

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

The key elements of the Smart Metering Regulatory Regime have been reflected within the consultation document and we are broadly supportive of the approach being taken. We are not supportive of the governance structure proposed for the Smart Energy Code and have set out our concerns in answer to Question 2 below.

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

British Gas fully supports the introduction of a Smart Energy Code. Smart metering deployment affects both fuels, and the present industry governance arrangements do not provide dual fuel governance. In addition there are advantages of having focused governance for smart metering, such as reducing duplication, improving transparency and providing for appropriate levels of influence over these new governance arrangements. We do not agree that modification to the MRA, SPAA, the UNC, the iGT UNC and the BSC would have provided a faster route. Although mobilisation of the Smart Energy Code will take time, this will be far easier to achieve than multiple and inter-dependent modifications to existing Codes.

However, we do not support the governance structures that are proposed which leave the DCC able to exert disproportionately influence the services that it needs to provide and risk delivering poor outcomes for Energy Suppliers and consumers. Essentially, the proposals allow the DCC to adopt a role of game-keeper and poacher and this is not appropriate.

We acknowledge that fairer, more appropriate governance structures will take more effort and time to establish, but do not believe that this is a critical path activity. Moreover, once governance structures are established they are very

difficult to amend and for this reason they must be fit for purpose from day one.

The establishment of a dual fuel code creates an opportunity to fully harmonise common processes in the electricity and gas sector. The code will provide the framework for improved data quality, enhanced processes and should reduce the overall regulatory burden associated with industry governance.

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

Where we have not provided commentary we are supportive of the indicative contents.

A section should be added which sets out how the Intellectual Property Rights associated with the business requirements and functional specifications should be vested with the DCC Licence Holder. A standard clause can be inserted which would then need to be replicated within the contracts between the DCC Licence Holder and its service providers.

Section 8 of the Smart Energy Code – there will also need to be an assessment of any changes required to the UNC and the IGT UNC.

Section 23 – we agree that there will need to be processes in place to manage interfaces with other industry agreements. This could be managed by the Code Administrator subject to agreement from the Code Panel. Over time elements of other Industry Codes could be migrated in to the Smart Energy Code.

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

We are supportive of the principles of the Code Governance Review and agree that where practicable they should be embodied within the Smart Energy Code. We do however recommend that further work is carried out to develop the governance framework. For example, the DCC should not be able to vote on changes to the Smart Energy Code. The DCC as a procurement and contract management entity should be protected from perverse incentives to maximise the number of services required by service users. To facilitate this, there should be a services agreement set up between the parties to the Smart Energy Code and the DCC. This agreement would set out the requirement on the DCC to ensure it has contracts in place with service providers to deliver the requirements set out within the Smart Energy Code.

The Smart Energy Code Panel should manage the relationship between users of DCC services and the DCC. All users of DCC Services should contribute on an equitable basis to the costs of administering the Smart Energy Code.

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

Whilst generally supportive of Energy Suppliers taking responsibility for customer premises equipment, we fully support the separation of the communications module from the meter. This removes interdependencies between fuels during the installation process and reduces the risk of meter asset stranding as communications technologies evolve. However, we believe that the proposals for ownership of the WAN communications module are unworkable.

Our preference would be that the DCC maintains ownership of the WAN communications module. We support the DCC having accountability for the end-to-end WAN connectivity and, therefore, the responsibility for owning the

WAN communications module. Suppliers should be responsible for the installation and maintenance of the communications module. We recognise that processes will need to be developed to set out how Suppliers should manage the maintenance of shared infrastructure.

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.

We do not believe that any additional data items are required.

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 first to install responsibilities for the common equipment is transferred to the Electricity Supplier when the electricity smart meter is installed?

Whilst fully supportive of a separate WAN communications module we do not support the proposal for an energy supplier to retain responsibility for it, especially beyond a change of supplier event. We have set our reasons for this in further detail together with some suggested alternatives, in answer to Question 5.

Amending the proposals as suggested in Question 7 does not resolve the fundamental problems of a fragmented supply chain and avoidable inter-dependence between competitors. As a minimum the Supplier responsible for maintaining the WAN module must have at least one energy product with the end consumer (gas or electricity). Otherwise they have (at best) no interest in ensuring service delivery or (at worst) an interest in frustrating it.

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

We do not believe that there are additional measures required but are keen to ensure that the contribution that early movers will make to the delivery of the IA and the Programme is fully recognised.

Not only will early movers make a contribution to the IA but they provide momentum to the overall Programme. The competitive nature of the energy market will naturally put commercial pressure on others to respond. In addition, early movers can provide valuable learning and insight that can save the Programme time and reduce risk.

The competitive nature of the UK Energy Market, coupled with the importance of brand and reputation, provide strong incentives on early movers to ensure their smart meter deployments are well-received by consumers.

The acceleration of the smart metering rollout is an essential element in delivery the benefits case contained within the DECC/Ofgem Impact Assessment. The provision of certainty in relation to the technical specification of the metering system is essential to this.

British Gas has been very proactive in helping to generate consumer confidence in smart metering. For example, we have developed and published a Customer Charter that sets out our commitments to customers with smart meters. British Gas has also taken a leadership role in driving forward interoperability. We have published our smart meter functionality and used open standards and protocols that can be easily replicated and integrated. We have also been leading the development of interim interoperability arrangements including, for example, the recent publication of our white paper on interim arrangements.

Interim interoperability arrangements can be applied to all smart meters installed prior to formal go-live, not just those meters ultimately compliant with

the technical meter specification. Widening the target population for interim interoperability increases the benefits, further de-risks early movers and increase the economic viability of any interim solution.

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

Technical interoperability is the ability of different solutions to be used and integrated by multiple parties and is a pre-cursor to commercial interoperability.

Commercial interoperability is the ability of different parties to agree terms with each others infrastructure providers. So for example, if Supplier A selects infrastructure provider A, Supplier B must be able to agree terms with infrastructure provider A. Today the ability for Suppliers to agree terms with each other's Meter Asset Provider is the most common commercial interoperability issue.

Differences in contractual terms and most importantly charging methodologies are the most common cause of failure by parties to agree because of perceived unfairness.

Different approaches to recovery of the meter installation costs are in our view the single biggest issue. Some parties pay the installation cost up front so (on churn) the incoming Supplier only contributes to a portion of the physical asset cost. Others amortise the asset cost so that the incoming Supplier contributes to the cost of the asset installation as well as the asset itself. In our view the latter is preferable; it is fairer because all costs are apportioned and it results in a reduced potential for customers to face upfront charging for meter installation costs.

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?

Today's assurance arrangements are driven by the need to ensure that metrology is accurate, reflecting the importance of metering accuracy for customer billing and key industry processes such as energy balancing and settlement.

In many cases it may be possible to apply existing assurance processes and techniques to new aspects of the metering system, so care should be taken before extending such assurance arbitrarily. For each new aspect of the smart metering system a risk assessment should be undertaken, and risk mitigation measures identified. Assurance may be one risk mitigation technique, but a range of options exist including self-certification, general use of standards and general market mechanisms. A test should be applied over how effectively the risk is reduced by the proposed approach.

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

The assumptions that have been made about the meter inspection regime are fundamentally flawed. We have explained this and the resulting £2.69billion IA risk to Ofgem and numerous occasions and are concerned that this has still not been recognised in the Prospectus

Today meter inspections are carried out during a pedestrian routine meter reading at relatively minor incremental cost. The meter reader has already got to the customers premise, gained access and arrived at the meter location. The additional activity associated with a visual inspection of the meter is negligible. Typically we visit a customer's premises eight times every two years to obtain a meter reading, and therefore accumulate an overall

access rate of over 90% over this time period. Therefore, there are only a small number of visits required solely for the purpose of a meter inspection

When routine meter readings are not required a meter inspection a dedicated visit to a customer's premises will be required. The costs of this dedicated visit have not been factored in to the IA.

There is a direct relationship between the number of visits made and access rates. Routine pedestrian reading costs are cheap, ad hoc visits are expensive, not least because typically these are geographically dispersed, and so not pedestrian.

One pedestrian visit every two years to a property would leave 35% of properties requiring a more expensive follow up ad hoc visit, eight visits (today's practice) would leave fewer than 10% of properties requiring a more expensive follow-up visit. Our modeling shows that multiple permutations of pedestrian and ad-hoc visits can be used to achieve a meter inspection, but they all result in similar levels of costs. These costs are broadly similar to the costs we experience today for a service that delivers quarterly meter reads.

Aside from the £2.69billion gap in the IA, this will appear highly irregular to customers. Customers frequently complain today about having to allow access for meter inspections – they will simply not understand why a smart meter must be inspected, given its capability for remote health checks and tamper alerts.

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?

Time of use tariffs will be an incentive tool in delivering the demand-side response necessary to support different generation mixes and the evolution of Smart Grids. The development of time of use tariffs is at a very early stage;

this is in part because present Settlement arrangements are not fit for purpose. We have set out the deficiencies in these arrangements and remedial action required in answer to Question 13.

We are concerned that the consumer protection measures proposed, especially with regard to the collection and use of data, will have an unintended and negative impact upon the development of time of use tariffs. Consumer groups are in agreement with us that it is advantageous for Energy Suppliers to carefully consider the appropriateness of time of use tariffs for individual consumers. To do this we must be able to understand consumption patterns in order to find the best match between their requirements and the products and tariffs structures that we offer to them. However, if our ability to collect and review data is unduly limited this might not be possible.

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

Today's gas Settlement arrangements are not fit for purpose. Domestic Supply Points are not reconciled at an individual level which means that £multi billion cost allocations are guessed. The ability to collect accurate and frequent meter readings and the project to replace the gas industry settlement systems (Project Nexus) provide both the catalyst and the vehicle for the introduction of a fit for purpose enduring settlement regime. Indeed through project Nexus, industry has already agreed and documented the high level principles of that enduring regime. The preferred options are summarised below:

- Allocation - Daily readings or consumption to be used in the daily energy allocation process for each directly connected site. Energy balancing settlement for all sites will be based on their actual / estimated daily consumption.

- Annual Quantity – Where allocations are undertaken on a daily basis in a fully Smart Metered world based on actual meter readings and AQs are not part of any processes affecting shippers, then there is an aspiration to move to a regime in which the Annual Quantity becomes redundant.
- Supply Point Reconciliation - Daily energy settlement for all sites based on actual daily consumption from Smart or AMR equipment.

However, more urgent reform is needed in order to resolve a specific deficiency in today's arrangements. Because allocations (Annual Quantities) are set only on a yearly basis, they lag behind actual consumption. A major objective of installing smart meters is to reduce consumption, but today's arrangements mean that the reduction in consumption is not reflected in energy allocations for at least a year. British Gas has been working with industry to develop Uniform Network Code modification 270 that will help alleviate this issue through the implementation of a tactical solution. This proposal is not dependent upon other decisions that the smart programme must take but speedy approval of it will help remove a barrier to the deployment of smart meters.

In electricity, suppliers need the ability to settle on a half-hourly basis but this does not mean that this should be a default or mandatory requirement. For those customers who do not wish to take up a time of use tariff there may be no economic case for routinely collecting, processing and settling data that is not required. There are numerous changes required to enable half-hourly settlement for domestic customers. These are set out below:

Code of Practice 10 is not appropriate for mass deployment of domestic and small business customers. To be able to settle half-hourly the installed meter needs to comply with COP 5 or COP 10. We do not believe these COPs are appropriate for domestic customers and Elexon should either introduce a new COP for domestic customers or review the existing COP 5 and COP 10 in light of domestic requirements.

The Distribution Use of System charging arrangements are not appropriate for half-hourly traded sites in the domestic and small business market. The current Duos charging arrangements do not meet the requirements of small business and domestic customers should a supplier choose to settle these half-hourly. The Duos charging regime should be based on customers' use of the network not how it is traded within Settlement.

System Volume Allocation charges require review. The SVA charges for settling customers half-hourly should be cost reflective. Currently this does not appear to be the case. Elexon should carry out a review of SVA charging with a view to ensuring that the true cost drivers are reflected in the charging mechanism.

Half-hourly reconciliation run timescales require review. Elexon should review the existing half-hourly reconciliation run timescales with a view to recommending a reduction from the current 14 months final reconciliation run.

GSP Group Correction should be applied to both the HH and NHH market. We see no justification for not applying Group Correction to the HH market. If we assume technical losses are correctly reflected in Line Loss Adjustment Factors then all customers should bear the costs of non-technical losses which include theft and unregistered sites.

Profiling data needs to be reviewed as Smart metering and AMR is deployed. The introduction of smart meters in the NHH market may cause contamination of the current profiles and may contribute to misallocation of energy to suppliers. Elexon should review future Smart metering deployment plans and ensure profile samples adequately reflect changes in the main meter population.

The above reforms can be pursued immediately; we do not believe that they are dependent upon any policy decisions or central programme activity.

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?

The arrangements will vary depending on the scope of the DCC and whether the network is electricity or gas. The arrangements for Independent Electricity Network Operators mirror (for the majority of industry processes) those for non independent Network Operators and therefore customers on those networks should automatically receive the same benefits.

Today the metering arrangements for IGTs are bundled unlike metering arrangements for the large networks that were unbundled as part of the Review of Gas Metering Arrangements¹. This means that there are barriers in place that make it difficult for Energy Suppliers to choose which meters are installed on IGT networks, and who installs them. Further, the frequent practice of IGTs installing meters on their networks without consent or involvement from any Energy Supplier creates a supply chain disconnect. All of this is contrary to the decision by DECC that Suppliers will lead the deployment of smart meters.

There are additional issues with regard to the management of industry data that must be resolved. For large networks a single industry data manager (xoserve) is in place today. IGTs operate their own data management "services" that themselves must inter-operate with xoserve. This means that the data chain is elongated for IGT networks, and the data interfaces with them multiple and more onerous to manage. This interface is problematic today and will be increasingly challenging if not unsustainable with the proliferation of data that smart meters will bring.

If supply point registration is included within the DCC, then IGT supply points should also be within the scope of those registration activities. If registration is not included then IGT registrations should be incorporated in to the scope

¹ RGMA 2004

of xoserve. Otherwise the DCC will need to build multiple additional interfaces with the IGTs and today's issues will be perpetuated.

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

The different treatment of I&C, SME and domestic whilst appropriate, does create the potential to blur process demarcation lines. This could be problematic, especially in gas where multiple thresholds and definitions of domestic and non-domestic customers exist and are embedded into industry processes. For example, consumption thresholds are generally used to distinguish between non-domestic and domestic customers rather than Utility Act definitions. These demarcation lines need to be reviewed. It seems sensible to align both fuels to the Utility Act definition.