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Smart Metering Implementation Programme: Implementation Strategy

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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 a number of supporting documents published alongside the Smart Metering Implementation Programme Prospectus.

This document sets out what we see are the main activities and outputs for subsequent phases of the programme, together with a proposed timeline. In particular, it sets out our proposal for a staged approach to implementation with an obligation on suppliers to start rolling out smart meters before central data and communications services are available.

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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 **3**
Context 3
Purpose 4
Programme phases 4
Structure of the document 4
2. Programme management and governance **6**
Programme assurance to date 6
Governance going forward 7
3. Programme activities **11**
Promoting consumer engagement 11
Consumer protection 12
Data privacy and security 13
Stakeholder engagement 14
Review of business case 15
Risk management 16
4. Proposals requiring changes to the regulatory framework **17**
Communications Business Model 18
Statement of Design Requirements 18
In-Home Display 19
Rollout Strategy 19
Other 20
5. Implementation plan for regulatory framework changes **22**
Staged implementation approach 23
Indicative implementation milestones 25
Key assumptions 26
Phase-by-phase details 27
Appendices **34**
Appendix 1 – Consultation Response and Questions **35**
Appendix 2 – Glossary **38**
Appendix 3 – The Authority's Powers and Duties **45**

Summary

The Government is committed to the rollout of smart meters to domestic and smaller non-domestic consumers in Great Britain. Ofgem E-Serve has been managing, on behalf of DECC, this first phase of a central programme to design and implement new cross-industry arrangements for the delivery of smart metering. Detailed proposals for consultation on the design and delivery of the smart metering system are set out in the Prospectus and associated supporting documents.

This supporting document sets out in detail our proposals for developing and implementing the proposed approach to the introduction of smart metering. Specifically, this document:

- Identifies areas for stakeholder engagement, for example via advisory and expert groups in the next stage of the programme;
- Sets out the proposed strategy for implementing changes to the regulatory framework; and
- Provides key high-level milestones and activities up to the point where smart meter rollout is underway and the central data and communications services are in place.

Industry participants and a wide range of stakeholders will play a crucial role in ensuring delivery of the Smart Metering Implementation Programme and realising the full benefits for consumers and the nation. We are committed to working with stakeholders to develop the detail of the requirements and the regulatory framework and to support the wider programme of work across industry and other organisations. We therefore encourage stakeholders to engage with this consultation.

Effective implementation of the smart metering proposals set out for consultation in the Prospectus will be underpinned by a regulatory framework to:

- Require a supplier-led rollout of smart meters to domestic and smaller non-domestic customers;
- Establish a new central data and communications function; and
- Define the minimum technical specifications for the smart metering system.

The next stage of the programme will therefore include preparatory work for the development and implementation of change proposals to deliver an appropriate regulatory framework for smart metering.

The first phase of the programme (Phase 1) has focused on developing proposals that define the smart metering system and planning the implementation of these proposals. During Phase 2, the regulatory framework arrangements will be defined and other supporting activities developed. During Phase 3 these arrangements will come into force.

For the remainder of Phase 1 at least, two expert groups, the Smart Meter Design Group and the Data and Communications Group, will be established under the direction of the programme team to assist with the development of an appropriate framework that enables programme objectives to be achieved. Issues relating to the rollout and consumer protection will be taken forward through a number of workshops. This will enable wider representation reflecting the breadth of interest in these areas.

In addition to the existing specialist advisory groups (the Consumer Advisory Group and the Privacy and Security Advisory Group), we propose to establish a new advisory group, the Implementation Co-ordination Group. This will provide a strategic view across the implementation issues involving key industry and other delivery partners in the programme. We expect these new groups to complement wider stakeholder engagement activities.

Many of the benefits associated with smart metering will be delivered by empowering consumers to engage more actively in decisions about energy use. Consumer engagement and protection will be a core part of the framework developed by the programme.

A key part of the smart metering regulatory regime will be setting up of a new central data and communications company (DataCommsCo or DCC). The regulatory framework will define the roles and responsibilities of DCC and its interfaces with existing regulatory requirements.

The energy industry has critical activities to undertake to ensure successful delivery of smart metering. In particular, considerable effort will be required to establish processes and systems and to procure metering equipment and trained installers. The introduction of smart metering will enable wider reform of industry systems and processes. We will work with industry to take advantage of these opportunities.

Looking forward, the Government wishes to accelerate rollout compared to previously published plans. To facilitate this we are proposing a staged approach to implementation, under which suppliers will be required under a licence obligation to start to roll out smart meters to domestic consumers before DCC services are established. This will help ensure that any smart meters that are part of the early mandated rollout remain an integral part of the ongoing solution.

The smart meter implementation programme will bring about far-reaching change to the energy industry and in order to ensure successful delivery it is being managed according to rigorous programme management principles supported by appropriate levels of external scrutiny.

Ofgem E-Serve and DECC have clear joint programme governance arrangements in place, consistent with the scale of the programme and the challenging timescales involved. Later this year, we will decide upon and set out the governance and management arrangements for subsequent phases of the programme.

1. Introduction

Context

1.1. The delivery of smart metering will require significant changes across Great Britain's energy industry. A major central programme is required to design and implement new cross-industry regulatory arrangements, and to oversee the critical activities industry participants and other stakeholders have to undertake in order to deliver the mandated rollout of smart metering.

1.2. The programme has set out proposals for the scope and key principles for how smart metering will be implemented, as discussed in the main Prospectus document.

1.3. Following the definition of proposed functional requirements for the smart metering system in the Prospectus, the programme will move forward with establishing and implementing the framework for delivery. The focus of the programme over subsequent phases will be:

- Smart meter rollout – The programme will establish the regulatory framework to require suppliers to roll out compliant smart meters to domestic and smaller non-domestic consumers[1] within target timescales and provide information and advice as necessary to deliver programme benefits.
- DCC set up – The programme will establish the regulatory framework for DCC, who will be required to ensure the central data and communications services to support smart metering are provided. The regulatory framework will enable the Authority to grant a licence to the DCC following a competitive licence application process.
- Consumer engagement and benefits realisation – The programme will facilitate the rollout of smart meters and identify, through a comprehensive benefits management process, where and how benefits will be delivered and monitored. Proposals for the detailed requirement of the benefits management process will be developed by the programme team in the remainder of Phase 1.

1.4. Industry participants and other stakeholders will play a crucial role in ensuring delivery of the programme and the associated benefits. We are committed to working with stakeholders to develop the detail of the requirements and the regulatory framework and to support the wider programme of work across industry and other organisations.

[1] For the purposes of this document, we define smaller non-domestic electricity and gas sites as those sites in electricity profile classes 3 and 4 and those non-domestic gas sites with consumption of less than 732 MWh per annum.

Purpose

1.5. This document sets out how, subject to the conclusions to this consultation, the programme will implement the various proposals set out in the Prospectus by placing obligations on industry participants within the smart metering regulatory regime.

1.6. This document focuses on programme deliverables where Government decisions will need to be taken. It outlines the activities required to establish the regulatory framework for rolling out smart meters, how this will be developed, and the timescale for activities leading up to the delivery of a mandated rollout. Particular attention is given to how industry participants and other delivery partners will initially be involved in developing the framework, and the subsequent changes that industry will need to develop and implement themselves.

1.7. The approach presented in this document is based on our proposals for the Great Britain smart metering system as defined in the Prospectus. The Prospectus and the associated supporting documents also set out other options that were considered as part of the design phase. If decisions informed by the consultation result in changes to our proposals, this may affect certain aspects of the implementation approach outlined in this document.

Programme phases

1.8. We envisage that the programme will comprise four broad phases:

- Phase 1: Policy design
- Phase 2: Establish framework
- Phase 3: Implement framework
- Phase 4: Ongoing monitoring and compliance

1.9. Each of these phases, including key activities, milestones, timings and dependencies are described throughout this document.

Structure of the document

1.10. The remainder of this document is structured as follows:

- Chapter 2 outlines how the programme has been governed so far and will be governed during the remainder of Phase 1. It also discusses the principles that should underpin governance arrangements for the remainder of the programme. The proposed governance structure is based on best practice and sets out the respective roles of the programme and industry and other stakeholders.
- Chapter 3 outlines wider programme activities that have been established during Phase 1 of the programme that are relevant to the regulatory framework development work.

- Chapter 4 sets out the next steps for taking forward the policy proposals outlined in the supporting documents.
- Chapter 5 outlines the activities to be undertaken by the programme to implement the smart metering regulatory regime and for delivery partners to roll out smart meters to domestic and smaller non-domestic consumers. It also describes the ongoing compliance and oversight role needed to deliver the smart metering benefits as identified in the revised impact assessment documents.

2. Programme management and governance

This chapter considers how the Smart Metering Implementation Programme has been governed so far during Phase 1, outlines how it will be governed during the remainder of Phase 1 and the governance principles for later phases of the programme. The proposed programme governance structure is based on best practice and sets out the respective roles of the programme, industry and other stakeholders.

Question 1: Do you have any comments on our proposed governance and management principles or on how they can best be delivered in the context of this programme?

2.1. The introduction of smart metering will be one of the largest and most complex changes undertaken by the energy industry. The rollout will touch every home and many businesses across Great Britain over several years. Energy suppliers, meter manufacturers, installation companies, central industry bodies and others have critical activities to undertake in order to deliver smart metering. The central programme governance arrangements must promote successful delivery of smart metering and its associated benefits. Ofgem E-Serve has been managing, on behalf of DECC, the first phase of this central programme.

2.2. To help ensure successful delivery, we are managing the programme according to established effective programme management principles, with programme assurance supported by appropriate levels of external scrutiny.

Programme assurance to date

2.3. The design phase of the programme has been overseen by a Strategic Programme Board, with representatives from DECC, other Government Departments, Ofgem E-Serve and the communications regulator Ofcom. It is chaired by the programme's Senior Responsible Owner in DECC.

2.4. The Strategic Programme Board has met monthly to ensure smooth running of the programme. Its responsibilities include:

- Providing the necessary strategic oversight and strategic policy decisions;
- Providing assurance to Government on programme delivery;
- Owning the business case (including the benefits case); and
- Providing a high-level forum for ensuring the programme is aligned with government policy objectives for smart metering and Ofgem's statutory duties, as well as considering interfaces with the Government's wider policies.

2.5. On a day-to-day basis, the DECC and Ofgem E-Serve teams have been working closely together, with oversight provided by a Programme Review Board, to develop the policy proposals presented in the Prospectus. In doing so, the programme has

proactively engaged with industry via workshops, meetings and bilateral discussions to ensure the proposals have been informed by the views of industry and consumers.

2.6. To further improve the quality of our proposals and the programme's deliverables, during this consultation we will proactively seek the views of a wide range of stakeholders to inform our decision-making process.

Governance going forward

2.7. Delivery of smart metering and its associated benefits relies on activities by a range of parties. We note that activities will be taken forward in different ways, including being:

- Managed and delivered by the central programme team;
- Carried out by expert external stakeholder resource that is facilitated and directed by the programme team. We will work with stakeholders to understand the level of resourcing available for such activities; or
- Delivered by change programmes that industry participants will need to define, fund and implement themselves.

2.8. The programme team will remain responsible for ensuring that the programme is on track. Monitoring processes will be established so that an overview of progress is maintained for all activities. The programme team will identify any progress risks and issues and manage these as appropriate, working with the parties responsible for delivery.

2.9. Many industry and other stakeholders have signalled their commitment to driving forward and supporting necessary changes to deliver the intended outcomes. The programme will play an active role in assuring that the necessary activities are aligned, co-ordinated and delivered according to plan. This will include establishing certain reporting processes with industry so that an overview of overall progress can be maintained across the full range of programme activities.

Governance and stakeholder engagement during remainder of Phase 1

2.10. The remainder of Phase 1 will continue to be managed by Ofgem E-Serve on behalf of DECC. To support the programme team in successfully delivering the outputs for the remainder of Phase 1 it is proposed that the existing stakeholder advisory activities will be strengthened as follows:

- A new advisory forum, the Implementation Co-ordination Group, will be established to provide a strategic view across the implementation issues involving key industry and other delivery partners in the programme;
- Two expert groups will be established to draw on the experience of industry participants and other relevant stakeholders to provide advice to the programme team on issues raised in this consultation in order to inform decisions;

- A series of workshops will be held to take forward the more consumer-focused issues; and
- A range of existing specialist advisory groups, including the Consumer Advisory Group and the Privacy and Security Advisory Group, will continue to inform the programme.

2.11. We expect these new groups to complement wider stakeholder engagement activities.

Implementation Co-ordination Group

2.12. The Implementation Co-ordination Group will provide a forum to enable strategic coordinated engagement with industry and other stakeholders, including consumer groups. This forum will enable communications between the programme team and external stakeholders with key roles in delivery. The forum will also promote the more collaborative way of working that the programme team is seeking to maintain (and in some cases establish), as a wide range of industry participants become key delivery partners.

2.13. It is important that the role of the group is not defined too narrowly. It will, for example, help the programme team to ensure that the planning for subsequent phases is comprehensive and robust. The terms of reference for the group will be published on the Ofgem website.

Expert groups

2.14. In order to structure our engagement with stakeholders, we will establish two expert groups. The aim will be to draw on the experience of industry participants and other relevant stakeholders. The two groups are as follows:

- The first group, the Smart Metering Design Group, will cover broader smart metering requirements, such as the equipment needed in customer premises.
- The second group, the Data and Communications Group, will cover the scope, set up and activities of DCC.

2.15. Where appropriate these groups may be requested to consider issues raised in the Prospectus in parallel with this consultation in order to inform decisions. These two groups will be in addition to the specialist advisory groups.

2.16. The two expert groups will have defined terms of reference and we will invite attendance from relevant experts from industry and consumer groups. The expert groups will have the capability to set up sub-groups to look in more detail at specific issues across the domestic and smaller non-domestic sectors. The two groups will be set up with sufficiently flexible governance to enable development work to be progressed in an efficient and coordinated manner.

2.17. The purpose of both expert groups will be to provide advice to the programme team during the remainder of Phase 1 on the achievability and implications of various consultation proposals. It is therefore essential that each expert group be chaired by a senior member of the programme team.

2.18. The programme team will ensure each expert group has a wide cross-section of key stakeholders reflecting the range of interests and that each group member has relevant knowledge and expertise. We intend to issue invitations to relevant stakeholders shortly. Along with the terms of reference for the groups, materials produced by the groups will be made available on the Ofgem website to ensure transparency and provide an opportunity for those not directly involved to comment on any issues.

Rollout and consumer workshops

2.19. Issues relating to the rollout and consumer protection will be taken forward through a number of workshops. For these issues, we recognise the importance of securing views and expertise from a wider range of consumer representative bodies alongside suppliers to provide advice to the programme team in developing the detail of the consumer protections required and the approach to consumer engagement.

Governance principles for remainder of programme

2.20. Later this year, the governance and management arrangements for subsequent phases of the programme will be decided upon and set out by the programme team. As the programme progresses to subsequent phases, the governance structure will need to evolve to reflect the development of the programme, including:

- Ensuring appropriate alignment between the objectives of the programme and wider public policy objectives;
- Ensuring the overall policy objectives for smart meter deployment are achieved through a benefits realisation plan;
- Developing and implementing the regulatory framework, including setting the design of the smart metering system, under which industry and other external organisations will undertake activities;
- Ensuring delivery of outputs by the central programme;
- Monitoring and promoting public and other stakeholder confidence in the programme;
- Monitoring and supporting the progress of external preparations and market readiness;
- Coordinating as appropriate the approach with and between key delivery organisations and developing shared understanding of priorities and planning perspectives between the key delivery organisations; and
- Accessing practical and technical information relevant to decision making.

2.21. In this context, it is important that there is shared ownership with key delivery partners at a senior strategic level, ensuring:

- Appropriate accountability for the main external organisations involved in delivery for their share of the responsibility for ensuring the success of the programme;
- Coordination of approach with and between external delivery organisations as appropriate;
- Shared understanding of priorities and planning perspectives between the key delivery organisations; and
- Access to practical and technical information relevant to decision making, including factors impacting on delivery partners.

Question 1: Do you have any comments on our proposed governance and management principles or on how they can best be delivered in the context of this programme?

3. Programme activities

This chapter outlines the wider programme activities established during Phase 1 that are relevant to the development of the regulatory framework.

Question 2: Are there other cross-cutting activities that the programme should undertake and, if so, why?

3.1. Achieving the expected benefits related to smart metering is dependent on successful delivery of the programme by a wide range of stakeholders, including other public authorities, industry and other organisations.

3.2. This chapter focuses on the cross-cutting programme activities. Chapter 4 then provides a summary of next steps for developing the proposals within the Prospectus consultation package. Finally, the process and plans for developing and establishing the regulatory framework are described in Chapter 5.

3.3. This chapter provides further details on how these key programme activities can promote effective delivery, whilst ensuring the smart metering solution enables the delivery of benefits.

3.4. The following cross-cutting activities for this programme have been identified:

- Promoting consumer engagement;
- Consumer protection;
- Data privacy and security;
- Stakeholder engagement;
- Review of business case; and
- Risk management.

Promoting consumer engagement

3.5. Energy savings represent nearly half of the benefits of the smart metering programme. Positive engagement by consumers is therefore the single most critical success factor for the programme.

3.6. Consumers will need to make time for the smart meter installation and allow an installer into their home. Once the meter is installed, they must be willing and able to understand the information provided by the smart meter and then utilise it for making choices about their energy consumption behaviour.

3.7. The programme team considers that there are four key factors that influence consumers' willingness and ability to change their energy consumption behaviour:

- Awareness – consumers need to be aware of smart metering, its potential benefits and, as a consequence, have an interest in using information provided to them from smart meters;
- Confidence – consumers need to be confident that a smart meter and its installation will be safe and secure and that they will be able to achieve potential benefits as a consequence;
- Information and support – consumers will need to understand how to use the smart metering information and how to identify actions that can help them manage their energy consumption better; and
- Opportunity – not all consumers have the same scope to change their consumption. Some consumers – particularly certain vulnerable consumers – may have limited scope to reduce and/or shift their energy consumption.

3.8. The programme will also consider approaches to engaging consumers, working with other government initiatives as appropriate and recognising the lead that will need to be taken by energy suppliers in this area. This will cover activities to build consumer knowledge and awareness, and how the programme could assist particular consumer groups such as the vulnerable. This will include analysis of the potential approach to campaign initiatives at national and local levels and linkages with the approach to marketing in the wider Green Deal.

3.9. The programme team will continue to work closely with the Consumer Advisory Group and will monitor the results and experiences from other jurisdictions and trials, including the Energy Demand Research Project.

Consumer protection

3.10. As smart meters are rolled out across Great Britain, Ofgem will ensure consumers remain appropriately protected and, where necessary, we will seek to establish new consumer protection safeguards. Ofgem recognises the need to act quickly in the light of the decision by some suppliers to provide smart meters to consumers in advance of the start date for the mandated rollout.

3.11. We are alert to potential concerns, for example, around tariff confusion, unwelcome sales during the installation visit, remote disconnection and switching, and the need for easy and secure access to consumption data.

3.12. To address these issues, Ofgem expects to:

- Consult on whether changes to existing supply licence conditions are required in relation to remote disconnection and switching;
- Monitor compliance with, and the suitability of, existing obligations and standards of conduct relating to suppliers marketing activities and information provided to consumers; and
- Review existing supply licence obligations relating to the provision of information to consumers.

3.13. In addition, the programme is proposing to:

- Require that the installation visit is not used for unwelcome sales activities;
- Consider restrictions on the marketing of products and services to customers through in-home displays (IHDs);
- 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 standard smart meters and IHDs that only meet the minimum technical specification required under the regulatory requirements.

3.14. There are a range of other areas where we are working to ensure that sufficient and appropriate protections remain in place. The "Consumer Protection" and the "In-home Display" supporting documents outline further information on a range of consumer issues. These issues include the installation visit, data privacy and security and the information that will be provided through the IHD.

3.15. Ofgem is reviewing the need for further protections and expects to consult on any proposals for further protections. The intention would be to introduce, if necessary, any such measures in spring 2011. As part of this, consideration will be given to measures to promote interoperability and ensure consumers can continue to switch supplier easily.

Data privacy and security

3.16. Data privacy and security is a key focus of the programme and is recognised as being vital for consumer and industry confidence in the smart metering system. We believe it is essential that all stakeholders actively engage on this issue to ensure that the integrity of the smart metering system is robust and that consumer confidence is maintained.

3.17. We are proposing the principle that "the customer shall choose in which way consumption data shall be used and by whom, with the exception of data required to fulfil regulatory duties". This reflects our view that data control rests with the consumer, while recognising that there are a range of instances when third parties will have a legitimate need to access that data, for example for suppliers to bill customers. In other areas, access to the data should be subject to the customer giving consent.

3.18. It is this principle upon which we intend to build our approach to privacy issues, balancing concerns regarding any potential intrusion of privacy with the wider public interest.

3.19. Suppliers already have access to customers' energy consumption data and are used to operating within the framework provided by the Data Protection Act 1998.

Similarly, network operators are required to have policies and processes in place to ensure the security and integrity of the network is protected at all times.

3.20. The programme team intends to work with industry and other stakeholders to assess all of the current and envisaged uses of smart metering data. This will include assessing whether the data is needed at an individual or aggregated level and understanding why the data is required. Where customer consent will be required, the programme will look at options for how that consent might be given.

3.21. In line with best practice, the programme will develop a full Privacy Impact Assessment. The programme is looking to draw on a range of experience and expertise to help us complete this as the overall smart metering system design becomes more certain. In particular, we have already established a Privacy and Security Advisory Group drawing on expertise from within government to provide expert advice and ensure privacy and security issues are appropriately addressed. We are considering options for expanding the membership of this group in the future.

3.22. An initial risk assessment has been carried out and security requirements have been included in the "Statement of Design Requirements" supporting document. The next stage of the programme will focus on developing the risk assessment in further detail and developing assurance and accreditation to establish an end-to-end security model in line with existing security policies and standards. We will develop a set of requirements to feed into specifications for meter manufacturers, as well as licence conditions for suppliers, DCC and, if appropriate, other licensed entities.

3.23. Details of the approach to data privacy and security are set out in the "Data Privacy and Security" supporting document.

Stakeholder engagement

3.24. The support of a wide range of stakeholders is critical for the success of the programme given the scale and complexity of the changes required to deliver the smart metering system and secure the full benefits for consumers and for Great Britain. Stakeholder engagement has been, and will continue to be, a vital part of the programme.

3.25. In developing the Prospectus we have focused on the consumer perspective, as well as the views of industry participants who will take on responsibility for delivery of the smart metering system following changes to the regulatory framework. We have held a number of stakeholder events, workshops and evidence-gathering sessions, which have all been well attended, as well as a large number of bilateral meetings with individual stakeholders and representative groups.

3.26. We have sought consumer involvement by setting up a specific smart metering Consumer Advisory Group, made up of consumer groups and experts, through discussion with Ofgem's Disability Advisory Forum and, for the non-domestic sector,

through discussions with Ofgem's Small and Medium Users Group. To help inform the programme, Ofgem also commissioned specific research into consumer awareness of, and attitudes towards, smart metering. This research is published alongside this document.[2]

3.27. Following the publication of the Prospectus, the programme will move to a new stage of closer collaboration with industry and other stakeholders. To enable delivery of the programme's projected benefits, it is critical that all key stakeholder groups engage in this consultation. Ofgem therefore encourages stakeholders to submit their views, comments and observations on these proposals.

3.28. The programme team will make sure that stakeholders receive regular updates about the scope and activities of the programme. The energy industry has a significant knowledge base that the programme team wishes to draw on and will continue to access expert advice and input by sharing information and seeking views on proposals. Chapter 2 set out our plans for detailed engagement with stakeholders for the remainder of Phase 1.

Review of business case

3.29. This programme is underpinned by a strong business case, which has been developed in the light of further evidence collected during Phase 1. This business case will continue to be developed by the programme team, working with external stakeholders as necessary. This review process will allow assumptions to be validated as the programme progresses, and provide assurance that the programme remains on track to deliver the projected benefits in a cost-effective way.

3.30. DECC has published updated impact assessments alongside this consultation that have been informed by the evidence gathered during the development of the proposals set out in this consultation.[3] The programme team would welcome comments on these impact assessments and in particular on the assumptions made in respect of costs and benefits.

3.31. The business case shows direct benefits of the programme for both consumers and suppliers, and in other areas such as network operation. The programme's definition of benefits will be developed further with the close involvement of all relevant stakeholders during the remainder of Phase 1, informed by the programme's vision statement as set out in the Prospectus.

3.32. In line with best practice, the programme team considers that a benefits realisation strategy is required to ensure that the maximum economic, social and environmental value is delivered from the programme. The programme team will put in place a methodology and approach to benefits realisation, helping ensure the

[2] *Consumers' views of Smart Metering*, Report by FDS International, July 2010.
[3] *Impact Assessment of a GB-wide smart meter rollout for the domestic sector* and *Impact Assessment of advanced/smart meters rolled out to small and medium non-domestic sites*, DECC, July 2010.

programme achieves its business case. In addition, approaches to monitoring will be developed to collect information on consumer experience and benefits to inform future decisions, including on rollout strategy.

Risk management

3.33. Delivery of the programme objectives and associated benefits will require significant changes to the regulatory framework, the establishment of a new licensed entity, the DCC, and substantial activity by market participants and service providers. There is a clear need for robust risk management throughout the programme to manage and mitigate risks and ensure a successful outcome.

3.34. The programme is being managed under best practice guidelines and subject to appropriate government major projects scrutiny and assessment. As part of this, risk management is being carried out by the programme team in accordance with central government guidance[4].

3.35. The programme will continue management of core programme risks and issues. This process includes identification of risks, assessment, including determining the likelihood and impact of potential risks, determination of management and mitigation strategies and implementation and monitoring of those strategies. Programme risks are held on a central risk register and categorised to ensure appropriate focus on key risks. The register is continually assessed by the programme governance bodies, who refine risk strategies as required.

3.36. It is expected that participants and service providers, for example, meter manufacturers, will also actively manage risks based on best practice procedures. The expert groups, advisory groups and a new high-level stakeholder group will provide appropriate fora to discuss these risks and ensure they are reflected in the overall programme plan.

Question 2: Are there other cross-cutting activities that the programme should undertake and, if so, why?

[4] *Management of Risk: Guidance for Practitioners*, Office of Government Commerce, 2007.

4. Proposals requiring changes to the regulatory framework

This chapter briefly describes the policy proposals outlined in the Prospectus and its supporting documents. It outlines the next steps for these proposals to be implemented via changes to the regulatory framework.

4.1. The Prospectus document sets out our proposals for smart metering. Many of these proposals require changes to the regulatory framework to define new roles, responsibilities, interfaces and obligations. We have carried out a preliminary assessment of the potential impact on existing licences, codes and agreements where change may be required to implement the new smart metering regulatory framework. These include:

Electricity sector

- Supply licence
- Distribution licence
- Master Registration Agreement
- Balancing and Settlement Code
- Distribution Connection and Use of System Agreement
- Meter Operation Code of Practice Agreement

Gas sector

- Supply licence
- Gas shipper licence
- Gas transporter licence (DNs)
- Gas transporter licence (iGTs)
- Supply Point Administration Agreement
- Uniform Network Code
- Agency Services Agreement
- Code of Practice for Gas Meter Asset Managers

4.2. The key activities in relation to the development and implementation of the smart metering regulatory regime relate to:

- Development of detailed proposals for changes to existing licences and codes;
- Development of the new Smart Energy Code;
- Defining the scope of the smart meter;
- Enabling rollout mandate, including the development of the detailed rules for roles and responsibilities for equipment at customer premises;
- The preparations to establish DCC; and
- Activity in relation to reform of wider industry processes.

4.3. The "Regulatory and Commercial Framework" supporting document provides more detail of the potential impact of the smart metering proposals on the existing regulatory framework.

Communications Business Model

4.4. The Government has confirmed that communications between smart meters in domestic consumers' homes and authorised smart meter data users will be co-ordinated by a new, GB-wide data and communications function. We have identified the need for further work to analyse and develop our proposals for the creation and implementation of the new DCC licensee. In summary, the work needed to inform development of changes to the regulatory framework includes:

- Assessment of the proposed scope of DCC's activities and the impacts of DCC undertaking these activities on existing data service users and providers;
- Definition of the new DCC prohibited activity and development of the new DCC licence; and
- Development of a competitive licence application process to identify the candidate to whom the new DCC licence should be granted.

4.5. More detailed information on the work required to deliver our proposals is outlined in the "Communications Business Model" supporting document.

Statement of Design Requirements

4.6. We consider that our proposals within the draft Smart Metering System Functional Requirements Catalogue ('the Catalogue') are well developed and provide the first step towards technical certainty. Subject to further stakeholder input and responses to this consultation, requirements within the Catalogue may be added to, omitted or modified.

4.7. In summary, the work needed to take forward the development of a detailed technical specification is:

- Relevant industry participants will be asked to assist in developing technical specifications for the Catalogue requirements. This development work will be facilitated by the programme team via the Smart Metering Design Group. The programme will consult on the draft technical specification once developed.

4.8. The draft functional requirements and technical specifications may need to be notified to the EU Commission under the EU Technical Standards and Regulations Directive[5] and the required standstill period observed before the smart metering functional requirements and technical specifications are mandated. Responses are requested earlier on the proposed functional requirements set out in the Catalogue. In the light of responses, the programme aims to confirm the functional requirements for the smart metering system as soon as possible.

[5] Directive 98/34/EC of the European Parliament and of the Council on 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations.

4.9. More detailed information of the work required to deliver the detailed technical specifications is outlined in the "Statement of Design Requirements" supporting document.

In-Home Display

4.10. The most visible part of the smart metering system for consumers will be the standalone IHD, which will provide near real-time information on their energy consumption in a readily accessible form. Consumer feedback can play a key role in helping consumers manage their energy usage. The government has decided that all domestic customers should be provided with a display.

4.11. The mandate on suppliers in relation to the provision of the IHD will be taken forward as part of the wider changes to the regulatory regime. These are set out in the "Regulatory and Commercial Framework" supporting document.

4.12. Details of the plans for evolving the technical specifications for all parts of the smart metering system are set out in the "Statement of Design Requirements" supporting document. The key steps are:

- The industry will develop technical specifications for IHDs, through the Smart Metering Design Group, to provide sufficient technical certainty to equipment manufacturers and industry players to manufacture IHDs that meet the requirements of the Catalogue and are interoperable; and
- Suppliers will be obliged to install (or cause to install) and be responsible for IHDs that comply with the Catalogue and technical specifications.

4.13. More detailed information of the work required to ensure all domestic consumers are provided with an IHD is set out in the "In-home Display" supporting document.

Rollout Strategy

4.14. Suppliers will be responsible for the rollout of smart meters across Great Britain. We have identified the need for further work to assess options for the smart meter rollout in more detail. The following provides a summary of the work needed to inform our development of regulatory change proposals:

- Definition of rollout profiles that will form the basis of licence obligations for smart meter rollout targets.
- Development of the approach to evaluating the costs and benefits of the programme.
- Definition of supply licensee reporting requirements on progress against smart meter rollout targets. These requirements may include reporting of costs incurred and benefits realised.
- Relevant industry participants will be asked to develop a code of practice on installation, covering consumer protection and the information and advice to be

provided to consumers. This work will be facilitated through the proposed workshops, drawing on the expertise and experience of the Consumer Advisory Group and other consumer representatives as necessary.
- Assessment of the options for a co-ordinated consumer engagement support activity for smart metering and review of scope and delivery options.

4.15. One of the most fundamental aspects of the programme is to ensure consumers are encouraged to take action to reduce energy consumption. The programme team intend to explore more fully how this can be achieved, through drawing on existing evidence and expert views. The programme team may also commission additional research where this is needed and feasible within the timescales. The recommendations from this work will influence the detail of the proposed code of practice and the programme's approach to third party engagement, including links between smart metering and wider energy efficiency initiatives.

4.16. More detailed information of the work required to assess options for the smart meter rollout is outlined in the "Rollout Strategy" supporting document.

Other

Non-domestic sector

4.17. We have identified some areas where the approach for non-domestic consumers and domestic consumers will need to be different. We will take account of these differences in developing the relevant licence conditions and other changes to the regulatory framework.

4.18. More detailed information of the approach for non-domestic consumers is outlined in the "Non-Domestic Sector" supporting document.

Data Privacy and Security

4.19. With regard to data privacy, we will be undertaking further detailed analysis to establish the different potential data requirements of industry participants and whether such data collected needs to be personal or aggregated. This will then allow us to set out in more detail how our proposed privacy policy would work in practice in terms of fulfilling regulatory duties and where consent needs to be obtained (including whether this should be on an opt-in or opt-out basis for different uses).

4.20. In order to guarantee data privacy in line with our privacy policy, it is imperative that the smart metering system is secure. Building on best practice we have looked at the privacy and security issues across the end-to-end metering system. We will now be looking to develop the more detailed requirements for how these risks should be addressed, which will then be reflected in the technical specifications that the industry will be required to adopt. We will consider these issues with stakeholders and through our Privacy and Security Advisory Group. We will consider expanding this group to include external stakeholders.

4.21. Data privacy and security issues are explored more fully in the "Data Privacy and Security" supporting document.

Consumer protection

4.22. 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.

4.23. Based on responses to the consultation, Ofgem 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.

5. Implementation plan for regulatory framework changes

This chapter deals with the activities to be undertaken by the programme team for a staged implementation approach to implement the regulatory framework and for suppliers to roll out smart meters to domestic and smaller non-domestic consumers. It also describes the ongoing compliance and oversight role needed to deliver smart metering and the associated benefits.

Question 3: Do you agree with our proposal for a staged approach to implementation, with the mandated rollout of smart meters starting before the mandated use of DCC for the domestic sector?

Question 4: Do you have any comments on the risks we have identified for staged implementation and our proposals on how these could best be managed?

Question 5: Do you have any other suggestions as to how the rollout could be brought forward, including the work to define technical specifications, which relies on industry input?

Question 6: Do you agree with our planning assumption that a period of six months will be needed between the date when supply licence obligations mandating rollout are implemented and the date when they take effect?

Question 7: Do you have any comments on the activities, assumptions, timings and dependencies presented in the high-level implementation plan?

Question 8: Do you have any comments on the outputs identified for each of the phases of the programme?

5.1. Success of the programme, and hence the realisation of the benefits case, will be dependent on the positive adoption of smart metering by consumers and active participation and commitment of a diverse range of stakeholders, including energy suppliers, meter manufacturers, installation companies, central bodies and others. Our proposed implementation strategy is intended to provide certainty to these stakeholders by:

- Delivering a regulatory framework which enables accelerated delivery of the smart metering system;
- Strengthening engagement and involvement of key stakeholders;
- Promoting collaborative working arrangements between the programme team and energy suppliers who are, or will be, responsible for the rollout of smart meters (and associated procurement, recruitment and training); and
- Taking steps to encourage and promote consumer awareness of smart meters.

5.2. This chapter sets out our proposals for the implementation of changes needed to the regulatory framework to facilitate delivery of the proposals set out in the Prospectus consultation. Based on our proposals, we have developed a plan for the activities required to define and implement the proposed smart metering regulatory regime that underpins other programme deliverables.

Staged implementation approach

5.3. We have considered in detail the activities that need to be complete before requiring suppliers to comply with a licence obligation to roll out smart meters to their domestic and smaller non-domestic customers. We have identified the following as key dependencies for the start of mandated rollout and mandated use of DCC:

- Functional requirements and technical specifications developed (including any notification to the European Commission under the EU Technical Standards and Regulations Directive), enabling development of compliant smart metering equipment and for supplier procurement and resourcing decisions;
- Changes made to supply licences to define the smart metering system in terms of compliance with the functional requirements and technical specifications;
- Changes made to supply licences to require installation and supply of electricity and gas through smart metering equipment in accordance with rollout targets; and
- Changes to supply licences to define rollout targets, reporting obligations and customer protections.

5.4. In our view, any requirements in respect of consumer protection, interoperability, minimum functional requirements and technical specifications should be fully defined in advance of the start of the mandated rollout.

5.5. We appreciate that licensees and their service providers will require time to prepare for the implementation of the mandate for smart meter rollout for both the domestic and smaller non-domestic sectors. Our planning has been conducted on the basis that there should be a period of six months between the definition of the framework and the coming into effect of the obligation to comply with the mandate in order to allow suppliers to prepare. The milestones relating to smart meter rollout that are set out in the high-level plan below apply to both the domestic and smaller non-domestic sectors.

5.6. We have also considered the additional dependencies between a mandated rollout of smart meters to the domestic sector and the availability of the central data and communications services from DCC.

5.7. As part of our plan, we have identified key milestones for the development of the regulatory framework for smart meter rollout obligations, and the development of the regulatory framework for selection and establishment of DCC. We note from our implementation plan that DCC is expected to be established and able to offer data and communications services about a year after the start date for mandated smart meter rollout.

5.8. DCC will have a key role in managing communications and remote access to smart meters within homes in the longer term and in delivering benefits from improvements to industry processes. Nevertheless, we note that some benefits could be delivered earlier via a staged implementation approach. Under this approach, suppliers would be required to comply with a licence obligation to roll out smart

meters (that comply with the functional requirements and technical specifications) in advance of DCC services being available.

5.9. We propose to adopt the staged implementation approach. As noted earlier, the Government is determined to accelerate the rollout of smart meters ahead of previously published plans. The staged implementation approach is expected to advance the start of the mandated rollout by at least a year compared to the alternative approach while maintaining the business case for the programme. The approach also provides a basis to draw on early consumer enthusiasm.

5.10. Under a staged implementation approach, there would be a requirement to include obligations within DCC and supply licences in respect of:

- The provision and use of DCC services from a defined date; and
- Facilitating transition to mandated use of DCC.

5.11. There are additional risks associated with the proposed staged implementation approach for the domestic sector that will need to be managed. These include:

- Smart meters rolled out ahead of the establishment of DCC are not sufficiently interoperable;
- Suppliers cannot or do not procure communications services of sufficient quality, flexibility or in an efficient and economic manner; and
- Implementation of DCC is hindered by existing supplier contracts with communication service providers.

5.12. We consider that such risks can be managed through appropriate commercial arrangements and licence obligations that ensure:

- Suppliers comply with all framework requirements relating to the smart meter rollout, including those in respect of data security and privacy and all applicable consumer protection measures, including any measures on interoperability;
- Obligations on DCC and supply licensees are designed to facilitate the transition to the use of DCC services for access to smart meters within domestic households.

5.13. The updated impact assessments published alongside this consultation include an evaluation of the staged implementation approach.

Question 3: Do you agree with our proposal for a staged approach to implementation, with the mandated rollout of smart meters starting before the mandated use of DCC for the domestic sector?

Question 4: Do you have any comments on the risks we have identified for staged implementation and our proposals on how these could best be managed?

Question 5: Do you have any other suggestions as to how the rollout could be brought forward, including the work to define technical specifications, which relies on industry input?

Indicative implementation milestones

5.14. As set out earlier, we are proposing a staged approach to implementation – with mandated rollout of smart meters ahead of DCC services being available. On this basis, we have identified three key milestones for the programme:

- 'Go-Active' – This is when all changes to the regulatory framework have been implemented. It defines the end of Phase 2.
- 'Go-Live Rollout' – This happens during Phase 3 and is when the supply licence obligations relating to the smart meter rollout take effect. Although this requirement will be implemented by Go-Active, the date at which the obligations take effect will be effectively deferred to allow sufficient time for licensee preparatory work.
- 'Go-Live DCC' – This defines the end of Phase 3 when the central data and communications services have been fully tested and the mandated use of DCC to access smart meters in domestic premises commences.

5.15. Figure 1 provides an indication of the key milestones to deliver the proposed smart metering regulatory framework under a staged implementation approach.

Figure 1: Proposed key milestones

Date	Milestone
Spring 2011	Enhanced consumer protections introduced as required
Summer 2011	Functional requirements and technical specifications confirmed subject to outcome of any notification under the EU Technical Standards and Regulations Directive
Early 2012	**Go-Active:** Supply licence modifications mandating rollout implemented
Spring 2012	Regulatory framework relating to DCC implemented
	Competitive licence application process for DCC licence
Summer 2012	**Go-Live Rollout:** Mandated supplier rollout commences
Autumn 2012	DCC licence granted
Spring 2013	DCC service providers appointed
Autumn 2013	DCC trialling and testing complete
	Go-Live DCC: Mandated use of DCC for domestic customers

5.16. The staged implementation approach would have the overall effect of removing the set up of DCC from the critical path. Under this approach, suppliers should be able to commence rollout with certainty of meter technical specifications and rollout targets by early 2012 ('Go Active'). Mandated rollout would come into effect in summer 2012 ('Go-Live Rollout') allowing time for suppliers' planning and procurement activities.

Question 6: Do you agree with our planning assumption that a period of six months will be needed between the date when supply licence obligations mandating rollout are implemented and the date when they take effect?

Key assumptions

5.17. The key programme milestones are based on several high-level assumptions. Our planning is expected to evolve throughout the life of the programme and will be actively managed as the work progresses. In particular, the programme team will continue to look to identify suitable opportunities to reduce the time required to deliver and implement the smart metering regulatory regime.

5.18. In terms of general principles, the programme team will put in place rigorous processes to:

- Challenge the assumptions that underlie our planning on an ongoing basis, with the intention of amending our approach as appropriate;
- Ensure that any material changes to our planning are considered first with the appropriate stakeholder community; and
- Enforce appropriate change control around our planning.

5.19. High-level assumptions underpinning the current plan include:.

- A ramp-up period is needed before suppliers are able to reach their peak capability for rolling out smart meters.
- DCC and industry will need a period for testing and piloting before suppliers are required to use DCC services.
- Either or both the functional requirements and the technical specifications may need to be notified to the European Commission under the EU Technical Standards and Regulations Directive and the required standstill period observed before the functional requirements and technical specifications are mandated. There is a 90-day consideration period for all elements that are notified.
- Framework changes required for smart meter rollout and new DCC framework can be progressed in parallel.

5.20. The Energy Act 2008 gives the Secretary of State wide powers to implement smart metering. These powers will expire in November 2013. The Secretary of State is able to modify the licences of energy suppliers, gas shippers, electricity distributors and gas transporters as well as codes and other documents maintained under licence conditions. The Energy Act 2008 also provides the Secretary of State with powers to create new licensable activities related to smart metering, and to

make new regulations which allow the Authority to grant the new licences following a competitive licence application process. The Secretary of State's powers in relation to smart metering under the Energy Act 2008 are in addition to normal governance change mechanisms that are provided within the current regulatory framework.

5.21. To establish an appropriate smart metering regulatory regime the framework will need to define:

- The new smart metering licensable activity;
- The new DCC licence, modifications to supply licences to mandate rollout, and consequential modifications to existing licences;
- The new Smart Energy Code and consequential modifications to existing industry codes that define roles, responsibilities and interface arrangements that are needed to ensure that licensees can meet their licence conditions; and
- Further detailed or specific arrangements in agreements or codes of practice.

5.22. To ensure success in establishing an appropriate smart metering regulatory regime the programme team expects to work collaboratively with existing code owners to access expert advice and ensure consistency with other change proposals during Phase 2. Given the importance of the programme, we are confident that the relevant expertise will be made available to assist the programme team.

Question 7: Do you have any comments on the activities, assumptions, timings and dependencies presented in the high-level implementation plan?

Phase-by-phase details

5.23. As set out earlier, the remainder of Phase 1 will involve analysis of responses to this consultation and, in light of those responses, decisions to be taken by the Government on the proposals for taking forward smart metering. In parallel with this work, we will undertake preparatory work for Phase 2, in close collaboration with industry and other stakeholders.

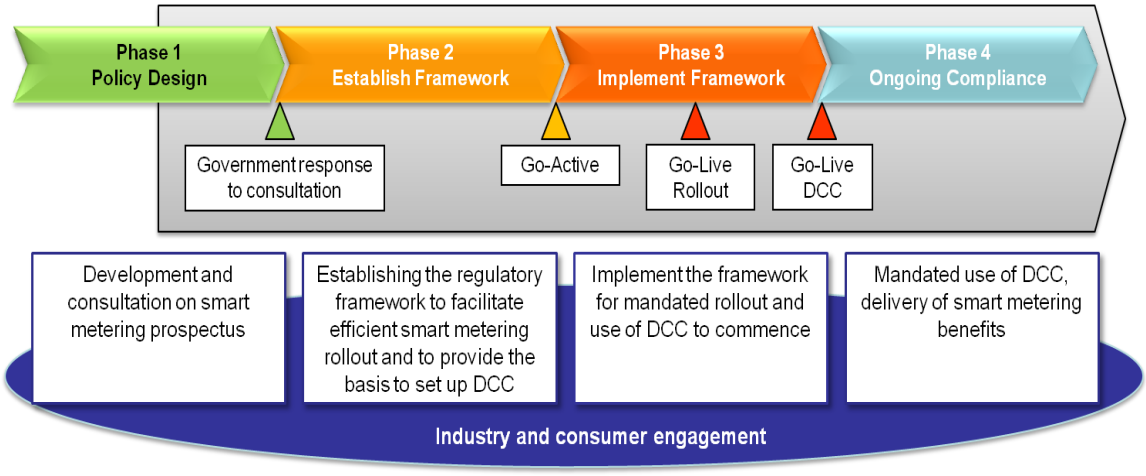
5.24. Phase 2 will see the development of the smart metering regulatory framework, with appropriate changes implemented by the end of the phase, so that market participants fully understand the requirements.

5.25. During Phase 3 the regulatory framework will be implemented, the DCC licence will be granted and the DCC established so that mandated use of the DCC comes into effect by the end of the phase. In parallel, suppliers will be preparing for the mandated rollout commencing in summer 2012 and mandated use of the DCC for domestic consumers in autumn 2013.

5.26. Finally, during Phase 4, licensees will be required to comply with the smart metering obligations in full and report on performance achieved.

5.27. Figure 2 shows the programme phases, key milestones and principal activities. Further details on what is proposed to happen in each subsequent phase are set out below.

Figure 2: Programme phases, key milestones and principal activities



Phase 2: Establish framework

Introduction

5.28. Phase 2 will commence once the Government has issued its response to the Prospectus consultation. Earlier decisions will be taken where possible and appropriate.

5.29. During Phase 2, the smart metering regulatory framework will be developed, with appropriate changes implemented that define the smart metering regulatory regime. The programme team is seeking the active engagement of stakeholders in the development of framework change proposals.

5.30. The principal outputs for the end of Phase 2 are set out below, along with the key activities for the phase, broken into activities to enable smart meter rollout to commence and to establish the DCC.

Phase 2 outputs

5.31. The end of Phase 2, the 'Go-Active' point, will be characterised by the regulatory framework having been defined and implemented so that market participants are fully aware of the requirements.

5.32. To enable an effective smart meter rollout, the framework will require:

- Functional requirements and technical specifications for the smart metering system;
- Licence obligations on suppliers to install smart meters to domestic and smaller non-domestic consumers with appropriate target profiles;
- An approved code of practice for installation activities, which would cover provision of information and support to customers; and
- Arrangements in place to monitor progress against and compliance with rollout targets and benefits, including the impacts of different approaches to rollout such as third-party involvement and communications strategies.

5.33. To establish the DCC, the framework will require:

- An amendment to the Gas Act 1986 and Electricity Act 1989 to introduce the new smart metering licensable activity;
- A new DCC licence that will set out the conditions the DCC will have to meet – the standard conditions of the licence will be determined by the Secretary of State, with special conditions determined by GEMA prior to granting the licence;
- A new industry code (the Smart Energy Code) that sets out the technical and commercial arrangements between DCC and the users of its services;
- Licence Application Regulations to define the competitive licence application process that will be carried out by GEMA to grant the new DCC licence; and
- Consequential licence and code modifications to the existing regulatory framework to facilitate the introduction of DCC.

Key activities for Phase 2

5.34. During Phase 1, the expert groups, under the programme's direction, may be requested to consider proposals made in the Prospectus consultation package for the purpose of informing Government decisions.

5.35. During Phase 2, the programme will:

- Produce initial draft change proposals;
- Consult on the proposed new licensable activity, new DCC licence, new Smart Energy Code and changes to existing licences and industry codes; and
- Implement the new licensable activity, new DCC licence, new Smart Energy Code and proposed changes to existing licences and industry codes.

5.36. The programme team expects that changes to the regulatory regime will be implemented early in 2012 ('Go Active'). The mandate to rollout smart meters will come into effect in summer 2012, during Phase 3.

5.37. We note that if the Government takes the view that the functional requirements and technical specifications constitute a technical regulation under the EU Technical Standards and Regulations Directive they must be notified to the European Commission. Our current implementation plan takes account of potential EC notification process requirements. However, we observe that this assumption may change in light of the Government's detailed assessment of the need for such

notifications when there is more certainty about the proposed functional requirements and technical specifications and associated compliance requirements.

5.38. Based on our assumptions in respect of the need for notification under the EU Technical Standards and Regulations Directive, we expect that the technical specifications would be confirmed in winter 2011 and that the Secretary of State would implement them in early 2012. At this point, meter manufacturers would be provided with certainty about build specifications, which would allow them to commence ramp-up of volume production of smart meters.

5.39. During Phase 2, the changes to the regulatory framework will be developed and consulted on in parallel as far as practicable.

Phase 3: Implement framework

5.40. Phase 3 will commence when the changes to the regulatory framework for both the domestic and non-domestic sectors are implemented.

5.41. On current plans, the obligations to start rolling out smart meters and associated IHD equipment would come into force in summer 2012 ('Go-Live Rollout'). We expect that suppliers will therefore be concerned with ensuring all processes and systems are in place for rollout.

5.42. The key milestone of Go-Live Rollout will be within Phase 3. From Go-Live Rollout, suppliers will be required to comply with obligations and targets for the rollout of smart meters. We expect that details relating to Go-Live Rollout would be defined within the regulatory framework changes implemented at Go-Active.

5.43. During Phase 3, the party to be DCC will be selected. Once the licence is granted, DCC will be responsible for procuring the central data and communications services, and carrying out end-to-end testing with parties required to use its services. Once they are proven, DCC will be required to meet key dates and criteria set out in the regulatory framework.

5.44. The key milestone of Go-Live DCC defines when the central data and communications services have been procured, fully tested and their use mandated to access smart meters in domestic premises. This will mark the end of Phase 3. We currently consider that there may be insufficient certainty at Go-Active to fully confirm Go-Live DCC and that there is likely to be a requirement for a further decision point to confirm Go-Live DCC before the mandate comes into effect.

5.45. The following sections set out the principal outputs at the end of Phase 3 and the key activities for the remainder of the phase.

Phase 3 outputs

5.46. Phase 3 will be characterised by the following:

- Obligations within the regulatory framework will become effective, with smart meter rollout required by licensees and mandated use of DCC coming into effect at the end of the phase.
- DCC central data and communications services will become active and ready to operate:
    - Integrated with industry IT systems;
    - End-to-end testing and validation of full systems completed; and
    - Pilots conducted, confirming DCC readiness.
- Consumer awareness will have been raised in readiness for the rollout of smart meters, including how to take advantage of the information the smart meters will provide.

Key activities for Phase 3

5.47. Prior to Phase 3, the regulatory framework will have been established. The focus of this phase will be the implementation of arrangements to comply with the framework, with industry participants ensuring they have the processes and systems in place to facilitate rollout and to transition to the mandated use of DCC services.

5.48. We are proposing a staged implementation approach with obligations to start rollout of smart meters and associated equipment coming into force in summer 2012. We expect that suppliers will therefore need to focus on preparations to commence rollout, including:

- Designing and implementing their own change programmes;
- Procuring meters and IHDs based on the technical specifications confirmed in Phase 2;
- Finalising plans for their rollout approach, including plans for engaging with their customers during the installation process and providing information and support about how to utilise the information the meter will provide;
- Ensuring resources required for rollout are available and trained; and
- Developing new tariff structures and propositions as necessary to encourage changes in energy consumption behaviour.

5.49. Regarding the establishment of DCC, once the regulatory framework is in place at the end of Phase 2, the selection process to grant a new DCC licence will commence. We are proposing that a competitive licence application process and that the Authority will be in a position to grant a licence to the successful applicant by autumn 2012.

5.50. Following the granting of its licence, DCC will be responsible for setting up the central data and communications services, and carrying out comprehensive end-to-end testing with all parties that will be required to use its services. While DCC will

define the approach to this work, it will be required to meet key dates and criteria set out in the regulatory framework. Our current planning indicates the DCC initial services will be proven and available in autumn 2013.

5.51. The focus of the programme's work during the latter part of Phase 3 will shift to monitoring progress and performance against the obligations placed on market participants. Since DCC and other industry participants will be responsible for delivering significant elements of their own programmes including procurement, systems development and training, the central programme will closely monitor progress. Overall, the programme would need assurances that sufficient progress is being made and will be seeking statements of readiness ahead of mandated rollout in summer 2012 and mandated use of services later in autumn 2013.

Phase 4: Ongoing monitoring and compliance

5.52. Phase 4 will commence in autumn 2013, when suppliers are obligated to use DCC services. From this point, the regulatory framework will be subject to normal licence and industry code compliance requirements and governance arrangements.

Phase 4 outputs

5.53. Phase 4 is primarily concerned with the rollout by suppliers of smart meters to all domestic and many smaller non-domestic premises in Great Britain. During this phase there will be the opportunity for further subsequent key benefits to be realised. These include: industry simplification, to improve efficiencies in industry processes, and smart grid developments, to allow improved network management capability, efficiency and responsiveness.

Key regulatory activities for Phase 4

5.54. During this phase, suppliers will be responsible for rollout of smart meters and associated systems, and will need to ensure sufficient resources are available to meet the mandated rollout targets. DCC will be concerned with running integrated central data and communications services to support rollout, and integrating previously supplier-provided data and communication solutions with the new integrated central function.

5.55. As part of the Authority's enforcement role, there would be a need for regulatory oversight of licensees' progress in meeting any smart meter rollout targets and complying with licence and other statutory obligations. This oversight role may involve monitoring of licensees' performance, reporting on that performance and, if obligations are not being met, may lead to enforcement action.

5.56. The programme's role during this phase may include:

- Monitoring progress and facilitating co-ordination to ensure that participants' programmes are aligned to the programme's objectives and timescales; and

- Acting as an escalation route for resolving issues.

5.57. The programme team will look to ensure the programme remains on track to deliver the projected benefits in a cost-effective way. Should the programme identify issues, it will, when necessary, take action to ensure consumers' interests remain protected.

Question 8: Do you have any comments on the outputs identified for each of the phases of the programme?

Appendices

Index

Appendix	Name of Appendix	Page Number
1	Consultation Response and Questions	35
2	Glossary	38
3	The Authority's Powers and Duties	45

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. We are determined to make progress with implementation of the smart metering rollout quickly. We are therefore seeking responses to the questions in this document by **28 September 2010**. Responses should be sent to:

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

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

1.9. 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 comments on our proposed governance and management principles or on how they can best be delivered in the context of this programme?

CHAPTER 3

Question 2: Are there other cross-cutting activities that the programme should undertake and, if so, why?

CHAPTER 5

Question 3: Do you agree with our proposal for a staged approach to implementation, with the mandated rollout of smart meters starting before the mandated use of DCC for the domestic sector?

Question 4: Do you have any comments on the risks we have identified for staged implementation and our proposals on how these could best be managed?

Question 5: Do you have any other suggestions as to how the rollout could be brought forward, including the work to define technical specifications, which relies on industry input?

Question 6: Do you agree with our planning assumption that a period of six months will be needed between the date when supply licence obligations mandating rollout are implemented and the date when they take effect?

Question 7: Do you have any comments on the activities, assumptions, timings and dependencies presented in the high-level implementation plan?

Question 8: Do you have any comments on the outputs identified for each of the phases of the programme?

Appendix 2 – Glossary

A

Agency Services Agreement

Agreement for the provision of information, data processing, invoicing and supply point administration services in relation to the transmission and distribution of gas in the United Kingdom.

B

Balancing and Settlement Code (BSC)

The BSC contains the rules and governance arrangements for the electricity balancing and settlement in Great Britain. All licensed electricity suppliers must be party to it (see codes).

C

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.

Data Protection Act 1998

The Data Protection Act 1998 defines UK law on the processing of data on identifiable living people. It is the main piece of legislation that governs the protection of personal data in the UK.

Data service providers

Providers of any data service, including data retrieval, aggregation, processing and storage.

DCUSA

Distribution and Connection Use of Systems Agreement.

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.

Domestic sector

E

Electricity meter

A measuring instrument that records the quantity of electricity supplied.

Energy suppliers

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

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 meter

A measuring instrument that records the volume of gas supplied.

Gas shipper

A company licensed by Ofgem, which arranges with a gas transporter for gas to be introduced into, conveyed and taken out of the pipeline system. Shippers must balance their input to and customer off take from the National Transmission System (NTS) each day. Ofgem licences all shippers.

Gas transporter (GT)

A company, licensed by Ofgem, which transports gas through its network on behalf of a gas shipper.

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.

H

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).

Licence application regulations

The regulations that will define the different steps in the competitive licence application process to grant the DCC licence.

M

Master Registration Agreement (MRA)

Along with its supporting documentation, the MRA provides a governance mechanism to manage the processes established between electricity suppliers and distribution companies to enable electricity suppliers to transfer customers.

Meter Asset Manager (MAM)

A person approved by the Authority as possessing sufficient expertise to provide gas meter-related services. A gas MAM essentially provides the services that would be provided by a Meter Asset Provider and Meter Operator in electricity.

Meter Asset Manager's Code of Practice (MAMCoP)

The Code of Practice for Gas Meter Asset Managers (MAMCoP) applies to natural gas only. The MAMCoP extends the duties of a MAM. It applies to Independent Gas Transporters undertaking meter asset management services, as part of a bundled gas transportation business, or MAMs who work on behalf of a gas customer, gas supplier or gas transporter to manage primary meter installations connected to the Network as defined by the Gas Safety (Management) Regulations.

O

Ofcom

The independent regulator and competition authority for the UK communications industries.

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.

P

Privacy by design

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

Programme

The Smart Metering Implementation Programme.

S

Senior Responsible Owner

The individual responsible for ensuring that a project or programme of change meets its objectives and delivers the projected benefits.

Small and Medium Users' Group (SMUG)

A forum established by Ofgem for engaging with business customer representatives. SMUG is open to small and medium sized users of energy, for example consumer groups such as the Federation of Small Businesses or the British Chambers of Commerce.

Smart Energy Code

The proposed new industry Code that will cover both gas and electricity and will contain the detailed regulatory, commercial and technical arrangements applicable to smart metering during rollout and on an enduring basis.

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.

Smart metering regulatory regime

The regime which will provide the arrangements for the introduction and ongoing operation of smart metering. These regulatory arrangements will be introduced using powers under the Energy Act 2008 to amend existing licences and codes, and to create a new licensable activity and a new licence.

Supply Point Administration Agreement (SPAA)

This provides governance around the standard gas industry procedures that exist between non-contracting parties, for example between gas suppliers in facilitation of a customer transfer. The SPAA was created in order to provide governance around those supplier-to-supplier procedures that were not ordinarily covered by

existing contracts or agreements, but which were nonetheless considered important to the effective and efficient transfer of consumers between suppliers.

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

U

Uniform Network Code (UNC)

The Uniform Network Code (UNC) is the hub around which the competitive gas industry revolves, comprising a legal and contractual framework to supply and transport gas. It has a common set of rules for all industry players, which ensure that competition can be facilitated on level terms. It governs processes, such as the balancing of the gas system, network planning, and the allocation of network capacity. See also codes.

Appendix 3 – The Authority's Powers and Duties

1.1. 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).

1.2. 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.[6]

1.3. 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 accordingly[7].

1.4. 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.

1.5. 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 them[8];
- 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.[9]

1.6. 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:

[6] Entitled "Gas Supply" and "Electricity Supply" respectively.
[7] 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.
[8] 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.
[9] The Authority may have regard to other descriptions of consumers.

- promote efficiency and economy on the part of those licensed[10] 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.

1.7. 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.

1.8. The Authority has powers under the Competition Act to investigate suspected anti-competitive 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 Regulation[11] 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.

[10] Or persons authorised by exemptions to carry on any activity.
[11] Council Regulation (EC) 1/2003