Smart Metering Implementation Programme: Consumer Protection

Document type: Supporting Document

Ref: 94a/10

Date of publication: 27 July 2010

Deadline for response: 28 October 2010

Target audience: Energy suppliers and network operators, consumers, consumer organisations and representatives, environmental bodies, meter asset providers, meter asset managers, meter operators and metering and communication equipment manufacturers, academics and other interested parties

Overview:

This document is one of nine Supporting Documents published alongside the Smart Metering Implementation Programme Prospectus.

It focuses on the domestic consumer and considers issues around prepayment, disconnection, marketing, new tariffs, switching, vulnerable consumers and cost recovery and sets out our proposed approach for ensuring that protections are fit for purpose going forward. This document also identifies where further information can be found in other Supporting Documents on a range of questions and concerns which consumers may have about smart metering.

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Context

The Government is committed to the rollout of electricity and gas smart meters to all homes in Great Britain and to the broad delivery framework underpinning the development of policy to date.

On behalf of the Department of Energy and Climate Change (DECC), Ofgem E-Serve has been managing the first phase of a central programme to design and implement new cross-industry arrangements for the delivery of smart metering. Ofgem E-Serve's smart metering work has been undertaken in conjunction with Ofgem's Sustainable Development Division.

The Prospectus represents the joint views of DECC and the Gas and Electricity Markets Authority (GEMA) based on the work conducted so far during the initial phase of the Smart Metering Implementation Programme ('the programme'). It sets out detailed proposals for consultation on the design and delivery of the smart metering system. Alongside the Prospectus, Ofgem is publishing a number of supporting documents which set out in more detail the alternative options considered.

Reflecting the approach adopted to date, the remaining work to scope the regulatory framework will be led by Ofgem E-Serve on behalf of DECC. Later this year, the governance and management arrangements for subsequent phases of the programme will be decided upon.

Associated Documents

DECC and Ofgem have jointly published the Smart Metering Implementation Programme Prospectus. This document is one of a number of Ofgem supporting documents published alongside the Prospectus.

DECC has also published updated impact assessments for the domestic and non-domestic sectors and a paper on disablement/enablement functionality for smart gas meters.

To help inform the programme, Ofgem also commissioned specific research (carried out by FDS) into consumer awareness of, and attitudes towards, smart metering.

All documents are available on the Ofgem website at the following location:

http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=40&refer=e-serve/sm/Documentation

Table of Contents

Summary	1
1. Introduction	4
Context	
Stakeholder engagement	4
Structure of document	4
2. Developing services for consumers	6
Existing consumer protections	7
New tariffs	
Marketing and sales of products and services	
Switching between suppliers	
Access to consumption data	
3. Prepayment and remote disconnection	16
Existing consumer protections	
Prepayment	
Remote disconnection	
4. Vulnerable consumers and fuel poverty	
Specific needs of the vulnerable	
5. Cost recovery and monitoring of costs	29
Cost recovery	
Monitoring of costs	
6. Other consumer issues	
In-home display and additional smart devices	
Data privacy and security	
Rollout and installation visit	
In-service performance monitoring of the smart metering system	
Early movers	
Value-added services and microgeneration	
Inspection of the meter	
7. Conclusions and next steps	
Summary of key proposals	
Next steps	
Appendices	
Appendix 1 - Consultation Response and Questions	44
Appendix 2 – Definition of vulnerable consumers and existing	
protections	
Appendix 3 – Glossary	
Appendix 4 - The Authority's Powers and Duties	55

Summary

The rollout of smart metering to all homes in Great Britain will deliver significant benefits to consumers. The in-home display (IHD) will provide real-time information about energy consumption which will help consumers to manage their energy usage and expenditure, and reduce their carbon emissions. Consumers can expect improved customer service from accurate bills, as well as smoother switching between suppliers. Smart metering will also enable suppliers to offer better tailored energy tariffs and provide new services. Furthermore, consumers stand to benefit from the potential for better management of, and investment in, the electricity network.

Consumers lie at the heart of the smart metering programme. This document focuses specifically on domestic consumers. To inform our proposals in this area, we have worked closely with a range of consumer organisations and established a Consumer Advisory Group (CAG). Ofgem also commissioned research into consumer awareness of, and attitudes towards, smart metering. Going forward, we are committed to continuing our engagement with stakeholders, including with the CAG.

Standards of conduct and licence obligations are already in place to protect consumers' interests. Suppliers must also comply with wider consumer protection legislation. As smart meters are rolled out across Great Britain, we are committed to ensuring these protections are sufficient and appropriate and, where necessary, will establish new protections to ensure that consumers' interests remain safeguarded. The Gas and Electricity Markets Authority's (GEMA) principal objective is to protect the interests of existing and future consumers. In line with this, this document specifically identifies, Ofgem, as distinct from the programme, as taking forward certain actions. Ofgem will work closely with the programme across all smart metering issues to ensure consistency and coherence.

Some suppliers are already providing, or have indicated that they intend to provide, smart meters to consumers in advance of the mandated roll out. This will help bring forward the benefits of smart metering and draw on early consumer enthusiasm. However it is important that these suppliers do this in a way that protects consumer interests and promotes consumer choice and benefits. Actions which, for example, inhibit customers switching between suppliers may attract regulatory action. We will also expect these suppliers to adhere to the measures already in place both in suppliers' licences and in general consumer law to protect consumers.

In this context, we recognise the benefits of acting quickly to maintain consumer confidence and safeguard consumers' interests. Ofgem intends to publish shortly interim guidance on the application of current licence conditions relating to remote switching to prepayment mode and remote disconnection. We intend to review whether these existing licence protections are sufficient to protect consumers. Ofgem has already proposed an amendment to the supply licence which will clarify that, prior to disconnection, suppliers must take all reasonable steps to ascertain the status of a consumer and the occupants of any affected domestic premises.

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¹ Issues concerning non-domestic consumers are set out in the "Non-Domestic Sector" supporting document.

Building on this work, Ofgem intends to introduce a package of measures in spring 2011 to provide for the continued safeguarding of consumers' interests. This includes protections relating to prepayment and disconnection. Ofgem is therefore consulting, as part of this document, on whether changes to existing supply licence conditions are required in light of the ability for suppliers remotely to disconnect consumers and remotely to switch them to prepayment mode. This consultation includes whether current obligations to install a prepayment meter only where it is safe and practicable are sufficient to ensure the consumer is not switched to prepayment mode inappropriately. This package could also include measures around interoperability aimed at ensuring that consumers will not face any barriers in switching suppliers.

Smart metering has the potential to improve the services offered to consumers by introducing better tailored energy tariffs. Throughout the rollout and beyond, suppliers will be expected to comply with existing obligations and have regard to standards of conduct when introducing new tariffs, products or services to the market. Ofgem will take appropriate enforcement action where suppliers do not comply with their obligations and will continue to monitor the suitability of existing protections governing the quality and accessibility of information provided to consumers by suppliers.

The installation visit is an important opportunity to engage consumers and , it is important that consumers view this as a positive experience. The programme therefore proposes to require suppliers to develop a Code of Practice on installation, which would be underpinned by a high-level licence obligation. This Code would set out the details of what consumers can expect at the installation visit and help ensure that high standards are maintained. We are also seeking views on the potential scope for a national awareness campaign.

During the actual visit, selling of new products and tariffs may raise particular concerns for consumers. The programme wishes to ensure that the visit is not used for unwelcome sales activities. At the same time, it recognises the potential value of consumers being offered advice and information on energy efficiency and related products and services. We are therefore requesting views on what could be considered acceptable and unacceptable uses of the installation visit and why. Looking beyond the installation visit, the programme is minded to consider if additional protection is needed to prevent the IHD provided during rollout from being used to transmit unwelcome marketing messages. In our view, such messages could lead to consumers ignoring the IHD, thus undermining the benefits to be achieved through consumers receiving real-time consumption information.

Smart metering will result in a step change in the amount of information available to consumers on their electricity and gas usage. We propose as a principle that consumers should choose in which way their consumption shall be used and by whom, with the exception of data required to fulfil regulatory duties.

In addition to the real-time information provided by the IHD, it is important that consumers are able to access their detailed historical consumption data, for example to compare tariffs. The programme is proposing that consumers should be able to access their information free of charge, in an appropriate format and at an appropriate level of detail. We propose to undertake further work on what an

appropriate format and level of detail would be - for example to enable like-for-like tariff comparisons. In addition, Ofgem intends to review existing licence conditions around information provision to ensure that consumers can access the enhanced consumption information that smart metering offers on an ongoing basis. The programme recognises the potential sensitivity of data on consumers' energy use and has taken a rigorous and systematic approach to assessing and managing the important issues of data privacy and security.

Addressing the needs and protecting the interests of vulnerable consumers and the fuel poor during the rollout is a priority for the programme. The installation visit may raise particular concerns, including security concerns, for some vulnerable people. Some protection is already provided through the Priority Services Register (PSR), although many vulnerable consumers are not on the register. The programme therefore envisages that the Code of Practice on installation could include additional protection for particular groups of consumers. We are also requesting views on the options for providing the advice and support that will be needed to help all consumers realise the benefits of smart metering. This includes the establishment of a help scheme which could provide dedicated assistance to those consumers who need it during rollout, to supplement existing legal and other protections.

The competitive energy supply market acts as a price restraint on suppliers and creates incentives on them to deliver, and charge for, smart metering in a way that minimises costs to consumers and offers them best value-for-money. The rollout of smart metering will however increase costs for suppliers. We expect these costs, less any associated savings, to be recovered from consumers. While these additional costs will be relatively small in comparison to other components of customers' bills, the way in which the costs of smart metering are recovered from customers raises important issues of fairness and also has the potential to affect consumers' attitudes to smart meters. The programme proposes to prohibit suppliers from imposing upfront charges on customers for the smart meters and IHDs that they are required to provide. Suppliers will be able to offer their customers value-added products and services, such as an enhanced IHD, for an upfront charge or as part of a new tariff package.

We also recognise that the rollout of smart metering may create a number of other questions and concerns for consumers, including what information will be provided on the IHD and when they will receive a smart meter. These and other issues are considered in more detail in other supporting documents. The final chapter of this document signposts to more detailed information.

1. Introduction

Context

1.1. This document is one of nine supporting documents published alongside the Smart Metering Implementation Programme Prospectus. It focuses on the domestic consumer and the issues around prepayment, disconnection, marketing, new tariffs and cost recovery associated with smart metering, and sets out our proposed approach for ensuring consumer protections are fit for purpose going forward.

Stakeholder engagement

- 1.2. In developing this document we have focused on the consumer perspective. We have established a specific smart metering Consumer Advisory Group (CAG) in order to fully identify and understand key consumer issues. The membership of this Group is made up of representatives from Consumer Focus, the Fuel Poverty Advisory Group, Which?, the Public Utilities Access Forum, Age UK and the Centre for Sustainable Energy. The CAG has discussed a range of issues considered in this paper, including remote disconnection, remote switching to prepayment terms, cost recovery and marketing during the installation visit. We have also consulted Ofgem's Disability Advisory Forum (DAF) on remote disconnection, rollout and the in-home display.
- 1.3. In addition we have held a number of stakeholder events and workshops. These have covered a range of topics including issues relevant to consumer protection such as remote disconnection and remote switching to prepayment terms. To help inform the programme, Ofgem also commissioned specific research (carried out by FDS) into consumer awareness of, and attitudes towards, smart metering. This has been published alongside the Prospectus.²
- 1.4. We are committed to continuing our engagement with stakeholders going forward, including with the CAG.

Structure of document

1.5. The introduction of smart metering should bring benefits to consumers through development of the services offered to consumers. This includes the offer of innovative tariffs and energy services products, smoother switching and improved access to historical consumption data. However we recognise that an increase in the number, variety and complexity of tariffs may lead to consumer confusion. Concerns have also been raised around sales during the installation visit and how consumers will access their data easily and securely. Furthermore the rollout of smart metering must not create barriers to switching supplier. Chapter 2 of this document examines the issues around new tariffs, marketing, switching and access to consumption data.

² Consumers' views of Smart Metering: Report by FDS International, FDS, July 2010

1.6. Suppliers' ability to switch the meter remotely from credit to prepayment mode can provide a better debt management service and an improvement in service for prepayment customers. The ability to remotely disconnect customers can also assist suppliers in debt recovery and prevent costs being borne by other customers. However, the ability to carry out these functions remotely may mean that there are a number of areas where further protection of consumers may be needed. Chapter 3 of this document requests views on this issue and details how Ofgem will ensure protections in this area are fit-for-purpose.

- 1.7. Smart metering will have particular implications for some vulnerable consumers and those in fuel poverty. Better information on energy consumption may help those on low incomes manage their budget better but it may also lead to self-rationing or increased self-disconnection amongst those on low incomes, which could adversely affect health and quality of life. Some vulnerable consumers may be hard to reach and could have particular concerns about letting a stranger into their home to install the meter. Several stakeholders have raised the possibility of prioritising rollout towards particular groups of customers such as the fuel poor. Chapter 4 of this document considers the implications of smart metering for vulnerable consumers and the fuel poor and sets out how we are addressing their particular needs.
- 1.8. The implementation of the smart metering programme will increase costs for suppliers which will be recovered from their customers. Stakeholder groups have raised concerns around the level of the costs that suppliers will pass through to customers and stressed the importance of monitoring the costs of the smart metering programme. These issues are considered in Chapter 5.
- 1.9. Finally there is a range of other questions and concerns which consumers may have about smart metering. These range from the in-home display to data privacy, from rollout to meter technical specifications. Chapter 6 of this document provides a single point of reference, identifying where further information can be found in other supporting documents published alongside the Prospectus.

2. Developing services for consumers

Smart metering has the potential to improve the services offered to consumers, including new tariffs and smoother switching between suppliers. On the other hand, stakeholders have raised concerns regarding tariff complexity and marketing of new products and services, barriers to switching and security and ease of access to historical consumption data. This chapter considers these issues and sets out approaches to ensure that consumers are properly protected and can access the benefits of smart metering.

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?

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

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

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

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

- 2.1. Smart metering has the potential to improve the services offered to consumers by introducing better tailored energy tariffs. However, it is possible that more choice and more complex tariffs could lead to customer confusion and create the potential for customers to be misled. Ofgem already has a broad range of powers to tackle these issues. As smart metering is rolled out and new tariffs are developed, it will continue to keep these issues under review.
- 2.2. The rollout of smart metering presents significant commercial opportunities for suppliers to offer consumers new tariffs, more sophisticated energy advice and integrated energy service packages. However, consumer groups have raised particular concerns about selling during the installation process. We recognise these concerns but also believe that some marketing may deliver potential benefits to consumers. We wish to ensure that the installation visit is not used for unwelcome sales activities and are considering the coverage provided by existing protections to assess what further action we can and should take to achieve this objective. However, we need to ensure that the installation visit can also be used to maximise the benefits that can be realised through a single visit, for example, in cases where consumers have expressed an interest in additional information or products that the supplier can provide.

2.3. Smart metering can also improve the services offered to consumers by facilitating quicker and smoother switching between suppliers and tariffs. By switching supplier, consumers can often make significant savings on their bills or obtain improved customer service. We are considering the scope for reforming existing industry processes to reduce the time that it takes to switch and to reduce errors. We are also working to ensure that smart metering does not make it more difficult to switch supplier. To prevent technical barriers to switching, we have specified the functional requirements that will be used as a basis for developing a detailed technical specification for the smart metering system. Ofgem is also considering the commercial arrangements for allowing suppliers to take over existing meters as part of its ongoing review of metering arrangements.

- 2.4. Further, consumers will have improved information on their historical consumption which can help them make informed choices about different tariffs. While there is a variety of options for accessing detailed consumption data, the key principles are that consumers should be able to easily, securely, and free of charge, obtain information at an appropriate level of detail and in an appropriate format.
- 2.5. This chapter begins by giving an overview of the existing protections and then looks at issues around tariff complexity, sales and marketing, switching and access to consumption data.

Existing consumer protections

- 2.6. Ofgem's Energy Supply Probe which examined the operation of the Great Britain retail energy market³, introduced a package of remedial measures to improve the functioning of the market for all consumers including small businesses and help improve the information available to consumers. These remedies cover areas relating to unilateral contract variations, conduct of sales and marketing activities by suppliers and improved customer information for domestic customers. For example, Ofgem amended Standard Licence Condition (SLC) 25 of the domestic supply licence to require suppliers to ensure that information provided to consumers is fair, clear and not misleading, and that sales activities are conducted in an appropriate and professional manner. SLC25 was also amended to ensure that prior to the conclusion of any face to face sale consumers must be provided with a written estimate and/or a written comparison with the consumer's current deal.
- 2.7. Ofgem also introduced a set of overarching Standards of Conduct as guidance for suppliers to have regard to, which amongst other things, emphasises the need for suppliers to provide appropriate and easy to understand information to the consumer as set out below.

³ Energy Supply Probe - Summary of Initial Findings, Ofgem, October 2008

Standards that we expect suppliers to take all reasonable steps to adhere to in their dealings with domestic and small business consumers:

- You must not sell a customer a product or service that he or she does not fully understand or that is inappropriate for their needs and circumstances;
- You must not change anything material about a customer's product or service without clearly explaining to him or her why;
- You must not prevent a customer from switching product or supplier without good reason;
- You must not offer products that are unnecessarily complex or confusing; and
- You must make it easy for customers to contact you and act promptly and courteously to put things right when you make a mistake.
- 2.8. Suppliers are expected to take all reasonable steps to adhere to these standards of conduct in the domestic and small business retail markets and, while not directly enforceable through licence conditions or legislation, Ofgem will take account of these standards in its approach to enforcement.
- 2.9. Furthermore, Ofgem can take legal action to address breaches of the Unfair Terms in Consumer Contracts Regulations 1999 (UTCCRs) and the Consumer Protection from Unfair Trading Regulations 2008 (CPUTRs). The UTCCRs control the use of unfair contract terms such as clauses seeking to limit liability for faulty goods and unsatisfactory services and clauses imposing excessive financial penalties or excessive notice periods for termination. The CPUTRs regulate commercial practices before and during contracts to provide a wide range of goods and services. The CPUTRs contain a general duty not to trade unfairly and prohibit the provision of false or misleading information and use of aggressive sales practices. The CPUTRs also list 31 trading practices that are banned in all circumstances. These include, for example, falsely claiming to be a signatory of a Code of Practice, falsely claiming to be endorsed by a public body, and persistent and unwanted telephone or email marketing.
- 2.10. The Energy Retail Association (ERA), which represents the major electricity and gas suppliers in Great Britain's domestic market, has established its own Code of Practice for doorstep selling. The Code of Practice for face-to-face marketing of energy supply covers, amongst other things, the recruitment and training of sales agents, contact with consumers and arrangements for managing complaints.

New tariffs

2.11. The introduction of smart meters could potentially lead to a wider range of tariff options. We welcome tariff innovation because consumers can benefit from greater choice and opportunities to optimise energy consumption, save money and

⁴ Code of Practice for Face-to-Face Marketing of Energy Supply, Energy Retail Association

reduce carbon emissions. For example, consumers may choose to move on to Time-of-Use (TOU) tariffs, which may offer different unit prices at different times of the day or week, enabling consumers to save money by shifting consumption to lower cost periods without reducing overall energy consumption.

- 2.12. However, consumer groups have raised concerns that an increase in the number, variety and complexity of tariffs may lead to possible consumer confusion. Consumers may find it harder to identify tariffs best suited for their needs and may be less willing to search and switch supplier. Consumers, including vulnerable consumers, may also end up paying more for their energy because they may not fully understand the pricing structure of new tariffs and/or are unable to shift their demand patterns. This is especially relevant for TOU tariffs under which the size of the bill reflects not only volume of energy consumed but also the time at which it is consumed. It is important that suppliers do not attempt to sign customers up to such tariffs until an appropriate volume of consumption data is available to the consumer, or any authorised party, to assess if the tariff is appropriate. Customers will not be forced to take TOU tariffs.
- 2.13. Suppliers might also offer consumers innovative products or services if they agree to contracts of longer duration which allow the supplier to recoup the upfront costs. Such contracts may benefit consumers by helping them to manage usage, for example through the provision of more sophisticated in-home displays (IHDs). However, there may be concerns that consumers are not fully aware of the nature and implications of their agreement to a contract of significant duration. Long term contracts may deter consumers from switching supplier (for example, some contracts may carry substantial exit fees). Therefore, there is a need to ensure transparency and customer awareness.
- 2.14. Switching sites are a useful source of information that can help consumers compare tariffs. While Ofgem does not have direct jurisdiction over switching sites, it will continue to engage with Consumer Focus on the Confidence Code (a voluntary Code of Practice for online domestic price comparison services), to ensure that consumers can make well informed switching decisions through these sites.
- 2.15. Consistent with existing consumer protection legislation, other applicable rules and our guiding Standards of Conduct, Ofgem expects suppliers, in introducing new tariffs, to ensure that:
- Consumers are clear about the terms and conditions of such tariffs; and
- No consumers are offered tariffs that are inappropriate for their circumstances.
- 2.16. Ofgem will continue to monitor suppliers' adherence to these standards of conduct, the domestic supply licence and wider consumer protection legislation. At this stage, Ofgem does not believe that there is a need for any specific additional protections around tariffs beyond those that already exist. However, as new products and services start to emerge we will keep this position under review. We would welcome views from respondents on our proposed approach.

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?

Marketing and sales of products and services

2.17. The rollout of smart metering presents significant commercial opportunities for suppliers to offer consumers new tariffs, more sophisticated energy advice and integrated energy service packages. Such an approach may build consumer awareness and enthusiasm for smart metering. However, while some consumers may welcome marketing of new products and services, there are concerns amongst consumer groups that inappropriate marketing and sales activity during the installation visit or through the IHD could undermine consumer confidence in the rollout as well as achievement of the benefits.

Marketing and sales during the installation visit

- 2.18. Consumer groups have raised concerns over the possibility of sales activities occurring as part of the installation process. Their concerns have related to a number of factors, including the treatment of vulnerable consumers and the risk that inappropriate selling could undermine consumer confidence in the rollout. For instance, if some consumers believe that installation may include such sales activity then they may refuse access, and more generally may perceive smart meters as a supplier sales opportunity and not a benefit for them. Our consumer research also identified concerns about sales approaches during the installation visit.⁵
- 2.19. At the same time, the installation of a smart meter provides the opportunity to raise a consumer's awareness of actions they can take to manage their energy usage, thereby helping them to make cost savings and reduce their carbon emissions. For example, this might include raising the profile of how installing insulation could help reduce heating bills. Such conversations are an opportunity for links to be made with other Government energy efficiency programmes.
- 2.20. We wish to ensure that the installation visit is not used for unwelcome sales activities. In our view, it would be wholly inappropriate for suppliers to gain entry to a customer's home on the pretext that the visit is solely for the purposes of meter installation and then once inside to use that opportunity to attempt to effect a sale. However, we also want to ensure that the installation visit is able to maximise the benefits that can be realised through a single, visit, where consumers have expressed an interest in additional information or products that the supplier can provide. There are already existing consumer legislation and licence conditions protecting consumers against, for example, misleading, aggressive or unfair sales and marketing activities. We are looking at the coverage provided by existing protections to assess what further action we can and should take to achieve this objective.

⁵ Consumers' views of Smart Metering: Report by FDS International, FDS, July 2010

2.21. We would welcome views on what could be considered acceptable and unacceptable uses of the installation visit and why. Examples of key considerations here could be:

- Whether the customer has given explicit, advance consent to the visit being used for sales or marketing;
- The nature of the activity (provision of information only, referral to another body or signing of contracts);
- The source of service to which the consumer may be directed (e.g. is it a government-supported or accredited energy efficiency programme or a commercial service provided by the supplier/others);
- The involvement of local authorities or other third party not-for-profit organisations; and
- The category of customer (e.g. certain vulnerable customers).

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

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

Marketing using the in-home display

- 2.22. The IHD will provide consumers with real-time information on their energy consumption in a readily accessible form. Suppliers or authorised third parties may go beyond the minimum requirements as set out in the In-Home Display supporting document and offer a more advanced IHD and to use the IHD to market new products and services to consumers.
- 2.23. Consumer groups have, however, raised concerns that marketing could discourage consumers from looking at the IHD, undermining the central benefits derived from the IHD in terms of its role in providing energy consumption information. At the same time, the IHD may provide a channel for useful information about new energy saving products, services and tips.
- 2.24. Subject to views from respondents, we are minded to regulate to prevent the IHD provided during rollout from being used to transmit unwelcome marketing messages. In our view, such messages could lead to consumers ignoring their IHD, thus undermining the benefits achieved through consumers receiving real-time consumption information. We are looking at the coverage provided by existing protections to assess what further action we can and should take to achieve this objective. We welcome views on our proposal and on what should be considered as "unwelcome" in this context which may depend, for example, on whether the customer can opt out and on the nature of the offering (new tariffs or energy efficiency messages).

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

Switching between suppliers

2.25. The rollout of smart meters will facilitate smoother, faster switching between suppliers. By taking advantage of the competitive market and switching supplier, consumers may obtain significant savings on their energy bills. Consumers may also switch to secure better customer service or new products, such as green energy tariffs. Switching drives suppliers to compete to retain existing customers and win new ones by offering more competitive prices, improving customer service and developing innovative products.

- 2.26. Smart metering provides the potential for switching to be simplified. In particular it allows suppliers to take accurate readings on the day a consumer switches and may mean that consumers do not have to take their own meter readings when switching supplier. There is also scope to reform the industry switching processes. Currently switching processes are complex, with separate processes for gas and electricity (making dual fuel switching more complex). Reform of the industry processes could deliver significant benefits to consumers by improving the effectiveness and increasing the speed of the process. These reforms are linked to the scope of the DataCommsCo (DCC)⁶ and are discussed further in the Communications Business Model supporting document.
- 2.27. Definition of technical specifications will ensure that equipment at customer premises does not need to change with a change of supplier. In addition, suppliers will need to develop commercial terms for use of their meters on change of supplier (to deliver what we term "commercial interoperability"). We recognise that this issue will become more important as smart meters are rolled out since the value of the meter and cost of installation are greater than the comparable costs of traditional metering. We will work with the industry to consider how best to address this issue, taking into account the findings emerging from the review of current metering arrangements launched by Ofgem on 1 April 2010. The programme will, if necessary, bring forward proposals to ensure the effective operation of this aspect of the market.

Access to consumption data

2.28. Smart metering will result in a step change in the amount of information available to consumers on their electricity and gas usage. Through the IHD provided to all homes, smart meters will provide consumers with real-time information about their energy use, enabling them to monitor and reduce their energy consumption and carbon emissions. Coupled with the installation of energy efficiency measures such as insulation, and tailored advice about energy saving behaviours under the Green Deal, this should deliver a step change in household energy efficiency.

⁶ We are proposing that the DataCommsCo will be a new entity responsible for the design, procurement and contract management of a range of data and communications services.

Review of Current Metering Arrangements, Ofgem, April 2010

2.29. Outside the direct feedback provided through the IHD, access for consumers to their consumption data is central to ensuring consumers benefit as much as possible from smart metering. Consumers may want access for a variety of purposes, not least in identifying the best tariff to suit their needs. We believe that a number of principles should underlie this access. These include that consumers should be able to access their information easily, securely, free of charge, in an appropriate format and at an appropriate level of detail. We propose to undertake further work on what would be a useful format and level of detail, for example, to enable like-for-like comparisons of tariffs.

- 2.30. While the increase in the amount of information potentially available from smart meters brings clear benefits to consumers, we recognise the concerns consumers may have about the security and privacy of their consumption data. We have adopted 'privacy by design' and 'security by design' principles to ensure that any issues and risks are identified early and the end-to-end smart metering system is designed from the outset to deliver appropriate privacy and security protection for consumers.
- 2.31. Our proposed privacy policy reflects the important principle that data control rests with the customer, while recognising that there are a range of instances when third parties will have a legitimate need to access that data. The programme will be undertaking further detailed analysis to establish the different potential data requirements of industry participants and whether such data collected needs to be individual or aggregated.
- 2.32. This will help to ensure that personal data will only be transmitted outside of the home where it is essential or where the consumer gives consent. Data privacy and security issues are discussed more fully in the Data Privacy and Security supporting document.
- 2.33. In terms of how consumers access their data, to compare tariffs or obtain energy advice, the supplier is clearly one potential channel. We are of the view, however, that it would not be appropriate for consumers to rely solely on their supplier to gain access. Such reliance could give rise to privacy concerns because consumers may not want to provide their supplier with access to their detailed data. Furthermore, there are competition concerns because suppliers are already competing to offer tariffs for energy supply and may be competing with third parties to offer broader energy management services.

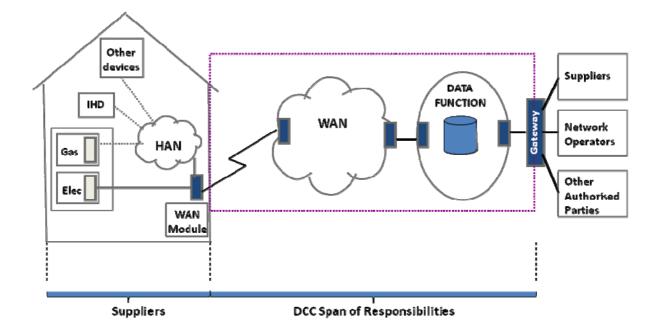


Figure 1 - Proposed smart metering architecture

- 2.34. Figure 1 shows the potential avenues through which consumers may access their data as an alternative to the IHD. For example, we have proposed that the smart meter be required to store twelve months of half hourly data. This data could be accessed through the Home Area Network (HAN) subject to appropriate security arrangements. The HAN enables the meter to communicate with other appliances in the home. We propose that suppliers have an enduring obligation to provide a defined data set to the consumer via the HAN if they request access to it. As part of the Regulatory and Commercial Framework supporting document, we have set out proposals on which data items should be included in the mandated HAN data set, including the half hourly data stored on the meter.
- 2.35. Provided the HAN data set includes the half hourly data stored on the meter, consumers who have access to a computer could purchase a device, which when authorised could be used to collect this data via the HAN. Some consumers do not have access to a computer or may not want to access the data of their own accord. For these consumers, an alternative option would be to authorise a third party to collect the data on their behalf.
- 2.36. Furthermore, Ofgem proposes to review existing supply licence conditions around information provision with a view to ensuring that consumers are able to benefit from the enhanced consumption information that smart metering offers.

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?

3. Prepayment and remote disconnection

Smart metering will enable remote disconnection and remote switching between credit and prepayment mode. This chapter reviews the existing protections in the domestic supply licence conditions concerning disconnection and use of prepayment meters. It also requests views on whether these protections are fit for purpose going forward and on the issues that may arise as a result of the remote functionality of smart meters.

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?

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

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

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?

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

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?

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

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?

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

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.

3.1. The Government has decided that the meter functionality for electricity should include remote switching between credit and prepayment terms and remote disconnection and reconnection and is of the view that, subject to consultation, the same functionality should be included in all gas smart meters. The analysis underpinning the inclusion of a gas valve in the minimum functional requirements is

set out in the DECC supporting paper on disablement / enablement functionality for smart gas meters and the analytical annex to the updated Impact Assessment.

- 3.2. The ability to switch payment methods remotely brings direct consumer benefits; the consumer can switch payment methods easily if his or her circumstances change and can potentially top-up remotely over the internet or telephone. In addition, consumers will not need to insert a key into the meter to top-up, which is currently the cause of a high level of faults on prepayment meters (PPMs).
- 3.3. However, the remote functionality of smart meters also creates new issues in that it will become much easier for suppliers to disconnect a customer or switch them to prepayment terms. Given the importance of these issues and the fact that some suppliers are starting to install smart meters ahead of the formal rollout commencing, Ofgem is reviewing this area as a matter of urgency.
- 3.4. Ofgem intends to publish an open letter shortly setting out interim guidance on the application of the current licence conditions relating to remote switching between credit and prepayment terms and remote disconnection.
- 3.5. Ofgem is also in the process of reviewing the current consumer protections in light of the early provision of smart metering. This chapter sets out the existing consumer protections relating to PPMs and disconnection, and then consults on a number of areas where further protection may be needed.
- 3.6. Subject to the consultation, Ofgem intends to introduce a package of measures in spring 2011 to provide for the continued safeguarding of consumers' interests. Given that some suppliers are starting to move early and install smart meters on a commercial basis, we recognise the need to move swiftly to ensure that any necessary additional consumer protections especially in important areas such as prepayment and remote disconnection are in place.

Existing consumer protections

- 3.7. The rights of suppliers to use PPMs and disconnect customers are set out in the Gas Act 1986 and the Electricity Act 1989. The Acts stipulate that the customer must be given at least 28 days to pay their bill and then at least 7 days notice before the supplier can install a PPM or disconnect the supply following non-payment of charges.
- 3.8. The domestic supply licence provides additional protections regarding prepayment, including a requirement that, where the supplier has more than 50,000 customers, they must offer a wide choice of payment methods, including payment through a PPM. That licence condition also stipulates that suppliers must offer a PPM, where it is safe and reasonably practicable to do so, to domestic customers who are struggling to pay their bills.

3.9. Ofgem has previously provided supplementary guidance⁸ alongside the licence conditions explaining that what is 'safe and reasonably practicable' should be considered from the domestic customer's perspective. Ofgem indicated that relevant factors are likely to include whether the customer is able to understand and operate the PPM and visit a local top-up point to add more credit. Ofgem also said it may not be reasonably practicable to provide a PPM if a customer needs to travel over two miles to top-up the credit.

- 3.10. There is an obligation on former Public Electricity Suppliers (PESs) to provide Prepayment Meter Infrastructure Provision (PPMIP) services on non-discriminatory terms to other suppliers for electricity PPMs operated by tokens or cards. There is no equivalent obligation in the gas market. The PPMIP service provides for customers to make advance payments at outlets, such as corner shops or post offices, and these payments to be reconciled back to the relevant energy supplier. It was considered unnecessary to have such an obligation for key PPMs (the majority of electricity PPMs) because such services are widely available and, therefore, suppliers are able to make their own arrangements.
- 3.11. In relation to disconnection for unpaid charges the supply licences include a requirement to offer consumers alternative methods of payment (such as prepayment) and an affordable repayment plan prior to disconnection. Suppliers are also prohibited from knowingly disconnecting customers of pensionable age during winter (October to March). Suppliers must take all reasonable steps to avoid disconnecting premises during winter where the customer or occupants are disabled, chronically sick or of pensionable age.
- 3.12. Ofgem is proposing an amendment to the electricity and gas supply licences to clarify that suppliers must take all reasonable steps to identify the status of customers and the occupants of premises prior to disconnection. Subject to the outcome of the collective licence modification process we anticipate this change coming into effect in September 2010.
- 3.13. Members of the ERA have also introduced further voluntary protections through their code of practice known as the Safety Net. Among other protections, this precludes the disconnection of vulnerable customers at any time.

Applicability of current obligations

3.14. Ofgem is considering how the current obligations on suppliers apply in the context of smart metering where the supplier is remotely switching a meter from credit to prepayment mode, or remotely disconnecting the supply (or using other forms of disconnection such as load limiting).

⁸ Supply Licence Review – Final Proposals, Ofgem, June 2007

⁹ Statutory Consultation to Amend SLC 27, Ofgem, July 2010 http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=168&refer=Sustainability/SocAction/Publications

Prepayment

3.15. We set out below a number of areas where further consumer protections may be required when a smart meter is switched to prepayment mode.

Identifying where safe and practicable

- 3.16. As explained above, suppliers can only install a PPM if it is safe and reasonably practicable for the customer to use the PPM. There are a number of factors which may make it difficult or unsafe for the customer to pay this way. These include: where the meter is in an inaccessible place, such as in an in-take room (often found in flats) or if its location is at an unreasonable height, or where the customer's circumstances mean they are unable to understand or operate the PPM.
- 3.17. Today a supplier would know whether it was safe and practicable for the customer to use a prepayment meter because it would have visited the premises to install it. However, where remote switching to prepayment mode is possible, there may no longer be an operational reason to visit the customer's premises. Therefore, the supplier will need to amend its processes to ensure it can be satisfied it is safe and reasonably practicable to make the switch.
- 3.18. To ensure that they comply with the licence requirement, suppliers may opt to register inaccessible meters with the central data and communications body (DCC) during rollout to maintain a record. Alternatively, suppliers may put measures in place so that all meters are prepayment-ready and, therefore, reduce the number of safety and practicality issues that arise when they offer to switch the customer to prepayment terms. Such measures could include moving the meter to an accessible place although this would have significant costs. Alternatively suppliers might provide an IHD with functionality that ensures the customer will not need access to the meter, although the supplier would need to be confident that the IHD was still functioning when they switched to PPM, for example by providing a third device which is fitted to the wall in an accessible place and capable of talking to the meter. Where the supplier decides these options are not cost effective, it will need to determine whether the meter is accessible prior to switching the customer to prepayment mode.
- 3.19. The supplier will also need to consider how to identify the customer's circumstances prior to switching the customer to prepayment terms. One method of doing this would be for suppliers to improve and scale up the registers of priority service customers. The visit to the customer premises to install a smart meter represents a particularly valuable opportunity for a supplier to identify consumers who may be eligible to join their Priority Services Register (PSR). However, improving the PSR alone is unlikely to ensure that customers are not switched inappropriately, in particular as a customer's circumstances can change over time and customers may move home. Where suppliers are not aware of the customer's circumstances, they will need to contact the customer prior to switching them to prepayment terms to identify any issues and otherwise satisfy their obligations under the domestic supply licence conditions.

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?

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

Informing the consumer

3.20. As noted above, currently the installation of a PPM requires a site visit. As such, customers are fully aware they have been transferred to a PPM and can be provided with information on how to use the meter at the time of installation. In the future, where a customer is switched to prepayment terms remotely, it will be necessary to notify the customer of the impending switch and make them aware of how to operate the smart meter in prepayment mode. The IHD may be one route but we currently do not believe this can be the only route to notification.

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

Emergency credit and 'friendly credit' periods

3.21. Most suppliers already offer emergency credit on PPMs, which is a fixed value of gas or electricity (typically £5) which is available to be consumed at any time of the day regardless of credit status. Another option, which some suppliers already adopt, is 'friendly credit' periods where at certain times of the day the supply will not disconnect regardless of usage or credit status. Ofgem is currently considering the extent to which these measures could form part of the mandatory protections available to prepayment customers in the future or whether, as now, the discretion as to whether or not to use these measures can be left to suppliers. Ofgem would welcome views on this issue.

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?

Applying credit to the meter

3.22. One of the benefits of smart meters is the potential for new ways of charging PPMs, for example, by adding credit remotely over the Wide Area Network (WAN)¹⁰, for example by phone or online. However, Ofgem believes that it should remain possible to top-up remotely by cash at a local shop or garage as it is likely there will always remain a substantial core group of prepayment customers without access to a bank account (or at least without the transactional facilities required).

 $^{^{10}}$ The smart metering WAN will be used for two-way communication between smart meters and DCC (via the WAN communications module in the customer's premises).

3.23. We believe it is also essential that there are arrangements for topping-up if the WAN is not available. The Smart Metering Functional Requirements Catalogue calls for the ability for local top up. For example local top up could be achieved by entering a code through a keypad connected to the smart meter via the HAN. Further information can be found in the Statement of Design Requirements supporting document.

- 3.24. Co-ordination will also be critical during rollout to ensure the efficient implementation or decommissioning of shared prepayment services. Of key importance is that no consumer is left unable to top up their old PPMs or new smart meter. As part of the programme's ongoing work, we will work with industry to ensure the necessary co-ordination, building on the experience of token meter withdrawal. This is also discussed in the Rollout Strategy supporting document.
- 3.25. While there will still need to be infrastructure in place to enable customers to top up by cash at local outlets, it is not clear that this needs to be arranged on a cross-industry basis. Suppliers are of the view that PPMIP would no longer be necessary once rollout is complete. If PPMIP is still required, there may need to be an obligation on certain suppliers to provide PPMIP services for smart metering, similar to the current obligation on ex-PES suppliers for electricity PPMs operated by tokens or cards. However, as with key meters now, this is unlikely to be needed. Ofgem would welcome comments on whether such an obligation may be required.

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

Remote disconnection

3.26. Suppliers may disconnect their customers for non-payment of energy bills, meter tampering or for safety reasons. Suppliers may also disconnect a property which is unoccupied. We set out below a number of areas where further consumer protections may be required in relation to remote disconnection of supply for unpaid charges.

Identification of vulnerable customers

- 3.27. At present, when suppliers go to disconnect a property for unpaid charges they carry out a number of checks to establish whether a vulnerable customer is living there, including a site visit prior to disconnection and a site visit at the point of disconnection. With smart metering, site visits will no longer be needed for operational reasons to physically disconnect supply. However, while the site visit at the point of disconnection is only one of a series of checks that suppliers carry out, it remains an important backstop opportunity to identify vulnerability.
- 3.28. As mentioned above, Ofgem is currently consulting on a licence amendment to make clear that suppliers must take all reasonable steps to check whether a customer is vulnerable before disconnecting. However, we are also considering

whether any further protection is required to safeguard the interests of vulnerable customers.

3.29. There are a number of steps that suppliers could take to identify vulnerability when considering disconnection. Ofgem has previously provided guidance on the types of proactive steps it would expect suppliers to determine the status of consumers and occupants prior to disconnection. This includes undertaking at least one personal visit to the property which is at risk of being disconnected. In addition to a site visit, other steps identified in the guidance include reviewing all the notes on the customer's accounts to ensure that no vulnerability is recorded, ensuring that customers are not registered on their PSR and seeking senior management authorisation prior to any disconnection being carried out. Such checks may also be important in ensuring more generally that the correct property is being disconnected and that there are no other factors that might mitigate against disconnection.

3.30. In terms of additional protection, one potential additional measure could be an explicit requirement for a site visit prior to the disconnection. While this could be seen to remove one of the benefits of being able to disconnect remotely, it is possible that non-engineering staff could be used for the visit. Ofgem would welcome views on whether an explicit requirement for a site visit would be beneficial in the light of the additional protection it provides.

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?

Form of notice of disconnection

- 3.31. Currently, the supplier needs to visit the customer's premises to physically disconnect supply. It is, therefore, clear to the customer that they have been disconnected. With remote disconnection and if a site visit is not required (or could take place prior to the actual disconnection) this may not be as clear. The customer may assume that there has simply been a power cut, or may be otherwise unclear what they have to do to get the supply restored.
- 3.32. It is, therefore, essential that customers are informed they have been disconnected on a timely basis. Our preliminary view is that it is unlikely to be adequate for this information to be provided through messages to the meter or IHD, given the risk that the customer will not see them. Ofgem believes that customers must be given adequate notification and information in formats that are easy to understand and prominent enough for the customer.

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

New approaches to disconnection

3.33. The new functionality of smart meters enables suppliers to offer new approaches to disconnection for unpaid charges. We have specified that the smart metering system must support trickle disconnection (also known as load limiting) and the facility for remote disconnection and reconnection allows time limited disconnection. These approaches could also potentially be used for PPM customers as an alternative when credit runs out (and when the customer currently self disconnects). Further information can be found in the Statement of Design Requirements supporting document. It is also possible that suppliers will adopt other approaches to debt management, such as applying a credit limit before disconnecting the supply.

3.34. Ofgem proposes to undertake further work to understand the consumer acceptability of these types of disconnection, the extent to which they could be used instead of total disconnection as an incentive to pay bills, and any necessary consumer protections that should be attached to these approaches. For example Ofgem may need to consider what is needed for consumers to be clearly informed that their supply is being limited and what they need to do to restore their full supply, as well as whether there should be a prohibition on these types of disconnections for certain groups of vulnerable customers. Ofgem will also need to ensure that the protections properly cover the range of options that suppliers could adopt. Ofgem invites views on these new approaches to partial disconnection.

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?

Remote reconnection

3.35. As well as enabling remote disconnection, the meter will also provide for remote reconnection. Faster reconnection offers clear benefits to customers who can be reconnected more quickly once any debt is paid off or in cases where vulnerability is subsequently discovered. This may provide an opportunity to update the existing timeliness of reconnection provisions in the guaranteed standards of performance¹² and the industry's self regulatory Safety Net. However, there may be limitations on what can be achieved. One potential issue with gas is that there is currently a safety requirement for a purge and relight when the gas is restored, which requires the supplier to have access to the customer's premises.

3.36. The Smart Metering Functional Requirements Catalogue also requires that the consumer is present in the premise and acknowledges that certain criteria are met (e.g. appliances are off) when the electricity supply is re-enabled after self or remote

11

 [&]quot;Trickle disconnection" is where the consumer is able to use limited levels of electricity to cover basic needs such as lighting and the fridge/freezer. Time limited disconnection involves restoring supply overnight or simply cutting off supply for short periods as a warning.
SI 2010 No. 698 The Electricity (Standards of Performance) Regulations 2010; SI 2008 No. 696 The Gas (Standards of Performance) (Amendment) Regulations 2008.

disconnection (which are distinct to outages due to supply faults). Possible solutions include a button on the meter or on the IHD. Using the IHD would allow instructions to be provided to the consumer and would also avoid interaction with the meter if it is in an awkward location. However, given that the consumer may not retain the IHD it is essential that the meter also has this functionality. It is expected that the technical specification will define preferred solutions for restoration of supply, taking into account instances where the customer is unable to access the meter or does not understand what they need to do. The programme has specified the functional requirements which will be used to draft the technical specification. Further information can be found in the "Statement of Design Requirements" supporting document.

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

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.

4. Vulnerable consumers and fuel poverty

Addressing the needs of vulnerable consumers and the fuel poor resulting from the rollout of smart metering is a priority for the programme. This chapter sets out some of the particular implications of smart metering for different groups of vulnerable consumers and those in fuel poverty. It examines the potential for increased rationing amongst low income consumers. Furthermore, it looks at the specific needs of some groups of vulnerable consumers during the installation visit.

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?

- 4.1. Ofgem has a particular responsibility towards the vulnerable, with many initiatives and projects already in place to protect their different interests. Appendix 2 outlines how Ofgem defines vulnerable consumers and the existing initiatives and protections that are currently in place for such consumers. This supplements the definitions of vulnerability in the wider consumer protection legislation such as the Consumer Protection from Unfair Trading Regulations 2008 (CPUTRs).
- 4.2. The previous chapter has identified a number of areas where further protection may be needed, such as where suppliers are proposing to switch a consumer to prepayment terms or remotely disconnect. Chapter 6 highlights a number of areas covered by other parts of the Prospectus where we have taken particular account of the needs of vulnerable customers. In this chapter, we consider the overall implications of smart metering for vulnerable consumers and those in fuel poverty. It is important to note that whilst there is some overlap between vulnerable consumers and the fuel poor, the two are not synonymous. One important issue not covered in this chapter is the costs of the smart metering for low income consumers and the fuel poor. We discuss the recovery of costs in more detail in Chapter 5.

Specific needs of the vulnerable

Energy consumption information

- 4.3. Consumer engagement and action to save energy is central to delivering the benefits of smart metering. Access to information on their current and historical energy consumption through the IHD will provide all consumers with information that will help them to take informed action to save money, energy and carbon.
- 4.4. However, a particular issue highlighted in the FDS research published alongside this Prospectus relates to concerns around the potential impact of detailed consumption information on certain vulnerable groups. Specifically, there is a potentially detrimental impact of real-time feedback on consumption decisions that

¹³ Households are considered as being in fuel poverty if they would have to spend more than 10 per cent of their household income on fuel to heat their home to an acceptable level.

could be made by some more vulnerable elderly and low-income consumers. For example, the concern was expressed that certain vulnerable consumers (for example, some of the elderly) may forgo adequate lighting or heating in order to save money, which could damage their health and quality of life.

4.5. A specific concern was raised in the context of visual (non-numerical) indicators of current consumption on IHDs, such as a traffic light system where red is used as an indicator of relatively high consumption. While non-numerical feedback gives the consumer a feel for what is going on, without requiring detailed attention, it may unnecessarily alarm some people and could potentially result in them cutting back their usage to levels that may adversely affect their health and quality of life, it will be important for suppliers during rollout and on an ongoing basis to provide vulnerable customers with energy efficiency advice and measures and to properly explain the IHD displays. This issue is discussed further in the IHD supporting document and views are sought on how the visual display would be calibrated and how this might address such concerns. Alternatively it may be possible for visual indicators to be disabled where they cause, or are likely to cause, distress and/or detrimental behaviour. Other measures may also help to reduce rationing, including government-led campaigns and other sources of energy efficiency support.

Rollout and installation visits

- 4.6. The smart metering programme will mean that installers will need to visit all households in Great Britain. The installation visit presents a very important opportunity to provide assistance and advice to vulnerable consumers. Installers could alert those who are of pensionable age, disabled or chronically sick that they are entitled to be added to the PSR. Similarly, installers could alert vulnerable consumers to other help and assistance that might be available, such as Winter Fuel Payments, Warm Front, social tariffs as well as other initiatives that provide energy efficiency or financial advice. However, we have concerns about suppliers gaining entry to customer's home under the pretext of installing a smart meter and IHD and then once inside using the opportunity to attempt to effect a sale. We therefore believe that the installation visit should not be used for unwelcome sales activities. Chapter 2 considers this issue in more detail and requests views on what might be considered inappropriate and why.
- 4.7. Some stakeholders have also expressed concern that the requirement to let a stranger into the home may create particular anxiety for vulnerable consumers. There are already a number of existing protections that deal with this such as password schemes. In addition we are proposing to require suppliers to develop a Code of Practice on installation. We envisage that this could include additional protection for vulnerable consumers. Further information on the Code of Practice can be found in the Rollout Strategy supporting document.
- 4.8. Some vulnerable consumers are also less likely to engage with conventional media and some, particularly some elderly consumers, may be wary of the introduction of new technology. Low-income consumers or the fuel poor may worry that smart meters will lead to an increase in bills, while some vulnerable consumers may be easier to reach through trusted contacts or carers.

4.9. Local co-ordination will play an important role in engaging such consumers. Close co-operation between suppliers and trusted local charities, consumer groups, regional organisations, local authorities, and other local agencies will be key to reaching certain groups of consumers and easing fears around smart metering. Further information on local coordination can be found in the Rollout Strategy supporting document.

- 4.10. Another means of providing support to vulnerable consumers would be to place an obligation on suppliers to set up a central body to oversee the development and running of a dedicated help scheme. This could be similar to the Switchover Help Scheme, which was set up to offer practical help at digital television switchover to older and disabled people. The Switchover Help Scheme offers eligible consumers help to switch one TV set to digital, including equipment, installation and aftercare. It also plays an important role in explaining digital TV simply and clearly and in reaching hard-to-reach customers through links with community groups and local charities.
- 4.11. A further option is to allow suppliers to decide how best to deliver a help scheme. This could be achieved by placing a high level obligation to provide appropriate support for vulnerable consumers.
- 4.12. We are currently considering the options for providing the advice and support that will be needed to help vulnerable consumers realise the benefits of smart metering and will explore options with relevant stakeholders in parallel with this consultation.

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?

Prioritising Vulnerable Customers

- 4.13. Several stakeholders have raised the possibility of prioritising the rollout towards particular groups of vulnerable consumers, particularly those on low incomes and prepayment customers. Arguments in favour include the fact that it may allow them to realise the benefits of smart metering earlier than might otherwise be the case. It may also mitigate the risk that certain groups of customers are left behind.
- 4.14. There are, however, a number of arguments against prioritising the more vulnerable. In particular, consumer groups believe that it is important for such consumers to have a support network around them others in their community who use smart meters and who can provide advice and support if needed.
- 4.15. Furthermore, one of the key issues with prioritising particular groups of more vulnerable customers would be suppliers' ability to identify such customers. Under the Carbon Emissions Reduction Target (CERT), where there are targets for priority groups, there is a real incentive for customers to identify themselves as being on low

incomes (for example, to get free insulation) but in general they do not readily share information about their income and circumstances. This is a well known and major problem in all initiatives aimed at tackling fuel poverty. For example, on social price support the Government introduced primary legislation so that the Department of Work and Pensions (DWP) could share data with suppliers to help them identify and provide support to low income pensioners. A similar approach was adopted during digital switchover.

4.16. We do not propose to set specific priorities initially but will review the need for such measures as the rollout progresses. The Rollout Strategy supporting document considers in more detail the operational impacts of prioritising prepayment customers, non-domestic customers and customers in fuel poverty.

5. Cost recovery and monitoring of costs

The rollout of smart metering is expected to increase costs for suppliers which will be recovered from consumers. This chapter considers possible approaches which suppliers may adopt to recover costs from consumers. It also discusses the options for monitoring the costs of the smart metering programme.

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

- 5.1. As set out in the updated DECC Impact Assessment, the business case for smart metering is strongly positive. There are expected to be clear net benefits both for Great Britain as a whole and, on average, for the individual customer. The Impact Assessment indicates that, by 2020, the bill for an average domestic customer with an electricity and gas supply will be £14 lower as a result of smart metering. These savings are expected to come primarily from reduced energy consumption. Individual customers will react in different ways to smart meters, and some will make greater savings than others from the new or improved services that the meters will facilitate. This will depend on a range of factors, including the scope to improve energy efficiency, the existing patterns of daily energy use and the propensity of the individual consumer actively to manage their energy costs.
- 5.2. The estimated saving also assumes that, although suppliers will realise cost savings from smart metering, implementation of the smart metering programme will increase overall costs for suppliers. Suppliers will realise savings through, among other things, avoided meter reading, reduced customer service costs, better debt management and avoided costs to serve for prepayment customers. We would expect these savings to be passed through to consumers. However, these savings will not fully offset the additional costs suppliers will incur in meeting their obligations to roll out smart meters. They will also incur costs associated with the establishment and operation of the central data and communications body (DCC).
- 5.3. The Impact Assessment therefore assumes that, overall and over the period of the roll-out, suppliers' additional costs will exceed their savings. We expect suppliers to recover the difference from customers through their bills. If they did so, this would increase costs passed through to customers with both electricity and gas by an average of £16 a year by 2020. By 2030, when suppliers' transitional costs have worked through, the costs passed through to a customer for both gas and electricity would total £5. However, as noted above, energy bills are estimated to be lower overall as consumers make savings facilitated by smart meters.
- 5.4. These costs will be no different to other supply costs, in as much as we would expect an efficient level of costs to be passed on to consumers. The competitive energy supply market acts as a price restraint on suppliers and creates incentives to deliver, and charge for, smart metering in a way that minimises costs to consumers and offers them value for money. Suppliers who do not minimise costs risk losing customers.

5.5. We recognise that the way in which suppliers recover the cost of smart metering from their consumers raises important issues of fairness and also has the potential to affect consumers' attitude to smart metering.

Cost recovery

- 5.6. We have considered two possible ways in which suppliers could recover costs: by levying a one-off, upfront charge when a meter is installed, or by recovering costs over the lifetime of the meter. If they took the latter approach, suppliers could apply a higher tariff once a household has received its smart meter, or they could identify anticipated overall smart metering costs, and adjust tariffs for all customers to recoup them.
- 5.7. In our view, levying an upfront, one-off charge may amount to an unfair financial burden for some consumers. It could also adversely affect the success of the rollout by deterring consumer take-up of smart metering, because, from the perspective of the consumer, the installation of a smart meter will be associated with an increase in expenditure.
- 5.8. We therefore propose to prohibit suppliers from imposing upfront charges on customers for smart meters and IHDs which only meet the minimum regulatory requirements. Further information on these requirements is available in the In-Home Display supporting document. We recognise that some consumers may wish to pay an up-front charge on installation to obtain value-added products and services, such as IHDs with enhanced features. Our approach will retain suppliers ability to offer innovative and enhanced products to respond to customers' needs. While ensuring that all customers have the option of a standard smart meter and IHD without an upfront charge.
- 5.9. If upfront charging is excluded, suppliers will still have a choice of whether to apply costs gradually to individual customers as they receive meters, or, from the outset, recover costs across their whole customer base.
- 5.10. In the first of these approaches, suppliers would recover their costs from those customers who had received a smart meter by increasing the customer's tariff or applying an additional standing charge. If suppliers chose this approach, only those who are able to directly benefit from smart metering would pay towards the cost. However, as with levying an upfront charge on installation, there would be a risk that this could adversely affect customers' willingness to have a smart meter. This is because the bill would be likely to increase following installation as the supplier would have to recover its capital and installation costs from a small (albeit growing) proportion of its customers. In following this approach, a supplier would therefore risk losing customers and increasing resistance to installation, adversely affecting its supply business and making its metering targets more difficult to meet.
- 5.11. We therefore fully expect suppliers to recover costs through the second approach, by recouping them from all customers from the start of the rollout. This is how they recover costs now. This approach would ensure that each customer pays a

relatively low, equalised amount throughout the rollout, which would be the fairest approach across the board, and the least likely to generate resistance to installation. It will, therefore, be more likely to support the rollout of smart meters and the realisation of the associated benefits.

- 5.12. We have considered whether any regulatory action is needed to ensure this approach. We note that suppliers have strong incentives not to disadvantage their supply business or deter smart metering take-up. On the latter, if consumers oppose installation of a smart meter this may hinder suppliers' ability to achieve the anticipated cost savings in their business. In addition, during rollout, suppliers will be required to meet installation targets. If suppliers fail to meet these targets then Ofgem will be able to take enforcement action. Further information on the targets can be found in the Rollout Strategy supporting document.
- 5.13. In the event that suppliers did choose to raise tariffs on installation of the meter, consumers who did not wish to pay more would have the option to switch to another supplier. Under SLC23 of the domestic supply licence, suppliers are required to notify customers of any unilateral contract variation to increase the charges. The supplier must also inform the customer of their right to switch to another supplier within 20 days of receipt of the tariff increase notification without incurring the higher charges.
- 5.14. Given these significant incentives on suppliers to recover costs across all consumers from the start of the rollout, as well as the existing protection where changes are made to the terms of a contract, we do not see a strong case for intervening to prevent suppliers from recovering their costs only from those customers who have had a smart meter installed, and we do not, therefore, propose to regulate how suppliers should recover costs over the meter's life.
- 5.15. Whilst the costs of smart metering per customer will be lower under this approach, it will mean that some consumers pay towards the costs of smart metering in advance of installation, and thus before they obtain all of the benefits. This could raise issues of fairness, because consumers without a smart meter will not, for example, have access to better information on consumption and new tariffs and services which will help them to reduce energy usage and expenditure. On this issue we note that all consumers, not just those who have had a smart meter installed, will benefit from the wider societal benefits of rollout as a result of the expected fall in carbon emissions and the potential for better management of, and investment in, the electricity network. We also fully expect suppliers to install a smart meter upon request from a customer at any point during the rollout, subject to technical or resourcing issues. Furthermore recovering costs across all consumers means that for more difficult or costly installations the customer would not be exposed to the extra costs.
- 5.16. Although smart metering costs will make up only a small proportion of the bill, recovering costs across all customers will disproportionately impact customers on lower incomes. In a fully liberalised supply market it is not possible to control how costs are allocated to particular groups of consumers. The Government is therefore considering this issue in the wider context of the costs of environmental programmes

for energy consumers and particularly those in fuel poverty. The Government continues to work to develop better ways to support vulnerable and fuel poor households.

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

Monitoring of costs

- 5.17. Consumer groups have raised the need for the costs of the smart metering programme to be monitored and for there to be transparency. There could be two possible ways of approaching this: (i) obliging suppliers to report rollout costs on consumer bills; and/or (ii) asking suppliers to report costs directly to the programme.
- 5.18. In terms of reporting costs on consumer bills, a key test for including further information is whether it would enable domestic consumers to engage more effectively with energy suppliers and with the energy market more broadly. Research from the Energy Supply Probe found that many consumers already find their bills difficult to understand. Adding information on rollout costs to the domestic bill may potentially lead to customer confusion. Furthermore, metering costs will make up a small portion of the total bill compared to other larger items such as wholesale costs or network charges, which are not currently reported. Therefore, we do not propose to require suppliers to include information on the costs of smart metering rollout on the bill.
- 5.19. In terms of reporting costs directly to the programme, we are currently developing plans to monitor implementation and verify that the benefits of smart metering are being delivered in practice. To assess the overall business case in an effective way, the programme proposes to require regular reporting by suppliers of aggregate costs of their rollout programmes. The format of this reporting will be developed during subsequent phases of the programme to ensure consistency across suppliers. Further information on reporting requirements can be found in the Rollout Strategy supporting document. We welcome views on our proposed approach.

6. Other consumer issues

This chapter provides an overview of the consumer issues addressed in other supporting documents that form part of the Prospectus package.

- 6.1. Before and during the rollout consumers are likely to have questions around what smart meters actually mean for them and when they will receive one. They may also have concerns, for example, around the installation visit or data privacy and security.
- 6.2. This chapter identifies key issues of particular interest to consumers in relation to smart metering. In each section we also set out in a table where further information can be found on each of these issues in the supporting documents which are published as part of the Prospectus package.

In-home display and additional smart devices

- 6.3. The Government has decided that suppliers should provide all domestic customers with an IHD. For many customers, this will be the most visible aspect of smart metering. To be of value, it is critical that the IHD provides consumers with the information they need in a readily accessible form. Consumers will also need to understand how to operate the display and use the information it provides to manage their consumption. We have proposed the minimum information requirements that must be met by all displays. We are also proposing to require suppliers to provide information to their consumers. This would include information provided at the time of installation and training provided in the use of the IHD and meters.
- 6.4. We are proposing that suppliers should have to take all reasonable steps to provide customers with an IHD meeting the specified minimum requirements; suppliers would also be responsible for maintaining and replacing IHDs for one year after installation of the smart meter. This would be in addition, and without prejudice, to other obligations such as those arising out of statutory consumer protection provisions and the terms of their contracts with consumers. In the event that a consumer declines the IHD, there would be a requirement on suppliers to provide an IHD if the consumer requests one within one year from the installation visit. Suppliers will be required to notify customers of their rights in this respect. We have also considered the portability of the display and the arrangements for households that have different suppliers for electricity and gas.
- 6.5. The Disability Advisory Forum has outlined a number of design features that would allow consumers with a range of disabilities to engage fully with the IHD. This includes the use of simple, large text displays and large buttons to help make the display more accessible. In fact, many of these design features may benefit not only the vulnerable but also the wider public. Of specific added value for blind or partially-sighted consumers would be displays that also included an audio output. As set out in the "In-Home Display" supporting document, while we would not consider it

appropriate to mandate detailed requirements in this area, not least to avoid hampering innovation, we invite views on whether there is a case for a high-level 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.

- 6.6. While we intend to mandate the minimum information requirements for the IHD, some consumers will want to acquire a more advanced display. Smart metering also allows consumers to add devices to the HAN that can gather information on energy consumption or in the future be programmed to control usage of household appliances. From the perspective of the consumer, it will be important that new smart devices or IHDs can be added easily and securely to the HAN and can communicate with the smart meter.
- 6.7. In order to ensure that all parts of the system work together and that customers can change supplier without changing their meter, there is a need for a detailed technical specification for the smart metering system. We have specified the proposed functional requirements that will then be used to develop the technical specification. Our proposed functional requirements include a limit on the power consumption of the meter, communications and IHD, and a requirement that any solution must not interfere with existing wireless networks.

Table 6.1 – Where to find further information on the IHD, the functional requirements and the Home Area Network

Issue	Description	Supporting Document	Reference
In-home display	Minimum information requirements for the IHD	In-Home Display	Chapter 2
	Length of mandate on suppliers to provide an IHD	In-Home Display	Chapter 3
	Arrangements for consumers with special requirements	In-Home Display	Chapter 2
	Arrangements for households with more than one supplier	In-Home Display	Chapter 3
	Arrangements for consumers who do not want an IHD	In-Home Display	Chapter 3
	Display portability	In-Home Display	Chapter 2
Energy usage	Power consumption of mandated equipment	Statement of Design Requirements	Chapter 3

Metering system	Functional requirements specification	Statement of Design Requirements	Chapter 4
Home area network	Access to information via the HAN	Regulatory and Commercial Framework	Chapter 4

Data privacy and security

- 6.8. Smart meters will allow suppliers to read meters remotely. This removes the need for estimated readings and the inconvenience of waiting at home for visits by meter readers. As a result, consumers can expect to receive accurate bills and precise information on the amount of gas and electricity they consume, which, in turn, will help them to better manage their energy consumption.
- 6.9. While the step change in the amount of information potentially available from smart meters brings clear benefits to consumers, we recognise it may also raise privacy and security concerns for individuals. Drawing on international experience and the knowledge of experts across different sectors where such concerns have been successfully managed, we are taking a rigorous and systematic approach to managing privacy and security issues and ensure consumer confidence.
- 6.10. As noted in chapter 2, we have adopted 'privacy by design' and 'security by design' principles to ensure that issues and risks are identified early and the end-to-end smart metering system is designed from the outset to deliver appropriate protections for consumers.
- 6.11. We propose the principle that data control rests with the customer, while recognising that there are a range of instances when third parties will have a legitimate need to access that data. We will be undertaking further work to establish the different data requirements of industry participants and whether data collected needs to be individual or aggregated, for example. This will help ensure that personal data will only be transmitted outside of the home where it is essential or where the customer gives consent.

Table 6.2 – Where to find further information on data privacy and security

Issue	Description	Supporting Document	Reference
Data privacy	Data privacy	Data Privacy and Security	Chapter 3
Data security	Security of smart metering system	Data Privacy and Security	Chapter 4

Rollout and installation visit

6.12. Effective engagement of consumers will be key to realising the benefits of smart metering. Raising consumer awareness of the potential benefits of smart metering will help suppliers to gain access to customer premises. More detailed information and support may then be needed to help some consumers use the improved information to take action to reduce their energy consumption and hence lower bills and reduce carbon emissions. We believe there may be benefit in a national awareness campaign to support the delivery of the rollout and as part of the "Rollout Strategy" supporting document invite views on the potential scope of any campaign and the mechanism through which it could be delivered. We also propose to require suppliers to provide information to their consumers at the time of installation, including training regarding the use of the IHD and meters.

- 6.13. Local authorities, housing associations, voluntary organisations and other trusted third parties can also play an important role in promoting consumer awareness of and engagement with smart metering. Given these benefits we expect suppliers to want to work with third parties. In the early stages of rollout we propose to give suppliers broad flexibility to respond to consumer demand for smart meters and to learn from experience. This flexibility will also enable suppliers to link the rollout of smart meters with other initiatives to improve household energy efficiency such as the Green Deal.
- 6.14. In parallel, through a formal review process during the initial stages of rollout, we propose that consideration will be given to further measures that could be used to increase the effectiveness of rollout and secure the anticipated energy savings during later stages.
- 6.15. A positive consumer experience on installation is likely to make consumers more willing to use the IHD and reduce consumption. We are proposing to require that industry develops a code of practice for smart metering installation, which would aim to ensure that all consumers receive a high standard of service. This would include additional requirements for vulnerable consumers to supplement existing protections. This code would be underpinned by a high-level licence obligation and would need to be approved by the Authority.
- 6.16. Consumer groups have raised concerns about the possibility of bogus installers or distraction burglaries. There are already a range of protections in place in statute and licence which require all installers to be 'fit and proper' people and wear ID at all times. We do not consider that any further protection is needed in the licence but we will work with suppliers and other interested parties to consider any additional steps that may be necessary when developing the proposed code of practice.
- 6.17. It is in the best interest of all stakeholders that customers receive a positive experience at installation. We therefore believe there may be value in the programme carrying out (or requiring suppliers to carry out) research into customers' experience. The results could be published and would provide a strong incentive for suppliers to look to continually improve their performance.

6.18. During current day-to-day meter replacement activities, problems are uncovered at meter sites that require more significant rework activities, such as electricity metering backboards that are made of asbestos or safety problems with gas appliances. Although these are business as usual problems in the sense that they occur during the replacement of traditional meters too, the smart meter rollout would likely accelerate the rate at which problems are found. To assist in resolving these issues and ensure a seamless customer service, the programme will continue to facilitate engagement with suppliers, metering agents and network companies aimed at agreeing a co-ordinated approach.

6.19. As with traditional meter replacements, the installation of a smart meter may bring to light errors with existing meters or bills. For example, there may be instances of inaccurate billing or crossed meters, whereby a supplier has been billing a customer based on meter readings taken from another customer's meter. The rollout provides an opportunity to identify and resolve such errors. The rollout provides an opportunity to identify and resolve such errors. We also note that the five of the Big 6 energy supply companies have signed up to the ERA Code of Practice for Accurate Bills. This includes a requirement, where the supplier is at fault, not to back-bill consumers beyond 12 months from the date on any subsequent bill. There may also be scope to include a similar requirement in the code of practice for smart metering installation.

Table 6.3 – Where to find more information on rollout

Issue	Description	Supporting Document	Reference
General consumer engagement	Broad awareness raising of smart metering	Rollout Strategy	Chapter 2
Information provided by suppliers	Detailed information and advice on energy saving	Rollout Strategy	Chapter 2
Local coordination and planning	Approaches for planning and coordination of the rollout	Rollout Strategy	Chapter 2
	Standards of service during the installation visit	Rollout Strategy	Chapter 4
Installation	Security concerns	Rollout Strategy	Chapter 4
visit	Monitoring customers' experience	Rollout Strategy	Chapter 4
Seamless customer service	Technical solutions, resourcing and common services	Rollout Strategy	Chapter 4

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¹⁴ The sixth supplier has made a similar commitment in their own domestic customer energy charter.

In-service performance monitoring of the smart metering system

6.20. The rollout of smart metering in the domestic sector will require the introduction of smart metering equipment into a new environment, such as the customers' premises. We believe it is important to monitor the performance of this new equipment in order to ensure consumer confidence and identify any potential problems with equipment failure, both in early life and longer term, and operational issues such as unintended interaction with unrelated equipment. We recognise that gaining technical assurance for the smart metering equipment is key to maintaining public confidence and maintaining benefits enabled through smart metering. We propose to consider this important aspect as part of the work of the Smart Metering Design Expert Group.

Issue	Description	Supporting Document	Reference
In-service testing of gas and electricity meters	Governance arrangements of in-service testing scheme	Regulatory and Commercial Framework	Chapter 5

Early movers

- 6.21. The rollout of smart meters to all homes and businesses in Great Britain is being taken forward as a central programme in order to deliver a cost-effective approach that maximises the potential benefits while protecting consumers and promoting competition in the market. Some suppliers are already providing, or have indicated their intentions to provide, smart meters to consumers before the regulatory framework is established and suppliers are mandated to begin rollout. These plans can add experience to that which is already shaping the development of the Great Britain smart metering programme. They will also allow consumers to realise the benefits of smart metering sooner.
- 6.22. We note that any investment in smart meters before the smart metering solution is finalised is undertaken at suppliers' own commercial risk and in line with existing obligations such as those under statutory consumer protection provisions and the terms of their contracts with consumers. It is also important that activity in the period before the official start of the Great Britain smart metering programme is delivered in a way that protects consumer interests, and promotes consumer choice and benefits and does not jeopardise the successful delivery of the programme.
- 6.23. The programme has also considered a number of measures to ensure that consumers can benefit from receiving smart meters early. For example, Ofgem intends to introduce a package of measures in spring 2011 to provide for the continued safeguarding of consumers' interests. This could also include obligations on interoperability to ensure there are no barriers to customer switching.

Table 6.4 – Where to find more information on early movers

Issue	Description	Supporting Document	Reference
Early movers	Some deploying smart meters in advance of the official start of the mandated rollout programme	Regulatory and Commercial Framework	Chapter 5

Value-added services and microgeneration

6.24. The smart metering infrastructure may be capable of supporting value-added services beyond electricity and gas smart metering. Subject to the introduction of appropriate regulatory arrangements, such services could include communications for water smart metering or wider services such as tele-healthcare that the customer may choose to take up. Our proposed functional requirements specify that the HAN should support the addition of new device classes, such as other utility meters or smart appliances. However, we propose that the DCC should not be allowed to support such services until the programme is satisfied that the core energy services are being effectively delivered.

6.25. The smart metering system can also support the deployment of microgeneration, which is defined as the small-scale production of heat and/or electricity from a low carbon source. The launch of the Feed-in-Tariff (FIT) this year will allow households and communities that install generating technologies to claim payments for the low carbon electricity they produce. This requires meter readings from the microgeneration meter to verify how much energy is being generated and meter readings from the main meter to verify how much is being exported. The smart metering communications infrastructure can be used to send such readings to the supplier. To enable this, we have specified in the functional requirements that the HAN must be able to support data transfer with devices such as microgeneration meters. We have also specified that the smart metering system should support import and export metering.

Table 6.5 – Where to find further information on value added services and microgeneration

Issue	Description	Supporting Document	Reference
Value added services	Use of the smart metering infrastructure for value added services	Communications Business Model	Chapter 2
Microgeneration	Use of the smart metering infrastructure for	Statement of Design Requirements	Appendix 2

microgeneration	

Inspection of the meter

6.26. Under the gas and electricity supply licences, suppliers are required to inspect meters every two years to look for damage, interference or anything which might affect safety and proper functioning. Currently inspections are usually carried out when the meter is read. However, once smart meters are read remotely, safety inspections would have to be done for this purpose alone and, hence, reducing the frequency of such inspections would save costs. The availability of alerts from the meter, for example where there is tampering, may reduce the need for visual inspections.

6.27. The licensing framework permits a supplier to request a derogation from the two year must-inspect obligation. The onus is on the supplier to present a business case that demonstrates that the Health and Safety Executive (HSE) has been consulted and that any concerns they may have raised have been addressed. In considering any application we would have regard to a number of issues, including how customers will be affected and whether safety will be compromised. The programme will keep a watching brief on this topic and review the need for action.

Table 6.6 – Where to find further information on meter inspection

Issue	Description	Supporting Document	Reference
Meter	Current licence	Regulatory and	
	requirements to inspect	Commercial	Chapter 5
inspection	gas and electricity meters	Framework	-

7. Conclusions and next steps

This chapter summarises our proposals and next steps for ensuring that consumer protections are fit for purpose as smart meters are rolled out across Great Britain.

7.1. The rollout of gas and electricity smart meters to every home in Great Britain brings significant benefits to consumers through accurate billing, improved information on energy consumption, smoother switching and the offer of new tariffs and services. Smart metering will also play an essential role in the move to a low carbon energy system, involving greater use of electric vehicles, renewable energy and more active management of energy networks, often referred to as smart grids. The smart meter rollout is also integral to the Green Deal, the Government's overarching policy on energy efficiency. The Green Deal will enable households to reduce the amount of energy consumed by the installation of energy efficiency measures, and providing tailored advice about energy saving behaviours. Smart meters will build on this by promoting active energy management by the household.

7.2. As smart meters are rolled out across Great Britain, Ofgem, in coordination with the programme, is committed to ensuring that consumer protections are sufficient and appropriate; where necessary, we will reinforce protections to safeguard consumers' interests. We are particularly aware of the need to act quickly in light of the decision by some suppliers to provide smart meters to consumers in advance of the start date for the mandated programme. Smart metering has the potential to improve the services offered to consumers but we are alert to potential concerns, for example around tariff confusion, unwelcome selling during the installation visit and the need for easy and secure access to consumption data. The ability for suppliers to remotely switch customers to prepayment mode and remotely disconnect supply means that we are reviewing existing protections in this area. Furthermore, addressing the needs of vulnerable consumers and the fuel poor during the rollout is a priority for the programme. Finally we have also considered the issues around the recovery of the costs of introducing smart metering.

Summary of key proposals

- The Gas and Electricity Markets Authority (GEMA)'s principal objective is to protect the interests of existing and future consumers. In line with this, Ofgem as distinct from the programme, is specifically identified as taking forward certain actions in this document. These include the following activities: Consulting on whether early changes to existing supply licence conditions are required in the light of the ability for suppliers remotely to disconnect consumers and remotely switch them to prepayment mode;
- Monitoring compliance with, and the suitability of, existing obligations and standards of conduct relating to marketing and the quality and accessibility of information provided to consumers; and
- Proposing to review existing supply licence obligations around information provision.

7.3. In addition, the programme is proposing to:

- Ensure that the installation visit is not used for unwelcome sales activities;
- Prevent the IHD provided during rollout from being used to transmit unwelcome marketing messages;
- Consider the scope and mechanism for establishing a dedicated help scheme for vulnerable consumers:
- Ensure that consumers can access their historical consumption data free of charge, in a suitable format and at an appropriate level of detail; and
- Prohibit suppliers from imposing upfront charges on customers for smart meters and IHDs that only meet minimum regulatory requirements.
- 7.4. There is a range of other areas where we are working to ensure that sufficient and appropriate protections are in place. Chapter 6 of this document identifies where further information can be found on a range of consumer issues addressed in other supporting documents that form part of the Prospectus package. These issues include the installation visit, data privacy and security and the information that will be provided through the IHD.

Next steps

- 7.5. Ofgem intends to introduce a package of measures in spring 2011 to provide for the continued safeguarding of consumers' interests. Given that some suppliers are starting to move early and install smart meters on a commercial basis, this would help ensure that vital consumer protections in areas such as remote disconnection are in place to deal with early movers. This package could also include measures around interoperability aimed at providing suppliers with the necessary confidence to undertake the rollout and ensuring consumers can continue to switch suppliers in a straightforward manner.
- 7.6. Based on responses to the consultation, we will also take forward work on issues relating to unwelcome selling during the installation visit, access to historical consumption data, upfront charges and the scope for a dedicated help scheme for vulnerable consumers to ensure a framework is in place in advance of the mandated rollout.

Appendices

Index

Appendix	Name of Appendix	Page Number
1	Consultation Response and Questions	44
2	Definition of vulnerable consumers and existing protections	47
3	Glossary	49
4	The Authority's Powers and Duties	55

Appendix 1 – Consultation Response and Questions

- 1.1. We would like to hear the views of interested parties in relation to any of the issues set out in this document. When responding please state whether you are responding as an individual or representing the views of an organisation. If responding on behalf of an organisation, please make it clear who the organisation represents and, where applicable, how the views of members were assembled.
- 1.2. We would especially welcome responses to the specific questions included in each chapter and that are replicated here. These detailed questions sit behind the more high-level questions contained in the Prospectus.
- 1.3. Responses should be received by 28 October 2010 and should be sent to:
- Margaret Coaster
- Smart Metering Team, Ofgem E-Serve
- 9 Millbank, London SW1P 3GE
- 020 7901 7000
- <u>smartmetering@ofgem.gov.uk</u>
- 1.4. Unless marked confidential, all responses will be published by placing them on the websites of Ofgem (www.ofgem.gov.uk) and DECC (www.decc.gov.uk). Respondents may request that their response is kept confidential.
- 1.5. Respondents who wish their responses to remain confidential should clearly mark the document(s) to that effect and include the reasons for confidentiality. Respondents are asked to put any confidential material in the appendices to their responses. It would be helpful if responses could be submitted both electronically and in hard copy.
- 1.6. Individual responses and information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the access to information regimes (these are primarily the Freedom of Information Act 2000 (FOIA), the Data Protection Act 1998 (DPA) and the Environmental Information Regulations 2004).
- 1.7. In view of this, it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department of Energy and Climate Change or Ofgem. We will process your personal data in accordance with the DPA. In the majority of circumstances, this will mean that your personal data will not be disclosed to third parties.

1.8. Any questions on this document should, in the first instance, be directed to:

- Margaret Coaster
- Smart Metering Team, Ofgem E-Serve
- 9 Millbank, London SW1P 3GE
- 020 7901 7000
- smartmetering@ofgem.gov.uk

You may make copies of this document without seeking permission. Further printed copies of the consultation document can be obtained from the contact above. An electronic version can be found on the Ofgem website at: www.ofgem.gov.uk. Other versions of the document in Braille, other languages or audio-cassette are available on request.

CHAPTER 2

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

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

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

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

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

CHAPTER 3

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

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

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

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?

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

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?

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

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?

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

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.

CHAPTER 4

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

CHAPTER: Five

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

Appendix 2 – Definition of vulnerable consumers and existing protections

- 1.1. In meeting its statutory duty to protect the interests of consumers, Ofgem has particular responsibility towards those who are disabled or chronically sick, of pensionable age, on low incomes or residing in rural areas. Ofgem recognises that a number of other groups may also be classed as vulnerable, including those:
- With low levels of literacy and numeracy or without a good command of English, which makes it difficult for them to engage with suppliers;
- Without a bank account and hence very restricted in their payment method and unable to access many of the more competitive tariffs;
- Without easy internet access and so less able to take advantage of some of the technology, such as top-up over the internet, which smart metering could allow; and
- Living in poor housing that is hard to heat.
- 1.2. There are also a great many people with physical or mental disabilities, or conditions covered by the 'disabled or chronically sick' category, who have very different needs. Some have no vulnerability in terms of the energy market whilst others are particularly reliant on an energy supply; have high energy bills because they are largely housebound or suffer from a condition which requires them to heat their home more than average; or need specific services from their energy supplier such as bills and correspondence in Braille or large font.
- 1.3. We also recognise that many of those who may fall into the groups referred to explicitly in Ofgem's duties are not in fact vulnerable, or are only so in particular circumstances. For example, many of those of pensionable age are physically fit and/or well off and those living in rural areas may be vulnerable in certain circumstances because of lack of access to services such as gas or broadband networks but may otherwise not be particularly vulnerable.
- 1.4. It is also important to note that while there is an overlap between vulnerable consumers and the fuel poor, the two are not synonymous. Some vulnerable consumers are not fuel poor but face barriers to participating in the energy retail market that others do not. Similarly, many fuel poor consumers are fuel poor for reasons unrelated to the functioning of the energy market, such as low incomes or poor housing.
- 1.5. Similarly PPM customers are sometimes assumed to be fuel poor and/or vulnerable. However, whilst the proportion of consumers on PPM tariffs is high among some categories of the vulnerable (such as those on income-related benefits), for other groups, particularly pensioners, it is below average. Standard credit is the most common payment method among the fuel poor.
- 1.6. Many of the issues facing vulnerable consumers have been well understood for some time. Given the importance of energy to health and basic quality of life,

vulnerable consumers require additional help and protection that the market might not otherwise provide.

- 1.7. In the supply licence, there are a number of conditions which provide specific protections for the vulnerable including those in payment difficulties, pensioners, the blind, visually impaired and deaf. Standard Licence Condition (SLC) 27 includes a requirement that when a customer is in payment difficulty the supplier must offer to deduct payments direct from social security benefits, set up a regular payment plan or install a prepayment meter. SLC 27 also prohibits suppliers from knowingly disconnecting customers of pensionable age during winter (October to March) and requires suppliers to take all reasonable steps to avoid disconnecting, again during winter, households where the customer or occupants are disabled, chronically sick or of pensionable age. Under SLC 26 each supplier must establish and maintain a Priority Services Register (PSR) which lists all the supplier's customers who are of Pensionable Age, disabled or chronically sick and who have requested to be registered. Suppliers must provide a range of services to PSR customers and provide information on these services, free of charge, to all registered customers.
- 1.8. Services to be provided by suppliers include, where requested by the customer, quarterly meter readings where the customer is unable to read the meter, relocation of a PPM if the customer cannot access the meter and provision of bills and billing / complaints information in an accessible format for blind or partially sighted and deaf or hearing impaired customers. Suppliers must, at least once a year, take all reasonable steps to inform each of their domestic customers that the PSR exists and how eligible customers can be registered.

Appendix 3 - Glossary

С

Catalogue

The functional requirements of the smart metering system are brought together in our proposed Smart Metering System Functional Requirements Catalogue (the "Catalogue"). This covers the smart metering system for both domestic and smaller non-domestic sectors.

Codes

Industry codes establish detailed rules that govern market operation, the terms for connection and access to energy networks. The supply and network licences require the establishment of a number of industry codes that underpin the gas and electricity markets. The electricity codes are: Balancing and Settlement Code (BSC), Connection and Use of System Code (CUSC), Distribution Code, Grid Code, Master Registration Agreement (MRA), System Operator-Transmission Owner Code (STC), Distribution Connection and Use of System Agreement (DCUSA). The gas codes are the Uniform Network Code (UNC), Independent Gas Transporter (IGT) Network Codes, Supply Point Administration Agreement (SPAA).

Commercial interoperability

The terms on which a new supplier can use the meter and related equipment when a customer changes supplier.

Consumer

Person or organisation using electricity or gas at a meter point.

Consumer Advisory Group (CAG)

The Consumer Advisory Group consists of members from groups representing a broad range of domestic consumers. It was set up to help inform the programme and to promote understanding of key consumer issues, particularly more complex issues that cannot be fully explored through primary consumer research.

Customer

Any person supplied or entitled to be supplied with electricity or gas by a supplier.

Customer premises equipment

All smart metering equipment in a customer's home or business.

D

DataCommsCo (DCC)

New proposed entity which would be created and licensed to deliver central data and communications activities. DCC would be responsible for managing the procurement and contract management of data and communications services that will underpin the smart metering system.

Department of Energy and Climate Change (DECC)

The Department of Energy and Climate Change (DECC) was created in October 2008, to bring together: energy policy and climate change mitigation policy.

Disability Advisory Forum

A group hosted by Ofgem that is attended by a range of organisations representing the interests of people with disabilities.

Dual fuel

A type of energy contract where a customer takes gas and electricity from the same supplier.

Ε

Emergency credit

Credit applied by a supplier when a meter is out of credit to avoid interruptions during defined time periods such as overnight.

Energy suppliers

A company licensed by Ofgem to sell energy to, and to bill, customers in Great Britain.

F

Fuel poverty

Households are considered as being in "fuel poverty" if they would have to spend more than 10 per cent of their household income on fuel to keep their home adequately heated.

27 July 2010

Functional requirements

The minimum functions that must be supported by the different elements of the smart metering system to ensure the delivery of the benefits of smart metering. Describes what the smart metering system must do (not how it must do so).

G

Gas and Electricity Markets Authority (GEMA)

The Authority is Ofgem's governing body. It consists of non-executive and executive members and a non-executive chair. The Authority determines strategy, sets policy priorities and takes decisions on a range of matters, including price controls and enforcement. The Authority's principal objective is to protect the interests of existing and future consumers in relation to gas conveyed through pipes and electricity conveyed by distribution or transmission systems. The interests of such consumers are their interests taken as a whole, including their interests in the reduction of greenhouse gases and in the security of the supply of gas and electricity to them. The Authority's powers are provided for under the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998 and the Enterprise Act 2002.

Gas valve

A gas valve may be incorporated into a gas meter to regulate the flow of gas into the consumer premise. It is distinct from the isolation valve.

Н

Home Area Network (HAN)

The smart metering HAN will be used for communication between smart meters, IHDs and other devices in consumers' premises.

I

In-home display (IHD)

An in-home display is an electronic device, linked to a smart meter, which provides information on a customer's energy consumption.

Interoperability

The ability of diverse systems, devices or organisations to work together (interoperate). See also commercial interoperability and technical interoperability.

L

Licence

Transporting, shipping and supplying gas; and generating, transmitting, distributing and supplying electricity are all licensable activities. Ofgem grants licences that permit parties to carry out these activities in the GB market. The licenses require the establishment of a number of multilateral industry codes that underpin the gas and electricity markets. Licensees need to be signed up as parties to codes in order to operate in the gas and electricity markets (see codes).

M

Microgeneration

Microgeneration is the on-site generation of lower carbon heat and power by individuals, small businesses and communities at a small scale.

O

Ofgem

The Office of the Gas and Electricity Markets (Ofgem) is responsible for protecting gas and electricity consumers in Great Britain. We do this by promoting competition, wherever appropriate, and regulating the monopoly companies that run the gas and electricity networks.

Ofgem E-Serve

Ofgem E-Serve is responsible for Ofgem's support and delivery functions. It focuses on administering environmental programmes and the delivery of sustainability projects such as the Smart Metering Implementation Programme.

Ρ

Prepayment meter (PPM)

These are meters that require payment for energy to be made in advance of use or else they will prevent the supply of gas or electricity. A PPM customer pays for energy by inserting electronic tokens, keys or cards into the meter.

Prepayment mode

Smart meters will be capable of switching between prepayment and credit mode. When operating in prepayment mode customers will have to pay for their energy before using it.

Price control

Ofgem sets the price controls for all energy transportation businesses. A price control sets the maximum amount of revenue which the parties subject to the control can recover from the users of their networks/services. This aims to balance the need to allow the companies appropriate resources with the need to protect customers' interests.

Privacy by design

A system that has been designed with privacy in mind from the outset.

Programme

The Smart Metering Implementation Programme.

S

Security by design

Security by design is defined as ensuring that the security of a system is designed from the ground up to be secure. It is an established concept where security risks and issues are identified early in the system's development lifecycle.

Smart appliances

An appliance that can alter the way in which it uses energy (consumption level or time of use) in response to changes in the balance between supply and demand, usually in response to a price signal.

Smart grids

Smart grids, as part of an electricity power system, can intelligently integrate the actions of all users connected to it - generators, consumers and those that do both - in order to efficiently deliver sustainable, economic and secure electricity supplies.

Smart meter

In addition to traditional metering functionality (measuring and registering the amount of energy which passes through it), smart meters are capable of two-way communication allowing them to transmit meter reads and receive data remotely.

Standard credit

A payment method where customers pay on receipt of the bill. This typically covers a wide range of payment mechanisms, including cash, cheque, credit card and standing order.

T

Technical interoperability

The capability of systems or devices to provide and receive services and information between each other, and to use these services and information exchange to operate effectively together in predictable ways without significant user intervention. Within the context of the smart metering system, this means the seamless, end-to-end connectivity of hardware and software from customer premises equipment through to DCC, suppliers, network operators and other authorised parties.

Technical specifications

The technical specifications for the smart metering system will be an explicit set of solutions and guidelines as to how the smart metering system will fulfil the functional requirements

Time-of-use tariff

Under a time-of-use tariff, a supplier varies its charges based on when energy is used (e.g. day/night; peak/off-peak; or by season). Such tariffs can be dynamic (changes in real time) or static (changes at predictable times).

Trickle disconnection

Restriction of the flow of energy to a home, allowing the consumer to use limited levels of electricity to cover basic needs such as lighting and the fridge/freezer. It is used by suppliers as an alternative to full disconnection in cases of non payment by electricity or gas customers.

٧

Value-added services

Services beyond the 'core services' necessary for the functioning of the smart metering system, which will be enabled by the smart metering infrastructure.

W

Wide area network (WAN)

The smart metering WAN will be used for two-way communication between smart meters and DCC (via the WAN communications module in the customer's premises).

Winter fuel payment

The winter fuel payment is an annual tax-free payment made by the government to eligible people aged 60 or over to help towards their winter heating costs.

Appendix 4 – The Authority's Powers and Duties

Ofgem is the Office of Gas and Electricity Markets which supports the Gas and Electricity Markets Authority ("the Authority"), the regulator of the gas and electricity industries in Great Britain. This Appendix summarises the primary powers and duties of the Authority. It is not comprehensive and is not a substitute to reference to the relevant legal instruments (including, but not limited to, those referred to below).

The Authority's powers and duties are largely provided for in statute, principally the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998, the Enterprise Act 2002 and the Energy Act 2004, as well as arising from directly effective European Community legislation. References to the Gas Act and the Electricity Act in this Appendix are to Part 1 of each of those Acts.¹⁵

Duties and functions relating to gas are set out in the Gas Act and those relating to electricity are set out in the Electricity Act. This Appendix must be read accordingly¹⁶.

The Authority's principal objective when carrying out certain of its functions under each of the Gas Act and the Electricity Act is to protect the interests of existing and future consumers, wherever appropriate by promoting effective competition between persons engaged in, or in commercial activities connected with, the shipping, transportation or supply of gas conveyed through pipes, and the generation, transmission, distribution or supply of electricity or the provision or use of electricity interconnectors.

The Authority must when carrying out those functions have regard to:

- the need to secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met;
- the need to secure that all reasonable demands for electricity are met;
- the need to secure that licence holders are able to finance the activities which are the subject of obligations on them¹⁷;
- the need to contribute to the achievement of sustainable development; and
- the interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.¹⁸

Subject to the above, the Authority is required to carry out the functions referred to in the manner which it considers is best calculated to:

¹⁵ Entitled "Gas Supply" and "Electricity Supply" respectively.

¹⁶ However, in exercising a function under the Electricity Act the Authority may have regard to the interests of consumers in relation to gas conveyed through pipes and vice versa in the case of it exercising a function under the Gas Act.

¹⁷ Under the Gas Act and the Utilities Act, in the case of Gas Act functions, or the Electricity Act, the Utilities Act and certain parts of the Energy Act in the case of Electricity Act functions. ¹⁸ The Authority may have regard to other descriptions of consumers.

 promote efficiency and economy on the part of those licensed¹⁹ under the relevant Act and the efficient use of gas conveyed through pipes and electricity conveyed by distribution systems or transmission systems;

- protect the public from dangers arising from the conveyance of gas through pipes or the use of gas conveyed through pipes and from the generation, transmission, distribution or supply of electricity; and
- secure a diverse and viable long-term energy supply.

In carrying out the functions referred to, the Authority must also have regard, to:

- the effect on the environment of activities connected with the conveyance of gas through pipes or with the generation, transmission, distribution or supply of electricity;
- the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed and any other principles that appear to it to represent the best regulatory practice; and
- certain statutory guidance on social and environmental matters issued by the Secretary of State.

The Authority has powers under the Competition Act to investigate suspected anticompetitive activity and take action for breaches of the prohibitions in the legislation in respect of the gas and electricity sectors in Great Britain and is a designated National Competition Authority under the EC Modernisation Regulation²⁰ and therefore part of the European Competition Network. The Authority also has concurrent powers with the Office of Fair Trading in respect of market investigation references to the Competition Commission.

¹⁹ Or persons authorised by exemptions to carry on any activity.

²⁰ Council Regulation (EC) 1/2003