Suppliers should be able to work within the community in a co-ordinated manner to best tackle the issues experienced by vulnerable customers. It is also important that activity to help more vulnerable customers compliments the work that suppliers are carrying out with the Department of Work and Pensions to identify and support a target group of customers in relation to the mandated social spend.

Customers who qualify as being 'vulnerable' against central Programme criteria may be different to those identified and supported under normal operational conditions. For example, some customers may require help understanding the metering system, whereas others may need communications in a particular language. There is a risk that applying a definition for customers who are 'vulnerable' in relation to the central Programme may lead to some customers being left without appropriate support; too broad a definition across a wider customer base may potentially lead to only providing some customers with a superficial level of support. It is therefore important that some level of freedom is given to Suppliers to determine how best to support the customers who they identify on a local basis require support.

It may also be worth considering existing supplier schemes, such as the Home Heat Helpline, and whether they could be used to help identify and provide a contact route for any customer needing a particular level of assistance.

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

Response summary:

ScottishPower:

- accepts the proposal to prevent upfront charging for minimum specification smart meters and IHDs.
- would request further clarification with regard to vulnerable customers and the fuel poor within existing Government schemes.
- would regard regulation of upfront charging to be an unnecessary intervention in the operation of the market.

Detailed response:

We accept the proposals to prevent upfront charging for basic models of smart meters and IHDs and agree that this approach offers the best solutions for customers while facilitating the aims of the rollout. We also welcome the flexibility that this gives suppliers who choose to offer more advanced meter or IHD technologies for customers.

This option provides the greatest level of inclusion for all customer groups, although we would be interested in more detail around the wider review of inclusion of vulnerable customers or the fuel poor in Government schemes.

We do not think that this approach requires specific regulation, as this we would believe is this to be unnecessary intervention in the operation of the market.

DATA PRIVACY & SECURITY

The following section contains ScottishPower's responses to questions contained within the Smart Metering Implementation Programme's Prospectus Supporting Document 94e/10 Data Privacy and Security, 27th July 2010.

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

Response summary:

ScottishPower:

- would recommend that the safeguards set out in the Data Protection Act are fully factored into the design of Great Britain's smart metering solution from the outset to ensure that use of customer data is fair, secure and in accord with their rights.
- supports the principle of customer data ownership, though this should not prevent the supplier and network operator having full access to the data for appropriate purposes.
- believes further work is required to determine the most appropriate and secure method of data storage i.e. within the IHD, at the meter or by the DCC.
- would recommend that further clarity is required with regard to how data will be defined as being is available for 'regulatory purposes' and the format in which it would be presented.
- supports the view that data security and customer privacy are key considerations for the central Programme.
- would wish to restate the variety of personal information and consumption data already processed by Suppliers and the compliance with the existing data protection framework - EC Directive 95/46 and the Data Protection Act 1998.
- believes it is crucial to take account of lessons learned from other smart metering programmes around the world and the way in which data privacy issues have been addressed.

Detailed response:

ScottishPower supports the principle that customers own their data but recognises that facilitating secure private access will be a challenge, including the way in which customer consent is managed where such consent is necessary. We would recommend that further detailed analysis is undertaken to determine both the way in which data is accessed and the most appropriate and secure arrangements for data storage e.g. within the IHD; at the meter or by the DCC. It must also be determined by the central Programme, what data is available for 'regulatory purposes' and the format in which it is presented. It is important that Suppliers and network operators are not restricted in using data for legitimate purposes.

Data security and customer privacy are vital elements of the central Programme. We agree that it is crucial to take account of the lessons learned from other smart metering programmes around the world. ScottishPower also recognises the implications on customer privacy and security and the risks presented by the volume of consumption data that will be produced by smart meters.

It cannot be overstated that although the consumption data currently processed by Suppliers is extremely limited in comparison to what will be potentially processed as a result of smart metering, Suppliers already process a variety of personal information of varying degrees of sensitivity including, for example, bank account details and dates of birth as well as account information detailing invoicing and payment. In addition, Suppliers currently manage sometimes complex arrangements for processing personal data with multiple third parties.

All these arrangements are subject to the rules of the existing data protection framework as set out in the EC Directive 95/46 and the Data Protection Act 1998. This framework will be reviewed at a European level in 2011 and the UK government will be engaged in the process. Our view is that while modifications to the existing framework can usefully be made, the Data Protection Act provides the right balance between protecting the security and rights of consumers and enabling business to process personal data for legitimate and necessary purposes.

It is ScottishPower's view that this same balance applies to the delivery of smart metering. It is important that the safeguards set out in the Data Protection Act are fully factored into the design of Great Britain's smart metering solution from the outset to ensure the privacy and security of consumer data, to ensure it is used only for legitimate purposes that are not

prejudicial to the consumer's interests and that consumers are able to access information about themselves. This enables them not only to maintain awareness of what information is being processed about them and why, it will give them the ability to manage their energy consumption and take decisions that are economically favourable to them.

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.

Response summary:

ScottishPower:

- believes high-frequency readings serve the consumer interest enabling accurate energy usage forecasting and in support of customer energy consumption advice and appropriate smart products and tariffs.
- recognises the collection of high-frequency data may be regarded as personal data and therefore be subject to data privacy concerns.
- believes Network Operators will require data access at a regular frequency, particularly where meters generate alarms for abnormal conditions and for smart network management of potential over voltages / over loadings.
- recognises the processing of data will be required to comply with Data Protection Act legislation for uses where it is not defined as within the "regulatory purposes".
- supports the principle that personal data is only processed for a specific and legitimate purpose and that this processing is not excessive.
- would recommend the aggregation of data for reporting purposes by the DCC at GSP and geographical levels would be beneficial to monitor the effects and associated benefits of smart metering.

Detailed response:

We believe high-frequency readings serve the consumer interest by enabling accurate energy usage forecasting to help customers manage bills and also help Suppliers to better assess tariffs that best suit the needs of customers enabling detailed comparisons between energy products. ScottishPower also believe the ability to compare energy products at this level of detail will further enable significant competition between the energy Suppliers. We do however recognise the collection of reads at a high-frequency may constitute personal data and hence could raise privacy concerns.

From a Supplier's perspective, the question of access and ownership of the consumption data is crucial. Currently, when a Supplier holds consumption data about a customer, the Supplier is the Data Controller where the consumption data are personal data. As set out in the Data Protection Act, the Data Controller determines the manner in which and the purposes for which the data are processed. It is important to note that this does not give the Data Controller discretion to process the data in any way it pleases. The ways the data are processed by the Data Controller are subject to compliance with all the Data Protection Act principles.

One of those conditions under the Data Protection Act is consent. However, consent can be difficult to gather and can be withdrawn at any time. Therefore, where processing is necessary and legitimate for the transaction in question, it is often better to rely on the condition that requires the processing to be necessary in the legitimate interests of the Data Controller and is not unwarranted by reason of prejudicing the rights and freedoms of the data subject, the customer.

The use of personal data by the Data Processor should be adequate, relevant and not excessive. Therefore, Suppliers should only process the personal data they need for a particular purpose. It is not ScottishPower's intention in this response to list all the purposes for which Suppliers would legitimately access smart metering consumption data. However, Suppliers will have a wide range of purposes for legitimate processing of consumption data.

In terms of the access frequency from a Supplier perspective, ScottishPower would initially expect a minimum of one set of readings per month which would be sufficient to enable accurate billing. This would also currently enable compliance from a settlements perspective where existing industry codes stipulate that remotely recovered reads must be entered into settlements in specified timeframes for profile class 1-4 and 5-8. In addition to the scheduled service to retrieve data, it is ScottishPower's belief the DCC should also support on-demand requests of data which would retrieve point-in-time readings.

However none of this needs to be, or should be, regulated by licence, since the matter is already covered by the Data Protection Act. If a supplier has a proper need for more frequent data, the Data Protection Act allows for it to be processed accordingly.

From a Network Operator's perspective, data access will be required at a regular frequency, particularly where meters generate alarms for abnormal conditions and for smart network management of potential over voltages / over loadings.

The data aggregation element of this question could be interpreted in two ways; either aggregated by time or aggregated by supply point. Data aggregation by time would sum smaller time periods of consumption into larger time periods, for example to support Time of Use billing. Supply point aggregation is where consumption across multiple supply points is combined, for example to analyse consumption for a designated set of customers.

For reporting purposes we believe that the aggregation of data at GSP and geographic levels performed by the DCC would be beneficial at an industry level to monitor the overall effects and benefits associated with smart metering.

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

Response summary:

ScottishPower:

- recommends that development of a Privacy Charter is not necessary given current the obligations under the Data Protection Act 1998.
- would expect that the Installation Code of Practice will reference appropriate regulations and obligations with regard to data privacy.

Detailed response:

ScottishPower would recommend that development of a Privacy Charter is not necessary given current the obligations under the Data Protection Act 1998 which we believe offer sufficient transparency and protection in relation to protection of privacy.

We would also expect that the Installation Code of Practice will reference appropriate regulations and obligations with regard to data privacy and would welcome involvement from the Information Commissioners Office in developing the Installation Code of Practice.

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

Please refer to our response to Question 3, above.

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

Response summary:

ScottishPower:

- regards data security as the key element of data privacy within the context of smart metering.
- supports the central Programme principle of 'security by design' to ensure appropriate measures are embedded in the end to end smart metering system and supporting infrastructure.
- welcomes the opportunity of full engagement with appropriate security expertise and the necessary undertaking of associated risk assessments.
- would recommend further consideration be given to the status of the DCC in data protection terms e.g. as a data controller, as a data processor.

Detailed response:

ScottishPower regards data security as the key element of the data privacy element of smart metering. Based on the concerns about data security which have caused considerable problems for smart metering programmes in other countries, it is clearly vital that security is central to the design of the end-to-end smart metering system from the outset.

It is also essential to protect the Programme from fraud.

ScottishPower welcomes full engagement with those with appropriate security expertise as well as the conduct of a thorough risk assessment. This approach will enable appropriate and proportionate measures to be taken, ensuring that the split of responsibilities across the different points of risk are clarified.

In particular, ScottishPower would recommend that further consideration is given to the status of the DCC in data protection terms. For example:

- where consumption data for an individual Supplier's customer is being processed by the DCC;
- whether the DCC would be a data processor on behalf of a Supplier; or
- whether the DCC will be a data controller, performing its own defined functions.